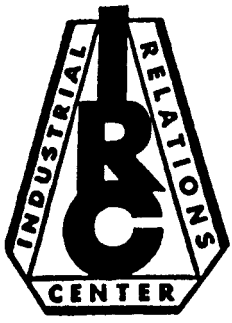

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The Measurement of Employment Satisfaction

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Table of Contents

The Measurement of Employment Satisfaction

Summary

A study of satisfaction was conducted, as part of the Work Adjustment Project, to develop criterion measures of satisfaction, and to add knowledge concerning satisfaction with employment among the physically handicapped. The instruments used in data collection were the Industrial Relations Center's Employee Attitude Scale, the Hoppock Job Satisfaction Blank and 22 experimental job-attitude items. The samples consisted of 638 physically handicapped persons and 530 "controls" (non-handicapped co-workers of the physically handicapped workers). The handicapped and control samples were classified into four occupational groups (non-skilled blue-collar, skilled blue-collar, non-skilled white-collar, skilled white-collar), making a total of eight groups for study. The analysis proceeded as follows:

1. Mean item score differences between handicapped and control groups, between skilled and non-skilled groups, and between blue-collar and white-collar groups, were tested for statistical significance using an analysis of variance method.

2. For each group, an inter-item correlation matrix was computed. This matrix was then subjected to cluster a-

3. Treating each cluster as a scale, mean standardized scale scores were computed for each scale. Analysis of variance was used to test the significance of differences (a) among scales, for each group separately, and (b) among groups, for each scale separately. Hoyt reliability coefficients were computed for all scales.

4. An inter-scale correlation matrix was computed for each group. Each matrix was factor analyzed.

5. For each scale, response choices were reweighted using the reciprocal averages method. New scale scores for individuals were then computed and a new inter-scale correlation matrix was determined for each group. The new matrices were factor analyzed. Hoyt reliability coefficients were recomputed for the new scales.

Following are the principal results of the study:

1. Scales for measuring different components of satisfaction were developed for each group studied. These scales are, for the most part, highly reliable and independent. Procedures for use of the scales are discussed.

2. In general, satisfaction is "organized" in similar fashion for each of the eight groups studied. Five components or areas of satisfaction (each measured by a scale) are found in common for all groups: general job satisfaction, satisfaction with working conditions, with supervision, with compensation, and with co-workers. General job satisfaction represents the worker's satisfaction-in-general with his adjustment to work. This includes satisfaction with his present job, his occupation and his company. The other components represent satisfaction with more specific aspects of the work situation (i.e., with working conditions, supervision, compensation and co-workers).

3. While the "organization" of satisfaction into scales is generally similar for all the eight groups, significant differences are observed among the groups. For example:

a. A "sensitivity" scale appears for all but the skilled white-collar groups (both handicapped and control). This scale represents the worker's sensitivity about his position in the social structure of the world of work. For the blue-collar workers it constitutes a more prominent area to be considered in judging satisfaction than for white-collar workers.

b. A "satisfaction-with-company" scale appears only for skilled blue-collar workers, both handicapped and control. Apparently for these workers, satisfaction with the company is an area of satisfaction separate and distinct from general job satisfaction.

c. A "satisfaction-with-type-of-work" scale appears for the handicapped, skilled blue-collar group only. This scale seems to pertain to occupational rather than job satisfaction.

d. Differences in scale content are observed more frequently between occupational groups (i.e., skilled vs non-skilled, blue- vs white-collar) and less frequently between handicapped and control groups.

4. Differences in the "organization" of satisfaction, therefore, tend to be associated mainly with occupational differences, and only to a lesser extent with presence or absence of disability. However, presence or absence of disability tends to be the more important factor in determining the *level* of satisfaction expressed by workers. Level of satisfaction for the handicapped groups is consistently lower than that of their control counterparts in *all* areas of satisfaction.

5. For most groups, satisfaction with co-workers was at the highest level, followed (in order of satisfaction level) by satisfaction with supervision, satisfaction with working conditions, general job satisfaction, and lastly by satisfaction with compensation.

6. The factor analysis results suggest the following:

a. among the blue-collar workers, the "human relations" factor tends to have larger significance in the satisfactions of the non-skilled than of the skilled. The handicapped, in contrast to the controls, tend to single out the physical aspects of the work environment as a separate factor in their satisfactions.

b. for the white-collar workers, the dominant factor is "satisfaction with employment in general" or "satisfaction with the conditions of work" which includes satisfaction with supervision and compensation. The "human relations" factor is less prominent (in comparison with its role in the blue-collar workers' satisfactions). The handicapped differ from the controls only in emphasis, i.e., both factors are about equally prominent for the handicapped, while the controls deemphasize the "human relations" factor.

Introduction

During the past three years, the Vocational Rehabilitation Regional Research Center at the Industrial Relations Center has engaged in research on the problem of vocational outcome criteria. This problem was given highest priority after earlier research efforts pointed to the need for adequate measures of carefully and well chosen vocational outcome criteria. These outcome criteria are needed to assess the effectiveness of vocational rehabilitation programs as well as other vocational counseling service activities. Improvement of techniques in counseling, training, placement and other phases of vocational rehabilitation depends in large measure upon knowledge of outcomes associated with the use of these techniques. Evaluation of counselors is facilitated by information on counseling outcomes. Caseload management is more effectively undertaken with the knowledge of case outcomes. Research in vocational rehabilitation would profit immensely from the availability of outcome criterion measures. It is evident that progress in many phases of vocational rehabilitation is contingent upon advances in the knowledge of outcome criteria.

As a first step, an exhaustive study of the research literature on outcome criteria was undertaken. This study resulted in the formulation of "work adjustment" as the concept most appropriately integrating the various outcome criteria. Bulletin X of the *Minnesota Studies in Vocational Rehabilitation* series, entitled "A Definition of Work Adjustment,"[1] reviews the research literature and develops a comprehensive research definition of the concept. The following paragraphs are intended to supplement Bulletin X.

"Work adjustment" is conceptualized as being indicated by two complementary classes of criteria: satisfaction and satisfactoriness.[2] Satisfaction indicates work adjustment as viewed by the individual, i.e., the employee, while satisfactoriness presents work adjustment from the employer's viewpoint. Measures of satisfaction reflect the individual's evaluation of his work environment (i.e., his working conditions, his "boss," his compensation, his co-workers, etc.) The individual brings to the work environment a unique history and a

[1] *Minnesota Studies in Vocational Rehabilitation: X. A Definition of Work Adjustment.* Bulletin 30, May, 1960.

[2] Heron, A. Satisfaction and satisfactoriness: complementary aspects of occupational adjustment. *Occup. Psychol.*, 1954, 28, 140-153.

set of capacities and skills which he expects to use on certain tasks. The individual has certain expectations concerning the work environment and a set of "work" attitudes which presumably grow out of, and are affected by, the fulfillment or non-fulfillment of his expectations. These attitudes constitute the individual's evaluation of his work environment, i.e., his satisfaction. Optimal work adjustment from the individual's point of view would thus be when the individual evaluates his work situation as "satisfying."

The employer, on the other hand, attempts to utilize his employee's skills and capacities to the fullest extent by providing the employee with a predictable framework within which to work. The predictability of the framework is maintained through a set of rules which specify what is expected of the employee in the performance of his job. From time to time, the employer evaluates the employee's performance as a check on the employee's activity and as a means of attaining his (the employer's) goals. The employee is judged "satisfactory" if he conforms to these requirements and "unsatisfactory" if he fails to conform.

This concept of work adjustment not only evolves from the integration of past research findings; it may also be seen as the logical consequence of employment in a free society. In a free society, employee and employer enter voluntarily into the employment relationship. Within broad limits, employee and employer are both free to make employment decisions. For example, the employee decides when and where he will seek employment. The employer, on the other hand, decides what will be required of his employees in terms of qualifications and effort or output. The employee may decide to remain with the firm or to leave it. The employer may decide to retain the employee or to discharge him. It is to be presumed that such decisions are influenced to a significant degree by the employee's, and/or the employer's evaluation of the employment relationship, that is, by the worker's "satisfaction" and "satisfactoriness."

Future action by employee and employer is expected to be based at least partially on these evaluations. Assuming a labor market which is not highly restrictive, the employee or the employer or both may initiate action. Thus, a dissatisfied employee quits the firm and looks for a new job, or an unsatisfactory employee is fired. A satisfied, satisfactory employee remains and is retained. If movement is difficult, other types of behavior are to be expected. A dis-

satisfied employee who cannot find another job may be expected to show signs of "psychological job withdrawal," such as a higher absence or tardiness or accident record. An unsatisfactory employee who cannot be fired may be faced not only with a "pay freeze" but even with a downgrading of his job. Work adjustment is thus an equilibrium-type concept.

Since satisfaction and satisfactoriness are expected to lead to several kinds of action, a *behavioral* component of work adjustment is needed. For this reason, work history is added as a third indicator to "round out" the definition of work adjustment. This indicator shows the movement of the worker from job to job, how long he stays on each job, how he progresses within a firm, whether he leaves a firm voluntarily or not, and how long he is unemployed between jobs. How satisfaction, satisfactoriness and work history are defined, measured and linked together constitutes the basic problem of the Work Adjustment Project.

The previous paragraphs and, in more detail, Bulletin X of the *Minnesota Studies in Vocational Rehabilitation* series, have defined work adjustment and its three indicators: satisfaction, satisfactoriness, and work history. It remains to determine empirically the significant components of each indicator, and to combine these components if possible into a single criterion of work adjustment. It is also necessary to "explain" work adjustment, that is, to determine how various factors affect it, factors such as presence of a disability, sex, age, education, family circumstances, prior work experience, differential patterns of vocational aptitudes and interests, personality factors, institutional factors (e.g., unionization) and economic factors (e.g., state of the labor market).

The present bulletin is the first of a series of reports devoted to the research problems listed above. It is concerned with the identification and measurement of the significant components of satisfaction. The bulletin also examines the data on satisfaction among physically handicapped workers, deriving conclusions therefrom. Data and conclusions provide the necessary "baseline" knowledge for a more effective use of the satisfaction measures which are developed in this report.

Methodology

This section describes the instruments used to obtain satisfaction data, the samples of workers from whom satisfaction data were obtained, and the process by which these data were obtained.

The Instruments

Two instruments were used to assess satisfaction:

1. A short form of the Hoppock Job Satisfaction Blank.[3] This consists of four items, each of which requires the responding individual to choose from among seven statements the one which best represents his opinion or his perception. A copy is shown in Appendix A. One of the items is reproduced below as an illustration:

Choose the ONE of the following statements which best tells how well you like your job. Place a check mark (√) in front of that statement.

_____1. I hate it.
_____2. I dislike it.
_____3. I don't like it.
_____4. I am indifferent to it.
_____5. I like it.
_____6. I am enthusiastic about it.
_____7. I love it.

2. The Industrial Relations Center's Employee Attitude Scale, consisting of 54 items which attempt to measure employee attitudes on seven aspects of work, namely, Working Conditions, Type of Work, Supervision, Co-workers, Communications, Hours and Pay, and General Morale.[4] The responding individual indicates his reaction to each item by choosing one of five responses, namely, Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. A sample item follows:

	SA	A	U	D	SD
There isn't a better Company to work for than this one.	☐	☐	☐	☐	☐

[3] Hoppock, R. *Job satisfaction*. New York: Harper, 1935.

[4] Yoder, D., Heneman, H. G., Jr., and Cheit, E. F. *Triple audit of industrial relations*. Industrial Relations Center Bulletin 11, August, 1951. See also: Fox, H., Albers, W. S., and Hellweg, Adele. *Triple audit: Employee Attitude Scale development and preliminary norms*. Industrial Relations Center Release 6, December, 1954.

A copy of this scale is also shown in Appendix A. In addition, 22 experimental items were added to the Employee Attitude Scale. These cover the areas of general job satisfaction, supervision, co-workers and pay and promotion. Appendix A includes these experimental items.

Sampling Methodology

The following considerations entered into the sampling methodology:

1. To define the "physically handicapped" precisely, the "handicapped" samples included only persons for whom medical diagnoses of disability were available. To meet this requirement, the "physically handicapped population" was developed from lists of known handicapped persons furnished by rehabilitation agencies and hospitals. These institutions also furnished a medical diagnosis for each person on the lists.

2. In order to determine if the presence of disability had any effect on satisfaction, it was necessary to compare the physically handicapped worker with his non-handicapped counterpart. For this reason, a "control" group of non-handicapped workers was obtained to "match" each group of physically handicapped workers. The method used to match handicapped and control samples is described in detail in the Data Collection section which follows.

3. Research on job attitudes and job satisfaction has consistently shown differences among occupational groups in level and structure of satisfaction, i.e., in the proportions of "satisfied" or "dissatisfied" and in the elements and organization of the elements which make up "satisfaction."[5] This means that any study of satisfaction must be undertaken with reference to a specified occupation or occupational group. Each occupational group must be studied separately, and findings pertain only to the occupational group under study.

For the purposes of the research project, occupations were classified according to similarity in tasks or work activities (i.e., skill) and similarity in work environment (i.e., "collar"). Skill was defined in terms of the amount of formal training required and the

[5] See, for example, Herzberg, F., et al., *Job attitudes: review of research and opinion.* Pittsburgh: Psychol. Services, 1957.

degree of control allowed the worker over his work setting. The two categories used were:

(a) non-skilled—a position requiring no training beyond public schools, short courses or company in-plant programs. The worker is allowed little or no discretion or control over alternative methods of performing the job;

(b) skilled—a position requiring trade or business school, college, or lengthy apprenticeship training. The worker has some control over his work methods and/or is allowed some individual decisions.

"Collar" was defined in terms of closeness to product or equipment used in production, methods of payment, and actual "dirtiness" of the work. The two categories used were:

(a) blue-collar—a position which is non-salaried. The worker works on or delivers the finished product and is required to wear some protective clothing or "work clothes";

(b) white-collar—a position which is usually salaried, is staff, service or clerical in nature, and which is "cleaner" than blue-collar positions.

These categories, cross-classified, result in four occupational groups: non-skilled blue-collar, skilled blue-collar, non-skilled white-collar, and skilled white-collar.

A fifth occupational group, the professional, was added, for which:

(a) skill requirements include a professional collegiate degree and membership in professional associations. The worker has much control over his work methods and is allowed a large area for individual decision;

(b) the work environment differs sufficiently from that of the white-collar worker in the degree of latitude allowed the worker in structuring his work environment.

Thus, for the present study, ten groups were required: two groups, handicapped and control, for each of the five occupational categories described above.

Data Collection

The preceding sections outlined the kind of information and the type of samples required in this study. The following data collection procedures were used to meet those requirements:

1. A list of known physically handicapped persons (with medical diagnoses) was obtained from rehabilitation agencies and hospitals in the Minneapolis–St. Paul metropolitan area. Agencies cooperating included the Minnesota State Division of Vocational Rehabilitation (main office and Minneapolis and St. Paul district offices), Minnesota State Services for the Blind, Minnesota State Employment Service, University of Minnesota Hospitals Rehabilitation Center, University of Minnesota Student Counseling Bureau, Hennepin County Welfare Board, Ramsey County Welfare Board, Fairview Hospital Rehabilitation Center, Goodwill Industries, Sister Kenny Institute, Curative Workshop, Opportunity Workshop, Inc., Salvation Army Medical Services, Minneapolis Hearing Society, Swedish Hospital,[6] United Cerebral Palsy of Minneapolis, Jewish Vocational Service, Minnesota Association for the Deaf and St. Paul Rehabilitation Center.

2. Name and address of each potential subject were checked against telephone and city directories to determine present address and occupation. Approximately half (2,466) of about 5,000 names obtained from the rehabilitation agencies and hospitals were found to have usable current data on address, occupation and phone number.

3. Telephone contact was attempted with potential handicapped subjects. When successful, the person was asked to participate in the study and an appointment for a home interview was made. Contact was attempted for 1,646 individuals. Of these, 438 refused to participate, 155 were reported as deceased or as no longer residing in the city, and 1,153 were interviewed. Of those interviewed, about a third were found to be self-employed, not working and not seeking work, or were the wrong persons, and were not included in the present study. With the elimination of the professional group,[7] the number of handicapped persons for this study totalled 638.

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[6] Only those with severe and permanent disability (as identified by the medical records librarian) were included in the list.

[7] See Sampling Methodology. When analysis of the data was started, the professional groups were too small (N's of less than 30) to be included in the study.

4. The handicapped person was interviewed at his home by a trained interviewer. The standardized schedule used in all interviews was designed to obtain data on personal history, disability and rehabilitation history, vocational preparation, family circumstances and work history for the past five years.[8] Data on satisfaction were also obtained in conjunction with the interview. The instruments used to obtain satisfaction data were filled out in terms of the person's "present job," i.e., job at the time of the interview.

5. The handicapped person's employer was contacted to obtain the names and addresses of other persons in jobs similar to the handicapped person's.[9] In most cases, these other persons worked under the same supervisor as did the handicapped person, and even in the same work group in many instances. Satisfactoriness data for these persons (i.e., the handicapped person and other workers on similar jobs) were obtained from the immediate supervisor and from the personnel department.

6. One of the "other persons" was selected randomly as the "control" subject. This person was contacted and interviewed in exactly the same manner as the handicapped person. (See (4) above.) Satisfaction data for the "control" person were also obtained during this interview.

7. Each completed interview schedule was reviewed by a staff member for completeness and comprehensibility. Faulty schedules were corrected by reinterviews. A system of check interviews was used to guard against falsification of interview data. Work history information reported in the interview was verified through the process described in Bulletin XII of the present series.[10]

8. At a later date, both handicapped and "control" persons were given a series of psychological tests at the Industrial Relations Center. These tests were the General Aptitude Test Battery, the Strong Vocational Interest Blank, the Minnesota Vocational Interest In-

[8] For more details on the interview procedure and for a copy of the interview schedule, see *Minnesota Studies in Vocational Rehabilitation: XII. Validity of Work Histories Obtained by Interview.* Bulletin 34, September, 1961.

[9] In contacting the employer, care was taken NOT to identify the handicapped person as handicapped or the project as a study of handicapped persons. The employer was informed that the project was a study of "what made good workers good," that one of his employees was drawn in a sample, that it was desired to study several workers doing the same kind of work in the same firm and under the same supervisor. No other information about the handicapped person, aside from the fact that he was participating in a University-sponsored research project, was released to the employer.

[10] IRC Bulletin 34.

ventory, the Minnesota Multiphasic Personality Inventory, and an experimental measure of vocational needs. A study utilizing these test data will be reported in another bulletin.

The data collection process was designed to allow no more than one week to elapse between interviews of the handicapped person and his "control." However, this ideal was not realized in practice. For most cases, it was possible to obtain both interviews within a two-week interval. In no instance did the interval exceed one month.

Figure 1 depicts the data collection process.

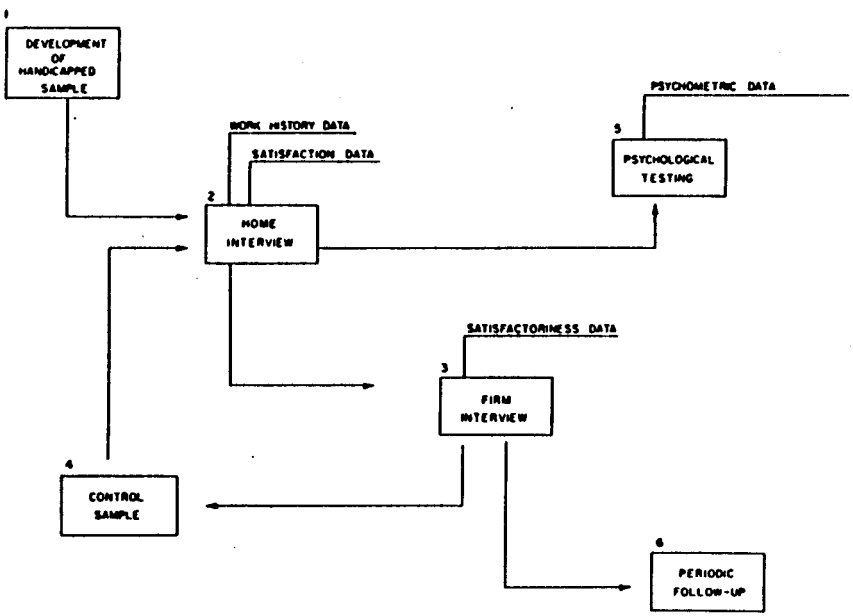

Figure 1. Data collection flow-chart for the Work Adjustment Project

The Samples

After data on an individual were obtained, the individual was assigned to one of the ten groups. Classification as to handicapped vs. control was determined by the data collection procedures. Occupational classification, based on data on present job, was done by two trained persons using the *Dictionary of Occupational Titles* as a guide. (Agreement between these two was 90%. A third trained person served as arbiter in the 10% of non-agreement cases between the two judges.)

The samples obtained for the present study are described in Tables 1, 2, and 3. The professional groups were not included in the present study due to the small number of individuals in these groups.

Table 1 shows the personal characteristics of the individuals in each of the eight groups. The groups were predominantly male, with the exception of Group VI, the control, non-skilled white-collar group. The proportion of males ranged from 49% (for Group VI) to 97% (for Group IV, control, skilled blue-collar). Median age ranged from 32 years (for Group V, handicapped, non-skilled white-collar) to 42 years (for Group II, control, non-skilled blue-collar). The large majority of individuals in most groups were married. Only in Groups V and VI (non-skilled white-collar groups) did the proportion of married to non-married approach a 50-50 division. With

Table 1. Personal characteristics of workers, by group

Characteristic	Group[a] I	II	III	IV	V	VI	VII	VIII
	Per Cent							
1. Sex:								
Male	89	85	95	97	61	49	75	76
Female	11	15	5	3	39	51	25	24
2. Age:								
25 or less	22	14	11	10	23	23	19	16
26-35	27	22	24	33	34	23	38	31
36-45	22	22	35	24	19	24	25	33
46-55	18	22	20	20	18	11	13	14
56-65	9	16	10	13	6	15	5	5
over 65	2	4	0	0	0	4	**	1
3. Marital status:								
Married	67	81	94	91	51	57	71	75
Single	27	12	4	5	42	28	22	20
Other	6	7	2	4	7	15	7	5
4. Number of dependents:								
None	31	23	9	9	50	47	33	34
1 to 3	45	51	52	60	36	36	46	43
4 or more	24	26	39	31	14	17	21	23

[a] Group I = handicapped, nonskilled blue-collar (N = 205)
Group II = control, nonskilled blue-collar (N = 177)
Group III = handicapped, skilled blue-collar (N = 116)
Group IV = control, skilled blue-collar (N = 128)
Group V = handicapped, nonskilled white-collar (N = 168)
Group VI = control, nonskilled white-collar (N = 127)
Group VII = handicapped, skilled white-collar (N = 149)
Group VIII = control, skilled white-collar (N = 98)
Note: Group IV is larger than Group III due to incomplete data for some Group III subjects.
** = less than 1%

the exception of these two groups, therefore, a large majority of individuals in the eight groups had dependents.

Table 2 presents data on employment-related characteristics of the eight groups. Over 95% of the individuals in all groups were employed full-time. The majority of blue-collar workers, and a minority of the white-collar workers, were union members. Median number of years of education ranged from 9.3 (for Group II, control, non-skilled blue-collar) to 11.9 (for Groups VII and VIII, the skilled white-collar groups). Median monthly income varied from $325 (for Group V, handicapped, non-skilled white-collar) to $475 (for Group IV, control, skilled blue-collar).

Table 2. Employment-related characteristics of workers, by group

Characteristic	Group *							
	I	II	III	IV	V	VI	VII	VIII
	Per Cent							
1. Employed:								
Full-time	96	96	98	99	98	95	97	99
Part time	4	4	2	1	2	5	3	1
2. Union Membership:								
Member	62	69	73	82	23	23	12	17
Non-member	38	31	27	18	77	77	88	83
3. Education:								
Grade school	25	35	16	18	13	7	1	2
Some high school	29	28	26	28	17	16	10	5
High school graduate	37	30	43	42	51	54	42	46
Some college	9	7	15	12	19	23	47	47
4. Monthly income:								
$200 or less	14	9	0	0	9	9	2	.
$201 to $300	21	18	3	1	33	32	9	9
$301 to $400	43	38	26	25	42	36	29	22
$401 to $500	18	32	38	37	9	16	31	25
$501 to $600	3	2	20	24	4	6	20	27
over $600	1	1	13	13	3	1	9	16

* See Footnote * in Table 1, page 13.

In general, the handicapped workers were younger, less likely to be married, and less likely to belong to a union. No significant differences were observed between handicapped and control workers in the proportion of the sexes, number of dependents, employment status, education and income.

The skilled workers were somewhat older, better educated, less likely to be female, and earned considerably more income than the non-skilled workers. More blue-collar skilled workers, but fewer

white-collar skilled workers, belonged to unions than did their non-skilled counterparts. The white-collar workers were somewhat younger, better educated, more likely to be female, and less likely to be union members when compared with the blue-collar workers.

Table 3 shows the distribution of disabilities among the handicapped groups. The largest groups were orthopedic, neurological, respiratory, and neuropsychiatric. More individuals with neurological and respiratory disabilities were found in the white-collar than in the blue-collar groups. More persons with hearing and mental retardation disabilities were found among the blue-collar workers. Only in the latter disability (mental retardation) was there any sizeable difference between the skilled and the non-skilled workers in these four groups.

Table 3. Type of disability, by group

Type of disability	Group[a]			
	I	III	V	VII
	Per Cent			
Orthopedic	22	34	29	35
Cardiovascular	7	3	7	7
Neurological	9	3	14	11
Respiratory	6	7	11	11
Neuropsychiatric	10	7	8	10
Hearing	11	10	3	4
Mental Retardation	15	3	6	1
Other[b]	15	16	17	8
No permanent disability[c]	5	17	5	13

[a] See Footnote [a] in Table 1, page 13.

[b] Includes visual, speech, skin and allergy, generalized or systemic, gastro-intestinal, and genito-urinary.

[c] Persons originally listed in the agency (hospital or institution) as being handicapped, but apparently with no permanent disability at time of interview.

Results

Item Analysis

This section concerns the item differences observed between handicapped and control groups, between skilled and non-skilled workers, and between blue- and white-collar workers. That is, for each of the 80 satisfaction items, the following null hypotheses were tested:

1. The mean item response for the handicapped group is equal to the mean item response for the control group;

2. The mean item response for the skilled workers is equal to the mean item response for the non-skilled workers;

3. The mean item response for the blue-collar workers is equal to the mean item response for the white-collar workers;

4. The interaction between the occupational dimension and the handicapped-control dimension is linear and equal to zero. That is, the pattern of means for all eight groups is the same as the pattern of the occupational and handicapped-control means.

To test these hypotheses, it was necessary to derive a score for each individual on each item. Accordingly, each response choice (answer) to an item was assigned a numerical weight. For the 76 attitude items, these weights ranged from 1 (for the most unfavorable or "dissatisfied" response) to 5 (for the most favorable or "satisfied" response). Responses to the Hoppock items were similarly weighted from 1 to 7. Each person's response to an item was scored using these weights, and means for each of the eight groups were computed for each item. Appendix B lists these means, as well as item response distributions.

A "two-way analysis of variance" method was chosen to test the four hypotheses listed above. One dimension was the handicapped-control dimension, the other dimension consisted of the four occupational groups (non-skilled blue-collar, skilled blue-collar, non-skilled white-collar, skilled white-collar). Inasmuch as the number of observations (persons) in each cell (group) was unequal and disproportionate, an approximation method, that of "unweighted means," was employed.[11] This method allowed a test of Hypothesis 1

[11] Walker, Helen M. and Lev, J. *Statistical Inference*. New York: Henry Holt, 1953. pp. 381-382.

(handicapped vs. control), Hypothesis 4 (interaction) and an hypothesis that the means of the four occupational groups were equal. To test Hypothesis 2 (skilled vs. non-skilled) and Hypothesis 3 (blue- vs. white-collar), it was necessary to establish two "orthogonal contrasts"[12] within the occupational dimension. The results of these analyses are tabulated in Appendix C, and the significant findings summarized below, grouped according to the hypothesis tested.

Differences between handicapped and control groups

Statistically significant differences (at the .05 level) between means for the handicapped and control groups were found on 31 of the 80 items under test.[13] Differences on 19 of these 31 items are significant at the .01 level. On all 31 items, the mean of the control group is higher than the mean of the handicapped group. That is, on these 31 items, the control group shows a higher level of satisfaction (is more "satisfied" than the handicapped group). These items are listed in Table 4.

The first block of 13 items (Items 9, 10, 11, 22, 33, 38, 39, 40, 43, 47, 53, 54, 73) refers to supervisory practices, such as the way the supervisor explains work, handles complaints, gives credit for work performed, and handles people. The handicapped worker is apparently less satisfied with his supervisor than is the control worker.

The second block of six items (Items 2, 16, 17, 37, 66, 67) refers to company policies and practices. These items are concerned with a general evaluation of the company as a place to work. Again, it appears that the handicapped worker is less satisfied than his control counterpart with the company for which they work.

The third block of four items (Items 18, 45, 60, 74) deals with pay practices and opportunities for advancement (promotion). The handicapped worker is less satisfied than the control worker with his pay and promotional possibilities.

The fourth block of eight items (Items 12, 21, 31, 55, 57, 64, 72, 80) deals with various aspects of the work environment, such as the

[12] Cochran, W. G. and Cox, Gertrude M. *Experimental design.* New York: J. Wiley & Sons, 1950. p. 59.

[13] Statistical significance at the .05 level means that in rejecting the null hypothesis (e.g., that the means for handicapped and control groups are equal), one would reach the wrong conclusion by chance five times or less out of 100 such possible tests on that item. An analogous statement concerning errors of conclusion can be expressed for the .01 level of significance. It should be noted that the alternative hypothesis is that the *means are not equal.* Which mean is higher or lower is not specified by the statistical test.

Table 4. Items showing statistically significant differences between handicapped and control groups

Item	Level of Significance
A. SUPERVISION	
9. My immediate supervisor takes time to explain new work to me	.01
10. My immediate supervisor is quick to take care of complaints brought to him by employees	.01
11. I am told ahead of time of changes that will affect my work	.01
22. There is a lot of favoritism in my department (some employees are given all the breaks)	.01
33. My immediate boss expects me to do more than my share of the work	.05
38. My immediate supervisor always understands what I am trying to do	.05
39. My immediate supervisor has the confidence and respect of those who work under him	.01
40. My supervisor takes credit for work when he doesn't deserve it	.05
43. My boss knows how to handle people	.05
47. My boss is only interested in getting the work out	.01
53. My "boss" rides me a little too much	.01
54. Things would be better for the Company if they got rid of my boss	.01
73. All in all, I would rate my immediate supervisor as	.01
B. COMPANY	
2. It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.)	.05
16. If I planned to work until retirement age, I would like to stay with this Company all the time	.01
17. I am satisfied with the length of vacations the Company gives	.01
37. This Company treats its employees better than most other companies I know about	.01
66. The job that the top executives are doing in this Company is	.01
67. All in all, as a place to work, this Company is	.01
C. PAY AND PROMOTION	
18. Pay should be based on length of service rather than on what a person does (how long a person has worked would count more than the amount of work he turns out)	.01
45. I need a promotion if I am to stay happy here	.05
60. I often feel like demanding a pay raise	.05
74. Opportunities for promotion (a chance to get a better job) here are	.05
D. TYPE OF WORK, WORKING CONDITIONS, CO-WORKERS, GENERAL JOB SATISFACTION	
12. I feel secure in my job	.01
21. I feel that the work I do is very important	.05
31. I feel I am happier in my work than most other people	.05
55. I do not know a friendlier bunch than the people I work with	.01
57. I have thought seriously about changing my present job	.01
64. The lighting for my job is	.05
72. Considering everything, my present job is	.01
80. Check one of the following to show how you compare with other people. (Hoppock)	.01

Note: The control group has the higher mean for all items.

type of work, working conditions and co-workers. As with the other items, the handicapped worker evidences less satisfaction on these items than does his control counterpart.

It can be said, as a general conclusion, that the handicapped group tends to be less satisfied than the control group, particularly with regard to supervision, company policies and practices, and pay and promotion.

The actual extent of overall differences in satisfaction between the two groups may be seen from an examination of the distribution of item means for all 80 items, shown in Figure 2. Figure 2 shows that 60% of the item means for the control group exceed the median item mean of the handicapped group. This supports the general conclusion that the handicapped worker is less satisfied with his work environment than the control worker.

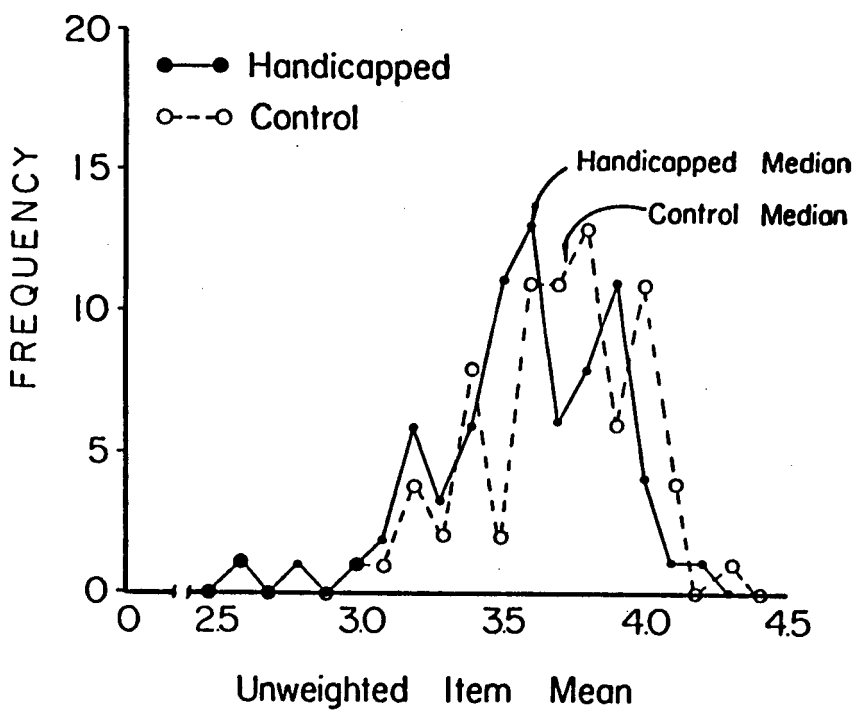

Figure 2. Frequency distribution of unweighted item means for handicapped and control groups

Differences between skilled and non-skilled groups

Statistically significant (.05 level) differences between means for the skilled and non-skilled groups were found for 37 of the 80 items. Mean differences for 31 of these 37 items are significant at the .01 level. On all 37 items, the skilled workers have the higher mean, i.e., they show more satisfaction with their work environment than do the non-skilled workers. These statistically significant items are presented in Table 5.

Table 5. Items showing statistically significant differences between skilled and non-skilled groups

Item	Level of Significance
A. COMPANY	
16. If I planned to work until retirement age, I would like to stay with this Company all the time	.01
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)	.01
28. The Company brings in outsiders for important jobs more often than they should	.01
34. The Company should do more to help employees with their personal problems (like family troubles, etc.)	.05
35. The Company gives employees enough information about its financial position	.05
37. This Company treats its employees better than most other companies I know about	.01
67. All in all, as a place to work, this Company is	.01
B. PAY AND PROMOTION	
3. My pay is all right for the kind of work I do	.01
18. Pay should be based on length of service rather than on what a person does (how long a person has worked here should count more than the amount of work he turns out)	.01
45. I need a promotion if I am to stay happy here	.05
51. I do not like the way they figure pay increases in this company	.01
56. Considering the money I used to make, I'm doing pretty well right now	.01
60. I often feel like demanding a pay raise	.01
61. I make as much money as most of my friends	.01
68. Considering the present cost of living, my pay is	.01
74. Opportunities for promotion (a chance to get a better job) here are	.01
C. TYPE OF WORK	
7. The work I do on my present job is interesting	.01
8. My present job suits me better than any other job in the Company I know of	.01
12. I feel secure in my job	.01
21. I feel that the work I do is very important	.01
30. I'm getting valuable experience on my present job	.01
48. I would like to change my line of work	.01

Table 5 continued

Item	Level of Significance
52. I would like to exchange my present job for another job in the same line of work	.01
57. I have thought seriously about changing my present job	.01
72. Considering everything, my present job is	.01
D. SUPERVISOR	
4. I get a fair share of overtime work	.05
22. There is a lot of favoritism in my department (some employees are given all the breaks)	.01
32. The work in my department is handed out fairly among the employees	.01
33. My immediate boss expects me to do more than my share of the work	.01
47. My boss is only interested in getting the work out	.01
E. GENERAL JOB SATISFACTION	
31. I feel I am happier in my work than most other people	.01
42. I like my job better than most people like theirs	.01
77. Choose the ONE of the following statements which best tells how well you like your job. (Hoppock)	.01
80. Check one of the following to show how you think you compare with other people. (Hoppock)	.01
F. CO-WORKERS	
6. The employees in my department are willing to do their fair share of work	.05
50. I have to work harder because some of my co-workers "goof-off"	.01
70. The spirit of cooperation among employees in my department is	.01

Note: The skilled group has the higher mean for all items.

Certain tentative conclusions may be drawn if the items are grouped according to content, as is done in Table 5. The first block of seven items (Items 16, 27, 28, 34, 35, 37, 67) refers to company policies and practices. These items are concerned with overall treatment of employees by the company, its pay and promotional practices, its communications practices, and the services it provides the employees. Skilled workers evaluate these company practices they are exposed to as more satisfying than do the non-skilled workers.

The second block of nine items (Items 3, 18, 45, 51, 56, 60, 61, 68, 74) is concerned with pay and promotional opportunities. The skilled workers are more satisfied with the comparative level of their pay, their general work status or prestige, and their opportunities for advancement. The non-skilled workers, by contrast, show less satisfaction with these compensation practices.

The third block of nine items (Items 7, 8, 12, 21, 30, 48, 52, 57, 72) is concerned with an evaluation of present job and type of work. Skilled workers evaluate their present jobs as more interesting, more important, and providing them with more experience, than do the non-skilled workers. Skilled workers also express less of a desire to change their present line of work and/or their present job than do the non-skilled workers.

The fourth block of five items (Items 4, 22, 32, 33, 47) in Table 5 relates to the "fairness" of the supervisor in allocating work, overtime, and credit for work performed. The fifth block of items (Items 31, 42, 77, 80) and the sixth block of items (Items 6, 50, 70) deal with job satisfaction in general and with co-workers, respectively. As in previous instances, skilled workers are more satisfied than the non-skilled workers—in this case, with supervisory practices, with their job generally speaking, and with their co-workers.

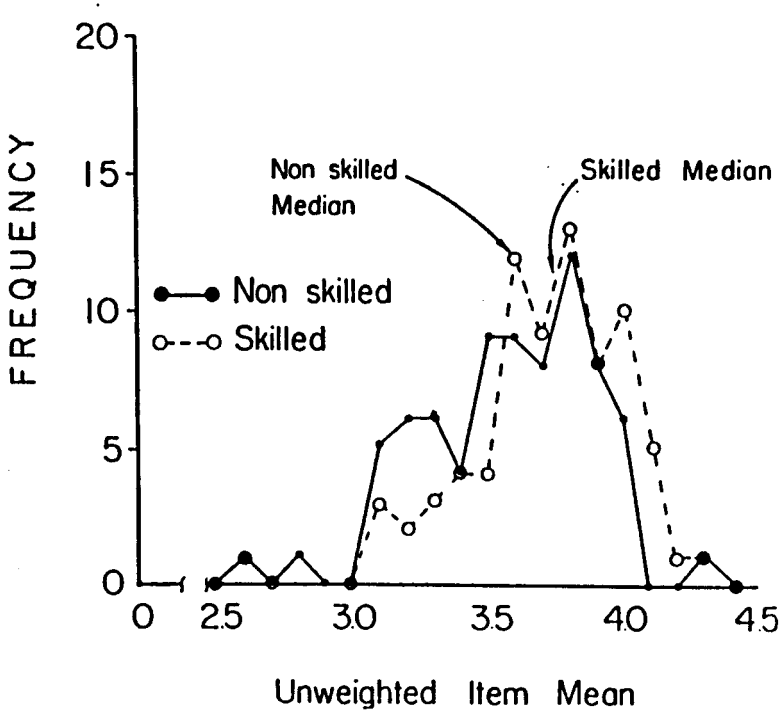

Figure 3. Frequency distribution of unweighted item means for non-skilled and skilled groups

Figure 3 shows the distribution of item means for the skilled and non-skilled groups. It is obvious, from Figure 3, that the skilled workers evaluate their work environment more favorably than do the non-skilled workers. Using the measure of distribution overlap utilized previously (p. 19) we notice that almost 60% of the item means for the skilled group exceed the median item mean of the non-skilled group. This supports the general conclusion regarding the relationship of skill level and level of satisfaction.

Differences between blue- and white-collar groups

Statistically significant (.05 level) differences between blue-collar and white-collar workers were found on 47 of the 80 items. Differences on 38 of the 47 items are significant at the .01 level. On 44 of the 47 items, the means for the white-collar workers are higher than those for the blue-collar workers. This means that in most instances the white-collar workers are more satisfied with their work environment than are the blue-collar workers. These 47 statistically significant items are shown in Table 6.

The first block of seven items in Table 6 (Items 17, 27, 34, 35, 41, 66, 67) is concerned with company policies and practices. On all

Table 6. Items showing statistically significant differences between blue-collar and white-collar workers

Item	Level of Significance
A. COMPANY	
17. I am satisfied with the length of vacations the Company gives	.01
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)	.01
34. The Company should do more to help employees with their personal problems (like family troubles, etc.)	.01
35. The Company gives employees enough information about its financial position	.01
41. I feel the Company tells me enough about its general policies (what they are trying to do)	.01
66. The job that the top executives are doing in this Company is	.01
67. All in all, as a place to work, this Company is	.01
B. SUPERVISION	
4. I get a fair share of overtime work	.01*
10. My immediate supervisor is quick to take care of complaints brought to him by employees	.01
15. My value to the department is recognized by the department head	.01

Table 6 continued

Item	Level of Significance
B. SUPERVISION (continued)	
22. There is a lot of favoritism in my department (some employees are given all the breaks)	.01
24. I get full credit for the work I do	.05
25. There are enough meetings of our work group to talk over plans	.05
39. My immediate supervisor takes credit for work when he doesn't deserve it	.01
40. My supervisor takes credit for work when he doesn't deserve it	.01
43. My boss knows how to handle people	.05
47. My boss is only interested in getting the work out	.01
53. My boss "rides" me a little too much	.01
54. Things would be better for the Company if they got rid of my boss	.01
58. My boss is where he is because he knows the work	.01
73. All in all, I would rate my immediate supervisor as	.01
C. CO-WORKERS	
6. The employees in my department are willing to do their fair share of work	.01
50. I have to work harder because some of my co-workers "goof-off"	.01
59. I sometimes wonder what my co-workers are talking about	.05
70. The spirit of cooperation among employees in my department is	.01
D. TYPE OF WORK	
7. The work I do on my present job is interesting	.01
8. My present job suits me better than any other job in the Company I know of	.05
12. I feel secure in my job	.01
21. I feel that the work I do is very important	.01
30. I'm getting valuable experience on my present job	.01
42. I like my job better than most people like theirs	.01
48. I would like to change my line of work	.01
72. Considering everything, my present job is	.05
E. WORKING CONDITIONS	
13. The supplies, materials, and equipment necessary to perform my job are easy to get	.01
29. Enough time is allowed for rest periods	.05
36. The place where I work is clean	.01
64. The lighting for my job is	.01
65. The ventilation where I work is	.01
69. Considering everything, my working hours are	.01
76. General working conditions in my department—heat, light, space, noise, cleanliness, equipment, etc.—are	.01
F. PAY AND PROMOTION	
3. My pay is all right for the kind of work I do	.05*
18. Pay should be based on length of service rather than on what a person does (how long a person has worked here should count more than the amount of work he turns out)	.01
49. I really shouldn't expect to be making more money than I do	.01*
74. Opportunities for promotion (a chance to get a better job) here are	.01

Table 6 continued

Item	Level of Significance
G. GENERAL JOB SATISFACTION	
31. I feel I am happier in my work than most people are	.05
77. Choose one of the following statements which best tells how well you like your job. (Hoppock)	.01
80. Check one of the following to show how you think you compare with other people. (Hoppock)	.01

Note: With the exception of Items 3, 4, and 49 (marked above with an asterisk) the white-collar group has the higher mean.

seven items, the white-collar workers show more satisfaction with their companies than do the blue-collar workers.

The second block of 14 items (Items 4, 10, 15, 22, 24, 25, 39, 40, 43, 47, 53, 54, 58, 73) deals with supervisory practices. On 13 of the 14 items, the white-collar group has the higher mean. The white-collar workers show more satisfaction with their supervisors' handling of complaints, fairness, communication with the work group, giving credit for work well done, and overall practices. On the other hand, the blue-collar workers are more satisfied with the allocation of overtime. (This last finding may reflect only the fact that overtime possibilities for the white-collar worker are limited.)

The third (Items 6, 50, 59, 70), fourth (Items 7, 8, 12, 21, 30, 42, 48, 72) and fifth (Items 13, 29, 36, 64, 65, 69, 76) blocks of items in Table 6 are concerned with co-workers, type of work, and working conditions respectively. On all of these items, the white-collar group shows a higher level of satisfaction than does the blue-collar group. More specifically, the white-collar workers evaluate their co-workers as more willing to do their fair share of the work and as more cooperative; they see their work as more interesting, as suiting them better, as more secure, as more important, as giving them more valuable experience, as making them more reluctant to change jobs; they regard the place where they work, their lighting, ventilation, and overall working conditions as more satisfactory—than do the blue-collar workers.

The sixth block of items (Items 3, 18, 49, 74) concerning pay and promotion provides an interesting contrast. The blue-collar workers are more satisfied with their pay in relation to the work they do than are the white-collar workers. On the other hand, the white-collar workers feel less strongly that pay be related to seniority and

more strongly that they are in need of a promotion. These findings suggest that the blue-collar workers may be more realistic in their evaluation of pay relative to the work done and of promotional possibilities.

The last block of items (Items 31, 77, 80) in Table 6 indicates that the white-collar workers are more satisfied-in-general with their jobs than are the blue-collar workers.

The higher level of satisfaction among the white-collar workers is substantiated by Figure 4 which shows the distributions of item means for the white-collar and blue-collar groups. Almost 60% of the means for the white-collar group exceed the median item mean of the blue-collar group. This finding gives final support to the conclusion that the white-collar workers are generally more satisfied with their work environment than are their blue-collar counterparts.

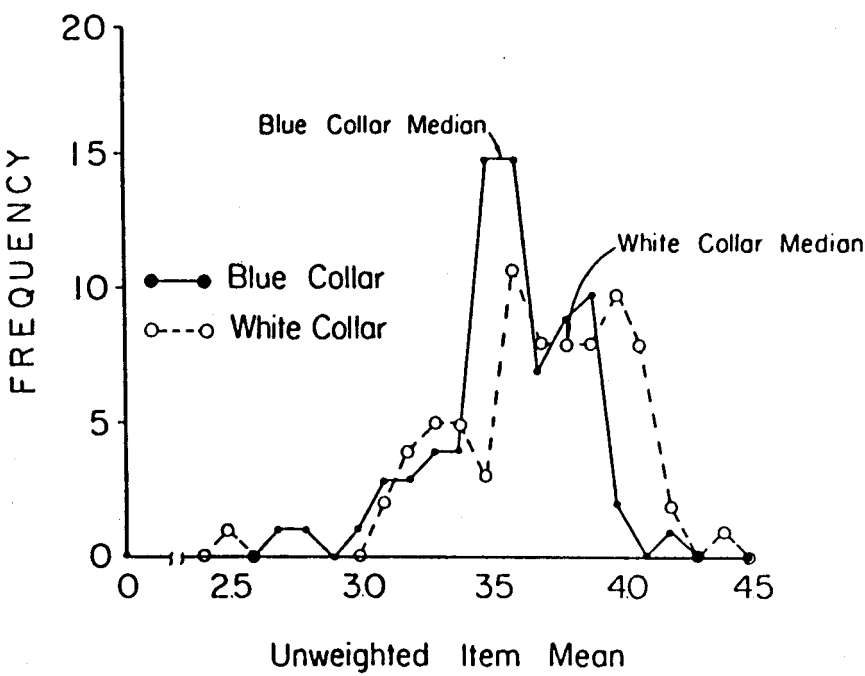

Figure 4. Frequency distribution of unweighted item means for blue-collar and white-collar groups

Interaction

The null hypothesis involved in this statistical test is that the pattern of the eight individual group means is the same as the pattern of the occupational and handicapped-vs.-control means (that is, there is no interaction between the occupation variable and the handicapped-vs.-control variable). The alternative hypothesis is that there is an interaction effect. Inasmuch as the interaction effect is complex and, for the purposes of the study, does not provide any consistent set of conclusions, only a listing of the significant items will be presented. Table 7 lists the items for which a significant interaction effect was found (at the .05 level). The reader may wish to examine the pattern of the means for these items in Appendix B.

Table 7. Items with a significant interaction effect

Item	Level of Significance
A. COMPANY	
1. There isn't a better Company to work for than this one	.01
5. Most employees in this Company are satisfied with their jobs	.01
71. The reputation of this Company in the community (how the people feel and talk about this Company) is	.05
B. CO-WORKERS	
20. Most of the employees around me are the kind who will say hello when I pass them on the street	.01
44. My fellow workers rate better with management than I do	.05
C. WORKING CONDITIONS	
26. Our lockers are satisfactory	.05
D. GENERAL JOB SATISFACTION	
63. Most of the time I feel satisfied with my job	.01

Further conclusions from the item analysis

If one examines the average response of each of the groups, the following ordering is observed: (1) control, skilled white-collar workers show the highest level of satisfaction, followed by (2) control, skilled blue-collar; (3) control, non-skilled white-collar; (4) handicapped, skilled white-collar; (5) control, non-skilled blue-collar; (6) handicapped, skilled blue-collar; (7) handicapped, non-skilled white collar; and (8) handicapped, non-skilled blue-collar. The extreme groups, therefore, in terms of level of satisfaction are the control, skilled white-collar group and the handicapped, non-

skilled blue-collar group. Figure 5 shows the distribution of item means for these two groups. The rather small amount of overlap between the two groups is graphic demonstration of the difference in level of satisfaction between these two groups.

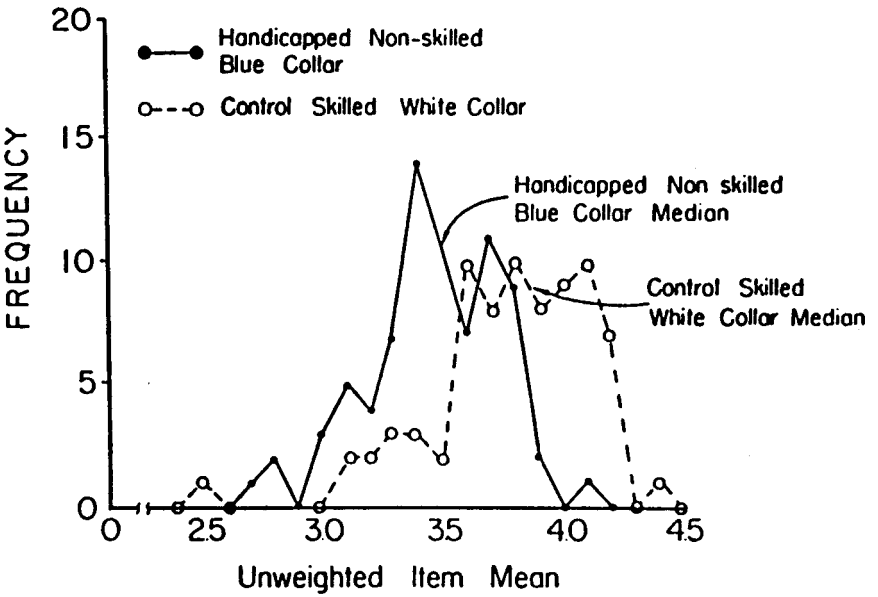

Figure 5. Frequency distribution of unweighted item means for handicapped, non-skilled blue-collar, and control, skilled white-collar groups

It is quite clear, then, from the data reported here that the skilled worker shows more satisfaction with his work environment than the non-skilled worker, the white-collar worker more than the blue-collar worker and the control worker more than the handicapped worker. It is somewhat more difficult to interpret the "effect" on satisfaction of being handicapped than it is to interpret the "skill effect" or the "collar effect." This is because observable differences do exist between the work environments of the skilled and the non-skilled, the blue-collar worker and the white-collar worker. Differences in satisfaction for these groups presumably reflect, at least in part, real or actual differences in the work environment. This does not explain the difference in level of satisfaction between handicapped and control groups, however. It may be recalled, in the discussion of sampling methodology, that great pains were taken to equate the work

environment for the handicapped and the control workers. The sampling procedure selected handicapped and control workers who performed similar work, belonged to the same work group, worked under the same working conditions and under the same supervisor. Thus, the "formal" work environment was well controlled. What could have varied (and this may explain the differences observed) were the "informal" aspects of the work environment (such as the attitudes of supervisor and co-workers toward his disability). It is also possible that the work environment perceived as physically equal by an objective observer is in fact not perceived the same by individuals with varying kinds and degrees of handicaps. A test of these interesting possibilities is, however, not within the scope of the present report.

Development of the Scales

In the preceding section, certain tentative conclusions are reached based on group differences observed in "satisfaction." Inasmuch as these conclusions are based on the analysis of a single item at a time, they must be regarded as only tentative. Scores based on single items are not known to have reliability adequate for measurement, or counseling, purposes. Without this reliability the conclusions derived are not stable, i.e., they may be easily altered by chance events. Since the reliability of scores may be increased by deriving scores from combinations of items, rather than from single items, the next step in the analysis was to determine an appropriate basis for combining items.

The previous analysis suffers from a second limitation: it tells little about the "organization" of satisfaction. In evaluating his work environment, a person's satisfaction with one aspect may be associated with his satisfaction with another aspect. For example, satisfaction with pay may accompany satisfaction with hours of work; satisfaction with co-workers may be related to satisfaction with the supervisor. All the "satisfactions" that are associated with one another may be considered as one "component" of overall satisfaction. Discovering what these components are obviously would add to the general knowledge of what satisfaction is. Furthermore, questions such as the following need to be answered: Do the same components appear for the handicapped and the non-handicapped? For the different occupational groups? If a component appears in two groups,

is it constituted in the same way for both groups, that is, is it formed by the same set of "satisfactions"?

What is needed, therefore, is a method of analysis that would accomplish two purposes: (a) reduce the 80 satisfaction scores (derived from the items) to a smaller, more manageable number of more reliable scores, and (b) reveal the organization of satisfaction. This is clearly a problem for factor analysis or cluster analysis.

Some technical considerations

Factor analysis and cluster analysis have a common objective: parsimony or economy of description. Both are applied to an intercorrelation matrix with the aim of reducing the original number of variables to a smaller number with the resulting matrix still retaining the significant correlational characteristics of the original matrix. Factor analysis is the more mathematically precise and is generally the more preferred solution. However, a factor analytic solution to an 80-variable problem would have required the use of an electronic computer and, unfortunately, the University's computer program for factor analysis could handle no more than 38 variables. For this reason, cluster analysis was used to achieve the desired objectives.

Cluster analysis is not an undesirable alternative. On the contrary, it has several advantageous properties. It is relatively easy to perform. It assigns each variable (item) to only one cluster (where factor analysis could assign an item to more than one factor, thereby leading to complications in scoring). It is adequately objective, as may be seen from the description below, such that two persons faithfully following the prescribed procedures and decision rules will independently arrive at the same solutions.

In cluster analysis, the intercorrelations among items (variables) are used to group the items into clusters in such a manner that the average intercorrelation among the items in the cluster is high while the average correlation of these items with other items not in the cluster is low. The ratio of these two average correlations (intercluster-item correlation to correlation with non-cluster items) is called the B-coefficient and is used to determine when to stop adding items to the cluster. The higher the B-coefficient, the "purer" the cluster, but at the same time, the fewer the items that can belong to a cluster. With lower B-coefficients, more items are allowed into the cluster at the expense of cluster purity or homogeneity.

These two opposite tendencies must be considered in deciding on the B-coefficient value to use. Holzinger and Harman recommend a B-coefficient no lower than 1.30.[14]

Cluster analysis starts with a pair of highly correlated items. (The first cluster is always started with the highest correlated pair.) The item most highly correlated with the pair is added to the cluster and the B-coefficient computed. In succession, the item most highly correlated to the existing cluster is added and the B-coefficient computed with each addition. The cluster is defined (i.e., delimited) when the B-coefficient drops to a predetermined value.

Starting the second and succeeding clusters poses two alternative decision rules: (a) Each new cluster may be formed from the remaining items only, i.e., no item included in existing clusters may be used; (b) Each new cluster may be formed from *all* items regardless of whether they have been included in previous clusters or not. If an item clusters with more than one cluster, its membership is decided by the size of the B-coefficients resulting from the addition of the item. The first alternative tends to minimize the number of clusters formed, but at the same time, it maximizes the number of items that are included in the clusters. Furthermore, if there is a "general factor" in the item pool being clustered, the chances of obtaining it are increased by using the first alternative and decreased by using the second alternative.

Needless to say, the items or variables used will limit the clusters which result from the analysis. A cluster anticipated by theory will not result if there are no items relevant to it. (A similar observation might be made about factor analysis.) The findings reported in the following sections, therefore, are limited by—and to—the particular set of 80 items that was used in this study.

With these considerations in mind, the following procedures and decision rules were used:

1. Data for each group were analyzed separately.

2. A B-coefficient of 2.00 was used to define the cluster. This high value gave sufficient assurance that the clusters would be relatively pure, hence more useful as components of satisfaction (and ultimately, of work adjustment);

[14] Holzinger, K. J. and Harman, H. H. *Factor analysis: A synthesis of factorial methods.* Chicago: Univ. of Chicago Press, 1941. p. 27.

3. The decision rule was utilized that maximized the number of items included in the clusters, minimized the number of clusters resulting from the analysis, and maximized the likelihood of uncovering a general factor of satisfaction.

The first cluster was started with the two items that correlated the highest in the matrix. Items were added in the order of their average correlation with the items already in the cluster until the B-coefficient dropped to 2.00. At that point, a new cluster was started from the items not already in the first cluster, beginning with the two most highly correlated items. The procedure was repeated until no further clusters could be identified.

The item intercorrelation matrices used in the cluster analyses (one for each of the eight groups) were derived through the use of the University's Univac 1103 Scientific Computer. The correlation program for the computer was written by Dr. Frank Baker.[15] Preparation of the data cards as well as tabulation of the results was undertaken by Miss Lois Erickson of the University's Tabulation Laboratory. The cluster analysis itself was done by members of the Work Adjustment Project staff.

Results of the cluster analysis

Table 8 presents the clusters, the order in which they appeared in the cluster analysis and the number of items in each cluster, for each of the eight groups under study. From 54 to 64 or roughly three-fourths of the 80 items are included in the clusters. Clusters vary in size from 4 to 22 items, the median being a cluster of 8 items. There are as few as five and as many as eight clusters for a group.

Each cluster of items is named on the basis of item content. An examination of item content in each cluster (see following pages) shows that by and large the items in each cluster pertain to a single content "area." Cluster analysis had thus grouped the items into those that pertain to the same aspect of the work environment. In other words, for a given cluster, scores on the items added together reflect satisfaction with the particular aspect of the work environment in question. Therefore, a cluster of items may be considered to be a *scale* indicating satisfaction with that aspect of the work environment suggested by the item content of the cluster.

[15] Now at the University of Wisconsin.

For a given group of workers, the clustering of items into scales provides clues to the way in which satisfaction is "organized." The presence or absence of a scale for any group, or the clustering of differing sets of items for any scale, indicates differences in the "organization" of satisfaction for the group and, by inference, differences in the groups' perceptions of the work environment. These differences may be related to the three major variables of concern in this study, i.e., presence of a handicap, skill level, and "collar" setting.

Inspection of Table 8 shows that similar sets of scales appear for most groups. For all groups, a general job satisfaction scale appears first in the cluster analysis and, for all but one group, includes the largest number of items. This scale is usually followed in appearance by either the satisfaction-with-supervision or the satisfaction-with-working-conditions scale, with the supervision scale usually

Table 8. Order of appearance and number of items in clusters, by group

Cluster	Group[a] I	II	III	IV	V	VI	VII	VIII
1. General job satisfaction								
Rank[b]	1	1	1	1	1	1	1	1
N items	18	17	11	12	22	18	21	16
2. Working conditions								
Rank	2.5	2	5	5	4	3.5	2	4
N items	9	7	8	5	8	11	8	9
3. Supervision								
Rank	2.5	3	4	3	3	2	3	3
N items	9	11	11	10	13	13	9	13
4. Compensation								
Rank	4	4	7	4	2	3.5	4	2
N items	6	8	5	8	8	11	8	15
5. Co-workers								
Rank	6	5	8	7	6	5	5	5
N items	5	4	6	4	5	5	8	5
6. Sensitivity								
Rank	5	6	6	6	5	6	.....	.....
N items	13	11	14	5	5	5	.....	.....
7. Company								
Rank	.....	.....	3	2	.....	.....	.....	.....
N items	.....	.....	5	7	.....	.....	.....	.....
8. Type of work								
Rank	.....	.....	2	.....	.....	.....	.....	.....
N items	.....	.....	4	.....	.....	.....	.....	.....

[a] See Footnote [a] in Table 1, page 13.
[b] Order of appearance in the cluster analysis, i.e., 1 = first; 2 = second; etc.

having the second largest number of items. The other scales follow in fairly consistent order.

Five scales appear for all eight groups: general satisfaction with present job, satisfaction with working conditions, with supervision, with compensation, and with co-workers. A sixth scale is found for all groups except Groups VII and VIII (skilled white-collar workers, both handicapped and control) which, in terms of item content, represents a negative, suspicious, "thin-skinned" attitude toward various aspects of the work environment. This scale has been named "sensitivity." A satisfaction-with-company scale appears as a separate area of satisfaction for Groups III and IV (skilled blue-collar workers, both handicapped and control), while a satisfaction-with type-of-work scale appears only for Group III, the handicapped, skilled blue-collar group. In summary, the "organization" of satisfaction is generally similar for all eight groups, yet with sufficient scale content differences to merit further detailed examination. The following sections describe the item content of the scales and note group differences in scale content.

1. *The general job satisfaction scale*—Table 9 lists the items that clustered as the general job satisfaction scale for each of the eight groups. Heading the list are eight items which all groups perceive in common as highly interrelated. These eight items can thus be considered the core of the general job satisfaction scale.

Table 9. Items appearing in the general job satisfaction, satisfaction with company, and satisfaction with type of work scales, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
31. I feel I am happier in my work than most other people	G[b]	G	G	G	G	G	G	G
42. I like my job better than most people like theirs	G	G	G	G	G	G	G	G
48. I would like to change my line of work	G	G	G	G	G	G	G	G
63. Most of the time I feel satisfied with my job	G	G	G	G	G	G	G	G
77. Choose the ONE of the following statements which best tells how well you like your job. (Hoppock)	G	G	G	G	G	G	G	G

Table 9 continued

Item	Group[a] I	II	III	IV	V	VI	VII	VIII
78. Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job. (Hoppock)	G	G	G	G	G	G	G	G
79. Check the ONE of the following which best tells how you feel about changing your job. (Hoppock)	G	G	G	G	G	G	G	G
80. Check one of the following to show how you think you compare with other people. (Hoppock)	G	G	G	G	G	G	G	G
7. The work I do on my present job is interesting	G	G	T[a]	G	G	G	G	G
21. I feel that the work I do is very important	G		T	G		G	G	G
30. I'm getting valuable experience on my present job	G	G	T	G	G	G	G	G
72. Considering everything, my present job is	G	G	T	G	G	G	G	G
1. There isn't a better Company to work for than this one	G	G	C[4]	C	G	G		
16. If I planned to work until retirement age, I would like to stay with this Company all the time	G	G	G	C	G	G	G	G
37. This Company treats its employees better than most other companies I know about		G	C	C	G			
57. I have thought seriously about changing my present job	G	G	G	C	G	G	G	
66. The job that the top executives are doing in this Company is			C	C				G
67. All in all, as a place to work, this Company is	G	G	C	C	G			
71. The reputation of this Company in the community (how people feel and talk about this Company) is			C	C				
8. My present job suits me better than any other job in the Company I know of	G		G		G	G	G	G
11. I am told ahead of time of changes that will affect my work							G	G
12. I feel secure in my job	G						G	
15. My value to the department is recognized by my department head					G		G	
24. I get full credit for the work I do		G					G	

Table 9 continued

Item	Group[a] I	II	III	IV	V	VI	VII	VIII
32. The work in my department is handed out fairly among the employees						G	G	
5. Most employees in this Company are satisfied with their jobs					G			
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)					G			
28. The Company brings in outsiders for important jobs more often than they should					G			
41. I feel the Company tells me enough about its general policies (what they are trying to do)						G		
73. All in all, I would rate my immediate supervisor as							G	
74. Opportunities for promotion (a chance to get a better job) here are					G			

[a] See Footnote [a] in Table 1, page 13.
[b] G = These items clustered into a general job satisfaction scale.
[c] T = These items clustered into a satisfaction-with-type-of-work scale.
[d] C = These items clustered into a satisfaction-with-company scale.

The items listed in Table 9 suggest three basic sources of general job satisfaction: the present job, the type of work done, and the company for which the individual works. Most of the items pertain to an evaluation of present job, such as items which ask the individual how much of the time he is satisfied with his job, how satisfied he is compared with his co-workers and friends, and how often he has thought about leaving his present job. These items suggest that evaluation of present job is a general factor expressing degree of satisfaction with one's present work arrangements.

There are few differences among the eight groups in the items evaluating present job which are included in the general job satisfaction scale. The same six items, including the four Hoppock items, appear for all groups. The main group differences seem to be the ratio of type-of-work and company items to satisfaction-with-present-job items. The differing item "mixes" may provide some insight into the relative concern of each group for these aspects of general job satisfaction.

Along with items evaluating present job, three to five items appear which evaluate the type of work the individual does. These type-of-work items appear to pertain to occupational, rather than job, satisfaction. The interesting quality of the work done, the experience gained in the line of work and the importance of the work done are the terms used in evaluating satisfaction. Thus, satisfaction with type of work represents an occupational evaluation of the work one is doing, while satisfaction with present job is an evaluation of the work one is doing *in a particular setting.*

It is worth noting that the type-of-work items cluster as a separate scale for the handicapped, skilled blue-collar group (Group III). This illustrates how the organization of satisfaction may be altered—in this case, by the presence of disability. One might surmise that the skilled blue-collar worker is affected more uniquely by the misfortune of a physical handicap than are either the skilled white-collar worker or the unskilled worker. The skilled blue-collar worker who becomes physically handicapped may lose skills necessary to the performance of his occupation and yet must remain in the blue-collar environment due to lack of transferability of his remaining skills. The loss of occupational skills through a physical handicap, while possible, is probably less acute for workers in other occupational groups.

The third type of item in the general job satisfaction scale pertains to the company in which the worker is employed. These items are concerned with the company's reputation, the way it treats its employees, the company as a place to work, and the general morale of the company's employees. These items thus reflect a general evaluation of the company rather than of specific company policies and practices.

For six of the eight groups, satisfaction with company is part of general job satisfaction. For Groups III and IV (skilled blue-collar workers), by contrast, the satisfaction-with-company items constitute a separate scale. That is, for the skilled blue-collar workers (both handicapped and control) satisfaction with company is different from general job satisfaction. This inference seems consistent with previous observations regarding satisfaction with type of work and satisfaction with present job. The skilled blue-collar group stresses craft distinctions. The skilled blue-collar worker may work for many employers during his occupational career. Thus, satisfac-

tion with company is perceived by him as a separate area of satisfaction.

In summary, examination of scale item content suggests that general job satisfaction has three aspects: satisfaction with present job, satisfaction with type of work, and satisfaction with company or employer. They all express the individual's perception of "work" in our present society. That is, they represent the individual's evaluation of what he does, what he can do, and where he works to earn a living. General job dissatisfaction may represent a dissatisfaction broader than dissatisfaction with present job. This would be especially true if the dissatisfaction were more concerned with type of work than with present job or company. Thus, the scale as a whole may be taken as a general expression of the individual's evaluation of his *adjustment to work.* In most cases this evaluation will refer to the individual's present situation. In other cases, it may indicate a broader evaluation of which satisfaction with the present employment situation is merely a part.

2. *The working conditions scale*—Items that clustered into a satisfaction-with-working-conditions scale for each group are shown in Table 10. These items are primarily concerned with the physical attributes of the work environment. They evaluate such things as overall working conditions, rest and recreation facilities, cleanliness of surroundings, ventilation, lighting, and size of the individual's work space.

As in the case of the general job satisfaction scale, few group differences are observed for the working conditions scale. This is due to a core of five or six items which all groups perceive in common as representing an evaluation of working conditions. Differences are observed between handicapped and control groups within the blue-collar and white-collar groups. The handicapped blue-collar workers (Groups I and III) utilize more items to define their working conditions scale than do their control counterparts. Their scale includes items evaluating the adequacy of supplies and materials needed for job performance, of lockers, of the length of their rest periods and of the opportunities for promotion. For the handicapped blue-collar workers, therefore, satisfaction with working conditions means not only satisfaction with the physical necessities (light, ventilation, cleanliness, etc.) but also satisfaction with physical arrangements that "make life easier" for the disabled worker, and satisfaction with his opportunities for promotion.

In contrast to the above, the handicapped white-collar groups (Groups V and VII) utilize *fewer* items to define their working conditions scale than do the control groups of white-collar workers (Groups VI and VIII). The latter perceive satisfaction with the company as part of satisfaction with working conditions. Their working conditions scale includes items dealing with the reputation of the company in the community, adequacy of company communication with its employees, performance of the top executives, the company as a place to work, spirit of cooperation among the employees, and

Table 10. Items appearing in the working conditions scale, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
36. The place where I work is clean	X[b]	X	X	X	X	X	X	X
64. The lighting for my job is	X	X	X	X	X	X	X	X
65. The ventilation where I work is	X	X	X	X	X	X	X	X
76. General working conditions in my department—heat, light, space, noise, cleanliness, equipment, etc.—are	X	X	X	X	X	X	X	X
14. My working space is big enough	X	X		X	X	X	X	X
75. The place and equipment for the use of employees during rest and recreation periods are	X	X	X		X	X	X	
13. The supplies, materials, and equipment necessary to perform my job are easy to get	X		X		X		X	X
26. Our lockers are satisfactory	X		X		X		X	
29. Enough time is allowed for rest periods			X					X
37. This Company treats its employees better than most other companies I know about						X		X
5. Most employees in this Company are satisfied with their jobs		X						
35. The Company gives employees enough information about its financial position								X
66. The job that the top executives are doing in this Company is						X		
67. All in all, as a place to work, this Company is						X		
70. The spirit of cooperation among employees in my department is						X		
71. The reputation of this Company in the community (how people talk about this Company) is						X		
74. Opportunities for promotion (a chance to get a better job) here are	X							

[a] See Footnote [a] in Table 1, page 13.
[b] X = These items clustered into a satisfaction-with-working-conditions scale.

Table 11. Items appearing in the supervision scale, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
9. My immediate supervisor takes time to explain new work to me	X[b]	X	X	X	X	X	X	X
10. My immediate supervisor is quick to take care of complaints brought to him by employees	X	X	X	X	X	X	X	X
39. My immediate supervisor has the confidence and respect of those who work under him	X	X	X	X	X	X	X	X
43. My boss knows how to handle people	X	X	X	X	X	X	X	X
58. My boss is where he is because he knows the work	X	X	X	X	X	X	X	X
38. My immediate supervisor always understands what I am trying to do	X	X	X	X	X	X	X	
11. I am told ahead of time of changes that will affect my work	X	X	X	X	X	X		
23. My department head sees that new employees in the department get good training (shown how to do their jobs o.k.)	X	X	X		X	X		X
73. All in all, I would rate my immediate supervisor as		X	X	X	X	X		X
54. Things would be better for the Company if they got rid of my boss			X	X	X		X	X
40. My supervisor takes credit for work when he doesn't deserve it				X		X	X	X
24. I get full credit for the work I do			X		X	X		
32. The work in my department is handed out fairly among the employees	X				X			X
15. My value to the department is recognized by my department head		X				X		
25. There are enough meetings of our work group to talk over plans					X	X		
53. My boss "rides" me a little too much							X	X
6. The employees in this Company are satisfied with their jobs								X
46. My group work is usually like one big happy family		X						
70. The spirit of cooperation among employees in my department is								X

[a] See Footnote [a] in Table 1, page 13.
[b] X = These items clustered into a satisfaction-with-supervision scale.

the way the company treats its employees. It thus appears that "working conditions" for the white-collar control groups has very much to do with the particular company in question. That is, the white-collar control group are more "company-conscious" than their handicapped counterparts in evaluating working conditions.

Satisfaction-with-company items vary in scale membership. For the non-skilled blue-collar workers, both handicapped and control (Groups I and II), and for the handicapped white-collar workers, both skilled and non-skilled (Groups V and VII), the company items cluster with the general job satisfaction scale. For the skilled blue-collar workers, both handicapped and control (Groups III and IV), these items cluster into a separate scale of their own. Finally, for the white-collar control groups, Groups VI and VIII, they cluster with the working conditions scale.

3. *The supervision scale*—Table 11 shows the items that cluster into a satisfaction-with-supervision scale for each group. Five items evaluating the supervisor constitute the core of this scale for all groups. These items refer mainly to the "human relations" aspects of the supervisor's job, such as the way he handles people, whether or not he has the confidence and respect of his subordinates, his degree of understanding, how he handles complaints, how well he communicates with his men. The scale thus emphasizes the supervisor's interpersonal skills rather than his work skills. It evaluates the supervisor more in terms of his being accepted by his subordinates than of his effectiveness in getting the work out.

The few differences that are observed concern the addition of items to the five-item core by some groups. If inclusion of items in the scale is indicative of what the workers perceive are the essential aspects of supervision, the following observations are in order. The non-skilled handicapped workers (Groups I and V) are concerned with the fairness with which the work is handed out, while their control counterparts (Groups II and VI) feel it important for the supervisor to recognize the value of the individual worker. Unlike the blue-collar workers, the white-collar workers (Groups V through VIII) are concerned that the supervisor give full credit for good work and that he not "ride" the worker too much. The inclusion of items to the five-item core of the supervision scale appears to derive from the social-psychological consequences of the social structure in the world of work. For instance, the white-collar worker aspires to positions of greater responsibility more

Table 12. Items appearing in the compensation scale, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
3. My pay is all right for the kind of work I do	X[b]	X	X	X	X	X	X	X
49. I really shouldn't expect to be making more money than I do	X	X	X	X	X	X	X	X
68. Considering the present cost of living, my pay is	X	X	X	X	X	X	X	X
56. Considering the money I used to make, I'm doing pretty well right now	X	X	X	X	X	X	X	X
61. I make as much money as most of my friends	X	X	X	X	X	X	X	X
60. I often feel like demanding a pay raise	X			X	X	X	X	X
51. I do not like the way they figure pay increases in this Company				X	X	X	X	X
45. I need a promotion if I am to stay happy here				X		X	X	X
12. I feel secure in my job		X			X			
74. Opportunities for promotion (a chance to get a better job) here are						X		X
1. There isn't a better Company to work for than this one								X
4. I get a fair share of overtime work		X						
15. My value to the department is recognized by my department head								X
17. I am satisfied with the length of vacations the Company gives								X
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)						X		
28. The Company brings in outsiders for important jobs more often than they should						X		
52. I would like to exchange my present job for another job in the same line of work								X
57. I have thought seriously about changing my present job								X
62. Some of my fellow workers are among my best friends		X						
67. All in all, as a place to work, this Company is								X

[a] See Footnote [a] in Table 1, page 13.
[b] X = These items clustered into a satisfaction-with-compensation scale.

than does the blue-collar worker, hence the inclusion of more "recognition" items in his supervision scale.

4. *The compensation scale*—Table 12 lists the items which clustered for the satisfaction-with-compensation scale. Six items heading the list are common to most groups and thus form the core of the scale. These items are of two sorts: four items provide standards for the evaluation of pay (e.g., in terms of work performed, previous wages, what the worker's friends make, the present cost of living); two items offer reactions to the pay situation ("I really shouldn't expect to be making more money than I do"; "I often feel like demanding a pay raise"). (These items are among those on which groups differed significantly in the item analyses. This fact makes the compensation scale probably the most differentiating of the scales defined by cluster analysis.)

Group differences in scale item content consist of variations in additions to the core items. The control groups have more items in their compensation scales, more "evaluation" items such as the appraisal of vacations and promotional opportunities, and more "reaction" items such as wanting to change jobs or employers. It is interesting to note that the handicapped groups include *fewer* "reaction" items, as if the alternative of leaving the job when dissatisfied with pay does not exist for these workers.

5. *The co-workers scale*—Table 13 shows the items which clustered into a satisfaction-with-co-workers scale for each group. Five items deal with the "friendliness" of co-workers. Four of these form the core for the white-collar groups, both handicapped and control (Groups V through VIII), and for the handicapped blue-collar workers (Groups I and III). The blue-collar control groups are not particularly interested in the "friendliness" aspect of satisfaction with co-workers, but rather, with the "spirit of cooperation" and with "doing (one's) fair share of work." These latter aspects of satisfaction with co-workers are also incorporated into the scales of the handicapped white-collar workers. No striking differences between skill levels are observed.

6. *The sensitivity scale*—The previous five scales appear for all eight groups under study. A sixth scale, "sensitivity," appears for all but the skilled white-collar workers, and for three groups (Groups IV, V, and VI) it is a small, five-item scale. The scale is so

Table 13. Items appearing in the co-workers scale, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
19. I like all the people with whom I work	X[b]		X		X	X	X	X
20. Most of the employees around me are the kind who will say hello when I pass them on the street	X	X	X			X	X	X
46. My work group is usually like one big happy family	X		X		X	X	X	X
55. I do not know a friendlier bunch than the people I work with	X		X		X	X	X	X
70. The spirit of cooperation among employees in my department is	X	X		X	X		X	
6. The employees in my department are willing to do their fair share of work		X	X	X	X		X	
62. Some of my fellow workers are among my best friends			X			X	X	
22. There is a lot of favoritism in my department (some employees are given all the breaks)							X	X
5. Most employees in this Company are satisfied with their jobs				X				
32. The work in my department is handed out fairly among the employees		X						
50. I have to work harder because some of my co-workers "goof off"				X				

[a] See Footnote [a] in Table 1, page 13.
[b] These items clustered into a satisfaction-with-co-workers scale.

named because the items which constitute it deal with the worker's sensitivity about his position in the social structure of the world of work. These items are shown in Table 14.

Two characteristics of the scale may be noted: first, the items are worded in a negative manner. That is, they depict conditions which are unfavorable from the worker's point of view. Secondly, the "sensitivity" is oriented toward aspects of the work environment which for the most part deal with "getting ahead."

As in the supervision and compensation scales, group differences observed for the sensitivity scale appear to stem from the social structure of the work setting, and the advantageous or disadvantageous positions occupied by the different groups. Thus, the four blue-collar groups have four items in common. These items all refer to one's chances for occupational achievement and the possibility of upward mobility, viz., references to "playing politics," "luck rather than ability," "rating better with management," and

Table 14. Items appearing in the sensitivity scale, by group

Item	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
22. There is a lot of favoritism in my department (some employees are given all the breaks)	X[b]	X	X	X	X	X		
44. My fellow workers rate better with management than I do	X	X	X	X	X	X		
2. It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.)	X	X	X	X				
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)	X	X	X	X				
47. My boss is only interested in getting the work out	X	X	X			X		
53. My boss "rides" me a little too much	X		X	X		X		
28. The Company brings in outsiders for important jobs more often than they should	X	X	X					
33. My immediate boss expects me to do more than my share of the work	X	X	X					
34. The Company should do more to help employees with their personal problems (like family troubles, etc.)	X	X						
40. My supervisor takes credit for work when he doesn't deserve it	X	X	X					
50. I have to work harder because some of my co-workers "goof-off"	X	X	X					
45. I need a promotion if I am to stay happy here		X	X					
51. I do not like the way they figure pay increases in this Company	X		X					
54. Things would be better for the company if they got rid of my boss	X					X		
20. Most of the employees around me are the kind who will say hello when I pass them on the street					X			
32. The work in my department is handed out fairly among the employees			X					
52. I would like to exchange my present job for another job in the same line of work			X					
62. Some of my fellow workers are among my best friends					X			
59. I sometimes wonder what my co-workers are talking about					X			

[a] See Footnote [a] in Table 1, page 13.
[b] X = These items clustered into a sensitivity scale.

"favoritism." These concerns are to be expected in a "culture" which stresses achievement, yet "closes the door" and removes the means for attaining this goal—the result of which is a situation referred to by Durkheim as "anomie."[16] Items added to the four-item core point up the other concerns of the group which contribute to the state of "anomie." For example, the non-skilled blue-collar worker (handicapped or control) is "sensitive" about various work practices, such as the bringing in of "outsiders" for special jobs, being pressured to do more than one's fair share of work, having to work harder because one's co-workers "goof off," and having the supervisor take credit for one's work. The handicapped, skilled blue-collar worker includes these items in his sensitivity scale, unlike his control counterpart who does not. Furthermore, both skilled and non-skilled handicapped blue-collar workers add items referring to the way pay increases are figured and to pressure from the "boss."

Thus, the non-skilled blue-collar worker's position in the social structure of the world of work is perceived (by him) as a "sensitive" matter. The presence of disability structures this "sensitivity" further, in that the handicapped skilled blue-collar worker's sensitivity scale is more similar to that of the non-skilled blue-collar worker than it is to that of his skilled blue-collar control counterpart.

By contrast, it might be inferred that the white-collar worker does not perceive the social structure at work as "closed," i.e., limiting. This inference may be drawn from the failure of the sensitivity scale to appear in the skilled white-collar groups and the appearance of short, five-item scales in the non-skilled white-collar groups. In these scales, the handicapped workers direct their sensitivity toward their co-workers, while their control counterparts orient their sensitivity toward their supervisors.

There is another explanation for the failure of the sensitivity scale to appear strongly for the white-collar groups. This is that the item pool used in this study does not include items pertinent to the areas of sensitivity for the white-collar worker. It is also conceivable that the white-collar workers have areas of sensitivity not tapped by the present instruments and *at the same time* do *not* perceive the social structure and related work practices as threat-

[16] A recent, very lucid discussion of Durkheim's concept of "anomie" may be found in Merton, R. K., *Social theory and social structure*. Glencoe, Ill.: Free Press, 1957. p. 131 ff.

ening to their occupational achievement. In any case, within the limitations of the present instrument, the white-collar worker exhibits a much narrower range of sensitivity.

The preceding sections have shown that, in general, the eight groups have tended to "organize" satisfaction in similar fashion with respect to the scales developed. However, differences do appear in the items which constitute the scales. Differences in scale item content appear more frequently between skilled and non-skilled, and between blue- and white-collar groups, and less frequently between handicapped and control groups. This finding suggests that presence or absence of disability has relatively less influence in "organizing" the work satisfactions of the individual than does the work environment as determined by one's occupation.

In summary, six "satisfactions" have been identified for the eight groups under study. These "satisfactions" represent different "objects of satisfaction" in the work environment as well as different *frames of reference* in viewing these "objects of satisfaction." Thus, "general job satisfaction" expresses satisfaction with one's present job, occupation and company. It might be thought of as representing a "psychological" frame of reference for the individual. "Satisfaction with supervision" reflects an evaluation of the interpersonal competence of the supervisor, while "satisfaction with co-workers" is an evaluation of the individual's interpersonal relations with his co-workers. As such, these two scales represent a "social-psychological" frame of reference for the individual. "Sensitivity" expresses the individual's perceived difficulty in achieving occupational recognition or status, thus representing the individual's "sociological" frame of reference. "Satisfaction with compensation" and "satisfaction with working conditions" deal with the financial and physical aspects of the work environment and thus represent the "impersonal" aspects of the individual's satisfactions.

Two psychometric questions may be raised at this point: How reliable are the scales? How independent are they?

Table 15 presents the reliability coefficients for all scales for all groups. These coefficients were computed by the Hoyt analysis-of-variance method.[17] The coefficients range from .65 to .94 with most of them being in the middle and high .80's. The general job satis-

[17] Hoyt, C. J. Test reliability estimated by analysis of variance. *Psychometrika*, 1941, 3, 153-160.

Table 15. Pre-reciprocal-averages scale reliabilities, by group

Scale		Group[a] I	II	III	IV	V	VI	VII	VIII
General job satisfaction	R[b]	.92	.92	.89	.91	.92	.92	.94	.92
	N[c]	18	17	11	12	22	18	21	16
Working conditions	R	.82	.83	.82	.82	.77	.85	.81	.85
	N	9	7	8	5	8	11	8	9
Supervision	R	.86	.89	.90	.89	.90	.89	.88	.90
	N	9	11	11	10	13	13	9	13
Compensation	R	.74	.77	.75	.84	.82	.85	.83	.90
	N	6	8	5	8	8	11	8	15
Co-workers	R	.76	.73	.76	.71	.75	.65	.74	.72
	N	5	4	6	4	5	5	8	5
Sensitivity	R	.85	.81	.87	.70	.68	.66	.....	.....
	N	13	11	14	5	5	5	.....	.....
Company	R	.....[d]	.....	.85	.90	.....	.....	.....	.....
	N	.....	.....	5	7	.....	.....	.....	.....
Type of work	R	.....	.....	.87	.....	.....	.....	.....	.....
	N	.....	.....	4	.....	.....	.....	.....	.....

[a] See Footnote [a] in Table 1, page 13.
[b] Hoyt internal consistency reliability coefficient.
[c] Number of items in the scale.
[d] The scale did not appear in cluster analysis for this group.

faction scale is the most reliable, with a median coefficient of .92. This scale is followed, in order of reliability, by the supervision, working conditions, compensation, sensitivity, and co-workers scales. For the co-workers scale, the median coefficient is .74, while the other scales range in median reliability coefficients from .76 to .89. Thus, one may conclude that, with some exceptions, the scales developed through cluster analysis as described in the preceding pages are sufficiently reliable for measurement purposes.

Appendix D shows the inter-scale correlation matrix for each of the eight groups. Median inter-scale correlation coefficients range from .37 (for Group V, handicapped, non-skilled white-collar) to .47 (for Group VIII, control, skilled white-collar). More than half of the coefficients are in the .30's and .40's. Only 8 of the 129 coefficients are .60 or higher, while 20 coefficients are lower than .30. These data show that the scales developed through cluster analysis are sufficiently independent for their intended use.

Analysis of scale variance

Up to this point, the discussion has focused on the development of satisfaction scales for each group, the examination of scale con-

tent, the comparison of scales among the different groups, the interpretation of scale differences among groups and the investigation of the psychometric properties of the scales. Little mention has been made concerning the *findings* on satisfaction. That is, for any given group, in which aspect (scale) is it most satisfied? Least satisfied? For any given scale, which group is most satisfied? Least satisfied?

The analysis of variance technique employed in Section I, Item Analysis, is again utilized to investigate the questions mentioned above. To enable the use of analysis of variance, scale scores are converted to a standard base with values ranging from 1 to 5. The conversion involves dividing the scale score by the number of items on the scale.[18] This procedure equates for differences in the number of items (a) among scales, for any given group, and (b) among groups, for any given scale. Table 16 shows the mean scale scores for each scale and for each group.

Table 16. Mean scale scores, by group

Scale	Group*							
	I	II	III	IV	V	VI	VII	VIII
1. General job satisfaction	3.40	3.61	3.59	3.76	3.56	3.66	3.41	3.93
2. Working conditions	3.49	3.64	3.51	3.69	3.73	3.85	3.85	3.91
3. Supervision	3.55	3.73	3.53	3.77	3.67	3.76	3.87	3.97
4. Compensation	3.20	3.38	3.40	3.45	3.14	3.25	3.31	3.52
5. Co-workers	3.75	3.95	3.68	3.84	3.77	3.83	3.93	3.97
6. Sensitivity	3.41	3.50	3.47	3.72	3.77	3.89	.....	.....

* See Footnote * in Table 1, page 13.

The first hypothesis tested is that the mean scale scores are equal, within each group. That is, for each group, is the degree of satisfaction the same for all aspects (scales) of satisfaction? The analysis of variance data are summarized in Appendix E. These data show that for seven of the eight groups, the hypothesis is rejected, i.e., the mean scale scores are *not* equal. This means that in these seven groups, there are different degrees of satisfaction with different aspects of the work situation. Only Group III (the handicapped,

[18] For purposes of this analysis, the seven categories of the Hoppock Job Satisfaction blank were collapsed into five categories, using the distribution of the total group (N = 1,168) as the basis for combining categories.

skilled blue-collar workers) is equally satisfied with all aspects of the work situation.

Certain results uniformly appear for the other seven groups. In general, satisfaction with co-workers is highest, followed (in order of satisfaction) by satisfaction with supervision, with working conditions, general job satisfaction, sensitivity, and satisfaction with compensation. The blue-collar groups are unanimously most satisfied with their co-workers and least satisfied with their compensation. The white-collar groups show similar, though less unanimous, evaluations.

The next hypotheses tested concern differences in degree of satisfaction among the groups for each aspect of satisfaction. That is, given an aspect of satisfaction (as measured by the relevant scale), is there a statistically significant difference in mean scale score between (a) handicapped and control groups; (b) skilled and non-skilled groups, and (c) blue-collar and white-collar groups? The pertinent data are shown in Table 16 and Appendix F.

The analyses of variance yield the following results:

(a) On every scale (that is, every aspect of satisfaction) the handicapped workers are significantly *less* satisfied than their control counterparts;

(b) No differences are observed between skilled and non-skilled workers; and,

(c) Differences between blue-collar and white-collar workers are observed on three scales: supervision, working conditions and sensitivity. On all three, the white-collar workers are more satisfied than the blue-collar workers.

Summary

This section concerns two separate but not unrelated topics: the development of scales measuring different aspects of satisfaction and the interpretation of satisfaction data using the newly developed scales. Cluster analysis was used to define the scales and to explore the "organization" of satisfaction. Sets of scales for eight different groups were constructed to measure satisfaction with different aspects of the work situation. With some exceptions, these scales have been shown to have high reliability and some degree of independence.

Analysis of variance was used to investigate differences in degree of satisfaction. Comparisons within groups and among groups lend support to the following general conclusions:

(a) Differences in the "organization" of satisfaction tend to be associated mainly with differences in the work setting (blue-collar vs. white-collar) and with differences in skill level (skilled vs. non-skilled). Presence or absence of a disability seems to be less of a factor in "organizing" the satisfaction of workers.

(b) On the other hand, presence or absence of a disability is a major factor in determining the *level* of satisfaction expressed by workers. The handicapped worker is invariably less satisfied than his control counterpart.

Factor Analysis and Refinement of the Scales

The interpretation of the satisfaction scales presented in the preceding section was based primarily on the item content of the scales and additionally on differences observed among the groups under study. While useful, this type of interpretation suffers from a certain amount of subjectivity and a lack of quantification. Factor analysis provides a method which partially surmounts these limitations. It is a more objective and quantitative method of interpretation.

Factor analysis of the scales

Each of the inter-scale correlation matrices shown in Appendix D was factor analyzed by the "principal components" method (as presented by H. H. Harman[19] and as programmed for the Control Data 1604 computer by Larry Liddiard[20]). The "principal components" method of factor analysis starts by extracting the "common factor" which accounts for the largest portion of the common variance represented in the correlation matrix. A residual matrix is then computed and the procedure repeated. That is, the common factor accounting for the largest portion of the common variance represented in the residual matrix is extracted, after which a new residual matrix is computed. Factors are extracted by this iterative procedure until an overwhelming portion of the original common variance is accounted for.

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[19] Harman, H. H. *Modern factor analysis.* Chicago: Univ. of Chicago Press, 1960.
[20] At the Numerical Analysis Center, University of Minnesota.

Liddiard's program utilizes Harman's criteria for determining the appropriate number of factors to extract from a matrix. It also follows Harman's method of using the squared multiple correlation coefficient as the best approximation of original communality. The program rotates factors orthogonally, using the Kaiser "varimax" criterion, thus approximating "simple structure" as nearly as is presently possible.

Tables 17 through 24, present the factor structure of the satisfaction scales for each group. These tables list the factor loadings and estimated communalities for the scales. A factor loading may be interpreted as the correlation between the scale and the factor, while communality indicates the proportion of the scale's variance that is "in common" with the variance of other scales. Thus, factor loadings are used to identify the factor (because they identify the major determinants of the factor), while communalities may be used to determine a scale's relative independence (i.e., specificity.)

Easily the most significant finding resulting from the eight factor analyses is the fact that only one common factor emerges to "explain" the common variance among the scales. The nature of this common factor, however, tends to show differences from group to group.

Table 17. Pre-reciprocal-averages varimax multiple factor matrix for Group I: handicapped, non-skilled blue-collar (N = 205)

Scale	Factor I	Communality
Working conditions	.641	.411
Supervision	.726	.527
Compensation	.578	.335
Co-workers	.674	.455
Sensitivity	.447	.200
General job satisfaction	.686	.470
Contribution of factors	2.398	2.398
Proportion of common variance	1.00	*1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.393
Supervision	.509
Compensation	.336
Co-workers	.450
Sensitivity	.193
General job satisfaction	.404

Table 17 shows that for Group I (handicapped, non-skilled blue-collar) the highest factor loadings are in the supervision, general job satisfaction, and co-workers scales. All six scales for this group have substantial factor loadings. However, the sensitivity and compensation scales show communalities of .20 and .33 respectively, indicating that these scales are more independent of the other scales.

Group II (control, non-skilled blue-collar) has a factor structure similar to its handicapped counterpart. (See Table 18.) Again, the highest factor loadings are found in the supervision and general job satisfaction scales. As it was for Group I, the lowest communalities are found for the compensation and sensitivity scales.

These findings indicate that the common factor in the satisfaction data for the non-skilled blue-collar workers (both handicapped and control) is predominantly interpersonal or social-psychological in nature, while evaluation of the impersonal aspects of the environment is secondary. For these two groups, the sensitivity and compensation scales are the most independent.

Table 19 shows that the common factor appearing for Group III (handicapped, skilled blue-collar) consists primarily of loadings in the general job satisfaction, company, supervision, and type of work scales. While factor loadings are relatively high for all eight scales,

Table 18. Pre-reciprocal-averages varimax multiple factor matrix for Group II: control, non-skilled blue-collar (N = 177)

Scale	Factor I	Communality
Working conditions	.662	.438
Supervision	.767	.589
Compensation	.487	.237
Co-workers	.673	.454
Sensitivity	.544	.296
General job satisfaction	.761	.578
Contribution of factors	2.592	2.592
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.408
Supervision	.510
Compensation	.284
Co-workers	.418
Sensitivity	.290
General job satisfaction	.530

the working conditions, compensation, sensitivity, and co-workers scales have communalities of less than .40. The co-workers scale, with a communality of .27, has the least "in common" with the other scales.

Table 19. Pre-reciprocal-averages varimax multiple factor matrix for Group III: handicapped, skilled blue-collar (N = 116)

Scale	Factor I	Communality
Working conditions	.626	.392
Supervision	.682	.465
Compensation	.613	.376
Co-workers	.524	.275
Sensitivity	.588	.346
Company	.798	.637
Type of work	.673	.452
General job satisfaction	.809	.655
Contribution of factors	3.598	3.598
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.482
Supervision	.465
Compensation	.394
Co-workers	.254
Sensitivity	.460
Company	.601
Type of work	.518
General job satisfaction	.647

As Table 20 shows, Group IV (control, skilled blue-collar) structures satisfaction similarly to its handicapped counterpart. The common factor for this group has its highest loadings in the company and supervision scales, followed closely by loadings in the general job satisfaction and co-workers scales. The sensitivity, working conditions and compensation scales have communalities of less than .40.

One major difference between the handicapped and control groups of skilled blue-collar workers concerns the co-workers scale. This scale has a communality of .27 for the handicapped group (the lowest among the eight scales), compared with a communality of .43 for the control group. (A difference in the composition of the two co-workers scales was noted earlier. See page 43.)

Table 20. Pre-reciprocal-averages varimax multiple factor matrix for Group IV: control, skilled blue-collar (N = 128)

Scale	Factor I	Communality
Working conditions	.593	.352
Supervision	.754	.569
Compensation	.569	.324
Co-workers	.659	.435
Sensitivity	.627	.393
Company	.759	.633
General job satisfaction	.683	.466
Contribution of factors	3.17	3.17
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.329
Supervision	.522
Compensation	.301
Co-workers	.444
Sensitivity	.411
Company	.630
General job satisfaction	.536

As it did for the non-skilled blue-collar workers, the common factor in the satisfaction data for the skilled blue-collar workers (both handicapped and control) stresses the interpersonal aspects of the work environment and relegates the impersonal aspects to a secondary position. However, while of secondary rank, satisfaction with these impersonal aspects (i.e., working conditions and compensation) is nevertheless an important component of the common satisfaction factor (as shown by the relatively high factor loadings in the "impersonal" scales).

The most notable difference in factor structure between handicapped and control groups occurs for the non-skilled white-collar workers. Table 21 shows that the pattern of factor loadings for the handicapped group (Group V) is similar to that of the blue-collar groups. That is, the highest loadings are in the supervision and general job satisfaction (i.e., interpersonal) scales, while the "impersonal" scales (compensation and working conditions) have lower factor loadings. The similarity between blue- and white-collar groups of handicapped, non-skilled workers extends to the low communalities (.20 and .23 respectively) obtained for the sensitivity scale.

Table 21. Pre-reciprocal-averages varimax multiple factor matrix for Group V: handicapped, non-skilled white-collar (N = 168)

Scale	Factor I	Communality
Working conditions	.528	.279
Supervision	.798	.637
Compensation	.585	.342
Co-workers	.591	.349
Sensitivity	.482	.232
General job satisfaction	.719	.516
Contribution of factors	2.356	2.356
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.303
Supervision	.564
Compensation	.368
Co-workers	.384
Sensitivity	.247
General job satisfaction	.468

As Table 22 shows, the factor structure for Group VI (control, non-skilled white-collar) differs from that of Group V primarily in the factor loadings for the general job satisfaction and co-workers scales. These scales, which in Group V ranked high in factor loading, have factor loadings and communalities in Group VI lower than those for the working conditions, compensation and sensitivity scales. This difference is all the more remarkable when one considers that the majority of items in the two scales is identical for both groups. (See pp. 34-36, 44.) One point of similarity between Groups V and VI is that for both groups the highest factor loading is in the supervision scale.

Essentially similar factor structures appear for Groups VII and VIII (handicapped and control groups of skilled white-collar workers). (See Tables 23 and 24.) Highest factor loadings for both groups are in the general job satisfaction and supervision scales. Some difference is observed in the communalities for the "impersonal" scales (working conditions and compensation). These scales have higher communalities for the control group than for the handicapped group. That is, satisfaction with the "impersonal" aspects of the work environment constitutes a larger portion of the common

Table 22. Pre-reciprocal-averages varimax multiple factor matrix for Group VI: control, non-skilled white-collar (N = 127)

Scale	Factor I	Communality
Working conditions	.629	.396
Supervision	.683	.466
Compensation	.622	.387
Co-workers	.522	.272
Sensitivity	.609	.371
General job satisfaction	.607	.368
Contribution of factors	2.262	2.262
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.357
Supervision	.426
Compensation	.341
Co-workers	.261
Sensitivity	.357
General job satisfaction	.328

satisfaction factor for the control group of skilled white-collar workers than for their handicapped co-workers.

Despite the differences noted above, the common factor of satisfaction found in these analyses is similar for the eight groups studied. This common factor is basically social-psychological in nature since the highest factor loadings are found in scales which evaluate the interpersonal relations encountered by the worker on the job. However, satisfaction with the "impersonal" aspects of work is of some, if secondary, importance in the interpretation of the common satisfaction factor. Substantial (.50 and above) factor loadings resulted for the "impersonal" scales (working conditions and compensation).

The factor analysis data also provide new information about the satisfaction scales. The general job satisfaction and supervision scales generally have communalities in the .50's or better. The sensitivity, compensation, working conditions, and co-workers scales have communalities in the .40's or lower. These latter scales are therefore more independent of the common factor. The sensitivity scale is most independent (with communalities in the .20's and .30's) and the compensation scale the next most independent (communalities in the .30's). The sensitivity scale is more independent for the

Table 23. Pre-reciprocal-averages varimax multiple factor matrix for Group VII: handicapped, skilled white-collar (N = 149)

Scale	Factor I	Communality
Working conditions	.517	.267
Supervision	.684	.468
Compensation	.613	.376
Co-workers	.484	.234
General job satisfaction	.806	.649
Contribution of factors	1.994	1.994
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.220
Supervision	.414
Compensation	.352
Co-workers	.206
General job satisfaction	.542

handicapped groups than for the control groups. The co-workers scale is a more important determiner of the common satisfaction factor for the blue-collar groups than for the white-collar groups. Among the blue-collar workers, the compensation scale is more important to the common satisfaction factor in the handicapped

Table 24. Pre-reciprocal-averages varimax multiple factor matrix for Group VIII: control, skilled white-collar (N = 98)

Scale	Factor I	Communality
Working conditions	.663	.440
Supervision	.700	.490
Compensation	.596	.355
Co-workers	.634	.402
General job satisfaction	.751	.563
Contribution of factors	2.251	2.251
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.382
Supervision	.422
Compensation	.370
Co-workers	.402
General job satisfaction	.486

groups than in the control groups, while the working conditions scale is more a determiner of the common factor in the non-skilled than in the skilled groups. Among the white-collar workers, the working conditions scale contributes more to the common satisfaction factor in the control groups than in the handicapped groups.

Refinement of the scales

Because the factor analyses reported above resulted in one common factor and relatively high communalities for the scales, it appeared that the scales (as developed to this point) were measuring too much of the same thing. In other words, one scale could have done almost as well as the five or more scales developed through cluster analysis. Two alternative explanations might account for the factor analytic results: (a) Satisfaction is unitary, hence any type of satisfaction scale will yield loadings on only one common factor; and (b) the scale score (person's total score on a scale) is not "pure" or unidimensional enough, hence the high communalities. That is, since all items are allowed to contribute equally to the scale scores, items (across scales) which are relatively more highly inter-correlated and more numerous will exert undue influence on the appearance of the common factor(s). This could account for the appearance of only one common factor in the satisfaction data. If the latter explanation is correct, then the refinement of the scales to yield more unidimensional scores should result in more common factors being identified and/or lower communalities. If the first explanation is the correct one, then scale refinement would still result in only one common factor and the communalities would be increased.

The Method of Reciprocal Averages was used to refine the scales.[21] This is an iterative method of reweighting item response scores, utilizing total score as the criterion. It begins by computing a total score for each individual using response weights which have been assigned beforehand. A new weight for each item response is determined, the value of which is proportional to the arithmetic mean of the total scores of all individuals in the group which se-

[21] See: Mosteller, F. *A theory of scalogram analysis, using noncumulative types of items.* Report No. 9. Laboratory of Social Relations. Harvard University. See also: Hoyt, C. J. and Collier, R. O., Jr. The mathematical basis of reciprocal averages. Paper presented at the Psychometric Society, Cleveland, Ohio, September 9, 1953. (Mimeographed)

lected that particular response. This process of assigning new weights is done for all responses to all items in the scale. A new total score (based on the new weights) is computed for all individuals. The whole procedure is repeated, using the new total scores as the basis for assigning a third set of weights. This process of determining new item response weights is repeated until successive iterations show no change in the weights within the desired degree of precision. The degree of precision is indicated by the "convergence parameter" which is the sum of the squares of the differences between the old and the new sets of weights. The lower the convergence parameter, the "purer" the scale. (In refining the satisfaction scales, a convergence parameter of 1 was used, the lowest parameter which the University computer could handle.)

The reciprocal averages method results in a total score on what is essentially the "principal component" or major content area of the scale. According to Mosier,[22] the following desirable psychometric properties are achieved by reciprocal averages: (a) the reliability of each item and the internal consistency of the weighted inventory (scale) are maximized; (b) the correlation between the item and total score is maximized; (c) the coefficient of variation is maximized; (d) the correlation between item and total score is proportional to the standard deviation of the item weights for that item; and (e) items which bear no relation to the total score are automatically weighted so that they exert no effect on the total score.

The patterns of weights which result are informative in interpreting the scale content. An item which has no relation to the main content of the scale will receive equal weights for all its response categories. Items whose responses differentiate well between high- and low-scoring individuals will receive weights which have a relatively large range of values. The range of weights for response choices is therefore indicative of the discriminative power of the item. These discriminative items, in turn, may be used to identify or name the scale.

Appendix G presents the original (pre-reciprocal-averages) and post-reciprocal-averages weights for the response choices to each item included in the satisfaction scales. These are given for all eight groups. The computation of the new weights for item response

[22] Mosier, C. I. Machine methods in scaling by reciprocal averages. Proceedings, *Research Forum*, 1946, pp. 35-39. (New York: International Business Machines Co.)

choices was done on the University computer, using a program written by Dr. Frank Baker.

Appendix G shows that, in general, the reciprocal averages method resulted in patterns of weights which are fairly similar to those originally assigned. Different post-reciprocal-averages weight patterns may be of some interest to researchers and practitioners alike, and examples of these may be worth noting. The following illustrations are drawn from the general job satisfaction scale, as listed in Appendix G:

(a) Item 31 for Group I is a good example of the desired, highly discriminating item, with its weights (7, 5, 4, 2, 1) spread evenly over a large range;

(b) Item 41 for Group VI shows the opposite, a non-discriminating item (weight pattern: 1, 1, 1, 1, 1);

(c) Item 1 for Group II is a poor item (weight pattern: 2, 3, 2, 2, 1);

(d) Item 67 for Group I shows a reversal of weights at one end of the response continuum (weight pattern: 4, 6, 4, 3, 1);

(e) Item 79 for Group I shows a "curved" pattern (weight pattern: 1, 2, 3, 5, 5, 4, 6);

(f) Item 5 for Group V is an example of discrimination at only one end of the response continuum (weight pattern: 3, 3, 3, 2. 1)

(g) Item 8 for Group VII shows discrimination only at the extreme responses (weight pattern: 4, 2, 2, 2, 1);

(h) Item 1 for Group VI shows only one response choice is discriminative (weight pattern: 3, 1, 1, 1, 1); and,

(i) Item 16 for Group I is an instance when the reciprocal averages method did not change the original weights.

The patterns of the post-reciprocal-averages weights, their range and distribution, are generally better for the blue-collar groups than for the white-collar groups. Several scales for the white-collar groups show a relatively narrow range of weights. This finding suggests that the items used in this study are more meaningful (i.e., more relevant or pertinent) to the blue-collar workers. It is interesting to note that the weight patterns for the handicapped, white-

collar groups (both skilled and non-skilled) are very similar to those of the blue-collar groups. (It may be that the presence of a handicap has the effect on white-collar workers of heightening the same concerns as those of blue-collar workers.)

Having derived new scale scores for each individual through the reciprocal averages weighting procedure, scales were again intercorrelated for each group. These intercorrelations are shown in Appendix H. With few exceptions, these intercorrelations decreased or remained the same. Median inter-scale correlation decreased for all groups except Group II (where it remained substantially the same). This means that the application of reciprocal averages weighting resulted in generally more independent scales.

A comparison of the pre- and post-reciprocal-averages inter-scale correlation matrices shows negative correlations after reciprocal averages where none appeared before reciprocal averages. These negative correlations are associated with the sensitivity scale. Previous to reciprocal averages, the sensitivity scale correlated low positive with all other scales (for all groups). After the reciprocal averages reweighting process, the sensitivity scale correlated low negative with the other scales.

Table 25. Post-reciprocal-averages scale reliabilities, by group

Scale		Group[a]							
		I	II	III	IV	V	VI	VII	VIII
General job satisfaction	R[b]	.93	.93	.90	.93	.93	.92	.95	.93
	N[c]	18	17	11	12	22	18	21	16
Working conditions	R	.84	.83	.87	.84	.79	.87	.79	.86
	N	9	7	8	5	8	11	8	9
Supervision	R	.87	.92	.91	.91	.91	.90	.89	.95
	N	9	11	11	10	13	13	9	13
Compensation	R	.78	.82	.93	.85	.86	.86	.83	.91
	N	6	8	5	8	8	11	8	15
Co-workers	R	.76	.73	.85	.71	.79	.75	.78	.81
	N	5	4	6	4	5	5	8	5
Sensitivity	R	.86	.87	.90	.78	.70	.78	.....	.....
	N	13	11	14	5	5	5	.....	.....
Company	R	..[d]	.....	.87	.90	.....	.....	.....	.....
	N	.....	.....	5	7	.....	.....	.....	.....
Type of work	R	.....	.....	.90	.....	.....	.....	.....	.....
	N	.....	.....	4	.....	.....	.....	.....	.....

[a] See Footnote [a] in Table 1, page 13.
[b] Hoyt internal consistency reliability coefficient.
[c] Number of items in the scale.
[d] The scale did not appear in cluster analysis for this group.

Reliability coefficients were also computed for the reweighted scales, using the Hoyt analysis-of-variance method. These coefficients are listed in Table 25. The reader may recall that maximum internal consistency is one of the properties claimed for scales reweighted by the reciprocal averages method. With the initially high internal consistencies found for the pre-reciprocal-averages scales, one would expect only relatively small increases in scale reliability. One would expect, however, that none of the reliability coefficients would decrease significantly. This is, in fact, what occurs, as a comparison of Tables 15 and 25 shows. For scales which initially have high reliabilities, reciprocal averages weighting results in the same or slightly higher reliabilities. For scales which have lower initial reliabilities, the gains in reliability produced by reciprocal averages are larger.

Thus, the reciprocal averages method results in relatively more independent and more reliable scales. Its effect on the factor structure of the scales remains to be examined.

Factor analysis of the refined scales

Tables 26 through 33 present the factor structures of the refined scales. For all but two groups (II and VII), the number of common factors increases. For these two groups (control, non-skilled blue-collar, and handicapped, skilled white-collar) the same single common factor appears that was found in the pre-reciprocal-averages scales.

Communalities remain essentially the same for 15 scales, increase for 15 scales, and decrease for 19 scales. Communalities generally decrease for the general job satisfaction and working conditions scales, and generally increase for the sensitivity and coworkers scales. Communalities increase in most of the scales for Groups II and VI, and decrease in the majority of scales for Groups III, IV, V, and VII. These general findings tend to confirm the expectations for the refined scales. With this prefatory conclusion, the factor structure of the refined scales for each group will be examined, and the factors identified.

Group I (handicapped, non-skilled blue-collar)

Table 26 shows the factor structure of Group I's scales. Two factors explain the common variance for these scales. Factor I has

Table 26: Post-reciprocal-averages varimax multiple factor matrix for Group I: handicapped, non-skilled blue-collar (N = 205)

Scale	Factor I	Factor II	Communality
Working conditions	.178	−.576	.364
Supervision	.708	−.251	.565
Compensation	.166	−.562	.343
Co-workers	.661	−.164	.464
Sensitivity	−.401	.194	.199
General job satisfaction	.434	−.521	.459
Contribution of factor	1.348	1.047	2.395
Proportion of common variance	.56	.44	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.278
Supervision	.459
Compensation	.251
Co-workers	.384
Sensitivity	.175
General job satisfaction	.360

high loadings in the supervision and co-workers scales and secondary loadings in the general job satisfaction and sensitivity scales. Thus, Factor I is satisfaction with "interpersonal relations."

Factor II for Group I has high loadings in the working conditions and compensation scales, with a secondary loading in general job satisfaction. Thus, Factor II represents satisfaction with the physical or "impersonal relations" aspect of the work situation.

The general job satisfaction scale has 19% of its variance accounted for by Factor I and 27% by Factor II. The fact that both common factors have significant loadings in this scale makes it more "general" than the other scales.

Group II (control, non-skilled blue-collar)

One common factor appears for this group as shown in Table 27. The factor could be named "general satisfaction," since it has high factor loadings in all six scales, the lowest of which is .59. Highest loading and largest communality is found for the supervision scale, indicating supervision's primary importance to the satisfactions of this group of workers. Next highest loadings and communalities are observed for the co-workers and general job satisfaction scales.

Table 27. Post-reciprocal-averages varimax multiple factor matrix for Group II: control, non-skilled blue-collar (N = 177)

Scale	Factor I	Communality
Working conditions	.632	.399
Supervision	.786	.617
Compensation	.590	.348
Co-workers	.696	.485
Sensitivity	−.637	.406
General job satisfaction	.679	.461
Contribution of factor	2.716	2.716
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.393
Supervision	.544
Compensation	.336
Co-workers	.445
Sensitivity	.408
General job satisfaction	.429

pointing to the predominance of the "interpersonal relations" aspect over the "impersonal relations" aspect of satisfaction for this group. The difference in factor structure between Groups I and II suggests that presence of disability emphasizes satisfaction with the physical aspects of the work environment for the non-skilled blue-collar worker, thereby introducing a second dimension into his hitherto unidimensional structure of satisfaction.

Group III (handicapped, skilled blue-collar)

Table 28 shows the factor analysis data for the Group III scales. Three factors emerge to account for the common variance. Factor I has its highest loadings in the working conditions, company, and compensation scales, with secondary loadings in the supervision and general job satisfaction scales. This factor represents satisfaction with the "conditions of work" which are primarily physical or "impersonal," but which include supervision. It is conceivable that the Factor I loading in the supervision scale pertains to those aspects of supervision that concern job performance rather than the "human relations" aspect.

Factor II has high loadings in the sensitivity and general job satisfaction scales. This factor thus has to do with job satisfaction

Table 28. Post-reciprocal-averages varimax multiple factor matrix for Group III: handicapped, skilled blue-collar (N = 116)

Scale	Factor I	Factor II	Factor III	Communality
Working conditions	.700	.032	.028	.492
Supervision	.491	.213	.412	.456
Compensation	.538	.305	.102	.393
Co-workers	.038	.360	−.092	.139
Sensitivity	−.156	−.651	−.218	.496
Company	.680	.213	.235	.564
Type of work	.067	.000	.377	.147
General job satisfaction	.421	.626	.168	.598
Contribution of factor	1.692	1.131	.463	3.285
Proportion of common variance	.52	.34	.16	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.409
Supervision	.381
Compensation	.354
Co-workers	.105
Sensitivity	.412
Company	.482
Type of work	.093
General job satisfaction	.514

as associated with occupational achievement. That the only significant loading of the co-workers scale is on this factor suggests that acceptance by co-workers plays some role in the handicapped, skilled blue-collar worker's assessment of his occupational success. A small but significant loading in the compensation scale also suggests that pay contributes to the overall picture of occupational achievement. This factor may therefore be labeled an "evaluation of present and expected job success."

Factor III has high loadings in the supervision and type of work scales. A small loading appears in the company scale. This suggests that Factor III represents an evaluation of the utilization of one's occupational skills by the company (via one's supervisor).

The factor structure of the Group III scales thus consists of three factors. The first and dominant factor evaluates the conditions of work. The second factor evaluates the individual's opportunities for occupational advancement and his present job success. The third and least prominent factor evaluates the individual's occupational

satisfaction within the company and supervisory framework in which he works.

It is interesting to note that for this group the company scale combines with the working conditions and compensation scales in determining Factor I. Since the company scale items cluster in the general job satisfaction scale for groups other than III and IV, the general job satisfaction scales for those groups may be interpreted as including a concern for the physical or impersonal "conditions of work" in addition to the psychological component that is suggested by item content. This interpretation may help explain the factor loading patterns of the general job satisfaction scale observed for these other groups.

Group IV (control, skilled blue-collar)

The factor structure of the Group IV scales is shown in Table 29. Factor I has high loadings in the company and general job satisfaction scales. Since the company scale evaluates the "place" where the individual works, while the general job satisfaction scale evaluates the *occupational* as well as job satisfaction which the individual re-

Table 29. Post-reciprocal-averages varimax multiple factor matrix for Group IV: control, skilled blue-collar (N = 128)

Scale	Factor I	Factor II	Communality
Working conditions	.302	−.435	.280
Supervision	.413	−.607	.540
Compensation	.411	−.380	.313
Co-workers	.249	−.592	.413
Sensitivity	−.076	.227	.057
Company	.692	−.397	.636
General job satisfaction	.658	−.214	.478
Contribution of factor	1.409	1.307	2.717
Proportion of common variance	.52	.48	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.257
Supervision	.450
Compensation	.292
Co-workers	.337
Sensitivity	.070
Company	.532
General job satisfaction	.402

ceives from his work, Factor I represents the "satisfaction-with-utilization-of-occupational-skills" component noted in the Group III scales.

Factor II has its highest loadings in the supervision and co-workers scales, with small but significant loadings in the working conditions, company, and compensation scales. This factor definitely represents the ubiquitous "human relations" component of satisfaction, but for this group, in the "conditions-of-work" context.

Two generalizations concerning blue-collar satisfactions might be drawn at this point: (a) The "human relations" aspect tends to have larger significance in the satisfactions of the non-skilled. The skilled, on the other hand, tend to be relatively more concerned with the utilization of their occupational skills and the setting in which this utilization occurs; (b) The handicapped, unlike the controls, tend to single out the physical aspects of the work environment as a separate dimension in their satisfaction.

Group V (handicapped, non-skilled white-collar)

Table 30 shows the factor structure of the Group V scales. Two factors are needed to account for the common variance. Factor I

Table 30. Post-reciprocal-averages varimax multiple factor matrix for Group V: handicapped, non-skilled white-collar (N = 168)

Scale	Factor I	Factor II	Communality
Working conditions	.396	.290	.241
Supervision	.600	.529	.640
Compensation	.630	.017	.398
Co-workers	.167	.702	.521
Sensitivity	−.106	−.445	.209
General job satisfaction	.618	.321	.486
Contribution of factor	1.336	1.159	2.494
Proportion of common variance	.54	.46	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.256
Supervision	.555
Compensation	.330
Co-workers	.421
Sensitivity	.196
General job satisfaction	.404

has high loadings in the compensation, general job satisfaction, and supervision scales, with a secondary loading in the working conditions scale. With the exception of the supervision scale, the other scales determining Factor I have little of their variance accounted for by Factor II. This factor therefore represents satisfaction with the "conditions of work."

Factor II, on the other hand, has a high loading in the co-workers scale and significant loadings in the supervision and sensitivity scales. The co-workers and sensitivity scales have little significant loading in Factor I. Thus Factor II represents an evaluation of "interpersonal relations."

Group VI (control, non-skilled white-collar)

Table 31 shows the factor structure for the Group VI scales. Two factors emerge from the data. The first accounts for most of the common variance. This factor (Factor I) has high loadings in the working conditions, compensation, and supervision scales, and significant loadings in the co-workers and sensitivity scales. This factor, therefore, is best named a "general employment satisfaction" factor.

Table 31. Post-reciprocal-averages varimax multiple factor matrix for Group VI: control, non-skilled white-collar (N = 127)

Scale	Factor I	Factor II	Communality
Working conditions	.650	.076	.428
Supervision	.584	.415	.513
Compensation	.615	.038	.380
Co-workers	.529	.285	.360
Sensitivity	−.524	−.356	.401
General job satisfaction	.023	.190	.037
Contribution of factors	1.696	.423	2.119
Proportion of common variance	.80	.20	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.347
Supervision	.413
Compensation	.294
Co-workers	.287
Sensitivity	.352
General job satisfaction	.041

The relatively minor Factor II has highest loadings in the supervision and sensitivity scales, with smaller loadings in the co-workers and general job satisfaction scales. Again, this represents a "human relations" or "interpersonal relations" factor.

Thus the factor structures for handicapped and control groups of non-skilled white-collar workers are similarly constituted but differ in balance. The handicapped include the "conditions of work" and "interpersonal relations" components about equally in the organization of their satisfactions, while the control workers weight "conditions of work" much more heavily. Where concern for the physical aspects of the work environment loom large in the satisfactions of the handicapped blue-collar worker, concern for "interpersonal relations" (especially with co-workers) acquires similar significance for the handicapped, non-skilled white-collar worker.

Group VII (handicapped, skilled white-collar)

Table 32 shows that only one common factor appears for the Group VII scales. Comparison of this factor with the pre-reciprocal-averages factor (see Table 23, page 58) shows that the two factors are practically the same, the only difference being the lower communalities for the post-reciprocal-averages scales.

Table 32. Post-reciprocal-averages varimax multiple factor matrix for Group VII: handicapped, skilled white-collar (N = 149)

Scale	Factor I	Communality
Working conditions	.471	.222
Supervision	.675	.455
Compensation	.430	.185
Co-workers	.507	.257
General job satisfaction	.753	.567
Contribution of factor	1.687	1.687
Proportion of common variance	1.00	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.167
Supervision	.379
Compensation	.172
Co-workers	.205
General job satisfaction	.450

The post-reciprocal-averages factor for the Group VII scales has its highest loadings in the general job satisfaction and supervision scales, although it does have significant loadings in all other scales. It is thus a "general employment satisfaction" factor, with supervision playing a dominant role in this satisfaction.

Group VIII (control, skilled white-collar)

Table 33 shows the factor structure of the Group VIII scales. Two factors are needed to "explain" the common variance. Factor I has high loadings in the supervision, general job satisfaction and compensation scales, and a significant loading in the working conditions scale. This factor is similar in most respects to the single common factor which was identified for the scales of Group VII, the handicapped counterpart of the present group. With reference to Factor II, the compensation scale has no significant loading; the supervision scale has a very small amount; the general job satisfaction scale has a significant loading; but the high loadings are in the working conditions and co-workers scales. Thus it would seem that Factor I represents satisfaction with the "success" aspect of employment, while Factor II represents satisfaction with the "happiness" aspect of employment.

Table 33. Post-reciprocal-averages varimax multiple factor matrix for Group VIII: control, skilled white-collar (N = 98)

Scale	Factor I	Factor II	Communality
Working conditions	.412	.624	.559
Supervision	.658	.234	.487
Compensation	.592	.031	.352
Co-workers	.058	.619	.387
General job satisfaction	.601	.330	.471
Contribution of factor	1.318	.937	2.256
Proportion of common variance	.58	.42	1.00

Estimated communalities: Squared multiple correlation coefficients

Dependent variable	R^2
Working conditions	.441
Supervision	.382
Compensation	.258
Co-workers	.289
General job satisfaction	.373

These interpretations of the factor structure of the Group VIII scales are consistent with what is known of the skilled, white-collar work situation. The compensation received is on a personal, as opposed to collectively-bargained, basis and therefore is the prime yardstick of achievement or success. The supervisor plays the dominant role in facilitating or thwarting the worker's movement up the pay scale. Hence these elements are associated with occupational and job satisfaction in a major way. On the other hand, while co-workers and working conditions may have relatively less to do with the attainment of occupational or job success, they constitute significant factors in the satisfaction (i.e., "happiness") of the worker in his job.

In general, therefore, for the white-collar workers' satisfactions: (a) the dominant factor is "satisfaction-with-employment-in-general" or "satisfaction-with-the-conditions-of-work" which includes satisfaction with supervision and satisfaction with compensation; (b) a second and less prominent factor incorporates the "interpersonal" or "human relations" aspect of satisfaction; (c) the handicapped differ from the controls in the proportions of these factors that account for the common variance; and (d) no essential difference is observed between skill levels.

In summary, the satisfaction scales developed by cluster analysis were factor analyzed, and one common satisfaction factor was found for each of the eight groups. The scales' response categories were then reweighted, using the method of reciprocal averages, and new scale scores computed. The "new" scales were factor analyzed, and more than one factor emerged for six of the eight groups. This indicates substantial improvement of the scales was achieved by reweighting the item response categories.

Use of the Instrument

Administration

The instrument (see Appendix A) is self-administering. It can be given after a reading of the directions printed on the instrument.

It is strongly suggested that the instrument be given in its entirety, even if only one or two scales are to be scored. This is to approximate as closely as possible the conditions under which the scales were developed, and to obviate the unknown effects of modifying the instrument.

The entire instrument may be completed in approximately 15 minutes, although individuals have been known to take 30 minutes or longer. These, however, have been very infrequent exceptions to the rule.

No time limits should be imposed on the individual completing the instrument.

Prior to administration, the following points are read to the test-taker:

1. The results will be held in *strictest confidence.*

2. The results will be only as good as the frankness with which you answer the instrument.

3. It is best to record your first impressions or judgments as answers, and not to change answers after that. (This, of course, is not a hard-and-fast rule, but should be made as a suggestion.)

Scoring

The user is reminded that there are *eight different sets of scales,* one for each of eight different groups (handicapped and control groups in four occupational categories) and that each set may consist of from five to eight scales. Furthermore, the same scale, e.g., general job satisfaction, is composed of *different sets of items for different groups* (although there is a core of items common to the scale for all groups). It is therefore necessary to develop a scoring key (or stencil) for *each* scale for *each* group—a total of 49 scoring keys in all.

The scoring keys may be developed from Appendix G, which lists the original and post-reciprocal-averages scoring weights for

all response choices to each item in each scale, for each of the eight groups. It should be noted that post-reciprocal-averages scoring weights are assigned in Appendix G only to those items which constitute a particular scale. This allows the user to identify the particular set of items that constitute a given scale for a given group. Figure 6 illustrates the first page of a scoring key for the general job satisfaction scale of Group I (handicapped, non-skilled blue-collar). For comparison, Figure 7 illustrates the same first page for Group V (handicapped, non-skilled white-collar). Figure 8 shows the first page of a scoring key for the *supervision* scale for Group I (cf. Figure 6). From these examples, the user can easily see why a scoring key for each scale for each group is necessary.

There are two ways of scoring a completed instrument (and consequently, two types of scoring stencils may be developed):

1. One scale at a time is scored, using separate scoring stencils for each scale. Figures 6 through 8 illustrate this type of scoring.

2. *All* scored items, regardless of scale membership, may be scored initially, and then individual scale scores are derived afterwards by adding the weights of only those items belonging to the scale being scored. (A special stencil for each scale would be necessary to accomplish the latter objective.) Figure 9 illustrates the first page of a scoring key, using this method, for Group I. The scale membership of each scored item is given in parentheses after the item.

The first method of scoring is probably to be preferred if all responses to the instrument are recorded on a separate single answer sheet (as, for example, with the use of IBM answer sheets). However, if the responses are recorded on the instrument (as was the case in the present study), then the second method has more merit.

Before scoring a completed instrument, it is obviously necessary to determine the test-taker's group membership. This may be done using the criteria enumerated in the Methodology section.

Norms

Appendix I presents the distributions, means, and standard deviations of the scale scores for each of the eight groups. These scale scores are based on the reweighted item response categories (i.e., reciprocal averages weights). Practitioners may wish to utilize these

Figure 6. First page of scoring key, general job satisfaction scale, for Group I: handicapped, non-skilled blue-collar

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here ITEM SCORES
*1. There isn't a better Company to work for than this one	☐ 6	☒ 4	☐ 3	☐ 2	☐ 1	1. 4
2. It sometimes help to "play politics" in this Company ("polish the apple" with the superviser, etc.)	☐	☐	☐	☐	☐	2.
3. My pay is all right for the kind of work I do	☐	☐	☐	☐	☐	3.
4. I get a fair share of overtime work	☐	☐	☐	☐	☐	4.
5. Most employees in this Company are satisfied with their jobs	☐	☐	☐	☐	☐	5.
6. The employees in my department are willing to do their fair share of work	☐	☐	☐	☐	☐	6.
*7. The work I do on my present job is interesting	☐ 6	☐ 5	☐ 3	☒ 3	☐ 1	7. 3
*8. My present job suits me better than any other job in the Company I know of	☒ 5	☐ 4	☐ 3	☐ 3	☐ 1	8. 5
9. My immediate supervisor takes time to explain new work to me	☐	☐	☐	☐	☐	9.
10. My immediate supervisor is quick to take care of complaints brought to him by employees	☐	☐	☐	☐	☐	10.
11. I am told ahead of time of changes that will affect my work	☐	☐	☐	☐	☐	11.
*12. I feel secure in my job	☐ 5	☒ 5	☐ 3	☐ 3	☐ 2	12. 5
13. The supplies, materials, and equipment necessary to perform my job are easy to get	☐	☐	☐	☐	☐	13.
14. My working space is big enough	☐	☐	☐	☐	☐	14.
15. My value to the department is recognized by my department head	☐	☐	☐	☐	☐	15.
*16. If I planned to work until retirement age, I would like to stay with this Company all the time	☐ 5	☒ 4	☐ 3	☐ 2	☐ 1	16. 4
* Scored items for *this* scale and *this* group only.	SA	A	U	D	SD	

Figure 7. First page of scoring key, general job satisfaction scale, for Group V: handicapped, non-skilled white-collar

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here ITEM SCORES
*1. There isn't a better Company to work for than this one	☐ 4	☐ 3	☒ 2	☐ 2	☐ 1	1. 2
2. It sometimes help to "play politics" in this Company ("polish the apple" with the supervisor, etc.)	☐	☐	☐	☐	☐	2.
3. My pay is all right for the kind of work I do	☐	☐	☐	☐	☐	3.
4. I get a fair share of overtime work	☐	☐	☐	☐	☐	4.
*5. Most employees in this Company are satisfied with their jobs	☐ 3	☒ 3	☐ 3	☐ 2	☐ 1	5. 3
6. The employees in my department are willing to do their fair share of work	☐	☐	☐	☐	☐	6.
*7. The work I do on my present job is interesting	☐ 4	☒ 4	☐ 4	☐ 2	☐ 1	7. 4
*8. My present job suits me better than any other job in the Company I know of	☐ 4	☐ 3	☐ 2	☒ 2	☐ 1	8. 2
9. My immediate supervisor takes time to explain new work to me	☐	☐	☐	☐	☐	9.
10. My immediate supervisor is quick to take care of complaints brought to him by employees	☐	☐	☐	☐	☐	10.
11. I am told ahead of time of changes that will affect my work	☐	☐	☐	☐	☐	11.
12. I feel secure in my job	☐	☐	☐	☐	☐	12.
13. The supplies, materials, and equipment necessary to perform my job are easy to get	☐	☐	☐	☐	☐	13.
14. My working space is big enough	☐	☐	☐	☐	☐	14.
*15. My value to the department is recognized by my department head	☐ 5	☐ 4	☒ 3	☐ 2	☐ 1	15. 3
*16. If I planned to work until retirement age, I would like to stay with this Company all the time	☒ 5	☐ 3	☐ 2	☐ 2	☐ 1	16. 5
* Scored items for *this* scale and *this* group only.	SA	A	U	D	SD	

Figure 8. First page of scoring key, supervision scale, for Group I: handicapped, non-skilled blue-collar

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

Don't write here

	SA	A	U	D	SD	ITEM SCORES
1. There isn't a better Company to work for than this one	☐	☐	☐	☐	☐	1. ____
2. It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.)	☐	☐	☐	☐	☐	2. ____
3. My pay is all right for the kind of work I do	☐	☐	☐	☐	☐	3. ____
4. I get a fair share of overtime work	☐	☐	☐	☐	☐	4. ____
5. Most employees in this Company are satisfied with their jobs	☐	☐	☐	☐	☐	5. ____
6. The employees in my department are willing to do their fair share of work	☐	☐	☐	☐	☐	6. ____
7. The work I do on my present job is interesting	☐	☐	☐	☐	☐	7. ____
8. My present job suits me better than any other job in the Company I know of	☐	☐	☐	☐	☐	8. ____
*9. My immediate supervisor takes time to explain new work to me	☐ 5	☒ 4	☐ 3	☐ 2	☐ 1	9. 4
*10. My immediate supervisor is quick to take care of complaints brought to him by employees	☐ 6	☐ 4	☐ 3	☐ 2	☒ 1	10. 1
*11. I am told ahead of time of changes that will affect my work	☐ 5	☐ 3	☒ 3	☐ 2	☐ 1	11. 3
12. I feel secure in my job	☐	☐	☐	☐	☐	12. ____
13. The supplies, materials, and equipment necessary to perform my job are easy to get	☐	☐	☐	☐	☐	13. ____
14. My working space is big enough	☐	☐	☐	☐	☐	14. ____
15. My value to the department is recognized by my department head	☐	☐	☐	☐	☐	15. ____
16. If I planned to work until retirement age, I would like to stay with this Company all the time	☐	☐	☐	☐	☐	16. ____
	SA	A	U	D	SD	

* Scored items for *this* scale and *this* group only.

Figure 9. First page of omnibus scoring key, all scales, for Group I: handicapped, non-skilled blue-collar

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here
*1. There isn't a better Company to work for than this one. (General job satisfaction)	6	4	3	2	1	1.
*2. It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.). (Sensitivity)	2	4	5	5	5	2.
*3. My pay is all right for the kind of work I do. (Compensation)	7	5	4	1	1	3.
4. I get a fair share of overtime work						4.
5. Most employees in this Company are satisfied with their jobs						5.
6. The employees in my department are willing to do their fair share of work						6.
*7. The work I do on my present job is interesting. (General job satisfaction)	6	5	3	3	1	7.
*8. My present job suits me better than any other job in the Company I know of. (General job satisfaction)	5	4	3	3	1	8.
*9. My immediate supervisor takes time to explain new work to me. (Supervision)	5	4	3	2	1	9.
*10. My immediate supervisor is quick to take care of complaints brought to him by employees. (Supervision)	6	4	3	2	1	10.
*11. I am told ahead of time of changes that will affect my work. (Supervision)	5	3	3	2	1	11.
*12. I feel secure in my job. (General job)	5	5	3	3	2	12.
*13. The supplies, materials, and equipment necessary to perform my job are easy to get. (Working conditions)	7	3	3	2	1	13.
*14. My working space is big enough. (Working conditions)	5	3	3	2	1	14.
15. My value to the department is recognized by my department head						15.
*16. If I planned to work until retirement age, I would like to stay with this Company all the time. (General job satisfaction)	5	4	3	2	1	16.
* Scored items for *this* group only.	SA	A	U	D	SD	

distributions in interpreting satisfaction scale scores until they develop norms more pertinent to their counselee populations.

Figure 10 illustrates a summary score sheet for a hypothetical handicapped, skilled blue-collar worker. The percentile scores were derived from Appendix I.

Employment Satisfaction

Identification: 11052

Name: Smith, James W.

Present Job Title: machinist (4-75)

Counselor: R. Johnson

Agency: St. Paul Office

Notes:

Administered by: C.A.C Date: 3/28/62

Scored by: [illegible] Date: 3/29/62

Checked by: CAC Date: 3/29/62

Norm Groups:	H	Non-H
Non-skilled blue-collar	☐	☐
Skilled blue-collar	☑	☐
Non-skilled white-collar	☐	☐
Skilled white-collar	☐	☐
Professional	☐	☐

Scale	Raw Score	Percentile: 10 20 30 40 50 60 70 80 90
1. General Job Satisfaction	34	
2. Working Conditions	16	
3. Supervision	34	
4. Compensation	16	
5. Co-workers	13	
6. Sensitivity	60	
7. Company		
8. Type of work		
9.		
10.		

Figure 10. Sample summary score sheet

Appendix A

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Industrial Relations Center
University of Minnesota

For each statement on the following pages:

If you feel the statement is true, check the box under SA.

(SA stands for Strongly Agree.)

If you feel that the statement is more true than false, check the box under A.

(A stands for Agree.)

If you cannot make up your mind about the statement, check the box under U.

(U stands for Undecided, Neutral, Can't say.)

If you feel that the statement is more false than true, check the box under D.

(D stands for Disagree.)

If you feel that the statement is definitely false, check the box under SD.

(SD stands for Strongly Disagree.)

Be sure to check one answer for each statement.

There are no right or wrong answers. Different persons will feel differently about these statements. The important thing is to tell how *you* feel.

The results of this poll will be used by the Industrial Relations Center for research purposes. Your answers will be kept strictly confidential! !

MEASUREMENT OF EMPLOYMENT SATISFACTION

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here
1. There isn't a better Company to work for than this one	☐	☐	☐	☐	☐	1. ____
2. It sometimes help to "play politics" in this Company ("polish the apple") with the supervisor, etc.)	☐	☐	☐	☐	☐	2. ____
3. My pay is all right for the kind of work I do	☐	☐	☐	☐	☐	3. ____
4. I get a fair share of overtime work	☐	☐	☐	☐	☐	4. ____
5. Most employees in this Company are satisfied with their jobs	☐	☐	☐	☐	☐	5. ____
6. The employees in my department are willing to do their fair share of work	☐	☐	☐	☐	☐	6. ____
7. The work I do on my present job is interesting	☐	☐	☐	☐	☐	7. ____
8. My present job suits me better than any other job in the Company I know of	☐	☐	☐	☐	☐	8. ____
9. My immediate supervisor takes time to explain new work to me	☐	☐	☐	☐	☐	9. ____
10. My immediate supervisor is quick to take care of complaints brought to him by employees	☐	☐	☐	☐	☐	10. ____
11. I am told ahead of time of changes that will affect my work	☐	☐	☐	☐	☐	11. ____
12. I feel secure in my job	☐	☐	☐	☐	☐	12. ____
13. The supplies, materials, and equipment necessary to perform my job are easy to get	☐	☐	☐	☐	☐	13. ____
14. My working space is big enough	☐	☐	☐	☐	☐	14. ____
15. My value to the department is recognized by my department head	☐	☐	☐	☐	☐	15. ____
16. If I planned to work until retirement age, I would like to stay with this Company all the time	☐	☐	☐	☐	☐	16. ____
17. I am satisfied with the length of vacations the Company gives	☐	☐	☐	☐	☐	17. ____
18. Pay should be based on length of service rather than on what a person does (how long a person has worked here should count more than the amount of work he turns out)	☐	☐	☐	☐	☐	18. ____
19. I like all the people with whom I work	☐	☐	☐	☐	☐	19. ____
20. Most of the employees around me are the kind who will say hello when I pass them on the street	☐	☐	☐	☐	☐	20. ____
21. I feel that the work I do is very important	☐	☐	☐	☐	☐	21. ____
	SA	A	U	D	SD	

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here
22. There is a lot of favoritism in my department (some employees are given all the breaks)	☐	☐	☐	☐	☐	22. ____
23. My department head sees that new employees in the department get good training (shown how to do their jobs o.k.)	☐	☐	☐	☐	☐	23. ____
24. I get full credit for the work I do	☐	☐	☐	☐	☐	24. ____
25. There are enough meetings of our work group to talk over plans	☐	☐	☐	☐	☐	25. ____
26. Our lockers are satisfactory	☐	☐	☐	☐	☐	26. ____
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are)	☐	☐	☐	☐	☐	27. ____
28. The Company brings in outsiders for important jobs more often than they should	☐	☐	☐	☐	☐	28. ____
29. Enough time is allowed for rest periods	☐	☐	☐	☐	☐	29. ____
30. I'm getting valuable experience on my present job	☐	☐	☐	☐	☐	30. ____
31. I feel I am happier in my work than most other people	☐	☐	☐	☐	☐	31. ____
32. The work in my department is handed out fairly among the employees	☐	☐	☐	☐	☐	32. ____
33. My immediate boss expects me to do more than my share of the work	☐	☐	☐	☐	☐	33. ____
34. The Company should do more to help employees with their personal problems (like family troubles, etc.)	☐	☐	☐	☐	☐	34. ____
35. The Company gives employees enough information about its financial position	☐	☐	☐	☐	☐	35. ____
36. The place where I work is clean	☐	☐	☐	☐	☐	36. ____
37. This Company treats its employees better than most other companies I know about	☐	☐	☐	☐	☐	37. ____
38. My immediate supervisor always understands what I am trying to do	☐	☐	☐	☐	☐	38. ____
39. My immediate supervisor has the confidence and respect of those who work under him	☐	☐	☐	☐	☐	39. ____
40. My supervisor takes credit for work when he doesn't deserve it	☐	☐	☐	☐	☐	40. ____
41. I feel the Company tells me enough about its general policies (what they are trying to do)	☐	☐	☐	☐	☐	41. ____
42. I like my job better than most people like theirs	☐	☐	☐	☐	☐	42. ____
	SA	A	U	D	SD	

MEASUREMENT OF EMPLOYMENT SATISFACTION

SA means Strongly Agree
A means Agree
U means Undecided
D means Disagree
SD means Strongly Disagree

	SA	A	U	D	SD	Don't write here
43. My boss knows how to handle people	☐	☐	☐	☐	☐	43. ____
44. My fellow workers rate better with management than I do	☐	☐	☐	☐	☐	44. ____
45. I need a promotion if I am to stay happy here	☐	☐	☐	☐	☐	45. ____
46. My work group is usually like one big happy family	☐	☐	☐	☐	☐	46. ____
47. My boss is only interested in getting the work out	☐	☐	☐	☐	☐	47. ____
48. I would like to change my line of work	☐	☐	☐	☐	☐	48. ____
49. I really shouldn't expect to be making more money than I do	☐	☐	☐	☐	☐	49. ____
50. I have to work harder because some of my co-workers "goof off"	☐	☐	☐	☐	☐	50. ____
51. I do not like the way they figure pay increases in this Company	☐	☐	☐	☐	☐	51. ____
52. I would like to exchange my present job for another job in the same line of work	☐	☐	☐	☐	☐	52. ____
53. My boss "rides" me a little too much	☐	☐	☐	☐	☐	53. ____
54. Things would be better for the Company if they got rid of my boss	☐	☐	☐	☐	☐	54. ____
55. I do not know a friendlier bunch than the people I work with	☐	☐	☐	☐	☐	55. ____
56. Considering the money I used to make, I'm doing pretty well right now	☐	☐	☐	☐	☐	56. ____
57. I have thought seriously about changing my present job	☐	☐	☐	☐	☐	57. ____
58. My boss is where he is because he knows the work	☐	☐	☐	☐	☐	58. ____
59. I sometimes wonder what my co-workers are talking about	☐	☐	☐	☐	☐	59. ____
60. I often feel like demanding a pay raise	☐	☐	☐	☐	☐	60. ____
61. I make as much money as most of my friends	☐	☐	☐	☐	☐	61. ____
62. Some of my fellow workers are among my best friends	☐	☐	☐	☐	☐	62. ____
63. Most of the time I feel satisfied with my job	☐	☐	☐	☐	☐	63. ____
	SA	A	U	D	SD	

Complete each statement by checking one of the five boxes which follow the statement.

Each box stands for an answer:

The box under "E" stands for "Excellent."
The box under "G" stands for "Good."
The box under "F" stands for "Fair."
The box under "P" stands for "Poor."
The box under "VP" stands for "Very Poor."

Choose *one* answer for each statement.

Be sure to check the box that stands for your answer.

Be sure to complete *all* the statements.

There are no "right" or "wrong" answers. Just tell how you feel about each statement.

E means Excellent F means Fair P means Poor
G means Good VP means Very Poor

	E	G	F	P	VP	Don't write here
64. The lighting for my job is	☐	☐	☐	☐	☐	64. ____
65. The ventilation where I work is	☐	☐	☐	☐	☐	65. ____
66. The job that the top executives are doing in this Company is	☐	☐	☐	☐	☐	66. ____
67. All in all, as a place to work, this Company is	☐	☐	☐	☐	☐	67. ____
68. Considering the present cost of living, my pay is	☐	☐	☐	☐	☐	68. ____
69. Considering everything, my working hours are	☐	☐	☐	☐	☐	69. ____
70. The spirit of cooperation among employees in my department is	☐	☐	☐	☐	☐	70. ____
71. The reputation of this Company in the community (how people feel and talk about this Company) is	☐	☐	☐	☐	☐	71. ____
72. Considering everything, my present job is	☐	☐	☐	☐	☐	72. ____
73. All in all, I would rate my immediate supervisor as	☐	☐	☐	☐	☐	73. ____
74. Opportunities for promotion (a chance to get a better job) here are	☐	☐	☐	☐	☐	74. ____
75. The place and equipment for the use of employees during rest and recreation periods are	☐	☐	☐	☐	☐	75. ____
76. General working conditions in my department—heat, light, space, noise, cleanliness, equipment, etc., are	☐	☐	☐	☐	☐	76. ____

JSB

Work Adjustment Project
Industrial Relations Center
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77. Choose the ONE of the following statements which best tells how well you like your job. Place a check mark (√) in front of that statement.

___1. I hate it.
___2. I dislike it.
___3. I don't like it.
___4. I am indifferent to it.
___5. I like it.
___6. I am enthusiastic about it.
___7. I love it.

78. Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job:

___1. All the time.
___2. Most of the time.
___3. A good deal of the time.
___4. About half of the time.
___5. Occasionally.
___6. Seldom.
___7. Never.

79. Check the ONE of the following which best tells how you feel about changing your job:

___1. I would quit this job at once if I could get anything else to do.
___2. I would take almost any other job in which I could earn as much as I am earning now.
___3. I would like to change both my job and my occupation.
___4. I would like to exchange my present job for another job.
___5. I am not eager to change my job, but I would do so if I could get a better job.
___6. I cannot think of any jobs for which I would exchange.
___7. I would not exchange my job for any other.

80. Check one of the following to show how you think you compare with other people.

___1. No one likes his job better than I like mine.
___2. I like my job much better than most people like theirs.
___3. I like my job better than most people like theirs.
___4. I like my job about as well as most people like theirs.
___5. I dislike my job more than most people dislike theirs.
___6. I dislike my job much more than most people dislike theirs.
___7. No one dislikes his job more than I dislike mine.

Appendix B

Table B-1. Distribution of responses, by group, for Item Number 1: There isn't a better Company to work for than this one . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	57	77	47	15	205	617	3.01
II. Control, non-skilled blue-collar	2	54	46	51	24	177	572	3.23
III. Handicapped, skilled blue-collar	6	29	33	38	10	116	365	3.15
IV. Control, skilled blue-collar	6	30	26	48	18	128	426	3.33
V. Handicapped, non-skilled white-collar	8	40	57	39	24	168	535	3.17
VI. Control, non-skilled white-collar	4	45	36	31	11	127	381	3.00
VII. Handicapped, skilled white-collar	7	29	43	59	11	149	485	3.26
VIII. Control, skilled white-collar	2	29	22	37	8	98	314	3.20
Total Handicapped						638	2002	3.14
Total Control						530	1693	3.19
Grand Total						1168	3695	3.16

Table B-2. Distribution of responses, by group, for Item Number 2: It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.) . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	10	62	54	63	16	205	628	3.06
II. Control, non-skilled blue-collar	14	45	37	57	24	177	563	3.18
III. Handicapped, skilled blue-collar	16	33	24	33	10	116	336	2.90
IV. Control, skilled blue-collar	12	32	21	46	17	128	408	3.19
V. Handicapped, non-skilled white-collar	17	41	46	40	24	168	517	3.07
VI. Control, non-skilled white-collar	12	39	21	35	20	127	393	3.09
VII. Handicapped, skilled white-collar	7	46	37	46	13	149	459	3.08
VIII. Control, skilled white-collar	8	21	24	32	13	98	315	3.21
Total Handicapped						638	1940	3.04
Total Control						530	1679	3.17
Grand Total						1168	3619	3.10

Table B-3. Distribution of responses, by group, for Item Number 3: My pay is all right for the kind of work I do . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	11	41	33	99	21	205	693	3.38
II. Control, non-skilled blue-collar	9	41	30	80	17	177	586	3.31
III. Handicapped, skilled blue-collar	4	26	14	63	9	116	395	3.41
IV. Control, skilled blue-collar	7	23	13	68	17	128	449	3.51
V. Handicapped, non-skilled white-collar	13	50	24	73	8	168	517	3.08
VI. Control, non-skilled white-collar	6	36	20	56	9	127	407	3.20
VII. Handicapped, skilled white-collar	8	32	21	75	13	149	500	3.36
VIII. Control, skilled white-collar	3	18	17	53	7	98	337	3.44
Total Handicapped						638	2105	3.30
Total Control						530	1779	3.36
Grand Total						1168	3884	3.33

Table B-4. Distribution of responses, by group, for Item Number 4: I get a fair share of overtime work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	36	48	88	24	205	697	3.40
II. Control, non-skilled blue-collar	11	30	26	85	25	177	614	3.47
III. Handicapped, skilled blue-collar	8	12	13	61	22	116	425	3.66
IV. Control, skilled blue-collar	13	9	23	58	25	128	457	3.57
V. Handicapped, non-skilled white-collar	18	20	50	68	12	168	541	3.21
VI. Control, non-skilled white-collar	14	20	28	48	17	127	415	3.27
VII. Handicapped, skilled white-collar	15	16	55	45	18	149	482	3.23
VIII. Control, skilled white-collar	8	10	27	39	14	98	335	3.42
Total Handicapped						638	2145	3.36
Total Control						530	1821	3.44
Grand Total						1168	3966	3.40

Table B-5. Distribution of responses, by group, for Item Number 5: Most employees in this Company are satisfied with their jobs . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	32	41	111	16	205	716	3.49
II. Control, non-skilled blue-collar	7	33	40	84	13	177	594	3.36
III. Handicapped, skilled blue-collar	5	21	30	57	3	116	380	3.28
IV. Control, skilled blue-collar	3	18	18	78	11	128	460	3.59
V. Handicapped, non-skilled white-collar	3	30	45	79	11	168	569	3.38
VI. Control, non-skilled white-collar	5	29	33	54	6	127	408	3.21
VII. Handicapped, skilled white-collar	3	26	30	75	15	149	520	3.49
VIII. Control, skilled white-collar	2	9	19	64	4	98	353	3.60
Total Handicapped						638	2185	3.42
Total Control						530	1815	3.42
Grand Total						1168	4000	3.42

Table B-6. Distribution of responses, by group, for Item Number 6: The employees in my department are willing to do their fair share of work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	21	21	135	23	205	765	3.73
II. Control, non-skilled blue-collar	1	19	13	115	29	177	683	3.86
III. Handicapped, skilled blue-collar	2	9	16	79	10	116	434	3.74
IV. Control, skilled blue-collar	1	11	6	84	26	128	507	3.96
V. Handicapped, non-skilled white-collar	3	13	14	105	33	168	656	3.90
VI. Control, non-skilled white-collar	1	10	6	92	18	127	497	3.91
VII. Handicapped, skilled white-collar	0	5	7	107	30	149	609	4.09
VIII. Control, skilled white-collar	1	5	5	66	21	98	395	4.03
Total Handicapped						638	2464	3.86
Total Control						530	2082	3.93
Grand Total						1168	4546	3.89

Table B-7. Distribution of responses, by group, for Item Number 7: The work I do on my present job is interesting . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	14	25	27	105	34	205	735	3.58
II. Control, non-skilled blue-collar	5	16	19	104	33	177	675	3.81
III. Handicapped, skilled blue-collar	1	5	7	77	26	116	470	4.05
IV. Control, skilled blue-collar	4	8	8	71	37	128	513	4.01
V. Handicapped, non-skilled white-collar	7	12	11	87	51	168	667	3.97
VI. Control, non-skilled white-collar	3	9	6	66	43	127	518	4.08
VII. Handicapped, skilled white-collar	2	4	5	66	72	149	649	4.36
VIII. Control, skilled white-collar	1	5	4	48	40	98	415	4.23
Total Handicapped						638	2521	3.95
Total Control						530	2121	4.00
Grand Total						1168	4642	3.97

Table B-8. Distribution of responses, by group, for Item Number 8: My present job suits me better than any other job in the Company I know of . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	15	36	51	78	25	205	677	3.30
II. Control, non-skilled blue-collar	13	25	31	82	26	177	614	3.47
III. Handicapped, skilled blue-collar	3	16	28	55	14	116	409	3.53
IV. Control, skilled blue-collar	5	18	27	57	21	128	455	3.55
V. Handicapped, non-skilled white-collar	12	31	40	49	36	168	570	3.39
VI. Control, non-skilled white-collar	7	19	19	52	30	127	460	3.62
VII. Handicapped, skilled white-collar	8	15	30	58	38	149	550	3.69
VIII. Control, skilled white-collar	0	12	23	38	25	98	370	3.78
Total Handicapped						638	2206	3.46
Total Control						530	1899	3.58
Grand Total						1168	4105	3.51

Table B-9. Distribution of responses, by group, for Item Number 9: My immediate supervisor takes time to explain new work to me . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	18	27	123	28	205	758	3.69
II. Control, non-skilled blue-collar	5	20	19	93	35	177	669	3.78
III. Handicapped, skilled blue-collar	9	14	19	59	15	116	405	3.49
IV. Control, skilled blue-collar	4	14	14	65	31	128	489	3.82
V. Handicapped, non-skilled white-collar	12	19	21	91	25	168	602	3.58
VI. Control, non-skilled white-collar	2	17	9	66	33	127	492	3.87
VII. Handicapped, skilled white-collar	7	19	18	75	30	149	549	3.68
VIII. Control, skilled white-collar	3	13	10	48	24	98	371	3.79
Total Handicapped						638	2314	3.63
Total Control						530	2021	3.81
Grand Total						1168	4335	3.71

Table B-10. Distribution of responses, by group, for Item Number 10: My immediate supervisor is quick to take care of complaints brought to him by employees . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	8	40	41	96	20	205	695	3.39
II. Control, non-skilled blue-collar	5	28	20	98	26	177	643	3.63
III. Handicapped, skilled blue-collar	6	28	25	48	9	116	374	3.22
IV. Control, skilled blue-collar	3	16	22	60	27	128	476	3.72
V. Handicapped, non-skilled white-collar	14	17	27	84	26	168	595	3.54
VI. Control, non-skilled white-collar	5	19	18	60	25	127	462	3.64
VII. Handicapped, skilled white-collar	9	20	22	69	29	149	536	3.60
VIII. Control, skilled white-collar	2	11	16	44	25	98	373	3.81
Total Handicapped						638	2200	3.45
Total Control						530	1954	3.69
Grand Total						1168	4154	3.56

Table B-11. Distribution of responses, by group, for Item Number 11: I am told ahead of time of changes that will affect my work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	12	24	39	115	15	205	712	3.47
II. Control, non-skilled blue-collar	7	22	20	97	31	177	654	3.69
III. Handicapped, skilled blue-collar	9	21	11	64	11	116	395	3.41
IV. Control, skilled blue-collar	8	13	18	69	20	128	464	3.63
V. Handicapped, non-skilled white-collar	12	21	17	94	24	168	601	3.57
VI. Control, non-skilled white-collar	8	22	9	61	27	127	458	3.61
VII. Handicapped, skilled white-collar	9	27	16	78	19	149	518	3.48
VIII. Control, skilled white-collar	3	13	12	48	22	98	367	3.74
Total Handicapped						638	2226	3.49
Total Control						530	1943	3.67
Grand Total						1168	4169	3.57

Table B-12. Distribution of responses, by group, for Item Number 12: I feel secure in my job . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	8	24	33	104	36	205	751	3.66
II. Control, non-skilled blue-collar	4	22	24	89	38	177	666	3.76
III. Handicapped, skilled blue-collar	7	14	18	55	22	116	419	3.61
IV. Control, skilled blue-collar	1	12	14	68	33	128	504	3.94
V. Handicapped, non-skilled white-collar	6	13	28	76	45	168	645	3.83
VI. Control, non-skilled white-collar	1	8	13	71	34	127	510	4.02
VII. Handicapped, skilled white-collar	3	6	11	75	54	149	618	4.15
VIII. Control, skilled white-collar	3	4	2	52	37	98	410	4.18
Total Handicapped						638	2433	3.81
Total Control						530	2090	3.94
Grand Total						1168	4523	3.87

Table B-13. Distribution of responses, by group, for Item Number 13: The supplies, materials, and equipment necessary to perform my job are easy to get . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	4	25	21	132	23	205	760	3.70
II. Control, non-skilled blue-collar	2	16	11	107	41	177	700	3.95
III. Handicapped, skilled blue-collar	8	11	11	67	19	116	426	3.67
IV. Control, skilled blue-collar	5	14	16	68	25	128	478	3.73
V. Handicapped, non-skilled white-collar	5	10	9	90	54	168	682	4.05
VI. Control, non-skilled white-collar	1	11	5	76	34	127	512	4.03
VII. Handicapped, skilled white-collar	2	3	10	85	49	149	623	4.18
VIII. Control, skilled white-collar	2	2	5	59	30	98	407	4.15
Total Handicapped						638	2491	3.90
Total Control						530	2097	3.96
Grand Total						1168	4588	3.93

Table B-14. Distribution of responses, by group, for Item Number 14: My working space is big enough . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	7	15	18	129	36	205	787	3.83
II. Control, non-skilled blue-collar	4	17	8	106	42	177	696	3.93
III. Handicapped, skilled blue-collar	2	10	10	72	22	116	450	3.88
IV. Control, skilled blue-collar	4	8	10	80	26	128	500	3.91
V. Handicapped, non-skilled white-collar	5	15	7	96	45	168	665	3.95
VI. Control, non-skilled white-collar	6	14	4	77	26	127	484	3.81
VII. Handicapped, skilled white-collar	4	8	7	86	44	149	605	4.06
VIII. Control, skilled white-collar	3	10	3	51	31	98	391	3.99
Total Handicapped						638	2507	3.93
Total Control						530	2071	3.91
Grand Total						1168	4578	3.92

Table B-15. Distribution of responses, by group, for Item Number 15: My value to the department is recognized by my department head . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	17	48	111	26	205	755	3.68
II. Control, non-skilled blue-collar	4	9	28	107	29	177	679	3.84
III. Handicapped, skilled blue-collar	2	3	26	70	14	115	436	3.79
IV. Control, skilled blue-collar	4	3	28	76	17	128	483	3.77
V. Handicapped, non-skilled white-collar	3	9	34	99	23	168	634	3.77
VI. Control, non-skilled white-collar	1	5	18	79	24	127	501	3.94
VII. Handicapped, skilled white-collar	1	4	26	88	30	149	589	3.95
VIII. Control, skilled white-collar	2	2	14	55	25	98	393	4.01
Total Handicapped						638	2414	3.78
Total Control						530	2056	3.88
Grand Total						1168	4470	3.83

Table B-16. Distribution of responses, by group, for Item Number 16: If I planned to work until retirement age, I would like to stay with this Company all the time . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	28	24	55	63	35	205	668	3.25
II. Control, non-skilled blue-collar	15	22	42	57	41	177	618	3.49
III. Handicapped, skilled blue-collar	7	13	39	34	23	116	401	3.46
IV. Control, skilled blue-collar	9	13	29	35	42	128	472	3.69
V. Handicapped, non-skilled white-collar	15	20	52	49	32	168	567	3.37
VI. Control, non-skilled white-collar	14	13	37	41	22	127	425	3.35
VII. Handicapped, skilled white-collar	11	16	42	46	34	149	523	3.51
VIII. Control, skilled white-collar	3	11	26	35	23	98	358	3.65
Total Handicapped						638	2159	3.38
Total Control						530	1873	3.53
Grand Total						1168	4032	3.45

Table B-17. Distribution of responses, by group, for Item Number 17: I am satisfied with the length of vacations the Company gives . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	22	25	129	20	205	744	3.62
II. Control, non-skilled blue-collar	3	19	11	103	41	177	691	3.90
III. Handicapped, skilled blue-collar	6	16	9	59	26	116	431	3.72
IV. Control, skilled blue-collar	6	13	9	74	26	128	485	3.79
V. Handicapped, non-skilled white-collar	6	12	16	99	35	168	649	3.86
VI. Control, non-skilled white-collar	2	7	8	76	34	127	514	4.05
VII. Handicapped, skilled white-collar	1	12	11	93	32	149	590	3.96
VIII. Control, skilled white-collar	2	8	4	57	27	98	393	4.01
Total Handicapped						638	2414	3.78
Total Control						530	2083	3.93
Grand Total						1168	4497	3.85

Table B-18. Distribution of responses, by group, for Item Number 18: Pay should be based on length of service rather than on what a person does (how long a person has worked here should count more than the amount of work he turns out) . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	12	42	40	81	30	205	690	3.36
II. Control, non-skilled blue-collar	16	29	33	64	35	177	604	3.41
III. Handicapped, skilled blue-collar	8	11	21	47	29	116	426	3.67
IV. Control, skilled blue-collar	6	10	22	54	36	128	488	3.81
V. Handicapped, non-skilled white-collar	11	28	30	61	38	168	591	3.51
VI. Control, non-skilled white-collar	7	7	17	54	42	127	498	3.92
VII. Handicapped, skilled white-collar	4	6	23	57	59	149	608	4.08
VIII. Control, skilled white-collar	2	4	7	49	36	98	407	4.15
Total Handicapped						638	2315	3.63
Total Control						530	1997	3.77
Grand Total						1168	4312	3.69

Table B-19. Distribution of responses, by group, for Item Number 19: I like all the people with whom I work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	30	19	121	33	205	768	3.74
II. Control, non-skilled blue-collar	3	24	22	92	36	177	665	3.76
III. Handicapped, skilled blue-collar	1	16	16	69	14	116	427	3.68
IV. Control, skilled blue-collar	1	14	14	67	32	128	499	3.90
V. Handicapped, non-skilled white-collar	2	24	16	97	29	168	631	3.75
VI. Control, non-skilled white-collar	0	14	16	76	21	127	485	3.82
VII. Handicapped, skilled white-collar	2	13	10	101	23	149	577	3.87
VIII. Control, skilled white-collar	0	12	11	57	18	98	375	3.83
Total Handicapped						638	2403	3.77
Total Control						530	2024	3.82
Grand Total						1168	4427	3.79

Table B-20. Distribution of responses, by group, for Item Number 20: Most of the employees around me are the kind who will say hello when I pass them on the street . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	0	5	8	149	43	205	845	4.12
II. Control, non-skilled blue-collar	1	6	2	104	64	177	755	4.27
III. Handicapped, skilled blue-collar	1	4	2	80	29	116	480	4.14
IV. Control, skilled blue-collar	0	1	0	72	55	128	565	4.41
V. Handicapped, non-skilled white-collar	1	1	4	104	58	168	721	4.29
VI. Control, non-skilled white-collar	0	1	4	73	49	127	551	4.34
VII. Handicapped, skilled white-collar	0	1	2	77	69	149	661	4.44
VIII. Control, skilled white-collar	0	0	1	59	38	98	429	4.38
Total Handicapped						638	2707	4.24
Total Control						530	2300	4.34
Grand Total						1168	5007	4.29

Table B-21. Distribution of responses, by group, for Item Number 21: I feel that the work I do is very important...

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	29	37	108	28	205	744	3.62
II. Control, non-skilled blue-collar	1	12	32	96	36	177	685	3.87
III. Handicapped, skilled blue-collar	1	3	26	58	28	116	457	3.94
IV. Control, skilled blue-collar	0	4	17	73	34	128	521	4.07
V. Handicapped, non-skilled white-collar	1	10	42	75	40	168	647	3.85
VI. Control, non-skilled white-collar	2	7	22	63	33	127	499	3.93
VII. Handicapped, skilled white-collar	1	3	19	76	50	149	618	4.15
VIII. Control, skilled, white-collar	0	3	14	48	33	98	405	4.13
Total Handicapped						638	2466	3.87
Total Control						530	2110	3.98
Grand Total						1168	4576	3.92

Table B-22. Distribution of responses, by group, for Item Number 22: There is a lot of favoritism in my department (some employees are given all the breaks)...

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	30	67	80	22	205	697	3.40
II. Control, non-skilled blue-collar	4	26	37	80	30	177	637	3.60
III. Handicapped, skilled blue-collar	8	13	21	54	20	116	413	3.56
IV. Control, skilled blue-collar	3	14	21	63	27	128	481	3.76
V. Handicapped, non-skilled white-collar	7	19	37	71	34	168	610	3.63
VI. Control, non-skilled white-collar	4	13	20	56	34	127	484	3.81
VII. Handicapped, skilled white-collar	1	4	22	81	41	149	604	4.05
VIII. Control, skilled white-collar	3	2	10	49	34	98	403	4.11
Total Handicapped						638	2324	3.64
Total Control						530	2005	3.78
Grand Total						1168	4329	3.71

Table B-23. Distribution of responses, by group, for Item Number 23: My department head sees that new employees in the department get good training (shown how to do their jobs o.k.) . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	33	36	109	18	205	709	3.45
II. Control, non-skilled blue-collar	4	24	27	93	29	177	650	3.67
III. Handicapped, skilled blue-collar	5	22	11	65	13	116	407	3.51
IV. Control, skilled blue-collar	8	7	22	69	22	128	474	3.70
V. Handicapped, non-skilled white-collar	10	6	23	102	27	168	634	3.77
VI. Control, non-skilled white-collar	1	20	15	70	21	127	471	3.71
VII. Handicapped, skilled white-collar	3	17	25	83	21	149	549	3.68
VIII. Control, skilled white-collar	3	9	22	42	22	98	365	3.72
Total Handicapped						638	2299	3.60
Total Control						530	1960	3.70
Grand Total						1168	4259	3.65

Table B-24. Distribution of responses, by group, for Item Number 24: I get full credit for the work I do . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	23	38	115	26	205	753	3.67
II. Control, non-skilled blue-collar	1	13	28	105	30	177	681	3.85
III. Handicapped, skilled blue-collar	1	11	21	72	11	116	429	3.70
IV. Control, skilled blue-collar	2	10	26	71	19	128	479	3.74
V. Handicapped, non-skilled white-collar	3	15	25	101	24	168	632	3.76
VI. Control, non-skilled white-collar	1	6	22	79	19	127	490	3.86
VII. Handicapped, skilled white-collar	3	7	23	83	33	149	583	3.91
VIII. Control, skilled white-collar	1	8	10	58	21	98	384	3.92
Total Handicapped						638	2397	3.76
Total Control						530	2034	3.84
Grand Total						1168	4431	3.79

Table B-25. Distribution of responses, by group, for Item Number 25: There are enough meetings of our work group to talk over plans . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	12	55	48	76	14	205	640	3.12
II. Control, non-skilled blue-collar	14	42	47	63	11	177	546	3.08
III. Handicapped, skilled blue-collar	15	25	27	40	9	116	351	3.03
IV. Control, skilled blue-collar	7	29	31	51	10	128	412	3.22
V. Handicapped, non-skilled white-collar	12	32	41	70	13	168	544	3.23
VI. Control, non-skilled white-collar	13	29	29	44	12	127	394	3.10
VII. Handicapped, skilled white-collar	9	26	36	54	24	149	505	3.39
VIII. Control, skilled white-collar	4	25	15	41	13	98	328	3.35
Total Handicapped						638	2040	3.20
Total Control						530	1680	3.17
Grand Total						1168	3720	3.18

Table B-26. Distribution of responses, by group, for Item Number 26: Our lockers are satisfactory . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	17	31	47	94	16	205	676	3.29
II. Control, non-skilled blue-collar	15	24	40	81	17	177	592	3.34
III. Handicapped, skilled blue-collar	15	16	19	58	8	116	376	3.24
IV. Control, skilled blue-collar	11	11	24	66	16	128	449	3.51
V. Handicapped, non-skilled white-collar	13	12	74	59	10	168	545	3.24
VI. Control, non-skilled white-collar	8	13	53	47	6	127	411	3.24
VII. Handicapped, skilled white-collar	5	11	71	48	14	149	502	3.37
VIII. Control, skilled white-collar	7	11	50	27	3	98	302	3.08
Total Handicapped						638	2099	3.29
Total Control						530	1754	3.31
Grand Total						1168	3853	3.30

Table B-27. Distribution of responses, by group, for Item Number 27: Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are) . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	13	39	49	82	22	205	676	3.29
II. Control, non-skilled blue-collar	11	31	31	73	31	177	613	3.46
III. Handicapped, skilled blue-collar	6	16	27	49	18	116	405	3.49
IV. Control, skilled blue-collar	8	15	18	50	37	128	477	3.73
V. Handicapped, non-skilled white-collar	6	17	36	77	32	168	616	3.66
VI. Control, non-skilled white-collar	3	9	28	50	37	127	490	3.86
VII. Handicapped, skilled white-collar	5	8	18	72	46	149	593	3.98
VIII. Control, skilled white-collar	7	6	11	49	26	99	378	3.82
Total Handicapped						638	2290	3.59
Total Control						530	1958	3.69
Grand Total						1168	4248	3.64

Table B-28. Distribution of responses, by group, for Item Number 28: The Company brings in outsiders for important jobs more often than they should . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	7	25	74	74	25	205	700	3.41
II. Control, non-skilled blue-collar	11	20	34	87	25	177	626	3.54
III. Handicapped, skilled blue-collar	1	15	35	45	20	116	416	3.59
IV. Control, skilled blue-collar	6	12	16	64	30	128	484	3.78
V. Handicapped, non-skilled white-collar	6	21	51	60	30	168	591	3.51
VI. Control, non-skilled white-collar	7	15	39	38	28	127	446	3.51
VII. Handicapped, skilled white-collar	5	16	38	56	34	149	545	3.66
VIII. Control, skilled white-collar	3	12	20	44	19	98	358	3.65
Total Handicapped						638	2252	3.53
Total Control						530	1914	3.61
Grand Total						1168	4166	3.57

Table B-29. Distribution of responses, by group, for Item Number 29: Enough time is allowed for rest periods . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	13	21	144	24	205	788	3.84
II. Control, non-skilled blue-collar	3	12	14	122	26	177	687	3.88
III. Handicapped, skilled blue-collar	3	11	6	79	17	116	444	3.83
IV. Control, skilled blue-collar	4	7	9	81	27	128	504	3.94
V. Handicapped, non-skilled white-collar	3	5	15	114	31	168	669	3.98
VI. Control, non-skilled white-collar	4	11	5	83	24	127	493	3.88
VII. Handicapped, skilled white-collar	1	6	8	99	35	149	608	4.08
VIII. Control, skilled white-collar	0	4	14	61	19	98	389	3.97
Total Handicapped						638	2509	3.93
Total Control						530	2073	3.91
Grand Total						1168	4582	3.92

Table B-30. Distribution of responses, by group, for Item Number 30: I'm getting valuable experience on my present job . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	15	33	49	87	21	205	681	3.32
II. Control, non-skilled blue-collar	9	31	39	78	20	177	600	3.39
III. Handicapped, skilled blue-collar	3	9	19	65	20	116	438	3.78
IV. Control, skilled blue-collar	1	10	22	72	23	128	490	3.83
V. Handicapped, non-skilled white-collar	4	19	24	87	34	168	632	3.76
VI. Control, non-skilled white-collar	1	16	17	67	26	127	482	3.80
VII. Handicapped, skilled white-collar	1	2	8	85	53	149	634	4.26
VIII. Control, skilled white-collar	0	5	7	59	27	98	402	4.10
Total Handicapped						638	2385	3.74
Total Control						530	1974	3.72
Grand Total						1168	4359	3.73

Table B-31. Distribution of responses, by group, for Item Number 31: I feel I am happier in my work than most other people . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	25	64	93	17	205	705	3.43
II. Control, non-skilled blue-collar	3	19	47	81	27	177	641	3.62
III. Handicapped, skilled blue-collar	1	9	33	57	16	116	426	3.67
IV. Control, skilled blue-collar	1	10	29	72	16	128	476	3.72
V. Handicapped, non-skilled white-collar	3	20	51	74	20	168	592	3.52
VI. Control, non-skilled white-collar	3	12	36	59	17	127	456	3.59
VII. Handicapped, skilled white-collar	3	5	31	84	26	149	572	3.84
VIII. Control, skilled white-collar	0	3	26	43	26	98	386	3.94
Total Handicapped						638	2295	3.60
Total Control						530	1959	3.70
Grand Total						1168	4254	3.64

Table B-32. Distribution of responses, by group, for Item Number 32: The work in my department is handed out fairly among the employees . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	0	26	29	133	17	205	756	3.68
II. Control, non-skilled blue-collar	2	17	15	117	26	177	679	3.84
III. Handicapped, skilled blue-collar	1	11	12	82	10	116	437	3.77
IV. Control, skilled blue-collar	2	7	12	85	22	128	502	3.92
V. Handicapped, non-skilled white-collar	5	12	20	111	20	168	633	3.76
VI. Control, non-skilled white-collar	0	13	14	83	17	127	485	3.82
VII. Handicapped, skilled white-collar	1	9	15	92	32	149	592	3.97
VIII. Control, skilled white-collar	3	3	9	70	13	98	381	3.89
Total Handicapped						638	2418	3.79
Total Control						530	2047	3.86
Grand Total						1168	4465	3.82

Table B-33. Distribution of responses, by group, for Item Number 33: My immediate boss expects me to do more than my share of the work . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	8	26	37	117	17	205	724	3.53
II. Control, non-skilled blue-collar	7	19	21	109	21	177	649	3.67
III. Handicapped, skilled blue-collar	5	10	19	68	14	116	424	3.66
IV. Control, skilled blue-collar	3	7	17	81	20	128	492	3.84
V. Handicapped, non-skilled white-collar	4	18	30	96	20	168	614	3.65
VI. Control, non-skilled white-collar	2	10	17	86	12	127	477	3.76
VII. Handicapped, skilled white-collar	4	10	17	94	24	149	571	3.83
VIII. Control, skilled white-collar	0	6	15	64	13	98	378	3.86
Total Handicapped						638	2333	3.66
Total Control						530	1996	3.77
Grand Total						1168	4329	3.71

Table B-34. Distribution of responses, by group, for Item Number 34: The Company should do more to help employees with their personal problems (like family troubles, etc.) . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	7	26	61	88	23	205	709	3.45
II. Control, non-skilled blue-collar	5	12	41	88	31	177	659	3.72
III. Handicapped, skilled blue-collar	5	9	22	61	19	116	428	3.69
IV. Control, skilled blue-collar	4	10	26	68	20	128	474	3.70
V. Handicapped, non-skilled white-collar	2	12	48	73	33	168	627	3.73
VI. Control, non-skilled white-collar	3	9	31	57	27	127	477	3.76
VII. Handicapped, skilled white-collar	1	6	29	80	33	149	585	3.93
VIII. Control, skilled white-collar	1	4	24	52	17	98	374	3.82
Total Handicapped						638	2349	3.68
Total Control						530	1984	3.74
Grand Total						1168	4333	3.71

Table B-35. Distribution of responses, by group, for Item Number 35: The Company gives employees enough information about its financial position . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	12	42	67	79	5	205	638	3.11
II. Control, non-skilled blue-collar	15	39	49	62	12	177	548	3.10
III. Handicapped, skilled blue-collar	8	23	32	43	10	116	372	3.21
IV. Control, skilled blue-collar	7	28	28	54	11	128	418	3.27
V. Handicapped, non-skilled white-collar	6	23	45	76	18	168	581	3.45
VI. Control, non-skilled white-collar	3	19	35	56	14	127	440	3.46
VII. Handicapped, skilled white-collar	5	15	31	76	22	149	542	3.64
VIII. Control, skilled white-collar	2	15	19	45	17	98	354	3.61
Total Handicapped						638	2133	3.34
Total Control						530	1760	3.32
Grand Total						1168	3893	3.33

Table B-36. Distribution of responses, by group, for Item Number 36: The place where I work is clean . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	10	18	25	130	22	205	751	3.66
II. Control, non-skilled blue-collar	6	15	24	101	31	177	667	3.77
III. Handicapped, skilled blue-collar	7	14	10	73	12	116	417	3.59
IV. Control, skilled blue-collar	4	23	16	66	19	128	457	3.57
V. Handicapped, non-skilled white-collar	5	10	10	108	35	168	662	3.94
VI. Control, non-skilled white-collar	3	11	6	75	32	127	503	3.96
VII. Handicapped, skilled white-collar	2	9	6	93	39	149	605	4.06
VIII. Control, skilled white-collar	1	3	10	58	26	98	399	4.07
Total Handicapped						638	2435	3.82
Total Control						530	2026	3.82
Grand Total						1168	4461	3.82

Table B-37. Distribution of responses, by group, for Item Number 37: This Company treats its employees better than most other companies I know about . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	25	74	82	21	205	708	3.45
II. Control, non-skilled blue-collar	0	18	56	84	19	177	635	3.59
III. Handicapped, skilled blue-collar	3	10	36	53	14	116	413	3.56
IV. Control, skilled blue-collar	1	18	28	59	22	128	467	3.65
V. Handicapped, non-skilled white-collar	4	13	77	53	21	168	578	3.44
VI. Control, non-skilled white-collar	2	15	37	57	16	127	451	3.55
VII. Handicapped, skilled white-collar	0	9	54	61	25	149	549	3.68
VIII. Control, skilled white-collar	2	6	23	48	19	98	370	3.78
Total Handicapped						638	2248	3.52
Total Control						530	1923	3.63
Grand Total						1168	4171	3.57

Table B-38. Distribution of responses, by group, for Item Number 38: My immediate supervisor always understands what I am trying to do . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	24	42	119	15	205	730	3.56
II. Control, non-skilled blue-collar	3	18	27	114	15	177	651	3.68
III. Handicapped, skilled blue-collar	3	14	25	67	7	116	409	3.53
IV. Control, skilled blue-collar	4	12	21	79	12	128	467	3.65
V. Handicapped, non-skilled white-collar	2	27	30	101	8	168	590	3.51
VI. Control, non-skilled white-collar	0	13	21	78	15	127	476	3.75
VII. Handicapped, skilled white-collar	4	18	20	82	25	149	553	3.71
VIII. Control, skilled white-collar	2	10	18	57	11	98	359	3.66
Total Handicapped						638	2282	3.58
Total Control						530	1953	3.68
Grand Total						1168	4235	3.63

Table B-39. Distribution of responses, by group, for Item Number 39: My immediate supervisor has the confidence and respect of those who work under him . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	21	43	120	15	205	732	3.57
II. Control, non-skilled blue-collar	0	17	25	105	30	177	679	3.84
III. Handicapped, skilled blue-collar	4	17	22	64	9	116	405	3.49
IV. Control, skilled blue-collar	5	15	15	75	18	128	470	3.67
V. Handicapped, non-skilled white-collar	10	17	23	99	19	168	604	3.59
VI. Control, non-skilled white-collar	0	13	18	73	23	127	487	3.83
VII. Handicapped, skilled white-collar	4	15	15	80	35	149	574	3.85
VIII. Control, skilled white-collar	2	7	7	60	22	98	387	3.95
Total Handicapped						638	2315	3.63
Total Control						530	2023	3.82
Grand Total						1168	4338	3.71

Table B-40. Distribution of responses, by group, for Item Number 40: My supervisor takes credit for work when he doesn't deserve it . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	26	55	101	20	205	724	3.53
II. Control, non-skilled blue-collar	3	20	39	81	34	177	654	3.69
III. Handicapped, skilled blue-collar	8	14	23	59	12	116	401	3.46
IV. Control, skilled blue-collar	3	11	27	66	21	128	475	3.71
V. Handicapped, non-skilled white-collar	2	8	36	95	27	168	641	3.81
VI. Control, non-skilled white-collar	0	6	21	69	31	127	506	3.98
VII. Handicapped, skilled white-collar	2	7	22	76	42	149	596	4.00
VIII. Control, skilled white-collar	1	8	13	54	22	98	382	3.90
Total Handicapped						638	2362	3.70
Total Control						530	2017	3.81
Grand Total						1168	4379	3.75

Table B-41. Distribution of responses, by group, for Item Number 41: I feel the company tells me enough about its general policies (what they are trying to do) . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	4	31	59	103	8	205	695	3.39
II. Control, non-skilled blue-collar	3	26	35	92	21	177	633	3.58
III. Handicapped, skilled blue-collar	2	24	22	59	9	116	397	3.42
IV. Control, skilled blue-collar	6	19	29	63	11	128	438	3.42
V. Handicapped, non-skilled white-collar	2	22	33	96	15	168	604	3.59
VI. Control, non-skilled white-collar	1	17	18	75	16	127	469	3.69
VII. Handicapped, skilled white-collar	3	16	16	90	24	149	563	3.78
VIII. Control, skilled white-collar	4	13	10	60	11	98	355	3.62
Total Handicapped						638	2259	3.54
Total Control						530	1895	3.58
Grand Total						1168	4154	3.56

Table B-42. Distribution of responses, by group, for Item Number 42: I like my job better than most people like theirs . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	36	72	77	15	205	676	3.29
II. Control, non-skilled blue-collar	1	20	56	79	21	177	630	3.56
III. Handicapped, skilled blue-collar	0	16	30	58	12	116	414	3.57
IV. Control, skilled blue-collar	3	9	45	59	12	128	452	3.53
V. Handicapped, non-skilled white-collar	4	20	56	69	19	168	583	3.47
VI. Control, non-skilled white-collar	1	20	37	57	12	127	440	3.46
VII. Handicapped, skilled white-collar	2	9	35	74	29	149	566	3.80
VIII. Control, skilled white-collar	0	5	28	49	16	98	370	3.78
Total Handicapped						638	2239	3.51
Total Control						530	1892	3.57
Grand Total						1168	4131	3.54

Table B-43. Distribution of responses, by group, for Item Number 43: My boss knows how to handle people . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	29	44	111	18	205	727	3.55
II. Control, non-skilled blue-collar	5	24	27	94	27	177	645	3.64
III. Handicapped, skilled blue-collar	2	24	25	57	8	116	393	3.39
IV. Control, skilled blue-collar	5	14	18	80	11	128	462	3.61
V. Handicapped, non-skilled white-collar	8	25	28	89	18	168	588	3.50
VI. Control, non-skilled white-collar	2	17	22	71	15	127	461	3.63
VII. Handicapped, skilled white-collar	5	14	20	86	24	149	557	3.74
VIII. Control, skilled white-collar	2	10	16	56	14	98	364	3.71
Total Handicapped						638	2265	3.55
Total Control						530	1932	3.65
Grand Total						1168	4197	3.59

Table B-44. Distribution of responses, by group, for Item Number 44: My fellow workers rate better with management than I do . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	27	66	94	12	205	694	3.38
II. Control, non-skilled blue-collar	0	13	33	105	26	177	675	3.81
III. Handicapped, skilled blue-collar	1	12	28	63	12	116	421	3.63
IV. Control, skilled blue-collar	2	5	32	76	13	128	477	3.73
V. Handicapped, non-skilled white-collar	4	13	41	89	21	168	614	3.65
VI. Control, non-skilled white-collar	1	4	32	75	15	127	480	3.78
VII. Handicapped, skilled white-collar	1	2	26	102	18	149	581	3.90
VIII. Control, skilled white-collar	0	0	22	58	18	98	388	3.96
Total Handicapped						638	2310	3.62
Total Control						530	2020	3.81
Grand Total						1168	4330	3.71

Table B-45. Distribution of responses, by group, for Item Number 45: I need a promotion if I am to stay happy here . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	10	58	51	77	9	205	632	3.08
II. Control, non-skilled blue-collar	10	35	37	76	19	177	590	3.33
III. Handicapped, skilled blue-collar	10	15	28	54	9	116	385	3.32
IV. Control, skilled blue-collar	5	12	31	63	17	128	459	3.59
V. Handicapped, non-skilled white-collar	10	34	53	56	15	168	536	3.19
VI. Control, non-skilled white-collar	6	24	29	60	8	127	421	3.31
VII. Handicapped, skilled white-collar	5	28	45	51	20	149	500	3.36
VIII. Control, skilled white-collar	7	16	30	35	10	98	319	3.26
Total Handicapped						638	2053	3.22
Total Control						530	1789	3.38
Grand Total						1168	3842	3.29

Table B-46. Distribution of responses, by group, for Item Number 46: My work group is usually like one big happy family . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	4	30	41	114	16	205	723	3.52
II. Control, non-skilled blue-collar	4	29	29	95	20	177	629	3.55
III. Handicapped, skilled blue-collar	2	24	23	61	6	116	393	3.39
IV. Control, skilled blue-collar	2	16	20	76	14	128	468	3.66
V. Handicapped, non-skilled white-collar	1	16	39	96	16	168	614	3.65
VI. Control, non-skilled white-collar	2	15	25	72	13	127	460	3.62
VII. Handicapped, skilled white-collar	2	24	31	72	20	149	531	3.56
VIII. Control, skilled white-collar	1	11	17	57	12	98	362	3.69
Total Handicapped						638	2261	3.54
Total Control						530	1919	3.62
Grand Total						1168	4180	3.58

Table B-47. Distribution of responses, by group, for Item Number 47: My boss is only interested in getting the work out . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	13	77	51	57	7	205	583	2.84
II. Control, non-skilled blue-collar	13	56	30	66	12	177	539	3.05
III. Handicapped, skilled blue-collar	16	34	22	35	9	116	335	2.89
IV. Control, skilled blue-collar	5	31	35	45	12	128	412	3.22
V. Handicapped, non-skilled white-collar	12	35	48	66	7	168	525	3.12
VI. Control, non-skilled white-collar	4	25	19	66	13	127	440	3.46
VII. Handicapped, skilled white-collar	4	16	31	79	19	149	540	3.62
VIII. Control, skilled white-collar	3	15	12	58	10	98	351	3.58
Total Handicapped						638	1983	3.11
Total Control						530	1742	3.29
Grand Total						1168	3725	3.19

Table B-48. Distribution of responses, by group, for Item Number 48: I would like to change my line of work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	25	49	52	59	20	205	615	3.00
II. Control, non-skilled blue-collar	14	28	50	60	25	177	585	3.31
III. Handicapped, skilled blue-collar	10	15	24	40	27	116	407	3.51
IV. Control, skilled blue-collar	5	19	25	47	32	128	466	3.64
V. Handicapped, non-skilled white-collar	12	28	36	59	33	168	577	3.43
VI. Control, non-skilled white-collar	7	19	32	40	29	127	446	3.51
VII. Handicapped, skilled white-collar	4	8	25	61	51	149	594	3.99
VIII. Control, skilled white-collar	1	5	22	41	29	98	386	3.94
Total Handicapped						638	2193	3.44
Total Control						530	1883	3.55
Grand Total						1168	4076	3.49

Table B-49. Distribution of responses, by group, for Item Number 49: I really shouldn't expect to be making more money than I do . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	15	84	40	60	6	205	573	2.79
II. Control, non-skilled blue-collar	19	76	41	36	5	177	463	2.62
III. Handicapped, skilled blue-collar	12	44	23	33	4	116	321	2.77
IV. Control, skilled blue-collar	17	43	22	42	4	128	357	2.79
V. Handicapped, non-skilled white-collar	28	66	30	41	3	168	429	2.55
VI. Control, non-skilled white-collar	13	58	28	26	2	127	327	2.57
VII. Handicapped, skilled white-collar	29	54	30	35	1	149	372	2.50
VIII. Control, skilled white-collar	12	44	20	21	1	98	249	2.54
Total Handicapped						638	1695	2.66
Total Control						530	1396	2.63
Grand Total						1168	3091	2.65

Table B-50. Distribution of responses, by group, for Item Number 50: I have to work harder because some of my co-workers "goof off" . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	8	41	34	109	13	205	693	3.38
II. Control, non-skilled blue-collar	8	35	24	90	20	177	610	3.45
III. Handicapped, skilled blue-collar	8	15	13	67	13	116	410	3.53
IV. Control, skilled blue-collar	2	12	16	77	21	128	487	3.80
V. Handicapped, non-skilled white-collar	4	20	31	83	30	168	619	3.68
VI. Control, non-skilled white-collar	4	18	14	76	15	127	461	3.63
VII. Handicapped, skilled white-collar	2	8	20	102	17	149	571	3.83
VIII. Control, skilled white-collar	1	6	9	67	15	98	383	3.91
Total Handicapped						638	2293	3.59
Total Control						530	1941	3.66
Grand Total						1168	4234	3.63

Table B-51. Distribution of responses, by group, for Item Number 51: I do not like the way they figure pay increases in this Company . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	7	45	65	76	12	205	656	3.20
II. Control, non-skilled blue-collar	13	45	54	54	11	177	536	3.03
III. Handicapped, skilled blue-collar	11	22	34	41	8	116	361	3.11
IV. Control, skilled blue-collar	4	21	31	62	10	128	437	3.41
V. Handicapped, non-skilled white-collar	15	38	54	50	11	168	508	3.02
VI. Control, non-skilled white-collar	9	27	40	46	5	127	392	3.09
VII. Handicapped, skilled white-collar	10	27	36	66	10	149	486	3.26
VIII. Control, skilled white-collar	6	12	30	42	8	98	328	3.35
Total Handicapped						638	2011	3.15
Total Control						530	1693	3.19
Grand Total						1168	3704	3.17

Table B-52. Distribution of responses, by group, for Item Number 52: I would like to exchange my present job for another job in the same line of work . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	29	50	95	26	205	723	3.52
II. Control, non-skilled blue-collar	6	26	33	83	29	177	634	3.58
III. Handicapped, skilled blue-collar	5	12	23	57	19	116	421	3.63
IV. Control, skilled blue-collar	1	11	25	63	28	128	490	3.83
V. Handicapped, non-skilled white-collar	10	28	33	77	20	168	573	3.41
VI. Control, non-skilled white-collar	4	11	37	60	15	127	452	3.56
VII. Handicapped, skilled white-collar	6	16	31	62	34	149	549	3.68
VIII. Control, skilled white-collar	4	7	25	47	15	98	356	3.63
Total Handicapped						638	2266	3.55
Total Control						530	1932	3.65
Grand Total						1168	4198	3.59

Table B-53. Distribution of responses, by group, for Item Number 53: My boss "rides" me a little too much . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	9	32	136	25	205	786	3.83
II. Control, non-skilled blue-collar	2	8	11	123	33	177	708	4.00
III. Handicapped, skilled blue-collar	5	5	8	72	26	116	457	3.94
IV. Control, skilled blue-collar	3	2	6	88	29	128	522	4.08
V. Handicapped, non-skilled white-collar	5	7	16	105	35	168	662	3.94
VI. Control, non-skilled white-collar	0	1	8	86	32	127	530	4.17
VII. Handicapped, skilled white-collar	2	7	10	89	41	149	607	4.07
VIII. Control, skilled white-collar	2	2	3	61	30	98	409	4.17
Total Handicapped						638	2512	3.94
Total Control						530	2169	4.09
Grand Total						1168	4681	4.01

Table B-54. Distribution of responses, by group, for Item Number 54: Things would be better for the Company if they got rid of my boss . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	11	34	117	38	205	787	3.83
II. Control, non-skilled blue-collar	4	14	15	97	47	177	700	3.95
III. Handicapped, skilled blue-collar	8	9	13	51	35	116	444	3.83
IV. Control, skilled blue-collar	1	3	14	73	37	128	526	4.11
V. Handicapped, non-skilled white-collar	3	7	28	82	48	168	669	3.98
VI. Control, non-skilled white-collar	0	2	9	69	47	127	542	4.27
VII. Handicapped, skilled white-collar	3	2	12	67	65	149	636	4.27
VIII. Control, skilled white-collar	3	2	5	47	41	98	415	4.23
Total Handicapped						638	2536	3.97
Total Control						530	2183	4.12
Grand Total						1168	4719	4.04

Table B-55. Distribution of responses, by group, for Item Number 55: I do not know a friendlier bunch than the people I work with . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	26	49	107	18	205	722	3.52
II. Control, non-skilled blue-collar	2	21	32	92	30	177	658	3.72
III. Handicapped, skilled blue-collar	1	13	29	60	13	116	419	3.61
IV. Control, skilled blue-collar	1	7	24	76	20	128	491	3.84
V. Handicapped, non-skilled white-collar	4	18	37	85	24	168	611	3.63
VI. Control, non-skilled white-collar	2	12	15	80	18	127	481	3.79
VII. Handicapped, skilled white-collar	2	12	25	91	19	149	560	3.76
VIII. Control, skilled white-collar	1	5	23	51	18	98	374	3.82
Total Handicapped						638	2312	3.62
Total Control						530	2004	3.78
Grand Total						1168	4316	3.70

Table B-56. Distribution of responses, by group, for Item Number 56: Considering the money I used to make, I'm doing pretty will right now . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	35	42	111	12	205	705	3.43
II. Control, non-skilled blue-collar	6	24	36	97	14	177	620	3.50
III. Handicapped, skilled blue-collar	0	18	15	75	8	116	421	3.63
IV. Control, skilled blue-collar	4	16	14	78	16	128	470	3.67
V. Handicapped, non-skilled white-collar	13	29	37	77	12	168	550	3.27
VI. Control, non-skilled white-collar	2	21	28	67	9	127	441	3.47
VII. Handicapped, skilled white-collar	5	11	27	89	17	149	549	3.68
VIII. Control, skilled white-collar	2	11	20	55	10	98	354	3.61
Total Handicapped						638	2225	3.49
Total Control						530	1885	3.56
Grand Total						1168	4110	3.52

Table B-57. Distribution of responses, by group, for Item Number 57: I have thought seriously about changing my present job . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	16	67	38	71	13	205	613	2.99
II. Control, non-skilled blue-collar	16	41	28	66	26	177	576	3.25
III. Handicapped, skilled blue-collar	10	27	11	48	20	116	389	3.35
IV. Control, skilled blue-collar	4	25	17	58	24	128	457	3.57
V. Handicapped, non-skilled white-collar	21	25	38	59	25	168	546	3.25
VI. Control, non-skilled white-collar	8	26	21	55	17	127	428	3.37
VII. Handicapped, skilled white-collar	14	39	12	56	28	149	492	3.30
VIII. Control, skilled white-collar	6	19	9	48	16	98	343	3.50
Total Handicapped						638	2040	3.20
Total Control						530	1804	3.40
Grand Total						1168	3844	3.29

Table B-58. Distribution of responses, by group, for Item Number 58: My boss is where he is because he knows the work . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	26	31	117	28	205	756	3.68
II. Control, non-skilled blue-collar	6	14	30	99	28	177	660	3.73
III. Handicapped, skilled blue-collar	8	15	17	58	18	116	411	3.54
IV. Control, skilled blue-collar	5	15	12	73	23	128	478	3.73
V. Handicapped, non-skilled white-collar	6	12	18	104	28	168	640	3.80
VI. Control, non-skilled white-collar	1	13	19	63	31	127	491	3.87
VII. Handicapped, skilled white-collar	6	7	15	78	43	149	592	3.97
VIII. Control, skilled white-collar	2	8	7	54	27	98	390	3.98
Total Handicapped						638	2399	3.76
Total Control						530	2019	3.81
Grand Total						1168	4418	3.78

Table B-59. Distribution of responses, by group, for Item Number 59: I sometimes wonder what my co-workers are talking about . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	43	49	91	16	205	683	3.33
II. Control, non-skilled blue-collar	1	30	35	86	25	177	635	3.59
III. Handicapped, skilled blue-collar	3	31	18	51	13	116	388	3.34
IV. Control, skilled blue-collar	1	25	25	56	21	128	455	3.55
V. Handicapped, non-skilled white-collar	4	25	31	88	20	168	599	3.56
VI. Control, non-skilled white-collar	2	21	24	64	16	127	452	3.56
VII. Handicapped, skilled white-collar	2	18	27	85	17	149	544	3.65
VIII. Control, skilled white-collar	0	16	10	57	15	98	365	3.72
Total Handicapped						638	2214	3.47
Total Control						530	1907	3.60
Grand Total						1168	4121	3.53

Table B-60. Distribution of responses, by group, for Item Number 60: I often feel like demanding a pay raise . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	18	53	39	84	11	205	632	3.08
II. Control, non-skilled blue-collar	11	51	31	70	14	177	556	3.14
III. Handicapped, skilled blue-collar	6	17	26	51	16	116	402	3.47
IV. Control, skilled blue-collar	7	18	25	65	13	128	443	3.46
V. Handicapped, non-skilled white-collar	17	43	39	59	10	168	506	3.01
VI. Control, non-skilled white-collar	6	22	34	58	7	127	419	3.30
VII. Handicapped, skilled white-collar	5	34	29	65	16	149	500	3.36
VIII. Control, skilled white-collar	5	14	13	54	12	98	348	3.55
Total Handicapped						638	2040	3.20
Total Control						530	1766	3.33
Grand Total						1168	3806	3.26

Table B-61. Distribution of responses, by group, for Item Number 61: I make as much money as most of my friends . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	49	42	98	11	205	676	3.29
II. Control, non-skilled blue-collar	10	29	31	93	14	177	603	3.41
III. Handicapped, skilled blue-collar	1	12	16	79	8	116	429	3.70
IV. Control, skilled blue-collar	2	17	19	76	14	128	467	3.65
V. Handicapped, non-skilled white-collar	12	29	44	70	13	168	547	3.25
VI. Control, non-skilled white-collar	7	28	18	70	4	127	417	3.28
VII. Handicapped, skilled white-collar	7	17	28	86	11	149	524	3.52
VIII. Control, skilled white-collar	0	12	17	61	8	98	359	3.66
Total Handicapped						638	2176	3.41
Total Control						530	1846	3.48
Grand Total						1168	4022	3.44

Table B-62. Distribution of responses, by group, for Item Number 62: Some of my fellow workers are among my best friends . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	0	31	45	109	20	205	733	3.57
II. Control, non-skilled blue-collar	7	17	23	103	27	177	657	3.71
III. Handicapped, skilled blue-collar	3	19	14	67	13	116	416	3.59
IV. Control, skilled blue-collar	1	16	13	81	17	128	481	3.76
V. Handicapped, non-skilled white-collar	6	13	32	95	22	168	618	3.67
VI. Control, non-skilled white-collar	2	24	15	73	13	127	452	3.56
VII. Handicapped, skilled white-collar	1	28	26	79	15	149	526	3.53
VIII. Control, skilled white-collar	0	19	13	53	13	98	354	3.61
Total Handicapped						638	2293	3.59
Total Control						530	1944	3.67
Grand Total						1168	4237	3.63

Table B-63. Distribution of responses, by group, for Item Number 63: Most of the time I feel satisfied with my job . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	22	30	130	17	205	745	3.63
II. Control, non-skilled blue-collar	4	11	9	122	31	177	696	3.93
III. Handicapped, skilled blue-collar	1	7	8	84	16	116	455	3.92
IV. Control, skilled blue-collar	3	9	6	90	20	128	499	3.90
V. Handicapped, non-skilled white-collar	6	14	18	103	27	168	635	3.77
VI. Control, non-skilled white-collar	2	5	10	89	21	127	503	3.96
VII. Handicapped, skilled white-collar	4	10	12	89	34	149	586	3.93
VIII. Control, skilled white-collar	2	3	4	71	18	98	394	4.02
Total Handicapped						638	2421	3.79
Total Control						530	2092	3.95
Grand Total						1168	4513	3.86

Table B-64. Distribution of responses, by group, for Item Number 64: The lighting for my job is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	9	51	97	46	205	791	3.85
II. Control, non-skilled blue-collar	1	3	36	81	56	177	719	4.06
III. Handicapped, skilled blue-collar	5	9	25	56	21	116	427	3.68
IV. Control, skilled blue-collar	1	8	31	60	28	128	490	3.83
V. Handicapped, non-skilled white-collar	1	11	28	80	48	168	667	3.97
VI. Control, non-skilled white-collar	2	6	14	66	39	127	515	4.06
VII. Handicapped, skilled white-collar	1	3	17	81	47	149	617	4.14
VIII. Control, skilled white-collar	0	4	14	43	37	98	407	4.15
Total Handicapped						638	2502	3.92
Total Control						530	2131	4.02
Grand Total						1168	4633	3.97

Table B-65. Distribution of responses, by group, for Item Number 65: The ventilation where I work is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	11	27	44	84	39	205	728	3.55
II. Control, non-skilled blue-collar	10	19	39	70	39	177	640	3.62
III. Handicapped, skilled blue-collar	6	17	29	48	16	116	399	3.44
IV. Control, skilled blue-collar	7	12	37	46	26	128	456	3.56
V. Handicapped, non-skilled white-collar	7	13	43	81	24	168	606	3.60
VI. Control, non-skilled white-collar	7	10	27	51	32	127	472	3.72
VII. Handicapped, skilled white-collar	2	14	22	66	45	149	585	3.93
VIII. Control, skilled white-collar	4	6	24	43	21	98	365	3.72
Total Handicapped						638	2318	3.63
Total Control						530	1933	3.65
Grand Total						1168	4251	3.64

Table B-66. Distribution of responses, by group, for Item Number 66: The job that the top executives are doing in this Company is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	0	9	57	103	36	205	781	3.80
II. Control, non-skilled blue-collar	0	7	45	86	39	177	688	3.89
III. Handicapped, skilled blue-collar	4	6	32	52	22	116	430	3.71
IV. Control, skilled blue-collar	2	7	25	66	28	128	495	3.87
V. Handicapped, non-skilled white-collar	0	5	34	92	37	168	665	3.95
VI. Control, non-skilled white-collar	0	1	24	64	38	127	520	4.09
VII. Handicapped, skilled white-collar	1	3	20	82	43	149	610	4.09
VIII. Control, skilled white-collar	1	2	10	49	36	98	411	4.19
Total Handicapped						638	2486	3.90
Total Control						530	2114	3.99
Grand Total						1168	4600	3.94

Table B-67. Distribution of responses, by group, for Item Number 67: All in all, as a place to work, this Company is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	5	46	120	32	205	790	3.85
II. Control, non-skilled blue-collar	1	3	35	103	35	177	699	3.95
III. Handicapped, skilled blue-collar	0	4	20	76	16	116	452	3.90
IV. Control, skilled blue-collar	0	3	20	71	34	128	520	4.06
V. Handicapped, non-skilled white-collar	1	4	25	107	31	168	667	3.97
VI. Control, non-skilled white-collar	0	2	17	73	35	127	522	4.11
VII. Handicapped, skilled white-collar	0	1	23	79	46	149	617	4.14
VIII. Control, skilled white-collar	0	0	13	50	35	98	414	4.22
Total Handicapped						638	2526	3.96
Total Control						530	2155	4.07
Grand Total						1168	4681	4.01

Table B-68. Distribution of responses, by group, for Item Number 68: Considering the present cost of living, my pay is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	27	96	65	11	205	663	3.23
II. Control, non-skilled blue-collar	3	24	85	62	3	177	569	3.21
III. Handicapped, skilled blue-collar	2	5	46	57	6	116	408	3.52
IV. Control, skilled blue-collar	1	11	51	55	10	128	446	3.48
V. Handicapped, non-skilled white-collar	7	28	79	51	3	168	519	3.08
VI. Control, non-skilled white-collar	5	16	49	53	4	127	416	3.28
VII. Handicapped, skilled white-collar	1	11	51	79	7	149	527	3.54
VIII. Control, skilled white-collar	0	5	31	56	6	98	357	3.64
Total Handicapped						638	2117	3.32
Total Control						530	1788	3.37
Grand Total						1168	3905	3.34

Table B-69. Distribution of responses, by group, for Item Number 69: Considering everything, my working hours are . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	6	4	33	130	32	205	793	3.86
II. Control, non-skilled blue-collar	1	8	27	101	40	177	702	3.97
III. Handicapped, skilled blue-collar	1	3	17	69	26	116	464	4.00
IV. Control, skilled blue-collar	2	5	17	76	28	128	507	3.96
V. Handicapped, non-skilled white-collar	3	7	17	87	54	168	686	4.08
VI. Control, non-skilled white-collar	0	1	16	69	41	127	531	4.18
VII. Handicapped, skilled white-collar	1	1	18	90	39	149	612	4.11
VIII. Control, skilled white-collar	0	1	16	57	24	98	398	4.06
Total Handicapped						638	2555	4.00
Total Control						530	2138	4.03
Grand Total						1168	4693	4.02

Table B-70. Distribution of responses, by group, for Item Number 70: The spirit of cooperation among employees in my department is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	1	14	48	104	38	205	779	3.80
II. Control, non-skilled blue-collar	2	8	44	91	32	177	674	3.81
III. Handicapped, skilled blue-collar	1	5	30	66	14	116	435	3.75
IV. Control, skilled blue-collar	0	7	25	67	29	128	502	3.92
V. Handicapped, non-skilled white-collar	5	7	26	94	36	168	653	3.88
VI. Control, non-skilled white-collar	0	6	20	66	35	127	511	4.02
VII. Handicapped, skilled white-collar	0	4	18	83	44	149	614	4.12
VIII. Control, skilled white-collar	1	1	14	51	31	98	404	4.12
Total Handicapped						638	2481	3.89
Total Control						530	2091	3.95
Grand Total						1168	4572	3.91

Table B-71. Distribution of responses, by group, for Item Number 71: The reputation of this Company in the community (how people feel about this Company) is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	7	46	101	49	205	803	3.91
II. Control, non-skilled blue-collar	1	5	29	94	48	177	714	4.03
III. Handicapped, skilled blue-collar	1	7	19	65	24	116	452	3.90
IV. Control, skilled blue-collar	1	2	20	72	33	128	518	4.05
V. Handicapped, non-skilled white-collar	1	5	18	94	50	168	691	4.11
VI. Control, non-skilled white-collar	0	5	21	66	35	127	512	4.03
VII. Handicapped, skilled white-collar	0	1	14	74	60	149	640	4.30
VIII. Control, skilled white-collar	2	3	10	47	36	98	406	4.14
Total Handicapped						638	2586	4.05
Total Control						530	2150	4.06
Grand Total						1168	4736	4.05

Table B-72. Distribution of responses, by group, for Item Number 72: Considering everything, my present job is . . .

Group	Response Choices					Summary Statistics		
	1	2	3	4	5	N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	7	64	111	21	205	757	3.69
II. Control, non-skilled blue-collar	1	2	44	107	23	177	680	3.84
III. Handicapped, skilled blue-collar	0	1	23	79	13	116	452	3.90
IV. Control, skilled blue-collar	0	2	17	86	23	128	514	4.02
V. Handicapped, non-skilled white-collar	0	7	41	100	20	168	637	3.79
VI. Control, non-skilled white-collar	0	2	24	79	22	127	502	3.95
VII. Handicapped, skilled white-collar	0	3	14	103	29	149	605	4.06
VIII. Control, skilled white-collar	0	1	12	67	18	98	396	4.04
Total Handicapped						638	2451	3.84
Total Control						530	2092	3.95
Grand Total						1168	4543	3.89

Table B-73. Distribution of responses, by group, for Item Number 73: All in all, I would rate my immediate supervisor as . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	2	10	47	106	40	205	787	3.83
II. Control, non-skilled blue-collar	2	5	31	87	52	177	713	4.03
III. Handicapped, skilled blue-collar	7	2	25	65	17	116	431	3.72
IV. Control, skilled blue-collar	1	4	21	65	37	128	517	4.04
V. Handicapped, non-skilled white-collar	1	9	31	88	39	168	659	3.92
VI. Control, non-skilled white-collar	0	4	14	67	42	127	528	4.16
VII. Handicapped, skilled white-collar	1	4	17	74	53	149	621	4.17
VIII. Control, skilled white-collar	1	1	13	41	42	98	416	4.24
Total Handicapped						638	2498	3.92
Total Control						530	2174	4.10
Grand Total						1168	4672	4.00

Table B-74. Distribution of responses, by group, for Item Number 74: Opportunities for promotion (a chance to get a better job) here are . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	28	60	65	39	13	205	564	2.75
II. Control, non-skilled blue-collar	20	53	49	49	6	177	499	2.82
III. Handicapped, skilled blue-collar	18	28	49	16	5	116	310	2.67
IV. Control, skilled blue-collar	12	28	46	36	6	128	380	2.97
V. Handicapped, non-skilled white-collar	23	43	54	42	6	168	469	2.79
VI. Control, non-skilled white-collar	16	33	45	25	8	127	357	2.81
VII. Handicapped, skilled white-collar	15	18	57	44	15	149	473	3.17
VIII. Control, skilled white-collar	4	12	30	41	11	98	337	3.44
Total Handicapped						638	1816	2.85
Total Control						530	1573	2.97
Grand Total						1168	3389	2.90

Table B-75. Distribution of responses, by group, for Item Number 75: The place and equipment for the use of employees during rest and recreation periods are . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	17	44	47	79	18	205	652	3.18
II. Control, non-skilled blue-collar	17	25	56	66	13	177	564	3.19
III. Handicapped, skilled blue-collar	18	20	23	50	5	116	352	3.03
IV. Control, skilled blue-collar	19	17	41	42	9	128	389	3.04
V. Handicapped, non-skilled white-collar	17	31	37	61	22	168	544	3.23
VI. Control, non-skilled white-collar	14	19	38	38	18	127	408	3.21
VII. Handicapped, skilled white-collar	16	29	33	52	19	149	476	3.19
VIII. Control, skilled white-collar	10	22	25	34	7	98	300	3.06
Total Handicapped						638	2024	3.17
Total Control						530	1661	3.13
Grand Total						1168	3685	3.15

Table B-76. Distribution of responses, by group, for Item Number 76: General working conditions in my department—heat, light, space, noise, cleanliness, equipment, etc.—are . . .

Group	Response Choices 1	2	3	4	5	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	9	14	67	97	18	205	716	3.49
II. Control, non-skilled blue-collar	3	16	55	80	23	177	635	3.59
III. Handicapped, skilled blue-collar	6	7	35	62	6	116	403	3.47
IV. Control, skilled blue-collar	5	10	41	53	16	128	452	3.53
V. Handicapped, non-skilled white-collar	5	9	37	83	31	168	633	3.76
VI. Control, non-skilled white-collar	2	6	36	55	28	127	482	3.80
VII. Handicapped, skilled white-collar	2	9	32	74	32	149	572	3.84
VIII. Control, skilled white-collar	1	5	24	48	20	98	375	3.83
Total Handicapped						638	2324	3.64
Total Control						530	1944	3.67
Grand Total						1168	4268	3.65

Table B-77. Distribution of responses, by group, for Item Number 77: Choose the ONE of the following statements which best tells how well you like your job . . .

Group	Response Choices							Summary Statistics		
	1	2	3	4	5	6	7	N	ΣX	M
I. Handicapped, non-skilled blue-collar	0	7	9	32	131	17	9	205	989	4.82
II. Control, non-skilled blue-collar	1	1	5	26	111	24	9	177	884	4.99
III. Handicapped, skilled blue-collar	1	0	0	15	72	19	9	116	598	5.15
IV. Control, skilled blue-collar	0	3	3	15	82	23	2	128	637	4.97
V. Handicapped, non-skilled white-collar	0	3	7	16	92	35	15	168	866	5.15
VI. Control, non-skilled white-collar	0	1	0	14	75	27	10	127	665	5.23
VII. Handicapped, skilled white-collar	0	1	4	7	62	57	18	149	820	5.50
VIII. Control, skilled white-collar	0	1	1	4	46	36	10	98	537	5.48
Total Handicapped								638	3273	5.13
Total Control								530	2723	5.14
Grand Total								1168	5996	5.13

Table B-78. Distribution of responses by group, for Item Number 78: Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job . . .

Group	Response Choices							Summary Statistics		
	1	2	3	4	5	6	7	N	ΣX	M
I. Handicapped, non-skilled blue-collar	4	4	15	24	32	83	43	205	1112	5.42
II. Control, non-skilled blue-collar	0	3	10	10	27	82	45	177	1018	5.75
III. Handicapped, skilled blue-collar	0	0	3	12	18	65	18	116	663	5.71
IV. Control, skilled blue-collar	0	3	6	7	28	58	26	128	722	5.64
V. Handicapped, non-skilled white-collar	0	3	10	18	26	75	36	168	940	5.59
VI. Control, non-skilled white-collar	1	0	4	11	12	79	20	127	731	5.75
VII. Handicapped, skilled white-collar	0	2	4	10	18	82	33	149	869	5.83
VIII. Control, skilled white-collar	0	0	5	3	15	54	21	98	573	5.84
Total Handicapped								638	3584	5.62
Total Control								530	3044	5.74
Grand Total								1168	6628	5.67

Table B-79. Distribution of responses, by group, for Item Number 79: Check the ONE of the following which best tells how you feel about changing your job . . .

Group	Response Choices 1	2	3	4	5	6	7	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	5	6	24	7	111	29	23	205	1007	4.91
II. Control, non-skilled blue-collar	4	1	13	4	105	25	25	177	911	5.15
III. Handicapped, skilled blue-collar	2	1	9	2	68	25	9	116	592	5.10
IV. Control, skilled blue-collar	0	5	7	2	72	24	18	128	669	5.23
V. Handicapped, non-skilled white-collar	2	1	13	6	105	28	13	168	851	5.07
VI. Control, non-skilled white-collar	0	2	6	6	79	24	10	127	655	5.16
VII. Handicapped, skilled white-collar	2	1	6	5	82	41	12	149	782	5.25
VIII. Control, skilled white-collar	1	0	2	6	59	24	6	98	512	5.22
Total Handicapped								638	3232	5.07
Total Control								530	2747	5.18
Grand Total								1168	5979	5.12

Table B-80. Distribution of responses, by group, for Item Number 80: Check one of the following to show how you think you compare with other people . . .

Group	Response Choices 1	2	3	4	5	6	7	Summary Statistics N	ΣX	M
I. Handicapped, non-skilled blue-collar	3	4	10	144	20	18	6	205	867	4.23
II. Control, non-skilled blue-collar	1	1	4	103	37	19	12	177	810	4.58
III. Handicapped, skilled blue-collar	0	0	2	72	25	14	3	116	524	4.52
IV. Control, skilled blue-collar	0	1	5	64	43	13	2	128	580	4.53
V. Handicapped, non-skilled white-collar	0	0	10	96	35	20	7	168	758	4.51
VI. Control, non-skilled white-collar	0	1	3	63	39	16	5	127	589	4.64
VII. Handicapped, skilled white-collar	0	1	5	59	51	28	5	149	711	4.77
VIII. Control, skilled white-collar	0	0	1	33	46	15	3	98	476	4.86
Total Handicapped								638	2860	4.48
Total Control								530	2455	4.63
Grand Total								1168	5315	4.55

Appendix C

Table C-1. Analysis of variance for Item 1

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample*	1	.090	.090	11.392**
Occupation	3	.058		
Collar	1	.0008	.0008	.101
Skill	1	.0338	.0338	4.278*
Residual	1			
Interaction	3	.093	.031	3.924**
Error	1160	9.215	.0079	

Note: For all tables in Appendix C:
* Handicapped vs control
* Significant at $.01 < P \leq .05$
** Significant at $P \leq .01$

Table C-2. Analysis of variance for Item 2

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.039	.039	3.963*
Occupation	3	.011		
Collar	1	.0018	.0018	.183
Skill	1	.0005	.0005	.051
Residual	1			
Interaction	3	.02	.00667	.678
Error	1160	11.417	.00984	

Table C-3. Analysis of variance for Item 3

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.007	.007	.840
Occupation	3	.116		
Collar	1	.035	.035	4.200*
Skill	1	.07	.07	8.400**
Residual	1			
Interaction	3	.011	.00367	.441
Error	1160	9.658	.00833	

Table C-4. Analysis of variance for Item 4

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.006	.006	.668
Occupation	3	.167		
Collar	1	.118	.118	13.140**
Skill	1	.035	.035	3.899*
Residual	1			
Interaction	3	.021	.007	.780
Error	1160	10.413	.00898	

Table C-5. Analysis of variance for Item 5

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.158
Occupation	3	.062		
Collar	1	.0002	.0002	.032
Skill	1	.0334	.0334	5.268*
Residual	1			
Interaction	3	.077	.0257	4.054**
Error	1160	7.354	.00634	

Table C-6. Analysis of variance for Item 6

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.011	.011	2.370
Occupation	3	.078		
Collar	1	.0512	.0512	11.034**
Skill	1	.0221	.0221	4.762*
Residual	1			
Interaction	3	.024	.008	1.724
Error	1160	5.381	.00464	

Table C-7. Analysis of variance for Item 7

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.003	.003	.471
Occupation	3	.362		
Collar	1	.177	.177	27.786**
Skill	1	.183	.183	28.728**
Residual	1			
Interaction	3	.039	.013	2.041
Error	1160	7.393	.00637	

Table C-8. Analysis of variance for Item 8

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.033	.033	3.750
Occupation	3	.127		
Collar	1	.0496	.0496	5.636*
Skill	1	.0741	.0741	8.420**
Residual	1			
Interaction	3	.012	.004	.455
Error	1160	10.231	.0088	

Table C-9. Analysis of variance for Item 9

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.084	.084	10.909**
Occupation	3	.009		
Collar	1	.0025	.0025	.325
Skill	1	.0025	.0025	.325
Residual	1			
Interaction	3	.023	.0077	1.000
Error	1160	8.95	.0077	

Table C-10. Analysis of variance for Item 10

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.138	.138	17.040**
Occupation	3	.065		
Collar	1	.05	.05	6.170*
Skill	1	.003	.003	.370
Residual	1			
Interaction	3	.045	.015	1.850
Error	1160	9.391	.0081	

Table C-11. Analysis of variance for Item 11

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.068	.068	8.095**
Occupation	3	.009		
Collar	1	.005	.005	.595
Skill	1	.0008	.0008	.095
Residual	1			
Interaction	3	.015	.005	.595
Error	1160	9.705	.0084	

Table C-12. Analysis of variance for Item 12

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.053	.053	7.794**
Occupation	3	.245		
Collar	1	.183	.183	26.912**
Skill	1	.047	.047	6.910**
Residual	1			
Interaction	3	.025	.0083	1.221
Error	1160	7.853	.0068	

Table C-13. Analysis of variance for Item 13

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.008	.008	1.356
Occupation	3	.262		
Collar	1	.231	.231	39.152**
Skill	1	.000		
Residual	1			
Interaction	3	.027	.009	1.525
Error	1160	6.813	.0059	

Table C-14. Analysis of variance for Item 14

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.169
Occupation	3	.029		
Collar	1	.0085	.0085	1.441
Skill	1	.0128	.0128	2.169
Residual	1			
Interaction	3	.018	.006	1.017
Error	1160	6.848	.0059	

Table C-15. Analysis of variance for Item 15

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.017	.017	3.640
Occupation	3	.059		
Collar	1	.0378	.0378	8.094**
Skill	1	.0105	.0105	2.248
Residual	1			
Interaction	3	.013	.004	.857
Error	1160	5.421	.00467	

Table C-16. Analysis of variance for Item 16

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.043	.043	6.830**
Occupation	3	.09		
Collar	1	.000		
Skill	1	.0903	.0903	14.330**
Residual	1			
Interaction	3	.022	.0073	1.159
Error	1160	7.288	.00628	

Table C-17. Analysis of variance for Item 17

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.044	.044	6.875**
Occupation	3	.091		
Collar	1	.0903	.0903	14.109**
Skill	1	.0003	.0003	.045
Residual	1			
Interaction	3	.023	.0077	1.203
Error	1160	7.475	.0064	

Table C-18. Analysis of variance for Item 18

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.056	.056	6.292*
Occupation	3	.534		
Collar	1	.249	.249	27.978**
Skill	1	.285	.285	32.022**
Residual	1			
Interaction	3	.042	.014	1.573
Error	1160	10.328	.0089	

Table C-19. Analysis of variance for Item 19

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.009	.009	1.500
Occupation	3	.01		
Collar	1	.005	.005	.83
Skill	1	.005	.005	.83
Residual	1			
Interaction	3	.019	.0063	1.050
Error	1160	6.929	.0060	

Table C-20. Analysis of variance for Item 20

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.021	.021	8.077**
Occupation	3	.047		
Collar	1	.0325	.0325	12.500**
Skill	1	.0153	.0153	5.885*
Residual	1			
Interaction	3	.031	.0103	3.960**
Error	1160	3.03	.0026	

Table C-21. Analysis of variance for Item 21

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.024	.024	4.706*
Occupation	3	.169		
Collar	1	.0392	.0392	7.686**
Skill	1	.1301	.1301	25.510**
Residual	1			
Interaction	3	.02	.0067	1.275
Error	1160	5.859	.0051	

Table C-22. Analysis of variance for Item 22

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.052	.052	7.429**
Occupation	3	.36		
Collar	1	.205	.205	29.290**
Skill	1	.146	.146	20.860**
Residual	1			
Interaction	3	.007	.0023	.329
Error	1160	8.104	.007	

Table C-23. Analysis of variance for Item 23

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.019	.019	1.863
Occupation	3	.041		
Collar	1	.038	.038	3.725
Skill	1	.000		
Residual	1			
Interaction	3	.026	.0087	.853
Error	1160	11.777	.0102	

Table C-24. Analysis of variance for Item 24

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.013	.013	2.549
Occupation	3	.042		
Collar	1	.03	.03	5.882*
Skill	1	.0021	.0021	.412
Residual	1			
Interaction	3	.01	.003	.588
Error	1160	5.943	.0051	

Table C-25. Analysis of variance for Item 25

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.091		
Collar	1	.0481	.0481	5.466*
Skill	1	.0265	.0265	3.011
Residual	1			
Interaction	3	.029	.0097	1.102
Error	1160	10.2	.0088	

Table C-26. Analysis of variance for Item 26

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.029		
Collar	1	.0253	.0253	3.329
Skill	1	.001	.001	.132
Residual	1			
Interaction	3	.08	.0267	3.513*
Error	1160	8.77	.0076	

Table C-27. Analysis of variance for Item 27

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.025	.025	2.976
Occupation	3	.302		
Collar	1	.228	.228	27.143**
Skill	1	.07	.07	8.333**
Residual	1			
Interaction	3	.052	.017	2.024
Error	1160	9.705	.0084	

Table C-28. Analysis of variance for Item 28

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.012	.012	1.558
Occupation	3	.065		
Collar	1	.000		
Skill	1	.063	.063	8.182*
Residual	1			
Interaction	3	.016	.0053	.688
Error	1160	8.966	.0077	

Table C-29. Analysis of variance for Item 29

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.031		
Collar	1	.0221	.0221	4.804*
Skill	1	.0072	.0072	1.565
Residual	1			
Interaction	3	.019	.0063	1.370
Error	1160	5.378	.0046	

Table C-30. Analysis of variance for Item 30

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.601		
Collar	1	.320	.320	50.794**
Skill	1	.361	.361	57.302**
Residual	1			
Interaction	3	.018	.006	.952
Error	1160	7.354	.0063	

Table C-31. Analysis of variance for Item 31

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.021	.021	4.038*
Occupation	3	.166		
Collar	1	.0253	.0253	4.865*
Skill	1	.1275	.1275	24.519**
Residual	1			
Interaction	3	.006	.002	.385
Error	1160	6.047	.0052	

Table C-32. Analysis of variance for Item 32

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.010	.010	2.128
Occupation	3	.033		
Collar	1	.0066	.0066	1.404
Skill	1	.0253	.0253	5.383*
Residual	1			
Interaction	3	.019	.0063	1.340
Error	1160	5.442	.0047	

Table C-33. Analysis of variance for Item 33

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.026	.026	4.561*
Occupation	3	.062		
Collar	1	.02	.02	3.571
Skill	1	.042	.042	7.368**
Residual	1			
Interaction	3	.007	.002	.351
Error	1160	6.611	.0057	

Table C-34. Analysis of variance for Item 34

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.005	.005	.833
Occupation	3	.086		
Collar	1	.0578	.0578	9.633**
Skill	1	.029	.029	4.833*
Residual	1			
Interaction	3	.039	.013	2.167
Error	1160	6.989	.006	

Table C-35. Analysis of variance for Item 35

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.317		
Collar	1	.27	.27	36.486**
Skill	1	.0465	.0465	6.284*
Residual	1			
Interaction	3	.003	.001	.135
Error	1160	8.545	.0074	

Table C-36. Analysis of variance for Item 36

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.161
Occupation	3	.29		
Collar	1	.2592	.2592	41.806**
Skill	1	.0002	.0002	.032
Residual	1			
Interaction	3	.006	.002	.323
Error	1160	7.21	.0062	

Table C-37. Analysis of variance for Item 37

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.024	.024	4.286*
Occupation	3	.067		
Collar	1	.0113	.0113	2.018
Skill	1	.0512	.0512	9.143**
Residual	1			
Interaction	3	.002	.0007	.125
Error	1160	6.531	.0056	

Table C-38. Analysis of variance for Item 38

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.023	.023	4.182*
Occupation	3	.010		
Collar	1	.0055	.0055	1.000
Skill	1	.0003	.0003	.055
Residual	1			
Interaction	3	.022	.0073	1.327
Error	1160	6.43	.0055	

Table C-39. Analysis of variance for Item 39

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.078	.078	12.787**
Occupation	3	.105		
Collar	1	.053	.053	8.689**
Skill	1	.002	.002	.328
Residual	1			
Interaction	3	.01	.0033	.541
Error	1160	7.105	.0061	

Table C-40. Analysis of variance for Item 40

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.029	.029	4.53*
Occupation	3	.215		
Collar	1	.2113	.2113	33.281**
Skill	1	.0003	.0003	.047
Residual	1			
Interaction	3	.035	.0117	1.828
Error	1160	7.406	.0064	

Table C-41. Analysis of variance for Item 41

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.002	.002	.328
Occupation	3	.103		
Collar	1	.095	.095	15.574**
Skill	1	.000		
Residual	1			
Interaction	3	.033	.011	1.803
Error	1160	7.095	.0061	

Table C-42. Analysis of variance for Item 42

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.005	.005	.893
Occupation	3	.16		
Collar	1	.0392	.0392	7.000**
Skill	1	.1013	.1013	18.089**
Residual	1			
Interaction	3	.033	.011	1.964
Error	1160	6.486	.0056	

Table C-43. Analysis of variance for Item 43

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.034	.034	5.075*
Occupation	3	.06		
Collar	1	.0351	.0351	5.239*
Skill	1	.0091	.0091	1.358
Residual	1			
Interaction	3	.024	.008	1.194
Error	1160	7.78	.0067	

Table C-44. Analysis of variance for Item 44

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.065	.065	14.444**
Occupation	3	.122		
Collar	1	.0685	.0685	15.222**
Skill	1	.0045	.0045	1.000
Residual	1			
Interaction	3	.043	.0143	3.178*
Error	1160	5.171	.0045	

Table C-45. Analysis of variance for Item 45

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.036	.036	4.615*
Occupation	3	.071		
Collar	1	.005	.005	.641
Skill	1	.0481	.0481	6.167*
Residual	1			
Interaction	3	.044	.0147	1.885
Error	1160	9.038	.0078	

Table C-46. Analysis of variance for Item 46

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.02	.02	3.400
Occupation	3	.02		
Collar	1	.02	.02	3.400
Skill	1	.0002	.0002	.034
Residual	1			
Interaction	3	.046	.0153	2.590
Error	1160	6.841	.0059	

Table C-47. Analysis of variance for Item 47

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.086	.086	10.886**
Occupation	3	.505		
Collar	1	.3961	.3961	50.139**
Skill	1	.0882	.0882	11.165**
Residual	1			
Interaction	3	.048	.016	2.025
Error	1160	9.115	.0079	

Table C-48. Analysis of variance for Item 48

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.029	.029	3.152
Occupation	3	.670		
Collar	1	.2485	.2485	27.011**
Skill	1	.4186	.4186	45.500**
Residual	1			
Interaction	3	.033	.011	1.196
Error	1160	10.664	.0092	

Table C-49. Analysis of variance for Item 49

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.125
Occupation	3	.088		
Collar	1	.082	.082	10.250**
Skill	1	.00061	.00061	.076
Residual	1			
Interaction	3	.016	.0053	.663
Error	1160	9.2706	.0080	

Table C-50. Analysis of variance for Item 50

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.017	.017	2.576
Occupation	3	.207		
Collar	1	.099	.099	15.000**
Skill	1	.1081	.1081	16.379**
Residual	1			
Interaction	3	.027	.009	1.364
Error	1160	7.615	.0066	

Table C-51. Analysis of variance for Item 51

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.01	.01	1.312
Occupation	3	.083		
Collar	1	.0001	.0001	.013
Skill	1	.078	.078	10.263**
Residual	1			
Interaction	3	.057	.019	2.500
Error	1160	8.793	.0076	

Table C-52. Analysis of variance for Item 52

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.016	.016	2.220
Occupation	3	.071		
Collar	1	.0098	.0098	1.360
Skill	1	.0613	.0613	8.514**
Residual	1			
Interaction	3	.019	.0063	.875
Error	1160	8.397	.0072	

Table C-53. Analysis of variance for Item 53

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.052	.052	12.093**
Occupation	3	.044		
Collar	1	.0313	.0313	7.279**
Skill	1	.0128	.0128	2.977
Residual	1			
Interaction	3	.004	.0013	0.300
Error	1160	4.9906	.0043	

Table C-54. Analysis of variance for Item 54

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.053	.053	9.460**
Occupation	3	.155		
Collar	1	.1326	.1326	23.679**
Skill	1	.021	.021	3.750
Residual	1			
Interaction	3	.037	.0123	2.196
Error	1160	6.455	.0056	

Table C-55. Analysis of variance for Item 55

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.052	.052	9.455**
Occupation	3	.03		
Collar	1	.0121	.0121	2.180
Skill	1	.0171	.0171	3.090
Residual	1			
Interaction	3	.009	.003	0.545
Error	1160	6.413	.0055	

Table C-56. Analysis of variance for Item 56

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.007	.007	1.110
Occupation	3	.116		
Collar	1	.0005	.0005	0.080
Skill	1	.1058	.1058	16.790**
Residual	1			
Interaction	3	.018	.006	.952
Error	1160	7.3455	.0063	

Table C-57. Analysis of variance for Item 57

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.080	.080	8.160**
Occupation	3	.132		
Collar	1	.0085	.0085	0.870
Skill	1	.0925	.0925	9.440**
Residual	1			
Interaction	3	.0050	.0017	0.170
Error	1160	11.3332	.0098	

Table C-58. Analysis of variance for Item 58

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.013	.013	1.940
Occupation	3	.135		
Collar	1	.1105	.1105	16.490**
Skill	1	.0025	.0025	0.370
Residual	1			
Interaction	3	.009	.003	0.450
Error	1160	7.733	.0067	

Table C-59. Analysis of variance for Item 59

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.036	.036	3.750
Occupation	3	.073		
Collar	1	.0578	.0578	6.020*
Skill	1	.0061	.0061	0.640
Residual	1			
Interaction	3	.023	.0077	0.80
Error	1160	11.1365	.0096	

Table C-60. Analysis of variance for Item 60

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.035	.035	4.220*
Occupation	3	.215		
Collar	1	.0006	.0006	0.070
Skill	1	.2145	.2145	25.840**
Residual	1			
Interaction	3	.028	.0093	1.120
Error	1160	9.6405	.0083	

Table C-61. Analysis of variance for Item 61

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.007	.007	1.040
Occupation	3	.225		
Collar	1	.0145	.0145	2.160
Skill	1	.2113	.2113	31.540**
Residual	1			
Interaction	3	.013	.0043	0.640
Error	1160	7.7318	.0067	

Table C-62. Analysis of variance for Item 62

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.009	.009	1.452
Occupation	3	.011		
Collar	1	.0085	.0085	1.371
Skill	1	.00005	.00005	.008
Residual	1			
Interaction	3	.025	.0083	1.339
Error	1160	7.207	.0062	

Table C-63. Analysis of variance for Item 63

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.039	.039	32.500**
Occupation	3	.04		
Collar	1	.0113	.0113	9.417**
Skill	1	.0288	.0288	24.000**
Residual	1			
Interaction	3	.029	.0097	8.083**
Error	1160	1.397	.0012	

Table C-64. Analysis of variance for Item 64

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.026	.026	5.000*
Occupation	3	.158		
Collar	1	.1013	.1013	19.481**
Skill	1	.0025	.0025	.481
Residual	1			
Interaction	3	.012	.004	.769
Error	1160	6.05	.0052	

Table C-65. Analysis of variance for Item 65

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.125
Occupation	3	.114		
Collar	1	.08	.08	10.000**
Skill	1	.0032	.0032	.400
Residual	1			
Interaction	3	.039	.013	1.625
Error	1160	9.32	.008	

Table C-66. Analysis of variance for Item 66

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.030	.030	6.818**
Occupation	3	.156		
Collar	1	.1378	.1378	31.318**
Skill	1	.0021	.0021	.477
Residual	1			
Interaction	3	.001	.0003	.068
Error	1160	5.104	.0044	

Table C-67. Analysis of variance for Item 67

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.028	.028	8.235**
Occupation	3	.083		
Collar	1	.0578	.0578	17.000**
Skill	1	.0242	.0242	7.118**
Residual	1			
Interaction	3	.004	.0013	.382
Error	1160	3.929	.0034	

Table C-68. Analysis of variance for Item 68

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.007	.007	1.555
Occupation	3	.247		
Collar	1	.0013	.0013	.289
Skill	1	.2381	.2381	52.911**
Residual	1			
Interaction	3	.02	.0067	1.489
Error	1160	5.258	.0045	

Table C-69. Analysis of variance for Item 69

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.001	.001	.244
Occupation	3	.057		
Collar	1	.0512	.0512	12.488**
Skill	1	.0002	.0002	.049
Residual	1			
Interaction	3	.013	.004	.976
Error	1160	4.75	.0041	

Table C-70. Analysis of variance for Item 70

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.012	.012	2.553
Occupation	3	.102		
Collar	1	.0925	.0925	19.681**
Skill	1	.02	.02	4.256*
Residual	1			
Interaction	3	.013	.0043	.915
Error	1160	5.426	.0047	

Table C-71. Analysis of variance for Item 71

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.000		
Occupation	3	.082		
Collar	1	.0595	.0595	13.523**
Skill	1	.012	.012	2.727
Residual	1			
Interaction	3	.035	.0117	2.659*
Error	1160	5.067	.0044	

Table C-72. Analysis of variance for Item 72

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.021	.021	6.774**
Occupation	3	.11		
Collar	1	.019	.019	6.129*
Skill	1	.0703	.0703	22.677**
Residual	1			
Interaction	3	.01	.0033	1.065
Error	1160	3.611	.0031	

Table C-73. Analysis of variance for Item 73

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.086	.086	17.917**
Occupation	3	.124		
Collar	1	.0946	.0946	19.708**
Skill	1	.0066	.0066	1.375
Residual	1			
Interaction	3	.017	.0057	1.188
Error	1160	5.544	.0048	

Table C-74. Analysis of variance for Item 74

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.044	.044	5.366*
Occupation	3	.382		
Collar	1	.125	.125	15.244**
Skill	1	.1458	.1458	17.780**
Residual	1			
Interaction	3	.029	.0097	1.183
Error	1160	9.554	.0082	

Table C-75. Analysis of variance for Item 75

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.002	.002	.208
Occupation	3	.039		
Collar	1	.0078	.0078	.813
Skill	1	.03	.03	3.125
Residual	1			
Interaction	3	.008	.0027	.281
Error	1160	11.183	.0096	

Table C-76. Analysis of variance for Item 76.

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.005	.005	.862
Occupation	3	.171		
Collar	1	.1653	.1653	28.500**
Skill	1	.0001	.0001	.017
Residual	1			
Interaction	3	.002	.0007	.121
Error	1160	6.763	.0058	

Table C-77. Analysis of variance for Item 77

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.003	.003	.588
Occupation	3	.362		
Collar	1	.2521	.2521	49.431**
Skill	1	.1035	.1035	20.294**
Residual	1			
Interaction	3	.039	.013	2.550
Error	1160	5.881	.0051	

Table C-78. Analysis of variance for Item 78

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.023	.023	2.421
Occupation	3	.06		
Collar	1	.0325	.0325	3.421
Skill	1	.0325	.0325	3.421
Residual	1			
Interaction	3	.047	.016	1.168
Error	1160	11.032	.0095	

Table C-79. Analysis of variance for Item 79

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.023	.023	2.61
Occupation	3	.045		
Collar	1	.012	.012	1.364
Skill	1	.0325	.0325	3.693
Residual	1			
Interaction	3	.019	.0067	.761
Error	1160	10.240	.0088	

Table C-80. Analysis of variance for Item 80

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.042	.042	7.000**
Occupation	3	.178		
Collar	1	.0943	.0943	15.717**
Skill	1	.0648	.0648	10.800**
Residual	1			
Interaction	3	.032	.0107	1.783
Error	1160	6.995	.006	

Appendix D

Table D-1. Pre-reciprocal-averages interscale correlation matrix for Group I: Handicapped, non-skilled blue-collar (N=205)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.44	.49	.34	.21	.52
Supervision	.44		.29	.64	.38	.47
Compensation	.49	.29		.32	.30	.46
Co-workers	.34	.64	.32		.30	.45
Sensitivity	.21	.38	.30	.30		.29
General job satisfaction	.52	.47	.46	.45	.29	

Table D-2. Pre-reciprocal-averages interscale correlation matrix for Group II: Control, non-skilled blue-collar (N=177)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.52	.28	.53	.29	.52
Supervision	.52		.34	.55	.48	.60
Compensation	.28	.34		.26	.19	.53
Co-workers	.53	.55	.26		.43	.43
Sensitivity	.29	.48	.19	.43		.40
General job satisfaction	.52	.60	.53	.43	.40	

Table D-3. Pre-reciprocal-averages interscale correlation matrix for Group III: Handicapped, skilled blue-collar (N=116)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	Company	Type of work	General job satisfaction
Working conditions		.46	.49	.31	.23	.61	.36	.42
Supervision	.46		.42	.38	.51	.50	.47	.47
Compensation	.49	.42		.30	.27	.51	.34	.52
Co-workers	.31	.38	.30		.38	.38	.34	.44
Sensitivity	.23	.51	.27	.38		.44	.28	.55
Company	.61	.50	.51	.38	.44		.57	.63
Type of work	.36	.47	.34	.34	.28	.57		.64
General job satisfaction	.42	.47	.52	.44	.55	.63	.64	

Table D-4. Pre-reciprocal-averages interscale correlation matrix for Group IV: Control, skilled blue-collar (N=128)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	Company	General job satisfaction
Working conditions		.45	.30	.46	.38	.49	.36
Supervision	.45		.40	.53	.58	.59	.48
Compensation	.30	.40		.42	.34	.46	.43
Co-workers	.46	.53	.42		.50	.47	.28
Sensitivity	.38	.58	.34	.50		.37	.37
Company	.49	.59	.46	.47	.37		.70
General job satisfaction	.36	.48	.43	.28	.37	.70	

Table D-5. Pre-reciprocal-averages interscale correlation matrix for Group V: Handicapped, non-skilled white-collar (N=168)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.54	.30	.26	.16	.34
Supervision	.54		.46	.55	.33	.55
Compensation	.30	.46		.20	.23	.57
Co-workers	.26	.55	.20		.43	.37
Sensitivity	.16	.33	.23	.43		.39
General job satisfaction	.34	.55	.57	.37	.39	

Table D-6. Pre-reciprocal-averages interscale correlation matrix for Group VI: Control, non-skilled white-collar (N=127)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.43	.48	.40	.32	.33
Supervision	.43		.37	.29	.56	.43
Compensation	.48	.37		.29	.39	.41
Co-workers	.40	.29	.29		.27	.42
Sensitivity	.32	.56	.39	.39		.32
General job satisfaction	.33	.43	.41	.42	.32	

Table D-7. Pre-reciprocal-averages interscale correlation matrix for Group VII: Handicapped, skilled white-collar (N=149)

	Working conditions	Super-vision	Compen-sation	Co-workers	General job satisfaction
Working conditions		.34	.39	.25	.41
Supervision	.34		.35	.41	.61
Compensation	.39	.35		.22	.57
Co-workers	.25	.41	.22		.40
General job satisfaction	.41	.61	.57	.40	

Table D-8. Pre-reciprocal-averages interscale correlation matrix for Group VIII: Control, skilled white-collar (N=98)

	Working conditions	Super-vision	Compen-sation	Co-workers	General job satisfaction
Working conditions		.44	.37	.51	.52
Supervision	.44		.44	.53	.53
Compensation	.37	.44		.22	.57
Co-workers	.51	.53	.22		.44
General job satisfaction	.52	.53	.57	.44	

Appendix E

Table E-1. Analysis of variance of scale means for Group I: Handicapped, non-skilled blue-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	33.532	6.706	7.354**
Error	1224	1116.731	.912	

Note: For all tables in Appendix E:
* Significant at $.01 < P \leq .05$
** Significant at $P \leq .01$

Table E-2. Analysis of variance of scale means for Group II: Control, non-skilled blue-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	34.193	6.838	7.175**
Error	1058	1006.960	.953	

Table E-3. Analysis of variance of scale means for Group III: Handicapped, skilled blue-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	5.611	1.122	1.123
Error	690	689.871	.999	

Table E-4. Analysis of variance of scale means for Group IV: Control, skilled blue-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	11.710	2.342	2.545*
Error	762	701.008	.920	

Table E-5. Analysis of variance of scale means for Group V: Handicapped, non-skilled white-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	46.149	9.229	9.295**
Error	1002	994.887	.993	

Table E-6. Analysis of variance of scale means for Group VI: Control, non-skilled white-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	5	35.786	7.157	7.935**
Error	756	681.953	.902	

Table E-7. Analysis of variance of scale means for Group VII: Handicapped, skilled white-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	4	49.833	12.457	7.577**
Error	740	1216.558	1.644	

Table E-8. Analysis of variance of scale means for Group VIII: Control, skilled white-collar

Source	Degrees of freedom	Sum of squares	Mean square	F
Scale means	4	14.335	3.583	4.317**
Error	485	402.949	.830	

Appendix F

Table F-1. Analysis of variance for the general job satisfaction scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.125	.125	12.255**
Occupation	3	.038		
Collar	1	.005	.005	.490
Skill	1	.0265	.0265	2.598
Residual	1			
Interaction	3	.052	.014	1.373
Error	1160	11.788	.0102	

Note: For all tables in Appendix F:
* Significant at $.01 < P \leq .05$
** Significant at $P \leq .01$

Table F-2. Analysis of variance for the working conditions scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.031	.031	4.306*
Occupation	3	.134		
Collar	1	.1275	.1275	17.708**
Skill	1	.0078	.0078	1.083
Residual	1			
Interaction	3	.005	.0017	.236
Error	1160	8.330	.0072	

Table F-3. Analysis of variance for the supervision scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.047	.047	6.912**
Occupation	3	.102		
Collar	1	.0595	.0595	8.75 **
Skill	1	.0231	.0231	3.397
Residual	1			
Interaction	3	.008	.0027	.397
Error	1160	7.857	.0068	

Table F-4. Analysis of variance for the compensation scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.038	.038	5.205*
Occupation	3	.072		
Collar	1	.00045	.00045	.0616
Skill	1	.0242	.0242	3.315
Residual	1			
Interaction	3	.008	.0027	.3698
Error	1160	8.482	.0073	

Table F-5. Analysis of variance for the co-workers scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.026	.026	4.906*
Occupation	3	.040		
Collar	1	.0098	.0098	1.849
Skill	1	.0018	.0018	.340
Residual	1			
Interaction	3	.010	.0033	.623
Error	1160	6.162	.0053	

Table F-6. Analysis of variance for the sensitivity scale

Source	Degrees of freedom	Sum of squares	Mean square	F
Sample	1	.036	.036	6.79**
Occupation	2	.134	.067	12.642**
Collar	.....	.....	.....	
Skill	.....	.....	.....	
Residual	.....	.....	.....	
Interaction	2	.007	.0023	.434
Error	1162	6.1347	.0053	

Appendix G

Table G-1. Initial response weights and weights assigned by reciprocal averages for the general job satisfaction scale

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II.	III	IV	V	VI	VII	VIII
1. There isn't a better Company to work for than this one.[c]	SA	5		6	2	5	4	4	3	.....	.....
	A	4		4	3	2	3	3	1	.....	.....
	U	3		3	2	1	1	2	1	.....	.....
	D	2		2	2	1	1	2	1	.....	.....
	SD	1		1	1	1	1	1	1	.....	.....
5. Most employees in this Company are satisfied with their jobs.	SA	5		.....	.....	.....	.....	3	.....	.....	.....
	A	4		.....	.....	.....	.....	3	.....	.....	.....
	U	3		.....	.....	.....	.....	3	.....	.....	.....
	D	2		.....	.....	.....	.....	2	.....	.....	.....
	SD	1		.....	.....	.....	.....	1	.....	.....	.....
7. The work I do on my present job is interesting.[d]	SA	5		6	5	4	3	4	5	7	7
	A	4		5	3	1	5	4	1	3	3
	U	3		3	3	1	2	4	1	4	3
	D	2		3	2	1	2	2	1	2	1
	SD	1		1	1	1	1	1	1	1	1
8. My present job suits me better than any other job in the Company I know of.	SA	5		5	.....	5	.....	4	1	4	2
	A	4		4	.....	6	.....	3	1	2	2
	U	3		3	.....	4	.....	2	1	2	1
	D	2		3	.....	3	.....	2	1	2	1
	SD	1		1	.....	2	.....	1	1	1	1
11. I am told ahead of time of changes that will affect my work.	SA	5		.....	.....	.....	.....	.....	.....	4	6
	A	4		.....	.....	.....	.....	.....	.....	2	1
	U	3		.....	.....	.....	.....	.....	.....	2	1
	D	2		.....	.....	.....	.....	.....	.....	2	1
	SD	1		.....	.....	.....	.....	.....	.....	1	1

Note: For all tables in Appendix G:
[a] SA=strongly agree, A=agree, U=undecided, D=disagree, SD=strongly disagree; E=excellent, G=good, F=fair, P=poor, VP=very poor.
[b] See Footnote [a] in Table 1, page 13.

For Table G-1 only:
[c] Satisfaction-with-company scale, for Groups III and IV only.
[d] Satisfaction-with-type-of-work scale, for Group III only.
[e] Satisfaction-with-company scale, for Group IV only.

Table G-1 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
12. I feel secure in my job.	SA	5		5	.....	.....	.....	.....	.....	6	.....
	A	4		5	.....	.....	.....	.....	.....	3	.....
	U	3		3	.....	.....	.....	.....	.....	2	.....
	D	2		3	.....	.....	.....	.....	.....	2	
	SD	1		2	.....	.....	.....	.....	.....	1	
15. My value to the department is recognized by my department head.	SA	5		.....	.....	.....	.....	5	.....	7	
	A	4		.....	.....	.....	.....	4	.....	4	
	U	3		.....	.....	.....	.....	3	.....	2	
	D	2		.....	.....	.....	.....	2	.....	2	
	SD	1		.....	.....	.....	.....	1	.....	1	
16. If I planned to work until retirement age, I would like to stay with this Company all the time.[c]	SA	5		5	4	6	4	5	2	3	5
	A	4		4	3	5	3	3	1	2	2
	U	3		3	2	4	1	2	1	2	1
	D	2		2	2	3	1	2	1	2	1
	SD	1		1	1	2	1	1	1	1	1
21. I feel that the work I do is very important.[d]	SA	5		7	.....	7	3	.....	6	4	2
	A	4		5	.....	1	3	.....	1	4	2
	U	3		3	.....	1	2	.....	1	3	1
	D	2		3	.....	1	2	.....	1	2	1
	SD	1		1	.....	1	1	.....	1	1	1
24. I get full credit for the work I do.	SA	5		.....	5	.....	.....	.....	.....	2	
	A	4		.....	3	.....	.....	.....	.....	3	
	U	3		.....	3	.....	.....	.....	.....	2	
	D	2		.....	2	.....	.....	.....	.....	2	
	SD	1		.....	1	.....	.....	.....	.....	1	
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are.)	SA	1		.....	.....	.....	.....	1	.....	.....	
	A	2		.....	.....	.....	.....	2	.....	.....	
	U	3		.....	.....	.....	.....	3	.....	.....	
	D	4		.....	.....	.....	.....	3	.....	.....	
	SD	5		.....	.....	.....	.....	3	.....	.....	

Table G-1 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages Groups[b]: I	II	III	IV	V	VI	VII	VIII
28. The Company brings in outsiders for important jobs more often than they should.	SA	1	.....	.....	.....	.....	1	.....	.....	
	A	2	.....	.....	.....	.....	2	.....	.....	
	U	3	.....	.....	.....	.....	2	.....	.....	
	D	4	.....	.....	.....	.....	3	.....	.....	
	SD	5	.....	.....	.....	.....	3	.....	.....	
30. I'm getting valuable experience on my present job.[d]	SA	5	6	4	2	7	3	7	3	2
	A	4	4	3	1	4	4	1	7	2
	U	3	3	2	1	2	3	1	3	1
	D	2	3	2	1	2	2	1	2	1
	SD	1	1	1	1	1	1	1	1	1
31. I feel I am happier in my work than most other people.	SA	5	7	6	5	7	5	5	7	6
	A	4	5	4	6	5	4	1	3	6
	U	3	4	2	5	2	3	1	2	1
	D	2	2	2	3	1	2	1	2	1
	SD	1	1	1	1	1	1	1	1	1
32. The work in my department is handed out fairly among the employees.	SA	5	.....	.....	.....	.....	.....	2	7	.....
	A	4	.....	.....	.....	.....	.....	2	3	.....
	U	3	.....	.....	.....	.....	.....	1	2	.....
	D	2	.....	.....	.....	.....	.....	1	2	.....
	SD	1	.....	.....	.....	.....	.....	1	1	.....
37. This Company treats its employees better than most other companies I know about.[e]	SA	5	.....	4	6	7	5	.....	.....	.....
	A	4	.....	4	2	4	4	.....	.....	.....
	U	3	.....	2	2	1	2	.....	.....	.....
	D	2	.....	2	1	1	2	.....	.....	.....
	SD	1	.....	1	1	1	1	.....	.....	.....
41. I feel the Company tells me enough about its general policies (what they are trying to do).	SA	5	.....	.....	.....	.....	.....	1	.....	.....
	A	4	.....	.....	.....	.....	.....	1	.....	.....
	U	3	.....	.....	.....	.....	.....	1	.....	.....
	D	2	.....	.....	.....	.....	.....	1	.....	.....
	SD	1	.....	.....	.....	.....	.....	1	.....	.....

Table G-1 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
42. I like my job better than most people like theirs.	SA	5		7	5	5	6	5	7	7	5
	A	4		5	4	5	4	4	1	3	5
	U	3		3	2	5	2	3	1	2	1
	D	2		2	2	3	1	2	1	2	1
	SD	1		1	1	1	1	1	1	1	1
48. I would like to change my line of work.	SA	1		1	1	2	1	1	1	1	1
	A	2		2	2	3	1	2	1	2	1
	U	3		3	2	4	2	3	1	2	1
	D	4		4	3	5	3	4	1	3	4
	SD	5		5	4	6	5	5	3	4	4
57. I have thought seriously about changing my present job.[a]	SA	1		1	1	2	1	1	1	1	
	A	2		2	2	3	1	2	1	1	
	U	3		3	2	4	1	2	1	2	
	D	4		4	3	5	3	3	1	2	
	SD	5		6	4	6	5	4	3	3	
63. Most of the time I feel satisfied with my job.	SA	5		7	4	5	7	6	7	6	4
	A	4		5	4	7	4	5	2	2	5
	U	3		4	3	6	3	3	1	2	2
	D	2		3	2	4	2	2	1	2	1
	SD	1		1	1	1	1	1	1	1	1
66. The job that the top executives are doing in this Company is . . .[c]	E	5		.....	.....	6	4	.....	.....	.....	7
	G	4		.....	.....	3	5	.....	.....	.....	2
	F	3		.....	.....	2	2	.....	.....	.....	1
	P	2		.....	.....	1	1	.....	.....	.....	1
	VP	1		.....	.....	1	1	.....	.....	.....	1
67. All in all, as a place to work, this Company is . . .[c]	E	5		4	4	5	6	7	.....	.....	
	G	4		6	5	5	6	5	.....	.....	
	F	3		4	3	3	3	3	.....	.....	
	P	2		3	2	1	1	2	.....	.....	
	VP	1		1	1	1	1	1	.....	.....	

Table G-1 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
71. The reputation of this Company in the community (how people feel and talk about this Company) is . . .[c]	E	5		—	—	7	7	—	—	—	—
	G	4		—	—	4	3	—	—	—	—
	F	3		—	—	2	3	—	—	—	—
	P	2		—	—	1	1	—	—	—	—
	VP	1		—	—	1	1	—	—	—	—
72. Considering everything, my present job is . . .[d]	E	5		7	7	7	7	5	2	7	7
	G	4		6	4	7	7	5	2	7	7
	F	3		4	3	1	3	3	1	3	2
	P	2		2	2	1	2	2	1	2	1
	VP	1		1	1	1	1	1	1	1	1
73. All in all, I would rate my immediate supervisor as . . .	E	5		—	—	—	—	—	—	4	—
	G	4		—	—	—	—	—	—	4	—
	F	3		—	—	—	—	—	—	2	—
	P	2		—	—	—	—	—	—	2	—
	VP	1		—	—	—	—	—	—	1	—
74. Opportunities for promotion (a chance to get a better job) here are . . .	E	5		—	—	—	—	4	—	—	—
	G	4		—	—	—	—	3	—	—	—
	F	3		—	—	—	—	2	—	—	—
	P	2		—	—	—	—	1	—	—	—
	VP	1		—	—	—	—	2	—	—	—
77. Choose the ONE of the following statements which best tells how well you like your job. (Hoppock)		1		1	1	1	1	1	1	1	1
		2		1	1	3	1	1	1	1	1
		3		3	2	4	2	2	1	2	1
		4		5	3	6	3	4	2	3	3
		5		6	5	6	5	5	1	5	7
		6		7	6	6	7	6	7	7	7
		7		7	7	3	7	6	7	7	7

Table G-1 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
78. Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job. (Hoppock)		7		6	5	7	5	6	7	7	5
		6		5	5	7	5	6	1	7	5
		5		6	4	7	4	4	1	3	5
		4		4	3	6	4	4	2	3	1
		3		4	2	4	2	3	1	2	1
		2		3	2	3	2	2	1	1	1
		1		2	1	2	1	1	1	1	1
79. Check the ONE of the following which best tells how you feel about changing your job. (Hoppock)		1		1	1	2	1	1	1	1	1
		2		2	1	2	1	1	1	1	1
		3		3	2	4	2	2	1	2	1
		4		5	2	7	2	5	3	5	4
		5		5	4	6	5	5	1	3	5
		6		4	5	6	4	2	1	4	5
		7		6	4	6	4	5	1	5	5
80. Check one of the following to show how you think you compare with other people.		7		5	4	7	6	5	7	7	7
		6		7	7	7	6	5	7	7	7
		5		6	5	7	5	5	4	5	7
		4		3	2	4	2	3	1	2	1
		3		2	1	3	1	2	1	1	1
		2		1	1	2	1	1	1	1	1
		1		1	1	1	1	1	1	1	1

Table G-2. Initial response weights and weights assigned by reciprocal averages for the working conditions scale, for all groups

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
5. Most employees in this Company are satisfied with their jobs.	SA	5		—	5	—	—	—	—	—	—
	A	4		—	5	—	—	—	—	—	—
	U	3		—	3	—	—	—	—	—	—
	D	2		—	2	—	—	—	—	—	—
	SD	1		—	1	—	—	—	—	—	—
13. The supplies, materials, and equipment necessary to perform my job are easy to get.	SA	5		7	—	5	—	4	—	4	5
	A	4		3	—	2	—	5	—	6	2
	U	3		3	—	2	—	4	—	4	3
	D	2		2	—	1	—	3	—	3	2
	SD	1		1	—	1	—	1	—	1	1
14. My working space is big enough.	SA	5		5	6	—	7	6	5	5	3
	A	4		3	5	—	5	4	5	5	3
	U	3		3	4	—	3	3	3	3	4
	D	2		2	3	—	3	3	3	3	2
	SD	1		1	1	—	1	1	1	1	1
26. Our lockers are satisfactory.	SA	5		6	—	4	—	5	—	6	—
	A	4		3	—	1	—	4	—	4	—
	U	3		2	—	1	—	2	—	3	—
	D	2		2	—	1	—	2	—	2	—
	SD	1		1	—	1	—	1	—	1	—
29. Enough time is allowed for rest periods.	SA	5		—	—	5	—	—	—	—	3
	A	4		—	—	3	—	—	—	—	3
	U	3		—	—	3	—	—	—	—	3
	D	2		—	—	1	—	—	—	—	2
	SD	1		—	—	1	—	—	—	—	1
35. The Company gives employees enough information about its financial position.	SA	5		—	—	—	—	—	—	—	2
	A	4		—	—	—	—	—	—	—	2
	U	3		—	—	—	—	—	—	—	2
	D	2		—	—	—	—	—	—	—	2
	SD	1		—	—	—	—	—	—	—	1

Table G-2 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
36. The place where I work is clean.	SA	5		7	7	6	6	6	6	7	7
	A	4		3	5	2	5	5	6	6	3
	U	3		2	4	2	4	4	5	4	3
	D	2		2	3	1	3	2	3	3	2
	SD	1		1	1	1	1	1	1	1	1
37. This Company treats its employees better than most other companies I know about.	SA	5		—	—	—	—	—	4	.....	6
	A	4		—	—	—	—	—	5	.....	3
	U	3		—	—	—	—	.....	3	.....	2
	D	2		—	—	—	—	.....	3	.....	2
	SD	1		—	—	—	—	.....	1	.....	1
64. The lighting for my job is . . .	E	5		3	7	7	3	3	5	6	3
	G	4		6	5	2	6	5	6	6	3
	F	3		3	4	2	5	3	5	5	3
	P	2		2	3	1	3	2	3	3	2
	VP	1		1	2	1	1	1	1	1	1
65. The ventilation where I work is . . .	E	5		6	6	6	6	7	5	4	4
	G	4		4	4	2	6	4	5	5	2
	F	3		2	4	2	4	3	4	4	2
	P	2		2	3	1	2	2	3	3	1
	VP	1		1	1	1	1	1	1	1	1
66. The job that the top executives are doing in this Company is . . .	E	5		—	—	—	.....	.....	4	.....	
	G	4		—	—	.....	.....	.....	4	.....	
	F	3		.....	.....	.....	.....	.....	5	.....	.....
	P	2		—	—	.....	.....	.....	3	.....	.....
	VP	1		—	—	.....	.....	.....	1	.....	.....
67. All in all, as a place to work, this Company is . . .	E	5		—	—	—	.....	.....	7	.....	
	G	4		.....	.....	.....	.....	.....	7	.....	.....
	F	3		.....	.....	.....	.....	.....	5	.....	.....
	P	2		.....	.....	.....	.....	.....	3	.....	.....
	VP	1		.....	.....	.....	.....	.....	1	.....	.....

Table G-2 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages — Groups[b]: I	II	III	IV	V	VI	VII	VIII
70. The spirit of cooperation among employees in my department is . . .	E	5	—	—	—	—	—	7	—	—
	G	4	—	—	—	—	—	7	—	—
	F	3	—	—	—	—	—	4	—	—
	P	2	—	—	—	—	—	3	—	—
	VP	1	—	—	—	—	—	1	—	—
71. The reputation of this Company in the community (how people feel and talk about this Company) is . . .	E	5	—	—	—	—	—	7	—	—
	G	4	—	—	—	—	—	7	—	—
	F	3	—	—	—	—	—	4	—	—
	P	2	—	—	—	—	—	3	—	—
	VP	1	—	—	—	—	—	1	—	—
74. Opportunities for promotion (a chance to get a better job) here are . . .	E	5	4	—	—	—	—	—	—	—
	G	4	2	—	—	—	—	—	—	—
	F	3	2	—	—	—	—	—	—	—
	P	2	2	—	—	—	—	—	—	—
	VP	1	1	—	—	—	—	—	—	—
75. The place and equipment for the use of employees during rest and recreation periods are . . .	E	5	6	5	3	—	5	5	4	—
	G	4	3	4	2	—	3	4	4	—
	F	3	2	3	2	—	3	3	2	—
	P	2	1	2	1	—	2	2	3	—
	VP	1	1	1	1	—	1	1	1	—
76. General working conditions in my department—heat, light, space, noise, cleanliness, equipment, etc.—are . . .	E	5	7	7	7	6	7	7	7	7
	G	4	4	5	3	7	5	5	5	3
	F	3	2	4	2	4	4	5	4	2
	P	2	2	2	1	2	2	2	3	1
	VP	1	1	1	1	1	1	1	1	1

Table G-3. Initial response weights and weights assigned by reciprocal averages for the supervision scale, for all groups

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
6. The employees in my department are willing to do their fair share of work.	SA	5		—	—	—	—	—	—	—	6
	A	4		—	—	—	—	—	—	—	1
	U	3		—	—	—	—	—	—	—	1
	D	2		—	—	—	—	—	—	—	1
	SD	1		—	—	—	—	—	—	—	1
9. My immediate supervisor takes time to explain new work to me.	SA	5		5	7	7	7	5	7	6	4
	A	4		4	7	5	5	4	6	3	1
	U	3		3	5	4	3	4	4	2	1
	D	2		2	6	2	2	2	4	2	1
	SD	1		1	2	1	1	1	1	1	1
10. My immediate supervisor is quick to take care of complaints brought to him by employees.	SA	5		6	7	7	6	5	6	4	5
	A	4		4	7	4	5	5	5	3	1
	U	3		3	6	4	3	3	5	2	1
	D	2		2	6	1	2	2	3	2	1
	SD	1		1	2	1	1	1	1	1	1
11. I am told ahead of time of changes that will affect my work.	SA	5		5	6	7	5	4	5	—	—
	A	4		3	7	4	4	5	5	—	—
	U	3		3	6	3	2	3	5	—	—
	D	2		2	6	2	2	2	3	—	—
	SD	1		1	2	1	1	1	1	—	—
15. My value to the department is recognized by my department head.	SA	5		—	7	—	—	—	7	—	—
	A	4		—	7	—	—	—	5	—	—
	U	3		—	6	—	—	—	5	—	—
	D	2		—	6	—	—	—	3	—	—
	SD	1		—	2	—	—	—	2	—	—
23. My department head sees that new employees in the department get good training (shown how to do their jobs o.k.).	SA	5		4	7	7	—	6	3	—	4
	A	4		4	7	5	—	5	5	—	1
	U	3		3	6	3	—	3	4	—	1
	D	2		2	6	2	—	2	3	—	1
	SD	1		1	2	2	—	2	1	—	1

Table G-3 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]: I	II	III	IV	V	VI	VII	VIII
24. I get full credit for the work I do.	SA	5	—	—	6	—	7	7	—	—
	A	4	—	—	6	—	4	5	—	—
	U	3	—	—	4	—	4	5	—	—
	D	2	—	—	2	—	2	3	—	—
	SD	1	—	—	1	—	1	1	—	—
25. There are enough meetings of our work group to talk over plans.	SA	5	—	—	—	—	4	5	—	—
	A	4	—	—	—	—	4	5	—	—
	U	3	—	—	—	—	2	3	—	—
	D	2	—	—	—	—	2	3	—	—
	SD	1	—	—	—	—	1	1	—	—
32. The work in my department is handed out fairly among the employees.	SA	5	4	—	—	—	6	—	—	4
	A	4	4	—	—	—	5	—	—	1
	U	3	3	—	—	—	3	—	—	1
	D	2	2	—	—	—	2	—	—	1
	SD	1	1	—	—	—	1	—	—	1
38. My immediate supervisor always understands what I am trying to do.	SA	5	5	7	7	6	6	5	7	—
	A	4	4	7	6	5	5	5	3	—
	U	3	3	6	4	3	3	4	3	—
	D	2	2	6	2	2	2	3	2	—
	SD	1	1	1	1	1	1	1	1	—
39. My immediate supervisor has the confidence and respect of those who work under him.	SA	5	6	7	7	6	5	6	7	5
	A	4	4	7	6	5	5	6	4	1
	U	3	3	6	3	3	3	5	3	1
	D	2	2	6	2	2	2	3	2	1
	SD	1	1	2	1	1	1	1	1	1
40. My supervisor takes credit for work when he doesn't deserve it.	SA	1	—	—	—	1	—	2	1	1
	A	2	—	—	—	2	—	3	2	1
	U	3	—	—	—	3	—	5	3	1
	D	4	—	—	—	4	—	5	4	1
	SD	5	—	—	—	2	—	5	5	2

Table G-3 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
43. My boss knows how to handle people.	SA	5		7	6	7	6	5	6	7	5
	A	4		4	7	5	5	4	6	4	1
	U	3		3	7	3	3	3	4	3	1
	D	2		2	6	1	2	2	3	2	1
	SD	1		1	1	2	1	1	1	1	1
46. My work group is usually like one big happy family.	SA	5		.....	6	.....	.....	.....	.....	.....	.....
	A	4		.....	7	.....	.....	.....	.....	.....	.....
	U	3		.....	6	.....	.....	.....	.....	.....	.....
	D	2		.....	6	.....	.....	.....	.....	.....	.....
	SD	1		.....	2	.....	.....	.....	.....	.....	.....
53. My boss "rides" me a little too much.	SA	1		.....	.....	.....	.....	.....	.....	1	1
	A	2		.....	.....	.....	.....	.....	.....	2	1
	U	3		.....	.....	.....	.....	.....	.....	3	1
	D	4		.....	.....	.....	.....	.....	.....	5	1
	SD	5		.....	.....	.....	.....	.....	.....	5	5
54. Things would be better for the Company if they got rid of my boss.	SA	1		.....	.....	2	1	1	.....	1	1
	A	2		.....	.....	2	2	2	.....	2	1
	U	3		.....	.....	4	4	4	.....	4	1
	D	4		.....	.....	6	6	6	.....	6	1
	SD	5		.....	.....	6	7	4	.....	5	3
58. My boss is where he is because he knows the work.	SA	5		7	6	6	4	4	3	5	4
	A	4		3	7	5	5	5	5	2	1
	U	3		3	6	4	3	4	4	4	1
	D	2		2	6	2	2	2	4	2	1
	SD	1		1	2	2	1	1	1	1	1
70. The spirit of cooperation among employees in my department is . . .	E	5		.....	.....	.....	.....	.....	.....	.....	7
	G	4		.....	.....	.....	.....	.....	.....	.....	1
	F	3		.....	.....	.....	.....	.....	.....	.....	1
	P	2		.....	.....	.....	.....	.....	.....	.....	1
	VP	1		.....	.....	.....	.....	.....	.....	.....	1

Table G-3 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages — Groups[b]: I	II	III	IV	V	VI	VII	VIII
73. All in all, I would rate my immediate supervisor as . . .	E	5	—	7	7	7	7	7	—	7
	G	4	—	7	7	7	6	7	—	1
	F	3	—	7	4	4	4	5	—	1
	P	2	—	6	2	2	2	4	—	1
	VP	1	—	3	1	1	1	2	—	1

Table G-4. Initial response weights and weights assigned by reciprocal averages for the compensation scale, for all groups

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages — Groups[b]: I	II	III	IV	V	VI	VII	VIII
1. There isn't a better Company to work for than this one.	SA	5	—	—	—	—	—	—	—	7
	A	4	—	—	—	—	—	—	—	2
	U	3	—	—	—	—	—	—	—	2
	D	2	—	—	—	—	—	—	—	1
	SD	1	—	—	—	—	—	—	—	1
3. My pay is all right for the kind of work I do.	SA	5	7	7	5	5	7	7	5	5
	A	4	5	5	5	3	4	5	4	3
	U	3	4	5	4	2	2	3	2	2
	D	2	1	5	2	1	1	3	1	1
	SD	1	1	3	1	1	2	2	1	1
4. I get a fair share of overtime work.	SA	5	—	6	—	—	—	—	—	—
	A	4	—	5	—	—	—	—	—	—
	U	3	—	5	—	—	—	—	—	—
	D	2	—	5	—	—	—	—	—	—
	SD	1	—	4	—	—	—	—	—	—

Table G-4 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
12. I feel secure in my job.	SA	5		—	7	—	—	7	—	—	—
	A	4		—	5	—	—	4	—	—	—
	U	3		—	6	—	—	3	—	—	—
	D	2		—	5	—	—	2	—	—	—
	SD	1		—	3	—	—	2	—	—	—
15. My value to the department is recognized by my department head.	SA	5		—	—	—	—	—	—	—	6
	A	4		—	—	—	—	—	—	—	4
	U	3		—	—	—	—	—	—	—	3
	D	2		—	—	—	—	—	—	—	1
	SD	1		—	—	—	—	—	—	—	1
17. I am satisfied with the length of vacations the Company gives.	SA	5		—	—	—	—	—	—	—	6
	A	4		—	—	—	—	—	—	—	3
	U	3		—	—	—	—	—	—	—	2
	D	2		—	—	—	—	—	—	—	2
	SD	1		—	—	—	—	—	—	—	1
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are).	SA	1		—	—	—	—	—	3	—	—
	A	2		—	—	—	—	—	4	—	—
	U	3		—	—	—	—	—	5	—	—
	D	4		—	—	—	—	—	6	—	—
	SD	5		—	—	—	—	—	6	—	—
28. The Company brings in outsiders for important jobs more often than they should.	SA	1		—	—	—	—	—	2	—	—
	A	2		—	—	—	—	—	3	—	—
	U	3		—	—	—	—	—	5	—	—
	D	4		—	—	—	—	—	5	—	—
	SD	5		—	—	—	—	—	6	—	—

Table G-4 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]: I	II	III	IV	V	VI	VII	VIII
45. I need a promotion if I am to stay happy here.	SA	1	—	—	—	1	—	2	1	1
	A	2	—	—	—	1	—	3	1	1
	U	3	—	—	—	2	—	4	2	2
	D	4	—	—	—	2	—	5	3	2
	SD	5	—	—	—	3	—	7	5	4
49. I really shouldn't expect to be making more money than I do.	SA	5	6	6	4	4	5	6	4	4
	A	4	3	5	4	2	3	4	2	2
	U	3	3	5	3	1	1	3	1	1
	D	2	1	5	2	1	1	3	1	1
	SD	1	2	2	1	1	3	2	5	3
51. I do not like the way they figure pay increases in this company.	SA	1	—	—	—	1	2	2	1	1
	A	2	—	—	—	1	1	3	1	1
	U	3	—	—	—	1	2	4	2	2
	D	4	—	—	—	3	3	5	3	3
	SD	5	—	—	—	5	6	7	5	5
52. I would like to exchange my present job for another job in the same line of work.	SA	5	—	—	—	—	—	—	—	5
	A	4	—	—	—	—	—	—	—	3
	U	3	—	—	—	—	—	—	—	2
	D	2	—	—	—	—	—	—	—	1
	SD	1	—	—	—	—	—	—	—	1
56. Considering the money I used to make, I'm doing pretty well right now.	SA	5	6	7	5	5	6	6	7	6
	A	4	5	6	5	3	4	6	4	2
	U	3	4	5	4	2	2	5	2	3
	D	2	1	5	3	1	2	3	1	1
	SD	1	1	2	1	1	1	1	1	1
57. I have thought seriously about changing my present job.	SA	1	—	—	—	—	—	—	—	1
	A	2	—	—	—	—	—	—	—	1
	U	3	—	—	—	—	—	—	—	2
	D	4	—	—	—	—	—	—	—	2
	SD	5	—	—	—	—	—	—	—	5

Table G-4 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
60. I often feel like demanding a pay raise.	SA	1		1	—	—	1	2	1	1	1
	A	2		2	—	—	1	1	3	1	1
	U	3		3	—	—	2	1	4	2	2
	D	4		4	—	—	3	4	5	3	3
	SD	5		5	—	—	4	6	7	6	5
61. I make as much money as most of my friends.	SA	5		7	7	7	4	6	5	6	3
	A	4		5	5	5	3	4	5	3	3
	U	3		2	5	4	2	2	4	3	2
	D	2		1	5	3	1	1	3	1	1
	SD	1		3	2	1	1	3	1	1	1
62. Some of my fellow workers are among my best friends.	SA	5		.....	7	.....	.....	.....	.....	.....	.....
	A	4		.....	5	.....	.....	.....	.....	.....	.....
	U	3		.....	6	.....	.....	.....	.....	.....	.....
	D	2		.....	5	.....	.....	.....	.....	.....	.....
	SD	1		.....	3	.....	.....	.....	.....	.....	.....
67. All in all, as a place to work, this Company is . . .	E	5		.....	.....	.....	.....	.....	.....	.....	3
	G	4		.....	.....	.....	.....	.....	.....	.....	3
	F	3		.....	.....	.....	.....	.....	.....	.....	3
	P	2		.....	.....	.....	.....	.....	.....	.....	2
	VP	1		.....	.....	.....	.....	.....	.....	.....	1
68. Considering everything, my working hours are . . .	E	5		7	7	7	6	7	7	7	4
	G	4		6	6	6	4	5	6	5	4
	F	3		3	5	4	2	2	4	3	3
	P	2		1	4	2	1	1	3	1	1
	VP	1		1	1	1	1	1	1	1	1
74. Opportunities for promotion (a chance to get a better job) here are . . .	E	5		.....	.....	.....	.....	.....	5	.....	5
	G	4		.....	.....	.....	.....	.....	5	.....	3
	F	3		.....	.....	.....	.....	.....	4	.....	2
	P	2		.....	.....	.....	.....	.....	2	.....	1
	VP	1		.....	.....	.....	.....	.....	2	.....	1

Table G-5. Initial response weights and weights assigned by reciprocal averages for the co-workers scale, for all groups

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages — Groups[b]: I	II	III	IV	V	VI	VII	VIII
5. Most employees in this Company are satisfied with their jobs.	SA	5	—	—	—	6	—	—	—	—
	A	4	—	—	—	5	—	—	—	—
	U	3	—	—	—	2	—	—	—	—
	D	2	—	—	—	1	—	—	—	—
	SD	1	—	—	—	1	—	—	—	—
6. The employees in my department are willing to do their fair share of work.	SA	5	—	4	4	2	5	—	6	—
	A	4	—	4	2	7	7	—	6	—
	U	3	—	3	2	5	4	—	4	—
	D	2	—	2	2	2	2	—	2	—
	SD	1	—	1	1	1	1	—	1	—
19. I like all the people with whom I work.	SA	5	3	—	2	—	4	7	6	5
	A	4	6	—	2	—	6	7	4	5
	U	3	4	—	2	—	5	7	3	5
	D	2	2	—	2	—	3	4	2	4
	SD	1	1	—	1	—	1	2	1	1
20. Most of the employees around me are the kind who will say hello when I pass them on the street.	SA	5	7	6	7	—	—	7	4	4
	A	4	7	4	3	—	—	7	4	4
	U	3	5	3	2	—	—	6	7	4
	D	2	3	2	2	—	—	6	3	5
	SD	1	1	1	1	—	—	3	2	2
22. There is a lot of favoritism in my department (some employees are given all the breaks).	SA	1	—	—	—	—	—	—	2	2
	A	2	—	—	—	—	—	—	2	4
	U	3	—	—	—	—	—	—	3	4
	D	4	—	—	—	—	—	—	3	5
	SD	5	—	—	—	—	—	—	3	6
32. The work in my department is handed out fairly among the employees.	SA	5	—	5	—	—	—	—	—	—
	A	4	—	3	—	—	—	—	—	—
	U	3	—	2	—	—	—	—	—	—
	D	2	—	2	—	—	—	—	—	—
	SD	1	—	1	—	—	—	—	—	—

Table G-5 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
46. My work group is usually like one big happy family.	SA	5		4	—	6	—	7	7	5	7
	A	4		6	—	2	—	7	6	3	5
	U	3		3	—	2	—	4	6	3	5
	D	2		2	—	2	—	3	5	2	3
	SD	1		1	—	1	—	1	1	1	1
50. I have to work harder because some of my co-workers "goof off."	SA	1		—	—	—	1	—	—	—	
	A	2		—	—	—	2	—	—	—	
	U	3		—	—	—	2	—	—	—	
	D	4		—	—	—	3	—	—	—	
	SD	5		—	—	—	1	—	—	—	
55. I do not know a friendlier bunch than the people I work with.	SA	5		4	—	7	—	3	6	4	7
	A	4		5	—	2	—	6	7	4	3
	U	3		3	—	2	—	4	7	3	5
	D	2		2	—	2	—	3	5	2	4
	SD	1		1	—	1	—	1	1	1	1
62. Some of my fellow workers are among my best friends.	SA	5		—	—	5	—	—	7	2	
	A	4		—	—	2	—	—	6	3	
	U	3		—	—	2	—	—	6	2	
	D	2		—	—	2	—	—	5	2	
	SD	1		—	—	1	—	—	2	1	
70. The spirit of cooperation among employees in my department is . . .	E	5		7	3	—	7	7	—	5	
	G	4		6	4	—	7	6	—	5	
	F	3		4	2	—	4	5	—	4	
	P	2		2	2	—	1	3	—	2	
	VP	1		1	1	—	1	1	—	2	

Table G-6. Initial response weights and weights assigned by reciprocal averages for the sensitivity scale, for all groups

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages Groups[b]: I	II	III	IV	V	VI	VII	VIII
2. It sometimes helps to "play politics" in this Company ("polish the apple" with the supervisor, etc.).	SA	1	3	2	4	4	—	—	—	—
	A	2	4	2	4	7	—	—	—	—
	U	3	5	3	5	7	—	—	—	—
	D	4	5	3	5	7	—	—	—	—
	SD	5	5	6	7	7	—	—	—	—
20. Most of the employees around me are the kind who will say hello when I pass them on the street.	SA	5	—	—	—	—	7	—	—	—
	A	4	—	—	—	—	5	—	—	—
	U	3	—	—	—	—	1	—	—	—
	D	2	—	—	—	—	1	—	—	—
	SD	1	—	—	—	—	5	—	—	—
22. There is a lot of favoritism in my department (some employees are given all the breaks).	SA	1	3	4	3	2	2	1	—	—
	A	2	3	2	4	7	4	2	—	—
	U	3	4	2	4	7	6	1	—	—
	D	4	5	3	5	7	6	3	—	—
	SD	5	6	6	7	7	7	4	—	—
27. Getting ahead in this Company is more a matter of luck than ability (they don't care how good a worker you are).	SA	1	3	2	4	5	—	—	—	—
	A	2	4	1	3	7	—	—	—	—
	U	3	4	3	5	7	—	—	—	—
	D	4	5	3	5	7	—	—	—	—
	SD	5	7	6	7	7	—	—	—	—
28. The Company brings in outsiders for important jobs more often than they should.	SA	1	3	2	1	—	—	—	—	—
	A	2	4	1	4	—	—	—	—	—
	U	3	4	3	4	—	—	—	—	—
	D	4	5	3	5	—	—	—	—	—
	SD	5	6	7	7	—	—	—	—	—

Table G-6 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]: I	II	III	IV	V	VI	VII	VIII
32. The work in my department is handed out fairly among the employees.	SA	5	.....	.....	7	.....	.....	.....	.....	.....
	A	4	.....	.....	5	.....	.....	.....	.....	.....
	U	3	.....	.....	4	.....	.....	.....	.....	.....
	D	2	.....	.....	4	.....	.....	.....	.....	.....
	SD	1	.....	.....	2	.....	.....	.....	.....	.....
33. My immediate boss expects me to do more than my share of the work.	SA	1	2	3	2	.....	.....	.....	.....	.....
	A	2	3	1	4	.....	.....	.....	.....	.....
	U	3	4	2	4	.....	.....	.....	.....	.....
	D	4	5	3	5	.....	.....	.....	.....	.....
	SD	5	7	7	7	.....	.....	.....	.....	.....
34. The Company should do more to help employees with their personal problems (like family troubles, etc.).	SA	1	3	4	.....	.....	.....	.....	.....	.....
	A	2	3	1	.....	.....	.....	.....	.....	.....
	U	3	4	2	.....	.....	.....	.....	.....	.....
	D	4	5	3	.....	.....	.....	.....	.....	.....
	SD	5	6	5	.....	.....	.....	.....	.....	.....
40. My supervisor takes credit for work when he doesn't deserve it.	SA	1	3	1	4	.....	.....	.....	.....	.....
	A	2	3	1	4	.....	.....	.....	.....	.....
	U	3	4	2	4	.....	.....	.....	.....	.....
	D	4	5	3	5	.....	.....	.....	.....	.....
	SD	5	7	6	7	.....	.....	.....	.....	.....
44. My fellow workers rate better with management than I do.	SA	1	2	1	1	1	1	2	.....	.....
	A	2	3	2	3	7	3	2	.....	.....
	U	3	4	2	5	7	6	2	.....	.....
	D	4	5	3	5	7	6	3	.....	.....
	SD	5	7	6	7	7	7	7	.....	.....

Table G-6 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages — Groups[b]: I	II	III	IV	V	VI	VII	VIII
45. I need a promotion if I am to stay happy here.	SA	1	.....	3	3	.....	.....	.....	.....	.....
	A	2	.....	1	4	.....	.....	.....	.....	.....
	U	3	.....	3	4	.....	.....	.....	.....	.....
	D	4	.....	3	5	.....	.....	.....	.....	.....
	SD	5	.....	7	7	.....	.....	.....	.....	.....
47. My boss is only interested in getting the work out.	SA	1	2	3	3	.....	.....	3	.....	.....
	A	2	4	2	4	.....	.....	2	.....	.....
	U	3	5	3	5	.....	.....	2	.....	.....
	D	4	5	3	5	.....	.....	3	.....	.....
	SD	5	7	7	7	.....	.....	7	.....	.....
50. I have to work harder because some of my co-workers "goof off."	SA	1	2	2	2	.....	.....	.....	.....	.....
	A	2	4	2	5	.....	.....	.....	.....	.....
	U	3	4	2	4	.....	.....	.....	.....	.....
	D	4	5	3	5	.....	.....	.....	.....	.....
	SD	5	7	7	7	.....	.....	.....	.....	.....
51. I do not like the way they figure pay increases in this Company.	SA	1	3	.....	3	.....	.....	.....	.....	.....
	A	2	4	.....	5	.....	.....	.....	.....	.....
	U	3	4	.....	5	.....	.....	.....	.....	.....
	D	4	5	.....	5	.....	.....	.....	.....	.....
	SD	5	7	.....	6	.....	.....	.....	.....	.....
52. I would like to exchange my present job for another job in the same line of work.	SA	1	.....	.....	3	.....	.....	.....	.....	.....
	A	2	.....	.....	4	.....	.....	.....	.....	.....
	U	3	.....	.....	4	.....	.....	.....	.....	.....
	D	4	.....	.....	5	.....	.....	.....	.....	.....
	SD	5	.....	.....	6	.....	.....	.....	.....	.....

Table G-6 continued

Item	Response categories[a]	Initial weights	Weights assigned by reciprocal averages							
			Groups[b]:	I	II	III	IV	V	VI	VII	VIII
53. My boss "rides" me a little too much.	SA	1		1	.....	3	3	.....	1	.....	
	A	2		3	.....	4	7	.....	2	.....	.....
	U	3		4	.....	3	6	.....	2	.....	
	D	4		5	.....	5	7	.....	2	.....	
	SD	5		6	.....	6	7	.....	6	.....	
54. Things would be better for the Company if they got rid of my boss.	SA	1		2	.....	.....	.....	.....	1	.....	.....
	A	2		3	.....	.....	.....	.....	1	.....	.....
	U	3		4	.....	.....	.....	.....	1	.....	.....
	D	4		5	.....	.....	.....	.....	2	.....	
	SD	5		6	.....	.....	.....	.....	5	.....	
59. I sometimes wonder what my coworkers are talking about.	SA	1		.....	.....	.....	.....	1	.....	.....	.....
	A	2		.....	.....	.....	.....	4	.....	.....	.....
	U	3		.....	.....	.....	.....	6	.....	.....	.....
	D	4		.....	.....	.....	.....	6	.....	.....	.....
	SD	5		.....	.....	.....	.....	7	.....	.....	.....
62. Some of my fellow workers are among my best friends.	SA	5		.....	.....	.....	.....	7	.....	.....	.....
	A	4		.....	.....	.....	.....	6	.....	.....	.....
	U	3		.....	.....	.....	.....	5	.....	.....	.....
	D	2		.....	.....	.....	.....	4	.....	.....	.....
	SD	1		.....	.....	.....	.....	5	.....		

Appendix H

Table H-1. Post-reciprocal-averages interscale correlation matrix for Group I: Handicapped, non-skilled blue-collar (N=205)

	Working conditions	Super-vision	Compen-sation	Co-workers	Sensi-tivity	General job satisfaction
Working conditions		.32	.41	.18	−.13	.42
Supervision	.32		.21	.59	−.37	.44
Compensation	.41	.21		.21	−.22	.40
Co-workers	.18	.59	.21		−.26	.40
Sensitivity	−.13	−.37	−.22	−.26		−.29
General job satisfaction	.42	.44	.40	.40	−.29	

Table H-2. Post-reciprocal-averages interscale correlation matrix for Group II: Control, non-skilled blue-collar (N=177)

	Working conditions	Super-vision	Compen-sation	Co-workers	Sensi-tivity	General job satisfaction
Working conditions		.46	.32	.53	−.33	.50
Supervision	.46		.49	.54	−.60	.53
Compensation	.32	.49		.42	−.31	.49
Co-workers	.53	.54	.42		−.49	.39
Sensitivity	−.33	−.60	−.31	−.49		−.40
General job satisfaction	.50	.53	.49	.39	−.40	

Table H-3. Post-reciprocal-averages interscale correlation matrix for Group III: Handicapped, skilled blue-collar (N=116)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	Company	Type of work	General job satisfaction
Working conditions		.43	.39	.08	−.10	.56	.00	.29
Supervision	.43		.37	.04	−.38	.47	.24	.37
Compensation	.39	.37		.13	−.25	.45	.09	.51
Co-workers	.08	.04	.13		−.27	.04	−.02	.20
Sensitivity	−.10	−.38	−.25	−.27		−.31	−.06	−.57
Company	.56	.47	.45	.04	−.31		.16	.50
Type of work	.00	.24	.09	−.02	−.06	.16		.09
General job satisfaction	.29	.37	.51	.20	−.57	.50	.09	

Table H-4. Post-reciprocal-averages interscale correlation matrix for Group IV: Control, skilled blue-collar (N=128)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	Company	General job satisfaction
Working conditions		.45	.21	.36	−.04	.39	.30
Supervision	.45		.36	.50	−.23	.53	.43
Compensation	.21	.36		.38	−.19	.48	.35
Co-workers	.36	.50	.38		−.13	.42	.23
Sensitivity	−.04	−.23	−.19	−.13		−.11	−.10
Company	.39	.53	.48	.42	−.11		.61
General job satisfaction	.30	.43	.35	.23	−.10	.61	

Table H-5. Post-reciprocal-averages interscale correlation matrix for Group V: Handicapped, non-skilled white collar (N=168)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.49	.19	.27	−.06	.32
Supervision	.49		.42	.55	−.23	.52
Compensation	.19	.42		.06	−.11	.49
Co-workers	.27	.55	.06		−.40	.34
Sensitivity	−.06	−.23	−.11	−.40		−.29
General job satisfaction	.32	.52	.49	.34	−.29	

Table H-6. Post-reciprocal-averages interscale correlation matrix for Group VI: Control, non-skilled white-collar (N=127)

	Working conditions	Supervision	Compensation	Co-workers	Sensitivity	General job satisfaction
Working conditions		.44	.48	.41	−.30	.05
Supervision	.44		.36	.43	−.53	.15
Compensation	.48	.36		.33	−.36	.00
Co-workers	.41	.43	.33		−.41	.10
Sensitivity	−.30	−.53	−.36	−.41		.02
General job satisfaction	.05	.15	.00	.10	.02	

Table H-7. Post-reciprocal-averages interscale correlation matrix for Group VII: Handicapped, skilled white-collar (N=149)

	Working conditions	Supervision	Compensation	Co-workers	General job satisfaction
Working conditions		.32	.25	.25	.36
Supervision	.32		.22	.40	.58
Compensation	.25	.22		.17	.40
Co-workers	.25	.40	.17		.39
General job satisfaction	.36	.58	.40	.39	

Table H-8. Post-reciprocal-averages interscale correlation matrix for Group VIII: Control, skilled white-collar (N=98)

	Working conditions	Supervision	Compensation	Co-workers	General job satisfaction
Working conditions		.45	.29	.51	.47
Supervision	.45		.44	.16	.52
Compensation	.29	.44		.00	.40
Co-workers	.51	.16	.00		.26
General job satisfaction	.47	.52	.40	.26	

Appendix I

Table I-1. Percentile scores, means and standard deviations for general job satisfaction scale scores, by group

Percentile	Group*							
	I	II	III	IV	V	VI	VII	VIII
	Raw scores							
100	104	79	67	62	85	65	100	69
95	83	54	58	42	76	23	54	31
90	75	46	53	30	69	21	45	20
85	72	42	50	26	62	20	42	18
80	66	39	49	25	59	19	41	17
75	61	37	46	24	56	19	40	17
70	60	36	44	23	53	18	39	17
65	57	36	43	22	51	18	38	16
60	55	35	41	21	49	18	38	16
55	54	34	40	21	48	18	37	16
50	52	33	39	20	47	18	36	16
45	51	33	38	20	46	18	36	16
40	50	33	37	19	45	18	35	16
35	48	32	36	18	44	18	34	16
30	47	32	35	18	42	18	33	16
25	46	31	33	18	41	18	33	16
20	44	30	32	16	39	18	30	16
15	42	28	30	16	37	18	28	16
10	40	25	29	15	35	18	25	16
5	33	22	25	14	31	18	23	16
Mean	55.20	35.35	39.77	22.59	49.52	19.52	37.57	18.53
Standard deviation	14.44	8.98	9.74	8.60	13.09	5.86	11.38	8.13

* For all tables in Appendix I:

Group I = handicapped, non-skilled blue-collar
Group II = control, non-skilled blue-collar
Group III = handicapped, skilled blue-collar
Group IV = control, skilled blue-collar
Group V = handicapped, non-skilled white-collar
Group VI = control, non-skilled white-collar
Group VII = handicapped, skilled white-collar
Group VIII = control, skilled white-collar

Table I-2. Percentile scores, means and standard deviations for working conditions scale scores, by group

Percentile	Group[a] I	II	III	IV	V	VI	VII	VIII
	Raw scores							
100	50	40	47	31	43	55	39	41
95	32	29	22	26	31	51	31	22
90	27	28	18	23	27	44	30	21
85	24	27	16	22	24	41	28	19
80	22	26	14	20	23	39	26	18
75	21	24	13	19	22	38	24	17
70	20	23	12	17	21	35	23	17
65	19	21	11	17	20	34	23	16
60	19	21	10	16	19	33	23	16
55	18	20	10	15	19	31	22	16
50	18	19	10	14	18	29	22	15
45	17	18	9	13	18	29	21	15
40	17	18	9	13	18	27	21	15
35	16	18	9	13	17	26	20	14
30	16	17	8	13	16	25	19	14
25	16	17	8	11	16	24	18	13
20	15	16	8	10	15	22	15	13
15	15	14	8	9	14	21	14	11
10	14	12	8	8	13	19	12	11
5	13	10	8	5	10	15	10	10
Mean	19.98	20.41	12.37	15.39	19.43	31.35	21.64	16.00
Standard deviation	6.55	5.98	6.30	5.81	5.88	9.86	6.46	4.37

Table I-3. Percentile scores, means and standard deviations for supervision scale scores, by group

Percentile	Group[a] I	II	III	IV	V	VI	VII	VIII
	Raw scores							
100	48	76	71	52	67	68	50	60
95	32	73	55	41	53	62	31	16
90	29	71	49	36	48	58	26	13
85	27	69	45	32	42	54	23	13
80	26	68	40	29	40	51	22	13
75	25	66	39	27	36	50	20	13
70	24	66	36	25	34	48	20	13
65	23	65	32	23	33	47	19	13
60	22	65	29	22	31	45	19	13
55	21	65	27	21	29	44	18	13
50	21	65	26	20	28	43	18	13
45	20	65	25	20	27	42	17	13
40	19	63	23	20	27	41	17	13
35	19	62	22	20	25	40	16	13
30	18	62	21	19	25	38	15	13
25	18	59	20	18	25	34	15	13
20	18	55	19	17	25	33	13	13
15	17	49	19	15	24	29	13	13
10	16	37	19	14	21	27	12	13
5	13	28	18	12	19	22	9	13
Mean	21.77	60.32	30.62	23.38	31.89	42.82	18.77	13.91
Standard deviation	5.91	13.05	12.51	8.73	10.50	11.49	6.83	5.14

Table I-4. Percentile scores, means and standard deviations for compensation scale scores, by group

Percentile	Group[a] I	II	III	IV	V	VI	VII	VIII
				Raw scores				
100	36	52	28	35	47	61	39	72
95	28	45	23	23	37	56	27	39
90	25	43	21	20	31	53	23	36
85	23	42	20	18	28	52	21	34
80	22	42	19	16	26	49	20	30
75	21	41	18	15	24	45	19	28
70	20	41	17	14	23	45	17	27
65	17	40	16	12	21	44	15	26
60	16	40	15	11	19	43	14	24
55	15	40	14	10	18	42	13	22
50	14	40	13	10	16	41	13	21
45	12	39	13	9	15	40	12	20
40	12	39	13	9	14	39	11	20
35	11	39	13	9	13	37	11	19
30	10	39	12	8	13	36	10	18
25	9	38	12	8	13	35	10	18
20	8	37	11	8	12	34	9	18
15	8	36	11	8	11	34	9	17
10	7	33	11	8	11	32	8	16
5	6	29	11	8	10	31	8	15
Mean	15.38	39.10	15.61	12.56	19.42	41.95	14.94	24.99
Standard deviation	6.99	4.49	4.07	5.15	8.51	8.24	6.60	9.35

Table I-5. Percentile scores, means and standard deviations for co-worker scale scores, by group

Percentile	Group[a] I	II	III	IV	V	VI	VII	VIII
				Raw scores				
100	30	19	31	22	33	33	39	30
95	24	11	13	17	27	31	24	24
90	20	10	12	14	22	30	21	23
85	18	8	12	12	20	29	20	22
80	17	8	12	10	18	28	19	22
75	14	8	12	9	17	27	18	21
70	14	8	12	8	16	26	18	21
65	13	8	12	7	16	26	18	20
60	12	8	12	6	15	25	18	20
55	12	8	12	6	15	25	18	20
50	11	8	12	6	15	25	17	20
45	11	8	12	6	14	25	17	19
40	11	7	12	6	14	25	17	18
35	11	6	12	6	14	24	17	17
30	11	6	11	6	14	22	16	15
25	11	6	10	6	13	22	16	14
20	10	6	10	5	12	20	15	13
15	9	5	9	5	11	18	15	11
10	9	4	9	5	9	15	14	10
5	7	4	8	4	5	12	11	7
Mean	13.28	7.78	11.57	8.02	15.49	24.07	17.82	17.93
Standard deviation	4.81	2.07	2.42	4.16	5.40	5.31	3.72	4.98

Table I-6. Percentile scores, means and standard deviations for sensitivity scale scores, by group

Percentile	Group[a]							
	I	II	III	IV	V	VI	VII	VIII
	Raw scores							
100	84	70	95	35	35	29		
95	72	60	83	35	33	25		
90	66	48	78	35	32	24		
85	64	45	76	35	31	21		
80	63	41	73	35	31	20		
75	63	38	71	35	31	18		
70	63	35	70	35	30	16		
65	61	33	69	35	29	15		
60	61	32	68	35	29	14		
55	60	31	68	35	29	13		
50	60	31	67	35	29	13		
45	59	31	66	35	29	13		
40	58	30	65	35	29	12		
35	57	30	64	35	28	12		
30	56	29	64	35	27	12		
25	55	28	63	35	27	11		
20	55	27	62	35	27	11		
15	53	25	61	34	26	10		
10	51	23	59	32	24	10		
5	47	21	52	31	20	9		
Mean	59.77	34.13	67.84	34.24	28.61	15.71		
Standard deviation	7.23	10.38	8.78	2.60	3.69	5.23		