IDENTIFYING PROBABILITY DISTRIBUTIONS USING NEURAL NETWORKS

A THESIS
SUBMITTED TO THE DEPARTMENT OF ECONOMICS
AND THE INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES
OF BILKENT UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

By
Anıl Yılmaz
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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.

Asst. Prof. Faruk Selçuk (Supervisor)

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.

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ABSTRACT

IDENTIFYING PROBABILITY DISTRIBUTIONS USING NEURAL NETWORKS

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M.A. in Economics,
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September 1995

Economics deal with real life phenomena by constructing representative models of the system being questioned. Input data provide the driving force for such models. The requirement of identifying the underlying distributions of data sets is encountered in economics on numerous occasions. Most of the time, after the collection of the raw data, the underlying statistical distribution is sought by the aid of nonparametric statistical methods. At this step of the problem, the feasibility of using neural networks for identification of probability distributions is investigated. Also, for this purpose, a comparison with the traditional goodness of fit tests is carried out in this study.

Keywords: Neural Networks, Identifying Distributions, Goodness-of-fit.

ÖZET

YAPAY SİNİR AĞLARI İLE İSTATİSTİKİ DAĞILIMLARIN BELİRLENMESİ

Anıl Yılmaz

İktisat Yüksek Lisans

Tez Yöneticisi: Faruk Selçuk

Eylül 1995

Ekonomi bilimi gerçek hayattaki problemleri, bunları temsil eden modeller kurarak inceler. Bu modellerin geçerliliğini modellere girdi oluşturan veriler sağlar. Veri kümelerinin istatistiki dağılımlarının belirlenmesi gereksinimi ekonomide birçok kez karşılaşılan bir durumdur. Genellikle ham verilerin toplanmasından sonra, parametrik olmayan metodlarla istatistiki dağılım belirlenmeye çalışılmaktadır. Problemin bu aşamasında yapay sinir ağlarının kullanımının mümkün olup olmadığı araştırılmıştır. Ayrıca, yine bu amaçla, uyum iyiliği testleri ile yapay sinir ağları karşılaştırılmıştır.

Anahtar Kelimeler: Sinir Ağları, Dağılım Belirleme, Uyum İyiliği.

CONTENTS

List of Tables

List of Figures

Chapter 1

INTRODUCTION

Economics deal with real life phenomena by constructing representative models of the system being questioned. Input data provide the driving force for such models. The requirement of identifying the underlying distributions of data sets is encountered in economics on numerous occasions. Since modeling and simulation are frequently employed techniques in economics, the problem of hypothesizing the distribution of a data set is a major concern.

Many examples supporting the significance of this issue can be illustrated. For instance, suppose we are faced with a game where the players are playing according to some mixed strategy by attributing probability distributions over a continuous choice set. Having the past data on how the players respond, we seek for a solution of the game by conducting a Monte-Carlo simulation. Such an attempt would require the knowledge of the distributions that yield the players' strategies.

As an example in the field of macroeconomics, the necessity to find underlying probability distributions may arise for incorporating external agents' effects into a model. In the case of stochastic macroeconomics, in a setup with a continuum of sates, probability density function of consumption becomes significant for determining the demand for money which, according to Tobin (1958), is emerging partly as a result of wealthholders' desire to diversify their holdings.

Most of the time, after the collection of the raw data, the underlying statistical distribution is sought by the aid of nonparametric statistical methods. At this stage of the problem, the feasibility of using neural networks for identification of probability distributions is investigated. Also, for this purpose, a comparison with the traditional goodness of fit tests is carried out in this study.

Chapter 2 introduces the artificial neural networks and explains basic concepts. Then a brief history of neural networks together with main application areas is given. In Chapter 3, the relevant literature on statistical and other related applications of neural networks is reviewed. Chapter 4 describes the main work done in this study. A more detailed discussion of the networks used, namely probabilistic and counter propagation networks, is included in this chapter. Neural network architectures, probability distributions, structure of the data presented to the networks and the training process are explained. The results and comparison of the neural networks with the goodness-of-fit tests are given in Chapter 5. Finally Chapter 6 contains concluding remarks and suggestions for further research.

Chapter 2

ARTIFICIAL NEURAL NETWORKS

2.1 Introduction

In an artificial neural network, the unit analogous to the biological neuron is referred to as a "processing element". A processing element has many input paths and combines, usually by a simple summation, the values of these input paths. The result is an internal activity level for the processing element. The combined input is then modified by a transfer function. This transfer function can be a threshold function which only passes information if the combined activity level reaches a certain level, or it can be a continuous function of the combined input. The output value of the transfer function is generally passed directly to the input path of the next processing element.

The output path of a processing element can be connected to input paths of other processing elements through connection weights which correspond to the synaptic strength of neural connections. Since each connection has a corresponding weight, the signals on the input lines to a processing element are modified by these weights prior to being summed. Thus, the summation function is a weighted summation. A typical processing element is shown in Figure 1.

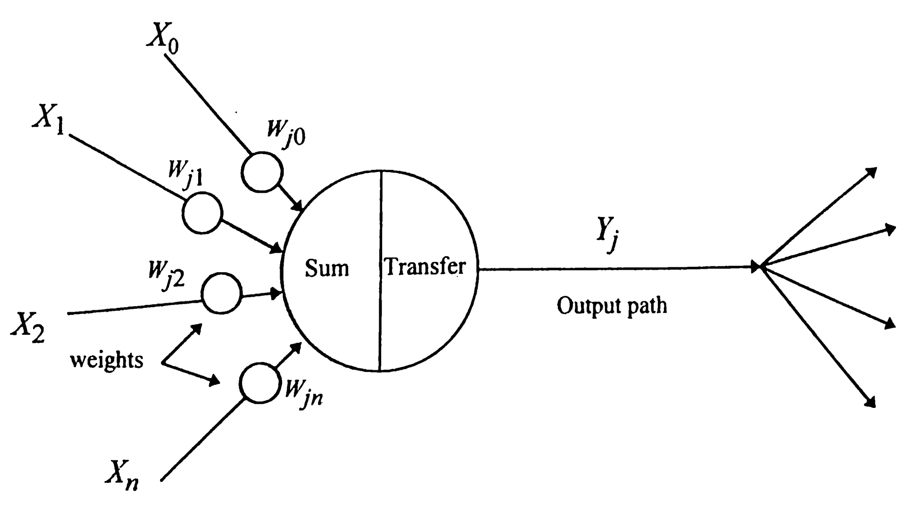

Figure 1. A Typical Processing Element.

A neural network consists of many processing elements joined together in the above manner. Processing elements are usually organized into groups called layers. A typical network consists of a sequence of layers with full or random connections between successive layers. Generally, there are two layers of special interest: an input layer where the data is presented to the network, and an output layer which holds the response of the network to a given input. The layers between the input and output layers are called hidden layers. A simple neural network architecture is shown in Figure 2.

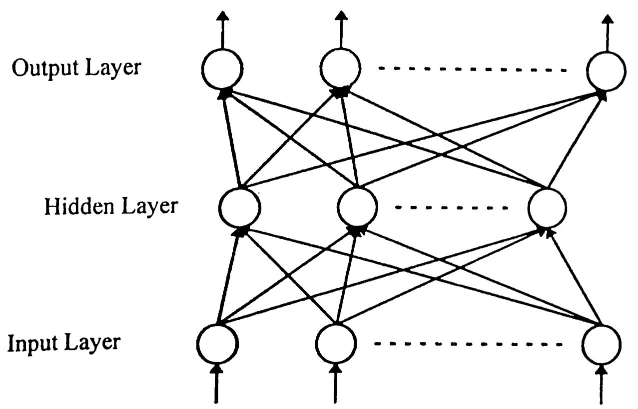

Figure 2. A Simple Neural Network Architecture.

There are two main phases of operation of a network: learning and recall phases. In most networks these are distinct.

Learning is the process of adapting or modifying the connection weights in response to stimuli being presented at the input layer and optionally the output layer. A stimulus presented at the output layer corresponds to a desired response to a given input. This desired outcome must be provided to the network. Such type of learning is called "supervised learning".

If the desired output is different from the input, the trained network is referred to as a hetero-associative network. If, for all training examples, the desired output vector is equal to the input vector, the trained network is called auto-associative. If no desired output is shown the learning is called unsupervised learning.

A third kind of learning is reinforcement learning where an external teacher indicates only whether the response to an input is good or bad.

2.2 History of Neural Networks

Mc Culloch and Pitts (1943) represented the first formalized neural network model consisting of simple two state units in their paper called "A Logical Calculus of Ideas Imminent in Neural Activity." which was an inspiration for studies forming the basis of artificial intelligence and expert systems.

Frank Rosenblatt, in 1957, published the first major research project in neural computing: the development of an element called a "perceptron" which was a pattern classification system that could identify both abstract and geometric patterns. Perceptron was capable of making limited generalizations and could properly categorize patterns despite noise in the input.

In 1959, Bernard Widrow developed an adaptive element called "adaline" (*Ada*ptive *Li*near *Ne*uron), based on simple neuron-like elements. The Adaline and a two-layer variant, the "madaline" (*M*ultiple *Adaline*) were used for a variety of applications including speech recognition, character recognition, weather prediction and adaptive control.

In the mid 1960s, Marvin Mirsky and Seymour Papert analyzed in depth the single-layer perceptrons and published the result in their book "Perceptrons" in 1969. They proved that such networks were not capable of solving the large class of nonlinear separable problems. They showed that extension of hidden units would overcome these limitations, but stated that training such units was unsolvable. The conclusion of this work led to the decrease of interest in the field of neural networks and only a few researchers continuing their work remained in the field.

It was in 1982, that John Hopfield represented a paper about a computing system consisted of interconnected processing elements that minimizes a given energy function until the network stabilizes at a local or global minimum. Hopfield's model illustrated memory as information stored in the interconnections between neuron units. With the introduction of this paper, the field attracted substantial attention again.

Geoffrey Hinton and Terrence Sejnowski have developed the Boltzmann machine in 1983, which used a stochastic update rule allowing the system to escape from local minima. Two years later Rumelhart, Hinton and Williams derived a learning algorithm for perceptron networks with hidden units based on Widrow-Hoff learning rule. This algorithm called "back propagation" is one of the most commonly used learning algorithms today.

2.3 Main Application Areas

Inspired by the biological systems, neural networks tend to be good at solving problems in the areas of statistics, modeling, forecasting, pattern recognition, pattern classification, pattern completion, linear regression, polinomial regression, curve fitting and signal processing.

Neural networks are employed in diverse fields such as chemical process control, seismic exploration, vision-based industrial inspection, adaptive process control, machine diagnostics, medical diagnostics, anti-body detection, classifying tissue samples, targeted marketing, product marketing, financial modeling, forecasting, risk management, credit rating, bankruptcy prediction, handwritten character recognition, speech recognition, adaptive flight control, solar signal processing, coin grading, monitoring rocket valve operations, race-track betting, etc.

One of the new application areas for neural networks is to find near optimal solutions for the combinatorial optimization problems.

Chapter 3

LITERATURE REVIEW

White (1989b) discusses the relationships between neural networks and traditional statistical applications. As stated by Sharda (1994), in many papers, neural networks have been proposed as substitutes for statistical approaches to classification and prediction problems. The conclusion derived from those papers suggest that neural networks' advantages in statistical applications are their ability to classify where nonlinear separation surfaces are present, robustness to probability distribution assumptions and ability to give reliable results even with incomplete data. Neural networks are experimented in the major areas of statistics: regression analysis, time series prediction and classification. Thus neural networks may be employed where regression, discriminant analysis, logistic regression or forecasting approaches have been used. Marquez (1992) has provided a complete comparison of neural networks and regression analysis. His results confirm that the neural networks can do fairly well in comparison to regression analysis. The prediction capability of neural networks has been studied by a large number of researchers. In early papers, Lapeds and Farber (1987) and Sutton (1988) offered evidence that the neural models were able to predict time series data fairly well. Many comparisons of neural networks and time series forecasting techniques, such as the Box-Jenkins approach have been reported. The topics on which application papers describing neural networks as statistical models are listed in Table 1.

Business & Finance Applications	*Other Statistical Applications*
Firm Failure Prediction Bank Failure Bond Rating Mortgage Underwriting Country Risk Rating Stock Price Prediction Commodity Trading Asset Allocation Marketing Fraud Prevention Signature Validation Corporate Merger Prediction Takeover Target Prediction	Classification Clustering Identifying Probability Distributions Regression Process Forecasting Time Series Forecasting

Table 1. Main Application Areas for Neural Networks as Statistical Models.

The literature on the application of neural networks to identifying probability distributions is very limited.

Sabuncuoglu et al. (1992) investigated possible applications of neural networks during the input data analysis of a simulation study. Specifically, counter propagation and back propagation networks were used as the pattern classifier to distinguish data sets from three basic distributions: exponential, uniform and normal. Histograms consisting of 10 equal width intervals were used as input vectors in the training set. The performance of the networks was also compared to some of the standard goodness-of-fit tests for samples of different sizes and parameters. It was observed that neural networks did not give exact answers for data sets of size 10. Goodness-of-fit tests were not powerful for small samples either. They failed to reject any hypothesis when the sample size is small. The results for samples of size greater than 25 showed that using neural networks is a feasible method for distribution identification. It is also noted that their study was limited in terms of the distributions investigated and much more effort might be necessary when other statistical distributions are included in the study.

Akbay et al. (1992) proposed a method based on quantile information to assess the applicability of artificial neural networks to recognize certain patterns in raw data sets. They compared the predictions of a probabilistic and a feedforward (backpropagation) neural network with the results from traditional statistical methods. Nine equal interval normalized quantile values were used as the input and 25 different categories of distributions were presented to the networks as the training set. As stated in this research, the probabilistic neural network (PNN) learned (was able to correctly identify) all the 25 categories in the training set whereas the backpropagation network was able to learn 24 of the categories.

The trained networks were tested by 13 different data sets of which the underlying distributions were validated by using the goodness of fit tests. It is concluded that the preliminary results demonstrate that neural networks may be able to identify the family of standard probability distributions. Nevertheless, there is the requirement that the selections of the neural networks should be confirmed by the standard goodness-of-fit tests since there were some cases in which the neural networks failed to identify the proper distribution.

Chapter 4

SETTING

4.1 Distributions Selected

There are seven distinct distributions considered in this research: Uniform, Exponential, Weibull, Gamma, Lognormal, Normal and Beta. Based on the different shape parameters, there are also three types of Weibull, Gamma and Lognormal distributions. Similarly eleven different types of Beta distribution are considered corresponding to different shape parameters. Thus a total of 23 categories are formed for the networks to classify among. These distributions are listed in Table 2 and graphed in Figure 3.

Distribution number	*Distribution / Type*	*Parameters*
1	Uniform	min=0, max=1
2	Exponential	location=0, shape=1
3	Weibull-1	location=0, scale=1, shape=0.5
4	Weibull-2	location=0, scale=1, shape=2
5	Weibull-3	location=0, scale=1, shape=3
6	Gamma-1	location=0, scale=1, shape=0.5
7	Gamma-2	location=0, scale=1, shape=2
8	Gamma-3	location=0, scale=1, shape=3
9	Lognormal-1	location=0, scale=0, shape=0.5
10	Lognormal-2	location=0, scale=0, shape=1
11	Lognormal-3	location=0, scale=0, shape=1.5
12	Normal	mean=0, variance=1
13	Beta-1	min=0, max=1, shape1=1.5, shape2=5
14	Beta-2	min=0, max=1, shape1=1.5, shape2=3
15	Beta-3	min=0, max=1, shape1=5, shape2=1.5
16	Beta-4	min=0, max=1, shape1=3, shape2=1.5
17	Beta-5	min=0, max=1, shape1=3, shape2=3
18	Beta-6	min=0, max=1, shape1=5, shape2=5
19	Beta-7	min=0, max=1, shape1=2, shape2=2
20	Beta-8	min=0, max=1, shape1=0.8, shape2=2
21	Beta-9	min=0, max=1, shape1=1, shape2=2
22	Beta-10	min=0, max=1, shape1=2, shape2=0.8
23	Beta-11	min=0, max=1, shape1=2, shape2=1

Table 2. Distributions Used.

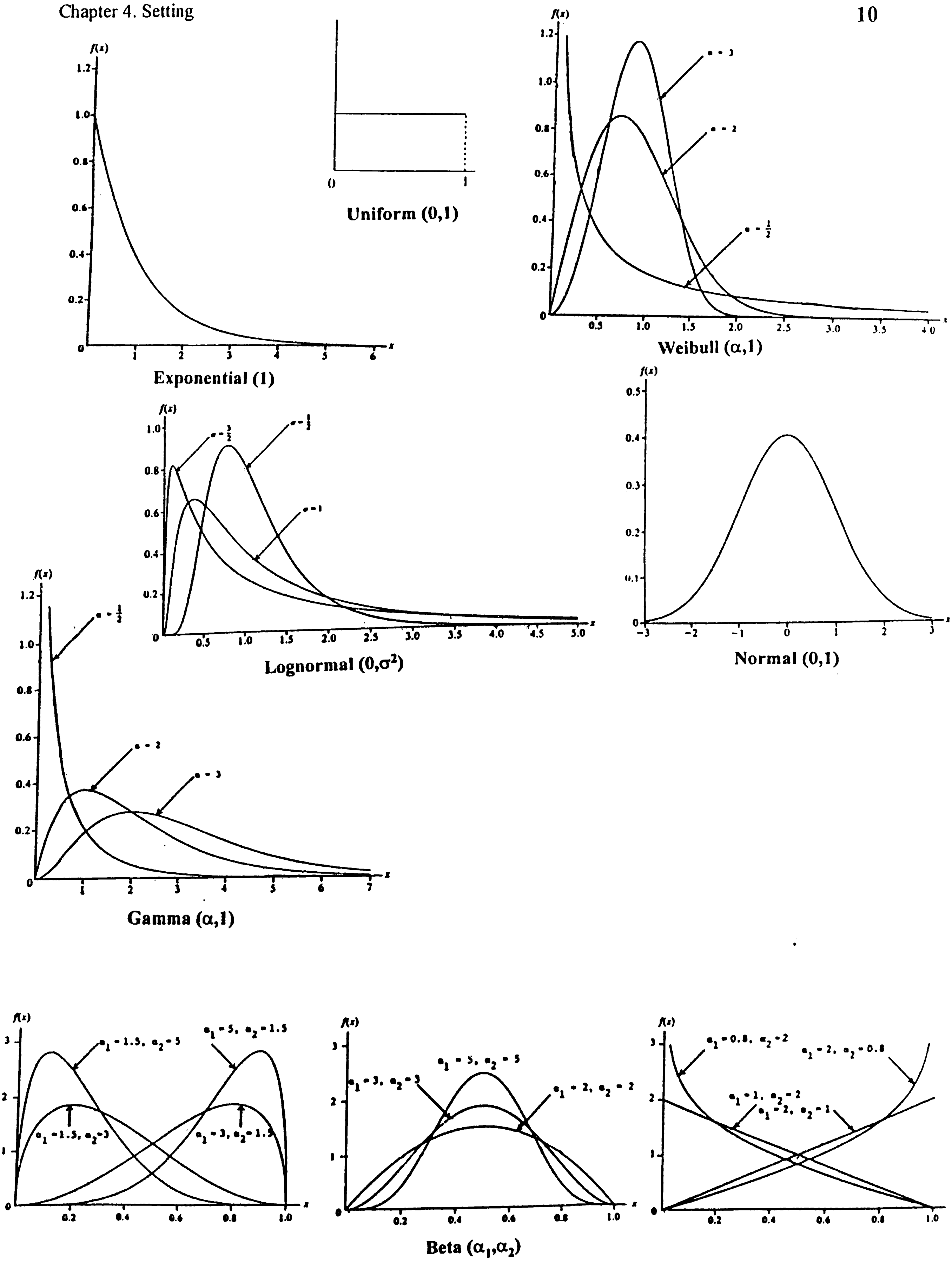

Figure 3. Distributions Used.

4.2 Training Sets

In order to hypothesize appropriate families of distributions of a raw data set, various heuristics are used. Prior knowledge about the random variable, summary statistics, histograms and line graphs, quantile summaries and box plots are used for this purpose. Most commonly referred summary statistics include the minimum, maximum, mean, median, variance, coefficient of variation, skewness, etc.

In this study, based on our pilot experiments, skewness, quantile and cumulative probability information are used to distinguish the distributions from each other. The skewness ν is a measure of the symmetry of the distribution. For symmetric distributions like Normal or special types of Beta, $\nu=0$. If $\nu>0$, the distribution is skewed to the right; if $\nu<0$, the distribution is skewed to the left. Thus the estimated skewness can be used to ascertain the shape of the underlying distribution. The quantile summary is also a synopsis of the sample that is useful in determining whether the underlying probability density function is symmetric or skewed to the right or left. Inspired by the Q-Q and P-P plots, quantile and cumulative probability values are used in the training set. Probability plots like Q-Q and P-P plots, can be thought of as a graphical comparison of an estimate of the true distribution function of the data with the distribution function of the estimated distribution. The quantile and the cumulative probability values are taken for points concentrated on the left tail of the density function. This is because the differences between distribution functions of different densities get smaller as we move along the x-axis.

Both empirical and theoric data are used as training sets. For the empirical case, random variates of sample size 500, 1000 and 2000 are generated by using SIMAN simulation software package and UNIFIT II (Law & Associates-1994) statistical software package. For each distribution/type, 5 data sets are generated; which makes a total of 115 data sets for each sample size (5 data sets for each distribution/type × 23 distributions/types).

Thus in each empirical training set there are 115 examples. Each example is represented by a row containing the skewness, quantile values and cumulative probability values. Also for each example (or row) in the training set, the desired output is given as a sequence of zeros and ones. This sequence contains 22 zeros and one "1" in the corresponding place for the correct distribution number in Table 2. A "1" in the first place indicates that the example is from uniform distribution, whereas normal distribution is represented by a "1" in 12th place. An example row from a training set is given below.

***Quantile Values** (in percent)*

	Skewness	*Q2.5*	*Q5*	*Q1*	*Q12.5*	*Q25*	*Q50*	*Q75*	*Q90*	
→	0.5373	0.143788	0.227522	0.318828	0.349102	0.490437	0.702012	0.869361	0.951293	..

***Cumulative Probability Values** (in percent)*

	F1	*F2.5*	*F5*	*F7.5*	*F10*	*F15*	*F20*	*F30*	*F40*	*F50*	*F70*	*F90*
...	0.0005	0.0020	0.0040	0.0085	0.0140	0.0275	0.0410	0.0900	0.1650	0.2590	0.4975	0.8050

Desired Output

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

The above row is from the distribution Beta-11 which is shown by the one in the 23rd place of the desired output part.

The skewness is estimated by the formula

$$\hat{v} = \frac{m_3}{(m_2)^{3/2}} \tag{1}$$

where m_2 and m_3 are the second and third moments about the mean.

$$m_2 = \frac{1}{n}\sum_1^n \left(X_i - \overline{X}\right)^2 \qquad m_3 = \frac{1}{n}\sum_1^n \left(X_i - \overline{X}\right)^3$$

Kurtosis, ξ, which is a measure of the tail weight of a distribution is estimated by the formula

$$\hat{\xi} = \frac{m_4}{(m_2)^2} \tag{2}$$

where m_4 is the fourth moment about the mean.

$$m_4 = \frac{1}{n}\sum_{1}^{n}(X_i - \overline{X})^4$$

Coefficient of kurtosis was also included in the training set as a statistic to identify distributions. However it is discarded later since it did not provide much useful information in discriminating among distributions.

The quantiles are estimated by the formula below (Mood, Graybill and Boes, 1974, p.512).

Given the random sample $X_1, X_2, ..., X_n$ with order statistics $X_{(1)}, X_{(2)}, ..., X_{(n)}$ and α such that $0 < \alpha < 1$, the estimator of the α-quantile is given by:

$$\hat{x}_\alpha = \begin{cases} X_{(1)} & k = 1 \\ \beta X_{(k-1)} + (1-\beta)X_{(k)} & 1 < k \le n \\ X_{(n)} & k = n+1 \end{cases} \qquad (3)$$

where

$$k = \lfloor (n+1)\alpha \rfloor + 1 \qquad \text{and} \qquad \beta = \{k - (n+1)\alpha\}$$

Using this formula, we linearly interpolate between observed values of quantiles when the quantile falls between these values. In order to standardize the quantile values among distributions and to get rid of the effects of the shifts in the mean of the data without changing the shape of the distribution, the quantile values obtained by Equation (3) are transformed to 0-1 scale. This is done by taking the relative location of $\hat{x}_\alpha$ in the interval $(X_{(1)}, X_{(n)})$. The transformed quantile value $\hat{x}_\alpha^*$ is

$$\hat{x}_\alpha^* = \frac{\hat{x}_\alpha - X_{(1)}}{X_{(n)} - X_{(1)}} \qquad (4)$$

Cumulative probabilities are estimated by using the order statistics by the following trivial formula:

Cumulative probability, F_c at a point c is

$$F_c = \left\{ \frac{k}{n} \middle| X_{(k)} \le c \text{ and } X_{(k+1)} > c \right\} \qquad (5)$$

where n is the sample size.

In order to obtain the empirical training sets from the data generated by UNIFIT II or SIMAN, a computer program was developed using PASCAL programming language. This piece of program called "Process-Data", takes the sets of generated random variates and transforms each data set to an example vector in the training set by calculating the skewness, quantile and cumulative probability values using the above formulations. Source code of this program is given in Appendix B.

After having generated the empirical training sets for sample sizes 500, 1000 and 2000, the theoric training set is formed using UNIFIT II. All the necessary theoric values (skewness, quantile and cumulative probability) are obtained by the aid of this program for the 23 different distributions. In this training set each distribution is represented by one example, hence the set contains 23 rows. A difficulty arises in the preparation of this training set while trying to scale the quantile values to 0-1 range. Since most of the distributions considered are unbounded, there is the necessity of assuming a finite range for each distribution in order to be able to scale the absolute theoric quantile values with respect to this interval. For this purpose an assumption is made by taking the values for $Q_{0.05}$ and $Q_{99.95}$ as the minimum and maximum values for each distribution. That means 0.05 percent probability is neglected from both tails of the distributions and the finite range is assumed to be $(Q_{99.95} - Q_{0.05})$. The same procedure is also applied to bounded distributions in order to provide consistency among the distributions considered. These values for each of the 23 distributions are given in Table 3 below.

Distribution / Type	***Minimum ($Q_{0.05}$)***	***Maximum ($Q_{99.95}$)***	***Assumed Range***
Uniform	0.0005	0.9995	0.9990
Exponential	0.0005	7.0045	7.6004
Weibull-1	0	57.7737	57.7737
Weibull-2	0.0224	2.7570	2.7346
Weibull-3	0.0794	1.9662	1.8868
Gamma-1	0	6.0578	6.0578
Gamma-2	0.0320	9.9987	9.9667
Gamma-3	0.1497	12.0514	11.9017
Lognormal-1	0.1930	5.1824	4.9894
Lognormal-2	0.0372	26.8570	26.8198
Lognormal-3	0.0072	139.1832	139.1760

Table 3. Assumed Minimum and Maximum Values of Distributions.

Table 3(continued). Assumed Minimum and Maximum Values of Distributions.

Distribution / Type	*Minimum ($Q_{0.05}$)*	*Maximum ($Q_{99.95}$)*	*Assumed Range*
Normal	-3.2905	3.2905	6.5810
Beta-1	0.0015	0.8179	0.8164
Beta-2	0.0024	0.9384	0.9360
Beta-3	0.1822	0.9986	0.8164
Beta-4	0.0617	0.9977	0.9360
Beta-5	0.0376	0.9625	0.9249
Beta-6	0.0884	0.9117	0.8233
Beta-7	0.0130	0.9871	0.9741
Beta-8	0	0.9737	0.9737
Beta-9	0.0003	0.9777	0.9774
Beta-10	0.0263	1	0.9737
Beta-11	0.0224	0.9998	0.9774

The same range values are used to find the cumulative probability points of interest. For example, for the case of Beta-1, the cumulative probability at 0.4082 (midpoint of above range) is taken as F_{50} value in the training set.

The theoric skewness value for the Lognormal-3 distribution is changed to 13 instead of 33.5 since our experience on empirical data revealed that the estimated skewness has never been in the order of 30, it varied around 13 even for a very large sample size like 2000.

The training sets used are given in Tables AA1-AA5 in Appendix A.

4.3 Probabilistic Neural Network (PNN)

The probabilistic neural network provides a general technique for solving pattern classification problems. The PNN uses the training data to develop distribution functions which are used to estimate the likelihood of an input vector (feature vector) being within the given categories.

PNN is a neural network implementation of Bayesian classifiers method which was developed in the 1950's followed by Perzen Estimators that were developed in order to construct the probability density functions required by Bayes theory.

Parzen estimation is used to build the probability density function over the feature space for each category. This allows computing the probability that a given input vector lies within a given category. Then combining this information with the relative frequency of each category, the PNN selects the most likely category for a given feature vector.

PNN was developed and described by D. Specht (1988). Bayes Classifier method is implemented by the network where the class dependent probability density functions are approximated using a Parzen estimator. Since a Bayes classifier provides an optimum approach to pattern classification in terms of minimizing the expected risk, and since Parzen estimators asymptotically approach the true underlying class density functions as the number of training samples increase, PNN provides a very general and powerful classification paradigm when there is adequate data of known classification.

Suppose a classification problem has K classes

$$C_1, C_2, \cdots, C_K$$

and suppose that the data on which decisions are based is represented by an M-dimensional feature vector

$$x = (x_1, x_2, \cdots, x_M)^T$$

Let

$$f_1(x), f_2(x), \cdots, f_K(x)$$

be the probability density functions of the class populations, and let

$$p_1, p_2, \cdots, p_K$$

be the a priori probabilities that a feature vector will lie in a given class.

Then the Bayes decision rule compares the K values

$$p_1 f_1(x), p_2 f_2(x), \cdots, p_K f_K(x) \tag{6}$$

and chooses the class corresponding to the highest value. Loss functions can also be utilized, but the main point about the decision rule is to evaluate the multivariate class probability density functions at the given feature vector and compare them.

The decision rule depends on knowing the class probability density functions. Making some assumptions about the PDFs yields some common classification paradigms. For example, the assumption in a two class problem that the two PDFs are Gaussian with the same covariance matrices yields the Fisher Linear Discriminant. Dropping the assumption of identical covariance matrices yields the quadratic Bayes classifier.

The Parzen estimator is a non-parametric method of estimating PDFs which makes no assumption about the nature of the distribution. The Parzen estimator is built up from a set of smaller parametric functions, typically Gaussian Multivariate functions. In essence, a small Gaussian curve is found for each training vector, then the curves are added together and smoothed.

The Parzen estimator used in the Probabilistic Neural Network is of the form

$$f_k(x) = \left(\frac{1}{2\pi^{M/2}\sigma^M}\right)\left(\frac{1}{N_k}\right)\sum_{j=1}^{N_k} e^{\left(-(x-x_{kj})^T(x-x_{kj})/(2\sigma^2)\right)} \tag{7}$$

for class k where x_{kj} is the j^{th} training sample in class k, N_k is the number of training samples in category k, and

$$\sigma = \sigma(N_k) \tag{8}$$

is a smoothing parameter which must satisfy

$$\lim_{N_k \to \infty} \sigma(N_k) = 0 \tag{9}$$

and

$$\lim_{N_k \to \infty} N_k \sigma(N_k) = \infty . \tag{10}$$

one way to satisfy this is to define

$$\sigma(N_k) = aN_k^{-b} \tag{11}$$

where b is a constant between 0 and 1.

The exponential constituents of Equation (7) are referred to as Parzen kernels. They can be rewritten as

$$e^{\left(\left(2x^T x_{kj} - x^T x - x_{kj}^T\right)/2\sigma^2\right)} \tag{12}$$

If in addition, all inputs to the classifier have norm 1, then (12) can be rewritten as

$$e^{\left(\left(x^T x_{kj} - 1\right)/\sigma^2\right)} \tag{13}$$

The term $x^T x_{kj}$ is just the dot product of the feature vector to be classified, with a training vector. Therefore if a processing element has its incoming weights set to the training vector, the standard summation produces that dot product. If the transfer function of the processing element is of the form

$$e^{\left((z-1)/\sigma^2\right)} \tag{14}$$

then the processing element implements (12).

The probabilistic network has an input buffer, a normalizing layer which maps the input feature vectors to vectors of norm 1, a pattern layer whose incoming weights correspond to the set of training vectors, a summation layer which sums the Parzen kernels for each class, and a classification layer which chooses the class with the largest response to the input. The structure of a typical probabilistic network is given in Figure 4.

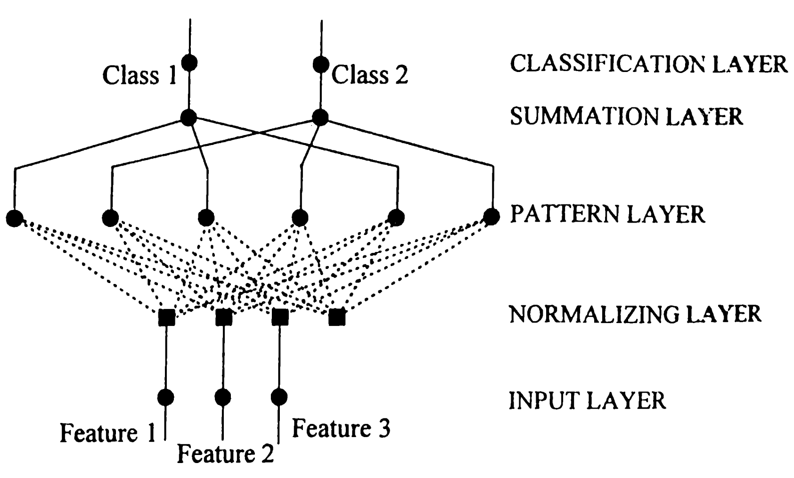

Figure 4. Structure of a Typical Probabilistic Network with 3 Features and 2 Classes.

4.4 Counter Propagation Network

Counter propagation network constructs a mapping from a set of input vectors X to a set of output vectors Y acting as a hetero-associative nearest-neighbor classifier. Suitable applications include pattern classification, function approximation, statistical analysis and data compression.

When presented with a pattern, the trained network classifies that pattern into a particular group by using a stored reference vector; the target pattern associated with the reference vector is then output.

The input layer acts as a buffer. The network operation requires that all the input vectors have the same length, so input vectors are normalized to norm 1. Counterpropagation combines two layers from different paradigms. The hidden layer is a Kohonen layer, with competitive units that do unsupervised learning. The processing elements in this layer compete such that the one with the highest output wins and is activated.

$$W_j' = W_j + \alpha\left(X - W_j\right) \tag{15}$$

where a is the learning rate.

As shown in Figure 5, this means that the vectors W will tend to rotate around the unit sphere until they are at the center of those input vectors X that create a maximum output. In vector form the output I of the processing element (before competition) is

$$I = W \cdot X \tag{16}$$

Since the length of both the weight vector W and the input vector X are 1, Equation (16) reduces to

$$I = \cos(t) \tag{17}$$

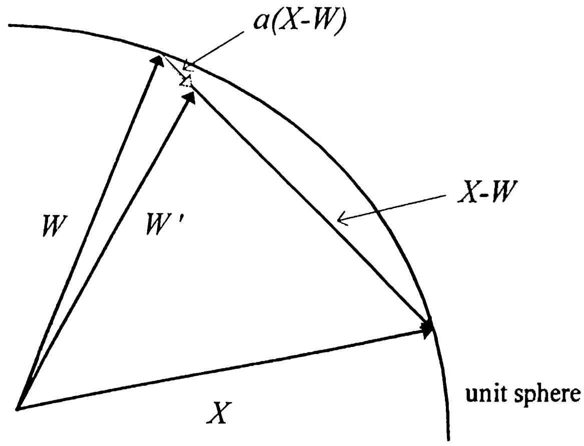

Figure 5. Adjustment of Weights by the Kohonen Learning Rule.

The Kohonen layer measures the cosine of the angle between the input vector X and the weight vector W. The processing element with closest weight vector (smallest angle t) has the highest output and wins. As a consequence the processing elements in the competitive layer adjust their weight vectors to divide the input space in approximate correspondance to the frequency with which the inputs occur.

The top layer is the Grossberg layer, which is fully interconnected to the hidden layer and is not competitive. Since the Kohonen layer produces only a single output, this layer provides a way of decoding that output into a meaningful output class. The Grossberg layer is trained by the Widrow-Hoff learning rule.

$$w_{ij}' = w_{ij} + ax_j(d_i - x_i) \qquad (18)$$

where d_i is the desired output.

Since only one output from the Kohonen layer is active at a time, the only weight adjusted for processing element i, is the one connected to the winning processing element j in the competitive layer. In this way the output layer learns to reproduce a certain pattern for each active processing element in the competitive layer.

4.5 Network Architectures

Different architectures for PNN and counter propagation networks are used. Also architectures vary depending on the number of training examples (for PNN) and on the structure of the training set used.

PNN consists of 5 layers. There are 21 nodes in the input layer for training sets containing all the skewness, quantile and cumulative probability information. Number of nodes for training sets which do not contain quantiles is 13. following the input layer, there is the normalizing layer which has no role in the laerning process, but acts as a buffer which normalizes the inputs before entering the network.

The number of processing elements in the pattern layer varies according to the number of examples in the training set used. Since each node in the pattern layer corresponds to an example vector, there are 115 nodes for empirical training sets generated from samples of size 500, 1000 and 2000. In the case of theoric training set, number of nodes is 23. For the mixed set combining all the training data (both empirical and theoric), there are 368 nodes in this layer.

The number of nodes in the summation and classification layers is equal to the number of categories to be classified, which is 23.

The nodes in the normalizing and pattern layers are fully interconnected with each other. There is a special geometry of connection between the summation and pattern layers. The nodes in the pattern layer form groups and each group is connected to only one node in the summation layer. Finally, there is a one-to-one connection between the summation and classification layers.

The counter propagation networks used have 4 layers. As in the case of PNN, there is an input layer consisted of 21 or 13 nodes depending on the training set used, and a normalization layer. The Kohonen layer has 35 nodes. The number of nodes in the hidden(Kohonen) layer is crucial for the counter propagation network because network memorizes (can not make good generalizations) when there is excess number of nodes. On the other hand the network may fail to learn if the number of nodes is too few. The size of the hidden layer is determined by trial-and-error. There are 23 nodes in the Grossberg layer corresponding to 23 categories. All nodes of the network are fully interconnected.

4.6 Training the Networks

Networks are developed and trained by using the NWORKS Professional II (NeuralWare Inc.-1991) software package.

Although at first, the coefficient of kurtosis was included in the training sets, the preliminary results indicated that it did not give useful information in detecting the distributions. Also the very large values of kurtosis for the lognormal distributions (up to the order of 10000) caused a misleading effect while training the networks. Therefore, the kurtosis is omitted from the training sets in further steps.

Similarly, the quantile values in the empirical training sets caused the networks fail to learn. This is due to the requirement that the quantile values had to be scaled to 0-1 range in order to make them comparable among distributions. The range used for this scaling purpose varied considerably for the empirical data, leading to different quantile values for the same distribution. Consequently the empirical training sets are reconstructed by omitting the quantiles and leaving the skewness and cumulative probability values. The theoric training sets with quantile values did not cause training difficulties and both the PNN and counter propagation networks learned all the samples they were presented.

Three PNNs based on empirical training sets of different sample sizes (500, 1000 and 2000) are trained by using the skewness and cumulative probabilities. The training process took a very short time since just one pass of the examples is required for the training of the PNN. In order to be able to compare the empirically trained networks with the one trained with theoric data, another probabilistic network is trained by using a training set which did not contain quantiles. Then an additional PNN is trained, this time by using a combined training set which contained all the 3 empirical and the theoric data sets. Totally there are six PNNs trained, three of which are with empirical data (samples of size 500, 1000 and 2000 - containing no quantile), 2 with theoric data (one with quantiles and other without) and one with mixed data (all empirical and theoric sets - again without quantiles).

The attempts to train counter propagation networks with empirical training sets showed that the output error term did not converge meaning that the networks were unable to learn. Therefore counter propagation networks could be trained with theoric training sets only. This may be due to the fact that counter propagation network needs very well prepared examples in the sense that the examples from the categories to be distinguished should be distinct and well defined without major similarities or overlaps among categories. However this condition can not be satisfied with empirical training sets due to the estimations performed during the preparation process.

As a result, two counter propagation networks were trained with theoric data (one with quantiles and other without) and learned all the categories. The training took about 6000 iterations and the root mean square (RMS) error converged almost to zero falling below the level 1e-5. The possible minimum number of processing elements were used in order to train the networks so as to enable the trained network to make correct generalizations. For this purpose, starting with an initial number of 30, the number of nodes in the hidden layer was incremented until the networks were able to learn all the categories.

Chapter 5

RESULTS

After having trained the networks, the performance of the learned networks is tested by other data sets of different sample sizes. For this purpose, 7 recall sets of sample size 25, 50, 75, 100, 500, 1000 and 2000 were generated. Each recall set is composed of 115 sample vectors - 5 for each of the 23 distributions/types. The recall sets were constructed from raw data by using the same computer program employed for forming the empirical training sets. There are two versions of recall sets for each sample size - with and without quantile values. The recall sets used for test purposes are given in tables AD1-AD7 in Appendix D.

Each of the eight trained networks was tested by using all the seven recall sets. The networks' output for a given recall set is a row of 23 numbers for each input vector in the test data. In order to provide a useful interface, a PASCAL program called "Evaluate" is developed which process the output of the network and prepare a performance report. By using this program, the test input and the associated output of the network, can be examined together with the data used in the training stage, making it possible to get insight about the networks by achieving a comparative report on the mis classified items. The program also creates a log file for convenience. The source code for this program is listed in Appendix B. Example log file showing the output of this program is given in Appendix C.

The performance of the networks is evaluated in two parts. In the first part, all the 23 different distributions/types are regarded as distinct. For example, a response by the network recommending that a data set is from Weibull-2 category is treated as a false choice if the true underlying density that the data is generated from is Weibull-1 or Weibull-3. In the second part, such an example is regarded as correct. In other words, the network is accepted successful when it was able to tell the true distribution, even it could not correctly decide on the specific type defined by the different shape parameter. Although the true underlying distributions of the test data sets are known, especially for small sample sizes it is probable that more than one distribution fits the data. To detect such cases, the responds of the networks are verified by the Chi-Square goodness of fit test with $\alpha=0.05$.

The percentage of correctly identified cases for PNNs is given in Tables 4 and 5. Table 4 tabulates the values obtained by the first point of evaluation and Table 5 shows the performance of the network in detecting only the density itself without the correct type. Similarly the same procedure is applied for counter propagation networks. The results are given in Tables 6 and 7. Also the performance of the networks with different sample sizes is graphed in Figures 6 and 7 for PNNs and in Figures 8 and 9 for counter propagation networks.

The results indicate that, the probabilistic network performs better than the counter propagation network in all the cases. Moreover, the performance of the networks improve when the sample size is increased. The performance of the probabilistic networks in identifying the correct type is about 50% for small sample sizes. When the restriction of identifying the correct type is released, the probabilistic networks' performance jumps to an acceptable level of about 80% even for small samples of size 25. It can be seen that the quantile information did not contribute too much to the results, when we compare the performance of the networks "theoric" and "quantile-theoric" in Tables 4 and 5. The maximum improvement by adding the quantile information is achieved for small samples. The effect gradually decreases when sample size gets larger. It can also be concluded that regardless of the training data set used, all the probabilistic networks performed more or less identical.

The results for the counter propagation network indicate that although the network learns the theoric data presented to it, it is not very successful in identifying new test samples. When we examine the actual results given by the network, we see that most of the time when the network is hesitant between two or more candidate distributions, the output is scattered (network distributes the output equally to all categories rather than deciding on a single outcome). This situation results from the structure of the counter propagation network. The output Grossberg layer, unlike the probabilistic network, is not organized as competitive units. Therefore the network can remain hesitant among various choices. However, in the PNN case, it is assured that only one processing element in the summation layer with the highest output wins the competition and gets activated. Therefore it is guaranteed that the network makes a choice.

As stated before, another reason for the counter propagation network to fail is the fact that counter propagation networks are devised for classification purposes when the categories are well separated. There are very similar distributions like Weibull-2, Weibull-3, Gamma-2 and Gamma-3 or Normal and Beta-5 (see Figure 3) considered in this study, which creates a disturbance for the counter propagation network.

Probabilistic Neural Network

Percentage of Distributions/Types Correctly Identified *

Networks	Test Data Sample Size						
	25	50	75	100	500	1000	2000
500	56.5%	45.2%	54.8%	62.6%	76.5%	80.9%	80.9%
1000	58.3%	45.2%	54.8%	56.5%	73.0%	80.9%	87.8%
2000	56.5%	45.2%	48.7%	51.3%	69.6%	78.3%	87.8%
mixed	58.3%	42.6%	52.2%	56.5%	72.2%	79.1%	87.8%
theoric	55.7%	40.0%	47.8%	48.7%	80.0%	90.4%	94.8%
quantile - theoric	66.1%	50.0%	47.0%	47.8%	76.5%	87.8%	90.4%

* verified by Chi-Square Goodness of Fit Test with alpha=0.05.

Table 4. Percentage of Distributions/Types Correctly Identified.

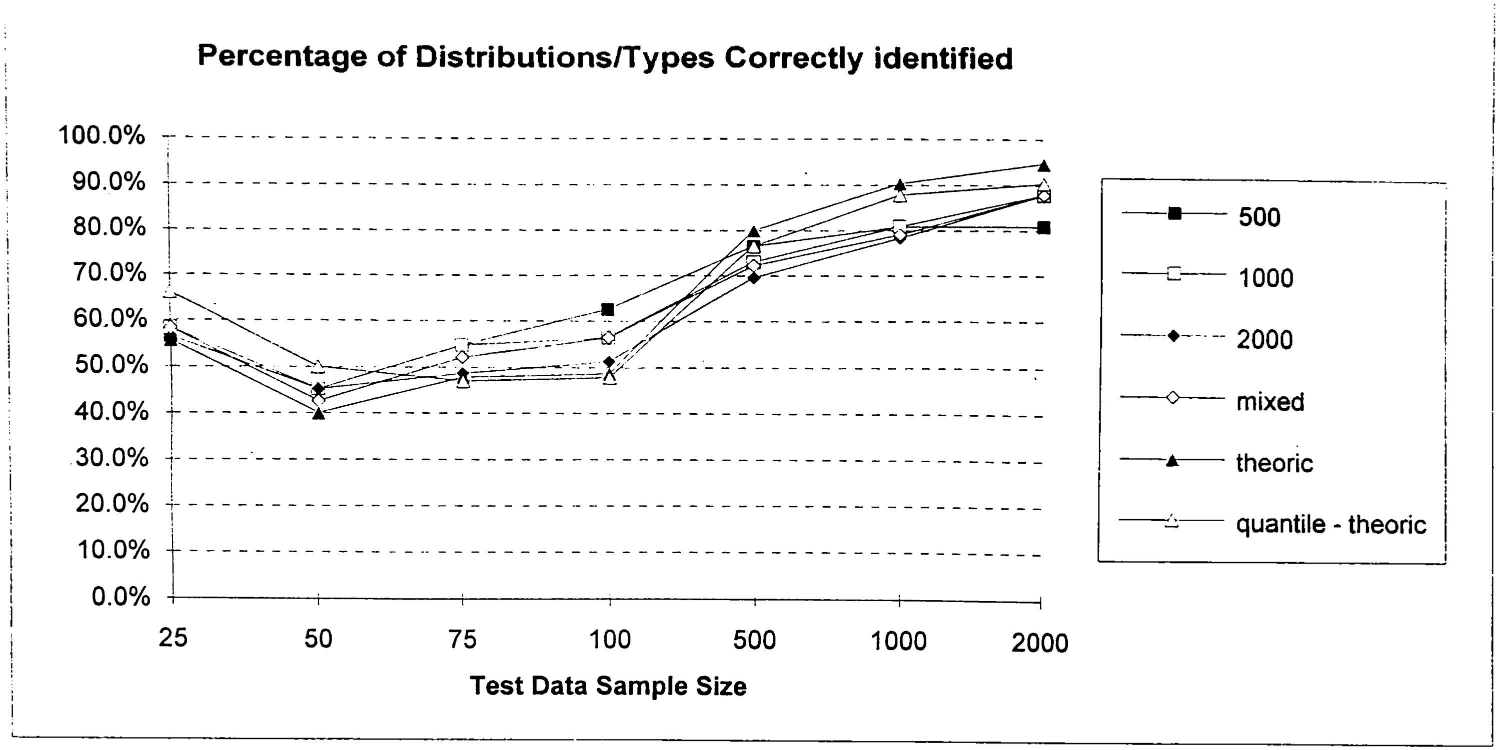

Figure 6. Percentage of Distributions/Types Correctly Identified.

Probabilistic Neural Network
***Percentage of Distributions Correctly Identified* ***

Networks	Test Data Sample Size						
	25	50	75	100	500	1000	2000
500	79.1%	77.4%	73.9%	80.9%	83.5%	85.2%	80.9%
1000	78.3%	77.4%	73.9%	77.4%	81.7%	88.7%	90.4%
2000	79.1%	78.3%	72.2%	76.5%	80.9%	85.2%	89.6%
mixed	80.0%	76.5%	73.0%	77.4%	80.9%	85.2%	89.6%
theoric	77.4%	73.9%	70.4%	71.3%	86.1%	91.3%	94.8%
quantile - theoric	80.0%	76.5%	73.9%	74.8%	85.2%	90.4%	94.8%

* verified by Chi-Square Goodness of Fit Test with alpha=0.05.

Table 5. Percentage of Distributions Correctly Identified.

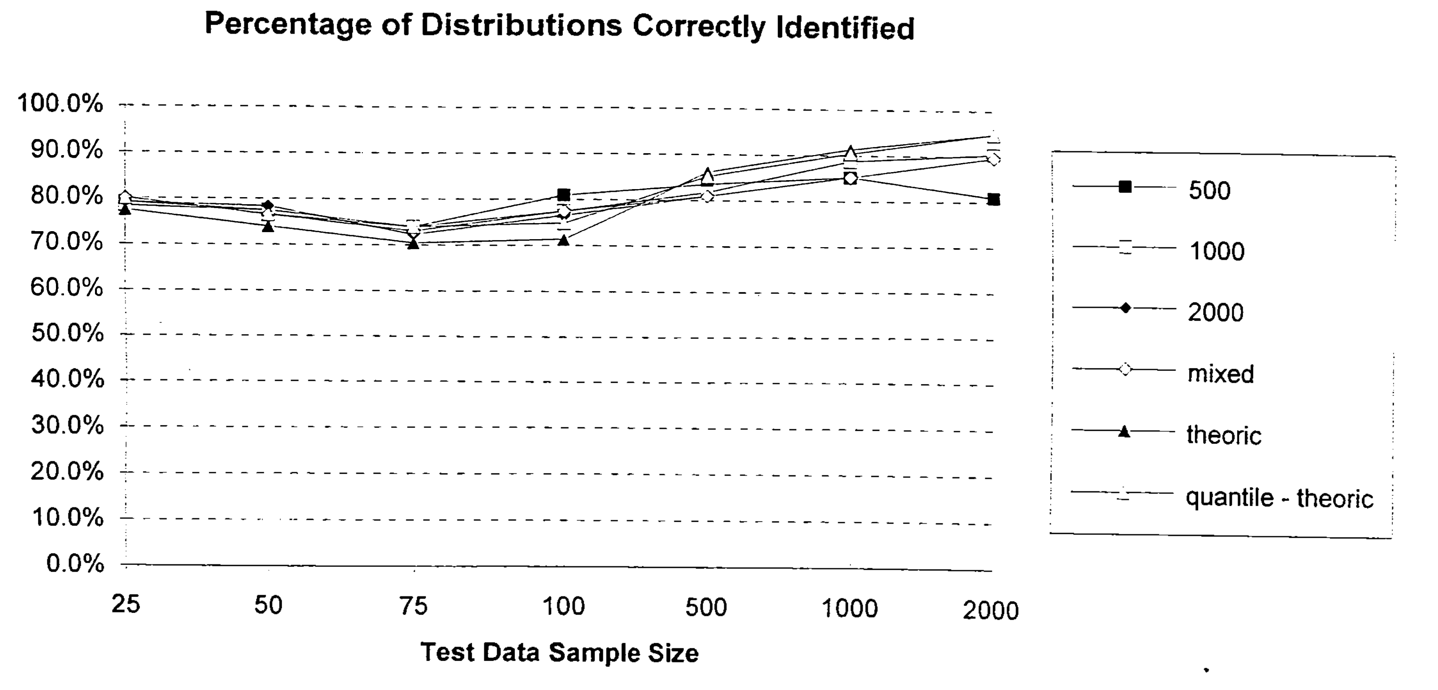

Figure 7. Percentage of Distributions Correctly Identified.

Counterpropagation Network

Percentage of Distributions/Types Correctly Identified *

Networks	Test Data Sample Size						
	25	50	75	100	500	1000	2000
theoric	47.8%	28.7%	36.3%	33.0%	60.9%	81.7%	84.3%
quantile - theoric	48.7%	31.3%	35.7%	30.4%	59.1%	71.3%	80.0%

* verified by Chi-Square Goodness of Fit Test with alpha=0.05

Table 6. Percentage of Distributions/Types Correctly Identified.

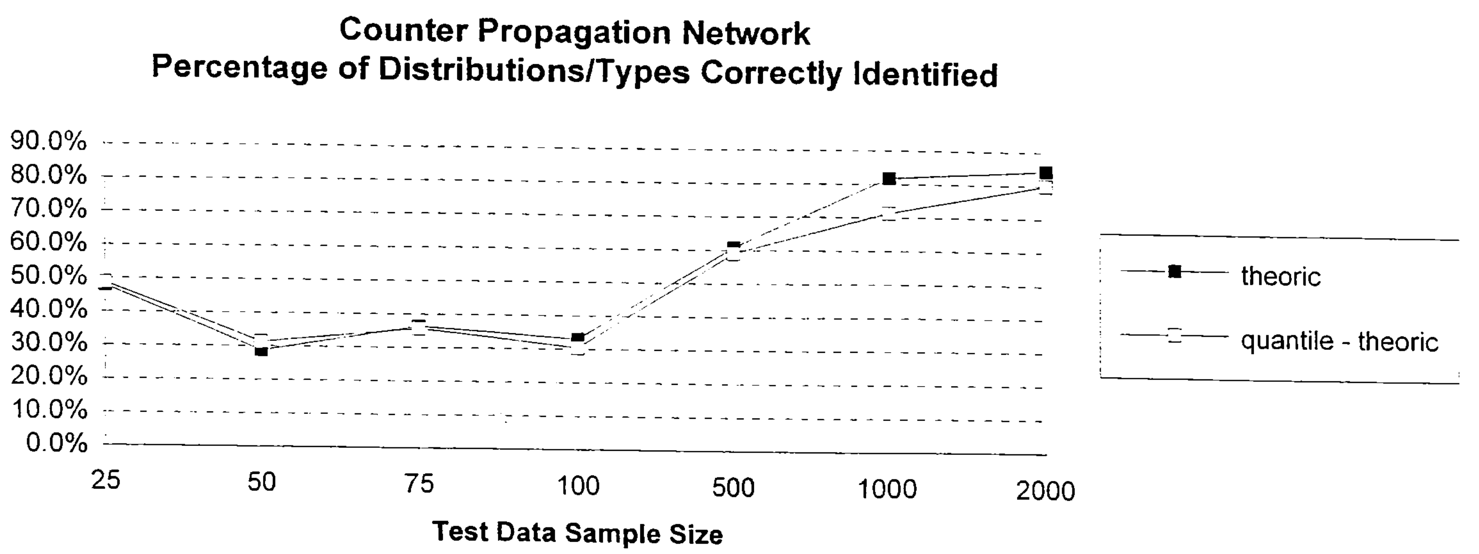

Figure 8. Percentage of Distributions/Types Correctly Identified.

Counterpropagation Network

Percentage of Distributions Correctly Identified *

Networks	Test Data Sample Size						
	25	**50**	**75**	**100**	**500**	**1000**	**2000**
theoric	63.5%	54.8%	53.0%	48.7%	65.2%	82.6%	84.3%
quantile - theoric	56.5%	52.2%	54.8%	54.8%	68.7%	73.9%	80.9%

* verified by Chi-Square Goodness of Fit Test with alpha=0.05

Table 7. Percentage of Distributions Correctly Identified.

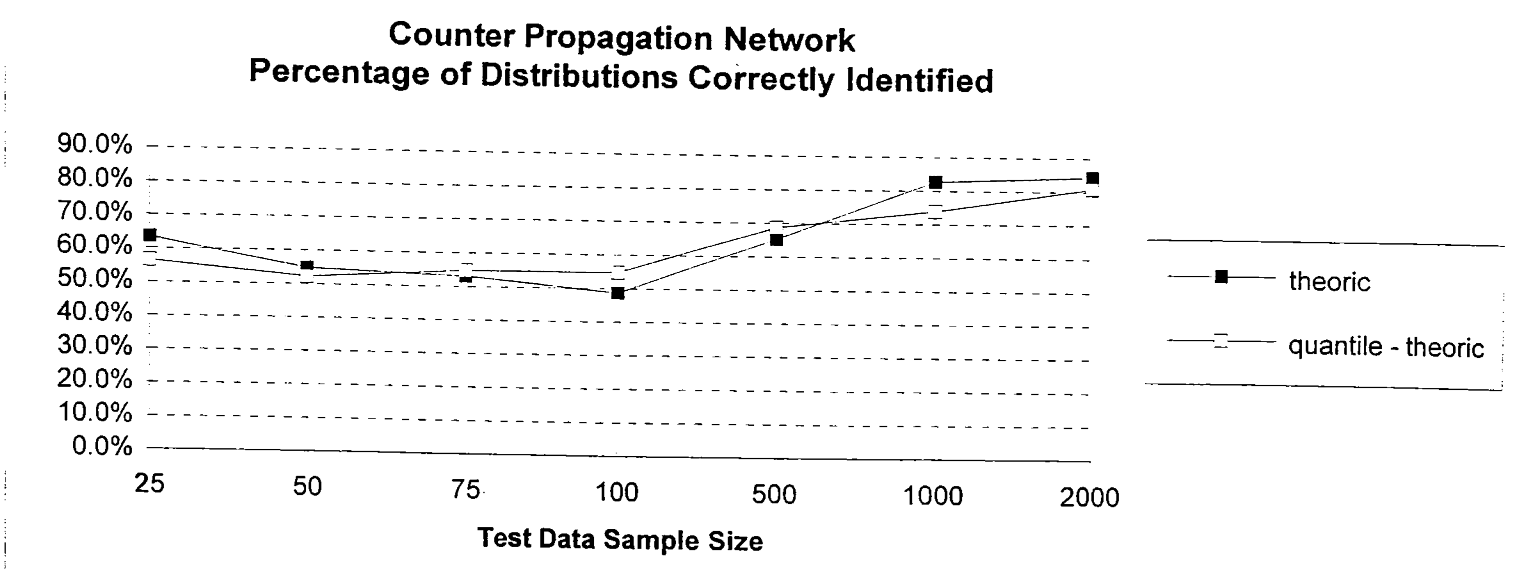

Figure 9. Percentage of Distributions Correctly Identified.

Chapter 6

CONCLUSION

We trained counter propagation and probabilistic neural networks for distribution selecting and verified the networks' results with goodness-of-fit tests.

It can be concluded that although counter propagation network did not give satisfactory results, probabilistic neural networks can be used as a tool to hypothesize about the distribution of a given raw data set. Measuring the performance under the criteria that identifying the correct distribution is sufficient rather than specifying the shape type, is more suitable for the purpose of this study. The main aim of this study is to investigate the possible applications of neural networks for the hypothesis forming stage of the work. In the traditional statistics, this is performed by the aid of non-parametric statistical methods; heuristics and other graphical and computational methods are employed for this purpose. After a distribution is hypothesized, the second step is to estimate the parameters of the hypothesized distribution. However, parameter estimation is not intended in this study. Therefore, determining the exact type of distribution by neural networks would go beyond the scope of this investigation.

Another conclusion that can be derived based on the outcomes is that the advantage of using neural networks becomes more significant when the sample size gets smaller. This is a general superiority of neural networks over conventional methods that networks are capable of working with incomplete data. Even if some part of the data is missing, networks are able to give similar results to the case when working with complete data.

There are some shortcomings of goodness-of-fit tests encountered during this study. Goodness-of-fit tests are not powerful and fail to reject any hypothesis when the sample size is small. Also some goodness-of-fit tests have biases; for example, Anderson-Darling test has a tendency to reject uniformity although it fails to reject other distributions on small samples. When compared on this basis, networks turn out to be more powerful than traditional goodness-of-fit tests on not accepting a false hypothesis. This statement is supported also by the previous study conducted by Sabuncuoglu et al. (1992) in which the author of this thesis has also took part.

In this previous study it was proven that for the limited case of only three distributions, uniform, normal and exponential, using neural networks for distribution identification proved to be feasible. This study incorporates many new distributions into the classification problem. The observed result is that more effort is to be undertaken in order to discriminate distributions which are very much alike.

The future work to be done in this field becomes more clear when the problem is viewed from this aspect. Distributions with similar shapes can be grouped together and the classification process can be done based on these new classes of distributions. It is most probable that neural networks would turn out to be powerful for such an application. As a second step, after the class of distribution is selected by this network, more specialized networks can be employed to detect the different types within a group of distributions.

APPENDIX A - TRAINING SETS

There are six finalized training sets used. Five of them are given in the following tables AA1-AA5. The sixth training set is formed by combining the first four sets and therefore is not included here. The intermediate sets which are omitted during the training process are not given. In order to save space and make the input fields containing the skewness, quantile and cumulative probability values more readable, the desired output part is compressed.

Table AA1. Theoric training set (without quantiles).

No.	Skewness	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	Output
		Cumulative Probabilities												
1	0	0.01	0.025	0.05	0.075	0.1	0.15	0.2	0.3	0.4	0.5	0.7	0.9	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2	2	0.073651	0.17346	0.31649	0.43477	0.53259	0.68036	0.78142	0.89778	0.9522	0.97765	0.99511	0.99893	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3	6.61876	0.532376	0.69935	0.81725	0.87527	0.90961	0.94734	0.9666	0.98444	0.99183	0.99537	0.99827	0.99926	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4	0.63111	0.002468	0.0082	0.02499	0.05042	0.08379	0.17064	0.27681	0.50846	0.71232	0.85502	0.97649	0.9979	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	0.1681	0.000948	0.00203	0.00523	0.01072	0.01908	0.04648	0.09088	0.23575	0.44027	0.65696	0.93574	0.99636	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	2.82843	0.272216	0.41793	0.56362	0.65953	0.72898	0.82237	0.88044	0.94341	0.97229	0.98616	0.99641	0.99904	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7	1.41421	0.007939	0.03284	0.09953	0.18385	0.27477	0.45116	0.6008	0.80411	0.90978	0.96009	0.99276	0.99877	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8	1.1547	0.002647	0.0107	0.03982	0.08825	0.15217	0.30572	0.46387	0.71797	0.86759	0.94237	0.99058	0.99864	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9	1.75019	0.002323	0.01092	0.05145	0.12835	0.23068	0.45191	0.63658	0.85296	0.9414	0.976	0.99546	0.99899	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10	6.18488	0.117803	0.36478	0.62582	0.76338	0.84143	0.91943	0.95416	0.98168	0.99126	0.99532	0.99833	0.99928	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
11	13	0.588547	0.79747	0.90217	0.9411	0.96044	0.97862	0.98671	0.99358	0.99632	0.99766	0.99887	0.99936	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
12	0	0.000631	0.00089	0.00153	0.00258	0.00424	0.01063	0.02417	0.09405	0.25523	0.5	0.90595	0.99576	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
13	0.82353	0.008325	0.02769	0.07084	0.12171	0.17672	0.29112	0.40342	0.60234	0.75525	0.86208	0.96917	0.99695	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
14	0.51025	0.005473	0.01753	0.04492	0.07826	0.11559	0.19762	0.28451	0.45788	0.61589	0.74855	0.92435	0.99231	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
15	-0.82353	0.00062	0.00084	0.00135	0.00206	0.00305	0.00613	0.01123	0.03083	0.06987	0.13792	0.39766	0.82328	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
16	-0.51025	0.000762	0.0013	0.00267	0.00476	0.00769	0.01661	0.03038	0.07565	0.14849	0.25146	0.54212	0.88441	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
17	0	0.000954	0.00204	0.00517	0.01035	0.01792	0.04132	0.07669	0.18351	0.3305	0.5	0.81649	0.98208	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
18	0	0.000758	0.00132	0.00292	0.00565	0.00993	0.02492	0.05131	0.14795	0.30454	0.5	0.85205	0.99007	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
19	0	0.001524	0.00408	0.01094	0.02093	0.03386	0.06787	0.11158	0.22257	0.35574	0.5	0.77743	0.96614	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
20	0.77055	0.044209	0.09124	0.15702	0.21473	0.26725	0.36125	0.44419	0.58525	0.70004	0.79305	0.92336	0.9888	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
21	0.56569	0.019948	0.04876	0.09583	0.1417	0.18638	0.27215	0.35315	0.50081	0.62937	0.73882	0.90041	0.98558	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
22	-0.77055	0.00094	0.00186	0.00409	0.0072	0.01121	0.02192	0.03633	0.07664	0.13309	0.20695	0.41475	0.73275	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
23	-0.56569	0.001033	0.00219	0.00507	0.00915	0.01442	0.02855	0.04745	0.09959	0.17083	0.26118	0.49919	0.81362	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1

Table AA2. Training set for sample size 500 (without quantiles).

No.	Skewness	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	Output
1	0.0147	0.016	0.028	0.048	0.074	0.102	0.148	0.196	0.302	0.394	0.492	0.714	0.882	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2	0.0822	0.01	0.024	0.046	0.074	0.098	0.138	0.2	0.328	0.418	0.518	0.706	0.892	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3	-0.0225	0.012	0.032	0.066	0.096	0.124	0.186	0.232	0.334	0.41	0.498	0.684	0.91	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4	0.1037	0.014	0.034	0.064	0.094	0.114	0.158	0.214	0.326	0.438	0.548	0.71	0.912	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	-0.0331	0.014	0.028	0.05	0.072	0.094	0.154	0.192	0.302	0.4	0.504	0.69	0.902	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	2.2596	0.048	0.14	0.302	0.416	0.516	0.67	0.764	0.882	0.936	0.968	0.986	0.996	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7	1.9673	0.068	0.154	0.298	0.43	0.512	0.684	0.778	0.892	0.956	0.98	0.998	0.998	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8	1.7424	0.048	0.132	0.228	0.346	0.426	0.548	0.66	0.798	0.874	0.914	0.966	0.99	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9	1.7787	0.06	0.14	0.276	0.356	0.446	0.586	0.702	0.832	0.916	0.958	0.986	0.996	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10	2.0473	0.072	0.168	0.322	0.432	0.514	0.686	0.772	0.896	0.942	0.976	0.996	0.996	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11	6.5223	0.546	0.702	0.828	0.894	0.928	0.958	0.974	0.982	0.988	0.992	0.996	0.998	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12	3.7162	0.444	0.592	0.726	0.782	0.82	0.876	0.9	0.944	0.972	0.98	0.994	0.996	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
13	4.7545	0.42	0.606	0.746	0.792	0.85	0.904	0.934	0.972	0.99	0.994	0.996	0.996	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14	5.4819	0.526	0.696	0.82	0.868	0.906	0.94	0.958	0.982	0.996	0.998	0.998	0.998	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15	3.4405	0.41	0.546	0.678	0.744	0.804	0.852	0.894	0.94	0.966	0.972	0.988	0.996	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16	0.5639	0.006	0.012	0.028	0.062	0.098	0.184	0.278	0.49	0.68	0.842	0.978	0.998	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
17	0.6806	0.002	0.006	0.03	0.068	0.102	0.192	0.298	0.502	0.714	0.84	0.968	0.994	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
18	0.7261	0.004	0.012	0.028	0.054	0.078	0.184	0.306	0.526	0.742	0.886	0.984	0.996	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19	0.6258	0.008	0.016	0.044	0.064	0.104	0.192	0.274	0.53	0.714	0.85	0.98	0.998	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20	0.5795	0.006	0.008	0.016	0.036	0.064	0.132	0.212	0.442	0.646	0.806	0.964	0.996	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21	0.2146	0.002	0.002	0.014	0.018	0.026	0.06	0.104	0.23	0.46	0.664	0.918	0.994	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
22	0.3581	0.002	0.004	0.008	0.01	0.024	0.07	0.136	0.322	0.538	0.742	0.964	0.996	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
23	0.2932	0.002	0.006	0.01	0.014	0.026	0.06	0.104	0.268	0.506	0.71	0.946	0.994	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
24	0.1065	0.004	0.008	0.012	0.022	0.042	0.072	0.126	0.25	0.434	0.628	0.916	0.994	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
25	0.0879	0.002	0.002	0.002	0.006	0.008	0.03	0.068	0.2	0.374	0.606	0.918	0.994	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
26	2.6091	0.24	0.384	0.5	0.598	0.658	0.776	0.862	0.924	0.946	0.972	0.992	0.996	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
27	2.4469	0.24	0.356	0.492	0.602	0.67	0.746	0.814	0.878	0.918	0.942	0.974	0.99	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
28	2.1433	0.212	0.324	0.452	0.534	0.598	0.706	0.786	0.882	0.918	0.946	0.986	0.996	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
29	3.3213	0.25	0.4	0.564	0.668	0.742	0.846	0.896	0.952	0.98	0.988	0.994	0.998	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
30	2.6296	0.27	0.416	0.536	0.628	0.682	0.784	0.85	0.916	0.952	0.978	0.99	0.998	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
31	1.4279	0.01	0.032	0.066	0.13	0.204	0.366	0.5	0.696	0.864	0.92	0.968	0.998	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
32	1.3551	0.006	0.028	0.066	0.14	0.212	0.37	0.512	0.712	0.838	0.904	0.976	0.994	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
33	1.0564	0.006	0.016	0.058	0.124	0.206	0.352	0.464	0.672	0.844	0.934	0.988	0.994	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
34	1.9291	0.016	0.048	0.13	0.22	0.306	0.52	0.698	0.884	0.954	0.98	0.994	0.996	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
35	1.4013	0.008	0.032	0.108	0.184	0.272	0.458	0.586	0.792	0.888	0.954	0.992	0.998	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
36	1.0354	0.006	0.022	0.044	0.072	0.126	0.266	0.414	0.646	0.81	0.896	0.98	0.996	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
37	1.1335	0.008	0.016	0.036	0.064	0.128	0.262	0.398	0.622	0.772	0.862	0.958	0.998	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38	1.2604	0.004	0.008	0.028	0.082	0.15	0.318	0.498	0.76	0.904	0.964	0.994	0.992	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
39	0.8638	0.002	0.01	0.04	0.07	0.1	0.238	0.368	0.578	0.748	0.858	0.978	0.998	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
40	0.9859	0.006	0.016	0.054	0.094	0.136	0.248	0.344	0.594	0.764	0.876	0.97	0.99	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table AA2(continued). Training set for sample size 500 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
41	2.4291	0.004	0.026	0.108	0.232	0.35	0.586	0.764	0.904	0.968	0.992	0.996	0.996	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
42	1.7429	0.002	0.008	0.02	0.072	0.164	0.352	0.526	0.784	0.88	0.946	0.986	0.996	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
43	2.2531	0.008	0.032	0.104	0.24	0.356	0.58	0.774	0.926	0.98	0.994	0.998	0.998	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
44	1.5532	0.004	0.024	0.054	0.134	0.236	0.428	0.606	0.8	0.902	0.952	0.994	0.998	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
45	1.4836	0.002	0.004	0.022	0.086	0.146	0.316	0.476	0.73	0.864	0.932	0.978	0.998	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
46	3.4143	0.048	0.214	0.428	0.608	0.7	0.82	0.908	0.95	0.972	0.982	0.994	0.998	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
47	3.6409	0.07	0.242	0.484	0.614	0.726	0.846	0.904	0.95	0.97	0.982	0.992	0.998	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
48	4.6072	0.076	0.278	0.558	0.722	0.824	0.896	0.934	0.974	0.988	0.996	0.996	0.998	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
49	3.1241	0.044	0.162	0.382	0.518	0.64	0.768	0.868	0.932	0.964	0.974	0.99	0.996	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
50	5.2021	0.17	0.422	0.67	0.792	0.866	0.932	0.956	0.982	0.99	0.996	0.998	0.998	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
51	6.987	0.506	0.732	0.858	0.91	0.932	0.962	0.968	0.984	0.99	0.996	0.998	0.998	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
52	3.6296	0.262	0.486	0.656	0.736	0.806	0.876	0.904	0.934	0.952	0.968	0.986	0.994	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
53	7.2157	0.484	0.712	0.838	0.896	0.922	0.95	0.972	0.986	0.994	0.996	0.996	0.998	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
54	5.8244	0.386	0.622	0.808	0.86	0.9	0.944	0.954	0.978	0.986	0.992	0.996	0.996	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
55	19.9546	0.876	0.956	0.988	0.994	0.994	0.996	0.996	0.998	0.998	0.998	0.998	0.998	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
56	0.1718	0.004	0.004	0.004	0.004	0.01	0.028	0.064	0.204	0.42	0.672	0.948	0.996	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
57	-0.039	0.002	0.002	0.002	0.002	0.004	0.008	0.014	0.042	0.152	0.348	0.834	0.986	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
58	-0.0641	0.002	0.004	0.008	0.008	0.012	0.028	0.056	0.178	0.364	0.612	0.966	0.998	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
59	0.0926	0.002	0.002	0.002	0.004	0.01	0.036	0.05	0.15	0.332	0.56	0.89	0.994	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
60	0.0542	0.002	0.002	0.002	0.002	0.002	0.004	0.01	0.084	0.212	0.424	0.834	0.98	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
61	0.7366	0.01	0.02	0.06	0.108	0.16	0.28	0.378	0.582	0.728	0.846	0.974	0.996	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
62	0.6663	0.008	0.024	0.054	0.096	0.13	0.23	0.326	0.518	0.666	0.794	0.94	0.992	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
63	0.7241	0.016	0.032	0.078	0.116	0.154	0.262	0.358	0.55	0.72	0.84	0.956	0.996	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
64	0.7944	0.01	0.022	0.062	0.1	0.14	0.25	0.362	0.552	0.684	0.822	0.942	0.994	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
65	0.6897	0.008	0.02	0.056	0.106	0.162	0.272	0.364	0.566	0.716	0.832	0.966	0.994	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
66	0.4753	0.006	0.022	0.04	0.066	0.092	0.168	0.25	0.416	0.566	0.688	0.864	0.976	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
67	0.5784	0.004	0.018	0.044	0.082	0.122	0.212	0.318	0.466	0.6	0.716	0.898	0.978	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
68	0.5099	0.004	0.018	0.062	0.09	0.126	0.196	0.282	0.442	0.608	0.738	0.914	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
69	0.4769	0.008	0.026	0.054	0.094	0.126	0.212	0.288	0.462	0.628	0.782	0.952	0.994	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
70	0.4555	0.018	0.044	0.074	0.108	0.136	0.214	0.298	0.454	0.61	0.744	0.93	0.992	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
71	-0.8659	0.002	0.002	0.002	0.004	0.008	0.012	0.022	0.05	0.09	0.16	0.438	0.846	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
72	-0.8791	0.002	0.004	0.004	0.004	0.004	0.004	0.006	0.016	0.05	0.102	0.372	0.818	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
73	-0.8875	0.006	0.006	0.006	0.006	0.008	0.014	0.016	0.044	0.086	0.16	0.43	0.85	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
74	-0.9609	0.002	0.002	0.002	0.004	0.006	0.012	0.018	0.038	0.066	0.126	0.398	0.826	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
75	-0.8918	0.002	0.002	0.004	0.006	0.008	0.012	0.014	0.032	0.08	0.116	0.416	0.842	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
76	-0.5924	0.002	0.008	0.01	0.014	0.02	0.026	0.034	0.086	0.164	0.244	0.548	0.87	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
77	-0.4571	0.004	0.004	0.004	0.008	0.008	0.016	0.03	0.078	0.152	0.272	0.56	0.882	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
78	-0.5091	0.002	0.002	0.004	0.004	0.004	0.01	0.02	0.058	0.142	0.222	0.518	0.858	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
79	-0.5118	0.002	0.004	0.006	0.01	0.016	0.028	0.054	0.118	0.186	0.28	0.568	0.882	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
80	-0.479	0.004	0.004	0.004	0.008	0.012	0.022	0.034	0.104	0.18	0.284	0.546	0.868	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
81	-0.1341	0.002	0.002	0.004	0.012	0.024	0.056	0.09	0.192	0.316	0.468	0.792	0.978	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0

Table AA2(continued). Training set for sample size 500 (without quantiles).

No.	Skewness	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	Output
82	-0.0665	0.006	0.008	0.012	0.016	0.024	0.042	0.082	0.192	0.324	0.494	0.812	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
83	0.05	0.004	0.012	0.014	0.024	0.042	0.08	0.126	0.234	0.398	0.574	0.822	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
84	0.047	0.002	0.004	0.008	0.01	0.016	0.036	0.066	0.184	0.336	0.494	0.832	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
85	0.1234	0.002	0.002	0.004	0.01	0.016	0.046	0.088	0.21	0.344	0.542	0.814	0.97	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
86	-0.0815	0.002	0.002	0.002	0.002	0.004	0.016	0.03	0.122	0.254	0.42	0.782	0.976	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
87	-0.0311	0.004	0.008	0.018	0.028	0.034	0.054	0.094	0.222	0.372	0.51	0.796	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
88	0.0754	0.002	0.004	0.004	0.004	0.006	0.012	0.042	0.14	0.31	0.49	0.854	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
89	0.1229	0.002	0.004	0.008	0.012	0.024	0.048	0.086	0.202	0.372	0.552	0.856	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
90	-0.0982	0.002	0.002	0.004	0.01	0.01	0.03	0.062	0.17	0.286	0.48	0.826	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
91	0.0222	0.006	0.01	0.012	0.02	0.032	0.078	0.13	0.226	0.354	0.512	0.8	0.968	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
92	-0.0541	0.002	0.004	0.012	0.028	0.042	0.074	0.114	0.238	0.334	0.478	0.768	0.954	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
93	0.0487	0.002	0.002	0.008	0.024	0.038	0.068	0.128	0.224	0.362	0.526	0.774	0.964	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
94	0.1217	0.002	0.002	0.006	0.012	0.024	0.048	0.078	0.188	0.346	0.504	0.742	0.932	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
95	-0.015	0.01	0.012	0.018	0.032	0.046	0.072	0.118	0.218	0.372	0.514	0.768	0.964	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
96	0.8481	0.05	0.094	0.164	0.206	0.254	0.348	0.442	0.6	0.724	0.812	0.922	0.988	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
97	0.7532	0.048	0.086	0.148	0.188	0.234	0.324	0.412	0.572	0.676	0.796	0.928	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
98	0.767	0.062	0.116	0.17	0.232	0.278	0.378	0.46	0.59	0.7	0.802	0.932	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
99	0.7702	0.062	0.11	0.164	0.218	0.266	0.358	0.448	0.588	0.686	0.78	0.912	0.986	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
100	0.8764	0.028	0.096	0.164	0.228	0.284	0.376	0.45	0.606	0.736	0.816	0.934	0.992	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
101	0.6403	0.024	0.042	0.096	0.13	0.18	0.26	0.332	0.51	0.638	0.744	0.882	0.974	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
102	0.6056	0.028	0.064	0.106	0.142	0.178	0.298	0.366	0.51	0.63	0.762	0.906	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
103	0.5505	0.026	0.056	0.116	0.15	0.198	0.294	0.364	0.498	0.614	0.724	0.884	0.98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
104	0.558	0.022	0.062	0.104	0.146	0.166	0.276	0.366	0.504	0.638	0.76	0.924	0.988	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
105	0.6622	0.026	0.058	0.116	0.174	0.196	0.29	0.368	0.532	0.66	0.758	0.89	0.984	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
106	-0.8239	0.002	0.002	0.002	0.006	0.01	0.02	0.038	0.076	0.138	0.2	0.406	0.736	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
107	-0.8148	0.004	0.004	0.006	0.01	0.02	0.03	0.05	0.08	0.126	0.21	0.404	0.72	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
108	-0.837	0.002	0.004	0.006	0.006	0.008	0.014	0.03	0.062	0.12	0.176	0.392	0.73	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
109	-0.8241	0.002	0.006	0.006	0.018	0.022	0.032	0.046	0.09	0.128	0.202	0.426	0.756	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
110	-0.799	0.002	0.004	0.004	0.014	0.02	0.022	0.04	0.09	0.14	0.21	0.412	0.734	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
111	-0.4429	0.002	0.002	0.004	0.01	0.012	0.026	0.042	0.108	0.182	0.3	0.522	0.844	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
112	-0.5788	0.002	0.002	0.008	0.01	0.016	0.036	0.048	0.106	0.192	0.282	0.476	0.794	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
113	-0.5563	0.002	0.002	0.006	0.014	0.026	0.034	0.066	0.12	0.188	0.286	0.508	0.826	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
114	-0.6294	0.006	0.008	0.016	0.022	0.026	0.046	0.068	0.116	0.18	0.27	0.518	0.818	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
115	-0.4954	0.002	0.004	0.006	0.01	0.014	0.026	0.048	0.114	0.212	0.296	0.514	0.812	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1

Table AA3. Training set for sample size 1000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
1	0.0484	0.013	0.026	0.047	0.074	0.1	0.143	0.198	0.315	0.406	0.505	0.71	0.887	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2	0.0392	0.011	0.031	0.064	0.095	0.118	0.172	0.221	0.328	0.424	0.524	0.697	0.913	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3	-0.1045	0.014	0.028	0.054	0.073	0.095	0.157	0.191	0.291	0.385	0.479	0.673	0.903	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4	-0.0322	0.011	0.018	0.039	0.066	0.092	0.131	0.193	0.271	0.384	0.496	0.715	0.919	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	0.0003	0.014	0.032	0.055	0.083	0.109	0.148	0.202	0.292	0.396	0.499	0.727	0.897	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	1.7549	0.07	0.173	0.317	0.402	0.499	0.636	0.748	0.865	0.931	0.973	0.992	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7	2.2286	0.062	0.167	0.326	0.452	0.549	0.713	0.801	0.908	0.963	0.979	0.992	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8	1.7603	0.077	0.178	0.32	0.437	0.527	0.674	0.774	0.885	0.949	0.973	0.999	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9	2.2884	0.075	0.196	0.345	0.46	0.57	0.718	0.815	0.932	0.967	0.985	0.995	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10	1.9725	0.067	0.168	0.297	0.43	0.534	0.672	0.785	0.9	0.96	0.98	0.995	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11	4.5637	0.499	0.661	0.786	0.844	0.877	0.925	0.947	0.98	0.988	0.993	0.999	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12	5.9114	0.548	0.73	0.839	0.887	0.916	0.956	0.972	0.983	0.99	0.992	0.998	0.999	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
13	4.8689	0.527	0.695	0.817	0.863	0.904	0.946	0.963	0.984	0.996	0.999	0.999	0.999	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14	6.9605	0.57	0.74	0.853	0.916	0.937	0.959	0.975	0.99	0.994	0.995	0.998	0.999	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15	5.7141	0.534	0.691	0.819	0.879	0.915	0.956	0.973	0.985	0.99	0.995	0.999	0.999	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16	0.7933	0.003	0.013	0.032	0.068	0.106	0.217	0.351	0.595	0.778	0.905	0.986	0.999	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
17	0.6812	0.005	0.012	0.034	0.062	0.095	0.19	0.291	0.523	0.739	0.875	0.978	0.999	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
18	0.5484	0.001	0.006	0.013	0.048	0.08	0.154	0.259	0.469	0.683	0.818	0.975	0.996	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19	0.6273	0.002	0.006	0.021	0.043	0.07	0.149	0.251	0.495	0.699	0.855	0.973	0.998	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20	0.5046	0.003	0.008	0.025	0.045	0.075	0.141	0.236	0.426	0.604	0.766	0.944	0.998	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21	0.2451	0.001	0.002	0.006	0.01	0.02	0.047	0.099	0.285	0.538	0.782	0.981	0.995	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
22	0.145	0.002	0.002	0.004	0.008	0.01	0.036	0.062	0.189	0.388	0.609	0.913	0.999	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
23	0.2045	0.002	0.002	0.004	0.01	0.02	0.052	0.109	0.274	0.497	0.693	0.945	0.994	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
24	0.0938	0.001	0.001	0.005	0.012	0.017	0.033	0.067	0.176	0.371	0.577	0.914	0.999	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
25	0.1468	0.002	0.004	0.008	0.012	0.021	0.051	0.087	0.228	0.416	0.628	0.917	0.993	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
26	2.9369	0.262	0.419	0.568	0.657	0.732	0.832	0.894	0.96	0.981	0.99	0.997	0.997	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
27	2.3808	0.221	0.335	0.468	0.567	0.636	0.743	0.819	0.893	0.929	0.965	0.988	0.999	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
28	2.1702	0.234	0.361	0.487	0.557	0.625	0.727	0.79	0.878	0.938	0.971	0.99	0.995	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
29	3.0329	0.284	0.445	0.594	0.674	0.75	0.849	0.908	0.959	0.977	0.989	0.996	0.996	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
30	2.4873	0.228	0.353	0.483	0.592	0.672	0.764	0.834	0.909	0.953	0.974	0.992	0.999	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
31	1.297	0.014	0.054	0.126	0.22	0.313	0.489	0.644	0.832	0.938	0.973	0.998	0.997	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
32	1.2935	0.005	0.033	0.079	0.156	0.237	0.407	0.544	0.745	0.863	0.928	0.987	0.999	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
33	1.4354	0.008	0.03	0.103	0.171	0.261	0.428	0.567	0.785	0.897	0.95	0.987	0.997	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
34	1.8608	0.02	0.067	0.169	0.281	0.408	0.62	0.767	0.918	0.969	0.992	0.998	0.998	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
35	1.4152	0.012	0.037	0.11	0.19	0.281	0.448	0.601	0.807	0.914	0.958	0.992	0.998	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
36	1.06	0.007	0.019	0.065	0.126	0.187	0.322	0.455	0.694	0.862	0.934	0.987	0.999	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
37	0.9116	0.002	0.01	0.031	0.065	0.113	0.214	0.339	0.584	0.769	0.872	0.973	0.998	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38	1.3159	0.001	0.007	0.034	0.097	0.166	0.332	0.503	0.769	0.892	0.96	0.993	0.997	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
39	0.9575	0.004	0.01	0.032	0.075	0.141	0.269	0.416	0.657	0.822	0.913	0.985	0.998	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
40	1.2705	0.006	0.02	0.046	0.088	0.148	0.288	0.469	0.744	0.883	0.949	0.99	0.999	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table AA3(continued). Training set for sample size 1000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
41	2.0814	0.002	0.009	0.047	0.153	0.275	0.519	0.721	0.889	0.959	0.986	0.996	0.998	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
42	1.8774	0.005	0.031	0.096	0.231	0.357	0.589	0.756	0.914	0.971	0.993	0.998	0.999	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
43	1.4582	0.002	0.007	0.023	0.084	0.159	0.321	0.474	0.73	0.877	0.937	0.983	0.997	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
44	1.6667	0.004	0.013	0.039	0.087	0.173	0.381	0.556	0.81	0.914	0.964	0.993	0.998	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
45	1.6733	0.002	0.011	0.068	0.155	0.268	0.489	0.673	0.883	0.953	0.98	0.998	0.999	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
46	3.4742	0.089	0.311	0.54	0.698	0.79	0.882	0.929	0.964	0.983	0.995	0.998	0.999	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
47	3.736	0.081	0.266	0.53	0.668	0.773	0.875	0.924	0.963	0.984	0.99	0.996	0.998	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
48	13.071	0.389	0.715	0.888	0.946	0.967	0.992	0.993	0.998	0.999	0.999	0.999	0.999	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
49	3.1347	0.069	0.192	0.404	0.572	0.671	0.802	0.874	0.936	0.968	0.981	0.993	0.997	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
50	5.894	0.183	0.481	0.726	0.843	0.896	0.953	0.975	0.989	0.994	0.997	0.999	0.999	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
51	11.6284	0.676	0.864	0.945	0.969	0.977	0.987	0.991	0.994	0.997	0.998	0.999	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
52	6.8301	0.495	0.735	0.865	0.911	0.937	0.961	0.975	0.984	0.989	0.993	0.997	0.998	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
53	7.0625	0.482	0.708	0.828	0.894	0.924	0.952	0.972	0.986	0.989	0.994	0.996	0.996	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
54	4.6844	0.365	0.623	0.768	0.841	0.887	0.93	0.951	0.972	0.983	0.992	0.997	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
55	7.0654	0.48	0.719	0.84	0.897	0.936	0.966	0.98	0.989	0.995	0.997	0.999	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
56	0.0472	0.001	0.001	0.001	0.001	0.002	0.004	0.01	0.047	0.187	0.435	0.892	0.996	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
57	0.0177	0.001	0.002	0.005	0.005	0.009	0.027	0.05	0.166	0.369	0.617	0.953	0.998	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
58	-0.0186	0.001	0.002	0.002	0.002	0.003	0.009	0.013	0.075	0.203	0.403	0.835	0.986	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
59	-0.057	0.001	0.001	0.003	0.004	0.005	0.013	0.021	0.072	0.204	0.44	0.877	0.993	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
60	0.0127	0.001	0.001	0.001	0.004	0.005	0.011	0.028	0.116	0.292	0.53	0.922	0.998	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
61	0.695	0.011	0.028	0.06	0.107	0.148	0.254	0.355	0.552	0.71	0.825	0.958	0.996	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
62	0.7473	0.009	0.02	0.057	0.103	0.148	0.262	0.367	0.559	0.708	0.829	0.958	0.994	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
63	0.8584	0.006	0.024	0.057	0.107	0.161	0.288	0.401	0.583	0.729	0.842	0.955	0.994	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
64	0.8315	0.007	0.03	0.079	0.128	0.178	0.291	0.409	0.61	0.763	0.862	0.974	0.998	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
65	0.8303	0.007	0.036	0.081	0.14	0.194	0.303	0.413	0.617	0.763	0.873	0.969	0.998	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
66	0.5209	0.006	0.023	0.04	0.079	0.111	0.182	0.263	0.434	0.592	0.729	0.906	0.985	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
67	0.5127	0.009	0.019	0.049	0.079	0.125	0.209	0.3	0.483	0.63	0.744	0.932	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
68	0.4853	0.011	0.016	0.05	0.087	0.117	0.199	0.273	0.449	0.601	0.733	0.919	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
69	0.4795	0.008	0.029	0.053	0.087	0.125	0.207	0.298	0.454	0.61	0.749	0.924	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
70	0.4856	0.003	0.02	0.051	0.086	0.125	0.212	0.288	0.471	0.601	0.735	0.913	0.991	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
71	-0.8773	0.001	0.002	0.002	0.002	0.003	0.003	0.008	0.024	0.058	0.119	0.382	0.825	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
72	-0.9256	0.001	0.001	0.001	0.005	0.006	0.01	0.016	0.035	0.065	0.133	0.389	0.831	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
73	-0.9201	0.001	0.001	0.002	0.004	0.006	0.008	0.014	0.028	0.069	0.119	0.383	0.826	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
74	-0.8691	0.001	0.001	0.002	0.003	0.003	0.005	0.012	0.023	0.059	0.117	0.379	0.819	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
75	-0.8698	0.003	0.004	0.005	0.006	0.008	0.011	0.018	0.049	0.094	0.159	0.411	0.806	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
76	-0.5135	0.001	0.001	0.004	0.004	0.007	0.018	0.031	0.088	0.153	0.259	0.529	0.886	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
77	-0.4456	0.003	0.005	0.009	0.015	0.02	0.027	0.045	0.107	0.184	0.306	0.571	0.884	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
78	-0.4688	0.001	0.001	0.002	0.003	0.007	0.013	0.026	0.071	0.156	0.255	0.546	0.885	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
79	-0.4947	0.001	0.001	0.004	0.006	0.008	0.018	0.029	0.079	0.16	0.261	0.528	0.88	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
80	-0.4586	0.001	0.001	0.003	0.008	0.011	0.024	0.034	0.09	0.162	0.273	0.557	0.887	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0

Table AA3(continued). Training set for sample size 1000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
81	-0.1008	0.001	0.002	0.006	0.009	0.017	0.037	0.061	0.156	0.298	0.472	0.793	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
82	-0.0974	0.001	0.001	0.003	0.006	0.009	0.036	0.061	0.159	0.303	0.461	0.806	0.985	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
83	-0.0054	0.001	0.002	0.01	0.013	0.022	0.046	0.082	0.191	0.346	0.51	0.792	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
84	-0.0723	0.002	0.004	0.005	0.009	0.017	0.049	0.078	0.184	0.313	0.466	0.8	0.979	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
85	-0.0563	0.003	0.003	0.011	0.015	0.024	0.054	0.096	0.188	0.32	0.487	0.805	0.968	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
86	-0.0736	0.001	0.001	0.002	0.005	0.011	0.027	0.055	0.167	0.305	0.491	0.851	0.994	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
87	-0.1079	0.001	0.002	0.004	0.006	0.011	0.024	0.054	0.14	0.262	0.443	0.8	0.98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
88	-0.0451	0.001	0.001	0.003	0.006	0.013	0.026	0.045	0.131	0.282	0.49	0.857	0.992	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
89	-0.0568	0.001	0.001	0.001	0.001	0.003	0.015	0.031	0.119	0.254	0.424	0.785	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
90	0.0469	0.001	0.002	0.002	0.005	0.008	0.023	0.057	0.164	0.325	0.5	0.846	0.989	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
91	-0.0208	0.002	0.003	0.007	0.016	0.03	0.075	0.121	0.216	0.339	0.49	0.77	0.961	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
92	-0.0278	0.003	0.005	0.009	0.024	0.04	0.072	0.115	0.225	0.34	0.495	0.779	0.966	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
93	0.0921	0.001	0.004	0.007	0.017	0.025	0.058	0.099	0.228	0.374	0.535	0.78	0.972	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
94	0.02	0.006	0.007	0.014	0.024	0.036	0.076	0.125	0.225	0.368	0.513	0.791	0.963	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
95	0.0607	0.001	0.006	0.014	0.026	0.045	0.083	0.12	0.232	0.374	0.527	0.801	0.965	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
96	0.872	0.039	0.1	0.16	0.218	0.276	0.38	0.461	0.612	0.73	0.81	0.929	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
97	0.8083	0.042	0.096	0.171	0.241	0.291	0.389	0.457	0.583	0.693	0.796	0.916	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
98	0.7231	0.054	0.103	0.162	0.208	0.259	0.355	0.429	0.576	0.689	0.781	0.91	0.986	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
99	0.8377	0.038	0.078	0.158	0.21	0.257	0.354	0.443	0.589	0.72	0.812	0.939	0.988	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
100	0.8023	0.038	0.084	0.147	0.216	0.271	0.36	0.429	0.593	0.7	0.783	0.909	0.983	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
101	0.6201	0.02	0.051	0.098	0.135	0.175	0.259	0.356	0.516	0.644	0.743	0.899	0.987	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
102	0.5463	0.017	0.051	0.099	0.151	0.187	0.274	0.356	0.493	0.623	0.732	0.903	0.987	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
103	0.5439	0.018	0.05	0.089	0.135	0.184	0.265	0.356	0.486	0.613	0.718	0.878	0.979	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
104	0.5196	0.024	0.052	0.092	0.132	0.17	0.235	0.337	0.483	0.619	0.723	0.884	0.985	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
105	0.5132	0.015	0.036	0.079	0.123	0.163	0.257	0.333	0.483	0.613	0.736	0.904	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
106	-0.8099	0.001	0.002	0.005	0.009	0.013	0.027	0.044	0.07	0.142	0.214	0.407	0.718	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
107	-0.8185	0.001	0.002	0.003	0.006	0.012	0.019	0.03	0.062	0.126	0.194	0.404	0.725	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
108	-0.7677	0.001	0.004	0.006	0.008	0.013	0.021	0.029	0.069	0.123	0.197	0.418	0.734	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
109	-0.6972	0.001	0.002	0.003	0.005	0.008	0.015	0.027	0.07	0.138	0.215	0.426	0.764	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
110	-0.6873	0.001	0.001	0.003	0.008	0.017	0.037	0.05	0.091	0.143	0.23	0.456	0.754	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
111	-0.4886	0.001	0.004	0.008	0.013	0.023	0.041	0.054	0.12	0.199	0.292	0.525	0.823	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
112	-0.5759	0.001	0.003	0.009	0.019	0.024	0.038	0.067	0.116	0.195	0.279	0.505	0.82	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
113	-0.6481	0.002	0.004	0.006	0.009	0.016	0.032	0.046	0.085	0.144	0.233	0.489	0.8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
114	-0.6535	0.001	0.001	0.004	0.006	0.007	0.019	0.04	0.087	0.151	0.234	0.458	0.799	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
115	-0.5966	0.002	0.003	0.009	0.012	0.015	0.024	0.047	0.096	0.161	0.243	0.5	0.794	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1

Table AA4. Training set for sample size 2000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
1	0.0431	0.011	0.028	0.0545	0.082	0.1085	0.1575	0.2095	0.3215	0.416	0.5145	0.7035	0.901	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2	-0.068	0.0125	0.023	0.0465	0.0695	0.0935	0.144	0.192	0.281	0.3845	0.488	0.694	0.911	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3	0.0173	0.014	0.0305	0.054	0.087	0.114	0.1565	0.215	0.3065	0.41	0.507	0.7195	0.9005	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4	0.0305	0.01	0.027	0.0525	0.07	0.097	0.1505	0.2065	0.3135	0.418	0.5145	0.6955	0.9065	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	0.0342	0.0135	0.024	0.0445	0.071	0.0975	0.1515	0.2035	0.3075	0.3985	0.513	0.7145	0.9	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	2.2723	0.0915	0.2075	0.3735	0.5015	0.606	0.7525	0.842	0.9315	0.972	0.987	0.9965	0.9995	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7	1.8359	0.0715	0.16	0.2975	0.4185	0.5205	0.6635	0.771	0.8835	0.952	0.976	0.995	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8	1.8782	0.069	0.1805	0.3365	0.468	0.56	0.7095	0.814	0.9185	0.9665	0.987	0.998	0.9995	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9	1.8542	0.0655	0.147	0.273	0.3875	0.487	0.6325	0.75	0.873	0.9345	0.9625	0.991	0.999	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10	1.9736	0.076	0.195	0.348	0.4845	0.5855	0.7325	0.83	0.931	0.969	0.9865	0.998	0.9995	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11	5.0049	0.5335	0.6845	0.7995	0.8495	0.893	0.938	0.9575	0.9805	0.988	0.9935	0.9975	0.9985	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12	5.0128	0.5355	0.695	0.812	0.8665	0.8995	0.938	0.962	0.9865	0.9955	0.9975	0.9985	0.9995	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
13	5.7394	0.548	0.7035	0.8135	0.876	0.917	0.9515	0.973	0.9875	0.9925	0.9965	0.9985	0.9995	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14	5.9848	0.5725	0.7335	0.8465	0.901	0.936	0.965	0.9775	0.99	0.995	0.9965	0.9995	0.9995	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15	7.2967	0.6135	0.773	0.8765	0.9235	0.946	0.9695	0.9835	0.9935	0.997	0.9985	0.999	0.9995	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16	0.7022	0.0025	0.0095	0.027	0.0525	0.0875	0.166	0.28	0.5135	0.736	0.8675	0.9765	0.9995	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
17	0.6201	0.002	0.006	0.017	0.048	0.0815	0.1605	0.253	0.489	0.687	0.8405	0.9715	0.9975	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
18	0.6076	0.002	0.0065	0.03	0.051	0.085	0.1645	0.27	0.519	0.718	0.868	0.978	0.998	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19	0.6812	0.0045	0.014	0.0335	0.06	0.1015	0.207	0.324	0.5795	0.7805	0.9075	0.986	0.999	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20	0.6735	0.0025	0.0065	0.0265	0.0555	0.099	0.19	0.286	0.511	0.749	0.887	0.9785	0.9985	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21	0.0989	0.0015	0.0025	0.0055	0.012	0.0215	0.05	0.0895	0.2245	0.4455	0.6495	0.942	0.997	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
22	0.205	0.0005	0.0005	0.004	0.0085	0.0175	0.0465	0.0965	0.2725	0.5305	0.749	0.9755	0.997	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
23	0.1246	0.0005	0.001	0.0035	0.006	0.011	0.033	0.0705	0.1835	0.366	0.5685	0.899	0.9995	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
24	0.1586	0.001	0.0025	0.0065	0.0095	0.019	0.04	0.0815	0.2415	0.4825	0.704	0.958	0.9915	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
25	0.1748	0.0015	0.002	0.0075	0.0115	0.0195	0.0455	0.09	0.2215	0.43	0.633	0.922	0.9995	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
26	2.5948	0.2545	0.3945	0.5415	0.631	0.702	0.794	0.855	0.928	0.9625	0.98	0.9945	0.994	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
27	2.3258	0.251	0.362	0.5185	0.6045	0.677	0.778	0.844	0.915	0.9595	0.983	0.995	0.9985	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
28	2.3482	0.2295	0.3495	0.4765	0.5755	0.649	0.74	0.8185	0.8965	0.9405	0.967	0.9895	0.999	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
29	3.2648	0.2975	0.4615	0.6215	0.7105	0.7735	0.87	0.919	0.9665	0.981	0.99	0.997	0.9965	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
30	2.4461	0.2735	0.4145	0.555	0.6565	0.7275	0.815	0.868	0.943	0.9705	0.9865	0.998	0.9995	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
31	1.3864	0.0045	0.026	0.0795	0.159	0.2485	0.4185	0.575	0.781	0.8995	0.946	0.9885	0.999	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
32	1.6448	0.0065	0.041	0.138	0.256	0.365	0.555	0.7205	0.8945	0.954	0.9805	0.998	0.9985	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
33	1.6517	0.0165	0.0565	0.1815	0.317	0.446	0.6595	0.7945	0.9385	0.977	0.993	0.9995	0.9995	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
34	1.4214	0.007	0.031	0.1115	0.1925	0.2945	0.4685	0.611	0.8185	0.917	0.9645	0.9945	0.9995	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
35	1.6497	0.01	0.0445	0.1485	0.2775	0.397	0.5915	0.7445	0.9075	0.96	0.987	0.9985	0.998	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
36	1.0594	0.001	0.0075	0.027	0.0615	0.1095	0.2245	0.355	0.5955	0.763	0.879	0.968	0.9995	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
37	1.0876	0.004	0.01	0.036	0.0795	0.1385	0.2775	0.4295	0.671	0.8285	0.912	0.985	0.9935	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38	1.0769	0.0025	0.008	0.038	0.084	0.1575	0.32	0.49	0.746	0.904	0.961	0.995	0.998	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
39	1.0973	0.003	0.0095	0.045	0.106	0.177	0.3565	0.5185	0.766	0.894	0.958	0.9965	0.9995	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
40	0.9839	0.0035	0.013	0.0415	0.11	0.1795	0.3505	0.515	0.7585	0.8925	0.9615	0.9975	0.999	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table AA4(continued). Training set for sample size 2000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
41	1.4746	0.0025	0.012	0.057	0.1395	0.234	0.4535	0.6325	0.8535	0.947	0.9795	0.9975	0.9995	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
42	1.5761	0.001	0.0055	0.034	0.101	0.2055	0.428	0.62	0.8475	0.9435	0.9775	0.996	0.9995	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
43	2.0015	0.0025	0.0155	0.088	0.2075	0.343	0.6045	0.7775	0.9385	0.979	0.9925	0.999	0.999	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
44	1.6881	0.001	0.004	0.0395	0.124	0.232	0.476	0.672	0.883	0.958	0.987	0.997	0.999	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
45	1.7801	0.0025	0.014	0.0765	0.157	0.285	0.5345	0.705	0.892	0.9545	0.9805	0.9985	0.999	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
46	8.1666	0.283	0.618	0.8265	0.9035	0.941	0.9785	0.989	0.9955	0.997	0.999	0.999	0.9995	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
47	3.978	0.12	0.3505	0.611	0.747	0.829	0.912	0.9545	0.9805	0.9915	0.9955	0.999	0.9995	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
48	5.5761	0.161	0.4265	0.6955	0.816	0.8855	0.946	0.968	0.988	0.993	0.9965	0.9975	0.9995	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
49	5.2548	0.1725	0.4585	0.7165	0.845	0.898	0.9545	0.9715	0.99	0.995	0.9985	0.999	0.9995	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
50	7.0076	0.2495	0.5885	0.807	0.902	0.944	0.9735	0.9865	0.9955	0.998	0.9985	0.9995	0.9995	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
51	13.8215	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
52	6.3096	0.4805	0.7235	0.85	0.907	0.934	0.9645	0.9715	0.986	0.9915	0.995	0.9975	0.9995	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
53	13.8215	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
54	13.8215	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
55	9.2123	0.6275	0.833	0.917	0.9475	0.9635	0.9815	0.991	0.9975	0.998	0.999	0.9995	0.9995	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
56	0.0335	0.0005	0.0005	0.0005	0.0005	0.001	0.004	0.009	0.0515	0.195	0.449	0.9045	0.997	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
57	-0.0359	0.0005	0.001	0.0025	0.003	0.004	0.01	0.016	0.069	0.201	0.4235	0.8625	0.991	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
58	0.0071	0.0005	0.0005	0.0005	0.001	0.001	0.006	0.017	0.076	0.2295	0.4655	0.906	0.998	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
59	0.0065	0.0005	0.0005	0.0005	0.0015	0.0025	0.011	0.0285	0.1115	0.3395	0.6355	0.97	0.9995	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
60	-0.0354	0.0005	0.0005	0.001	0.001	0.0015	0.007	0.0215	0.093	0.2365	0.525	0.9245	0.9985	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
61	0.8304	0.007	0.021	0.0625	0.114	0.1675	0.29	0.4025	0.6165	0.753	0.8615	0.9745	0.9965	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
62	0.7816	0.0105	0.03	0.0715	0.1285	0.1755	0.3065	0.432	0.64	0.7785	0.8785	0.9815	0.9985	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
63	0.834	0.008	0.032	0.0705	0.124	0.183	0.282	0.393	0.59	0.7405	0.8535	0.9665	0.994	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
64	0.7211	0.007	0.0265	0.064	0.113	0.1645	0.273	0.3635	0.552	0.708	0.8255	0.961	0.9945	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
65	0.8529	0.0075	0.0245	0.0685	0.115	0.177	0.29	0.4015	0.6005	0.756	0.876	0.967	0.9975	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
66	0.4552	0.0065	0.019	0.0445	0.0825	0.1225	0.2025	0.288	0.4455	0.608	0.748	0.93	0.995	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
67	0.5456	0.0055	0.021	0.048	0.0795	0.1155	0.196	0.2755	0.464	0.6225	0.76	0.924	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
68	0.5473	0.004	0.015	0.0455	0.0805	0.119	0.1975	0.281	0.4515	0.615	0.7455	0.919	0.9865	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
69	0.5453	0.0045	0.015	0.0435	0.076	0.112	0.2055	0.287	0.459	0.617	0.7415	0.919	0.988	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
70	0.5171	0.006	0.022	0.054	0.0855	0.1265	0.2075	0.297	0.4835	0.6485	0.778	0.9435	0.9975	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
71	-0.8202	0.0005	0.0005	0.001	0.001	0.001	0.003	0.0085	0.029	0.066	0.127	0.391	0.8095	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
72	-0.7423	0.001	0.002	0.003	0.004	0.0055	0.009	0.0195	0.051	0.1005	0.1725	0.448	0.8425	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
73	-0.8701	0.0005	0.0005	0.0005	0.0005	0.002	0.0035	0.006	0.0165	0.0455	0.1	0.3545	0.805	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
74	-0.8112	0.0005	0.0005	0.0005	0.0005	0.0015	0.0065	0.01	0.032	0.0705	0.1375	0.396	0.8215	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
75	-0.7815	0.0005	0.001	0.001	0.0025	0.0045	0.007	0.0125	0.0345	0.0815	0.154	0.415	0.832	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
76	-0.5313	0.001	0.001	0.0025	0.005	0.008	0.0155	0.0295	0.0675	0.136	0.238	0.547	0.8835	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
77	-0.6052	0.0005	0.0005	0.0015	0.0025	0.005	0.011	0.026	0.0615	0.123	0.2185	0.5105	0.8925	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
78	-0.5128	0.001	0.002	0.005	0.007	0.009	0.018	0.0285	0.07	0.144	0.2465	0.55	0.883	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
79	-0.4998	0.0005	0.0005	0.0035	0.004	0.006	0.0155	0.029	0.0865	0.1575	0.256	0.5355	0.876	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
80	-0.4563	0.0005	0.0005	0.0025	0.005	0.01	0.0185	0.0285	0.0735	0.157	0.264	0.5465	0.88	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0

Table AA4(continued). Training set for sample size 2000 (without quantiles).

No.	Skewness	Cumulative Probabilities												Output
		F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	
81	0.0136	0.0005	0.001	0.002	0.005	0.0155	0.0385	0.0755	0.187	0.332	0.4785	0.808	0.975	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
82	-0.01	0.001	0.001	0.003	0.0055	0.0115	0.035	0.074	0.178	0.3175	0.4875	0.8225	0.9815	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
83	0.0225	0.0005	0.003	0.0075	0.011	0.0185	0.043	0.079	0.1805	0.3285	0.5135	0.819	0.98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
84	0.0245	0.0005	0.001	0.008	0.011	0.0165	0.0385	0.0695	0.1885	0.345	0.502	0.8305	0.982	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
85	0.0034	0.0005	0.001	0.0025	0.008	0.0125	0.031	0.0605	0.1555	0.3005	0.4725	0.8005	0.98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
86	-0.0954	0.0005	0.0015	0.003	0.0055	0.0085	0.019	0.044	0.1365	0.2885	0.4825	0.867	0.9945	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
87	0.0462	0.0005	0.001	0.002	0.005	0.009	0.0275	0.051	0.141	0.3	0.5005	0.8285	0.983	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
88	-0.0559	0.0005	0.001	0.004	0.007	0.0095	0.0245	0.0515	0.1635	0.3135	0.501	0.8515	0.991	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
89	0.0045	0.0015	0.003	0.0065	0.01	0.014	0.032	0.0735	0.183	0.367	0.565	0.9	0.9965	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
90	0.0447	0.0005	0.0005	0.0005	0.001	0.002	0.0085	0.022	0.112	0.257	0.4735	0.855	0.993	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
91	0.0153	0.0015	0.0035	0.009	0.0205	0.032	0.061	0.0975	0.207	0.3375	0.4995	0.765	0.959	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
92	0.0248	0.001	0.0035	0.0085	0.02	0.033	0.0625	0.1085	0.222	0.355	0.513	0.788	0.9745	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
93	0.0129	0.0025	0.0055	0.0135	0.021	0.0335	0.0655	0.11	0.2205	0.357	0.5075	0.774	0.9665	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
94	0.0025	0.001	0.0035	0.0085	0.017	0.034	0.073	0.1265	0.2285	0.3475	0.513	0.7885	0.968	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
95	-0.0512	0.001	0.004	0.013	0.021	0.036	0.07	0.109	0.2155	0.343	0.477	0.7605	0.9595	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
96	0.7687	0.049	0.0905	0.1515	0.216	0.266	0.3645	0.438	0.5875	0.708	0.797	0.932	0.9905	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
97	0.7655	0.0465	0.088	0.1505	0.208	0.265	0.3565	0.431	0.5825	0.7045	0.8015	0.9255	0.9895	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
98	0.7326	0.039	0.0935	0.1565	0.22	0.2755	0.3605	0.456	0.592	0.7065	0.797	0.933	0.9955	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
99	0.7371	0.0545	0.104	0.168	0.233	0.2875	0.3745	0.448	0.581	0.699	0.7955	0.928	0.9895	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
100	0.7402	0.0475	0.0965	0.1585	0.217	0.264	0.353	0.433	0.5745	0.6905	0.7835	0.9205	0.99	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
101	0.5315	0.0205	0.0475	0.0945	0.143	0.1885	0.273	0.3505	0.4895	0.619	0.728	0.8985	0.9865	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
102	0.5595	0.017	0.046	0.0895	0.131	0.1775	0.2615	0.344	0.493	0.623	0.727	0.8965	0.984	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
103	0.5832	0.023	0.0545	0.096	0.148	0.1865	0.2715	0.3565	0.5055	0.63	0.737	0.899	0.985	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
104	0.5414	0.0215	0.0555	0.0985	0.1455	0.1835	0.276	0.3475	0.4945	0.6335	0.7475	0.906	0.9885	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
105	0.5745	0.022	0.0515	0.1025	0.151	0.1955	0.273	0.3485	0.4935	0.634	0.7545	0.9085	0.9875	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
106	-0.778	0.0005	0.001	0.003	0.0055	0.008	0.0215	0.0365	0.0735	0.1265	0.2005	0.4025	0.729	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
107	-0.7541	0.0005	0.001	0.003	0.0065	0.011	0.024	0.0385	0.0805	0.131	0.212	0.421	0.735	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
108	-0.7632	0.001	0.002	0.0035	0.0065	0.0095	0.0215	0.0355	0.0755	0.131	0.2045	0.419	0.728	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
109	-0.7892	0.002	0.003	0.0055	0.0095	0.012	0.0215	0.037	0.0795	0.1315	0.202	0.4145	0.734	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
110	-0.778	0.0005	0.0005	0.0015	0.004	0.007	0.02	0.0385	0.0865	0.141	0.209	0.4095	0.731	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
111	-0.5623	0.001	0.001	0.002	0.007	0.013	0.0245	0.044	0.101	0.1705	0.253	0.4905	0.809	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
112	-0.5653	0.0005	0.0025	0.0045	0.009	0.014	0.024	0.039	0.094	0.1655	0.2505	0.5005	0.807	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
113	-0.462	0.0005	0.001	0.0025	0.005	0.0075	0.018	0.04	0.107	0.175	0.2745	0.526	0.8245	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
114	-0.5723	0.001	0.001	0.0035	0.0075	0.0125	0.0255	0.0435	0.0945	0.17	0.25	0.4915	0.801	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
115	-0.5373	0.0005	0.002	0.004	0.0085	0.014	0.0275	0.041	0.09	0.165	0.259	0.4975	0.805	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1

Table AA5. Theoric training set with quantiles.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9	Output
1	0	0.025	0.05	0.1	0.125	0.25	0.5	0.75	0.9	0.01	0.025	0.05	0.075	0.1	0.15	0.2	0.3	0.4	0.5	0.7	0.9	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2	2	0.003266	0.006683	0.013797	0.017503	0.037785	0.091133	0.182331	0.302891	0.073651	0.173463	0.316494	0.434774	0.532586	0.68036	0.781415	0.897779	0.952197	0.977645	0.995111	0.998931	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3	6.61876	0.000011	0.000046	0.000192	0.000309	0.001432	0.008316	0.033264	0.09177	0.532376	0.69935	0.817246	0.875269	0.909609	0.947336	0.966601	0.984442	0.99183	0.995367	0.99827	0.999261	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4	0.63111	0.050011	0.074643	0.11052	0.125451	0.187961	0.296273	0.422382	0.546721	0.002468	0.008197	0.024992	0.05042	0.08379	0.170639	0.276807	0.508459	0.712319	0.855019	0.97649	0.997904	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	0.1661	0.113668	0.16485	0.206253	0.226828	0.307603	0.426979	0.648695	0.667794	0.000946	0.002026	0.005229	0.01072	0.019077	0.04648	0.090882	0.235747	0.440266	0.656955	0.935738	0.996381	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	2.82843	0.000061	0.000325	0.001304	0.002042	0.008381	0.03755	0.109222	0.223309	0.272216	0.417926	0.56362	0.659534	0.728978	0.822371	0.880444	0.943413	0.972294	0.986155	0.996411	0.99904	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7	1.41421	0.021095	0.032448	0.050152	0.057935	0.093242	0.165189	0.266955	0.387064	0.007939	0.032836	0.099527	0.183846	0.274773	0.45116	0.6008	0.80411	0.909778	0.960085	0.99276	0.998768	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8	1.1547	0.039404	0.056126	0.08002	0.089975	0.132552	0.212101	0.31682	0.434612	0.002647	0.010702	0.039816	0.08825	0.152166	0.305724	0.463869	0.717971	0.867594	0.94237	0.990575	0.998641	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9	1.75019	0.036549	0.049385	0.066926	0.074087	0.104375	0.161751	0.242137	0.341722	0.002323	0.010915	0.051451	0.128354	0.230675	0.451911	0.636576	0.852957	0.9414	0.975999	0.995457	0.998993	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10	6.18488	0.003864	0.00581	0.008963	0.010414	0.017606	0.035898	0.071805	0.132924	0.117803	0.364784	0.625816	0.763378	0.841427	0.919428	0.954162	0.981681	0.991257	0.995322	0.998329	0.999277	0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
11	13	0.000328	0.000558	0.000999	0.001228	0.002561	0.007134	0.01971	0.049072	0.588547	0.797469	0.902172	0.941104	0.960437	0.978616	0.986713	0.993576	0.996316	0.997661	0.998866	0.99936	0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
12	0	0.202182	0.250063	0.305267	0.325203	0.39751	0.5	0.60249	0.694733	0.000631	0.000886	0.001531	0.002579	0.004239	0.010629	0.024173	0.094052	0.255234	0.5	0.905949	0.995761	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
13	0.82353	0.023175	0.038658	0.064664	0.076533	0.132095	0.245952	0.395955	0.549475	0.008325	0.027688	0.070837	0.121708	0.176719	0.29112	0.403421	0.602338	0.755251	0.862077	0.969166	0.996946	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0
14	0.51025	0.032542	0.054059	0.089817	0.106003	0.180308	0.325413	0.501234	0.661831	0.005473	0.017534	0.044924	0.07826	0.11559	0.197624	0.284505	0.457876	0.615885	0.748545	0.924351	0.99231	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
15	-0.82353	0.27731	0.356721	0.450525	0.484407	0.604045	0.754048	0.867905	0.935336	0.00062	0.000842	0.001346	0.002064	0.003054	0.006131	0.01123	0.030834	0.069871	0.137923	0.397662	0.823281	0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
16	-0.51025	0.182648	0.250382	0.338169	0.371855	0.498766	0.674587	0.819692	0.910183	0.000762	0.001301	0.002673	0.004757	0.00769	0.016612	0.030383	0.075649	0.148487	0.251455	0.542124	0.88441	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
17	0	0.117937	0.164029	0.226068	0.250654	0.348027	0.5	0.651973	0.773932	0.000954	0.002035	0.005169	0.010346	0.017924	0.041318	0.076687	0.183511	0.330497	0.5	0.816489	0.982076	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
18	0	0.1502	0.198008	0.258253	0.28121	0.368772	0.5	0.631228	0.741747	0.000758	0.001323	0.002915	0.005645	0.009928	0.02492	0.051309	0.147947	0.304539	0.5	0.852053	0.990072	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
19	0	0.083496	0.125639	0.187699	0.213632	0.321726	0.5	0.678274	0.812301	0.001524	0.004075	0.010942	0.020928	0.033859	0.067867	0.111579	0.222569	0.355739	0.5	0.777431	0.966141	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
20	0.77055	0.004869	0.011679	0.028091	0.037324	0.091553	0.237098	0.450994	0.654969	0.044209	0.091236	0.157016	0.214731	0.267248	0.361249	0.444188	0.585246	0.700043	0.793053	0.923356	0.988795	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
21	0.56569	0.012615	0.02565	0.052251	0.065828	0.136813	0.29941	0.511311	0.699332	0.019948	0.048761	0.095827	0.141698	0.186376	0.27215	0.353147	0.500811	0.62937	0.738823	0.900411	0.985576	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
22	-0.77055	0.161845	0.238474	0.345032	0.387316	0.549006	0.762902	0.908448	0.97191	0.00094	0.00186	0.004091	0.007203	0.011205	0.021923	0.036334	0.076644	0.133094	0.206947	0.414752	0.73275	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
23	-0.56569	0.13889	0.205906	0.300668	0.338851	0.488689	0.70059	0.863187	0.947749	0.001033	0.00219	0.005074	0.009152	0.014424	0.028551	0.047453	0.099589	0.17083	0.261177	0.499189	0.813624	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1

APPENDIX B - COMPUTER PROGRAMS

```
program Process_Data;
uses crt;
const
   xbar : real = 0;
   sum : real = 0;
   beta : real = 0;
   Fpoint : array[1..12] of real = (1,2.5,5,7.5,10,15,20,30,40,50,70,90);
   fpointsize : integer = 12;
var
   fnamein, fnameout, dfilename : string;
   infile, outfile, datafile : text;
   arec, temp : real;
   fsize, i, j : integer;
   workarray, mainarray : array [1..2000] of real;
   skewness, kurtosis, m2, m3, m4, range : real;
   alpha : array[1..8] of real;
   K : integer;
   alphaquantile : real;
   cumprob : real;
begin
   clrscr;
   alpha[1]:=0.025;
   alpha[2]:=0.05;
   alpha[3]:=0.1;
   alpha[4]:=0.125;
   alpha[5]:=0.25;
   alpha[6]:=0.5;
   alpha[7]:=0.75;
   alpha[8]:=0.9;

   write ('Enter name of the input file : ');
   readln (dfilename);
   write ('Enter name of the output file : ');
   readln (fnameout);

   for i:=1 to 2000 do begin workarray[i]:=0; mainarray[i]:=0; end;
   assign (outfile, fnameout);
   assign (datafile, dfilename);
   reset (datafile);

   while not eof(datafile) do begin
   fsize := 0; skewness:=0; kurtosis:=0; m2:=0; m3:=0; m4:=0; range:=0;
   sum :=0; xbar:=0; beta:=0;
   readln (datafile,fnamein);
   fnamein := fnamein+'.dat';
   writeln (fnamein);
   assign (infile, fnamein);
   {$I-}
   reset (outfile);
   close (outfile);
   {$I+}
   if IOResult = 0 then append (outfile) else rewrite (outfile);
   reset (infile);
   while not eof(infile) do begin
     inc (fsize, 1);
     readln(infile,arec);
     sum := sum + arec;
```

```
        workarray[fsize]:=arec;
      end;
      xbar := sum / fsize;
      for i:= 1 to fsize do begin
        m2:=m2 + sqr(workarray[i]-xbar);
        m3:=m3 + (sqr(workarray[i]-xbar)*(workarray[i]-xbar));
      end;
      m2 := m2/fsize;
      m3 := m3/fsize;
      for i:=1 to fsize do begin
        for j:= i+1 to fsize do begin
          if workarray[i]>workarray[j] then begin
             temp:=workarray[i];
             workarray[i]:=workarray[j];
             workarray[j]:=temp;
          end;
        end;
      end;
      for i:=1 to fsize do write(workarray[i]:5:4,' ');
      range := workarray[fsize]-workarray[1];
      writeln;

      skewness := m3/(exp(1.5*ln(m2)));
      writeln ('Number of data points in file = ',fsize);
      writeln ('Sum of data points in file    = ',sum:15:4);
      writeln ('Range     = ',range:15:4);
      writeln ('Average   = ',xbar:15:4);
      writeln ('Skewness = ',skewness:15:4);
      write(outfile,skewness:10:4,' ');    { ,kurtosis:10:4,' '); }
      writeln ('Kurtosis = ',kurtosis:15:4);
      for i:=1 to 8 do begin
        K := trunc((fsize+1)*alpha[i]-frac((fsize+1)*alpha[i])) + 1;
        beta := K - ((fsize+1)*alpha[i]);
        if K = 1 then alphaquantile := workarray[1]
          else if (K>1) and (K<=fsize) then
               alphaquantile := beta*workarray[K-1]+(1-beta)*workarray[K]
                 else if K = fsize + 1 then alphaquantile :=
                workarray[fsize];
        alphaquantile := (alphaquantile-workarray[1])/range;
        writeln(alpha[i]:4:3,' quantile = ',alphaquantile:7:6);
        write(outfile,alphaquantile:7:6,' ');
      end;

      for i:=1 to fpointsize do begin
          cumprob := 0;
          for j:=1 to fsize do
            if workarray[j] <= (workarray[1]+(range*Fpoint[i]/100)) then
                cumprob := cumprob+1;
          cumprob := cumprob/fsize;
          if i>10 then  cumprob:=1-cumprob;
          writeln ('F',Fpoint[i]:5:3,' = ',cumprob:7:4);
          if i = fpointsize then writeln (outfile,cumprob:7:4,' ') else
              write (outfile,cumprob:7:4,' ');
    end;
    repeat until keypressed;
    close (infile);
end;
   close (outfile);
end.
```

```
Program Evaluate;
uses Crt;
const
   infilename_def   : string  = 'u75qz.nnr';
   sample_each_def  : integer = 5;
   thrfilename_def  : string  = 'thr_qz.nna';
   sampfilename_def : string  = 'u75qz.nna';
   logfilename_def  : string  = 'evaluate.log';
var
   infile, outfile, thrfile, sampfile, logfile : text;
   i, achar : char;
   infilename, outfilename, thrfilename, sampfilename, aline, astr : string;
   data : real;
   bool : boolean;
   dist : array [1..23] of string;
   j, k, count_true, count_tot, sample_num, sample_each, counti, countj :
integer;
   sc_flag, index, valcode : integer;
   repvar : string[1];
   databuffer1, databuffer2, databuffer3 : array [1..21] of real;
   absdif1, absdif2 : array [1..21] of real;
   absdiftot1, absdiftot2, absdifq1, absdifq2, absdiff1, absdiff2 : real;
begin
   textcolor(white);
   dist [1]  := 'Uniform (0,1)   ';
   dist [2]  := 'Exponential (1)';
   dist [3]  := 'Weibull-1 (1/2)';
   dist [4]  := 'Weibull-2 (2)   ';
   dist [5]  := 'Weibull-3 (3)   ';
   dist [6]  := 'Gamma-1 (1/2)   ';
   dist [7]  := 'Gamma-2 (2)     ';
   dist [8]  := 'Gamma-3 (3)     ';
   dist [9]  := 'Lognorm-1 (1/2)';
   dist [10] := 'Lognorm-2 (1)   ';
   dist [11] := 'Lognorm-3 (3/2)';
   dist [12] := 'Normal (0,1)    ';
   dist [13] := 'Beta-1 (1.5,5) ';
   dist [14] := 'Beta-2 (1.5,3) ';
   dist [15] := 'Beta-3 (5,1.5) ';
   dist [16] := 'Beta-4 (3,1.5) ';
   dist [17] := 'Beta-5 (3,3)    ';
   dist [18] := 'Beta-6 (5,5)    ';
   dist [19] := 'Beta-7 (2,2)    ';
   dist [20] := 'Beta-8 (0.8,2) ';
   dist [21] := 'Beta-9 (1,2)    ';
   dist [22] := 'Beta-10 (2,0.8)';
   dist [23] := 'Beta-11 (2,1)   ';
   j := 0; k := 0;  sample_num := 0;
   clrscr;   bool := false;
   write('Filename to Process ? (',infilename_def,') : ');
   readln(infilename);;
   if infilename = '' then infilename := infilename_def;
   write('How many samples are there for each distribution ?
(',sample_each_def,') : ');
   readln(astr);
   if astr='' then sample_each:=sample_each_def
     else val(astr,sample_each,valcode);
   assign(infile,infilename);
   assign(logfile, logfilename_def);
   rewrite(logfile);
   reset(infile);
```

```
count_tot := 0;
while not eof(infile) do begin
  inc (j,1);
  clrscr;
  textcolor(white);
  writeln (dist[j],' is being examined.');
  writeln (logfile,dist[j],' is being examined.');
  writeln ('-----------------------------------------');
  writeln (logfile,'-----------------------------------------');
  count_true := 0;
  for index := 1 to sample_each do begin
  inc (sample_num,1);
  k := 0;
  sc_flag:=0;
  while k<=22 do begin
     read(infile,data);
     inc (k,1);
     if (data > 0.5) and (k=j) then  begin inc(count_true,1); sc_flag:=1; end
        else if (data > 0.5) then begin
          write ('Sample ',sample_num,' is identified incorrectly as
                  ',dist[k],' ');
          writeln (logfile,'Sample ',sample_num,' is identified incorrectly as
                  ',dist[k],' ');
               sc_flag:=1;
               write ('Enter R for report. '); readln (repvar);
                 if (repvar='r') or (repvar='R') then begin
                    absdiftot1 := 0;
                    absdiftot2 := 0;
                    absdifq1 := 0;
                    absdifq2 := 0;
                    absdiff1 := 0;
                    absdiff2 := 0;
                    write ('Enter name of theoretical training file
                           (',thrfilename_def,') : ');
                    readln (thrfilename);
                    if thrfilename = '' then thrfilename:=thrfilename_def;
                    assign (thrfile, thrfilename);
                    reset (thrfile);
                    thrfilename_def:=thrfilename;
                 write('Enter name of sample file (',sampfilename_def,') : ');
                    readln (sampfilename);
                    if sampfilename = '' then sampfilename:=sampfilename_def;
                    assign (sampfile, sampfilename);
                    reset (sampfile);
                    sampfilename_def:=sampfilename;
                    writeln ('-----------------------------------------------
----------------------');
                    writeln ('       SAMPLE        THEORETICAL  VALUES
ABSOLUTE DIFFERENCE ');
                    writeln ('       ',sample_num:3,'
',dist[j],dist[k],' ',dist[j],dist[k]);
                    writeln ('     ----------  ------------------------------
----------------------');
                    for counti:=1 to (sample_num-1) do readln (sampfile,
                       aline);
                    for countj:=1 to 21 do read (sampfile,
                       databuffer1[countj]);
                    close (sampfile);

                    for counti:=1 to (j-1) do readln (thrfile, aline);
                    for countj:=1 to 21 do read (thrfile,
                       databuffer2[countj]);
```

```
close (thrfile);
reset (thrfile);
for counti:=1 to (k-1) do readln (thrfile, aline);
for countj:=1 to 21 do read (thrfile,
    databuffer3[countj]);
close (thrfile);

for counti:=1 to 21 do begin
  absdif1[counti]:=abs(databuffer1[counti]-
    databuffer2[counti]);
  absdiftot1:= absdiftot1+absdif1[counti];
  absdif2[counti]:=abs(databuffer1[counti]-
    databuffer3[counti]);
  absdiftot2:= absdiftot2+absdif2[counti];
end;

for counti:=2 to 9 do begin
  absdifq1:= absdifq1+absdif1[counti];
  absdifq2:= absdifq2+absdif2[counti];
end;

for counti:=10 to 21 do begin
  absdiff1:= absdiff1+absdif1[counti];
  absdiff2:= absdiff2+absdif2[counti];
end;

for countj:=1 to 21 do begin
  case countj of
    1: begin textcolor(lightgreen); write ('Skew.'); end;
{*Kurtosis is omitted     2: begin textcolor(lightred); write ('Kurt.'); end; }
    2..9:  begin textcolor(lightblue); write ('Q ',countj-
           1,'  '); end;
    10..21: begin textcolor(yellow); write ('F ',countj-9,'
           '); end;
  end;
  if countj > 1 then
    begin
      write (databuffer1[countj]:9:6,'      ',
             databuffer2[countj]:9:6,'        ',
             databuffer3[countj]:9:6,'   ');
      if absdif1[countj]<=absdif2[countj] then writeln
       (absdif1[countj]:9:6,'*  ',absdif2[countj]:9:6)
        else writeln (absdif1[countj]:9:6,'   ',
                      absdif2[countj]:9:6,'*');
    end
  else
    begin
      write (databuffer1[countj]:9:3,'      ',
             databuffer2[countj]:9:3,'        ',
             databuffer3[countj]:9:3,'   ');
      if absdif1[countj]<=absdif2[countj] then
   writeln(absdif1[countj]:9:3,'*  ',absdif2[countj]:9:3)
         else writeln (absdif1[countj]:9:3,'   ',
                       absdif2[countj]:9:3,'*');
    end;
end; {for}
textcolor(white);
writeln ('-------------------------------------------------
---------------------');
if absdifq1<=absdifq2 then writeln ('Quantiles Absolute
     Error :',' ':23,absdifq1:9:3,'*  ',absdifq2:9:3)
```

```
                    else writeln ('Quantiles Absolute Error :',' ':23,
                                   absdifq1:9:3,'    ',absdifq2:9:3,'*');

                    if absdiff1<=absdiff2 then writeln ('Cum. Prob. Absolute
                                   Error :',' ':22,absdiff1:9:3,
                                                  '*  ',absdiff2:9:3)
                      else writeln ('Cum. Prob. Absolute Error :',' ':22,
                                   absdiff1:9:3,'    ',absdiff2:9:3,'*');
                    writeln ('---------------------------------------------
----------------------');
                    lowvideo; textbackground(white); textcolor (red);
                    if absdiftot1<=absdiftot2 then writeln ('Total Absolute
                                   Error :',' ':27,absdiftot1:9:3,
                                   '*  ', absdiftot2:9:3)
                      else writeln ('Total Absolute Error :',' ':27,
                                   absdiftot1:9:3,'    ',absdiftot2:9:3,'*');
                    normvideo; textbackground(black); textcolor(white);
                    write ('Press Enter to continue... ');
                    readln (astr);
                    clrscr;
                    writeln (dist[j],' is being examined.');
                    writeln ('-------------------------------------------');
                  end { ** if report ***}
                end { ** if data > 0.5 **}
          else if (k=23) and (sc_flag=0) then begin
                writeln('Sample ',sample_num,' is scattered.');
                writeln(logfile,'Sample ',sample_num,' is scattered.');
          end;
        end; {while}
        readln(infile);
        end; {for}
        writeln ('-------------------------------------------');
        writeln ('success ratio : ',count_true,'/',sample_each);
        writeln (logfile,'-------------------------------------------');
        writeln (logfile,'success ratio : ',count_true,'/',sample_each);
        writeln(logfile);
        count_tot := count_tot+count_true;
      writeln;
      writeln;
      write ('Press any key to process next distribution.');
      i := readkey;
      writeln;
      writeln;
      writeln;
      writeln;
end;
   close(infile);
   writeln ('-------------------------------------------');
   writeln ('TOTAL success ratio = ',count_tot,'/',sample_num,'  or  ',
            (count_tot/sample_num*100):4:1,'%');
   writeln ('-------------------------------------------');
   writeln (logfile,'-------------------------------------------');
   writeln (logfile,'TOTAL success ratio = ',count_tot,'/',sample_num,'  or  ',
            (count_tot/sample_num*100):4:1,'%');
   writeln (logfile,'-------------------------------------------');
   writeln;
   writeln;
   write ('Press any key to return to DOS.');
   i := readkey;
close(logfile);
end.
```

APPENDIX C

```
Uniform (0,1)   is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Exponential (1) is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Weibull-1 (1/2) is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Weibull-2 (2)   is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Weibull-3 (3)   is being examined.
------------------------------------------
Sample 23 is identified incorrectly as Beta-6 (5,5)
------------------------------------------
success ratio : 4/5

Gamma-1 (1/2)   is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Gamma-2 (2)     is being examined.
------------------------------------------
Sample 33 is identified incorrectly as Exponential (1)
------------------------------------------
success ratio : 4/5

Gamma-3 (3)     is being examined.
------------------------------------------
Sample 36 is identified incorrectly as Beta-1 (1.5,5)
------------------------------------------
success ratio : 4/5

Lognorm-1 (1/2) is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Lognorm-2 (1)   is being examined.
------------------------------------------
Sample 46 is identified incorrectly as Weibull-1 (1/2)
Sample 50 is identified incorrectly as Weibull-1 (1/2)
------------------------------------------
success ratio : 3/5

Lognorm-3 (3/2) is being examined.
------------------------------------------
Sample 52 is identified incorrectly as Weibull-1 (1/2)
------------------------------------------
success ratio : 4/5

Normal (0,1)    is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5
```

```
Beta-1 (1.5,5)  is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-2 (1.5,3)  is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-3 (5,1.5)  is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-4 (3,1.5)  is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-5 (3,3)    is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-6 (5,5)    is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-7 (2,2)    is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-8 (0.8,2)  is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-9 (1,2)    is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-10 (2,0.8) is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

Beta-11 (2,1)   is being examined.
------------------------------------------
------------------------------------------
success ratio : 5/5

------------------------------------------
TOTAL success ratio = 109/115  or  94.8%
------------------------------------------
```

APPENDIX D - RECALL SETS

There are fourteen recall sets used. The first seven are with quantiles and are tabulated in the following tables AD1-AD7. The other seven sets without quantiles are identical to these except the quantile columns are deleted. Recall sets are generated from seven different sample sizes : 25, 50, 75, 100, 500, 1000 and 2000.

Table AD1. Recall set - with quantiles for sample size 25.

No.	Skewness	Quantiles								Cumulative Probabilities											
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	-0.0289	0	0.016172	0.061509	0.094643	0.307309	0.431642	0.777504	0.909867	0.04	0.04	0.04	0.12	0.12	0.12	0.16	0.2	0.44	0.56	0.64	0.88
2	0.0964	0	0.001211	0.011756	0.02174	0.162477	0.413404	0.776831	0.882716	0.08	0.12	0.2	0.2	0.2	0.24	0.28	0.4	0.44	0.6	0.72	0.92
3	0.0563	0	0.023998	0.104775	0.126561	0.171803	0.543338	0.766698	0.968289	0.04	0.04	0.04	0.04	0.08	0.16	0.28	0.32	0.36	0.44	0.68	0.8
4	0.3228	0	0.000128	0.002633	0.010417	0.078639	0.276289	0.73823	0.898699	0.12	0.12	0.2	0.2	0.28	0.28	0.44	0.52	0.56	0.56	0.76	0.92
5	0.2077	0	0.013242	0.046198	0.063282	0.226512	0.471519	0.728522	0.991981	0.04	0.04	0.12	0.12	0.12	0.16	0.16	0.36	0.44	0.52	0.76	0.84
6	1.8032	0	0.000605	0.004753	0.015153	0.073279	0.163367	0.319942	0.571815	0.12	0.12	0.2	0.24	0.32	0.48	0.6	0.72	0.84	0.92	0.96	0.96
7	1.3408	0	0.00035	0.002429	0.007119	0.03836	0.146731	0.387422	0.75274	0.12	0.2	0.36	0.36	0.44	0.56	0.68	0.72	0.76	0.8	0.92	0.96
8	2.2104	0	0.005202	0.019677	0.023842	0.04585	0.144529	0.280666	0.472878	0.04	0.12	0.24	0.44	0.44	0.52	0.6	0.84	0.92	0.92	0.96	0.96
9	1.7093	0	0.003077	0.012558	0.015633	0.05815	0.158336	0.362068	0.440334	0.04	0.16	0.24	0.28	0.28	0.48	0.56	0.64	0.88	0.96	0.96	0.96
10	2.1953	0	0.00047	0.001742	0.002122	0.016632	0.105804	0.240203	0.550812	0.2	0.28	0.36	0.4	0.44	0.6	0.6	0.84	0.92	0.92	0.92	0.96
11	1.782	0	0.000025	0.003974	0.007338	0.015348	0.145321	0.334048	0.520805	0.16	0.28	0.28	0.28	0.32	0.56	0.64	0.76	0.84	0.88	0.96	0.96
12	2.9778	0	0.000195	0.000887	0.00127	0.005882	0.025292	0.061757	0.395391	0.32	0.48	0.76	0.76	0.8	0.8	0.84	0.88	0.92	0.96	0.96	0.96
13	2.3059	0	0.000074	0.000339	0.00041	0.002399	0.042676	0.213136	0.530643	0.28	0.4	0.52	0.6	0.64	0.68	0.76	0.88	0.88	0.92	0.96	0.96
14	3.8376	0	0.000014	0.000071	0.000183	0.000617	0.004441	0.043421	0.22181	0.6	0.68	0.76	0.84	0.88	0.92	0.92	0.92	0.96	0.96	0.96	0.96
15	2.2141	0	0.000004	0.00086	0.002098	0.014978	0.046903	0.133651	0.688796	0.2	0.32	0.52	0.64	0.68	0.8	0.8	0.88	0.88	0.88	0.96	0.96
16	-0.0502	0	0.011799	0.047134	0.076258	0.28331	0.474946	0.693454	0.784564	0.04	0.04	0.08	0.12	0.12	0.16	0.2	0.24	0.36	0.6	0.76	0.96
17	-0.0296	0	0.007594	0.054289	0.104285	0.32166	0.477249	0.771133	0.945196	0.04	0.04	0.08	0.12	0.12	0.12	0.16	0.16	0.4	0.52	0.64	0.84
18	0.6016	0	0.015262	0.066311	0.085819	0.202812	0.371348	0.512597	0.695762	0.04	0.04	0.04	0.08	0.12	0.2	0.24	0.36	0.56	0.76	0.92	0.96
19	0.4782	0	0.00657	0.027405	0.041008	0.16886	0.347405	0.568343	0.841347	0.04	0.08	0.12	0.16	0.16	0.16	0.36	0.48	0.52	0.64	0.84	0.96
20	0.1598	0	0.005031	0.08652	0.147386	0.286872	0.41668	0.679863	0.877123	0.04	0.08	0.08	0.08	0.08	0.12	0.16	0.24	0.4	0.56	0.8	0.96
21	0.4356	0	0.021417	0.096586	0.122931	0.183227	0.405538	0.565256	0.744562	0.04	0.04	0.04	0.08	0.08	0.12	0.28	0.36	0.48	0.64	0.88	0.96
22	0.362	0	0.029613	0.130294	0.155218	0.263816	0.417953	0.648852	0.771009	0.04	0.04	0.04	0.04	0.08	0.08	0.16	0.32	0.48	0.64	0.84	0.96
23	-0.2003	0	0.014548	0.127562	0.204141	0.351073	0.538177	0.814191	0.939087	0.04	0.04	0.08	0.08	0.08	0.08	0.12	0.16	0.32	0.36	0.72	0.88
24	0.1697	0	0.044974	0.179259	0.201303	0.242607	0.483496	0.628349	0.71646	0.04	0.04	0.04	0.04	0.04	0.08	0.12	0.32	0.4	0.56	0.84	0.96
25	0.2914	0	0.015397	0.080956	0.104281	0.238694	0.38659	0.630357	0.832434	0.04	0.04	0.04	0.08	0.08	0.16	0.2	0.32	0.52	0.6	0.84	0.92
26	4.0812	0	0.000208	0.001407	0.002664	0.013862	0.025731	0.071918	0.210372	0.2	0.48	0.64	0.8	0.84	0.88	0.88	0.96	0.96	0.96	0.96	0.96
27	2.1439	0	0.000002	0.000337	0.000571	0.002217	0.045012	0.261604	0.525477	0.32	0.4	0.56	0.6	0.6	0.68	0.72	0.84	0.88	0.88	0.96	0.96
28	3.8891	0	0.000802	0.002732	0.003901	0.021336	0.045323	0.132107	0.232555	0.2	0.24	0.64	0.68	0.72	0.84	0.88	0.96	0.96	0.96	0.96	0.96
29	2.4881	0	0.000002	0.000259	0.00046	0.004678	0.029478	0.137976	0.545433	0.36	0.48	0.64	0.72	0.72	0.8	0.8	0.88	0.88	0.92	0.96	0.96
30	2.5825	0	0.000104	0.000707	0.001064	0.002674	0.136953	0.244594	0.324561	0.32	0.4	0.44	0.44	0.44	0.52	0.68	0.84	0.96	0.96	0.96	0.96
31	1.3318	0	0.003047	0.021337	0.03597	0.081977	0.179891	0.429424	0.843667	0.04	0.08	0.12	0.24	0.28	0.44	0.56	0.68	0.76	0.88	0.88	0.96
32	1.2165	0	0.002497	0.051403	0.086581	0.144152	0.261583	0.399361	0.716434	0.08	0.08	0.08	0.08	0.12	0.28	0.4	0.6	0.76	0.84	0.88	0.96
33	0.6193	0	0.020578	0.106818	0.141306	0.258858	0.370851	0.592912	0.831899	0.04	0.04	0.04	0.08	0.08	0.12	0.16	0.44	0.6	0.68	0.84	0.92
34	0.3598	0	0.020476	0.077157	0.086765	0.187002	0.403603	0.673877	0.953222	0.04	0.04	0.04	0.08	0.16	0.2	0.24	0.36	0.48	0.6	0.76	0.88
35	0.9204	0	0.02348	0.081258	0.085791	0.115139	0.214902	0.524894	0.760111	0.04	0.04	0.04	0.04	0.2	0.36	0.44	0.64	0.64	0.76	0.84	0.96
36	0.6542	0	0.00487	0.02653	0.047317	0.131375	0.343074	0.577939	0.87655	0.04	0.08	0.12	0.12	0.16	0.28	0.4	0.48	0.52	0.72	0.8	0.92
37	0.1494	0	0.026548	0.110614	0.143518	0.27444	0.488903	0.746842	0.893311	0.04	0.04	0.04	0.04	0.08	0.12	0.16	0.24	0.44	0.52	0.72	0.92
38	0.4658	0	0.051327	0.193517	0.235581	0.347192	0.420872	0.569039	0.801132	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.12	0.44	0.68	0.84	0.96
39	0.1999	0	0.018273	0.0753	0.091532	0.154449	0.470464	0.700591	0.933475	0.04	0.04	0.04	0.08	0.12	0.24	0.32	0.36	0.44	0.52	0.76	0.88
40	0.5285	0	0.000198	0.067234	0.113335	0.169751	0.391776	0.509296	0.713501	0.08	0.08	0.08	0.08	0.08	0.2	0.28	0.36	0.52	0.72	0.92	0.96

Table AD1(continued). Recall set - with quantiles for sample size 25.

		Quantiles								Cumulative Probabilities											
No.	Skewness	Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	0.533	0	0.000028	0.021161	0.036483	0.220135	0.33243	0.51678	0.667689	0.08	0.08	0.16	0.2	0.2	0.2	0.2	0.44	0.6	0.76	0.96	0.96
42	-0.0445	0	0.019993	0.10177	0.132975	0.283149	0.491437	0.737023	0.915586	0.04	0.04	0.04	0.08	0.08	0.12	0.2	0.24	0.36	0.52	0.72	0.92
43	1.6631	0	0.008911	0.049836	0.074864	0.146158	0.240382	0.354927	0.588246	0.04	0.04	0.08	0.12	0.12	0.24	0.4	0.6	0.84	0.92	0.92	0.96
44	0.7198	0	0.000278	0.031305	0.073665	0.17108	0.299776	0.530906	0.841976	0.08	0.08	0.08	0.12	0.12	0.16	0.36	0.52	0.6	0.72	0.84	0.96
45	0.6146	0	0.023932	0.08289	0.085024	0.203408	0.348157	0.582284	0.864579	0.04	0.04	0.04	0.04	0.2	0.2	0.24	0.44	0.56	0.68	0.84	0.92
46	1.6695	0	0.000766	0.003371	0.004068	0.017403	0.092852	0.291031	0.750788	0.24	0.24	0.44	0.44	0.56	0.6	0.64	0.8	0.84	0.84	0.92	0.92
47	1.7622	0	0.000252	0.019239	0.033235	0.07735	0.167093	0.357797	0.698902	0.08	0.08	0.16	0.2	0.32	0.48	0.6	0.68	0.84	0.88	0.92	0.92
48	1.3782	0	0.000155	0.007307	0.012319	0.043582	0.085079	0.342353	0.774052	0.08	0.2	0.28	0.48	0.52	0.52	0.68	0.72	0.8	0.8	0.88	0.96
49	1.1852	0	0.003988	0.032009	0.046253	0.07425	0.153606	0.44776	0.618329	0.04	0.08	0.12	0.24	0.4	0.48	0.56	0.6	0.72	0.84	0.96	0.96
50	2.2522	0	0.013849	0.053393	0.065117	0.114212	0.215313	0.300051	0.477063	0.04	0.04	0.08	0.12	0.2	0.28	0.48	0.76	0.92	0.92	0.96	0.96
51	4.1084	0	0.00033	0.001284	0.001474	0.003096	0.038196	0.114248	0.17148	0.32	0.44	0.64	0.72	0.72	0.88	0.96	0.96	0.96	0.96	0.96	0.96
52	1.4656	0	0.00079	0.006854	0.009817	0.013197	0.158672	0.308654	0.685648	0.12	0.28	0.44	0.48	0.48	0.48	0.64	0.76	0.84	0.84	0.96	0.96
53	1.7767	0	0.000464	0.003461	0.004914	0.012215	0.078386	0.281351	0.64366	0.2	0.32	0.44	0.48	0.56	0.6	0.68	0.76	0.84	0.88	0.92	0.96
54	2.0351	0	0.000169	0.00307	0.0058	0.02918	0.07842	0.179773	0.828686	0.16	0.24	0.36	0.48	0.64	0.72	0.8	0.84	0.88	0.88	0.88	0.92
55	0.2211	0	0.004167	0.041447	0.06439	0.104255	0.354183	0.769522	0.877822	0.04	0.08	0.08	0.12	0.16	0.32	0.36	0.48	0.52	0.56	0.72	0.96
56	0.8921	0	0.010588	0.038626	0.051776	0.238912	0.352701	0.452843	0.7314	0.04	0.04	0.12	0.12	0.16	0.16	0.2	0.36	0.64	0.88	0.92	0.96
57	-0.3716	0	0.089115	0.368411	0.416278	0.492445	0.618463	0.809002	0.968709	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.24	0.68	0.88
58	0.9522	0	0.042554	0.142258	0.144131	0.259616	0.341758	0.574687	0.753306	0.04	0.04	0.04	0.04	0.04	0.16	0.16	0.36	0.6	0.72	0.92	0.92
59	-0.1564	0	0.017145	0.082876	0.100276	0.246995	0.526738	0.669488	0.922944	0.04	0.04	0.04	0.08	0.08	0.16	0.2	0.28	0.32	0.44	0.84	0.88
60	-0.4053	0	0.022654	0.090695	0.110509	0.379743	0.527949	0.7412	0.785278	0.04	0.04	0.04	0.04	0.08	0.16	0.2	0.2	0.24	0.4	0.72	0.96
61	1.2496	0	0.000131	0.023425	0.039669	0.056299	0.187709	0.421491	0.6331	0.08	0.08	0.2	0.28	0.28	0.48	0.52	0.6	0.72	0.88	0.92	0.96
62	1.1929	0	0.003394	0.017229	0.023587	0.075944	0.253865	0.361066	0.623533	0.04	0.12	0.16	0.24	0.32	0.32	0.44	0.64	0.8	0.8	0.96	0.96
63	1.6318	0	0.002702	0.017387	0.029581	0.110105	0.21918	0.343998	0.524878	0.08	0.12	0.16	0.2	0.2	0.4	0.44	0.76	0.76	0.88	0.96	0.96
64	0.3401	0	0.004397	0.075168	0.135419	0.251203	0.419511	0.703619	0.956802	0.04	0.08	0.08	0.08	0.08	0.12	0.16	0.28	0.48	0.6	0.76	0.88
65	0.9246	0	0.020737	0.073317	0.076723	0.147963	0.24889	0.539265	0.652855	0.04	0.04	0.04	0.08	0.16	0.24	0.44	0.56	0.68	0.72	0.92	0.96
66	0.5695	0	0.024932	0.104098	0.127647	0.233987	0.353491	0.657417	0.896078	0.04	0.04	0.04	0.04	0.08	0.12	0.2	0.44	0.52	0.64	0.84	0.92
67	0.5391	0	0.012572	0.042885	0.048948	0.104598	0.281586	0.624011	0.949996	0.04	0.04	0.12	0.2	0.2	0.36	0.4	0.52	0.56	0.6	0.8	0.88
68	0.5296	0	0.018768	0.063099	0.082786	0.190612	0.315356	0.589497	0.746775	0.04	0.04	0.04	0.12	0.12	0.2	0.24	0.44	0.56	0.64	0.92	0.96
69	-0.1288	0	0.009766	0.090941	0.130168	0.239427	0.514598	0.76675	0.916384	0.04	0.04	0.08	0.08	0.08	0.16	0.16	0.28	0.32	0.48	0.72	0.92
70	-0.1673	0	0.00958	0.061617	0.117047	0.269354	0.537151	0.777276	0.843754	0.04	0.04	0.08	0.08	0.12	0.12	0.12	0.28	0.4	0.48	0.68	0.96
71	-0.6049	0	0.041478	0.140636	0.177151	0.460275	0.712838	0.922712	0.987304	0.04	0.04	0.04	0.04	0.04	0.12	0.12	0.2	0.2	0.28	0.48	0.72
72	-1.3695	0	0.076911	0.277243	0.300591	0.707886	0.835708	0.936863	0.980525	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.12	0.2	0.2	0.2	0.68
73	-1.0576	0	0.013339	0.130284	0.224133	0.522739	0.858549	0.947585	0.983104	0.04	0.04	0.08	0.08	0.08	0.08	0.12	0.12	0.16	0.24	0.36	0.72
74	-0.4819	0	0.011772	0.12382	0.181861	0.328036	0.732029	0.854219	0.94228	0.04	0.04	0.08	0.08	0.08	0.08	0.16	0.2	0.28	0.36	0.48	0.84
75	-1.1958	0	0.079492	0.379557	0.467774	0.554856	0.801421	0.874793	0.960981	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.12	0.44	0.8
76	-0.5376	0	0.032092	0.133309	0.177744	0.341268	0.669883	0.790311	0.944475	0.04	0.04	0.04	0.04	0.04	0.08	0.12	0.24	0.24	0.36	0.6	0.88
77	-0.5531	0	0.005274	0.154393	0.257325	0.321129	0.669451	0.855399	0.95161	0.04	0.08	0.08	0.08	0.08	0.08	0.08	0.24	0.28	0.36	0.52	0.8
78	-0.1334	0	0.013568	0.078876	0.111267	0.318551	0.506871	0.69326	0.903957	0.04	0.04	0.08	0.08	0.08	0.16	0.2	0.2	0.32	0.48	0.8	0.92
79	-0.2752	0	0.022723	0.09241	0.127705	0.307554	0.536131	0.829335	0.908783	0.04	0.04	0.04	0.04	0.08	0.12	0.12	0.24	0.28	0.44	0.64	0.92
80	-0.5891	0	0.063442	0.231453	0.263951	0.424765	0.641727	0.841638	0.895716	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.12	0.24	0.32	0.56	0.92

Table AD1(continued). Recall set - with quantiles for sample size 25.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	-0.2284	0	0.015596	0.142593	0.214985	0.398509	0.544384	0.734835	0.932399	0.04	0.04	0.04	0.08	0.08	0.08	0.08	0.16	0.24	0.4	0.68	0.88
82	0.3088	0	0.012419	0.075865	0.104161	0.237545	0.420878	0.734366	0.95616	0.04	0.04	0.08	0.08	0.12	0.16	0.16	0.28	0.48	0.6	0.76	0.84
83	-0.1484	0	0.02713	0.111683	0.145706	0.241521	0.564056	0.68773	0.797967	0.04	0.04	0.04	0.04	0.08	0.12	0.12	0.28	0.4	0.48	0.76	0.96
84	-0.0617	0	0.026433	0.151506	0.202916	0.300184	0.530106	0.663868	0.840066	0.04	0.04	0.04	0.04	0.08	0.08	0.12	0.24	0.32	0.48	0.8	0.96
85	0.1735	0	0.000777	0.063774	0.116728	0.214029	0.495318	0.74286	0.94564	0.08	0.08	0.08	0.08	0.08	0.12	0.2	0.4	0.44	0.52	0.76	0.84
86	-0.1317	0	0.024113	0.097219	0.138328	0.287643	0.507789	0.694028	0.831853	0.04	0.04	0.04	0.04	0.08	0.12	0.12	0.28	0.32	0.44	0.8	0.92
87	0.5591	0	0.002349	0.038852	0.061047	0.159183	0.355728	0.5289	0.635101	0.08	0.08	0.08	0.16	0.2	0.2	0.28	0.36	0.68	0.72	0.92	0.96
88	0.016	0	0.003906	0.06743	0.110814	0.278363	0.489249	0.60647	0.83372	0.04	0.08	0.08	0.08	0.08	0.16	0.2	0.24	0.36	0.52	0.84	0.92
89	-0.1549	0	0.006831	0.063623	0.109352	0.296817	0.510259	0.724916	0.877778	0.04	0.08	0.08	0.08	0.12	0.12	0.16	0.24	0.36	0.48	0.72	0.96
90	0.2851	0	0.000677	0.013709	0.023675	0.108178	0.418751	0.694973	0.906464	0.08	0.12	0.16	0.2	0.24	0.28	0.4	0.48	0.48	0.6	0.76	0.92
91	0.2069	0	0.001398	0.053476	0.088818	0.314706	0.380977	0.673215	0.945096	0.08	0.08	0.08	0.08	0.16	0.2	0.2	0.2	0.52	0.52	0.8	0.84
92	0.0444	0	0.054002	0.221661	0.25369	0.333369	0.480733	0.739282	0.841999	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.16	0.36	0.52	0.68	0.96
93	-0.0955	0	0.00158	0.087851	0.145702	0.284886	0.54895	0.727478	0.889786	0.08	0.08	0.08	0.08	0.08	0.12	0.16	0.24	0.4	0.44	0.68	0.92
94	0.1183	0	0.008459	0.06017	0.091782	0.264953	0.442157	0.674319	0.878962	0.04	0.04	0.08	0.08	0.12	0.16	0.16	0.28	0.4	0.52	0.76	0.92
95	-0.0745	0	0.016473	0.074659	0.095912	0.17019	0.544111	0.656812	0.81777	0.04	0.04	0.04	0.08	0.12	0.2	0.28	0.36	0.4	0.44	0.8	0.96
96	0.6101	0	0.0043	0.023637	0.034203	0.09642	0.311245	0.55394	0.691842	0.04	0.08	0.16	0.16	0.28	0.32	0.32	0.48	0.6	0.72	0.92	0.96
97	0.4094	0	0.000695	0.004925	0.024121	0.105256	0.345704	0.560644	0.721484	0.12	0.12	0.12	0.12	0.2	0.36	0.36	0.44	0.52	0.64	0.92	0.96
98	0.8645	0	0.002629	0.023998	0.034693	0.078213	0.18426	0.55466	0.819118	0.08	0.08	0.24	0.24	0.24	0.36	0.52	0.6	0.68	0.76	0.84	0.96
99	0.9215	0	0.007472	0.028271	0.036212	0.085327	0.208396	0.474849	0.748643	0.04	0.08	0.12	0.2	0.28	0.36	0.44	0.6	0.64	0.76	0.88	0.96
100	0.9385	0	0.001005	0.006964	0.009961	0.06563	0.21464	0.507063	0.699527	0.12	0.16	0.16	0.24	0.32	0.4	0.44	0.64	0.68	0.76	0.92	0.96
101	0.5565	0	0.000379	0.007687	0.019892	0.137773	0.303656	0.619075	0.92021	0.08	0.12	0.16	0.2	0.2	0.28	0.4	0.48	0.6	0.64	0.8	0.88
102	0.6218	0	0.002384	0.016421	0.024801	0.111488	0.2997	0.573513	0.796067	0.08	0.12	0.2	0.24	0.24	0.24	0.28	0.52	0.6	0.68	0.88	0.92
103	0.3686	0	0.002355	0.010763	0.014041	0.111103	0.368453	0.621843	0.982431	0.08	0.16	0.2	0.2	0.24	0.28	0.36	0.36	0.52	0.64	0.8	0.84
104	0.194	0	0.005858	0.029188	0.03768	0.096861	0.45686	0.61298	0.759659	0.04	0.08	0.16	0.2	0.28	0.28	0.36	0.44	0.44	0.64	0.88	0.96
105	0.3975	0	0.003263	0.012428	0.015243	0.188771	0.341743	0.718959	0.96701	0.04	0.16	0.2	0.2	0.2	0.2	0.28	0.48	0.52	0.6	0.76	0.88
106	-0.4555	0	0.017042	0.13057	0.181411	0.25342	0.744551	0.949368	0.983786	0.04	0.04	0.04	0.08	0.08	0.08	0.16	0.28	0.28	0.32	0.48	0.72
107	-0.807	0	0.012369	0.046203	0.087887	0.453288	0.765091	0.911057	0.991741	0.04	0.04	0.12	0.12	0.12	0.12	0.12	0.2	0.24	0.24	0.48	0.72
108	-0.4592	0	0.006173	0.054303	0.103992	0.302445	0.701821	0.842678	0.979203	0.04	0.08	0.08	0.08	0.12	0.12	0.16	0.2	0.32	0.36	0.48	0.8
109	-0.954	0	0.062026	0.218763	0.270822	0.443349	0.837924	0.936624	0.995852	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.12	0.12	0.28	0.4	0.68
110	-1.1773	0	0.091308	0.325514	0.349625	0.60777	0.821417	0.945933	0.990611	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.2	0.2	0.32	0.6
111	-0.2769	0	0.037706	0.173144	0.218429	0.372906	0.543962	0.912513	0.9813	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.16	0.24	0.36	0.56	0.72
112	-0.7475	0	0.009747	0.038779	0.097378	0.434842	0.645895	0.86073	0.952154	0.04	0.04	0.12	0.12	0.12	0.12	0.12	0.16	0.24	0.28	0.6	0.8
113	-0.39	0	0.001066	0.016677	0.031383	0.291793	0.602132	0.876499	0.983207	0.08	0.08	0.16	0.16	0.2	0.2	0.2	0.24	0.32	0.44	0.52	0.8
114	-0.9933	0	0.037464	0.198582	0.287791	0.503311	0.71593	0.811832	0.902853	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.12	0.12	0.24	0.48	0.92
115	-0.5736	0	0.028339	0.209363	0.298977	0.495275	0.615062	0.885988	0.990823	0.04	0.04	0.04	0.04	0.08	0.08	0.08	0.12	0.16	0.24	0.52	0.76

Table AD2. Recall set - with quantiles for sample size 50.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	-0.3434	0.000749	0.013257	0.041214	0.072659	0.258334	0.588245	0.716898	0.890925	0.04	0.06	0.1	0.12	0.16	0.18	0.2	0.3	0.34	0.36	0.72	0.92
2	-0.019	0.005869	0.036718	0.062053	0.07999	0.216886	0.500669	0.707047	0.8856	0.02	0.04	0.06	0.1	0.2	0.24	0.24	0.26	0.42	0.5	0.76	0.92
3	-0.0201	0.005496	0.034361	0.110991	0.148425	0.301747	0.494921	0.780108	0.923201	0.02	0.04	0.06	0.08	0.08	0.12	0.16	0.24	0.4	0.5	0.7	0.88
4	-0.2328	0.009848	0.071729	0.155432	0.16232	0.286329	0.564827	0.832509	0.955255	0.02	0.02	0.04	0.04	0.04	0.08	0.16	0.28	0.3	0.38	0.66	0.88
5	-0.282	0.001254	0.021669	0.164813	0.222703	0.330304	0.577445	0.724725	0.888306	0.04	0.04	0.06	0.08	0.08	0.08	0.1	0.22	0.36	0.42	0.7	0.92
6	1.7966	0.00151	0.007534	0.011199	0.01198	0.043277	0.120389	0.291437	0.662685	0.08	0.18	0.3	0.36	0.46	0.54	0.6	0.78	0.84	0.9	0.92	0.92
7	2.0519	0.000589	0.002583	0.011542	0.014825	0.037616	0.098838	0.238163	0.523134	0.06	0.18	0.34	0.42	0.52	0.58	0.72	0.82	0.88	0.9	0.94	0.96
8	1.8844	0.000489	0.003633	0.023542	0.033758	0.072314	0.168022	0.291303	0.47034	0.06	0.1	0.2	0.26	0.32	0.48	0.56	0.78	0.9	0.92	0.98	0.98
9	3.043	0.000092	0.000428	0.004166	0.006133	0.041964	0.109758	0.190346	0.324001	0.14	0.2	0.36	0.46	0.46	0.64	0.78	0.88	0.96	0.98	0.98	0.98
10	1.4224	0.001694	0.009149	0.012614	0.0128	0.063267	0.201979	0.388498	0.633394	0.04	0.18	0.22	0.28	0.32	0.34	0.46	0.72	0.8	0.9	0.94	0.96
11	5.5029	0.000002	0.000013	0.000302	0.000307	0.001827	0.009092	0.032633	0.148913	0.52	0.68	0.8	0.88	0.88	0.9	0.94	0.98	0.98	0.98	0.98	0.98
12	3.1304	0.000049	0.000197	0.000454	0.000553	0.001335	0.011964	0.115761	0.261051	0.44	0.64	0.68	0.72	0.74	0.82	0.84	0.92	0.94	0.94	0.96	0.96
13	2.6763	0.000014	0.000052	0.00014	0.000262	0.065297	0.032961	0.151421	0.363161	0.32	0.42	0.56	0.62	0.62	0.76	0.78	0.9	0.94	0.94	0.98	0.98
14	4.6931	0.000005	0.00003	0.000081	0.000091	0.000808	0.005623	0.037161	0.20597	0.56	0.74	0.8	0.86	0.88	0.88	0.88	0.96	0.98	0.98	0.98	0.98
15	3.4309	0.000024	0.000276	0.001058	0.00154	0.006245	0.041023	0.146834	0.241967	0.3	0.44	0.58	0.64	0.66	0.8	0.86	0.92	0.96	0.98	0.98	0.98
16	-0.0558	0.007741	0.02923	0.084884	0.128193	0.283247	0.481367	0.688192	0.764169	0.02	0.02	0.08	0.08	0.12	0.12	0.16	0.26	0.4	0.5	0.8	0.96
17	1.1421	0.006581	0.028024	0.068275	0.074347	0.102288	0.299518	0.390362	0.626488	0.02	0.04	0.08	0.12	0.24	0.32	0.38	0.5	0.76	0.84	0.96	0.96
18	0.3242	0.010677	0.04274	0.088364	0.122534	0.250293	0.428973	0.623549	0.872515	0.02	0.02	0.06	0.06	0.1	0.18	0.2	0.3	0.46	0.62	0.82	0.92
19	0.9185	0.005145	0.019928	0.0614	0.075023	0.157721	0.272483	0.490055	0.827694	0.02	0.06	0.06	0.12	0.18	0.24	0.32	0.56	0.68	0.76	0.88	0.96
20	0.3972	0.011495	0.048124	0.137407	0.192872	0.255386	0.378691	0.61748	0.836683	0.02	0.02	0.04	0.06	0.06	0.1	0.14	0.32	0.52	0.6	0.82	0.94
21	-0.004	0.032669	0.12329	0.204826	0.228523	0.359476	0.493729	0.614074	0.706983	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.18	0.36	0.52	0.9	0.98
22	0.7274	0.009726	0.038799	0.091759	0.108902	0.149534	0.320111	0.4492	0.626125	0.02	0.02	0.06	0.08	0.1	0.24	0.28	0.42	0.7	0.82	0.96	0.98
23	0.2528	0.022044	0.09193	0.161349	0.190519	0.292691	0.445425	0.663305	0.812937	0.02	0.02	0.02	0.02	0.04	0.08	0.12	0.24	0.42	0.6	0.82	0.96
24	0.2344	0.04661	0.179369	0.248661	0.273973	0.336487	0.468228	0.625817	0.779831	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.18	0.36	0.56	0.84	0.98
25	-0.0467	0.000746	0.051894	0.203578	0.230387	0.321095	0.517583	0.607901	0.745078	0.04	0.04	0.04	0.04	0.06	0.08	0.08	0.24	0.38	0.46	0.88	0.96
26	2.429	0.000017	0.000385	0.00383	0.005369	0.017717	0.056672	0.176275	0.432103	0.16	0.38	0.48	0.52	0.58	0.7	0.78	0.86	0.9	0.92	0.96	0.96
27	2.1478	0.000202	0.001739	0.008802	0.011552	0.034319	0.100675	0.222717	0.427361	0.12	0.2	0.32	0.44	0.5	0.64	0.66	0.84	0.88	0.92	0.98	0.98
28	1.8396	0.000613	0.002437	0.004332	0.005129	0.026979	0.080822	0.235539	0.566295	0.18	0.24	0.4	0.48	0.62	0.64	0.68	0.8	0.84	0.88	0.94	0.96
29	2.2363	0.000168	0.001231	0.002742	0.005366	0.017999	0.067182	0.236515	0.427865	0.16	0.32	0.4	0.54	0.58	0.66	0.7	0.9	0.9	0.92	0.96	0.98
30	1.9702	0	0.000003	0.002123	0.002877	0.014052	0.068671	0.199954	0.564748	0.2	0.36	0.4	0.52	0.6	0.74	0.76	0.84	0.86	0.88	0.96	0.98
31	0.6743	0.009657	0.041295	0.100674	0.112644	0.168405	0.286981	0.545328	0.719313	0.02	0.02	0.06	0.06	0.1	0.24	0.34	0.52	0.62	0.7	0.9	0.98
32	0.4634	0.003598	0.019077	0.032738	0.049886	0.157405	0.34738	0.600875	0.869223	0.02	0.06	0.12	0.16	0.16	0.24	0.3	0.48	0.56	0.66	0.82	0.92
33	1.017	0.003689	0.016155	0.044288	0.052877	0.134642	0.23066	0.468342	0.730442	0.02	0.06	0.12	0.14	0.18	0.38	0.46	0.62	0.68	0.82	0.9	0.98
34	0.9272	0.00452	0.018631	0.043529	0.0554	0.115814	0.25129	0.446309	0.626492	0.02	0.06	0.1	0.2	0.22	0.32	0.38	0.6	0.66	0.78	0.94	0.98
35	0.5555	0.00747	0.042846	0.060635	0.067671	0.116038	0.354475	0.51993	0.688829	0.02	0.02	0.04	0.16	0.22	0.28	0.3	0.4	0.58	0.74	0.92	0.98
36	1.0206	0.006124	0.044352	0.084059	0.116218	0.203126	0.324771	0.453307	0.65033	0.02	0.04	0.04	0.06	0.12	0.14	0.24	0.42	0.68	0.84	0.94	0.96
37	0.4715	0.002118	0.020123	0.1253	0.146703	0.209262	0.368599	0.56057	0.7481	0.04	0.04	0.06	0.08	0.08	0.14	0.2	0.36	0.52	0.68	0.86	0.96
38	1.3179	0.009061	0.035816	0.052136	0.060884	0.201229	0.281305	0.419564	0.575097	0.02	0.02	0.08	0.18	0.18	0.18	0.24	0.52	0.72	0.88	0.94	0.94
39	1.2213	0.001207	0.005809	0.0693	0.074287	0.11437	0.21886	0.420244	0.50678	0.06	0.06	0.08	0.12	0.2	0.32	0.42	0.62	0.72	0.9	0.96	0.98
40	1.0655	0.007915	0.037854	0.046797	0.05453	0.114347	0.252245	0.419566	0.621161	0.02	0.02	0.1	0.18	0.22	0.34	0.38	0.6	0.74	0.84	0.94	0.98

Table AD2(continued). Recall set - with quantiles for sample size 50.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	1.6624	0.00016	0.003728	0.043864	0.081557	0.135732	0.21743	0.331972	0.478638	0.06	0.06	0.1	0.12	0.14	0.3	0.44	0.68	0.84	0.92	0.94	0.98
42	1.0428	0.007131	0.051472	0.089332	0.102122	0.173528	0.293892	0.459171	0.729406	0.02	0.02	0.04	0.08	0.12	0.22	0.34	0.5	0.68	0.8	0.9	0.96
43	0.5452	0.002114	0.018071	0.085255	0.095082	0.191372	0.363051	0.532857	0.784677	0.04	0.04	0.08	0.08	0.12	0.22	0.26	0.4	0.54	0.68	0.86	0.96
44	2.6318	0.001186	0.007391	0.018313	0.025362	0.054549	0.107754	0.200941	0.393625	0.06	0.12	0.24	0.32	0.48	0.64	0.76	0.88	0.92	0.94	0.98	0.98
45	1.5356	0.003498	0.016248	0.032066	0.064801	0.145648	0.220546	0.317324	0.549229	0.02	0.08	0.1	0.12	0.18	0.28	0.38	0.72	0.84	0.88	0.98	0.98
46	3.2008	0.000266	0.003015	0.012784	0.015641	0.020855	0.067568	0.153571	0.311119	0.06	0.32	0.44	0.54	0.6	0.76	0.84	0.9	0.96	0.96	0.98	0.98
47	0.8215	0.006907	0.027945	0.046628	0.05823	0.079921	0.249104	0.537271	0.816683	0.02	0.02	0.1	0.2	0.28	0.34	0.42	0.6	0.68	0.74	0.88	0.98
48	1.5103	0.001012	0.006078	0.017654	0.035303	0.088195	0.158252	0.32316	0.726587	0.08	0.1	0.16	0.22	0.28	0.42	0.62	0.74	0.82	0.84	0.9	0.98
49	2.5304	0.001036	0.006656	0.015263	0.022689	0.046899	0.096888	0.205182	0.376826	0.06	0.12	0.26	0.38	0.5	0.62	0.74	0.84	0.94	0.94	0.96	0.98
50	2.9179	0.000109	0.001528	0.009685	0.01029	0.027245	0.069176	0.136884	0.341275	0.1	0.24	0.36	0.56	0.68	0.8	0.82	0.86	0.94	0.96	0.98	0.98
51	3.7577	0.000182	0.001704	0.004643	0.008044	0.016587	0.038727	0.104275	0.244587	0.18	0.4	0.54	0.7	0.74	0.86	0.88	0.96	0.96	0.96	0.96	0.98
52	4.4254	0.000394	0.002043	0.003988	0.005319	0.012847	0.035088	0.082034	0.153594	0.22	0.42	0.6	0.68	0.8	0.88	0.94	0.96	0.96	0.96	0.98	0.98
53	2.4618	0.000246	0.002075	0.00311	0.003229	0.012985	0.030083	0.100199	0.516496	0.24	0.46	0.56	0.68	0.76	0.78	0.82	0.84	0.88	0.9	0.96	0.96
54	4.2454	0.000086	0.000664	0.001967	0.002875	0.0095	0.02706	0.053889	0.15694	0.26	0.48	0.74	0.82	0.84	0.9	0.92	0.96	0.96	0.96	0.98	0.98
55	3.0315	0.000324	0.00181	0.005725	0.006706	0.013043	0.04136	0.118019	0.343384	0.22	0.38	0.56	0.66	0.72	0.82	0.86	0.88	0.92	0.96	0.98	0.98
56	0.2139	0.006108	0.096468	0.218293	0.246828	0.371448	0.48768	0.673473	0.901574	0.02	0.04	0.04	0.04	0.04	0.04	0.08	0.18	0.3	0.56	0.78	0.9
57	-0.2745	0.019817	0.096564	0.22383	0.231758	0.389129	0.541595	0.694822	0.844068	0.02	0.02	0.02	0.04	0.04	0.08	0.08	0.16	0.26	0.4	0.76	0.98
58	0.2128	0.018161	0.084546	0.152197	0.156707	0.291722	0.466434	0.566414	0.684763	0.02	0.02	0.02	0.04	0.06	0.08	0.16	0.26	0.48	0.6	0.92	0.98
59	0.0399	0.022215	0.122757	0.233865	0.256921	0.326846	0.532964	0.641717	0.816381	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.18	0.34	0.46	0.8	0.94
60	0.7689	0.006252	0.078267	0.149878	0.209796	0.258724	0.376868	0.518245	0.68519	0.02	0.04	0.04	0.04	0.04	0.1	0.1	0.32	0.54	0.74	0.92	0.96
61	0.98	0.001042	0.008616	0.04225	0.047399	0.14056	0.29197	0.413074	0.640651	0.04	0.06	0.12	0.16	0.18	0.28	0.3	0.52	0.68	0.84	0.92	0.96
62	1.1065	0.006435	0.02933	0.076964	0.091962	0.153769	0.289741	0.415395	0.75316	0.02	0.04	0.06	0.08	0.12	0.24	0.34	0.54	0.72	0.8	0.9	0.94
63	0.5135	0.000176	0.01675	0.045386	0.061299	0.170365	0.326952	0.540886	0.65711	0.04	0.04	0.1	0.12	0.2	0.24	0.3	0.46	0.64	0.7	0.92	0.98
64	0.8541	0.003921	0.018114	0.052745	0.067797	0.119712	0.282913	0.489996	0.792036	0.02	0.06	0.06	0.12	0.18	0.28	0.32	0.52	0.68	0.78	0.86	0.96
65	0.8305	0.016713	0.072111	0.109607	0.136805	0.217196	0.338733	0.55117	0.806534	0.02	0.02	0.02	0.04	0.08	0.14	0.18	0.48	0.64	0.72	0.84	0.94
66	0.599	0.011808	0.044491	0.102369	0.123265	0.168927	0.348025	0.600725	0.792987	0.02	0.02	0.06	0.08	0.08	0.2	0.38	0.4	0.6	0.7	0.82	0.94
67	0.8958	0.008559	0.032029	0.035986	0.042161	0.11518	0.256863	0.43021	0.718268	0.02	0.02	0.14	0.18	0.2	0.32	0.46	0.58	0.64	0.8	0.9	0.98
68	0.8503	0.003766	0.016304	0.056469	0.073436	0.18719	0.287616	0.417681	0.642253	0.02	0.08	0.08	0.12	0.14	0.18	0.26	0.54	0.7	0.8	0.94	0.98
69	0.6807	0.002218	0.016323	0.052123	0.070462	0.139702	0.304954	0.615247	0.847394	0.04	0.06	0.08	0.14	0.22	0.26	0.32	0.48	0.66	0.7	0.82	0.94
70	0.6663	0.002618	0.012068	0.017957	0.024813	0.093979	0.283026	0.648919	0.80774	0.04	0.12	0.18	0.2	0.26	0.3	0.4	0.54	0.66	0.72	0.84	0.96
71	-0.9034	0.051196	0.206984	0.268904	0.366658	0.564926	0.701281	0.82356	0.899124	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.1	0.14	0.2	0.5	0.92
72	-1.1089	0.009486	0.163014	0.333685	0.391465	0.560785	0.754338	0.849196	0.948342	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.06	0.12	0.2	0.44	0.78
73	-0.5957	0.030001	0.111137	0.192554	0.258882	0.437224	0.715338	0.903526	0.970717	0.02	0.02	0.02	0.02	0.02	0.08	0.1	0.14	0.18	0.28	0.48	0.76
74	-0.6996	0.008613	0.149294	0.303303	0.352819	0.484767	0.701187	0.849411	0.963106	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.1	0.16	0.26	0.5	0.9
75	-0.8809	0.01206	0.05153	0.243308	0.32923	0.496472	0.646375	0.818313	0.909154	0.02	0.02	0.04	0.06	0.06	0.06	0.08	0.12	0.14	0.26	0.52	0.9
76	-0.3103	0.009988	0.069613	0.166671	0.173847	0.307641	0.644744	0.835165	0.952494	0.02	0.02	0.04	0.04	0.06	0.06	0.18	0.24	0.34	0.38	0.62	0.78
77	-0.8232	0.049479	0.233922	0.304253	0.394473	0.47704	0.747532	0.859389	0.935814	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.1	0.12	0.26	0.42	0.78
78	-0.4089	0.007103	0.030143	0.06337	0.154307	0.32396	0.623692	0.765368	0.83457	0.02	0.02	0.08	0.1	0.1	0.12	0.12	0.22	0.3	0.44	0.64	0.96
79	-0.6847	0.013306	0.070868	0.238429	0.268031	0.43759	0.690899	0.840589	0.927748	0.02	0.02	0.04	0.04	0.06	0.06	0.08	0.12	0.22	0.3	0.5	0.88
80	-0.7391	0.026447	0.096281	0.303788	0.374948	0.490559	0.644237	0.848197	0.937025	0.02	0.02	0.02	0.02	0.06	0.06	0.08	0.1	0.14	0.26	0.58	0.84

Table AD2(continued). Recall set - with quantiles for sample size 50.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	-0.0941	0.018316	0.123957	0.189004	0.220946	0.329952	0.531738	0.723817	0.849921	0.02	0.02	0.02	0.04	0.04	0.04	0.1	0.22	0.34	0.5	0.68	0.96
82	0.2183	0.007372	0.029244	0.121722	0.13317	0.196193	0.413777	0.589389	0.754098	0.02	0.02	0.06	0.08	0.08	0.14	0.26	0.38	0.46	0.6	0.86	0.98
83	-0.0548	0.017359	0.102202	0.240782	0.27383	0.365117	0.549362	0.68969	0.836327	0.02	0.02	0.02	0.04	0.04	0.06	0.08	0.16	0.32	0.46	0.78	0.94
84	0.2298	0.039298	0.150581	0.23085	0.261324	0.348594	0.487774	0.702359	0.852242	0.02	0.02	0.02	0.02	0.02	0.04	0.08	0.2	0.36	0.54	0.76	0.92
85	0.0128	0.002482	0.021164	0.04686	0.073888	0.307655	0.466056	0.579806	0.825341	0.04	0.04	0.1	0.12	0.12	0.16	0.16	0.22	0.4	0.62	0.82	0.98
86	0.1908	0.025344	0.100248	0.145238	0.181498	0.251491	0.450624	0.659807	0.791647	0.02	0.02	0.02	0.02	0.04	0.1	0.16	0.3	0.38	0.62	0.82	0.96
87	-0.4283	0.015572	0.124855	0.226199	0.283796	0.397709	0.595893	0.743722	0.864002	0.02	0.02	0.02	0.04	0.04	0.04	0.06	0.12	0.24	0.38	0.64	0.96
88	-0.487	0.001659	0.130049	0.286723	0.378802	0.445271	0.58861	0.742079	0.850034	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.1	0.16	0.34	0.66	0.94
89	0.2049	0.006944	0.053757	0.097694	0.116154	0.290209	0.431727	0.625402	0.894026	0.02	0.02	0.04	0.04	0.1	0.14	0.16	0.26	0.46	0.54	0.78	0.92
90	0.5705	0.000432	0.012608	0.10025	0.123255	0.187429	0.315612	0.529533	0.686377	0.04	0.06	0.06	0.06	0.1	0.18	0.3	0.5	0.56	0.72	0.94	0.98
91	-0.1592	0.022307	0.084622	0.129995	0.176266	0.28946	0.53511	0.711818	0.811356	0.02	0.02	0.02	0.02	0.06	0.1	0.14	0.28	0.36	0.44	0.7	0.96
92	-0.2717	0.00784	0.056259	0.163886	0.18328	0.336424	0.565685	0.711547	0.792027	0.02	0.02	0.04	0.04	0.06	0.08	0.16	0.18	0.3	0.4	0.74	0.94
93	0.1543	0.011793	0.050969	0.15597	0.190073	0.262658	0.473916	0.686585	0.833048	0.02	0.02	0.04	0.06	0.08	0.08	0.12	0.34	0.46	0.54	0.8	0.94
94	0.1675	0.001509	0.027638	0.100518	0.11017	0.189912	0.420448	0.63534	0.811222	0.04	0.04	0.06	0.06	0.1	0.14	0.26	0.3	0.46	0.54	0.8	0.96
95	-0.0367	0.010983	0.087279	0.201749	0.221286	0.347369	0.52215	0.801371	0.882772	0.02	0.02	0.04	0.04	0.04	0.06	0.08	0.2	0.36	0.42	0.68	0.94
96	0.7548	0.000024	0.000931	0.021233	0.039928	0.090026	0.243708	0.570983	0.69798	0.08	0.1	0.14	0.18	0.26	0.32	0.42	0.64	0.7	0.72	0.92	0.98
97	0.8755	0.004095	0.020783	0.041775	0.046672	0.093807	0.248493	0.490547	0.827579	0.02	0.04	0.12	0.18	0.26	0.36	0.38	0.6	0.7	0.76	0.86	0.96
98	0.658	0.000705	0.007291	0.044308	0.052833	0.110534	0.264201	0.562913	0.754875	0.04	0.08	0.1	0.18	0.24	0.28	0.44	0.52	0.58	0.66	0.88	0.94
99	0.7304	0.000742	0.005548	0.009572	0.021667	0.099083	0.196886	0.580965	0.704475	0.1	0.12	0.16	0.18	0.24	0.44	0.52	0.58	0.6	0.74	0.9	0.96
100	0.7618	0.000445	0.001625	0.029577	0.053648	0.164185	0.315367	0.478093	0.781681	0.06	0.08	0.12	0.14	0.16	0.2	0.34	0.44	0.6	0.8	0.86	0.96
101	0.6651	0.015591	0.05857	0.073103	0.076622	0.156951	0.304562	0.528526	0.789586	0.02	0.02	0.02	0.12	0.18	0.22	0.3	0.5	0.6	0.72	0.86	0.96
102	0.2909	0.000856	0.007533	0.052265	0.058509	0.168337	0.406301	0.637203	0.868686	0.04	0.06	0.08	0.16	0.18	0.24	0.26	0.4	0.5	0.56	0.82	0.92
103	0.3004	0.018467	0.068363	0.107669	0.124577	0.196292	0.370339	0.716183	0.865588	0.02	0.02	0.02	0.06	0.08	0.16	0.26	0.34	0.52	0.58	0.74	0.94
104	1.1521	0.000406	0.003159	0.046912	0.09473	0.130432	0.24295	0.403344	0.62274	0.06	0.08	0.1	0.1	0.18	0.28	0.4	0.64	0.76	0.82	0.94	0.98
105	0.5663	0.004495	0.021539	0.041991	0.054772	0.156613	0.312732	0.563661	0.802778	0.02	0.04	0.12	0.14	0.22	0.22	0.34	0.44	0.6	0.72	0.8	0.96
106	-1.0919	0.015675	0.155073	0.264544	0.343018	0.606954	0.75488	0.859724	0.978254	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.1	0.12	0.22	0.34	0.8
107	-0.9062	0.01027	0.040122	0.267439	0.283187	0.529169	0.7017	0.833322	0.956987	0.02	0.02	0.06	0.06	0.08	0.08	0.08	0.14	0.18	0.2	0.5	0.82
108	-0.4815	0.021721	0.089442	0.127634	0.18672	0.305647	0.681076	0.86306	0.940678	0.02	0.02	0.02	0.02	0.08	0.1	0.12	0.22	0.32	0.32	0.52	0.88
109	-0.7784	0.003813	0.060804	0.274576	0.301795	0.469597	0.708686	0.852063	0.923338	0.02	0.04	0.04	0.04	0.06	0.06	0.06	0.12	0.22	0.28	0.46	0.82
110	-0.7892	0.011651	0.067509	0.245644	0.263234	0.440206	0.749625	0.883418	0.979105	0.02	0.02	0.04	0.04	0.06	0.06	0.08	0.14	0.24	0.26	0.44	0.78
111	-0.403	0.022037	0.080297	0.167209	0.190446	0.424406	0.625265	0.777616	0.925089	0.02	0.02	0.02	0.02	0.08	0.08	0.12	0.16	0.22	0.4	0.62	0.88
112	-0.6704	0.017345	0.109831	0.257384	0.291	0.472289	0.727713	0.833006	0.950358	0.02	0.02	0.02	0.04	0.04	0.06	0.06	0.14	0.22	0.26	0.46	0.82
113	-0.6644	0.006845	0.064404	0.207969	0.299551	0.387009	0.770414	0.93069	0.980862	0.02	0.04	0.04	0.04	0.06	0.06	0.1	0.12	0.26	0.32	0.4	0.66
114	-0.7186	0.032442	0.14773	0.240125	0.291962	0.457808	0.703719	0.851664	0.910227	0.02	0.02	0.02	0.02	0.02	0.04	0.08	0.12	0.14	0.26	0.48	0.88
115	-0.1602	0.013267	0.095319	0.177085	0.272875	0.342592	0.5621	0.802328	0.88994	0.02	0.02	0.04	0.04	0.04	0.08	0.1	0.2	0.28	0.4	0.68	0.92

Table AD3. Recall set - with quantiles for sample size 75.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	-0.0179	0.009338	0.034775	0.101941	0.137710	0.204200	0.491243	0.729493	0.902101	0.0133	0.04	0.0667	0.08	0.0933	0.16	0.2267	0.2667	0.3733	0.52	0.68	0.8933
2	0.0713	0.016883	0.022064	0.051571	0.086246	0.189801	0.510788	0.701517	0.920939	0.0133	0.0667	0.0933	0.1067	0.1467	0.1733	0.2667	0.36	0.4267	0.4933	0.7467	0.88
3	-0.2073	0.019208	0.044236	0.070999	0.085049	0.289763	0.575783	0.749665	0.873957	0.0133	0.0267	0.0667	0.0933	0.1867	0.2133	0.2133	0.2533	0.3867	0.44	0.7467	0.9333
4	-0.0965	0.017988	0.042086	0.130855	0.150611	0.291485	0.522426	0.794652	0.929219	0.0133	0.0267	0.0533	0.0667	0.0667	0.1067	0.1733	0.2533	0.36	0.4667	0.68	0.88
5	-0.2878	0.089104	0.113865	0.210803	0.251185	0.37469	0.611512	0.768803	0.897822	0.0133	0.0133	0.0133	0.0133	0.0267	0.0667	0.0933	0.16	0.2667	0.3867	0.6533	0.9067
6	1.1909	0.009403	0.014515	0.027776	0.035568	0.0545	0.170959	0.413288	0.646037	0.0133	0.0933	0.2	0.2667	0.32	0.4533	0.5333	0.6667	0.7333	0.8533	0.92	0.9733
7	2.0335	0.0041	0.005514	0.019658	0.023705	0.051025	0.130177	0.261027	0.445652	0.0533	0.12	0.2267	0.3467	0.4533	0.5333	0.6667	0.7867	0.8667	0.96	0.9733	0.9733
8	1.7006	0.011661	0.014378	0.021105	0.030224	0.057293	0.145889	0.288311	0.491557	0.0133	0.1067	0.2267	0.2667	0.3333	0.5067	0.64	0.7733	0.8667	0.92	0.96	0.9867
9	1.8289	0.000571	0.004252	0.016996	0.024378	0.039723	0.11481	0.23952	0.440525	0.0667	0.12	0.28	0.3867	0.4533	0.5733	0.6667	0.7867	0.9067	0.9067	0.9733	0.9867
10	1.9557	0.004139	0.014803	0.025593	0.034461	0.062201	0.115338	0.252916	0.44903	0.04	0.0933	0.1867	0.3467	0.4267	0.5467	0.6533	0.8133	0.8933	0.9333	0.9733	0.9867
11	2.2272	0.000028	0.000104	0.000495	0.000773	0.007614	0.060679	0.192507	0.424671	0.2933	0.3867	0.44	0.5333	0.6133	0.68	0.7733	0.8533	0.8933	0.9333	0.96	0.9867
12	2.962	0.000003	0.000011	0.000156	0.000199	0.001557	0.011125	0.072422	0.369623	0.4533	0.5867	0.7067	0.7733	0.7867	0.84	0.8667	0.8933	0.9333	0.9467	0.9867	0.9867
13	4.6683	0.000002	0.000006	0.000258	0.000502	0.003114	0.012452	0.075624	0.189501	0.4533	0.5867	0.6933	0.7467	0.8267	0.8667	0.9067	0.96	0.9867	0.9867	0.9867	0.9867
14	1.8766	0	0.000134	0.000906	0.001197	0.005455	0.032177	0.224342	0.443054	0.3333	0.48	0.5333	0.6	0.64	0.68	0.7467	0.8	0.88	0.9467	0.9733	0.9867
15	4.0623	0.000008	0.000042	0.000236	0.000447	0.002068	0.013829	0.095962	0.204213	0.4267	0.5733	0.64	0.7333	0.7733	0.8533	0.88	0.96	0.96	0.9733	0.9867	0.9867
16	0.715	0.016091	0.046709	0.108897	0.120436	0.219001	0.34773	0.522832	0.711135	0.0133	0.0267	0.0533	0.0533	0.08	0.1867	0.24	0.3867	0.64	0.72	0.8933	0.96
17	0.3251	0.046451	0.072914	0.10176	0.117318	0.249312	0.390201	0.62941	0.720846	0.0133	0.0133	0.0133	0.04	0.08	0.16	0.2	0.36	0.5067	0.6533	0.88	0.96
18	0.1873	0.064638	0.089519	0.176773	0.208073	0.277318	0.471858	0.64599	0.806128	0.0133	0.0133	0.0133	0.0267	0.0533	0.0667	0.12	0.2933	0.4	0.56	0.8133	0.9733
19	0.4744	0.013565	0.061636	0.147879	0.168939	0.271686	0.393673	0.519763	0.791097	0.0133	0.0267	0.0267	0.08	0.08	0.0933	0.1467	0.2933	0.52	0.7067	0.8533	0.9867
20	0.6725	0.036112	0.050212	0.098792	0.110946	0.196361	0.287779	0.501569	0.619666	0.0133	0.0133	0.04	0.0533	0.0933	0.1467	0.2533	0.5067	0.6667	0.7467	0.96	0.9867
21	0.082	0.016269	0.049434	0.134452	0.167599	0.287167	0.422731	0.583004	0.717768	0.0133	0.0267	0.04	0.0667	0.08	0.1067	0.16	0.2933	0.4667	0.6267	0.88	0.9867
22	0.1112	0.001769	0.022901	0.104223	0.125512	0.250086	0.438405	0.665014	0.847864	0.0267	0.0667	0.0667	0.08	0.0933	0.16	0.1733	0.2933	0.4267	0.5733	0.8	0.9333
23	0.2304	0.049341	0.066069	0.15464	0.165281	0.282546	0.458775	0.591703	0.814243	0.0133	0.0133	0.0133	0.0667	0.0667	0.0933	0.1867	0.2533	0.3867	0.6	0.8667	0.96
24	0.325	0.075117	0.157635	0.199112	0.209985	0.338087	0.48629	0.605111	0.773302	0.0133	0.0133	0.0133	0.0133	0.0267	0.04	0.0933	0.2267	0.36	0.52	0.8667	0.9333
25	0.5684	0.028203	0.083585	0.125863	0.132996	0.204713	0.359534	0.554883	0.660404	0.0133	0.0133	0.0267	0.0267	0.0533	0.1467	0.2267	0.4	0.6	0.6667	0.92	0.9733
26	2.0709	0.000135	0.000766	0.002645	0.004505	0.02455	0.117649	0.222143	0.398259	0.16	0.2533	0.32	0.4	0.4933	0.5467	0.7067	0.8133	0.92	0.9333	0.96	0.9733
27	1.895	0.000017	0.000621	0.002834	0.00455	0.021104	0.104486	0.250945	0.430728	0.1867	0.2533	0.3467	0.4667	0.48	0.5867	0.6933	0.8133	0.8667	0.9467	0.9733	0.9867
28	3.1993	0.000002	0.00004	0.00023	0.000877	0.007015	0.037964	0.109019	0.269299	0.2667	0.4267	0.6	0.64	0.72	0.8133	0.8667	0.92	0.9333	0.96	0.9867	0.9867
29	2.5787	0.000145	0.001484	0.004922	0.006352	0.012682	0.052676	0.138141	0.400845	0.2	0.3467	0.4533	0.64	0.6933	0.8	0.8267	0.8667	0.9067	0.92	0.9733	0.9867
30	1.342	0.000037	0.000603	0.002094	0.004018	0.015155	0.121626	0.33857	0.585094	0.2	0.2933	0.36	0.4133	0.4533	0.5333	0.5867	0.7067	0.7867	0.8533	0.9333	0.9733
31	1.596	0.007243	0.035827	0.060455	0.06401	0.112647	0.210421	0.319627	0.426169	0.0267	0.04	0.0533	0.1467	0.2267	0.3867	0.4667	0.7067	0.88	0.9333	0.9867	0.9867
32	0.8867	0.034461	0.054693	0.110505	0.13833	0.176099	0.32748	0.461971	0.688441	0.0133	0.0133	0.04	0.0533	0.08	0.1467	0.28	0.48	0.6667	0.7867	0.9067	0.9733
33	1.0573	0.017177	0.034744	0.071073	0.099588	0.159222	0.261978	0.454619	0.791486	0.0133	0.04	0.0533	0.0933	0.12	0.2267	0.32	0.56	0.68	0.7867	0.8933	0.96
34	1.0142	0.001274	0.038034	0.07581	0.089814	0.139427	0.249827	0.421431	0.624976	0.0267	0.0267	0.08	0.0933	0.1467	0.2533	0.4	0.6	0.72	0.84	0.9467	0.9867
35	1.1822	0.014525	0.027173	0.057265	0.064405	0.125077	0.251227	0.387524	0.663605	0.0133	0.04	0.08	0.16	0.2	0.3333	0.4133	0.6133	0.7867	0.84	0.9333	0.9867
36	1.3336	0.000921	0.026214	0.055789	0.081627	0.134106	0.247124	0.352562	0.447698	0.0267	0.0267	0.0933	0.1067	0.1467	0.2533	0.32	0.6667	0.8267	0.96	0.9867	0.9867
37	1.0412	0.026037	0.039092	0.079842	0.093261	0.15243	0.275856	0.43087	0.619141	0.0133	0.0133	0.0667	0.0933	0.1333	0.2267	0.3733	0.56	0.72	0.7867	0.9333	0.9733
38	1.1135	0.027971	0.050705	0.090133	0.105797	0.164771	0.260127	0.393271	0.46773	0.0133	0.0133	0.04	0.08	0.1067	0.2133	0.36	0.56	0.8	0.9333	0.9867	0.9867
39	1.4316	0.018458	0.049216	0.082754	0.091881	0.142461	0.255165	0.398851	0.591519	0.0133	0.0267	0.04	0.0667	0.1467	0.28	0.4133	0.6267	0.76	0.8533	0.9333	0.9733
40	1.0031	0.013499	0.078111	0.114935	0.130563	0.174291	0.293377	0.451324	0.675972	0.0133	0.0267	0.0267	0.04	0.08	0.1467	0.2933	0.52	0.68	0.8	0.92	0.9733

Table AD3(continued). Recall set - with quantiles for sample size 75.

No.	Skewness	Quantiles								Cumulative Probabilities											
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	1.3519	0.029454	0.049223	0.091114	0.097125	0.134225	0.25516	0.340701	0.521776	0.0133	0.0133	0.0533	0.08	0.1333	0.2933	0.4133	0.6133	0.7867	0.8933	0.96	0.9867
42	1.1266	0.018592	0.029889	0.089039	0.095026	0.142353	0.263432	0.406588	0.668038	0.0133	0.04	0.0533	0.0667	0.1333	0.2667	0.3333	0.5333	0.7467	0.8267	0.9067	0.9733
43	1.4401	0.001542	0.00964	0.034337	0.047387	0.129795	0.198515	0.321275	0.46663	0.04	0.0667	0.12	0.1333	0.1867	0.32	0.5067	0.7467	0.8	0.9333	0.9867	0.9867
44	1.2823	0.033373	0.047345	0.068603	0.083999	0.123664	0.205989	0.383803	0.560406	0.0133	0.0133	0.0533	0.1067	0.1733	0.2933	0.48	0.64	0.7867	0.88	0.9467	0.9867
45	0.9107	0.000317	0.015911	0.046769	0.094047	0.123059	0.240587	0.451065	0.711794	0.04	0.0533	0.0933	0.1067	0.1333	0.32	0.4533	0.56	0.6667	0.8133	0.9067	0.9867
46	1.8321	0.005003	0.016124	0.03071	0.03774	0.06796	0.120518	0.255196	0.450918	0.0267	0.0933	0.16	0.28	0.4133	0.5867	0.6533	0.7867	0.8533	0.92	0.9733	0.9867
47	6.5544	0.001856	0.004601	0.008371	0.011248	0.021619	0.050204	0.082322	0.127325	0.1067	0.2933	0.4933	0.6933	0.8133	0.92	0.9733	0.9867	0.9867	0.9867	0.9867	0.9867
48	1.6745	0.004611	0.006041	0.019759	0.024828	0.048705	0.121582	0.26679	0.535695	0.08	0.12	0.2533	0.3467	0.4	0.6	0.6933	0.8133	0.8267	0.88	0.96	0.9867
49	1.9423	0.008217	0.01344	0.03151	0.044069	0.061906	0.127902	0.241035	0.509869	0.0267	0.0667	0.16	0.3067	0.4133	0.5867	0.68	0.8	0.8667	0.8933	0.9733	0.9867
50	2.6758	0.001628	0.00402	0.01431	0.02803	0.041895	0.087895	0.195518	0.351513	0.08	0.1067	0.3467	0.4533	0.52	0.72	0.76	0.88	0.92	0.9467	0.96	0.9733
51	5.6099	0.000325	0.000732	0.001919	0.00207	0.003342	0.011235	0.035536	0.099423	0.4667	0.6667	0.8133	0.8667	0.9067	0.9467	0.96	0.9733	0.9733	0.9733	0.9867	0.9867
52	3.1981	0.001728	0.00281	0.0062	0.009582	0.023412	0.058682	0.154488	0.305251	0.1333	0.2533	0.4667	0.6	0.6933	0.7467	0.8533	0.9067	0.9467	0.96	0.9733	0.9867
53	3.3744	0.000144	0.001903	0.004543	0.006052	0.014443	0.047275	0.129263	0.256896	0.1733	0.3333	0.5067	0.6	0.6667	0.76	0.84	0.9333	0.9467	0.9867	0.9867	0.9867
54	3.5438	0.00006	0.001313	0.002984	0.003351	0.009262	0.025094	0.063026	0.238665	0.2533	0.4933	0.68	0.8	0.8133	0.88	0.9067	0.9067	0.9467	0.96	0.9733	0.9867
55	3.5735	0.000983	0.001721	0.003089	0.003339	0.014257	0.029432	0.101528	0.240421	0.2267	0.3867	0.6267	0.68	0.7467	0.8667	0.8933	0.9333	0.96	0.96	0.9867	0.9867
56	0.2915	0.035836	0.087918	0.151469	0.197898	0.258757	0.445135	0.607644	0.774148	0.0133	0.0133	0.0267	0.04	0.0667	0.0933	0.12	0.3067	0.4	0.6267	0.8667	0.96
57	0.2614	0.123303	0.206166	0.274716	0.295545	0.373145	0.480062	0.620179	0.741834	0.0133	0.0133	0.0133	0.0133	0.0133	0.0267	0.04	0.12	0.2933	0.5333	0.8667	0.96
58	-0.0381	0.063208	0.191501	0.235586	0.278261	0.380865	0.461357	0.61911	0.724793	0.0133	0.0133	0.0133	0.0267	0.0267	0.04	0.04	0.16	0.28	0.56	0.88	0.9867
59	-0.2384	0.132574	0.241557	0.320311	0.332563	0.430683	0.607873	0.770205	0.891849	0.0133	0.0133	0.0133	0.0133	0.0133	0.0267	0.04	0.0667	0.2133	0.3333	0.68	0.9067
60	0.3342	0.00586	0.023726	0.082877	0.11363	0.188143	0.368216	0.536942	0.691343	0.0267	0.04	0.0667	0.08	0.1067	0.1467	0.2933	0.4133	0.5733	0.68	0.9333	0.9867
61	0.9917	0.011661	0.021469	0.053705	0.075717	0.142283	0.253255	0.416205	0.583213	0.0133	0.0533	0.08	0.12	0.1467	0.2533	0.3333	0.5867	0.7467	0.8267	0.9467	0.9867
62	0.8192	0.002715	0.019072	0.041827	0.061063	0.14244	0.250137	0.465721	0.683919	0.0267	0.0667	0.0933	0.1333	0.16	0.2667	0.36	0.5333	0.6933	0.8133	0.92	0.9867
63	0.4192	0.002863	0.016036	0.07746	0.083346	0.185063	0.361831	0.609087	0.811133	0.0267	0.0667	0.0667	0.08	0.1467	0.1867	0.28	0.4133	0.5467	0.6667	0.84	0.96
64	0.4202	0.008787	0.023216	0.046958	0.068982	0.192446	0.362753	0.567164	0.782904	0.0267	0.04	0.1067	0.1467	0.1733	0.2267	0.2533	0.3333	0.5867	0.6933	0.8667	0.96
65	1.0376	0.001619	0.026606	0.059223	0.082912	0.156186	0.285083	0.431162	0.619648	0.0267	0.04	0.08	0.12	0.1467	0.2133	0.3467	0.52	0.6933	0.8533	0.96	0.9733
66	0.4188	0.033988	0.050172	0.07548	0.089509	0.174655	0.363223	0.567295	0.729437	0.0133	0.0133	0.04	0.0933	0.16	0.2133	0.2667	0.44	0.5733	0.68	0.8667	0.9867
67	0.6397	0.006608	0.023485	0.049661	0.066125	0.127684	0.28165	0.500199	0.644247	0.04	0.04	0.0933	0.1467	0.1867	0.28	0.3467	0.5333	0.6667	0.7467	0.9333	0.9867
68	0.7242	0.015922	0.044886	0.089006	0.102855	0.194805	0.346662	0.529169	0.69584	0.0133	0.0267	0.0533	0.08	0.12	0.16	0.2533	0.4267	0.64	0.7333	0.92	0.9733
69	0.6442	0.019574	0.038067	0.063428	0.084123	0.170847	0.322506	0.566486	0.779796	0.0133	0.0267	0.0667	0.1067	0.2133	0.24	0.3067	0.4533	0.6	0.6933	0.8667	0.9467
70	0.6017	0.000591	0.035454	0.077259	0.093454	0.168129	0.298021	0.484904	0.668715	0.0267	0.0267	0.0667	0.0933	0.1333	0.2133	0.32	0.5067	0.6267	0.7733	0.9333	0.9867
71	-0.6811	0.144449	0.207908	0.270269	0.355804	0.471738	0.723437	0.814791	0.929831	0.0133	0.0133	0.0133	0.0133	0.0133	0.0133	0.04	0.1067	0.1733	0.2667	0.44	0.88
72	-0.6259	0.122619	0.23525	0.293152	0.335258	0.495168	0.716715	0.893933	0.964339	0.0133	0.0133	0.0133	0.0133	0.0133	0.0267	0.04	0.0933	0.1733	0.2667	0.48	0.76
73	-0.9155	0.121734	0.357389	0.397818	0.443812	0.579712	0.744812	0.859571	0.96191	0.0133	0.0133	0.0133	0.0133	0.0133	0.0267	0.0267	0.0267	0.1067	0.2	0.4	0.7867
74	-0.6736	0.0706	0.195304	0.229761	0.243016	0.433083	0.699554	0.826245	0.921862	0.0133	0.0133	0.0133	0.0133	0.0267	0.0267	0.04	0.16	0.2	0.2933	0.5067	0.88
75	-0.5741	0.13426	0.245489	0.300721	0.317406	0.461579	0.70727	0.847464	0.912778	0.0133	0.0133	0.0133	0.0133	0.0133	0.0267	0.0267	0.0933	0.1867	0.28	0.48	0.8933
76	-0.4451	0.034214	0.074871	0.238612	0.247719	0.422185	0.627425	0.831728	0.946089	0.0133	0.0133	0.04	0.04	0.0533	0.0533	0.08	0.1467	0.24	0.32	0.6	0.8533
77	-0.2314	0.010208	0.073932	0.225057	0.251331	0.349773	0.581625	0.710129	0.906003	0.0133	0.0267	0.04	0.04	0.0533	0.0533	0.08	0.2	0.28	0.4	0.72	0.8667
78	-0.6177	0.057063	0.10737	0.329863	0.376338	0.479452	0.715699	0.902917	0.982653	0.0133	0.0133	0.0133	0.0267	0.04	0.0533	0.0533	0.0667	0.16	0.2667	0.4933	0.7467
79	-0.5131	0.020082	0.081295	0.272143	0.310835	0.429996	0.65816	0.788996	0.902775	0.0133	0.0267	0.0267	0.04	0.0533	0.0667	0.0667	0.1067	0.2	0.3333	0.6133	0.8933
80	-0.6943	0.004263	0.031915	0.169427	0.240615	0.466185	0.639026	0.838632	0.899244	0.04	0.04	0.0533	0.0667	0.0667	0.08	0.1067	0.1467	0.1867	0.2933	0.64	0.9067

Table AD3(continued). Recall set - with quantiles for sample size 75.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	0.2885	0.018595	0.027385	0.042078	0.099049	0.211431	0.421282	0.639921	0.880368	0.0133	0.04	0.1067	0.1067	0.12	0.1733	0.2267	0.36	0.48	0.5867	0.7867	0.92
82	-0.0646	0.016687	0.123503	0.206169	0.265649	0.366718	0.513639	0.696748	0.834658	0.0133	0.0267	0.0267	0.0267	0.0267	0.0667	0.0933	0.1867	0.3067	0.4667	0.76	0.9467
83	0.2096	0.016349	0.083791	0.180152	0.205177	0.300075	0.431391	0.620234	0.796795	0.0133	0.0267	0.04	0.04	0.0533	0.08	0.12	0.24	0.4133	0.5733	0.8533	0.96
84	0.1052	0.033794	0.118365	0.169141	0.181149	0.308863	0.478594	0.692786	0.826503	0.0133	0.0133	0.0267	0.0267	0.0267	0.0667	0.1467	0.24	0.3333	0.5333	0.76	0.9467
85	0.192	0.058005	0.085248	0.135011	0.194413	0.289584	0.46511	0.620569	0.747294	0.0133	0.0133	0.0133	0.04	0.0667	0.1067	0.1333	0.2667	0.4667	0.5733	0.84	0.9733
86	-0.3485	0.042298	0.215524	0.289632	0.299583	0.449792	0.60554	0.735893	0.930295	0.0133	0.0133	0.0267	0.04	0.04	0.04	0.04	0.12	0.1867	0.32	0.6667	0.8933
87	0.2571	0.002271	0.074597	0.208131	0.235376	0.295085	0.436071	0.58791	0.756636	0.0267	0.0267	0.04	0.04	0.0533	0.0533	0.0933	0.2667	0.44	0.5867	0.88	0.9867
88	-0.0359	0.140178	0.215384	0.316413	0.329802	0.410473	0.553162	0.71087	0.860109	0.0133	0.0133	0.0133	0.0133	0.0133	0.0133	0.04	0.08	0.1867	0.3733	0.7333	0.92
89	-0.3193	0.106088	0.151366	0.263705	0.321347	0.396042	0.547489	0.643225	0.751972	0.0133	0.0133	0.0133	0.0133	0.0133	0.04	0.0667	0.1067	0.2533	0.4	0.8267	0.9867
90	0.0858	0.021101	0.047677	0.113334	0.160823	0.288787	0.455056	0.562788	0.725891	0.0133	0.0267	0.04	0.0667	0.0667	0.1067	0.1733	0.2667	0.3867	0.6533	0.8933	0.9733
91	0.1205	0.016838	0.091374	0.151911	0.185391	0.273792	0.421539	0.666729	0.816301	0.0133	0.0267	0.0267	0.04	0.0533	0.0933	0.1333	0.28	0.48	0.5467	0.8133	0.9733
92	0.011	0.00875	0.032615	0.074224	0.144396	0.26371	0.45028	0.698354	0.828029	0.0267	0.04	0.0533	0.0933	0.1067	0.1333	0.16	0.2667	0.4	0.56	0.76	0.9467
93	0.0555	0.055406	0.09061	0.109098	0.129555	0.280756	0.476681	0.718959	0.853794	0.0133	0.0133	0.0133	0.0267	0.0667	0.16	0.1867	0.3067	0.4	0.5067	0.7467	0.96
94	0.2497	0.023612	0.06536	0.12909	0.140753	0.246355	0.445362	0.693105	0.875931	0.0133	0.0133	0.0267	0.0533	0.0533	0.1333	0.1867	0.3067	0.44	0.5733	0.7733	0.92
95	-0.2456	0.041998	0.175362	0.234592	0.281708	0.408262	0.574648	0.705008	0.858204	0.0133	0.0133	0.0267	0.0267	0.0267	0.0267	0.0533	0.1467	0.24	0.3733	0.7333	0.96
96	0.5876	0.000511	0.016983	0.030846	0.054463	0.139072	0.320791	0.526961	0.829099	0.0267	0.08	0.1067	0.2	0.2133	0.2533	0.2933	0.4267	0.6	0.72	0.8533	0.9467
97	0.7236	0.000481	0.001019	0.018813	0.032727	0.097147	0.249173	0.465644	0.643214	0.08	0.12	0.16	0.1867	0.2667	0.3867	0.4267	0.5867	0.7067	0.7733	0.9467	0.9867
98	0.6329	0.007026	0.020366	0.037123	0.044455	0.118012	0.297549	0.521357	0.83735	0.0267	0.08	0.1333	0.1867	0.2133	0.28	0.3467	0.5067	0.64	0.7467	0.8267	0.96
99	0.7388	0.000284	0.005797	0.021825	0.044726	0.077738	0.245752	0.517936	0.697006	0.0533	0.1067	0.1333	0.2267	0.2933	0.3733	0.44	0.56	0.68	0.7467	0.9067	0.9733
100	0.663	0.000973	0.01155	0.033059	0.039389	0.087535	0.248687	0.487286	0.661378	0.04	0.08	0.1467	0.1733	0.2667	0.3467	0.4133	0.56	0.64	0.76	0.9333	0.9733
101	0.5838	0.001332	0.03187	0.05626	0.09022	0.189223	0.349652	0.549501	0.853869	0.0267	0.04	0.08	0.1067	0.1467	0.2133	0.2933	0.4533	0.56	0.7067	0.8133	0.92
102	0.4806	0.004802	0.016113	0.028171	0.035603	0.135854	0.31952	0.57869	0.828275	0.04	0.08	0.1333	0.16	0.2	0.2667	0.32	0.48	0.6	0.68	0.84	0.9733
103	0.5252	0.005868	0.030691	0.062487	0.067376	0.133865	0.37459	0.552868	0.828429	0.0267	0.0267	0.0667	0.1333	0.1733	0.28	0.3333	0.4133	0.5333	0.68	0.8533	0.9333
104	0.5208	0.001149	0.003008	0.03043	0.035969	0.087646	0.29139	0.556268	0.826245	0.08	0.08	0.16	0.24	0.2533	0.3467	0.36	0.5067	0.6	0.6933	0.8533	0.9733
105	0.4728	0.005416	0.007965	0.044631	0.066576	0.112905	0.318875	0.585719	0.726158	0.0533	0.0667	0.1067	0.16	0.2267	0.3333	0.3467	0.4667	0.6267	0.6933	0.88	0.9867
106	-0.7651	0.045621	0.148714	0.216433	0.23997	0.514385	0.783134	0.92657	0.969411	0.0133	0.0133	0.0133	0.0267	0.0267	0.04	0.08	0.1333	0.1867	0.24	0.4133	0.72
107	-0.7036	0.064892	0.149114	0.296543	0.345601	0.494335	0.746052	0.891804	0.991102	0.0133	0.0133	0.0133	0.0267	0.0267	0.04	0.0667	0.0933	0.1733	0.2533	0.4667	0.76
108	-0.8002	0.002151	0.109466	0.309673	0.365341	0.550515	0.755419	0.930079	0.988681	0.0267	0.0267	0.0267	0.04	0.04	0.0533	0.0667	0.0933	0.16	0.2133	0.4667	0.6933
109	-0.9232	0.038817	0.111844	0.271127	0.313992	0.500738	0.765752	0.88924	0.969844	0.0133	0.0133	0.0267	0.0267	0.04	0.0667	0.0667	0.1067	0.1733	0.24	0.4	0.7867
110	-1.0108	0.068355	0.093171	0.313409	0.40476	0.533391	0.756051	0.906436	0.949391	0.0133	0.0133	0.0133	0.0133	0.0533	0.0533	0.0533	0.08	0.12	0.2	0.4133	0.7467
111	-0.379	0.06213	0.145272	0.18292	0.217346	0.384033	0.669558	0.844954	0.953124	0.0133	0.0133	0.0133	0.0267	0.04	0.04	0.1067	0.1733	0.2667	0.3867	0.5067	0.8267
112	-0.3671	0.027989	0.124553	0.189377	0.243398	0.346497	0.669541	0.811612	0.960866	0.0133	0.0133	0.0267	0.0267	0.0267	0.0533	0.1067	0.1867	0.28	0.3333	0.5867	0.7867
113	-0.4917	0.060283	0.082945	0.19904	0.238376	0.384509	0.719976	0.880716	0.975792	0.0133	0.0133	0.0133	0.04	0.0533	0.0533	0.0933	0.16	0.2667	0.3333	0.4667	0.8133
114	-0.2953	0.04602	0.077878	0.142464	0.168192	0.307769	0.667651	0.834201	0.936374	0.0133	0.0133	0.0133	0.04	0.0533	0.1067	0.16	0.2133	0.3067	0.4133	0.5733	0.8667
115	-0.5344	0.007214	0.166155	0.293167	0.341806	0.453904	0.63154	0.826464	0.92802	0.0267	0.0267	0.0267	0.04	0.04	0.04	0.0533	0.1067	0.1867	0.2933	0.56	0.8533

Table AD4. Recall set - with quantiles for sample size 100.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	0.1347	0.00195	0.032328	0.069786	0.112488	0.220082	0.454179	0.703457	0.889205	0.04	0.04	0.08	0.11	0.11	0.16	0.23	0.35	0.42	0.57	0.75	0.91
2	-0.2004	0.019694	0.080935	0.176297	0.218683	0.338793	0.597942	0.751765	0.943794	0.01	0.02	0.03	0.04	0.05	0.08	0.1	0.2	0.3	0.39	0.66	0.84
3	0.3292	0.01342	0.01952	0.077434	0.083779	0.172091	0.382937	0.680579	0.907279	0.02	0.05	0.06	0.09	0.16	0.22	0.29	0.42	0.51	0.57	0.76	0.9
4	-0.1051	0.016915	0.02606	0.083222	0.094698	0.252479	0.549571	0.788266	0.91966	0.01	0.04	0.07	0.09	0.14	0.18	0.2	0.29	0.38	0.45	0.7	0.87
5	-0.0253	0.024009	0.046563	0.112029	0.146953	0.280612	0.516288	0.82432	0.936709	0.02	0.02	0.05	0.08	0.09	0.12	0.16	0.27	0.37	0.48	0.67	0.86
6	2.3079	0.002443	0.004166	0.009953	0.01353	0.049176	0.118593	0.234967	0.424239	0.1	0.16	0.25	0.38	0.47	0.58	0.7	0.85	0.9	0.92	0.97	0.97
7	0.8806	0.002741	0.01153	0.032457	0.036775	0.091791	0.221537	0.490886	0.716914	0.04	0.06	0.15	0.21	0.27	0.37	0.48	0.6	0.68	0.76	0.9	0.96
8	2.5395	0.003241	0.008489	0.011755	0.013666	0.027153	0.102519	0.187048	0.333533	0.06	0.24	0.31	0.4	0.49	0.67	0.77	0.89	0.94	0.98	0.99	0.99
9	1.2661	0.007899	0.019061	0.033511	0.04465	0.075395	0.183152	0.350612	0.597257	0.03	0.08	0.15	0.25	0.29	0.39	0.54	0.7	0.8	0.88	0.94	0.99
10	1.8944	0.004133	0.009055	0.016868	0.020808	0.045616	0.129788	0.280071	0.398233	0.07	0.15	0.26	0.35	0.41	0.55	0.6	0.78	0.9	0.95	0.98	0.98
11	4.2263	0.000008	0.000021	0.000107	0.000194	0.00246	0.014155	0.055364	0.180693	0.47	0.62	0.73	0.83	0.87	0.9	0.91	0.94	0.97	0.97	0.97	0.97
12	1.8057	0.000013	0.000155	0.001115	0.001425	0.008588	0.049417	0.241457	0.5144	0.27	0.39	0.5	0.57	0.61	0.67	0.71	0.76	0.85	0.9	0.93	0.97
13	6.4587	0.000017	0.00008	0.000148	0.000199	0.000761	0.010594	0.035121	0.11145	0.49	0.68	0.82	0.87	0.89	0.94	0.95	0.98	0.99	0.99	0.99	0.99
14	2.6593	0.000106	0.000465	0.001299	0.002226	0.006102	0.034361	0.124199	0.358416	0.29	0.4	0.56	0.66	0.72	0.8	0.84	0.9	0.91	0.95	0.98	0.99
15	4.7262	0.00003	0.000109	0.000335	0.000496	0.002218	0.017192	0.079059	0.159389	0.41	0.56	0.64	0.72	0.79	0.9	0.93	0.96	0.97	0.98	0.98	0.98
16	0.6873	0.023365	0.090146	0.120293	0.137087	0.193046	0.307096	0.503302	0.659363	0.01	0.03	0.03	0.04	0.06	0.14	0.29	0.48	0.64	0.75	0.92	0.99
17	0.5769	0.023481	0.047039	0.071605	0.106194	0.184469	0.348209	0.51066	0.755144	0.01	0.02	0.05	0.1	0.11	0.19	0.28	0.41	0.57	0.74	0.87	0.98
18	0.2282	0.011746	0.040162	0.076546	0.093647	0.178114	0.378143	0.541309	0.672766	0.01	0.03	0.07	0.09	0.13	0.19	0.27	0.4	0.55	0.68	0.93	0.99
19	0.6915	0.048211	0.102249	0.157283	0.165461	0.228838	0.376374	0.501838	0.727923	0.01	0.02	0.02	0.02	0.04	0.09	0.18	0.37	0.56	0.74	0.9	0.98
20	0.8382	0.015384	0.036793	0.107686	0.114951	0.15912	0.293519	0.435864	0.609069	0.01	0.04	0.06	0.08	0.09	0.23	0.33	0.51	0.7	0.83	0.93	0.99
21	0.3724	0.107079	0.134751	0.181597	0.215686	0.289249	0.416655	0.537544	0.697611	0.01	0.01	0.01	0.01	0.02	0.08	0.1	0.26	0.49	0.64	0.91	0.99
22	0.0346	0.029178	0.084941	0.166224	0.17812	0 292689	0.444412	0.574745	0.708047	0.02	0.02	0.03	0.04	0.05	0.08	0.15	0.26	0.42	0.57	0.9	0.98
23	0.3489	0.113076	0.147587	0.232939	0.246334	0.312283	0.445596	0.601049	0.77418	0.01	0.01	0.01	0.01	0.01	0.05	0.06	0.19	0.42	0.58	0.85	0.97
24	0.7191	0.027328	0.070931	0.127009	0.159903	0.213109	0.36961	0.498416	0.679696	0.01	0.02	0.03	0.05	0.06	0.11	0.22	0.37	0.57	0.76	0.91	0.97
25	0.3859	0.047735	0.112754	0.221058	0.229677	0.290699	0.423732	0.562396	0.730176	0.01	0.01	0.03	0.04	0.04	0.05	0.08	0.27	0.47	0.65	0.89	0.97
26	2.678	0.000016	0.00009	0.002144	0.005092	0.015586	0.070641	0.152653	0.339331	0.19	0.33	0.42	0.52	0.63	0.74	0.84	0.89	0.92	0.96	0.98	0.99
27	2.1475	0.000412	0.001117	0.006233	0.010294	0.024081	0.096021	0.182117	0.43715	0.12	0.25	0.37	0.47	0.5	0.67	0.76	0.85	0.89	0.93	0.96	0.98
28	3.3422	0.000014	0.000124	0.000966	0.0016	0.007306	0.026311	0.101609	0.265891	0.33	0.49	0.62	0.69	0.75	0.83	0.87	0.92	0.95	0.97	0.98	0.99
29	1.5093	0.000477	0.001267	0.003813	0.005313	0.024232	0.096591	0.270212	0.517159	0.18	0.25	0.38	0.44	0.52	0.61	0.66	0.78	0.85	0.9	0.98	0.99
30	1.9126	0.000234	0.001286	0.004558	0.005982	0.0193	0.087754	0.248262	0.510184	0.17	0.27	0.41	0.46	0.53	0.65	0.69	0.81	0.87	0.9	0.96	0.98
31	1.143	0.02652	0.04595	0.060658	0.061812	0.108502	0.233845	0.399728	0.620277	0.01	0.01	0.05	0.16	0.23	0.39	0.45	0.6	0.75	0.84	0.91	0.97
32	1.1721	0.02212	0.0496	0.086802	0.110649	0.168607	0.264601	0.41724	0.731929	0.01	0.02	0.05	0.07	0.12	0.2	0.3	0.59	0.73	0.81	0.89	0.97
33	1.465	0.024262	0.04401	0.061906	0.066232	0.121575	0.196774	0.358728	0.524798	0.01	0.02	0.07	0.15	0.2	0.37	0.51	0.63	0.82	0.89	0.95	0.98
34	1.0648	0.016165	0.028583	0.065941	0.089031	0.136513	0.276473	0.432936	0.654017	0.01	0.03	0.08	0.1	0.19	0.28	0.35	0.56	0.71	0.83	0.94	0.96
35	0.8288	0.004994	0.047836	0.063101	0.085051	0.135174	0.262648	0.472925	0.681913	0.03	0.03	0.05	0.11	0.16	0.3	0.38	0.56	0.68	0.78	0.95	0.99
36	0.5996	0.019576	0.030969	0.061153	0.075363	0.140424	0.313222	0.450316	0.565911	0.01	0.03	0.09	0.12	0.18	0.25	0.36	0.48	0.68	0.81	0.95	0.99
37	0.9513	0.009579	0.034747	0.061378	0.07511	0.118214	0.253139	0.410998	0.548801	0.03	0.03	0.07	0.12	0.19	0.34	0.41	0.6	0.71	0.88	0.96	0.99
38	1.1296	0.051737	0.059582	0.088865	0.10847	0.153985	0.277197	0.405204	0.55596	0.01	0.01	0.02	0.06	0.11	0.24	0.29	0.53	0.74	0.86	0.95	0.98
39	1.2941	0.056723	0.079164	0.103956	0.118497	0.174211	0.26995	0.351013	0.462711	0.01	0.01	0.02	0.03	0.08	0.18	0.33	0.58	0.83	0.94	0.99	0.99
40	0.7188	0.037298	0.064277	0.108899	0.138526	0.189688	0.333131	0.479618	0.62487	0.01	0.01	0.03	0.05	0.09	0.13	0.27	0.46	0.61	0.79	0.94	0.99

Table AD4(continued). Recall set - with quantiles for sample size 100.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	1.5275	0.034602	0.052747	0.082962	0.094363	0.131241	0.192638	0.332349	0.495403	0.01	0.01	0.04	0.07	0.14	0.34	0.56	0.7	0.84	0.91	0.98	0.99
42	4.5639	0.004003	0.014492	0.036955	0.042296	0.061316	0.107257	0.16434	0.221457	0.03	0.08	0.18	0.3	0.45	0.68	0.87	0.95	0.99	0.99	0.99	0.99
43	1.2711	0.029708	0.049658	0.087682	0.10511	0.163557	0.256372	0.414407	0.659634	0.01	0.02	0.05	0.09	0.12	0.23	0.35	0.62	0.73	0.84	0.93	0.97
44	2.7751	0.01668	0.024103	0.043934	0.04527	0.065022	0.137131	0.204049	0.316091	0.01	0.05	0.15	0.28	0.4	0.51	0.74	0.89	0.95	0.98	0.99	0.99
45	1.0924	0.008287	0.014208	0.030385	0.046954	0.106627	0.246769	0.383002	0.584919	0.02	0.08	0.14	0.17	0.24	0.31	0.42	0.63	0.76	0.87	0.94	0.98
46	2.9163	0.003115	0.004332	0.010224	0.011396	0.033693	0.067193	0.162993	0.293596	0.09	0.2	0.4	0.54	0.64	0.74	0.83	0.91	0.95	0.96	0.97	0.99
47	4.9615	0.002498	0.004516	0.007885	0.010286	0.016804	0.044035	0.093717	0.160061	0.11	0.36	0.51	0.65	0.8	0.89	0.92	0.96	0.97	0.99	0.99	0.99
48	4.2802	0.00129	0.006705	0.011793	0.012441	0.025958	0.049717	0.103865	0.214846	0.06	0.22	0.5	0.63	0.74	0.83	0.9	0.95	0.97	0.99	0.99	0.99
49	3.5415	0.004995	0.008772	0.01401	0.01662	0.026734	0.050957	0.107929	0.290774	0.07	0.23	0.5	0.62	0.74	0.84	0.87	0.91	0.95	0.99	0.99	0.99
50	3.1401	0.002473	0.005608	0.01085	0.015013	0.032049	0.072382	0.145944	0.267596	0.08	0.2	0.38	0.51	0.6	0.77	0.87	0.91	0.95	0.95	0.98	0.99
51	4.8023	0.001402	0.002434	0.003124	0.003602	0.008824	0.034065	0.098184	0.158809	0.25	0.43	0.58	0.68	0.78	0.88	0.94	0.98	0.98	0.98	0.98	0.99
52	3.371	0.000927	0.00188	0.004667	0.005329	0.014352	0.046176	0.10147	0.26844	0.17	0.37	0.52	0.61	0.74	0.86	0.87	0.92	0.94	0.95	0.97	0.98
53	9.5947	0.000045	0.000148	0.00038	0.000525	0.001757	0.005418	0.01275	0.029518	0.66	0.88	0.97	0.98	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
54	2.8992	0.001138	0.002324	0.005298	0.005896	0.010652	0.03356	0.11008	0.341504	0.24	0.45	0.59	0.65	0.75	0.81	0.84	0.88	0.94	0.97	0.98	0.99
55	5.0949	0.000141	0.000936	0.001686	0.002287	0.005076	0.014151	0.03929	0.124632	0.36	0.63	0.79	0.83	0.9	0.92	0.95	0.96	0.97	0.98	0.98	0.99
56	0.1133	0.150432	0.210567	0.292021	0.318526	0.392922	0.490356	0.645716	0.769182	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.1	0.28	0.56	0.84	0.99
57	0.3732	0.022838	0.076612	0.169473	0.188305	0.248082	0.360221	0.462407	0.541172	0.01	0.02	0.03	0.04	0.05	0.09	0.16	0.36	0.57	0.83	0.99	0.99
58	0.1944	0.088115	0.143379	0.230087	0.264882	0.366876	0.494152	0.654545	0.829914	0.01	0.01	0.02	0.02	0.02	0.05	0.09	0.16	0.29	0.55	0.82	0.94
59	0.2333	0.095111	0.130046	0.208335	0.212978	0.27501	0.434534	0.535237	0.654978	0.01	0.01	0.01	0.01	0.02	0.05	0.09	0.28	0.43	0.62	0.94	0.99
60	0.014	0.02639	0.044531	0.090755	0.133973	0.264012	0.47801	0.622854	0.780436	0.01	0.02	0.05	0.07	0.11	0.14	0.17	0.27	0.4	0.54	0.86	0.96
61	0.6717	0.006149	0.022474	0.092886	0.101618	0.185657	0.310288	0.519631	0.705886	0.03	0.05	0.07	0.09	0.12	0.2	0.3	0.47	0.68	0.75	0.89	0.99
62	1.1746	0.011787	0.02211	0.057934	0.062557	0.129987	0.222985	0.361871	0.594162	0.02	0.06	0.08	0.15	0.18	0.31	0.45	0.66	0.78	0.86	0.95	0.99
63	0.6242	0.060239	0.071119	0.105372	0.113501	0.193306	0.337895	0.532331	0.706372	0.01	0.01	0.01	0.06	0.09	0.19	0.27	0.47	0.56	0.72	0.9	0.97
64	0.626	0.01665	0.028339	0.064886	0.089005	0.139266	0.336989	0.473711	0.652704	0.01	0.04	0.07	0.11	0.15	0.27	0.36	0.47	0.67	0.81	0.92	0.99
65	0.3206	0.031665	0.044999	0.083642	0.093408	0.187176	0.368414	0.549904	0.765495	0.01	0.02	0.05	0.08	0.14	0.2	0.25	0.39	0.54	0.65	0.86	0.98
66	0.637	0.009091	0.026427	0.093813	0.108998	0.182857	0.327543	0.480889	0.68413	0.03	0.04	0.08	0.09	0.11	0.19	0.28	0.44	0.66	0.77	0.93	0.98
67	0.6321	0.024393	0.049406	0.082156	0.098985	0.192527	0.325895	0.531362	0.778742	0.01	0.02	0.05	0.05	0.13	0.19	0.26	0.46	0.63	0.72	0.86	0.98
68	0.2809	0.072956	0.083341	0.123952	0.136774	0.250018	0.462409	0.620415	0.783584	0.01	0.01	0.01	0.02	0.06	0.14	0.19	0.35	0.47	0.57	0.83	0.95
69	0.6043	0.010279	0.02365	0.053297	0.084343	0.139193	0.352005	0.539503	0.796772	0.02	0.05	0.09	0.12	0.15	0.26	0.33	0.46	0.62	0.71	0.87	0.97
70	0.2462	0.029235	0.069385	0.112845	0.136056	0.249455	0.428006	0.669834	0.859431	0.01	0.02	0.03	0.05	0.06	0.14	0.17	0.28	0.45	0.59	0.79	0.96
71	-0.6587	0.139755	0.16474	0.307624	0.335659	0.50926	0.707083	0.86187	0.954727	0.01	0.01	0.01	0.01	0.01	0.03	0.06	0.08	0.15	0.21	0.49	0.82
72	-0.7893	0.271237	0.366906	0.43327	0.462411	0.586034	0.738792	0.861237	0.949118	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.09	0.19	0.46	0.84
73	-1.1217	0.166336	0.342178	0.439089	0.492717	0.599485	0.749417	0.859853	0.933779	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.07	0.12	0.41	0.79
74	-0.6333	0.153892	0.17162	0.281079	0.376873	0.523024	0.701504	0.85366	0.958105	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.1	0.13	0.21	0.49	0.81
75	-0.9348	0.080131	0.293959	0.410559	0.448099	0.534589	0.692728	0.791273	0.912645	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.09	0.18	0.53*	0.88
76	-0.4694	0.073545	0.184168	0.296334	0.348091	0.439773	0.630329	0.823513	0.888855	0.01	0.01	0.02	0.02	0.02	0.03	0.05	0.1	0.17	0.3	0.6	0.92
77	-0.5529	0.046703	0.173688	0.255629	0.340712	0.471623	0.645001	0.786988	0.919316	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.11	0.19	0.31	0.55	0.9
78	-0.4863	0.041182	0.079161	0.2236	0.255729	0.377355	0.627302	0.809356	0.873043	0.01	0.01	0.03	0.04	0.06	0.08	0.09	0.14	0.28	0.34	0.61	0.96
79	-0.8284	0.08519	0.208148	0.296528	0.317085	0.475126	0.720049	0.836423	0.900403	0.01	0.01	0.01	0.01	0.03	0.04	0.04	0.1	0.16	0.26	0.47	0.9
80	-0.4492	0.011429	0.104164	0.219008	0.231462	0.432086	0.595011	0.764392	0.882604	0.02	0.03	0.03	0.04	0.04	0.08	0.09	0.15	0.22	0.32	0.67	0.91

Table AD4(continued). Recall set - with quantiles for sample size 100.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	-0.0221	0.043518	0.11008	0.173809	0.189799	0.32208	0.481175	0.750798	0.876968	0.01	0.02	0.02	0.04	0.04	0.09	0.15	0.23	0.34	0.51	0.7	0.93
82	-0.0127	0.087477	0.125513	0.212721	0.218959	0.316984	0.455026	0.616306	0.710088	0.01	0.01	0.01	0.02	0.02	0.06	0.09	0.22	0.38	0.55	0.88	0.99
83	-0.2518	0.035993	0.130253	0.192319	0.218112	0.342735	0.585874	0.768682	0.920816	0.01	0.02	0.02	0.03	0.03	0.06	0.1	0.2	0.3	0.39	0.67	0.89
84	0.1816	0.116167	0.172663	0.243069	0.254971	0.353083	0.50057	0.63638	0.790295	0.01	0.01	0.01	0.01	0.01	0.03	0.05	0.2	0.33	0.5	0.83	0.97
85	-0.2199	0.068444	0.1313	0.18841	0.263387	0.382189	0.523416	0.672117	0.792837	0.01	0.01	0.02	0.02	0.03	0.07	0.1	0.14	0.26	0.45	0.77	0.98
86	-0.0606	0.085138	0.165019	0.284321	0.289259	0.349054	0.55025	0.715716	0.839621	0.01	0.01	0.02	0.02	0.02	0.03	0.07	0.15	0.3	0.44	0.71	0.94
87	-0.1575	0.074571	0.118246	0.234772	0.266622	0.380662	0.542363	0.702589	0.866235	0.01	0.01	0.01	0.02	0.03	0.06	0.07	0.17	0.28	0.43	0.75	0.96
88	-0.0413	0.002777	0.072041	0.107771	0.154558	0.287371	0.483308	0.62947	0.782447	0.03	0.03	0.04	0.05	0.07	0.12	0.16	0.26	0.38	0.54	0.85	0.97
89	0.004	0.08754	0.187294	0.231979	0.298141	0.399039	0.54261	0.650458	0.84965	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.12	0.26	0.45	0.8	0.94
90	-0.0528	0.07331	0.091261	0.185692	0.218015	0.325234	0.551927	0.679735	0.853811	0.01	0.01	0.01	0.02	0.05	0.07	0.11	0.2	0.31	0.43	0.78	0.93
91	-0.204	0.025628	0.114423	0.193459	0.21685	0.332544	0.56602	0.724488	0.859915	0.02	0.02	0.03	0.04	0.04	0.05	0.1	0.23	0.32	0.42	0.69	0.94
92	-0.1785	0.01669	0.081244	0.150773	0.178127	0.270704	0.566373	0.705673	0.803371	0.02	0.03	0.03	0.04	0.05	0.1	0.15	0.29	0.38	0.43	0.74	0.96
93	-0.0587	0.050078	0.15728	0.197607	0.23649	0.316864	0.523423	0.701632	0.818888	0.01	0.02	0.02	0.02	0.03	0.04	0.1	0.24	0.32	0.46	0.75	0.97
94	0.0234	0.061749	0.089849	0.161197	0.192944	0.355585	0.493767	0.660548	0.842363	0.01	0.01	0.01	0.03	0.05	0.08	0.12	0.2	0.32	0.51	0.77	0.96
95	-0.0961	0.052702	0.108935	0.203014	0.235537	0.326815	0.522308	0.72065	0.819744	0.01	0.01	0.02	0.03	0.03	0.07	0.09	0.18	0.38	0.47	0.7	0.96
96	0.779	0.002099	0.012336	0.063644	0.072928	0.138629	0.293044	0.494352	0.671318	0.04	0.07	0.08	0.13	0.17	0.28	0.36	0.52	0.63	0.77	0.92	0.96
97	0.3683	0.00196	0.005682	0.029383	0.033235	0.081176	0.311707	0.618545	0.839574	0.07	0.09	0.16	0.22	0.28	0.37	0.42	0.5	0.55	0.6	0.81	0.95
98	0.8824	0.010244	0.017812	0.025273	0.027535	0.092125	0.255156	0.409322	0.604665	0.02	0.09	0.15	0.23	0.28	0.36	0.41	0.59	0.74	0.83	0.95	0.99
99	0.9054	0.004468	0.015673	0.031106	0.040651	0.081733	0.226774	0.429299	0.644473	0.03	0.07	0.16	0.24	0.27	0.37	0.44	0.59	0.71	0.83	0.95	0.98
100	0.6837	0.002879	0.010729	0.031319	0.052766	0.128727	0.263971	0.491716	0.676786	0.04	0.09	0.11	0.15	0.2	0.31	0.39	0.57	0.63	0.76	0.93	0.97
101	0.9079	0.002121	0.015083	0.064971	0.078031	0.131273	0.264447	0.479527	0.782533	0.04	0.07	0.09	0.1	0.15	0.27	0.36	0.58	0.7	0.77	0.86	0.96
102	0.548	0.008544	0.033449	0.054892	0.072721	0.155845	0.328221	0.533816	0.708331	0.02	0.04	0.09	0.12	0.17	0.24	0.32	0.47	0.57	0.69	0.89	0.96
103	0.9281	0.030291	0.047154	0.085767	0.115213	0.171144	0.29605	0.467514	0.803485	0.01	0.02	0.05	0.07	0.12	0.17	0.3	0.51	0.66	0.79	0.89	0.95
104	0.5813	0.00422	0.010436	0.033724	0.049402	0.130101	0.290774	0.525734	0.705307	0.04	0.08	0.12	0.17	0.19	0.29	0.37	0.5	0.64	0.73	0.9	0.98
105	0.475	0.013164	0.022043	0.0507	0.074591	0.159414	0.377213	0.564457	0.740801	0.01	0.06	0.1	0.12	0.16	0.22	0.34	0.45	0.53	0.66	0.86	0.96
106	-0.7004	0.107816	0.230608	0.304461	0.343573	0.512937	0.773466	0.889948	0.986083	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.09	0.18	0.24	0.42	0.78
107	-0.8689	0.101865	0.184864	0.340159	0.396227	0.561769	0.754779	0.919872	0.986269	0.01	0.01	0.01	0.02	0.02	0.03	0.05	0.08	0.12	0.2	0.42	0.72
108	-0.7447	0.074843	0.147224	0.252351	0.285933	0.481381	0.731797	0.877047	0.958581	0.01	0.01	0.01	0.02	0.04	0.05	0.09	0.13	0.16	0.27	0.44	0.82
109	-0.5311	0.05361	0.143476	0.245884	0.260688	0.49019	0.654575	0.851499	0.954925	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.14	0.19	0.25	0.56	0.8
110	-0.5573	0.064228	0.126192	0.281164	0.315975	0.486835	0.706847	0.90115	0.981668	0.01	0.01	0.02	0.02	0.03	0.05	0.05	0.1	0.19	0.27	0.49	0.74
111	-0.4408	0.083968	0.145475	0.239999	0.254685	0.373349	0.652577	0.844126	0.952147	0.01	0.01	0.01	0.01	0.03	0.05	0.06	0.18	0.27	0.31	0.57	0.85
112	-0.2941	0.039216	0.237124	0.296959	0.33069	0.425636	0.627424	0.873818	0.970734	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.1	0.21	0.35	0.56	0.82
113	-0.3523	0.059827	0.124479	0.175769	0.203784	0.411857	0.605148	0.807458	0.927327	0.01	0.01	0.02	0.03	0.03	0.08	0.11	0.2	0.24	0.35	0.58	0.86
114	-0.5384	0.120307	0.264968	0.284979	0.295773	0.477756	0.674683	0.874404	0.952783	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.12	0.18	0.25	0.55	0.78
115	-0.4855	0.06455	0.118078	0.194667	0.237464	0.411364	0.655843	0.805356	0.909814	0.01	0.01	0.01	0.02	0.04	0.06	0.1	0.15	0.24	0.35	0.53	0.88

Table AD5. Recall set - with quantiles for sample size 500.

No.	Skewness	Quantiles								Cumulative Probabilities											
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	0.0147	0.020411	0.052707	0.096588	0.123587	0.251478	0.510045	0.736455	0.915329	0.016	0.028	0.048	0.074	0.102	0.148	0.196	0.302	0.394	0.492	0.714	0.882
2	0.0822	0.024615	0.05161	0.103388	0.136894	0.242563	0.489992	0.744674	0.909359	0.01	0.024	0.046	0.074	0.098	0.138	0.2	0.328	0.418	0.518	0.706	0.892
3	-0.0225	0.016486	0.039076	0.07835	0.100435	0.223989	0.501334	0.757985	0.892296	0.012	0.032	0.066	0.096	0.124	0.186	0.232	0.334	0.41	0.498	0.684	0.91
4	0.1037	0.021574	0.041112	0.082251	0.113623	0.231616	0.445139	0.736101	0.884345	0.014	0.034	0.064	0.094	0.114	0.158	0.214	0.326	0.438	0.548	0.71	0.912
5	-0.0331	0.02356	0.046975	0.103294	0.115547	0.253827	0.497372	0.760572	0.898203	0.014	0.028	0.05	0.072	0.094	0.154	0.192	0.302	0.4	0.504	0.69	0.902
6	2.2596	0.004311	0.010056	0.018805	0.021843	0.039364	0.097932	0.188005	0.326429	0.048	0.14	0.302	0.416	0.516	0.67	0.764	0.882	0.936	0.968	0.986	0.996
7	1.9673	0.003612	0.006651	0.014677	0.020326	0.042472	0.097431	0.185843	0.31128	0.068	0.154	0.298	0.43	0.512	0.684	0.778	0.892	0.956	0.98	0.998	0.998
8	1.7424	0.004689	0.010137	0.019	0.023437	0.055965	0.129074	0.263222	0.458075	0.048	0.132	0.228	0.346	0.426	0.548	0.66	0.798	0.874	0.914	0.966	0.99
9	1.7787	0.004334	0.007899	0.016721	0.022264	0.043053	0.118324	0.231592	0.375828	0.06	0.14	0.276	0.356	0.446	0.586	0.702	0.832	0.916	0.958	0.986	0.996
10	2.0473	0.00311	0.006512	0.014803	0.018064	0.037891	0.093546	0.18515	0.30379	0.072	0.168	0.322	0.432	0.514	0.686	0.772	0.896	0.942	0.976	0.996	0.996
11	6.5223	0.000017	0.000075	0.000236	0.000317	0.001603	0.008222	0.031197	0.080436	0.546	0.702	0.828	0.894	0.928	0.958	0.974	0.982	0.988	0.992	0.996	0.998
12	3.7162	0.000023	0.000076	0.000358	0.00059	0.002036	0.014537	0.058903	0.201921	0.444	0.592	0.726	0.782	0.82	0.876	0.9	0.944	0.972	0.98	0.994	0.996
13	4.7545	0.000039	0.000173	0.000547	0.000837	0.002987	0.016378	0.05062	0.137029	0.42	0.606	0.746	0.792	0.85	0.904	0.934	0.972	0.99	0.994	0.996	0.996
14	5.4819	0.000006	0.000039	0.000161	0.000285	0.001793	0.007939	0.035119	0.097669	0.526	0.696	0.82	0.868	0.906	0.94	0.958	0.982	0.996	0.998	0.998	0.998
15	3.4405	0.000023	0.000062	0.000366	0.000614	0.00251	0.017649	0.077199	0.215753	0.41	0.546	0.678	0.744	0.804	0.852	0.894	0.94	0.966	0.972	0.988	0.996
16	0.5639	0.042663	0.067249	0.104739	0.114444	0.187923	0.303524	0.441621	0.572541	0.006	0.012	0.028	0.062	0.098	0.184	0.278	0.49	0.68	0.842	0.978	0.998
17	0.6806	0.041408	0.065409	0.098776	0.11352	0.176474	0.298751	0.423882	0.54124	0.002	0.006	0.03	0.068	0.102	0.192	0.298	0.502	0.714	0.84	0.968	0.994
18	0.7261	0.043426	0.072867	0.113684	0.120243	0.177154	0.289052	0.405985	0.510406	0.004	0.012	0.028	0.054	0.078	0.184	0.306	0.526	0.742	0.886	0.984	0.996
19	0.6258	0.035943	0.061706	0.094985	0.114388	0.187327	0.292175	0.41335	0.550516	0.008	0.016	0.044	0.064	0.104	0.192	0.274	0.53	0.714	0.85	0.98	0.998
20	0.5795	0.061631	0.083004	0.126565	0.144812	0.21583	0.323901	0.470176	0.589929	0.006	0.008	0.016	0.036	0.064	0.132	0.212	0.442	0.646	0.806	0.964	0.996
21	0.2146	0.098267	0.136766	0.195914	0.222896	0.307846	0.427638	0.5475	0.677348	0.002	0.002	0.014	0.018	0.026	0.06	0.104	0.23	0.46	0.664	0.918	0.994
22	0.3581	0.102578	0.133397	0.181463	0.19341	0.266542	0.378336	0.505266	0.604556	0.002	0.004	0.008	0.01	0.024	0.07	0.136	0.322	0.538	0.742	0.964	0.996
23	0.2932	0.097489	0.127484	0.19451	0.211368	0.284903	0.398259	0.520418	0.624281	0.002	0.006	0.01	0.014	0.026	0.06	0.104	0.268	0.506	0.71	0.946	0.994
24	0.1065	0.076806	0.114714	0.172848	0.194264	0.300078	0.434802	0.556281	0.68578	0.004	0.008	0.012	0.022	0.042	0.072	0.126	0.25	0.434	0.628	0.916	0.994
25	0.0879	0.14537	0.175173	0.230618	0.247603	0.332012	0.449627	0.582643	0.685633	0.002	0.002	0.002	0.006	0.008	0.03	0.068	0.2	0.374	0.606	0.918	0.994
26	2.6091	0.000109	0.000333	0.002082	0.002916	0.011074	0.049543	0.134079	0.264003	0.24	0.384	0.5	0.598	0.658	0.776	0.862	0.924	0.946	0.972	0.992	0.996
27	2.4469	0.000075	0.000463	0.001623	0.002304	0.01055	0.051998	0.152574	0.337066	0.24	0.356	0.492	0.602	0.67	0.746	0.814	0.878	0.918	0.942	0.974	0.99
28	2.1433	0.000199	0.000743	0.002787	0.003924	0.014142	0.061381	0.180551	0.337089	0.212	0.324	0.452	0.534	0.598	0.706	0.786	0.882	0.918	0.946	0.986	0.996
29	3.3213	0.000064	0.000348	0.001185	0.001661	0.009982	0.038973	0.10563	0.206341	0.25	0.4	0.564	0.668	0.742	0.846	0.896	0.952	0.98	0.988	0.994	0.998
30	2.6296	0.000033	0.000174	0.000863	0.00168	0.008599	0.040438	0.132686	0.265694	0.27	0.416	0.536	0.628	0.682	0.784	0.85	0.916	0.952	0.978	0.99	0.998
31	1.4279	0.022352	0.039991	0.066091	0.072619	0.11813	0.199225	0.322151	0.45791	0.01	0.032	0.066	0.13	0.204	0.366	0.5	0.696	0.864	0.92	0.968	0.994
32	1.3551	0.023047	0.043392	0.062729	0.069106	0.113516	0.194684	0.334088	0.487377	0.006	0.028	0.066	0.14	0.212	0.37	0.512	0.712	0.838	0.904	0.976	0.994
33	1.0564	0.032714	0.043429	0.066366	0.075848	0.115432	0.218333	0.33931	0.46865	0.006	0.016	0.058	0.124	0.206	0.352	0.464	0.672	0.844	0.934	0.988	0.996
34	1.9291	0.013866	0.025819	0.040538	0.049383	0.081594	0.147467	0.225657	0.317277	0.016	0.048	0.13	0.22	0.306	0.52	0.698	0.884	0.954	0.98	0.994	0.998
35	1.4013	0.018333	0.033085	0.047233	0.056449	0.092946	0.169958	0.272072	0.422507	0.008	0.032	0.108	0.184	0.272	0.458	0.586	0.792	0.888	0.954	0.992	0.996
36	1.0354	0.029795	0.058621	0.082321	0.097693	0.141049	0.232851	0.358303	0.508049	0.006	0.022	0.044	0.072	0.126	0.266	0.414	0.646	0.81	0.896	0.98	0.998
37	1.1335	0.03261	0.061004	0.091315	0.099072	0.143477	0.239696	0.387609	0.523568	0.008	0.016	0.036	0.064	0.128	0.262	0.398	0.622	0.772	0.862	0.958	0.992
38	1.2604	0.04435	0.05996	0.084574	0.09109	0.127869	0.201745	0.290287	0.394209	0.004	0.008	0.028	0.082	0.15	0.318	0.498	0.76	0.904	0.964	0.994	0.998
39	0.8638	0.038359	0.061216	0.099686	0.110802	0.154392	0.256949	0.40331	0.545989	0.002	0.01	0.04	0.07	0.1	0.238	0.368	0.578	0.748	0.858	0.978	0.992
40	0.9859	0.034207	0.046677	0.078549	0.096492	0.150299	0.263766	0.383058	0.523281	0.006	0.016	0.054	0.094	0.136	0.248	0.344	0.594	0.764	0.876	0.97	0.99

Table AD5(continued). Recall set - with quantiles for sample size 500.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	2.4291	0.024353	0.033001	0.048381	0.053579	0.079362	0.130705	0.197165	0.298187	0.004	0.026	0.108	0.232	0.35	0.586	0.764	0.904	0.968	0.992	0.996	0.996
42	1.7420	0.051135	0.065026	0.082167	0.09014	0.12852	0.193983	0.28223	0.420084	0.002	0.008	0.02	0.072	0.164	0.352	0.526	0.784	0.88	0.946	0.986	0.996
43	2.2531	0.022245	0.033191	0.048374	0.051739	0.075947	0.127985	0.188919	0.259695	0.008	0.032	0.104	0.24	0.356	0.58	0.774	0.926	0.98	0.994	0.998	0.998
44	1.5532	0.025385	0.043987	0.066117	0.072041	0.103449	0.168794	0.267059	0.398094	0.004	0.024	0.054	0.134	0.236	0.428	0.606	0.8	0.902	0.952	0.994	0.998
45	1.4836	0.050605	0.058947	0.080746	0.093519	0.134229	0.210502	0.313555	0.442568	0.002	0.004	0.022	0.086	0.146	0.316	0.476	0.73	0.864	0.932	0.978	0.998
46	3.4143	0.006863	0.010223	0.014517	0.015884	0.028741	0.059508	0.120311	0.192094	0.048	0.214	0.428	0.608	0.7	0.82	0.908	0.95	0.972	0.982	0.994	0.998
47	3.6409	0.004379	0.007789	0.012754	0.0156	0.025463	0.052303	0.10928	0.190377	0.07	0.242	0.484	0.614	0.726	0.846	0.904	0.95	0.97	0.982	0.992	0.998
48	4.6072	0.004827	0.007691	0.012483	0.013583	0.022747	0.042357	0.079172	0.154249	0.076	0.278	0.558	0.722	0.824	0.896	0.934	0.974	0.988	0.996	0.996	0.998
49	3.1241	0.008116	0.011468	0.017913	0.020425	0.03421	0.068172	0.140386	0.234544	0.044	0.162	0.382	0.518	0.64	0.768	0.868	0.932	0.964	0.974	0.99	0.996
50	5.2021	0.002571	0.004015	0.006307	0.008022	0.014169	0.032827	0.066044	0.121304	0.17	0.422	0.67	0.792	0.866	0.932	0.956	0.982	0.99	0.996	0.998	0.998
51	6.987	0.000183	0.00042	0.000978	0.001352	0.003253	0.009604	0.026413	0.071636	0.506	0.732	0.858	0.91	0.932	0.962	0.968	0.984	0.99	0.996	0.998	0.998
52	3.6296	0.001471	0.002503	0.00444	0.005079	0.009458	0.028063	0.080439	0.196347	0.262	0.486	0.656	0.736	0.806	0.876	0.904	0.934	0.952	0.968	0.986	0.994
53	7.2157	0.000388	0.000696	0.001522	0.001899	0.003436	0.01052	0.030363	0.077611	0.484	0.712	0.838	0.896	0.922	0.95	0.972	0.986	0.994	0.996	0.996	0.998
54	5.8244	0.000411	0.0009	0.002057	0.002652	0.005912	0.014354	0.040538	0.103396	0.386	0.622	0.808	0.86	0.9	0.944	0.954	0.978	0.986	0.992	0.996	0.996
55	19.9546	0.000058	0.000113	0.000251	0.000295	0.000633	0.001782	0.004841	0.012793	0.876	0.956	0.988	0.994	0.994	0.996	0.996	0.998	0.998	0.998	0.998	0.998
56	0.1718	0.138573	0.176113	0.233529	0.250792	0.324778	0.434671	0.536542	0.647152	0.004	0.004	0.004	0.004	0.01	0.028	0.064	0.204	0.42	0.672	0.948	0.996
57	-0.039	0.27647	0.317721	0.367859	0.387274	0.465895	0.564192	0.658856	0.763254	0.002	0.002	0.002	0.002	0.004	0.008	0.014	0.042	0.152	0.348	0.834	0.986
58	-0.0641	0.142496	0.193613	0.252554	0.26418	0.336651	0.450303	0.544443	0.625996	0.002	0.004	0.008	0.008	0.012	0.028	0.056	0.178	0.364	0.612	0.966	0.998
59	0.0926	0.12896	0.199588	0.268007	0.284188	0.359019	0.475886	0.599003	0.714405	0.002	0.002	0.002	0.004	0.01	0.036	0.05	0.15	0.332	0.56	0.89	0.994
60	0.0542	0.232673	0.258972	0.319067	0.349748	0.431751	0.545229	0.654181	0.753311	0.002	0.002	0.002	0.002	0.002	0.004	0.01	0.084	0.212	0.424	0.834	0.98
61	0.7366	0.029188	0.042898	0.070456	0.082416	0.136363	0.263343	0.419694	0.57688	0.01	0.02	0.06	0.108	0.16	0.28	0.378	0.582	0.728	0.846	0.974	0.996
62	0.6663	0.024736	0.046822	0.079402	0.09744	0.157518	0.290349	0.478853	0.63716	0.008	0.024	0.054	0.096	0.13	0.23	0.326	0.518	0.666	0.794	0.94	0.992
63	0.7241	0.020623	0.037024	0.064659	0.081095	0.143931	0.266953	0.420834	0.582198	0.016	0.032	0.078	0.116	0.154	0.262	0.358	0.55	0.72	0.84	0.956	0.996
64	0.7944	0.026516	0.042495	0.073268	0.091254	0.149916	0.27171	0.444111	0.606678	0.01	0.022	0.062	0.1	0.14	0.25	0.362	0.552	0.684	0.822	0.942	0.994
65	0.6897	0.029501	0.043029	0.07035	0.082816	0.140971	0.27046	0.424075	0.590388	0.008	0.02	0.056	0.106	0.162	0.272	0.364	0.566	0.716	0.832	0.966	0.994
66	0.4753	0.028038	0.057407	0.104688	0.126441	0.199907	0.348235	0.560246	0.735282	0.006	0.022	0.04	0.066	0.092	0.168	0.25	0.416	0.566	0.688	0.864	0.976
67	0.5784	0.038421	0.056591	0.084692	0.101485	0.167605	0.32652	0.520142	0.707971	0.004	0.018	0.044	0.082	0.122	0.212	0.318	0.466	0.6	0.716	0.898	0.978
68	0.5099	0.031584	0.043749	0.083648	0.098547	0.176972	0.339276	0.512364	0.678976	0.004	0.018	0.062	0.09	0.126	0.196	0.282	0.442	0.608	0.738	0.914	0.99
69	0.4769	0.023463	0.045476	0.085457	0.099862	0.169531	0.321457	0.478554	0.620825	0.008	0.026	0.054	0.094	0.126	0.212	0.288	0.462	0.628	0.782	0.952	0.994
70	0.4555	0.012568	0.030362	0.066172	0.089629	0.172746	0.329347	0.504738	0.675799	0.018	0.044	0.074	0.108	0.136	0.214	0.298	0.454	0.61	0.744	0.93	0.992
71	-0.8659	0.20603	0.297206	0.417506	0.446528	0.601388	0.728075	0.861433	0.92857	0.002	0.002	0.002	0.004	0.008	0.012	0.022	0.05	0.09	0.16	0.438	0.846
72	-0.8791	0.344885	0.39962	0.496036	0.541569	0.627822	0.762887	0.870465	0.944189	0.002	0.004	0.004	0.004	0.004	0.004	0.006	0.016	0.05	0.102	0.372	0.818
73	-0.8875	0.226171	0.329269	0.419602	0.4483	0.589821	0.732239	0.85222	0.920145	0.006	0.006	0.006	0.006	0.008	0.014	0.016	0.044	0.086	0.16	0.43	0.85
74	-0.9609	0.258707	0.349312	0.472056	0.498744	0.608185	0.757898	0.871915	0.929992	0.002	0.002	0.002	0.004	0.006	0.012	0.018	0.038	0.066	0.126	0.398	0.826
75	-0.8918	0.292446	0.338697	0.462189	0.503497	0.598266	0.754682	0.860904	0.92466	0.002	0.002	0.004	0.006	0.008	0.012	0.014	0.032	0.08	0.116	0.416	0.842
76	-0.5924	0.123593	0.236693	0.315722	0.347824	0.503328	0.672494	0.820898	0.918981	0.002	0.008	0.01	0.014	0.02	0.026	0.034	0.086	0.164	0.244	0.548	0.87
77	-0.4571	0.180569	0.233251	0.322418	0.374336	0.476491	0.658298	0.814185	0.915819	0.004	0.004	0.004	0.008	0.008	0.016	0.03	0.078	0.152	0.272	0.56	0.882
78	-0.5091	0.216686	0.279048	0.355165	0.38098	0.524479	0.689566	0.827616	0.93171	0.002	0.002	0.004	0.004	0.004	0.01	0.02	0.058	0.142	0.222	0.518	0.858
79	-0.5118	0.144798	0.181748	0.266492	0.308395	0.473001	0.657433	0.819233	0.917483	0.002	0.004	0.006	0.01	0.016	0.028	0.054	0.118	0.186	0.28	0.568	0.882
80	-0.479	0.161096	0.21772	0.296547	0.33573	0.472395	0.668395	0.82076	0.913954	0.004	0.004	0.004	0.008	0.012	0.022	0.034	0.104	0.18	0.284	0.546	0.868

Table AD5(continued). Recall set - with quantiles for sample size 500.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	-0.1341	0.105525	0.139207	0.209306	0.235077	0.346181	0.527205	0.675463	0.778602	0.002	0.002	0.004	0.012	0.024	0.056	0.09	0.192	0.316	0.468	0.792	0.978
82	-0.0665	0.098289	0.162069	0.212628	0.234153	0.352585	0.50479	0.653719	0.785055	0.006	0.008	0.012	0.016	0.024	0.042	0.082	0.192	0.324	0.494	0.812	0.982
83	0.05	0.068772	0.122245	0.17015	0.197433	0.306401	0.465576	0.637266	0.76795	0.004	0.012	0.014	0.024	0.042	0.08	0.126	0.234	0.398	0.574	0.822	0.99
84	0.047	0.138183	0.173529	0.227414	0.247143	0.343088	0.501415	0.647427	0.776766	0.002	0.004	0.008	0.01	0.016	0.036	0.066	0.184	0.336	0.494	0.832	0.982
85	0.1234	0.114631	0.153947	0.209283	0.226835	0.326757	0.472987	0.652845	0.782031	0.002	0.002	0.004	0.01	0.016	0.046	0.088	0.21	0.344	0.542	0.814	0.97
86	-0.0815	0.176955	0.22829	0.279272	0.302732	0.397493	0.545087	0.683545	0.785961	0.002	0.002	0.002	0.002	0.004	0.016	0.03	0.122	0.254	0.42	0.782	0.976
87	-0.0311	0.069024	0.141817	0.203382	0.235123	0.327364	0.488626	0.669597	0.769088	0.004	0.008	0.018	0.028	0.034	0.054	0.094	0.222	0.372	0.51	0.796	0.982
88	0.0754	0.180462	0.220206	0.272918	0.287279	0.377575	0.50319	0.636339	0.750519	0.002	0.004	0.004	0.004	0.006	0.012	0.042	0.14	0.31	0.49	0.854	0.99
89	0.1229	0.101573	0.151022	0.215258	0.236453	0.329385	0.470145	0.613561	0.727975	0.002	0.004	0.008	0.012	0.024	0.048	0.086	0.202	0.372	0.552	0.856	0.982
90	-0.0982	0.145299	0.180018	0.242797	0.263972	0.381285	0.512099	0.652698	0.763554	0.002	0.002	0.004	0.01	0.01	0.03	0.062	0.17	0.286	0.48	0.826	0.982
91	0.0222	0.081535	0.125519	0.169076	0.198058	0.317952	0.487954	0.662479	0.817949	0.006	0.01	0.012	0.02	0.032	0.078	0.13	0.226	0.354	0.512	0.8	0.968
92	-0.0541	0.073109	0.112253	0.185721	0.212263	0.314727	0.51949	0.682692	0.816012	0.002	0.004	0.012	0.028	0.042	0.074	0.114	0.238	0.334	0.478	0.768	0.954
93	0.0487	0.074983	0.105257	0.181241	0.197213	0.314265	0.482669	0.669938	0.81714	0.002	0.002	0.008	0.024	0.038	0.068	0.128	0.224	0.362	0.526	0.774	0.964
94	0.1217	0.106249	0.150596	0.219657	0.253135	0.344339	0.49766	0.708104	0.849539	0.002	0.002	0.006	0.012	0.024	0.048	0.078	0.188	0.346	0.504	0.742	0.932
95	-0.015	0.05801	0.108974	0.178548	0.205343	0.316833	0.49153	0.690765	0.809782	0.01	0.012	0.018	0.032	0.046	0.072	0.118	0.218	0.372	0.514	0.768	0.964
96	0.8481	0.005626	0.009953	0.026136	0.034947	0.098596	0.232459	0.441619	0.666619	0.05	0.094	0.164	0.206	0.254	0.348	0.442	0.6	0.724	0.812	0.922	0.988
97	0.7532	0.004489	0.010716	0.030125	0.038661	0.114259	0.25313	0.45106	0.644263	0.048	0.086	0.148	0.188	0.234	0.324	0.412	0.572	0.676	0.796	0.928	0.99
98	0.767	0.002547	0.005911	0.020469	0.031494	0.081938	0.238639	0.444233	0.631701	0.062	0.116	0.17	0.232	0.278	0.378	0.46	0.59	0.7	0.802	0.932	0.99
99	0.7702	0.002356	0.006436	0.022152	0.031531	0.093399	0.231174	0.468978	0.687598	0.062	0.11	0.164	0.218	0.266	0.358	0.448	0.588	0.686	0.78	0.912	0.986
100	0.8764	0.00704	0.014503	0.0254	0.033681	0.083753	0.229836	0.414999	0.637133	0.028	0.096	0.164	0.228	0.284	0.376	0.45	0.606	0.736	0.816	0.934	0.992
101	0.6403	0.010306	0.026829	0.055402	0.070409	0.1438	0.294536	0.510221	0.719231	0.024	0.042	0.096	0.13	0.18	0.26	0.332	0.51	0.638	0.744	0.882	0.974
102	0.6056	0.007637	0.017088	0.04429	0.065974	0.125018	0.296177	0.479486	0.690193	0.028	0.064	0.106	0.142	0.178	0.298	0.366	0.51	0.63	0.762	0.906	0.982
103	0.5505	0.009417	0.020786	0.041945	0.059537	0.125171	0.301107	0.534456	0.725604	0.026	0.056	0.116	0.15	0.198	0.294	0.364	0.498	0.614	0.724	0.884	0.98
104	0.558	0.010751	0.019676	0.049056	0.063562	0.136163	0.298475	0.492151	0.671997	0.022	0.062	0.104	0.146	0.166	0.276	0.366	0.504	0.638	0.76	0.924	0.988
105	0.6622	0.00911	0.017787	0.041231	0.052149	0.12432	0.280063	0.493226	0.728964	0.026	0.058	0.116	0.174	0.196	0.29	0.368	0.532	0.66	0.758	0.89	0.984
106	-0.8239	0.154003	0.240896	0.34695	0.378452	0.555764	0.777746	0.908065	0.971659	0.002	0.002	0.002	0.006	0.01	0.02	0.038	0.076	0.138	0.2	0.406	0.736
107	-0.8148	0.1331	0.200265	0.349441	0.397934	0.541929	0.771552	0.916708	0.971287	0.004	0.004	0.006	0.01	0.02	0.03	0.05	0.08	0.126	0.21	0.404	0.72
108	-0.837	0.188429	0.268387	0.374143	0.41522	0.561296	0.777704	0.912059	0.971117	0.002	0.004	0.006	0.006	0.008	0.014	0.03	0.062	0.12	0.176	0.392	0.73
109	-0.8241	0.127605	0.211219	0.321082	0.379747	0.550773	0.744526	0.898091	0.965051	0.002	0.006	0.006	0.018	0.022	0.032	0.046	0.09	0.128	0.202	0.426	0.756
110	-0.799	0.161029	0.218092	0.322343	0.389581	0.545022	0.754586	0.904998	0.970937	0.002	0.004	0.004	0.014	0.02	0.022	0.04	0.09	0.14	0.21	0.412	0.734
111	-0.4429	0.138525	0.208055	0.286235	0.319224	0.463915	0.684073	0.839686	0.949235	0.002	0.002	0.004	0.01	0.012	0.026	0.042	0.108	0.182	0.3	0.522	0.844
112	-0.5788	0.11674	0.200198	0.288201	0.329111	0.458027	0.709131	0.881324	0.948073	0.002	0.002	0.008	0.01	0.016	0.036	0.048	0.106	0.192	0.282	0.476	0.794
113	-0.5563	0.094745	0.184173	0.26924	0.302096	0.472852	0.69257	0.849801	0.948765	0.002	0.002	0.006	0.014	0.026	0.034	0.066	0.12	0.188	0.286	0.508	0.826
114	-0.6294	0.092268	0.156202	0.265626	0.313264	0.473638	0.692409	0.866312	0.937966	0.006	0.008	0.016	0.022	0.026	0.046	0.068	0.116	0.18	0.27	0.518	0.818
115	-0.4954	0.145185	0.200153	0.272521	0.321173	0.446554	0.688143	0.858004	0.941786	0.002	0.004	0.006	0.01	0.014	0.026	0.048	0.114	0.212	0.296	0.514	0.812

Table AD6. Recall set - with quantiles for sample size 1000.

No.	Skewness	Quantiles							
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9
1	0.0484	0.023066	0.05181	0.099828	0.130264	0.247697	0.495837	0.742677	0.911851
2	0.0392	0.02037	0.041108	0.078928	0.104132	0.232749	0.468482	0.748522	0.888914
3	-0.1045	0.02353	0.043786	0.10264	0.116975	0.255454	0.53297	0.769326	0.894179
4	-0.0322	0.03586	0.058519	0.110504	0.140481	0.276619	0.503288	0.730439	0.883902
5	0.0003	0.020205	0.043456	0.088837	0.124576	0.250405	0.500183	0.719512	0.902349
6	1.7549	0.003824	0.006962	0.014954	0.018805	0.038504	0.100286	0.202288	0.350948
7	2.2286	0.004135	0.008385	0.015934	0.018656	0.035733	0.088164	0.166803	0.288163
8	1.7603	0.002898	0.005851	0.012947	0.016891	0.039985	0.090125	0.1885	0.314899
9	2.2884	0.00331	0.006692	0.013538	0.015849	0.033319	0.084009	0.164189	0.257092
10	1.9725	0.003613	0.006936	0.014035	0.018595	0.041346	0.092494	0.182394	0.300223
11	4.5637	0.000016	0.00005	0.000228	0.000359	0.001493	0.010084	0.040968	0.123233
12	5.9114	0.000019	0.000074	0.00026	0.000355	0.00129	0.007805	0.027878	0.083119
13	4.8689	0.000008	0.000034	0.000168	0.000285	0.001599	0.008122	0.035532	0.099162
14	6.9605	0.000012	0.000046	0.000186	0.000255	0.001117	0.007075	0.02699	0.06614
15	5.7141	0.000014	0.00005	0.0002	0.00035	0.001718	0.008573	0.033299	0.090178
16	0.7933	0.041977	0.0613	0.094034	0.107472	0.16497	0.260659	0.377888	0.494669
17	0.6812	0.040284	0.059264	0.102688	0.116043	0.181813	0.292468	0.407112	0.534995
18	0.5484	0.05731	0.077305	0.114195	0.130035	0.195827	0.310364	0.447917	0.577343
19	0.6273	0.052821	0.077869	0.12159	0.136043	0.198467	0.301807	0.426516	0.552357
20	0.5046	0.050004	0.08332	0.118931	0.136788	0.205742	0.343836	0.486758	0.638513
21	0.2451	0.111185	0.160598	0.201153	0.215898	0.279505	0.382736	0.482385	0.585671
22	0.145	0.129142	0.186667	0.235909	0.250281	0.335102	0.453399	0.573238	0.685437
23	0.2045	0.105016	0.145628	0.193696	0.20819	0.289273	0.401536	0.529153	0.632617
24	0.0938	0.134905	0.183091	0.240143	0.258337	0.341213	0.458104	0.576591	0.688025
25	0.1468	0.104119	0.145476	0.216502	0.230904	0.31992	0.442055	0.567131	0.672201
26	2.9369	0.000106	0.00038	0.001651	0.002511	0.008814	0.037177	0.106844	0.208177
27	2.3808	0.000143	0.000554	0.002013	0.003068	0.012675	0.058569	0.152206	0.31075
28	2.1702	0.000069	0.000402	0.001936	0.003056	0.011552	0.053036	0.165845	0.326366
29	3.0329	0.000064	0.000388	0.001564	0.002217	0.007643	0.033561	0.100517	0.18763
30	2.4873	0.000192	0.000612	0.001969	0.003142	0.012804	0.052831	0.138333	0.285776
31	1.297	0.013981	0.023895	0.041143	0.049253	0.083918	0.152433	0.24691	0.35567
32	1.2935	0.020625	0.036027	0.056702	0.066478	0.105422	0.184736	0.303511	0.444557
33	1.4354	0.021969	0.032116	0.049638	0.058202	0.096727	0.17278	0.28094	0.402326
34	1.8608	0.012996	0.020736	0.033308	0.038981	0.067668	0.119792	0.193293	0.281614
35	1.4152	0.017619	0.029453	0.046037	0.054348	0.092466	0.165489	0.265195	0.376339
36	1.06	0.030411	0.044089	0.064375	0.074796	0.121505	0.213207	0.327198	0.449173
37	0.9116	0.044352	0.062183	0.094104	0.108366	0.167219	0.262676	0.385041	0.534543
38	1.3159	0.043923	0.058275	0.076032	0.08422	0.126413	0.199154	0.289289	0.405298
39	0.9575	0.042641	0.059204	0.084325	0.094406	0.143766	0.231618	0.358484	0.484043
40	1.2705	0.031547	0.05181	0.080288	0.088826	0.137115	0.212039	0.302873	0.42138

No.	Cumulative Probabilities											
	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	0.013	0.026	0.047	0.074	0.1	0.143	0.198	0.315	0.406	0.505	0.71	0.887
2	0.011	0.031	0.064	0.095	0.118	0.172	0.221	0.328	0.424	0.524	0.697	0.913
3	0.014	0.028	0.054	0.073	0.095	0.157	0.191	0.291	0.385	0.479	0.673	0.903
4	0.011	0.018	0.039	0.066	0.092	0.131	0.193	0.271	0.384	0.496	0.715	0.919
5	0.014	0.032	0.055	0.083	0.109	0.148	0.202	0.292	0.396	0.499	0.727	0.897
6	0.07	0.173	0.317	0.402	0.499	0.636	0.748	0.865	0.931	0.973	0.992	0.999
7	0.062	0.167	0.326	0.452	0.549	0.713	0.801	0.908	0.963	0.979	0.992	0.999
8	0.077	0.178	0.32	0.437	0.527	0.674	0.774	0.885	0.949	0.973	0.999	0.999
9	0.075	0.196	0.345	0.46	0.57	0.718	0.815	0.932	0.967	0.985	0.995	0.999
10	0.067	0.168	0.297	0.43	0.534	0.672	0.785	0.9	0.96	0.98	0.995	0.999
11	0.499	0.661	0.786	0.844	0.877	0.925	0.947	0.98	0.988	0.993	0.999	0.999
12	0.548	0.73	0.839	0.887	0.916	0.956	0.972	0.983	0.99	0.992	0.998	0.999
13	0.527	0.695	0.817	0.863	0.904	0.946	0.963	0.984	0.996	0.999	0.999	0.999
14	0.57	0.74	0.853	0.916	0.937	0.959	0.975	0.99	0.994	0.995	0.998	0.999
15	0.534	0.691	0.819	0.879	0.915	0.956	0.973	0.985	0.99	0.995	0.999	0.999
16	0.003	0.013	0.032	0.068	0.106	0.217	0.351	0.595	0.778	0.905	0.986	0.999
17	0.005	0.012	0.034	0.062	0.095	0.19	0.291	0.523	0.739	0.875	0.978	0.996
18	0.001	0.006	0.018	0.048	0.08	0.154	0.259	0.469	0.683	0.818	0.975	0.998
19	0.002	0.006	0.021	0.043	0.07	0.149	0.251	0.495	0.699	0.855	0.973	0.998
20	0.003	0.008	0.025	0.045	0.075	0.141	0.236	0.426	0.604	0.766	0.944	0.995
21	0.001	0.002	0.006	0.01	0.02	0.047	0.099	0.285	0.538	0.782	0.981	0.999
22	0.002	0.002	0.004	0.008	0.01	0.036	0.062	0.189	0.388	0.609	0.913	0.994
23	0.002	0.002	0.004	0.01	0.02	0.052	0.109	0.274	0.497	0.693	0.945	0.999
24	0.001	0.001	0.005	0.012	0.017	0.033	0.067	0.176	0.371	0.577	0.914	0.993
25	0.002	0.004	0.008	0.012	0.021	0.051	0.087	0.228	0.416	0.628	0.917	0.997
26	0.262	0.419	0.568	0.657	0.732	0.832	0.894	0.96	0.981	0.99	0.997	0.999
27	0.221	0.335	0.468	0.567	0.636	0.743	0.819	0.893	0.929	0.965	0.988	0.995
28	0.234	0.361	0.487	0.557	0.625	0.727	0.79	0.878	0.938	0.971	0.99	0.996
29	0.284	0.445	0.594	0.674	0.75	0.849	0.908	0.959	0.977	0.989	0.996	0.999
30	0.228	0.353	0.483	0.592	0.672	0.764	0.834	0.909	0.953	0.974	0.992	0.997
31	0.014	0.054	0.126	0.22	0.313	0.489	0.644	0.832	0.938	0.973	0.998	0.999
32	0.005	0.033	0.079	0.156	0.237	0.407	0.544	0.745	0.863	0.928	0.987	0.997
33	0.008	0.03	0.103	0.171	0.261	0.428	0.567	0.785	0.897	0.95	0.987	0.998
34	0.02	0.067	0.169	0.281	0.408	0.62	0.767	0.918	0.969	0.992	0.998	0.998
35	0.012	0.037	0.11	0.19	0.281	0.448	0.601	0.807	0.914	0.958	0.992	0.999
36	0.007	0.019	0.065	0.126	0.187	0.322	0.455	0.694	0.862	0.934	0.987	0.998
37	0.002	0.01	0.031	0.065	0.113	0.214	0.339	0.584	0.769	0.872	0.973	0.997
38	0.001	0.007	0.034	0.097	0.166	0.332	0.503	0.769	0.892	0.96	0.993	0.998
39	0.004	0.01	0.032	0.075	0.141	0.269	0.416	0.657	0.822	0.913	0.985	0.999
40	0.006	0.02	0.046	0.088	0.148	0.288	0.469	0.744	0.883	0.949	0.99	0.999

Table AD6(continued). Recall set - with quantiles for sample size 1000.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
41	2.0814	0.04034	0.050725	0.062817	0.069707	0.096643	0.146176	0.212503	0.311967	0.002	0.009	0.047	0.153	0.275	0.519	0.721	0.889	0.959	0.986	0.996	0.998
42	1.8774	0.022405	0.034108	0.050455	0.054466	0.078205	0.128234	0.198528	0.283304	0.005	0.031	0.096	0.231	0.357	0.589	0.756	0.914	0.971	0.993	0.998	0.999
43	1.4582	0.050786	0.061807	0.085728	0.092203	0.133621	0.207637	0.312972	0.422809	0.002	0.007	0.023	0.084	0.159	0.321	0.474	0.73	0.877	0.937	0.983	0.997
44	1.6667	0.040011	0.057091	0.081202	0.086966	0.120772	0.181531	0.26407	0.375405	0.004	0.013	0.039	0.087	0.173	0.381	0.556	0.81	0.914	0.964	0.993	0.998
45	1.6733	0.034311	0.043158	0.061213	0.066663	0.096648	0.153309	0.229998	0.313246	0.002	0.011	0.068	0.155	0.268	0.489	0.673	0.883	0.953	0.98	0.998	0.999
46	3.4742	0.004373	0.007005	0.010895	0.013068	0.021447	0.044541	0.090115	0.168508	0.089	0.311	0.54	0.698	0.79	0.882	0.929	0.964	0.983	0.995	0.998	0.999
47	3.736	0.004416	0.006901	0.012214	0.014278	0.023116	0.046377	0.09334	0.175221	0.081	0.266	0.53	0.668	0.773	0.875	0.924	0.963	0.984	0.99	0.996	0.998
48	13.071	0.001402	0.001966	0.003445	0.003969	0.006734	0.013672	0.027911	0.052457	0.389	0.715	0.888	0.946	0.967	0.992	0.993	0.998	0.999	0.999	0.999	0.999
49	3.1347	0.005181	0.007942	0.014231	0.017832	0.032028	0.060406	0.125783	0.228857	0.069	0.192	0.404	0.572	0.671	0.802	0.874	0.936	0.968	0.981	0.993	0.997
50	5.894	0.002957	0.004443	0.006634	0.007835	0.013608	0.026099	0.053893	0.10307	0.183	0.481	0.726	0.843	0.896	0.953	0.975	0.989	0.994	0.997	0.999	0.999
51	11.6284	0.000253	0.000409	0.000689	0.000859	0.001888	0.005257	0.01388	0.032287	0.676	0.864	0.945	0.969	0.977	0.987	0.991	0.994	0.997	0.998	0.999	0.999
52	6.8301	0.000534	0.000986	0.001531	0.001846	0.003992	0.010336	0.027114	0.06816	0.495	0.735	0.865	0.911	0.937	0.961	0.975	0.984	0.989	0.993	0.997	0.998
53	7.0625	0.00042	0.000709	0.001505	0.00193	0.003937	0.01075	0.031711	0.077813	0.482	0.708	0.828	0.894	0.924	0.952	0.972	0.986	0.989	0.994	0.996	0.996
54	4.6844	0.000699	0.001442	0.002734	0.003493	0.006325	0.016135	0.044224	0.112192	0.365	0.623	0.768	0.841	0.887	0.93	0.951	0.972	0.983	0.992	0.997	0.999
55	7.0654	0.000371	0.000781	0.001535	0.002009	0.003963	0.010926	0.029172	0.076728	0.48	0.719	0.84	0.897	0.936	0.966	0.98	0.989	0.995	0.997	0.999	0.999
56	0.0472	0.265287	0.30524	0.345237	0.365585	0.432841	0.524269	0.611641	0.704744	0.001	0.001	0.001	0.001	0.002	0.004	0.01	0.047	0.187	0.435	0.892	0.996
57	0.0177	0.143308	0.197523	0.259797	0.27328	0.342593	0.450755	0.556912	0.6489	0.001	0.002	0.005	0.005	0.009	0.027	0.05	0.166	0.369	0.617	0.953	0.998
58	-0.0186	0.236194	0.270613	0.334652	0.350001	0.433924	0.544571	0.656094	0.741877	0.001	0.002	0.002	0.002	0.003	0.009	0.013	0.075	0.203	0.403	0.835	0.986
59	-0.057	0.21018	0.269289	0.337218	0.351465	0.423948	0.522571	0.620166	0.716431	0.001	0.001	0.003	0.004	0.005	0.013	0.021	0.072	0.204	0.44	0.877	0.993
60	0.0127	0.193661	0.228488	0.289138	0.305296	0.381438	0.487686	0.589728	0.671651	0.001	0.001	0.001	0.004	0.005	0.011	0.028	0.116	0.292	0.53	0.922	0.998
61	0.695	0.023311	0.04293	0.069137	0.086635	0.14631	0.269454	0.43482	0.589119	0.011	0.028	0.06	0.107	0.148	0.254	0.355	0.552	0.71	0.825	0.958	0.996
62	0.7473	0.029623	0.045199	0.073884	0.088392	0.146028	0.270601	0.432865	0.593352	0.009	0.02	0.057	0.103	0.148	0.262	0.367	0.559	0.708	0.829	0.958	0.994
63	0.8584	0.025361	0.042562	0.07059	0.086679	0.135189	0.252695	0.41658	0.5782	0.006	0.024	0.057	0.107	0.161	0.288	0.401	0.583	0.729	0.842	0.955	0.994
64	0.8315	0.02144	0.034772	0.062438	0.074241	0.128797	0.247802	0.389476	0.538859	0.007	0.03	0.079	0.128	0.178	0.291	0.409	0.61	0.763	0.862	0.974	0.998
65	0.8303	0.019323	0.033761	0.061002	0.069304	0.125862	0.237928	0.392196	0.53756	0.007	0.036	0.081	0.14	0.194	0.303	0.413	0.617	0.763	0.873	0.969	0.998
66	0.5209	0.027808	0.055077	0.091209	0.113539	0.18937	0.34229	0.529387	0.691868	0.006	0.023	0.04	0.079	0.111	0.182	0.263	0.434	0.592	0.729	0.906	0.985
67	0.5127	0.029819	0.050914	0.08464	0.098516	0.169355	0.308379	0.505441	0.662603	0.009	0.019	0.049	0.079	0.125	0.209	0.3	0.483	0.63	0.744	0.932	0.993
68	0.4853	0.034391	0.050008	0.088462	0.103163	0.184063	0.329805	0.509642	0.678063	0.011	0.016	0.05	0.087	0.117	0.199	0.273	0.449	0.601	0.733	0.919	0.99
69	0.4795	0.024687	0.048035	0.081701	0.099842	0.176602	0.328356	0.500569	0.660796	0.008	0.029	0.053	0.087	0.125	0.207	0.298	0.454	0.61	0.749	0.924	0.993
70	0.4856	0.033705	0.049591	0.08437	0.099554	0.172002	0.322128	0.521992	0.685947	0.003	0.02	0.051	0.086	0.125	0.212	0.288	0.471	0.601	0.735	0.913	0.991
71	-0.8773	0.309508	0.372577	0.47745	0.508951	0.631077	0.756878	0.870968	0.937996	0.001	0.002	0.002	0.002	0.003	0.003	0.008	0.024	0.058	0.119	0.382	0.825
72	-0.9256	0.268264	0.35905	0.464577	0.493334	0.610231	0.751989	0.865492	0.927164	0.001	0.001	0.001	0.005	0.006	0.01	0.016	0.035	0.065	0.133	0.389	0.831
73	-0.9201	0.29568	0.365924	0.464188	0.50285	0.602004	0.763759	0.869469	0.932424	0.001	0.001	0.002	0.004	0.006	0.008	0.014	0.028	0.069	0.119	0.383	0.826
74	-0.8691	0.313916	0.37368	0.474594	0.511178	0.615311	0.761415	0.871172	0.937572	0.001	0.001	0.002	0.003	0.003	0.005	0.012	0.023	0.059	0.117	0.379	0.819
75	-0.8698	0.224484	0.306269	0.405101	0.445945	0.594196	0.744381	0.86819	0.937231	0.003	0.004	0.005	0.006	0.008	0.011	0.018	0.049	0.094	0.159	0.411	0.806
76	-0.5135	0.178872	0.23966	0.317806	0.364783	0.485204	0.683805	0.82458	0.90813	0.001	0.001	0.004	0.004	0.007	0.018	0.031	0.088	0.153	0.259	0.529	0.886
77	-0.4456	0.138663	0.216085	0.289231	0.322148	0.454168	0.645667	0.815895	0.908761	0.003	0.005	0.009	0.015	0.02	0.027	0.045	0.107	0.184	0.306	0.571	0.884
78	-0.4688	0.195548	0.257273	0.342433	0.36807	0.497374	0.669955	0.811053	0.910443	0.001	0.001	0.002	0.003	0.007	0.013	0.026	0.071	0.156	0.255	0.546	0.885
79	-0.4947	0.187286	0.243965	0.334934	0.365596	0.489771	0.677599	0.815763	0.914459	0.001	0.001	0.004	0.006	0.008	0.018	0.029	0.079	0.16	0.261	0.528	0.88
80	-0.4586	0.156179	0.244501	0.319178	0.356418	0.48087	0.671299	0.822604	0.909096	0.001	0.001	0.003	0.008	0.011	0.024	0.034	0.09	0.162	0.273	0.557	0.887

Table AD6(continued). Recall set - with quantiles for sample size 1000.

No.	Skewness	Quantiles Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	Cumulative Probabilities F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	-0.1008	0.118644	0.169049	0.24489	0.277107	0.376048	0.520379	0.674017	0.781968	0.001	0.002	0.006	0.009	0.017	0.037	0.061	0.156	0.298	0.472	0.793	0.982
82	-0.0974	0.122395	0.177039	0.24568	0.268259	0.364106	0.523433	0.659925	0.769719	0.001	0.001	0.003	0.006	0.009	0.036	0.061	0.159	0.303	0.461	0.806	0.985
83	-0.0054	0.103823	0.160088	0.219451	0.242425	0.347516	0.494684	0.670098	0.779276	0.001	0.002	0.01	0.013	0.022	0.046	0.082	0.191	0.346	0.51	0.792	0.982
84	-0.0723	0.109128	0.151206	0.226201	0.250377	0.353694	0.5142	0.663754	0.789867	0.002	0.004	0.005	0.009	0.017	0.049	0.078	0.184	0.313	0.466	0.8	0.979
85	-0.0563	0.100155	0.143922	0.207409	0.233182	0.339969	0.506317	0.653931	0.782371	0.003	0.003	0.011	0.015	0.024	0.054	0.096	0.188	0.32	0.487	0.805	0.968
86	-0.0736	0.139268	0.195391	0.247907	0.264264	0.362885	0.502633	0.628487	0.739683	0.001	0.001	0.002	0.005	0.011	0.027	0.055	0.167	0.305	0.491	0.851	0.994
87	-0.1079	0.150908	0.190169	0.254988	0.285152	0.388936	0.527438	0.670919	0.786726	0.001	0.002	0.004	0.006	0.011	0.024	0.054	0.14	0.262	0.443	0.8	0.98
88	-0.0451	0.146976	0.206813	0.279175	0.296118	0.380537	0.504219	0.629532	0.735816	0.001	0.001	0.003	0.006	0.013	0.026	0.045	0.131	0.282	0.49	0.857	0.992
89	-0.0568	0.180375	0.228211	0.279413	0.30769	0.39868	0.54249	0.684673	0.785771	0.001	0.001	0.001	0.001	0.003	0.015	0.031	0.119	0.254	0.424	0.785	0.982
90	0.0469	0.154434	0.193439	0.250902	0.273672	0.366325	0.499691	0.638448	0.741952	0.001	0.002	0.002	0.005	0.008	0.023	0.057	0.164	0.325	0.5	0.846	0.989
91	-0.0208	0.093318	0.130203	0.177707	0.206522	0.326871	0.513141	0.684654	0.822725	0.002	0.003	0.007	0.016	0.03	0.075	0.121	0.216	0.339	0.49	0.77	0.961
92	-0.0278	0.075333	0.112044	0.183639	0.210372	0.317799	0.50381	0.672779	0.815498	0.003	0.005	0.009	0.024	0.04	0.072	0.115	0.225	0.34	0.495	0.779	0.966
93	0.0921	0.094477	0.129732	0.200713	0.215438	0.323043	0.475651	0.671749	0.805218	0.001	0.004	0.007	0.017	0.025	0.058	0.099	0.228	0.374	0.535	0.78	0.972
94	0.02	0.075133	0.11252	0.167855	0.200208	0.317197	0.490142	0.666584	0.806047	0.006	0.007	0.014	0.024	0.036	0.076	0.125	0.225	0.368	0.513	0.791	0.963
95	0.0607	0.073177	0.106905	0.177309	0.203102	0.311727	0.476134	0.662228	0.797453	0.001	0.006	0.014	0.026	0.045	0.083	0.12	0.232	0.374	0.527	0.801	0.965
96	0.872	0.005309	0.010979	0.024842	0.034682	0.091414	0.220569	0.426325	0.645423	0.039	0.1	0.16	0.218	0.276	0.38	0.461	0.612	0.73	0.81	0.929	0.993
97	0.8083	0.005878	0.012786	0.026721	0.034778	0.079037	0.226181	0.458587	0.663038	0.042	0.096	0.171	0.241	0.291	0.389	0.457	0.583	0.693	0.796	0.916	0.982
98	0.7231	0.003525	0.008418	0.023405	0.034065	0.094455	0.253547	0.461844	0.685557	0.054	0.103	0.162	0.208	0.259	0.355	0.429	0.576	0.689	0.781	0.91	0.986
99	0.8377	0.006537	0.014568	0.030592	0.037527	0.097735	0.239242	0.436256	0.628266	0.038	0.078	0.158	0.21	0.257	0.354	0.443	0.589	0.72	0.812	0.939	0.988
100	0.8023	0.005939	0.012396	0.030426	0.039938	0.089574	0.238544	0.458838	0.682602	0.038	0.084	0.147	0.216	0.271	0.36	0.429	0.593	0.7	0.783	0.909	0.983
101	0.6201	0.011058	0.024012	0.050674	0.071475	0.143697	0.290462	0.507098	0.704059	0.02	0.051	0.098	0.135	0.175	0.259	0.356	0.516	0.644	0.743	0.899	0.987
102	0.5463	0.012733	0.024653	0.050333	0.063477	0.135221	0.305513	0.513469	0.696596	0.017	0.051	0.099	0.151	0.187	0.274	0.356	0.493	0.623	0.732	0.903	0.987
103	0.5439	0.013536	0.024266	0.053843	0.069712	0.14257	0.311356	0.525808	0.728433	0.018	0.05	0.089	0.135	0.184	0.265	0.356	0.486	0.613	0.718	0.878	0.979
104	0.5196	0.010229	0.023074	0.052919	0.068897	0.153849	0.314243	0.524579	0.720207	0.024	0.052	0.092	0.132	0.17	0.235	0.337	0.483	0.619	0.723	0.884	0.985
105	0.5132	0.016995	0.033367	0.060447	0.076256	0.145106	0.311418	0.515321	0.694579	0.015	0.036	0.079	0.123	0.163	0.257	0.333	0.483	0.613	0.736	0.904	0.993
106	-0.8099	0.135509	0.212519	0.349465	0.379928	0.551797	0.77328	0.917077	0.975105	0.001	0.002	0.005	0.009	0.013	0.027	0.044	0.07	0.142	0.214	0.407	0.718
107	-0.8185	0.17811	0.267979	0.369081	0.399586	0.571944	0.776491	0.915638	0.976366	0.001	0.002	0.003	0.006	0.012	0.019	0.03	0.062	0.126	0.194	0.404	0.725
108	-0.7677	0.160779	0.262118	0.350614	0.402981	0.560337	0.761227	0.909474	0.975176	0.001	0.004	0.006	0.008	0.013	0.021	0.029	0.069	0.123	0.197	0.418	0.734
109	-0.6972	0.174381	0.245158	0.345165	0.384617	0.544195	0.756354	0.8969	0.969044	0.001	0.002	0.003	0.005	0.008	0.015	0.027	0.07	0.138	0.215	0.426	0.764
110	-0.6873	0.12221	0.199894	0.317296	0.360532	0.516635	0.741599	0.897713	0.966642	0.001	0.001	0.003	0.008	0.017	0.037	0.05	0.091	0.143	0.23	0.456	0.754
111	-0.4886	0.114365	0.189364	0.266084	0.307585	0.438338	0.677042	0.844513	0.94395	0.001	0.004	0.008	0.013	0.023	0.041	0.054	0.12	0.199	0.292	0.525	0.823
112	-0.5759	0.102262	0.174463	0.277167	0.310065	0.47048	0.69642	0.858343	0.949505	0.001	0.003	0.009	0.019	0.024	0.038	0.067	0.116	0.195	0.279	0.505	0.82
113	-0.6481	0.123828	0.209096	0.330088	0.372165	0.513945	0.710358	0.867742	0.952384	0.002	0.004	0.006	0.009	0.016	0.032	0.046	0.085	0.144	0.233	0.489	0.8
114	-0.6535	0.160174	0.230572	0.330476	0.371671	0.516951	0.730009	0.87244	0.94524	0.001	0.001	0.004	0.006	0.007	0.019	0.04	0.087	0.151	0.234	0.458	0.799
115	-0.5966	0.15508	0.20806	0.304137	0.346874	0.504812	0.699832	0.87157	0.950097	0.002	0.003	0.009	0.012	0.015	0.024	0.047	0.096	0.161	0.243	0.5	0.794

Table AD7. Recall set - with quantiles for sample size 2000.

No.	Skewness	Quantiles								Cumulative Probabilities												
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
1	0.0431	0.022205	0.046603	0.088138	0.116371	0.240347	0.487175	0.74614	0.899236	0.011	0.028	0.0545	0.082	0.1085	0.1575	0.2095	0.3215	0.416	0.5145	0.7035	0.901
2	-0.068	0.027562	0.052721	0.104843	0.131512	0.266149	0.516607	0.75382	0.888477	0.0125	0.023	0.0465	0.0695	0.0935	0.144	0.192	0.281	0.3845	0.488	0.694	0.911
3	0.0173	0.018049	0.0471	0.087404	0.113539	0.235822	0.494781	0.729649	0.899366	0.014	0.0305	0.054	0.087	0.114	0.1565	0.215	0.3065	0.41	0.507	0.7195	0.9005
4	0.0305	0.020343	0.046423	0.101371	0.126595	0.239673	0.485651	0.753847	0.892218	0.01	0.027	0.0525	0.07	0.097	0.1505	0.2065	0.3135	0.418	0.5145	0.6955	0.9065
5	0.0342	0.025753	0.05496	0.101698	0.127985	0.243747	0.488594	0.734791	0.899978	0.0135	0.024	0.0445	0.071	0.0975	0.1515	0.2035	0.3075	0.3985	0.513	0.7145	0.9
6	2.2723	0.00276	0.004903	0.011473	0.013887	0.030794	0.074912	0.149238	0.25021	0.0915	0.2075	0.3735	0.5015	0.606	0.7525	0.842	0.9315	0.972	0.987	0.9965	0.9995
7	1.8359	0.003681	0.007047	0.015089	0.019165	0.040561	0.094491	0.188301	0.317619	0.0715	0.16	0.2975	0.4185	0.5205	0.6635	0.771	0.8835	0.952	0.976	0.995	0.999
8	1.8782	0.003522	0.007482	0.013824	0.016721	0.036051	0.083151	0.167756	0.273989	0.069	0.1805	0.3365	0.468	0.56	0.7095	0.814	0.9185	0.9665	0.987	0.998	0.9995
9	1.8542	0.003527	0.007942	0.017037	0.020503	0.04497	0.104084	0.200159	0.329165	0.0655	0.147	0.273	0.3875	0.487	0.6325	0.75	0.873	0.9345	0.9625	0.991	0.999
10	1.9736	0.002958	0.006931	0.013197	0.016267	0.033023	0.078014	0.158267	0.261901	0.076	0.195	0.348	0.4845	0.5855	0.7325	0.83	0.931	0.969	0.9865	0.998	0.9995
11	5.0049	0.000011	0.000042	0.000163	0.000288	0.00151	0.00798	0.036433	0.105129	0.5335	0.6845	0.7995	0.8495	0.893	0.938	0.9575	0.9805	0.988	0.9935	0.9975	0.9985
12	5.0128	0.000012	0.000044	0.000206	0.000327	0.001426	0.008241	0.03582	0.100918	0.5355	0.695	0.812	0.8665	0.8995	0.938	0.962	0.9865	0.9955	0.9975	0.9985	0.9995
13	5.7394	0.00001	0.000041	0.000183	0.000324	0.001429	0.007716	0.03326	0.087092	0.548	0.7035	0.8135	0.876	0.917	0.9515	0.973	0.9875	0.9925	0.9965	0.9985	0.9995
14	5.9848	0.000007	0.000031	0.000149	0.000221	0.00106	0.005923	0.027156	0.074679	0.5725	0.7335	0.8465	0.901	0.936	0.965	0.9775	0.99	0.995	0.9965	0.9995	0.9995
15	7.2967	0.000006	0.000019	0.000109	0.000181	0.000936	0.005409	0.021212	0.061087	0.6135	0.773	0.8765	0.9235	0.946	0.9695	0.9835	0.9935	0.997	0.9985	0.999	0.9995
16	0.7022	0.047618	0.071903	0.109117	0.126679	0.188549	0.294868	0.408346	0.537612	0.0025	0.0095	0.027	0.0525	0.0875	0.166	0.28	0.5135	0.736	0.8675	0.9765	0.9975
17	0.6201	0.056003	0.075913	0.113377	0.128298	0.198905	0.304467	0.433775	0.568898	0.002	0.006	0.017	0.048	0.0815	0.1605	0.253	0.489	0.687	0.8405	0.9715	0.998
18	0.6076	0.047904	0.07399	0.108672	0.125908	0.189572	0.293498	0.416734	0.537964	0.002	0.0065	0.03	0.051	0.085	0.1645	0.27	0.519	0.718	0.868	0.978	0.999
19	0.6812	0.039207	0.066254	0.098133	0.113084	0.168694	0.272448	0.381421	0.491994	0.0045	0.014	0.0335	0.06	0.1015	0.207	0.324	0.5795	0.7805	0.9075	0.986	0.9985
20	0.6735	0.047127	0.073009	0.100664	0.118634	0.180609	0.292459	0.401079	0.512566	0.0025	0.0065	0.0265	0.0555	0.099	0.19	0.286	0.511	0.749	0.887	0.9785	0.997
21	0.0989	0.107237	0.148398	0.212051	0.238089	0.311849	0.427923	0.549461	0.652119	0.0015	0.0025	0.0055	0.012	0.0215	0.05	0.0895	0.2245	0.4455	0.6495	0.942	0.997
22	0.205	0.11274	0.153893	0.203432	0.220457	0.287796	0.390953	0.501663	0.595097	0.0005	0.0005	0.004	0.0085	0.0175	0.0465	0.0965	0.2725	0.5305	0.749	0.9755	0.9995
23	0.1246	0.139196	0.177704	0.22646	0.250093	0.338207	0.467176	0.587712	0.702541	0.0005	0.001	0.0035	0.006	0.011	0.033	0.0705	0.1835	0.366	0.5685	0.899	0.9915
24	0.1586	0.11793	0.164292	0.213505	0.23372	0.303641	0.407603	0.524305	0.624346	0.001	0.0025	0.0065	0.0095	0.019	0.04	0.0815	0.2415	0.4825	0.704	0.958	0.9995
25	0.1748	0.113101	0.156938	0.209918	0.23767	0.315674	0.434578	0.557647	0.679292	0.0015	0.002	0.0075	0.0115	0.0195	0.0455	0.09	0.2215	0.43	0.633	0.922	0.994
26	2.5948	0.000087	0.000345	0.001581	0.002428	0.009627	0.041877	0.121135	0.250975	0.2545	0.3945	0.5415	0.631	0.702	0.794	0.855	0.928	0.9625	0.98	0.9945	0.9985
27	2.3258	0.000138	0.000476	0.001693	0.002664	0.009934	0.045483	0.131768	0.267748	0.251	0.362	0.5185	0.6045	0.677	0.778	0.844	0.915	0.9595	0.983	0.995	0.999
28	2.3482	0.000081	0.000404	0.001809	0.002753	0.012208	0.055363	0.155913	0.307576	0.2295	0.3495	0.4765	0.5755	0.649	0.74	0.8185	0.8965	0.9405	0.967	0.9895	0.9965
29	3.2648	0.000043	0.00027	0.001004	0.001605	0.007196	0.029368	0.089385	0.176571	0.2975	0.4615	0.6215	0.7105	0.7735	0.87	0.919	0.9665	0.981	0.99	0.997	0.9995
30	2.4461	0.000083	0.000327	0.001346	0.0021	0.008115	0.038934	0.110796	0.235358	0.2735	0.4145	0.555	0.6565	0.7275	0.815	0.868	0.943	0.9705	0.9865	0.998	0.999
31	1.3864	0.0244	0.036609	0.058356	0.064785	0.100258	0.173781	0.278236	0.400232	0.0045	0.026	0.0795	0.159	0.2485	0.4185	0.575	0.781	0.8995	0.946	0.9885	0.9985
32	1.6448	0.01799	0.027485	0.041041	0.047091	0.073185	0.133452	0.213003	0.310365	0.0065	0.041	0.138	0.256	0.365	0.555	0.7205	0.8945	0.954	0.9805	0.998	0.9995
33	1.6517	0.014372	0.022399	0.034432	0.039056	0.062107	0.111282	0.180341	0.264515	0.0165	0.0565	0.1815	0.317	0.446	0.6595	0.7945	0.9385	0.977	0.993	0.9995	0.9995
34	1.4214	0.022096	0.031872	0.045828	0.053545	0.088952	0.161959	0.259148	0.379568	0.007	0.031	0.1115	0.1925	0.2945	0.4685	0.611	0.8185	0.917	0.9645	0.9945	0.998
35	1.6497	0.017351	0.026342	0.039673	0.045129	0.069875	0.126995	0.202818	0.291716	0.01	0.0445	0.1485	0.2775	0.397	0.5915	0.7445	0.9075	0.96	0.987	0.9985	0.9995
36	1.0594	0.04857	0.067759	0.093931	0.108593	0.158789	0.259388	0.385173	0.527615	0.001	0.0075	0.027	0.0615	0.1095	0.2245	0.355	0.5955	0.763	0.879	0.968	0.9935
37	1.0876	0.040545	0.058636	0.081569	0.095373	0.14071	0.22638	0.341506	0.479904	0.004	0.01	0.036	0.0795	0.1385	0.2775	0.4295	0.671	0.8285	0.912	0.985	0.998
38	1.0769	0.040383	0.057034	0.082287	0.090366	0.129155	0.20321	0.302567	0.396323	0.0025	0.008	0.038	0.084	0.1575	0.32	0.49	0.746	0.904	0.961	0.995	0.9995
39	1.0973	0.038977	0.05278	0.072213	0.082035	0.119092	0.194612	0.293164	0.408466	0.003	0.0095	0.045	0.106	0.177	0.3565	0.5185	0.766	0.894	0.958	0.9965	0.999
40	0.9839	0.036761	0.054028	0.071451	0.081437	0.120029	0.194746	0.295026	0.407248	0.0035	0.013	0.0415	0.11	0.1795	0.3505	0.515	0.7585	0.8925	0.9615	0.9975	0.9995

Table AD7(continued). Recall set - with quantiles for sample size 2000.

No.	Skewness	Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
		Quantiles								Cumulative Probabilities											
41	1.4746	0.034756	0.047526	0.065306	0.072397	0.104203	0.162535	0.241364	0.342547	0.0025	0.012	0.057	0.1395	0.234	0.4535	0.6325	0.8535	0.947	0.9795	0.9975	0.9995
42	1.5761	0.043697	0.057097	0.0743	0.082488	0.111211	0.167862	0.245563	0.341477	0.001	0.0055	0.034	0.101	0.2055	0.428	0.62	0.8475	0.9435	0.9775	0.996	0.9995
43	2.0015	0.030564	0.03968	0.053253	0.057581	0.083909	0.125675	0.190659	0.256909	0.0025	0.0155	0.088	0.2075	0.343	0.6045	0.7775	0.9385	0.979	0.9925	0.999	0.999
44	1.6881	0.044069	0.053427	0.068405	0.075629	0.103431	0.154721	0.229368	0.317886	0.001	0.004	0.0395	0.124	0.232	0.476	0.672	0.883	0.958	0.987	0.997	0.999
45	1.7801	0.030886	0.042761	0.057664	0.064778	0.093018	0.142076	0.2151	0.308133	0.0025	0.014	0.0765	0.157	0.285	0.5345	0.705	0.892	0.9545	0.9805	0.9985	0.999
46	8.1666	0.002287	0.003163	0.004781	0.005415	0.00897	0.018812	0.03733	0.073116	0.283	0.618	0.8265	0.9035	0.941	0.9785	0.989	0.9955	0.997	0.999	0.999	0.9995
47	3.978	0.004045	0.00636	0.009066	0.01025	0.018256	0.036931	0.075447	0.138521	0.12	0.3505	0.611	0.747	0.829	0.912	0.9545	0.9805	0.9915	0.9955	0.999	0.9995
48	5.5761	0.003045	0.004398	0.00693	0.008223	0.014429	0.029882	0.059308	0.111236	0.161	0.4265	0.6955	0.816	0.8855	0.946	0.968	0.988	0.993	0.9965	0.9975	0.9995
49	5.2548	0.00267	0.004331	0.00667	0.007824	0.013612	0.027721	0.055609	0.100957	0.1725	0.4585	0.7165	0.845	0.898	0.9545	0.9715	0.99	0.995	0.9985	0.999	0.9995
50	7.0076	0.00204	0.003089	0.005	0.005809	0.010027	0.020113	0.040107	0.074117	0.2495	0.5885	0.807	0.902	0.944	0.9735	0.9865	0.9955	0.998	0.9985	0.9995	0.9995
51	13.8215	0.000195	0.000325	0.000569	0.000687	0.001398	0.004147	0.011627	0.031758	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999
52	6.3096	0.000511	0.000828	0.001601	0.001844	0.003886	0.01072	0.028356	0.070009	0.4805	0.7235	0.85	0.907	0.934	0.9645	0.9715	0.986	0.9915	0.995	0.9975	0.9995
53	13.8215	0.000195	0.000325	0.000569	0.000687	0.001398	0.004147	0.011627	0.031758	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999
54	13.8215	0.000195	0.000325	0.000569	0.000687	0.001398	0.004147	0.011627	0.031758	0.724	0.881	0.9485	0.9705	0.9825	0.992	0.993	0.9965	0.998	0.9985	0.9985	0.999
55	9.2123	0.000276	0.00045	0.000836	0.00103	0.00215	0.006138	0.017252	0.041873	0.6275	0.833	0.917	0.9475	0.9635	0.9815	0.991	0.9975	0.998	0.999	0.9995	0.9995
56	0.0335	0.254882	0.297674	0.345486	0.361763	0.423415	0.518452	0.60885	0.69705	0.0005	0.0005	0.0005	0.0005	0.001	0.004	0.009	0.0515	0.195	0.449	0.9045	0.997
57	-0.0359	0.229568	0.274974	0.339544	0.353587	0.42877	0.532464	0.632486	0.725633	0.0005	0.001	0.0025	0.003	0.004	0.01	0.016	0.069	0.201	0.4235	0.8625	0.991
58	0.0071	0.223429	0.266508	0.323186	0.342639	0.411814	0.511631	0.610517	0.695522	0.0005	0.0005	0.0005	0.001	0.001	0.006	0.017	0.076	0.2295	0.4655	0.906	0.998
59	0.0065	0.192485	0.232224	0.291931	0.308126	0.365478	0.451546	0.540536	0.619465	0.0005	0.0005	0.0005	0.0015	0.0025	0.011	0.0285	0.1115	0.3395	0.6355	0.97	0.9995
60	-0.0354	0.210171	0.254605	0.311401	0.333193	0.405328	0.490813	0.590108	0.677523	0.0005	0.0005	0.001	0.001	0.0015	0.007	0.0215	0.093	0.2365	0.525	0.9245	0.9985
61	0.8304	0.027827	0.042741	0.069492	0.081265	0.135074	0.239989	0.398868	0.548255	0.007	0.021	0.0625	0.114	0.1675	0.29	0.4025	0.6165	0.753	0.8615	0.9745	0.9965
62	0.7816	0.021344	0.037005	0.061993	0.073384	0.127049	0.234605	0.377959	0.528549	0.0105	0.03	0.0715	0.1285	0.1755	0.3065	0.432	0.64	0.7785	0.8785	0.9815	0.9985
63	0.834	0.021854	0.037452	0.0643	0.075447	0.132746	0.250581	0.408972	0.56702	0.008	0.032	0.0705	0.124	0.183	0.282	0.393	0.59	0.7405	0.8535	0.9665	0.994
64	0.7211	0.024224	0.042507	0.070089	0.080361	0.140794	0.270421	0.430029	0.58043	0.007	0.0265	0.064	0.113	0.1645	0.273	0.3635	0.552	0.708	0.8255	0.961	0.9945
65	0.8529	0.02515	0.037983	0.068293	0.078736	0.132214	0.241741	0.396252	0.537531	0.0075	0.0245	0.0685	0.115	0.177	0.29	0.4015	0.6005	0.756	0.876	0.967	0.9975
66	0.4552	0.031888	0.052634	0.086501	0.100898	0.179718	0.330605	0.50089	0.651968	0.0065	0.019	0.0445	0.0825	0.1225	0.2025	0.288	0.4455	0.608	0.748	0.93	0.995
67	0.5456	0.028608	0.051655	0.089462	0.104918	0.184539	0.323096	0.489932	0.65786	0.0055	0.021	0.048	0.0795	0.1155	0.196	0.2755	0.464	0.6225	0.76	0.924	0.993
68	0.5473	0.032492	0.055009	0.08657	0.105152	0.181075	0.33223	0.505253	0.663552	0.004	0.015	0.0455	0.0805	0.119	0.1975	0.281	0.4515	0.615	0.7455	0.919	0.9865
69	0.5453	0.034705	0.054819	0.090353	0.106957	0.175594	0.325875	0.508719	0.671219	0.0045	0.015	0.0435	0.076	0.112	0.2055	0.287	0.459	0.617	0.7415	0.919	0.988
70	0.5171	0.027515	0.045312	0.083225	0.099051	0.172081	0.307172	0.474935	0.638286	0.006	0.022	0.054	0.0855	0.1265	0.2075	0.297	0.4835	0.6485	0.778	0.9435	0.9975
71	-0.8202	0.282324	0.362096	0.468507	0.495853	0.617884	0.754271	0.870998	0.936037	0.0005	0.0005	0.001	0.001	0.001	0.003	0.0085	0.029	0.066	0.127	0.391	0.8095
72	-0.7423	0.212226	0.294746	0.399144	0.44462	0.563976	0.728257	0.859888	0.928991	0.001	0.002	0.003	0.004	0.0055	0.009	0.0195	0.051	0.1005	0.1725	0.448	0.8425
73	-0.8701	0.332704	0.416685	0.499379	0.534636	0.633287	0.776217	0.877524	0.939838	0.0005	0.0005	0.0005	0.0005	0.002	0.0035	0.006	0.0165	0.0455	0.1	0.3545	0.805
74	-0.8112	0.275255	0.347372	0.450862	0.488901	0.606404	0.752913	0.869206	0.942122	0.0005	0.0005	0.0005	0.0005	0.0015	0.0065	0.01	0.032	0.0705	0.1375	0.396	0.8215
75	-0.7815	0.266464	0.345079	0.433074	0.462221	0.590781	0.74302	0.857941	0.934738	0.0005	0.001	0.001	0.0025	0.0045	0.007	0.0125	0.0345	0.0815	0.154	0.415	0.832
76	-0.5313	0.189542	0.254995	0.343403	0.380775	0.506997	0.676441	0.817695	0.912104	0.001	0.001	0.0025	0.005	0.008	0.0155	0.0295	0.0675	0.136	0.238	0.547	0.8835
77	-0.6052	0.194062	0.273052	0.369934	0.401911	0.52581	0.693419	0.831579	0.904793	0.0005	0.0005	0.0015	0.0025	0.005	0.011	0.026	0.0615	0.123	0.2185	0.5105	0.8925
78	-0.5128	0.182791	0.259999	0.343861	0.377831	0.502642	0.671361	0.816559	0.911971	0.001	0.002	0.005	0.007	0.009	0.018	0.0285	0.07	0.144	0.2465	0.55	0.883
79	-0.4998	0.186159	0.241575	0.319284	0.362925	0.490772	0.679601	0.825242	0.912521	0.0005	0.0005	0.0035	0.004	0.006	0.0155	0.029	0.0865	0.1575	0.256	0.5355	0.876
80	-0.4563	0.191257	0.257273	0.332174	0.360824	0.486962	0.666427	0.817451	0.910872	0.0005	0.0005	0.0025	0.005	0.01	0.0185	0.0285	0.0735	0.157	0.264	0.5465	0.88

Table AD7(continued). Recall set - with quantiles for sample size 2000.

No.	Skewness	Quantiles								Cumulative Probabilities											
		Q0.025	Q0.05	Q0.1	Q0.125	Q0.25	Q0.5	Q0.75	Q0.9	F0.01	F0.025	F0.05	F0.075	F0.1	F0.15	F0.2	F0.3	F0.4	F0.5	F0.7	F0.9
81	0.0136	0.123002	0.164427	0.224477	0.24911	0.347681	0.511446	0.664442	0.780656	0.0005	0.001	0.002	0.005	0.0155	0.0385	0.0755	0.187	0.332	0.4785	0.808	0.975
82	-0.01	0.125412	0.167783	0.231341	0.254737	0.354744	0.507162	0.647985	0.776657	0.001	0.001	0.003	0.0055	0.0115	0.035	0.074	0.178	0.3175	0.4875	0.8225	0.9815
83	0.0225	0.113822	0.165326	0.226419	0.251855	0.352502	0.49303	0.647605	0.762267	0.0005	0.003	0.0075	0.011	0.0185	0.043	0.079	0.1805	0.3285	0.5135	0.819	0.98
84	0.0245	0.126456	0.170656	0.233496	0.256019	0.341454	0.499598	0.648225	0.7684	0.0005	0.001	0.008	0.011	0.0165	0.0385	0.0695	0.1885	0.345	0.502	0.8305	0.982
85	0.0034	0.135727	0.188262	0.2515	0.271678	0.369183	0.513353	0.659428	0.782291	0.0005	0.001	0.0025	0.008	0.0125	0.031	0.0605	0.1555	0.3005	0.4725	0.8005	0.98
86	-0.0954	0.17005	0.212822	0.267719	0.28982	0.378168	0.51231	0.627792	0.729612	0.0005	0.0015	0.003	0.0055	0.0085	0.019	0.044	0.1365	0.2885	0.4825	0.867	0.9945
87	0.0462	0.144132	0.196719	0.269242	0.287186	0.371253	0.499823	0.651009	0.764111	0.0005	0.001	0.002	0.005	0.009	0.0275	0.051	0.141	0.3	0.5005	0.8285	0.983
88	-0.0559	0.150202	0.196164	0.244634	0.272379	0.360757	0.499436	0.635104	0.740267	0.0005	0.001	0.004	0.007	0.0095	0.0245	0.0515	0.1635	0.3135	0.501	0.8515	0.991
89	0.0045	0.128662	0.1728	0.230281	0.25715	0.335925	0.468257	0.585233	0.700133	0.0015	0.003	0.0065	0.01	0.014	0.032	0.0735	0.183	0.367	0.565	0.9	0.9965
90	0.0447	0.2082	0.239733	0.288994	0.312805	0.395464	0.512606	0.629791	0.733656	0.0005	0.0005	0.0005	0.001	0.002	0.0085	0.022	0.112	0.257	0.4735	0.855	0.993
91	0.0153	0.089396	0.133004	0.204032	0.222635	0.334308	0.500669	0.690471	0.822861	0.0015	0.0035	0.009	0.0205	0.032	0.061	0.0975	0.207	0.3375	0.4995	0.765	0.959
92	0.0248	0.08308	0.133979	0.194799	0.215246	0.321216	0.491035	0.667824	0.805775	0.001	0.0035	0.0085	0.02	0.033	0.0625	0.1085	0.222	0.355	0.513	0.788	0.9745
93	0.0129	0.084156	0.132442	0.189192	0.216302	0.323179	0.493889	0.683543	0.812621	0.0025	0.0055	0.0135	0.021	0.0335	0.0655	0.11	0.2205	0.357	0.5075	0.774	0.9665
94	0.0025	0.084975	0.117787	0.174427	0.197867	0.316122	0.492325	0.666886	0.797655	0.001	0.0035	0.0085	0.017	0.034	0.073	0.1265	0.2285	0.3475	0.513	0.7885	0.968
95	-0.0512	0.079498	0.119718	0.190262	0.214132	0.326569	0.515395	0.692072	0.822831	0.001	0.004	0.013	0.021	0.036	0.07	0.109	0.2155	0.343	0.477	0.7605	0.9595
96	0.7687	0.003741	0.010494	0.028163	0.03772	0.09031	0.240104	0.443658	0.638904	0.049	0.0905	0.1515	0.216	0.266	0.3645	0.438	0.5875	0.708	0.797	0.932	0.9905
97	0.7655	0.005347	0.011205	0.029244	0.038276	0.094628	0.239655	0.443903	0.658879	0.0465	0.088	0.1505	0.208	0.265	0.3565	0.431	0.5825	0.7045	0.8015	0.9255	0.9895
98	0.7326	0.005984	0.013202	0.027188	0.037372	0.087842	0.233158	0.448676	0.639547	0.039	0.0935	0.1565	0.22	0.2755	0.3605	0.456	0.592	0.7065	0.797	0.933	0.9955
99	0.7371	0.003002	0.00868	0.02351	0.031938	0.082257	0.233556	0.4516	0.653926	0.0545	0.104	0.168	0.233	0.2875	0.3745	0.448	0.581	0.699	0.7955	0.928	0.9895
100	0.7402	0.004027	0.010543	0.026647	0.036183	0.092824	0.241568	0.45862	0.662748	0.0475	0.0965	0.1585	0.217	0.264	0.353	0.433	0.5745	0.6905	0.7835	0.9205	0.99
101	0.5315	0.01176	0.025906	0.053083	0.063823	0.136918	0.30728	0.518526	0.70206	0.0205	0.0475	0.0945	0.143	0.1885	0.273	0.3505	0.4895	0.619	0.728	0.8985	0.9865
102	0.5595	0.013024	0.027499	0.054267	0.068588	0.145054	0.305473	0.524971	0.711681	0.017	0.046	0.0895	0.131	0.1775	0.2615	0.344	0.493	0.623	0.727	0.8965	0.984
103	0.5832	0.010605	0.022834	0.051996	0.062831	0.138161	0.295273	0.515756	0.700619	0.023	0.0545	0.096	0.148	0.1865	0.2715	0.3565	0.5055	0.63	0.737	0.899	0.985
104	0.5414	0.01168	0.022761	0.050479	0.06418	0.13736	0.30279	0.501981	0.691043	0.0215	0.0555	0.0985	0.1455	0.1835	0.276	0.3475	0.4945	0.6335	0.7475	0.906	0.9885
105	0.5745	0.011284	0.02411	0.048393	0.061838	0.131724	0.30469	0.493202	0.678389	0.022	0.0515	0.1025	0.151	0.1955	0.273	0.3485	0.4935	0.634	0.7545	0.9085	0.9875
106	-0.778	0.161126	0.246053	0.356022	0.397934	0.554017	0.763275	0.910815	0.971463	0.0005	0.001	0.003	0.0055	0.008	0.0215	0.0365	0.0735	0.1265	0.2005	0.4025	0.729
107	-0.7541	0.152248	0.230944	0.352063	0.386838	0.539784	0.758157	0.907736	0.968514	0.0005	0.001	0.003	0.0065	0.011	0.024	0.0385	0.0805	0.131	0.212	0.421	0.735
108	-0.7632	0.162231	0.240878	0.347475	0.388384	0.552841	0.764271	0.909475	0.975355	0.001	0.002	0.0035	0.0065	0.0095	0.0215	0.0355	0.0755	0.131	0.2045	0.419	0.728
109	-0.7892	0.166269	0.231263	0.347044	0.387618	0.5511	0.758866	0.907058	0.97211	0.002	0.003	0.0055	0.0095	0.012	0.0215	0.037	0.0795	0.1315	0.202	0.4145	0.734
110	-0.778	0.16149	0.229957	0.331407	0.374676	0.556564	0.762061	0.909011	0.971078	0.0005	0.0005	0.0015	0.004	0.007	0.02	0.0385	0.0865	0.141	0.209	0.4095	0.731
111	-0.5623	0.151092	0.211006	0.295537	0.343983	0.497123	0.705586	0.861645	0.954156	0.001	0.001	0.002	0.007	0.013	0.0245	0.044	0.101	0.1705	0.253	0.4905	0.809
112	-0.5653	0.151501	0.222544	0.307818	0.34565	0.498916	0.699929	0.868728	0.949467	0.0005	0.0025	0.0045	0.009	0.014	0.024	0.039	0.094	0.1655	0.2505	0.5005	0.807
113	-0.462	0.170371	0.218889	0.289142	0.328359	0.476791	0.681675	0.860341	0.941821	0.0005	0.001	0.0025	0.005	0.0075	0.018	0.04	0.107	0.175	0.2745	0.526	0.8245
114	-0.5723	0.146771	0.21977	0.308069	0.337176	0.499586	0.709129	0.867735	0.952549	0.001	0.001	0.0035	0.0075	0.0125	0.0255	0.0435	0.0945	0.17	0.25	0.4915	0.801
115	-0.5373	0.143788	0.227522	0.318828	0.349102	0.490437	0.702012	0.869361	0.951293	0.0005	0.002	0.004	0.0085	0.014	0.0275	0.041	0.09	0.165	0.259	0.4975	0.805

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