AN INVESTIGATION OF A CONFIGURAL APPROACH TO DIFFERENTIAL PREDICTABILITY

by

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in the Department of Psychology

SIMON FRASER UNIVERSITY

June 1972

APPROVAL

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ABSTRACT

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When we seek to predict measures of human traits or behaviors on the basis of one or more other measures of traits or behaviors we frequently find that the techniques we employ are more successful with some individuals than they are with others. A considerable amount of effort has been expended in attempts to elucidate the dimension of differential predictability. A major thrust of this effort has been directed toward the discovery or development of variables that index this dimension. Such variables, known generically as moderator variables, have typically been found to be specific to particular situations and criteria. The present series of investigations were proposed as a means of investigating the utility of an index of predictability independent of any particular criterion, based on the extent to which an individual's predictor variable profile resembles that most characteristic of an original calibration sample.

A measure of the dissimilarity of an individual's predictor variable profile and the mean calibration group predictor variable profile was obtained using the Mahalanobis D^2 based on predictor variable means and the inverse of the predictor variable covariance matrix. The means and covariances employed were derived in two different ways. In one condition they were based on the intact calibration groups. In the other condition they were based on stable subsets of

individuals from the calibration groups. The subsets were established using an iterative procedure based on successive elimination of subjects on the basis of re-calculated distances.

Four different data sets were employed. Each was randomly halved and all procedures were repeated in each half to provide for complete double cross validation. Within each half data set, predictor means and covariances were first obtained in the manner described above. Subjects were then classified as being either "near" or "far" on the basis of distances solved for using these parameters. An alternate classification was made on the basis of each different set of parameters. Criterion variables were next included and raw score linear regression weights were obtained for the intact half data sets and for each derived subgroup. Splitting procedures and regression weights were evaluated by applying calibration parameters based on a given calibration subsample to an independent hold-out sample. Utility was inferred from near group errors of prediction that were smaller than corresponding far group errors of prediction and from errors associated with cross validation when no grouping procedure was employed.

The utility of the splitting procedures investigated was observed to vary from data source to data source. In no instance was its use associated with large decrements in predictive accuracy for the near groups, although in several situations it was observed to have had little effect. On the basis of the evidence at hand, selections of the type employed seem most apt to have their desired effect when one or more of the following conditions exist: predictor distributions are badly skewed, calibration samples are relatively small, and multiple correlations between predictors and criteria are

large. It would seem that sufficient promise was demonstrated to warrant further research aimed at a more exact delineation of the conditions under which splitting is apt to yield significant gains. Until such studies have been conducted, procedures of the type investigated cannot be recommended for general use.

ACKNOWLEDGMENTS

I wish to express my sincere appreciation to the members of my supervisory committee: Dr. L. M. Kendall, Dr. E. M. Coles, and Dr. R. F. Koopman, for the many ways in which they have provided encouragement and assistance. I am doubly indebted to Dr. Kendall, my principal advisor, for the data sets he provided. A special vote of thanks is due Dr. Koopman for his help in the preparation of the computer programs used and for the friendship both he and his wife Penelope have so graciously extended.

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Chapter I

Introduction

The Problem:

The prediction of measures of human traits or behaviors on the basis of one or more other measures of traits or behaviors has long been a concern of psychologists. Because the decisions that arise as a consequence of such predictions are frequently crucial both to the development of theory, and the exploitation of empirical relationships in applied settings, any energies expended to improve the accuracy of such predictions[1] may be considered well spent. To this end, attention continues to be given to the development and selection of better predictors. Given the best of available predictors, efforts to exploit the lawful relations inherent in data may yet be hampered by inadequacies in the analytical models most often employed. In recent years much attention has been directed to the development of alternate models and it is to this aspect of prediction that this thesis is addressed.

The traditional approach to psychological prediction has involved the determination of the single linear regression function most descriptive of the relationship between one or more predictor variables and a criterion. If we are to employ this model, we must be willing to assume that all elements of the predictor set have similar degrees of importance for all individuals in relation to particular behavioral outcomes.

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1. The predictions dealt with are those involving the determination of location on continuous distributions and not problems of location with respect to a cutting point.

To the extent that such an assumption is not justified, the adequacy of any predictions made may be unnecessarily limited. A number of authors have argued in favor of seeking alternatives to the simple linear model, many supporting the belief expressed by Dunnette (1963) when he stated:

> "The first step toward enhancing the prediction of human behavior must, therefore, be to accept the complexities of human behavior and adopt a prediction model which is appropriately complex".

In the next few pages we shall consider several attempts that have been made to develop alternatives to the simple linear model. Attention will be focused on the so called "moderator variable" models and on problems associated with their use. The discussion will conclude with a proposal for a moderator model based on predictor profile similarity that may overcome some of the problems associated with other moderator models.

Current Models:

The models we are to consider may conveniently be classified into two distinct types. On the one hand we find models that strive to improve levels of prediction through the determination of functions more representative of relationships between predictor and criterion variables than is the general linear model. If complex relationships are not to be found, most such models will reduce to the ordinary linear model. The second type of model we will consider strives to isolate those subjects with whom a particular model, most often the linear model, may be expected to succeed particularly well. In the present context this latter type of model will be referred to as the "moderator variable" model.

Piecewise regression. Piecewise regression, as described by Wainer (1971), represents a comparatively minor

departure from the usual linear model. Rather than employing a single linear function, piecewise regression allows for breaks in the regression function by fitting a number of different linear functions to restricted regions of the predictor range. Preliminary reports of the model's utility indicate some promise as well as attendant difficulties, particularly problems associated with the selection of appropriate cutting points establishing boundaries between consecutive functions. In addition, it is conceptually difficult to generalize the procedures employed to situations employing more than one predictor variable. Because of its comparatively recent emergence in the psychological literature, a general evaluation of the model's utility would seem premature at this time.

Saunders' moderated regression. Saunders (1956), in the article in which he introduced the term "moderator variable", described an approach which deviates from the simple linear model to a somewhat greater extent than does piecewise regression. Essentially, his procedure involves the addition of a "moderating" variable and its cross-product with the other predictor variable to the bivariate regression equation. The addition of the cross-product term allows the regression surface to be deformed by causing the relationship between the original predictor and criterion to vary as a function of the level of the moderating variable.

Saunders' illustrated an application of his model with data obtained from Frederiksen and Melville's (1954) study. The results he reported appeared encouraging and seemed even more so in view of the success he reported in cross validation. With few exceptions however, his major gains appear to have been realized by virtue of the simple

addition of a second predictor variable in his equations. In general, the moderated multiple correlations were lower than were the zero order correlations obtained when the most predictable subjects were treated in isolation (the moderator variable was used to dichotomise the sample). Saunders' model may be criticised on theoretical as well as practical grounds. The introduction of a cross-product term may be expected to complicate the reliable estimation of regression parameters for reasons that will be discussed shortly. If it is to be included, then as Lord & Novick (1968, p. 273) observe, there is probably

> "..... little justification for not considering the full second-order regression function".

Regression models employing complex functions. What then are the consequences of employing more complex regression functions? Cleary (1966, p. 215) provides some indication when she refers to a study of Ward's (1954) and writes:

> "A second attempt to improve prediction was that of Ward who tested the predictive efficiency of equations which assumed linear, squared, and second-order parabolic joint functional relationships among independent variables, and compared these complex equations with the usual multiple regression. In the original samples, correlations were highest for the parabolic joint function and tended to decrease as the complexity decreased. In the cross-validation samples, however, the shrinkage in the correlation between the predicted and observed criterion scores was greatest for the more complex functions. Thus, the predictive efficiency was generally highest for the usual multiple regression equation and tended to decrease as the complexity of the equation increased."

Problems associated with the reliable estimation of regression parameters are widely recognized as being much

magnified when the number of parameters to be estimated is increased, as will be the case when complex functions (i.e., powering and cross products) are employed. In view of this, Ward's results are hardly surprising. In an area plagued with problems of measurement errors, models making greater demands on our measurements may be expected to have limited utility. Although it is possible in principal to introduce corrections for unreliability into the prediction equations, this would require more accurate estimates of reliability than are typically available.

Cleary's model. Cleary (1966) has presented another type of complex model. She seeks to make allowance for individual differences in the patterns and levels of validity and to this end has developed a procedure that permits a different set of regression weights to emerge for each person. Despite the promise indicated in her original article, concern about the stability of the person weights coupled with the model's computational complexity have resulted in its having seen very little use. For this reason again, it is difficult to fully evaluate its utility.

Configural models. Configural techniques represent a departure from the type of model we have just considered in that they tend to make minimal demands on data. Typically, recurring patterns (profiles) among the predictors are isolated and particular patterns are associated with specific predictions. To make use of this model, one need only locate the appropriate pattern by following rules defining minimal conditions for the acceptance of type membership, and once this is done, utilize a common prediction for all members of the type. No assumptions concerning the nature of meta-relationships within the predictor set are required.

At least two serious limitations of such techniques are immediately apparent. Whenever data is capable of supporting stronger relationships, additional and potentially valuable information will be lost. At the same time, the number of different patterns of interest can very readily become prohibitively large, particularly when there are several predictor variables. Configural methods may well be the techniques of choice in those areas characterized by low degrees of lawfulness. Psychiatric states predicted by self-report inventories may be one such area. In this respect, atlases such as those published by Marks and Seeman (1963) and Gilberstadt & Duker (1965) have won wide acceptance. On the other hand, Goldberg (1969) in summarizing research relating to configural relationships and personality assessment, concluded that configural techniques have shown little real promise.

Moderator variables. As mentioned previously, moderator variables (as defined below) represent another class of model aimed at improving predictability. In this context, moderator variables are variables used to select groups of individuals who can be treated successfully with a given prediction method. This use is consistent with a definition suggested by Banas (1964, p. 5) who wrote:

> "..... it is proposed that moderator variable be accepted as the general term to refer to all variables, quantitative and qualitative, which improve the usefulness of a predictor by isolating subgroups of individuals for whom a predictor or set of regression weights are especially appropriate".

Literature reviews relating to moderator variables are to be found in: Banas (1964), Guion (1967), and Zedec (1971). For purposes of the present discussion, a few examples

illustrating some of the major approaches employing moderator variables should suffice.

Compulsivity as a moderator variable. Perhaps the most frequently cited series of studies in the area of differential predictability have been those involving relationships between grade point averages and interest scores as "moderated" by compulsivity traits. Of the first study in the series, Frederiksen and Melville (1954) reported:

> "It was found that there is a tendency for the correlations between interest scales[2] and freshman average grade in engineering to be higher for noncompulsive students (those who did not resemble accountants on the Strong Accountant scale, and whose reading speed is high in relation to ability as measured by a vocabulary test)".

Of the second study in the series, Frederiksen & Gilbert (1960) reported:

> "The study was replicated using freshman students in the class of 1962 at the school of Engineering at Princeton. The finding that noncompulsive students are more predictable than compulsive students, as judged by correlations between average grades and Strong Blank scores, seems to hold only for the occupational keys most logically related to engineering - Mathematician, Physicist, Engineer, and Chemist - when the other groups are defined on the basis of reading speed relative to vocabulary."

A further replication is reported by Stricker (1966) who again found the general relationships reported by

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2. The interest scales were drawn from the Strong Vocational Interest Blank for Men.

Frederiksen to hold for a different sample of engineering freshmen. Two areas of exception were, however, noted. The particular interest scales effect by compulsivity were not the scales previously reported. In addition, compulsivity was not found to moderate the correlation between grades and interest scores when the same procedure was attempted with a sample drawn from liberal arts freshmen.

Intra-individual variability as a moderator variable. Intra-individual variability, as it is conceived of as occurring in the absence of change in the characteristic being measured, has been proposed as another possible moderator variable. To the extent that some individuals display a tendency to such variability (to the extent that it has some status as a personality trait), any attempt to utilize measures based on their responses as predictor variables will be limited by the extent to which the same responses are indeterminate. Before intra-individual variability can be employed as a moderator variable, its parameters must first be delineated. In particular, we require some means of reliably assigning variability values to individuals as well as some knowledge of the extent to which these values index general response traits.

Fiske & Rice (1955), in an excellent review article, discussed many of the issues involved with intra-individual variability but were unable to draw any firm conclusions regarding its generalizability. Fiske (1957a) pursued this issue and concluded:

> "There is probably no single general trait of variability. Variability tendencies are largely specific to total constellations of stimuli and conditions".

This lack of generalizability does not require that particular

measures of intra-individual variability are necessarily unreliable. Fiske (1957b) reported reliabilities based on odd-even item correlations of between .46 and .96 for the same variability scores on which he based his conclusions about generalizability.

Berdie (1961, 1969a, 1969b) has been the major proponent of intra-individual variability as a trait indexing individual predictability. Although he is unable to refute Fiske's claim that intra-individual variability appears not to represent a general response characteristic, he does produce evidence for its utility as a moderator variable in at least some few situations.

Empirical moderators. Rather than seek variables that index predictability, other investigators, most notably Ghiselli (1956, 1960a, 1960b, 1963), have sought to develop scales that will serve the necessary indexing function by employing techniques such as item analysis.[3] Once again, some measure of success has been reported for models of this type. Again as well, the moderator variables developed in this way have tended to prove useful only in those situations for which they were developed. Ghiselli & Sanders (1967) recognized this and remarked:

> "..... it is patent that moderator scores are specific to the tests in question and to the situation itself, and that their relative merits must be looked at in the light of each specific problem."

This statement, perhaps better than any other, reflects the current state of the art as it relates to moderator variables.

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3. Such scales are often referred to as empirical moderators and are to be distinguished from rational moderators which seek to employ identifiable traits.

Chapter II

An Alternate Model

The moderator variable models we have considered to this point have for the most part been concerned with the bivariate form of the general linear regression function:

$$\hat{Y} = b_0X_0 + b_1X_1 + b_2X_2 + ... + b_nX_n .$$

Given multiple predictors which are not statistically independent, the linear regression weights (b_i) will be a function not only of the validities of the individual predictor variables, but of the correlations between predictor variables as well. Predictions based on any such equation may be expected to succeed in direct proportion to the degree to which the pattern of relationships that gave rise to the observed inter-predictor correlations (and on the basis of which the equation itself was derived) resembles that found among the same variables in the sample of subjects to whom the equations are to be applied.

Before attempting to employ a regression equation for purposes of prediction, a reasonable precaution might involve a comparison of the inter-predictor correlations in the calibration and prediction samples. Should the patterns of relationships observed be quite different, we are faced with the choice of either abandoning our equation or limiting predictions to a subset of individuals in the prediction sample who display inter-predictor relationships similar to those in the calibration sample. In most instances the latter alternative is apt to be the more attractive. Should we opt for it we then require some means of determining which individuals might most appropriately be treated with our equation. In brief, we require a moderator variable to provide a basis for the selection. A measure of the extent to which an

individual's pattern of responding is atypical of the calibration group should be ideal for this purpose. Given such a measure and a rule for its application, in the prediction sample, it should then be possible to retain only those subjects displaying response patterns similar to those associated with the calibration group and hence to attain some degree of assurance that application of equations based on the calibration group will be appropriate.

An obvious measure of the atypicalness of a person's responding is to be found in the extent to which his inclusion in the calibration sample would alter the inter-correlations between predictor variables. However if the calibration sample is large, the addition of any one individual may be expected to have an all but negligible effect on the resulting correlations. A procedure which is independent of the size of the calibration sample would therefore seem to be called for.

A measure of the atypicalness of an individual's responding which meets the above condition may be obtained by comparing his predictor response profile with a response profile representative of the calibration group of subjects. The reference article in the area of evaluating methods of assessing profile similarity is that of Cronbach & Gleser (1953). They develop three profile parameters: elevation, scatter and shape, and proceed to relate these to the indices of similarity that had been proposed to that time. Within the same context, Helmstadter (1957) evaluated an expanded list of methods. On the basis of both articles it would seem that a generalized distance function such as Mahalanobis' D^2, which simultaneously considers not only the aforementioned three profile parameters, but also and more importantly, the covariances among the variables profiled, is likely to provide

the pattern analytic method most closely related to the alteration in correlation discussed above. Instead of expressing the atypicalness of an individual's responses in terms of the extent to which his inclusion in the calibration sample would alter the observed correlations between predictor variables, we can obtain essentially the same result by using D^2 to locate him with respect to the calibration group's predictor variable centroid. The Mahalanobis D^2 is a squared multidimensional standard score and as such is independent of both the calibration sample size and the scaling of the variables.

The model to be investigated is one employing Mahalanobis D^2, based on predictor variable responses, as a moderator variable. It is configural in that profile similarity (distance from centroid) is the criterion determining inclusion in that group of subjects for whom predictions will be made. Unlike most of the other moderator variables we have considered, D^2 need not be viewed as a measure of some trait or characteristic in its own right, but rather as a direct expression of profile dissimilarity. Because we propose to develop it only on the basis of predictor variables, it will be criterion independent. Again, because it is not regarded as necessarily indexing a specific trait there is reason to hope that its action will not be as specific to certain situations as is the action of other moderator variables.

A moderator variable depending on profile similarity is apt to be most applicable when there are several points in the profiles to be compared.[4] For this reason the collec-

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4. Although the method as presented is expressly multivariate a similar procedure can be employed when only one predictor variable is available. In this instance D^2 becomes the univariate standard score "z".

tion of additional predictor information will sometimes be advisable. Because such variables can be selected on the basis of their partial validities, their addition may be expected to increase the power of our equations. Another advantage of models of the type we are developing is their ability to deal with more than one criterion variable associated with a particular set of predictors. This again stems from their criterion independence. Finally, because distances can be based on different centroids involving the same variables, should substantially different equations be required for different groups of individuals, it should be possible to solve for distances from each centroid and to select the equation associated with the smallest distance with some assurance that it will be the one most appropriate.

The use of the Mahalanobis D^2 as a moderator variable is not without its limitations. The computation of D^2 is somewhat involved and may be impractical in many situations if a computer is not available. Another limitation (shared with some other moderator methods) may be found in the procedure's tendency to exclude from consideration those individuals for whom either very large or very small criterion values would be predicted. This objection is apt to find substance only in the test user's predilection to certain types of error in preference to others. It is generally accepted that larger standard errors of prediction will be associated with persons whose scores deviate markedly from predictor means. The decision to be made, and this applies to most models attempting differential prediction, is one of being willing to sacrifice some potentially accurate predictions for greater confidence in our predictions in general.

Before proceeding to describe the methodology employed in the investigations, it may be appropriate to

provide a brief example of a situation in which a model of this type might prove useful. Let us assume that we are trying to predict physical endurance on the basis of measures of height and weight and that we have derived an equation giving approximate equal weight to the standardized form of each variable by using employed construction laborers as our calibration group. By using the equation directly we might well predict similar levels of endurance for individuals of average height and weight, for the very tall and emaciated and for the very short and portly. A measure of profile similarity might be expected to exclude these latter two groups.

Chapter III

Method

Data:

An effort was made to locate data sets that were at once of reasonable size and at the same time broadly representative of areas in psychology in which regression has been applied. Of the data sets available, four were selected (Job Satisfaction, M.M.P.I., Psychiatric, Grade Prediction). Each was edited in an effort to eliminate missing data and each edited data set was randomly divided into two nearly equal parts. All analyses reported are based on these eight halved data sets. The variables included in the "Job Satisfaction" data set are listed in Table I. They include six essentially demographic variables and seven measures of satisfaction with work and life. The former variables were always used as predictors while the latter were used as both predictors and criteria. This data was originally used to provide norms for the "Job Descrptive Index" (JDI), a scale developed as part of "The Cornell University's Studies of Retirement Policies". The collection of this data is described in, The Measurement of Satisfaction in Work and Retirement, by Smith, Kendall, & Hulin (1969).

After editing,[5] data was available for 1954 male subjects. From this large data set, two smaller data sets, referred to as parts 1 and 2, were formed by an odd-even sort on the least significant digit of a variable that was

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5. After the study had been completed it was discovered that an error had been made in editing with the result that values were missing for four persons on variable one and for six persons on variable two in the first part.

not used. The groups so formed contained 869 and 859 subjects respectively.

M.M.P.I. data sets. The variables comprising the "M.M.P.I." data set are listed and defined in Table II. This data was originally collected by Dr. L. M. Kendall and represents an attempt to predict behavioral outcomes on the basis of personality variables. After editing, data for 2434 male subjects was available. Two half data sets were formed by means similar to those employed with the Job Satisfaction data. These half data sets, again referred to as parts 1 and 2, contained 1231 and 1203 subjects respectively.

Psychiatric data sets. Table III lists and defines the variables making up the "Psychiatric" data sets. The subjects were all persons who received psychiatric services from public sources in the province of Saskatchewan during the year 1967 and who were not chronically hospitalized at that time (two years of continuous hospitalization).[6] Complete data were available for 7496 people. Subjects were ordered by a registration code on the original record and the two half data sets, each representing 3748 subjects, were formed by alternating assignments to the two groups.

Grade Prediction data sets. The fourth and final data set represents an attempt to predict academic performance on the basis of age, high school average, and aptitude measures. The variables employed are listed in Table IV. The data were collected by Dr. L. M. Kendall in 1965 at Simon Fraser Univer-

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6. See Neufeldt (1969) for a description of the data collection.

TABLE I

Index of Variables in the Job Satisfaction Data Sets

Variable	
1	Age
2	Education
3	Social Economic Status
4	Job Permanence
5	Economic Maturity
6	Family Obligation
7	Job Descriptive Index - Satisfaction with work
8	- Satisfaction with pay
9	- Satisfaction with promotions
10	- Satisfaction with supervision
11	- Satisfaction with co-workers
12	Satisfaction with Job in General
13	Satisfaction with Life in General

TABLE II

Index of Variables in the M.M.P.I. Data Sets

Variable		
1	Age Group:	1 = 16 - 20 years .2 = 21 - 24 years 3 = 25 - 29 years 4 = 30 + years
2	Education in Years	
3	M Score (I.Q. equivalent)	
4	M.M.P.I. L scale	(raw scale scores)
5	F scale	(raw scale scores)
6	K scale	(raw scale scores)
7	Hs scale	(raw scale scores)
8	D scale	(raw scale scores)
9	Hy scale	(raw scale scores)
10	Pd scale	(raw scale scores)
11	Mf scale	(raw scale scores)
12	Pa scale	(raw scale scores)
13	Pt scale	(raw scale scores)
14	Sc scale	(raw scale scores)
15	Ma scale	(raw scale scores)
16	Termination Status:	1 = very unsatisfactory 2 = unsatisfactory 3 = satisfactory

TABLE III

Index of Variables in the Psychiatric Data Sets

Variable

1 Age - in months

2 Sex: 1 = male
2 = female

3 Education: 1 = none
2 = 1 - 6 years
3 = 7 - 9 years
4 = 10 - 12 years
5 = 10 - 12 years + technical training
6 = university
7 = university degree

4 Psychiatric State: 1 = symptoms uncontrolled
2 = symptoms partially controlled
3 = symptoms controlled
4 = symptom free

5 Attention Prior to 1967: 1 = no record
2 = as an out-patient
3 = as an in-patient

6 Number of Recorded Admission to Hospital Prior to 1967

7 Somatic Handicap: 1 = permanently infirm or handicapped
2 = some degree of handicap
3 = no handicap

8 Number of transactions with Patient in 1967

9 Number of Days in Hospital from 1967

TABLE IV

Index of Variables in the Grade Prediction Data Sets

Variable	
1	Age
2	High School Average
3	Scholastic Aptitude Test - Verbal scale
4	- Quantitative scale
5	Grade point in Psychology
6	Grade Point Average

sity and the data set employed represents an attempt to predict grade point averages for a sample of 224 male students taking an introductory course in psychology. Two half data sets, each containing 112 subjects, were formed by shuffling the computer cards containing the raw data and then dealing them into two piles.

Calculation of Squared Distances:

All selection procedures employed were based on measures of the squared distance between an individual's predictor variable profile and group mean predictor variable profiles (centroids). Squared distances (d^2_i) were obtained using the relationship:

$$x'_i \, C^{-1} \, x_i = d^2_i$$

where: the subscript "i" refers to an individual

the subscript "j" refers to a predictor variable

X refers to a raw score

x_i refers to a vector with elements $(Xij-\overline{X}j)$

C^{-1} refers to the inverse of the matrix of covariances between predictor variables.

Initial Means and Covariance Matrices:

Because the calculation of squared distances depends on the presence of predictor variable means and covariances, it was first necessary to compute these. This processing was done in several ways and results associated with the different methods were later compared.

The first of the methods employed, referred to as the "no iteration" condition, saw means and covariances calculated using all subjects in each half data set. The covar-

iance matrix once obtained, was inverted and this inverse together with the predictor variable means were then used in subsequent stages of processing.

The other methods employed are collectively referred to as "iteration" conditions and differ from the no iteration condition in that the means and covariances they gave rise to are based on some and not all of the persons in the half data sets. They differ from each other in that different cutting points (iteration criteria) were employed. The means and covariance matrices associated with the iteration conditions were obtained through use of a repetitive procedure that began with means and covariances based on all subjects in the half data set. At each stage in the process distances were solved for by using the parameters from the previous stage and individuals were temporarily eliminated if they lay further from the predictor variable centroid than the iteration criterion in use would allow. Means and covariances derived using only those subjects not excluded were passed on to the next stage of processing. Distances tended to stabilize after a few cycles and when stability was attained (as indicated by personal distances that did not vary from step to step) the current means and covariance matrix inverse were output for further processing. If convergence failed to occur after 30 iterations a message was output and no further processing was done using the method involved in that particular half data set.

The same computer program was employed for all methods. An outline of the algorithm used is given in Appendix A.

Calibration:

Several different sets of regression weights were obtained from each calibration sample (halved data set). The

first sets were based on the intact calibration samples. Other sets were obtained by first dividing each of the calibration samples into several "near" (comprised of individuals arbitrarily near the group centroid) and "far" (comprised of individuals not in the "near" groups) subgroups by using the sets of predictor variable means and covariances developed in the preceeding step as a basis for the calculation of individual D^2 values. Additional sets of regression weights were obtained for each different near and far subgroup. Multiple correlations between all predictor variables and each criterion variable were obtained in association with each set of regression weights. Root Mean Squared errors (RMSe's) were obtained in association with the multiple correlations.

In most instances the values chosen as the cutting points for classification of individuals into near and far groups were the same values previously referred to as iteration criteria. In the first series of studies, the cutting points used in the no-iteration conditions were approximations of the median D^2 values. In the second series of studies, mean D^2s were used in the no-iteration conditions. The near and far subgroups so formed are expected to differ in that the near group should be more homogeneous in their patterns of responding and hence, in principal at least, more predictable. Far groups were included in the prospect that some advantage might be gained by treating them apart from the larger group.

Cross Validation:

A complete double cross validation design was employed. Each hold-out data set was divided into two parts (near and far) on the basis of distance scores calculated with the use of the calibration sample's means and covariances. Regression weights based on the calibration sample data were applied to

the entire hold-out sample and to the near and far subgroups of the hold-out sample. Regression weights having their origins in the near and far subgroups of the calibration sample, were applied only to the corresponding subgroups of the hold-out sample. This process was repeated once for each iteration criterion employed.

Criterion values, estimated by means of the regression functions employed, were compared with observed values for the same criteria and cross validation statistics, reflecting the extent of agreement, were calculated. Correlations between estimated ($\hat{y}$) and observed (y) criterion values are obtained using:

$$R_{y\hat{y}} = \frac{c'yx\ b}{s_y \sqrt{b'\ C_{xx} b}}$$

where: x = a predictor variable

b = a vector of regression weights

C and c = covariances.

Mean squared errors of estimate (MSe) were obtained using:

$$MSe = s^2y + s^2\hat{y} + (\bar{y} - \bar{\hat{y}})^2 - 2\ s_{y\hat{y}}$$

where: $s_{y\hat{y}} = c'yx\ b$.

Bias: defined as the absolute difference between observed and predicted criterion means ($|\bar{y} - \bar{\hat{y}}|$); was obtained while computing the mean squared error but was not expressed. Instead the bias values reported were obtained using the tabled values and: $\sqrt{MSe - s_y^2\ (1 - R^2)}$.

Analysis:

The model was evaluated on the basis of simple comparisons among the correlations and root mean squared

errors[7] tabled in the next section. Because the model is intended to apply to situations in which actual predictions are made, a measure of predictive accuracy such as the RMSe is apt to be of more interest than are the correlation coefficients by themselves. To the extent that the model is viable, the RMSe's associated with one and preferably both of the subgroups formed from a half data set should be smaller than the RMSe associated with the entire half group on cross validation. If only one subgroup RMSe is to be smaller than that associated with the entire half data set, then the logic employed dictates that it be the RMSe associated with the "near" subgroup.

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7. No convenient test for the significance of differences between Root Mean Squared errors of the type tabled exists and for this reason significances of differences were not tested and are not reported.

Chapter IV

Results - First Series of Investigations

The First Series of Investigations:

In the first series of investigations an effort was made to simulate the type of situation in which multiple regression might actually be used. To this end, variables were designated as being either predictors or criteria on the basis of what was assumed to be their more usual role in such situations. Each data set was subject to a "no iteration" condition employed with approximate median splits based on D^2s. In addition, each data set was iterated using its mean D^2 and was split using this same value. All data sets, with the exception of the "grade prediction" data sets, were further treated using both 0.5 and 2.0 times their mean D^2s as iteration and splitting criteria. These values were arbitrarily selected in an effort to gain some information concerning the effect of different iterations.

Job Satisfaction Data Sets:

In both half Job Satisfaction data sets, variables one through six (age, education, social economic status, job permanence, economic maturity, and family obligation) were employed in an effort to predict the five Job Descriptive Index measures of satisfaction as well as measures of satisfaction with Job and Life in General (variables seven through 13: see Table 1; Table V lists and explains the symbols used in the "tables of results"). Results are reported separately for each criterion variable in Tables VI through XII. Appendix B presents means, standard deviations and correlations for the data sets.

TABLE V

Explanation of Symbols Used in Tables of Results

( ) - number in parenthesis after variable name corresponds to the number of the variable as given in the index to the data set

Iter. - iteration criterion used in obtaining the covariance matrix on which the split was based

G - a sub-grouping: T = total group
N = near sub-group
F = far sub-group

B - the source of the regression weights used

M - the number of subjects in the group or sub-group referenced

S - the standard deviation of the criterion variable

R - the multiple correlation between all predictor variables and the criterion variable

RMSe - the Root Mean Squared Error of prediction

Bias

TABLE VI

Job Satisfaction Data - Variable = JDI Work Satisfaction (7)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.94	.44	9.80		859	10.20	.44	9.16	
		N		435	10.67	.40	9.80		409	10.19	.40	9.33	
		F		434	11.18	.50	9.67		450	10.20	.50	8.86	
	$.5x\overline{D^2}$	N		292	10.19	.29	9.75		306	9.79	.38	9.07	
		F		577	11.25	.50	9.77		553	10.38	.48	9.11	
	$\overline{D^2}$	N		575	10.64	.40	9.73		550	10.05	.37	9.33	
		F		294	11.34	.52	9.73		309	10.43	.55	8.71	
	$2x\overline{D^2}$	N		794	10.90	.45	9.75		774	10.13	.42	9.21	
		F		75	11.30	.56	9.34		85	10.12	.56	8.42	

CROSS VALIDATION												
		T	T	869	10.94	.44	9.88	1.05	859	10.20	.44	9.23	1.39
			T			.40	9.70	1.22			.33	9.37	1.08
		N		403	10.50				407	9.86			
			N			.40	9.70	1.22			.35	9.31	1.17
	None		T			.47	10.03	1.14			.50	9.10	.87
		F		466	11.29				452	10.46			
			F			.48	9.98	1.23			.50	9.11	.97
			T			.34	9.91	1.48			.29	9.59	1.29
		N		279	10.42				267	9.93			
			N			.30	10.04	1.41			.28	9.66	1.56
	$.5x\overline{D^2}$		T			.47	9.86	1.03			.46	9.54	2.77
		F		590	11.11				592	10.28			
			F			.47	9.85	.93			.48	9.08	1.06
			T			.42	9.79	1.38			.35	9.28	.54
		N		563	10.68				526	9.89			
			N			.40	9.84	1.01			.37	9.26	1.15
	$\overline{D^2}$		T			.48	10.03	.87			.52	9.14	1.37
		F		306	11.39				333	10.58			
			F			.49	9.94	.47			.51	9.12	.59
			T			.44	9.84	1.17			.41	9.26	.46
		N		794	10.88				777	10.14			
			N			.44	9.81	.88			.42	9.26	1.03
	$2x\overline{D^2}$		T			.49	10.28	2.63			.54	8.98	2.66
		F		75	11.40				82	10.19			
			F			.47	10.19	1.61			.48	9.37	2.81

TABLE VII

Job Satisfaction Data - Variable = JDI Pay Satisfaction (8)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	14.81	.42	13.47		859	14.05	.47	12.40	
		N		435	14.46	.43	13.08		409	13.43	.43	12.16	
		F		434	15.11	.50	9.67		450	14.59	.52	12.48	
	$.5x\overline{D^2}$	N		292	14.11	.33	13.34		306	13.63	.43	12.30	
		F		577	14.97	.45	13.40		553	14.27	.50	12.37	
	$\overline{D^2}$	N		575	14.47	.40	13.27		550	13.91	.46	12.38	
		F		294	15.20	.45	13.55		309	14.27	.52	12.16	
	$2x\overline{D^2}$	N		794	14.72	.44	13.24		774	14.05	.46	12.48	
		F		75	15.49	.49	13.53		85	13.06	.57	10.75	

CROSS VALIDATION													
		T	T	869	14.81	.40	13.88	2.90	859	14.05	.46	12.83	3.00
			T			.45	13.45	3.70			.40	12.89	3.25
		N		403	14.48				407	13.61			
			N			.47	13.37	3.92			.37	13.10	3.43
	None		T			.39	14.25	3.16			.50	12.78	2.87
		F		466	15.09				452	14.38			
			F			.38	14.23	2.77			.51	12.70	2.90
			T			.37	13.99	4.50			.39	13.02	3.11
		N		279	14.26				267	13.73			
			N			.36	14.11	4.70			.31	13.74	4.29
	$.5x\overline{D^2}$		T			.42	13.84	2.59			.48	12.75	3.13
		F		590	14.98				592	14.09			
			F			.42	13.78	2.25			.48	12.59	2.39
			T			.41	13.70	3.44			.42	13.05	3.06
		N		563	14.54				526	13.98			
			N			.41	13.62	3.10			.40	13.23	3.30
	$\overline{D^2}$		T			.41	14.22	2.91			.51	12.48	3.28
		F		306	15.26				333	14.00			
			F			.39	14.32	2.76			.50	12.37	2.45
			T			.42	13.68	2.91			.45	12.90	3.03
		N		794	14.73				777	14.04			
			N			.43	13.64	3.03			.45	12.90	3.03
	$2x\overline{D^2}$		T			.49	15.84	8.56			.51	12.21	4.42
		F		75	15.29				82	13.23			
			F			.23	15.67	4.91			.31	14.53	7.27

TABLE VIII

Job Satisfaction Data - Variable = JDI Promotion Satisfaction (9)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	15.83	.27	15.26		859	15.86	.29	15.16	
		N		435	15.20	.27	14.64		409	15.71	.30	14.99	
		F		434	16.28	.29	15.56		450	15.97	.32	15.11	
	$.5x\overline{D^2}$	N		292	14.92	.25	14.44		306	15.28	.30	14.58	
		F		577	16.16	.29	15.46		553	16.13	.32	15.29	
	$\overline{D^2}$	N		575	15.40	.29	14.76		550	15.73	.25	15.22	
		F		294	16.37	.30	15.61		309	16.04	.38	14.85	
	$2x\overline{D^2}$	N		794	15.71	.28	15.10		774	15.71	.28	15.08	
		F		75	17.00	.35	15.93		85	16.69	.39	15.39	

CROSS VALIDATION													
		T	T	869	15.83	.25	15.37	1.14	859	15.86	.27	15.27	.17
			T			.27	14.80	2.20			.22	14.75	.55
		N		403	15.20				407	15.11			
	None		N			.27	14.80	2.20			.25	14.76	1.95
			T			.24	15.84	1.32			.30	15.73	1.08
		F		466	16.26				452	16.45			
			F			.24	15.83	1.20			.29	15.75	.47
			T			.20	14.76	2.95			.19	14.64	.49
		N		279	14.76				267	14.92			
	$.5x\overline{D^2}$		N			.20	15.02	4.06			.21	14.92	3.13
			T			.24	15.65	.97			.29	15.55	.50
		F		590	16.09				592	16.24			
			F			.23	15.68	.82			.29	15.57	.93
			T			.27	14.90	1.00			.24	15.12	.67
		N		563	15.44				526	15.56			
	$\overline{D^2}$		N			.28	14.88	1.31			.24	15.18	1.50
			T			.21	16.20	1.86			.30	15.51	1.43
		F		306	16.46				333	16.19			
			F			.20	16.26	2.07			.27	15.63	1.14
			T			.27	15.15	1.00			.25	15.18	11.58
		N		794	15.70				777	10.14			
	$2x\overline{D^2}$		N			.27	15.16	1.14			.27	15.13	11.56
			T			.12	17.53	4.95			.32	16.11	12.90
		F		75	16.94				82	10.19			
			F			.22	16.74	2.67			.27	16.52	13.29

TABLE IX

Job Satisfaction Data - Variable = Supervision Satisfaction (10)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.70	.20	10.48		859	10.35	.24	10.05	
		N		435	10.55	.22	10.28		409	10.61	.22	10.35	
		F		434	10.79	.22	10.53		450	10.06	.27	9.69	
	$.5x\overline{D^2}$	N		292	10.69	.18	10.51		306	10.54	.21	10.32	
		F		577	10.68	.22	10.42		553	10.19	.26	9.84	
	$\overline{D^2}$	N		575	10.48	.17	10.33		550	10.43	.22	10.17	
		F		294	11.09	.26	10.70		309	10.20	.29	9.77	
	$2x\overline{D^2}$	N		794	10.62	.21	10.39		774	10.33	.23	10.06	
		F		75	11.51	.33	10.86		85	10.52	.39	9.69	

CROSS VALIDATION												
	T	T	869	10.70	.17	10.59	.98	859	10.35	.21	10.15	.79
		T			.20	10.61	1.43			.12	10.46	.58
	N		403	10.73				407	10.52			
		N			.16	10.66	1.20			.12	10.51	1.18
None		T			.16	10.58	1.10			.26	9.86	1.08
	F		466	10.66				452	10.15			
		F			.18	10.56	1.25			.26	9.85	.98
		T			.21	11.07	1.92			.13	10.66	.49
	N		279	11.15				267	10.74			
		N			.20	11.02	1.45			.19	10.60	1.08
$.5x\overline{D^2}$		T			.16	10.36	1.15			.23	9.91	1.01
	F		590	10.43				592	10.13			
		F			.17	10.35	1.22			.22	9.91	.75
		T			.16	10.48	1.17			.17	10.28	1.02
	N		563	10.55				526	10.38			
		N			.15	10.54	1.51			.20	10.25	1.28
$\overline{D^2}$		T			.20	10.81	1.24			.27	9.94	.67
	F		306	10.96				333	10.30			
		F			.22	10.73	.91			.26	9.96	.53
		T			.18	10.47	.83			.20	10.16	1.66
	N		794	10.61				777	10.32			
		N			.18	10.49	1.06			.21	10.14	1.67
$2x\overline{D^2}$		T			.13	11.83	2.81			.32	10.06	.85
	F		75	11.59				82	10.58			
		F			.10	11.92	3.02			.10	10.93	2.94

TABLE X

Job Satisfaction Data - Variable = JDI Co-workers Satisfaction (11)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.08	.22	9.84		859	10.06	.19	9.87	
		N		435	10.30	.21	10.07		409	10.24	.18	10.07	
		F		434	9.82	.24	9.53		450	9.89	.23	9.63	
	$.5x\overline{D^2}$	N		292	10.52	.20	10.30		306	10.02	.17	9.88	
		F		577	9.80	.23	9.54		553	10.08	.24	9.41	
	$\overline{D^2}$	N		575	10.06	.20	9.86		550	10.21	.16	10.07	
		F		294	10.10	.26	9.74		309	9.75	.28	9.36	
	$2x\overline{D^2}$	N		794	10.09	.24	9.79		774	10.08	.19	9.90	
		F		75	10.00	.24	9.71		85	9.81	.37	9.12	

CROSS VALIDATION												
		T	T	869	10.08	.20	9.89	.52	859	10.06	.18	9.92	.69
			T			.21	10.11	.78			.12	10.36	2.45
		N		403	10.31				407	10.41			
			N			.20	10.11	.41			.11	10.41	2.61
	None		T			.20	9.70	.87			.22	9.51	.73
		F		466	9.86				452	9.72			
			F			.17	9.76	.92			.21	9.55	.94
			T			.25	10.40	1.42			.15	9.80	.49
		N		279	10.64				267	9.90			
			N			.17	10.57	1.34			.15	9.88	1.35
	$.5x\overline{D^2}$		T			.18	9.65	.87			.23	9.98	1.55
		F		590	9.77				592	10.13			
			F			.17	9.69	1.10			.18	10.03	1.14
			T			.21	9.86	.69			.12	10.43	.97
		N		563	10.06				526	10.46			
			N			.18	9.90	.29			.13	10.40	.77
	$\overline{D^2}$		T			.19	9.96	.82			.24	9.06	.47
		F		306	10.11				333	9.32			
			F			.17	9.99	.74			.23	9.09	.60
			T			.22	9.87	.73			.16	9.95	.44
		N		794	10.09				777	10.07			
			N			.21	9.88	.54			.16	9.98	.89
	$2x\overline{D^2}$		T			.11	10.16	2.24			.25	9.65	1.27
		F		75	9.97				82	9.88			
			F			.00	10.65	3.74			-.01	10.16	2.37

TABLE XI

Job Satisfaction Data - Variable = Job in general (12)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	1.22	.29	1.17		859	1:16	.35	1.09	
		N		435	1.18	.35	1.11		409	1.09	.30	1.04	
		F		434	1:26	.28	1.20		450	1.22	.38	1.13	
	$.5x\overline{D^2}$	N		292	1:17	.34	1:10		306	1.09	.33	1:03	
		F		577	1.24	.29	1.19		553	1.20	.36	1.12	
	$\overline{D^2}$	N		575	1.20	.34	1.13		550	1.12	.32	1.07	
		F		294	1.25	.27	1.21		309	1.23	.40	1.13	
	$2x\overline{D^2}$	N		794	1.21	.30	1:16		774	1.16	.33	1.10	
		F		75	1.32	.36	1.23		85	1.14	.48	1.00	

CROSS VALIDATION													
		T	T	869	1.22	.29	1.20	.28	859	1.16	.34	1.12	.25
		N	T	403	1.16	.33	1.14	.32	407	1.09	.30	1.07	.25
	None		N			.31	1.14	.28			.28	1.09	.31
		F	T	466	1.27	.27	1.25	.26	452	1.22	.37	1.17	.29
			F			.27	1.25	.26			.36	1.17	.27
		N	T	279	1.20	.34	1.19	.38	267	1.13	.30	1.12	.30
	$.5x\overline{D^2}$		N			.35	1.19	.39			.23	1.18	.43
		F	T	590	1.22	.27	1.20	.25	592	1.18	.36	1.13	.25
			F			.27	1.19	.19			.36	1.12	.21
		N	T	563	1.20	.33	1.17	.29	526	1.14	.31	1.12	.28
	$\overline{D^2}$		N			.32	1.17	.28			.30	1.13	.30
		F	T	306	1.26	.25	1.25	.27	333	1.20	.39	1.14	.28
			F			.24	1.25	.26			.37	1.14	.24
		N	T	794	1.21	.29	1.18	.22	777	1.16	.33	1.13	.28
	$2x\overline{D^2}$		N			.29	1.18	.22			.33	1.13	.28
		F	T	75	1.32	.28	1.31	.33	82	1.14	.44	1.07	.31
			F			.21	1.34	.36			.31	1.17	.44

TABLE XII

Job Satisfaction Data - Variable = Life in general (13)

CALIBRATION	Iter.	G	B	Part 1 M	Part 1 S	Part 1 R	Part 1 RMSe	Part 1 Bias	Part 2 M	Part 2 S	Part 2 R	Part 2 RMSe	Part 2 Bias
		T		869	1.12	.28	1.07		859	1.03	.31	.98	
	None	N		435	1.08	.32	1.02		409	.97	.28	.93	
		F		434	1.16	.29	1.11		450	1.08	.35	1.02	
	$.5x\overline{D^2}$	N		292	1.14	.36	1.06		306	.99	.32	.94	
		F		577	1.11	.28	1.06		553	1.05	.32	1.00	
	$\overline{D^2}$	N		575	1.11	.32	1.05		550	1.01	.31	.96	
		F		294	1.14	.29	1.09		309	1.07	.34	1.00	
	$2x\overline{D^2}$	N		794	1.11	.29	1.06		774	1.04	.33	.98	
		F		75	1.21	.41	1.10		85	1.00	.29	.96	

CROSS VALIDATION												
		T	T	869	1.12	.26	1.09	.14	859	1.03	.29	1.00	.17
		N	T	403	1.09	.32	1.04	.12	407	1.00	.30	.97	.18
	None		N			.29	1.05	.12			.27	.98	.18
		F	T	466	1.15	.24	1.13	.17	452	1.06	.29	1.02	.11
			F			.24	1.12	.09			.28	1.03	.16
		N	T	279	1.10	.33	1.06	.21	267	1.05	.32	1.00	.10
	$.5x\overline{D^2}$		N			.34	1.05	.18			.24	1.03	.15
		F	T	590	1.13	.25	1.10	.11	592	1.03	.28	1.00	.15
			F			.25	1.10	.11			.28	1.00	.15
		N	T	563	1.10	.29	1.06	.12	526	1.03	.32	.99	.17
	$\overline{D^2}$		N			.28	1.06	.09			.31	.99	.15
		F	T	306	1.15	.24	1.14	.23	333	1.03	.26	1.01	.18
			F			.23	1.14	.22			.18	1.03	.19
		N	T	794	1.11	.28	1.07	.10	777	1.04	.30	1.00	.12
	$2x\overline{D^2}$		N			.28	1.08	.18			.31	1.00	.15
		F	T	75	1.22	.18	1.23	.27	82	1.01	.21	1.02	.26
			F			.15	1.22	.18			.08	1.10	.44

In the calibration portions of the Job Satisfaction Tables there appears a tendency for the multiple correlations associated with the split data sets to differ from the same correlations developed using the intact (half) data sets. In almost all instances the correlation associated with the "far" split is larger than that associated with the full data set and in most instances is also larger than the correlation associated with the "near" split. This latter correlation tends to be smaller than either "far" or "total" correlations. This observation concerning the relative magnitude of correlations is not unexpected. The splitting procedure employed, by selecting on the basis of distances from group centroids, has the effect of restricting the predictor variables' range and hence also their variance in the "near" group. This effect may be seen in Appendix B. To the extent that variances are restricted, reliabilities will be curtailled and to the extent that reliabilities are attenuated, correlations with other variables will in turn be effected. By the same token, the selection procedure's tendency to anucleate (eliminate values near the mean) predictor variables in the "far" splits will result in larger variances and by extension the probability of larger correlations. To the extent that the usual pattern of multiple correlations does not apply in every instance, we may expect peculiarities in the way in which the criterion variables concerned are distributed with respect to their predictors.

Differences among the RMSe's reported in the calibration portions of the foregoing tables are for the most part minor. An examination of all seven tables finds that 36 of the 46 RMSe's associated with the near splits and 30 of the 56 RMSe's associated with the far splits are at least somewhat smaller than the RMSe's associated with the intact data sets. This finding is somewhat at variance with that concerning

the correlations. The size of a RMSe is inversely related to the multiple correlation between the predictors and a criterion and to the criterion variable's variance. Although they were not employed as part of the splitting procedure, there appears a tendency for the variances of criterion variables in the near groups to have been attenuated and for the variances of these same variables to have become somewhat larger in the far groups. This effect was often sufficient to counteract the influence of the correlations.

The different iteration methods employed would appear to have had little effect on the overall results. One of the more curious observations concerns the way in which the near splits succeeded better in part 1 and the far splits better in part 2 when $\overline{D^2}$ and $2 \times \overline{D^2}$ were employed as iteration and splitting criteria. Differences among criterion variables are also apparent but these reveal no obvious patterns.

The degree of success with cross validation when splitting procedures were not used, may be the most noteworthy observation to be drawn from an examination of the cross validation portions of the Job Satisfaction Data tables. When total group RMSe's in the calibration and cross validation portions of the tables are compared, no large differences are found.

The correlations associated with the near and far split data sets in the cross validation portions of the preceeding tables appear to be distributed in much the same manner as are the corresponding correlations in the calibration portions of these same tables although the tendencies remarked on earlier are less pronounced. Again, the selection procedures by means of which the near and far groups were formed would lead us to expect the correlations associated with the near groups to be somewhat attenuated and those associated with the

far groups to be somewhat augmented. The extent to which this effect is less pronounced in the cross validation statistics may in part be attributed to differences in the two covariance matrices and sets of means used.

An examination of the cross validation RMSe's again reveals tendencies similar to those encountered among the calibration RMSe's and again these tendencies appear less marked than they did in the calibration portions of the tables. None of the split group RMSe's differed markedly from their corresponding total group RMSe's.

Bias was occasionally a major component of the RMSe's and appears to have had its major effect on some of the far groups under the 2 x D^2 iteration condition. The use of regression weights based on like groups as opposed to the use of weights based on the total groups would appear to have had an almost negligible effect on outcomes. Similarly the splitting method employed would seem not to have effected results very much.

In the part 1 data set cross validation appears to have succeeded best within the near split groups while the far split groups were associated with more successes in part 2. This effect was most pronounced when $\overline{D^2}$ and 2 x $\overline{D^2}$ splits were made use of. This observation closely parallels that made concerning the calibration portions of the tables. Because of this close parallelism, the effect would seem due to some property of the data sets and not to the regression weights derived from the data sets.

The results obtained so far constitute no recommendation for the proposed model. Although gains in accuracy were observed more often than were losses when near splits were employed (30 of 56 times with both near and total group B's) these gains were invariably small. When far splits were included,

failures outnumbered successes over all possible comparisons with total group RMSe's (there were 100 out of 224 possible successes). In addition there appears no obvious basis for predicting success.

M.M.P.I. Data Sets:

Age, education, intelligence and 12 M.M.P.I. variables were employed in an effort to predict the performance ratings of employees on their separation from their employment (see Table II). Results are reported in Table XIII. Means, standard deviations and the correlations among variables are to be found in Appendix C.

In the calibration portion of Table XIII the correlations associated with both near and far splits tend to be somewhat larger than the total group correlations. As expected those correlations associated with the far splits tend to be largest of all. The RMSe's for the most part show smaller variations than do the correlations. The one notable exception to this rule is found with the far split associated with the 2 x $\overline{D^2}$ iteration. In both part data sets these RMSe's are appreciably smaller than the total group RMSe's with the greatest differences occurring in Part 2. With this one exception, the iteration procedure employed would appear to have made little difference as far as outcomes are concerned.

The correlations reported in the cross validation portion of Table XIII are for the most part slightly smaller than their corresponding numbers in the calibration portion. No loss is apparent in the RMSe's from the total group on cross validation. The several splitting procedures employed and the choice of regression weights would appear to have had very little effect on outcomes. Again we have no evidence of the efficacy of the proposed model.

TABLE XIII

MMPI Data - Variable = Discharge status (16)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		1231	.90	.21	.88		1203	.90	.20	.88	
		N		647	.89	.22	.87		641	.92	.23	.90	
		F		584	.90	.28	.87		562	.86	.26	.83	
	$.5x\overline{D^2}$	N		WAS NOT RUN - COVARIANCE MATRIX WENT SINGULAR DURING ITERATION CYCLE					381	.91	.24	.88	
		F							882	.89	.22	.87	
	$\overline{D^2}$	N		799	.90	.21	.88		779	.91	.23	.89	
		F		432	.88	.29	.85		424	.86	.24	.84	
	$2x\overline{D^2}$	N		1172	.90	.22	.87		1139	.90	.21	.88	
		F		59	.89	.52	.76		64	.83	.53	.70	

CROSS VALIDATION

	T	T	1231	.90	.18	.88	.10	1203	.90	.17	.88	.11
		T			.18	.88	.09			.16	.92	.06
	N		626	.89				614	.93			
None		N			.15	.89	.13			.17	.92	.08
		T			.18	.89	.10			.19	.85	.10
	F		605	.90				589	.86			
		F			.18	.89	.10			.17	.85	.07
		T			.22	.91	.07					
	N		328	.93				NO CORRESPONDING PART 2 WEIGHTS				
		N			.22	.91	.07					
$.5xD^2$								WERE AVAILABLE				
		T			.17	.87	.07					
	F		903	.88								
		F			.18	.87	.09					
		T			.20	.88	.06			.16	.90	.06
	N		803	.90				782	.91			
		N			.16	.89	.05			.18	.90	.09
$\overline{D^2}$												
		T			.16	.88	.05			.19	.85	.10
	F		428	.89				421	.86			
		F			.17	.88	.07			.18	.86	.15
		T			.18	.88	.09			.16	.89	.05
	N		1161	.89				1149	.90			
		N			.15	.89	.13			.15	.89	.02
$2xD^2$												
		T			.21	.90	.03			.30	.80	.11
	F		70	.92				54	.83			
		F			.28	.93	.29			.26	.93	.47

Psychiatric Data Sets:

Seven demographic variables (see Table III), describing the status of patients prior to their first recorded contacts with public psychiatric facilities in 1967, were used in an effort to predict the number of records such contacts generated in 1967 (see Neufeldt, 1969) and the number of days individual patients were hospitalized during and as the result of admissions during 1967. Results are reported in Tables XIV and XV. Variable means and standard deviations as well as correlations among variables are reported in Appendix D.

The correlations found in both calibration and cross validation portions of Tables XIV and XV are uniformly small. Only six of the 84 correlations associated with the split data sets are larger than their corresponding intact group correlations. With the exception of the no iteration condition reported in the calibration portions of the tables, almost no far group correlations are larger than the corresponding near group values. In the cross validation portions of the tables the correlations associated with far splits based on iterated functions of $\overline{D^2}$ are typically very small and tend almost to vanish particularly with variable nine. An examination of the standard deviations reported in Appendix D reveals that the selection procedures did not have their expected effect on all predictor variables in the near and far data sets. This observation may partially explain the correlations that were obtained. A more adequate explanation awaits a discussion of the distributional characteristics of the criterion variables.

In the calibration portions of Tables XIV and XV the near RMSe's are uniformly smaller and the far RMSe's uniformly larger than are the RMSe's associated with the corresponding intact data sets. All of these differences are comparatively

TABLE XIV

Psychiatric Data - Variable = Number of transactions (8)

			Part 1					Part 2				
	Iter.	G. B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T	3748	1.64	.32	1.55		3748	1.71	.32	1.62	
		N	1693	1.49	.24	1.45		1696	1.39	.25	1.35	
		F	2055	1.74	.36	1.63		2052	1.91	.33	1.80	
	$.5x\overline{D^2}$	N	WAS NOT RUN - COVARIANCE MATRIX WENT SINGULAR DURING ITERATION CYCLE					3100	1.33	.17	1.31	
		F						648	2.63	.21	2.57	
	$\overline{D^2}$	N	3331	1.38	.24	1.34		3336	1.42	.21	1.39	
		F	417	2.73	.16	2.69		412	2.83	.20	2.77	
	$2x\overline{D^2}$	N	3556	1.52	.27	1.46		3554	1.57	.28	1.51	
		F	192	2.70	.21	2.64		194	2.89	.22	2.82	

CROSS VALIDATION												
	T	T	3748	1.64	.31	1.56	.05	3748	1.71	.32	1.62	.02
		T			.21	1.40	.07			.27	1.42	.11
	N		1708	1.43				1689	1.47			
		N			.21	1.40	.07			.26	1.42	.04
None		T			.35	1.67	.09			.33	1.76	.14
	F		2040	1.78				2059	1.87			
		F			.19	1.75	.09			.31	1.80	.28
		T			.20	1.25	.12					
	N		3086	1.27								
		N			.19	1.25	.09					
$.5 \times \overline{D^2}$		T			.15	2.54	.21	NO CORRESPONDING REGRESSION WEIGHTS				
	F		662	2.56								
		F			.15	2.54	.21					
		T			.23	1.34	.09			.20	1.39	.06
	N		3330	1.38				3336	1.42			
		N			.23	1.34	.09			.21	1.39	.07
$\overline{D^2}$		T			.12	2.72	.23			.08	2.85	.41
	F		418	2.73				412	2.83			
		F			.12	2.73	.33			.14	2.81	.21
		T			.27	1.46	.10			.26	1.52	.11
	N		3545	1.52				3557	1.57			
		N			.26	1.46	.15			.27	1.51	.07
$2 \times \overline{D^2}$		T			.12	2.70	.40			.09	2.90	.43
	F		203	2.69				191	2.88			
		F			.05	2.74	.54			.09	2.90	.43

TABLE XV

Psychiatric Data - Variable = Days in hospital (9)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		3748	83.33	.20	81.63		3748	72.91	.19	71.65	
		N		1693	73.89	.17	72.84		1696	59.94	.17	59.11	
		F		2055	90.12	.21	88.16		2052	81.88	.19	80.44	
	$.5x\overline{D^2}$	N		COVARIANCE MATRIX WENT					3100	57.76	.14	57.19	
		F		SINGULAR BEFORE CONVERGING					648	119.13	.14	117.89	
	$\overline{D^2}$	N		3331	70.35	.17	69.36		3336	60.76	.14	60.14	
		F		417	146.02	.13	144.70		412	132.38	.15	130.91	
	$2x\overline{D^2}$	N		3556	77.49	.18	76.20		3554	66.26	.16	65.44	
		F		192	149.48	.22	145.75		194	144.32	.16	142.38	

CROSS VALIDATION

None	T	T	3748	83.33	.20	81.80	5.01	3748	72.91	.18	71.85	4.33
		N			.16	69.36	3.21			.16	62.55	1.80
	N	T	1708	70.19	.15	69.45	2.74	1689	63.34	.16	62.59	2.87
		T			.19	90.93	2.57			.18	78.66	5.64
	F	F	2040	92.58	.17	91.84	10.55	2059	79.76	.18	79.20	10.82
$.5 \times \overline{D^2}$		T			.15	62.83	2.93	NO CORRESPONDING REGRESSION WEIGHTS				
	N	N	3086	63.48	.15	62.75	1.22					
		T			.05	139.59	12.97					
	F	F	662	139.16	.07	139.53	14.07					
$\overline{D^2}$		T			.16	69.54	3.47			.13	60.35	3.57
	N	N	3330	70.36	.16	69.54	3.47	3336	60.76	.13	60.33	3.21
		T			.03	146.56	14.86			.08	132.16	7.35
	F	F	418	145.87	.02	147.29	20.61	412	132.38	.01	134.29	22.61
$2 \times \overline{D^2}$		T			.18	76.30	5.29			.15	65.64	4.43
	N	N	3545	77.38	.17	76.28	2.00	3557	66.24	.15	65.63	4.28
		T			.04	147.93	13.62			.08	145.10	7.91
	F	F	203	147.42	.01	149.78	26.52	191	145.35	.03	149.42	34.91

large. Differences among RMSe's are closely paralleled by differences among standard deviations and both sets of differences are best explained by an examination of the effects of splitting on distributional characteristics of the data sets.

Both criterion variables are very markedly skewed in the positive direction (coefficients based on the distributions second and third moments are respectively: 3.44 and 3.52 for variable eight parts 1 and 2, and 6.91 and 7.54 for variable nine parts 1 and 2). In each instance the distributions mode is also its lower limit. Predictor variable six (number of hospitalizations prior to 1967), the only predictor variable to be much effected by selection, is similarly positively skewed and has as its mode, its lower limit. The splitting procedures, primarily it would seem because of variable six, had the effect of isolating the criterion variables' tails in the far groups. In those instances in which iterative methods were employed, the RMSe's and s.d.s are observed to follow the pattern one might expect. As the far selected data sets become smaller they come increasingly to represent only those individuals with the most atypical responses. In consequence of this, variances in both near (because more atypical individuals are being added) and far (because even fewer individuals are alike) groups tend to become larger. It is rather more difficult to include the no iteration condition in this discussion although here again the splitting method (based on a poor approximation to the median D^2) appears to have served to identify the far group with the tails of the criterion variables' distributions.

Cross validation employing total group regression weights in the intact data sets appears to have succeeded very well as far as both correlations and RMSe's are concerned. All differences between split and corresponding total group RMSe's

are comparatively large and the RMSe's associated with the near splits are uniformly smaller while those associated with the far splits are uniformly larger than are the corresponding values associated with the intact data sets.

In the data sets split by iterative means the tendency for both RMSe's and s.d.s to become larger as the far split groups become smaller is again in evidence. Far splits perform particularly badly and tend to represent no improvement over the simple use of means as is evidenced when their RMSe's are compared with their standard deviations. No one iteration criterion is necessarily superior to another. Within the range of values explored the choice would seem to hinge on our willingness to exclude individuals from the near select groups in order to gain greater confidence in the predictions we make concerning these groups, and assign them instead to conditions in which we are unable to improve on the use of criterion means as our best estimators.

A choice between iterated and non-iterated methods would appear more easily made and should almost certainly favor the use of the iterated methods. Despite its having yielded the smallest near groups, the RMSe's associated with the no iteration near groups were not smallest. This would appear to reflect rather poor differentiation between near and far groups and seems likely to have arisen because of the no iteration conditions vulnerability to the influence of extreme values.

The source of regression weights again seems to have had little effect on the success of cross validation. Bias again appears to have made but a minor contribution to the size of the RMSe's. There does however, appear to be a tendency for the bias values associated with the far split groups to be larger than those associated with near splits. This may in part be a reflection of the different sample sizes.

Grade Prediction Data Sets:

Age, high school averages, and S.A.T. scores were used in an effort to predict grades in an introductory psychology course and freshman grade point averages. Variables are listed in Table IV. Results are reported in Tables XVI and XVII. Correlations among variables, variable means and variable standard deviations are reported in Appendix E.

In the calibration portions of Tables XVI and XVII most of the near group correlations are somewhat attenuated and most of the far group correlations somewhat augmented with respect to the total group correlations. The part 2 data set and no iteration condition provides an exception to this general pattern. Here augmented near group correlations and restricted criterion variances combine to produce the (relatively) smallest RMSe's in the calibration portions of the tables. Although near group RMSe's are usually smaller than are total group RMSe's, the only difference to attain significance is that between the near non-iterated and total group values for variable six.

Losses through direct cross validation, as evidenced by correlations that are smaller and RMSe's that are larger, are greater for the Grade Prediction data sets than they were in data sets from other sources. Near group correlations are larger and RMSe's are smaller than are total group values thus indicating that splitting is having the desired effect on cross validation. Several of the differences between RMSe's, particularly in the part 2 data set are substantial. Differences between iterated and non-iterated near group RMSe's are generally small. The far iterated RMSe's on the other hand are typically much larger than are their non-iterated pairs. Most (seven of eight) of the far group iterated RMSe's are

TABLE XVI

Grade Prediction Data ~ Variable = Psychology Grade Point (5)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		112	1.96	.65	1.48		112	2.08	.56	1.72	
		N		56	1.70	.64	1.31		54	2.05	.70	1.46	
		F		56	2.15	.69	1.56		58	2.10	.58	1.71	
	$\overline{D^2}$	N		90	1.90	.63	1.48		90	1.87	.54	1.58	
		F		22	2.17	.78	1.35		22	2.70	.78	1.69	

CROSS VALIDATION	None	T	T	112	1.96	.52	1.70	.30	112	2.08	.51	1.90	.64
		N	T	59	1.77	.63	1.46	.49	51	1.90	.56	1.61	.34
			N			.63	1.41	.31			.52	1.73	.60
		F	T	53	2.14	.49	1.93	.49	61	2.21	.52	2.13	.99
			F			.33	2.13	.67			.50	2.15	.98
	$\overline{D^2}$	N	T	92	1.88	.58	1.55	.23	81	1.96	.60	1.59	.26
			N			.62	1.49	.21			.60	1.58	.19
		F	T	20	2.27	.48	2.26	1.07	31	2.34	.47	2.45	1.32
			F			.18	3.27	2.39			.32	2.75	1.63

TABLE XVII

Grade Prediction Data - Variable = Grade Point Average (6)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		112	.74	.65	.56		112	.75	.51	.64	
		N		56	.70	.54	.59		54	.65	.68	.48	
		F		56	.75	.72	.52		58	.82	.49	.72	
	$\overline{D^2}$	N		90	.73	.62	.58		90	.70	.59	.56	
		F		22	.74	.78	.46		22	.88	.67	.65	

CROSS VALIDATION	None	T	T	112	.74	.49	.65	.08	112	.75	.42	.77	.36
			N			.54	.63	.20			.52	.55	.16
		N		59	.71				51	.67			
			T			.58	.59	.12			.59	.56	.14
		F		53	.77	.49	.68	.11	61	.80	.39	.91	.53
			F			.41	.72	.16			.37	.89	.49
	$\overline{D^2}$	N	T	92	.72	.51	.63	.12	81	.68	.57	.56	.04
			N			.59	.59	.10			.59	.55	.03
		F	T	20	.81	.44	.75	.18	31	.87	.41	1.14	.82
			F			.18	1.00	.60			.26	1.24	.91

appreciably larger than their total group comparisons while only one of the non-iterated RMSe's approaches them in size. Bias is occasionally a major contributing factor and appears to effect the far groups more than the near. Once again the source of the regression weights used appears to have had little effect on outcomes.

A direct comparison of iterated and non-iterated conditions is difficult because of differences in the sizes of the near and far splits generated. On the basis of the material reported a case might be made favoring the iterative method over the non-iterative. The former procedure produced a larger near group than did the latter but one with an average RMSe that was no larger. Evidence is not available although it would seem unlikely that the non-iterated cutting point could be relaxed sufficiently to equalize the near group sizes without at the same time increasing the near groups' RMSe's. As it is, collapsing over all near and far splits within a method, reveals average errors that are almost identical.

Chapter V

Results - Second Series of Investigations

The Second Series of Investigations:

The low multiple correlations between predictors and criterion variables provide a possible explanation of the rather ambiguous results obtained with the Job Satisfaction and M.M.P.I. data sets. A prior condition for the success of any attempt at prediction is the existence of a relationship between predictor(s) and predicted that can be capitalized upon. If a splitting strategy is to succeed, then the nature of this relationship must differ for the different groups formed. Relationship remains a prior condition and in an effort to assure a sufficient degree of relationship data sets were reorganized to provide larger multiple correlations between predictors and criteria. This reorganization took place with little regard to maintaining variables in their traditional roles. Variables were redefined in their roles as predictors or criteria and the situations that resulted are rather more artificial than those employed in the first series of investigations.

Only the Job Satisfaction and M.M.P.I. data sets were employed in the second series of investigations. Both data sets were again subject to a no iteration condition although in this instance means were substituted for the medians that had been employed as splitting criteria. Because the choice of an iteration criteria appears to have had little influence on the conclusions that could be drawn from previous investigations only the $\overline{D^2}$ iteration was retained.

Job Satisfaction - High Correlation Data Sets:

In the Job Satisfaction data sets the seven variables that had previously been employed as criteria were retained as such. The predictor sets were expanded to include all criterion variables other than that under consideration at a particular time. Separate predictor means and inverted covariance matrices were obtained for each different set of 15 predictor variables. Results are reported in Tables XVIII through XXIV. Means, standard deviations and correlations among variables may be found in Appendix F.

In the calibration portions of Tables XVIII through XXIV differences between correlations are observed to occur more consistently in the expected manner but are in general of lesser magnitude. Differences between predictor standard deviations on the other hand tend to be greater than those previously observed with near s.d.s tending to be attenuated and far s.d.s augmented with respect to the total groups' s.d.s. With the exception of variable nine (Table XX) all near group RMSe's are equal to or smaller than corresponding total group RMSe's. Almost all (exception: part 1 variable 8 and variable 9) far group RMSe's are larger than their corresponding intact group numbers. None of the differences between RMSe's are large. There appears a slight but consistent tendency for differences to be greater in the iterated conditions.

Direct cross validation, as indicated by comparisons between calibration and cross validation total group correlations and RMSe's, was again quite successful. With the exception of variable nine where splitting had an opposite effect, near group criterion standard deviations are consistently smaller than are far group criterion s.d.s. The correlations

TABLE XVIII

Job Satisfaction Data - High Correlation - Variable = JDI Work Satisfaction (7)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.94	.67	8.10		859	10.20	.62	7.98	
		N		521	9.74	.65	7.39		513	9.41	.63	7.36	
		F		348	12.17	.68	8.90		346	10.99	.62	8.61	
	$\overline{D^2}$	N		552	9.52	.64	7.28		532	9.07	.61	7.20	
		F		317	12.26	.67	9.14		327	11.27	.63	8.78	

CROSS VALIDATION	None	T	T	869	10.94	.67	8.22	1.27	859	10.20	.62	8.11	1.31
			N			.65	7.18	1.39			.59	7.69	1.08
		N	T	468	9.27				495	9.43			
			N			.64	7.20	1.05			.59	7.66	.84
		F	T	401	11.99	.64	9.30	1.27	364	11.04	.64	8.65	1.69
			F			.64	9.37	1.71			.63	8.74	1.70
	$\overline{D^2}$	N	T	496	9.17	.63	7.18	.92	530	8.95	.59	7.35	1.34
			N			.62	7.21	.47			.59	7.26	.70
		F	T	373	11.96	.63	9.43	1.63	329	11.47	.61	9.20	1.43
			F			.62	9.47	1.27			.60	9.30	1.51

TABLE XIX

Job Satisfaction Data - High Correlation - Variable = JDI Pay Satisfaction (8)

				Part 1					Part 2			
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	14.81	.60	11.83		859	14.05	.57	11.55	
		N		532	14.26	.56	11.79		514	12.92	.54	10.89	
		F		337	15.24	.64	11.76		345	15.21	.60	12.17	
	$\overline{D^2}$	N		547	14.49	.58	11.83		545	13.11	.55	10.98	
		F		322	14.51	.60	11.57		314	14.72	.56	12.19	

CROSS VALIDATION	None	T	T	869	14.81	.57	12.36	2.17	859	14.05	.54	12.07	2.42
			T			.54	12.17	1.86			.51	11.51	2.43
		N		499	14.29				505	13.08			
			N			.53	12.32	2.22			.51	11.53	2.52
		F	T			.58	12.61	3.61			.57	12.82	2.86
				370	14.83				354	15.21			
			F			.55	12.69	2.76			.57	12.90	3.20
	$\overline{D^2}$	N	T			.55	11.99	1.59			.53	11.36	1.78
				513	14.23				543	13.23			
			N			.54	12.17	2.16			.52	11.50	2.13
		F	T			.53	12.87	3.69			.55	13.19	3.81
				356	14.54				316	15.12			
			F			.52	12.69	2.61			.54	13.34	4.00

TABLE XX

Job Satisfaction Data - High Correlation - Variable =

JDI Promotion Satisfaction (9)

				Part 1					Part 2				
	Iter	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	15.83	.58	12.95		859	15.86	.55	13.29	
		N		527	15.41	.53	13.03		518	15.62	.54	13.19	
		F		342	16.16	.63	12.52		341	15.52	.54	13.07	
	$\overline{D^2}$	N		559	15.66	.54	13.22		534	15.60	.51	13.43	
		F		310	15.02	.60	12.00		325	15.20	.55	12.71	

CROSS VALIDATION	None	T	T	869	15.83	.55	13.25	.88	859	15.86	.52	13.57	.79
			N			.48	13.57	.19			.50	13.39	.45
		N	T	479	15.47				511	15.47			
			N			.50	13.51	1.74			.49	13.47	.65
			T			.58	12.86	1.86			.51	13.83	2.22
		F		390	15.62				348	15.87			
			F			.56	13.00	1.24			.51	13.88	2.51
	$\overline{D^2}$		T			.49	13.70	1.16			.47	13.79	.28
		N		498	15.66				548	15.62			
			N			.50	13.57	.47			.47	13.84	.21
			T			.54	12.63	1.87			.52	13.18	2.41
		F		371	14.84				311	15.17			
			F			.53	12.60	.63			.52	13.13	2.12

TABLE XXI

Job Satisfaction Data - High Correlation - Variable =

JDI Supervision Satisfaction (10)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.70	.56	8.83		859	10.35	.57	8.52	
		N		522	9.60	.53	8.12		507	9.04	.52	7.74	
		F		347	11.95	.59	9.63		352	11.64	.58	9.44	
	$\overline{D^2}$	N		538	9.09	.46	8.06		535	9.02	.48	7.92	
		F		311	12.28	.61	9.75		324	11.53	.59	9.31	

CROSS VALIDATION	None	T	T	869	10.70	.54	9.02	.51	859	10.35	.54	8.70	.44
			N			.47	8.27	.93			.48	8.27	.98
		N	T	478	9.31				500	9.36			
			N			.46	8.28	.47			.45	8.37	.43
			T			.56	9.86	1.28			.58	9.26	.20
		F		391	11.80				359	11.37			
			F			.55	9.93	1.22			.58	9.30	.84
	$\overline{D^2}$		T			.45	7.86	.40			.44	8.29	.57
		N		499	8.79				530	9.21			
			N			.43	7.95	.47			.42	8.38	.60
			T			.51	10.39	1.39			.59	9.32	.89
		F		370	11.97				329	11.49			
			F			.50	10.46	1.40			.59	9.34	1.08

TABLE XXII

Job Satisfaction Data - High Correlation - Variable =
JDI Co-workers Satisfaction (11)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	10.08	.50	8.72		859	10.06	.45	8.96	
		N		523	9.41	.53	8.00		503	8.84	.47	7.81	
		F		346	10.97	.49	9.53		356	11.39	.46	10.11	
	$\overline{D^2}$	N		538	9.10	.51	7.85		534	8.91	.44	8.01	
		F		331	11.24	.48	9.85		325	11.44	.48	10.00	

CROSS VALIDATION	None	T	T	869	10.08	.48	8.87	.69	859	10.06	.44	9.10	1.10
		N	T	472	9.05	.46	8.07	.74	502	9.07	.41	8.37	1.27
			N			.42	8.28	1.05			.39	8.50	1.58
		F	T	397	11.03	.48	9.75	1.20	357	11.23	.45	10.03	.16
			F			.46	9.89	1.38			.45	10.08	1.02
	$\overline{D^2}$	N	T	484	8.69	.42	7.92	.73	531	8.80	.37	8.27	1.25
			N			.39	8.10	1.26			.36	8.40	1.78
		F	T	385	11.25	.47	9.95	.63	328	11.59	.46	10.30	.43
			F			.47	10.00	1.18			.46	10.34	1.01

TABLE XXIII

Job Satisfaction Data - High Correlation - Variable = Job in General (12)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	1.13	.69	.89		859	1.16	.70	.84	
		N		518	1.10	.66	.82		512	1.02	.68	.75	
		F		351	1.36	.71	.97		347	1.29	.69	.93	
	$\overline{D^2}$	N		542	1.10	.68	.81		534	1.00	.68	.73	
		F		327	1.34	.68	.99		325	1.27	.66	.95	

CROSS VALIDATION	None	T	T	869	1.13	.68	.91	.38	859	1.16	.69	.86	.19
			T			.64	.83	.19			.67	.80	.18
		N		484	1.05				498	1.05			
			N			.64	.83	.19			.67	.81	.22
			T			.69	1.00	.02			.68	.94	.13
		F		385	1.37				361	1.27			
			F			.68	1.00	.09			.68	.93	.05
			T			.65	.82	.15			.69	.78	.18
		N		502	1.06				529	1.05			
			N			.66	.81	.15			.69	.78	.18
	$\overline{D^2}$		T			.65	1.02	.14			.65	.97	.10
		F		367	1.33				330	1.27			
			F			.64	1.02	.06			.65	.96	.10

TABLE XXIV

Job Satisfaction Data - High Correlation - Variable = Life in General (13)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		869	1.12	.56	.93		859	1.03	.56	.86	
		N		517	1.05	.57	.86		511	.95	.59	.76	
		F		352	1.21	.56	1.01		348	1.13	.53	.96	
	$\overline{D^2}$	N		557	1.06	.59	.86		530	.95	.61	.76	
		F		312	1.21	.53	1.03		329	1.13	.51	.97	

CROSS VALIDATION	None	T	T	869	1.12	.55	.94	.09	859	1.03	.55	.86	.02
			T			.53	.86	.08			.54	.83	.07
		N		477	1.01				490	.99			
			N			.52	.87	.11			.54	.83	.07
			T			.56	1.02	.04			.56	.90	.10
		F		392	1.23				369	1.08			
			F			.55	1.03	.08			.56	.90	.10
			T			.57	.83	.02			.56	.82	.11
		N		496	1.01				528	.98			
			N			.56	.83	.11			.55	.82	.05
	$\overline{D^2}$		T			.52	1.06	.14			.53	.93	.10
		F		373	1.23				331	1.09			
			F			.51	1.06	.06			.52	.93	.04

associated with the split data sets are distributed without obvious pattern. Again with the exception of variable nine, all near group RMSe's are smaller and all far group RMSe's are larger than are their corresponding total group values. Many of these differences, particularly those involving the iterated data sets, are large. Although variable nine misbehaves, none of the differences involving its split group RMSe's are of much consequence.

M.M.P.I. - High Correlation Data Sets:

The M.M.P.I. data sets were used again with variables four through 11 (M.M.P.I. variables: L, F, K, Hs, D, Hy, Pd, and Mf) being used as predictors and variables 12 through 15 (M.M.P.I. variables: Pa, Pt, Sc, and Ma) being used as criteria. Results are reported in Tables XXV through XXVIII. Correlations between variables, variable means and standard deviations are presented in Appendix G.

The results obtained with the M.M.P.I. - High Correlation data sets are very similar to those obtained with the Job Satisfaction - High Correlation data sets. The multiple correlations and criterion variable standard deviations reported in the calibration portions of Tables XXV through XXVIII consistently follow the expected pattern. All near group RMSe's are smaller and most far group RMSe's are larger than are the corresponding error terms associated with the intact groups. Several of the differences between RMSe's are large particularly those involving variables 13 and 14 (Tables XXVI and XXVII) which also have the highest multiple correlations.

Direct cross validation was again very successful with all losses, indicated by smaller correlations and larger RMSe's, being small. The splitting techniques tended to

TABLE XXV

MMPI Data - High Correlation - Variable = MMPI Pa Scale (12)

				Part 1					Part 2				
	Iter	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		1231	3.20	.45	2.86		1203	3.00	.45	2.69	
		N		768	2.96	.37	2.74		775	2.70	.29	2.58	
		F		463	3.46	.50	3.00		428	3.30	.53	2.81	
	$\overline{D^2}$	N		816	2.79	.34	2.63		831	2.78	.29	2.66	
		F		415	3.65	.48	3.20		372	3.16	.53	2.68	

CROSS VALIDATION	None	T	T	1231	3.20	.42	2.90	.15	1203	3.00	.42	2.73	.20
		N	T	784	2.95	.35	2.77	.19	755	2.63	.25	2.58	.41
			N			.33	2.80	.29			.26	2.57	.39
		F	T	447	3.50	.46	3.11	.12	448	3.34	.48	2.96	.42
			F			.48	3.07	.05			.48	2.94	.24
	$\overline{D^2}$	N	T	824	2.78	.31	2.65	.19	798	2.77	.21	2.74	.42
			N			.30	2.66	.21			.23	2.72	.36
		F	T	407	3.66	.42	3.35	.44	405	3.19	.53	2.71	.16
			F			.42	3.33	.24			.52	2.75	.37

TABLE XXVI

MMPI Data - High Correlation - Variable = MMPI Pt Scale (13)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		1231	6.14	.80	3.69		1203	6.35	.82	3.66	
		N		768	5.41	.78	3.41		775	5.47	.78	3.40	
		F		463	6.97	.81	4.05		428	7.46	.84	4.05	
	$\overline{D^2}$	N		816	5.37	.77	3.42		831	5.42	.78	3.36	
		F		415	7.03	.81	4.08		372	7.59	.83	4.20	

CROSS VALIDATION													
		T	T	1231	6.14	.80	3.70	.34	1203	6.35	.82	3.67	1.36
			T			.78	3.44	.11			.78	3.41	.46
		N		784	5.50				755	5.40			
			N			.78	3.44	.11			.78	3.40	.38
	None		T			.81	4.11	.57			.84	4.08	.47
		F		447	6.94				448	7.47			
			F			.81	4.09	.41			.84	4.08	.47
			T			.78	3.39	.34			.78	3.35	.43
		N		824	5.39				798	5.31			
			N			.78	3.38	.22			.78	3.36	.50
	$\overline{D^2}$		T			.80	4.26	.23			.83	4.23	.50
		F		407	7.11				405	7.53			
			F			.80	4.25	.37			.83	4.24	.58

TABLE XXVII

MMPI - High Correlation - Variable = MMPI Sc Scale (14)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		1231	6.44	.81	3.75		1203	6.81	.82	3.85	
		N		768	5.22	.76	3.41		775	5.51	.79	3.40	
		F		463	7.62	.83	4.20		428	8.25	.84	4.53	
	$\overline{D^2}$	N		816	5.13	.75	3.39		831	5.42	.78	3.36	
		F		415	7.67	.83	4.31		372	8.39	.83	4.74	

CROSS VALIDATION	None	T	T	1231	6.44	.81	3.78	.16	1203	6.81	.82	3.88	.37
			N			.77	3.47	.62			.78	3.36	.36
		N		784	5.35				755	5.40			
			T			.77	3.45	.50			.78	3.37	.25
			F			.83	4.27	.56			.83	4.63	.60
		F		447	7.59				448	8.23			
			F			.83	4.26	.48			.83	4.60	.30
	$\overline{D^2}$		T			.75	3.42	.30			.77	3.38	.40
		N		824	5.15				798	5.26			
			N			.75	3.41	.16			.77	3.38	.40
			T			.82	4.42	.40			.83	4.71	.95
		F		407	7.69				405	8.27			
			F			.82	4.43	.50			.83	4.68	.79

TABLE XXVIII

MMPI Data - High Correlation - Variable = MMPI Ma Scale (15)

				Part 1					Part 2				
	Iter.	G	B	M	S	R	RMSe	Bias	M	S	R	RMSe	Bias
CALIBRATION	None	T		1231	4.15	.52	3.53		1203	4.08	.56	3.37	
		N		768	3.98	.48	3.50		775	3.83	.52	3.27	
		F		463	4.40	.60	3.51		428	4.51	.63	3.51	
	$\overline{D^2}$	N		816	3.99	.48	3.51		831	3.80	.52	3.25	
		F		415	4.41	.61	3.49		372	4.64	.64	3.58	

CROSS VALIDATION	None	T	T	1231	4.15	.52	3.54	.18	1203	4.08	.56	3.39	.26
			T			.46	3.50	.11			.50	3.30	.05
		N		784	3.94				755	3.81			
			N			.47	3.50	.39			.50	3.31	.26
			T			.59	3.61	.08			.62	3.54	.34
		F		447	4.47				448	4.49			
			F			.59	3.63	.39			.61	3.55	.24
			T			.47	3.54	.36			.50	3.29	.25
		N		824	3.99				798	3.81			
			N			.47	3.53	.24			.50	3.30	.05
	$\overline{D^2}$		T			.59	3.55	.13			.62	3.57	.24
		F		407	4.40				405	4.56			
			F			.59	3.58	.44			.62	3.58	.13

produce the desired results and most near group RMSe's are observed to be at least somewhat smaller than are the corresponding total group RMSe's. Far group RMSe's tend to be larger than total group values and many of the differences involving comparisons between near or far group RMSe's and those associated with total groups are significant. This is again particularly true for comparisons involving variables 13 and 14.

When methods of splitting data sets are compared, a very slight superiority may have to be conceded to the use of the iterated covariance matrix. This method once more appears to have the property of including more subjects in the near groups without increasing errors of prediction. The source of the regression weights again seems to have been of little consequence and bias is not a major factor contributing to the RMSe's.

Chapter VI

Discussion

It would seem that no one factor can adequately account for the pattern of results reported in the foregoing section. Rather different properties of the several data sets appear to have contributed to the outcomes observed. Those properties which appear to have contributed most to the successes obtained tend not to be properties shared by sets of data from diverse sources.

The greatest gains attributable to the segregation of individuals were observed when the Psychiatric data sets were considered. The critical factor in this instance was almost certainly the extent to which the distributions of several variables were peaked and skewed. The results obtained may have been somewhat fortuitous in that the predictor variable with greatest zero order validity (variable 5) was also the predictor variable with the most aberrant distribution and was therefore the single greatest contributor to the splitting procedure. To the extent that the distributions of predictor variables are unusual in either their kurtosis or skewness the values assigned to a relatively few extreme individuals will disproportionately effect relationships with other variables. Correlations with criteria may be unduly high if the same individuals contribute to biases in the criterion variables or unduly low if this is not the case. In either event, estimates of criterion values are apt to be biased away from the larger group of subjects in response to the scores of a relatively small number of people. Any method that is capable of detecting those individuals who contribute most to distributions deviating markedly from the normal form may therefore be expected to offer the potential of increased accuracy in prediction.

The results obtained with the Grade Prediction data sets provide additional support for the utility of the proposed model. In this instance the performance observed would seem best attributed to the comparatively small size of the data sets. To the extent that samples drawn from a population are small, we expect the variability between samples to be large. To the extent that samples differ, the regression weights obtained from one sample are apt not to apply as well to other samples. Gains realized through utilization of the selection procedure are expected because of its grouping subjects on the basis of their similarities to the original calibration sample.

Results favoring the splitting model investigated were obtained rather consistently when the "high correlation" pairs of data sets were considered although effects were for the most part less pronounced than those associated with the aforementioned sets of data. In this instance the relatively high correlations between variables would seem best to account for the results observed for the reasons outlined in the development of the configural model.

Although successes outnumbered failures when the model was applied to the regular Job Satisfaction and M.M.P.I. data sets the inconsistent results obtained coupled with the limited magnitude of most effects provide no evidence of the techniques utility. A general absence of the factors that seem most likely to have contributed to the previously observed successes, manifest in large data sets, relatively low correlations between variables, and no evidence of unusual distributions, may well account for the ambiguous results observed.

No one method of splitting data sets proved superior in all instances. If a recommendation is to be made on the

basis of the results obtained, the iterated procedure using the mean D^2 value as an iteration and inclusion criterion should probably be regarded as the favored technique. Although the method that did not employ an iterated covariance matrix performed well in several situations and has the virtue of requiring fewer and simpler computations, it carries with it a weakness that was revealed when the Psychiatric data sets were investigated. In those instances the non-iterated method tended to classify persons near the distributions' modes as atypical (members of the far groups). This would appear to have been the case because of the centroids senstitivity to extreme scores. The iterated methods on the other hand are much more apt to locate distributional modes and are less influenced by extreme values. Defending a choice among the three iterated solutions considered is even more difficult. Many of the differences that were observed would seem to have been at least as much a property of the splitting criteria employed as one of the covariance inverse used. Because iteration and splitting criteria must be selected without knowledge of outcomes, the use of the mean D^2 value may be recommended as a compromise. As knowledge of effect is gained it becomes a relatively easy matter to investigate alternate cutting points and a basis is laid for further consideration of the most ideal covariance matrix for selection.

The situation relating to a choice of regression weights is somewhat clearer than that relating to the exact method of group selection. Very few differences were observed between the performances of "like group" and "total group" regression weights and those differences that were observed tended in general to favor the use of weights developed using the intact groups. This observation would seem to indicate that the near and far sub-groups isolated differ more in level

of validity than in pattern of validity. This failure to find different patterns of validity parallels the experience of Karas & Kendall (1965) who reported that three regression equations were sufficient to account for most of the relationships between predictors of academic success and academic success when students from diverse backgrounds applying to different colleges and universities were studied.

The finding that D^2 often serves to index levels of validity (at least at the level of comparisons between near and far groups) raises another possibility. To the extent that reliable inter-group differences are found in level of validity, this information can be incorporated in decision processes such as that outlined by Einhorn & Bass (1971) and judgements can be tempered by knowledge of the risks of error being entertained.

Chapter VII

Conclusions and Recommendations

The question of the proposed model's utility remains, for the most part, open. There are, as was demonstrated, situations in which the procedures employed may be expected to differentiate between individuals on the basis of expected errors of prediction. The exact circumstances under which these expectations will be fulfilled have not been well delineated. In many of the instances in which the methods investigated were observed to work, the magnitude of differences between observed errors were small. Expected gains need to be evaluated against the not inconsiderable additional computational expense before any conclusions regarding utility are reached. Yet another problem concerns the disposition of persons in the far or less predictable groups. Although they carry the expectation of greater errors of prediction when intact group regression functions are employed, such functions are generally observed to contribute some information and superior alternate functions appear not to be readily available.

The foregoing may represent an unduly pessimistic appraisal of the situation. Certainly enough promise was shown to warrant further investigations. Such investigations should have as their aim a mapping of the circumstances under which benefits might be expected to be derived from the application of the model. Data sets with carefully designed properties may have to be employed if some of the pertinent questions are to be answered. Limited Monte Carlo procedures may answer questions regarding the effects of sampling. Few practical applications of multiple regression employ as many predictor variables as were commonly employed in the situations studied

and for this reason investigations involving fewer predictor variables would seem to be called for. The use of D^2 or a grouping technique based on D^2 as a means of indexing confidence regions would seem to hold considerable promise and therefore deserves further exploration. In the meantime, until these and other issues are resolved, routine use of grouping techniques cannot be recommended.

Should someone desire to employ the model as outlined despite the cautions provided, some guidance can be given. The methods investigated were observed to be most effective when distributions were badly skewed, calibration samples were small, and multiple correlations between predictors and criteria were high. To the extent that these conditions apply to the investigators data, application of the proposed model may be reasonable. To the extent that splitting is observed to have the desired effect in the calibration sample, the probability of its utility on cross validation would seem to be increased. If difficulty is expected with cross validation, particularly when there is reason to believe that the group of individuals to whom a function is to be applied differ in some meaningful way from the calibration sample, use of a model such as the one proposed may be indicated. In this and all other instances, at present it would seem safest to employ the mean D^2 value as an iteration criterion. The cutting point used should be no smaller than the mean D^2 value and might profitably be larger. If these values are employed, it would seem unlikely that much precision could be lost under the worst of circumstances. The potential for the realization of gains derived from the elimination of individuals with the most extreme patterns of scores remains.

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APPENDIX A

COMPUTATIONAL ALGORITHM

PROGRAM COVIT

(generates means and covariance inverse)

1. $\overline{d^2}$: = 0

   count : = 0

   for i = 1, M

   Wi : = 1

   d_i^2 : = 0

   x_{ij} = the score obtained by the "i"th individual on the "j"th variable.

2. flag : = 0

   count = count + 1

3. $M = \sum_i^M Wi$

4. for j = 1, N

   $\mu j = \sum_i^M Wi\ Xij/M$

   for k = 1, j

   $c_{jK} = \sum_i^M Wi\ Xij\ Xik/M - \mu_j\mu_k$

   $c_{Kj} = c_{jk}$

   $c^{jk} = (c^{-1})_{jK}$

5. for i = 1, M

   $\widetilde{d^2}$: = d_i^2

   $d_i^2 = \sum_j^N \sum_k^N (Xij - \mu j)\ c^{jK}\ (Xik - \mu k)$

   if $/\ d_i^2 - \widetilde{d^2}\ / > \varepsilon$; then flag : = 1

   $\overline{d^2} = \sum_i^M d_i^2\ /\ M$

6. for i = 1, M

   if $d_i^2 > a\overline{d^2}$; then Wi : = 0, otherwise Wi : = 1

   if flag = 1 and count < max count; go to step 2

7. write all μj and c^{-1}

   exit

APPENDIX B

JOB SATISFACTION DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

JOB SATISFACTION DATA - PART 1

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-30	-21	67	-13	-49	7	1	-2	5	6	10	-2
2-	-30	100	70	-17	27	26	26	18	2	8	7	-6	3
3-	-21	70	100	1	37	26	37	31	14	13	12	3	3
4-	67	-17	1	100	0	-27	13	7	-4	5	9	2	-1
5-	-13	27	37	0	100	8	31	36	21	16	18	22	27
6-	-49	26	26	-27	8	100	3	6	3	-2	2	-4	1
7-	7	26	37	13	31	3	100	43	41	40	38	45	23
8-	1	18	31	7	36	6	43	100	43	36	33	37	22
9-	-2	2	14	-4	21	3	41	43	100	41	27	38	16
10-	5	8	13	5	16	-2	40	36	41	100	42	33	12
11-	6	7	12	9	18	2	38	33	27	42	100	26	17
12-	10	-6	3	2	22	-4	45	37	38	33	26	100	52
13-	-2	3	3	-1	27	1	23	22	16	12	17	52	100

V.	MEANS	S.D.S
1	3.5282	1.8986
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
7	36.0138	10.9357
8	27.7664	14.8077
9	21.3487	15.8330
10	40.6202	10.6971
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199

JOB SATISFACTION DATA - PART 1

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

435 SUBJECTS IN NEAR GROUP
434 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-27	-19	66	-12	-43	6	3	-7	9	8	14	4
2-	-40	100	70	-15	26	21	31	17	4	8	8	-8	3
3-	-26	70	100	1	38	24	42	31	19	14	12	3	1
4-	70	-21	2	100	1	-23	16	12	-3	12	11	8	2
5-	-13	29	36	-2	100	7	35	37	23	14	19	19	26
6-	-65	44	36	-37	13	100	3	4	7	-3	4	-4	-3
7-	9	18	31	9	25	5	100	46	43	43	34	41	24
8-	-2	20	31	-1	36	9	39	100	47	37	28	37	21
9-	5	-5	4	-4	18	-3	39	37	100	41	28	37	19
10-	1	8	11	-4	18	0	37	35	40	100	42	32	12
11-	5	3	11	8	18	0	42	37	25	41	100	24	18
12-	5	-6	3	-5	27	-2	49	36	39	35	29	100	52
13-	-11	3	7	-6	30	9	22	23	13	11	16	51	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.5471	1.5755		3.5092	2.1747
2	4.2092	1.1264		4.5530	1.9423
3	48.4621	4.0230		49.7926	7.2794
4	49.8713	5.3988		49.1405	8.0383
5	49.0598	3.9620		49.3940	6.1099
6	49.8092	5.9421		48.5853	10.0651
7	35.6621	10.6738		36.3663	11.1810
8	26.9908	14.4561		28.5438	15.1120
9	19.7241	15.2031		22.9769	16.2784
10	40.2046	10.5844		41.0369	10.7929
11	42.9770	10.3034		44.2696	9.8160
12	3.2874	1.1833		3.3986	1.2554
13	3.7977	1.0766		3.7834	1.1616

JOB SATISFACTION DATA - PART 1

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

403 SUBJECTS IN NEAR GROUP
466 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-26	-19	65	-13	-43	7	4	-6	10	6	12	3
2-	-44	100	70	-12	26	21	30	15	2	8	8	-10	1
3-	-26	72	100	3	37	24	39	27	16	13	12	1	-2
4-	73	-32	-7	100	1	-24	16	12	-4	13	10	5	1
5-	-11	30	39	-2	100	7	34	34	22	12	19	19	24
6-	-65	43	31	-37	8	100	3	4	6	-2	5	-3	-2
7-	8	20	34	8	25	4	100	45	42	43	34	40	23
8-	-5	25	39	-2	41	9	40	100	47	37	30	38	19
9-	3	1	12	-2	23	-1	40	38	100	40	26	37	18
10-	-2	8	14	-7	23	-1	36	37	41	100	41	31	12
11-	6	4	13	9	20	-2	44	37	27	42	100	23	19
12-	7	1	8	-1	31	-4	51	35	40	37	31	100	53
13-	-11	7	11	-6	34	7	24	25	14	12	15	50	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.3871	1.5367		3.6502	2.1559
2	4.3325	1.1375		4.4227	1.9053
3	49.1414	4.3651		49.1137	6.9860
4	49.7915	5.2559		49.2596	7.9757
5	49.5955	3.8439		48.9077	6.0394
6	50.3052	5.9380		48.2403	9.7744
7	36.1191	10.5042		35.9227	11.2948
8	27.6997	14.4782		27.8240	15.0866
9	19.9131	15.1952		22.5901	16.2628
10	40.2283	10.7318		40.9592	10.6554
11	43.0397	10.3066		44.1266	9.8590
12	3.3002	1.1583		3.3798	1.2718
13	3.8040	1.0862		3.7790	1.1481

JOB SATISFACTION DATA - PART 1

CALIBRATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

292 SUBJECTS IN NEAR GROUP
577 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-26	-19	68	-14	-43	7	1	-5	5	4	10	3
2-	-59	100	70	-18	28	22	30	20	4	10	8	-6	1
3-	-38	62	100	-2	40	25	41	34	18	17	14	4	0
4-	66	-17	15	100	-2	-24	14	7	-4	7	9	4	1
5-	-9	14	19	6	100	10	35	38	24	16	19	22	25
6-	-77	56	45	-41	6	100	5	6	5	-2	5	-2	-3
7-	6	10	17	8	17	0	100	46	42	44	38	42	25
8-	1	6	12	2	28	8	34	100	48	39	33	38	21
9-	6	-14	-10	-7	13	-4	38	30	100	44	28	37	16
10-	6	-4	-3	-1	13	-3	32	30	34	100	42	33	13
11-	11	-5	1	9	14	-5	39	31	22	40	100	25	19
12-	10	-13	-8	-6	22	-7	50	33	41	34	28	100	53
13-	-15	6	10	-11	32	14	19	21	16	9	13	48	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.5171	1.6164		3.5338	2.0265
2	4.0205	0.9361		4.5633	1.8156
3	47.4144	3.0671		49.9931	6.7623
4	49.0822	4.4244		49.7210	7.7930
5	48.5445	4.1274		49.5719	5.5659
6	49.8664	5.7355		48.8596	9.2949
7	34.7979	10.1871		36.6291	11.2457
8	25.1404	14.1103		29.0953	14.9739
9	19.1164	14.9180		22.4783	16.1594
10	39.9109	10.6931		40.9792	10.6813
11	42.4144	10.5185		44.2340	9.7997
12	3.2500	1.1686		3.3899	1.2442
13	3.7226	1.1386		3.8250	1.1087

JOB SATISFACTION DATA - PART 1

CROSS VALIDATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

279 SUBJECTS IN NEAR GROUP
590 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-28	-22	63	-15	-43	3	0	-5	6	4	11	2
2-	-51	100	71	-12	28	24	32	20	1	10	9	-8	1
3-	-22	57	100	2	38	26	42	33	15	15	13	2	-1
4-	82	-37	3	100	-1	-21	13	9	-4	8	10	3	-1
5-	-3	22	35	5	100	11	33	36	22	13	17	19	24
6-	-78	46	31	-60	-4	100	8	8	5	-1	6	-2	-2
7-	17	4	18	16	25	-13	100	48	41	44	36	41	22
8-	1	6	23	5	40	3	31	100	46	38	32	35	18
9-	3	-3	5	2	22	0	40	34	100	41	27	35	16
10-	4	-1	7	2	24	-4	32	33	40	100	42	31	12
11-	10	-5	8	11	24	-9	44	33	25	41	100	22	18
12-	7	-5	4	3	35	-5	54	39	44	38	33	100	53
13-	-13	10	19	-2	37	13	26	30	16	12	15	50	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.3799	1.6717		3.5983	1.9931
2	4.1577	0.9334		4.4864	1.8186
3	48.2903	3.0241		49.5220	6.8375
4	50.6272	6.1984		48.9763	7.0832
5	49.1971	3.7340		49.2407	5.6992
6	50.4014	5.4847		48.6288	9.2666
7	35.0896	10.4227		36.4508	11.1434
8	25.8745	14.2608		28.6610	14.9764
9	18.0932	14.7614		22.8881	16.0875
10	39.4659	11.1483		41.1661	10.4326
11	42.5448	10.6315		44.1322	9.7726
12	3.1900	1.2047		3.4153	1.2222
13	3.7634	1.1045		3.8034	1.1269

JOB SATISFACTION DATA - PART 1

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

575 SUBJECTS IN NEAR GROUP
294 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-15	-5	64	-5	-36	13	8	-6	6	5	16	8
2-	-44	100	68	-8	24	15	33	18	3	12	11	-8	-1
3-	-36	68	100	13	36	20	45	34	21	20	17	2	-6
4-	68	-21	-5	100	10	-20	22	21	4	13	12	11	5
5-	-17	28	39	-5	100	2	33	36	20	20	22	18	22
6-	-68	48	41	-36	17	100	-1	3	6	-3	5	-6	-7
7-	5	18	30	9	28	8	100	49	44	47	39	39	20
8-	-2	15	26	1	35	10	39	100	48	40	37	33	14
9-	3	-5	2	-6	21	-1	39	39	100	43	32	29	9
10-	6	4	7	1	13	-1	36	34	39	100	42	30	13
11-	8	1	6	9	16	-2	38	30	24	41	100	27	18
12-	8	-8	2	-2	25	-1	48	38	43	35	26	100	53
13-	-8	6	12	-5	31	9	25	26	20	11	17	51	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.7043	1.7474		3.1837	2.1222
2	4.0922	1.1781		4.9456	2.0826
3	47.9200	3.9317		51.4864	8.0516
4	50.1826	6.4963		48.1837	7.3295
5	48.8974	4.6264		49.8707	5.9941
6	49.3252	6.2018		48.9490	11.2951
7	35.3669	10.6360		37.2789	11.3936
8	26.6156	14.4694		30.0170	15.1981
9	20.0782	15.3972		23.8333	16.3699
10	40.3635	10.4835		41.1224	11.0859
11	43.3148	10.0633		44.2245	10.0963
12	3.3078	1.2033		3.4116	1.2525
13	3.7809	1.1099		3.8095	1.1389

JOB SATISFACTION DATA - PART 1

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

563 SUBJECTS IN NEAR GROUP
306 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-21	-12	59	-12	-34	10	5	-5	9	7	15	3
2-	-43	100	69	-5	24	17	31	14	-1	9	6	-13	0
3-	-32	72	100	12	36	22	42	30	16	16	12	-2	-4
4-	75	-28	-9	100	3	-16	19	15	-1	11	10	7	-2
5-	-13	31	41	-4	100	3	33	35	18	16	16	14	23
6-	-69	44	36	-44	14	100	1	2	3	-5	6	-7	-5
7-	5	23	34	9	29	6	100	50	45	45	32	39	21
8-	-3	22	33	2	38	10	38	100	47	39	35	35	16
9-	0	4	13	-5	25	4	39	40	100	43	27	34	17
10-	3	7	11	2	16	1	37	35	39	100	42	29	12
11-	6	7	12	9	21	-1	42	31	27	42	100	23	19
12-	6	-1	7	1	30	1	49	38	41	36	28	100	50
13-	-6	6	10	-2	30	6	25	25	16	12	16	53	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4902	1.7319		3.5980	2.1705
2	4.2611	1.2478		4.6013	2.0733
3	48.7282	4.4617		49.8595	7.8717
4	50.2380	6.4202		48.1601	7.4041
5	49.4227	4.4891		48.8660	6.1696
6	50.0213	6.4093		47.6830	10.7619
7	36.0107	10.6789		36.0196	11.3931
8	27.3499	14.5402		28.5327	15.2579
9	20.6980	15.4445		22.5457	16.4569
10	40.4636	10.5509		40.9085	10.9553
11	43.4316	10.0644		43.9738	10.1095
12	3.3020	1.1955		3.4183	1.2634
13	3.8064	1.1005		3.7614	1.1541

JOB SATISFACTION DATA - PART 1

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

794 SUBJECTS IN NEAR GROUP
75 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	7	22	64	14	-14	28	16	-2	8	13	25	20
2-	-38	100	55	-9	11	-4	32	-7	-12	20	-5	-10	-9
3-	-32	74	100	29	30	6	43	25	18	25	0	6	-17
4-	68	-19	-5	100	23	11	38	39	15	21	19	28	18
5-	-18	30	40	-4	100	-8	32	24	13	9	12	23	18
6-	-57	34	33	-34	12	100	-1	19	10	0	-9	-5	-19
7-	5	25	37	10	31	4	100	39	37	34	28	47	15
8-	-2	22	32	3	38	4	43	100	53	24	20	41	17
9-	-2	4	13	-6	23	1	42	42	100	42	25	30	7
10-	5	6	11	3	17	-2	41	38	41	100	41	22	1
11-	6	8	14	8	19	3	39	34	27	42	100	13	15
12-	8	-6	2	-1	22	-3	45	36	39	35	28	100	47
13-	-5	4	6	-4	29	4	24	22	17	13	17	52	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.5214	1.8386		3.6000	2.4440
2	4.3237	1.4879		4.9867	2.3860
3	48.7179	5.2572		53.4533	9.6198
4	49.5617	6.7098		48.9200	8.2150
5	49.2116	4.8601		49.3867	7.5699
6	49.2783	7.7411		48.3467	12.6560
7	35.9118	10.8957		37.0933	11.2950
8	27.5189	14.7176		30.3867	15.4893
9	21.1763	15.7071		23.1733	17.0022
10	40.5907	10.6170		40.9333	11.5069
11	43.5201	10.0852		44.7067	10.0037
12	3.3363	1.2114		3.4133	1.3175
13	3.7821	1.1106		3.8800	1.2106

JOB SATISFACTION DATA - PART 1

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

794 SUBJECTS IN NEAR GROUP
75 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	9	23	63	15	-12	26	19	-1	8	10	27	21
2-	-38	100	56	-5	15	-1	30	-9	-12	20	-5	-11	-4
3-	-32	74	100	32	32	9	42	24	18	26	1	3	-13
4-	68	-19	-5	100	25	14	36	42	15	20	16	28	19
5-	-18	29	40	-4	100	-6	34	22	11	11	14	20	18
6-	-57	33	32	-35	12	100	-1	17	9	1	-8	-8	-16
7-	5	25	37	10	31	4	100	40	40	35	28	47	15
8-	-2	22	32	3	38	4	43	100	52	24	23	40	16
9-	-2	3	13	-6	23	2	41	42	100	43	28	29	4
10-	5	6	11	3	17	-3	41	38	40	100	42	21	2
11-	6	8	14	9	19	3	39	34	27	42	100	15	16
12-	8	-6	2	-1	23	-3	45	36	39	35	28	100	44
13-	-5	4	5	-4	29	4	24	22	17	13	17	53	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.5315	1.8412		3.4933	2.4242
2	4.3199	1.4951		5.0267	2.3265
3	48.7065	5.2209		53.5733	9.7682
4	49.6096	6.7128		48.4133	8.1324
5	49.1977	4.8597		49.5333	7.5672
6	49.2733	7.7176		48.4000	12.8104
7	35.8829	10.8816		37.4000	11.4018
8	27.4685	14.7261		30.9200	15.2934
9	21.1033	15.7027		23.9467	16.9359
10	40.5680	10.6076		41.1733	11.5889
11	43.5264	10.0894		44.6400	9.9661
12	3.3325	1.2109		3.4533	1.3195
13	3.7846	1.1099		3.8533	1.2187

JOB SATISFACTION DATA - PART 2

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-37	-21	70	-8	-51	10	9	0	12	8	16	4
2-	-37	100	72	-32	27	23	20	19	11	0	2	-4	3
3-	-21	72	100	-8	43	21	36	34	19	11	9	10	11
4-	70	-32	-8	100	5	-26	11	15	-4	8	5	10	4
5-	-8	27	43	5	100	6	31	39	25	16	14	26	30
6-	-51	23	21	-26	6	100	1	-5	-4	-5	0	-6	-1
7-	10	20	36	11	31	1	100	35	37	39	34	45	23
8-	9	19	34	15	39	-5	35	100	35	26	23	37	22
9-	0	11	19	-4	25	-4	37	35	100	43	28	33	14
10-	12	0	11	8	16	-5	39	26	43	100	37	41	17
11-	8	2	9	5	14	0	34	23	28	37	100	32	18
12-	16	-4	10	10	26	-6	45	37	33	41	32	100	53
13-	4	3	11	4	30	-1	23	22	14	17	18	53	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3883
4	49.5413	7.1912
5	49.8394	5.0895
6	49.7520	8.3863
7	37.4377	10.1965
8	31.8847	14.0490
9	22.5949	15.8591
10	41.7974	10.3501
11	43.5623	10.0579
12	3.6123	1.1630
13	3.9581	1.0329

JOB SATISFACTION DATA - PART 2

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

409 SUBJECTS IN NEAR GROUP
450 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-36	-22	68	-10	-43	10	9	-7	12	8	15	3
2-	-43	100	72	-31	28	22	26	24	17	2	2	-2	2
3-	-22	70	100	-9	44	23	41	37	23	13	13	13	11
4-	78	-34	-4	100	3	-19	12	15	-8	9	3	8	-1
5-	-2	26	42	11	100	9	36	43	27	20	15	30	32
6-	-69	32	21	-46	-1	100	2	-5	-1	-5	2	-3	1
7-	10	12	31	10	25	1	100	37	37	37	32	46	25
8-	10	10	30	15	35	-6	32	100	39	26	26	42	29
9-	10	0	11	2	22	-9	37	30	100	40	27	36	17
10-	12	-6	6	7	9	-5	41	28	45	100	32	46	21
11-	9	0	3	9	15	-3	36	20	30	41	100	33	19
12-	17	-10	5	15	21	-11	43	31	29	36	31	100	53
13-	8	5	14	13	26	-6	21	12	9	13	17	52	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.1247	1.6255		3.4644	2.1959
2	4.4499	1.1202		4.7689	1.9933
3	49.8093	4.2718		51.3622	7.7569
4	49.7433	5.7498		49.3578	8.2822
5	49.9560	3.6893		49.8289	6.0882
6	50.4890	6.1383		49.0822	9.9532
7	37.1662	10.1888		37.6844	10.1973
8	31.8924	13.4295		31.8778	14.5894
9	21.9462	15.7078		23.1844	15.9726
10	41.0293	10.6058		42.4955	10.0614
11	43.4499	10.2415		43.6644	9.8869
12	3.5868	1.0936		3.6356	1.2222
13	4.0024	0.9727		3.9178	1.0832

JOB SATISFACTION DATA - PART 2

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

407 SUBJECTS IN NEAR GROUP
452 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-37	-21	69	-9	-44	11	11	-6	11	6	16	2
2-	-40	100	72	-33	28	22	26	25	17	3	6	-2	2
3-	-25	68	100	-9	45	23	42	39	24	16	17	14	11
4-	74	-30	-4	100	5	-20	13	17	-7	10	3	9	0
5-	-6	23	37	5	100	9	36	42	29	22	17	29	30
6-	-67	32	22	-45	0	100	3	-6	-2	-4	4	-4	1
7-	9	8	26	7	24	-1	100	39	40	41	35	47	25
8-	6	6	24	12	36	-4	29	100	40	28	30	45	28
9-	10	-4	5	1	17	-7	33	27	100	41	30	38	17
10-	14	-10	-1	4	6	-7	37	24	44	100	32	48	21
11-	11	-8	-6	9	10	-6	33	16	26	40	100	34	19
12-	16	-12	1	13	22	-10	42	27	27	33	29	100	54
13-	7	4	13	11	32	-5	21	13	9	12	17	51	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.2236	1.6430		3.3739	2.1929
2	4.3366	1.0710		4.8695	1.9930
3	49.1204	3.8895		51.9757	7.7507
4	49.6535	5.5874		49.4403	8.3753
5	49.6216	3.7514		50.1305	6.0359
6	50.1327	6.0120		49.4093	10.0432
7	36.8452	9.8626		37.9712	10.4594
8	30.9091	13.6091		32.7633	14.3772
9	21.5479	15.1056		23.5376	16.4513
10	41.0442	10.5151		42.4757	10.1516
11	43.1450	10.4089		43.9380	9.7157
12	3.5725	1.0923		3.6482	1.2221
13	3.9558	1.0052		3.9602	1.0573

JOB SATISFACTION DATA - PART 2

CALIBRATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

306 SUBJECTS IN NEAR GROUP
553 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-37	-24	65	-14	-43	9	2	-3	13	8	15	1
2-	-46	100	73	-30	29	22	24	25	16	1	4	-3	5
3-	-16	56	100	-8	45	24	40	39	24	12	14	11	13
4-	86	-37	4	100	2	-16	12	8	-4	11	4	9	-1
5-	11	15	38	18	100	11	33	42	27	18	16	27	30
6-	-80	42	22	-65	-15	100	3	-1	-2	-4	2	-3	3
7-	12	4	24	11	26	-1	100	37	37	33	35	45	27
8-	25	-2	20	29	34	-19	30	100	39	27	27	37	23
9-	7	-11	-2	-2	19	-10	36	26	100	42	32	37	20
10-	10	-10	2	5	10	-6	41	25	43	100	37	47	22
11-	9	-7	-7	6	9	-6	33	16	22	37	100	35	20
12-	13	-13	7	15	26	-14	44	37	26	30	25	100	53
13-	12	-3	12	15	30	-11	15	19	1	8	15	51	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.1863	1.7418		3.2671	2.0573
2	4.2157	0.9424		4.8391	1.3897
3	48.8954	2.9276		51.5787	7.4890
4	50.7516	6.7391		48.8716	7.3443
5	49.6863	3.5754		50.0018	5.7555
6	50.6536	5.7869		49.2532	9.4879
7	36.5098	9.7867		37.9512	10.3808
8	31.2287	13.6255		32.2477	14.2651
9	21.3006	15.2776		23.3110	16.1273
10	40.7320	10.5415		42.3870	10.1949
11	43.6895	10.0179		42.4919	10.0793
12	3.5915	1.0936		3.6239	1.1996
13	3.9869	0.9934		3.9421	1.0533

JOB SATISFACTION DATA - PART 2

CROSS VALIDATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

267 SUBJECTS IN NEAR GROUP
592 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-37	-22	70	-11	-45	8	7	-4	10	8	15	2
2-	-50	100	72	-34	28	22	25	22	16	2	3	-2	3
3-	-31	59	100	-10	45	23	41	37	23	14	14	13	12
4-	74	-23	10	100	3	-22	9	12	-6	8	4	9	2
5-	3	15	25	15	100	10	34	41	28	18	14	28	29
6-	-77	46	36	-53	-8	100	4	-3	-3	-3	2	-4	1
7-	16	-3	15	16	21	-4	100	37	38	38	36	44	24
8-	15	1	18	25	33	-8	28	100	37	28	24	39	23
9-	12	-13	-2	2	12	-9	34	23	100	44	33	37	19
10-	18	-16	-9	6	7	-10	41	22	40	100	37	46	19
11-	10	-5	-9	9	15	-6	31	21	18	36	100	31	15
12-	19	-16	-1	15	21	-11	46	33	23	32	33	100	54
13-	8	-1	6	14	33	-7	20	19	1	11	24	49	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.1723	1.6468		3.3615	2.0733
2	4.2210	0.8994		4.7956	1.8592
3	48.1873	3.0060		51.7213	7.1595
4	49.5094	4.9092		49.5557	8.0104
5	49.2060	3.7624		50.1976	5.5584
6	50.7903	5.7969		49.2238	9.2833
7	36.4157	9.9280		37.8986	10.2821
8	29.7828	13.7303		32.8328	14.0892
9	21.5805	14.9196		23.0524	16.2444
10	40.6779	10.7373		42.3024	10.1303
11	43.5805	9.9042		43.5540	10.1264
12	3.6105	1.1276		3.6132	1.1787
13	3.9176	1.0461		3.9764	1.0264

JOB SATISFACTION DATA - PART 2

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

550 SUBJECTS IN NEAR GROUP
309 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-34	-22	62	-17	-29	7	3	-10	10	4	13	-1
2-	-44	100	72	-27	31	17	33	32	22	3	8	1	2
3-	-25	69	100	-6	48	23	49	43	29	18	19	17	11
4-	79	-36	-6	100	-1	-5	11	8	-10	10	0	4	-6
5-	2	24	41	10	100	11	37	42	32	20	19	31	30
6-	-73	39	26	-52	-1	100	9	-1	-2	-1	10	2	5
7-	12	8	25	11	28	-4	100	39	36	36	33	47	25
8-	13	7	27	20	39	-9	32	100	42	29	25	40	26
9-	7	0	9	0	20	-5	37	30	100	40	29	38	17
10-	14	-4	4	7	13	-8	41	25	44	100	30	48	23
11-	11	-5	-2	9	11	-6	34	22	28	40	100	29	21
12-	18	-11	3	15	23	-13	43	35	30	37	33	100	53
13-	8	4	14	11	30	-6	22	20	12	14	17	53	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.1982	1.8208		3.4887	2.1552
2	4.4473	1.2255		4.9191	2.1685
3	49.6655	4.2981		52.3269	8.7196
4	50.1854	6.7639		48.3948	7.7635
5	50.0964	4.2580		49.5210	6.2869
6	50.5273	6.8255		48.3722	10.4699
7	37.1309	10.0503		37.9838	10.4294
8	31.5491	13.9098		32.4822	14.2739
9	22.0527	15.7325		23.5599	16.0368
10	41.5854	10.4293		42.1747	10.1969
11	43.1582	10.2060		44.2815	9.7474
12	3.5927	1.1239		3.6472	1.2288
13	3.9782	1.0124		3.9223	1.0675

JOB SATISFACTION DATA - PART 2

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

526 SUBJECTS IN NEAR GROUP
333 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-34	-18	67	-12	-34	15	6	-6	11	4	18	-3
2-	-44	100	71	-31	29	19	26	31	18	4	5	-5	1
3-	-30	67	100	-4	47	24	44	43	25	19	20	13	13
4-	74	-30	-4	100	4	-10	16	10	-7	11	4	10	-5
5-	-4	24	40	8	100	9	34	43	29	20	20	28	27
6-	-72	39	30	-49	3	100	4	-3	-4	-2	9	-2	3
7-	7	11	28	8	28	0	100	37	36	33	40	46	28
8-	11	4	25	20	37	-6	32	100	39	28	28	37	25
9-	6	1	9	-1	20	-3	37	31	100	43	30	40	20
10-	14	-6	1	6	12	-8	40	25	42	100	32	49	24
11-	11	-6	-6	8	10	-6	30	20	27	39	100	35	25
12-	15	-6	7	12	25	-9	44	37	29	36	30	100	55
13-	9	7	16	11	33	-5	20	20	9	13	15	51	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3232	1.8360		3.2703	2.1236
2	4.3004	1.1606		5.1171	2.1071
3	48.9011	3.8559		53.3423	8.3492
4	50.2357	6.6305		48.4444	7.3733
5	49.6749	4.2862		50.2282	6.1329
6	50.2738	6.6118		48.9279	10.5480
7	36.7509	9.8363		38.5225	10.5778
8	30.8479	13.9822		33.5225	13.9984
9	21.5494	15.5584		24.2462	16.1858
10	41.5836	10.3764		42.1351	10.2995
11	42.9715	10.4551		44.4955	9.3203
12	3.5894	1.1414		3.6486	1.1955
13	3.9848	1.0317		3.9159	1.0334

JOB SATISFACTION DATA - PART 2

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

774 SUBJECTS IN NEAR GROUP
85 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-19	-1	67	-4	-8	12	3	-9	3	5	20	12
2-	-41	100	64	-11	23	-1	27	40	14	-1	-2	-4	-8
3-	-25	72	100	21	50	15	50	51	31	23	20	22	7
4-	71	-33	-8	100	14	17	19	16	3	7	16	9	6
5-	-8	27	41	6	100	13	40	41	29	32	14	32	21
6-	-60	34	31	-37	6	100	18	1	-5	1	29	12	7
7-	11	17	32	12	29	0	100	43	31	37	44	57	34
8-	10	13	30	17	39	-5	33	100	40	34	36	29	13
9-	2	9	15	-4	23	-3	37	33	100	43	32	22	-6
10-	14	-1	9	8	13	-6	40	26	43	100	40	50	20
11-	9	1	7	5	14	-4	33	22	28	36	100	50	27
12-	16	-6	7	12	25	-8	43	38	34	40	30	100	60
13-	3	4	13	4	32	-2	22	23	16	17	17	52	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3269	1.9284		3.0824	2.1487
2	4.4845	1.4826		5.8235	2.3371
3	49.8282	5.3447		57.8588	9.7052
4	49.9005	7.0288		46.2706	7.8010
5	49.7209	4.7842		51.4235	7.1232
6	50.0349	7.8768		47.1765	11.7655
7	37.0543	10.1319		40.9294	10.1190
8	31.3450	14.0494		36.8000	13.0563
9	22.1770	15.7091		26.4000	16.6904
10	41.7300	10.3296		42.4118	10.5153
11	43.4380	10.0772		44.6941	9.8076
12	3.5930	1.1641		3.7882	1.1386
13	3.9548	1.0364		3.9882	0.9999

JOB SATISFACTION DATA - PART 2

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

777 SUBJECTS IN NEAR GROUP
82 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-19	-2	68	-3	-8	12	2	-9	4	7	21	13
2-	-41	100	64	-12	23	-1	27	41	14	-1	-2	-5	-8
3-	-25	72	100	21	50	15	49	51	31	23	21	21	6
4-	71	-33	-8	100	14	16	20	17	2	8	16	10	8
5-	-9	27	41	5	100	14	40	42	30	31	14	31	20
6-	-59	34	30	-36	6	100	18	1	-6	1	29	12	7
7-	11	17	33	11	29	0	100	43	33	36	46	56	32
8-	10	14	30	17	39	-5	33	100	41	34	38	30	13
9-	2	9	15	-4	23	-3	37	33	100	45	32	24	-5
10-	14	0	9	8	13	-6	40	26	42	100	40	48	18
11-	9	1	6	5	14	-4	33	22	28	36	100	52	27
12-	16	-6	8	11	26	-8	43	38	34	40	29	100	59
13-	3	4	13	4	32	-2	22	23	16	17	17	52	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3269	1.9276		3.0732	2.1628
2	4.4891	1.4827		5.8292	2.4235
3	49.8637	5.3765		57.7683	9.8564
4	49.8752	7.0279		46.3780	7.9152
5	49.7349	4.7849		51.3537	7.2134
6	50.0167	7.8746		47.2439	11.9262
7	37.0978	10.1373		40.6585	10.1935
8	31.3784	14.0369		36.5829	13.2342
9	22.1609	15.6809		26.7073	16.9140
10	41.7593	10.3245		42.1585	10.5835
11	43.4299	10.0669		44.9171	9.8849
12	3.5972	1.1641		3.7561	1.1430
13	3.9575	1.0358		3.9634	1.0054

APPENDIX C

M.M.P.I. DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

M.M.P.I. DATA - PART 1

ALL 1231 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	21	48	-18	-28	6	-26	-20	3	-7	1	-6	-17	-23	-4	4
2-	21	100	4	-2	-18	3	-13	-6	-5	-4	-1	-2	-9	-14	-2	-8
3-	48	4	100	-7	-15	8	-16	-12	8	-7	9	-2	-12	-15	3	5
4-	-18	-2	-7	100	-5	+4	-1	21	28	-23	0	4	-34	-26	-22	0
5-	-28	-18	-15	-5	100	-31	39	20	-5	29	20	34	47	62	27	3
6-	6	3	8	44	-31	100	-26	12	48	-30	-12	-1	-70	-62	-37	-5
7-	-26	-13	-16	-1	39	-26	100	30	28	28	18	25	45	52	18	8
8-	-20	-6	-12	21	20	12	30	100	29	15	19	13	17	11	-23	4
9-	3	-5	8	28	-5	48	28	29	100	5	18	23	-18	-11	-17	-1
10-	-7	-4	-7	-23	29	-30	28	15	5	100	10	19	39	40	30	-9
11-	1	-1	9	0	20	-12	18	19	18	10	100	23	23	24	11	3
12-	-6	-2	-2	4	34	-1	25	13	23	19	23	100	23	37	14	-5
13-	-17	-9	-12	-34	47	-70	45	17	-18	39	23	23	100	78	37	5
14-	-23	-14	-15	-26	62	-62	52	11	-11	40	24	37	78	100	44	2
15-	-4	-2	3	-22	27	-37	18	-23	-17	30	11	14	37	44	100	3
16-	4	-3	5	0	3	-5	8	4	-1	-9	3	-5	5	2	3	100

V.	MEANS	S.D.S
1	127.3152	22.6254
2	1.5288	0.8573
3	7.9992	1.4288
4	4.6905	2.5183
5	5.0260	3.4639
6	14.5085	4.8898
7	3.4549	2.9682
8	17.9374	3.8324
9	16.4184	4.3768
10	16.1243	4.3112
11	19.7108	4.0072
12	7.9675	3.2022
13	10.2307	6.1380
14	10.1178	6.4372
15	17.2291	4.1518
16	2.3225	0.8954

M.M.P.I. DATA - PART 1

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

647 SUBJECTS IN NEAR GROUP
584 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	20	47	-22	-31	4	-29	-21	-4	-6	1	-11	-17	-26	-6	7
2-	21	100	1	-6	-24	3	-16	-9	-8	-2	-6	-7	-12	-18	-1	-12
3-	49	7	100	-7	-16	9	-18	-12	4	-6	9	-4	-12	-17	0	9
4-	-11	2	-9	100	-5	43	3	24	30	-21	0	2	-32	-26	-21	1
5-	-26	-22	-17	-11	100	-27	35	21	-3	29	18	34	42	60	24	1
6-	8	8	9	49	-36	100	-23	15	47	-31	-7	-3	-68	-60	-36	-8
7-	-24	-21	-17	-14	42	-30	100	31	33	29	17	24	41	48	15	9
8-	-20	-5	-13	13	16	8	28	100	34	15	19	13	14	8	-22	2
9-	12	-2	15	24	-13	53	17	21	100	6	23	20	-14	-8	-16	1
10-	-10	-11	-11	-28	29	-27	27	15	4	100	12	22	39	41	29	-7
11-	0	1	8	-2	18	-18	18	19	9	5	100	22	17	19	12	8
12-	0	-6	-3	3	26	7	19	11	27	13	19	100	21	35	13	-9
13-	-18	-14	-15	-43	50	-72	48	21	-28	37	28	20	100	76	37	5
14-	-22	-23	-14	-35	63	-66	54	16	-22	40	28	30	81	100	44	1
15-	0	-9	8	-25	30	-39	20	-27	-19	31	9	12	36	43	100	2
16-	0	-2	1	-3	6	0	7	6	-3	-11	-2	0	6	4	3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	126.6584	19.6750		128.0428	25.4787
2	1.3617	0.6452		1.7140	1.0113
3	7.9366	1.1136		8.0685	1.7088
4	4.5178	2.1322		4.8818	2.8743
5	4.3168	2.5063		5.8116	4.1774
6	14.9366	4.1286		14.0342	5.5756
7	2.9212	2.0896		4.0462	3.6150
8	17.7604	3.1000		18.1336	4.4988
9	16.2287	3.6509		16.6284	5.0525
10	15.9645	3.4997		16.3014	5.0547
11	19.3277	3.3314		20.1353	4.6054
12	7.3493	2.5029		8.6524	3.7124
13	9.2751	5.1288		11.2894	6.9383
14	8.7774	5.0220		11.6027	7.4302
15	16.9150	3.4602		17.5770	4.7791
16	2.3277	0.8900		2.3168	0.9013

M.M.P.I. DATA - PART 1

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

626 SUBJECTS IN NEAR GROUP
605 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	24	46	-22	-30	2	-27	-20	-5	-6	-2	-10	-15	-25	-6	7
2-	17	100	5	-6	-24	2	-16	-10	-7	-2	-6	-6	-11	-17	-2	-11
3-	51	1	100	-7	-16	9	-18	-10	3	-6	7	-3	-12	-16	2	7
4-	-10	2	-9	100	-4	43	2	21	31	-20	2	2	-32	-25	-20	0
5-	-25	-22	-15	-13	100	-25	34	21	-2	28	19	35	41	60	24	3
6-	11	11	9	50	-39	100	-22	14	46	-29	-7	-3	-67	-59	-35	-9
7-	-24	-24	-16	-12	42	-31	100	32	34	29	16	24	41	47	14	9
8-	-22	-3	-17	19	13	12	24	100	34	16	21	11	16	8	-23	2
9-	15	-2	16	23	-14	34	16	19	100	7	22	19	-14	-7	-16	0
10-	-10	-10	-10	-30	31	-30	27	13	2	100	12	23	38	40	28	-7
11-	5	0	12	-5	16	-17	18	15	10	7	100	20	17	19	12	6
12-	1	-6	-3	4	25	7	20	14	30	11	23	100	21	37	15	-7
13-	-19	-17	-15	-43	52	-73	48	18	-28	40	29	20	100	75	36	6
14-	-21	-24	-14	-36	63	-68	55	14	-21	41	28	29	83	100	44	2
15-	1	-10	6	-27	31	-40	21	-26	-18	33	8	8	37	43	100	2
16-	0	-4	2	-2	3	1	7	6	-2	-12	0	-2	4	2	3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	127.4473	20.0759		127.1785	24.9906
2	1.3530	0.6307		1.7107	1.0094
3	7.9728	1.1656		8.0264	1.6572
4	4.4952	2.0854		4.8926	2.8851
5	4.2923	2.5251		5.7851	4.1189
6	14.9952	4.1772		14.0050	5.4861
7	2.8642	2.0988		4.0661	3.5544
8	17.6693	3.0919		18.2149	4.4544
9	16.2859	3.8430		16.5554	5.0208
10	16.0112	3.5441		16.2413	4.9794
11	19.2843	3.3695		20.1521	4.5323
12	7.4137	2.4566		8.5405	3.7382
13	9.1837	5.0632		11.3140	6.9156
14	8.8067	5.0735		11.4744	7.3526
15	16.8674	3.3768		17.6033	4.7958
16	2.3275	0.8900		2.3174	0.9009

M.M.P.I. DATA - PART 1

CROSS VALIDATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

328 SUBJECTS IN NEAR GROUP
903 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	22	46	-18	-29	7	-28	-21	0	-9	0	-8	-18	-27	-6	5
2-	18	100	2	-3	-26	8	-21	-10	-7	-4	-6	-8	-16	-23	-5	-12
3-	55	11	100	-6	-14	9	-18	-12	5	-9	9	-4	-12	-15	2	6
4-	-15	5	-17	100	-5	45	-2	20	30	-23	1	4	-34	-26	-21	0
5-	-26	-13	-26	-7	100	-29	38	21	-2	32	17	35	45	62	26	2
6-	0	11	7	46	-36	100	-26	11	46	-33	-10	-3	-69	-61	-36	-3
7-	-20	-17	-13	4	35	-15	100	31	32	31	17	25	43	51	16	6
8-	-19	0	-15	23	2	23	23	100	32	16	19	11	18	12	-23	4
9-	13	12	23	21	-27	61	4	17	100	4	19	21	-16	-8	-17	2
10-	-1	-4	1	-24	15	-14	16	10	14	100	10	21	41	43	31	-7
11-	1	2	4	-6	26	-16	18	17	10	13	100	21	20	21	11	3
12-	-2	-2	1	4	17	17	17	14	30	11	23	100	24	37	14	-6
13-	-15	-18	-21	-40	44	-70	45	6	-36	30	27	6	100	77	38	3
14-	-11	-21	-19	-36	55	-66	41	-3	-33	31	28	18	79	100	44	0
15-	7	-9	9	-27	31	-40	23	-30	-15	26	8	9	33	46	100	1
16-	1	0	0	-4	3	-9	14	2	-12	-17	0	-3	9	7	8	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	125.8323	18.8194		127.8538	23.8351
2	1.0488	0.2154		1.7032	0.9332
3	7.8994	1.0787		8.0354	1.5347
4	4.6250	1.9884		4.7143	2.6847
5	4.0091	2.1520		5.3953	3.7884
6	15.5213	3.9485		14.1406	5.1405
7	2.6311	1.6346		3.7542	3.2716
8	17.4878	2.9608		16.1008	4.1068
9	16.2591	3.6697		16.4762	4.6055
10	16.2104	3.1159		16.0930	4.6699
11	19.0030	3.2314		19.9679	4.2249
12	7.2348	2.3588		8.2337	3.4193
13	8.4329	4.3338		10.8837	6.5527
14	7.8811	3.9495		10.9302	6.9531
15	16.8293	3.3113		17.5743	4.4087
16	2.2470	0.9289		2.3499	0.8813

M.M.P.I. DATA - PART 1

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

799 SUBJECTS IN NEAR GROUP
432 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	24	44	-24	-32	-2	-29	-21	-9	-2	4	-13	-12	-25	-5	9
2-	21	100	8	-5	-31	4	-20	-14	-10	-9	-9	-9	-17	-22	-5	-13
3-	51	0	100	-4	-17	7	-19	-9	1	-4	8	-7	-12	-18	0	7
4-	-13	-1	-10	100	-5	47	5	25	32	-21	3	3	-34	-27	-20	3
5-	-25	-23	-14	-11	100	-20	26	18	-1	26	16	32	34	56	20	-1
6-	10	10	10	45	-35	100	-16	23	45	-30	-5	-3	-66	-58	-34	-6
7-	-23	-24	-16	-13	41	-30	100	30	40	27	16	20	34	41	11	9
8-	-19	-4	-15	15	14	7	25	100	39	10	22	12	8	3	-25	3
9-	13	-1	15	24	-15	55	14	19	100	7	23	16	-13	-5	-16	2
10-	-11	-4	-11	-27	27	-26	25	17	3	100	14	25	37	43	28	-4
11-	0	1	10	-4	16	-14	14	13	13	3	100	19	13	17	8	4
12-	3	-7	2	2	20	12	15	6	30	8	21	100	17	33	11	-12
13-	-20	-16	-14	-41	49	-71	48	21	-28	37	25	15	100	73	34	3
14-	-22	-25	-12	-34	58	-65	53	12	-23	34	24	25	80	100	41	-3
15-	-1	-7	7	-25	29	-38	19	-26	-18	29	11	10	36	45	100	1
16-	1	-5	4	-3	5	-3	6	4	-3	-15	2	-1	6	5	3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	127.9812	21.3334		126.0833	24.7915
2	1.3942	0.6922		1.7778	1.0548
3	8.0038	1.2543		7.9907	1.7051
4	4.6020	2.2373		4.8542	2.9619
5	4.0376	2.3915		6.7616	4.4008
6	15.1752	4.3414		13.2755	5.5616
7	2.7697	2.0210		4.7222	3.8827
8	17.3544	3.2469		18.6458	4.6455
9	16.2979	3.8477		16.6412	5.2085
10	15.7121	3.7772		16.8866	5.0675
11	19.3041	3.5913		20.4630	4.5860
12	7.3204	2.5299		9.1644	3.8954
13	8.8235	5.0574		12.8333	7.0438
14	8.4330	4.7832		13.2338	7.7977
15	16.7972	3.5972		18.0278	4.9196
16	2.3054	0.9016		2.3542	0.8830

M.M.P.I. DATA - PART 1

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

803 SUBJECTS IN NEAR GROUP
428 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	29	41	-21	-33	-3	-31	-23	-11	-4	0	-15	-13	-27	-4	5
2-	14	100	10	-6	-35	9	-27	-20	-10	-10	-10	-16	-23	-29	-5	-13
3-	53	-3	100	-3	-15	5	-19	-9	0	-7	8	-5	-10	-15	3	2
4-	-15	1	-11	100	-4	47	6	22	34	-24	2	2	-34	-26	-19	2
5-	-25	-23	-15	-10	100	-22	31	24	0	28	18	37	37	59	21	0
6-	12	11	12	45	-35	100	-17	18	45	-29	-5	-2	-66	-58	-34	-8
7-	-23	-24	-14	-12	36	-29	100	33	39	27	15	21	33	43	11	9
8-	-19	0	-15	19	7	12	22	100	39	12	22	11	11	8	-24	6
9-	14	-2	15	23	-15	55	15	19	100	9	22	18	-13	-5	-16	1
10-	-10	-7	-8	-23	27	-27	26	15	1	100	14	25	36	42	28	-6
11-	2	-2	10	-2	15	-14	15	14	13	3	100	21	14	18	11	4
12-	3	-6	1	4	16	10	15	8	27	8	19	100	19	36	14	-10
13-	-22	-19	-15	-40	47	-71	48	17	-28	38	25	14	100	73	36	2
14-	-22	-25	-15	-34	58	-65	52	7	-23	36	24	23	80	100	41	-3
15-	-3	-9	5	-25	30	-38	20	-26	-18	30	9	8	36	46	100	-2
16-	3	-5	7	-2	6	-3	8	3	-2	-11	3	-2	7	6	6	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	127.3549	20.7694		127.2406	25.7488
2	1.3200	0.5913		1.9206	1.1057
3	8.0149	1.2811		7.9696	1.6707
4	4.6214	2.2656		4.8201	2.9007
5	4.2578	2.5017		6.4673	4.4702
6	15.1357	4.4473		13.3318	5.4350
7	2.7783	2.0280		4.7243	3.8927
8	17.5741	3.2943		18.6192	4.6011
9	16.2578	3.8910		16.7196	5.1529
10	15.7597	3.8445		16.8084	5.0010
11	19.2989	3.5732		20.4836	4.6168
12	7.3512	2.5120		9.1238	3.9502
13	8.8630	5.0584		12.7967	7.0894
14	8.6264	4.8939		12.9159	7.8896
15	16.8730	3.6529		17.8972	4.8845
16	2.3176	0.8997		2.3318	0.8872

M.M.P.I. DATA - PART 1

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

1172 SUBJECTS IN NEAR GROUP
59 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	24	21	-34	-35	-11	-30	-34	-40	-24	-1	-7	-10	-19	-9	18
2-	21	100	25	1	-34	-14	14	-20	-4	-11	-21	-10	9	-4	3	-14
3-	50	2	100	-12	-15	-10	-10	-14	-2	1	-1	0	-16	-11	17	14
4-	-16	-2	-7	100	7	39	9	28	36	-4	11	-9	-30	-23	-9	-3
5-	-28	-20	-14	-8	100	16	23	44	26	24	34	23	16	36	16	3
6-	7	5	10	45	-36	100	-16	13	28	-33	-13	-10	-55	-52	-21	-9
7-	-26	-21	-17	-4	37	-27	100	52	47	24	37	3	32	27	4	-3
8-	-19	-6	-11	19	13	13	24	100	63	28	45	6	16	17	-12	5
9-	7	-6	9	27	-12	51	24	24	100	31	31	11	-2	3	-3	-1
10-	-6	-5	-8	-26	27	-29	26	12	2	100	34	33	41	52	43	-2
11-	1	0	10	-1	16	-11	14	15	16	7	100	14	25	26	18	-9
12-	-5	-5	-1	4	28	3	22	10	23	14	23	100	16	18	19	-16
13-	-17	-12	-11	-35	48	-71	45	16	-22	37	21	20	100	73	35	-3
14-	-24	-19	-14	-30	62	-64	51	7	-16	37	22	32	79	100	46	-4
15-	-3	-3	2	-23	28	-39	19	-25	-18	28	10	13	37	45	100	-14
16-	3	-7	5	0	3	-4	10	4	-1	-9	4	-4	6	3	4	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	127.4616	22.4459		124.4068	25.7623
2	1.5094	0.8359		1.9153	1.1393
3	8.0119	1.3818		7.7458	2.1439
4	4.6681	2.4557		5.1356	3.5101
5	4.7884	3.1519		9.7458	5.7004
6	14.5887	4.8115		12.9153	6.0290
7	3.2807	2.6375		6.9153	5.7498
8	17.8430	3.6504		19.8136	6.1685
9	16.3447	4.2373		17.8813	6.3861
10	15.9889	4.1807		18.8136	5.7445
11	19.6425	3.8769		21.0678	5.8769
12	7.7321	2.3218		12.6441	5.7276
13	10.0137	5.9286		14.5424	8.2674
14	9.6843	5.9201		18.7288	9.5133
15	17.1869	4.0757		18.0678	5.3800
16	2.3234	0.8958		2.3051	0.8879

M.M.P.I. DATA - PART 1

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

1161 SUBJECTS IN NEAR GROUP
70 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	25	17	-34	-33	-14	-33	-35	-38	-21	-10	-3	-8	-21	-8	19
2-	21	100	19	-2	-34	-14	9	-20	-5	-3	-21	-9	11	-4	8	-16
3-	51	2	100	-8	-15	-2	-13	-15	-2	-9	2	-5	-18	-16	9	18
4-	-16	-2	-7	100	5	40	13	30	41	-10	15	-12	-26	-21	-11	-2
5-	-28	-20	-14	-8	100	9	21	42	18	24	27	23	16	38	15	7
6-	7	5	10	45	-36	100	-16	12	30	-34	-7	-16	-55	-53	-25	-6
7-	-25	-22	-17	-5	37	-27	100	55	50	26	35	8	33	32	5	-10
8-	-19	-6	-11	19	14	13	24	100	63	28	44	9	18	22	-11	1
9-	7	-6	10	26	-12	52	23	24	100	24	29	7	0	4	-7	-7
10-	-6	-5	-7	-25	27	-29	27	12	2	100	24	38	39	55	45	-10
11-	2	0	10	-2	17	-12	13	15	16	7	100	12	23	23	15	-6
12-	-6	-6	-1	5	28	3	21	10	24	13	23	100	21	25	26	-18
13-	-17	-13	-11	-36	49	-71	45	16	-23	37	21	19	100	70	38	-11
14-	-24	-20	-14	-30	63	-65	51	7	-17	37	23	31	79	100	43	-5
15-	-3	-4	3	-23	29	-39	20	-26	-18	28	10	11	37	45	100	-18
16-	3	-7	4	0	3	-5	12	5	0	-9	4	-3	7	4	4	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	127.4634	22.3495		124.8571	26.6696
2	1.5056	0.8323		1.9143	1.1306
3	8.0095	1.3831		7.8286	2.0352
4	4.8632	2.4504		5.1429	3.4238
5	4.7709	3.1408		9.2571	5.5541
6	14.5754	4.8006		13.4000	6.0790
7	3.2601	2.8622		6.6857	5.6177
8	17.8441	3.8521		19.4857	5.8767
9	16.3221	4.2073		18.0143	6.3707
10	15.9914	4.1623		16.3286	5.8620
11	19.8331	3.8608		21.0000	5.7793
12	7.7071	2.7868		12.2857	5.6344
13	9.9983	5.9121		14.0857	8.1901
14	9.6753	5.9207		17.4571	9.4969
15	17.1878	4.0442		17.9143	5.6004
16	2.3273	0.8939		2.2429	0.9171

M.M.P.I. DATA - PART 2

ALL 1203 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	13	52	-14	-27	14	-25	-21	11	-11	8	-9	-22	-28	-6	6
2-	13	100	2	4	-10	5	-12	3	0	-9	0	0	-14	-17	-10	-9
3-	52	2	100	-4	-13	11	-14	-16	10	-7	10	-1	-11	-16	-3	7
4-	-14	4	-4	100	-13	50	-1	23	27	-22	2	6	-36	-29	-26	-4
5-	-27	-10	-13	-13	100	-43	42	16	-7	38	23	32	55	67	35	3
6-	14	9	11	50	-43	100	-29	13	47	-33	-8	-7	-72	-65	-42	-2
7-	-25	-12	-14	-1	42	-29	100	31	30	28	22	26	48	54	16	5
8-	-21	3	-16	23	16	13	31	100	31	17	18	22	18	13	-23	4
9-	11	0	10	27	-7	47	30	31	100	3	21	22	-18	-11	-18	-2
10-	-11	-9	-7	-22	38	-33	28	17	3	100	16	19	43	42	36	-7
11-	8	0	10	2	23	-8	22	18	21	16	100	27	22	26	10	1
12-	-9	0	-1	0	32	-7	26	22	22	19	27	100	26	33	6	-2
13-	-22	-14	-11	-36	55	-72	48	18	-18	43	22	26	100	82	39	7
14-	-28	-17	-16	-29	67	-65	54	13	-11	42	26	33	82	100	47	4
15-	-6	-10	-3	-26	35	-42	16	-23	-18	36	10	6	39	47	100	0
16-	6	-9	7	-4	3	-2	5	4	-2	-7	1	-2	7	4	0	100

V.	MEANS	S.D.S
1	129.0391	22.3438
2	1.4879	0.8279
3	8.0607	1.5154
4	4.6833	2.6359
5	5.0042	3.6173
6	14.5087	5.1126
7	3.2228	3.0905
8	17.9185	3.9085
9	16.4597	4.3829
10	16.4032	4.3854
11	19.7257	4.1078
12	7.9601	3.0037
13	10.2012	6.3497
14	10.2909	6.8103
15	17.3233	4.0834
16	2.3067	0.8979

M.M.P.I. DATA - PART 2

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

641 SUBJECTS IN NEAR GROUP
562 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	12	53	-16	-30	15	-27	-22	6	-15	10	-11	-22	-31	-8	9
2-	16	100	1	3	-18	14	-18	1	-2	-11	-3	-6	-20	-25	-13	-13
3-	53	-1	100	-3	-17	15	-17	-16	7	-11	10	-5	-15	-20	-7	10
4-	-12	1	-8	100	-14	50	1	20	28	-25	3	5	-37	-28	-23	-5
5-	-25	-14	-12	-16	100	-42	37	18	-5	43	16	30	52	66	38	5
6-	14	10	7	54	-42	100	-25	10	47	-36	-1	-8	-71	-63	-40	-1
7-	-22	-19	-11	-11	40	-32	100	32	35	29	16	22	43	50	14	5
8-	-20	-2	-19	28	3	25	21	100	31	20	15	17	19	14	-18	5
9-	20	0	15	26	-19	52	15	29	100	1	20	17	-18	-11	-16	0
10-	-5	-9	1	-18	28	-28	26	11	5	100	19	22	47	46	37	-3
11-	6	-8	6	-4	23	-11	23	17	20	10	100	21	13	20	8	3
12-	-5	-3	0	4	23	3	20	22	26	13	28	100	25	32	6	-6
13-	-23	-23	-7	-41	51	-72	52	8	-24	36	27	14	100	81	41	8
14-	-25	-22	-13	-40	63	-67	55	-1	-21	36	28	21	83	100	48	3
15-	-2	-6	4	-33	31	-45	18	-34	-21	33	12	3	36	45	100	0
16-	2	-10	3	-5	-5	-1	-1	0	-8	-13	-5	-2	1	1	-1	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.0749	18.3430		128.9982	26.1706
2	1.3105	0.5794		1.6904	1.0037
3	7.9735	1.1667		8.1601	1.8288
4	4.5367	2.3110		4.8505	2.9544
5	4.0936	2.0883		6.0427	4.2121
6	15.1342	4.3095		13.7954	5.8150
7	2.5398	1.9911		4.0018	3.8451
8	17.3775	3.1167		18.5356	4.5724
9	16.1279	3.5534		16.8381	5.1428
10	16.2543	3.4437		16.5730	5.2523
11	18.9594	3.3372		20.5996	4.0887
12	7.2746	2.3579		8.7420	3.4387
13	8.8315	4.3747		11.7033	7.3907
14	8.6646	4.9283		12.1459	8.0698
15	17.1669	3.2578		17.5018	4.8505
16	2.2262	0.9231		2.3986	0.8590

M.M.P.I. DATA - PART 2

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

614 SUBJECTS IN NEAR GROUP
589 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	12	53	-18	-30	14	-27	-23	8	-15	12	-12	-22	-31	-6	10
2-	16	100	2	4	-17	15	-18	1	-1	-13	-3	-6	-21	-26	-13	-12
3-	52	-2	100	-3	-16	13	-16	-16	7	-10	10	-5	-13	-19	-7	9
4-	-8	0	-6	100	-13	50	2	22	26	-25	3	7	-36	-28	-25	-7
5-	-24	-14	-15	-17	100	-43	39	18	-5	42	16	30	53	66	36	3
6-	15	6	11	54	-40	100	-25	11	46	-37	-1	-9	-71	-64	-42	-2
7-	-22	-15	-13	-12	38	-32	100	33	35	28	17	23	43	50	12	4
8-	-19	0	-18	25	4	23	21	100	32	18	15	20	19	14	-19	4
9-	17	-2	15	29	-18	53	14	28	100	-1	22	17	-18	-11	-19	1
10-	-3	-5	-1	-13	27	-24	27	12	9	100	18	20	47	46	38	-2
11-	1	-8	6	-2	25	-13	22	18	16	10	100	22	13	20	7	3
12-	-4	-3	2	3	23	5	18	20	27	15	27	100	25	32	3	-6
13-	-25	-19	-11	-41	50	-71	53	9	-25	34	29	14	100	81	40	7
14-	-26	-20	-15	-40	61	-66	54	0	-22	34	28	21	82	100	47	2
15-	-5	-7	4	-31	31	-41	20	-34	-17	30	13	7	36	45	100	0
16-	1	-12	5	-2	-3	0	0	2	-8	-15	-6	-2	1	1	-2	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	128.9397	17.8659		129.1426	26.1949
2	1.3127	0.5675		1.6706	0.9873
3	7.9805	1.1168		8.1443	1.8375
4	4.5863	2.2284		4.7644	2.9990
5	4.0831	2.0312		5.9643	4.2073
6	15.1922	4.2670		13.7963	5.7803
7	2.5831	1.9817		3.8896	3.8135
8	17.4642	3.1021		18.3922	4.5531
9	16.1515	3.5594		16.7810	5.0818
10	16.1987	3.3942		16.6163	5.2135
11	18.9576	3.3335		20.5263	4.6502
12	7.2818	2.3546		8.0672	3.4159
13	8.7801	4.7906		11.0825	7.3570
14	8.5212	4.7362		12.1358	8.0422
15	17.0293	3.2405		17.6299	4.7881
16	2.2166	0.9275		2.4007	0.8559

M.M.P.I. DATA - PART 2

CALIBRATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

381 SUBJECTS IN NEAR GROUP
822 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	13	53	-16	-28	16	-26	-23	10	-15	10	-8	-22	-31	-7	7
2-	26	100	1	4	-20	14	-20	-1	-3	-10	-7	-6	-23	-28	-12	-13
3-	51	6	100	-2	-13	14	-15	-16	9	-10	12	-1	-12	-18	-5	9
4-	-8	2	-13	100	-12	50	-1	25	27	-24	3	9	-36	-28	-25	-4
5-	-28	-21	-21	-17	100	-41	38	17	-5	41	18	32	52	65	35	5
6-	7	16	1	52	-47	100	-28	10	47	-36	-4	-8	-72	-65	-41	-2
7-	-18	-27	-5	-6	41	-20	100	30	32	30	18	23	45	52	14	5
8-	-13	0	-19	18	-6	35	21	100	30	20	17	19	19	14	-19	4
9-	15	11	12	28	-28	56	12	32	100	0	22	19	-18	-11	-18	0
10-	6	-6	10	-16	27	-19	21	5	15	100	19	22	47	46	37	-3
11-	2	8	-1	-3	29	-13	22	11	12	8	100	26	18	23	9	3
12-	-11	-5	-6	-5	17	9	22	27	32	7	24	100	25	33	7	-2
13-	-21	-27	-7	-43	54	-70	48	-1	-28	28	24	11	100	82	40	8
14-	-17	-28	-10	-45	68	-65	43	-12	-28	31	25	18	80	100	48	5
15-	-2	-11	7	-32	36	-43	23	-41	-18	32	12	0	37	46	100	2
16-	2	1	1	-5	-7	-1	-2	5	-9	-18	-8	-4	1	-1	-8	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.5932	17.7566		128.7822	24.1721
2	1.0919	0.2888		1.6715	0.9263
3	8.0289	1.0657		8.0754	1.6834
4	4.6719	2.2154		4.6886	2.8095
5	3.6220	2.3329		5.6448	3.9155
6	15.4016	4.3984		14.0949	5.4706
7	2.2362	1.5995		3.6800	3.4832
8	17.1837	2.9194		18.2591	4.2475
9	16.0787	3.3974		16.6362	4.7607
10	16.4672	3.0287		16.3735	4.8878
11	18.7533	3.0356		20.1764	4.4478
12	7.1942	2.2771		8.3151	3.2254
13	8.2625	4.1136		11.0998	6.9723
14	7.7848	4.0047		11.4526	7.4956
15	17.0577	3.1940		17.4465	4.4302
16	2.2546	0.9140		2.3309	0.8892

M.M.P.I. DATA - PART 2

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

779 SUBJECTS IN NEAR GROUP
424 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	15	52	-17	-31	17	-28	-22	8	-12	11	-12	-24	-33	-6	8
2-	12	100	2	5	-27	23	-26	-5	-1	-16	-4	-12	-31	-37	-17	-13
3-	53	-1	100	-4	-16	13	-18	-16	7	-8	12	-8	-15	-21	-6	9
4-	-12	-1	-4	100	-15	51	3	19	30	-31	2	1	-38	-27	-24	-4
5-	-25	-14	-16	-16	100	-42	34	15	-4	44	16	32	50	65	39	6
6-	11	6	13	53	-39	100	-22	10	48	-39	1	-13	-72	-64	-45	-3
7-	-23	-19	-14	-11	35	-30	100	32	41	27	15	22	39	46	12	4
8-	-20	-2	-19	27	2	26	17	100	33	17	10	16	16	13	-19	3
9-	14	-3	13	25	-18	50	12	28	100	0	21	14	-18	-10	-18	-1
10-	-11	-8	-7	-14	28	-25	27	14	5	100	19	23	48	47	39	-1
11-	7	-11	5	-1	19	-9	19	19	20	10	100	21	8	19	12	4
12-	-5	-5	2	9	15	10	12	18	29	11	24	100	26	33	9	-7
13-	-21	-21	-10	-42	47	-70	48	7	-25	35	26	7	100	81	44	9
14-	-25	-20	-16	-42	59	-65	51	-4	-22	35	24	14	80	100	51	4
15-	-6	-7	-1	-30	30	-37	19	-31	-18	31	6	-1	34	43	100	2
16-	5	-11	5	-5	-3	0	0	3	-4	-13	-3	-2	2	-1	-3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.3453	19.0148		128.4764	26.6294
2	1.3030	0.5648		1.8278	1.0864
3	8.0039	1.2083		8.1051	1.8824
4	4.6059	2.4327		4.8255	2.9680
5	4.0886	2.6287		6.6863	4.4788
6	15.1771	4.5033		13.2807	5.8800
7	2.4878	1.9089		4.5731	4.1939
8	17.3029	3.2623		19.0495	4.6708
9	16.2567	3.7854		16.8325	5.2877
10	16.1335	3.6242		16.6986	5.4821
11	19.0975	3.5263		20.8797	4.7931
12	7.3081	2.4194		9.1580	3.5536
13	8.6521	4.7679		13.0472	7.7537
14	8.4981	4.7249		13.5849	8.5920
15	17.1014	3.5343		17.7311	4.9094
16	2.2567	0.9125		2.3986	0.8628

M.M.P.I. DATA - PART 2

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

782 SUBJECTS IN NEAR GROUP
421 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	16	49	-16	-29	14	-27	-20	7	-9	15	-14	-20	-31	-5	6
2-	13	100	4	4	-25	19	-24	-3	-2	-16	-6	-12	-29	-33	-15	-15
3-	56	-1	100	-1	-15	13	-16	-13	6	-5	14	-7	-12	-19	-7	9
4-	-13	0	-7	100	-19	54	2	22	28	-29	2	2	-40	-31	-26	-3
5-	-26	-17	-16	-12	100	-44	33	11	-6	42	16	30	50	65	41	5
6-	14	9	11	51	-36	100	-21	15	45	-36	1	-13	-71	-64	-43	-2
7-	-22	-18	-14	-11	36	-32	100	30	41	25	16	23	38	46	12	5
8-	-21	-2	-21	24	7	20	20	100	35	16	12	18	12	8	-21	4
9-	16	-1	14	26	-18	54	10	26	100	1	22	13	-16	-8	-16	0
10-	-13	-9	-9	-17	28	-27	27	14	3	100	21	23	46	46	38	-1
11-	4	-5	5	-1	19	-10	18	17	19	7	100	23	10	20	13	6
12-	-1	-2	3	7	15	10	9	15	29	8	23	100	27	33	8	-7
13-	-23	-20	-13	-40	46	-71	50	11	-28	36	24	7	100	81	43	8
14-	-26	-23	-16	-38	56	-66	52	1	-25	35	25	14	80	100	51	4
15-	-6	-9	1	-27	28	-40	18	-29	-20	32	5	0	35	44	100	1
16-	6	-9	6	-6	-4	-1	0	2	-5	-13	-5	-3	2	-1	-3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.8683	20.3494		127.4988	25.5686
2	1.3299	0.6036		1.7815	1.0721
3	8.0384	1.3026		8.1021	1.8460
4	4.5831	2.3828		4.8694	3.0420
5	4.0090	2.5172		6.8527	4.5125
6	15.1650	4.4721		13.2898	5.9376
7	2.9051	1.9696		4.5558	4.1658
8	17.3005	3.2391		19.0665	4.7051
9	16.2072	3.7629		16.9287	5.3152
10	16.0000	3.6598		17.1520	5.4048
11	19.1240	3.5323		20.8432	4.8084
12	7.3043	2.3918		9.1781	3.5879
13	8.6803	4.9248		13.0261	7.6081
14	8.4527	4.6833		13.7055	8.5940
15	17.1138	3.5315		17.7126	4.9242
16	2.2545	0.9120		2.4038	0.8627

M.M.P.I. DATA - PART 2

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

1139 SUBJECTS IN NEAR GROUP
64 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	-2	20	-28	1	-11	-18	-29	-30	22	9	-4	1	-7	18	8
2-	14	100	5	14	-5	15	-12	25	3	-9	10	-5	-12	-16	-21	-22
3-	55	2	100	5	-5	7	-3	-20	0	-5	3	-1	-8	-8	-22	-3
4-	-13	2	-5	100	-33	58	13	24	49	-26	21	-12	-27	-19	-38	-4
5-	-28	-13	-13	-11	100	-38	12	21	-6	44	24	22	40	55	49	18
6-	15	9	11	50	-43	100	-19	15	39	-32	8	-26	-59	-48	-49	-7
7-	-24	-16	-15	-5	38	-28	100	29	55	17	20	-5	34	32	1	20
8-	-19	0	-15	23	11	15	28	100	51	8	20	15	23	17	9	13
9-	17	-1	12	24	-15	52	19	26	100	7	22	-4	6	10	-15	8
10-	-12	-10	-6	-22	33	-31	25	16	-1	100	22	20	47	49	47	15
11-	10	-1	11	-1	19	-8	18	16	19	13	100	13	8	31	28	3
12-	-5	0	1	9	23	0	16	19	21	13	26	100	18	24	19	-28
13-	-21	-17	-10	-39	52	-73	44	14	-27	39	20	18	100	76	54	12
14-	-28	-20	-16	-33	65	-68	51	7	-23	38	22	24	82	100	53	14
15-	-6	-9	0	-25	31	-40	14	-30	-21	33	6	-1	36	44	100	21
16-	6	-8	8	-4	0	-1	0	3	-4	-9	0	-2	5	1	-3	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.6295	22.1873		118.5313	22.5076
2	1.4811	0.8149		1.6094	1.0250
3	8.0799	1.4797		7.7188	2.0192
4	4.8769	2.5484		4.7969	3.8737
5	4.7164	3.2090		10.1250	5.9148
6	14.6611	4.9495		11.7969	6.8970
7	2.9087	2.4546		8.8125	6.2697
8	17.7875	3.6826		20.2500	6.3295
9	16.2880	4.1385		19.5156	6.8122
10	16.2212	4.2040		19.6406	5.9905
11	19.5944	3.9350		22.0625	5.9866
12	7.7006	2.6662		12.5781	4.5339
13	9.7884	5.9472		17.5469	8.4501
14	9.7603	6.0441		19.7344	11.2905
15	17.1975	3.9220		19.5625	5.6627
16	2.2950	0.9001		2.5156	0.8290

M.M.P.I. DATA - PART 2

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

1149 SUBJECTS IN NEAR GROUP
54 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-	100	1	22	-28	-8	1	-24	-30	-30	10	2	-13	-7	-18	5	13
2-	14	100	8	16	4	15	-15	28	2	-6	2	-4	-11	-16	-18	-20
3-	54	2	100	10	-1	2	3	-19	1	-5	7	3	-6	-5	-20	-5
4-	-13	2	-5	100	-36	62	3	17	43	-20	17	-22	-28	-17	-43	-7
5-	-27	-14	-13	-12	100	-32	8	23	-4	40	30	8	31	52	46	14
6-	14	9	12	50	-43	100	-18	17	38	-21	18	-19	-54	-40	-39	-8
7-	-23	-16	-15	-5	38	-26	100	19	52	24	17	-17	37	34	-9	18
8-	-19	-1	-15	24	9	16	28	100	45	18	17	8	26	19	7	6
9-	16	-1	12	25	-15	52	20	27	100	22	23	-7	14	19	-15	2
10-	-11	-11	-6	-23	35	-33	24	14	-2	100	28	15	41	42	43	16
11-	11	-1	11	-1	18	-8	18	16	19	13	100	10	6	34	18	11
12-	-4	-1	1	8	25	-1	17	18	20	14	26	100	8	16	4	-40
13-	-21	-17	-10	-39	53	-73	44	13	-27	41	20	20	100	72	47	10
14-	-27	-20	-16	-34	65	-68	50	6	-23	40	22	26	82	100	47	11
15-	-5	-10	-1	-26	31	-41	14	-29	-21	34	8	1	37	45	100	18
16-	6	-3	8	-4	1	-2	1	3	-4	-9	0	-1	6	2	-2	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	129.5822	22.2247		117.4815	21.7296
2	1.4778	0.8115		1.7037	1.0993
3	8.0809	1.4779		7.6296	2.1195
4	4.6571	2.5496		5.2407	4.0182
5	4.7433	3.2488		10.5556	5.8868
6	14.6466	4.9719		11.5741	6.8789
7	2.9339	2.5145		9.3704	6.2191
8	17.7702	3.5870		21.0741	6.3766
9	16.3011	4.1614		19.8333	6.8954
10	16.2567	4.2505		19.5185	5.8174
11	19.6005	3.9641		22.3889	5.8418
12	7.7224	2.6939		13.0185	4.4493
13	9.8512	6.0127		17.6481	8.4199
14	9.8320	6.1582		20.0555	11.2471
15	17.2036	3.9099		19.8704	5.4162
16	2.2976	0.3998		2.5000	0.8333

APPENDIX D

PSYCHIATRIC DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

PSYCHIATRIC DATA - PART 1

ALL 3748 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9
1-	100	11	5	3	34	25	-1	14	12
2-	11	100	12	-1	5	4	3	1	0
3-	5	12	100	-5	-7	-9	5	-2	-1
4-	3	-1	-5	100	13	11	9	0	2
5-	34	5	-7	13	100	60	3	27	17
6-	25	4	-9	11	60	100	1	29	17
7-	-1	3	5	9	3	1	100	1	0
8-	14	1	-2	0	27	29	1	100	39
9-	12	0	-1	2	17	17	0	39	100

V.	MEANS	S.D.S
1	410.7388	189.1608
2	1.5288	0.4992
3	3.0720	1.2626
4	2.1793	0.9193
5	1.7697	0.8778
6	0.8327	1.8647
7	2.6934	0.4935
8	1.7137	1.6401
9	16.6302	83.3335

PSYCHIATRIC DATA - PART 1

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

1693 SUBJECTS IN NEAR GROUP
2055 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	12	7	-2	27	20	5	15	12
2-	15	100	10	0	10	7	0	4	-1
3-	3	16	100	-2	-2	-6	5	-1	0
4-	9	-1	-14	100	4	5	13	-5	0
5-	39	6	-17	25	100	58	10	29	17
6-	33	7	-16	27	75	100	9	32	18
7-	2	2	-2	14	14	14	100	4	1
8-	9	0	-4	9	20	24	3	100	38
9-	10	1	-2	5	15	15	3	41	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	375.1050	138.8654		440.0952	217.8665
2	1.5794	0.4936		1.4871	0.4998
3	3.1524	0.8004		3.0058	1.5394
4	2.0638	0.6508		2.2745	1.0828
5	1.5251	0.7460		1.9713	0.9258
6	0.3237	0.8034		1.2521	2.3282
7	2.8565	0.3506		2.5591	0.5504
8	1.5659	1.4934		1.8355	1.7423
9	11.1057	73.8945		21.1815	90.1180

PSYCHIATRIC DATA - PART 1

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

1708 SUBJECTS IN NEAR GROUP
2040 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	11	6	-3	27	19	4	15	11
2-	12	100	9	-3	10	6	1	4	-1
3-	6	19	100	-4	-3	-7	6	-1	-1
4-	9	2	-10	100	3	5	13	-5	0
5-	36	0	-14	25	100	57	10	29	16
6-	32	4	-13	25	75	100	8	31	17
7-	5	5	1	13	15	14	100	5	1
8-	7	-2	-4	8	17	23	3	100	39
9-	9	1	0	4	15	17	3	39	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	370.4976	140.7439		444.4307	216.0189
2	1.5404	0.4984		1.5191	0.4996
3	3.1241	0.7862		3.0284	1.5515
4	2.0515	0.6517		2.2863	1.0826
5	1.4778	0.7179		2.0142	0.9237
6	0.2787	0.7353		1.2966	2.3374
7	2.8326	0.3734		2.5770	0.5486
8	1.5381	1.4324		1.8608	1.7823
9	10.2529	70.1920		21.9696	92.5803

PSYCHIATRIC DATA - PART 1

CROSS VALIDATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

3086 SUBJECTS IN NEAR GROUP
662 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	12	-8	5	9	4	-10	-4	-1
2-	10	100	6	-4	-2	5	-2	-2	-6
3-	10	13	100	-3	1	-10	1	3	4
4-	-1	-1	-5	100	-2	3	4	-6	-5
5-	25	6	-4	8	100	2	-4	4	4
6-	27	6	-7	9	83	100	-6	14	5
7-	0	4	7	10	2	3	100	2	-1
8-	13	2	-2	-2	17	19	0	100	35
9-	12	1	-2	2	11	13	0	38	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	388.8013	190.8551		513.0029	141.6984
2	1.5237	0.4994		1.5529	0.4972
3	3.1111	1.2638		2.8897	1.2406
4	2.1325	0.9170		2.3973	0.8986
5	1.5139	0.7455		2.9622	0.2131
6	0.1633	0.3697		3.9532	2.6875
7	2.6876	0.4933		2.7205	0.4936
8	1.5032	1.2705		2.6949	2.5564
9	9.9854	63.4820		47.6057	139.1599

PSYCHIATRIC DATA - PART 1

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

3331 SUBJECTS IN NEAR GROUP
417 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	9	-9	-1	8	0	-15	-3	-1
2-	10	100	7	-4	0	1	-2	-1	-7
3-	8	12	100	-3	4	-9	-1	2	2
4-	1	-2	-5	100	-2	1	3	-8	-7
5-	28	4	-4	10	100	4	-1	5	4
6-	27	2	-5	10	81	100	-10	12	3
7-	0	4	6	10	2	2	100	-2	-7
8-	12	1	-1	-1	21	23	1	100	36
9-	11	0	0	2	13	15	1	37	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	396.7861	190.2905		522.1917	135.5740
2	1.5221	0.4995		1.5827	0.4931
3	3.1042	1.2696		2.8153	1.1740
4	2.1489	0.9155		2.4221	0.9132
5	1.6208	0.8131		2.9592	0.2313
6	0.2984	0.5970		5.1007	2.8122
7	2.6893	0.4923		2.7266	0.5014
8	1.5641	1.3762		2.9089	2.7277
9	11.9628	70.3483		53.9137	146.0179

PSYCHIATRIC DATA - PART 1

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

3330 SUBJECTS IN NEAR GROUP
418 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	9	-7	-2	6	-1	-16	-3	-1
2-	10	100	8	-4	-1	1	-3	-1	-7
3-	8	12	100	-3	1	-10	-4	1	1
4-	1	-2	-5	100	-2	1	3	-8	-7
5-	28	4	-4	10	100	5	2	5	5
6-	27	2	-5	10	81	100	-8	12	3
7-	0	4	7	10	2	2	100	-2	-7
8-	12	1	-1	-1	21	23	1	100	36
9-	11	0	0	2	13	15	1	37	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	396.6804	190.2214		522.7344	135.8611
2	1.5219	0.4995		1.5837	0.4929
3	3.1030	1.2680		2.8254	1.1903
4	2.1489	0.9157		2.4211	0.9123
5	1.6207	0.8132		2.9569	0.2357
6	0.2985	0.5971		5.0885	2.8193
7	2.6898	0.4915		2.7225	0.5079
8	1.5643	1.3764		2.9043	2.7260
9	11.9664	70.3585		53.7847	145.8669

PSYCHIATRIC DATA - PART 1

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

3556 SUBJECTS IN NEAR GROUP
192 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	4	2	-3	6	-15	-20	1	-2
2-	11	100	2	3	-12	2	-12	12	-3
3-	6	12	100	1	-22	-23	-23	-5	-2
4-	2	-2	-5	100	10	6	5	-9	-18
5-	31	5	-5	12	100	19	20	11	8
6-	28	4	-7	11	76	100	8	9	2
7-	1	4	7	10	4	6	100	0	-5
8-	12	0	-1	0	23	26	2	100	37
9-	11	-1	0	3	15	16	1	38	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	403.9004	189.1724		537.3906	137.0863
2	1.5264	0.4993		1.5729	0.4947
3	3.0841	1.2571		2.8490	1.3397
4	2.1668	0.9194		2.4115	0.8853
5	1.7067	0.8546		2.9375	0.2818
6	0.4947	0.9544		7.0938	3.1127
7	2.6971	0.4874		2.6250	0.5907
8	1.6325	1.5204		3.2188	2.7030
9	14.2742	77.4894		60.2656	149.4812

PSYCHIATRIC DATA - PART 1

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

3545 SUBJECTS IN NEAR GROUP
203 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	4	2	0	4	-8	-16	5	-1
2-	11	100	3	3	-11	1	-13	11	-2
3-	6	12	100	0	-21	-22	-18	-5	-3
4-	2	-2	-5	100	9	8	4	-10	-18
5-	31	5	-5	12	100	17	19	10	8
6-	28	4	-7	12	76	100	10	10	3
7-	1	4	7	10	4	6	100	1	-5
8-	12	0	-1	0	23	26	2	100	36
9-	11	-1	0	3	15	16	1	38	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	403.9736	189.3476		528.8767	140.6780
2	1.5261	0.4993		1.5764	0.4941
3	3.0843	1.2564		2.8571	1.3480
4	2.1673	0.9193		2.3892	0.8940
5	1.7027	0.8529		2.9409	0.2745
6	0.4838	0.9356		6.9261	3.1072
7	2.6982	0.4871		2.6108	0.5883
8	1.6305	1.5175		3.1675	2.6858
9	14.1898	77.3793		59.2463	147.4275

PSYCHIATRIC DATA - PART 2

ALL 3748 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9
1-	100	9	6	4	32	26	0	13	10
2-	9	100	10	-3	3	5	2	1	-2
3-	6	10	100	-3	-5	-5	6	1	-3
4-	4	-3	-3	100	14	10	7	1	2
5-	32	3	-5	14	100	62	4	25	14
6-	26	5	-5	10	62	100	0	31	17
7-	0	2	6	7	4	0	100	0	1
8-	13	1	1	1	25	31	0	100	39
9-	10	-2	-3	2	14	17	1	39	100

V.	MEANS	S.D.S
1	409.4421	191.7143
2	1.4920	0.4999
3	3.0235	1.2602
4	2.1972	0.9190
5	1.7415	0.8736
6	0.7954	1.7872
7	2.6737	0.5045
8	1.7217	1.7051
9	13.9245	72.9137

PSYCHIATRIC DATA - PART 2

CALIBRATION ** ITERATION = NONE
SPLIT = APPPROXIMATE MEDIAN

1696 SUBJECTS IN NEAR GROUP
2052 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	8	7	-3	24	21	5	11	10
2-	12	100	7	-2	7	8	1	2	-2
3-	5	20	100	-1	-2	-3	6	3	-2
4-	12	-2	-11	100	3	3	14	-2	-1
5-	39	-1	-10	27	100	60	12	26	13
6-	35	2	-10	26	76	100	8	31	17
7-	8	1	0	11	14	13	100	4	3
8-	13	2	-4	5	18	24	3	100	39
9-	8	0	-5	5	13	16	1	38	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	370.2380	141.5088		441.8450	219.6848
2	1.5147	0.4998		1.4732	0.4993
3	3.0796	0.7748		2.9771	1.5491
4	2.0230	0.6397		2.3411	1.0763
5	1.4841	0.7267		1.9542	0.9260
6	0.2919	0.7673		1.2115	2.2282
7	2.8379	0.3686		2.5380	0.5585
8	1.5248	1.3930		1.8845	1.9100
9	9.0265	59.9357		17.9727	81.8852

PSYCHIATRIC DATA - PART 2

CROSS VALIDATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

1689 SUBJECTS IN NEAR GROUP
2059 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	9	8	-2	24	21	5	11	10
2-	14	100	7	-1	6	8	-1	1	-3
3-	3	19	100	0	-2	-3	6	3	-2
4-	13	-2	-12	100	4	3	14	-2	0
5-	41	4	-11	27	100	60	12	25	13
6-	35	6	-11	27	75	100	8	31	16
7-	8	0	-1	12	14	14	100	4	3
8-	14	4	-4	4	21	29	3	100	39
9-	8	2	-5	5	14	20	0	40	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	373.5107	141.5188		438.9167	220.3354
2	1.5417	0.4983		1.4512	0.4976
3	3.1024	0.7844		2.9587	1.5416
4	2.0308	0.6384		2.3337	1.0778
5	1.5157	0.7467		1.9267	0.9250
6	0.3262	0.8220		1.1802	2.2207
7	2.8573	0.3498		2.5231	0.5591
8	1.5654	1.4707		1.8499	1.8659
9	9.8745	63.3435		17.2467	79.7596

PSYCHIATRIC DATA - PART 2

CALIBRATION ** ITERATION = 0.5 X MEAN D SQUARE
SPLIT = 0.5 X MEAN D SQUARE

3100 SUBJECTS IN NEAR GROUP
648 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	10	-8	-1	7	5	-14	-12	-1
2-	7	100	10	2	4	5	5	3	-3
3-	10	11	100	-2	-2	-3	4	0	-3
4-	2	-4	-3	100	-6	-1	1	-6	-4
5-	21	-1	-3	10	100	1	-1	1	3
6-	24	0	-4	11	82	100	-8	15	11
7-	2	2	7	8	4	5	100	1	5
8-	13	-1	3	0	11	13	-1	100	34
9-	10	-2	-3	2	9	10	-2	40	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	386.2029	190.5495		520.6187	154.7276
2	1.4816	0.4997		1.5417	0.4983
3	3.0503	1.2667		2.8951	1.2202
4	2.1516	0.9275		2.4151	0.8438
5	1.4832	0.7287		2.9769	0.1697
6	0.1523	0.3593		3.8719	2.5326
7	2.6697	0.5073		2.6929	0.4905
8	1.4923	1.3265		2.8194	2.6346
9	9.2632	57.7551		36.2238	119.1261

PSYCHIATRIC DATA - PART 2

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

3336 SUBJECTS IN NEAR GROUP
412 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	9	-9	-2	8	3	-8	-15	-4
2-	8	100	7	3	4	7	8	1	-1
3-	8	11	100	-3	-11	-5	8	-1	-4
4-	2	-4	-3	100	-8	-6	1	-6	-4
5-	26	1	-4	11	100	6	5	2	4
6-	27	2	-4	11	81	100	-6	10	9
7-	1	2	6	8	5	5	100	3	8
8-	13	0	2	0	16	19	0	100	37
9-	11	-3	-2	2	10	11	-1	37	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	394.9189	190.9284		527.0388	153.7963
2	1.4853	0.4998		1.5461	0.4979
3	3.0390	1.2684		2.8981	1.1842
4	2.1667	0.9245		2.4442	0.8328
5	1.5896	0.8019		2.9709	0.1949
6	0.2836	0.5876		4.9393	2.6400
7	2.6739	0.5039		2.6723	0.5091
8	1.5513	1.4186		3.1019	2.8309
9	10.3393	60.7593		42.9539	132.3822

PSYCHIATRIC DATA - PART 2

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

3336 SUBJECTS IN NEAR GROUP
412 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	9	-9	-2	8	3	-8	-15	-4
2-	8	100	7	3	4	7	8	1	-1
3-	8	11	100	-3	-11	-5	8	-1	-4
4-	2	-4	-3	100	-8	-6	1	-6	-4
5-	26	1	-4	11	100	6	5	2	4
6-	27	2	-4	11	81	100	-6	10	9
7-	1	2	6	8	5	5	100	3	8
8-	13	0	2	0	16	19	0	100	37
9-	11	-3	-2	2	10	11	-1	37	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	394.9189	190.9284		527.0388	153.7963
2	1.4853	0.4998		1.5461	0.4979
3	3.0390	1.2684		2.8981	1.1842
4	2.1667	0.9245		2.4442	0.8328
5	1.5896	0.8019		2.9709	0.1949
6	0.2836	0.5876		4.9393	2.6400
7	2.6739	0.5039		2.6723	0.5091
8	1.5513	1.4186		3.1019	2.8309
9	10.3393	60.7593		42.9539	132.3822

PSYCHIATRIC DATA - PART 2

CALIBRATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

3554 SUBJECTS IN NEAR GROUP
194 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	4	-3	2	8	6	-17	-11	-3
2-	8	100	-2	7	9	5	12	-4	-6
3-	6	11	100	-5	-30	-25	2	-16	-9
4-	3	-3	-3	100	-5	-5	6	-7	1
5-	29	1	-5	13	100	23	20	10	7
6-	29	2	-6	13	76	100	6	7	8
7-	1	2	6	8	5	5	100	5	9
8-	13	1	2	1	21	27	1	100	39
9-	10	-2	-2	1	12	14	0	38	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	403.0720	191.5761		526.1443	152.8523
2	1.4871	0.4998		1.5825	0.4932
3	3.0211	1.2500		3.0670	1.4326
4	2.1854	0.9177		2.4124	0.9167
5	1.6759	0.8468		2.9433	0.2905
6	0.4727	0.9381		6.7062	2.9570
7	2.6773	0.4999		2.5979	0.5772
8	1.6339	1.5688		3.3299	2.8905
9	11.8942	66.2578		51.1185	144.3159

PSYCHIATRIC DATA - PART 2

CROSS VALIDATION ** ITERATION = 2 X MEAN D SQUARE
SPLIT = 2 X MEAN D SQUARE

3557 SUBJECTS IN NEAR GROUP
191 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9
1-	100	3	-3	1	6	4	-16	-12	-4
2-	8	100	-4	6	12	6	13	-5	-7
3-	6	11	100	-3	-31	-27	0	-17	-10
4-	3	-3	-3	100	-9	-11	3	-8	0
5-	30	1	-5	13	100	28	27	11	7
6-	29	2	-6	12	76	100	9	8	8
7-	1	2	7	8	5	5	100	7	10
8-	13	1	3	1	21	28	1	100	39
9-	10	-2	-2	1	12	14	0	38	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	403.0962	191.5247		527.6228	152.9456
2	1.4872	0.4998		1.5812	0.4934
3	3.0208	1.2494		3.0733	1.4453
4	2.1836	0.9176		2.4503	0.9074
5	1.6775	0.8475		2.9319	0.3245
6	0.4768	0.9451		6.7277	2.9937
7	2.6781	0.4992		2.5916	0.5885
8	1.6362	1.5732		3.3141	2.8790
9	11.9131	66.2428		51.3822	145.3468

APPENDIX E

GRADE PREDICTION DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

GRADE PREDICTION DATA - PART 1

ALL 112 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6
1-	100	-30	11	8	-20	-13
2-	-30	100	29	14	60	63
3-	11	29	100	44	41	31
4-	8	14	44	100	15	11
5-	-20	60	41	15	100	72
6-	-13	63	31	11	72	100

V.	MEANS	S.D.S
1	18.9375	1.9878
2	64.7768	6.5693
3	41.6964	13.1847
4	28.1071	9.1918
5	2.7232	1.9558
6	1.8820	0.7394

GRADE PREDICTION DATA - PART 1

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

56 SUBJECTS IN NEAR GROUP
56 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6
1-	100	-32	10	3	-25	-16
2-	-39	100	26	13	65	71
3-	9	33	100	42	35	29
4-	20	4	43	100	10	12
5-	-18	46	55	21	100	73
6-	-16	48	37	1	70	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	18.7143	1.1451		19.1607	2.5480
2	63.4107	4.3621		66.1429	7.9719
3	40.0536	8.2168		43.3393	16.5759
4	26.5179	6.5792		29.6964	10.9836
5	2.4464	1.7000		3.0000	2.1464
6	1.7423	0.6970		2.0216	0.7540

GRADE PREDICTION DATA - PART 1

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

90 SUBJECTS IN NEAR GROUP
22 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6
1-	100	-50	24	24	-30	-21
2-	-36	100	14	11	66	75
3-	-12	38	100	46	40	22
4-	-15	14	42	100	-4	6
5-	-27	58	43	23	100	74
6-	-26	59	38	12	72	100

	NEAR		**	FAR	
V.	MEANS	S.D.S		MEANS	S.D.S
1	18.4667	0.9878		20.8636	3.3884
2	64.4667	6.0795		66.0455	8.1546
3	41.3778	10.6714		43.0000	20.4206
4	27.8222	8.3634		29.2727	11.9285
5	2.7000	1.9000		2.8182	2.1666
6	1.8430	0.7336		2.0414	0.7413

GRADE PREDICTION DATA - PART 2

ALL 112 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6
1-	100	-26	-22	-6	-3	-10
2-	-26	100	37	13	46	38
3-	-22	37	100	43	44	45
4-	-6	13	43	100	23	24
5-	-3	46	44	23	100	71
6-	-10	38	45	24	71	100

V.	MEANS	S.D.S
1	18.9107	1.6451
2	65.3036	9.1171
3	43.2500	14.2054
4	28.8929	10.3418
5	3.1607	2.0769
6	2.0197	0.7452

GRADE PREDICTION DATA - PART 2

CALIBRATION ** ITERATION = NONE
SPLIT = APPROXIMATE MEDIAN

54 SUBJECTS IN NEAR GROUP
58 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6
1-	100	-22	-24	-10	11	-2
2-	-45	100	34	15	41	32
3-	-24	53	100	41	41	41
4-	4	3	49	100	29	30
5-	-35	67	53	12	100	71
6-	-38	58	57	8	71	100

	NEAR		**	FAR	
V.	MEANS	S.D.S		MEANS	S.D.S
1	18.6667	1.0000		19.1379	2.0464
2	65.2407	5.4871		65.3621	11.5097
3	41.6111	9.6021		44.7759	17.2917
4	28.2222	7.3047		29.5172	12.4917
5	3.1111	2.0518		3.2069	2.0989
6	1.9563	0.6493		2.0788	0.8202

GRADE PREDICTION DATA - PART 2

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

90 SUBJECTS IN NEAR GROUP
22 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6
1-	100	-25	-35	-7	9	-3
2-	-41	100	31	37	47	27
3-	-23	48	100	46	54	42
4-	8	-6	44	100	62	65
5-	-29	51	38	8	100	80
6-	-33	53	47	11	66	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	18.5333	1.0022		20.4546	2.5889
2	65.1667	5.8789		65.8636	16.7747
3	42.8222	12.9945		45.0000	18.2408
4	29.6778	9.5892		25.6818	12.4696
5	3.0222	1.8677		3.7273	2.6999
6	1.9688	0.6993		2.2282	0.8791

APPENDIX F

JOB SATISFACTION "HIGH CORRELATION" DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 7

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-30	-21	67	-13	-49	1	-2	5	6	10	-2	7
2-	-30	100	70	-17	27	26	18	2	8	7	-6	3	26
3-	-21	70	100	1	37	26	31	14	13	12	3	3	37
4-	67	-17	1	100	0	-27	7	-4	5	9	2	-1	13
5-	-13	27	37	0	100	8	36	21	16	18	22	27	31
6-	-49	26	26	-27	8	100	6	3	-2	2	-4	1	3
8-	1	18	31	7	36	6	100	43	36	33	37	22	43
9-	-2	2	14	-4	21	3	43	100	41	27	33	16	41
10-	5	8	13	5	16	-2	36	41	100	42	33	12	40
11-	6	7	12	9	18	2	33	27	42	100	26	17	38
12-	10	-6	3	2	22	-4	37	38	33	26	100	52	45
13-	-2	3	3	-1	27	1	22	16	12	17	52	100	23
7-	7	26	37	13	31	3	43	41	40	38	45	23	100

V.	MEANS	S.D.S
1	3.5282	1.8986
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
8	27.7664	14.8077
9	21.3487	15.8330
10	40.6202	10.6971
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199
7	36.0138	10.9357

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 7

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

521 SUBJECTS IN NEAR GROUP
348 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-24	-12	64	-5	-37	6	2	9	4	16	1	13
2-	-37	100	65	-14	20	17	13	-2	4	5	-10	0	23
3-	-30	77	100	9	33	19	28	15	12	9	2	0	35
4-	70	-21	-9	100	6	-15	13	3	7	7	6	-1	18
5-	-21	35	43	-8	100	0	29	15	10	11	15	21	26
6-	-65	37	33	-41	18	100	-1	-2	-10	-1	-9	-3	-4
8-	-5	23	33	-2	43	12	100	37	32	25	31	13	41
9-	-6	6	13	-11	28	7	48	100	45	26	30	6	44
10-	-1	14	15	0	20	6	38	36	100	32	30	4	38
11-	9	9	16	9	25	2	39	28	49	100	18	8	33
12-	4	-2	4	-3	29	2	41	46	35	35	100	42	44
13-	-7	6	6	-3	33	5	29	26	18	27	62	100	19
7-	1	30	39	6	34	10	41	38	39	41	44	26	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5605	1.7372		3.4799	2.1165
2	4.3839	1.4137		4.3764	1.8365
3	49.2130	5.1521		48.9971	6.9031
4	49.8733	6.2659		48.9569	7.6200
5	49.6372	4.3951		48.6121	6.0573
6	49.5701	6.9655		48.6408	9.9126
8	29.7428	13.5539		24.9075	16.0593
9	22.0345	14.7801		20.3218	17.2390
10	42.8887	7.7731		37.2241	13.2683
11	45.5624	7.3709		40.7184	12.5897
12	3.4453	1.0738		3.1897	1.3994
13	3.8810	0.9585		3.6552	1.3137
7	37.5182	9.7410		33.7615	12.1702

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 7

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

468 SUBJECTS IN NEAR GROUP
401 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-22	-12	64	-7	-39	2	0	12	7	12	-2	13
2-	-41	100	64	-9	20	15	12	-5	2	3	-11	0	21
3-	-31	77	100	11	33	18	24	12	7	7	-1	-2	31
4-	71	-27	-13	100	4	-19	5	0	9	10	1	-5	18
5-	-20	36	43	-7	100	1	28	13	7	12	13	21	25
6-	-65	41	36	-39	18	100	2	1	-9	-2	-7	-2	-5
8-	1	25	36	7	43	5	100	40	31	27	29	13	38
9-	-3	10	15	-9	30	2	44	100	40	25	32	8	42
10-	-2	16	19	-2	24	3	34	40	100	35	26	3	34
11-	8	11	17	7	23	2	33	26	44	100	17	9	32
12-	10	-2	5	3	31	-4	39	43	36	33	100	42	44
13-	-1	5	7	3	33	2	25	24	17	24	64	100	17
7-	1	32	43	5	33	11	40	37	41	41	40	25	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4701	1.7250		3.5960	2.0810
2	4.4338	1.4389		4.3192	1.7607
3	49.5534	5.3687		48.6284	6.4626
4	49.7051	6.2041		49.2743	7.5378
5	49.8303	4.2650		48.4638	5.9315
6	49.9081	6.8205		48.3691	9.6535
8	31.4231	13.0199		23.4987	15.6049
9	23.0214	14.7606		19.3965	16.7899
10	43.2963	7.5092		37.5087	12.8137
11	45.8120	7.2391		41.0673	12.1270
12	3.5876	0.9972		3.0574	1.3854
13	3.9615	0.9050		3.5910	1.2993
7	38.4551	9.2715		33.1646	11.9901

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 7

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

552 SUBJECTS IN NEAR GROUP
317 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-20	-5	67	-1	-30	7	-5	6	4	14	1	11
2-	-38	100	61	-12	15	12	6	-6	0	2	-10	3	20
3-	-33	77	100	14	31	16	23	14	3	7	5	2	34
4-	67	-21	-10	100	9	-13	20	0	5	8	10	4	19
5-	-24	37	43	-10	100	-5	26	14	8	10	15	21	25
6-	-67	39	35	-40	21	100	-3	1	-9	0	-5	-2	0
8-	-7	25	37	-7	43	12	100	34	28	25	33	12	39
9-	-1	8	15	-9	26	3	47	100	47	26	32	2	45
10-	-1	21	22	-4	21	4	39	34	100	25	27	1	32
11-	4	16	21	3	27	3	36	26	44	100	17	6	29
12-	5	-3	1	-8	26	-4	35	41	33	30	100	34	45
13-	-7	3	3	-9	31	3	26	26	16	27	66	100	17
7-	1	34	40	4	33	5	41	36	39	39	41	25	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6341	1.7867		3.3438	2.0663
2	4.3678	1.5134		4.4038	1.7314
3	49.1384	5.5779		49.0189	6.4632
4	50.0380	6.3958		48.5804	7.4996
5	49.6014	4.5755		48.5741	5.9667
6	49.3569	7.2162		48.9211	9.8681
8	30.9036	14.1689		23.8707	15.0867
9	22.6522	15.0621		19.0789	16.8537
10	43.9004	6.9584		34.9085	13.3422
11	46.6250	6.0907		38.3943	13.0809
12	3.5109	1.0917		3.0505	1.3702
13	3.9004	0.9813		3.5994	1.3053
7	38.0471	9.5223		32.4732	12.2558

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 7

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

496 SUBJECTS IN NEAR GROUP
373 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-22	-13	65	-9	-35	-1	-2	10	7	12	-2	13
2-	-39	100	64	-9	19	13	10	-9	0	0	-13	-1	19
3-	-28	76	100	11	30	18	20	6	3	4	-3	-5	29
4-	70	-26	-10	100	3	-15	8	-1	8	11	-1	-6	17
5-	-17	34	43	-5	100	1	26	11	3	9	12	20	22
6-	-66	39	32	-41	15	100	2	2	-8	-2	-4	1	-4
8-	4	24	36	3	41	4	100	35	24	21	27	12	36
9-	-2	11	19	-8	29	0	46	100	43	24	32	5	42
10-	2	16	20	-3	23	-2	36	36	100	28	22	0	31
11-	9	14	17	4	23	-2	32	26	42	100	13	4	28
12-	11	-3	3	3	26	-10	33	41	31	29	100	34	42
13-	-1	6	7	2	31	-3	23	24	16	27	70	100	14
7-	3	32	41	6	34	7	38	37	37	39	38	26	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4940	1.7780		3.5737	2.0472
2	4.4617	1.4901		4.2735	1.7229
3	49.7258	5.7380		48.3298	6.0553
4	49.7843	6.3188		49.1367	7.4933
5	49.9919	4.4039		48.2091	5.8483
6	49.8105	7.1440		48.3834	9.5339
8	31.8750	13.2982		22.3029	14.9461
9	23.2379	15.2235		18.8365	16.2727
10	44.2702	6.8756		35.7668	12.7459
11	46.8750	6.0241		39.2976	12.4844
12	3.6552	1.0141		2.9276	1.3433
13	3.9677	0.9305		3.5550	1.2935
7	38.7823	9.1671		32.3324	11.9634

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 8

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-30	-21	67	-13	-49	7	-2	5	6	10	-2	1
2-	-30	100	70	-17	27	26	26	2	8	7	-6	3	18
3-	-21	70	100	1	37	26	37	14	13	12	3	3	31
4-	67	-17	1	100	0	-27	13	-4	5	9	2	-1	7
5-	-13	27	37	0	100	8	31	21	16	18	22	27	36
6-	-49	26	26	-27	8	100	3	3	-2	2	-4	1	6
7-	7	26	37	13	31	3	100	41	40	38	45	23	43
9-	-2	2	14	-4	21	3	41	100	41	27	38	16	43
10-	5	8	13	5	16	-2	40	41	100	42	33	12	36
11-	6	7	12	9	18	2	38	27	42	100	26	17	33
12-	10	-6	3	2	22	-4	45	38	33	26	100	52	37
13-	-2	3	3	-1	27	1	23	16	12	17	52	100	22
8-	1	18	31	7	36	6	43	43	36	33	37	22	100

V.	MEANS	S.D.S
1	3.5232	1.8986
2	4.3309	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
7	36.0138	10.9357
9	21.3487	15.8330
10	40.6202	10.6971
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199
8	27.7664	14.8077

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 8

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

532 SUBJECTS IN NEAR GROUP
337 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-20	-9	65	-5	-36	13	2	9	7	16	0	5
2-	-40	100	65	-10	21	13	25	-1	6	5	-6	4	14
3-	-33	76	100	11	35	16	36	16	14	8	6	3	31
4-	69	-24	-10	100	7	-17	19	6	9	11	9	2	15
5-	-21	34	41	-9	100	0	25	17	9	10	16	24	33
6-	-64	41	37	-38	18	100	-5	-3	-10	-3	-8	-3	-2
7-	-1	30	40	3	36	12	100	42	33	31	44	17	45
9-	-6	5	13	-14	26	7	40	100	44	26	32	8	45
10-	-1	13	15	-4	21	6	42	39	100	32	27	3	37
11-	4	11	19	4	27	6	40	28	47	100	19	9	33
12-	4	-6	0	-7	26	0	41	44	35	29	100	39	38
13-	-5	2	3	-7	29	4	26	23	17	23	65	100	18
8-	-4	22	31	-2	33	12	38	41	33	29	32	22	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5827	1.7501		3.4421	2.1091
2	4.3553	1.4273		4.4214	1.8313
3	49.1034	5.2068		49.1632	6.8900
4	49.8590	6.2007		48.9496	7.7444
5	49.5222	4.4531		48.6024	6.0390
6	49.5357	7.0062		48.6647	9.9525
7	37.9887	8.9000		37.8961	12.9406
9	22.1316	14.7412		20.1127	17.3462
10	42.9868	7.7514		36.8843	13.3199
11	45.6936	7.3647		40.3531	12.6140
12	3.5138	1.0431		3.0653	1.4148
13	3.9023	0.9528		3.6142	1.3230
8	29.4850	14.2594		25.0534	15.2447

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 8

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

499 SUBJECTS IN NEAR GROUP
370 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-22	-12	62	-6	-36	13	2	10	9	14	-3	2
2-	-40	100	64	-3	19	14	22	-6	4	2	-10	2	13
3-	-30	77	100	12	33	18	32	12	9	6	0	0	28
4-	73	-28	-13	100	6	-15	17	3	8	11	3	-5	10
5-	-22	36	42	-9	100	-1	23	12	7	10	13	23	32
6-	-67	41	35	-43	20	100	-5	-1	-9	-2	-7	-2	1
7-	0	32	43	3	37	11	100	42	31	31	43	17	45
9-	-6	10	15	-13	31	5	40	100	41	23	34	10	43
10-	-1	12	17	-4	24	3	43	40	100	34	24	3	34
11-	3	11	18	2	27	3	39	30	45	100	17	9	31
12-	5	-3	3	-3	30	-3	39	41	37	30	100	39	36
13-	-1	3	4	0	30	3	26	21	18	23	67	100	18
8-	-1	22	32	1	38	8	35	41	34	30	32	21	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5451	1.7520		3.5054	2.0793
2	4.4269	1.4437		4.3189	1.7800
3	49.4970	5.4181		48.6270	6.4958
4	49.9799	6.3404		48.8676	7.4461
5	49.7495	4.3979		48.5216	5.9462
6	49.7755	6.7913		48.4189	9.8975
7	38.5491	8.6229		32.5946	12.6584
9	22.5972	14.7999		19.6649	16.9832
10	43.2385	7.5505		37.0892	13.0442
11	45.7575	7.4606		40.7432	12.2192
12	3.5812	1.0045		3.0216	1.4006
13	3.9339	0.9248		3.5973	1.3142
8	30.2445	14.2941		24.4243	14.8315

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 8

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

547 SUBJECTS IN NEAR GROUP
322 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-18	-5	65	-2	-30	12	-2	3	3	15	0	5
2-	-40	100	61	-12	14	10	22	-7	5	3	-7	5	7
3-	-33	77	100	13	32	15	33	13	11	7	4	4	25
4-	68	-21	-10	100	10	-12	18	3	4	3	11	5	18
5-	-24	38	42	-10	100	-3	24	15	9	10	13	21	30
6-	-69	41	36	-41	20	100	-4	-1	-8	-2	-7	0	-2
7-	-4	34	44	2	36	10	100	42	27	26	45	17	42
9-	-4	9	15	-12	25	6	39	100	47	26	31	5	42
10-	0	15	19	-3	20	4	41	35	100	26	25	3	34
11-	1	17	22	2	27	5	39	26	41	100	15	8	30
12-	2	-4	2	-11	29	-2	37	42	31	27	100	32	37
13-	-6	2	2	-10	31	2	25	24	15	23	70	100	15
8-	-6	27	35	-5	39	12	38	42	32	29	32	24	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6819	1.7777		3.2671	2.0620
2	4.3473	1.5321		4.4379	1.6988
3	49.1645	5.5845		49.0621	6.4415
4	50.0932	6.3428		48.5093	7.5433
5	49.5685	4.6356		48.6460	5.8786
6	49.3492	7.1707		48.9410	9.8894
7	38.6124	8.8311		31.5994	12.6215
9	22.6289	15.1353		19.1739	16.7295
10	43.9214	7.0309		35.0124	13.2243
11	46.6618	6.2446		38.4596	12.8771
12	3.5594	1.0567		2.9752	1.3829
13	3.3921	0.9793		2.6180	1.3073
8	30.0768	14.4929		23.8416	14.5073

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 8

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

513 SUBJECTS IN NEAR GROUP
356 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-21	-10	64	-7	-35	15	4	9	8	14	-2	3
2-	-39	100	64	-11	19	14	21	-8	3	2	-9	3	10
3-	-31	76	100	11	32	17	29	11	7	5	2	1	24
4-	70	-24	-9	100	4	-14	18	5	6	11	6	-1	11
5-	-20	36	42	-6	100	-1	22	14	2	6	13	23	29
6-	-65	39	34	-41	17	100	-6	-2	-10	-3	-6	2	0
7-	-3	35	47	2	35	11	100	40	25	25	43	14	39
9-	-8	9	15	-14	25	5	37	100	41	21	30	3	38
10-	-1	15	19	-2	24	3	41	37	100	28	20	-2	31
11-	4	14	19	2	27	3	39	26	39	100	11	5	26
12-	6	-5	0	-6	24	-6	31	41	31	27	100	31	34
13-	-2	1	2	-5	27	-2	24	24	18	24	72	100	15
8-	-2	25	34	0	38	8	27	42	32	31	30	21	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5595	1.7773		3.4831	2.0601
2	4.4094	1.4986		4.3399	1.7271
3	49.4659	5.6860		48.6376	6.2019
4	49.9064	6.4159		48.9298	7.4047
5	49.9357	4.4456		48.2050	5.8746
6	49.5277	7.1832		48.5786	9.6207
7	39.2066	8.2363		31.4129	12.5821
9	23.6959	15.3302		17.9662	15.9338
10	44.2203	6.8110		35.4326	12.9184
11	46.7661	6.3054		39.0927	12.4961
12	3.6667	1.0049		2.8764	1.3477
13	3.9630	0.9348		3.5421	1.3029
8	30.7875	14.2256		23.4129	14.5435

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 9

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-30	-21	67	-13	-49	7	1	5	6	10	-2	-2
2-	-30	100	70	-17	27	26	26	18	8	7	-6	3	2
3-	-21	70	100	1	37	26	37	31	13	12	3	3	14
4-	67	-17	1	100	0	-27	13	7	5	9	2	-1	-4
5-	-13	27	37	0	100	8	31	36	16	18	22	27	21
6-	-49	26	26	-27	8	100	3	6	-2	2	-4	1	3
7-	7	26	37	13	31	3	100	43	40	38	45	23	41
8-	1	18	31	7	36	6	43	100	36	33	37	22	43
10-	5	8	13	5	16	-2	40	36	100	42	33	12	41
11-	6	7	12	9	18	2	38	33	42	100	26	17	27
12-	10	-6	3	2	22	-4	45	37	33	26	100	52	38
13-	-2	3	3	-1	27	1	23	22	12	17	52	100	16
9-	-2	2	14	-4	21	3	41	43	41	27	38	16	100

V.	MEANS	S.D.S
1	3.5282	1.8986
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
7	36.0138	10.9357
8	27.7664	14.3077
10	40.6202	10.6971
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199
9	21.3487	15.8330

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 9

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

527 SUBJECTS IN NEAR GROUP
342 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-21	-10	63	-7	-38	13	9	10	7	17	4	2
2-	-40	100	66	-9	19	15	23	12	4	4	-11	0	-1
3-	-32	76	100	12	33	17	36	29	13	10	2	0	18
4-	71	-25	-11	100	4	-17	17	14	8	10	8	1	1
5-	-19	35	43	-5	100	2	25	27	8	10	15	21	19
6-	-62	38	36	-38	16	100	-3	-1	-6	1	-8	-4	2
7-	0	31	41	6	34	10	100	39	33	31	43	17	47
8-	-7	24	33	-3	43	12	41	100	30	26	31	12	40
10-	-1	14	16	-3	21	2	41	38	100	31	27	2	46
11-	6	10	17	5	25	0	39	36	48	100	17	7	26
12-	3	-1	4	-6	28	0	42	39	35	32	100	40	36
13-	-9	6	6	-6	32	6	24	26	16	24	62	100	6
9-	-6	5	11	-10	22	2	34	43	34	25	39	22	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5503	1.7664		3.4942	2.0855
2	4.3871	1.4136		4.3713	1.9431
3	49.1082	5.1033		49.1550	6.9872
4	49.8842	6.2845		48.9240	7.6150
5	49.6926	4.4551		48.5088	5.9980
6	49.4137	6.9860		48.8655	9.9516
7	38.1385	8.9523		32.7398	12.8613
8	30.0114	13.3885		24.3070	16.1615
10	42.0171	7.7794		36.9269	13.2291
11	45.3046	7.2647		40.2602	12.5856
12	3.5123	1.0488		3.0819	1.4077
13	3.9374	0.9493		3.5643	1.3091
9	22.9298	15.4093		18.9123	16.1639

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 9

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

479 SUBJECTS IN NEAR GROUP
390 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-21	-12	64	-7	-40	16	4	12	10	15	1	2
2-	-41	100	64	-9	19	16	20	11	2	2	-11	1	-4
3-	-31	78	100	12	32	19	29	24	7	5	0	0	15
4-	72	-28	-14	100	4	-19	19	7	8	12	3	-3	0
5-	-19	36	42	-6	100	0	22	26	5	9	14	23	17
6-	-63	39	34	-39	18	100	-4	1	-8	0	-7	-2	1
7-	-1	34	45	2	36	7	100	35	30	30	41	16	43
8-	-1	24	34	3	42	4	40	100	28	25	28	14	41
10-	-1	15	17	-3	24	-1	43	34	100	33	23	0	43
11-	4	11	17	3	25	-3	40	31	45	100	15	8	24
12-	7	-4	0	-2	26	-7	39	35	36	32	100	40	31
13-	-4	2	2	-2	27	0	23	20	17	22	64	100	7
9-	-5	6	10	-10	21	0	34	39	32	24	41	20	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4635	1.7584		3.6077	2.0550
2	4.4593	1.4599		4.2846	1.7449
3	49.6868	5.4310		48.4385	6.3968
4	49.7996	6.2081		49.1461	7.5591
5	49.9916	4.3327		48.2872	5.8693
6	49.9478	6.8103		48.2769	9.7187
7	38.9081	8.4771		32.4590	12.4613
8	31.8831	12.6978		22.7103	15.6258
10	43.6430	7.3373		36.9077	12.7648
11	45.9979	7.2210		40.7051	12.0538
12	3.6388	0.9826		2.9795	1.3773
13	3.9979	0.8919		3.5359	1.3038
9	24.1086	15.4674		17.9590	15.6172

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 9

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

559 SUBJECTS IN NEAR GROUP
310 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-16	-5	65	-1	-31	14	8	5	5	19	5	1
2-	-40	100	61	-11	16	9	23	7	5	4	-8	4	-5
3-	-33	77	100	15	31	16	34	25	10	8	6	3	16
4-	69	-21	-10	100	9	-11	17	19	3	7	14	7	-1
5-	-24	36	42	-9	100	-3	23	26	6	9	13	21	14
6-	-65	39	34	-40	19	100	-1	0	-8	-2	-7	-1	0
7-	-3	32	43	3	36	7	100	37	23	22	44	17	41
8-	-7	27	36	-6	41	10	40	100	28	24	37	14	34
10-	0	17	20	-2	21	2	41	35	100	18	23	-2	42
11-	1	16	20	3	25	4	38	32	44	100	13	4	18
12-	0	-4	0	-12	26	-2	37	30	31	26	100	32	33
13-	-10	2	2	-12	20	2	22	22	17	24	68	100	0
9-	-7	6	13	-10	24	3	34	42	33	24	37	23	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6297	1.8174		3.3452	2.0241
2	4.3578	1.5451		4.4226	1.6845
3	49.2057	5.5823		48.9839	6.4740
4	50.0324	6.4249		48.5452	7.4740
5	49.6476	4.6211		48.4677	5.9131
6	49.3524	7.3964		48.9193	9.6775
7	38.7424	8.7625		31.0935	12.6154
8	30.3327	14.0000		23.1387	15.0974
10	44.3023	6.7588		33.9806	13.0332
11	47.0626	5.9211		37.4193	12.7276
12	3.5635	1.0662		2.9452	1.3726
13	3.9159	0.9747		3.5645	1.3127
9	23.9749	15.6627		16.6129	15.0165

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 9

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

498 SUBJECTS IN NEAR GROUP
371 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-23	-13	64	-9	-36	16	-3	8	9	13	-3	1
2-	-38	100	64	-9	18	14	18	11	0	-1	-13	1	-8
3-	-28	76	100	11	29	19	27	21	3	2	-4	-2	7
4-	71	-26	-10	100	1	-14	17	5	4	9	0	-4	-3
5-	-18	36	44	-3	100	1	21	25	2	5	12	21	12
6-	-64	38	32	-42	15	100	-5	4	-8	-3	-6	2	1
7-	-4	39	48	4	33	9	100	33	24	23	41	15	40
8-	3	24	36	5	39	3	38	100	23	22	27	14	35
10-	2	18	20	2	23	-1	40	34	100	27	18	-3	39
11-	3	17	19	5	27	2	38	28	40	100	11	4	21
12-	9	-3	2	0	23	-7	29	30	29	24	100	32	30
13-	-2	3	3	0	28	-4	20	18	16	23	71	100	2
9-	-5	8	16	-8	23	1	32	40	32	19	36	21	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5462	1.8022		3.5040	2.0206
2	4.4418	1.4989		4.2992	1.7155
3	49.6606	5.8450		48.4097	5.9366
4	49.8594	6.3958		49.0323	7.5038
5	50.0502	4.4936		48.1213	5.7362
6	49.5908	7.2675		48.5364	9.4407
7	30.6048	7.9516		31.0728	12.3543
8	32.0000	13.2257		22.0836	14.9145
10	44.4418	6.7170		35.4906	12.7102
11	46.9879	6.1650		39.1051	12.3101
12	3.7189	0.9763		2.8383	1.3300
13	3.9920	0.9227		3.5202	1.2913
9	24.8193	15.6587		16.6900	14.8385

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 10

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-30	-21	67	-13	-49	7	1	-2	6	10	-2	5
2-	-30	100	70	-17	27	26	26	18	2	7	-6	3	8
3-	-21	70	100	1	37	26	37	31	14	12	3	3	13
4-	67	-17	1	100	0	-27	13	7	-4	9	2	-1	5
5-	-13	27	37	0	100	8	31	36	21	18	22	27	16
6-	-49	26	26	-27	8	100	3	6	3	2	-4	1	-2
7-	7	26	37	13	31	3	100	43	41	38	45	23	40
8-	1	18	31	7	36	6	43	100	43	33	37	22	36
9-	-2	2	14	-4	21	3	41	43	100	27	38	16	41
11-	6	7	12	9	18	2	38	33	27	100	26	17	42
12-	10	-6	3	2	22	-4	45	37	38	26	100	52	33
13-	-2	3	3	-1	27	1	23	22	16	17	52	100	12
10-	5	8	13	5	16	-2	40	36	41	42	33	12	100

V.	MEANS	S.D.S
1	3.5282	1.8986
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2952
7	36.0138	10.9357
8	27.7664	14.8077
9	21.3487	15.8330
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199
10	40.6292	10.6971

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 10

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

522 SUBJECTS IN NEAR GROUP
347 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-20	-9	64	-4	-37	17	8	5	6	18	5	10
2-	-41	100	64	-9	20	14	22	13	-3	4	-10	1	7
3-	-34	77	100	12	33	17	34	27	13	7	2	-1	14
4-	70	-26	-12	100	8	-16	19	15	5	9	9	3	10
5-	-23	35	42	-10	100	0	23	29	15	10	15	23	9
6-	-65	41	37	-40	18	100	-6	-3	-3	-1	-11	-6	-8
7-	-3	32	42	4	39	12	100	37	42	31	43	17	42
8-	-7	23	35	-3	43	14	47	100	38	25	30	14	33
9-	-8	7	16	-13	28	8	41	47	100	27	31	10	47
11-	7	11	19	7	27	2	43	40	28	100	19	9	38
12-	2	-2	5	-6	29	4	45	42	46	33	100	42	30
13-	-10	5	7	-7	31	9	28	29	23	25	63	100	4
10-	1	9	13	-1	21	2	35	38	35	43	36	19	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5268	1.7310		3.5303	2.1260
2	4.3793	1.4108		4.3833	1.8410
3	49.1743	5.2129		49.0547	6.8393
4	49.7912	6.1355		49.0778	7.7943
5	48.5421	4.4069		48.7522	6.0704
6	49.7184	6.8623		48.4150	10.0023
7	37.7452	9.1961		33.4092	12.6878
8	29.0919	13.6538		25.7723	16.1879
9	21.5939	14.7731		20.9798	17.2991
11	45.3084	7.8581		41.0864	12.2899
12	3.4464	1.0477		3.1873	1.4292
13	3.8678	0.9488		3.6744	1.3293
10	41.7739	9.6004		38.8847	11.9540

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 10

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

478 SUBJECTS IN NEAR GROUP
391 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-21	-11	64	-6	-39	16	5	3	10	16	2	9
2-	-41	100	63	-8	22	15	21	12	-5	2	-11	1	5
3-	-32	78	100	13	33	18	29	24	11	5	-1	-2	10
4-	72	-29	-14	100	6	-19	18	9	2	12	5	-2	8
5-	-21	32	41	-8	100	1	22	27	13	10	14	22	8
6-	-65	41	35	-40	16	100	-6	0	1	-3	-9	-5	-7
7-	-2	31	44	5	38	12	100	36	43	31	43	18	41
8-	-2	22	34	3	42	7	43	100	40	25	29	15	34
9-	-6	9	16	-12	30	3	38	44	100	25	33	12	46
11-	4	11	18	5	26	2	41	35	27	100	17	9	39
12-	5	-3	4	-2	29	-1	40	39	44	34	100	43	29
13-	-6	3	6	-1	31	6	24	24	19	25	63	100	6
10-	4	9	13	2	21	-1	31	32	33	40	33	14	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4435	1.7187		3.6317	2.0931
2	4.4770	1.4531		4.2634	1.7489
3	49.7238	5.4557		48.3964	6.3600
4	49.6213	6.1400		49.3657	7.6367
5	49.3954	4.3509		48.4092	5.8825
6	50.0314	6.6011		48.1790	9.8694
7	38.6318	9.5942		32.8133	12.5249
8	21.2469	12.9698		23.5115	15.7723
9	22.6360	14.8228		19.7749	16.8535
11	45.7071	7.3537		41.0742	12.1683
12	3.5628	0.9848		3.0742	1.4132
13	3.9351	0.9113		3.6138	1.3097
10	42.4477	9.3124		38.3862	11.7996

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 10

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

538 SUBJECTS IN NEAR GROUP
331 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-16	0	66	0	-31	19	13	2	2	16	1	6
2-	-44	100	61	-8	16	10	19	7	-6	4	-12	-1	6
3-	-39	78	100	15	32	12	32	24	12	9	3	-1	16
4-	68	-26	-13	100	11	-13	20	18	3	6	10	3	7
5-	-25	37	42	-11	100	0	24	25	12	12	10	16	11
6-	-70	42	40	-43	17	100	-10	-4	-1	-3	-8	-2	-6
7-	-9	35	44	1	36	16	100	41	47	29	46	16	43
8-	-11	27	36	-5	44	13	42	100	41	29	32	10	37
9-	-7	8	16	-11	29	6	36	44	100	29	32	6	49
11-	6	12	19	6	24	2	37	35	26	100	18	10	40
12-	2	-1	3	-9	32	-1	39	38	43	29	100	32	32
13-	-6	6	6	-7	37	3	29	30	24	26	71	100	6
10-	1	10	10	-1	18	0	28	33	33	33	29	15	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6524	1.7640		3.3263	2.0834
2	4.3959	1.4688		4.3565	1.7844
3	49.2026	5.5031		49.0030	6.5315
4	50.0725	6.2999		48.5861	7.5828
5	49.5446	4.6645		48.7100	5.8185
6	49.6059	7.0197		48.5347	9.9707
7	38.4430	8.8359		32.0574	12.7196
8	29.3680	14.2029		25.1631	15.3895
9	22.0819	14.9193		20.1571	17.1483
11	46.6654	6.2059		38.6767	12.8391
12	3.5112	1.0582		3.0695	1.4050
13	3.8494	1.0173		3.6949	1.2632
10	42.5056	9.0913		37.5559	12.2846

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 10

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

499 SUBJECTS IN NEAR GROUP
370 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-23	-11	64	-7	-34	18	-2	3	9	14	-3	8
2-	-38	100	64	-10	17	13	16	9	-10	-1	-15	-1	4
3-	-30	76	100	11	29	16	25	20	5	2	-6	-5	9
4-	71	-26	-11	100	2	-14	18	4	1	9	-1	-7	7
5-	-20	36	43	-6	100	0	21	26	12	6	12	21	5
6-	-69	39	34	-43	15	100	-8	3	0	-4	-7	1	-7
7-	-5	38	49	1	31	11	100	33	41	24	41	14	36
8-	3	23	35	5	38	2	37	100	36	23	26	13	30
9-	-6	10	18	-11	26	2	36	43	100	22	30	5	42
11-	4	12	17	3	22	1	39	26	25	100	12	4	37
12-	8	-2	3	1	23	-7	30	32	41	26	100	32	22
13-	-1	4	6	2	28	-3	24	21	22	25	73	100	0
10-	3	9	11	-1	17	-3	28	30	35	32	33	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5291	1.7774		3.5270	2.0509
2	4.4910	1.4839		4.2324	1.7258
3	49.8076	5.8627		48.2081	5.8650
4	49.9399	6.2557		48.9216	7.5496
5	50.1503	4.4189		47.9811	5.7682
6	49.8938	7.1350		48.2594	9.5409
7	39.6513	7.9622		31.1081	12.3881
8	32.0681	13.2089		21.9649	14.6681
9	23.6633	15.3903		18.2270	15.9858
11	46.8176	6.3989		39.3135	12.2985
12	3.6934	0.9829		2.8703	1.3454
13	3.9699	0.9246		3.5486	1.3003
10	43.2124	8.7867		37.1243	11.9728

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 11

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-30	-21	67	-13	-49	7	1	-2	5	10	-2	6
2-	-30	100	70	-17	27	26	26	18	2	8	-6	3	7
3-	-21	70	100	1	37	26	37	31	14	13	3	3	12
4-	67	-17	1	100	0	-27	13	7	-4	5	2	-1	9
5-	-13	27	37	0	100	8	31	36	21	16	22	27	18
6-	-49	26	26	-27	8	100	3	6	3	-2	-4	1	2
7-	7	26	37	13	31	3	100	43	41	40	45	23	38
8-	1	18	31	7	36	6	43	100	43	36	37	22	33
9-	-2	2	14	-4	21	3	41	43	100	41	38	16	27
10-	5	8	13	5	16	-2	40	36	41	100	33	12	42
12-	10	-6	3	2	22	-4	45	37	38	33	100	52	26
13-	-2	3	3	-1	27	1	23	22	16	12	52	100	17
11-	6	7	12	9	18	2	38	32	27	42	26	17	100

V.	MEANS	S.D.S
1	3.5282	1.8986
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2352
7	26.0138	10.9357
8	27.7564	14.8077
9	21.3487	15.8330
10	40.6202	10.6971
12	3.3429	1.2211
13	3.7906	1.1199
11	43.6225	10.0837

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 11

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

523 SUBJECTS IN NEAR GROUP
346 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-21	-9	65	-4	-38	14	10	2	12	17	2	10
2-	-40	100	65	-10	21	15	24	13	1	4	-8	3	1
3-	-34	77	100	11	34	18	34	28	16	11	3	1	7
4-	70	-24	-11	100	8	-18	19	16	4	8	8	1	11
5-	-23	35	42	-10	100	0	25	30	17	7	15	23	11
6-	-65	41	37	-39	19	100	-5	-3	-2	-10	-10	-4	-1
7-	-2	31	42	4	36	13	100	39	44	34	44	17	36
8-	-9	24	34	-4	41	15	46	100	42	31	33	16	26
9-	-6	3	12	-12	26	7	39	44	100	44	32	9	29
10-	-5	17	19	-2	24	8	44	41	37	100	29	3	40
12-	2	-3	4	-6	29	3	43	39	45	36	100	41	26
13-	-8	3	6	-6	30	7	27	26	23	21	64	100	15
11-	2	13	17	7	25	4	40	39	24	43	25	18	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.5956	1.7325		3.4249	2.1210
2	4.3250	1.4079		4.4653	1.8421
3	49.0459	5.0984		49.2486	6.9719
4	49.8776	6.1769		48.9451	7.7351
5	49.5870	4.3471		48.6821	6.1299
6	49.5258	6.7948		48.7023	10.1099
7	37.6138	9.0834		33.5954	12.8811
8	28.9751	13.6024		25.9393	16.2935
9	21.9962	14.7845		20.3699	17.2517
10	42.4813	8.1647		37.8064	13.1709
12	3.4742	1.0388		3.1445	1.4313
13	3.8891	0.9455		3.6416	1.3273
11	44.2084	9.4081		42.7370	10.9672

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 11

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

472 SUBJECTS IN NEAR GROUP
397 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-22	-14	63	-9	-39	13	1	0	10	14	-1	8
2-	-40	100	64	-10	19	15	21	11	-5	3	-12	1	0
3-	-29	77	100	9	31	18	30	24	11	7	-3	-2	6
4-	73	-26	-11	100	2	-18	16	5	-1	5	1	-4	9
5-	-18	36	44	-5	100	0	22	28	12	4	12	22	13
6-	-66	42	36	-41	19	100	-5	1	1	-8	-8	-3	-1
7-	0	33	44	6	37	11	100	37	42	32	44	18	35
8-	1	26	35	5	42	8	43	100	41	29	31	16	28
9-	-4	9	16	-9	32	3	38	43	100	41	35	12	28
10-	0	14	19	0	28	2	46	37	40	100	25	3	41
12-	7	0	6	0	31	-2	39	36	41	38	100	41	25
13-	-4	4	6	0	31	4	25	23	20	19	67	100	15
11-	4	14	16	7	22	3	39	35	24	41	24	16	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4979	1.7173		3.5642	2.0933
2	4.4322	1.4540		4.3199	1.7490
3	49.6631	5.4658		48.4887	6.3531
4	49.9576	6.3764		48.9698	7.3481
5	49.9915	4.3001		48.3174	5.8792
6	49.9131	6.5434		48.3476	9.9005
7	38.3771	8.7356		33.2040	12.5104
8	31.1864	12.2482		23.7002	15.8174
9	22.7966	14.8077		19.6272	16.8102
10	43.2648	7.4870		37.4761	12.8697
12	3.5911	0.9830		3.0479	1.3982
13	3.9492	0.9005		3.6020	1.3098
11	44.8008	9.0514		42.2216	11.0251

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 11

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

538 SUBJECTS IN NEAR GROUP
331 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-21	-7	64	-3	-33	13	7	-1	6	13	-1	9
2-	-38	100	64	-13	17	12	24	12	2	5	-7	3	1
3-	-34	76	100	11	32	14	37	30	20	14	7	3	8
4-	69	-21	-9	100	6	-14	19	16	4	5	7	1	11
5-	-24	38	44	-7	100	-3	24	31	16	5	12	22	11
6-	-68	42	40	-41	21	100	-5	-2	-3	-8	-8	-2	-2
7-	-3	32	42	3	36	13	100	43	43	31	45	14	35
8-	-7	24	33	-3	39	12	40	100	42	32	35	14	28
9-	-4	2	11	-12	25	7	38	42	100	46	30	5	30
10-	-1	16	18	0	25	4	42	40	35	100	24	-3	39
12-	5	-5	1	-6	29	0	37	35	44	35	100	33	22
13-	-6	4	5	-6	30	4	27	26	24	22	69	100	12
11-	2	13	17	5	23	5	38	34	22	43	25	19	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6524	1.7629		3.3263	2.0849
2	4.3457	1.4567		4.4381	1.7992
3	48.9275	5.1991		49.4501	6.9141
4	49.9498	6.4161		48.7855	7.4582
5	49.6636	4.4949		48.5166	5.9997
6	49.4126	6.9553		48.8489	10.0687
7	38.1359	8.6064		32.4834	13.1699
8	29.2937	14.0552		25.2840	15.6402
9	22.6654	15.2428		19.2085	16.5253
10	43.3215	7.2172		36.2296	13.5874
12	3.5836	1.0336		2.9517	1.3897
13	3.9442	0.9409		3.5408	1.3240
11	44.7993	9.1042		41.7100	11.2392

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 11

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

484 SUBJECTS IN NEAR GROUP
385 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-24	-12	65	-9	-34	16	-3	1	8	12	-4	8
2-	-37	100	64	-10	19	13	18	11	-7	3	-12	2	0
3-	-30	76	100	10	31	17	29	24	11	6	-2	0	7
4-	69	-26	-10	100	3	-16	19	3	1	5	-1	-4	11
5-	-19	36	43	-7	100	0	21	26	10	1	9	21	13
6-	-69	41	35	-42	17	100	-6	3	1	-9	-6	2	-1
7-	-5	39	46	0	34	11	100	36	41	28	43	16	35
8-	4	25	34	6	39	3	38	100	40	28	30	17	30
9-	-6	9	14	-12	28	2	36	41	100	39	31	6	28
10-	1	15	19	0	25	0	42	33	38	100	21	0	40
12-	9	-2	2	1	29	-8	31	30	41	34	100	34	22
13-	-1	2	3	0	29	-5	24	17	23	19	73	100	12
11-	4	14	14	5	18	1	35	28	21	36	22	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5475	1.7651		3.5039	2.0540
2	4.4339	1.4833		4.3143	1.7260
3	49.6384	5.6743		48.4831	6.1480
4	49.9380	6.3233		48.9636	7.4349
5	50.1673	4.2943		48.0441	5.8471
6	49.8574	7.1120		48.3688	9.4930
7	39.2624	7.9941		31.9299	12.6353
8	31.3802	13.0785		22.5048	15.2272
9	23.7479	14.9837		18.3325	16.3479
10	44.0062	6.9250		36.3636	12.8632
12	3.6380	0.9769		2.9091	1.3521
13	3.9649	0.9095		3.5714	1.3056
11	45.2954	8.6928		41.5195	11.2504

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 12

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-30	-21	67	-13	-49	7	1	-2	5	6	-2	10
2-	-30	100	70	-17	27	26	26	18	2	8	7	3	-6
3-	-21	70	100	1	37	26	37	31	14	13	12	3	3
4-	67	-17	1	100	0	-27	13	7	-4	5	9	-1	2
5-	-13	27	37	0	100	8	31	36	21	16	18	27	22
6-	-49	26	26	-27	8	100	3	6	3	-2	2	1	-4
7-	7	26	37	13	31	3	100	43	41	40	38	23	45
8-	1	18	31	7	36	6	43	100	43	36	33	22	37
9-	-2	2	14	-4	21	3	41	43	100	41	27	16	38
10-	5	8	13	5	16	-2	40	36	41	100	42	12	33
11-	6	7	12	9	18	2	38	33	27	42	100	17	26
13-	-2	3	3	-1	27	1	23	22	16	12	17	100	52
12-	10	-6	3	2	22	-4	45	37	28	33	26	52	100

V.	MEANS	S.D.S
1	3.5232	1.8986
2	4.3809	1.5965
3	49.1266	5.9169
4	49.5053	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
7	36.0138	10.9357
8	27.7564	14.9077
9	21.3437	15.8330
10	40.6202	10.6971
11	43.6225	10.0837
13	3.7906	1.1199
12	3.3429	1.2211

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 12

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

518 SUBJECTS IN NEAR GROUP
351 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-22	-10	63	-5	-37	11	7	0	8	3	3	17
2-	-39	100	64	-10	19	16	23	13	-1	5	6	1	-10
3-	-32	77	100	12	33	18	36	30	17	13	12	0	3
4-	71	-24	-12	100	7	-16	16	15	3	7	7	-1	8
5-	-22	37	43	-10	100	1	25	28	17	7	9	21	19
6-	-65	39	36	-40	18	100	-2	-2	-1	-7	1	-5	-9
7-	1	32	41	6	36	9	100	37	43	33	32	18	48
8-	-7	25	34	-5	43	13	45	100	38	29	24	15	36
9-	-4	5	12	-12	25	6	38	47	100	43	26	9	36
10-	0	15	16	-2	25	3	44	42	38	100	32	5	30
11-	9	10	15	8	29	1	40	40	27	50	100	9	19
13-	-9	6	7	-4	33	9	25	25	22	17	24	100	49
12-	2	-1	3	-6	23	2	39	35	40	35	32	53	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.6004	1.7631		3.4217	2.0780
2	4.3398	1.4306		4.4416	1.9121
3	49.0154	5.1427		49.2906	6.8990
4	50.0000	6.2174		48.7778	7.6425
5	49.6429	4.4403		48.6125	5.9962
6	49.4382	6.8626		48.8433	10.0117
7	37.9440	8.9183		33.1652	12.8487
8	29.8185	13.3957		24.7379	16.2065
9	22.4015	14.8521		19.7949	17.0604
10	42.7278	7.8037		37.5100	13.3117
11	45.5596	7.4026		40.6296	12.4836
13	3.9054	0.9590		3.6211	1.3037
12	3.4710	1.0959		3.1538	1.3647

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 12

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

484 SUBJECTS IN NEAR GROUP
385 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-23	-13	63	-7	-38	11	2	1	9	7	1	17
2-	-38	100	64	-10	20	16	22	13	-6	3	3	1	-11
3-	-30	78	100	12	32	19	32	26	12	8	7	-1	1
4-	72	-27	-13	100	5	-18	16	7	2	7	9	-4	7
5-	-20	35	43	-9	100	1	25	27	12	7	10	21	18
6-	-65	39	34	-42	18	100	-2	1	0	-8	-1	-4	-8
7-	3	32	42	5	33	6	100	36	42	31	32	19	47
8-	-1	23	34	2	41	7	41	100	39	30	25	18	34
9-	-5	10	15	-12	31	3	38	45	100	41	25	13	37
10-	1	14	17	-2	22	1	45	34	40	100	35	5	30
11-	7	10	16	6	25	1	39	33	27	44	100	10	21
13-	-6	4	5	-1	31	5	20	18	17	12	21	100	51
12-	2	-2	3	-6	24	0	37	33	38	33	29	50	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5145	1.7527		3.5455	2.0673
2	4.4339	1.4523		4.3143	1.7588
3	49.5372	5.4413		48.6104	6.4280
4	49.9297	6.2224		48.9740	7.5425
5	49.9504	4.2878		48.3169	5.9398
6	49.8368	6.6727		48.3948	9.8898
7	38.6405	8.6260		32.7117	12.5225
8	31.5454	12.7248		23.0156	15.8378
9	22.7273	14.7173		19.6156	16.9748
10	43.2789	7.4462		37.2779	12.9816
11	45.8636	7.2233		40.8052	12.2337
13	3.9607	0.9002		3.5764	1.3152
12	3.5207	1.0531		3.1195	1.3718

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 12

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

542 SUBJECTS IN NEAR GROUP
327 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-20	-6	65	-3	-31	10	5	-5	0	-1	3	16
2-	-39	100	61	-12	16	13	19	7	-6	2	4	3	-12
3-	-33	77	100	14	33	16	34	26	14	10	10	3	4
4-	68	-21	-10	100	7	-13	16	16	-2	3	5	2	11
5-	-24	37	42	-9	100	-2	25	26	13	8	10	20	19
6-	-69	40	36	-41	20	100	-2	-2	0	-6	0	-4	-8
7-	-2	36	43	4	33	9	100	36	42	28	28	20	47
8-	-8	28	35	-5	42	12	43	100	33	25	24	16	35
9-	-3	8	15	-9	27	5	38	47	100	45	25	5	34
10-	2	19	20	-1	21	3	42	41	35	100	26	1	27
11-	5	14	19	6	26	3	38	35	25	44	100	6	17
13-	-19	3	3	-8	32	7	21	22	23	17	26	100	45
12-	1	-1	2	-9	23	0	37	33	39	34	29	56	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.7048	1.7859		3.2355	2.0385
2	4.3708	1.4957		4.3976	1.7508
3	49.1458	5.5800		49.0948	6.4362
4	50.1273	6.3749		48.4771	7.4718
5	49.6513	4.5981		48.5229	5.8877
6	49.3026	6.9275		49.0245	10.1406
7	38.4354	8.8837		32.0000	12.6952
8	30.3284	13.9619		23.5199	15.1883
9	23.0184	15.2760		18.5810	16.3439
10	43.7159	7.0526		35.4893	13.3947
11	46.7417	6.0752		38.4526	12.9913
13	3.9096	0.9725		3.5933	1.3050
12	3.5221	1.1029		3.0459	1.3436

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 12

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

502 SUBJECTS IN NEAR GROUP
367 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-23	-12	63	-9	-34	12	-2	-2	7	8	-1	15
2-	-38	100	64	-9	20	14	21	13	-8	2	2	0	-13
3-	-30	76	100	12	32	19	31	24	9	5	6	-2	-2
4-	71	-27	-12	100	3	-13	17	3	-1	3	8	-7	3
5-	-18	33	41	-7	100	2	23	26	9	1	5	20	15
6-	-68	29	32	-45	14	100	-3	3	1	-8	-3	-1	-7
7-	2	33	42	2	31	4	100	33	39	25	24	17	44
8-	3	22	34	4	39	2	38	100	35	23	20	15	33
9-	-3	10	16	-10	28	0	38	44	100	39	20	5	31
10-	3	15	19	0	24	-2	44	35	38	100	27	-1	24
11-	5	12	16	4	26	0	42	30	28	45	100	4	15
13-	-4	5	5	2	29	-1	18	17	22	15	23	100	45
12-	5	-2	3	-3	22	-6	35	29	40	33	27	55	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5498	1.7810		3.4986	2.0483
2	4.4422	1.4694		4.2970	1.7521
3	49.6115	5.6701		48.4632	6.1771
4	50.0339	6.3019		49.7847	7.4866
5	50.0558	4.4189		48.0926	5.8209
6	49.8505	7.1071		48.2915	9.5931
7	39.2868	8.3762		31.5368	12.3493
8	32.0956	12.9892		21.8447	15.0899
9	23.8127	15.3802		17.9782	15.8226
10	44.0518	7.0327		35.9264	12.9514
11	46.9283	6.0425		39.1008	12.4670
13	3.9900	0.9179		3.5177	1.2994
12	3.6076	1.0597		2.9809	1.3297

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 13

ALL 869 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-30	-21	67	-13	-49	7	1	-2	5	6	10	-2
2-	-30	100	70	-17	27	26	26	18	2	8	7	-6	3
3-	-21	70	100	1	37	26	37	31	14	13	12	3	3
4-	67	-17	1	100	0	-27	13	7	-4	5	9	2	-1
5-	-13	27	37	0	100	8	31	36	21	16	18	22	27
6-	-49	26	26	-27	8	100	3	6	3	-2	2	-4	1
7-	7	26	37	13	31	3	100	43	41	40	38	45	23
8-	1	18	31	7	36	6	43	100	43	36	33	37	22
9-	-2	2	14	-4	21	3	41	43	100	41	27	38	16
10-	5	8	13	5	16	-2	40	36	41	100	42	33	12
11-	6	7	12	9	18	2	38	33	27	42	100	26	17
12-	10	-6	3	2	22	-4	45	37	38	33	26	100	52
13-	-2	2	3	-1	27	1	23	22	16	12	17	52	100

V.	MEANS	S.D.S
1	3.5282	1.8936
2	4.3809	1.5965
3	49.1266	5.9168
4	49.5063	6.8552
5	49.2267	5.1507
6	49.1979	8.2852
7	36.0138	10.9357
8	27.7664	14.8077
9	21.3487	15.8330
10	40.6202	10.6971
11	43.6225	10.0837
12	3.3429	1.2211
13	3.7906	1.1199

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 13

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

517 SUBJECTS IN NEAR GROUP
352 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-21	-10	64	-4	-38	14	10	2	10	6	17	8
2-	-41	100	64	-10	17	16	22	12	-3	5	6	-9	-3
3-	-33	78	100	11	31	19	33	28	14	12	11	2	-5
4-	70	-24	-11	100	7	-17	17	16	2	8	9	9	4
5-	-23	38	45	-8	100	0	24	28	15	8	11	18	21
6-	-64	39	34	-39	18	100	-4	-3	-2	-9	-2	-8	-6
7-	-1	33	43	5	38	10	100	37	42	33	32	44	20
8-	-9	26	35	-5	43	14	46	100	37	29	26	32	15
9-	-7	7	15	-11	28	6	40	48	100	42	25	31	7
10-	-2	14	16	-2	24	5	45	42	39	100	30	26	5
11-	6	10	15	6	27	4	42	38	29	53	100	20	13
12-	3	-2	4	-7	26	0	44	39	45	40	31	100	51
13-	-12	9	11	-7	33	8	26	27	24	20	21	52	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5532	1.7358		3.4915	2.1146
2	4.3443	1.4297		4.4347	1.3126
3	49.0580	5.2042		49.2273	6.8286
4	49.8433	6.1387		49.0114	7.7624
5	49.5416	4.4540		48.7642	5.9993
6	49.6209	6.9580		48.5767	9.8849
7	37.7350	9.0457		33.4858	12.8187
8	29.7176	13.3809		24.9006	16.2645
9	22.3095	14.8113		19.9375	17.1267
10	42.6170	8.1047		37.6875	13.0981
11	45.7137	7.2693		40.5511	12.5521
12	3.4545	1.0729		3.1790	1.3937
13	3.9337	1.0497		3.7273	1.2129

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 13

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

477 SUBJECTS IN NEAR GROUP
392 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-23	-15	64	-8	-40	12	2	-2	10	7	11	3
2-	-39	100	63	-10	19	17	21	12	-6	4	3	-10	-2
3-	-27	78	100	10	32	20	30	25	11	8	7	1	-2
4-	71	-27	-11	100	3	-18	17	7	-1	8	9	2	0
5-	-18	37	44	-5	100	1	23	28	12	6	10	16	25
6-	-64	31	33	-40	17	100	-3	3	2	-8	-1	-5	-3
7-	3	33	45	5	38	6	100	36	40	31	31	42	21
8-	2	24	35	4	43	3	42	100	39	29	26	32	19
9-	-1	10	16	-9	30	0	41	44	100	39	23	32	10
10-	3	13	17	-1	25	0	45	38	41	100	32	25	5
11-	9	10	15	7	26	-1	42	33	29	50	100	18	13
12-	12	-3	2	1	26	-8	43	36	43	40	33	100	52
13-	-7	8	7	-3	28	4	22	21	21	17	19	50	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4465	1.7180		3.6276	2.0932
2	4.4332	1.4513		4.3112	1.7540
3	49.5912	5.4345		48.5612	6.4109
4	49.7484	6.1499		49.2117	7.6156
5	49.3218	4.3605		48.5025	5.8923
6	50.0335	6.6543		48.1811	9.8188
7	38.5388	8.5931		32.9413	12.5722
8	31.2998	12.9207		23.4668	15.7879
9	23.0935	14.9204		19.2194	16.7391
10	43.2830	7.6415		37.3801	12.7864
11	45.7766	7.3078		40.9770	12.1521
12	3.5451	1.0118		3.0969	1.3963
13	3.8931	1.0131		3.6658	1.2260

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 13

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

557 SUBJECTS IN NEAR GROUP
312 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-15	-2	65	-2	-31	11	9	-8	2	0	14	4
2-	-41	100	60	-8	15	10	20	4	-5	2	5	-10	-2
3-	-35	78	100	18	32	14	34	24	15	10	11	6	-2
4-	67	-23	-12	100	9	-13	16	23	-1	3	5	13	8
5-	-24	37	42	-10	100	-1	26	28	14	8	10	18	20
6-	-68	41	37	-41	18	100	-4	-4	3	-9	-1	-5	-4
7-	-2	36	43	3	34	10	100	37	43	28	28	46	22
8-	-10	29	36	-9	42	13	43	100	34	27	26	34	12
9-	-1	7	14	-10	26	2	37	47	100	45	24	31	4
10-	0	21	22	-3	22	5	43	41	35	100	25	25	5
11-	3	15	19	3	28	3	38	35	26	44	100	18	11
12-	4	-7	1	-11	24	-3	40	35	41	37	28	100	48
13-	-8	6	6	-9	32	5	23	27	23	18	25	54	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.7056	1.7875		3.2115	2.0444
2	4.3375	1.5280		4.4583	1.7092
3	49.0862	5.6042		49.1987	6.4365
4	50.2029	6.3822		48.2628	7.4671
5	49.5135	4.6065		48.7147	5.9667
6	49.3698	7.1317		48.8910	10.0122
7	38.2585	8.8859		32.0064	12.9256
8	29.8061	14.0674		24.1250	15.3865
9	22.9659	15.0010		18.4615	16.8363
10	43.6517	7.0790		35.2083	13.5483
11	46.7738	5.9709		37.9968	13.0454
12	3.5009	1.0912		3.0609	1.3796
13	3.8402	1.0642		3.7019	1.2089

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 1 VARIABLE 13

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

496 SUBJECTS IN NEAR GROUP
373 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-24	-12	64	-8	-35	12	0	-1	8	6	10	0
2-	-38	100	63	-10	19	16	20	12	-8	2	2	-9	-1
3-	-20	78	100	11	32	19	29	25	9	7	6	1	-2
4-	71	-25	-12	100	2	-15	17	6	-1	4	7	0	-2
5-	-1?	36	42	-6	100	3	24	28	12	5	9	16	23
6-	-67	39	33	-43	14	100	-3	2	2	-9	-1	-3	0
7-	1	35	45	2	33	6	100	34	40	28	27	43	21
8-	2	24	35	2	39	4	40	100	37	24	22	27	14
9-	-3	11	17	-10	27	1	38	44	100	42	23	31	7
10-	2	16	19	-2	22	1	44	35	36	100	30	22	2
11-	9	14	15	6	23	-1	40	30	25	42	100	16	11
12-	11	-5	1	0	22	-9	37	35	41	37	26	100	48
13-	-4	6	5	-3	28	0	19	23	22	17	19	53	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.5282	1.7721		3.5281	2.0548
2	4.4254	1.4724		4.3217	1.7462
3	49.5423	5.6298		48.5737	6.2351
4	50.0706	6.2657		48.7560	7.5028
5	49.9798	4.3925		48.2252	5.8646
6	49.7702	7.0163		48.4370	9.6668
7	38.9912	8.4736		32.1743	12.5422
8	32.0766	12.9284		22.3349	15.1995
9	23.5242	15.0987		18.4557	16.3164
10	43.0698	6.9455		36.1662	12.9494
11	46.7681	6.0970		39.4397	12.5221
12	3.6109	1.0317		2.9866	1.3551
13	3.9214	1.0060		3.6166	1.2342

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 7

ALL 359 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-37	-21	70	-3	-51	9	0	12	8	16	4	19
2-	-37	100	72	-32	27	23	19	11	0	2	-4	3	20
3-	-21	72	100	-3	43	21	34	19	11	9	10	11	36
4-	70	-32	-3	100	5	-26	15	-4	3	5	10	4	11
5-	-3	27	43	5	100	6	30	25	16	14	26	30	31
6-	-51	23	21	-26	6	100	-5	-4	-5	0	-6	-1	1
8-	9	19	34	15	39	-5	100	35	26	23	37	22	35
9-	0	11	19	-4	25	-4	35	100	43	28	33	14	37
10-	12	0	11	3	16	-5	26	43	100	37	41	17	39
11-	8	2	9	5	14	0	23	28	37	100	32	18	34
12-	16	-4	10	10	26	-6	37	33	41	32	100	53	45
13-	4	3	11	4	30	-1	22	14	17	18	53	100	23
7-	19	20	36	11	31	1	35	37	39	34	45	23	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3883
4	40.5413	7.1912
5	49.8304	5.0895
6	49.7520	8.3863
8	31.8847	14.0490
9	22.5849	15.8591
10	41.7274	10.3501
11	43.5622	10.0679
12	3.6123	1.1630
13	3.9581	1.0329
7	37.4377	10.1965

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 7

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

513 SUBJECTS IN NEAR GROUP
346 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-34	-20	67	-13	-38	3	-7	13	8	10	-2	13
2-	-40	100	71	-27	29	13	23	12	-7	1	-4	0	20
3-	-21	72	100	-6	43	16	34	15	3	9	8	7	36
4-	76	-38	-10	100	-1	-12	7	-11	4	1	1	-4	12
5-	-3	26	44	10	100	5	36	17	5	1	20	24	29
6-	-64	36	28	-44	6	100	-7	-3	-8	-2	-3	0	2
8-	19	14	33	20	40	-7	100	22	15	16	33	18	27
9-	8	11	23	9	31	-7	44	100	37	23	25	5	30
10-	14	9	22	7	23	-6	35	47	100	28	37	8	30
11-	11	3	10	6	28	-1	27	33	41	100	26	11	29
12-	25	-5	13	17	30	-14	37	39	41	33	100	40	44
13-	13	6	17	11	34	-5	22	20	22	22	67	100	18
7-	9	21	36	6	31	-2	39	41	46	37	42	26	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.2534	1.7556		3.3757	2.2108
2	4.6277	1.4169		4.6012	1.9331
3	50.6794	5.4943		50.5405	7.5193
4	50.1520	6.4206		49.6353	8.1173
5	50.5244	4.1760		48.9480	6.0791
6	50.2159	7.2559		48.9162	9.7661
8	33.9240	12.1323		29.8613	16.0147
9	24.0916	15.1634		20.3757	16.5912
10	43.2382	8.0160		38.7717	12.4642
11	45.4756	7.2456		40.7254	12.6426
12	3.3270	0.9752		3.2237	1.3443
13	4.0859	0.8541		3.7688	1.2277
7	38.7193	9.4000		35.5276	10.9916

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 7

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

495 SUBJECTS IN NEAR GROUP
364 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-35	-19	67	-15	-39	1	-6	11	5	9	-2	12
2-	-40	100	72	-30	29	13	26	15	-2	5	0	3	23
3-	-23	72	100	-6	45	15	38	19	11	14	14	11	40
4-	75	-34	-8	100	0	-14	8	-11	4	0	3	-2	11
5-	0	26	42	11	100	6	37	13	9	5	22	26	30
6-	-65	38	33	-43	6	100	-7	-5	-7	0	-2	0	2
8-	18	12	31	21	42	-4	100	23	19	18	35	19	31
9-	7	7	22	2	32	-4	46	100	40	27	27	6	34
10-	15	6	18	9	23	-5	36	45	100	28	40	11	35
11-	13	0	8	8	26	-4	29	29	44	100	28	12	32
12-	25	-9	3	17	30	-12	38	38	39	32	100	42	47
13-	11	4	15	10	34	-3	23	20	22	23	66	100	22
7-	9	19	35	8	31	-1	37	39	44	36	40	23	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3313	1.7741		3.2775	2.1719
2	4.5374	1.3803		4.7253	1.9413
3	50.1050	5.0816		51.3269	7.7672
4	50.1394	6.3210		48.7280	8.1582
5	50.2000	4.1772		49.3324	6.0712
6	50.1677	7.3288		49.1863	9.6112
8	33.0202	12.5150		30.3407	15.7687
9	23.7556	14.8179		21.0165	17.0473
10	43.7192	8.0586		39.1841	12.3547
11	45.7030	6.9328		40.6511	12.5961
12	3.7535	0.9908		3.4203	1.3391
13	4.0566	0.8767		3.8242	1.2007
7	38.3151	9.4336		36.2445	11.0393

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 7

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

532 SUBJECTS IN NEAR GROUP
327 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-35	-23	66	-20	-35	-4	-5	14	7	9	-7	16
2-	-39	100	71	-29	32	9	25	10	-6	1	-2	4	17
3-	-18	73	100	-3	45	15	34	11	4	9	10	7	34
4-	76	-36	-8	100	-8	-9	-2	-15	2	-4	-6	-12	10
5-	4	23	41	14	100	9	32	14	4	-2	17	21	27
6-	-67	39	27	-46	1	100	-9	-6	-11	-4	-3	5	-1
8-	21	15	34	24	42	-6	100	21	15	11	33	15	27
9-	4	12	25	-2	30	-5	41	100	39	25	26	1	31
10-	12	8	20	4	20	-5	28	42	100	24	35	3	32
11-	11	3	10	5	29	-1	26	25	37	100	21	6	25
12-	25	-8	10	18	29	-15	32	33	35	29	100	32	46
13-	15	1	15	14	35	-10	21	18	23	23	71	100	14
7-	6	25	39	6	30	1	35	38	40	37	36	26	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3139	1.8119		3.2844	2.1621
2	4.6147	1.4543		4.6208	1.9132
3	50.7237	5.7190		50.4587	7.3459
4	50.3929	6.7033		49.1560	7.7228
5	50.5752	4.2692		48.7737	6.0313
6	50.2575	7.3590		43.9297	9.7754
8	34.5257	12.2050		27.5719	15.6877
9	24.3117	15.4150		19.8257	15.8484
10	44.4756	7.5397		37.4404	12.5806
11	46.2638	6.5000		39.1599	12.9724
12	3.8316	0.9671		3.1743	1.3122
13	4.1165	0.8636		3.7003	1.2174
7	39.1259	9.0695		34.6911	11.2744

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 7

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

530 SUBJECTS IN NEAR GROUP
329 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	8	9	10	11	12	13	7
1-	100	-32	-13	70	-14	-35	5	-5	12	5	11	-1	17
2-	-41	100	68	-32	29	9	22	13	-4	2	0	5	18
3-	-27	76	100	-5	46	12	35	17	12	15	17	14	36
4-	71	-31	-9	100	-3	-10	9	-11	4	-2	4	-3	12
5-	-3	27	42	11	100	7	33	15	9	5	23	28	28
6-	-67	40	32	-44	5	100	-11	-7	-11	-4	-5	1	-1
8-	12	18	35	13	45	-1	100	19	19	18	36	22	31
9-	3	11	24	-2	31	-4	45	100	42	25	23	1	34
10-	10	9	19	4	20	-4	31	39	100	21	37	8	34
11-	10	5	12	5	25	-1	26	25	36	100	25	10	28
12-	19	-7	7	12	23	-10	35	37	37	28	100	37	46
13-	8	1	9	3	30	-5	19	21	21	23	67	100	19
7-	2	26	40	5	33	1	35	36	37	34	28	23	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3396	1.8130		3.1611	2.1512
2	4.5566	1.4710		4.7143	1.3867
3	50.2962	5.6328		51.1489	7.4154
4	50.1820	6.6033		48.5076	7.9402
5	50.2472	4.4170		49.3131	5.9717
6	50.1698	7.2582		49.0790	9.9010
8	33.2057	12.9150		29.7568	15.4680
9	24.3887	15.3073		18.8997	16.0339
10	44.3755	7.0403		36.8389	12.6487
11	46.7755	5.8912		38.3360	12.8371
12	3.8189	1.0137		3.2796	1.3026
13	4.0642	0.9005		3.7972	1.1966
7	39.0472	8.0487		34.8450	11.4693

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 8

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-37	-21	70	-8	-51	10	0	12	8	16	4	9
2-	-37	100	72	-32	27	23	20	11	0	2	-4	3	19
3-	-21	72	100	-8	43	21	36	19	11	9	10	11	34
4-	70	-32	-8	100	5	-26	11	-4	8	5	10	4	15
5-	-8	27	43	5	100	6	31	25	16	14	26	30	39
6-	-51	23	21	-26	6	100	1	-4	-5	0	-6	-1	-5
7-	10	20	36	11	31	1	100	37	39	34	45	23	35
9-	0	11	19	-4	25	-4	37	100	43	28	33	14	35
10-	12	0	11	8	16	-5	39	43	100	37	41	17	26
11-	8	2	9	5	14	0	34	28	37	100	32	18	23
12-	16	-4	10	10	26	-6	45	33	41	32	100	53	37
13-	4	3	11	4	30	-1	23	14	17	18	53	100	22
8-	9	19	34	15	39	-5	35	35	26	23	37	22	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.4170	1.6445
3	50.6228	6.3883
4	40.5413	7.1912
5	49.3824	5.0895
6	49.7520	8.3863
7	37.4377	10.1065
9	22.5940	15.8591
10	41.7974	10.3501
11	43.5623	10.0577
12	3.6123	1.1630
13	3.9581	1.0329
8	31.8847	14.0490

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 8

CALIBRATION ** ITERATION = NINE
SPLIT = MEAN D SQUARE

514 SUBJECTS IN NEAR GROUP
345 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-34	-20	67	-13	-39	14	-4	14	8	11	-1	5
2-	-39	100	72	-23	29	16	15	14	-2	2	-3	1	26
3-	-22	72	100	-7	44	15	32	18	9	10	11	9	40
4-	75	-35	-8	100	-1	-14	12	-11	5	0	1	-3	8
5-	-3	28	44	9	100	6	26	16	7	2	20	25	30
6-	-64	34	29	-42	7	100	-2	-3	-7	-2	-5	0	-9
7-	4	30	45	2	34	5	100	32	29	24	44	16	32
9-	4	10	22	-1	32	-7	41	100	40	23	29	5	28
10-	10	7	15	4	21	-6	46	44	100	28	37	6	23
11-	8	5	12	5	27	2	41	32	39	100	26	11	22
12-	21	-3	13	15	30	-9	38	34	36	29	100	40	38
13-	9	8	16	8	32	-3	26	19	22	20	65	100	21
8-	12	14	29	17	38	-2	33	28	25	19	32	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3502	1.7704		3.2319	2.1945
2	4.5467	1.2780		4.7217	1.9703
3	50.4105	5.4270		50.9391	7.5871
4	50.2113	6.5515		48.3942	7.9127
5	50.4514	4.2277		49.0522	6.0575
6	49.9404	7.1503		42.4580	9.9393
7	39.3112	8.1982		34.6464	12.0711
9	24.2082	14.8323		20.1913	16.9944
10	44.1829	7.6559		38.2435	12.5915
11	45.6302	7.1626		40.4812	12.6324
12	3.8463	0.9652		3.2638	1.3339
13	4.1187	0.8459		3.7188	1.2226
8	33.6234	12.9231		29.2369	15.2099

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 3

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

505 SUBJECTS IN NEAR GROUP
354 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-36	-13	67	-13	-38	13	-4	12	5	9	-3	5
2-	-37	100	72	-32	30	17	19	18	2	5	0	1	28
3-	-24	72	100	-6	47	15	37	23	14	15	16	11	42
4-	75	-30	-7	100	2	-12	12	-9	5	-1	3	-3	9
5-	-3	26	41	7	100	7	28	20	13	6	22	26	40
6-	-66	34	32	-44	4	100	0	-2	-7	1	-1	3	-8
7-	7	27	42	6	34	2	100	32	33	27	44	17	32
9-	4	5	13	-1	29	-8	42	100	43	27	28	6	33
10-	13	3	16	5	16	-7	43	42	100	29	42	10	28
11-	12	2	11	8	26	-4	41	29	40	100	29	12	24
12-	23	-7	3	16	39	-14	42	37	35	29	100	41	39
13-	12	7	16	10	34	-7	28	20	21	22	66	100	23
8-	13	11	28	10	39	-3	36	35	23	20	33	18	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3624	1.7892		3.2175	2.1617
2	4.4733	1.3364		4.8220	1.9857
3	49.8832	4.9441		51.6780	7.8907
4	50.2009	6.4224		48.5876	8.0681
5	50.1842	4.2196		49.4680	6.0953
6	50.0950	7.2363		49.2627	9.7753
7	38.7030	8.5682		35.6328	11.9171
9	23.7406	14.6694		20.9604	17.2854
10	43.8350	7.8444		38.8051	12.5272
11	45.5742	7.1212		40.6921	12.6142
12	3.7762	0.9229		3.3785	1.3354
13	4.0634	0.8900		3.8079	1.1919
8	32.3391	13.0787		30.4520	15.2130

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 8

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

545 SUBJECTS IN NEAR GROUP
314 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-36	-23	55	-24	-35	17	-3	14	6	9	-9	-3
2-	-38	100	71	-29	31	13	10	10	-6	0	-2	6	25
3-	-19	73	100	-10	44	14	29	16	7	7	12	12	40
4-	75	-34	-6	100	-11	-9	10	-12	2	-5	-7	-11	-3
5-	5	25	43	14	100	11	23	12	2	-4	18	25	37
6-	-65	35	28	-42	1	100	-7	-4	-11	-3	-3	8	-5
7-	1	39	48	2	34	9	100	31	24	18	44	11	30
9-	1	14	22	-5	32	-5	37	100	40	24	28	-1	26
10-	3	11	19	0	23	-1	43	41	100	24	32	-1	19
11-	7	8	15	5	32	2	41	27	32	100	21	6	17
12-	21	-3	10	15	28	-11	32	31	34	27	100	29	34
13-	14	1	11	11	30	-12	26	19	24	20	71	100	18
8-	16	16	30	21	38	-7	31	36	22	19	32	18	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3908	1.8293		3.1497	2.1415
2	4.5570	1.4500		4.7038	1.9332
3	50.6229	5.8383		50.6242	7.2436
4	50.4752	6.9165		47.9204	7.3683
5	50.4844	4.3729		48.8567	5.9991
6	49.9431	7.3566		49.4204	9.9144
7	39.8537	7.8523		33.2357	12.2301
9	24.3982	15.4889		18.7516	15.7609
10	44.8579	7.2089		36.4681	12.5736
11	46.1302	6.5917		39.3000	12.0816
12	3.9963	0.9649		3.9987	1.2917
13	4.1321	0.8615		3.6561	1.2193
8	34.1679	13.1122		27.9236	14.7244

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 8

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

543 SUBJECTS IN NEAR GROUP
316 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	9	10	11	12	13	8
1-	100	-32	-15	69	-15	-34	16	-5	12	6	11	-2	4
2-	-40	100	69	-33	28	11	15	16	0	4	0	4	25
3-	-25	74	100	-6	46	12	24	22	14	14	18	14	39
4-	71	-30	-3	100	-3	-9	12	-10	5	0	4	-2	6
5-	-3	28	42	12	100	8	26	16	10	5	23	28	36
6-	-67	37	32	-44	4	100	-2	-6	-11	-3	-5	3	-10
7-	2	33	46	4	36	4	100	33	23	23	44	17	33
9-	2	10	20	-3	31	-4	36	100	42	26	26	2	28
10-	10	8	18	2	21	-3	42	40	100	21	37	5	25
11-	7	3	15	2	27	1	37	25	36	100	23	7	24
12-	10	-5	8	12	28	-10	37	34	36	29	100	34	40
13-	8	3	11	7	30	-6	24	20	22	25	60	100	25
8-	12	16	32	10	42	-2	34	37	23	18	32	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4070	1.3503		3.1234	2.1050
2	4.5138	1.4525		4.7943	1.9173
3	50.1731	5.6268		51.3956	7.4556
4	50.1308	6.6775		48.5285	7.8950
5	50.1179	4.4466		49.4268	6.0161
6	50.0487	7.3472		49.2405	9.9001
7	39.4070	9.2980		34.0538	12.0909
9	24.6189	15.2439		19.1202	16.2892
10	44.2905	7.1175		36.6234	12.7209
11	46.5617	6.2016		36.4082	12.9182
12	3.8232	1.0037		3.2500	1.3184
13	4.0563	0.8977		3.7722	1.2086
8	33.1326	13.2203		29.7405	15.1171

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 9

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-37	-21	70	-8	-51	10	9	12	8	16	4	0
2-	-37	100	72	-32	27	23	20	19	0	2	-4	3	11
3-	-21	72	100	-8	43	21	36	34	11	9	10	11	19
4-	70	-32	-8	100	5	-26	11	15	8	5	10	4	-4
5-	-8	27	43	5	100	6	31	39	16	14	26	30	25
6-	-51	23	21	-26	6	100	1	-5	-5	0	-6	-1	-4
7-	10	20	36	11	31	1	100	35	39	34	45	23	37
8-	9	19	34	15	39	-5	35	100	26	23	37	22	35
10-	12	0	11	8	16	-5	39	26	100	37	41	17	43
11-	8	2	9	5	14	0	34	23	37	100	32	13	28
12-	16	-4	10	10	26	-6	45	37	41	32	100	53	33
13-	4	3	11	4	30	-1	23	22	17	13	53	100	14
9-	0	11	19	-4	25	-4	37	35	43	28	33	14	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6229	6.3883
4	49.5413	7.1912
5	49.8304	5.0995
6	49.7520	8.3363
7	37.4377	10.1965
8	31.3847	14.0490
10	41.7974	10.3501
11	43.5423	10.0579
12	3.6123	1.1630
13	3.9581	1.0229
9	22.5949	15.8591

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 9

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

518 SUBJECTS IN NEAR GROUP
341 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-35	-20	66	-17	-39	15	1	15	7	11	-2	-3
2-	-38	100	71	-29	30	14	14	25	-5	2	-3	2	13
3-	-22	73	100	-6	44	16	30	36	5	9	8	8	16
4-	76	-36	-10	100	-6	-12	11	2	2	-2	-2	-7	-12
5-	1	26	43	11	100	8	22	33	3	-1	15	22	15
6-	-64	35	27	-44	2	100	-3	-7	-9	-3	-6	0	-6
7-	5	31	45	1	35	4	100	25	28	22	41	16	32
8-	18	14	32	21	41	-7	37	100	16	11	31	17	28
10-	9	9	19	4	22	-4	43	28	100	26	36	7	41
11-	10	3	10	5	26	1	41	27	40	100	22	9	24
12-	22	-5	12	15	31	-11	37	33	34	30	100	37	25
13-	11	4	14	9	33	-5	23	19	19	19	67	100	3
9-	3	11	22	-4	29	-4	37	35	40	28	32	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3340	1.7778		3.2551	2.1909
2	4.3927	1.4177		4.6540	1.9383
3	50.7471	5.5785		50.4340	7.4479
4	50.4923	6.5888		48.0968	7.8013
5	50.6834	4.1946		48.6833	6.0093
6	50.1158	7.2547		49.1994	9.8341
7	39.6429	8.1220		34.0880	11.9620
8	34.7304	11.8899		27.5484	15.8525
10	44.2059	7.7277		37.9883	12.4531
11	45.9232	7.0163		39.9531	12.5877
12	3.8996	0.9390		3.1760	1.3236
13	4.1313	0.8418		3.6950	1.2233
9	25.2006	15.6173		18.9267	15.5164

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 9

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

511 SUBJECTS IN NEAR GROUP
348 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-36	-19	68	-15	-38	14	5	13	7	12	-1	-3
2-	-37	100	70	-32	29	16	15	22	-3	2	-2	1	14
3-	-22	74	100	-7	47	17	34	37	11	12	14	11	20
4-	74	-30	-6	100	-1	-13	12	10	4	0	5	-1	-12
5-	-1	27	41	10	100	8	28	33	9	4	22	27	19
6-	-66	34	29	-44	3	100	-2	-3	-9	-2	-4	1	-5
7-	5	32	46	3	33	3	100	27	31	25	44	20	34
8-	13	17	33	17	38	-4	41	100	22	18	35	20	29
10-	11	9	13	6	21	-6	43	29	100	28	41	10	44
11-	10	7	12	5	27	-1	40	27	40	100	27	11	25
12-	20	-5	10	12	29	-12	39	37	34	29	100	41	33
13-	9	6	14	7	32	-5	22	21	20	22	65	100	3
9-	3	11	22	-2	28	-6	37	37	33	27	29	15	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3542	1.7766		3.2270	2.1834
2	4.5284	1.3816		4.7471	1.9603
3	50.1605	5.1957		51.3017	7.7666
4	50.2111	6.3720		48.4109	8.1166
5	50.3131	4.2334		49.2672	6.0804
6	50.2250	7.2769		49.0575	9.7486
7	30.2857	9.3035		24.7241	11.9583
8	33.2466	12.4617		29.8451	15.3825
10	44.0352	7.7799		38.5115	12.5459
11	45.8630	6.9621		40.1829	12.6232
12	3.8004	0.9729		3.3362	1.3494
13	4.0704	0.8797		3.7931	1.2043
9	24.8943	15.4688		19.3506	15.3674

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 9

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

534 SUBJECTS IN NEAR GROUP
325 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-26	-22	66	-23	-36	18	-3	14	7	9	-7	-5
2-	-38	100	69	-30	28	9	10	25	-10	-2	-5	3	9
3-	-20	75	100	-9	41	11	29	34	1	4	7	8	14
4-	75	-35	-9	100	-11	-8	11	-5	1	-4	-7	-11	-15
5-	4	27	45	13	100	3	20	32	0	-8	15	23	14
6-	-66	38	30	-45	3	100	-7	-8	-12	-4	-5	6	-8
7-	0	36	45	-1	35	9	100	26	25	17	41	14	31
8-	10	15	33	23	40	-6	29	100	16	11	31	17	27
10-	9	12	20	3	21	-1	40	21	100	24	34	3	42
11-	8	7	13	3	31	2	39	20	32	100	19	5	23
12-	22	-5	10	15	27	-11	31	29	31	26	100	32	30
13-	14	2	12	11	31	-10	22	16	20	21	71	100	3
9-	2	14	21	-4	27	-3	35	33	36	24	26	15	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3670	1.8165		3.1969	2.1536
2	4.3236	1.4734		4.6062	1.8922
3	50.9401	5.9856		50.1015	6.9684
4	50.5094	6.7919		47.9508	7.5376
5	50.7060	4.4210		48.5477	5.7839
6	50.0431	7.2339		49.2738	9.8563
7	40.2079	7.5567		32.8861	12.1509
8	35.0506	12.0855		26.5831	15.4327
10	44.7378	7.4113		36.9661	12.4632
11	46.5056	6.3737		38.7262	12.7673
12	3.9345	0.9369		3.0831	1.2979
13	4.1330	0.8497		3.6708	1.2251
9	25.4026	15.5950		17.9815	15.1963

JJB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 9

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

548 SUBJECTS IN NEAR GROUP
311 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	10	11	12	13	9
1-	100	-29	-14	67	-17	-34	17	2	11	4	15	2	-3
2-	-41	100	68	-30	30	9	15	23	-1	7	0	3	14
3-	-25	75	100	-4	45	13	35	34	13	17	15	12	22
4-	72	-32	-9	100	-4	-7	14	4	4	-3	7	1	-12
5-	-2	27	43	11	100	10	26	33	9	4	22	28	21
6-	-66	37	30	-44	2	100	-1	-9	-10	-3	-5	2	-9
7-	9	33	45	1	34	2	100	28	28	22	44	18	35
8-	13	19	36	20	44	-3	38	100	23	20	37	22	30
10-	3	11	19	1	19	-4	39	26	100	19	38	6	44
11-	6	8	12	2	25	1	34	23	32	100	24	8	22
12-	14	-4	10	9	28	-9	38	34	33	25	100	34	31
13-	4	5	13	3	30	-4	22	19	19	22	68	100	3
9-	-1	14	21	-5	25	-3	33	35	36	24	29	16	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4380	1.8713		3.0643	2.0670
2	4.4027	1.5024		4.8360	1.8485
3	50.2409	5.7070		51.2959	7.3905
4	50.2883	6.8020		48.2251	7.6546
5	50.2354	4.4714		49.2797	5.9773
6	49.9836	7.3926		49.3440	9.8842
7	39.4380	8.2348		33.8232	12.1326
8	33.1378	13.0599		29.5834	15.3739
10	44.6788	6.9406		36.2797	12.7782
11	46.9179	5.7717		37.6495	12.8807
12	3.3393	1.0066		2.2283	1.3113
13	4.0493	0.8965		3.7423	1.2075
9	25.2669	15.6236		17.8971	15.1652

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 10

ALL 850 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-37	-21	70	-8	-51	10	9	0	8	16	4	12
2-	-37	100	72	-32	27	23	20	19	11	2	-4	3	0
3-	-21	72	100	-3	43	21	36	34	19	9	10	11	11
4-	70	-32	-3	100	5	-26	11	15	-4	5	10	4	3
5-	-8	27	43	5	100	6	31	30	25	14	26	30	16
6-	-51	23	21	-26	6	100	1	-5	-4	0	-6	-1	-5
7-	10	20	36	11	31	1	100	35	37	34	45	23	39
8-	9	19	34	15	30	-5	35	100	35	23	37	22	26
9-	0	11	19	-4	25	-4	37	35	100	28	33	14	43
11-	8	2	9	5	14	0	34	23	28	100	32	18	37
12-	16	-4	10	10	26	-6	45	37	33	32	100	53	41
13-	4	3	11	4	30	-1	23	22	14	18	53	100	17
10-	12	0	11	3	16	-5	39	26	43	37	41	17	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3383
4	40.5413	7.1912
5	40.2324	5.0895
6	40.7520	8.3863
7	37.4277	10.1965
8	21.8847	14.0490
9	22.5240	15.8591
11	43.5523	10.0579
12	3.6123	1.1630
13	3.9581	1.0329
10	41.7074	10.3501

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 10

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

507 SUBJECTS IN NEAR GROUP
352 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-35	-20	67	-14	-38	16	3	-4	6	10	-4	12
2-	-39	100	72	-28	27	15	14	23	12	1	-5	-1	-2
3-	-22	72	100	-6	42	16	31	36	15	9	9	6	9
4-	75	-33	-10	100	-1	-13	14	6	-10	-1	1	-6	3
5-	-2	29	45	3	100	6	23	34	17	0	13	21	10
6-	-66	35	23	-44	4	100	-3	-6	-3	-1	-6	1	-6
7-	3	31	46	-1	36	4	100	26	31	23	43	15	38
8-	16	15	32	13	41	-9	37	100	24	14	33	15	24
9-	5	11	23	-3	29	-7	41	42	100	24	29	7	41
11-	11	2	11	5	29	-3	41	26	31	100	23	9	33
12-	23	-3	12	14	25	-11	37	34	33	32	100	38	44
13-	13	8	17	10	35	-6	25	22	16	22	67	100	10
10-	12	2	13	8	16	-7	35	23	42	35	32	18	100

	NEAR			FAR	
V.	MEANS	S.D.S	**	MEANS	S.D.S
1	3.3333	1.7657		3.2585	2.1934
2	4.3193	1.3757		4.6133	1.9681
3	50.6903	5.4783		50.5256	7.5063
4	50.3669	6.4697		48.3523	7.9695
5	50.4489	4.2532		48.7954	5.9269
6	50.2071	7.1761		49.0966	9.8351
7	30.6035	8.1055		34.3182	11.9417
8	34.6016	11.9441		27.9715	15.8189
9	24.4319	14.8506		19.9489	16.8601
11	45.7613	7.0187		40.3949	12.6062
12	3.8698	0.9457		3.2415	1.3341
13	4.1243	0.8556		3.7138	1.2051
10	42.3294	9.0386		39.5909	11.6406

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 13

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

500 SUBJECTS IN NEAR GROUP
359 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-37	-19	63	-14	-38	12	6	-5	5	11	1	10
2-	-36	100	71	-32	29	18	19	24	18	3	-3	-1	3
3-	-23	73	100	-7	47	18	37	33	22	13	14	9	16
4-	73	-30	-7	100	1	-13	10	12	-10	0	6	1	4
5-	-1	27	42	9	100	9	27	38	21	5	21	23	15
6-	-67	33	28	-45	0	100	1	-4	-3	1	-1	3	-4
7-	8	27	42	8	35	-2	100	27	32	27	44	18	41
8-	12	15	31	17	41	-8	43	100	25	19	37	19	27
9-	6	4	18	1	28	-7	41	44	100	20	27	6	44
11-	13	5	11	9	26	-7	39	29	27	100	29	12	37
12-	22	-4	19	13	31	-15	43	36	39	31	100	41	49
13-	8	9	17	6	27	-7	27	24	21	25	65	100	15
10-	15	-2	9	9	14	-9	34	25	40	33	30	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3300	1.7678		3.2646	2.1837
2	4.5020	1.2513		4.7772	1.9707
3	49.9620	4.9857		51.5460	7.3455
4	50.1100	6.2640		48.7493	8.2468
5	50.3300	4.2399		49.2758	6.0255
6	50.3300	7.1568		48.9471	9.7894
7	33.9160	9.5140		35.3783	11.8545
8	32.7500	12.6263		30.6797	15.7397
9	23.5980	14.6623		21.0585	17.2717
11	45.5920	7.0327		40.7354	12.6262
12	3.7520	0.9892		3.4178	1.3449
13	4.0440	0.9045		3.8384	1.1785
10	43.0220	9.3634		40.0919	11.3675

JOB SATISFACTION "WHICH CORRELATION" DATA - PART 2 VARIABLE 10

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

535 SUBJECTS IN NEAR GROUP
324 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-37	-22	66	-24	-33	18	-3	-4	5	10	-8	10
2-	-37	100	70	-29	32	12	11	27	7	2	-2	7	-2
3-	-20	74	100	-8	45	13	30	38	11	9	13	12	9
4-	74	-34	-8	100	-12	-9	11	-1	-13	-5	-6	-12	-1
5-	5	25	42	14	100	10	21	30	12	-5	17	23	10
6-	-68	36	29	-45	1	100	-7	-8	-7	-1	-3	8	-5
7-	-1	40	48	-2	34	9	100	25	30	18	44	14	38
8-	18	15	32	20	41	-6	30	100	22	10	34	16	22
9-	2	16	26	-4	29	-4	37	38	100	25	29	3	41
11-	10	5	11	5	29	-2	39	22	25	100	20	5	34
12-	21	-5	7	14	25	-14	27	25	28	26	100	29	44
13-	15	-1	10	13	30	-13	22	17	16	23	75	100	6
10-	13	2	13	8	13	-8	29	19	39	28	27	19	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3813	1.8159		3.1728	2.1533
2	4.5720	1.4436		4.6914	1.9285
3	50.6953	5.8049		50.5031	7.2479
4	50.5299	6.7399		47.9105	7.6041
5	50.7099	4.4073		48.5494	5.8066
6	50.0579	7.3527		49.2469	9.8379
7	40.2159	7.5821		32.8513	12.1224
8	35.1757	11.9154		25.4506	15.5383
9	25.0336	15.4197		18.5679	15.7535
11	46.2262	6.5576		39.1636	12.3992
12	3.9439	0.9195		3.0648	1.3072
13	4.1271	0.8553		3.6790	1.2230
10	43.7551	9.0199		38.5648	11.5280

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 10

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

530 SUBJECTS IN NEAR GROUP
329 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	11	12	13	10
1-	100	-35	-15	69	-14	-34	20	6	0	7	15	0	11
2-	-33	100	69	-32	29	13	13	25	15	3	-2	4	1
3-	-25	75	100	-4	48	14	34	40	20	13	17	14	15
4-	72	-30	-10	100	-1	-9	13	9	-6	-2	6	-2	4
5-	-3	28	41	8	100	3	23	33	17	2	21	26	14
6-	-69	37	32	-47	2	100	-8	-9	-8	-5	-6	5	-7
7-	-2	36	47	2	35	7	100	27	35	23	45	17	43
8-	11	16	30	17	43	-4	38	100	26	17	36	19	28
9-	0	9	21	-5	29	-2	37	40	100	30	29	6	44
11-	8	8	15	6	25	-3	34	25	24	100	24	11	37
12-	16	-4	7	10	27	-11	35	35	25	27	100	35	47
13-	8	2	10	8	31	-9	27	22	18	24	71	100	13
10-	12	2	10	7	12	-7	23	21	39	27	29	17	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3622	1.2089		3.2067	2.1621
2	4.5283	1.4275		4.7590	1.9351
3	50.2326	5.4212		51.2401	7.6544
4	50.1343	6.5622		48.4893	7.9900
5	50.4523	4.4168		48.9818	5.9959
6	50.4075	7.1686		48.6860	9.9513
7	30.6943	8.1229		33.7984	11.9879
8	33.5139	12.7073		27.2523	15.6197
9	22.3943	15.2479		20.3404	16.5515
11	46.5302	6.1223		39.7811	12.9119
12	3.8358	0.9759		3.2523	1.3369
13	4.0453	0.9109		3.8176	1.1915
10	43.4113	8.2149		39.1976	11.4879

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 11

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-37	-21	70	-8	-51	10	9	0	12	16	4	8
2-	-37	100	72	-32	27	23	20	19	11	0	-4	3	2
3-	-21	72	100	-8	43	21	36	34	19	11	10	11	9
4-	70	-32	-8	100	5	-26	11	15	-4	8	10	4	5
5-	-8	27	43	5	100	6	31	39	25	16	26	30	14
6-	-51	23	21	-26	6	100	1	-5	-4	-5	-6	-1	0
7-	10	20	36	11	31	1	100	35	37	39	45	23	34
8-	9	19	34	15	39	-5	35	100	35	26	37	22	23
9-	0	11	19	-4	25	-4	37	35	100	43	33	14	28
10-	12	0	11	8	16	-5	39	26	43	100	41	17	37
12-	16	-4	10	10	26	-6	45	37	33	41	100	53	32
13-	4	3	11	4	30	-1	23	22	14	17	53	100	18
11-	8	2	9	5	14	0	34	23	28	37	32	18	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3883
4	49.5413	7.1912
5	49.3894	5.0895
6	49.7520	8.3863
7	37.4377	10.1965
8	31.9847	14.0490
9	22.5949	15.8591
10	41.7974	10.3501
12	3.6123	1.1630
13	2.9581	1.0329
11	42.5623	10.0579

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 11

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

502 SUBJECTS IN NEAR GROUP
357 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-37	-19	67	-12	-33	11	6	-6	12	11	-1	6
2-	-36	100	72	-32	29	16	19	25	18	-1	-1	2	4
3-	-23	71	100	-7	47	16	36	39	22	11	14	11	14
4-	74	-30	-6	100	3	-13	11	12	-10	4	6	-2	5
5-	-4	27	41	5	100	7	28	40	22	11	23	27	9
6-	-66	35	30	-44	5	100	1	-8	-2	-7	-3	1	1
7-	7	28	43	5	33	0	100	28	33	33	47	20	34
8-	12	13	29	15	38	-3	41	100	27	20	36	20	26
9-	6	4	17	0	28	-7	41	43	100	42	28	6	25
10-	11	6	18	6	29	-4	44	32	43	100	41	9	37
12-	22	-6	9	12	28	-11	39	37	38	37	100	42	34
13-	10	6	16	8	32	-3	24	22	20	23	65	100	15
11-	10	1	5	4	19	-1	32	19	31	35	27	20	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.2825	1.7473		3.1905	2.2046
2	4.4940	1.3236		4.7899	1.9981
3	50.0239	4.9192		51.4650	7.9344
4	50.3605	6.2967		48.3992	8.1490
5	50.2868	4.1593		49.3305	6.1209
6	50.0060	7.3397		49.3049	9.6571
7	33.7271	8.4944		35.6246	11.9015
8	33.0419	12.3237		30.2577	16.0259
9	23.5518	14.5515		21.2493	17.4451
10	43.6514	7.9390		39.1905	12.5501
12	3.7550	0.9787		3.4113	1.3560
13	4.0618	0.8826		3.8123	1.1981
11	44.2300	9.0700		42.6105	11.2331

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 11

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

534 SUBJECTS IN NEAR GROUP
325 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-35	-18	68	-15	-35	18	2	-4	17	13	-4	8
2-	-38	100	70	-27	29	10	12	26	12	-4	-3	5	0
3-	-23	74	100	-5	46	11	31	39	17	7	12	12	11
4-	74	-37	-12	100	-2	-10	11	3	-12	2	-4	-9	2
5-	-3	28	41	6	100	4	23	32	14	6	17	23	2
6-	-67	39	31	-44	7	100	-8	-12	-7	-14	-8	3	0
7-	-1	37	47	-2	34	9	100	26	32	26	46	16	31
8-	15	15	31	17	42	-3	31	100	26	17	33	17	22
9-	3	12	21	-4	30	-4	36	36	100	40	29	3	22
10-	6	8	17	2	17	0	40	20	41	100	36	6	39
12-	19	-4	9	14	23	-9	25	27	30	28	100	30	31
13-	11	1	11	10	31	-7	19	16	16	16	73	100	12
11-	7	5	8	3	23	-1	32	18	31	28	25	19	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3652	1.7904		3.2000	2.1895
2	4.5393	1.4241		4.6954	1.9503
3	50.6635	5.5695		50.5477	7.5424
4	50.5262	6.6557		47.9231	7.7255
5	50.5712	4.3224		48.7692	5.9789
6	50.1404	7.4099		49.1138	9.7477
7	40.9805	7.5629		33.0954	12.2673
8	35.0305	11.6960		26.6338	15.3921
9	24.8296	15.2496		18.9231	16.1549
10	44.6124	7.4271		37.1723	12.5735
12	3.9345	0.9268		3.0831	1.3039
13	4.1348	0.8549		3.6677	1.2180
11	44.7547	8.9074		41.6031	11.4384

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 11

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

531 SUBJECTS IN NEAR GROUP
328 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	12	13	11
1-	100	-33	-13	69	-9	-33	16	6	-5	12	12	-2	9
2-	-40	100	70	-29	26	11	16	26	18	1	1	4	3
3-	-28	74	100	-2	47	12	36	42	23	15	18	13	16
4-	72	-33	-11	100	4	-8	13	11	-9	2	4	-3	5
5-	-3	32	42	4	100	5	26	38	18	9	22	27	6
6-	-69	39	34	-46	7	100	-3	-9	-5	-10	-5	3	1
7-	1	33	44	1	35	5	100	29	34	30	48	18	33
8-	10	15	29	15	40	-3	38	100	25	19	35	18	27
9-	2	8	19	-4	30	-5	38	41	100	44	27	4	26
10-	9	6	16	4	19	-4	43	31	39	100	38	7	37
12-	18	-6	7	11	29	-10	34	36	36	36	100	33	32
13-	2	4	12	7	31	-6	25	22	20	22	72	100	13
11-	5	4	5	1	21	-2	31	17	28	30	26	20	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4209	1.8151		3.1128	2.1434
2	4.4940	1.4239		4.8323	1.9300
3	50.0559	5.1667		51.5244	7.8960
4	50.3804	6.5952		48.1828	7.8753
5	50.2862	4.3023		49.2469	6.0995
6	50.1143	7.4263		48.1646	9.7134
7	39.1959	8.1254		34.5915	12.3408
8	33.3992	12.5277		29.4328	15.9093
9	24.1601	14.9668		20.0610	16.9013
10	44.5292	7.2937		37.3750	12.7589
12	3.8136	0.9977		3.2866	1.3264
13	4.0678	0.3931		3.7805	1.2049
11	44.6780	8.7980		41.7561	11.5906

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 12

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-37	-21	70	-8	-51	10	9	0	12	8	4	16
2-	-37	100	72	-32	27	23	20	19	11	0	2	3	-4
3-	-21	72	100	-8	43	21	36	34	19	11	9	11	10
4-	70	-32	-8	100	5	-26	11	15	-4	8	5	4	10
5-	-8	27	43	5	100	6	31	39	25	16	14	30	26
6-	-51	23	21	-26	6	100	1	-5	-4	-5	0	-1	-6
7-	10	20	36	11	31	1	100	35	37	39	34	23	45
8-	9	19	34	15	39	-5	35	100	35	26	23	22	37
9-	0	11	19	-4	25	-4	37	35	100	43	28	14	33
10-	12	0	11	8	16	-5	39	26	43	100	37	17	41
11-	8	2	9	5	14	0	34	23	28	37	100	18	32
13-	4	3	11	4	30	-1	23	22	14	17	18	100	53
12-	16	-4	10	10	26	-6	45	37	33	41	32	53	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3883
4	49.5413	7.1912
5	49.8304	5.0895
6	49.7520	8.3863
7	37.4377	10.1965
8	31.3847	14.0499
9	22.5049	15.8591
10	41.7074	10.3501
11	43.5623	10.0579
13	3.0581	1.0329
12	3.6123	1.1630

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 12

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

512 SUBJECTS IN NEAR GROUP
347 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-36	-21	67	-14	-39	14	4	-6	12	7	0	15
2-	-38	100	72	-29	28	16	14	22	12	-5	2	0	-7
3-	-20	73	100	-7	43	18	30	35	15	5	9	7	9
4-	75	-35	-9	100	-2	-14	14	8	-11	2	-1	-4	5
5-	-2	28	45	9	100	7	25	35	15	6	2	23	18
6-	-65	33	26	-44	3	100	-1	-7	-2	-7	-3	-1	-5
7-	6	33	45	1	34	2	100	28	30	29	24	17	45
8-	15	17	34	17	41	-6	38	100	25	17	15	18	36
9-	6	12	23	-2	32	-8	42	42	100	37	23	7	30
10-	13	9	20	3	22	-6	48	32	47	100	28	9	39
11-	10	5	11	6	27	1	43	28	32	42	100	11	28
13-	2	8	17	7	34	-3	24	19	15	19	19	100	45
12-	17	1	12	10	30	-10	38	33	33	37	29	57	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3320	1.7509		3.2594	2.2164
2	4.5545	1.3706		4.6945	1.9780
3	50.5684	5.5657		50.7032	7.4369
4	50.4180	6.3340		48.2478	8.1243
5	50.5527	4.2791		48.9107	5.9581
6	50.1728	7.1611		49.1297	9.8880
7	39.0918	8.3865		34.9971	11.9835
8	24.0293	12.0835		28.7205	16.0115
9	24.3451	14.9161		19.9769	16.8177
10	43.7207	8.1750		33.9596	12.3722
11	45.6348	7.0510		40.5043	12.7035
13	4.1328	0.8443		3.7003	1.2157
12	3.8184	1.0214		3.3084	1.2862

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 12

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

498 SUBJECTS IN NEAR GROUP
361 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-36	-17	59	-13	-39	12	4	-5	11	6	0	15
2-	-38	100	71	-31	29	17	18	24	18	-1	5	3	-4
3-	-25	72	100	-6	45	16	36	38	22	11	14	12	13
4-	73	-31	-6	100	0	-14	12	11	-10	3	0	-2	7
5-	-3	28	44	8	100	8	27	37	13	9	4	25	20
6-	-66	34	30	-43	3	100	0	-7	-3	-7	-1	1	-4
7-	7	29	43	4	35	2	100	23	32	32	27	20	47
8-	14	15	32	17	42	-4	41	100	27	21	19	21	37
9-	5	5	19	0	32	-6	42	42	100	40	26	10	32
10-	13	6	19	8	22	-5	47	32	44	100	28	12	42
11-	9	3	11	5	27	-1	41	28	30	44	100	13	29
13-	8	6	15	8	33	-4	24	20	15	17	20	100	46
12-	17	-2	13	10	31	-9	38	36	32	36	29	58	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3775	1.7568		3.1994	2.1902
2	4.4739	1.3430		4.8144	1.9697
3	49.9297	5.0853		51.5789	7.7364
4	50.3675	6.2099		48.4017	8.1170
5	50.3414	4.3046		49.2659	5.9500
6	49.9920	7.1233		49.4127	9.8563
7	28.6827	8.4082		35.7202	12.0324
8	32.3614	12.4238		30.5374	15.9247
9	23.3695	14.5782		20.8366	17.3195
10	43.5181	8.1463		39.4228	12.3952
11	45.6767	6.9889		40.6454	12.5958
13	4.0963	0.8819		3.7812	1.1883
12	3.7331	1.0476		3.3767	1.2684

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 12

CALIBRATIONATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

534 SUBJECTS IN NEAR GROUP
325 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-35	-24	66	-23	-37	15	-5	-5	13	8	-6	10
2-	-38	100	71	-29	31	15	13	26	10	-6	1	5	-5
3-	-18	72	100	-9	44	17	30	35	11	3	7	10	9
4-	75	-34	-7	100	-10	-12	12	-4	-16	0	-4	-12	-5
5-	4	27	44	13	100	11	24	32	11	3	-4	24	17
6-	-65	33	25	-43	-1	100	-3	-7	-4	-10	-6	4	-3
7-	3	35	45	-2	33	3	100	27	29	24	18	17	43
8-	20	15	34	24	41	-6	34	100	22	18	12	19	33
9-	3	14	25	-2	32	-6	41	41	100	37	23	4	28
10-	10	10	21	4	20	-4	48	25	45	100	24	4	37
11-	6	8	15	2	29	4	43	25	29	38	100	7	24
13-	13	2	12	11	29	-11	17	14	15	18	14	100	41
12-	20	-2	12	15	28	-13	35	33	32	34	25	57	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3727	1.8159		3.1877	2.1537
2	4.5637	1.4217		4.7046	1.9530
3	50.6966	5.8301		50.5015	7.2104
4	50.5974	6.6993		47.8062	7.6220
5	50.6236	4.3600		48.6831	5.9065
6	50.1648	7.2908		49.0738	9.8399
7	39.7397	7.9411		33.6554	12.1725
8	34.4251	12.3304		27.7109	15.6155
9	24.7060	15.4182		19.1261	15.9630
10	44.2902	7.6960		37.7015	12.6031
11	46.3932	6.3333		38.9108	12.9090
13	4.1648	0.8341		3.6185	1.2212
12	3.8793	1.0048		3.1754	1.2686

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 12

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

529 SUBJECTS IN NEAR GROUP
330 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	13	12
1-	100	-30	-10	71	-13	-34	16	6	-7	10	3	2	17
2-	-42	100	68	-31	27	9	14	21	16	-2	6	5	-3
3-	-29	76	100	-2	46	10	33	36	19	12	15	15	16
4-	70	-31	-10	100	-2	-11	13	10	-14	1	-4	-2	7
5-	-5	30	42	10	100	8	27	33	15	8	5	29	24
6-	-63	39	34	-44	4	100	-4	-12	-6	-10	-3	1	-7
7-	0	34	47	1	34	6	100	27	30	28	23	22	47
8-	10	20	34	16	45	0	40	100	18	18	18	23	36
9-	3	11	23	-2	32	-4	40	46	100	41	23	2	24
10-	10	10	21	4	22	-3	44	34	41	100	22	8	37
11-	8	7	14	3	25	1	37	27	23	38	100	9	26
13-	4	3	11	6	29	-4	19	18	19	20	21	100	43
12-	12	-1	10	7	27	-6	36	36	36	38	27	59	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4461	1.8306		3.0727	2.1136
2	4.4915	1.4771		4.8182	1.8644
3	50.1403	5.6289		51.3818	7.3826
4	50.4461	6.5657		48.0909	7.8796
5	50.2249	4.4413		49.3515	5.9444
6	51.0208	7.3088		49.3212	9.3553
7	39.3837	8.2986		34.3182	12.0181
8	33.1059	12.8988		29.9273	15.5324
9	24.8072	15.2129		19.0485	16.2258
10	44.6559	7.1391		37.2151	12.7692
11	46.7637	5.9521		38.4303	12.7971
13	4.0794	0.9002		3.7636	1.1903
12	3.8110	1.0463		2.2939	1.2655

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 13

ALL 859 SUBJECTS

CORRELATIONS

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-37	-21	70	-8	-51	10	9	0	12	8	16	4
2-	-37	100	72	-32	27	23	20	19	11	0	2	-4	3
3-	-21	72	100	-8	43	21	36	34	19	11	9	10	11
4-	70	-32	-8	100	5	-26	11	15	-4	8	5	10	4
5-	-8	27	43	5	100	6	31	39	25	16	14	26	30
6-	-51	23	21	-26	6	100	1	-5	-4	-5	0	-6	-1
7-	10	20	36	11	31	1	100	35	37	39	34	45	23
8-	9	19	34	15	39	-5	35	100	35	26	23	37	22
9-	0	11	19	-4	25	-4	37	35	100	43	23	33	14
10-	12	0	11	8	16	-5	39	26	43	100	37	41	17
11-	8	2	9	5	14	0	34	23	28	37	100	32	18
12-	16	-4	10	10	26	-6	45	37	33	41	32	100	53
13-	4	3	11	4	30	-1	23	22	14	17	18	53	100

V.	MEANS	S.D.S
1	3.3027	1.9527
2	4.6170	1.6445
3	50.6228	6.3883
4	49.5413	7.1912
5	49.8894	5.0895
6	49.7520	8.3863
7	37.4377	10.1965
8	31.8847	14.0490
9	22.5949	15.8591
10	41.7974	10.3501
11	43.5623	10.0579
12	3.6123	1.1630
13	3.9581	1.0329

JOB SATISFACTION "WHICH CORRELATION" DATA - PART 2 VARIABLE 13

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

511 SUBJECTS IN NEAR GROUP
348 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-35	-20	65	-15	-38	14	2	-3	15	8	9	-6
2-	-39	100	72	-28	28	14	14	23	12	-7	0	-5	0
3-	-21	72	100	-6	42	16	30	35	15	4	8	7	7
4-	77	-36	-9	100	-2	-12	13	7	-3	4	0	0	-6
5-	0	28	46	11	100	7	23	35	16	4	1	18	25
6-	-66	36	28	-45	3	100	-2	-7	-3	-9	-2	-4	6
7-	6	31	46	2	39	2	100	27	30	29	25	42	16
8-	17	16	33	19	43	-7	39	100	25	17	17	33	19
9-	4	11	24	-4	33	-7	42	42	100	38	22	26	6
10-	10	11	23	5	26	-6	46	32	46	100	27	36	9
11-	9	6	15	5	31	-2	42	26	34	42	100	25	12
12-	25	-3	15	17	34	-13	42	38	37	40	33	100	48
13-	14	6	17	11	33	-11	27	21	18	21	22	56	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3151	1.7741		3.2845	2.1986
2	4.5812	1.3865		4.6695	1.5615
3	50.5284	5.4935		50.7615	7.5092
4	50.3385	6.5707		48.3707	7.8705
5	50.3855	4.2567		49.1609	6.0365
6	50.3738	7.1782		48.8391	9.8255
7	39.1644	8.4697		34.9023	11.8531
8	33.7710	12.1538		29.1149	16.0437
9	24.1898	14.8795		20.2529	16.9266
10	44.0176	8.0272		38.5374	12.3266
11	45.5812	7.1130		40.5977	12.6743
12	3.8121	0.9732		3.3190	1.3429
13	4.0587	0.9490		3.8103	1.1239

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 13

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

490 SUBJECTS IN NEAR GROUP
369 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-36	-17	69	-13	-37	12	7	-4	12	5	11	-2
2-	-37	100	70	-32	27	15	17	22	17	-2	5	-3	0
3-	-25	74	100	-7	43	16	35	35	21	11	14	12	8
4-	73	-30	-6	100	1	-14	11	11	-10	4	1	8	-2
5-	-2	30	46	9	100	8	26	37	13	8	6	22	27
6-	-68	36	31	-45	3	100	0	-9	-5	-8	0	-3	2
7-	7	29	44	6	37	2	100	26	32	32	28	44	20
8-	11	17	34	17	42	-2	44	100	26	21	20	38	21
9-	4	6	21	0	31	-5	41	43	100	41	25	28	7
10-	12	8	20	7	24	-5	45	33	43	100	28	40	13
11-	13	2	11	6	27	-4	39	23	30	44	100	29	17
12-	21	-5	11	11	30	-12	43	35	38	40	31	100	53
13-	10	7	17	10	33	-4	26	22	19	21	19	52	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3735	1.7525		3.2087	2.1858
2	4.5000	1.3780		4.7724	1.9317
3	49.9694	5.1294		51.4905	7.6644
4	50.2000	6.2254		48.6667	8.2205
5	50.2286	4.2762		49.4309	5.9716
6	50.1510	7.2634		49.2222	9.6527
7	38.8224	8.5977		35.5989	11.7449
8	32.7327	12.4141		30.7583	15.3936
9	24.1326	14.6117		20.5528	17.1661
10	43.8571	8.0082		39.0623	12.2925
11	45.7000	6.9002		40.7236	12.5754
12	3.7429	0.9975		3.4390	1.3322
13	4.0082	0.9918		3.8916	1.0816

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 13

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

530 SUBJECTS IN NEAR GROUP
329 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-36	-22	64	-22	-35	15	-4	-3	16	8	7	-7
2-	-38	100	71	-29	31	11	13	25	12	-6	1	-2	3
3-	-19	73	100	-3	44	15	30	36	15	4	7	9	9
4-	76	-35	-7	100	-8	-10	12	-3	-11	3	-3	-6	-11
5-	5	25	43	14	100	11	23	32	13	3	-2	17	27
6-	-67	38	29	-45	-1	100	-3	-8	-6	-13	-4	-4	6
7-	5	33	47	2	36	3	100	25	29	25	21	41	17
8-	21	15	34	25	44	-6	39	100	24	17	14	32	18
9-	3	12	24	-4	32	-5	40	40	100	37	24	26	4
10-	8	12	24	3	24	-1	46	27	45	100	25	36	8
11-	8	6	16	4	32	0	42	26	29	37	100	23	11
12-	25	-5	13	18	31	-13	40	36	34	36	30	100	45
13-	13	4	14	13	30	-9	24	21	17	20	21	58	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.3434	1.8085		3.2371	2.1632
2	4.5542	1.4010		4.7021	1.9715
3	50.5226	5.6073		50.7842	7.4730
4	50.4434	6.7843		48.0881	7.5795
5	50.4472	4.3379		48.9909	6.0007
6	50.2528	7.3021		48.7453	9.8324
7	39.4604	8.3483		34.1793	11.9154
8	34.1151	12.4004		28.2918	15.7067
9	24.6658	15.3794		19.2523	16.0482
10	44.4641	7.5296		37.5015	12.5830
11	46.1415	6.6467		39.4073	12.8443
12	3.8604	0.9806		3.2128	1.3129
13	4.0698	0.9541		3.7781	1.1256

JOB SATISFACTION "HIGH CORRELATION" DATA - PART 2 VARIABLE 13

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

528 SUBJECTS IN NEAR GROUP
331 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	1	2	3	4	5	6	7	8	9	10	11	12	13
1-	100	-32	-12	71	-12	-25	15	8	-5	11	3	15	0
2-	-40	100	68	-33	26	10	14	19	15	-3	6	-3	0
3-	-27	75	100	-5	43	12	32	32	17	9	15	12	10
4-	69	-29	-9	100	-2	-11	12	11	-11	4	-2	9	0
5-	-5	30	45	11	100	7	26	32	15	8	5	22	28
6-	-69	39	33	-44	5	100	-3	-14	-9	-11	-3	-7	1
7-	2	34	47	3	26	4	100	25	29	27	24	42	18
8-	9	21	37	16	46	2	43	100	19	19	19	28	22
9-	2	12	25	-2	32	-2	40	46	100	41	24	23	0
10-	9	13	24	4	24	-3	45	34	40	100	21	36	9
11-	10	7	15	5	27	-2	36	28	27	38	100	27	13
12-	14	-2	12	7	30	-7	42	35	38	40	28	100	49
13-	6	6	14	6	30	-3	25	21	21	22	22	54	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
1	3.4230	1.3139		3.1027	2.1405
2	4.4962	1.4784		4.8097	1.8631
3	50.1761	5.6943		51.3353	7.3047
4	50.2033	6.4616		48.4773	8.1093
5	50.1572	4.5126		49.4622	5.8684
6	50.1345	7.2761		49.1420	9.8722
7	39.3952	8.5325		34.3142	11.7393
8	32.8731	12.9301		30.3082	15.5399
9	24.8920	15.1733		18.9305	16.2363
10	44.6989	7.1807		37.1692	12.6853
11	46.3049	5.8989		38.3897	12.7865
12	3.7992	1.0287		3.3142	1.2953
13	4.0398	0.9849		3.8278	1.0927

APPENDIX G

M.M.P.I. "HIGH CORRELATION" DATA

MEANS
STANDARD DEVIATIONS
AND
CORRELATIONS

M.M.P.I. "HIGH CORRELATION" DATA - PART 1

ALL 1231 SUBJECTS

CORRELATIONS

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-5	44	-1	21	28	-23	0	4	-34	-26	-22
5-	-5	100	-31	39	20	-5	29	20	34	47	62	27
6-	44	-31	100	-26	12	48	-30	-12	-1	-70	-62	-37
7-	-1	39	-26	100	30	28	28	18	25	45	52	18
8-	21	20	12	30	100	29	15	19	13	17	11	-23
9-	28	-5	48	28	29	100	5	18	23	-18	-11	-17
10-	-23	29	-30	28	15	5	100	10	19	39	40	30
11-	0	20	-12	18	19	18	10	100	23	23	24	11
12-	4	34	-1	25	13	23	19	23	100	23	37	14
13-	-34	47	-70	45	17	-18	39	23	23	100	78	37
14-	-26	62	-62	52	11	-11	40	24	37	78	100	44
15-	-22	27	-37	18	-23	-17	30	11	14	37	44	100

V.	MEANS	S.D.S
4	4.6905	2.5183
5	5.0260	3.4839
6	14.5085	4.8898
7	3.4549	2.9682
8	17.9374	3.8324
9	16.4184	4.3768
10	16.1243	4.3112
11	19.7108	4.0072
12	7.9675	3.2022
13	10.2307	6.1380
14	10.1178	6.4372
15	17.2291	4.1518

M.M.P.I. "HIGH CORRELATION" DATA - PART 1

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

768 SUBJECTS IN NEAR GROUP
463 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-7	42	-2	19	26	-22	-3	2	-35	-28	-25
5-	-10	100	-27	31	16	-2	31	19	38	43	62	34
6-	50	-33	100	-24	15	43	-32	-11	-4	-72	-64	-43
7-	-7	41	-25	100	29	34	28	18	26	43	50	15
8-	20	17	12	26	100	35	18	16	12	15	8	-27
9-	30	-15	57	18	20	100	5	22	23	-13	-7	-19
10-	-26	27	-25	29	10	5	100	14	26	40	43	31
11-	3	16	-12	14	22	11	3	100	28	23	25	19
12-	3	25	5	18	9	22	11	15	100	22	39	18
13-	-39	47	-57	44	17	-28	38	19	20	100	80	47
14-	-33	57	-50	46	8	-21	39	19	29	75	100	55
15-	-21	19	-32	20	-23	-15	30	3	9	28	35	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.4844	2.0735		5.0324	3.0892
5	4.2734	2.4766		6.2743	4.4270
6	14.8542	4.0987		13.9352	5.9312
7	2.8633	2.0887		4.4363	3.8267
8	17.5143	3.0822		18.0393	4.7437
9	16.2396	3.5385		16.7149	5.4793
10	16.0091	3.2618		16.3153	5.6312
11	19.4440	3.2447		20.1533	4.9916
12	7.5339	2.9552		8.6868	3.4565
13	9.4141	5.4146		11.5853	6.9711
14	8.8659	5.2198		12.1944	7.6201
15	17.0169	3.9825		17.5810	4.3958

M.M.P.I. "HIGH CORRELATION" DATA - PART 1

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

784 SUBJECTS IN NEAR GROUP
447 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-5	41	-1	20	28	-22	-4	4	-34	-26	-26
5-	-13	100	-24	31	17	0	29	20	39	41	61	31
6-	51	-39	100	-23	15	44	-31	-14	-3	-72	-63	-42
7-	-10	41	-29	100	29	34	28	19	26	43	50	14
8-	18	17	11	26	100	35	15	17	11	14	6	-29
9-	27	-17	55	19	20	100	6	21	22	-13	-7	-19
10-	-25	31	-28	31	15	4	100	13	25	38	42	32
11-	2	15	-9	13	19	13	6	100	27	25	26	16
12-	0	25	3	18	11	23	13	16	100	20	39	17
13-	-40	50	-68	45	18	-26	41	18	22	100	79	46
14-	-35	59	-62	47	10	-20	41	18	30	77	100	55
15-	-20	22	-33	20	-21	-16	29	5	10	30	35	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.4579	2.1341		5.0984	3.0358
5	4.3508	2.5411		6.2103	4.4607
6	14.7615	4.1604		14.0649	5.9312
7	2.8673	2.0984		4.4855	3.8564
8	17.5204	3.0875		18.6689	4.7842
9	16.2666	3.3570		16.6846	5.5184
10	16.0944	3.3134		16.1767	5.6503
11	19.4222	3.2495		20.2170	5.0301
12	7.9804	2.9522		8.6465	3.4969
13	9.5140	5.5000		11.4877	6.9440
14	8.9796	5.3495		12.1141	7.5939
15	17.0102	3.9422		17.6130	4.4701

M.M.P.I. "HIGH CORRELATION" DATA - PART 1

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

816 SUBJECTS IN NEAR GROUP
415 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-11	45	-4	21	26	-22	-6	-2	-39	-32	-29
5-	-11	100	-24	25	16	-3	34	17	37	40	59	31
6-	48	-36	100	-22	18	41	-37	-11	-3	-72	-63	-43
7-	-8	39	-26	100	30	37	29	19	22	41	47	11
8-	17	11	11	20	100	41	18	19	10	13	7	-30
9-	29	-18	60	12	14	100	3	22	20	-11	-6	-22
10-	-26	23	-20	28	10	8	100	17	26	43	46	33
11-	3	15	-10	9	16	12	0	100	26	23	25	17
12-	3	18	7	14	8	23	11	15	100	19	37	17
13-	-38	47	-37	42	15	-31	35	18	18	100	79	44
14-	-33	55	-61	45	5	-25	35	16	26	75	100	53
15-	-19	22	-32	22	-22	-14	28	5	9	31	37	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.4583	2.1365		5.1470	3.0859
5	4.0821	2.3435		6.8819	4.4730
6	14.9179	4.2229		13.7036	5.9062
7	2.7034	1.9586		4.9325	3.9111
8	17.4547	3.1249		18.8867	4.7965
9	16.1446	3.0543		16.9566	5.4889
10	16.0000	3.2671		16.3687	5.8356
11	19.3272	3.4427		20.4651	4.8444
12	7.4118	2.7869		9.0602	3.6529
13	9.2439	5.3656		12.1711	7.0333
14	8.0679	5.1346		12.9687	7.6692
15	16.9669	3.9899		17.7446	4.4078

M.M.P.I. "HIGH CORRELATION" DATA - PART 1

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

824 SUBJECTS IN NEAR GROUP
407 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-9	45	-4	20	27	-24	-6	-1	-39	-32	-30
5-	-13	100	-23	23	18	-5	35	17	37	39	59	31
6-	47	-39	100	-22	16	43	-38	-10	-4	-72	-63	-42
7-	-12	36	-29	100	28	35	31	14	20	40	45	14
8-	18	11	12	25	100	35	15	20	9	13	7	-30
9-	27	-20	57	12	20	100	3	18	16	-13	-8	-20
10-	-23	25	-20	30	14	8	100	14	26	42	47	34
11-	3	16	-11	15	15	15	5	100	25	21	24	15
12-	3	17	6	14	9	24	13	16	100	21	38	19
13-	-36	49	-68	45	16	-30	36	20	18	100	79	42
14-	-32	56	-62	45	6	-25	36	18	25	76	100	54
15-	-18	22	-33	18	-22	-17	27	7	7	32	36	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.4660	2.1908		5.1450	3.0259
5	4.0850	2.3576		6.9312	4.4760
6	14.8277	4.2739		13.8624	5.8918
7	2.3522	1.8254		5.2826	3.8614
8	17.5109	3.2456		18.8010	4.6885
9	16.0133	3.7020		17.2383	5.4027
10	16.0777	3.3622		16.2187	5.7720
11	19.3519	3.4861		20.4373	4.8140
12	7.4053	2.7810		9.1057	3.6635
13	9.3592	5.3860		11.9951	7.1113
14	8.6893	5.1488		13.0098	7.6918
15	16.9587	3.9934		17.7764	4.4048

M.M.P.I. "HIGH CORRELATION" DATA - PART 2

ALL 1203 SUBJECTS

CORRELATIONS

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-13	50	-1	23	27	-22	2	6	-36	-29	-26
5-	-13	100	-43	42	16	-7	38	23	32	55	67	35
6-	50	-43	100	-29	13	47	-33	-8	-7	-72	-65	-42
7-	-1	42	-29	100	31	30	28	22	26	48	54	16
8-	23	16	13	31	100	31	17	18	22	18	13	-23
9-	27	-7	47	30	31	100	3	21	22	-18	-11	-18
10-	-22	38	-33	28	17	3	100	16	19	43	42	36
11-	2	23	-8	22	18	21	16	100	27	22	26	10
12-	6	32	-7	26	22	22	19	27	100	26	33	6
13-	-36	55	-72	48	18	-18	43	22	26	100	82	39
14-	-29	67	-65	54	13	-11	42	26	33	82	100	47
15-	-26	35	-42	16	-23	-18	36	10	6	39	47	100

V.	MEANS	S.D.S
4	4.6833	2.6359
5	5.0042	3.6173
6	14.5087	5.1126
7	3.2228	3.0905
8	17.9185	3.9085
9	16.4597	4.3829
10	16.4032	4.3854
11	19.7257	4.1078
12	7.9601	3.0037
13	10.2012	6.3497
14	10.2909	6.8103
15	17.3233	4.0834

M.M.P.I. "HIGH CORRELATION" DATA - PART 2

CALIBRATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

775 SUBJECTS IN NEAR GROUP
428 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-15	51	0	22	28	-25	2	4	-40	-30	-32
5-	-17	100	-41	36	13	-4	44	16	39	53	67	42
6-	51	-47	100	-27	13	45	-37	-1	-9	-74	-65	-48
7-	-10	38	-30	100	29	36	28	17	29	47	54	15
8-	23	10	17	25	100	32	16	15	22	17	11	-22
9-	25	-22	53	14	27	100	1	21	23	-14	-6	-20
10-	-19	32	-27	31	18	6	100	15	28	49	48	42
11-	-2	24	-13	22	17	19	18	100	32	16	21	8
12-	5	16	-2	10	16	16	10	17	100	31	38	10
13-	-36	53	-69	46	14	-27	36	24	16	100	83	51
14-	-35	62	-66	47	6	-26	37	27	21	81	100	54
15-	-22	31	-36	18	-25	-16	30	12	2	30	42	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.5252	2.1989		4.9696	3.2629
5	4.2026	2.6946		6.4556	4.5122
6	14.7806	4.2700		14.0164	6.3306
7	2.6000	1.9708		4.3505	4.2237
8	17.4090	3.0861		18.8411	4.9368
9	16.0916	3.4429		17.1282	5.6426
10	16.3639	3.3034		16.4743	5.8555
11	19.2413	3.3922		20.6028	5.0397
12	7.4581	2.6973		8.8692	3.3020
13	9.3858	5.4744		11.6776	7.4617
14	9.0852	5.5090		12.4743	8.2469
15	17.2632	3.3273		17.4322	4.5083

M.M.P.I. "HIGH CORRELATION" DATA - PART 2

CROSS VALIDATION ** ITERATION = NONE
SPLIT = MEAN D SQUARE

755 SUBJECTS IN NEAR GROUP
448 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-17	53	-1	23	28	-24	2	2	-42	-32	-32
5-	-16	100	-42	36	12	-6	43	16	37	53	67	42
6-	48	-46	100	-27	15	46	-36	1	-11	-75	-66	-47
7-	-10	40	-31	100	28	35	26	16	28	45	52	16
8-	21	10	14	28	100	32	16	15	22	15	10	-24
9-	24	-21	52	14	26	100	0	21	21	-16	-8	-20
10-	-20	29	-27	31	16	6	100	15	27	48	47	42
11-	-3	23	-17	21	16	17	16	100	32	14	19	8
12-	6	15	1	11	15	19	7	16	100	32	39	12
13-	-33	52	-58	49	16	-26	35	26	13	100	84	49
14-	-34	62	-66	49	7	-25	36	29	18	80	100	53
15-	-22	29	-36	15	-25	-17	29	11	-1	30	41	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.4967	2.1515		4.9978	3.2709
5	4.1430	2.6185		6.4554	4.4973
6	14.7483	4.1972		14.1049	6.3436
7	2.6265	2.0167		4.2277	4.1455
8	17.4053	3.0808		18.7835	4.8821
9	16.0410	3.4579		17.1652	5.5352
10	16.2212	3.2750		16.7098	5.7806
11	19.1761	3.3095		20.6518	5.0484
12	7.4119	2.6332		8.8839	3.3441
13	9.3497	5.4022		11.6362	7.4701
14	8.9907	5.4004		12.4821	8.2307
15	17.1828	3.8126		17.5603	4.4931

M.M.P.I. "HIGH CORRELATION" DATA - PART 2

CALIBRATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

831 SUBJECTS IN NEAR GROUP
372 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-20	51	-2	18	23	-31	-1	1	-42	-31	-31
5-	-16	100	-43	29	9	-8	49	10	36	51	65	45
6-	52	-46	100	-28	15	45	-43	3	-9	-74	-66	-49
7-	-11	33	-29	100	25	35	30	12	25	46	50	16
8-	26	9	16	27	100	31	13	11	23	13	8	-23
9-	29	-25	54	10	27	100	-3	19	24	-15	-9	-18
10-	-13	27	-21	29	21	9	100	16	33	54	52	46
11-	0	24	-14	20	18	17	17	100	29	9	17	9
12-	6	16	-2	10	14	14	7	19	100	29	38	13
13-	-37	51	-70	43	14	-30	32	26	16	100	83	51
14-	-37	61	-66	46	6	-27	34	26	20	80	100	55
15-	-24	29	-36	16	-26	-19	27	9	0	31	42	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.5235	2.3510		5.0403	3.1522
5	4.0205	2.5644		7.2016	4.5425
6	14.7918	4.3603		13.8763	6.4404
7	2.3839	1.7649		5.0968	4.3411
8	17.3887	3.2629		19.1021	4.8571
9	15.9362	3.6336		17.6290	5.5360
10	16.3201	3.3577		16.5887	6.0792
11	19.1540	3.5076		21.0027	4.9722
12	7.4416	2.7806		9.1183	3.1567
13	9.2022	5.4158		12.4328	7.5930
14	8.9013	5.4216		13.3952	8.3892
15	17.1913	3.8027		17.6183	4.6362

M.M.P.I. "HIGH CORRELATION" DATA - PART 2

CROSS VALIDATION ** ITERATION = MEAN D SQUARE
SPLIT = MEAN D SQUARE

798 SUBJECTS IN NEAR GROUP
405 SUBJECTS IN FAR GROUP

CORRELATIONS (NEAR GROUP BELOW DIAGONAL - FAR GROUP ABOVE)

V.	4	5	6	7	8	9	10	11	12	13	14	15
4-	100	-19	52	-1	22	25	-27	-1	2	-42	-32	-32
5-	-16	100	-43	30	9	-10	48	14	39	52	66	44
6-	52	-43	100	-27	16	+3	-40	1	-10	-74	-65	-49
7-	-10	36	-29	100	26	37	26	15	29	44	50	14
8-	22	5	16	24	100	35	15	12	23	13	7	-24
9-	28	-20	56	10	22	100	-2	21	25	-13	-7	-21
10-	-18	24	-22	30	17	7	100	20	35	52	50	44
11-	1	19	-13	18	16	17	10	100	32	13	21	10
12-	6	13	0	8	12	15	1	17	100	32	39	12
13-	-37	49	-70	45	13	-32	32	22	13	100	83	49
14-	-36	58	-65	47	4	-29	32	22	18	80	100	54
15-	-23	29	-35	17	-26	-16	28	9	0	31	42	100

V.	NEAR MEANS	NEAR S.D.S	**	FAR MEANS	FAR S.D.S
4	4.5251	2.2840		4.9951	3.1957
5	3.9123	2.+423		7.1556	4.4873
6	14.3085	4.3480		13.7210	6.2814
7	2.4624	1.8612		4.7210	4.2616
8	17.2794	3.1298		19.1778	4.8669
9	16.0664	3.5712		17.2346	5.5699
10	16.1992	3.2842		16.8049	5.9690
11	19.1366	3.4620		20.8864	4.9473
12	7.+511	2.7719		8.9630	3.1850
13	9.0702	5.3090		12.4296	7.5325
14	8.6992	5.2623		13.4272	8.2691
15	17.1541	3.3097		17.6508	4.5567