

In presenting the dissertation as a partial fulfillment of the requirements for an advanced degree from the Georgia Institute of Technology, I agree that the Library of the Institute shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to copy from, or to publish from, this dissertation may be granted by the professor under whose direction it was written, or, in his absence, by the Dean of the Graduate Division when such copying or publication is solely for scholarly purposes and does not involve potential financial gain. It is understood that any copying from, or publication of, this dissertation which involves potential financial gain will not be allowed without written permission.

[Handwritten signature]

7/25/68

NEED SATISFACTION AND ABSENTEEISM

A THESIS

Presented to

The Faculty of the Graduate Division

by

Charles Richard Martin

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Psychology

Georgia Institute of Technology

December 1971

NEED SATISFACTION AND ABSENTEEISM

Approved:

[Handwritten signature]
Chairman
[Handwritten signature]
[Handwritten signature]

Date approved by chairman: 6 Dec 1971

ACKNOWLEDGMENTS

I would like to express my gratitude to Dr. Edward H. Loveland for serving as my thesis advisor. His enthusiasm and guidance during the investigation of this problem were greatly appreciated by the author. I would also like to thank Dr. Stanley A. Mulaik and Dr. Morris Mitzner for contributing their time and advice as members of the reading committee.

My wife, Linda, generously contributed her typing skills, but her keen sense of humor and constant optimism aided even more toward the completion of this research.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
SUMMARY	vii
CHAPTER	
I. INTRODUCTION AND RELATED RESEARCH	1
Costs to Industry	
Measurement of Absences	
Literature Review	
II. STATEMENT OF THE PROBLEM	36
III. PROCEDURE AND METHODOLOGY	42
Subjects	
Job Satisfaction Questionnaire	
Data Collection	
The Criterion	
Analytic Design	
IV. RESEARCH FINDINGS AND RELATED DISCUSSION	53
Job Satisfaction and Absence Frequency	
Job Satisfaction Moderated by Age, Length of Service, Salary, and Job Level	
Multi-dimensional Aspects of Job Satisfaction and Their Relationship to Absence Behavior	
Employee Perceptions of Mistreatment and Absence Frequency	
Absence Behavior and Perceptions of Absenteeism as a Problem	
Employment History, Number of Dependents, and Attendance Behavior	
V. SUMMARY AND CONCLUSIONS	78

Table of Contents Continued

	Page
APPENDIX A	78
APPENDIX B	97
BIBLIOGRAPHY	148

LIST OF TABLES

Table	Page
1. Product-moment Correlations Between Absence Frequency and Three Overall Job Satisfaction Measures	54
2. Product-moment Correlations Between Job Satisfaction Within High and Low Moderator Subgroups	58
3. Significance of Multiple and Moderated Multiple Correlation Coefficients	60
4. Comparison of Product-moment, Multiple, and Moderated Multiple Correlations Between Overall Job Satisfaction Measures and Absence Frequency	63
5. Intercorrelation Matrix of Cluster Scores on Evaluative Scale	67
6. Intercorrelation Matrix of Cluster Scores on Difference Scale	68
7. Intercorrelation Matrix of Cluster Scores on Weighted Difference Scale	69
8. Intercorrelation Matrix of Cluster Scores on Importance Scale	70
9. Product-moment Correlations Between Absence Frequency and Employee Perceptions of Mistreatment	72
10. Difference Between Mean Frequency of Absences for Subjects Who Do or Do Not Feel Mistreated	73
11. Product-moment Correlations Between Perceptions of Absenteeism as a Problem and Absence Frequency	74
12. Completely Randomized Factorial Analysis of Variance of Absence	76
13. Intercorrelations Among Items on the Evaluative Scale	99
14. Intercorrelations Among Items on the Difference Scale	115
15. Intercorrelations Among Items on the Weighted Difference Scale	131

Table	Page
16. Intercorrelations Among Items on the Importance Scale	137
17. Factor Pattern Matrix of Evaluative Scale Items	143
18. Factor Pattern Matrix of Difference Scale Items	144
19. Factor Pattern Matrix of Weighted Difference Scale Items	145
20. Factor Pattern Matrix of Importance Scale Items	146
21. Multiple Correlation of Frequency of Absences with Four Demographic Variables and Expressions of Overall Job Satisfaction	147

SUMMARY

An often quoted study by Metzner and Mann (1953) reported no association between expressions of job satisfaction and group-absence data for female, white-collar employees. Until recently no evidence has been presented which indicates that considerations of job satisfaction are important for understanding attendance violations by women. In 1971, however, Waters and Roach reported a negative relationship between individual indices of absence frequency and job satisfaction for nonsupervisory female office workers.

The present study, which was begun before the publication by Waters and Roach, used secretaries at an educational institution as subjects. The 165 subjects were administered a 63 item job satisfaction questionnaire based on an existing questionnaire (Loveland, Ronan, and York, 1968). The number of times individuals were absent over a six month period was also computed. The findings confirm the Waters and Roach results. That is, significant negative relationships were discovered between frequency of absences for individuals and three overall measures of job satisfaction.

One measure of overall job satisfaction consisted of the employee's evaluation of the amount of satisfaction she derived from her job. A second measure was an estimate of the employee's desire for more job satisfaction, expressed as the difference between her expectations of how much satisfaction should exist and her evaluation of how much actually existed (Porter, 1962). The third measure was computed as

the product of the employee's expressed desire for more job satisfaction and the importance of job satisfaction to the individual.

The present findings provide some support for the theoretical positions of Vroom (1964) and Gibson (1966) who feel that employees who are not attracted to their work will tend to be absent more often. Support was also mounted for Ewen's (1967) contention that nothing is gained by weighting a total job-satisfaction score with the importance of job satisfaction to an individual.

The possibility that age, job level, salary, and length of service moderate the relationship between overall job satisfaction and frequency of absences was examined by use of subgroup analysis (Frederiksen and Melville, 1954) and moderated multiple regression (Saunders, 1956). No indication of an interaction between any one of the demographic items and overall job satisfaction was noted. However, each of the four demographic items was found to account for additional variance in absence behavior beyond that attributed to overall job satisfaction.

Second- and third-degree polynomial equations employing an overall job satisfaction measure as the independent variable, were calculated to investigate possible nonlinear relationships with absence frequency. No stronger relationships were noted between overall job satisfaction and the criterion than had been established previously with first degree equations.

Clusters of salient items on the job satisfaction questionnaire were obtained by utilizing principal axes factor analyses and oblimin rotations. Four sets of cluster scores, one each for the four ques-

tionnaire rating scales employed, were used as independent variables. Only two clusters, overall job satisfaction and campus mail service, were significantly related to frequency of absences.

Employees who felt mistreated, compared to other employees, with respect to salary increases or promotion consideration were not found to be absent more frequently than those secretaries who felt more equitably treated. These results were contrary to the findings presented by Patchen (1960). Also in contrast to the absenteeism literature (Naylor and Vincent, 1957; Gadourek, 1965), possession of dependent relatives and/or a history of many previous jobs were not found to be characteristics of those secretaries having more absences.

Secretaries who worked for supervisors who were perceived as being concerned with absenteeism as a problem were discovered to be absent more frequently. This finding is opposite to the results reported by Tucker and Lotz (1957). Whereas, White (1960) found a negative relationship between employee concern for absenteeism and attendance behavior, no relationship was noted between absence frequency and employee concern for absenteeism in this study.

CHAPTER I

INTRODUCTION AND RELATED RESEARCH

Costs to Industry

Industrial absenteeism is a problem which has been minimized or ignored by many within the ranks of management. As a slow drainage of manpower from industry, absenteeism fails to attract the urgent attention which accompanies phenomena such as strikes by large unions. Yet, more time is lost through absences than through strikes.

In a recent management journal article (Balfour, 1971), the extent of the absenteeism problem was profiled for the British economy. The ratio of time lost from absenteeism to time lost from strikes, during a year in which many strikes occurred, was estimated to be over 100 days lost through absenteeism for every one day lost through strikes. During 1958 and 1969, years listed as severe strike periods, companies were reported to have lost six to eight million working days through strikes, compared to 600 million days lost through absences. In Britain, West Germany, Sweden, and Italy, a trend toward more frequent short-term absences due to sickness was noted.

Commenting on the relationship between absenteeism and the American economy, Kearns (1970) estimated that a one percent rise in the absentee rate in a plant of 1,000 employees would cost approximately \$150,000 per year. Kearns stated that, as of January 1970, the American industry had a minimum absentee rate of three and one-half percent of scheduled working time, whereas a rate exceeding two percent was

considered excessive.

Among the costs of absenteeism to industry are the expense of replacing an absent worker, the costs of fringe benefits when there is no work in return, and the loss of efficiency resulting from the use of untrained or fatigued overtime workers. A description of the cost of sickness absences to both industry and the employee, placed the annual cost at ten billion dollars for American industry as a whole, and 66 million dollars for the Bell System alone (Plummer, 1960).

Measurement of Absences

The investigation of this problem area has been hindered by the abundance of indices of absenteeism used and the lack of comparable definitions of absence (Heneman, Comaford, Jasmin, and Nelson, 1961; Gaudet, 1963). The disparity among definitions of absence results from the failure to categorize employee attendance violations uniformly as tardy or absent and excused or unexcused. However, these are not the only dichotomous classifications used in American industry. Gaudet listed over 24 such dichotomies, many of which appear redundant and subject to misinterpretation.

Gaudet reported that most of the 266 companies surveyed by the American Management Association recorded absences by the number of days absent or number of times absent per individual. Such individual measures allow for the comparison of individual absence records within organizational units. The next method used most often was the computation of the same records by plant, work group, division, or organizational unit. With such group measures, one may only compare absence records between organizational units. The remaining companies in the survey reported

using any one of the many absence rates which are available.

The most common absence rates found in the literature are the frequency rate, the severity rate, the disability rate, and the ineffective rate. One may compute individual and group absence criteria using each of the four rates. The group frequency rate is defined as the average number of separate periods, regardless of the number of days involved, during which individuals in a certain group have been absent within a particular interval of time. The individual frequency rate refers to the number of periods during which a certain individual has been absent within a given time interval. The group severity rate is defined as the average time lost per absence for a certain period of time. An individual severity rate, on the other hand, refers to the time lost per absence for a single employee. The group disability rate is computed as the average time lost per employee per unit of time. However, for the individual disability rate the total time lost per individual employee per unit of time is calculated. The disability rate may also be thought of as the product of the frequency and severity rates. The ineffective rate is calculated as the number of man-days lost within a given period of time divided by the product of the average number of employees for that period of time and the number of days of work scheduled. The individual ineffective rate is simply the number of man-days lost by an individual divided by the number of work days scheduled.

A total of 41 formulas were presented for discussion by Gaudet. The majority of the different measures were variations on the four basic formulas. Of the 41 formulas, four group measures of absence behavior

appear frequently in the literature: (1) the "Other Reasons Absence Rate" (ratio of the number of days lost through absence other than certified sickness x 100, to the number of employees x the number of scheduled days); (2) the "Blue Monday Index" (difference between the total of Friday's and Monday's absentees for the period under observation x 100, divided by the average number employed); (3) the "Daily Variations Absence Rate" (difference between the total number of absences on the best and worst attendance days of the week x 100, divided by the number of weeks under consideration x the average number of employees during the period) and; (4) the "Worst Day Index" (difference between the total number of absences on the best and worst attendance days of the week, divided by the number of weeks and expressed per 100 workers).

As can be seen from the previous discussion, different rates require different methods of collecting absence records and provide indices of attendance behavior which cannot be compared meaningfully. Therefore, an awareness of the distinctions among the various absence rates provides a better perspective when examining the findings on absenteeism in the literature.

Literature Review

In addition to the diversity of absence indices employed, a review of the literature on absenteeism revealed that heterogeneous occupations and job levels were often included in the same sample. Similarly, many studies failed to control for the interaction of the stated independent variables and other "logically" pertinent variables. Such methodological handicaps hindered efforts to review the specific

factors influencing absence behavior. Nonetheless, an attempt is made in the following pages to discuss those variables to which work attendance appears related. The sections are separated according to the independent variables which are given consideration, e. g., sex, marital status and number of dependents, wage level, day of the week, shifts worked, and incidence of pay day. Also discussed are the influences of employment level, length of service, supervision, the physical conditions of the work, the distance to work, job classification and job level, personality, organization size, and employee attitudes toward their jobs.

Age

The rationale for studying the effects of aging on work attendance includes the hypothesized changes in life style that accompany aging, the cultural and generational demands which are implicit in different age categories, and the self-perception aspects of age (Gadourek, 1965). Recognizing that the worker's perception of job responsibility changes with age, Gibson (1966) postulated that work identification might be expected to solidify with age so that absence frequency should decline, while absence duration, because of ill health, could be expected to increase. However, the last few years of work were predicted to be accompanied by increased frequency of absences as job responsibility diminished and avocational activities were gradually substituted.

Findings reported in the absenteeism literature, being inconsistent with respect to age, do not lend themselves to an easy adoption of Gibson's age-absenteeism explanation. Eight different studies indicated that younger workers are absent more frequently and/or that

older employees are absent longer. For approximately 22,000 male and female electrical company employees, Tucker and Lotz (1951) found that both of the above relationships existed when they used age 45 as the boundary between "young" and "old." Kahne, Ryder, Snegireff, and Wyshak (1957), using the same age for the old-young dichotomy, reported identical results for 619 plant workers representing both sexes and differing skill levels. Duration of absence was measured by the average length of time lost per absence and frequency was indicated by the average number of times absent per 100 scheduled work days. For approximately 150 white-collar male electrical power workers, Metzner and Mann (1953) reported that the lowest absence group was composed of fewer members under 30 years of age. These investigators failed to find this relationship for white-collar women or blue-collar men. Schenet (1945) cited evidence that, for approximately 900 war-plant workers, age was not significantly related to the number of days lost by the group, but that females over age 40 tended to be absent longer than younger women. For 113 Swedish production line workers, Lennerlof (1966) established a negative relationship between age and frequency of "no reason" absences, as well as between age and leave of absence time taken. Gadourek (1965), in a factor analysis of background and job satisfaction data for 2,209 Dutch workers from differing plants, reported age to be positively correlated with the number of days missed, but not with the number of times absent. Gadourek's results were consistent for both individual and group indices of absence behavior.

Although the significance of the difference was not tested,

Noland (1946) found that the mean absenteeism records were lower (3.055 days per month) for workers under age 30 when compared to older workers who were absent 3.299 days per month. These findings for 861 Morse Chain Company employees agree with Gibson's theory on absence duration, but no absence frequency data were included in the study. Gadourek reported that the Netherlands Institute for Preventive Medicine also found a positive relationship between the total number of days lost and the number of people in the higher age categories.

Seven studies offered information contrary to Gibson's hypothesized relationship between age and absence behavior. Two results, indicating that younger workers are absent for longer durations, were cited by Jackson (1944) and Liddell (1954). Male machine shop workers in the age category 26-35 were reported by Jackson to have had fewer total days lost than employees under and over this age range. The total number of absences "without permission" was reported to decrease with age. Liddell stated that of 2,300 coal workers at one colliery, men under 35 years of age were voluntarily absent for more weeks per year than were older workers.

Baumgartel and Sobol (1959) studied approximately 500 white-collar, non-managerial female airline employees. Those employees in jobs characterized by higher mean ages had a higher mean number of times absent ($.01 < \underline{p} < .05$), but not a higher mean number of days absent. Kossoris (1948) found a consistent downward trend, with increasing age, for "Other Reason Absence Rates" in men, but no definite trend was established for women. Citing an earlier, unpublished study, Behrend (1959)

reported that the "Other Reason Absence Rate" and "Blue Monday Index" were highest for men below the age of 30. For both single and married women, the "Other Reason Absence Rate" reached its peak for those below age 40, while the "Blue Monday Index" was highest between the ages of 30 and 39.

Mare and Sergean (1961) observed that the results of longitudinal studies do not support the findings of cross-sectional age studies which indicate that high absence frequency is characteristic of younger people. They also found a positive relationship between aging and certified sickness, but no relationship between absence frequency and age. In 1965 Cooper and Payne described a longitudinal study among long-service employees which also produced results differing from the usual cross-sectional studies. Three firms within the same company were examined. The men in the first firm had 38.58 mean years of service. In the second and third firms, the mean lengths of service were 31.88 and 38.97 years respectively. Among 89 men in the first organization, both the absence frequency per man and the absence duration per man, for certified sickness and permitted absence, showed a systematic increase over a 35 year period. Over a 15 year period in the second firm, there was an increase in the length but not the frequency of certified sickness absences for the 147 men employed. The third firm was similar to the first in that frequency and duration of absence for certified sickness increased with age for the 156 men observed over a 15 year period. Whereas these studies support Gibson's expectation that longer duration of absences will accompany the aging process, evidence was produced that frequency of absences does not decrease with age.

Four studies failed to establish a relationship between age and absence behavior. Covner (1958) could find no relationship between age and mean number of days absent in a sample of 868 nonsupervisory employees of both sexes. The number of days absent for 220 clerical workers was found to be unrelated to age when investigated by Naylor and Vincent (1959). In a study of 21,000 male Dutch factory workers, Fortuin (1955) also failed to report a relationship between age and the mean number of sickness absences per worker. Behrend (1959) stated that her 1951 investigation found no relationship between age and Monday absenteeism for men. Evidence appears to be equally weighted in support of and in opposition to the contention that younger employees are more frequently absent while older workers stay absent longer. Longitudinal research in this area similar to the work by Cooper and Payne (1965) might prove fruitful.

Sex

Nine studies, using various measures of the absence criterion, reported more absenteeism among female employees. The measures of absenteeism were days per year (Tucker and Lotz, 1957), mean number of absences per month (Metzner and Mann, 1953), mean days absent per year (Baumgartel and Sobol, 1959), average length of time lost per absence, average number of absences per 100 scheduled work days, and average number of days absent per 100 scheduled work days (Kahne, Ryder, Snegireff, and Wyshak, 1957), number of man days lost by individual absence per total potential work days (Canfield and Soash, 1955; Gales, 1955), average number of days lost per employee (Schenet, 1945), percentage of working time lost (Jackson, 1944; White, 1960), and

number of absences per 1,000 employees (White, 1960).

In another study (Kerr, Kopplemeir, and Sullivan, 1951) found, using a non-specified measure, a high rate of unexcused absences to be associated "with low job satisfaction, low turnover, departmental job heterogeneity, low conversation opportunity and a larger portion of males." However, the authors failed to isolate the effects of sex from the contribution made by job grade and thwarted social needs. Covner (1950) reported that the distribution of absences per month was similar for both men and women in a manufacturing plant.

Behrend (1959) suggested that the higher rates of absence among women might be a function of the type work which they do. She observed little voluntary absenteeism among female teachers, but found this result to contrast sharply with records for women in unskilled jobs. Metzner and Mann (1953) also reported that the difference between the frequencies of absence for the two sexes disappeared in the higher level white-collar positions. In a later study Isambert-Jamati (1962) found evidence that women with high level positions in skilled jobs were absent infrequently.

There is little support for an explanation of absence behavior based on the physiological differences between the sexes. Smith (1950) hypothesized that the menstrual cycle could affect the industrial efficiency of female workers. Studying women in three different industries, she found that the high absence rates, measured as man-days lost, did not occur consistently in the pre-menstrual, menstrual, or post-menstrual periods. Reviewers of the topic, such as Behrend (1959) and Gadourek (1965), seem convinced that physiological factors are minor considera-

tions. Instead they view the societal expectations concerning the female role (family tasks and jobs offered in industry) as well as the self-expectations (especially concerning frailty and competence) as fruitful areas of research. In addition to societal expectations and self-expectations, Gadourek (1965) suggested that other variables and their relationship with sex be considered. He noted that most studies fail to examine the simultaneous effects of sex, age, and seniority on absence behavior.

Marital Status and Number of Dependents

Family responsibility is another factor which has been examined with respect to differences in absence behavior. Behrend (1959) attempted to explain the divergent results concerning absence behavior and family responsibility by postulating that female absences correlate positively with the number of children because of increased home demands made upon the mother. For men, the correlation between number of dependents and absences is negative, she argued, because being dismissed for excessive absences would leave the male unable to meet his family responsibilities.

Seven studies provided results which fit reasonably well within Behrend's explanation. Liddell (1954) reported that single male coal workers lost more weeks per year in voluntary absence than did men with family responsibilities. In a study of approximately 2,400 Indians, Europeans, and native male workers in South Africa, Lapping (1953) found that single Indians and Europeans had higher percentages of working days lost than did married Indians and Europeans. Native South African married men, whose wives lived out of town in reserves, behaved like

the previously mentioned single workers and were absent more than the natives with wives in the city.

The percent of working time absent for single males with no dependents, as reported by Jackson (1944), slightly surpassed the average of seven percent for the machine shop being studied. The percentage was higher for single males with one or two dependents and for married males with no dependents. As the number of dependents of married males increased, the absence rate was found to decrease. Kahn, Ryder, Snegireff, and Wyshak (1957) stated that for married men under age 45, absence frequency rates tended to decrease with increasing family ties. Also in agreement with Behrend's theory, Noland (1946) found that male workers with better absenteeism records (days per month) had a greater number of dependents than those workers with poor records. For female clerical workers, Naylor and Vincent (1959) reported a significant ($p < .01$) positive relationship between the number of days absent and the possession of dependents. Behrend (1959) reported that married women working in a food-processing plant had a higher Monday absenteeism rate than single women and a higher Other Reason Absence Rate than for the factory as a whole.

Shepherd and Walker (1958) found that the relationship between the average number of absences and average number of shifts lost per 100 men, among the six wage levels examined, was "U" shaped with respect to increasing family responsibility. This same relationship was found for absence without permission and sickness absences, except that the "U" shape was more well-defined in the low pay groups. Waters and Roach (1971) reported no significant relationship between marital status

and frequency of absences for 160 non-supervisory female office employees. Gadourek (1965) in his factor analytic study of the attitudinal, social, personal, and work group characteristics of male Dutch workers found a low, but statistically significant correlation between absence frequency and possession of children. One interpretation of this finding was that married workers with children accepted better paying, yet more dangerous work and, therefore, were exposed to greater possibility of injury.

Wage Level

From the seven studies encountered, there was no clear indication that either employees making high or low wages are more often absent or absent for longer periods of time. Gibson (1966) offered two explanations of such diverse findings with respect to wage level and absence behavior. These interpretations would appear to apply not only to salary but also to job level, since these are usually related. The first explanation given was that at higher levels of wage and responsibility, a worker may feel that he has to be present at work to set an example or to insure future advancement. The second explanation offered was that a person working at a lower wage level may feel himself to be of little value and to possess little chance for improvement at another place of work. This person would probably be too insecure to risk compiling as many absences as better paid, more valued employees.

Two studies (Kahne, et al., 1957; Canfield and Soash, 1955) came to the very general conclusion that hourly-paid employees had poorer attendance records than salaried employees. These findings would tend to provide weak support at best for the first of Gibson's explanations

since no attempts were made to control for the effects of seniority, skill, or age. Metzner and Mann (1953) also reported that high absence groups (five or more absences in a six month period) among blue-collar workers had a significantly larger proportion of men in the low pay category. This result should be accepted with caution since the influence of job grade was not controlled.

Support for the second interpretation may be found in studies by Shepherd and Walker (1958), Liddel (1954) and Metzner and Mann (1953). Shepherd and Walker examined total absence, sickness absence, absence without permission and absence with permission for six hourly wage rate groups. The average number of absences and average shifts lost per 100 men per year were calculated for each wage level. The subjects were 245 male workers in an iron works who were matched with respect to number of dependents, age, heaviness of their work, and the work place temperature. Except for the lowest pay group, both total absence figures increased as the rate of pay increased. With the exception of the lowest and highest wage groups, absence without permission varied positively with increasing wage. There was little relationship between wage and absence with permission, except that there were slightly more absences in the lower three pay groups. However, absence because of sickness increased with increasing wage level. Similarly, in 1954, Liddel had noted that higher earnings were associated with more voluntary absences among underground coal mine contractors over the age of 40 and among underground workers.

Metzner and Mann (1953) reported that the highest absence groups (four or more absences during a six month period) among white-collar

workers contained significantly smaller proportions of men earning less than \$65 per week. Also, there were more women earning less than \$55 per week in the low absence group (two absences or less for the six month period). These results would be consistent with Gibson's second explanation, if the effects of age and length of service had been adequately controlled.

Baumgartel and Sobol (1959) noted that for blue and white-collar women and white-collar men, there was a positive relationship between wage, age, and seniority and both mean days and mean times absent. However, when the other two effects were partialled out, there appeared to be no relationship between wage and absence rates.

Behrend (1959) remarked that the equivocal literature on the subject fails to indicate that the influence of wage rates on absenteeism is anything but a complex phenomenon. The complexity of the issue derives from the fact that salary is linked to such variables as seniority, skill level, age, and sex. Few studies control adequately for the influence of these variables when examining the relationship between wage and absence behavior. Among the studies reviewed in this section, only two (Baumgartel and Sobol, 1959; Shepherd and Walker, 1958) attempted such control. Longitudinal studies wherein individual absence rates are monitored as pay increases occur would seem to be an appropriate, new approach to the study of the influence of changing wage rates on absence behavior.

Behrend added that the effect on absence behavior of changes in the wages of individuals within a given job should be the subject of subsequent studies. She concluded by advancing the assumption that "it is

likely that conceptions of earnings rather than actual earnings matter most" and that individual status and situational variables determine the functioning of this conception within the realm of absence behavior.

Day of the Week, Shifts Worked, and Incidence of Payday

The general findings with respect to the relationship between the day of the week and absenteeism indicate that the first and last days of the week involve the poorest attendance rates. Canfield and Soash (1955) in a one month survey of absence statistics for Los Angeles manufacturers found a tendency for Monday to be the worst day of attendance. Wednesday and Thursday were reported to claim the best attendance records. The majority of the 219 firms studied, however, paid their employees on Friday. Therefore, the investigators felt that the "payday" factor increased the attendance on that day. Companies which utilized Monday as their payday had lower percentages of absences on that day than Monday percentages for all the companies combined. Also, it was noted that absence rates on days before and after holidays were lower for those companies requiring attendance as a prerequisite for receiving holiday pay. Baldamus and Behrend (1950) earlier had reported that the average number of absences per day, expressed as a percentage of Friday absences and computed on a weekly basis, was greatest on Monday and improved as the end of the week approached. This trend for the 7,000 employees examined remained the same throughout the year except when breaks in the schedule (e. g., vacations and bus strikes) were accompanied by increased absences. During one year in which a six day work week was scheduled, Saturday became the worst day of attendance. Gadourek (1965) cited additional evidence from Dutch studies wherein the Monday absen-

teeism problem was shown to be more severe than Friday or Saturday absenteeism.

Data relating to the influence of shift work on absence behavior have not provided clear evidence of consistent relationships between shift work and absence behavior. Shepherd and Walker (1956) examined the distribution of short-term absences from work on two types of three-shift systems in an iron and steel works. Seventy-five percent of the single shift absences for both shift systems occurred on the morning shift, but there appeared to be no preference for any specific day of the week. Evaluating a system which offered a pay advantage of four hours to night shift workers in a metal factory, Sergean and Brierly (1968), however, found the highest percentage of lost shifts occurring on the night shift over a two year period. Even though the night shift received the four hour pay benefit, the day shift encountered the greatest opportunity for overtime work. The authors expressed uncertainty as to whether dislike for night work or the attraction of overtime during the day shift was the contributing factor in accounting for the higher percentage of lost shifts at night. Behrend (1959), noting the apparent influence of the "payday" factor, cited the Wyatt and Mariott (1947) report which stated that nightshift workers paid during the Thursday night shift were absent less on that night, but more on Friday. Therefore, the occurrence of payday should be considered before attributing poor attendance to any particular time of the week or shift schedule.

Employment Level

Available literature seems to suggest that as full employment is

approached, absenteeism increases, but that as jobs become scarce, absenteeism dwindles. Behrend (1953) reported that as unemployment doubled in approximately one year, a statistically significant decline occurred in the number of days lost through absence for other than certified illness. This decline was noted in all but one of fourteen factories examined.

Similarly, Crowther (1957) examined monthly records of ten British factories over a five year period in the context of changing work population sizes and fluctuations in the number of persons employed. Each factory employed at least 500 men, and eight factories employed over 270 women. As unemployment increased, the monthly absence rate, computed as the ratio of days lost to days scheduled, decreased. Gadourek (1965) cited an earlier Dutch study which showed a negative relationship between the unemployment percentage and an estimate of the total absence percentage for seven industrialized Western countries, including the United States.

Length of Service

Eight studies seem to support the belief that decreased absenteeism accompanies increased length of service. Gibson (1966) explained this phenomenon in terms of a stronger degree of identification with the organization, which he postulated would develop over time. Gadourek (1965) speculated that this relationship might result because unhappy workers, who may more readily be absent have left.

Metzner and Mamm (1953) found that white-collar groups with low absence records were characterized by fewer men with less than five years of experience. The same finding did not materialize for blue-

collar men, but there were fewer short service white-collar women in the lowest absence group who earned under \$55 per week. Salary and length of service were not partialled out in order to determine their contributions to the relationship. Hill and Trist (1955) examined records of 289 men in their first four years of service with a British iron and steel works company to see if the tendency to be absent changes with increased length of service. A four year period was divided into eight one-half year intervals. The results showed an increase in the number of shifts lost as a percentage of shifts scheduled over the first two intervals, then a drop until period five and thereafter a leveling trend for the remaining time period. The change was explained by the authors as an adjustment to the accepted absence pattern of the company. That is, sanctioned absences increased but "no reason, able-bodied" absences decreased over the four year period.

Kahne, Ryder, Snegireff, and Wyshak (1957) noted that the absence frequency rate (average number of absences per 100 scheduled work days) for 619 male and female, skilled and semi-skilled, plant workers, who were under 45 years of age, decreased with length of service. For the over 45 age group, the frequency rate also dropped with the length of employment, but the decrease was more gradual. However, there was no attempt made to control for differences in age within groups. Fox and Scott (1943) noted that the number of absences, during a three month period in a casting shop and a sheet mill, was less for employees with more than one year of experience than for those more recently employed. Behrend (1959) reported that her earlier study uncovered a situation wherein engineering workers with no Monday absences in a nine month

period, had been employed twice as long as men with an obvious Monday absenteeism problem. Jackson (1944) also found that the average percentage of working time lost among machine shop employees decreased as the length of service increased.

Baldamus and Behrend (1950) examined the average number of absences among factory workers on each day of the week. Those employees with less than three years of service showed greater average absences at the beginning of the week than those employees with over three years of employment. This trend was interpreted to reflect "the morale" which improved as payday and the end of the work week approached. Waters and Roach (1971) recently reported a low, but significant, negative correlation between company tenure and absence frequency for 130 non-supervisory female office workers.

In a study of airline employees, Baumgartel and Sobol (1959) found for white-collar men and women and blue-collar women a fairly consistent positive relationship between seniority, wage level, and age and mean days and mean times absent. By employing partial correlation, seniority was shown to be the significant factor in this grouping when sex and collar were held constant. Using Kendall's tau, they found a significant positive relationship between seniority and mean times absent. Among blue-collar men, the mean seniority was negatively related to mean days absent. Except for a small group with high seniority, higher mean days absent among blue-collar males seemed to occur in the middle years of employment with fewer mean days absent in the early and late years of employment. It was found that the longer service men in blue-collar job classifications were absent less (both

with respect to mean days and mean times absent).

Supervision

Mayo (1945) stated that the reason for low absences (number of days) in one department of a sheet metal company appeared to be the foreman's behavior. The foreman in the department had been taught the importance of listening to his workers and avoiding emotional "outbursts" when handling employee problems. Also, the foreman and workers jointly arranged the "day-off" schedule for each week. This same ability of the foreman to communicate with his workmen was noted by Covner (1950) in a manufacturing department with the best attendance record. Similarly, Lennerlof (1966) noted that workers who rated their supervisor high on the "consideration" dimension (behavior indicative of mutual trust and respect between the leader and his group) had significantly fewer "no reason absences." In 1955, Fleishman, Harris, and Burtt had also noted that foreman "consideration" correlated $-.49$ ($p < .01$) with absenteeism rate (number of absences per worker over a common unit of time), while "structure" (leader endeavors to establish well-defined patterns of organization and procedures) correlated $.27$ ($p < .05$).

Mann and Baumgartel (1952) found that foremen who hold group discussions have lower absence rates among their workers. Only 18 percent of the blue-collar men in work groups having a low average absence rate stated that their foreman "practically never" had group discussions; on the other hand, 34 percent of the men in the high absence rate groups stated that these meetings "practically never" occurred.

Mann and Sparling (1956) compared two plants in the same company where absence offenders were treated differently. In one plant where absences dropped the most, there was increasing administrative control with conferences used with offenders and written proof required where the offenses continued. The absences were low, but resentment toward management practices was high. In another plant, discipline was handled informally by an immediate supervisor, but the plant superintendent insured that "favoritism" was not practiced. In this instance absences also decreased, but, in contrast to the first plant, attitudes toward management remained favorable.

Tucker and Lotz (1957), in a study of 22,052 employees in the Detroit Edison Company, found absence rates (days per year) lower than average for 71 percent of the departments where first-line supervisors, rather than higher administration, made decisions regarding pay during absence periods. Only 48 percent of the departments, where higher administration made the decision, possessed lower than average absence rates. In a group of 14 departments in which 30 percent or more of the men had excessive single day absences, 64 percent of the departments placed the responsibility for decisions concerning payment at higher supervisory levels. Whereas, in a group of 14 departments in which 15 percent or less of male employees had excessive absences, 64 percent of the departments placed the responsibility with the first-line supervisor.

Argyle, Gardner, and Cioffi (1958) found that the foreman behavior characteristic referred to as "democratic" was significantly positive in relationship ($\underline{p} < .05$) to low absenteeism (as determined

by the Worst Day Index) for each of three departments studied. The foremen were separated into high and low categories relative to the "democratic" foremanship dimension using the average rank-order on interview data, a managerial rating, and a foreman description preference test.

A study supporting the "structure" leadership approach was reported by Gadourek (1965) who found that under the conditions of "first job" and close supervision, absence frequency was less. It was also noted that fewer absences occurred in groups which were supervised by foremen recruited from outside the group. Men whose foremen admitted spending little work time in supervision were absent more often. Those foremen who wished to gain more supervisory power had fewer absences among their workers. All but one of the studies reviewed in this section have tended to associate "general," "democratic," "employee-centered" leadership styles with low absenteeism among employees.

Physical Conditions of Work

In 1959 Behrend stated that sufficient evidence had not been presented to suggest that high absenteeism resulted from poor working conditions. Fox and Scott (1943) found that better working conditions did not accompany better absence records in casting shops which they studied. Behrend, voicing the opinion that "bad jobs," not bad conditions, accompany high voluntary absences, quoted from her 1951 study wherein she found that the "Blue Monday Index" was much lower for floor moulders than for foundry labourers though the same work conditions prevailed in each case. Shephard and Walker (1957) found no

relationship between average heaviness and temperature ratings of the work and absence frequency.

Liddell (1954) found no indication that attendance at a colliery was influenced by the availability of "pithead baths" or by the "extent of service in pit canteens." No relationship was observed between absences among underground workers and "depth of the shaft, seam thickness, or degree of mechanization." However, he noted that voluntary absence was greatest among the "face workers" whose work was the hardest, but whose pay was the highest. Gadourek (1965) found that heaviness of the work, heat involved, and exposure to dust were positively related to absence frequency for Dutch male blue-collar workers.

One might expect that excessive absences would accompany jobs wherein poor physical work conditions exist. However, little support for this belief has been demonstrated by the studies presented in this brief review.

Distance to Work

Although the number of cases supporting the hypothesis is small, all of the studies encountered tend to suggest that as distance increases between the place of residence and work, the worker's absence rate also increases. Of course, the problem of transportation makes a contribution to this relationship (Jackson, 1944; Canfield and Soash, 1955). In 1954, Lapping noted that as the distance of the residence from work increased, up to about 10 miles, the percentage of days lost from work showed a rising trend. Liddell (1954), making observations in a rural coal field, discovered the same phenomenon. In later studies, Isambert-Jamati (1962) and Gadourek (1965) reported a positive relationship between

absence rates and distances between the home and the work sites for Parisian female workers and for Dutch factory workers.

Job Classification and Job Level

Behrend (1959) concluded that "the available evidence suggests there is a strong association between absenteeism and type of work." Metzner and Mann (1953) found that blue-collar workmen averaged about one-half absence more for the six month period than did the white-collar men ($p < .05$). An analysis of variance performed on absence rates by Baumgartel and Sobol (1959) indicated that the variability of absenteeism (mean days absent) across job classifications, e. g., within each of four sub-populations (blue-collar males, white-collar males, blue-collar females, and white-collar females) was "greater than the variability contributed by age, wage, or seniority and less than that contributed by the location with the company's scattered organizations." Among blue-collar men it was noted that both mean days and mean times absent decreased ($p < .05$) as personnel department ratings of the job on "social status," "responsibility," and "freedom" increased. No significant relationships were found among these variables for groups of white-collar females. Among white-collar males the only significant correlation revealed that as the "responsibility" rating increased, mean times absent also increased. Blue-collar women were not examined in this analysis because of their small sample size.

Gibson (1966) cited a study by the Board of Education of Chicago which reported increasing mean number of days sick leave taken per month as job status decreased. Administrators had the lowest absence rate (.30 average number of days). Within four levels of teaching positions,

college teachers had the lowest rate which was .37, while vocational teachers evidenced the highest rate of .80. Among four levels of unskilled workmen employed by the board of education, watchmen had the lowest absence rate (.95) and window washers the highest (1.39). In a study of eight industrial establishments in Paris, Isambert-Jamati (1962) reported that the "higher the level required by the job and the more responsibility involved, the greater the degree of assiduousness noted among both women and men." Similar results have been evidenced in other investigations (Canfield and Soash, 1955; Kahne et al., 1957; and Tucker and Lotz, 1957). More recently, Waters and Roach (1971) found job grade significantly correlated ($-.23$; $p < .01$) with absence frequency among white-collar female workers. However, Gadourek (1965) failed to find any significant relationship between skill level and absence frequency, although there was a tendency toward more frequent absences among unskilled workers.

Therefore, nine of the ten studies examined indicated that job level or classification is an important consideration when considering absence behavior. Most of these studies, however, failed to control for the influences of age and length of service. A longitudinal approach, wherein absence behavior of an individual is followed as he attains higher job levels, should be considered in future research.

Personality

The scarcity of studies dealing with the relationship between absence behavior and personality variables was noted by Cooper and Payne (1967). Using the Eysenck Personality Inventory, these authors discovered that, among 55 female plant operators, nonpermitted absence frequency

correlated .16 and .19 ($\underline{p} < .05$) with extraversion and neuroticism, respectively. For nonpermitted absence, as measured by total days lost, the correlations were .15 ($.05 < \underline{p} < .10$) and .16 ($\underline{p} < .05$) with extraversion and neuroticism. With the effects of age and neuroticism partialled out, extraversion was found to be correlated .14 with nonpermitted absence frequency and .14 with nonpermitted total days absent. Neither correlation was significant at the .05 level.

Lokander and Machl (1964) examined 225 Swedish workmen using the Bronner Personality Inventory. The "manic factor" was found to be significantly correlated, in a positive manner, with the number of absence spells within a given period of time expressed as a ratio of the average number of persons under observation. However, the authors concluded by stating that since all the factors on the Bronner Personality Inventory were correlated, it could not be concluded that only the "manic factor" was related to absence frequency. Plummer and Hinkle (1955) found great personality differences between 20 women with the highest and 20 women with the lowest absence rates during 20 or more years of service with the New York Telephone Company. The average high-absence person was found to be resentful and unhappy, while the low-absence person on the average was more contented. The high-absence employees had 492 occasions of absence, while the low-absence people had only 23 periods of absence. Using the dichotomy three or less days per year absence and six to twelve days per year, Newton (1950) studied 62 machine tool operators at a metal fabricating plant. The two absence groups, which were controlled for length of service, age,

and distance to work, were administered the Guilford-Zimmerman Temperament Schedule. On the General Activity factor, the low-absence group scored significantly higher on the characteristic "strong drive and energy." The low-absence group also appeared to score higher on "emotional stability, optimism, and cheerfulness." Examining the relationship between anxiety and absenteeism, Sinha (1963) found a correlation of .89 between scores on the Taylor Manifest Anxiety Scale and the number of days absent per year for 110 Indian plant workers. An interesting result is reported by Gadourek (1965) who noted a higher frequency of absences among groups of workers who said that they often thought about their work while at home. This relationship was noted only for group data, not individual absence records.

The contribution of personality variables to an understanding of attendance behavior has been researched only briefly. Future studies might explore the interaction of personality with other frequently used predictors of absenteeism.

Organization Size

Porter and Lawler (1965), in a review of the literature concerning job behavior and organizational subunit size, reported a positive relationship between absenteeism and organization size in ten of the twelve studies examined. Three of the studies were conducted by Revans (1958). Revans found significant moderate to high correlations between the logarithm of the factory size and absence duration due to accidents and sickness. The Acton Society Trust (1953) noted that more bonus shifts, awarded to coal workers who worked five consecutive shifts, were given to men working in smaller groups in the 18 pits selected for study. Their

study of non-coal industries, employing from under 600 to 1,000 workers, revealed that sickness and "other reason absences" increased with factory size. Baumgartel and Sobol (1959) found a significant positive relationship between absenteeism by airline employees and the number of persons employed. A more marked relationship was noted when mean days absent rather than mean number of times absent was used as the absence measure. The work group sizes at 11 locations varied from smallest (172-283 employees), small (381-639), large (1,330-1,554) to largest (3,174-3,205 employees). The relationship persisted even when sex, "collar," age, wage, seniority, and job classification were held constant. Porter and Lawler also cited the 1957 finding of the Research Council for Economic Security that smaller-sized plants (under 100 employees) had lower prolonged illness rates than middle-sized plants (100-500 employees). Hewitt and Parfit (1953) showed a positive association between group size and the number of absence incidents expressed as a percentage of the "expected" working days lost. The influences of sex, age, marital status, and type of employment were held constant. Kerr, Koppelmier, and Sullivan (1951) found large departments of companies to have higher absenteeism rates. Small blue-collar work groups were reported by Metzner and Mann (1953) to have had fewer mean days absent than larger work groups.

Only two studies were reported by Porter and Lawler (1965) which failed to indicate a positive relationship between absenteeism and work group size. A curvilinear relationship was reported by Argyle, Gardner, and Cioffi (1958) when three separate departments of a British manufacturing plant were divided into sizes of less than 20,

20-30, and over 30. The Worst Day Index was highest in the middle-sized group (20-30 employees), but dropped at either extreme. No relationship between size of work group (12 or more employees versus less than 12) and mean days absent per month was reported for white-collar men by Metzner and Mann (1953).

Three additional studies support the conclusions of the Porter and Lawler review. Covner (1950), Liddell (1954), and The Acton Society Trust (1957) each reported that larger work group size tended to accompany more absenteeism. When departments were grouped by size (1-9, 10-19, 20-39, and 40 or more people), Covner noted, in his study of 868 manufacturing employees, that larger-sized departments tended to have a greater number of absences per month. Liddell described the relationship he discovered in 133 collieries as indicating a marked positive association between pit size and the voluntary absenteeism rate. The Acton Society Trust found that man days lost per man tended to increase as the work group size increased within five manufacturing works.

Attempts to explain the relationship between organization size and member participation were reviewed by Indik (1963). He credited Revans (1958) with offering the clearest presentation of this phenomenon. Revans postulated that operatives will work toward the aim of the organization if management provides what they need to reach that goal. Therefore, increased organization size might tend to accelerate faulty communication. He further proposed that morale, as a function of the difference between workers' expectations and experience, will then decrease and that absenteeism, accidents, and strikes will increase. Indik also offered three paradigms to explain the relationships among

increased size, members' attitudes toward the group and/or the organization, and the amount of member participation. The moderators utilized in the three paradigms were bureaucratization and impersonal controls, decreased member communication, role specialization, decreased job complexity, and decreased individual satisfaction.

Job Attitudes

In three reviews of the job-satisfaction literature (Brayfield and Crockett, 1955; Herzberg, Mausner, Peterson, and Capwell, 1957; and Vroom, 1964), the majority of the available evidence supported the notion that a negative relationship exists between job satisfaction and absenteeism. Brayfield and Crockett reported this negative relationship in five of the seven studies they analyzed. The same trend was noted in twelve of the thirteen articles which Herzberg et al. reviewed. Seven years later, Vroom concluded that the negative relationship appeared in six of nine studies which he examined.

Nine studies, representative of the research quoted in the previously cited literature reviews, suggest negative relationships between job satisfaction and absence behavior. Kornhauser and Sharp (1932) noted that unfavorable job attitudes among female machine operators were slightly correlated with time lost because of sickness. Among 550 machine-shop workers, Jackson (1944) found that there were 120 employees with absence rates greater than the plant seven percent average. Dissatisfaction with work was indicated by the employee or his foreman as the cause of the poor attendance in 16 percent of the cases. In 1946, Noland indicated that the number of days absent per month decreased among factory workers as employee expressions of job

satisfaction increased. Giese and Ruter (1949) studied 3,000 subjects working in 25 departments of a mail-order company. They established that morale correlated higher with the departmental mean percentage absent (-.47) than with percent production efficiency (.19), percent error efficiency (.15 to .27), percent turnover (-.42), or percent late (-.20). It should be noted that the highest correlations occur with absence and turnover criteria which represent withdrawal from the work situation.

Kerr, Koppelman, and Sullivan (1951), while studying 25 departments in a metal fabrication plant, found departmental mean scores on the Tear Ballot for Industry to be correlated -.44 with unexcused absenteeism, while correlated .51 with total absenteeism. In an attitude survey relating to merit ratings, Van Zelst and Kerr (1953) discovered a definite, but moderate correlation (.21) between overall job satisfaction and a favorable self-reported absenteeism record (days per year) among 340 employees from 14 separate companies. Metzner and Mann (1953) reported that sex and job level moderated the relationship between absence frequency (mean number of times absent) and job satisfaction. There was no significant relationship indicated for the 212 white-collar women as a group, nor when high and low job-level subgroups were examined separately. Among 163 white-collar males, ten of fifteen attitude measures showed significant negative associations with absence frequency. When job level was controlled, the association persisted only for the lower level white-collar jobs. Among 251 blue-collar males, nine of eighteen attitude variables were significantly and negatively related to the absence frequency criterion.

Sawatsky (1951) suggested that the reasons for higher absenteeism and turnover among machine operators compared to nonmachine operators were reduced communication and reduced social interaction with other production staff members. Since their chance to receive social recognition was diminished, they were less likely to become ego-involved with the group members or the work. Therefore, their job satisfaction became low and they tended to be absent or terminate more often. Fleishman, Harris, and Burt (1955) cited evidence that morale is negatively related (-.25) to the number of absences per worker. The morale index was derived from the "like" ratings for foremen expressed by the workers. Using a multiple correlation approach, Harding and Bottenberg (1961) reported a negative correlation (-.38) between eight attitudinal variables and the number of times each of 326 airmen asked to be excused from duty for reasons other than sickness.

Among studies which Brayfield and Crockett, Herzberg et al., and Vroom cited as failing to indicate a negative relationship were the following three. Using the number of days absent in a six week period, as supplied by the questionnaire respondents, Yoder (1951) could find no significant relationship between an attitude index, based on 66 items, and the absence criterion. In 1952, Bernberg also found no significant relationship between morale scores for 890 hourly-paid aircraft employees and short-time absences (less than a full day) or the number of days absent. Similarly, among 489 oil refinery workers, Vroom (1962) reported only a -.07 correlation between job satisfaction and the number of times absent during the year preceding the survey. The job satisfaction index was defined as the sum of the responses to three questions

concerning feelings about the supervisor, feelings about the kind of work performed, and overall feelings toward the job.

Other studies, pertinent to the area, presented findings favorable to the conception that job satisfaction is negatively related to absence rate. Lennerlof (1966) in a study of 113 Swedish workmen, found fewer "no reason absence" among workers satisfied with their work-mates (-.24, and -.33), immediate supervisor (-.28), senior managers (-.27), immediate supervisors' treatment of personnel (-.37), senior managers' treatment of personnel (-.25), senior managers' general supervision (-.28), and the description of the immediately superior supervisor (-.35). Yuzuk (1961) found significant correlations ($p < .05$) between the mean number of absences (over a four month period) in a department and the following morale factors: job satisfaction (-.47), conditions of work (.56), general competence of fellow employees (.50), and interpersonal relationship with the supervisor (-.46). Patchen (1960), in a study of 487 Canadian oil workers, found that the mean number of absences per year was significantly higher for employees who felt that their present chances for promotion were not "as good as they should be." Men who were satisfied with past promotions and were satisfied with the fairness of their present chances had a lower absence rate. Of those men who felt present chances for promotion were "fair," men resentful about the lack of past promotions were absent more often. Men who felt that the pay for their present jobs should be higher had more absences than those who felt that their pay was "fair." All of these differences in absence rate between satisfied and dissatisfied workers were significant at or beyond the .05 level. In 1960, Talacchi noted a significant

negative relationship between level of job satisfaction and the number of short absence periods composed of three days or less.

The influence of attitude similarity among co-workers on the decision to be absent or attend work was demonstrated in a laboratory experiment. In an unpublished study, Lamberth and Padd found that as attitude similarity increased between 64 subjects and hypothetical "work partners" a greater willingness to go to work was expressed. The subjects were asked to indicate what their behavior would be on a morning on which they did not feel well and had on similar occasions been absent 50 percent of the time.

Wherry (1958) quoted the finding from Hitt's unpublished 1956 doctoral dissertation that a nonspecified measure of absenteeism was lowest when workers expressed favorable attitudes toward supervision (-.31) and job setting (-.12), and had high pride in the company (-.70). However, absenteeism was also highest when attitudes were favorable toward the work load (.36) and fellow employees (.21).

A factor analysis of attitude, demographic, and absence data for 2,209 male, Dutch workers resulted in a surprising finding. "Absences and satisfaction are quite distinct things," commented Gadourek (1965), after examining group and individual responses to an attitude questionnaire. Factor analyses of group and individual responses either placed high satisfaction with the work and low absence frequency on separate factors or high work satisfaction and high absence frequency on the same factor with wide discrepancies between the loadings. Individuals with high frequency of absences (factor loading .556) were found to evaluate their health as poor (.768), possess many psychosomatic complaints (.552) and complain of preoccupation with work while at home (.310).

CHAPTER II

STATEMENT OF THE PROBLEM

In a recent investigation of the relationships between job attitudes and absence frequency among female clerical workers, Waters and Roach (1971) found low, but significant negative correlations between the absenteeism criterion and the work scale ($-.28, \underline{p} < .01$) and co-worker scale ($-.18, \underline{p} < .05$) of the Job Description Index (Smith, 1967). Significant negative associations ($\underline{p} < .05$) were noted with ratings of satisfaction/dissatisfaction on sense of achievement ($-.18$), work ($-.20$), and salary ($-.21$). An over-all measure of satisfaction/dissatisfaction correlated significantly ($-.23, \underline{p} < .01$) with absence frequency, as did a separate over-all satisfaction measure ($-.28$).

Despite the fact that these correlations are low, the implications are especially important when compared to the conclusions of the most comparable study cited in the literature (Metzner and Mann, 1953). In the earlier study, the researchers examined job attitudes, mean frequency of times absent and personal characteristics among 212 white-collar women in accounting departments of an electric power company. The hypotheses tested were that groups of employees having high rates of absence would express dissatisfaction with the kind of work performed, personal practices, wages, chances for promotion, the supervisor and his practices, and work group pride. None of these hypotheses were confirmed for the women as an entire group or for

groups separated into high and low skill level jobs.

Certain differences, however, between the two studies should be noted. Whereas Metzner and Mann used group data on absences and examined the effects of high and low job level, Waters and Roach obtained the more desirable individual measures of absences, but failed to examine the differential influences of job levels on job satisfaction and absenteeism. Only the later study makes an overt reference to a particular theoretical position, that of Vroom (1964). Within the context of his instrumentality model, Vroom theorized that:

. . . the valence of the work role to its occupant is directly related to the strength of the force acting on him to remain within that work role. In other words, workers who are highly attracted to their jobs should be subject to stronger forces to remain in them than those who are less attracted to their jobs. These stronger forces to remain should be reflected in a lower probability of behaviors which take the person out of his job, both permanently and temporarily (p. 187).

Waters and Roach expressed the conviction that Vroom's proposed connection between job attitudes and withdrawal from work had been supported by their finding that turnover and absenteeism were negatively related to expressions of job satisfaction.

In an effort to examine the same major variables in a similar work population, the present study explores relationships among job satisfaction, demographic information, and rates of absenteeism among female secretaries. This investigation adopts Gibson's (1966) concepts of absenteeism. It should be noted that the rationale of the Gibson model strongly resembles the instrumentality model as developed by Vroom or as extended by Graen (1969).

The Gibson model is based on the assumption that man seeks need-gratification while organizations desire that certain goals be obtained.

According to Gibson, need-directed man enters into a work contract with the goal-directed organization, agreeing to perform certain services so as to receive in return the benefits and wages necessary to fulfill his personal needs. The interaction of a man's priorities concerning his needs with his predictions concerning the consequences of his actions creates his system of beliefs and values. Filtered through this system, the perceived desirability of objects and events creates "a tendency to act positively or negatively toward those perceived objects and events." Therefore, Gibson argues that man adopts certain identifications (characterized by positive or negative valences which may be strong or weak) with tasks, rewards, and objects in the work setting. The resultant, or centroid of all valences, Gibson labeled the "core identification."

An absence event is assumed to be the result of the operation of the individual's belief-value system and is impeded or facilitated by the strength and direction of identification within the work-space and in the life-space outside the work area. Thus, if core identification is weak or negative, it is assumed that it will be easier for the person to legitimize his absence to himself (p. 115).

In other words, if over-all attraction to work is weak or negative, an individual might more easily rationalize his absences.

Similarly, one of Gibson's general propositions is that the frequency of absences "varies inversely with the valence of work identification." A restatement of this proposition, in more conventional terms, becomes the first and basic hypothesis to be tested.

Hypothesis 1: A negative relationship exists between employee expressions of job satisfaction and frequency of absences.

Four additional hypotheses were generated by the Gibson proposition that "As the location of core identification varies from centrality in the work-space toward and into the outside life-space, frequency of absence

will increase" (p. 133). That is, as attraction to objects and events in one's social and personal life begin to dominate, more absences will occur. Those factors which might act to alter the location of core identification for an individual include job and wage level (Isambert-Jamati, 1962), length of service (Kahne et al., 1957; Metzner and Mann, 1953), and age (Tucker and Lotz, 1951; Kahne et al., 1957). Stated differently, increased attachments to work which accompany prolonged contact with the organization or increased age, salary, or job level might counteract low job satisfaction which ordinarily would lead to temporary withdrawal from work. This study was, therefore, designed to test:

Hypothesis 2: A negative relationship between job satisfaction and frequency of absences will be more pronounced for young employees,

Hypothesis 3: A negative relationship between job satisfaction and frequency of absences will be more pronounced for employees with short lengths of employment,

Hypothesis 4: A negative relationship between job satisfaction and frequency of absences will be more pronounced for employees who work in the lower paying jobs, and

Hypothesis 5: A negative relationship between job satisfaction and frequency of absences will be more pronounced for employees who work in lower job levels.

Gibson's (1966) concept of authenticity, the attitude of faithfulness to a contract by either party, seemed to provide a pertinent issue to be considered when examining the attendance behavior of employees. He felt that the

. . . formal contract specifies relatively few of the rights and duties of the parties to the contract. Most of them are included informally, as a quasi-contract, within the consensual and discretionary areas. Consequently, the ethical commitment, the justice, or the sense of fair play on the parts of the contracting agents becomes fundamental to the satisfactory implementation of the contract (p. 121).

In connection with the concept of authenticity, Patchen (1960) found that employees, who felt that company decisions regarding their salaries and promotions were unfair, tended to be absent more often. Adam's (1963) Inequity Theory offers a conceptualization within which one may examine behavior changes which result from treatment perceived as inequitable. The Inequity Theory states that:

When the normative expectations of the person making social comparisons are violated--when he finds his inputs and outcomes are not in balance in relation to those of others--feelings of inequity result (p.424).

Inequity was postulated to produce tension within the person which would be equalized by: increasing one's "inputs" (personal investments), if they are lower than the other party's "inputs" and one's own "outcomes" (rewards); decreasing "inputs," if they are high relative to those of others and one's own "outcomes;" increasing one's "outcomes," if they are low relative to "outcomes" of others and to one's own "inputs;" decreasing one's "outcomes" if they are high relative to other's "outcomes" and one's own "inputs;" leaving the field when experiencing inequity (e. g. transferring, terminating, or being absent); psychologically distorting one's "inputs" and "outcomes" in either direction as needed; applying the first six coping techniques to the other person; or changing the "other" whom one uses for comparison. Within such a theoretical framework, the following two hypotheses were formed to examine the relevance of Patchen's findings for secretaries.

Hypothesis 6: Those employees who feel mistreated compared to other employees with respect to pay increases will tend to be absent more frequently than those who feel equitably treated, and

Hypothesis 7: Those employees who feel mistreated compared to other employees with respect to promotion consideration will tend to be absent more frequently than those who feel equitably treated.

The eighth and ninth hypotheses are based on findings that absence offenders frequently fail to recognize absenteeism as a problem (White, 1960) and that workers supervised by those believed to be unconcerned with absenteeism as a problem tend to be absent more often (Tucker and Lotz, 1957). Hence, the present investigation involved:

Hypothesis 8: Employees who fail to express concern for absenteeism as a problem will tend to be absent more frequently than those responding oppositely, and

Hypothesis 9: Employees who believe that their supervisors do not see absenteeism as a problem will tend to be absent more frequently than those responding oppositely.

A final hypothesis resulted from the findings of two studies. Female clerical workers, who possessed dependent children, were found to be absent more often than employees having no children (Naylor and Vincent, 1959). Gadourek (1965) noted that male plant workers who had many previous jobs were absent frequently. Turnover (job change) is often considered as the ultimate expression of withdrawal from work, while absenteeism is seen as a less severe expression (Vroom, 1964). Within this conceptualization, it appeared probable that joint possession of an unstable employment record and the responsibility for dependent relatives at home might characterize female employees with frequent absences.

Hypothesis 10: Female employees possessing one or more dependents and a history of many previous jobs, will tend to be absent more frequently than those possessing no dependents and a history of few previous jobs.

CHAPTER III

PROCEDURE AND METHODOLOGY

Subjects

The 165 subjects studied in this investigation were employed at an educational institution as secretaries. Eighty-four subjects were in job level I, the lowest level. Thirty-four secretaries were in job level II, 33 in level III, nine in level IV, and one in level V. The job level of four subjects was undetermined. The subjects ranged in age from 19 to 63 years of age and in length of service from one to 331 months. Annual hourly and salaried pay for this sample ranged from \$2,550 to \$12,000. The educational level ranged from high school to six years beyond high school graduation. A maximum of four dependents was claimed, and no employee had more than eight previous jobs. Over a six month period, the frequency of absences for employees ranged from zero to 13 periods of absence. Two subjects were omitted from the sample because they failed to complete large sections of the job satisfaction questionnaire.

Job Satisfaction Questionnaire

The instrument used to measure job satisfaction involved three item formats which trace their origins to the item structures of a previous questionnaire (Loveland, Ronan, and York, 1968). Other investigations, cited in the literature on absenteeism, examined similar variables and provided support for each item. Twenty-eight items conformed

to the following format:

Opportunity to use your special skills and abilities:

- a. How much opportunity do you have?
 very little 1 2 3 4 5 6 7 very much
- b. How much opportunity should you have?
 very little 1 2 3 4 5 6 7 very much
- c. How important is this to you?
 not important 1 2 3 4 5 6 7 very important

The three questions per item attempted to provide respondents with an opportunity to record their evaluation of each item as it existed at that time, their expectation of how it should have existed ideally, and their estimation of the topic's importance to them. Subjects were asked to circle the number corresponding to their opinion on each of the three questions per item. The difference (b - a) was employed as an indirect measure of expressed need. To eliminate negative difference scores, the quantity seven was added to each difference score, thus creating a scale ranging from one to 13. The larger the difference score, the larger the degree of expressed need. In outlining his rationale of this measurement approach, Porter (1962) stated that the method has two presumed advantages:

(a) The subject is not asked directly concerning his satisfaction. Therefore, any tendency for a simple "response set" to determine his expression of satisfaction is probably reduced somewhat. It is more difficult, although by no means impossible, for the respondent to manipulate his satisfaction measure to conform to what he thinks he "ought" to put down versus what he actually feels to be the real situation. (b) **Secondly**, this method of measuring need fulfillment is a more conservative measure than would be a single question concerning simple obtained satisfaction. It takes into account the fact that higher level positions should be expected to provide more rewards because it utilizes the difference between obtained and expected satisfaction. In effect, this method asks the respondent, "how satisfied are you in terms of what you expected from this particular management position?" Thus, it is designed to be a realistic and meaningful measure in comparing different management groups (p. 378).

The second format consisted of 13 items with the following structure:

<u>Satisfaction</u>							<u>Importance</u>							
very				very				not			very			
dissatisfied				satisfied				important			important			
1	2	3	4	5	6	7		1	2	3	4	5	6	7
							Vacation Policy							

The respondents were asked to circle a number on the left corresponding to their satisfaction with items concerning policies, benefits, and other aspects of the work situation. On the scale to the right, they were asked to indicate the importance of each item to them.

The third item format required the subjects to indicate on the left scale the extent to which they considered each of the ten items to be a problem at work. The scale on the right allowed respondents to indicate the extent to which they believed that their supervisor considered the item to be a problem on campus. These items were structured as follows:

<u>Your Opinion</u>							<u>Your Supervisor's Opinion</u>							
very small				very large				very small				very large		
problem				problem				problem				problem		
1	2	3	4	5	6	7		1	2	3	4	5	6	7
							Employee Turnover							

Two questions concerning employee perception of equitable treatment in relation to pay increases and promotion consideration were included. These items appeared in the following format:

Compared to other employees, have you been treated fairly with regard to salary increases? (Circle One of the Following Responses)

Yes No Do Not Know

In only two instances did subjects encounter questions which failed to provide a multiple-choice answer format. The number of employee dependents was requested on the questionnaire. Secondly, an

open-ended response item was included on the instrument to enable respondents to express ideas and attitudes not given coverage in the questionnaire. The last page provided space for these written comments which were collected for use in a separate study.

The first draft of the instrument was submitted to one member of the subject population for her comments regarding instructions and item content. This subject was omitted from the actual attitude survey.

Data Collection

For 192 secretaries of job levels I, II, III, IV, and V the personnel department produced from computerized data and employee records, according to social security number, the following demographic data:

1. birthdate
2. marital status
3. highest educational level attained
4. date of employment
5. salary
6. job level
7. number of previous jobs
8. frequency of absences over a specified six month period

Subjects were notified by a letter from the personnel department (see Appendix A) that a job-attitude survey would be conducted on campus. Institutional secretaries who worked off campus also were contacted. In the following two weeks, the investigator personally delivered the questionnaires and returned for them at an agreed upon time, usually one, two, or three days later. Each subject was given a brown, unmarked Manila envelope in which to seal her completed questionnaire.

So as to utilize the demographic data collected by social security number, each respondent was requested to enter her social security number on the instrument. Subjects were assured that, as soon as a 5 x 8 inch card containing biographical information could be stapled to their questionnaire, both social security numbers on the instrument and the card would be destroyed. This procedure was followed immediately subsequent to transcription of data.

Subjects were informed that the biographical data would be used only to describe groups which responded similarly on the questionnaire. Those subjects who were hesitant to enter their social security numbers were encouraged to complete their questionnaires and return them without social security numbers.

The 15 employees who had terminated between the date on which absence and personnel data were collected and the time of the survey were mailed a copy of the instrument, the letter from the personnel department, an additional letter asking for their assistance (see Appendix A), and a stamped, addressed return envelope. Eight such attitude surveys were returned.

Of 192 secretaries whose names were supplied by the personnel department, 184 were contacted. The investigator was unable to contact eight members of this population. Only five employees refused to participate in the survey. The total questionnaires returned numbered 165, thus providing a 90 percent over-all return rate.

Usable absence data were available for only 166 salaried workers employed during the entire six month period for which frequencies of absences were compiled. One hundred and sixty-two of these employees

were among those contacted. The return rate for these secretaries, who identified themselves by social security number, was also 90 percent. That is, 145 of the 162 distributed questionnaires were returned.

Each item response on the questionnaire and all demographic data were key punched into computer cards.

The Criterion

The absence records were examined for 166 salaried employees who were employed between October 1, 1970, and March 31, 1971. A record was compiled of the frequency of absences (number of times absent without regard for the length of absence period) for each employee over two adjacent three month periods (October 1, 1970 to December 31, 1970, and January 1, 1971, to March 31, 1971). Absence frequency, rather than the total number of days absent, was chosen as a criterion measure because of higher reliability coefficients reported in the published literature (Huse and Taylor, 1962; Covner and Smith, 1951).

To obtain an estimate of the reliability of the absence frequency criterion, a product-moment correlation between the absence frequencies for two three month periods was calculated. These data, for the 166 salaried workers employed during the complete six month period, correlated .35 ($p < .01$). Through the use of the Spearman-Brown formula, an estimated six month criterion reliability of .52 was obtained. The total absence frequency for the individual employee over the six month period was used as the criterion in the study.

Analytic Design

Zero-order and multiple correlation were the statistics chosen to examine the relationships between job satisfaction variables and absence behavior as stated in the first hypothesis. Since two comparable studies (Metzner and Mann, 1953; Waters and Roach, 1971) examined overall job satisfaction among female white-collar samples, hypothesis one was tested initially by considering the relationship between general job satisfaction and frequency of absences. Hence, for overall satisfaction product-moment correlations between the criterion and the evaluative, difference, and weighted difference scores were computed.

Since most studies indicate that job satisfaction is multifaceted (Ronan, 1970), a second test of hypothesis one was performed. Item clusters, considered as dimensions of job satisfaction, were derived and were utilized as predictors of absence frequency.

The initial step in determining the item clusters involved calculating four intercorrelation matrices. The first matrix included the intercorrelations among the evaluative attitudinal items in the first question format, the demographic data, and all other responses, excluding the expectancy and importance items. The second matrix included intercorrelations among the difference scores, the job satisfaction items, and the demographic data. The importance items of the first and third item formats and the demographic data were intercorrelated in the third matrix. The fourth matrix of items from the questionnaire reported the intercorrelations among the weighted difference scores (the product of the difference scores and importance scores on the first item format), the product of job satisfaction and importance responses

on the second item format, and the demographic data.

The rationale for calculating the fourth intercorrelation matrix rests on the assumption that dissatisfaction with aspects of the work situation, which the employee concedes as being personally important, should be more directly related to work behavior than dissatisfaction with items viewed as less important. The literature on the use of weighted satisfaction scores seems about evenly divided concerning the benefits of such an approach (Ronan, 1970). Ewen (1967) reported that a weighted job satisfaction scale correlated .99 with the non-weighted scale and, therefore, seemed a redundant, time-consuming exercise at best. Since Ewen's sample sizes were small, and since the question seems far from being resolved, the weighted analysis was included.

To reduce the number of job satisfaction variables and, therefore, the rank of the four matrices of intercorrelations, principal axes factor analyses were performed (Darlington, 1968). Using an existing program (Mulaik and Burkheimer, 1971) written for the Univac 1108, both varimax and oblimin rotations were performed. Only factors with eigenvalues greater than one were rotated in the oblimin procedure. In the oblimin rotations, matrices were rotated to their factor patterns rather than to their factor structures. In a personal communication, Mulaik (1971) stated that in his experience the rank order of the normalized factor loadings of the variables corrected for communality remained the same when either factor patterns or structures were obtained.

Since the oblimin rotations were considered to yield the clearest pattern of clusters, those variables which had loadings $\geq .50$ were retained. The item responses were summed within each cluster to yield

attitudinal cluster scores. Where necessary a constant was added to avoid negative scores. These attitudinal cluster variables and all demographic data variables were intercorrelated. In addition, the zero-order correlations between the cluster scores and the frequency of absences were computed.

Moderated multiple regression (Saunders, 1956) and subgroup analysis (Frederiksen and Melville, 1954) were the methods by which hypotheses two through five were tested. Whereas, linear regression takes the form

$$y = \bar{y} + \sum_i a_i x_i \quad ,$$

moderated regression equations are of the form

$$y = \bar{y} + \sum_i a_i x_i + \sum_j b_j z_j + \sum_{ij} c_{ij} x_i z_j$$

In both equations, the x_i terms refer to the independent variables. The z_i terms are known as the moderator variables, since they are hypothesized to moderate the relationship between the independent variables and the criterion.

Age and length of service were employed as moderators because Gibson (1966) believed that employee identification with a company alters with age and prolonged contact with the organization. Similarly, pay level and job level were thought to enhance identification with work and, thereby, to reduce the negative relationship between job satisfaction and frequency of absences. For each of the four moderators (age, length of service, pay level, and job level), three equations were considered. The single independent variable in each case was the

subject's evaluative, difference, or weighted-difference score on the overall job satisfaction question. A single moderator variable and its product with the job satisfaction measure composed the second and third predictors in the multiple correlation. The partial correlations with frequency of absences and beta weights for each independent variable, moderator variable, and moderator X independent variable were also computed. Significance of increases in the moderated multiple correlations over the zero-order correlations, as computed in testing hypothesis one, were examined by t tests.

The subgroup analysis (Frederiksen and Melville, 1954) involved determining the product-moment correlations between the criterion and overall job satisfaction within eight moderator variable subgroups. Subjects whose ages, salaries, or lengths of service exceeded the medians composed three "high" moderator subgroups. Employment in job levels II through IV defined membership in the fourth "high" moderator subgroup. Similarly, subjects with ages, salaries, or lengths of service less than the medians established three "low" moderator subgroups. Job level I employees were considered the fourth "low" moderator subgroup.

Hypotheses six through nine were tested by evaluating the zero-order correlations which they imply.

A completely randomized factorial 2X2 analysis of variance design was used to test hypothesis ten. With respect to dependent status, the sample was divided into a group having one or more dependents and a group having none. A similar procedure was followed for number of previous jobs, with the division of groups being made

at the median of three jobs. An existing program (Cramer, 1969) for the Univac 1108 was employed for the analysis.

CHAPTER IV

RESEARCH FINDINGS AND RELATED DISCUSSION

The purpose of the present study was to provide a better understanding of the absence behavior of secretaries. Analyses of data provided in this chapter are correlational in nature. Therefore, it should be stressed that the correlations reported in the pages which follow do not imply causal relationships.

Job Satisfaction and Absence Frequency

The major concern of this investigation involved the relationship between absence frequency and overall job satisfaction. Table 1 indicates that as the rating of the amount of job satisfaction increases, absences tend to decrease. Similarly, as difference scores and weighted difference scores increase, absences occur more frequently. In other words, as employees tend to find more overall satisfaction in their jobs they tend to be absent less often. Also, employees who express the need for more satisfaction from their work tend to be absent more frequently. Therefore, the existence of a significant, but small, negative relationship between employee expressions of overall job satisfaction and absence behavior is demonstrated. This finding provides modest support for the first hypothesis given in the second chapter.

This finding also gives modest support to the conclusion of Waters and Roach (1971) that employees dissatisfied with their jobs will tend to withdraw temporarily from the work setting. Metzner and Mann (1953)

Table 1. Product-Moment Correlations Between Absence Frequency and Three Overall Job Satisfaction Measures.

Overall Job Satisfaction Measure	<u>r</u>
Evaluation Score ^a	-.175*
Difference Score ^b	.266**
Weighted Difference Score ^b	.245**

Note--Lower bound estimates of the reliabilities of these measures are given by their communalities of .708, .773, and .783 in Tables 17 through 19 of Appendix B.

$${}^a_N = 143$$

$${}^b_N = 142$$

$$* \underline{p} < .05$$

$$** \underline{p} < .01$$

found no such relationship between job attitudes and the absence criterion for women. It should be noted that they used group absence data, whereas the Waters and Roach study and the present study utilized individual absence records. Another distinction among the studies is that the subjects in the present study were all employed as secretaries, a single job category. The research samples were much less homogeneous with respect to occupation in the Metzner and Mann study since the electric company employees prepared customer billings, accounts, financial statements, and tax reports. Occupations of subjects in the Waters and Roach investigation were described only as nonsupervisory.

The findings of the present study are also consistent with the similar "attraction to work" theories of Vroom (1964) and Gibson (1966). Vroom theorized that "the force on a person to remain in a job . . . is a monotonically increasing function of the product of the valence of that job . . ." Gibson's hypothesis was that "frequency of absence varies inversely with the valence of work identification." In other words, both theories suggested that one's attendance is directly related to one's attraction to the work.

The results shown in Table 1 indicate that the weighted-difference score was not more highly correlated with absenteeism than was the difference score. This finding suggests that nothing is gained by the weighting process and adds support to Ewen's (1967) suspicions regarding this practice. Ewen reported that in combining satisfaction with several job components into a single job satisfaction score, an unweighted total score was "as good an estimate of

overall satisfaction" as a total score weighted by importance.

The finding that secretaries' expressions of overall job satisfaction are negatively related to absenteeism implies that more consideration should be given by employers and researchers to "general" reactions to the work situation.

An awareness of the need for overall job satisfaction might also have implications for curbing turnover. The existence of a negative relationship between turnover and job satisfaction has often been referenced (Brayfield and Crockett, 1955; Vroom, 1964; Waters and Roach, 1971). If, as Melbin (1961) suggests, absenteeism is the first step toward a more permanent form of withdrawal (e. g., turnover), then a better understanding of absenteeism should provide information useful in controlling turnover.

As indicated earlier in this thesis, the present study employed total frequency of absences as a dependent variable. It would be interesting to conduct future research directed toward studying only unexcused absences and expression of overall job satisfaction among female, white-collar employees. If more definite relationships exist, they might emerge if the criterion data were collected over a longer period of time, e. g., a year or longer.

Since the initial findings supported hypothesis one, the next efforts involved examining the contributions made by age, salary, job level, and length of service to the relationship between absenteeism and job satisfaction.

Job Satisfaction Moderated by Age, Length of
Service, Salary, and Job Level

Hypotheses two through five stated that a larger negative rela-

tionship between job satisfaction and absenteeism would be noted among workers who were young, possessed short length of service, and were employed in lower job levels or in lower paying jobs. The most intuitive approach in testing these hypotheses, involving the division of subjects into subgroups according to their status relative to the moderator variables, was suggested by Frederiksen and Melville (1954). "Young" and "old" employees were defined as those under and over the median age for the entire group which was 27.7 years. Lengths of employment were categorized as "short" or "long" depending on whether subjects had been employed less or more than 22.5 months, the median length of service. Similarly, the median salary of \$5949 was used to define "high" and "low" paying jobs. Job level was designated "low" if subjects were employed in job level I and "high" if they were employed in levels II through IV.

Product-moment correlations between the absence criterion and three measures of overall job satisfaction were computed within these eight subgroups. It had been predicted that the product-moment correlations would be larger for subgroups with lower positions with respect to the moderator variables than those subgroups with higher positions. Table 2 indicates that no differences in correlations between high and low moderator subgroups reached the .05 or even the .10 level of significance when the significance was tested using Fisher's z_r transformation (Ferguson, 1971). Therefore, contrary to hypotheses two through five, higher negative relationships between overall job satisfaction and absence frequency were not found in the four low moderator subgroups.

Gibson (1966) implied that the same higher negative relationship

Table 2. Product-Moment Correlation Between Absence Frequency and Job Satisfaction Within High and Low Moderator Subgroups.

Overall Job Satisfaction Measure	Moderator	Subgroups Based on Moderator					
		N_L	N_H	r_L	r_H	Δr	z^a
	Age						
Evaluative Score		70	73	-.186	-.153	.033	.199
Difference Score		70	72	.273	.260	.013	.076
Weighted-Difference Score		70	72	.219	.276	-.057	.350
	Length of Service						
Evaluative Score		71	72	-.191	-.067	.124	.738
Difference Score		70	72	.315	.158	.157	.980
Weighted-Difference Score		70	72	.282	.174	.108	.665
	Salary						
Evaluative Score		69	74	-.128	-.209	-.081	.485
Difference Score		68	74	.217	.331	-.114	.864
Weighted-Difference Score		68	74	.183	.329	-.146	1.094
	Job Level						
Evaluative Score		76	67	-.194	-.082	.112	.684
Difference Score		75	67	.283	.187	.096	.564
Weighted-Difference Score		75	67	.258	.193	.065	.402

Note--N = 142-143.

^aNo z exceeded the critical value of 1.645 which was required for the difference between correlations to be significant at the .05 level.

would exist among subjects with lower job levels, shorter lengths of service, and lower salaries. His assumptions were based on the belief that a higher negative relationship would be noted among low status subgroups because higher status would tend to counteract negative job satisfaction. The present study predicted a higher negative relationship between the criterion and overall job satisfaction among younger employees, since it was assumed that their more active social life would present more attractive alternatives than work, especially for employees with low overall job satisfaction. However, Gibson predicted a higher negative relationship for the older age group. Neither hypothesis was supported.

Since the directional test of the influence of the four moderators did not uncover any contribution, a more sensitive, nondirectional approach suggested by Saunders (1956) was employed. Saunders' method for examining moderated multiple regression for one independent and one moderator variable involved utilizing the cross-product of the two, as a third independent variable which was considered an index of interaction. The third term in this analysis provided for the interaction of overall job satisfaction with age, job level, salary, or length of service. Table 3 indicates the significance of the moderated multiple correlation (\underline{R}_m) and the multiple correlation (\underline{R}) which was computed without the cross-product term. The values of the beta weights (β) indicate the contributions of the independent variables to the relationship with frequency of absences. In addition to the sample multiple correlation coefficient estimates (\underline{R}_s), estimates of the population multiple correlation (\underline{R}_p) were determined by a formula developed by

Table 3 (Continued)

Predictors	Moderated Multiple Correlations			Multiple Correlations		
	β	R_s	R_p	β	R_s	R_p
a. Evaluative Score	-.3475			-.1558		
b. Salary	-.2126	.208	.174	-.1100	.206*	.191
c. (a) (b)	.2350					
a. Difference Score	.4435			.2855		
b. Salary	-.0074	.320**	.302	-.1370	.317**	.309
c. (a) (b)	-.2088					
a. Weighted Difference Score	.5122			.2643		
b. Salary	.0206	.303**	.284	-.1363	.298**	.289
c. (a) (b)	-.2980					
a. Evaluative Score	-.2233			-.1396		
b. Job Level	-.3290	.249*	.222	-.1743	.245*	.224
c. (a) (b)	.1957					
a. Difference Score	.2933			.2621		
b. Job Level	-.0716	.330**	.312	-.1654	.329**	.322
c. (a) (b)	-.0959					
a. Weighted Difference Score	.3131			.2462		
b. Job Level	-.0333	.320**	.301	-.1766	.318**	.310
c. (a) (b)	-.1555					

* $p < .05$
** $p < .01$

Claudy (1969). Claudy found this formula¹ to yield a lower error of estimation than the Wherry (1931), Pratt (1958), Herzberg (1967), or double cross-validity (Mosier, 1951) estimates when sample sizes of 40 or greater were employed.

Examination of Table 3 reveals that the difference and weighted difference scores of overall job satisfaction, for both \underline{R} and \underline{R}_m , were significantly correlated with the absence criterion. However, the size of these correlations indicate that a low, but definite, relationship exists.

Comparisons of \underline{r} , \underline{R} , and \underline{R}_m are presented in Table 4. One-tailed \underline{t} tests (Saunders, 1956) were performed to test the significance of differences between \underline{r} and \underline{R} . \underline{F} tests were also performed to indicate whether the interaction term made any \underline{R}_m significantly greater than its corresponding \underline{R} (Guilford, 1956). Those values of \underline{R} which statistically exceed \underline{r} are designated by asterisks. However, the \underline{F} tests revealed that no \underline{R}_m was significantly greater than the corresponding \underline{R} . Therefore, these results suggest that the four moderator variables did not significantly affect the relationship between absence frequency and overall job satisfaction.

Exploration of the importance of overall job satisfaction as a moderator of the relationship between overall job satisfaction and

¹ $\underline{R}_p = \left[\frac{1-(N-4)(1-r^2)}{N-n-1} \left(1 + \frac{2(1-r^2)}{N-n+1} \right) \right]^{\frac{1}{2}}$; where N = sample size, n = number of independent observations, and \underline{r} = sample estimate of the multiple correlation coefficient.

Table 4. Comparison of Product-Moment, Multiple, and Moderated Multiple Correlations Between Overall Job Satisfaction Measures and Absence Frequency.

Overall Job Satisfaction	Product-Moment \underline{r}	Coefficient Estimate	Personal Data Variables							
			Age		Length of Service		Job Level		Salary	
			\underline{R}	\underline{R}_m^c	\underline{R}	\underline{R}_m^c	\underline{R}	\underline{R}_m^c	\underline{R}	\underline{R}_m^c
Evaluative ^a Score	-.175	Sample	.236*	.237	.204	.230	.245	.249	.206	.208
		Population	.223	.208	.191	.200	.224	.222	.191	.174
Difference ^b Score	.266	Sample	.316**	.316	.303*	.314	.329**	.330	.317**	.320
		Population	.307	.298	.294	.295	.322	.312	.309	.302
Weighted ^b Difference Score	.245	Sample	.307**	.312	.291*	.293	.318***	.320	.298**	.303
		Population	.299	.294	.282	.272	.310	.301	.289	.284

Note--All probabilities (\underline{p}) refer to significance of increase in \underline{R} over \underline{r} .

^a $N = 143$

^b $N = 142$

^cNo moderated multiple correlation (\underline{R}_m) was significantly larger than its corresponding multiple correlation (\underline{R}).

* $\underline{p} < .05$

** $\underline{p} < .025$

*** $\underline{p} < .01$

absenteeism, revealed that evaluative score plus importance score yielded a significantly greater R (.251) than the r of -.175 between the evaluative score and the criterion (Saunders, 1956). However, including the cross-product term in the moderated multiple produced an R_m of .295, which was shown by an F test (Guilford, 1956) to be an insignificant increase in correlation.

Since single demographic items were shown to account for additional variance in absence frequency, all four demographic items were included in separate equations for the evaluative, difference, and weighted difference scores. The multiple-correlation coefficients which resulted were .27, .33, and .32, respectively. F tests (Guilford, 1956) indicated that these coefficients were not significantly greater than the multiples computed when only job level and job satisfaction were used as independent variables. Examination of the beta weights in all three equations revealed that the overall job satisfaction measures, job level, and age made the major contributions. The three sets of beta weights are given in Table 21 of Appendix B.

Comrey and Wilson (1955) reported curvilinear relationships between job attitudes and quality control measures among aircraft employees. In exploration of possible nonlinear effects in the present study, two multiple correlations were computed. The independent variables in the first multiple regression equation were the difference score and the square of the difference score. The second regression equation included the difference score, its square, and its cube. The difference score was chosen as the job satisfaction measure since its zero-order correlation of .266 with the criterion was the highest among the three

overall satisfaction measures. The multiple correlation obtained from the third degree equation was .278, while the correlation from the second degree equation was .273. One-tailed t tests (Saunders, 1956) showed that neither R was significantly greater than the product-moment correlation of .266 between frequency of absence and the difference score.

Multi-dimensional Aspects of Job Satisfaction and
Their Relationship to Absence Behavior

Having examined the relationship of absenteeism to overall job satisfaction, the separate dimensions of job satisfaction were then considered. The evaluative, difference, weighted difference, and importance score intercorrelation matrices, which are given in Tables 13 through 16 of Appendix B, were noted to contain a large number of significant intercorrelations among variables. Since the sample size was limited, the rank of each matrix of independent variables was reduced by means of a principal axes factor analysis. Oblimin rotations¹ were performed. The four rotated factor pattern matrices are presented in Tables 17 through 20 of Appendix B.

Salient items for each factor (those having pattern loadings of .50 or higher) were selected for inclusion in job satisfaction clusters. The sum of item scores within a cluster was used as the cluster score. In those instances where items with negative pattern loadings necessitated subtracting those item responses, constants were added to insure that the total cluster score would remain positive.

¹Orthogonal rotations using the varimax method were also performed. However, the oblique rotations appeared to yield more interpretable clusters of items.

The clusters which emerged and their intercorrelations may be seen in Tables 5 through 8. Clusters which were found on all four scales were supervision, personnel policies, pay, and leave policy. A work contribution cluster appeared on the importance, evaluative, and weighted difference scales. Attendance and campus mail clusters were noted on both the evaluative and difference score scales. The importance and weighted difference scales produced work identification and support clusters. Social and security clusters emerged on the evaluative and weighted difference scales. An overall job satisfaction cluster and an uninterpretable cluster of items appeared only on the weighted difference scale.

Ronan (1970) noted that 14 earlier studies had enumerated the most frequent dimensions of job satisfaction as being work content and control of work, supervision, the organization and its leadership, advancement opportunity, pay and financial benefits, co-workers, and the conditions of work. Although several were not adequately determined, most of these dimensions seemed to emerge in the factors which were obtained in the present study.

Examination of Tables 5 through 8 reveals that only two clusters in the four matrices (campus mail and overall job satisfaction) were significantly correlated ($p < .05$) with frequency of absences.

Finding no relationship between the separate dimensions of job satisfaction and the criterion, in addition to finding low negative correlations between the criterion and expressions of overall job satisfaction, raises the question of how much of the variance in absence behavior should be attributed to individual differences with

Table 5. Intercorrelation Matrix of Cluster Scores on Evaluation Scale.

Cluster	1	2	3	4	5	6	7	8	9
1. Supervision									
2. Personnel Policies	.15								
3. Attendance	-.23	-.08							
4. Pay	.22	.06	-.01						
5. Contribution	.40	.15	-.04	-.02					
6. Campus Mail	-.08	-.06	.39	-.07	.02				
7. Social	.30	.09	-.11	.16	.28	.05			
8. Leave Policy	.20	.36	-.11	-.05	.18	.02	.09		
9. Security	.30	.35	-.05	.40	.21	-.00	.15	.26	
10. Absence Frequency	-.08	-.08	.14	-.05	-.10	.24	-.03	-.09	-.05

Note--N = 126-141.

Table 6. Intercorrelation Matrix of Cluster Scores on Difference Scale.

Cluster	1	2	3	4	5	6	7
1. Supervision							
2. Personnel Policies	-.15						
3. Attendance	.20	-.04					
4. Contribution	.25	-.07	.10				
5. Pay	.14	.04	-.04	-.12			
6. Campus Mail	.03	-.07	.39	-.03	.02		
7. Leave Policy	-.11	.39	-.11	.00	.03	.02	
8. Absence Frequency	.06	-.04	.14	.08	.03	.24	-.09

Note--N = 126-143.

Table 7. Intercorrelation Matrix of Cluster Scores on Weighted Difference Scale.

Cluster	1	2	3	4	5	6	7	8	9
1. Supervision									
2. Personnel Policies	.13								
3. Identification	.26	.21							
4. Pay	.21	.13	.05						
5. Social or Security	-.04	.25	.24	-.07					
6. Leave Policy	.11	.35	.19	.13	.33				
7. Support	.24	.29	.26	.17	.06	.21			
8. Overall Job Satisfaction	.48	.24	.32	.11	-.02	.07	.28		
9. Unnamed ^a	.33	.06	-.07	.15	.00	.08	.08	.03	
10. Absence Frequency	.14	-.01	.10	.04	-.05	-.07	.01	.19	-.13

Note--N = 131-141.

^aAlthough the cluster could not be clearly named, it was included since all clusters with pattern loadings equal to .50 or higher were retained.

Table 8. Intercorrelation Matrix of Cluster Scores on Importance Scale.

Cluster	1	2	3	4	5	6	7	8
1. Contribution								
2. Personnel Policies	.26							
3. Support	.44	.24						
4. Advancement	.43	.38	.31					
5. Identification	.39	.26	.31	.26				
6. Leave Policy	.27	.42	.28	.33	.29			
7. Pay	.34	.35	.41	.36	.28	.32		
8. Supervision	.50	.22	.42	.33	.29	.18	.32	
9. Absence Frequency	.09	.08	-.03	.16	.06	.00	.10	-.04

Note--N = 127-141.

respect to job satisfaction. It may be that such random occurrences as illness in the immediate family, sudden transportation difficulties, or other chance phenomena make more than minor contributions. In addition, other variables, as yet not determined, may account for much of the variance in absence behavior. On the other hand, it may be that attitudes toward "work in general" rather than toward a specific job assume a major role in deciding a person's attendance behavior.

Employee Perceptions of Mistreatment and Absence Frequency

The relationship between absence frequency and employee perceptions of mistreatment regarding pay or promotion was investigated by the use of a three point scale. When questioned as to whether they had been mistreated, subjects were permitted a "yes," "no," or "I don't know" response. As Table 9 indicates, no association was discovered between the mistreatment and absence variables.

Since neutral, "I don't know" responses were available for the items used to examine these issues, the frequency of absences for subjects who expressed definite feelings, e. g., those who answered "yes" or "no," were compared. A one-tailed t test, as can be seen in Table 10, revealed no significant differences between the means of the two groups.

Therefore, no support was demonstrated for hypotheses six and seven which stated that employees who felt mistreated compared to other employees with respect to salary increases or promotion consideration would be absent more frequently. These results fail to support Patchen's (1960) finding that employees who feel mistreated with respect

Table 9. Product-Moment Correlation Between Absence Frequency and Employee Perceptions of Mistreatment.

Perceptions of Mistreatment	<u>r</u>
Salary Increases ^a	-.06
Promotion Consideration ^b	-.08

^a_N = 142

^b_N = 141

Table 10. Differences Between Mean Frequency of Absences for Subjects Who Do or Do Not Feel Mistreated.

Perceptions of Mistreatment	N	\bar{X}	S	t^a
Salary Increases				
Yes (treated fairly)	55	2.24	1.91	.871
No (treated unfairly)	32	2.66	2.50	
Promotion Consideration				
Yes (treated fairly)	59	2.76	2.15	.892
No (treated unfairly)	25	3.20	1.74	

^aCritical value for the .05 level of significance for a one-tailed t test is 1.645.

to pay and promotion opportunity are more often absent. However, it should be noted that Patchen utilized group data rather than the individual absence data which were employed in the present study.

Absence Behavior and Perceptions of
Absenteeism as a Problem

Relationships between absence frequency and perceptions of absenteeism were also considered in the present study. Results presented in Table 11 indicate that no association between absence frequency and employee perception of absenteeism as a problem exists. Thus, no support was generated for hypothesis eight, which proposed that employees who were concerned about absenteeism as a problem would tend to be absent less frequently, or for White's (1960) finding that employees who "noticed" the absences of others were absent less often themselves.

Table 11. Product-Moment Correlations Between Perceptions of Absenteeism as a Problem and Absence Frequency.

Absence as a Problem on Campus	<u>r</u>
Employee Perception ^a	.12
Employee Perceptions of Supervisor's Concern ^b	.18*

^aN = 133

^bN = 126

*p < .05

However, as the significant correlation in Table 11 signifies, there exists a low relationship between frequency of absence and employee perception of their supervisor's concern for absenteeism as a problem. This finding is contrary to hypothesis nine and to the finding of Tucker and Lotz (1957) on which it was based. Hypothesis nine stated that those employees who perceived their supervisors as being concerned about absenteeism would be absent less often. To the extent that this relationship exists, it could be explained if supervisors of more frequently absent secretaries had discussed the problem with the employees in question.

Employment History, Number of Dependents,
and Attendance Behavior

A 2X2 completely randomized factorial analysis of variance was performed to see if the joint possession of dependents and an unstable employment record were characteristic of employees with greater frequencies of absence. The two levels of dependent status (D) were "none" and "some." More than three jobs and three or fewer jobs were the levels used for the number of previous jobs (J) factor. Since the numbers of subjects within cells were unequal, one analysis was completed by examining the influence of D and JD with the J effect removed from them. Then, a re-analysis was performed to examine the effects of J and JD with the D effect removed. This method of analysis presented by Cramer (1969) provides a way of analyzing the effects with disparity in cell frequencies which produce a non-orthogonal design. As can be seen from Table 16, neither J, D, nor JD effects were significant. Hays (1963) noted that evidence for the alternative hypothesis must appear as an F ratio exceeding 1.00, and "an F ratio less than 1.00 can

Table 12. Completely Randomized Factorial Analysis of Variance of Absence Frequency as a Function of Dependents and Number of Previous Jobs.

Source	SS	DF	MS	<u>F</u>	P Less Than
Analysis with D = 0					
Within Cells	738.025	126	5.857		
J	.002	1	.002	.000	.985
DJ	3.140	1	3.140	.536	.465
Re-analysis with J = 0					
Within Cells	738.025	126	5.857		
D	10.785	1	10.785	1.841	.177
JD	3.140	1	3.140	.536	.465

Note--Program supplied by Cramer (1969).

signify nothing except sampling error (or perhaps nonrandomness of the samples or failure of the assumptions)."

Whereas, Naylor and Vincent (1959) found that female office personnel with dependent children tended to be absent more often than women with no dependent children, no evidence of such an association was demonstrated in the present study. Also, Gadourek's (1965) finding that workmen with a history of many previous jobs have poorer attendance records does not seem to apply to the secretaries in this study.

CHAPTER V

SUMMARY AND CONCLUSIONS

Several findings of the present study seem to have important implications regarding the study of female absence behavior and its relationship to expressions of job satisfaction. These findings and their pertinence to the existing literature are as follows.

The major finding of the present study is that overall job satisfaction is significantly negative in relationship to absence behavior for female clerical workers. This result confirms the first hypothesis of this study and agrees with the findings of Waters and Roach (1971). It is, however, contrary to the findings of Metzner and Mann (1953) who failed to establish any such definite relationship for white-collar women. This finding also lends some modest support to the "attraction to work" theories of Vroom (1964) and Gibson (1966) which posit that employees who are attracted to the work situation will tend to be absent less often.

Since overall satisfaction with the work environment appears to be associated with the attendance behavior of secretaries, implications for job design seem to exist. From those items which correlated highest with overall job satisfaction (.45 to .60), it appears that jobs which are satisfying provide opportunity to use and develop skills, freedom to make decisions regarding the work, information about what supervisors expect, and recognition for good ideas and good work. Considering such "general" needs when designing secretarial jobs might prove beneficial

in reducing absenteeism. In addition, if those employees who withdraw temporarily from work through being absent are the same workers who later withdraw permanently through termination (Melbin, 1961), the findings of the present study might contain implications for controlling turnover.

The weighted difference overall job-satisfaction score failed to be more strongly related to absences than was the unweighted difference score. Therefore, Ewen's (1967) suspicion that an unweighted job satisfaction score is "as good an estimate" of overall satisfaction as a weighted total score seems justified.

Subgroup analyses failed to find support for hypotheses two through five which stated that for younger employees, in a lower job level, having shorter length of service, or lower pay, a higher negative relationship between absence frequency and overall job satisfaction would exist. These results were also contrary to Gibson's (1966) suggestion that there would be a higher negative relationship between work identification and absence in lower status jobs. He predicted a moderating effect for age opposite to the one hypothesized in the present study, but it too was not supported by the results reported in this thesis.

A nondirectional investigation of the possible interaction between these same demographic variables and overall job satisfaction, using moderated multiple regression techniques, indicated that no significant interactions occurred. However, the separate contributions of age, job level, length of service, and salary accounted for additional variance in absence behavior beyond that "explained" by overall job satisfaction. When all four demographic variables and overall job satisfaction were

included as independent variables in the same regression equation, overall job satisfaction, job level, and age made the major contributions to the relationship with the criterion.

Exploration for possible nonlinear relationships between overall job satisfaction and absence frequency was effected by comparing second and third degree polynomial regression equations to first degree equations. Utilizing the square or the square and cube of overall job satisfaction failed to establish a stronger relationship with the criterion than the one noted by using a first degree equation.

Clusters of salient job satisfaction items were derived by factor analysis to study the relationship between the separate dimensions of job satisfaction and absence frequency. Only two clusters, overall job satisfaction and campus mail service, were significantly correlated with the criterion.

Since the separate clusters were found to be unrelated to the criterion and the criterion's relationship with overall job satisfaction was low, the extent to which individual differences with respect to job satisfaction should be expected to be related to understanding absenteeism was questioned. It is possible that other variables or chance phenomena such as illness in the family might account for much of the variance in absence behavior.

No definite relationship emerged between employee feelings of fair treatment with respect to salary increases or promotion consideration and absence behavior. These results fail to confirm the findings by Patchen (1960) that employees who feel unfairly treated with respect to promotion or salary tend to be absent more frequently.

The belief that regular attenders would more likely "notice" the absence behavior of their co-workers was the basis for hypothesis eight, which stated that a negative relationship between absence frequency and employee concern for absenteeism as a problem would exist. The results present no evidence to support this hypothesis or the finding by White (1960) from which the hypothesis was derived. However, contrary to hypothesis nine and findings by Tucker and Lotz (1957), employees who consider their supervisors to be concerned with absenteeism as a problem, tend to be more often absent. This finding might reflect supervisors' discussions with the more frequently absent employees.

No support emerged for hypothesis ten which stated that the joint possession of dependents and an unstable employment history would be characteristics of attendance violators. Neither dependent status, number of previous jobs, nor their interaction appeared significantly related to the criterion. These findings were not consistent with the results reported by Gadourek (1965) who found more absences among men with a history of many previous jobs and those reported by Naylor and Vincent (1957) who noted that female clerical workers possessing children had worse attendance records than childless workers.

APPENDIX A

	Page
Job Satisfaction Questionnaire	83
Letter to Employees	95
Letter to Terminated Employees	96

Social Security
Number _____

EMPLOYEE ATTITUDE SURVEY

This questionnaire has been prepared by a graduate student in the School of Psychology. It is requested that you record your social security number in the above space. The use of social security numbers will allow composite descriptions of those groups responding similarly on the survey to be developed. These group descriptions will be derived from data already collected by employee social security number. After the two sources of information are combined, both social security numbers will be destroyed. The personnel department will be given only a summary of ideas and attitudes expressed in this survey. No individual will be identified; no records of individual attitudes will be supplied to the personnel department or any other department, faculty member, or administrative person. Once the information has been collected the questionnaires will be destroyed.

PLEASE DO NOT SIGN YOUR NAME

INSTRUCTIONS

On the following pages are some questions which ask you to give your opinions on various aspects of your job and --*. Indicate your answers to each question by circling one number on each rating scale, with 7 being the highest rating, and 1 the lowest. Numbers between 1 and 7 should be used for ratings between "very little" and "very much" or between "not important" and "very important." (LOOK AT THE EXAMPLE WHICH IS ALREADY MARKED.)

OPPORTUNITY FOR CONVERSATION WITH CO-WORKERS:

How much opportunity do you have?								
very little	1	2	3	4	5	6	7	very much
How much should you have?								
very little	1	2	3	4	5	6	7	very much
How important is this to you?								
not important	1	2	3	4	5	6	7	very important

DO NOT CIRCLE ANYTHING BUT NUMBERS

*All references to the institution in which the survey was conducted have been removed from this sample of the questionnaire.

-- REPUTATION:

- How much prestige does -- have in the community?
- 1- very little 1 2 3 4 5 6 7 very much
- How much should it have?
- 2- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 3- not important 1 2 3 4 5 6 7 very important

OPPORTUNITY TO USE YOUR SPECIAL SKILLS AND ABILITIES:

- How much opportunity do you have?
- 4- very little 1 2 3 4 5 6 7 very much
- How much opportunity should you have?
- 5- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 6- not important 1 2 3 4 5 6 7 very important

THINKING ABOUT YOUR JOB OUTSIDE WORKING HOURS:

- How much do you think about your job after working hours?
- 7- very little 1 2 3 4 5 6 7 very much
- How much should you?
- 8- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 9- not important 1 2 3 4 5 6 7 very important

GOOD PLANNING AND SCHEDULING OF WORK BY YOUR SUPERVISOR:

- How much is there?
- 10- very little 1 2 3 4 5 6 7 very much
- How much should there be?
- 11- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 12- not important 1 2 3 4 5 6 7 very important

PAY FOR THE WORK WHICH YOU DO:

- 13- How high is it?
very low 1 2 3 4 5 6 7 very high
- 14- How high should it be?
very low 1 2 3 4 5 6 7 very high
- 15- How important is this to you?
not important 1 2 3 4 5 6 7 very important

FEELING OF SATISFACTION FROM YOUR JOB:

- 16- How much satisfaction do you get?
very little 1 2 3 4 5 6 7 very much
- 17- How much should you get?
very little 1 2 3 4 5 6 7 very much
- 18- How important is this to you?
not important 1 2 3 4 5 6 7 very important

PRESTIGE OF YOUR JOB OUTSIDE --:

- 19- How much prestige does your job have outside --?
very little 1 2 3 4 5 6 7 very much
- 20- How much prestige should your job have outside --?
very little 1 2 3 4 5 6 7 very much
- 21- How important is this to you?
not important 1 2 3 4 5 6 7 very important

OPPORTUNITY IN YOUR JOB TO DEVELOP NEW SKILLS AND KNOWLEDGE:

- 22- How much is there?
very little 1 2 3 4 5 6 7 very much
- 23- How much should there be?
very little 1 2 3 4 5 6 7 very much
- 24- How important is this to you?
not important 1 2 3 4 5 6 7 very important

FEELING A PART OF THE -- COMMUNITY:

- How much do you feel a part of the -- community?
- 25- very little 1 2 3 4 5 6 7 very much
- How much should you feel a part of it?
- 26- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 27- not important 1 2 3 4 5 6 7 very important

INFORMATION RELATING TO -- OPERATING PROCEDURES:

- How much information does -- provide?
- 28- very little 1 2 3 4 5 6 7 very much
- How much should be provided?
- 29- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 30- not important 1 2 3 4 5 6 7 very important

COOPERATION FROM THE FACULTY:

- How much cooperation is there?
- 31- very little 1 2 3 4 5 6 7 very much
- How much cooperation should there be?
- 32- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 33- not important 1 2 3 4 5 6 7 very important

-- TREATMENT OF EMPLOYEE:

- How much does -- consider individuals in making decisions affecting them?
- 34- very little 1 2 3 4 5 6 7 very much
- How much should it consider individuals?
- 35- very little 1 2 3 4 5 6 7 very much -
- How important is this to you?
- 36- not important 1 2 3 4 5 6 7 very important

YOUR CONTRIBUTION TO -- OPERATIONS:

- How much do you feel your job contributes?
 37- very little 1 2 3 4 5 6 7 very much
- How much would you like to feel that it contributes?
 38- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 39- not important 1 2 3 4 5 6 7 very important

YOUR WORK PLACE:

- How much do your working conditions help you do a good job?
 40- very little 1 2 3 4 5 6 7 very much
- How much should they help?
 41- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 42- not important 1 2 3 4 5 6 7 very important

SUPERVISOR'S APPRECIATION OF THE IMPORTANCE OF YOUR WORK:

- How much is there?
 43- very little 1 2 3 4 5 6 7 very much
- How much should there be?
 44- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 45- not important 1 2 3 4 5 6 7 very important

FREEDOM TO MAKE DECISIONS IN YOUR WORK:

- How much is there?
 46- very little 1 2 3 4 5 6 7 very much
- How much should there be?
 47- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 48- not important 1 2 3 4 5 6 7 very important

COOPERATION AMONG YOUR FELLOW WORKERS:

- How much teamwork is there?
 49- very little 1 2 3 4 5 6 7 very much
- How much should there be?
 50- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 51- not important 1 2 3 4 5 6 7 very important

PROMPT ACTION ON YOUR COMPLAINTS AND PROBLEMS BY YOUR SUPERVISOR:

- How much is there?
 52- very little- 1 2 3 4 5 6 7 very much
- How much should there be?
 53- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 54- not important 1 2 3 4 5 6 7 very important

OPPORTUNITY TO CHANGE JOBS AT --:

- How much is there?
 55- very little 1 2 3 4 5 6 7 very much
- How much should there be?
 56- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 57- not important 1 2 3 4 5 6 7 very important

PRESTIGE OF YOUR JOB AT --:

- How much does your job have?
 58- very little 1 2 3 4 5 6 7 very much
- How much should it have?
 59- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
 60- not important 1 2 3 4 5 6 7 very important

YOUR SUPERVISOR'S ABILITY TO GET ALONG WITH PEOPLE:

- How much ability does he or she have?
- 61- very little 1 2 3 4 5 6 7 very much
- How much should he or she have?
- 62- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 63- not important 1 2 3 4 5 6 7 very important

OPPORTUNITY FOR PROMOTION FROM YOUR JOB:

- How much opportunity is there?
- 64- very little 1 2 3 4 5 6 7 very much
- How much should there be?
- 65- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 66- not important 1 2 3 4 5 6 7 very important

CONTACT WITH FELLOW WORKERS OUTSIDE WORKING HOURS:

- How much do you associate with fellow workers outside working hours?
- 67- very little 1 2 3 4 5 6 7 very much
- How much should you associate?
- 68- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 69- not important 1 2 3 4 5 6 7 very important

INFORMATION ABOUT WHAT YOUR SUPERVISOR EXPECTS OF YOU:

- How much information about your job responsibilities do you get?
- 70- very little 1 2 3 4 5 6 7 very much
- How much should you get?
- 71- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
- 72- not important 1 2 3 4 5 6 7 very important

OPPORTUNITY TO OBTAIN GOOD EQUIPMENT, SUPPLIES, AND MATERIALS:

- How much is there?
73- very little 1 2 3 4 5 6 7 very much
- How much should there be?
74- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
75- not important 1 2 3 4 5 6 7 very important

RECOGNITION FOR GOOD IDEAS OR GOOD WORK:

- How much do you get?
76- very little 1 2 3 4 5 6 7 very much
- How much should you get?
77- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
78- not important 1 2 3 4 5 6 7 very important

HIGHER ADMINISTRATION'S SUPPORT OF YOUR SUPERVISOR:

- How much backing does he or she get?
79- very little 1 2 3 4 5 6 7 very much
- How much backing should he or she get?
80- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
81- not important 1 2 3 4 5 6 7 very important

YOUR JOB WORK LOAD:

- How much work do you have?
82- very little 1 2 3 4 5 6 7 very much
- How much should you have?
83- very little 1 2 3 4 5 6 7 very much
- How important is this to you?
84- not important 1 2 3 4 5 6 7 very important

- 85- Compared to other -- employees, have you been treated fairly with regard to salary increase? (Circle one of the following responses.)

Yes No Do Not Know

86- Compared to other -- employees, have you been treated fairly with regard to promotion consideration? (Circle one of the following responses.)

Yes No Do Not Know

87- How many dependents do you have? (Write number in space) _____

OTHER ASPECTS OF YOUR JOB AND --

Consider the following items. Indicate your satisfaction with each item as it exists now at -- by circling a number from 1 to 7 at the left. Then indicate the importance of the item to you by circling a number from 1 to 7 at the right.

		<u>SATISFACTION</u>							<u>IMPORTANCE</u>							
		very dissatisfied			very satisfied				not important			very important				
		1	2	3	4	5	6	7	101-	1	2	3	4	5	6	7
88-	Vacation Policy	1	2	3	4	5	6	7	101-	1	2	3	4	5	6	7
89-	Sick-Leave Policy	1	2	3	4	5	6	7	102-	1	2	3	4	5	6	7
90-	Maternity Leave Policy	1	2	3	4	5	6	7	103-	1	2	3	4	5	6	7
91-	Miscellaneous and Personal Leave Policy	1	2	3	4	5	6	7	104-	1	2	3	4	5	6	7
92-	Retirement Income Pay Deductions	1	2	3	4	5	6	7	105-	1	2	3	4	5	6	7
93-	Group Life Insurance	1	2	3	4	5	6	7	106-	1	2	3	4	5	6	7
94-	Group Hospital, Medical, and Dental Insurance	1	2	3	4	5	6	7	107-	1	2	3	4	5	6	7
95-	Retirement Plan	1	2	3	4	5	6	7	108-	1	2	3	4	5	6	7
96-	Appeals Procedure	1	2	3	4	5	6	7	109-	1	2	3	4	5	6	7
97-	Your Job Security	1	2	3	4	5	6	7	110-	1	2	3	4	5	6	7
98-	Chance to Meet New People in Your Work	1	2	3	4	5	6	7	111-	1	2	3	4	5	6	7
99-	Your Supervisor's Concern for You as a Person	1	2	3	4	5	6	7	112-	1	2	3	4	5	6	7
100-	Your Pay Compared to Other Secretarial Jobs in the Atlanta Area	1	2	3	4	5	6	7	113-	1	2	3	4	5	6	7

OPINIONS CONCERNING ADDITIONAL JOB FACTORS

By circling a number from 1 to 7 indicate on the left the extent to which you consider each of the following items to be a problem on the -- campus. Then indicate on the right, by circling a number from 1 to 7, the extent to which you believe your supervisor considers the item to be a problem on the -- campus.

YOUR OPINION

	very small problem	1	2	3	4	5	6	7	very large problem	1	2	3	4	5	6	7
114-	1	2	3	4	5	6	7	Parking	124-	1	2	3	4	5	6	7
115-	1	2	3	4	5	6	7	Maintenance of Buildings and Equipment	125-	1	2	3	4	5	6	7
116-	1	2	3	4	5	6	7	Maintenance of Campus Grounds	126-	1	2	3	4	5	6	7
117-	1	2	3	4	5	6	7	Employee Turnover	127-	1	2	3	4	5	6	7
118-	1	2	3	4	5	6	7	Campus Mail Service	128-	1	2	3	4	5	6	7
119-	1	2	3	4	5	6	7	Employee Tardiness	129-	1	2	3	4	5	6	7
120-	1	2	3	4	5	6	7	Availability of Part-time Help	130-	1	2	3	4	5	6	7
121-	1	2	3	4	5	6	7	Procedures for Obtaining Supplies and Materials	131-	1	2	3	4	5	6	7
122-	1	2	3	4	5	6	7	Employee Absenteeism	132-	1	2	3	4	5	6	7
123-	1	2	3	4	5	6	7	Restroom Facilities	133-	1	2	3	4	5	6	7

YOUR WRITTEN COMMENTS

If you have opinions or ideas that you have not been able to express in this questionnaire, please write them in the space provided below.

During the next week a questionnaire will be distributed as a part of a research project conducted by Mr. Richard Martin, a graduate student in the School of Psychology. A principal aim of the project is to study employee attitudes toward their work and their work environment. Your participation in completing this questionnaire will contribute greatly toward the success of this research project and toward making * a better place in which to work. Results of the study will enable us to concentrate our efforts toward improving the employee work environment.

The anonymity of the employee will be insured. Social security numbers are requested so that additional information, already collected according to social security number, may be used to create composite descriptions of those groups which respond differently on the questionnaire. To insure further anonymity, upon receiving the questionnaire, Mr. Martin will match identical social security numbers, recode the questionnaire and descriptive data with a new three digit number, and then destroy both social security numbers.

You will be personally contacted by Mr. Martin and given additional information and instructions. Again, please feel free to give your honest opinions concerning your work setting without fear of identification.

Thank you for your cooperation.

Very truly yours,

Personnel Director

* name of institution removed.

During the week of June 21, an effort was made to contact all of the secretaries employed by -- *. The purpose of this personal contact was to distribute a job attitude survey, which is discussed in the enclosed letter prepared by the personnel office. Even though you are no longer employed by --, your participation would be of service in evaluating the present working conditions and would contribute to the success of this thesis project.

The completion of this questionnaire and its return in the enclosed envelope would be greatly appreciated. If you have any questions concerning the questionnaire or the purpose of the survey, please feel free to contact me at 872 7048.

Yours truly,

C. Richard Martin

* Name of institution removed.

APPENDIX B

	Page
Procedures for Interpreting Entries on the Intercorrelation Matrices	98
Table 13. Intercorrelations Among Items on the Evaluative Scale	99
Table 14. Intercorrelations Among Items on the Difference Scale	115
Table 15. Intercorrelations Among Items on the Weighted Difference Scale	131
Table 16. Intercorrelations Among Items on the Importance Scale	137
Table 17. Factor Pattern Matrix of Evaluation Scale Items . .	143
Table 18. Factor Pattern Matrix of Difference Scale Items . .	144
Table 19. Factor Pattern Matrix of Weighted Difference Scale Items	145
Table 20. Factor Pattern Matrix of Importance Scale Items . .	146
Table 21. Multiple Correlations of Frequency of Absences with Four Demographic Variables and Expressions of Overall Job Satisfaction	147

The items, for which intercorrelations appear in Tables 13 through 16, are represented by the numbers which they were assigned on the job satisfaction questionnaire (see Appendix A). Exceptions to this procedure occur on Tables 14 and 15. On Table 14, the first 28 entries are Difference Score items which were computed as the difference between "How much should there be" and "How much is there" questions. These 28 items are referred to as D1 through D28. On Table 15, Weighted Difference Score items are denoted by the product of questionnaire numbers for the item and its importance rating. Again as in Table 14, D1 through D28 refer to the Difference Score items.

For all four intercorrelation matrices, the letters A through K represent demographic and criterion data. The interpretation of these letters are as follows:

- A Number of months employed
- B Salary
- C Job Level
- D Age
- E Marital Status
- F Number of previous jobs
- G Years of Education
- H Frequency of absences (first three month period)
- J Frequency of absences (second three month period)
- K Total frequency of absences (six month period)

TABLE 13

INTERCORRELATIONS AMONG ITEMS ON THE EVALUATIVE SCALE

	1	4	7	10	13	16	19	22	25	28
1	1.00000	.31656	.08885	.23674	.06919	.21139	.33719	.27724	.27632	.16620
4	.31656	1.00000	.25717	.37199	.11267	.47795	.34237	.43364	.25941	.24674
7	.08885	.25717	1.00000	.18455	.10743	.28430	.20071	.22946	.15909	.09441
10	.23674	.37199	.18455	1.00000	.11339	.39699	.16070	.33098	.08784	.22187
13	.06919	.11267	.10743	.11339	1.00000	.16003	.25538	.12661	.18101	.21534
16	.21139	.47795	.28430	.39699	.16003	1.00000	.36929	.51194	.30743	.24191
19	.33719	.34237	.20071	.16070	.25538	.36929	1.00000	.24140	.31947	.13228
22	.27724	.43364	.22946	.33098	.12661	.51194	.24140	1.00000	.33760	.22595
25	.27632	.25941	.15909	.08784	.18101	.30743	.31947	.33760	1.00000	.34352
28	.16620	.24674	.09441	.22187	.21534	.25191	.13228	.22595	.34352	1.00000
31	.16616	.21524	-.04697	.22790	.09706	.30651	.18148	.20499	.27382	.30680
34	.30490	.38752	.06660	.22078	.21176	.32916	.12182	.46725	.37740	.41171
37	.40341	.50803	.24652	.30095	.10057	.54751	.43404	.43031	.32765	.26997
40	.14946	.21553	-.06345	.27310	.18636	.44268	.17101	.34067	.18073	.21797
43	.28549	.40028	.11117	.47014	.15230	.49903	.17882	.36581	.32684	.31373
46	.18600	.31522	.08065	.28298	.05154	.49668	.27352	.33124	.24094	.22316
49	.27536	.34187	.03966	.39170	.17136	.48760	.28889	.35754	.33781	.22199
52	.21511	.30371	.02507	.43341	.17061	.42355	.21760	.32099	.20210	.22958
55	.19639	.23040	.04633	.11535	.18693	.23901	.17363	.29257	.20777	.33245
58	.26937	.46862	.25998	.21608	.29642	.38920	.49258	.40478	.40715	.31333
61	.21749	.24480	.05835	.46164	.12227	.40236	.08415	.29050	.17754	.22179
64	.07330	.23241	.09917	.11310	.22583	.32895	.16233	.30002	.27205	.18683
67	.18531	.15639	.16739	.05555	.01583	.20323	.25321	.18220	.40063	.06340
70	.15279	.32440	.14875	.45725	.15321	.53618	.16859	.22128	.27067	.32214
73	.26392	.19277	.07430	.19967	.22413	.28643	.11697	.14820	.13731	.38360
76	.21645	.35821	.13306	.41722	.17031	.51623	.18378	.36672	.29570	.34907
79	.21147	.18457	.04729	.23583	.02208	.24637	.19879	.12592	.20347	.22625
82	.21379	.34123	.22212	.15637	-.17469	.26236	.08021	.25834	-.00015	.03200
85	.05339	.05160	-.05164	.13732	.51800	.10767	.18567	.16622	.19304	.14768
86	.00331	.21967	-.09099	.07830	.32922	.15172	.04765	.26367	.16031	.09925
86	.19609	.13941	.06204	.03427	-.02143	.14442	.05692	.03838	.03285	.01291
89	.13720	.06802	-.02735	.18336	-.01122	.12239	.15731	-.05922	.05939	.09524
90	.16497	.10685	.06880	.02111	.06859	.09114	.16104	.04514	.21321	.14339
91	.26223	.14467	-.04733	.17974	.02418	.23010	.08739	.20812	.18574	.18118
92	.26116	.00486	-.09382	.06137	.05391	.01866	.05104	.00454	.07199	.11894
93	.36019	.15792	.00165	.15987	.14255	.19990	.08226	.14748	.16808	.10972
94	.23975	.02390	.00918	.08620	.10750	.01575	-.03037	.07820	.02098	.00770
95	.17673	.07260	-.00556	.14865	-.05314	.14268	-.03017	.14178	.06792	.15065
96	.18261	.11659	-.02215	.09165	.15549	.16903	.21046	.09525	.14521	.22791
97	.26214	.22418	-.08470	.11901	.18492	.25032	.21115	.18856	.24090	.34350
98	.28785	.31118	.11086	.16555	-.00576	.34611	.21697	.34783	.25603	.20304
99	.23504	.25830	.07170	.40783	.15189	.41018	.16937	.27631	.25811	.31704
100	.09039	.06954	.05308	.07540	.63584	.12852	.30304	.17024	.20625	.24901
114	.08526	.09117	.00743	.08980	.12535	.03967	.11318	.16780	.11436	.07195
115	.04288	.04851	.04976	.05322	-.01206	.11105	.05633	.12579	.08106	-.13590
116	.07267	.03058	.01769	.00870	.09116	.06338	.10748	-.05980	.08095	-.08291
117	.09126	.11499	.10288	.02087	.11956	.01675	-.01671	-.01526	.06673	.04298
118	.06873	.05307	.02650	.00139	.01629	-.02660	.11828	.07073	-.01218	-.02494
119	-.10034	-.08390	.04830	-.12261	-.02277	-.12056	-.00068	-.09882	-.15215	-.04906
120	-.13755	-.11805	.01111	-.14964	-.09195	-.08583	-.07293	-.22749	-.14303	-.19220
121	.18310	.11884	.03526	.01040	-.13629	-.04884	.01260	.07062	.03178	-.16179
122	-.11556	-.13318	.05258	-.21823	.05536	-.10694	.02479	-.13489	-.04940	-.05386
123	-.09580	-.02202	-.11259	-.17846	-.05336	-.14737	-.07857	-.06222	-.01361	-.21541
124	.15637	.19748	.14889	.22376	.20212	.28365	.20466	.27433	.11657	.16499
125	.03701	.11914	.02480	.03991	.14822	.14128	.05139	.06166	.07068	-.13299

Table 13--(Continued)

126	.09276	.06823	.03056	.08452	.14536	.10061	.08667	-.07312	.09020	-.07050
127	.09225	.12752	.03554	.02717	.13652	.05691	.06156	.00039	.07296	.16604
128	.07055	.02872	.02044	.00505	-.00749	-.08352	.08630	.03374	-.00810	.02387
129	.00162	.07566	.02447	-.16289	-.02533	-.08680	.06978	-.02160	-.03188	.05128
130	-.06731	-.09112	-.01582	-.09016	-.07025	-.05032	-.05012	-.22159	-.18516	-.15782
131	.12202	.09592	.02354	.03212	-.05825	-.11874	.01402	.02744	-.00138	-.10328
132	-.01656	-.11209	.04758	-.22217	.09007	-.11900	.07976	-.06578	-.07430	-.01092
133	-.03068	.05858	-.13404	-.09331	-.03664	.06224	-.06364	.04025	-.11702	-.22435
07	-.09612	-.02854	-.02692	-.11177	-.00162	-.07577	.03839	-.03651	.06890	-.10964
A	.25436	.17005	.14692	.02756	.05336	.24644	.17710	.13147	.13099	.07622
B	.19424	.16096	.17576	.04935	.27254	.19830	.13102	.22043	.15125	-.00979
C	.20495	.19525	.13200	.12265	.27853	.20821	.16335	.20312	.10354	-.02738
D	.26408	.16362	.07930	.16794	.00426	.27758	.17931	.07520	.03411	.02780
E	-.11231	.13180	.09263	.04746	-.05957	.11206	-.09488	.04839	-.02621	.12615
F	.09481	.04698	.02506	.06453	-.13957	-.00436	-.08244	.00141	-.02325	-.14743
G	.19343	-.00498	.02223	.04367	-.06276	.00076	.02660	.00862	.09057	-.03838
H	-.10954	-.15598	.06177	-.07102	-.04712	-.16143	-.03283	-.04971	-.03940	-.10717
J	-.03126	.02110	.08083	-.06220	-.13171	-.09156	.01864	-.03814	.06375	.12833
K	-.09100	-.08235	.08844	-.09089	-.11772	-.15680	-.00880	-.05619	.00865	.01155

Table 13--(Continued)

	31	34	37	40	43	46	49	52	55	58
1	.16616	.30490	.40341	.14946	.28549	.18600	.27536	.21511	.19639	.26937
4	.21524	.38752	.50803	.21553	.40028	.31522	.34187	.30371	.23040	.46862
7	-.04697	.06660	.24652	-.06345	.11117	.08065	.03966	.02507	.04633	.25998
10	.28790	.42078	.30095	.27310	.47014	.28298	.39170	.43341	.11535	.21608
13	.09306	.21176	.10057	.12636	.15230	.05154	.17136	.17061	.18693	.29642
16	.30651	.42910	.54751	.44268	.49903	.49668	.48760	.42235	.23901	.38920
19	.18148	.12182	.43404	.17101	.17982	.27352	.28089	.21760	.17363	.49258
22	.20499	.46725	.43031	.34067	.36581	.33124	.35754	.32099	.29257	.40478
25	.27362	.37740	.32765	.18033	.32684	.24094	.33781	.20210	.20777	.40715
28	.30680	.41171	.26997	.21797	.31373	.22316	.22199	.22858	.33245	.31333
31	1.00000	.30875	.32930	.33088	.44092	.15093	.37062	.56978	.21250	.23863
34	.30875	1.00000	.37619	.23713	.38963	.26152	.41927	.30135	.33515	.30577
37	.32930	.37619	1.00000	.36103	.33448	.44825	.34061	.32116	.23597	.49325
40	.33088	.23713	.36103	1.00000	.35874	.31007	.39867	.37626	.07910	.23193
43	.44092	.38963	.33448	.35874	1.00000	.51154	.53175	.66692	.26526	.39871
46	.15093	.26152	.44825	.31007	.51154	1.00000	.34699	.43072	.16383	.40666
49	.37062	.41927	.34061	.39867	.53175	.43699	1.00000	.48643	.24088	.35869
52	.56978	.30135	.32116	.37626	.66692	.43072	.48643	1.00000	.27285	.37709
55	.21250	.33515	.23597	.07910	.26526	.16383	.24088	.27285	1.00000	.29422
58	.23863	.30577	.49325	.23193	.39871	.40666	.35869	.37709	.29422	1.00000
61	.27643	.30698	.26952	.34261	.65650	.30405	.47724	.46680	.17252	.22565
64	.21143	.33535	.22263	.26589	.31034	.20834	.29082	.24744	.37952	.33820
67	.04207	.21468	.28695	.06585	.23152	.19795	.20842	.09583	.14941	.25008
70	.36909	.29855	.28437	.31898	.62159	.47111	.41362	.55991	.17472	.27925
73	.15805	.25320	.24696	.37900	.20477	.24642	.30766	.35669	.16851	.25869
76	.34426	.42020	.27551	.36591	.77895	.49477	.49477	.53567	.59443	.32768
79	.18870	.26339	.34639	.20358	.26328	.28475	.33191	.28040	.19660	.28674
82	-.01694	.07946	.45558	.04005	.04964	.10361	.09439	.06802	-.03509	.21196
85	.10078	.23909	.02385	.11422	.13666	.07983	.10652	.17894	.10773	.21229
88	.13697	.33368	-.00133	.16758	.22821	.08346	.23051	.19135	.14986	.20344
89	.11455	.07236	.19165	.12602	.06341	.19483	.14610	.11717	-.11095	.12224
90	.21703	.02207	.14500	.18166	.13117	.13320	.13007	.16794	-.03610	.06458
91	.15778	-.01306	.14275	.06061	.14958	.10850	.12916	.18649	-.03788	.20056
92	.16518	.19136	.19649	.20521	.25421	.20968	.25524	.28733	-.01284	.09788
93	.10403	.01607	.06492	.09444	.02427	-.01916	.06330	.10096	.03234	-.05028
94	.13261	.17021	.25907	.15595	.11502	.19344	.21558	.21522	.05468	.29779
95	.12225	.17415	.10678	.02426	.03866	.03750	.05201	.12159	.00238	-.06256
96	.12431	.14084	.18818	.12168	.10675	.09843	.10690	.15343	.07321	-.04966
97	.29342	.26602	.22075	.12919	.22282	.18030	.24443	.19015	.11984	.07332
98	.31453	.40180	.31927	.33145	.32134	.22540	.31747	.30939	.14182	.27056
99	.27076	.33492	.38729	.24416	.36305	.27172	.32774	.22426	.28562	.37914
100	.34621	.24733	.27715	.29241	.71793	.34061	.45903	.58599	.17270	.26004
101	.16440	.29092	.12832	.17690	.15749	.05290	.25338	.16807	.16293	.26706
104	.10803	.19873	.06329	.02223	.12611	.07076	.13164	.16256	.14484	.10484
105	-.02898	.11761	.07440	.07445	.06928	.03787	-.01472	.08581	.00799	-.01395
106	-.00233	-.13335	.06372	-.00179	.00932	-.00526	-.00853	.05753	-.00219	-.00528
107	-.10798	-.02850	.05972	-.01650	-.05005	-.02638	-.06040	-.16917	-.08338	.02068
108	-.08601	-.05121	.05032	.02998	-.02208	-.03109	-.16370	-.07374	-.06195	.07871
109	-.10662	-.08137	-.03493	-.14832	-.04986	-.12047	-.25116	-.10093	-.05124	.07253
120	-.08245	-.17014	-.11140	-.07485	-.15173	-.18548	-.17645	-.13247	-.14246	-.21171
121	.06356	.04284	.16332	-.08692	.01693	-.01537	-.11262	.04933	.11237	.00573
122	-.11232	-.09927	-.05993	-.18189	-.17063	-.16068	-.21847	-.24529	.03813	.01499
123	.10882	-.12418	-.06923	-.25941	-.06819	-.15863	-.05584	-.11951	-.03181	-.12336
124	.16914	.24661	.25904	.18126	.24779	.22640	.20831	.30361	.29077	.23900
125	-.05111	.06425	.06746	.06461	.10104	.09159	-.01927	.08288	-.03739	.02372

Table 13--(Continued)

126	.04459	-.06817	.08642	.08035	.14137	.14022	.03755	.13578	-.01511	.06504
127	-.07922	.03859	.08589	.02728	.09239	.12907	.07700	-.08533	.00868	.08966
128	-.10461	-.04771	.01644	.02938	-.04031	.00532	-.06833	-.07213	-.05199	.08560
129	-.00689	.01707	.09101	-.13816	-.09565	-.00885	-.21225	-.10295	-.02908	.10679
130	-.11425	-.14925	-.05753	.02698	-.09045	-.05658	-.14270	-.07535	-.11780	-.18831
131	.06300	.05110	.06527	-.04762	.03139	-.01366	-.05259	.03654	.15015	-.00271
132	-.05270	-.07793	.02059	-.16752	-.17844	-.04543	-.22845	-.20637	-.01495	-.02970
133	.08335	.00833	.04921	-.07035	.03050	-.03080	.07762	-.07171	-.04550	.08994
B7	-.09903	-.10953	-.08235	-.06643	.02218	-.06024	-.05558	-.05974	-.19652	.00857
A	.09724	.14779	.27077	.19618	.05622	.17253	.06631	.10355	-.14317	.15462
B	-.10857	.08488	.23485	.16980	.04992	.13867	.15283	.10088	-.11807	.19277
C	-.02341	.15379	.26967	.15609	.12586	.18106	.18390	.17393	-.13118	.26699
D	.17668	.06721	.26946	.24694	.11954	.15416	.17550	.18903	-.09193	.07817
E	.11507	.03094	.06051	.11128	.07376	-.00680	.13575	.02454	-.05853	-.06351
F	-.03772	.00008	.08392	.03351	-.02684	.04332	.07090	.02345	-.01660	-.02301
G	-.06544	.01550	-.02087	.00109	.05605	.11792	.04517	.03926	-.01372	.05477
H	-.09449	-.18785	-.06415	-.07383	-.11607	-.27034	-.12953	-.11160	-.05479	-.08401
J	-.02858	-.01742	-.06686	-.16147	.03938	-.03809	-.01558	-.05930	.02176	-.06535
K	-.07577	-.12468	-.08511	-.14835	-.04780	-.18645	-.09275	-.10907	-.02349	-.09573

Table 13--(Continued)

	61	64	67	70	73	76	79	82	85	86
1	.21749	.07330	.18531	.15279	.26392	.21645	.21147	.21379	.05339	.00331
4	.24480	.23241	.15639	.32440	.19277	.35821	.18457	.34123	.05160	.21967
7	.05835	.09917	.16739	.14875	.07430	.13386	.04729	.22212	-.05164	-.09099
10	.46164	.11310	.05555	.45725	.19967	.41722	.23583	.15637	.13732	.07830
13	.12227	.22583	.01583	.15321	.22413	.17031	.02208	-.17469	.51800	.32922
16	.40236	.32895	.20323	.53618	.28643	.51623	.24607	.26236	.10767	.15172
19	.08415	.16233	.25321	.16859	.11697	.18378	.19879	.08021	.18567	.04765
22	.29050	.30002	.10220	.22128	.14820	.36672	.12592	.25834	.16622	.26367
25	.17754	.27205	.40063	.27067	.13731	.29570	.20347	-.00015	.19304	.16031
28	.22179	.19683	.06340	.32214	.38780	.34907	.22695	.03200	.14768	.09925
31	.27643	.21143	.04207	.36909	.15005	.34426	.16870	-.01694	.10078	.13697
34	.30698	.33535	.21468	.29855	.25320	.42020	.20339	.07946	.23909	.33368
37	.20952	.22263	.28605	.28437	.24696	.27551	.34639	.45558	.02385	-.00133
40	.34261	.26589	.06585	.31888	.37900	.38591	.20358	.04005	.11422	.16758
43	.65650	.31034	.23152	.62159	.28477	.77895	.26328	.04964	.13666	.22821
46	.30405	.20234	.19795	.47111	.24642	.49477	.20475	.10361	.07983	.68346
49	.47724	.29082	.20842	.41362	.30766	.53567	.33191	.09439	.10652	.23051
52	.46680	.24744	.09583	.55991	.35669	.59443	.28040	.06802	.17804	.19135
55	.17252	.37952	.14941	.17472	.16851	.32768	.19660	-.03509	.10773	.14986
58	.22565	.33820	.25008	.27925	.25869	.32507	.28874	.21196	.21229	.20344
61	1.00000	.25519	.07316	.44188	.11752	.54452	.25306	.06623	.07318	.15743
64	.25519	1.00000	.19211	.26570	.05583	.33555	.12910	-.06874	.17929	.25500
67	.07316	.19211	1.00000	.29713	.04782	.16010	.04745	.13707	.05765	-.01016
70	.44188	.26570	.29713	1.00000	.27150	.52198	.29310	.07402	.18145	.16437
73	.11752	.05583	.04382	.27150	1.00000	.29462	.40172	.08192	.10554	.05727
76	.54452	.33555	.16010	.52198	.29462	1.00000	.25804	.03555	.15353	.29430
79	.25306	.12910	.04745	.29310	.40172	.25804	1.00000	.08674	.05680	.04842
82	.06623	-.06874	.13707	.07402	.08192	.03555	.08674	1.00000	-.12007	-.09064
85	.07318	.17929	.05765	.18145	.10554	.15353	.05680	-.12007	1.00000	.49876
86	.15743	.25500	-.01016	.16437	.05727	.29430	.04842	-.09064	.49876	1.00000
88	.05183	-.06161	.01792	.08288	.25417	.06903	.10642	.08704	-.15253	-.05172
89	.12798	-.02371	.07063	.15115	.17549	.16864	.09920	.08283	-.06629	-.06476
90	.10309	.08266	.03941	.14393	.12747	.08751	.22922	.13811	.09178	-.03947
91	.24492	.12652	.13302	.24101	.14543	.24957	.12041	.09171	-.00440	.10313
92	.06800	-.00527	-.09256	.05731	.07319	.05509	.04361	.09265	-.06971	-.06049
93	.18481	.05054	.07841	.18068	.18223	.16956	.08370	.14928	.09681	.09470
94	.15975	-.00159	.01079	.07450	-.00348	.02957	-.04695	.07071	.07653	.08138
95	.12440	.12856	.03079	.17279	.02173	.14565	.07698	.10137	-.13502	-.05582
96	.11904	.07936	.00627	.17990	.07831	.25041	.24651	-.02746	.14490	.16710
97	.21670	.25118	.12098	.19602	.29762	.35009	.15437	.15452	.21193	.17671
98	.20634	.12563	.26470	.17300	.32318	.29048	.22861	.05900	-.02772	.06513
99	.73777	.22930	.12569	.48309	.19869	.62297	.22026	.06937	.11887	.15583
100	.20871	.24239	.02041	.10616	.19347	.32355	.09184	-.08503	.43174	.37366
114	-.02182	.08655	.04506	-.00349	.09991	.11832	-.01327	.00707	.03373	.10337
115	-.01430	.18694	-.02369	-.03288	-.11460	.01751	-.02793	.02033	-.12569	.03184
116	-.10410	.14905	.06976	.05460	-.10772	-.04430	.06971	.10205	-.09357	-.10495
117	-.13787	.04531	.05011	.02244	.07828	-.02418	.01524	.05464	.02242	-.06421
118	-.10546	.06828	.04966	-.10073	-.06880	-.07434	.02930	-.02826	-.10570	-.10426
119	-.08965	.11032	-.11066	-.08163	-.05764	-.14273	.01021	-.07737	-.12663	-.09650
120	-.12776	-.00052	-.02101	-.09985	-.15708	-.21771	-.21862	.05158	-.09526	-.16845
121	-.09462	.06523	.14063	.06771	-.16092	-.07535	-.11353	.00221	-.07051	-.02191
122	-.15926	.08412	-.09403	-.18692	-.07515	-.17889	-.09223	-.08689	-.10625	-.07939
123	-.14260	.13099	.00481	-.14342	-.20436	-.16077	-.05944	-.09023	-.04064	.02718
124	.11889	.20564	.17814	.23300	.13761	.22252	.11988	.10725	.15282	.08358
125	.10193	.14048	.08447	.01305	-.02911	.03574	-.04995	-.05109	.03071	.06387

Table 13--(Continued)

126	.04596	.16970	.13343	.13181	-.04494	.04721	.04120	.03818	.04607	-.07858
127	-.01970	.10118	.18085	.05609	.16318	.04517	.08114	.06406	.01846	.01107
128	-.12358	.03464	.10780	-.11840	.03433	-.09974	.01765	-.05631	-.09847	-.17331
129	-.27421	.08296	-.01386	-.08508	.00186	-.22698	-.00609	-.00252	-.16494	-.14034
130	.00446	.02801	-.03612	-.02258	-.11431	-.19024	-.20360	.08791	-.08459	-.11539
131	.04511	.07273	.14942	-.05663	-.09579	-.04786	-.15352	-.02111	-.04598	-.02073
132	-.25251	.05881	-.06459	-.09717	-.00814	-.24411	-.10326	-.07989	-.05625	-.05025
133	.09358	.17379	-.00205	-.07322	-.11763	-.05687	-.10941	-.01386	.03348	.13906
87	-.00344	-.09955	-.12039	-.08415	-.16472	-.08250	-.09071	.00744	-.10420	-.05949
A	.09398	.12031	.05040	.08199	.11607	.08770	.06536	.21990	-.07515	-.04401
B	.14435	.09358	-.01970	-.02594	.05277	.10345	.05171	.16451	.15117	.06966
C	.15736	.06532	-.01807	.07489	.11994	.14205	.07165	.20871	.16490	.09322
D	.13796	-.02987	.01434	.17978	.18550	.19163	.16504	.27289	-.08268	-.17551
E	-.02274	.04469	-.14550	.06503	.12239	.14421	.02483	.09761	-.01772	-.06012
F	-.03968	-.03800	-.03542	.06943	.06199	-.01078	-.02256	.14476	-.18371	-.15938
G	.04049	-.01107	.06819	.02700	.05212	.13090	.01803	.07679	.01826	-.04737
H	.03926	-.05093	-.08882	-.09071	-.13822	-.14539	-.03206	-.02299	-.03480	-.11810
J	.00331	.10968	.01240	.01978	-.08087	.01311	.06347	-.02435	-.08269	-.01079
K	.02048	.03718	-.05190	-.04706	-.13786	-.07908	.01484	-.03137	-.07647	-.07898

Table 13--(Continued)

	88	89	90	91	92	93	94	95	96	97
1	.19609	.13720	.16497	.26223	.26116	.36819	.23075	.17673	.18361	.26214
4	.13941	.06602	.10085	.14467	.00486	.15792	.02590	.07260	.11659	.22410
7	.06204	-.02735	.06840	-.04733	-.09382	.00165	.00918	-.00556	-.02215	.08470
10	.03427	.18336	.02111	.17974	.06137	.15987	.08620	.14865	.09165	.11901
13	-.02143	-.01122	.06859	.02418	.05391	.16255	.10750	-.05314	.15549	.18492
16	.14442	.12239	.09114	.23010	.01806	.19990	.01575	.14268	.16903	.25032
19	.05692	.15731	.16104	.08739	.05104	.08226	-.03037	-.03017	.21046	.21115
22	.03838	-.05922	.04514	.20812	.00454	.14748	.07820	.14178	.09825	.18896
25	.03285	.05937	.11321	.18574	.07199	.16808	.02098	.06792	.14571	.24090
28	.01291	.09524	.14339	.18118	.11894	.10972	.00770	.15065	.22791	.34350
31	.11455	.21703	.15778	.16518	.10403	.13261	.12225	.12431	.29342	.21453
34	.07236	.02207	-.01306	.19136	.01607	.17021	.17415	.14084	.26602	.40180
37	.19165	.14500	.14275	.19849	.06492	.25907	.10678	.18818	.22075	.31927
40	.12602	.18166	.06061	.20521	.09444	.15595	.02426	.12168	.12919	.33145
43	.06341	.13117	.14558	.25421	.02427	.11502	.03866	.10675	.22282	.27134
46	.19483	.13320	.10850	.20968	-.01916	.19344	.03750	.09843	.18030	.22540
49	.14610	.13007	.12916	.25524	.06330	.21558	.05201	.10690	.24403	.21747
52	.11717	.16794	.18649	.28733	.10096	.21522	.12159	.15343	.19015	.30939
55	-.11095	-.03610	-.03788	-.01284	.03234	.05468	.00238	.07321	.11904	.14182
58	.12224	.06458	.20056	.09788	-.05028	.09779	-.06256	-.04966	.07332	.27056
61	.05183	.12798	.10309	.24492	.06800	.18481	.15975	.12040	.11904	.21670
64	-.06161	-.02371	.00266	.12652	-.00527	.05054	-.00159	.12858	.07936	.29118
67	.01792	.07063	.03941	.13302	-.09256	.07841	.01679	.03078	.00627	.12098
70	.08282	.15115	.14393	.24101	.05731	.18868	.07450	.17279	.17990	.19802
73	.25417	.17549	.12747	.14543	.07319	.18223	-.00348	.02173	.07831	.29762
76	.06903	.16864	.08751	.24957	.05509	.16956	.08957	.14565	.25541	.35009
79	.10642	.09920	.22922	.12041	.04361	.08370	-.04095	.07698	.24651	.15437
82	.08704	.08283	.13811	.09171	.09265	.14928	.07071	.10137	-.02749	.15452
85	-.15253	-.06629	.09178	-.00440	-.06971	.09681	.07053	-.13502	.14400	.21193
86	-.05152	-.06476	-.03947	.16313	-.06049	.09470	.08138	-.05582	.16710	.17701
88	1.00000	.50092	.27960	.27389	.25375	.39788	.22102	.23843	.10818	.11614
89	.50092	1.00000	.33381	.27288	.20227	.34893	.18056	.29570	.20524	.22605
90	.27960	.33381	1.00000	.35782	.21039	.31012	.20593	.32569	.28120	.22562
91	.27389	.27288	.35782	1.00000	.39198	.38399	.21503	.36859	.23272	.20748
92	.25375	.20227	.23039	.39198	1.00000	.43397	.35096	.67922	.17026	.08935
93	.39788	.34893	.31012	.38399	.43397	1.00000	.67917	.51056	.29820	.23367
94	.22102	.18056	.20593	.21503	.35096	.67917	1.00000	.47799	.33588	.20654
95	.23843	.29570	.32569	.36859	.67922	.51056	.47799	1.00000	.30967	.22832
96	.10818	.20524	.28120	.23272	.17026	.29820	.33588	.30967	1.00000	.33460
97	.11614	.22605	.22562	.20748	.08935	.23367	.20654	.22832	.33460	1.00000
98	.20195	.14583	.25227	.12362	.01947	.14489	.01243	.17285	.28107	.26595
99	.19317	.23232	.21421	.34680	.13077	.21824	.13341	.17412	.23138	.24754
100	.02259	.11339	.27973	.07213	.08266	.21051	.18930	.06025	.45419	.45339
114	.06917	.01547	-.02226	.04519	.04421	.03359	.06986	.05406	-.05804	.07667
115	.00588	.02011	-.01566	-.03275	.03693	-.05798	-.06886	.02243	-.00367	-.12949
116	.01120	-.01169	.01376	.11050	.04095	-.01449	-.11336	-.03331	-.11452	-.14483
117	-.03248	-.04009	-.07556	-.08075	-.04187	-.05215	-.13253	-.12429	-.00029	-.01943
118	-.05570	-.01024	-.15681	-.04609	-.06231	-.15672	-.04493	-.11400	-.01923	-.01060
119	-.11562	-.09214	-.07682	-.09760	-.01976	-.25011	-.18372	-.08962	-.12733	-.11415
120	-.18901	-.14717	-.10715	-.16060	.01626	-.12083	.05566	.00722	-.05299	-.14849
121	-.03930	-.12383	-.01788	.13698	.03526	.01908	.12731	.15659	-.02338	.00809
122	-.11886	-.11581	.00108	-.14129	.09095	-.13410	-.16440	.04030	-.02084	-.07010
123	-.07127	-.08875	.00992	.02174	.01797	.00136	-.04992	-.01143	-.06375	-.29940
124	.10813	.05737	-.01690	.15403	.09408	.07842	.04290	.07775	.02334	.24929
125	.05928	-.00694	-.00277	.08490	.02314	-.03687	-.00828	-.01629	-.08217	-.07170

Table 13--(Continued)

126	.05021	-.02806	.02209	.16322	.04025	.01851	-.02581	-.02716	-.04743	-.07285
127	-.06329	-.00070	-.12226	-.00042	.01361	-.07299	-.15377	-.05581	-.01386	.05182
128	.05571	-.03187	-.08501	-.08464	-.07757	-.13016	-.06268	-.13714	.00456	-.01266
129	-.06825	-.19522	-.00066	-.04282	.09240	-.18095	-.12706	-.01746	-.12676	-.10224
130	-.17229	-.11756	-.16369	-.13231	.05301	-.08462	.09833	-.00190	-.10108	-.15049
131	-.01861	-.07703	-.09912	.03569	.06947	-.05275	.10909	.11769	-.03261	.03458
132	-.09782	-.12151	-.00614	-.06304	.10510	-.09555	-.06989	.07344	.06612	-.06798
133	-.04667	-.04481	-.00175	.03436	.02087	-.04025	-.07169	-.04501	-.07683	-.12174
87	-.21033	-.11474	-.07160	-.08089	.04968	-.13707	-.10162	-.09957	-.00560	-.12625
A	.16482	.08229	.09609	.11192	.23702	.26977	.19184	.16354	.02677	.13876
B	.08066	.04624	.12254	.12474	.03846	.24601	.12825	-.02785	.00688	.08556
C	.12523	.10763	.17565	.17102	.07053	.27361	.19341	.04186	.04621	.04298
D	.20428	.13383	.11653	.09123	.30041	.23119	.11076	.18588	.07505	.10361
E	-.08128	-.00718	.07381	-.11238	-.10108	-.09213	-.15494	-.01117	.15077	.12247
F	.16428	.10588	.03983	.17216	.13193	.10702	.05390	.12222	-.14534	-.07479
G	.03584	.03672	.03607	.00594	-.02213	-.02534	.03449	-.05559	-.14487	-.02349
H	-.00068	-.02006	-.01320	.00668	.00673	-.06605	-.05488	-.04305	-.11461	-.10694
J	-.05667	-.08166	-.02459	.02376	-.01522	-.05175	.02343	-.07575	.11480	-.03163
K	-.04032	-.06834	-.02650	.01414	-.00865	-.06653	-.01588	-.07906	.00770	-.08927

Table 13—(Continued)

	98	99	100	114	115	116	117	118	119	120
1	.28785	.23504	.09039	.08526	.04288	.07267	.09126	.06873	-.10034	-.13755
4	.31118	.29236	.08954	.09117	.04851	.03058	.11499	.05307	-.08390	-.11885
7	.11026	.07170	.05302	.08743	.04976	.01769	.10288	.02050	.04830	.01111
10	.16555	.40783	.07540	.08880	.05322	.08870	.02087	.00139	-.12261	-.14924
13	-.00576	.16189	.63584	.12535	-.01246	.09116	.11956	.01629	-.02377	-.09195
16	.34611	.41018	.12852	.03967	.11105	.06338	.01675	-.02660	-.12056	-.08563
19	.21697	.16937	.30304	.11318	.05033	.10748	-.01671	.11828	-.00068	-.07293
22	.34783	.27631	.17024	.16780	.12579	-.05980	.01526	.07073	-.09882	-.22749
25	.25603	.25811	.20625	.11436	.08106	.08095	.88673	-.01218	.15215	.34303
28	.28304	.31704	.24901	.07195	-.13590	-.08291	.04298	-.02494	-.04906	-.19220
31	.27076	.34621	.16440	.10803	-.02898	-.00233	-.10798	-.08601	-.10662	-.08345
34	.33492	.34733	.29092	.19873	.01761	-.13335	-.02850	-.05121	-.08137	-.17014
37	.38729	.27715	.12832	.06329	.07980	.06372	.05972	.05032	-.03493	-.11140
40	.24416	.29241	.17690	.02223	.07445	.00179	-.01650	.02998	-.14832	-.07485
43	.36305	.71795	.15749	.12611	.06028	.00932	-.05005	-.02208	-.04986	-.15173
46	.27172	.34061	.05290	.07076	.03787	-.00526	.02638	-.03109	-.12047	-.18548
49	.32774	.45903	.25338	.13164	-.01472	-.00853	-.06040	-.16370	-.25116	-.17845
52	.22426	.58599	.16807	.16256	.08581	.05753	-.16917	-.07374	-.10093	-.13247
55	.26562	.17270	.16293	.14484	.00799	-.00219	-.08338	-.06195	-.05124	-.14246
58	.37914	.26004	.26706	.10484	-.01395	-.00528	.02068	.07871	.07253	-.21171
61	.20634	.73777	.20871	-.02182	-.01430	-.10410	-.13787	-.10546	-.08965	-.12776
64	.18563	.22930	.24239	.08655	.18694	.14905	.04531	.06828	.11632	-.00052
67	.26470	.12569	.02041	.04506	-.02369	.06976	.05811	.04966	-.11066	-.02101
70	.17300	.48309	.10616	-.00349	-.03288	.05460	.02244	-.10073	-.08163	-.09985
73	.32318	.19869	.19347	.00991	-.11460	-.10772	-.07828	-.06880	-.05764	-.15708
76	.29048	.62297	.23255	.11832	.01751	-.04430	-.02418	-.07434	-.14273	-.21771
79	.22881	.22026	.09184	-.01327	-.02793	.06971	.01524	.02930	.01021	-.21902
82	.05900	.06937	-.08503	.00707	.02033	.10205	.05464	-.02836	-.07737	.05158
85	-.02772	.11887	.43174	.03773	-.12569	-.05357	.02242	-.10570	-.12963	-.09526
88	.08513	.15583	.37366	.10337	.03184	-.10495	-.06421	-.15426	-.09650	-.16845
88	.20195	.19317	.02259	.06917	.00588	.01120	-.03248	-.05570	-.11562	-.18901
89	.14583	.23232	.11339	.01547	.02811	-.01169	-.04009	-.01024	-.09214	-.14717
90	.25227	.21421	.27973	-.02226	-.01566	-.01376	-.07556	-.15681	-.07682	-.10715
91	.12362	.34880	.07213	.04519	-.02275	.11050	-.08075	-.04609	-.09760	-.16060
92	.01947	.13077	.08266	.04621	.03693	.20895	-.04187	-.06231	-.01976	.01626
93	.14489	.21824	.21051	.03359	-.05798	-.01449	-.05215	-.15572	-.25011	-.12083
94	.01243	.13341	.18930	.06986	-.06886	-.11336	-.13253	-.04493	-.18372	.05566
95	.17285	.17412	.06085	.05406	.02243	-.03331	-.12429	-.11400	-.08962	.00722
96	.28107	.23138	.45019	-.05804	-.02247	-.11452	-.00029	-.01923	-.12733	-.05299
97	.36555	.34754	.05339	.07667	-.12949	-.14003	.01943	-.01060	-.11415	-.14849
98	1.00000	.32296	.26667	.02770	-.00035	-.17315	-.06942	-.10526	-.20715	-.20552
99	.32296	1.00000	.24315	.03124	-.00836	-.05396	-.12015	-.08605	-.10206	-.23757
100	.26667	.24315	1.00000	-.01154	-.08673	-.12766	.01972	-.03880	-.08511	-.11377
114	.02770	.03124	-.01154	1.00000	.33451	.23943	.02004	.12223	-.04579	-.03593
115	-.00035	-.09236	-.08673	.33451	1.00000	.49343	.15925	.23868	.11087	.05480
116	-.17315	-.05396	-.12766	.23943	.49343	1.00000	.19050	.34803	.19728	.07407
117	-.06942	-.12015	-.02804	.1972	.15925	.19050	1.00000	.27107	.24763	.15039
118	-.10526	-.08605	-.03880	.12223	.23868	.34803	.27107	1.00000	.32429	.16865
119	-.20715	-.10206	-.08511	-.04579	-.11887	.19728	.24763	.32429	1.00000	.21526
120	-.20552	-.23757	-.11377	-.03593	.05480	.07407	.19039	.16865	.21526	1.00000
121	.04307	-.03957	-.12915	.08675	.26314	.23270	.14206	.27281	.09534	.12323
122	-.11540	-.20421	-.10857	-.04607	.12646	.12742	.20292	.17069	.64868	.24526
123	-.07109	-.15302	-.13384	.11339	.15447	.24271	.12401	.18883	.18507	.16819
124	.17118	.23321	.03457	.63383	.18938	.17541	.04621	.12062	-.09291	-.08835
125	-.02319	.04698	-.01603	.28644	.69653	.41172	.20777	.17470	.06686	.05401

Table 13--(Continued)

126	-.13055	.10515	-.01800	.16672	.34718	.79282	.19289	.22830	.13430	.04976
127	.06273	.01247	.02970	.01395	.10115	.18561	.66417	.29760	.06878	.08172
128	-.08415	-.09653	-.00354	.07540	.22577	.28348	.31193	.00400	.23733	.12463
129	-.17174	-.15385	-.10957	.08675	.16021	.24823	.19461	.36706	.64860	.14504
130	-.19290	-.15287	-.07546	-.00591	.07107	.08370	.07196	.15087	.06794	.22430
131	.02401	-.03744	-.06592	.00130	.21452	.10541	.09042	.23888	.06411	.16686
132	-.11689	-.20413	.12617	.03542	.09997	.12336	.19104	.21575	.44242	.16967
133	.01492	-.04017	-.07129	.07417	.24786	.13029	.10882	.13391	.09791	.12034
87	-.21340	-.05310	-.06032	.03185	.06942	.02635	.00548	.04025	.09795	.11443
A	.06715	.04045	-.02575	-.02333	.08921	.17608	.02599	.01729	-.01066	.10182
B	-.04348	.05636	.12036	-.00604	.14715	.10805	.16296	.00827	-.06514	-.07962
C	-.01127	.11022	.16796	-.02065	.11349	.07957	.02631	-.02336	-.07437	-.04948
D	.08609	.08343	.00998	-.09806	.11990	.17646	.09345	-.04862	-.05822	.08096
E	.04876	.00953	.04207	.01783	.01640	-.09519	-.03713	-.04055	-.03871	-.02366
F	-.19028	-.05370	-.17640	-.07715	.07288	.05950	-.08508	-.10386	-.10546	-.05241
G	-.11600	.03851	-.13240	-.04976	.11081	-.00461	.06714	-.06614	-.05211	-.01319
H	-.14218	-.04077	-.01189	.16791	.09566	.12685	.08078	.10064	.05674	.09748
J	-.08393	-.01940	-.00850	.12321	.01338	.03973	.03260	.23212	.12412	.07730
K	-.14438	-.04159	-.01932	.17344	.06344	.10156	.06353	.21013	.11261	.11416

Table 13--(Continued)

	121	122	123	124	125	126	127	128	129	130
1	.18310	-.11556	-.09580	.15637	.03701	.09276	.09225	.07055	.00162	-.06731
4	.11884	-.18318	-.02282	.19748	.11914	.06823	.12752	.02872	.07566	-.09112
7	.03526	.05258	-.11259	.14889	.02480	.03056	.03554	.02044	.08447	-.01582
10	.01040	-.21823	-.17846	.22376	.03991	.08452	.02717	.00505	-.16289	-.09016
13	-.13629	.05536	-.05336	.20212	.14822	.14536	.13652	-.00749	-.02533	-.07025
16	-.04034	-.10694	-.14737	.28365	.14128	.10061	.05691	-.08352	-.08680	-.05032
19	.01260	.02479	-.07857	.20466	.05139	.08667	.06156	.08630	.06978	-.05012
22	.07062	-.13489	-.06222	.27433	.06166	-.07312	.00039	.03374	-.02160	-.22159
25	.03178	-.04940	-.01361	.11657	.07068	.09020	.07296	-.00810	-.03188	-.18516
28	-.16179	-.05386	-.21541	.16499	-.13299	-.07850	.16604	.02387	.05128	-.15782
31	.06356	.11232	.10882	.16914	.05111	.04459	-.07982	.16461	.00089	.11428
34	.04284	.05927	-.12418	.24661	.06425	-.06817	.03859	-.04771	.01707	-.14925
37	.16232	-.05993	-.06923	.25904	.06746	.08642	.08589	.01644	.09101	-.05753
40	-.08692	-.18189	-.25941	.18126	.06461	.08035	.02728	.02938	-.13816	.02698
43	.01693	-.17063	-.06819	.24779	.16104	.14137	.08239	-.04031	-.09565	-.09045
46	-.01537	-.16068	-.15863	.22640	.09159	.14022	.12907	.00532	-.00885	-.05658
49	-.11262	-.21847	-.05584	.20831	-.01927	.03755	.07700	-.08833	-.21225	-.14270
52	.04932	-.24529	-.11951	.30361	.08208	.13578	-.08533	-.07213	-.10295	-.07535
55	.11237	.03813	-.03181	.25077	-.03739	-.01511	.00868	-.05199	.02908	-.11780
58	.00573	.01499	-.12336	.23900	.02372	.06504	.08966	.08560	.10679	-.18831
61	-.00462	-.15926	-.14260	.11889	.10193	.04596	-.01870	-.12358	-.27421	.00446
64	.06523	.08412	.13099	.20564	.14048	.16970	.10118	.03464	.08296	.02801
67	.14063	-.09403	.00481	.17814	.08447	.13343	.18085	.10780	-.01386	-.03612
70	.00771	-.10692	-.14342	.23300	.01305	.13181	.05609	-.11840	-.08508	-.02258
73	-.16092	-.07515	-.20436	.13361	-.02911	-.04494	.16318	.03433	.00186	-.11431
76	-.07535	-.17889	-.16077	.22252	.03574	.04721	.04517	-.09974	-.22698	-.19024
79	-.11353	-.09223	-.05944	.11988	-.04995	.04120	.08114	.01765	-.00609	-.20360
82	.00221	-.08589	-.09023	.10725	-.05109	.03818	.06406	-.05631	-.00252	.08791
85	-.07951	-.10625	-.04064	.15282	.03071	.04607	.01846	-.05847	-.16494	-.08459
86	-.02191	-.07939	.02718	.08358	.06387	-.07858	.01107	-.17331	-.14034	-.11539
88	-.03930	-.11886	-.07127	.10813	.05928	.05021	-.06329	.05571	-.06825	-.17229
89	-.12380	-.11581	-.08275	.05737	-.00694	-.02806	-.00070	-.03187	-.19522	-.11756
90	-.01788	.00108	.00992	-.01690	-.00277	.02209	-.12226	-.18501	-.08066	-.16360
91	.13698	-.14129	.02174	.15403	.02490	.16322	-.00042	-.08464	-.04282	-.13231
92	.03526	.09093	.01797	.09408	.02314	.04025	.01361	-.07757	.09240	.05101
93	.01908	-.13410	.00136	.07842	-.03687	.01851	-.07299	-.13016	-.18095	-.08962
94	.12731	-.16440	-.04992	.04290	-.00828	-.02581	-.15377	-.06268	-.12706	.08933
95	.13659	.04030	-.01143	.07775	-.01629	-.02716	-.05581	-.13714	-.01746	-.00190
96	-.02138	-.02094	-.06375	.02334	-.00217	-.04743	-.01386	.00456	-.12676	-.10102
97	.00409	-.07010	-.29940	.24929	-.07170	-.07225	.05182	-.01266	-.10224	-.15849
98	.04307	-.11540	-.07109	.17118	-.02319	-.13055	.06273	-.08415	-.17174	-.19290
99	-.03957	-.20421	-.15302	.23321	.04698	.10515	.01847	-.09653	-.15385	-.15287
100	-.12915	.10857	-.13384	.03457	-.01603	-.01800	.02970	-.00354	-.10957	-.07546
114	.08675	-.04607	.11339	.63383	.28644	.16672	.01395	.07540	.08675	-.00691
115	.26314	.12646	.15447	.18938	.69653	.34718	.10115	.22577	.16021	.07107
116	.23270	.12742	.24271	.17541	.41172	.79282	.18561	.28348	.24223	.08370
117	.14206	.20292	.12401	.04621	.20777	.19269	.66417	.31193	.19461	.07196
118	.27281	.17069	.18883	.12062	.17470	.22830	.29760	.80400	.36706	.15087
119	.09534	.64868	.18507	-.09291	.06660	.13430	.06878	.23733	.64860	.06794
120	.12323	.24526	.16819	-.08835	.65401	.04976	.08172	.12463	.14504	.24330
121	1.00000	.10517	.17288	.15931	.28817	.25413	.09555	.24027	.18850	.10316
122	.10517	1.00000	.19557	-.12030	.10142	.11746	.07176	.15491	.49701	.13710
123	.17288	.19557	1.00000	.05189	.15537	.17042	.01065	.10186	.24280	.05134
124	.15931	-.12030	.05189	1.00000	.33459	.22371	.18066	.08631	.04421	-.00062
125	.28817	.10142	.15537	.33459	1.00000	.53612	.16985	.18065	.11786	.12721

Table 13—(Continued)

126	.25413	.11746	.17042	.22371	.53612	1.00000	.19409	.23819	.23729	.15558
127	.09555	.07176	.01065	.18066	.16985	.19409	1.00000	.36339	.20748	.16889
128	.24027	.15491	.10186	.08631	.18065	.23819	.36339	1.00000	.38049	.13135
129	.18050	.49701	.24280	.04421	.11786	.23729	.20748	.38049	1.00000	.13017
130	.10316	.13710	.05134	-.00062	.12721	.15558	.16889	.13135	.13017	1.00000
131	.75177	.11967	.04114	.12445	.29839	.18453	.22574	.31599	.22809	.23579
132	.21259	.76794	.20199	-.01403	.07286	.14701	.18663	.25250	.64314	.18259
133	.16262	.13216	.68464	.11075	.30780	.12895	.11665	.13490	.17571	.14404
87	-.05079	.02518	.07890	-.00787	.03050	-.00275	-.05219	.02429	.13672	.11504
A	-.05875	.02615	.03721	-.02621	.13982	.11773	-.01077	-.05908	-.01417	.11110
B	-.04895	-.06191	-.04316	-.01135	.14707	.04856	.05350	-.02130	-.14122	-.11365
C	-.04934	-.11196	-.01482	-.02802	.12253	.04547	-.00685	-.08031	-.14553	-.06601
D	-.13399	-.06322	-.04914	-.00172	.08058	.11742	-.03865	-.08111	-.09832	.04522
E	-.10904	.04719	.02618	-.05186	-.01905	-.14967	-.09662	-.00666	-.08040	-.06497
F	-.01380	-.09744	-.06820	-.08653	.03251	.01054	-.21849	-.16873	-.12130	-.05413
G	-.02309	-.20164	-.11349	-.06766	-.01428	-.05310	-.07706	-.10412	-.19849	-.04484
H	.02553	.08846	.04601	.02933	.03893	.11814	-.09627	.04280	-.06946	.07920
J	.04710	.09112	.17241	.03373	-.04427	.02747	-.00856	.20679	.18680	.02984
K	.04320	.11720	.14388	.03295	-.00841	.09023	-.06623	.15822	.08605	.07259

Table 13--(Continued)

	131	132	133	R7	A	B	C	D	E	F
1	.12202	-.01656	-.03068	-.09612	.25036	.19424	.20495	.26408	-.11231	.09481
4	.09592	-.11209	.05858	-.02855	.17005	.16096	.19525	.16362	.13180	.04698
7	.02354	.04758	.13404	-.02692	.14692	.17576	.13200	.07930	.09263	.02506
10	.03212	-.22217	-.09331	-.11177	.02756	.04935	.12265	.16794	.04748	.06453
13	-.05825	.09007	-.03664	-.00162	.05336	.27254	.27853	.00426	-.09957	-.13957
16	-.11074	-.11900	.06224	-.07577	.24644	.19830	.20821	.27758	.11206	-.00436
19	.01402	.07976	-.06364	.03839	.17710	.13102	.16335	.17931	-.09488	-.08244
22	.02744	-.06578	.04025	-.03651	.13147	.22043	.20312	.07520	.04839	.00141
25	-.00138	-.07430	.11202	.06990	.13099	.15125	.10354	.03411	-.02621	-.02325
28	-.10328	-.01092	.22435	-.10964	.07622	-.00979	-.02738	.02780	.12415	-.14743
31	.06300	.05270	.08335	-.09903	.09724	-.10857	-.02341	.17668	.11507	-.03772
34	.05110	-.07793	.00833	-.10953	.14779	.08408	.15379	.06721	.03094	.00008
37	.06527	.02059	.04921	-.08235	.27077	.23485	.26967	.26946	.06051	.08392
40	-.04762	-.16752	-.07035	-.06643	.19618	.16980	.15609	.24694	.11128	.03391
43	.03139	-.17844	.03050	.02218	.05622	.04992	.12586	.11954	.07376	-.02604
46	-.01266	-.04543	-.03080	-.06024	.17253	.13867	.18106	.15416	-.00680	.04332
49	-.05259	-.22845	.07762	-.05558	.06631	.15283	.18390	.17550	.13575	.07090
52	.03654	-.06637	-.07171	-.05974	.10355	.10088	.17393	.18903	.02454	.02345
55	.15015	-.01495	-.04550	-.19652	-.14317	-.11807	-.13118	-.09193	-.05853	-.01660
58	-.00271	-.02870	-.05994	.00857	.15462	.19277	.26699	.07817	-.06351	-.02301
61	.04511	-.25251	.09358	-.00344	.09398	.14435	.15736	.13796	-.02274	-.03968
64	.07273	.05881	.17379	-.05955	.12031	.09358	.06532	-.02987	.04469	-.03800
67	.14942	-.06459	-.02025	-.12039	.05040	-.01970	-.01807	.01434	-.14550	-.03542
70	-.05663	-.09717	-.07322	-.08415	.08199	-.02594	.07489	.17978	.06503	.06943
73	-.09579	-.00814	-.11763	-.16472	.11607	.05277	.11994	.18550	.12239	.06199
76	-.04786	-.24411	-.05687	-.08250	.09770	.10345	.14205	.19163	.14421	-.01078
79	-.15352	-.10326	.10941	-.09071	.06536	.05171	.07165	.16504	.02483	-.02256
82	-.02111	-.07989	-.01386	.00744	.21990	.16451	.20871	.27289	.09761	.14476
85	-.04598	-.05625	.03348	-.10420	-.07515	.15117	.16490	-.08268	-.01772	-.18371
88	-.02073	-.05025	.13906	-.05949	-.04401	.06966	.09322	-.17551	-.06012	-.15939
88	-.01861	-.09782	-.04667	-.21033	.16482	.08066	.12523	.20428	-.08128	.16428
89	-.07703	-.12151	-.04481	-.14744	.08229	.04624	.10763	.13383	-.00718	.10588
90	-.09512	-.06614	-.00175	-.07160	.09809	.12254	.17565	.11653	.07381	.03983
91	.03569	-.06304	.03436	-.08089	.11192	.12474	.17102	.09123	-.11238	.17216
92	.06947	.10510	.02087	.04968	.23702	.03046	.07053	.30041	-.10108	.13193
93	-.05275	-.09555	-.04025	-.13707	.26977	.24601	.27361	.23119	-.09213	.10702
94	.10909	-.06989	-.07169	-.10162	.19184	.12825	.19341	.11076	-.15494	.05390
95	.11769	.07344	-.04501	-.09957	.16354	-.02785	.04186	.18588	-.01117	.12222
96	-.03261	.06612	-.07683	-.00560	.02677	.00688	.04621	.07505	.15077	-.14534
97	.03458	-.06798	-.12174	-.12625	.13376	.08556	.04298	.10361	.12247	-.07879
98	.02401	-.11689	.01492	-.21340	.06715	-.04348	-.01127	.08609	.04876	-.15028
99	-.03744	-.20413	-.04017	-.05910	.04045	.09636	.11022	.08343	.00953	-.05370
100	-.06592	.12617	-.07129	-.06032	-.02575	.12036	.16796	.00998	.04207	-.17640
114	.00130	.03542	.07417	.03185	-.02333	-.00604	-.02065	-.09806	.01783	.07715
115	.21452	.09997	.24786	.06942	.00921	.14715	.11349	.11990	.01640	.07288
116	.10541	.12336	.13029	.02635	.17668	.10805	.07957	.17646	-.09519	.05950
117	.09442	.19104	.10882	.06548	.02569	.16296	.02631	.09345	-.03713	-.08508
118	.23888	.21575	.13391	.04025	.01729	.00827	-.02336	-.04862	-.04055	-.10386
119	.06411	.44242	.09791	.09795	-.01665	-.06514	-.07437	-.05822	-.03871	-.10546
120	.16686	.16567	.12034	.11443	.10182	-.07962	-.04948	.08096	-.02366	-.05241
121	.75177	.12259	.16262	-.05079	-.05875	-.04895	-.04934	-.13399	-.10804	-.01380
122	.11967	.76794	.13216	.02510	.02615	-.06191	-.11196	-.06322	.04719	-.09744
123	.04114	.20199	.68464	.07890	.03721	-.04316	-.01482	.04914	.02618	-.06820
124	.12445	-.01403	.11075	-.00787	-.02621	-.01135	-.02802	-.04172	-.05186	-.08653
125	.29939	.07286	.30780	.03950	.13982	.14707	.12253	.08058	-.01905	.03251

Table 13--(Continued)

126	.18453	.14701	.12895	-.00275	.11773	.04856	.04547	.11742	-.14567	.01054
127	.22574	.18663	.11665	-.05219	-.01077	.05350	-.00685	-.03865	-.09662	-.21849
128	.31599	.29250	.13490	.02429	-.05908	-.02130	-.08031	-.08111	-.00666	-.16873
129	.22809	.64314	.17571	.13672	-.01417	-.14122	-.14553	-.09832	-.08040	-.12130
130	.23579	.18259	.14404	.11504	.11110	-.11365	-.06601	.04522	-.06497	-.05413
131	1.00000	.22760	.13311	.03458	-.05222	-.13019	-.12006	-.13287	-.14485	-.02253
132	.22760	1.00000	.16401	.03555	-.07956	-.14900	-.17749	-.17557	.00940	-.14332
133	.13311	.16401	1.00000	.04724	.05421	-.00599	.01042	.03370	.10087	-.02877
M7	.03458	.03555	.04724	1.00000	.00135	.02538	.01850	-.01373	.17251	-.04670
A	-.06222	-.07956	.05421	.00135	1.00000	.49051	.49591	.66442	.13475	.05542
B	-.13019	-.14900	-.00599	.02538	.49051	1.00000	.78122	.42209	.02000	.10342
C	-.12006	-.17749	.01042	.01850	.49591	.78122	1.00000	.45176	.06122	.19247
U	-.13287	-.17557	.03370	-.01373	.66442	.42809	.45176	1.00000	.14676	.24050
E	-.14485	.00940	.10087	.17251	.13475	.02000	.06122	.14676	1.00000	.04654
F	-.02253	-.14332	-.02877	-.04670	.05542	.10342	.19247	.24050	.04654	1.00000
G	-.02897	-.29272	-.07489	-.10589	-.01900	.16804	.18636	.14947	-.13172	.30011
H	.01057	.03882	.01982	.12978	-.10061	-.01799	-.10358	-.05617	.03566	.12486
J	-.00262	.16004	.04009	.05784	-.08461	-.14526	-.18403	-.21287	.11175	-.01692
K	.00770	.13274	.01927	.11471	-.10882	-.10076	-.17772	-.16707	.08839	.06318

Table 13--(Continued)

	G	H	J	K
1	.19343	-.10954	-.03126	-.09103
4	-.00498	-.15598	.02110	-.08235
7	.02223	.06177	.08083	.08844
10	.04397	-.07102	-.06220	-.09089
13	-.06276	-.04712	-.13171	-.11772
16	.00076	-.16143	-.09156	-.15680
19	.02660	-.03283	.01864	-.00880
22	.00862	-.04971	-.03014	-.05619
25	.09057	-.03940	.06375	.00865
28	-.03838	-.10717	.12833	.01155
31	-.06544	-.09449	-.02858	-.07577
34	.01556	-.18785	-.01742	-.12468
37	-.02087	-.06415	-.06686	-.08511
40	.00109	-.07383	.16147	-.14635
43	.05605	-.11607	.03938	-.04780
46	.11792	-.27034	-.03809	-.18645
49	.04517	-.12953	-.01558	-.09275
52	.03926	-.11160	-.05930	-.10907
55	-.01372	-.05479	.02176	-.02349
58	.05477	-.08401	-.06535	-.09573
61	.04049	.03926	.00331	.02048
64	-.01107	-.05093	.10968	.03718
67	.06819	-.08882	.01240	-.05190
70	.02700	-.09071	.01978	-.04706
73	.05212	-.13822	-.08087	-.13786
76	.13090	-.14539	.01311	-.07908
79	.01803	-.03206	.06347	.01484
82	.07679	-.02299	-.02435	-.03137
85	.01826	-.03480	-.06269	-.07647
86	-.04737	-.11810	-.01079	-.07398
88	.03524	-.00068	-.05667	-.04032
89	.03672	-.02006	-.08166	-.06834
90	.03607	-.01320	-.02459	-.02650
91	.00594	.00668	.02376	.01414
92	-.02213	.00673	-.01522	-.00865
93	-.02134	-.06055	-.05175	-.06653
94	.03449	-.05488	.02343	-.01588
95	-.05559	-.04305	-.07575	-.07906
96	-.14487	-.11461	.11480	.00770
97	-.02349	-.10694	-.03163	-.08927
98	-.11600	-.14218	-.06393	-.14438
99	.03851	-.04077	-.01940	-.04159
100	-.13240	-.01189	-.00860	-.01932
114	-.04976	.16791	.12321	.17344
115	.11081	.09566	.01338	.06344
116	-.00461	.12685	.03973	.10156
117	.06714	.08078	.03260	.06353
118	-.06614	.10064	.23212	.21013
119	-.06211	.05674	.12412	.11261
120	-.01319	.09748	.07730	.11416
121	-.02309	.02553	.04710	.04320
122	-.20164	.08846	.09112	.11720
123	-.11349	.04601	.17241	.14388
124	-.06766	.02933	.03373	.03295
125	-.01428	.03893	-.04427	-.00841

Table 13--(Continued)

126	-.05310	.11814	.02747	.09023
127	-.07706	-.09627	-.00856	-.06623
128	-.10412	.04280	.20679	.15822
129	-.19849	-.06946	.18680	.08605
130	-.04484	.07920	.02984	.07259
131	-.02897	.01057	-.00262	.00770
132	-.29272	.03882	.16004	.13274
133	-.07489	-.01982	.04009	.01927
87	-.10589	.12978	.05784	.11471
A	-.01900	-.10061	-.08461	-.10082
B	.16804	-.01799	-.14526	-.10076
C	.18636	-.10358	-.12403	-.17772
D	.14947	-.05617	-.21287	-.16707
E	-.13172	.03566	.11175	.08839
F	.30011	.12486	-.01692	.06318
G	1.00000	-.00552	-.11203	-.07169
H	-.00552	1.00000	.30185	.78506
J	-.11203	.30185	1.00000	.82494
K	-.07169	.78506	.82494	1.00000

TABLE 14

INTERCORRELATIONS AMONG ITEMS ON THE DIFFERENCE SCALE

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
D1	1.00000	.09498	-.07688	.19104	-.00120	.01251	.10739	.18635	.05163	.05158
D2	.09498	1.00000	.03476	.24590	.00730	.44897	.30378	.55504	.19012	.18604
D3	-.07688	.03476	1.00000	-.07046	-.04075	.09612	.00713	.02386	-.02539	.06156
D4	.19104	.24590	-.07046	1.00000	.05792	.36161	.10205	.35139	.18569	.14205
D5	-.00120	.00730	-.04075	.05792	1.00000	-.02527	.12442	.08851	-.02273	.22330
D6	.01251	.44897	.09612	.36161	-.02527	1.00000	.32812	.48794	.20973	.13998
D7	.10739	.30378	.00713	.10205	.12442	.32812	1.00000	.25252	.13554	.07520
D8	.18635	.55504	.02386	.35139	.08851	.48794	.25252	1.00000	.30240	.23598
D9	.05163	.19012	-.02539	.18569	-.02273	.20973	.13554	.30240	1.00000	.22144
D10	.05158	.18604	.06156	.14205	.22330	.13998	.07520	.23598	.22144	1.00000
D11	-.00961	.19483	-.07427	.25103	.04463	.18200	.18304	.21939	.34298	.10968
D12	.09520	.26857	-.02355	.17897	.25003	.25556	.17811	.34504	.31499	.31061
D13	.17936	.41546	.03033	.34861	-.07510	.46140	.27329	.42156	.22910	.08046
D14	.05024	.17411	-.14323	.20513	.15195	.35508	.19082	.30137	.15167	.03272
D15	.11430	.27885	-.11556	.40141	.13290	.35866	.14598	.36440	.31908	.19557
D16	.16147	.25655	-.05842	.31739	.02797	.36420	.19340	.25463	.16406	.15359
D17	.02966	.24678	-.06066	.38966	.16219	.45544	.34297	.33310	.30879	.07862
D18	.09064	.35949	-.06493	.34917	.09945	.33089	.19130	.32117	.33490	.16465
D19	.14413	.15109	-.00979	.17642	.21137	.15217	.19540	.30847	.24490	.23896
D20	.10077	.39546	.21736	.31189	.29900	.32019	.30690	.38417	.21933	.33763
D21	.09182	.11862	-.02944	.51316	.12781	.36534	.06725	.31387	.18304	.15765
D22	.04377	.24956	.00505	.27554	.26705	.38258	.24140	.41258	.16401	.25288
D23	.04402	.13247	.04085	.10975	.01748	.12712	.12364	.09951	.22946	.01982
D24	.01283	.31977	-.00846	.41747	.13914	.51766	.22184	.26604	.32378	.28010
D25	.19784	.09153	-.01596	-.00612	.22761	.14800	.14581	.13248	.00204	.27481
D26	.12324	.25546	-.03738	.37388	.16980	.43714	.23787	.38342	.23018	.22594
D27	.25630	.15622	-.10883	.21485	.05465	.13899	.28312	.11247	.13583	.16348
D28	.00595	.27924	.17974	.08185	-.38081	.11484	-.06961	.12108	.01309	-.10291
D8	-.08152	-.01433	-.07239	.04543	.11928	.01915	-.02089	.04390	.11859	.08837
D9	-.09436	.03414	.03089	-.17543	.09976	-.05090	-.02597	.08500	.03683	.06870
D9	-.05001	-.01838	-.10890	.00708	-.03383	.00234	-.07552	.04517	-.09346	.00400
D9	-.13793	-.04391	.08235	-.15281	.13692	-.15620	-.05748	-.07178	-.23469	-.03708
D9	-.15800	.00378	.12330	-.01158	.05293	.05680	.13321	.05766	-.02392	-.00114
D9	-.20064	-.07679	.03555	-.12063	-.01557	-.10131	.02036	-.05979	-.12444	.05432
D9	-.12523	-.03954	.07639	-.10457	-.05694	.02548	.09780	-.02979	-.01795	.06417
D9	-.07342	-.09005	.00870	-.09948	.12793	-.09471	.15135	-.03363	-.05448	.00539
D9	-.12352	-.17357	-.02707	-.13935	-.14643	-.14164	-.21249	-.14444	-.17050	-.14215
D9	-.07808	-.17082	-.13063	-.13957	-.03412	-.17448	-.02411	-.20982	-.22025	-.20191
D9	-.17436	-.24964	-.16953	-.10470	.08812	-.30386	-.15373	-.33436	-.21887	-.08354
D9	-.07660	-.22716	-.03284	-.43513	-.07650	-.35633	-.18848	-.28048	-.33416	-.28118
D9	-.07943	-.15255	-.01600	-.06409	-.59383	-.06290	-.13673	-.19082	-.10646	-.15281
D9	.08819	-.08627	-.08521	-.02361	-.02008	.01488	.02123	-.06026	-.13346	-.05023
D9	.07012	-.08485	.06131	-.04212	.12223	-.12781	.01611	-.04584	-.01541	.18265
D9	.08528	.01408	.00915	.01000	.05477	-.02515	.03230	.10939	-.00812	.12732
D9	.01284	.01491	.04360	-.03973	-.04362	.04930	.12844	.02745	.05970	.00113
D9	-.14017	-.12841	.01108	-.07426	.00304	.02064	-.05000	-.08466	.09826	.01756
D9	.02712	.11312	.05995	.03960	-.00485	.08409	.00987	.12907	.18332	-.04346
D9	.08189	.05891	.12825	.14574	.06493	.04343	.23616	.17398	.14780	.16918
D9	-.10951	-.05957	.09554	-.01350	.19873	.09379	.11097	.01459	-.02066	.22678
D9	-.02571	.23678	.06990	.16188	-.05742	.13332	.07964	.11871	.08188	-.01188
D9	.04391	.02678	.12977	.18112	.10446	.13228	.04419	.17591	-.06917	.21754
D9	.06355	-.18179	-.11862	-.11340	-.03326	-.18628	-.05947	-.18124	-.05123	-.04737
D9	.07180	-.07019	.03089	-.02989	-.04644	-.10950	.01288	.02071	.05992	.17178
D9	.12701	.00949	.04571	-.05434	-.00946	-.02264	.06773	.13903	-.00378	.13910
D9	-.06715	-.11544	-.05030	-.09614	-.06244	-.02664	-.00582	-.02050	.00472	-.08961

Table 14—(Continued)

128	-.16520	-.10058	-.05721	-.07526	.00788	.08084	-.06883	-.06915	.07888	-.03279
129	-.03960	-.06854	-.02669	.09033	.02216	.08846	-.04007	.05163	.09712	-.10643
130	.01855	.01116	.13691	.11093	.05841	.00862	.24054	.14881	.22242	.16496
131	-.05989	-.03226	.10355	-.05827	.08535	.17969	.13409	.00090	.07602	.16531
132	-.11202	.13235	.06924	.15448	-.08683	.17029	.02519	.07894	.10335	-.03613
133	.04301	-.03012	.10076	.09462	.17036	-.10879	-.00167	-.01412	.06170	.25058
87	.10356	.11383	.13168	-.04009	.01298	.02284	.00685	.01739	-.01360	.04224
A	-.09839	-.06396	-.13885	.03358	.06045	-.18956	-.00546	-.06427	-.01192	.03916
B	-.08812	-.07296	-.03865	-.07394	-.14736	-.13600	-.03961	-.15700	-.08342	.08424
C	-.07077	-.15186	-.01520	-.10525	-.15456	-.16923	-.04829	-.20365	-.08458	.10328
D	.01609	-.09260	-.00920	-.03653	.09650	-.23488	-.02624	-.06688	-.00513	.05554
E	.07852	-.18205	-.08932	.01890	.04653	-.09847	-.10006	-.06458	-.03322	-.16313
F	.09394	.04502	.07214	.03303	.21339	.02694	.08647	.09927	.01721	.12625
G	.00099	.11540	.12986	.01230	.08516	.00268	.08146	.07447	-.01081	.01585
H	.15799	.21492	.07877	-.02294	.05041	.22176	.21587	.17593	.05215	.10130
J	-.00924	.04810	.06607	.01100	.08715	.16447	-.05718	.10617	-.00729	-.12106
K	.09276	.16139	.08649	-.00016	.08897	.24251	.09279	.17112	.03139	-.01079

Table 11—(Continued)

	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
D1	-.00961	.09520	.17936	.05024	.11430	.16147	.02966	.09064	.14413	.10077
D2	.19483	.26857	.41546	.17411	.27905	.25655	.24678	.35949	.15109	.30546
D3	-.07427	-.02355	.03033	-.14323	-.11556	-.05842	-.06066	-.06493	-.00979	.21736
D4	.25103	.17897	.34861	.20513	.40141	.31739	.38966	.34917	.17642	.31189
D5	.04463	.25003	-.03610	.15195	.13290	.02797	.10219	.09945	.21137	.29400
D6	.18200	.25556	.46140	.35508	.35466	.36420	.45544	.33089	.15217	.32019
D7	.18304	.17811	.27329	.19082	.14598	.19340	.34307	.19130	.19540	.30690
D8	.21939	.34504	.02156	.30137	.36440	.29463	.32310	.32117	.30847	.36417
D9	.34298	.31499	.22910	.15167	.31908	.16406	.30879	.33490	.24490	.21933
D10	.10968	.31061	.08046	.03272	.19957	.15659	.07862	.16465	.23896	.33763
D11	1.00000	.32071	.29709	.23525	.39493	.13984	.22020	.49783	.21373	.21113
D12	.32071	1.00000	.30969	.14346	.32407	.17291	.30279	.26929	.32854	.31624
D13	.29709	.30969	1.00000	.26501	.25922	.29105	.31180	.30195	.22567	.33792
D14	.23525	.14346	.26501	1.00000	.22852	.15723	.29730	.27133	.04658	.10521
D15	.39493	.32407	.25922	.22852	1.00000	.47308	.36354	.64902	.32863	.42960
D16	.13984	.17291	.29105	.15723	.47308	1.00000	.18182	.41873	.26417	.35273
D17	.22020	.30279	.31180	.29730	.36354	.18182	1.00000	.20997	.19680	.27868
D18	.49783	.26929	.30195	.27133	.64902	.41873	.20997	1.00000	.32607	.30190
D19	.21373	.32854	.22567	.04658	.32863	.26417	.19680	.32807	1.00000	.39911
D20	.21113	.31624	.33792	.10521	.42960	.35273	.27868	.30190	.39911	1.00000
D21	.18922	.29389	.30681	.30440	.56118	.19634	.46200	.42695	.21171	.19960
D22	.21824	.35898	.25593	.29984	.37472	.25262	.34285	.35472	.44524	.32381
D23	.02810	.02893	.22348	.16379	.12416	.23771	.21734	.14913	.15608	.19579
D24	.30221	.29868	.32830	.16873	.57535	.46134	.32087	.53644	.21591	.35858
D25	.02358	.20271	-.02639	.23161	.10517	.16754	.13353	.15260	.07224	.30631
D26	.20580	.36761	.22546	.21216	.69413	.41273	.42240	.48174	.36153	.43232
D27	.21140	.14725	.31680	.07929	.18102	.21558	.12971	.17621	.22797	.30372
D28	-.02008	-.07212	.14888	-.12197	-.07062	.02410	-.01365	-.04587	-.01085	.11970
88	.02667	.02153	.02733	-.03431	.01014	-.18089	.00525	-.02467	.12694	-.03593
89	-.04146	.05611	-.04519	-.12146	-.05837	-.14062	-.08006	-.06796	.03244	-.02793
90	-.05077	.06455	-.05759	-.02985	-.08423	-.00613	-.02946	-.08913	.03742	-.08951
91	-.04320	-.07289	-.06457	-.17430	-.13433	-.11774	-.15642	-.17453	.04049	-.01242
92	-.03164	.03173	.01836	-.06277	.02206	.06753	-.02150	-.06370	.02537	.15706
93	-.00840	-.05946	-.19256	-.05559	-.02500	-.15809	-.06279	-.08088	.02758	-.00867
94	-.08292	-.15499	-.14471	-.02258	-.04443	-.08995	-.00533	-.07836	-.01211	.02591
95	-.02126	-.03154	-.14147	-.08739	-.03604	-.04971	-.06949	-.09682	-.00910	.11632
96	-.24374	-.22486	-.24538	-.15056	-.20266	-.19825	-.18644	-.16775	-.18700	-.10856
97	-.23214	-.26590	-.19714	-.22950	-.25926	-.12965	-.17260	-.23311	-.10040	-.17254
98	-.16270	-.26010	-.15092	-.11918	-.26397	-.22079	-.20105	-.20461	-.20041	-.27560
99	-.27184	-.29587	-.29755	-.22195	-.65901	-.30040	-.38601	-.48626	-.17538	-.25312
100	-.15755	-.26841	-.12005	-.21124	-.13430	-.01751	-.17899	-.13905	-.19870	-.20300
114	-.14020	-.16072	.02102	.02810	-.09162	-.10237	-.10728	-.11376	-.05289	-.11149
115	-.00024	.02697	.00736	-.04855	.02170	-.00107	.00672	-.11866	.02723	.08948
116	.03428	.16528	.02475	.06250	.07752	.03708	.03026	-.03279	.05032	.01268
117	.12091	.03259	.01439	.07138	.13029	.07499	.07035	.17248	.05328	.05705
118	.06582	.00812	-.04601	.04059	.05453	-.02531	.09465	.02522	.02039	-.07884
119	.07331	.08240	.03264	.02997	.02315	.11024	.17817	.01060	.05545	-.07729
120	.04139	.14453	.04912	.01096	.10411	.11097	-.00175	.03603	.16961	.29469
121	-.02994	-.04581	-.13392	.06753	.01634	.07095	.11043	-.09722	-.06647	.11726
122	.08708	.05666	.10270	.05409	.16452	.17724	.13160	.18224	-.02112	.06828
123	-.07251	.11032	.06217	.26529	.09479	.18284	.01626	.11094	.04063	.15507
124	-.14854	-.19726	-.20955	-.07006	-.17441	-.21445	-.15891	-.17321	-.16417	-.20838
125	.06013	-.09592	.01280	-.04235	-.01246	-.06034	.03414	-.08405	.08028	.08075
126	.02894	.07864	-.01517	.00147	-.06480	-.10593	.02418	-.07555	.04958	-.01796
127	.09325	-.04317	-.06214	.05341	-.00617	-.06776	-.08881	.09405	-.02004	-.14293

Table 14--(Continued)

128	.06034	.01879	.02280	.04994	.08339	-.06711	.08181	.07204	.03027	-.10186
129	-.03046	-.00963	-.05296	.15569	.08768	-.08152	.16289	.05082	.06122	-.05801
130	.09382	.10912	.00194	-.03772	.04256	-.01676	-.01213	.02133	.15737	.25405
131	-.03714	-.08526	-.04866	.03329	-.01390	.04294	.04894	-.04513	-.11199	.02181
132	.04449	.08136	.03403	.13366	.16410	.08311	.16013	.18269	.03753	.12612
133	-.02393	-.01566	-.06633	.10982	.02799	.12431	-.10800	.06974	.09087	.12436
87	-.01009	.05733	.05465	.06202	-.07860	.05518	-.01137	.02840	.16064	.07508
A	-.02518	-.07263	-.18988	-.08748	.01671	-.07937	.02186	-.04413	.18309	.03944
B	.10661	-.01137	-.19886	-.11853	.04264	-.00157	-.10123	-.05350	.14272	-.01486
C	.04010	-.09501	-.24008	-.10428	-.05926	-.07583	.14460	-.10701	.12918	.17244
D	-.07787	-.00359	-.21501	-.13597	-.01906	.06303	-.05629	-.11619	.12837	-.02233
E	-.09707	-.04438	-.03141	-.06519	-.00028	.03429	-.11193	.01947	.08898	.00969
F	.04987	.02699	-.01919	-.01166	.06182	.02227	-.07461	.05357	.03349	.09659
G	.04510	-.02851	-.02027	-.00965	-.06589	-.12721	-.05011	-.03070	-.00501	-.03948
H	.12021	.20082	.04137	.05888	.15340	.20373	.06157	.06308	.06646	.14075
J	-.01761	.01458	.02442	.16067	-.00008	-.05872	-.05342	.06377	-.01877	.03115
K	.05871	.12970	.04119	.13834	.09267	.08372	.00676	.08216	.03333	.10779

Table 14--(Continued)

	D21	D22	D23	D24	D25	D26	D27	D28	88	89
01	.09182	.04377	.04402	.01283	.19784	.12324	.25630	.00995	-.08152	-.09436
02	.11882	.24956	.13247	.31977	.09153	.25546	.15622	.27924	-.01433	.03414
03	-.02944	.00505	.04085	-.00846	-.01596	-.03738	-.10883	.17974	-.07239	.03089
04	.51316	.27554	.10975	.41747	-.00612	.37388	.21485	.08105	.04543	-.17593
05	.12781	.26705	.01748	.13814	.22761	.16980	.05465	-.38081	.11928	.09976
06	.36534	.38258	.12712	.51766	.14800	.43714	.13899	.11484	.01915	-.05090
07	.06725	.24140	.12364	.22184	.14581	.23787	.28312	-.06961	-.02089	-.02597
08	.31387	.41254	.09751	.26604	.13248	.38342	.11247	.12108	.04390	.02500
09	.18304	.16401	.22946	.32378	.00204	.23018	.13583	.01309	.11849	.03683
010	.15765	.25288	.01982	.28010	.27401	.22594	.16348	-.10291	.08837	.06870
011	.18922	.21824	.02810	.30221	.02358	.20580	.21140	-.02008	.02667	-.04146
012	.29389	.39898	.02893	.29868	.20271	.38761	.14725	-.07212	.02153	.05611
013	.30681	.25593	.22348	.32830	-.02639	.22546	.31680	.31488	.02733	-.04519
014	.30440	.29984	.16379	.16873	.23161	.21216	.07929	-.12197	-.03431	-.12146
015	.56318	.37472	.18416	.57535	.18517	.69413	.18102	-.07062	.01014	-.65837
016	.19634	.25262	.23771	.46134	.16754	.41273	.21558	.02410	-.18089	-.14062
017	.46200	.34285	.21734	.32087	.13353	.42240	.12971	-.01365	.00525	-.08006
018	.42695	.35472	.14913	.53644	.15260	.48174	.17621	-.04587	-.02467	.06796
019	.21171	.44524	.15508	.21591	.07224	.36153	.22797	-.01085	.12694	.03244
020	.19960	.32381	.18579	.35858	.30631	.43232	.30372	.11970	-.03593	-.02793
021	1.00000	.37542	.14703	.37056	.02809	.52391	.09840	-.08499	.05074	-.07125
022	.37542	1.00000	.07425	.32771	.01853	.44021	.13522	-.15416	.14822	.06030
023	.14703	.07425	1.00000	.19268	.09047	.15705	.01854	.19379	-.12690	-.09280
024	.37056	.32771	.19268	1.00000	.15050	.45011	.10561	.02513	-.02537	-.14385
025	.02809	.01853	.09047	.15050	1.00000	.23652	.23531	-.08780	-.19573	-.08561
026	.52391	.44021	.15705	.45011	.23652	1.00000	.18062	-.11696	.03226	-.05961
027	.09840	.13522	.01854	.10561	.23531	.18062	1.00000	.05398	-.02862	-.01120
028	-.08499	-.15416	.19379	.02513	-.08780	-.11696	.05398	1.00000	-.01328	.00279
88	.05074	.14822	-.12690	-.02537	-.19573	-.03226	-.02862	-.01328	1.00000	.50092
89	-.07125	.06030	-.09280	-.14385	-.08561	-.05961	-.01120	.00279	.50092	1.00000
90	-.02512	.08542	-.14921	-.07397	-.01704	-.00698	-.09304	-.02475	.27960	.33381
91	-.17064	-.01466	-.16624	-.27936	-.05447	-.18630	.01716	.00889	.27389	.27288
92	-.05309	.14180	.04429	-.04397	-.03405	.01304	.00070	-.05168	.25375	.28227
93	-.11567	.00237	-.19792	-.13849	-.09299	-.07044	.03620	-.02353	.39708	.24893
94	-.15121	-.04679	-.05655	-.12671	.03356	-.13340	.12939	-.00029	.22102	.10056
95	-.08138	-.01420	-.08694	-.08481	.07831	-.07975	.03428	-.02184	.23843	.29570
96	-.10660	-.17246	-.08881	-.24916	.02655	-.23614	-.24488	.06791	.10818	.20524
97	-.16658	-.35725	-.17087	-.18097	-.11326	-.30691	-.04339	-.00901	.11614	.22605
98	-.10271	-.22676	-.09726	-.11359	-.14743	-.19431	-.16271	-.00767	.20195	.14583
99	-.69527	-.31681	-.22234	-.46939	-.08319	-.55029	-.04911	.04404	.19317	.23222
100	-.18818	-.33486	-.11533	-.14020	-.12377	-.25221	-.09735	.16911	.02259	.11339
114	.07512	-.33940	.08593	-.04344	.03914	-.12354	.07315	.01183	.06917	.01547
115	.06806	-.01320	.09563	.04964	.13768	-.05645	.04183	.00101	.06588	.02811
116	.11391	.02357	.02758	-.06701	.13949	.07426	.02430	-.05439	.01120	-.01169
117	.14898	.02897	.05711	.03527	.09317	.05718	.00485	.02348	-.03248	-.04009
118	.03286	-.14103	.13538	.07237	.03894	-.00309	-.01799	.04563	-.05570	-.01024
119	.05363	-.07166	.20203	.05737	-.00172	.06091	-.00072	.07653	-.11562	-.09234
120	.08205	.02062	.08894	.04029	.08408	.16389	.19317	-.08159	-.18901	-.14717
121	.05695	.05229	.02321	.02202	.18793	.01993	.16294	-.00014	-.03930	-.12380
122	.12017	-.00064	.17049	.21453	.00717	.12578	.04740	.13553	-.11886	-.11581
123	.16179	.05930	.11553	.13773	.19208	.23635	.04337	.13797	-.07127	-.08875
124	-.08762	-.16008	-.18004	-.20080	.03121	-.18647	-.01133	-.09507	.10813	.05737
125	-.06603	.02649	-.05928	.01799	.03569	-.05294	.11228	.03830	.05928	-.00694
126	-.02734	.01956	-.07018	-.12872	.08492	-.01860	.05327	-.01131	.05021	-.02806
127	.01173	-.09010	-.07945	-.08025	-.12889	-.03487	-.07134	-.03592	-.06329	-.00070

Table 11.--(Continued)

128	.11199	-.08922	.06111	.10224	-.03779	-.00532	-.05889	.04732	.05571	-.03187
129	.23664	.03462	.20680	-.01023	-.03563	.15096	-.03608	.01100	-.06825	-.19522
130	-.03248	-.01405	.06698	-.01908	.07079	.14245	.19556	-.11604	-.17229	-.11756
131	-.02570	.02061	-.02007	.08756	.10952	-.03895	.17745	.03993	-.01861	-.07703
132	.24747	.05058	.19489	.06883	-.02465	.16862	.04868	.17158	-.09782	-.12151
133	-.06021	-.05407	.03450	.09845	.14001	.06568	.11340	.06462	-.04667	-.04481
87	-.05412	.14163	.04301	-.01760	.09492	.02882	.05892	-.07014	-.21033	-.11474
A	-.07391	-.03916	.02643	-.06394	-.06209	-.00426	.05367	-.13815	.16482	.08229
B	-.10120	-.05308	-.08847	-.03057	-.04308	-.09243	-.00070	-.05107	.08066	.04624
C	-.15405	.01322	-.12172	-.16006	-.11063	-.15752	-.00634	-.14249	.12523	.10763
D	-.09726	.03753	-.05734	-.11130	-.16775	-.09461	-.05657	-.24203	.20428	.13383
E	.04960	-.05087	.01158	.07305	-.12734	-.06281	.02615	-.02127	-.08128	-.00718
F	.02961	.16626	-.09730	.01107	-.08175	.01720	.09579	-.16073	.16428	.10588
G	-.03774	.08630	-.11293	-.02776	-.09529	-.09223	.01514	-.02735	.03584	.03672
H	-.00588	.06243	.10657	.14747	.16433	.12658	.06955	-.03424	-.00068	-.02006
J	.05015	-.09240	.05051	-.03784	.08373	.01794	-.02355	-.00267	-.05667	-.08166
K	.03222	-.01792	.09837	.06733	.15250	.09106	.03026	-.02182	-.04032	-.06834

Table 14--(Continued)

	90	91	92	93	94	95	96	97	98	99
01	-.05001	-.13793	-.15800	-.20064	-.12323	-.07342	-.12352	-.07808	-.17436	-.07660
02	-.01638	-.04391	.00378	-.07679	-.03954	-.09005	-.17357	-.17082	-.24964	-.22716
03	-.10890	.08235	.12330	.03555	.07639	.00870	-.02707	-.13063	-.16953	-.03204
04	.00708	-.15281	-.01158	-.12063	-.10457	-.09948	-.13935	-.13957	-.10478	-.43513
05	-.03383	.13692	.05293	-.01557	-.05694	.12793	-.14643	-.03412	.08812	-.07650
06	.00234	-.15620	.05680	-.10131	.02548	-.09471	-.14164	-.17448	-.30386	-.35633
07	-.07552	-.05748	.13321	.02036	.09780	.15135	-.21249	-.02411	-.15373	-.18848
08	.04517	-.07178	.05766	-.05979	-.02979	-.03363	-.14444	-.20982	-.33436	-.28048
09	-.09346	-.23459	-.02392	-.12444	-.01795	-.05448	-.17050	-.22025	-.21887	-.33416
10	.00400	-.03798	-.00114	.05432	.06417	.00539	-.14215	-.20191	-.08354	-.20118
11	-.05077	-.04320	-.03164	-.00840	-.08292	-.02126	-.24374	-.23214	-.16270	-.27184
12	.06455	-.07289	.03173	-.05946	-.15499	-.03154	-.22486	-.26590	-.26010	-.29587
13	-.05759	-.06457	.01036	-.19256	-.14471	-.14147	-.24538	-.19714	-.35098	-.29755
14	.02985	-.17430	-.06277	-.05559	-.02258	-.00739	-.15056	-.22950	-.11918	-.22195
15	-.08423	-.13433	.02296	-.02580	-.04443	-.03604	-.20966	-.25926	-.26397	-.65901
16	-.00613	-.11774	.06753	-.15809	-.08995	-.04971	-.19825	-.12965	-.22079	-.20046
17	-.02946	-.15642	-.02150	-.06279	-.00533	-.06949	-.18644	-.17260	-.20105	-.38601
18	-.08913	-.17453	-.06370	-.08088	-.07836	-.09682	-.16775	-.23311	-.20461	-.40626
19	.03742	.04949	.02537	.02758	-.01211	-.00910	-.18700	-.10080	-.20041	-.17538
20	-.08951	-.01242	.15706	-.00867	.02591	.11832	-.10856	-.17254	-.27560	-.25312
21	-.02512	-.17064	-.05309	-.11567	-.15121	-.08138	-.10660	-.16658	-.10271	-.69527
22	.08542	-.01466	.14180	.00237	-.04679	-.01420	-.17246	-.35725	-.22676	-.31581
23	-.14921	-.16624	.04429	-.19792	-.05655	-.08694	-.08881	-.17087	-.09726	-.22234
24	-.07397	-.27936	-.04397	-.13849	-.12671	-.08481	-.24916	-.18097	-.11359	-.46939
25	-.01704	-.05447	-.03405	-.09299	.03356	.07831	.02655	-.11326	-.14743	-.02319
26	-.00698	-.18630	.01304	-.07944	-.13340	-.07975	-.23614	-.30691	-.19431	-.55029
27	-.09304	.01716	.00070	.03620	.12939	.03428	-.24488	-.04339	-.16271	-.04911
28	-.02475	.00889	-.05168	-.02353	-.00029	-.02184	.06791	-.00901	-.00767	.04404
86	.27960	.27389	.25375	.39788	.22102	.23843	.10818	.11614	.20195	.19317
89	.33381	.27288	.28227	.34893	.18056	.29570	.20524	.22605	.14583	.23232
90	1.00000	.35782	.23039	.31012	.20593	.32569	.28120	.22562	.25227	.21421
91	.35782	1.00000	.39198	.38399	.21503	.39859	.23272	.20748	.12362	.34680
92	.23039	.39198	1.00000	.43397	.35096	.67927	.17026	.08935	.01947	.13077
93	.31012	.38399	.43397	1.00000	.67917	.51056	.29820	.23367	.14489	.21824
94	.20593	.21503	.35096	.67917	1.00000	.47799	.33588	.20654	.01243	.13341
95	.32569	.39859	.67927	.51056	.47799	1.00000	.30967	.22832	.17285	.17412
96	.28120	.23272	.17026	.29820	.33588	.30967	1.00000	.33460	.28107	.23138
97	.22562	.20748	.08935	.23367	.20654	.22832	.33460	1.00000	.36595	.34754
98	.25227	.12362	.01947	.14489	.01243	.17285	.28107	.36595	1.00000	.32296
99	.21421	.34680	.13077	.21824	.13341	.17412	.23138	.34754	.32296	1.00000
100	.27973	.07213	.00266	.21051	.18930	.06085	.45419	.45339	.26667	.24315
114	-.02226	.04519	.04621	.03359	.06986	.05406	-.05804	.07667	.02770	.03124
115	-.01566	-.03275	.03693	-.05798	-.06886	.02243	-.08367	-.12949	-.00035	-.09836
116	.01376	.11050	.04095	-.01449	-.11336	-.03331	-.11452	-.14483	-.17315	-.05396
117	-.07556	-.08075	-.04187	-.05215	-.13253	-.12429	-.00029	.01943	-.06942	-.12015
118	-.15681	-.04609	-.06231	-.15672	-.04493	-.11400	-.01923	-.01060	-.10526	-.08605
119	-.07682	-.09760	-.01976	-.25011	-.18372	-.08962	-.12733	-.11415	-.20715	-.10206
120	-.10715	-.16060	.01626	-.12083	.05566	.00722	-.05299	-.14849	-.20562	-.23757
121	-.01788	.13698	.03526	.01908	.12731	.15659	-.02338	.00809	.04307	-.03957
122	.00108	-.14129	.09095	-.13410	-.16440	.04030	-.02084	-.07010	-.11540	-.20421
123	.00992	.02174	.01797	.00136	-.04992	-.01143	-.06375	-.29940	-.07109	-.15302
124	-.01690	.15403	.09408	.07842	.04290	.07775	.02334	.24929	.17118	.23321
125	-.00277	.08490	.02314	-.03687	-.00828	-.01629	-.08217	-.07170	-.02319	.04698
126	.02209	.16322	.04025	.01851	-.02581	-.02716	-.04743	-.07285	-.13055	.10515
127	-.12226	-.00042	.01361	-.07299	-.15377	-.05581	-.01386	.05182	.06273	.01847

Table 14--(Continued)

128	-.18501	-.08464	-.07757	-.13016	-.06268	-.13714	.00456	-.01266	-.08415	-.09653
129	-.08066	-.04282	.09240	-.18095	-.12706	-.01746	-.12676	-.10224	-.17174	-.15385
130	-.16369	-.13231	.05301	-.08962	.09833	-.00190	-.10108	-.15849	-.19290	-.15287
131	-.09912	.03569	.06947	-.05275	.10909	.11769	-.03261	.03458	.02401	-.03744
132	-.00614	-.06304	.10510	-.09555	-.06989	.07344	.06612	-.06798	-.11689	-.20413
133	-.00175	.03436	.02027	-.04025	-.07169	-.04501	-.07683	-.12174	.01492	-.04017
87	-.07160	-.08089	.04968	-.13707	-.10162	-.09957	-.00560	-.12625	-.21340	-.05910
A	.09609	.11192	.23702	.26977	.19184	.16354	.02677	.13876	.06715	.04045
B	.12254	.12474	.03846	.24601	.12825	-.02785	.00688	.08556	-.04348	.09636
C	.17565	.17102	.07053	.27361	.19341	.04186	.04621	.04298	-.01127	.11022
D	.11653	.09123	.00041	.23119	.11076	.18588	.07505	.10361	.08609	.08343
E	.07381	-.11238	-.10108	-.09213	-.15494	-.01117	.15077	.12247	.04676	.00953
F	.03983	.17216	.13193	.10702	.05390	.12222	-.14534	-.07879	-.19028	-.05370
G	.03607	.00594	-.02213	-.02534	.03449	-.05659	-.14487	-.02349	-.11600	.03851
H	-.01320	.00668	.00673	-.06055	-.05488	-.04305	-.11461	-.10694	-.14218	-.04077
J	-.02459	.02376	-.01522	-.05175	.02343	-.07575	.11480	-.03163	-.08393	-.01940
K	-.02650	.01414	-.00865	-.06653	-.01588	-.07906	.00770	-.08927	-.14438	-.04159

Table 14--(Continued)

	100	114	115	116	117	118	119	120	121	122
D1	-.07943	.08819	.n7012	.08528	.01284	-.14017	.02712	.08189	-.10951	-.02571
D2	-.15255	-.08627	-.n8485	.n1408	.01491	-.12841	.11312	.05891	-.05957	-.23678
D3	-.01600	-.08521	-.n6131	.00915	.04360	.00108	.05995	.12825	.09554	.06990
D4	-.06409	-.02361	-.n4212	.01000	-.03973	-.07426	.03960	.14574	-.01350	.16188
D5	-.59383	-.02008	.12223	.05477	-.04362	.00304	-.00485	.06493	.19873	-.05742
D6	-.06290	.01588	-.12781	-.02515	.04930	.02064	.08409	.04343	.09379	.13332
D7	-.13673	.02123	.n1611	.03230	.12844	-.05000	.00987	.23616	.11097	.07964
D8	-.19082	-.06826	-.n4584	.10939	.03745	-.08466	.12907	.17398	.01459	.11871
D9	-.10646	-.13346	-.n1541	-.00812	.05670	.09826	.18332	.14780	-.02066	.08188
D10	-.15281	-.05023	.18265	.12722	.06113	.01736	-.04346	.16918	.22678	-.01188
D11	-.15755	-.14020	-.n0024	.03428	.12091	.06542	.07331	.04139	-.02094	.08708
D12	-.26841	-.16072	.02697	.16528	.07259	.00412	.08240	.14453	-.04581	.09666
D13	-.12805	.02102	.n0736	.02475	.01439	-.04601	.03264	.04912	-.13392	.10270
D14	-.21124	.02810	-.n4855	.06250	.07138	.04059	.02997	.01096	.06753	.05409
D15	-.13430	-.09162	.02170	.07752	.13029	.05453	.02315	.10411	.01634	.16452
D16	-.01751	-.16837	-.n0107	.03708	.07499	-.02531	.11024	.11097	.07095	.17724
D17	-.17899	-.10728	.n0672	.03026	.07035	.09465	.17817	-.00175	.11043	.13160
D18	-.13905	-.11376	-.11866	-.03279	.17248	.02522	.01060	.03803	-.09722	.18224
D19	-.19870	-.05289	.n2723	.05032	.05328	.02039	.05545	.16961	-.06647	-.02112
D20	-.20300	-.11149	.n8948	.01268	.05705	-.07884	-.07729	.29469	.11726	.06828
D21	-.18818	.07512	.n6806	.11391	.14898	.03286	.05383	.08205	.05695	.12017
D22	-.33486	-.03940	-.n1320	.02357	.02897	-.14103	-.07166	.07062	.05229	-.00064
D23	-.11533	.00593	.n9563	.02788	.05711	.13538	.20203	.08894	.02321	.17049
D24	-.14020	-.04344	.n4964	-.06701	.03527	.07237	.05737	.04029	.02202	.21453
D25	-.12377	.03914	.13768	.13949	-.09317	.03894	-.00172	.08408	.18793	.00717
D26	-.25221	-.12354	-.n5645	.07426	.05718	-.00309	.06091	.16389	.01993	.12578
D27	-.09735	.07315	.n4183	.02430	.00485	-.01799	-.00072	.19317	.16294	.04740
D28	.16911	.01183	.n0101	-.05439	.02348	.04563	.07653	-.08159	-.00014	.13553
88	.02259	.06917	.n0588	.01120	-.03248	-.05570	-.11562	-.18901	-.03930	-.11886
89	.11339	.01547	.n2811	-.01169	-.04009	-.01024	-.09214	-.14717	-.12380	-.11581
90	.27973	-.02226	-.n1566	.01376	-.07556	-.15681	-.07682	-.10715	-.01788	.00108
91	.07213	.04519	-.n3275	.11050	-.08875	-.04609	-.09760	-.16060	.13698	-.14129
92	.08266	.04621	.n3693	.04095	-.04187	-.06231	-.01976	.01626	.03526	.09095
93	.21051	.03359	-.n5798	-.01449	-.05215	-.15672	-.25011	-.12083	.01908	-.13410
94	.18930	.06986	-.n6886	-.11336	-.13253	-.04493	-.18372	.05566	.12731	-.16440
95	.06085	.05406	.n2243	-.03331	-.12429	-.11400	-.08962	.00722	.15659	.04030
96	.45419	-.05804	.n8367	-.11452	-.00029	-.01923	-.12733	-.05299	-.02338	-.02084
97	.45339	.07667	-.12949	-.14423	.01943	-.01060	-.11415	-.14849	.00009	-.07010
98	.26667	.02770	-.n0035	-.17315	-.06942	-.10526	-.20715	-.20552	.04307	-.11540
99	.24315	.03124	-.n9836	-.05396	-.12015	-.08605	-.10206	-.23757	-.03957	-.20421
100	1.00000	-.01154	-.n8673	-.12766	.01972	-.03880	-.08511	-.11377	-.12915	.10857
114	-.01154	1.00000	.33451	.23943	.02004	.12223	-.04579	-.03593	.08675	-.04607
115	-.08673	.33451	1.00000	.49343	.15025	.23868	.11887	.05480	.26314	.12646
116	-.12766	.23943	.49343	1.00000	.19050	.34803	.19728	.07407	.23270	.12742
117	.01972	.02004	.15925	.19050	1.00000	.27107	.24763	.19039	.14206	.20292
118	-.03880	.12223	.23868	.34803	.27107	1.00000	.32429	.16865	.27281	.17069
119	-.08511	-.04579	.11887	.19728	.24763	.32429	1.00000	.21526	.09534	.64868
120	-.11377	-.03593	.05480	.07407	.19039	.16865	.21526	1.00000	.12323	.24526
121	-.12915	.08675	.26314	.23270	.14206	.27281	.09534	.12323	1.00000	.10517
122	.10857	-.04607	.12646	.12742	.20292	.17069	.64868	.24526	.10517	1.00000
123	-.13384	.11339	.15447	.24271	.12401	.18883	.16507	.16819	.17288	.19557
124	.03457	.63383	.18938	.17541	.04621	.12062	-.09291	-.08835	.15931	-.12030
125	-.01603	.28644	.69653	.41172	.20777	.17470	.06660	.05401	.28817	.10142
126	-.01800	.16672	.34718	.79282	.19289	.22830	.13430	.04976	.25413	.11746
127	.02970	.01395	.10115	.18561	.66417	.29760	.06878	.08172	.09555	.07176

Table 14—(Continued)

128	-.00354	.07540	.22577	.28348	.31193	.80400	.23733	.12463	.24027	.15491
129	-.10957	.08675	.16021	.24823	.19461	.36706	.64860	.14504	.18050	.49701
130	-.07546	-.00691	.07107	.08370	.07196	.15087	.06794	.82430	.10316	.13710
131	-.06592	.00130	.21452	.10541	.09042	.23888	.06411	.16686	.75177	.11967
132	.12617	.03542	.09997	.12336	.19104	.21575	.44242	.16967	.21259	.76794
133	-.07129	.07417	.24786	.13029	.10882	.13391	.09791	.12034	.16262	.13216
87	-.06032	.03185	.06942	.02635	.00548	.04025	.09795	.11443	-.05079	.02518
A	-.02575	-.02333	.08921	.17608	.02599	.01729	-.01066	.10182	-.05875	.02615
B	.12036	-.00604	.14715	.10805	.16296	.00827	-.06514	-.07962	-.04895	-.06191
C	.16796	-.02668	.11349	.07957	.02631	-.02336	.07437	-.04948	-.04934	-.11196
D	.00998	-.09806	.11990	.17646	.09345	-.04862	-.05822	.08096	-.13399	-.06322
E	.04207	.01783	.01640	-.09519	-.03713	-.04055	-.03871	-.02366	-.10904	.04719
F	-.17640	-.07715	.07288	.05950	-.08508	-.10386	-.10546	-.05241	-.01380	-.09744
G	-.13240	-.04976	.11081	-.00461	.06714	-.06614	-.06211	-.01319	-.02309	-.20164
H	-.01189	.16791	.09566	.12685	.08078	.10064	.05674	.09748	.02553	.08846
J	-.00860	.12321	.01338	.03973	.03260	.23212	.12412	.07730	.04710	.09112
K	-.01932	.17344	.06344	.10156	.06353	.21013	.11261	.11416	.04320	.11720

Table 11--(Continued)

	123	124	125	126	127	128	129	130	131	132
01	.04391	.06355	.07180	.12701	-.06715	-.16520	-.03960	.01855	-.05989	-.11282
02	.02678	-.18179	-.07019	.00949	-.11544	-.10058	-.06854	.01116	-.03226	.13235
03	.12977	-.11862	.03089	.04571	-.05030	-.05721	-.02669	.13691	.10355	.06924
04	.18112	-.11340	-.02989	-.05434	-.09614	-.07526	.09033	.11093	-.05827	.15448
05	.10446	-.03326	-.04644	-.00946	-.06244	.00788	.02216	.05841	.08535	-.08683
06	.13228	-.18628	-.09050	-.02264	-.02664	.08084	.08846	.00862	.17969	.17029
07	.04419	-.05947	.01288	.06773	-.00582	-.06883	-.04007	.24054	.13009	.02519
08	.17591	-.18124	.02071	.13903	-.02050	-.06915	.05163	.14881	.00090	.07894
09	-.06917	.05123	.05992	-.00378	.00472	.07888	.09712	.22242	.07602	.10333
010	.21754	.04737	.17178	.13910	-.08961	-.03279	-.10643	.16496	.16531	-.03613
011	-.07251	-.14854	.06013	.02894	.09325	.06034	-.03046	.09382	-.03714	.04449
012	.11032	-.19726	-.09592	.07864	-.04317	.01879	-.00963	.10912	-.02526	.08136
013	.06217	-.20955	.01280	-.01517	-.06214	.02280	-.05296	.00194	-.04866	.03403
014	.26529	-.07006	-.04235	.00147	.05341	.04994	.15569	-.03772	.03329	.13366
015	.09479	-.17441	-.01246	-.06480	-.00617	.08339	.08768	.04256	-.01390	.16410
016	.18284	-.21445	-.06034	-.10593	-.06776	-.06711	.08152	-.01676	.04294	.08311
017	.01626	-.15891	.03414	.02418	-.08881	.06181	.16289	-.01213	.04994	.16013
018	.11094	-.17321	-.08405	-.07555	.09405	.07204	.05082	.02133	-.04513	.18269
019	.04063	-.16417	.08028	.04958	-.02004	.03027	.06122	.15737	-.11199	.03753
020	.15507	-.20838	.08075	-.01796	-.14293	-.10186	-.05801	.25405	.02181	.12612
021	.16179	-.08762	-.06603	-.02734	.01173	.11199	.23664	-.03248	-.02570	.24747
022	.05930	-.16008	.02649	.01956	-.09010	-.08922	.03462	-.01405	.02061	.05058
023	.11553	-.18004	-.05928	-.07018	-.07945	.06111	.20680	.06698	-.02097	.19489
024	.13773	-.20080	.01799	-.12872	-.09025	.10224	-.01023	-.01902	.08756	.06883
025	.19208	-.03121	.03569	.08492	-.12889	-.03779	-.03563	.07079	.10952	-.02465
026	.23635	-.18647	-.05294	-.01860	-.03487	-.00532	.15096	.14245	-.03395	.16862
027	.04337	-.01133	.11228	.05327	-.07134	-.05889	-.03608	.19556	.17745	.04868
028	.13797	-.09507	.03830	-.01131	-.03592	.04732	.01108	-.11604	.03993	.17158
88	-.07127	.10813	.05928	.05021	-.06429	.05571	-.06825	-.17229	-.01861	-.09782
89	-.08875	.05737	-.00694	-.02806	-.00070	-.03187	-.19522	-.11756	-.07703	-.12151
90	.00992	-.01690	-.00277	.02209	-.12226	-.18501	-.08066	-.16369	-.09912	-.00614
91	.02174	.15403	.08490	.16322	-.00042	-.08464	-.04282	-.13231	.03569	-.06304
92	.01797	.09408	.02314	.04025	.01361	-.07757	.09240	.05301	.06947	.10510
93	.00136	.07842	-.03687	.01851	-.07299	-.13016	-.18095	-.08962	-.05275	-.09555
94	-.04992	.04290	-.00828	-.02581	-.15377	-.06268	-.12706	.09833	.10909	-.06989
95	-.01143	.07775	-.01629	-.02716	-.05581	-.13714	-.01746	-.00190	.11749	.07344
96	-.06375	.02334	-.08217	-.04743	-.01386	.00456	-.12676	-.10108	-.03261	.06612
97	-.29440	.24929	-.07170	-.07285	.05182	-.01266	-.10224	-.15849	.03458	-.06798
98	-.07109	.17118	-.02319	-.13055	.06273	-.08415	-.17174	-.19290	.02401	-.11689
99	-.15302	.23321	.04698	.10515	.01947	-.09653	-.15385	-.15287	-.03744	-.20413
100	-.13364	.03457	-.01603	-.01800	.02970	-.00354	-.10957	-.07546	-.06592	.12617
114	.11339	.63383	.28644	.16672	.01395	.07540	.08675	-.00691	.00130	.03542
115	.15447	.18938	.69653	.34718	.10115	.22577	.16021	.07107	.21452	.09997
116	.24271	.17541	.41172	.79282	.18561	.28348	.24823	.08370	.10541	.12336
117	.12401	.04621	.20777	.19289	.66417	.31193	.19461	.07196	.09042	.19104
118	.18883	.12062	.17470	.22830	.29760	.80400	.36706	.15087	.23888	.21575
119	.18507	-.09291	.06660	.13430	.06878	.23733	.64860	.06794	.06411	.44242
120	.16819	-.08835	.05461	.04976	.00172	.12463	.14504	.82430	.16686	.16967
121	.17288	.15931	.28817	.25413	.09555	.24027	.18050	.10316	.75177	.21259
122	-.19557	-.12030	.10142	.11746	.07176	.15491	.49701	.13710	.11967	.76794
123	1.00000	.05189	.15537	.17042	.01065	.10186	.24280	.05134	.04114	.20199
124	.05189	1.00000	.33459	.22371	.18066	.08631	.04421	-.00062	.12445	-.01403
125	.15537	.33459	1.00000	.53612	.16985	.18065	.11786	.12721	.29939	.07286
126	.17042	.22371	.53612	1.00000	.19409	.23819	.23729	.15558	.18453	.14701
127	.01065	.18066	.16985	.19409	1.00000	.36339	.20748	.16889	.22574	.18663

Table 14--(Continued)

128	.10186	.08631	.18065	.23819	.36339	1.00000	.38049	.13135	.31599	.29250
129	.24280	.04421	.11786	.23729	.20748	.38049	1.00000	.13017	.22809	.64314
130	.05134	-.00062	.12721	.15558	.16889	.13135	.13017	1.00000	.23579	.18259
131	.04114	.12445	.29919	.18463	.22574	.31599	.22809	.23579	1.00000	.22760
132	.20199	-.01403	.07286	.14701	.18663	.29250	.64314	.18259	.22760	1.00000
133	.68464	.11075	.30780	.12895	.11665	.13490	.17571	.14404	.13311	.16401
87	.07890	-.00787	.03950	-.00275	-.05219	.02429	.13672	.11504	.03458	.03555
A	.03721	-.02621	.13982	.11773	-.01077	-.05908	-.01417	.11110	-.06222	-.07956
B	-.04316	-.01135	.14707	.04856	.05350	-.02130	-.14122	-.11365	-.13019	-.14900
C	-.01482	-.02802	.12253	.04547	-.00685	-.08031	-.14553	-.06601	-.12006	-.17749
D	-.04914	-.04172	.08058	.11742	-.03865	-.08111	-.09832	.04522	-.13287	-.17557
E	.02618	-.05186	-.01905	-.14967	-.09662	-.00666	-.08040	-.06497	-.14485	.00940
F	-.06820	-.08653	.03251	.01054	-.21849	-.16873	-.12130	-.05413	-.02253	-.14332
G	-.11349	-.06766	-.01428	-.05310	-.07706	-.10412	-.19849	-.04484	-.02897	-.29272
H	.04601	.02933	.03893	.11814	-.09627	.04280	-.06946	.07920	.01057	.03882
J	.17241	.03373	-.04427	.02747	-.00856	.20679	.18680	.02984	-.00262	.16004
K	.14388	.03295	-.00841	.09023	-.06623	.15822	.08605	.07259	.00770	.13274

Table 1h--(Continued)

	133	87	A	B	C	D	E	F	G	+H
D1	.04301	.10356	-.n9839	-.08812	-.07077	.01609	.07852	.09394	.00099	.15799
D2	-.03012	.01383	-.n6396	-.07296	-.15186	-.09260	-.18205	.04502	.11540	.21492
D3	.10076	.13168	-.j3085	-.03865	-.01520	-.00920	-.08932	.07214	.12986	.07877
D4	.09462	-.04009	.n335A	-.07394	-.10525	-.03653	.01890	.03303	.01270	-.02294
D5	.17036	.01298	.n6045	-.14736	-.15456	.09650	.04653	.21339	.08516	.05041
D6	-.10879	.02284	-.j8956	-.13600	-.16923	-.23488	-.09847	.02694	.00768	.22176
D7	-.00167	.00685	-.n0546	-.03961	-.04829	-.02624	-.10006	.08047	.08146	.21587
D8	-.01412	.01739	-.n6427	-.15700	-.20365	-.06688	-.06458	.09927	.07447	.17593
D9	.06170	-.01360	-.n1192	-.08342	-.08458	-.00513	-.03322	.01721	-.01081	.05215
D10	.25058	.04224	.n391E	.08424	.10328	.05554	-.16313	.12625	.01585	.10130
D11	-.02393	-.01009	-.n2518	.10661	.04010	-.07787	-.09707	.04987	.04510	.12021
D12	-.01566	.05733	-.n7263	-.01137	-.09501	-.00359	-.04438	.08699	-.02851	.20082
D13	-.06633	.05465	-.18988	-.19886	-.24008	-.21501	-.03141	-.01919	-.02027	.04137
D14	.10922	.06202	-.n874E	-.11853	-.10428	-.13597	-.06519	-.01166	-.00965	.05888
D15	.02799	-.07860	.n1671	.04264	-.05926	-.01906	-.00028	.06182	-.06589	.15340
D16	.12431	.05518	-.n7937	-.00157	-.07523	-.06303	.03429	.02227	-.12721	.20373
D17	-.10890	-.01137	.n2186	-.10123	-.14460	-.05629	-.11193	-.07461	-.05011	.06157
D18	.06974	.02840	-.n4413	-.05350	-.10701	-.11619	.01947	.05357	-.03070	.06308
D19	.09087	.16064	.18309	.14272	.12918	.12837	.08898	.03349	.00501	.06646
D20	.12436	.07508	.n3944	-.01486	-.17244	-.02333	.00969	.09659	-.03948	.14075
D21	-.06021	-.05412	-.n7391	-.10120	-.15405	-.09726	.04960	.02961	-.03774	-.00588
D22	-.05407	.14163	-.n3916	-.05308	.01322	.03753	-.05087	.16628	.08630	.06243
D23	.03450	.04301	.n2643	-.08647	-.12172	-.05734	-.01155	-.09730	-.11293	.16657
D24	.09845	-.01760	-.n6394	-.03057	-.15006	-.11130	.07305	.01107	-.02776	.14747
D25	.14001	.09492	-.n6209	-.04308	-.11863	-.16775	-.12734	-.08175	-.09529	.16433
D26	.06568	.02882	-.n0426	-.09243	-.15752	-.09461	-.06281	.01720	-.09223	.12658
D27	.11340	.05692	.n5367	-.00070	-.00634	-.05657	.02615	.09579	.01514	.06955
D28	.06462	-.07014	-.j3815	-.05107	-.14249	-.24203	-.02127	-.16073	-.02735	-.03424
88	-.04667	-.21033	.16482	.08066	.12523	.20428	-.08128	.16428	.03584	-.00068
89	-.04481	-.11474	.n8229	.04624	.10763	.13383	-.00718	.10588	.03672	-.02006
90	-.00175	-.07160	.n9609	.12254	.17565	.11653	.07381	.03983	.03607	-.01320
91	.03436	-.08089	.11192	.12474	.17102	.09123	-.11238	.17216	.00894	.00668
92	.02087	.04968	.23702	.03846	.07053	.30041	-.10108	.13193	-.02213	.00673
93	-.04025	-.13707	.26977	.24601	.27361	.23119	-.09213	.10702	-.02534	-.06055
94	-.07169	-.10162	.19184	.12825	.18341	.11076	-.15494	.05390	.03449	-.05408
95	-.04501	-.09957	.16354	-.02785	.04186	.16888	-.01117	.12222	-.05559	-.04305
96	-.07683	-.00560	.n2677	.00688	.04621	.07505	.15077	-.14534	-.14487	-.11461
97	-.12174	-.12525	.j3876	.08556	.04293	.10361	.12247	-.07879	-.02349	-.10694
98	.01492	-.21340	.n6715	-.04348	-.01127	.08609	.04876	-.19028	-.11600	-.14218
99	-.04017	-.05910	.n4045	.09636	.11022	.06343	.00953	-.05370	.03851	-.04077
100	-.07129	-.06032	-.n2575	.12036	.16796	.00998	.04207	-.17640	-.13240	-.01189
114	.07417	.03185	-.n2333	-.00604	-.02065	-.09806	.01783	-.07715	-.04976	.16791
115	.24786	.06942	.n8921	.14715	.11349	.11990	.01640	.07288	.11081	.05566
116	.13029	.02635	.17608	.10805	.07957	.17646	-.09519	.05950	-.00461	.12685
117	.10882	.00548	.n2599	.16296	.02631	.09345	-.03713	-.08508	.06714	.08078
118	.13391	.04025	.n1729	.00827	-.02336	-.04862	-.04055	-.10386	-.06614	.10064
119	.09791	.09795	-.n1066	-.06514	-.07437	-.05822	-.03871	-.10546	-.06211	.05674
120	.12034	.11443	.10182	-.07962	-.04948	.08096	-.02366	-.05241	-.01319	.09748
121	.16262	-.05079	-.n5875	-.04895	-.04934	-.13399	-.10904	-.01380	-.02309	.02553
122	.13216	.02518	.n2615	-.06191	-.11196	-.06322	.04719	-.09744	-.20164	.08846
123	.68464	.07890	.n3721	-.04316	-.01482	-.04914	.02618	-.06820	-.11349	.04601
124	.11075	-.00787	-.n2621	-.01135	-.02802	-.04172	-.05186	-.08653	-.06766	.02933
125	.30780	.03950	.j3982	.14707	.12253	.08058	-.01905	.03251	-.01428	.03893
126	.12895	-.00275	.11773	.04856	.04547	.11742	-.14967	.01054	-.05310	.11814
127	.11665	-.05219	-.n1077	.05350	-.00685	-.03865	-.09662	-.21849	-.07706	-.09627

Table 14—(Continued)

128	.13490	.02429	-.05908	-.02130	-.08031	-.08111	-.00666	-.16873	-.10412	.04280
129	.17571	.13672	-.01417	-.14122	-.14553	-.09232	-.08040	-.12130	-.19849	-.06946
130	.14404	.11504	.11110	-.11365	-.06601	.04522	-.06497	-.05413	-.04484	.07920
131	.13311	.03458	-.06222	-.13019	-.17006	-.13287	-.14485	-.02253	-.02897	.01057
132	.16401	.03555	-.07956	-.14900	-.17749	-.17857	.00940	-.14332	-.29272	.03882
133	1.00000	.04724	.05421	-.00599	.01042	.03370	.10087	-.02877	-.07489	-.01982
87	.04724	1.00000	.00135	.02538	.01850	-.01373	.17251	-.04670	-.10589	.12978
A	.05421	.00135	1.00000	.49051	.49591	.66442	.13475	.05542	-.01900	-.10061
B	-.00599	.02538	.49051	1.00000	.78122	.42809	.02080	.10342	.16804	-.01799
C	.01042	.01850	.49591	.78122	1.00000	.45176	.06122	.19247	.18636	-.10358
D	.03370	-.01373	.66442	.42809	.45176	1.00000	.14676	.24050	.14947	-.05617
E	.10087	.17251	.13475	.02080	.06122	.14676	1.00000	.04654	-.13172	.03566
F	-.02877	-.04670	.05542	.10342	.19247	.24050	.04654	1.00000	.30011	.12466
G	-.07489	-.10589	-.01900	.16804	.18636	.14947	-.13172	.30011	1.00000	-.00552
H	-.01982	.12978	-.10061	-.01799	-.10358	-.05617	.03566	.12486	-.00552	1.00000
J	.04009	.05784	-.08461	-.14526	-.18403	-.21287	.11175	-.01692	-.11203	.30185
K	.01927	.11471	-.10882	-.10076	-.17772	-.16707	.08839	.06318	-.07169	.78506

Table 1h--(Continued)

	J	K
01	-.00924	.09276
02	.04810	.16139
03	.06807	.08649
04	.01100	-.00016
05	.00715	.08897
06	.16447	.24251
07	-.05718	.09279
08	.10617	.17112
09	-.00729	.03139
010	-.12106	-.01079
011	-.01761	.05871
012	.01458	.12970
013	.02442	.04119
014	.16167	.13634
015	-.00008	.09267
016	-.05972	.08372
017	-.05342	.00676
018	.06277	.08216
019	-.01877	.03333
020	.03115	.10779
021	.05015	.03222
022	-.09240	-.01792
023	.05051	.09837
024	-.03784	.06733
025	.08373	.15250
026	.01794	.09106
027	-.02155	.03026
028	-.00267	-.02182
89	-.05667	-.04032
89	-.08166	-.06834
90	-.02459	-.02650
91	.02376	.01414
92	-.01522	-.08865
93	-.05175	-.06653
94	.02143	-.01568
95	-.07675	-.07906
96	.11480	.00770
97	-.03163	-.08927
98	-.08393	-.14438
99	-.01940	-.04159
100	-.00060	-.01932
114	.12321	.17344
115	.01338	.06344
116	.03973	.10156
117	.03260	.06353
118	.23212	.21013
119	.12412	.11261
120	.07730	.11416
121	.04710	.04320
122	.09112	.11720
123	.17241	.14388
124	.03373	.03295
125	-.04427	-.00841
126	.02747	.09023
127	-.00056	-.06623

Table 11--(Continued)

128	.20679	.15622
129	.18680	.08605
130	.02984	.07259
131	-.00262	.00770
132	.16004	.13274
133	.04009	.01927
87	.05784	.11471
A	-.08461	-.10882
B	-.14526	-.10076
C	-.18403	-.17772
D	-.21287	-.16707
E	.11175	.08839
F	-.01692	.06318
G	-.11203	-.07169
H	.30185	.78506
J	1.00000	.82494
K	.82494	1.00000

TABLE 15

INTERCORRELATIONS AMONG ITEMS ON THE WEIGHTED DIFFERENCE SCALE

	3YD1	6XD2	9XD3	12XD4	15XD5	18XD6	21XD7	24XD8	27XD9	30XD10
3X01	1.00000	.16613	.11404	.06773	.07774	.11552	.33151	.11249	.39450	.27528
6X02	.16613	1.00000	.18159	.24045	.13929	.47585	.21434	.45884	.28856	.14880
9X03	.11404	.18159	1.00000	-.01807	-.00211	.20548	.25033	.13282	.12312	.12940
12X04	.06773	.24045	-.01807	1.00000	.15700	.33029	.04983	.26428	.12087	.10180
15X05	.07774	.13829	-.00211	.15900	1.00000	.06276	.26155	.13920	.06662	.25828
18X06	.11552	.47585	.20548	.33029	.06276	1.00000	.21327	.49386	.15022	.06674
21X07	.33151	.21434	.25033	.04983	.26155	.21327	1.00000	.31940	.43075	.36439
24X08	.11249	.45884	.13282	.26428	.13920	.45386	.31940	1.00000	.25062	.24711
27X09	.39450	.28856	.12312	.12087	.05662	.15022	.43075	.25062	1.00000	.36885
30XD10	.27528	.14880	.12940	.10180	.25828	.08674	.30439	.24711	.36885	1.00000
33XD11	-.02907	.20001	-.00439	.17657	.19509	.17013	.08761	.20279	.20296	.16019
36XD12	.03229	.19096	-.01197	.17579	.45664	.23182	.21441	.17510	.14937	.31589
39XD13	.20714	.29529	.04438	.25208	.15267	.34125	.14806	.39651	.30473	.22915
42XD14	.31909	.19604	.02733	.12804	.27743	.23023	.30736	.25999	.31846	.20814
45XD15	.09805	.16145	-.04797	.29955	.25681	.27389	.14801	.33199	.28131	.19332
48XD16	.21670	.33036	.08846	.33033	.14993	.31688	.17668	.38511	.29932	.25928
51XD17	.08735	.19048	-.00247	.32622	.12352	.38563	.15171	.17451	.13149	.10869
54XD18	.08727	.35970	-.03112	.29063	.17801	.33686	.13404	.31494	.24609	.16777
57XD19	.04262	.18187	.08116	.15715	.20845	.19947	.18841	.30317	.20947	.22254
60XD20	.23467	.31722	.21568	.15628	.37486	.21817	.37749	.36164	.37986	.35213
63XD21	.06868	.03011	-.14896	.32551	.25549	.18797	.05781	.20129	.05505	.15845
66XD22	.18474	.36735	.13499	.26193	.35499	.37682	.35002	.50650	.32867	.37001
69XD23	.17515	.16582	.23558	.03240	.13405	.09229	.27680	.29245	.25593	.22619
72XD24	-.00278	.22557	.01519	.42017	.17875	.42013	.11323	.31214	.11666	.24906
75XD25	.18657	.06150	.03531	-.09132	.25574	.09595	.22603	.13747	.11611	.22824
78XD26	.10757	.29713	-.02057	.25606	.28411	.34097	.17053	.40713	.21720	.23562
81XD27	.23548	.22355	.07448	.07213	.21311	.07002	.19650	.13902	.23610	.22684
84XD28	.06608	.33203	.17135	.16580	-.05090	.28453	.13115	.31118	.20931	.15414
88XD101	.12640	.07263	.01800	.05554	.14189	.11396	.09061	.09346	.16664	.16789
89XD102	.09869	.08526	.06010	-.07205	.23100	.00335	.11685	.04217	.13438	.18741
90XD103	.01350	-.01521	-.13015	.03936	.13015	.12243	.09728	.15868	-.02390	.13758
91XD104	.07721	.00215	.05916	-.01462	.15170	-.08063	.03088	.04679	.02209	.14716
92XD105	.14766	.11150	.09625	.19022	.20344	.12576	.20003	.15694	.17384	.09511
93XD106	.13433	.11135	.14552	.01325	.10133	.03983	.06796	.08766	.04246	.17461
94XD107	.13599	.00038	.12239	-.00702	.03471	.08725	.06266	.08624	-.00167	.14628
95XD108	.14102	-.00034	.05278	.15182	.23711	.00266	.21294	.09550	.11323	.13162
96XD109	.08279	-.08406	.02300	-.02595	.06627	.01634	.14474	.01230	-.00088	.07028
97XD110	.25828	-.06909	.00581	-.09197	.10552	-.10724	.13688	-.14174	.04881	-.04913
98XD111	.15615	-.05289	.06318	.08174	.14292	-.05253	.17794	.02708	.11453	.13815
99XD112	.11785	-.03964	.12656	-.28831	.00712	-.08827	.05514	-.14807	-.13759	.00005
100113	.07485	-.11343	.04552	-.09257	-.32488	.01562	.10487	-.12655	.13681	-.02224
87	.08859	.06247	.09051	-.11221	.03994	.00459	.04934	.03525	.07043	.02087
A	.12472	.07691	.02579	.07472	.06957	-.10690	.10234	.01340	.14439	.13394
B	.11439	.01241	.08635	-.07730	-.09432	-.07814	.07506	-.12216	.06776	.15493
C	.14176	-.02362	.05423	-.04906	-.13718	-.10010	.09502	-.12355	.10336	.21565
D	.17750	-.02690	.08647	.08933	.05431	-.14571	.07655	-.06528	.04078	.01962
E	-.04359	-.08831	-.03575	.06333	-.00113	-.06553	-.14437	-.00955	-.03218	-.01798
F	.11083	.08301	.05394	.07689	.18747	.03238	.01052	.06938	-.00011	.07461
G	.08694	.13851	.09139	.02651	.04285	.00554	.16794	.06385	.05414	.05414
H	.08634	.17578	.22791	-.00687	.11214	.20347	.19123	.16819	.03865	.02800
J	-.07167	.09555	.17602	.00204	.08990	.15677	-.04000	.11184	-.00506	-.05629
K	.00250	.16539	.25085	-.00086	.12524	.22839	.08861	.16627	.01701	-.01356

Table 15--(Continued)

	33X011	36X012	39X013	42X014	45X015	48X016	51X017	54X018	57X019	60X020
3X01	-.02907	.03229	.20714	.31909	.09805	.21670	.08735	.06787	.04262	.23467
6X02	.20001	.19096	.29529	.19604	.16145	.33036	.19048	.35970	.18187	.31722
9X03	-.00439	-.01197	.04438	.02733	-.04797	.02846	-.00247	-.03112	.08116	.21568
12X04	.17657	.17579	.25208	.12004	.29955	.33033	.32622	.29063	.15715	.15626
15X05	.19509	.45664	.15267	.27743	.25681	.14993	.12352	.17801	.20845	.37486
18X06	.17013	.23182	.34125	.23023	.27389	.31688	.38563	.33686	.19947	.21817
21X07	.08761	.21441	.14808	.30736	.14001	.17968	.15171	.13404	.18841	.37749
24X08	.20279	.17510	.39651	.25999	.33199	.38511	.17451	.31494	.30317	.36164
27X09	.20296	.14937	.30473	.31846	.28131	.29932	.13149	.24609	.20947	.37986
30X010	.16019	.31589	.22915	.20814	.19332	.25928	.10809	.16777	.22254	.35313
33X011	1.00000	.37898	.26128	.27317	.31692	.21550	.23550	.36953	.21253	.13765
36X012	.37898	1.00000	.22481	.17939	.28797	.23063	.23973	.20807	.38022	.21632
39X013	.26128	.22481	1.00000	.35398	.28679	.26001	.26818	.26974	.26001	.36515
42X014	.27317	.17939	.35398	1.00000	.18165	.20828	.22399	.27770	.12855	.31003
45X015	.31692	.28797	.28679	.18165	1.00000	.42364	.25677	.63717	.30976	.41411
48X016	.21550	.23063	.26001	.20828	.42364	1.00000	.21862	.47195	.35707	.38722
51X017	.23550	.23973	.26818	.22399	.25677	.21862	1.00000	.12187	.15327	.34873
54X018	.36953	.28007	.26974	.27770	.63717	.47195	.12187	1.00000	.34822	.30512
57X019	.21253	.38022	.26001	.12855	.30976	.33707	.15327	.34822	1.00000	.44185
60X020	.13765	.21632	.36515	.31003	.41411	.38722	.14873	.30512	.44185	1.00000
63X021	.22481	.34906	.26959	.24445	.42292	.13876	.30005	.27101	.19452	.11935
66X022	.22328	.41622	.37319	.32701	.37501	.40365	.26336	.36095	.55166	.45433
69X023	.12466	-.00352	.26182	.32915	.16933	.16829	.05752	.12250	.22478	.33590
72X024	.23994	.25140	.26533	.14952	.45098	.41142	.30921	.41357	.33311	.27077
75X025	.20820	.27247	-.06731	.30228	.16309	.17033	.08632	.14488	.01401	.20529
78X026	.21687	.35823	.31921	.18151	.62590	.32668	.24933	.43498	.34764	.35672
81X027	.27265	.22040	.18064	.20811	.09219	.22110	.13649	.06615	.16062	.11744
84X028	.18582	.03267	.41214	.07847	.14402	.27653	.04071	.15462	.25394	.25592
88X0101	.07804	.01109	.14510	.07600	.13030	.07746	.13528	.11380	.05240	.07764
89X102	.07823	.14930	.11407	.04433	-.02513	-.05102	-.02374	-.01666	.05413	.07446
90X103	-.00596	.16096	.02575	.12564	-.05308	.04039	.10546	-.07615	.14684	.06790
91X104	.14750	-.02680	.04042	.00093	-.00565	.04842	.03884	-.07894	.03802	.04704
92X105	.10852	.12286	.13543	.04789	.14162	.18317	.16287	.03277	.17593	.21484
93X106	.16255	.10100	.02803	.04530	.05896	.01182	.20040	.03664	.09370	.10079
94X107	.06181	.01531	-.00716	-.01301	.01856	-.01633	.15949	-.06366	.01796	.09051
95X108	.04657	.14152	.03516	.07136	.13033	.11429	.17013	-.08689	.08341	.18250
96X109	.01747	.10519	-.06256	.00447	.03286	-.01850	.03788	-.08763	.01529	.09153
97X110	-.02117	-.07885	-.02744	-.06649	-.04443	.04992	-.00194	-.09549	-.12415	-.02639
98X111	.04165	-.06611	-.02520	.00027	.03444	.07197	.05953	-.00086	-.04277	.13652
99X112	-.02942	-.10227	-.15075	-.06162	-.32879	-.00476	-.06754	-.20606	-.13071	-.06324
100113	.04866	-.10400	-.06457	-.08796	.04548	.09302	.03308	-.05055	-.11880	-.06552
87	-.03441	.05592	-.01788	.06658	-.10225	.03381	-.04156	.02717	.15047	.08861
A	.04922	.03032	.01251	.04705	.04783	.00369	.16245	-.03757	.12573	.21514
B	.11465	.04112	-.02429	-.00610	.06752	.07329	.01284	-.05121	.09940	.16395
C	.05678	-.00217	-.00486	-.00022	-.00801	.03645	.01611	-.07220	.08983	.03829
D	.01670	.04696	-.00703	-.01360	.06866	-.00805	.14299	-.12116	.09634	.11087
E	-.04103	-.00136	.02055	.01018	.06716	.05253	-.04653	.01392	.08182	-.01978
F	-.00102	.12794	.05903	-.00380	.05275	.02402	-.04383	.01722	.06236	.03640
G	-.01209	-.06656	-.02223	.01639	-.04720	-.10142	-.02656	-.08207	-.02564	-.01127
H	.10134	.16816	-.00112	.04045	.14342	.10508	-.00442	.07721	.13292	.06977
J	-.05721	.00614	-.03960	.10490	.00375	-.13868	-.13700	.06087	.01755	-.04379
K	.01881	.10794	-.02668	.09097	.08216	-.02793	-.08930	.08607	.09643	.01324

Table 15--(Continued)

	63X021	66X022	69X023	72X024	75X025	78X026	81X027	84X028	88X101	89X102
3X01	.06868	.18474	.17515	-.00278	.18657	.10757	.23548	.06608	.13640	.09869
6X02	.03011	.36735	.16502	.22557	.06150	.29713	.22355	.33203	.07263	.08526
9X03	-.14856	.13499	.23858	.01519	.03531	-.02057	.07448	.17135	.01800	.06010
12X04	.32551	.26193	.03240	.42017	-.09132	.25686	.07213	.16580	.05554	-.07205
15X05	.25549	.35499	.13405	.17875	.26574	.28411	.21311	-.05090	.14189	.23100
18X06	.18797	.37682	.09229	.42013	.09595	.34097	.07002	.28453	.11396	.00335
21X07	.05781	.35002	.27680	.11323	.22603	.17053	.19650	.13115	.09061	.11685
24X08	.20129	.50650	.29245	.31214	.13747	.40713	.13902	.31118	.09346	.04217
27X09	.05505	.32867	.25593	.11666	.11611	.21720	.23610	.20931	.16664	.13438
30X010	.15845	.37801	.22619	.24906	.22924	.23562	.22684	.15414	.16709	.18741
33X011	.22460	.22328	.12466	.21994	.20920	.21687	.27265	.18582	.07804	.07623
36X012	.34906	.41622	-.00352	.25140	.27247	.39823	.22040	.03267	.01109	.14930
39X013	.26959	.37319	.26183	.26533	-.06731	.31921	.18664	.41214	.14510	.11407
42X014	.24445	.32701	.32915	.14952	.30228	.18151	.20811	.07847	.07680	.04433
45X015	.42292	.37501	.16933	.45098	.16309	.62590	.09219	.14402	.13030	-.02513
48X016	.13876	.40365	.16829	.41142	.17033	.32668	.22110	.27653	.07746	-.05102
51X017	.30605	.26336	.05752	.30921	.08632	.24933	.13649	.04071	.13528	-.02374
54X018	.27101	.36095	.18290	.41357	.14488	.43498	.06615	.15462	.11381	-.01666
57X019	.19452	.55366	.22478	.33311	.01401	.34764	.16062	.25394	.05240	.05413
60X020	.11935	.45433	.33590	.27077	.20529	.39672	.11744	.25592	.07764	.07446
63X021	1.00000	.37840	.13302	.25461	.12717	.46544	.09330	.09803	.10691	.08306
66X022	.37840	1.00000	.22096	.37554	.09380	.46954	.19423	.19610	.16454	.13358
69X023	.13302	.22096	1.00000	.06358	.22976	.24019	.16363	.24071	-.03413	.01163
72X024	.25461	.37554	.06358	1.00000	.09883	.33212	.05369	.18397	.11209	-.09092
75X025	.12717	.09380	.22876	.09883	1.00000	.23186	.26739	.00399	-.06431	.08436
78X026	.46544	.46954	.24019	.33212	.23186	1.00000	.13734	.18138	.18799	.11384
81X027	.09330	.19423	.16363	.05369	.26739	.13734	1.00000	.14350	.09153	.12307
84X028	.09503	.19610	.24071	.18397	.00399	.18138	.14350	1.00000	.02823	.08894
88X101	.10691	.16454	-.03413	.11209	-.06431	.18799	.09153	.02823	1.00000	.08559
89X102	.09306	.13358	.01163	-.09092	.08436	.11384	.16307	.08094	.60559	1.00000
90X103	.19608	.13102	.00280	.07374	.23819	.06687	.11131	.08736	.10277	.18579
91X104	-.03722	.05725	.00516	-.12562	.09114	.05269	.21302	.05599	.30381	.46168
92X105	.09738	.23223	.13616	.10012	.09957	.18775	.13933	.08043	.27733	.31687
93X106	.08776	.11982	.08816	.02775	.08486	.09885	.21640	.08230	.35112	.40317
94X107	.01302	.01351	.07256	-.03567	.15309	-.01163	.23475	.07375	.20518	.23068
95X108	.09640	.10051	.12607	.09131	.19876	.09116	.11073	.03953	.23179	.27294
96X109	.10282	.02451	-.00253	-.05734	.26589	.00568	.00773	.08414	.04766	.19886
97X110	.01411	-.20772	-.11078	-.08092	.11453	-.12069	.11322	.05934	.20224	.23224
98X111	.09019	-.06760	-.23488	.04696	.15396	.05259	.03903	.15993	.24382	.14677
99X112	-.36319	-.17208	-.09395	-.21714	.14785	-.23237	.22430	.06561	.26089	.25130
100X113	-.02180	-.19550	-.12727	-.04035	.07127	-.13056	.01373	.11294	.02208	.00892
87	-.08929	.16734	-.10500	-.02504	.03927	.01103	.02443	-.11287	-.12547	-.03082
A	-.02351	.00634	.11805	-.03189	.00167	.03641	.13297	-.01092	.08108	.02973
B	-.00084	-.02106	-.06317	-.09555	-.00080	-.05656	.09217	.08207	-.02838	.02131
C	-.06901	-.01074	-.09813	-.15757	-.03933	-.13733	.11594	-.01322	.04992	.08953
D	-.02540	.01541	-.01632	-.02412	-.10114	.00230	.09624	-.09846	.18340	.10371
E	.05334	.02294	-.00043	.19707	-.04031	.00057	.06940	.03969	-.05878	-.08958
F	-.03803	.12217	.02105	.03980	-.09666	.01100	.18106	-.08244	.12144	.10638
G	-.00654	.08802	-.04146	-.06007	-.09974	-.05562	.09888	-.01967	-.00408	.05945
H	.04771	.13600	.04500	.14154	.11786	.11921	.05790	-.00658	.00428	-.00022
J	.04508	-.01799	.06953	-.02117	.01171	.07823	-.03060	.05052	-.06409	-.07631
K	.05802	.06980	.06921	.07198	.07524	.12440	.01468	.02849	-.04332	-.04379

Table 15—(Continued)

	90X103	91X104	92X105	93X106	94X107	95X108	96X109	97X110	98X111	99X112
3X01	.01350	.07721	.14766	.13933	.13599	.14102	.08279	.25878	.15615	.11785
6X02	-.01521	.00815	.11150	.11135	.00030	-.00034	-.08406	-.06909	-.05289	-.03964
9X03	-.13015	.05916	.09625	.14552	.12239	.05278	.02300	.00581	.06318	.12656
12X04	.03936	-.01462	.19082	.01325	-.00702	.15183	-.02595	-.09197	.08174	-.22831
15X05	.13015	.15170	.20344	.10188	.03471	.23711	.06627	.10552	.14292	.00712
18X06	.12243	-.08063	.12576	.03983	.08725	.00266	.01634	-.10724	-.05253	-.08827
21X07	.09728	.03088	.20003	.06796	.06266	.21294	.14474	.13688	.17794	.05514
24X08	.15868	.04679	.15694	.08766	.08624	.09550	.01230	-.14174	.02708	-.14807
27X09	-.02390	.08209	.17384	.04246	-.00167	.11323	-.00088	.04881	.11453	-.13759
30X010	.13758	.14716	.09511	.17461	.14628	.13162	.07038	-.04913	.13615	.00005
33X011	-.00596	.14750	.10852	.16055	.08181	.04657	.01747	-.02117	.04165	-.02942
36X012	.16096	-.02680	.12286	.10100	.01531	.14152	.10519	-.07885	-.06611	-.10827
39X013	.02575	.04042	.13543	.02803	-.00716	.03516	-.06256	-.02744	-.02528	-.15075
42X014	.12564	.00093	.04789	.04530	-.01301	.07136	.00447	-.06648	.08027	-.06162
45X015	-.05308	-.00565	.14162	.05896	.01856	.10033	.03286	-.04443	.03404	-.32679
48X016	.04039	.04842	.18317	.01182	-.01633	.11429	-.01050	.04992	.07197	-.08476
51X017	.10546	.03884	.16287	.20040	.15949	.17013	.03788	-.00194	.05953	-.06754
54X018	-.07615	-.07894	.03277	.03664	-.06366	-.00689	-.08763	-.09549	-.00086	-.20606
57X019	.14684	.03882	.17593	.09370	.01796	.08341	.01529	-.12415	-.04277	-.13071
60X020	.06790	.04704	.14004	.10079	.09051	.18250	.09153	-.02839	.13652	-.06324
63X021	.19608	-.03722	.09738	.08776	.01302	.09640	.10268	.01411	.09019	-.38319
66X022	.13102	.05725	.23223	.11982	.01351	.10051	.02451	-.20772	-.06760	-.17208
69X023	.00280	.00516	.13616	.08016	.07256	.12607	-.00253	-.11078	.23488	-.09395
72X024	.07374	-.12562	.10012	.02775	-.03567	.09131	-.05734	-.08092	.04686	-.21714
75X025	.23819	.09114	.09957	.08406	.15309	.19876	.26589	.11453	.15396	.14785
78X026	.06687	.05269	.18775	.09885	-.01163	.09116	.06568	-.12069	.05059	-.23237
81X027	.11131	.21302	.13933	.21640	.23475	.11073	.00773	.11322	.03003	.22430
84X028	.08736	.05999	.08043	.08230	.07375	.03953	.08414	.05934	.15483	.06561
88X0101	.10277	.30381	.27733	.35112	.20518	.23179	.04766	.20224	.24382	.26089
89X102	.18579	.46168	.31687	.40317	.23068	.27294	.19986	.23224	.14677	.25130
90X103	1.00000	.35317	.22788	.15681	.18485	.24508	.34161	.13983	.24638	.09485
91X104	.35317	1.00000	.39895	.40152	.29439	.35400	.30955	.23179	.21143	.30596
92X105	.22788	.39895	1.00000	.47752	.42670	.74911	.35681	.20817	.11592	.10822
93X106	.15681	.40152	.47752	1.00000	.68683	.46450	.21686	.16811	.12025	.18555
94X107	.18485	.29439	.42670	.68683	1.00000	.46078	.34697	.17427	-.00636	.08093
95X108	.24508	.35400	.74911	.46450	.46878	1.00000	.39304	.30670	.19509	.15219
96X109	.34161	.30955	.35681	.21686	.30670	.39304	1.00000	.36277	.26464	.17859
97X110	.13983	.23179	.20817	.16811	.17427	.30670	.36277	1.00000	.45918	.41510
98X111	.24638	.21143	.11592	.12025	-.00636	.19509	.26464	.45918	1.00000	.28030
99X112	.09485	.30596	.10922	.18555	.09093	.15219	.17859	.41510	.28030	1.00000
100113	.04444	.11963	.08585	.10094	.08056	.04830	.35318	.43167	.31865	.27339
87	.01221	.00732	.12401	-.04640	-.11004	.01664	.07627	-.07945	-.11260	-.02282
A	-.01030	.15037	.25910	.27200	.22401	.24970	.07728	.18061	.05510	.05750
B	-.07948	.06619	.04657	.25562	.17671	.07030	.05666	.16170	-.07148	.11290
C	-.06259	.16997	.06257	.24007	.17928	.07413	.00438	.08247	-.08769	.10049
D	-.08052	.10200	.32273	.24846	.18266	.30715	.15447	.19004	-.01963	.13959
E	.05185	-.02200	-.04921	-.06767	-.18946	-.00856	.08145	.16602	.01750	-.00335
F	-.08999	.14128	.13393	.12964	.11411	.16539	-.08038	-.04584	-.18641	-.05794
G	-.08280	.03035	.00407	.09875	.15229	.01248	-.01411	-.07576	-.14563	-.00167
H	-.05385	-.00355	.05914	.01057	-.07469	.01684	-.07689	-.02611	-.05142	.01881
J	.11924	.02184	-.02110	-.01515	.01510	-.00558	.11274	-.00658	-.01074	.01148
K	.04855	.00851	.01771	-.00212	-.03558	.00317	.02582	-.02667	-.04543	.01264

Table 15--(Continued)

	100113	87	A	B	C	D	E	F	G	H
3x01	.07485	.08859	.12472	.11439	.14176	.17750	-.04359	.11083	.06094	.08634
6x02	-.11343	.06247	.07691	.01241	-.02762	-.02690	-.08831	.08301	.13851	.17578
9x03	.04552	.09051	.02579	.06635	.05423	.09647	-.03975	.05394	.09139	.22791
12x04	-.09257	-.11221	.07472	-.07730	-.04906	.00933	.06333	.07689	.02651	-.00687
15x05	-.32488	.03994	.06957	-.09432	-.13718	.05031	-.00313	.18747	.04285	.11214
18x06	.01562	.00459	-.10690	-.07814	-.10010	-.14571	-.06553	.03238	.00516	.20347
21x07	.10487	.04934	.10234	.07506	.09502	.07655	-.14437	.01052	.16794	.19123
24x08	-.12655	.03525	.01340	-.12216	-.12355	-.06528	-.00955	.06938	.06385	.16819
27x09	.13681	.07043	.14439	.06776	.10336	.04078	-.03218	-.00011	.03366	.03865
30x010	-.02224	.02087	.13394	.15493	.21565	.12962	-.01798	.07461	.05414	.02800
33x011	.04866	-.03441	.04922	.11465	.05678	.01670	-.04103	-.00102	-.01209	.10034
36x012	-.10400	.05592	.03032	.04112	-.00217	.04696	-.00136	.12794	-.06656	.16816
39x013	-.06457	-.01708	.01251	-.02429	-.00486	-.00703	.02055	.05903	-.02223	-.00112
42x014	.00796	.06658	.04705	-.00610	-.00022	-.01760	.01018	-.00380	.01639	.04045
45x015	.04548	-.10225	.04783	.06752	-.00201	.06866	.06716	.05275	-.04720	.14342
48x016	.09302	.03381	.00389	.07329	.03645	-.00805	.05253	.02402	-.10142	.10508
51x017	.03308	-.04156	.16245	.01284	.01611	.14299	-.04653	-.04383	-.02656	-.00442
54x018	-.05055	.02717	-.03757	-.05121	-.07220	-.12116	.01392	.01722	-.08207	.07721
57x019	-.11880	.15047	.12573	.09940	.08983	.09634	.08182	.06236	-.02564	.13292
60x020	-.06552	.08861	.21514	.16395	.03929	.11087	-.01978	.03640	-.01127	.06977
63x021	-.02180	-.08929	-.02351	-.00084	-.06901	-.02540	.05334	-.03803	-.00654	.04771
66x022	-.19550	.16734	.00634	-.02106	-.01074	.01541	.02294	.12217	.08802	.13600
69x023	-.12727	-.10500	.11805	-.06317	-.09513	-.01632	-.20043	.02105	-.04146	.04500
72x024	-.04035	-.02504	-.03189	-.09555	-.15757	-.02412	.19707	.03980	-.06807	.14159
75x025	.07127	.03927	.00167	-.00080	-.03933	-.10114	-.04031	-.09666	-.05974	.11786
78x026	-.13056	.01103	.003641	-.05656	.13733	.00230	.00057	.01100	-.05562	.11921
81x027	.01373	.02443	.13297	.09217	.11594	.09624	.06940	.12106	.09888	.05790
84x028	.11294	-.11287	-.01092	.08207	-.01322	-.09846	.03969	-.08244	-.01967	-.00656
88x0101	.02202	-.12547	.08108	-.02838	.04992	.18340	-.05878	.12144	-.00408	.00428
89x0102	.00298	-.03082	.02973	.03131	.08953	.10371	-.05958	.10638	.05945	-.00022
90x0103	.04444	.01221	-.01030	-.07948	-.06259	-.08052	.05185	-.08999	-.08280	-.05385
91x0104	.11963	.00732	.15037	.06619	.16997	.10200	-.02200	.14128	.03035	-.00355
92x0105	.08565	.12401	.25910	.04657	.06257	.32273	-.04921	.13393	.00407	.05914
93x0106	.10094	-.04640	.27200	.25562	.24007	.24946	-.06767	.12964	.09875	.01057
94x0107	.08056	-.11004	.22401	.17671	.17528	.18266	-.18946	.11411	.15229	-.07469
95x0108	.04830	.01664	.24970	.07030	.07413	.30715	-.00856	.16539	.01248	.01684
96x0109	.35318	.07627	.07728	.05666	.00438	.15447	.03145	-.08038	-.01411	-.07689
97x0110	.43167	-.07945	.18061	.16170	.08247	.19004	.16602	-.04584	-.07576	-.02611
98x0111	.31865	-.11260	.05510	-.07148	-.08769	-.01963	.01750	-.12641	-.14563	-.05142
99x0112	.27339	-.02282	.05750	.11290	.10049	.13959	-.00335	-.05794	-.00167	.01881
100113	1.00000	-.01004	-.02701	.12740	.14382	-.01083	.05435	-.19371	-.11623	.05352
87	-.01004	1.00000	.00135	.02538	.01850	-.01373	.17251	-.04670	-.10589	.12978
A	-.02701	.00135	1.00000	.49051	.49591	.66442	.13475	.05542	-.01900	-.10061
B	.12740	.02538	.49051	1.00000	.78122	.42809	.02080	.10342	.16804	-.01799
C	.14392	.01850	.49591	.78122	1.00000	.45176	.06122	.19247	.18636	-.10358
D	-.01083	-.01373	.66442	.42809	.45176	1.00000	.14676	.24050	.14947	-.05617
E	.05435	.17251	.13475	.02080	.06122	.14676	1.00000	.04654	-.13172	.03566
F	-.19371	-.04670	.05542	.10342	.19247	.24050	.04654	1.00000	.30011	.12486
G	-.11623	-.10589	-.01900	.16804	.18636	.14947	-.13172	.30011	1.00000	-.00552
H	.05352	.12978	-.10061	-.01799	-.10358	-.05617	.03566	.12486	-.00552	1.00000
J	.02897	.05784	-.08461	-.14525	-.18403	-.21287	.11175	-.01692	-.11203	.30185
K	.04157	.11471	-.10882	-.10076	-.17772	-.16707	.08839	.06318	-.07169	.78506

Table 15--(Continued)

	J	K
3X01	-.07167	.00250
6X02	.09555	.16535
9X03	.17602	.25085
12X04	.00204	-.00086
15X05	.08990	.12524
18X06	.15677	.22839
21X07	-.04000	.08861
24X08	.11184	.16627
27X09	-.00506	.01701
30X10	.06629	.01366
33X11	-.05721	.01881
36X12	.00614	.10794
39X13	-.03960	-.02668
42X14	.10490	.09097
45X15	-.00375	.08216
48X16	-.13868	-.02793
51X17	-.13700	-.08330
54X18	.06087	.08607
57X19	.01755	.09643
60X20	-.04379	.01324
63X21	.04508	.05802
66X22	-.01799	.06980
69X23	.06953	.06921
72X24	-.02117	.07198
75X25	.01171	.07524
78X26	.07823	.12440
81X27	-.03860	.01468
84X28	.05052	.02449
88X101	-.06409	-.04332
89X102	-.07631	-.04379
90X103	.11924	.04855
91X104	.02184	.00851
92X105	-.02118	.01771
93X106	-.01515	-.00212
94X107	.01510	-.03558
95X108	-.00558	.00317
96X109	.11274	.02582
97X110	-.00658	-.02667
98X111	-.01074	-.04543
99X112	.01148	.01264
100113	.02897	.04157
87	.05784	.11471
A	-.08461	-.10882
B	-.14526	-.10076
C	-.18403	-.17772
D	-.21287	-.16707
E	.11175	.08839
F	-.01692	.06318
G	-.11203	-.07169
H	.30185	.78506
J	1.00000	.82494
K	.82494	1.00000

TABLE 16

INTERCORRELATIONS AMONG ITEMS ON THE IMPORTANCE SCALE

	3	6	9	12	15	18	21	24	27	30
3	1.00000	.30967	.19951	.14041	.13687	.22567	.40577	.11831	.49256	.39633
6	.30967	1.00000	.33346	.37400	.28348	.46652	.21022	.39411	.33039	.30627
9	.19951	.33346	1.00000	.17578	-.05779	.25854	.26085	.28846	.21142	.11714
12	.14041	.37400	.17578	1.00000	.14676	.23951	.11088	.19206	-.03245	.15211
15	.13687	.28348	-.05779	.14676	1.00000	.23724	.33061	.12620	.21899	.29523
18	.22567	.46652	.25854	.23951	.23724	1.00000	.32344	.37726	.25194	.26392
21	.40577	.21022	.26085	.11088	.33061	.32344	1.00000	.28175	.47784	.35240
24	.11831	.39411	.28846	.19206	.12620	.37726	.28175	1.00000	.23500	.36327
27	.49256	.33039	.21142	-.03245	.21899	.25194	.47784	.23500	1.00000	.43680
30	.39633	.30627	.11714	.15211	.29523	.26392	.35840	.36327	.43680	1.00000
33	.11928	.15862	.01374	.12536	.19296	.29894	.09585	.19391	.11613	.27834
36	.15720	.30866	.10358	.21545	.43426	.31833	.24722	.28223	.19210	.40565
39	.37722	.32767	.10780	.27459	.29915	.29424	.28555	.43131	.30203	.46893
42	.32894	.20262	.06843	.06022	.32742	.21902	.35579	.15393	.34759	.40836
45	.19076	.20099	.13687	.20103	.25192	.37625	.26603	.30929	.17827	.31208
48	.23185	.32702	.18453	.09925	.23986	.37017	.20457	.38066	.35529	.39000
51	.23192	.15596	.07132	.20734	.06389	.39157	.15490	.07738	.08266	.20396
54	.16139	.23854	.08010	.16511	.12464	.35820	.19638	.22953	.11840	.16201
57	.07987	.17759	.07237	.11271	.22241	.08029	.16303	.21943	.11462	.16461
60	.39387	.36840	.19959	.12914	.34876	.19676	.43670	.34961	.44418	.35350
63	.26847	.67439	-.04912	.09658	.25955	.09425	.15163	-.00253	.13540	.27848
66	.21596	.32520	.13708	.12982	.33966	.27775	.31573	.36097	.36580	.36907
69	.22809	.15738	.26009	-.02593	.17779	.13674	.27059	.28371	.30202	.20640
72	.05001	.17271	.07911	.26861	.09147	.22233	.11548	.17801	.04728	.23827
75	.21434	.13237	-.06158	.07257	.18997	.23394	.24665	.27557	.26474	.33959
78	.22211	.40321	.14199	.16160	.19589	.42730	.19742	.33803	.23871	.36467
81	.29267	.27369	.08895	.23167	.16943	.19942	.19720	.21863	.23176	.38666
84	.22433	.41852	.23792	.38570	.24777	.27722	.26955	.43261	.17460	.35463
101	.24334	.26662	.06081	.11545	.16387	.22036	.10320	.05221	.24315	.19961
102	.17842	.11359	.03191	.07299	.25103	.12308	.11863	-.01457	.13664	.19741
103	-.00602	-.01954	-.12090	-.00997	.17583	.04277	.04655	.04269	-.04840	.16124
104	.15841	.12929	.01831	.13705	.12179	.07124	.14357	.11062	.22365	.22058
105	.26608	.20258	.07515	.24649	.24183	.14868	.18570	.12838	.18945	.13033
106	.27259	.16805	.16196	.15211	.17776	.14900	.11043	.07101	.11893	.15805
107	.24519	.09004	.10294	.11613	.16932	.10670	.05675	.04953	.03415	.17374
108	.30203	.12973	.06918	.31621	.19324	.09837	.21296	.03184	.15267	.17338
109	.16480	.12673	.12348	.10121	.30759	.12397	.27930	.08289	.16415	.22969
110	.30311	.12655	.09662	.11042	.20723	.18025	.22991	.08657	.17791	.22469
111	.18226	.17391	.13743	.22462	.20255	.18652	.27667	.32339	.27506	.21392
112	.14513	.19086	.13555	.14310	.22163	.28507	.20732	.12736	.04268	.18660
113	.04419	.11262	.00560	.02318	.50027	.09467	.19083	.09019	.18735	.17986
87	.06869	.07457	.04208	-.13890	.04431	-.01018	.07195	.06270	.09951	-.00045
A	.20200	.17782	.11537	.08220	.05108	.09059	.13552	.09476	.17206	.18568
B	.18414	.10495	.08817	-.02042	.00708	.07684	.12437	.05425	.11852	.18751
C	.19778	.10091	.07533	.02795	-.04491	.04787	.14823	.03204	.13474	.22860
L	.22232	.05733	.11624	.17433	-.03357	.07131	.10887	-.04824	.04706	.15544
E	-.06819	.01758	.00938	.10104	-.07494	.01287	-.13713	.01585	-.01255	.08370
F	.08551	.08563	.03888	.10059	.06625	.01494	-.02795	-.01334	-.01907	.00441
G	.06309	.12161	.05234	.04416	-.01314	.00076	.15933	.01073	.05160	.07365
H	.03498	.05713	.20061	.01479	.12468	.09387	.11606	.10774	.02553	-.05464
J	-.07520	.11620	.13786	-.02002	.05283	.09389	-.02222	.08220	.01891	-.00375
K	-.03400	.10547	.21144	-.00753	.10631	.12211	.05486	.11069	.02085	-.03155

Table 16--(Continued)

	33	36	39	42	45	48	51	54	57	60
J	.11928	.15720	.37722	.32894	.19076	.23185	.23192	.16139	.07987	.39387
6	.15862	.30866	.32767	.20262	.20099	.36702	.15596	.23654	.17759	.36840
9	.01374	.10358	.10790	.08843	.13687	.18453	.07132	.08010	.07237	.19959
12	.12536	.21545	.27459	.08022	.20183	.09985	.20734	.16511	.11271	.12914
15	.19296	.43426	.28915	.32742	.25192	.23886	.06389	.12464	.22241	.34876
18	.29694	.31833	.29424	.21902	.37625	.37017	.39157	.35820	.08029	.19676
21	.09585	.24722	.28555	.35579	.26603	.20457	.15490	.19638	.16303	.43670
24	.19391	.28223	.43131	.15893	.30929	.38066	.07738	.22953	.21943	.34961
27	.11613	.19210	.30903	.34759	.17627	.32529	.08268	.11840	.11462	.44418
30	.27834	.40565	.46893	.40836	.31208	.32000	.20396	.16201	.16461	.35350
33	1.00000	.34782	.26625	.32472	.19314	.24667	.36477	.25828	.03372	.08679
36	.34782	1.00000	.32187	.28037	.26572	.33117	.28656	.25045	.25185	.22634
39	.26625	.32187	1.00000	.43891	.37690	.30256	.29692	.27903	.22802	.61329
42	.32472	.28037	.43891	1.00000	.33304	.32789	.30415	.33423	.04750	.40787
45	.19314	.26572	.37690	.33304	1.00000	.43628	.34193	.40947	.10479	.27818
48	.24667	.33117	.30256	.32789	.43628	1.00000	.38052	.50647	.18002	.34002
51	.36477	.28656	.29692	.30415	.34193	.38052	1.00000	.39874	-.03475	.11246
54	.25828	.25045	.27903	.33423	.40947	.50647	.39874	1.00000	.11826	.24938
57	.03372	.25185	.22802	.04750	.10479	.18002	-.03475	.11826	1.00000	.34472
60	.08679	.22634	.61329	.40787	.27818	.34002	.11246	.24938	.36472	1.00000
63	.27418	.35101	.26341	.26770	.19696	.21721	.21036	.13652	.07416	.17812
66	.09062	.27476	.27154	.18161	.25392	.33302	.06460	.12773	.42405	.39899
69	.16200	.10691	.34258	.18589	.18706	.21015	.05235	.27249	.22546	.33965
72	.27852	.11666	.18728	.13014	.27322	.28406	.30911	.38783	.26695	.10047
75	.48462	.32962	.30682	.45535	.27683	.29013	.23596	.30205	-.01311	.18886
78	.23695	.25667	.39286	.22740	.57255	.32584	.19328	.20301	.19577	.26676
81	.53744	.25875	.27563	.32460	.23557	.23193	.29291	.16250	.10436	.10709
84	.25131	.35932	.49736	.19547	.27211	.35041	.07411	.24851	.38547	.44094
101	.06392	.06768	.14518	.16576	.20580	.27421	.11710	.17400	.00411	.22477
102	.14675	.17643	.16127	.21316	.02729	.06518	-.00308	.00550	.02575	.11936
103	.07020	.08471	.02153	.09439	-.05746	.05370	-.03400	-.03218	.20352	.07057
104	.13664	.10565	.08497	.18253	.16530	.20076	.06823	.01166	.10202	.16520
105	.13168	.13509	.14412	.12136	.18675	.19432	.10429	.03736	.18201	.21676
106	.11994	.10565	.07737	.06749	.09055	.13778	.22242	.02105	.16598	.16558
107	.18692	.16255	.08235	.04859	.02812	.08750	.17564	-.04946	.10358	.14594
108	.10199	.24976	.21110	.16996	.15840	.14601	.22053	.02003	.17450	.21209
109	.24190	.32497	.16171	.19112	.15428	.09869	.07897	.01018	.24235	.24308
110	.16741	.33011	.21636	.20254	.25328	.28260	.13037	.15494	.02341	.25191
111	.23716	.22691	.24557	.23065	.22316	.12521	.10716	.14730	.15272	.34053
112	.22523	.30983	.13527	.25349	.32024	.20779	.20970	.30928	-.02668	.18812
113	.30662	.36826	.20086	.37069	.23909	.17227	.18613	.10530	.12147	.25292
A	-.05022	.02057	-.04554	.01117	-.07609	.01609	-.05283	.00512	.09788	.09911
87	.13446	.21544	.19617	.22958	.06273	.11288	.22995	.02144	.04622	.25735
B	.04639	.15327	.16004	.16994	.05412	.16611	.15567	.01262	.03188	.23973
C	.05165	.16901	.19684	.15610	.06796	.14855	.20821	.05323	.02839	.15306
D	.14854	.11703	.15561	.19026	.15923	.05639	.30468	-.02154	.02283	.13727
E	.06612	.06645	.05673	.12429	.14518	.03220	.07587	.04839	.07313	-.03235
F	-.06053	.12203	.07954	-.00385	.00290	.01556	.01930	-.02921	.07587	-.00930
G	-.07111	-.06715	-.03795	.02698	.03141	-.01023	.01900	-.12484	-.02000	.01440
H	.01942	.04596	-.04329	-.00431	.05329	-.07106	-.08083	.03243	.13415	.00262
J	-.09583	-.00242	-.06054	-.04437	-.00948	-.14773	-.15888	.03286	.06407	-.06546
K	-.05540	.03224	-.06651	-.03191	.02158	-.13959	-.15412	.03560	.12600	-.04372

Table 16--(Continued)

	63	66	69	72	75	78	81	84	101	102
3	.26847	.21596	.22809	.05001	.21434	.22211	.29267	.22433	.24334	.17842
6	.07439	.32520	.15738	.17271	.13237	.40321	.27369	.41852	.26662	.11359
9	-.04912	.13708	.26002	.07911	-.06158	.14199	.08895	.23792	.06881	.03191
12	.09658	.12982	-.02593	.26861	.07257	.16160	.23167	.38570	.11545	.07299
15	.25955	.33966	.17779	.09147	.18897	.19509	.16943	.24777	.16387	.25103
18	.09425	.27775	.13674	.22233	.23394	.42730	.19942	.27722	.22836	.12308
21	-.15163	.41573	.27059	.11508	.24665	.19742	.19720	.26955	.19320	.11863
24	-.00253	.36097	.28371	.17801	.27557	.33803	.21863	.43261	.05221	-.01457
27	.13540	.36580	.30202	.04728	.26474	.23871	.23176	.17460	.24315	.13964
30	.27048	.36907	.20640	.23827	.33959	.36467	.38666	.35463	.19961	.19741
33	.27418	.09062	.16200	.27892	.48462	.23695	.33744	.25131	.06392	.14075
36	.35101	.27476	.10691	.11666	.32962	.25667	.25875	.35932	.06768	.17643
39	.26341	.27154	.34258	.18728	.30682	.39286	.27563	.49736	.14518	.16127
42	.26770	.18161	.18529	.13014	.45535	.22740	.32460	.19547	.16576	.21316
45	.15696	.25392	.18306	.27322	.27683	.57255	.23557	.27211	.20580	.02729
48	.21721	.33302	.21015	.28406	.29013	.32584	.23193	.35041	.27421	.06518
51	.21036	.06460	.05835	.30911	.23596	.19328	.29231	.07411	.11710	-.00308
54	.13652	.12773	.27249	.30783	.30205	.28301	.16250	.24851	.17400	.00550
57	.07416	.42405	.22546	.26695	-.01311	.19577	.10036	.38547	.00411	.02575
60	.17812	.39899	.33965	.10047	.18886	.26676	.10709	.44094	.22477	.11936
63	1.00000	.24161	.09821	.16466	.34984	.28150	.39162	.31168	.08866	.20822
66	.24161	1.00000	.26896	.26043	.12821	.36673	.20664	.32973	.23192	.17458
69	.09821	.26896	1.00000	.16677	.19143	.27830	.15129	.22085	.01021	.01531
72	.16466	.26043	.16677	1.00000	.22812	.15139	.22662	.22596	.17851	-.07013
75	.34984	.12821	.18143	.22012	1.00000	.26360	.36971	.20762	.04932	.12265
78	.28150	.36673	.27830	.15139	.26360	1.00000	.26036	.41068	.24806	.19827
81	.39162	.20664	.15129	.22662	.36971	.26036	1.00000	.26244	.05718	.18450
84	.31168	.32973	.22085	.22596	.20762	.41068	.26244	1.00000	.05607	.15925
101	.08866	.23192	.01021	.17851	.04932	.24806	.05718	.05607	1.00000	.60798
102	.20822	.17458	.01531	-.07013	.12265	.19827	.18450	.15925	.60798	1.00000
103	.14446	.17552	.04871	.07376	.16625	.00230	.03521	.08510	-.00086	.14607
104	.10538	.15743	-.00053	.03374	.11333	.21471	.19065	.17923	.33669	.48660
105	.17859	.26443	.02379	.08310	.13442	.27376	.16961	.21813	.25016	.36252
106	.17426	.25031	.11963	.06882	.12177	.16170	.17768	.15421	.31003	.42811
107	.09980	.18415	.05228	.03337	.09887	.12095	.12449	.15606	.23112	.28981
108	.16449	.14688	.08037	.14012	.15044	.16751	.14172	.22272	.20071	.28644
109	.21292	.29997	.19061	.15755	.19150	.19346	.20072	.17492	.14681	.26087
110	.40538	.12785	-.00309	.14212	.18901	.25863	.14396	.32393	.37317	.32890
111	.12483	.17839	.30474	.09531	.26921	.19753	.18372	.22566	.08568	.05694
112	.19798	.07858	-.03810	.09986	.27245	.21833	.13283	.21193	.40274	.32576
113	.25775	.20458	.01226	.09420	.29584	.13560	.17291	.17086	.30247	.33531
87	-.07175	.14151	-.11969	-.02217	-.06829	-.02630	-.04720	-.07498	.00969	.03539
A	.06536	.03496	.09071	.01915	.00997	.06318	.15998	.10508	-.00732	-.00871
B	.15873	-.01268	-.05979	-.15293	.08524	-.00537	.14103	.15260	-.11558	-.00559
C	.10049	-.02240	-.07148	-.10097	.09625	-.06308	.19269	.10613	-.03962	.02195
D	.09050	-.01726	-.03426	.07764	.04966	.11499	.23297	.07678	.09329	.06005
E	.04010	.06138	-.18580	.24668	.11270	.07874	.10186	.09557	-.03032	-.08413
F	-.08953	.06543	.04299	.04858	-.06918	.00085	.19121	.04222	.04721	.06128
G	.03620	.07532	-.00830	-.08442	-.04179	.03437	.16491	-.01712	-.02087	.03749
H	.10432	.13400	-.00029	.05778	-.00845	.05750	.05015	-.00311	.01752	.01528
J	.01316	.11356	.06419	.00861	-.07576	.10487	-.03088	.09446	-.02954	-.02409
K	.06664	.08503	.03827	.03746	-.05931	.10200	.00450	.05859	-.01216	.00257

Table 16--(Continued)

	103	104	105	106	107	108	109	110	111	112
3	-.00602	.15841	.26608	.27259	.24519	.30203	.16480	.30911	.18226	.14513
6	-.01954	.12929	.20258	.16805	.09004	.12973	.12673	.12655	.17391	.19086
9	-.12890	.01831	.07515	.16196	.10294	.06918	.12348	.09668	.13743	.13655
12	-.00997	.13705	.24649	.15211	.11613	.31621	.10121	.11042	.22462	.14310
15	.17583	.12179	.28123	.17776	.15932	.19324	.30359	.20923	.20255	.22163
18	.04277	.07124	.14868	.14900	.10670	.09837	.12397	.18095	.18652	.28507
21	.04655	.14357	.18570	.11043	.05675	.21296	.27930	.22991	.27667	.20732
24	.04269	.11062	.12838	.07101	.04853	.03184	.08289	.08657	.32339	.12736
27	-.04840	.22365	.18945	.11893	.03415	.15267	.19415	.17791	.27506	.04268
30	.16124	.22058	.13038	.15805	.17374	.17338	.22969	.22469	.21392	.18660
33	.07020	.13664	.13168	.11994	.18092	.10199	.24190	.16741	.23716	.22923
36	.08471	.10565	.13509	.10565	.10255	.24976	.32497	.33011	.22691	.30983
39	.02153	.08497	.14412	.07737	.08235	.21110	.16171	.21636	.24557	.13527
42	.09439	.18253	.12136	.06749	.04959	.16996	.19112	.20254	.23065	.25349
45	-.05746	.16530	.18675	.09055	.02912	.15840	.15428	.25328	.22316	.32024
48	.05370	.20876	.19432	.13778	.08790	.14601	.09869	.28250	.12521	.20779
51	-.03400	.06823	.10429	.22242	.17564	.22853	.07897	.13037	.10716	.20970
54	-.03218	.01166	.03736	.02105	-.04946	.02003	.01018	.19494	.14730	.30928
57	.20352	.10202	.18201	.16598	.10358	.17450	.24235	.02341	.15272	-.02668
60	.07057	.16520	.21676	.16558	.14594	.21209	.24308	.25191	.34053	.18812
63	.14446	.10538	.17859	.17426	.09980	.16449	.21292	.40538	.12483	.19708
66	.17552	.15743	.26443	.25031	.19415	.14688	.29937	.12785	.17839	.07858
69	.04871	-.00053	.02379	.11963	.05228	.08037	.19061	-.00309	.30474	-.03810
72	.07376	.03374	.08310	.06882	.03337	.14012	.15755	.14212	.09531	.09986
75	.16625	.11333	.13442	.12177	.09087	.15044	.19150	.18901	.26921	.27245
78	.08230	.21471	.27376	.16170	.12095	.16751	.19346	.25863	.19753	.21833
81	.03521	.19065	.16961	.17768	.12449	.14172	.20072	.14396	.18372	.13283
84	.08510	.17923	.21813	.15421	.15606	.22272	.17492	.32393	.28466	.21193
101	-.00086	.33669	.25016	.31003	.23312	.20071	.14681	.37317	.08568	.02074
102	.14607	.48660	.36252	.42811	.28981	.28644	.26087	.32890	.05694	.32576
103	1.00000	.23824	.16570	.10516	.19386	.12647	.33475	.06876	.18502	-.00553
104	.23824	1.00000	.43047	.42220	.30235	.31418	.23462	.24021	.15131	.12360
105	.16570	.43047	1.00000	.51551	.30371	.57973	.44285	.32599	.18322	.13241
106	.10516	.42220	.51551	1.00000	.72946	.46410	.26575	.28237	.04226	.10478
107	.19386	.30235	.30371	.72946	1.00000	.41088	.37130	.23492	-.01117	.04993
108	.12647	.31418	.47973	.46410	.41088	1.00000	.43320	.28889	.19466	.16715
109	.33475	.23462	.44285	.26575	.37130	.43320	1.00000	.25507	.34987	.20376
110	.06876	.24021	.32599	.28237	.23492	.28889	.25507	1.00000	.10191	.48640
111	.18502	.15131	.18322	.04226	-.01117	.19466	.34987	.10191	1.00000	.19537
112	-.00653	.12360	.13241	.10478	.04993	.16715	.20376	.48640	.19537	1.00000
113	.06423	.19949	.30046	.26632	.22123	.19527	.37978	.30065	.25451	.42604
87	.07294	.11564	.17944	.06683	-.03385	.09579	.11300	.04433	.02735	.04616
A	-.05900	.14762	.16642	.19594	.17911	.25556	.09682	.13799	-.01922	.01291
B	-.09956	.06727	.08187	.17649	.15136	.12202	.04317	.15410	-.10465	.03226
C	-.08823	.14982	.03156	.16322	.12770	.09753	-.02038	.11900	-.16647	.00012
D	-.16549	.07027	.18929	.17701	.18705	.34074	.16335	.22586	-.12851	.16699
E	.03288	.09062	.02049	-.03013	-.13750	-.02122	-.05983	.07763	-.08438	-.04784
F	-.11240	.06181	.06313	.13261	.19000	.15912	.07459	.06480	-.09085	-.04061
G	-.12581	.00578	.07673	.16076	.17951	.04801	.08797	-.09935	-.12948	-.07265
H	-.05640	.01042	.07974	.13337	-.00007	.07521	.04518	.11653	.11068	.14062
J	.16355	.03608	.02607	.07146	.05807	.06514	.05698	.06182	.05726	.05096
K	.07900	.02037	.06415	.12584	.03299	.08516	.05955	.10487	.09637	.11206

Table 16—(Continued)

	113	87	A	B	C	D	E	F	G	H
3	.04419	.06869	.20200	.18414	.19778	.22232	-.06819	.08551	.06309	.03498
6	.11262	.07457	.17782	.10495	.10091	.05733	.01758	.08563	.12161	.05713
9	.00560	.04208	.11537	.08817	.07533	.11624	.00938	.03888	.05234	.20061
12	.02318	-.13890	.08220	-.02042	.02795	.17433	.10104	.10059	.04416	.01479
15	.50027	.04431	.05108	.00788	-.04491	-.03357	-.07494	.06625	-.01314	.12468
18	.09467	-.01018	.09059	.07684	.04787	.07131	.01287	.01494	.00076	.09387
21	.19083	.07195	.13552	.12437	.14923	.10887	-.13713	-.02795	.15933	.11606
24	.09019	.06270	.09476	.05425	.03204	-.04824	.01585	-.01334	.01073	.10774
27	.18735	.09951	.17206	.11852	.13474	.04706	-.01255	-.01907	.05160	.02553
30	.17906	-.00045	.18568	.18751	.22960	.15544	.08370	.00441	.07365	-.05464
33	.30062	-.05022	.13446	.04639	.05165	.14854	.06612	-.06053	-.07111	.01942
36	.36826	.02057	.21544	.15327	.16901	.11703	.06645	.12203	-.08715	.04596
39	.20886	-.04554	.19617	.16004	.19684	.15561	.05073	.07954	-.03795	-.04329
42	.37069	.01117	.22958	.16994	.15610	.19026	.12429	-.00385	.02699	-.00431
45	.23909	-.07669	.06273	.05412	.06796	.15923	.14518	.00290	.03141	.05329
48	.17227	.01689	.11288	.16611	.14055	.05639	.03220	.01556	-.01023	-.07106
51	.18413	-.05283	.22955	.15567	.20921	.30468	.07587	.01930	.01900	-.08083
54	.10530	.00512	.02144	.01262	.05323	-.02154	.04839	-.02921	-.12484	.03243
57	.12147	.09788	.04622	.03188	.02839	.02283	.07313	.07587	-.02000	.13415
60	.25292	.09911	.25735	.23973	.15306	.13727	-.03235	-.00930	.01440	.00262
63	.25775	-.07175	.06536	.15873	.10049	.09059	.04010	-.08953	.03620	.10432
66	.20458	.14151	.03496	-.01268	-.02240	-.01726	.06138	.06543	.07532	.13400
69	.01226	-.11969	.09071	-.05979	-.07148	-.03426	-.18580	.04299	-.00830	-.00029
72	.09420	-.02217	.01915	-.15293	-.10997	.07764	.24668	.04858	-.08442	.05778
75	.29584	-.06829	.08997	.05524	.09625	.04966	.11270	-.06918	-.04179	-.00845
78	.13560	-.02630	.06318	-.00537	-.06308	.11499	.07874	.00085	.03437	.05750
81	.17291	-.04720	.15998	.14103	.19269	.23297	.10186	.19121	.16491	.05015
84	.17086	-.07498	.10508	.15260	.10513	.07678	.09357	.04222	-.01712	-.00311
101	.30247	.00969	-.00732	-.11558	-.03962	.09329	-.03032	.04721	-.02087	.01752
102	.33531	.02539	-.00871	-.00559	.02195	.06005	-.08413	.06128	.03749	.01528
103	.06423	.07294	-.05900	-.09956	-.08923	-.16949	.03288	-.11840	-.12581	-.05540
104	.19949	.11564	.14762	.06727	.14982	.07027	.09062	.06181	.00578	.01042
105	.30046	.17944	.16642	.00187	.03156	.18929	.02049	.06313	.07673	.07974
106	.26632	.05683	.19594	.17649	.16322	.17701	-.03013	.13261	.16076	.13337
107	.22123	-.03385	.17911	.15136	.12770	.18705	-.13750	.19000	.17951	-.00007
108	.19827	.09579	.25556	.12202	.09753	.34074	-.02122	.15912	.04901	.07521
109	.37978	.11300	.09682	.04317	-.02038	.16335	-.05983	.07459	.08797	.04518
110	.30465	.04933	.13769	.15410	.11900	.22586	.07763	.06480	-.09935	.11653
111	.25451	.02735	-.01922	-.10465	-.16647	-.12851	-.08438	-.09085	-.12948	.11068
112	.42604	.04616	.01291	.02226	.00012	.16699	-.04794	-.04061	-.07265	.14062
113	1.00000	.09726	-.01599	-.02803	-.05584	-.01251	.05878	.01023	-.00198	.13692
87	.09726	1.00000	.00135	.02539	.01850	-.01373	.17251	-.04670	-.10589	.12978
A	-.01599	.00135	1.00000	.49051	.49591	.66442	.13475	.05542	-.01900	-.10061
B	-.02803	.02538	.49051	1.00000	.78122	.42809	.02080	.10342	.16804	-.01799
C	-.05584	.01850	.49591	.78122	1.00000	.45176	.06122	.19247	.18636	-.10358
D	-.01251	-.01373	.66442	.42809	.45176	1.00000	.14676	.24050	.14947	-.05617
E	.05878	.17251	.13475	.02080	.06122	.14676	1.00000	.04654	-.13172	.03566
F	.01023	-.04670	.05542	.10342	.19247	.24050	.04654	1.00000	.30011	.12486
G	-.00198	.10589	-.01900	.16804	.18636	.14947	-.13172	.30011	1.00000	-.00552
H	.13692	.12978	-.01061	-.01799	-.10358	-.05617	-.03566	.12486	-.00552	1.00000
J	.09166	.05784	-.08461	-.14526	-.18403	-.21287	.11175	-.01692	-.11203	.30185
K	.13587	.11471	-.10882	-.10076	-.17772	-.16707	.08839	.06318	-.07169	.78506

Table 16--(Continued)

	J	K
3	-.07520	-.03400
6	.11620	.10547
9	.13786	.21144
12	-.02002	-.00753
15	.05283	.10631
18	.09389	.12211
21	-.02222	.05486
24	.08220	.11069
27	.01891	.02065
30	-.00375	-.03155
33	-.09583	-.05540
36	-.00242	.03224
39	-.06054	-.06651
42	-.04437	-.03191
45	-.00948	.02158
48	-.14773	-.13959
51	-.15888	-.15412
54	.03286	.03560
57	.06407	.12600
60	-.06546	-.04372
63	.01316	.06664
66	.01356	.08503
69	.06419	.03827
72	.00861	.03746
75	-.07576	-.05931
78	.10487	.10200
81	-.03688	.00450
84	.09446	.05859
101	-.02654	-.01216
102	-.02409	.00257
103	.16355	.07900
104	.03608	.02837
105	.02607	.06415
106	.07146	.12524
107	.05807	.03299
108	.06514	.08516
109	.05698	.05955
110	.06182	.10487
111	.05726	.09637
112	.05096	.11206
113	.09166	.13587
87	.05784	.11471
A	-.08461	-.10882
B	-.14526	-.10076
C	-.18403	-.17772
D	-.21287	-.16707
E	.11175	.08839
F	-.01692	.06318
G	-.11203	-.07169
H	.30185	.78506
J	1.00000	.82494
K	.82494	1.00000

TABLE 17

FACTOR PATTERN MATRIX OF EVALUATIVE SCALE ITEMS

Questionnaire Item	Factor																		h ²
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Institution's Reputation	-.02	.04	-.31	-.11	-.06	-.13	-.23	.11	.28	.03	.01	-.09	.04	-.08	.02	.01	-.34	.02	.521
2. Opportunity to Use Skills	-.19	-.09	.03	-.01	-.09	-.11	.11	.04	.60	-.09	-.04	-.08	.03	-.03	.03	-.02	-.08	-.03	.603
3. Thinking About Job Outside Work	.18	-.09	.07	.16	.01	.04	-.04	-.03	.33	.21	-.15	-.04	.14	-.13	.58	.07	.03	-.05	.631
6. Good Planning of Work by Supervisor	.62	.05	-.07	-.14	-.03	.04	.02	.10	.21	.10	-.06	-.04	-.26	.02	.12	-.05	-.14	-.11	.603
5. Pay for the Work You Do	.03	.09	-.07	.09	-.79	.01	-.12	.01	-.14	.10	.13	.10	-.02	-.06	.08	.01	-.10	-.01	.752
6. Feeling of Satisfaction From Job	-.35	.02	-.02	-.02	-.03	.09	-.17	-.05	.39	.01	-.01	.02	.19	-.26	-.15	.07	-.12	-.12	.708
7. Prestige of Job Outside Institution	-.07	.08	.10	.07	-.28	.08	-.02	.18	.20	.06	-.03	.23	.29	-.01	.12	.23	-.39	.07	.654
8. Opportunity to Develop New Skills	.10	-.23	-.12	.01	-.08	-.25	-.01	.16	.45	-.03	-.09	.11	.14	-.25	-.11	-.19	.04	-.13	.704
9. Feeling a Part of the Institution	-.03	.15	-.06	-.06	-.06	-.16	-.06	.01	.04	.05	-.01	-.03	.66	-.03	-.01	-.15	-.05	.15	.628
10. Information Relating to Procedures	.13	-.08	-.10	.14	.03	-.16	-.17	-.02	.01	.27	-.22	-.24	.12	.17	-.14	-.24	-.09	.24	.628
11. Cooperation from Faculty	.28	.03	.08	.02	.03	.04	.08	-.03	.07	-.18	-.20	.21	-.01	.23	-.27	-.03	-.13	.41	.631
12. Institution's Treatment of Employees	.11	-.26	-.13	.02	-.13	-.18	.06	.02	.19	.02	-.22	-.06	.16	-.06	-.21	-.27	.07	.13	.621
13. Contribution to Institutional Operations	.00	-.02	-.05	.07	.02	.02	.09	.03	.62	.00	-.01	.04	.16	-.05	-.13	.08	-.26	.08	.729
14. Your Work Place	.11	.02	-.00	-.09	-.07	.14	-.10	.11	.14	.22	.03	.06	.02	-.22	-.68	.12	-.02	.03	.729
15. Supervisor's Appreciation of Work	.83	-.00	.09	.02	.02	-.04	.05	.01	-.01	-.05	-.08	-.02	.11	.01	-.05	.00	.02	.07	.823
16. Freedom to Make Decisions in Work	.34	-.02	.00	.05	-.01	-.02	.00	-.02	.11	.07	.01	-.03	.25	-.04	-.20	.25	-.13	-.25	.531
17. Cooperation Among Fellow Workers	.37	-.06	-.03	-.19	-.06	.01	-.12	-.02	.08	-.16	-.05	-.03	.15	-.06	-.18	.02	-.26	.06	.576
18. Prompt Action on Complaints	.59	.14	.03	.00	-.08	.02	.11	-.05	.03	.06	-.20	.22	-.06	.12	-.22	.08	-.13	.04	.754
19. Opportunity to Change Jobs	.06	-.17	-.10	.05	.00	-.08	.14	-.11	-.17	.04	-.26	.06	.16	-.10	.02	-.34	-.52	-.04	.677
20. Prestige of Job at Institution	.08	-.05	.19	.20	-.23	-.16	.01	.07	.32	.06	-.07	.11	.29	.03	.01	.15	-.21	-.01	.664
21. Supervisor Getting Along with People	.85	-.07	-.06	-.08	-.01	.02	.04	-.01	-.01	-.04	.13	.03	-.07	-.14	.04	-.03	.01	.03	.729
22. Opportunity for Promotion from Job	.18	-.02	-.03	-.18	-.11	-.06	-.10	.06	-.05	-.12	-.05	.04	.38	-.30	-.20	-.26	-.01	.06	.577
23. Contact with Co-workers Outside Work	.01	.01	.04	-.14	-.06	.05	.13	.03	-.01	-.01	-.02	-.10	.83	.10	.10	.08	.05	-.06	.714
24. Knowing What Supervisor Expects of You	.65	.14	-.04	.04	-.05	.09	.04	-.15	.01	.07	.02	.07	.23	.18	.08	.02	.04	-.11	.670
25. Opportunity to Obtain Equipment	.02	-.13	.02	.09	-.10	-.06	-.05	.13	.04	.18	.13	-.30	.14	.11	-.38	.28	-.34	-.03	.682
26. Recognition for Good Ideas or Work	.71	-.08	-.03	-.05	-.02	-.10	-.08	.00	-.06	.05	-.08	-.05	.10	-.11	-.06	-.06	-.02	.03	.723
27. Administration's Support of Supervisor	.13	.17	.01	-.01	-.09	-.19	-.16	.02	.09	-.00	.08	.10	-.09	.07	-.13	-.03	-.58	.12	.593
28. Job Work Load	-.11	.09	-.05	-.06	.16	.12	-.07	-.10	.86	.04	-.03	-.09	-.08	.06	.07	.03	.10	.07	.722
29. Treated Fairly in Salary Increases	-.02	.09	-.06	.10	-.81	.03	.02	-.09	-.00	-.03	-.02	.03	.18	-.06	-.11	.05	.01	.719	
30. Treated Fairly in Promotions	.06	-.13	.01	-.03	-.61	-.18	.04	-.12	.06	-.19	-.00	.01	-.04	-.09	-.22	-.16	.19	-.03	.653
31. Vacation Policy	-.03	-.08	-.22	-.01	.08	-.19	-.01	.04	.01	-.02	-.10	.01	-.01	-.04	-.08	.71	.04	-.06	.678
32. Sick Leave Policy	.12	-.01	-.19	-.08	.12	-.04	-.14	.08	-.11	-.00	-.07	-.01	.02	-.02	.02	.59	.04	.22	.588
33. Maternity Leave Policy	.01	.22	-.12	-.08	.14	-.17	-.02	-.26	.13	-.06	.10	.06	.07	.03	.15	.32	-.02	.49	.642
34. Miscellaneous Leave Policy	.17	.23	-.42	.03	.04	-.22	.07	-.07	.09	-.06	.04	-.01	.18	.12	-.20	.13	.24	.06	.589
35. Retirement Income Pay Deductions	-.04	.08	-.75	.16	.08	.03	-.03	-.10	-.05	.00	-.07	-.04	-.08	.01	-.07	.06	-.07	.00	.661
36. Group Life Insurance	-.62	-.01	-.75	.14	-.19	-.03	-.03	-.01	.10	-.06	.04	.01	.06	.04	.02	-.21	-.06	-.07	.758
37. Hospital, Medical, Dental Insurance	.04	-.10	-.72	-.17	-.19	.14	.12	.13	.03	.03	-.03	.15	-.06	.06	.12	.03	.04	.04	.713
38. Retirement Plan	.06	.04	-.78	.12	.22	.03	-.05	-.13	.03	.05	-.03	.03	.05	-.11	.03	-.01	.03	.11	.768
39. Appeals Procedure	.10	-.07	-.26	-.06	-.15	.02	-.03	.13	.04	.02	.14	-.00	-.02	-.03	.03	-.03	-.19	.46	.588
40. Your Job Security	.04	-.17	.01	.01	-.14	-.02	.08	.03	.16	.26	-.17	.07	.09	.02	-.22	.07	.20	.55	.702
41. Chance to Meet New People in Work	.02	-.35	.12	-.10	-.12	.13	.14	-.11	.09	-.65	-.05	-.09	.21	-.23	-.06	.18	-.27	.34	.689
42. Supervisor's Concern for You as Person	.82	-.01	-.03	-.00	-.00	-.12	.01	-.00	-.05	.01	-.03	.00	.02	.05	.06	.09	.12	.14	.748
43. Pay Compared to Other Secretarial Jobs	.03	.12	.05	.08	.45	.02	.07	.05	-.09	.10	.07	-.03	-.00	-.15	.07	.06	-.05	.45	.817
44. Parking (Employee)	-.10	.07	-.05	-.05	-.00	.01	-.09	.07	-.04	-.07	-.90	.07	-.06	.07	-.11	.01	.06	.01	.796
45. Maintenance of Buildings (Employee)	-.06	.37	.02	.00	.12	-.04	.11	.07	.03	-.07	-.17	-.00	-.11	-.69	-.05	-.01	-.02	.02	.780
46. Maintenance of Grounds (Employee)	-.07	.83	.02	.03	.03	.01	-.02	.14	.04	-.04	-.14	-.03	.08	-.15	-.02	-.10	-.07	.00	.830
47. Turnover (Employee)	-.02	.08	.04	.05	-.07	.04	-.02	.10	.11	-.09	.06	-.30	-.01	-.05	.11	-.02	.03	.04	.745
48. Campus Mail Service (Employee)	.00	.09	.04	.10	.08	.02	.03	.86	-.01	-.05	-.05	-.07	.01	.01	-.03	.00	.04	.05	.860
49. Tardiness (Employee)	.15	.07	.09	.79	.07	.03	-.06	.06	.01	-.04	.09	.02	-.13	.03	.05	-.04	.08	-.03	.728
50. Part-time Help (Employee)	-.02	-.01	-.05	.06	.06	.89	.01	.02	.07	-.08	-.00	-.05	.04	.03	-.02	-.10	.03	.09	.838
51. Procedures (Employee)	.01	.11	-.05	.06	.07	.03	.85	.04	.07	-.03	.02	.02	.03	-.02	.04	-.08	.02	.04	.826
52. Absenteeism (Employee)	-.06	-.03	.04	.82	-.03	.09	.00	-.07	-.10	-.03	.11	-.03	-.03	-.18	.11	-.01	-.05	.08	.811
53. Restroom Facilities (Employee)	-.04	.07	-.05	.10	.03	.01	-.08	.05	-.04	-.90	-.09	-.01	.07	.10	.11	.04	-.08	.02	.862
54. Parking (Supervisor)	.03	.03	.00	-.06	.06	.05	.07	-.01	.03	-.03	-.83	-.06	.01	.01	-.03	.10	-.01	-.04	.769
55. Maintenance of Buildings (Supervisor)	.04	.39	.07	.02	.11	.00	.26	.07	-.03	-.08	-.19	-.14	-.07	-.56	-.02	.14	.09	-.05	.776
56. Maintenance of Grounds (Supervisor)	.11	.79	.01	.06	-.10	.05	.13	.03	.03	.01	-.95	-.08	.10	-.11	-.04	.01	-.01	-.04	.773
57. Turnover (Supervisor)	.03	.00	.04	-.02	-.04	.08	.07	.12	-.03	-.04	-.02	-.84	.11	.02	.02	.01	-.03	-.02	.796
58. Campus Mail Service (Supervisor)	-.03	.02	.06	.09	.06	.00	.11	.82	-.10	.00	-.02	-.18	.03	.01	-.07	.10	-.01	.00	.855
59. Tardiness (Supervisor)	-.12	.09	.01	.76	.07	.04	.09	.18	.13	-.07	-.10	-.02	-.01	.18	-.09	-.03	.03	-.10	.800
60. Part-time Help (Supervisor)	.03	.01	-.08	.00	.00	.93	.07	.00	.05	.01	-.03	-.06	-.00	-.00	-.12	.04	.00	-.04	.873
61. Procedures (Supervisor)	.06	-.05	-.01	.07	.01	.09	.89	.07	-.10	.07	.02	-.45	.02	-.04	-.02	-.00	-.01	-.00	.858
62. Absenteeism (Supervisor)	-.16	-.05	-.10	.77	-.12	.09	.15	.00	-.03	.03	.01	-.07	-.03	.01	.02	.05	-.03	.02	.748
63. Restroom Facilities (Supervisor)	.04	-.10	.03	.05	-.05	.08	.04	-.00	.09	-.87	-.04	-.11	-.05	-.12	-.08	.10	.04	-.02	.829
Eigenvalues	10.95	5.29	3.47	2.94	2.65	2.11	2.12	2.01	1.77	1.62	1.51	1.36	1.37	1.27	1.18	1.13	1.09	1.01	

TABLE 18

FACTOR PATTERN MATRIX OF DIFFERENCE SCALE ITEMS

Questionnaire Item	Factor																			h ²	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
1. Institution's Reputation	.02	-.18	-.23	.04	-.09	-.02	.01	-.07	.16	.12	.14	-.02	.02	.27	.05	.14	-.49	-.05	.07	.514	
2. Opportunity to Use Skills	-.07	-.07	-.09	-.17	-.01	-.50	-.05	.03	-.01	.02	.28	.02	.09	.21	-.24	-.13	.09	.11	.18	.676	
3. Thinking About Job Outside Work	-.01	-.07	.15	.07	.17	.31	.12	.05	-.09	-.14	-.10	.02	-.27	.07	.10	.19	.43	-.04	.24	.607	
4. Good Planning of Work by Supervisor	.65	.06	-.11	-.08	.12	-.22	.12	-.06	-.02	.02	-.15	-.12	.08	.14	.01	-.06	-.20	.09	.17	.679	
5. Pay for the Work You Do	.05	.08	.05	.03	.03	.14	.08	.83	-.09	-.03	.18	-.01	-.01	-.01	.11	.06	-.03	.00	.25	.821	
6. Feeling of Satisfaction From Job	.29	.19	-.03	-.03	-.07	-.32	-.09	-.10	.29	.05	.18	.07	.27	.03	-.28	.11	.09	.02	.33	.773	
7. Prestige of Job Outside Institution	-.12	.04	-.19	.03	.24	-.15	-.18	.14	-.16	.09	.18	.25	.26	.26	.01	-.05	-.11	-.21	.03	.557	
8. Opportunity to Develop New Skills	.13	-.07	-.08	-.06	.14	-.29	.01	.01	.00	-.07	.13	.08	.25	.18	-.36	.09	-.03	.09	.25	.672	
9. Feeling a Part of the Institution	-.03	.01	-.10	-.10	.21	.09	-.04	.15	-.04	-.05	-.09	-.08	.09	-.04	-.44	-.43	-.02	-.29	.11	.675	
10. Information Relating to Procedures	.07	-.16	-.12	.15	.17	.09	.28	.04	-.25	-.10	.24	-.15	-.13	.07	-.38	-.11	.06	.04	.05	.614	
11. Cooperation from Faculty	.07	-.10	.11	.01	-.02	-.11	.07	.08	.08	-.17	-.03	.11	.11	-.03	.06	-.79	-.08	.10	.05	.756	
12. Institution's Treatment of Employees	.15	-.16	-.07	-.08	.13	-.08	-.07	.29	.16	-.23	.24	-.05	.04	-.03	-.26	-.18	.00	.15	.06	.586	
13. Contribution to Institutional Operations	.15	-.03	-.08	.05	.02	-.66	-.08	.07	.08	.01	-.05	.02	.13	.01	-.04	-.14	-.18	-.10	.08	.714	
14. Your Work Place	.05	.06	.02	.01	-.09	.01	.24	.09	-.01	.00	.09	.11	.78	.03	.06	-.10	.01	-.08	.00	.747	
15. Supervisor's Appreciation of Work	.64	.02	.12	-.01	-.08	.09	.01	.03	.03	-.05	.21	.09	-.12	-.05	-.00	-.10	-.10	-.07	.18	.805	
16. Freedom to Make Decisions in Work	.17	.16	-.01	-.11	-.20	.03	.16	-.14	.15	-.10	.29	.14	-.19	.13	.01	.01	-.31	-.21	.31	.701	
17. Cooperation Among Fellow Workers	.35	-.12	-.02	-.07	.04	-.38	-.28	.05	-.18	-.16	-.02	-.06	.38	-.01	-.09	.01	-.05	-.27	.03	.642	
18. Prompt Action on Complaints	.36	.18	.05	-.03	-.11	.00	.12	-.01	.09	-.03	.20	.23	-.02	.01	-.02	-.47	-.08	.03	.16	.731	
19. Opportunity to Change Jobs	.15	-.04	.06	.08	.10	.02	.06	.17	.10	-.21	-.11	.11	-.19	-.05	-.29	.04	-.47	-.20	.10	.662	
20. Prestige of Job at Institution	.23	-.03	-.19	.13	.24	-.31	.09	.21	-.07	-.17	.24	.04	-.20	.11	.00	-.01	-.11	-.18	.00	.699	
21. Supervisor Getting Along with People	.90	-.05	-.04	-.04	.01	-.02	-.06	.09	.04	.05	-.08	.02	.13	-.06	.01	.06	.03	.00	-.10	.821	
22. Opportunity for Promotion from Job	.33	-.06	.07	.06	-.09	.07	-.02	.26	.13	-.14	-.15	.09	.14	.26	-.25	.05	-.04	-.03	.28	.663	
23. Contact with Co-workers Outside Work	-.01	.02	.05	-.12	.04	-.12	.04	.04	.11	-.08	.03	-.01	.09	-.09	.04	.10	-.03	-.78	.04	.686	
24. Knowing What Supervisor Expects of You	.39	.18	-.12	-.03	-.15	-.09	.07	-.01	.19	.06	.28	.02	-.15	.04	-.18	-.10	.09	-.17	.06	.719	
25. Opportunity to Obtain Equipment	-.07	-.14	.04	.07	.01	.07	.12	.09	-.06	.76	-.17	.15	-.08	.13	.02	-.10	-.06	-.02	.738		
26. Recognition for Good Ideas or Work	.58	.05	-.00	-.04	.04	.13	.08	.08	.00	-.10	-.15	.06	-.06	-.11	.03	-.11	-.03	.21	.678		
27. Administration's Support of Supervisor	-.10	-.00	-.04	.04	-.13	-.26	.14	.26	.31	.05	.03	-.12	.01	.00	.13	-.26	.64	.05	-.01	.689	
28. Job Work Load	-.10	-.00	-.04	.04	-.13	-.26	.14	.26	.01	-.06	-.12	.07	-.10	-.13	.04	.02	.00	.13	.07	.733	
29. Vacation Policy	.06	-.01	-.21	.08	-.13	-.03	.01	.07	.00	.09	-.31	-.07	.03	-.10	-.64	-.01	-.05	.05	.10	.677	
30. Sick Leave Policy	-.15	.01	.22	.07	.04	-.10	-.04	.08	.17	.06	.04	.04	-.08	-.10	-.64	.05	.07	.02	-.12	.630	
31. Maternity Leave Policy	.04	-.14	.27	-.11	-.15	.06	.05	-.19	.06	-.18	.04	.04	.08	.18	-.36	.18	-.11	.18	-.26	.588	
32. Miscellaneous Leave Policy	-.11	-.12	-.51	.01	-.22	-.17	.05	.21	-.04	-.08	-.10	.02	-.15	-.06	-.01	.11	-.19	.30	.01	.669	
33. Retirement Income Pay Deductions	-.02	.00	.78	-.28	.01	-.01	-.02	.08	.02	.11	-.02	-.07	.09	.15	-.09	.03	.07	-.08	.11	.696	
34. Group Life Insurance	.01	-.02	.76	.19	-.03	.08	.08	.18	.03	-.02	-.07	-.04	.09	-.01	-.13	-.09	.02	.12	.02	.735	
35. Hospital, Medical, Dental Insurance	-.05	.07	.69	.22	.17	.08	.00	.31	.14	.03	.02	-.19	.17	-.11	-.03	-.01	-.02	-.07	.12	.765	
36. Retirement Plan	-.04	.01	.80	-.13	.02	.05	-.07	.09	.05	.06	.12	-.05	-.04	.11	-.01	-.04	.00	-.02	-.17	.747	
37. Appeals Procedure	.09	-.01	.29	.06	.04	.01	-.02	.37	.11	-.16	.18	.03	.03	-.14	-.04	.28	.14	.05	-.35	.644	
38. Job Security	-.07	.22	.09	-.00	.05	-.03	-.27	-.16	-.08	.18	.15	.14	-.18	-.11	-.13	.23	-.24	.09	-.39	.691	
39. Chance to Meet New People in Work	.01	.13	-.06	.07	.15	.12	.08	.01	-.11	.04	-.07	.08	-.03	.10	-.13	.05	.05	.00	-.73	.708	
40. Supervisor's Concern for You as Person	-.72	.01	.08	.03	-.15	-.04	.02	-.00	.01	-.00	-.05	.01	-.01	.02	-.13	.17	-.19	.13	-.10	.774	
41. Pay Compared to Other Secretarial Jobs	.01	.00	.08	-.05	-.03	-.03	.06	.79	.04	.04	.09	.08	-.13	.01	-.06	.08	-.05	.06	-.19	.795	
42. Parking (Employee)	.15	-.13	.10	.02	.00	-.08	.04	.04	.09	.87	.03	-.07	.02	-.05	.01	.10	-.01	-.05	.06	.807	
43. Maintenance of Buildings (Employee)	.07	-.70	-.01	-.01	.03	.00	.05	.07	-.10	.20	.06	.01	-.16	.01	.00	-.08	.12	-.33	-.22	.788	
44. Maintenance of Grounds (Employee)	.07	-.77	.02	-.09	-.03	.01	.00	.04	.06	.06	.15	.07	.04	-.19	.03	.05	-.03	.11	.16	.784	
45. Turnover (Employee)	.01	-.13	-.04	-.00	.07	-.00	.05	-.07	.02	-.06	-.04	.83	-.04	-.06	.02	.00	.03	-.08	.06	.759	
46. Campus Mail Service (Employee)	-.20	-.07	-.07	-.10	.05	-.03	.06	.03	-.09	.06	.11	.10	-.01	-.83	-.07	-.02	-.01	-.10	.07	.811	
47. Tardiness (Employee)	-.20	-.05	-.11	-.80	.03	.03	.00	.06	.06	.06	-.07	-.01	-.03	.01	-.11	-.09	.02	-.04	-.12	.10	.750
48. Part-time Help (Employee)	.08	.06	.01	-.11	.89	.04	.06	.02	.02	-.03	.02	-.08	-.05	-.03	.02	.10	-.05	.02	-.03	.841	
49. Procedures (Employee)	.02	-.16	.07	-.04	.03	.03	.04	.11	-.82	-.05	.05	-.01	.03	.11	.11	.10	-.02	.06	-.08	.813	
50. Absenteeism (Employee)	.03	-.03	.04	-.88	.08	-.08	.03	.08	-.01	-.02	.11	.02	-.09	.11	.03	.12	.10	.02	-.11	.832	
51. Restroom Facilities (Employee)	.08	-.03	.04	-.09	.02	-.11	.85	.05	.06	.05	.08	.02	.23	-.06	.04	.16	.05	.02	.04	.836	
52. Parking (Supervisor)	-.01	-.07	.04	.02	.01	.11	.05	.00	-.05	.80	-.03	.05	-.02	-.03	-.10	.02	-.05	.13	.00	.759	
53. Maintenance of Buildings (Supervisor)	-.05	-.67	-.03	.04	-.01	.00	.13	-.13	-.08	.19	-.14	.10	-.11	.13	-.07	.16	-.03	.14	-.08	.791	
54. Maintenance of Grounds (Supervisor)	-.08	-.77	.00	-.08	.02	-.01	.02	-.06	-.08	.01	.03	.10	.09	.06	-.03	.05	-.08	.11	.16	.778	
55. Turnover (Supervisor)	-.07	-.03	-.05	.03	.07	.06	.04	.02	-.04	.04	-.12	.82	.05	-.14	.05	-.08	.04	.13	-.05	.798	
56. Campus Mail Service (Supervisor)	.08	-.04	-.10	-.07	.02	-.05	.00	.01	-.15	.05	.01	.18	-.00	-.82	-.10	-.04	.02	-.02	.05	.839	
57. Tardiness (Supervisor)	-.09	-.04	.06	-.72	.02	.18	.09	.07	-.08	.05	-.21	.01	.10	-.20	.07	.14	-.10	-.08	.16	.825	
58. Part-time Help (Supervisor)	-.00	.01	.03	-.04	.92	.08	.02	-.01	-.04	.02	-.06	.05	-.04	-.03	-.00	-.03	-.03	.05	.01	.867	
59. Procedures (Supervisor)	-.09	-.02	-.01	-.07	.07	.01	-.04	.00	-.89	.00	-.03	-.05	-.00	.10	.02	.02	.01	.07	-.02	.836	
60. Absenteeism (Supervisor)	.19	.00	.14	-.76	.09	-.07	.07	.10	-.11	.00	-.05	.04	.01	-.05	.09	-.02	.06	.04	.08	.757	
61. Restroom Facilities (Supervisor)	-.13	.01	-.03	-.06	.06	.01	.87	.04	-.06	.06	-.01	.07	.00	.00	-.05	-.07	-.07	-.04	-.11	.816	
Eigenvalue	9.09	5.01	3.97	2.99	2.49	2.22	2.06	1.98	1.78	1.69	1.49	1.44	1.43	1.34	1.29	1.23	1.12	1.06	1.01		

TABLE 19

FACTOR PATTERN MATRIX OF WEIGHTED DIFFERENCE SCALE ITEMS

Questionnaire Item	Factor												h ²
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Institution's Reputation	-.07	.06	.75	-.02	.10	.02	-.04	.20	-.02	-.01	-.01	.04	.603
2. Opportunity to Use Skills	.06	-.07	.06	.06	-.07	.10	-.17	-.05	-.59	.10	-.28	.07	.576
3. Thinking About Job Outside Work	-.00	.14	.12	-.05	-.07	.01	.13	-.02	-.28	.20	-.54	-.13	.494
4. Good Planning of Work by Supervisor	.11	.21	-.01	.21	.18	-.22	.03	.01	-.33	-.05	.23	.46	.651
5. Pay for the Work You Do	.09	.05	.03	.74	.19	.12	-.10	-.13	.06	-.04	.03	-.16	.738
6. Feeling of Satisfaction From Job	.07	-.03	-.00	-.09	-.05	.04	.06	.02	-.90	-.04	-.01	-.06	.783
7. Prestige of Job Outside Institution	-.05	.03	.62	.08	.09	-.02	.15	-.12	-.19	.01	-.12	-.22	.607
8. Opportunity to Develop New Skills	.07	.01	.04	.02	-.06	.05	.04	-.22	-.51	.31	.01	-.07	.585
9. Feeling a Part of the Institution	.14	-.03	.76	-.18	-.05	.06	-.08	-.11	.10	.07	.02	-.14	.686
10. Information Relating to Procedures	.03	.01	.45	.07	-.08	.13	-.11	-.30	.07	.02	.04	.10	.436
11. Cooperation from Faculty	.12	.02	.12	-.06	-.04	.01	-.66	-.01	-.01	.05	.11	-.09	.621
12. Institution's Treatment of Employees	.14	-.02	.09	.23	-.17	.01	-.26	-.38	-.11	-.34	.19	-.29	.689
13. Contribution to Institutional Operations	-.03	-.08	.24	-.05	-.04	.12	.23	-.14	-.21	.29	.26	.36	.619
14. Your Work Place	-.06	-.11	.38	.23	.04	-.03	-.24	.23	-.17	.30	.25	-.14	.610
15. Supervisor's Appreciation of Work	.82	.08	.06	-.05	.03	.01	.02	-.06	.01	.04	.20	-.05	.792
16. Freedom to Make Decisions in Work	.38	.04	.14	.03	.25	-.19	-.21	-.26	-.19	-.06	-.19	.16	.614
17. Cooperation Among Fellow Workers	.00	.22	.12	.05	.00	-.09	-.15	.21	-.50	-.18	.28	.08	.545
18. Prompt Action on Complaints	.75	-.09	-.03	.02	.02	.04	-.14	-.02	-.12	.05	-.02	-.02	.678
19. Opportunity to Change Jobs	.17	.06	-.05	.08	-.13	-.04	-.08	-.69	.03	.02	-.02	.09	.633
20. Prestige of Job at Institution	.26	.11	.30	.19	.08	-.05	.10	-.35	-.02	.25	-.15	-.03	.620
21. Supervisor Getting Along with People	.23	.02	.04	.02	-.01	.09	.03	.01	-.09	.07	.72	-.07	.688
22. Opportunity for Promotion from Job	.11	.01	.27	.20	-.21	.12	.03	-.44	-.28	-.01	.09	.02	.702
23. Contact with Co-workers Outside Work	.11	.12	.11	.13	.06	-.12	-.03	-.06	.09	.80	-.02	-.10	.752
24. Knowing What Supervisor Expects of You	.39	.04	-.07	.13	.14	-.14	-.00	-.16	-.38	-.13	.05	-.13	.559
25. Opportunity to Obtain Equipment	.13	.05	.04	.12	.16	-.14	-.23	.08	-.07	.11	.01	-.74	.732
26. Recognition for Good Ideas or Work	.53	-.01	-.01	.10	-.06	.22	.08	-.14	-.16	.14	.23	-.25	.643
27. Administration's Support of Supervisor	-.14	.09	.18	.09	-.01	-.01	-.71	.03	.02	.00	-.08	-.04	.617
28. Job Work Load	-.03	-.06	-.09	-.34	.18	.01	-.22	-.36	-.24	.43	-.05	.21	.673
29. Vacation Policy	.18	.06	.08	.07	.15	.82	.09	.15	-.12	-.11	.01	.17	.789
30. Sick Leave Policy	-.04	.09	.05	.06	.02	.82	-.01	-.06	.02	-.03	.03	-.04	.762
31. Maternity Leave Policy	-.45	.10	-.13	.03	.24	.07	.01	-.37	-.22	.03	.40	-.22	.681
32. Miscellaneous Leave Policy	-.16	.34	-.10	-.01	.18	.39	-.22	-.19	.14	.06	.01	.04	.561
33. Retirement Income Pay Deductions	.02	.79	.06	.10	.09	.05	.06	-.14	.00	.00	-.03	.15	.726
34. Group Life Insurance	.07	.70	-.05	-.10	-.17	.11	-.17	.12	-.04	.05	-.05	-.06	.731
35. Hospital, Medical, Dental Insurance	-.05	.79	.02	-.18	-.24	.06	-.13	.12	-.06	.06	-.03	.14	.746
36. Retirement Plan	-.00	.81	-.05	.19	.19	-.05	.07	-.04	.08	.00	.00	.04	.771
37. Appeals Procedure	-.10	.30	.02	.29	.26	-.04	.15	-.24	-.02	-.05	.19	-.37	.661
38. Job Security	-.00	.12	.15	-.15	.66	.12	-.05	.10	.10	-.19	-.04	-.03	.668
39. Chance to Meet New People in Work	.06	-.04	.02	.01	.79	.13	.08	.07	.05	.26	.08	-.06	.718
40. Supervisor's Concern for You as Person	+.24	-.04	+.05	.01	.45	.26	-.27	.03	+.06	-.15	+.48	-.15	.753
41. Pay Compared to Other Secretarial Jobs	.14	.02	.19	+.73	.37	-.06	-.04	+.61	.00	+.21	.02	+.14	.792
Eigenvalue	7.78	4.39	2.30	1.91	1.89	1.56	1.42	1.35	1.31	1.22	1.11	1.05	

TABLE 20

FACTOR PATTERN MATRIX OF IMPORTANCE SCALE ITEMS

Questionnaire Item	Factor												h ²
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Institution's Reputation	.03	.19	-.04	-.14	.73	.00	-.10	.22	.05	-.18	-.01	.01	.712
2. Opportunity to Use Skills	.21	-.03	-.06	-.03	.18	-.17	-.16	-.15	.19	.18	-.43	.00	.677
3. Thinking About Job Outside Work	.03	.16	.07	.10	.17	.12	-.00	.08	-.12	-.15	-.76	-.05	.690
4. Good Planning of Work by Supervisor	.12	.31	.00	.03	-.07	.01	-.84	-.02	-.11	-.02	-.07	.04	.773
5. Pay for the Work You Do	.05	.04	.05	-.13	.11	-.01	-.06	-.05	.05	.79	.10	-.03	.696
6. Feeling of Satisfaction From Job	-.02	-.00	-.20	-.02	.04	-.15	-.14	.13	.06	.13	-.47	.33	.605
7. Prestige of Job Outside Institution	-.11	-.08	.06	-.06	.62	.06	-.02	.07	-.24	.15	-.19	.03	.603
8. Opportunity to Develop New Skills	.51	-.05	-.17	-.09	-.03	-.06	-.04	-.20	-.13	.04	-.38	.07	.644
9. Feeling a Part of the Institution	-.02	-.06	-.06	-.05	.80	-.16	.12	-.08	-.02	.05	-.12	-.03	.725
10. Information Relating to Procedures	.18	-.06	-.35	-.18	.42	-.13	-.06	.05	.13	.09	-.01	-.01	.589
11. Cooperation from Faculty	.02	.14	-.65	-.03	-.16	.06	.04	.02	-.12	.18	-.08	.17	.624
12. Institution's Treatment of Employees	.08	-.01	-.24	-.07	-.04	.16	-.14	.23	.05	.55	-.16	-.02	.626
13. Contribution to Institutional Operations	.59	.03	-.09	-.15	.24	.08	-.16	.02	.15	.17	.16	.693	
14. Your Work Place	.07	-.07	-.25	.18	.41	-.08	.03	-.04	-.13	.30	.27	.24	.642
15. Supervisor's Appreciation of Work	.25	-.05	.02	.04	-.01	-.13	-.04	.09	-.12	.03	.02	.59	.566
16. Freedom to Make Decisions in Work	.14	.03	-.05	-.15	.12	-.13	.07	.02	.17	.07	-.09	.57	.585
17. Cooperation Among Fellow Workers	-.22	.27	-.27	.17	.07	.16	-.17	-.06	.08	.06	.03	.63	.713
18. Prompt Action on Complaints	.11	-.08	.01	.04	-.03	.01	.05	.07	-.05	.01	-.01	.76	.642
19. Opportunity to Change Jobs	.28	.12	.29	-.57	-.01	.20	-.06	.01	.04	.20	.03	.08	.643
20. Prestige of Job at Institution	.40	.05	.29	-.01	.44	.03	.02	.02	-.14	.25	.06	.13	.701
21. Supervisor Getting Along with People	.11	.01	-.32	-.15	.11	.11	.02	.67	.15	.04	.19	-.04	.721
22. Opportunity for Promotion from Job	.13	.07	.08	-.56	.24	-.09	.06	-.01	.19	.22	-.16	.07	.666
23. Contact with Co-workers Outside Work	.35	.18	-.02	-.13	.23	.23	.39	-.05	-.25	-.12	-.16	.19	.615
24. Knowing What Supervisor Expects of You	-.22	-.05	-.07	-.50	-.01	.10	-.22	.09	.03	-.12	-.03	.56	.655
25. Opportunity to Obtain Equipment	.09	-.02	-.60	-.03	.09	-.02	.11	.08	-.22	-.08	.11	.16	.630
26. Recognition for Good Ideas or Work	.50	.03	-.13	-.11	-.06	-.27	.02	.14	.01	-.10	-.12	.24	.583
27. Administration's Support of Supervisor	.04	.03	-.60	-.10	.24	-.00	-.21	.13	.10	-.07	-.02	-.06	.585
28. Job Work Load	.63	.02	-.01	-.10	-.07	.08	-.28	.29	-.03	.06	-.13	-.04	.738
29. Vacation Policy	-.13	.05	.20	-.00	.13	.72	.01	.13	.10	.07	-.09	.24	.735
30. Sick Leave Policy	.04	.21	-.06	.05	.02	-.66	.03	.18	.02	.15	.02	-.20	.700
31. Maternity Leave Policy	-.04	.02	-.19	-.59	-.10	.17	.07	-.02	-.26	-.02	.18	-.11	.553
32. Miscellaneous Leave Policy	.10	.25	.10	-.12	.06	-.62	-.11	-.08	-.14	-.13	.15	-.04	.635
33. Retirement Income Pay Deductions	.02	.49	-.11	-.11	.05	-.24	-.26	.04	-.21	.04	.08	.01	.613
34. Group Life Insurance	.02	.86	-.02	.01	-.01	-.15	.03	.02	.10	.02	-.09	.02	.810
35. Hospital, Medical, Dental Insurance	.01	.87	-.09	-.01	-.08	-.02	.07	-.01	.09	.07	-.09	-.05	.767
36. Retirement Plan	-.06	.52	.13	-.00	.14	.01	-.38	.12	-.27	.00	.16	.06	.695
37. Appeals Procedure	-.20	.28	-.06	-.35	.07	.03	.00	.15	-.44	.23	-.11	-.10	.683
38. Job Security	.03	.03	.10	.06	.05	-.19	.01	.75	-.03	.02	-.07	.09	.736
39. Chance to Meet New People in Work	.13	-.14	-.12	-.07	.12	-.02	-.13	-.05	-.72	.05	-.10	-.02	.681
40. Supervisor's Concern for You as Person	-.11	-.17	.02	.20	-.13	-.29	-.02	.47	-.22	.28	-.24	.20	.728
41. Pay Compared to Other Secretarial Jobs	-.09	.14	-.05	.08	-.08	-.12	.11	.10	-.16	.73	.05	.04	.713
Eigenvalue	9.53	3.19	2.31	1.95	1.81	1.58	1.34	1.29	1.21	1.12	1.06	1.00	

Table 21. Multiple Correlations of Frequency of Absences with Four Demographic Variables and Expressions of Overall Job Satisfaction.

Predictors	β	N	R_s
Age	-.1305		
Salary	.0763		
Job Level	-.1896	143	.266
Length of Service	.0320		
Evaluative Score	-.1238		
Age	-.0905		
Salary	-.0080		
Job Level	-.1314	142	.328*
Length of Service	.0278		
Difference Score	.2254		
Age	-.0998		
Salary	.0025		
Job Level	-.1426	142	.315*
Length of Service	.0129		
Weighted Difference Score	.2118		

* $p < .05$

BIBLIOGRAPHY

- Acton Society Trust. Size and morale: A preliminary study of attendance at work in large and small units. London, Acton Society Trust, 1953.
- Adams, J. S. Toward an understanding of inequity. Journal of Abnormal and Social Psychology, 1963, 67, 422-436.
- Argyle, M., Gardner, G., and Cioffi, F. Supervisory methods related to productivity, absenteeism, and labor turnover. Human Relations, 1958, 11, 23-40.
- Baldamus, W. and Behrend, H. Variations in absenteeism during the week: An index of employee morale. Nature, 1950, 165, 831-832.
- Balfour, C. Manpower: The absent millions. Management Today, 1971, March, 38.
- Baskett, G. D. and Mulaik, S. A. Program manual for the Univac 1108 statistical programs. Georgia Institute of Technology, 1971.
- Baumgartel, H. and Sobel, R. Background and organizational factors in absenteeism. Personnel Psychology, 1959, 12, 431-445.
- Behrend, H. Absence under full employment. University of Birmingham: Faculty of Commerce and Social Science, 1951.
- Behrend, H. Absence and labor turnover in a changing economic climate. Occupational Psychology, 1953, 27, 69-79.
- Behrend, H. Voluntary absence from work. International Labour Review, 1959, 79, 109-140.
- Bernberg, R. E. Socio-psychological factors in industrial morale: I. The prediction of specific indicators. Journal of Social Psychology, 1952, 36, 73-82.
- Brayfield, A. H. and Crockett, W. H. Employee attitudes and employee performance. Psychological Bulletin, 1955, 52, 396-424.
- Canfield, G. W. and Soash, D. G. Presenteeism: A constructive view. Personnel Journal, 1955, 34, 94-97.
- Claudy, J. G. An empirical investigation of small sample multiple regression and cross-validation. Unpublished doctoral dissertation, University of Tennessee, Knoxville, 1969.

- Comrey, A. L., High, W., and Wilson, R. C. Factors influencing organizational effectiveness: VI. A survey of aircraft workers. Personnel Psychology, 1955, 8, 79-99.
- Cooper, R. and Payne, R. Extroversion and some aspects of work behavior. Personnel Psychology, 1967, 20, 45-57.
- Covner, B. J. Management factors affecting absenteeism. Harvard Business Review, 1950, 28, 42-48.
- Covner, B. J. and Smith, M. Times absent and days absent as a measure of absenteeism. Personnel, 1951, 28, 23-27.
- Cramer, E. Manova program-multivariate analysis of variance. University of North Carolina Psychometric Laboratory, Chapel Hill, 1969.
- Crowther, J. Absence and turnover in the divisions of one company, 1950-1955. Occupational Psychology, 1957, 31, 256-269.
- Darlington, R. B. Multiple regression in psychological research and practice. Psychological Bulletin, 1968, 69, 161-182.
- Ewen, R. B. Weighting components of job satisfaction. Journal of Applied Psychology, 1967, 51, 68-73.
- Ferguson, G. A. Statistical analysis in psychology and education. New York: McGraw-Hill, 1971.
- Fleishman, E. A., Harris, E. F. and Burt, H. E. Leadership and supervision in industry. Ohio State University: Bureau of Educational Research, 1955.
- Fortuin, G. J. Sickness absenteeism. Bulletin of the World Health Organization, 1955, 31, 513-541.
- Fox, J. B. and Scott, J. F. Absenteeism: Management problem. Boston, Harvard Business School, 1943.
- Frederiksen, N. and Melville, S. D. Differential predictability in the use of test scores. Educational and Psychological Measurement, 1954, 14, 647-656.
- Gadourek, I. Absences and well-being of workers. Netherlands: Van Gorcum, 1965.
- Gale, J. B. Absence from work in May and June 1955. Personnel Practices Bulletin, 1955, 11, 39-43.
- Gaudet, F. J. Solving the problems of employee absenteeism. New York: American Management Association, 1963.

- Gibson, R. O. Toward a conceptualization of absence behavior of personnel in organizations. Administrative Science Quarterly, 1966, 11, 107-113.
- Giese, W. J. and Ruter, H. W. An objective analysis of morale. Journal of Applied Psychology, 1949, 33, 421-427.
- Graen, G. Instrumentality theory of work motivation: Some experimental results and suggested modifications. Journal of Applied Psychology Monograph, 1969, 53, 1-25.
- Guilford, J. P. Fundamental statistics in psychology and education. McGraw-Hill: New York, 1956.
- Harding, F. D. and Bottenberg, R. A. Effect of personal characteristics on relationships between attitudes and job performance. Journal of Applied Psychology, 1961, 45, 428-430.
- Hays, W. L. Statistics for psychologists. New York: Holt, Rinehart, and Winston, 1963.
- Heneman, H. G., Comaford, C., Jasmin, J. and Nelson, R. J. Standardized absence rates: A first step toward comparability. Personnel Journal, 1961, 40, 114-115.
- Herzberg, F., Mausner, B., Peterson, R. O. and Capwell, D. F. Job attitudes: Review of research and opinion. Pittsburgh: Psychological Service of Pittsburgh, 1957.
- Herzberg, P. A. The parameters of cross-validation. Unpublished doctoral dissertation, The University of Illinois, Urbana, 1967.
- Hewitt, D. and Parfit, J.. A note on working morale and size of group. Occupational Psychology, 1953, 27, 38-42.
- Hill, J. M. M. and Trist, E. L. Changes in accidents and other absences with length of service. Human Relations, 1955, 8, 121-152.
- Hitt, W. D. A statistical analysis of certain factors related to employee morale. Unpublished doctoral Dissertation, Ohio State University, 1956.
- Huse, E. F. and Taylor, E. K. Reliability of absence measures. Journal of Applied Psychology, 1962, 46, 159-160.
- Indik, B. P. Some effects of organization size on member attitudes and behavior. Human Relations, 1963, 16, 369-384.
- Isambert-Jamati, V. Absenteeism among women workers in industry. International Labour Review, 1962, 85, 248-261.

- Jackson, J. H. Factors involved in absenteeism. Personnel Journal, 1944, 22, 289-295.
- Kahne, H. R., Ryder, C. F., Snegireff, L. S. and Wyshak, G. Don't take older workers for granted. Harvard Business Review, 1957, 35, 90-94.
- Kearns, J. C. Controlling absenteeism for profit. Personnel Journal, 1971.
- Kerr, W. A., Koppelmeir, G. J., and Sullivan, J. J. Absenteeism, turnover, and morale in a metal fabrication factory. Occupational Psychology, 1951, 25, 50-55.
- Kornhauser, A. W. and Sharp, A. A. Employee attitudes: Suggestions from a study in a factory. Personnel Journal, 1932, 10, 393-404.
- Kossoris, M. D. Absenteeism and injury experience of older workers. Monthly Labor Review, 1948, 67, 17.
- Lamberth, J. and Padd, W. Attitude similarity as a determinant of worker absenteeism. Unpublished manuscript, University of Oklahoma, undated.
- Lapping, D. Social health aspects of industrial absenteeism. Journal of Social Research, 1953, 4, 146-156.
- Lennerlof, L. Supervisory Criteria. Stockholm: Swedish Council for Personnel Administration, 1966.
- Liddell, F. D. K. Attendance in the coal-mining industry. British Journal of Sociology, 1954, 5, 28-86.
- Lokander, S. and Machl, M. Sickness absence in a Swedish company, Part IV. Acta Psychiatrica Scandinavica, 1964, 40, 401-418.
- Loveland, E. H., Ronan, W. W., and York, C. M. A study of operations effectiveness. Atlanta: Georgia Institute of Technology, School of Psychology, 1968.
- Mann, F. C. and Sparling, J. E. Changing absence rates: An application of research findings. Personnel, 1956, 32, 392-408.
- Mare, G. D. and Sargean, R. Two methods of studying changes in absence with age. Occupational Psychology, 1961, 35, 245-252.
- Mayo, E. The social problem of an industrial civilization. Boston: Harvard University, Graduate School of Business Administration, 1945.

- Melbin, M. Organizational practice and industrial behavior: Absenteeism among psychiatric aides. American Sociological Review, 1961, 26, 15.
- Metzner, H. and Mann, F. C. Employee attitudes and absences. Personnel Psychology, 1953, 6, 467-485.
- Mosier, C. I. Problems and designs of cross-validation. Educational and Psychological Measurement, 1951, 11, 1-11.
- Mulaik, S. A. Personal communication, 1971.
- Mulaik, S. A. and Burkheimer, G. Factor analysis, multiple pass. (Program for the Univac 1108), Georgia Institute of Technology and University of North Carolina, 1971.
- Naylor, J. C. and Vincent, N. C. Predicting female absenteeism. Personnel Psychology, 1959, 12, 81-84.
- Newton, R. A. An investigation of certain personality factors in relation to industrial absenteeism. Unpublished masters thesis, Pennsylvania State College, 1950.
- Noland, E. W. Workers attitudes and industrial absenteeism: A Statistical Appraisal. American Sociological Review, 1945, 10, 503-510.
- Olkin, I. and Pratt, J. W. Unbiased estimation of certain correlation coefficients. Annals of Mathematical Statistics, 1958, 29, 201-211.
- Patchen, M. Absence and employee feelings about fair treatment. Personnel Psychology, 1960, 13, 349-360.
- Plummer, N. and Hinkle, E. N. Sickness absenteeism. Archives of Industrial Health, 1955, 218-230.
- Plummer, N. Absenteeism in industry. Advanced Management, 1960, 25, 21-24.
- Porter, L. W. and Lawler, E. E. Properties of organization structure in relation to job attitudes and behavior. Psychological Bulletin, 1965, 64, 23-51.
- Porter, L. W. Job attitudes in management: I. Perceived deficiencies in need fulfillment as a function of job level. Journal of Applied Psychology, 1962, 46, 375-384.
- Revans, R. W. Human relations, management and size. In E. M. Hugh-Jones (Ed.) Human relations and modern management. Amsterdam: North Holland, 1958, 177-220.

- Ronan, W. W. Individual and situational variables relating to job satisfaction. Journal of Applied Psychology Monographs, No. 1, 1970, 54.
- Saunders, D. R. Moderator variables in prediction. Educational and Psychological Measurement, 1956, 16, 209-222.
- Sawatsky, J. C. Psychological factors in industrial organization affecting employee stability. Canadian Journal of Psychology, 1951, 5, 29-38.
- Schenet, N. G. An analysis of absenteeism in one war plant. Journal of Applied Psychology, 1945, 29, 27-39.
- Sergean, R. and Brierley, J. Absence and attendance under non-continuous three-shift systems of work. Nature, 1968, 219, 536.
- Shepherd, R. D. and Walker, J. Three-shift working and the distribution of absence. Occupational Psychology, 1956, 30, 105-111.
- Shepherd, R. D. and Walker, J. Absence from work in relation to wage level and family responsibility. British Journal of Industrial Medicine, 1958, 15, 52-61.
- Sinha, A. K. D. Manifest anxiety affecting industrial absenteeism. Psychological Reports, 1963, 13, 258.
- Smith, A. J. Menstruation and industrial efficiency. Journal of Applied Psychology, 1950, 34, 1-5.
- Smith, P. C. The development of a method of measuring job satisfaction: The Cornell studies. In E. A. Fleishman (Ed.) Studies in personnel and industrial psychology. Homewood, Ill.: Dorsey Press, 1967.
- Tallacchi, S. Organization size, individual attitudes and behavior: An empirical study. Administrative Science Quarterly, 1960, 5, 388-420.
- Tucker, H. I. and Lotz, J. F. Absenteeism: Experience with a liberal paid-absence plan. Personnel, 1957, 33, 327-336.
- Van Zelst, R. H. and Kerr, W. A. Worker's attitudes toward merit rating. Personnel Psychology, 1953, 6, 159-172.
- Vroom, V. H. Ego-involvement, job satisfaction, and job performance. Personnel Psychology, 1962, 15, 159-177.
- Vroom, V. H. Work and motivation. New York: Wiley, 1964.

- Waters, L. K. and Roach, D. Relationship between job attitudes and two forms of withdrawal from the work situation. Journal of Applied Psychology, 1971, 55 (1), 92-94.
- Wherry, R. J. A new formula for predicting the shrinkage of the coefficient of multiple correlation. Annals of Mathematical Statistics, 1931, 2, 446-457.
- Wherry, R. J. Factor analysis of morale data: Reliability and validity. Personnel Psychology, 1958, 11, 78-89.
- White, B. L. Job attitudes, absence from work and labour turnover. Personnel Practices Bulletin, 1960, 16 (4), 18-23.
- Wyatt, S. and Marriott, R. Absence during the war. Industrial Health Research Board Memorandum, M. R. C. 47/168, I. H. R. B. 47/10 (1947).
- Yoder, D., Heneman, H. and Rheit, E. F. Triple audit of industrial relations. Minneapolis: University of Minnesota Press, 1951.
- Yuzuk, R. P. The assessment of employee morale: A comparison of two measures. Research Monograph No. 99, Bureau of Business Research. Ohio State University, Columbus, Ohio, 1961.