STUDY TO

ESTABLISH AN EVALUATION SYSTEM FOR STATE OF IOWA MERIT EMPLOYMENT SYSTEM CLASSIFICATIONS ON THE BASIS OF COMPARABLE WORTH

STATISTICAL SUPPLEMENT

April, 1984

ARTHUR YOUNG

APPENDIX A

CLASSIFICATION ANALYSIS QUESTIONNAIRE

ARTHUR YOUNG

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September 23, 1983

As you probably know, the State of Iowa has retained Arthur Young & Company to develop a comprehensive job evaluation system for its merit system employees. In order to initiate our project, we need to obtain accurate and comprehensive information about each job classification. All of the various functions, duties, responsibilities, and organizational relationships of each classification must be accurately defined and properly documented in an up-to-date manner. Since you are the person most familiar with your own job, you are our most valuable source of information. Therefore, we are requesting that you fill out the attached "Classification Analysis Questionnaire." In addition to reviewing the completed questionnaires, we will also be conducting personal or group interviews with many of you.

In completing the questionnaire, please observe the following guidelines:

1. Please fill out the questionnaire promptly. The project is on an ambitious time schedule, and is dependent upon our receipt of the questionnaires.
2. In filling out the questionnaire, please write legibly in ink, or type if you prefer.
3. Please answer each question as completely and as accurately as possible, yet in a concise manner. If a question is not applicable, please write "does not apply."
4. If you have any problems or questions, or need any assistance in filling out the questionnaire, please contact your supervisor, your agency's personnel representative, or Ray Wilson in the Merit Employment Department.
5. Please complete the questionnaire and give it to your supervisor by October 7, 1983, so that he/she may complete his/her portion, and return it to the your agency's personnel representative on or before October 14, 1983.

Thank you for your cooperation.

Very truly yours,

ARTHUR YOUNG & COMPANY

Enclosure

STATE OF IOWA

CLASSIFICATION ANALYSIS QUESTIONNAIRE
FOR
COMPARABLE WORTH PROJECT

INSTRUCTION SHEET

In completing the questionnaire, please observe the following guidelines:

- Please fill out the questionnaire promptly. The project is on an ambitious time schedule, and is dependent upon our receipt of the questionnaires.

- In filling out the questionnaire, please write legibly in ink, or type if you prefer.

- Please answer each question as completely and as accurately as possible, yet in a concise manner. If a question is not applicable, please write "does not apply".

- Do not be too concerned about grammar, punctuation, or style.

Please take the time to read through the entire questionnaire before proceeding. Do not try to complete the entire questionnaire all at once. Make notes on each section and then go back over your responses during the time you have to complete the information. Keep the questionnaire at or near your work station or desk. As you are performing your job you will think of additional information. Later, go back and review it and, if necessary, revise what you have written. It is expected that you will complete the questionnaire during your normal work time.

If you have any questions at all or do not understand any part of the questionnaire or need any asistance in filling out the questionnaire, contact either your supervisor or the personnel representative in your agency for assistance. If, however, you do not believe that your position is representative of your current job classification, please contact Ray Wilson (phone 515-281-3866) in the Merit Employment Department for further instructions.

If there is not enough space provided for your answers, you may attach additional pages. Merely identify to what question number the information pertains.

If there are any other employees who are in the same job classification in your area who perform the same job as you do, feel free to consult with them in completing this form. Remember, we are interested in learning as much as possible about your job classification, and any additional input is welcome.

If another person(s) from your area with the same job classification as yours also received a questionnaire and you believe that your jobs are the same, you may work together and submit one questionnaire. If so, be sure to place all of your names on the questionnaire that you return.

Please complete the questionnaire and return it to your supervisor by October 7, 1983, so that he/she may review it, complete his/her portion, and return it to your agency's personnel representative on or before October 14, 1983.

Thank you for your cooperation.

1. Identification

Name _____ Date _____

Merit Classification Title _____

Department _____ Division _____

Section _____ Unit _____

Work Location:
Building _____ Telephone Number (Include extension): _____

City _____ _____

Immediate Supervisor (Person who signs your performance evaluation)
Name _____

Title _____

Telephone Number _____

Time Employed in Current Classification Years_____ Months_____

Total Employment with State of Iowa Years_____

Work Hours (Start/Finish--Indicate a.m./p.m.) _____ to _____

Work Year

____ Full-Time
____ Regular Part-Time
____ Other (Specify) _____

2. Outline Of Organization Chart

Using the chart outlined below, please fill in the merit classifications of: (1) your immediate supervisor, (2) employees you work with and who also report to your supervisor, and (3) any employees you supervise (attach a printed chart with the same information if you prefer).

Note: List only those positions over which you have full supervisory authority.

3. Purpose of Position

Briefly describe what you consider the major purpose or objectives of your position. Simply stated, what are you attempting to accomplish in your position or why does your job exist?

_____

_____

_____

4. Typical Duties and Responsibilities/Job Content

Please list the typical duties and responsibilities you perform in the spaces on the next two pages. Before beginning, read the following specific instructions:

a. List one duty or responsibility in each space, and try to PLACE THEM IN THE ORDER OF THEIR IMPORTANCE to your job (#1 being the most important duty or responsibility).

b. List only those activities which either occupy the major part of your time and which are characteristic elements of the normal work routine, or which, although performed only infrequently, are outstanding, important elements of your work.

c. Try to describe your position in such a way that it can be understood by someone not immediately familiar with your work.

d. Begin each statement with an action word, such as "plans," "counsels," "cleans," "repairs," "types," etc.

e. After listing all responsibilities and duties, INDICATE THE PERCENT OF WORKING TIME ROUGHLY DEVOTED TO EACH. The total of these percentages should not exceed 100%.

f. Space is provided for up to 12 duties and responsibilities. Attach an additional page if more space is necessary.

g. After listing all your duties, place an asterisk (*) next to the items which are the "essence", or key parts, of your job.

h. To the best of your knowledge have any new duties been assigned since this job was last classified? ___ Yes ___ No
If yes, place an "x" beside the new duties or responsibilities listed.

Note: If you have a current job description (Position Description Questionnaire-M-2) that is fully accurate, or can be easily updated, write directly on the description itself indicating any minor additions, deletions, or modifications. Make the changes and sign and date the description. Then, indicate with an asterisk (*) the items of your description that are the essence of your job, and indicate the percent of time allocated to each job duty. After you have modified your description, continue with the remainder of the questionnaire.

Typical Duties and Responsibilities

-EXAMPLE-

20% Types monthly budget analysis report, including statistical date.

___% 1.

___% 2.

___% 3.

___% 4.

___% 5.

Typical Duties and Responsibilities (Cont.)

___% 6.

___% 7.

___% 8.

___% 9.

___% 10.

___% 11.

___% 12.

5. Secondary Duties

List those duties which you perform on an occasional basis or at irregular intervals that were not listed above.

Duties	Frequency

6. Special Duties

Include any special projects, studies, surveys, or investigations of a nonroutine nature which you have performed in the past 2 years, or anticipate in the near future which you will be responsible for initiating or conducting.

7. Projects

If a significant amount of your work is project oriented, briefly describe a characteristic project(s).

8. Areas of Personal Specialization

To the best of your knowledge, are there any special duties, responsibilities, or assignments that you perform that are not performed by anyone else in your classification? If so, please list:

9. Supervision Received

a. Who usually gives you your work assignment (name and classification).

_____

_____

b. In general, how frequently are they given? (Check one)

____ More than once per day

____ Daily

____ Several times per week

____ Weekly

____ Less than once per week

c. To what degree are your duties and assignments routine (i.e., predetermined or structured)? (Check one)

____ Very little deviation from a set "routine"

____ Only moderate deviation from "routine"

____ Considerable change from day to day, but usually within some reasonable and expected bounds

____ Relatively little "routine" work; considerable opportunity for improving methods and the necessity to make decisions

d. Do you establish your own work priorities or are they established for you? If established by others, please identify them by classification.

_____

_____

_____

e. Give an example of when and how you may be required to develop alternative methods or variations in approaches to deal with unusual circumstances in your work.

_____

_____

_____

f. List positions other than your immediate supervisor that provide you with advice, counsel, or functional guidance, and briefly discuss the nature and purpose of that guidance.

_____

_____

_____

9. Supervision Received (Cont.)

g. To whom do you give the work for review?

_____

_____

_____

h. How frequently and how extensively is your work reviewed or checked?

_____

_____

_____

10. Supervisory Responsibility

a. List below the classification titles and numbers of personnel you directly supervise.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

b. What is the total number of employees for whom you are responsible, either directly or indirectly through supervisors ultimately responsible to you? _____

c. What proportion of your time do you spend in supervisory duties and/or planning the work of others? _____%

d. Are the individuals whom you supervise located in one central location? ____ Yes ____ No

If not, are they located on a

_____ Regional Basis _____ Statewide

_____ Other (specify)

10. Supervisory Responsibility (Cont.)

e. Type of Supervision

Check each of the phrases below which describe the kind of supervision this position is required to exercise independently.

____ Assign work, add or delete duties	____ Make final decision to terminate for cause
____ Plan work, establish priorities	____ Recommend salary adjustment
____ Instruct and train in methods and procedures	____ Make adjustments in compensation
____ Make hiring recommendations	____ Make promotional recommendations
____ Make final decision on hiring	____ Make final decisions on promotions
____ Prepare performance evaluation	____ Maintain staff personnel records
____ Make recommendations regarding unsatisfactory employees	____ Respond to complaints and grievances
	____ Other (please specify)

f. Nature of Instructions Given

(1) Do you give specific or direct instructions as to what work assignments others are to do? (Explain or give examples.)

_____

_____

_____

(2) Do you instruct others on how to do their work? (Give examples)

_____

_____

_____

11. Advice or Guidance:

List the classifications other than subordinates to whom you provide functional guidance and briefly discuss the nature and purpose of that guidance. In other words, describe how you provide advice and counsel to others as part of your job.

_____

_____

_____

12. Procedures/Guidelines Available

a. What precedents, rules, instructions, or procedures are available to guide or restrict most of your job-related duties (i.e., policies, reference manuals, style manuals, handbooks, legislation, regulations...)

_____

_____

_____

_____

b. How often do they apply?

____ Nearly Always
____ More Than 2/3 of the Time
____ More Than 1/3 of the Time
____ Seldom

c. To what extent would you have the freedom to change or modify such procedures or instructions?

_____

_____

_____

d. In what ways and how frequently is independent thinking required, in your opinion, in originating new or improved operating strategy, procedures, plans, or concepts?

_____

_____

_____

13. Problem-Solving

Describe four typical problems or difficult or sensitive situations you would be called upon to solve or deal with in the normal course of your work.

a. _____

_____

b. _____

_____

c. _____

_____

d. _____

_____

14. Decision Authority/Recommendation Areas

The two parts of this question ask you to list areas of responsibility or activities for which you (a) have full decision-making authority (that is, you decide on a course of action and have the authority to implement it), and (b) make recommendations to your supervisor for final decision to implement.

a. List responsibilities or activities for which you have full decision-making authority to implement (approval of others not required).

_____

_____

_____

_____

_____

_____

_____

b. List responsibilities or activities for which you make recommendations to a supervisor for final decision.

_____

_____

_____

_____

_____

_____

15. Confidential Information

a. To what extent does your job require dealing with information which is considered sensitive or confidential to the organization (check one)?

____ Daily
____ Weekly
____ Monthly
____ Occasionally
____ Never

b. What is the nature of this information?

_____

_____

_____

c. What judgment do you have to exercise in utilizing or disclosing this information to others?

_____

_____

_____

---

16. Equipment Operated

List below any equipment and machines you operate on a regular basis, the extent to which you use it on average per day, the proficiency required, and how long it would normally take a person to learn how to use this equipment.

Proficiency required can be described as:

. Familiarity - Requires only a fundamental knowledge of how to use it.
. Average - must be able to use in an effective manner on a regular basis.
. High Competency - As in an efficient production activity, where high speed and accuracy are required.

Equipment	Hours Per Day	Proficiency Required	Time to Learn

17. Contacts with Others

Describe the purpose and frequency of any recurring contacts you would be required to have with others both within and outside your immediate work group. Give examples of specific kinds of people contacted, including those listed below. For each of the contacts listed below, indicate the nature and how often you communicate with them. The communication may be oral (face to face or by telephone) or written.

a. Frequency of contacts (use these definitions as guidelines):

Often - Once a day or more.
Some - At least twice per week.
Seldom - Once per month or less.
Rarely - No more than once per year.

b. Nature or Purpose. For example, do you:

- Receive or provide factual information
- Secure services
- Explain or interpret guidelines or instructions
- Make presentations
- Conduct interviews
- Negotiate
- Solve problems through persuasion or discussion
- Other...

People Contacted	Frequency	Nature or Purpose
With outsiders/the general public	_____	_____
With suppliers/vendors	_____	_____
With top management (other departments)	_____	_____
With head of your department	_____	_____
With managers in other departments	_____	_____
With co-workers within your department	_____	_____
With peers outside your department	_____	_____
With legislators	_____	_____
With commercial agencies	_____	_____
With press	_____	_____
With others (please specify)		
_____	_____	_____
_____	_____	_____
_____	_____	_____

18. Impact of Position

a. If the duties of your position did not get carried out, what would be the impact, or affect, on:

(1) Your area's functioning _____

_____

_____

(2) The organization _____

_____

_____

(3) Others outside the organization _____

_____

_____

b. List any relevant numbers identifying the relative size and scope of your position, such as:

(1) Responsibility for people (not people you supervise)

_____

_____

(2) Total operating and/or program budget for which you are accountable

_____

_____

(3) Responsibility for equipment or materials

_____

_____

(4) Other (please specify) _____

_____

_____

(5) Other (please specify) _____

_____

_____

19. Impact of Errors

a. What types of problems could occur from errors made in the course of your work? (For example, loss of time or money, inconvenience to others, inaccurate reports, etc.)

b. How quickly, or how likely would errors in your work be detected? (i.e., are errors typically identified by routine check of your work, or would errors probably not be noticed until they affected other departments or the public?)

20. Safety

What responsibility do you have for the safety and welfare of others?

21. Work Environment

a. Listed below are a number of conditions which may be unpleasant, disagreeable, or hazardous. Check each to which you are exposed in the normal course of your work. Also, for each condition checked, fill in the approximate percent of time you are exposed to that condition.

Check		Percent of Time Exposed
_____	Intense or continuous noise.	_____
_____	Awkward or confining work space (conditions in which the body is cramped or uncomfortable).	_____
_____	Dirty environment (situations in which workers or their clothing easily become bloody, soiled, greasy, etc.).	_____
_____	Improper illumination (glare, inadequate lighting, etc.).	_____
_____	Air contamination (dust, fumes, steam, toxic odors, disagreeable odors, etc.).	_____
_____	High or low temperatures or changes in temperatures (possibly leading to stress or decreased ability to work effectively.	_____
_____	Other: _____	_____
	_____	
	_____	
	_____	

b. Describe any unavoidable hazards in your job or how your health or well-being may be affected.

_____

_____

_____

_____

_____

21. Work Environment (contd.)

c. What type of risk or accidents may occur (i.e., burns, contact with contaminated material, disease, shock, physical attack, cuts...)? How often has this occurred?

_____

_____

_____

_____

_____

22. Working Conditions

a. What causes variations in your work volume or pace of work?

_____

_____

_____

_____

b. Describe how time pressures, rush orders, emergencies,or imposed changes in priorities of tasks or deadlines contribute to difficulty in planning and organizing your work?

_____

_____

_____

_____

c. Describe the frequency, duration and nature of uncontrollable interruptions and distractions which interfere with the organization and orderly completion of your work.

_____

_____

_____

_____

22. Working Conditions (contd.)

d. Does your job require you to work in unpleasant social situations (necessity to deal with upset or hostile clients or the public)? If so, please describe how, and how often.

_____

_____

_____

_____

_____

e. Do the responsibilities inherent in your position require you to work irregular hours or work beyond or outside of your normal work day for which you are not given compensation or compensatory time off? (If so, how often?)

_____

_____

_____

_____

23. Effort or Exertion

a. Describe any significant physical effort required in your position.

_____

_____

_____

b. Listed below are a number of demands which may be required in your job. Check each of which you perform or which describes your job and fill in the approximate percent of time you perform that activity.

Check		Percent of Time Performed
_____	Sitting (Prolonged)	_____
_____	Standing (Prolonged)	_____
_____	Standing (Intermittent)	_____
_____	Walking	_____

23. Effort or Exertion (contd.)

Check		Percent of Time Performed
_____	Bending or Stooping	_____
_____	Lifting	_____
_____	Repetitive activities (performance of the same physical or mental activities repeatedly and without interruption for long periods of time).	_____
_____	Crouching, kneeling, or crawling	_____
_____	Reaching	_____
_____	Carrying objects	_____

c. List the type of items (i.e. things, equipment, people) you would lift or carry and indicate their maximum weight in pounds.

Item	Weight	Frequency
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

d. What are the specific agility or dexterity requirements of your job?

_____

_____

_____

e. What hand-eye coordination is required?

_____

_____

_____

24. Educational Requirements

Using the categories below, please check the level of formal education or equivalent knowledge and skill that you believe is the minimum required to perform satisfactorily in your job. State what you think is minimally required, not necessarily your own educational level. This type of knowledge and skill would typically be attained through educational institutions rather than on-the-job experience.

	Level	Formal Schooling	Equivalent To
___	1	None	Follow simple instructions
___	2	Elementary (8 grades)	Read, write, add, subtract, use simple tools
___	3	1 to 2 years high school	Reading and understanding directions, use measuring instruments or gauges, fractions
___	4	3 to 4 years high school	Vocational or business skills, such as typing, shorthand, mechanics, drafting
___	5	1 to 2 years university, community college, business school, trade, or technical school	More advanced knowledge of vocational or business field, including full apprenticeships
___	6	College graduation	Advanced training in a field of study, such as chemistry, business, accounting, engineering, etc.
___	7	Master's degree	Advanced professional training in a well-defined field of study, such as engineering, business, science, accounting
___	8	Master's degree, plus considerable additional formal education	Same as above, but more extensive, in-depth study
___	9	Doctoral degree, law degree (J.D.), medical degree (M.D.)	Extensive, advanced study, including the conduct of significant, original research

Comments:

_____

_____

_____

25. Experience Requirements

Indicate the minimum amount and types (e.g., secretarial, engineering, supervisory, etc.) of previous experience required for a person possessing the minimum educational requirements to perform your job satisfactorily. Include experience in related work or lower-level jobs, either with the State of Iowa or elsewhere.

	Type of Experience	Minimum Time Required
a.	_____	____Years ____Months
	_____	____Years ____Months
	_____	____Years ____Months
	_____	____Years ____Months

b. What special work skills are required to enter your job?

_____

_____

_____

c. What special knowledge of laws, codes, or regulations are required to enter your job (not what you know now)?

_____

_____

_____

d. Assuming that an individual has the necessary background, after a brief orientation period how long would it take for a person to be able to perform all assigned tasks competently?

_____

_____

_____

e. What prior training and experience did you have before taking this job?

_____

_____

_____

f. What job related formal training have you received since you assumed your present job?

_____

_____

_____

g. From what classifications within the organization could employees be promoted to this classification?

26. Certificates, Licenses, Other Required Qualifications

Use this space to list any officially recognized certificates, licenses, authorizations to practice a trade or profession, or other required qualifications necessary for persons entering your job classification.

27. General Comments

Recognizing that no single questionnaire can cover every aspect of a position, after having completed this survey, can you think of any other information which would be important in understanding your position. If so, please list any additional comments below.

28. Describe any other factors or aspects of your job that should be considered in evaluating or comparing your classification with others.

_____

_____

_____

_____

_____

_____

_____

_____

29. Please list any special pay or benefits which you receive in addition to your base salary as a result of serving in this job classification.

_____

_____

_____

_____

NOTE: Upon completion of this questionnaire, please forward it to your supervisor by October 7, 1983 for completion of pages 23 and 24.

SUPERVISOR REVIEW AND COMMENTS

It is important that you, the supervisor, review this questionnaire, since you may have a different perspective of the job described. Do not change the incumbent's description of the job in the questionnaire itself. Please remember that this questionnaire is intended solely for the purpose of describing the classification in question accurately. The information provided in the previous pages is not to be used for purposes of evaluating this individual's performance nor should your comments be addressed to this subject. It is particularly important that you review the percentages assigned to the typical duties and responsibilities on page 3. This section (item number 4) must be completed. If this section is not complete, please fill in the blanks when you review the questionnaire with the incumbent. If you disagree with any information provided or believe some information has not been included on the questionnaire, indicate below the question number and your response.

Question No.	Comments

If necessary, continue comments on the following page. Also, complete the statement box at the bottom of the following page.

Question No.	Comments

Please check the appropriate statement.

___ I agree with the incumbent's questionnaire as written.

___ The above modifications have been discussed with the incumbent, and the incumbent agrees with these modifications.

___ The above modifications have been discussed with the incumbent, and the incumbent disagrees with these modifications.

Supervisor's
Signature_____ Date_____

I have noted the modifications made by my supervisor in the Comments Section above.

Employee's
Signature_____ Date_____

When completed, please return to your Agency Personnel Representative by October 14, 1983.

APPENDIX B

INTERVIEW GUIDE

STATE OF IOWA

POSITION INFORMATION AUDIT
INTERVIEW GUIDE

Incumbent _____

Title _____

Department/Location _____

Interviewer _____ Date _____

Job Information Available:

. Position Questionnaire Yes ____ No ____
. Classification Specification Yes ____ No ____
. Organization Chart Yes ____ No ____
. Other (List) Yes ____ No ____

_____

_____

_____

- -

. Introduce yourself and the project.

. Explain purpose of interview.

. Review their questionnaire and round out and clarify the data as required. Be sure you understand content of questionnaire.

. Proceed into interview guide.

. Correct data block above; then begin questions on next page.

. Terminate with an open conclusion: If you remember something that I should know, feel free to contact me directly or through the Merit Employment Department or their Agency Personnel Representative.

. Complete "need to consider job description change" sheet.

1. Aside from transfer/promotion, has your job changed in the last 2 years? If so, how?

2. What duties currently constitute the bulk of your time? Is this typical?

3. If there is a difference of opinion on job duties of the incumbent and the supervisor, ask for an explanation of the nature of the discrepancy.

4. Complexity, Judgment, Problem-Solving:

   a. Tell me about the parts of your job in which you have a great deal of latitude or discretion in what you do. In other words, areas of your job in which there are no clear standard practices or procedures to guide what you do.

   b. What, or who, determines the volume of your work load? Do you have the authority to take on a project if you see a need? If yes, give an example.

c. How does one define the output of your work, e.g., what "units" of work?

5. Supervision Exercised:

Confirm numbers, levels, and types of persons supervised. Are you responsible for scheduling assignments, hiring decisions, and performance review for each of these individuals? Give a short summary of each direct subordinate position and how it interrelates with some of the other positions in the organization.

6. Supervision Received:

How often do you meet with your supervisor? Is he/she readily available to answer questions? How explicit are instructions from your supervisor as to your work assignments? How frequent and in what way(s) do you inform your supervisor of your progress on assignments (i.e., staff meetings, status reports)?

7. Education/Experience:

a. Review levels and types of education and experience stated in questionnaire. Are requirements legally based or a matter of preference? What would you require if you were a supervisor hiring someone for this type of position?

b. What do you consider to be the single most important area of knowledge that a person must have (or learn) to function in your position?

8. Personal Contacts:

What type of telephone or personal contact is the most common in your job? What is the usual purpose, or outcome, of this communication? Describe the nature and extent of customer contact. How is this similar/different from that of your staff.

9. Decisions:

Does your work or the decisions you make affect operations beyond the organizational unit in which you work? In what ways and affecting what other organizational units? Review decisions and recommendations on Question #14.

10. Errors:

Give me an example of an error or mistake that a person in your position could make. How often has this error occurred? What safeguards or "fail-safe" mechanisms are available to prevent this type of error from occurring or having much effect on the public or others?

11. Working Conditions/Pressures:

Explore response from questionnaire with emphasis on confirming severity and frequency of irregular work hours, stress, pressure of deadlines, physical requirements, etc. Distinguish between factors inherent in the work <u>environment</u> and factors that are <u>physical</u> or <u>mental</u> demands.

12. Is there anything else about your job that you would like to tell me? Anything you feel would be helpful to us in considering your job.

AFTER INTERVIEW SUMMARY

Key Job Duties

General Observations (What is an appropriate classification title? Any questions on PAQ that need to be noted?)

APPENDIX C

JOB CLASSIFICATIONS INTERVIEWED

JOB CLASSIFICATIONS INTERVIEWED

00013	Clerk Typist 3
00017	Clerk 3
00021	Clerk Stenographer 2
00022	Clerk Steographer 3
00025	Secretary 1
00026	Secretary 2
00035	Telephone Operator
00046	Redemption Clerk 1
00047	Redemption Clerk 2
00060	Word Processor 1
00061	Word Processor 2
00081	Microfilm Operator 1
00082	Microfilm Operator 2
00111	System Support Worker 1
00112	System Support Worker 2
00113	System Support Worker 3
00132	Data Processing Supervisor
00135	Computer Operator 1
00136	Computer Operator 2
00152	Programmer/Analyst
00153	Lead Programmer
00156	Systems Analyst
00157	Senior Systems Analyst
00201	Assistant Director of Voter Reg.
00201	Purchasing Assistant
00211	Purchasing Agent 2
00212	Purchasing Agent 3
00276	Treasurer's Cashier
00290	Accounting Technician 1
00292	Accounting Technician 2
00294	Accounting Technician 3
00309	Accountant/Auditor
00315	Accountant 4
00406	Bank Examiner 3
00422	Credit Union Examiner 3
00456	Insurance Complaint Supervisor
00457	Insurance Rate Analyst 1
00458	Insurance Rate Analyst 2
00529	Utility Analyst 2
00531	Senior Utility Analyst
00638	Law Clerk
00725	Budget Analyst 4
00729	Comptroller's Division Director
00737	Management Analyst 4
00740	Statistical Assistant 1
00741	Statistical Assistant 2
00750	Information Specialist 1
00751	Information Specialist 2

JOB CLASSIFICATIONS INTERVIEWED (Continued)

00781	Public Service Executive 1
00782	Public Service Executive 2
00784	Public Service Executive 3
00786	Public Service Executive 4
00787	Public Service Executive 5
00800	Manpower Aide 1
00801	Manpower Aide 2
00806	Manpower Specialist 2
00815	Employment Service Manager
00852	Claims Specialist 1
00853	Claims Specialist 2
01330	Museum Technician
02001	Licensed Practical Nurse 1
02002	Licensed Practical Nurse 2
02035	Nursing Services Director
02041	Director of Nursing
02066	Hospital Nursing Consultant
02209	Radiological Technologist 1
02211	Radiological Technologist 2
02206	Pharmacist
03031	County Social Services Dir. 2
03046	Youth Services Worker 2
03047	Youth Services Worker 3
03084	Homemaker Services Supervisor 2
03090	Income Maintenance Worker 1
03091	Income Maintenance Worker 2
03439	Civil Rights Specialist 2
04022	Program Planner 2
04023	Program Planner 3
04025	Program and Planning Administrator 2
04045	Transportation Planner in Training
04066	Senior Transportation Planner in Training
04050	Transportation Planner 1
04106	Right of Way Aide 2
04108	Right of Way Aide 4
04205	Highway Engineer in Training
04207	Senior Highway Engineer in Training
04341	Materials Technician 2
04342	Materials Technician 3
04356	Design Technician 2
04357	Design Technician 3
04406	Geologist 2
04407	Geologist 3
04410	Geologist 4
04415	Chemist 1
04416	Chemist 2
04518	Environmental Specialist 2
04519	Environmental Specialist 3
04521	Environmental Engineer 2

JOB CLASSIFICATIONS INTERVIEWED (Continued)

04538	Health Facilities Surveyor
04735	Communications Technician 1
04736	Communications Technician 2
04775	Communications Engineer
05103	Food Sanitation Survey Officer
05165	Laboratory Assistant 1
05167	Laboratory Assistant 3
05210	Park Ranger 1
05215	Park Ranger 2
05217	Park Ranger 3
05313	Fisheries Biologist 2
05333	Wildlife Biologist 2
05334	Wildlife Biologist 3
05416	Forester 2
06360	Motor Vehicle Officer 1
06361	Motor Vehicle Officer 2
06505	Community Corrections Services Supervisor
07253	Dietitian 2
07310	Laundry Supervisor 1
08111	Equipment Operator 2
08113	Equipment Operator 3
08135	Bridge Inspector 1
08136	Bridge Inspector 2
08137	Bridge Inspector 3
08375	Automotive Mechanic
08385	Automotive Shop Supervisor
08416	Power Plant Engineer 3

APPENDIX D

JOB EVALUATION HANDBOOK

INTRODUCTION

This manual is provided to explain the point factor job evaluation system developed for the State of Iowa Comparable Worth Study. This system has been designed specifically for the Merit Employment System Job Classifications, as a means to systematically appraise the value of each classification in relation to all other classifications on the basis of comparable worth.

This system consists of a series of predetermined compensable factors which have been developed to reflect the best overall measure of worth for the wide variety of classifications in the Merit Employment System. The entire system is contained in the back portion of this manual. Each of the 13 factors has been defined in a way to explain what is intended to be measured and to assist team members in obtaining a consistent insight into interpreting how to apply the system. Members of the job evaluation teams will analyze each classification and determine the extent or degree to which that factor is present in the classification being evaluated.

Each factor is evaluated independently for each classification. Using a series of well defined specific and discreet factors provides for a more factual and objective assessment than trying to make an overall judgment of the worth of a class.

Each factor consists of a series of degrees, or levels, which have been defined. The evaluation is done by the team, deciding which degree definition best fits the class for each

factor. The team must reach consensus as to which degree "most clearly" describes the overall classification. This process allows all classifications to be evaluated in a common framework and in a consistent fashion.

Prior to performing the evaluation, each team member will have reviewed job content documentation on the class to be evaluated. For each distinct classification, a wide range of documentations has been assembled and carefully analyzed, including a comprehensive Position Analysis Questionnaire (PAQ), a Class Specification, Field Audit Interview Notes, Organization Charts, Section A of the Job Performance Plan and other documents. A matrix format explaining where specific information from these sources may be found, as it relates to each respective factor, is included at the end of this section.

When the team has completed the evaluation, the team leader will record the final evaluation results on a form and return it to the Arthur Young and Company Coordinator for review. A copy of this form follows this section. As a quality control step and to insure reliability among the various teams, our consultants will review all evaluations to insure that they are consistent and that they conform to our firm's technical standards. It is essential that there be a very high degree of consistency among the teams. In that regard, each team will receive a report of all evaluations performed through the previous week so that they can be aware of all previous

rankings and take them into consideration in performing subsequent evaluations.

All factors have been weighted to reflect the approximate relative importance of that factor to the State. Point values exist for each factor/degree. When all factors have been evaluated, the sum total of points will represent the overall value of the classification. The total points will reflect the worth or relationship of that class to all others in the Merit Employment System. Classes are then assigned to grades based on accumulated point count totals.

The actual point values of the factor/degrees are not available to the team members conducting the evaluations. This helps individuals from subconsciously focusing on the end result or overall worth and perhaps then over- or underrating a class.

In performing the evaluations the committee must always remember several rules:

- The system has been designed to cover the more than 800 State Merit Employment System job classifications. This range of applicability must be kept in mind when performing evaluations. A wide variety of levels for each factor exists, relatively speaking, and should be reflected in the degrees selected.
- Evaluate each degree independently. Do not try to make assessment of the "overall worth" of the classification.

- Always focus on the inherent duties, responsibilities, tasks, impacts, working conditions, responsibilities, etc. The title, current salary grade or gender composition of the classification is irrelevant.
- The evaluation process always deals with classifications, not individuals or positions. The person performing the work and whether or not it is being done well is not relevant.
- Job evaluation must look at classifications the way they are at the time of the study -- not the way they might be or should be, or the way someone would have them be.
- Job evaluation is not a process for assessing the appropriateness of staffing levels or workload, or for rewarding for efficiency or punishing for ineffectiveness.
- Your responsibility is to assist in making an evaluation of the relative worth of each classification on the basis of comparable worth. You should be concerned with applying the system in a consistent manner. Do not concern yourself with any potential cost or other implementation issues.

The final and foremost thing to remember is that while this entire system and process has been developed in a way to measure classifications in an equitable manner and aims

at being as objective as possible, the process is inherently subjective. It is up to each committee member to strive to perform his/her role in a responsible and objective manner. The end result will only be as good as our collective efforts over the next few weeks.

STATE OF IOWA -- COMPARABLE WORTH STUDY

JOB CONTENT DOCUMENTATION -- REFERENCES BY FACTOR

Factor	PAQ Question	Field Audit Notes	Class Specifications
1. Knowledge-Education	16 24 25(b)(c)(e)(f) 26	7(a)(b)	KSA's Educ/Exper Req (Min)
2. Knowledge-Experience	16 25(a)(b)(c)(d)(e)(g)	7(a)(b)	KSA's Edu/Exper Req (Min)
3. Complex-Prob. Solv.	4, 5, 6, 7 9(c)(e)	4(a) 9	Illus. Examples Work Performance
4. Guidelines/Supervision	9(a-h) 12(d)	4 (a)(b) 6	Definition
5. Contacts	4 17(a-b)	8	Abilities
6. Physical Demands	16 23(a-e)	11	Abilities
7. Mental Demands	4(High %) 16 23(b)(d)(e)	11	Abilities
8. Supervision Exercised	10(a-f) 11	5	Illus. Examples
9. Scope/Effect	4, 5, 6, 7 14,15,16,17 18(a)(b)	4(c)	Definitions
10. Impact Errors	4, 5, 6, 7 19,20	10	Illus. Examples Work Performance Definition
11. Work Environment	21(a) 22(d)(e)	11	Notes
12. Hazard/Risk	16 21(b)(c)	11	
13. Working Conditions	22(a)(b)(c)		

STATE OF IOWA

JOB EVALUATION RESULTS

DATE: ______________________

TEAM: ______________________

Job Evaluation Factor

Revised	Class Title	Class Code #	1 Knowledge-Education	2 Knowledge-Experience	3 Complexity-Judgement	4 Guidelines-Supervision	5 Personal Contacts	6 Physical Demands	7 Mental Demands	8 Supv. Exercised	9 Scope and Effect	10 Impact Errors	11 Work Environment	12 Hazards-Risks	13 Work Conditions	Total Points

Intro. 3/9/83
Do Pass 3/29 (p. 1014)

HOUSE FILE 313

State Government
Bruner, Chair
Drake
Slater

HOUSE FILE 313

BY COMMITTEE ON STATE GOVERNMENT

(As Amended and Passed by the House)

Passed House, Date 5-10-83 (p. 1981) Passed Senate, Date 4-19-83 (p. 1328)

Vote: Ayes 98 Nays 0 Vote: Ayes 42 Nays 4

Approved May 31 1983

Motion to reconsider 4/20 (1348) w/d 4/9 (p. 1604)

A BILL FOR

An Act establishing as the policy of the state that employees shall be paid at a rate based on comparable worth, providing for a study, and delaying the implementation of the policy.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

House Amendments

S.F. _____ H.F. 313

Section 1. 79.17 COMPENSATION BASED ON COMPARABLE WORTH. It is the policy of this state that a state department, board, commission or agency shall not discriminate in the employment or pay between employees on the basis of gender by paying wages to its employees at a rate less than the rate at which the employer pays wages to employees of the opposite gender for work of comparable worth. "Comparable worth" means the value of work as measured by the composite of the skill, effort, responsibility, and working conditions normally required in the performance of work.

Sec. 2. A study shall be conducted for the purpose of implementing section 1 of this Act. The study shall compare jobs under the Iowa merit system to determine equitable compensation relationships between and among job classes predominantly held by women, jobs predominantly held by men and jobs held by a balanced number of women and men in the Iowa merit system. The study shall be conducted within the limits of available funds and personnel and shall be supervised by the Iowa merit department. State agencies charged with the responsibility for administering various payroll systems shall cooperate with the Iowa merit department in carrying out this study. A contract with a private firm having expertise in personnel administration may be entered into to assist in carrying out this study.

The legislative council shall appoint a steering committee for the study with the governor or the governor's designee serving as a member of the steering committee.

The steering committee shall establish guidelines for carrying out the study in consultation with the Iowa merit employment department and shall set a date for the completion of the study and a proposed date for the governor and the legislative council to submit recommendations to the appropriate committees of the general assembly. The steering committee, governor, and legislative council shall be furnished with data as requested from the study as well as the final

report.

The Iowa merit employment department shall develop and submit to the governor and the legislative council an estimate of the appropriation necessary for providing comparability adjustments for classes in the study. The governor and the legislative council shall review the comparison and proposed appropriation and submit recommendations to the appropriate committees of the general assembly for their consideration.

Sec. 3. Sections 1 and 2 of this Act are effective upon publication; however, section 1 shall not be implemented until the provisions of section 2 have been met and appropriate legislation has become law.

Sec. 4. This Act, being deemed of immediate importance, takes effect from and after its publication in The Jefferson Bee, a newspaper published in Jefferson, Iowa, and in the West Des Moines Express, a newspaper published in West Des Moines, Iowa.

1. Knowledge-From Formal Training/Education

This factor measures the academic preparation and/or technical training at the entry level considered to be the normal or typical prerequisite to learning and performing the job at the entry level. This preparation or training refers to that which provides a basis or foundation for the development of adequate job skills and overall job competence. (i.e., what a worker must know to do acceptable work such as steps, procedures, practices, theories, principles and concepts). The factor refers to the attainment of knowledge and skills typically obtained through formal educational institutions, rather than through on-the-job experience. This knowledge may have been acquired through formal schooling such as grammar school, high school, college, night school, correspondence courses, and in-service education programs. The normal requirements of the job are analyzed and not the formal education of individuals performing the work. To be used as a basis for selecting a degree under this factor, a knowledge must be required and applied.

1st Degree

Requires enough basic education to understand and follow standard routine (often repetitive) practices or oral instructions. No special previous training, knowledge or skill required.

2nd Degree

Requires ability to read, write, and follow detailed written or oral instructions, use simple arithmetic processes involving counting, addition, subtracting, dividing, and multiplying whole numbers. These "core" skills and abilities would have a direct application to the tasks to be performed, but would not have a recognized, fairly specific occupational objective.

3rd Degree

Requires knowledge in order to perform work requiring advanced arithmetic processes involving adding, subtracting, dividing, and multiplying of decimals and fractions; and comprehension and expression in terms of language development to maintain or prepare routine correspondence, records, and reports (i.e., sentence composition, grammar, spelling, etc.). May require basic knowledge of typing, bookkeeping, drafting, blueprint reading, etc.

4th Degree

Requires knowledge of standard procedures in a technical field requiring extended training. Requires the ability to use proper business, medical, or legal terminology. Advanced knowledge of stenography, variety of office routines, or elementary knowledge of accounting or laboratory procedures required. Knowledge of and ability to operate equipment such as measuring or mechanical devices, tabulating equipment, transcribing machines, or

precision instruments requiring more than six months of training to obtain proficiency. Ability to understand and interpret technical manuals. Language development would be more advanced, could be required to edit, or write more technical correspondence or speak in a way to present information or ideas clearly.

5th Degree

Requires ability and knowledge of a specialized technical field such as accounting, data processing, complex laboratory procedures, office management, statistics, advanced mathematics, drafting, etc. Knowledge and ability to operate precision tools or instruments including the ability to adapt such devices or interpret results of tests based upon observations. Must be able to originate and compile statistics and interpret reports, and prepare correspondence of a difficult or very technical nature. Also practical knowledge of standard procedures in a skilled trade or maintenance field such as masonry or plumbing. Equivalent to broad specialized training that is directly related to the type of work being performed or completion of a full apprenticeship of four or more years in a recognized trade or craft.

6th Degree

Requires broad knowledge of basic theories and principles, concepts and methodology of a general professional or specialized technical field such as accounting, psychology, educational administration, mathematics, computer science, nursing, social work, agriculture, finance, engineering, statistics, or business administration sufficient to analyze and carry out a wide range of assignments.

7th Degree

Requires expanded advanced training beyond the 6th degree in a comprehensive field of study which provides skill in carrying out assignments, operations and procedures in the operation which are more difficult and complex. Must be able to apply principle of logical or scientific thinking with respect to abstract or more diverse variables.

8th Degree

Requires advanced professional training beyond the 7th degree in a comprehensive field of study and which provides an authoritative knowledge or mastery of all advanced principles, concepts, theories, and methodologies in a professional or administrative field to apply experimental theories and new developments to problems not susceptable to treatment by accepted methods. Must be able to apply more diverse principles of logical or scientific thinking to a wide range of intellectual and highly abstract classes of concepts.

2. Knowledge-From Experience

This factor evaluates the least amount of time normally required for a person with the specified formal training/educational knowledge or background to acquire the related knowledge and skills to perform the job satisfactorily under normal supervision. Qualifying experience may have been acquired on prior related work or lower-level jobs, either within State Government, other former employment, volunteer work, on-the-job training, or any other relevant source.

1st Degree

The position requires no previous experience and minimal (less than one month) on-the-job training. No special knowledge is required. The basic job could be learned in one month or less.

2nd Degree

The position requires limited knowledge of simple work procedures or methods typically resulting from previous experience. Some basic knowledge of commonly used general rules, procedures, operations, practices, or routines is necessary for proficiency. Necessary prior experience could typically be acquired within three to six months. On-the-job learning time could range from one to three months. During this period sufficient skill or knowledge would be acquired to be able to perform all tasks competently.

3rd Degree

The position requires moderate general knowledge of technical procedures or work activities. Necessary prior experience could typically be acquired in six to twelve months. Working knowledge of a history of standardized rules, operations, or procedures and practices related to the functional area must be learned. Requires job learning time of from three to six months.

4th Degree

The position requires considerable working knowledge of multiple technical procedures or work activity areas. The knowledge of this more extensive body of rules or operations requires extended experience to perform a wide variety of interrelated or non-standard procedural assignments. May involve sufficient knowledge to teach basic procedures to others. Necessary prior experience could be gained in twelve to thirty-six months. In-depth knowledge of work-related procedures and practices is necessary. Requires job learning time from six to twelve months.

5th Degree

The position requires extensive knowledge of several complicated technical specialized areas to perform complicated techniques and/or solve critical problems within the specified area to a level sufficient to supervise others performing jobs in these areas. Necessary prior experience can typically be gained in three to five years. Job learning time exceeds one year.

6th Degree

The position requires comprehensive understanding of a broad body of knowledge or unusually complex techniques and procedures. This intense practical knowledge of technical or skilled functional areas would often be used in the development of new methods, approaches or procedures. Necessary prior experience typically ranges beyond five years. Job learning time exceeds one year.

3. Job Complexity, Judgment, and Problem-Solving

This factor measures the complexity of the duties involved in the job, the extent to which the duties are standardized, and the extent to which the employee is required to use judgment in making decisions and solving problems. Also consider the nature, number, variety, and intricacy of tasks, steps, processes, or methods in the work performed; the difficulty in identifying what needs to be done; and the difficulty and originality, ingenuity, or creativity involved in performing the work.

1st Degree

Work of a routine nature, requiring a limited number of simple procedures, in which the employee is allowed little or no choice of action in deciding what needs to be done or method of performance. Highly structured repetitive work. Requires very little analytical thought or decision making. The work consists of tasks that are clear cut and directly related. Not much ingenuity involved. Data are few, simple, unambiguous and immediately comprehended.

2nd Degree

Structured work, consisting of duties that involve several related or sequential steps, processes or methods. Creativity an infrequent job requirement. May make minor decisions requiring some judgment, usually of relatively little importance, which may affect efficiency of operation. Decisions require simple analysis of standard data. The decision regarding what needs to be done involves various choices requiring the employee to recognize the existence of and differences among a few easily recognizable situations. Actions to be taken or responses to be made differ in such things as the source of information, the kind of transactions or entries, type of materials or other differences of a factual nature.

3rd Degree

Work generally standardized but involves a wider range of tasks, steps, or processes. Generally is more complicated, unexpected problems and changes do occasionally occur. Decisions are made in response to changing conditions and often require developing or applying alternative methods. Requires judgment in the application of a wider range of established procedures. Decisions may affect quality, accuracy, or utility of results. Some creativeness necessary as to methods or routines.

4th Degree

Work generally diversified and moderately difficult. Requires judgment to meet problems and situations to which their application is not clearly defined. Works toward assigned objectives, using judgment at times to modify methods and standards to meet variations in controlling conditions. Requires the ability to plan and perform a sequence of operations. The work includes various duties involving different and unrelated processes and methods. The decision regarding what needs to be done depends upon the analysis of the subject, conditions, phase, or issues involved in each assignment, and the chosen course of action may have to be selected from many alternatives. The work involves conditions and elements that must be identified and analyzed to discern interrelationships. Ingenuity and imagination are required on regular basis to deal with frequently changing conditions and problems.

5th Degree

Work is typically difficult or complex and governed generally by broad instructions and objectives usually involving frequently changing conditions and problems. The work typically includes varied duties requiring many different and unrelated processes and methods. Requires considerable judgment to apply factual background and fundamental principles in developing approaches and techniques for the solution of problems where policies or procedures are not clearly defined. Involves considerable ingenuity and initiative. Substantial analysis is required and many factors must be weighed before a decision can be reached. Decisions regarding what needs to be done include the assessment of unusual circumstances, variations in approach, and incomplete or conflicting information. The work requires making many decisions concerning such things as interpreting considerable information, planning work, or refining methods and techniques to be used.

6th Degree

The work includes varied duties requiring many different and unrelated processes and methods applied to a broad range of activities, or substantial depth of analysis. The work requires originating new techniques, establishing criteria, or developing new information. Requires the ability to plan and perform involved or technical work presenting new or constantly changing problems, deal with complex factors not easily evaluated, make decisions requiring considerable judgment, initiative, and ingenuity in areas where there is little precedent. Decisions regarding what needs to be done include major areas of uncertainty in approach, method, or interpretation and evaluation processes resulting from such elements as continuing changes in program, technological developments, unkown phenomena, or conflicting requirements. Creative ability, imagination or originality required on a daily basis.

7th Degree

The work consists of very broad functions and processes. Assignments are characterized by breadth and intensity of effort and involve several phases being pursued concurrently or sequentially with the support of others within or outside of the organization. Requires the ability to act in the formulation and implementation of policies and programs for major divisions or functions. Performs research, planning, and organization of major function and correlation of interrelated functions. Work involves the application of a high degree of judgment, initiative, and ingenuity to deal with factors not easily evaluated, interpret results, and to direct and/or coordinate the work of others. Decisions regarding what needs to be done include largely undefined issues and elements, requiring extensive probing and analysis to determine the nature and scope of the problems. The work requires continuing efforts to establish concepts, theories, or programs, or to resolve unyielding problems.

4. Guidelines/Supervision Available

This factor covers the nature of guidelines and the judgment needed to apply them. Guidelines include, for example: desk manuals, established procedures and policies, traditional practices, and reference materials such as dictionaries, style manuals, engineering handbooks, the pharmacopoeia, legislation, administrative rules and employee regulation or handbooks.

Guidelines should not be confused with the knowledges described under Factor 1, Knowledge-From Formal Training/Education. Guidelines either provide reference data or impose certain constraints.

Individual jobs in different occupations vary in the specificity, applicability and availability of the guidelines for performance of assignments. Consequently, the constraints and judgmental demand placed upon employees also vary. For example, the existence of specific instructions, procedures, and policies may limit the opportunity of the employee to make or recommend decisions or actions. However, in the absence of procedures or under broadly stated objectives, employees in some occupations may use considerable judgment in researching and developing new methods.

This factor also measures the extent and closeness of supervision required and received, including the degree to which the immediate supervisor outlines the methods to be followed, the results to be obtained, and the frequency that work progress is checked. Proximity or immediate availability of supervision should also be considered. This factor covers the nature and extent of direct or indirect controls exercised by the supervisor, the employee's responsibility, and the review of completed work. Controls are exercised by the supervisor in the way assignments are made, instructions are given to the employee, priorities and deadlines are set, and objectives and boundaries are defined. Responsibility of the employee depends upon the extent to which the employee is expected to develop the sequence and timing of various aspects of the work, to modify or recommend modification of instructions, and to participate in establishing priorities and defining objectives. The degree of review of completed work depends upon the nature and extent of the review; e.g. close and detailed review of each phase of the assignment; detailed review of the finished assignment; spot-check of finished work for accuracy; or review only for adherence to policy.

1st Degree

Specific, detailed guidelines covering all important aspects of the work are provided to the employee. Supervision available for recurring duties. The employee works as instructed and consults with the supervisor as needed on all matters not specifically covered in the original instructions. Implies a review at frequent intervals of what is done and the manner of performance. Each task is performed according to specific detailed instructions as to required tasks and results expected. The employee has very limited authority to select alternative work methods. The employee works in strict adherence to the guidelines; deviations must be authorized by the supervisor. For all positions the work is closely controlled. For some positions, the control is through the structured nature of the work itself; for others it may be controlled by the circumstances in which it is performed. In some situations, the supervisor maintains control through review of the work which may include checking progress or reviewing completed work for accuracy, adequacy, and adherence to instructions and established procedures.

2nd Degree

Procedures for doing the work have been established and a number of specific guidelines are available. The supervisor provides continuing or individual assignment by generally indicating which is to be done. The number and similarity of guidelines and work situations requires the employee to locate and select the most appropriate guidelines, references, and procedures for application and in making minor deviations to adapt the guidelines in specific cases or projects.

At this level, the employee may also determine which of several established alternatives to use. Situations to which the existing guidelines cannot be applied or significant proposed deviations from the guidelines are referred to the supervisor. The supervisor assures that finished work and methods used are technically accurate and in compliance with instructions or established procedures. Review of the work increases with more difficult assignments if the employee has not previously performed similar assignments. Requires supervision under standard practices, enabling employee to operate alone on routine work, checking with supervisor when in doubt. The employee receives only general instructions with respect to the details of the assignment and what is to be done, deadlines, priorities, quality and quantity expected in the manner of performance, but the work is subject to a reasonably close check on quantity and quality of output.

Supervisor screens assignments for unusual or difficult problems and selects techniques and procedures to be applied on non-routine work. The employee uses initiative in carrying out recurring assignments independently without specific instruction, but refers deviations, problems, and unfamiliar situations not covered by instructions to the supervisor for decision or help.

3rd Degree

Guidelines are available, but are not completely applicable to the work or have gaps in specificity.

The employee uses judgment in interpreting and adapting guidelines such as agency policies, standard procedures or techniques, regulations, precedents, and work directions for application to specific projects, cases or problems.

Requires general supervision while working toward definite, specific objectives. The employee usually receives only a general outline of work to be performed, priorities and deadlines. Plans and arranges own work, only referring unusual or complex matters to supervisor for advice. The employee may be physically removed from the supervisor and subject to only systematic supervisory checks. Assistance is furnished on unusual problems and work is reviewed for application of sound judgment. The employee plans and carries out the successive steps and handles problems and deviations in the work assignment in accordance with instructions, policies, previous training, or accepted practices in the occupation. Completed work is usually evaluated for technical soundness, appropriateness, and conformity to policy and requirements. The methods used in arriving at the end results are not usually reviewed in detail.

4th Degree

Policies and precedents are applicable but are stated in general terms. Guidelines for performing the work are scarce or of limited use. The employee often deviates from traditional methods or researching trends and patterns to develop new methods, criteria, or proposed new policies.

Requires only direction, working from broad policies and on general objectives. The supervisor sets the overall objectives and resources available. The employee and supervisor, in consultation, develop the deadlines, projects, and work to be done. Refers specific matters to superior only when interpretation of organizational policies is deemed necessary. Independence of action is stressed and work is reviewed primarily through results obtained. Work is periodically checked for progress and conformance to established policies and requirements. At this level, the employee, having developed expertise in the line of work, is responsible for planning and carrying out the assignment; resolving most of the conflicts which arise; coordinating the work with others as necessary; and interpreting policy on own initiative. The employee also determines the approach to be taken and the methods to be used. The employee keeps the supervisor informed of progress, potentially controversial matters, or far-reaching implications. Completed work is reviewed only from an overall standpoint in terms of feasibility, compatibility with other work, or effectiveness in meeting requirements or expected results.

5th Degree

Guidelines are broadly stated and nonspecific, e.g., broad policy statements or basic legislation which require extensive interpretation. Frequently, the employee is recognized as a technical authority in the development and interpretation of guidelines.

Requires administrative direction and has direct responsibility for final results. Emphasizes independence of method and process, and indicates accountability only for results. Assignment of work consists generally of major objectives rather than detailed or specific assignments. The employee has responsibility for planning, designing, and carrying out programs, projects, studies, or other work independently. Supervision is generally received through staff conferences, discussions, and a review of progress reports. Results of the work are considered as technically authoritative and are normally accepted without significant change. If the work should be reviewed, the review concerns such matters as fulfillment of program objectives, effect of advice, influence of the overall program or contribution to the advancement of technology. Recommendations for new projects and alteration of objectives are usually evaluated for such consideration as availability of funds and other resources, broad program goals or priorities.

5. Personal Contacts

This factor measures the responsibility for effective handling of any personal contacts or interactions with persons not in the Supervisory chain. Consideration is given to the frequency, nature or type, importance, the setting in which the contact takes place, and such matters as cooperation, tact, or persuasiveness required to properly fulfill the objectives of the contacts. These contacts may be in person or over the telephone/radio. The type of the contact selected must be the same as the contacts which serve as the basis for the level of purpose selected.

	Type of Contact			
	A	B	C	D
	Contacts are with other individuals in the same department, agency office, project or work unit; and in related or support units.	Has occasional contact with employees in other departments and/or locations who are generally engaged in different functions or kinds of work. May have a few contacts during the month with persons outside the organization or with residents/clients in institutions.	Occasional (less than once/day) contacts with persons outside the organization, with residents/ clients in institutions, and/or frequent contacts at Level B.	Frequent contacts (once/ day or more) with persons outside the organization or with residents/clients in institutions.

Purpose of Contact

1. Contacts usually require only providing simple responses to requests for information and/or giving routine directions or information directly related to the work. The information is usually easily understood.
2. Purpose is to give, receive, or screen established factual information. Normal communication skills required, within a structured relationship.
3. Purpose is to explain or interpret guidelines or instructions, or elicit interpretations or opinions. Requires well-developed communication skills, courtesy, and discretion. Contacts are nonroutine or non-structured but not highly sensitive in nature. Involves more than the exchange of information. May give advice, guidance, and counsel others on basis of facts and issues presented.
4. Purpose is to exchange or disseminate important information requiring careful interpretation of policies and procedures. May make formal presentations, conduct interviews, or negotiate. Importance in discretion, accuracy, and clarity in communication is substantial. May also influence, motivate, convince or change views, including achieving a common understanding or working out solutions.
5. Purpose is to solve problems through discussion or persuasion (e.g., resolves problems and gains cooperation on matters where strong differences of opinion exist). Tact, discretion, and judgment must be exercised to reach an objective and/or maintain goodwill. Extensive diplomacy and skill in dealing with others in an adversary relationship is required. Negotiates critical and controversial issues.

6. Physical Demands

This factor measures the physical effort, strength, stamina and endurance necessary to perform the job under normal conditions; and the fatigue due to the intensity and continuity of the work. Consideration should be given to the work position; the amount of standing, walking, carrying, etc. required; the weight of the materials handled the continuity of effort; and the frequency of physical demands in the course of normal job duties.

1st Degree

The work is sedentary. The employee is normally seated; however, performance of the work provides intermittent sitting, standing and/or walking at will. There may be some light tasks requiring a minimum of tiring, physical effort such as occasional walking, standing, bending, carrying light items such as papers, books, small parts, driving an auto, etc. No special agility or dexterity demands are required to perform the work.

2nd Degree

Light physical effort required in working with lightweight materials and supplies (typically weighing less than 25 lbs.). Occasional operation of machines or equipment resulting in some fatigue. Frequent considerable walking or standing or the employee is physically confined to an area due to equipment demands.

3rd Degree

The work requires moderate physical exertion such as long (almost continuous) periods of standing; walking over rough or uneven surfaces; periodic bending, crouching, stooping, stretching, reaching or similar activities; prolonged repetitive motion of certain parts of the body such as painting walls or stocking items on shelves; periodic lifting or carrying of moderately heavy objects up to 50 pounds such as file boxes, small children or light articles of furniture; operation of heavy equipment or vehicles such as bulldozers, cranes or semi-trailer trucks; frequent lifting of light weight, almost constant or repetitive work of a mechanical or machine nature; occasionally working with others in the lifting or moving of heavyweight objects or materials.

4th Degree

Sustained (almost continuous) physical effort required in working with average weight materials and supplies with continuity of effort or frequently working with moderately moderately heavyweight materials (up to 50 pounds), often involving walking, carrying or climbing, or difficult work positions for sustained periods. Continuous operation of machines or equipment resulting in considerable fatigue. Intermittent periods requiring sustained physical effort are required on a regular basis. Requires the ability to use moderate degrees of strength, stamina and agility. The incumbent may be required to lift and carry heavyweight materials or objects (over 50 pounds), such as kegs of nails, heavier children, patients or institutional residents, or heavy articles of furniture.

7. Mental/Visual Demand

This factor measures the degree of coordination and dexterity of mind, eye, and hand, as applied to job requirements which induce mental fatigue and/or visual strain. This also measures duration required and intensity of such application. It relates to the quantity and concentration of mental alertness and attention demanded not to the degree of intelligence or mental development. Consider also the tediousness of the principle duties of the job. Intense mental concentration is defined as any period of work where the lack of total concentration could result in serious consequences. Visual strain is defined as the effect of work which requires a high degree of close, detail work (i.e., work with CRT). This factor also measures auditory attention, the need to listen very closely. Auditory attention or the requirement to listen intently is also considered as a mental demand or concentration requirement.

1st Degree

Normal mental and/or visual attention in connection with the standard flow of partially repetitious work where continuity is only occasionally interrupted. May require specific, but commonly possessed degrees of agility and dexterity. Occasional or intermittent (up to 10% daily) work requiring an intense level of concentration and/or resulting in visual strain. Such "close" work requires attention to detail as that which would be evidenced by doing mathematical computations, typing at average speed, hand lettering engineering drawings, reading and proofing manuscripts, setting up and/or adjusting machines and equipment to close tolerances, monitoring behavior and attitude patterns of residents and clients. Tasks involve eye/mind coordination that would be prevalent in testing, checking, inspecting and similar tasks.

2nd Degree

Frequent mental and/or visual attention where flow of work and character of duties is repetitive, and the operation requires alertness and concentration. Occasionally, tedious work. Recurring (up to 30% daily), work requiring an intense level of concentration and/or resulting in visual strain as defined in the 2nd degree.

3rd Degree

Concentrated mental and visual attention on largely repetitive operations which must be maintained for sustained periods. Work may require an unusually high degree of agility or dexterity. Significant (30%-60% daily) work requiring an intense level of concentration and/or resulting in visual strain as defined in the 2nd degree; or out of the ordinary requirement for exactness and precision in both layout and execution of specific tasks. Work typical of this level includes adjusting or repairing precision instruments, court reporting on a stenograph machine, preparing freehand artwork, etc.

4th Degree

Intense and exacting mental and visual attention, involving performance of complex or highly variable operations, or constant repetition of a tedious nature. Extremely mentally fatiguing work involving a great deal of strain on the senses. Substantial (over 60% daily) work requiring an intense level of concentration and/or resulting visual strain as defined in the 2nd degree.

8. Supervision Exercised

This factor measures the nature and magnitude of responsibility for supervising subordinates. Consideration is given to the number of people supervised (both directly and indirectly) including volunteers, inmates, patients or institutional residents and the degree of responsibility for supervision in terms of the level(s) of personnel supervised. Consideration should also be given to the type or diversity of employees supervised. Number supervised is defined as the Full-Time Equivalent (FTE) reporting, either directly, or indirectly through subordinate supervisors. Also consider the number and proximity of locations where subordinates are located. Project management where the individual is technically responsible for the final correctness and soundness of the work supervised is also considered.

	Number Supervised					
	A.	B.	C.	D.	E.	F.
Nature of Supervision	None	1-3	4-10	11-49	50-343	More than 343

1. No supervisory responsibility; may explain work instructions to others.

2. Involves general instructing, scheduling, and reviewing the work of others performing the same or directly related work as "working supervisor" or "lead worker" and/or coordinating or overseeing the work of volunteers, inmates or patients. This level involves functional supervision only. As a "Project Supervisor" may be responsible for a phase(s) of a single project responsible for planning and coordinating the work of others. Also includes Advisability/ Informability Exercised*.

3. Involves scheduling, supervision, and evaluation of work of employees who perform homogeneous, integrated work assignments as "first-line supervisor." Recommends personnel actions (hiring, termination, pay changes) of nonsupervisory personnel. This level, and subsequent levels, involve <u>both</u> administrative and functional supervision. As "Project Manager", may direct the activities of subordinate project supervisors to develop plans and to evaluate criteria, progress and results obtained of one <u>or more</u> projects with <u>complex</u> features.

4. Involves scheduling, supervision, and evaluation of work as a "manager" of first-line supervisors (and nonsupervisors if applicable), and/or supervision of a group of workers who perform distinct and separate blocks of work generally related as to purpose, but requiring different processes and methods.

5. Involves scheduling, supervision, and evaluation of work as a superior of "managers." Administers through subordinate managers major departmental multi-function programs or operations.

6. Involves scheduling, supervision, and evaluation of work as a superior of those in level 5.

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* Advisability/Informability Exercised:

A separate point value is provided for positions where there is no direct administrative supervision of staff, but where there is responsibility for providing direction through advice provided. Such advice must be provided in situations where the recipient must use and/or rely upon the advice given in order to fulfill his/her job responsibilities. The advisor is held responsible for the quality of the input and the person(s) advised are held accountable for consequences if advice is not followed.

9. Scope and Effect

This factor measures the relationship between the nature of the work, its purpose, breadth and depth, and the effect of work products or services within and outside the organizational unit. It evaluates the overall significance of the class in terms of its basic purpose and its subsequent impact on departmental/agency goals, objectives and final results. The impact upon the fiscal or major administrative matters of the organization or overall impact upon the operations, activities, and future of the organization, its units, or services is evaluated. It measures such things as whether the work output facilitates the work of others, provides timely services of a personal nature, or impacts on the adequacy of program outcomes. Only the effect of properly performed work is to be considered. Impact can be either direct or indirect. Support and contributory roles are indirect. Jobs which have a direct impact are involved in taking action; jobs which have an indirect impact are involved in helping others to take action.

1st Degree

The work product, output or service is supportive in nature and is required to facilitate the work of others; however, it has little impact beyond the immediate organizational unit or beyond the timely provision of limited services to others.

2nd Degree

Output, product or service provided contributes indirectly to the attainment of organizational goals and objectives through the provision of basic facilitative services to others. The work product or service affects the accuracy, reliability, or acceptability of further processes or services. Completed work has a direct relationship to other important support or related work carried out within the organization.

3rd Degree

Output, product or service provided contributes directly to the attainment of immediate, ongoing goals and objectives, normally on an individual or case-by-case basis. May affect operations, services, individuals or activities, but does not materially influence or effect the long range direction, planning or control of programs, operations or systems. The work product or service affects the design or operation of systems, programs, or equipment; the adequacy of such activities as field investigations, testing operations, or research conclusions; or the social, physical, and economic well-being of persons.

4th Degree

Output, product or service provided has a significant impact on the development of major aspects of program administration. These responsibilities may be shared among individuals or may be a direct responsibility. Influence extends to both short and long range program matters affecting a major division or an organizational component with comparable characteristics and dimensions. The work product or service affects a wide range of agency activities, major activities of industrial concerns, or the operation of other agencies.

5th Degree

Output, product or service provided has a major direct controlling impact on all aspects and phases of major program administration. Decisions and overall influence exerted contribute directly to the image, success and future of the program(s) and have major long-term impact. The work product or service affects the work of other experts, the development of major aspects of administrative or scientific programs or missions, allocation or conservation of significant resources or the well-being of substantial numbers of people.

10. Impact of Errors

This factor measures the likely effect or consequences of potential errors made by an individual in the regular course of the work and the opportunity for making such errors. Such errors may include those of both judgment and fact, or may be due to negligence or failure to follow instructions, procedures, etc. The resulting losses may be in terms of time, money, delays, inefficiencies, damage, lawsuits, organizational prestige or goodwill, operational effectiveness, and employee morale. The factor also specifically measures the degree of responsibility to maintain proper precautions for the safety and welfare of others and the consequences of potential errors in this regard.

1st Degree

Probable errors are easily noticeable or are readily detected by standard check or routine cross-check. Probable consequences would result in only minor confusion. Errors due to carelessness in most instances. Cost of correction is minimal (e.g., small expenses for correcting).

2nd Degree

Probable errors usually detected in succeeding operations where most of the work is verified or checked and generally confined to a single department or phase of operations. Probable consequences may affect the work of others within the unit, but consequence is not of a serious nature. Involves expenditure of time to trace errors and make corrections.

3rd Degree

Errors may be serious. Probable consequences of such errors may cause inaccuracies in reports or records and result in dissemination of inaccurate or incomplete information, or may result in poor quality work product. May result in confusion, money loss, or annoyance. May affect activities based on reports, records, or related recommendations and may, to a limited degree, delay progress of work involved. Would usually be detected before final results became serious and would normally be confined to organizational activities, but could lead to minor discomfort or inconvenience to other staff, clients, or to the public. Work is performed in areas where ordinary care is required in order to provide for or protect the safety and welfare of others. Harm to others such as burns, cuts, burises could occur if established safety precautions are not followed. Consequences of individual carelessness would be relatively minor.

4th Degree

Probable consequence of errors may result in losses in terms of expenditures for materials, minor equipment items or working time or external losses of goodwill or account. Errors would be difficult to detect and would not ordinarily be caught by audit or check. Would typically become apparent through adverse impact on subsequent operations or events. Work has a considerable responsibility for accuracy and results. Errors result largely from poor judgment. Judgments required may result in an adverse effect on relationships outside the organization, progress of clients, substantial discomfort to patients, delay of treatment, substantial inconvenience to the public, disruption of organizational activities or comparable significant adverse impacts. Individuals may have significant risk of personal liability for errors. Work may be performed in areas where special care and alertness is required in order to provide for or protect the safety and welfare of others. Failure to comply with established safety precautions could result in incapacitating injuries to others or even in some circumstances, death. Consequences of individual carelessness would be serious.

5th Degree

Probable consequence of errors may have serious effects in terms of the long-term health and well-being of an individual, significant disruption of operation and services, delays in completion of projects such as those due to lack of coordination effort or in recommendations and decisions that may have an important effect on relationships with the public or on the organizational success and performance of services. Duties may involve the preparation of data on which the top management bases important decisions. Errors in work are not subject to supervisory review or other checking and may result in severe injuries to patients. Potential for permanent injury or loss of life is inherent (i.e., does not necessarily follow prescribed treatment). Work may be performed in areas where extreme care and the highest degree of sustained judgment is necessary to provide for or protect the safety and welfare of others. Job requires constant attention and alertness to prevent severe to total disability to others. Consequences of individual carelessness would be extremely serious.

11. Working Environment

This factor evaluates the conditions under which the job must be done and the extent to which the conditions make the job disagreeable or unpleasant. Consider the intensity, frequency, and continuity of exposure to disagreeable aspects such as heat, cold, rain, snow, dirty or bloody conditions, dust, noxious fumes, unpleasant odors and/or sights, and noises. Exposure to situations which infringe on an individual's personal liberty including travel/work outside of normal workday, which create a social stigma, which involve unpleasant social encounters or hostile or abusive publics, or which restrict an individual's privacy must also be considered. The work environment factor must be inherent in the required job duties and not simply represent a temporary inconvenience.

1st Degree

The work environment is virtually without unpleasant conditions. Not normally exposed to disagreeable element or discomfort (e.g., standard office area with adequate light, heat, ventilation and noise limited to usual sounds of typewriters and other office equipment).

2nd Degree

Fairly good working conditions involving occasional exposure to disagreeable elements or frequent (daily) exposure to one element which is noticeably disagreeable. May occasionally work outside, or alone.

3rd Degree

Somewhat disagreeable working conditions due to periodic exposure to several disagreeable elements or continuous exposure to elements which are particularly disagreeable. (e.g., considerable noise generated by constant machine operations, as is present in machine operations, or work performed in isolation.)

4th Degree

Disagreeable working conditions involving regular continuous exposure to several extremely disagreeable elements.

12. Unavoidable Hazards/Risk

This factor measures the hazards connected with the performance of the job or the extent and seriousness of potential bodily injury that normally exists in performing the job. It is based on the probable occurrence of job related accidents, when safety rules have been followed. Improbable or extraordinary events which may occur are not considered. Although the use of safety precautions can practically eliminate a certain danger or discomfort, such situations place additional demand upon the employee in carrying out safety regulations and techniques.

1st Degree

The work environment involves risks which require normal safety precautions typical of such places as offices, meeting rooms, residences or commercial vehicles. The magnitude of bodily injury resulting from work hazards is small (for example, minor cuts and bruises).

2nd Degree

The work involves moderate risks which require special safety precautions (for example, working around moving parts, carts, machines, or with irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves or shields. The magnitude of bodily injury resulting from work hazards is moderate (for example, injuries requiring professional medical attention such as major cuts and locally serious burns). Health is not seriously affected when injuries occur and there would typically be no significant loss of work time.

3rd Degree

The work involves risk on a regular basis that requirs special safety precautions and which may result in serious and/or permanent injury (for example, loss of a limb, damage requiring surgery, extensive burns). May include exposure to infection or contagious diseases. Health may be temporarily affected when injuries occur.

4th Degree

The work environment occasionally involves risk with exposure to life-threatening situations which require a range of safety and other precautions (for example working at great heights, subject to possible physical attack or mob conditions, riots, explosions, or similar situations where conditions cannot be controlled or anticipated.) May involve work in a minimum security type environment involving regular and occasionally necessary contact with correctional residents, with inflammable explosive materials, or with equipment which may cause serious injury or exposure to health hazards due to occasional contact to contaminated materials. This degree indicates hazardous work where there is the chance of permanent bodily injury and the potential for loss of life resulting from work hazards is a real possibility.

5th Degree

The work environment regularly (daily) involves risk with exposure to life threatening situations. May involve frequent work in a maximum security environment and regular necessary contact with materials or equipment which may cause serious injury or exposure to health hazards. This degree indicates highly hazardous work where the chance of permanent serious bodily injury or the potential for loss of life is relatively great.

13. Work Pace/Pressures and Interruptions

This factor measures the conditions under which the job must be done in terms of the degree to which the employee is able to maintain continuity of work and to plan the scheduling and priority of job tasks in advance. This factor has two dimensions. Work pace refers to the extent that changes in work volume, rush orders, emergencies, imposed changes in priorities of tasks, deadlines and time pressures contribute to difficulty in planning and organizing work activities. Formal deadlines may come from supervisor or from others which are firm set requirements which must be met. Interruptions refers to the extent that the number, duration and nature of uncontrollable interruptions and distractions interfere with the organization and orderly completion of work activities. Note that some jobs (e.g., switchboard operation) are designed specifically to deal with occurrences (telephone calls) which could be interpreted as interruptions. Do not assign credit under this dimension if processing uncontrolled occurrences is a primary purpose of the work.

	Interruptions		
	A	B	C
Work Pace/Pressure	The employee works virtually without distractions or uncontrolled interruptions.	Distractions and interruptions are relatively infrequent (less than daily) and have little impact on the employee's ability to carry on work activities in an orderly manner.	Distractions and interruptions are relatively frequent (daily). They may impede the progress of work to a noticeable degree, or may influence the priorities of tasks to be accomplished (e.g., high priority telephone requests for information).
1. The work seldom varies in scheduling, priorities of tasks, or volume of work to be accomplished. There are no deadlines other than the routine accomplishment of day-to-day assignments. The employee can anticipate the nature and schedule of work activities with a high degree of certainty for periods of weeks or months in advance.			
2. Variations in work volume or changes in priorities of tasks are generally gradual, or can be anticipated (e.g., an annual budget cycle, seasonal changes in work activities or heavy volume on certain days of the week). Project deadlines are relatively few, and sufficient lead time is available to organize work activities to meet these deadlines without undue time pressure. Work can generally be organized so that only one or two tasks or projects have high priority at any one time. The employee can anticipate the nature and schedule of work activities with a high degree of certainty for a number of days in advance, and can anticipate the general pattern of work activities for a period of weeks to months. Receives assignments which exert unusual pressure to complete them, no more than two to three times per month on average.			
3. The volume of work or changes in task priorities change frequently and with short notice. Meeting numerous deadlines with little lead time is an important aspect of the job. Rush orders, emergencies or similar occurrences frequently place the employee under time pressures. Several high priority tasks or projects are generally in progress at any time. The employee generally cannot anticipate the nature and schedule of work activities for more than a day in advance with a high degree of certainty, and cannot anticipate the general pattern of work activities for more than one to two weeks in advance. Regularly given assignments which exert unusual pressure on a daily basis.			

STATE OF IOWA

JOB EVALUATION SYSTEM

FINAL POINT STRUCTURE

Factor	Degree 1	2	3	4	5	6	7	8	Matrix Maximum
1. Knowledge-Education	6	10	17	29	46	77	129	150	150
2. Knowledge-Experience	8	13	22	36	60	100			100
3. Complexity Judgement-Problem Solving	6	10	16	26	43	72	120		120
4. Guideline/Supervisor	6	11	18	30	50				50

5. Personal Contacts

	A	B	C	D	
1.	17	22	28	36	
2.	22	28	36	47	
3.	28	36	47	60	
4.	36	47	60	78	
5.	47	60	78	100	100

6. Physical Demands	11	18	30	50			50
7. Mental Visual	11	18	30	50			50

8. Superv. Exercised

	A	B	C	D	E	F	
1.	0	0	0	0	0	0	
2.	0	(11)	(14)	(17)	(23)	(29)	
3.	0	(14)	(17)	(23)	(29)	(37)	
4.	0	(17)	(23)	(29)	(37)	(48)	
5.	0	(23)	(29)	(37)	(48)	(62)	
6.	0	(29)	(37)	(48)	(62)	(80)	80

9. Scope and Effect	13	22	36	60	100		100
10. Impact Errors	6	11	18	30	50		50
11. Work Environment	11	18	30	50			50
12. Hazards-Risks	6	11	18	30	50		50

13. Pace/Interruptions

	A	B	C	
1.	18	23	30	
2.	23	30	39	
3.	30	39	50	50

APPENDIX E

TRAINING PROGRAM

STATE OF IOWA

COMPARABLE WORTH
JOB EVALUATION TEAM
TRAINING PROGRAM

OUTLINE

Day	Time	Topic	Discussion Leader
Wed.	9:00 a.m.- 9:20 a.m.	Welcome/Introductions/ Opening Remarks	Fran Van Winkle Director (IMED)
	9:20 a.m.-10:15 a.m.	Overview of the Concept and History of Comparable Worth (See Attach. #1)	Cheryl Gross (AY)
	10:15 a.m.-10:30 a.m.	Break	
	10:30 a.m.-11:00 a.m.	History of Comparable Worth in Iowa	Rep. Minnette Doderer
	11:00 a.m.-11:45 a.m.	Overview of Arthur Young Project and Approach to Obtaining Comparable Worth (See Attach. #2)	Jim Nickel (AY)
	11:45 a.m.- 1:00 p.m.	Lunch	
	1:00 p.m.- 4:30 p.m.	Principles of Job Evaluation (See Attach. #3)	Jim Nickel (AY)
Thur.	8:00 a.m.-12:00 p.m.	Dealing with Job Bias in Job Evaluation (See Attach. #4)	Melody Bond (AY)
	12:00 p.m.- 1:00 p.m.	Lunch	
	1:00 p.m.- 4:30 p.m.	Evaluating Job Stress/ Hazardous Working Conditions (See Attach. #5)	Cathy Garlit (AY)
Fri.	8:00 a.m.-11:30 a.m.	Group Dynamics (See Attach. #6)	Melody Bond Cathy Garlit (AY)
	11:30 a.m.-12:30 p.m.	Lunch	
	12:30 p.m.- 4:30 p.m.	Conducting Job Evaluations (See Attach. #7)	Jim Nickel (AY)

Comparable Worth - 45 minutes

This section of the presentation will address sex biased wage discrimination. The focus will be on the history of wage differences and a way to overcome a history of wage discrimination through a Comparable Worth approach.

I. Sex based pay differences

- .59/1.00
- Public perception of "women's" work

II. History of pay differences

- Prior to 1960
- 1963 Equal Pay Act
- 1964 Title VII of the Civil Rights Act

III. Present situation perpetuating .59/1.00

- Job segregation
- Labor market

IV. Comparable Worth

- Skill, effort, responsibility and working conditions
- Point factor plans

Attachment 2

Overview of Arthur Young Project and Approach to Gaining Comparable Worth - 45 minutes

This portion of the training program will describe the planned technical approach being utilized by the AY consulting team in conducting this project.

I. Work Plan/Time Schedule

II. The role of the job evaluation teams in the process

III. An overview of the remainder of the Training Program

Principles of Job Evaluation - 3-1/2 hours

This segment of the training program will familiarize the team members in the basic concepts of job evaluation and how this process works in a general sense.

I. What is Job Evaluation

- Definition
- How does it fit in the overall salary determination process

II. The Four Basic Approaches to Job Evaluation

- Job Ranking
- Classification System
- Factor Comparison
- Point Factor Plan

III. Advantages of a Point Factor Plan

IV. Compensable Factors

- Definition
- Characteristics
- Criteria
- Weighting

V. Applying the Compensable Factors

VI. Limitations to Job Evaluation

VII. Problems with Job Evaluation

DEALING WITH JOB BIAS IN JOB EVALUATION - 4 hours

This section of the seminar will address several ways of bringing attention to the sex bias issue. The focus will be on training those in the position of job evaluation to be sensitive to the traditional sex bias problems.

I. The Need to Overcome Sex Bias and Sex Stereotyping

- Social Changes
- Economic Changes
- Educational Changes
- Employment Changes

II. Sex Bias and the Comparable Worth Issue

- Job Evaluation and Comparable Worth
- Comparable Worth Theory Versus Practice

III. Strategies

- Diagnosing the Problem
- Acquiring Information on Past Practices
- Choosing the Solutions

IV. Techniques

- Reviewing Past Evaluation Practices
- Checklist for Evaluating Sex Fairness
- Getting the Information Out--Bringing Attention to the Sex Bias Problem in Evaluation

EVALUATING JOB STRESS/HAZARDOUS WORKING CONDITIONS - 4 hours

This section of the seminar will focus on the aspects of job stress as it affects the evaluation of positions. This is a very complex area of information which will be dealt with in a very general manner. Although each job has very specific stress factors, an overall approach to considering the job stress/hazardous condition elements will be covered. Measures of job stress will be discussed.

I. What is Job Stress?

- Job Stress Factors
- Hazardous Condition Factors
- Job Burnout Factors

II. How to Evaluate Stress

- Self-Report Measures
- Observer Measures

III. Occupational Stress Differences

- Studies of Health in Various Occupations

IV. Job Stress and Position Evaluation

- Job Stress as a Factor
- Job Stress as a Separate, Exceptional Criteria

V. Evaluating Job Stress as it Relates to Bias

GROUP DYNAMICS - 4 hours

This part of the seminar will address issues related to the interpersonal processes of the Job Analyst/Job Grading Committees. As the members proceed through their tasks of evaluating each position, there may be several issues which could impair the group dynamics and the efficiency of the committees. This portion of the seminar will alert the members to possible slowdowns, and give them suggestions on overcoming these problems to ensure a continuous workflow. The seminar will include a few group exercises to demonstrate these processes.

I. The Nature of Working in Small Groups

- Interpersonal Perception
- Group Motivation
- Goal Orientation
- Interdependent Goals

II. Individuals and the Groups

- Individual Versus Group Performance
- Individual Versus Group Problem-Solving
- Brainstorming of Information
- The Diffusion of Responsibility in Groups

III. The Physical Environment of Groups

- The Importance of Spatial Arrangements
- Leadership and Seating Arrangements
- Communication Networks as they Affect:

  - Organizational development
  - Problem-solving efficiency

IV. The Social Environments of Groups

- Status, Roles and Norms
- Sources of Power
- Group Compatibility and Cohesiveness
- Overcoming Pressures toward Uniformity of Decisions

V. Applying Group Dynamics to the Job Analyst/Job Grading Groups

CONDUCTING JOB EVALUATIONS - 4 hours

This part of the seminar will address the actual process of conducting job evaluations. We intend to acquaint team members with the specific factor job evaluation system to be used in the project; and to explain the specific process to be followed.

I. Introduction to the State of Iowa Merit Employees Job Evaluation Plan

- Explanation of the Factors
- Team Process
- Intergroup Reliability

II. Description of Resources Available to Assist in the Process

- Position Analysis Questionnaires
- Class Specifications
- Interview Notes
- EDP Summary of Evaluation Results

III. Practice Exercise in Conducting a Job Evaluation

APPENDIX F

DISTRIBUTION OF DEGREE ASSIGNMENTS ON EVALUATION FACTORS BY SEX

Attachment 1

TABLE OF GRADE BY SEX

GRADE CW PAY GRADE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
8	1 0.13 33.33 0.56	0 0.00 0.00 0.00	2 0.26 66.67 1.43	3 0.40
9	3 0.40 100.00 1.67	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.40
10	4 0.53 80.00 2.22	0 0.00 0.00 0.00	1 0.13 20.00 0.71	5 0.66
11	7 0.92 87.50 3.89	0 0.00 0.00 0.00	1 0.13 12.50 0.71	8 1.06
12	7 0.92 58.33 3.89	2 0.26 16.67 0.46	3 0.40 25.00 2.14	12 1.58
13	11 1.45 57.89 6.11	5 0.66 26.32 1.14	3 0.40 15.79 2.14	19 2.51
14	16 2.11 84.21 8.89	3 0.40 15.79 0.68	0 0.00 0.00 0.00	19 2.51
15	15 1.98 48.39 8.33	11 1.45 35.48 2.51	5 0.66 16.13 3.57	31 4.09
16	11 1.45 42.31 6.11	11 1.45 42.31 2.51	4 0.53 15.38 2.86	26 3.43
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF GRADE BY SEX

GRADE CW PAY GRADE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
17	10 1.32 50.00 5.56	7 0.92 35.00 1.60	3 0.40 15.00 2.14	20 2.64
18	8 1.06 20.51 4.44	27 3.56 69.23 6.16	4 0.53 10.26 2.86	39 5.15
19	7 0.92 31.82 3.89	10 1.32 45.45 2.28	5 0.66 22.73 3.57	22 2.90
20	11 1.45 33.33 6.11	17 2.24 51.52 3.88	5 0.66 15.15 3.57	33 4.35
21	4 0.53 11.43 2.22	22 2.90 62.86 5.02	9 1.19 25.71 6.43	35 4.62
22	10 1.32 23.81 5.56	21 2.77 50.00 4.79	11 1.45 26.19 7.86	42 5.54
23	5 0.66 15.15 2.78	19 2.51 57.58 4.34	9 1.19 27.27 6.43	33 4.35
24	9 1.19 19.15 5.00	26 3.43 55.32 5.94	12 1.58 25.53 8.57	47 6.20
25	8 1.06 18.60 4.44	29 3.83 67.44 6.62	6 0.79 13.95 4.29	43 5.67
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF GRADE BY SEX

GRADE CW PAY GRADE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
26	5 0.66 10.00 2.78	32 4.22 64.00 7.31	13 1.72 26.00 9.29	50 6.60
27	6 0.79 20.69 3.33	19 2.51 65.52 4.34	4. 0.53 13.79 2.86	29 3.83
28	9 1.19 22.50 5.00	22 2.90 55.00 5.02	9 1.19 22.50 6.43	40 5.28
29	4 0.53 8.33 2.22	31 4.09 64.58 7.08	13 1.72 27.08 9.29	48 6.33
30	4 0.53 12.12 2.22	20 2.64 60.61 4.57	9 1.19 27.27 6.43	33 4.35
31	1 0.13 5.00 0.56	17 2.24 85.00 3.88	2 0.26 10.00 1.43	20 2.64
32	2 0.26 7.14 1.11	22 2.90 78.57 5.02	4 0.53 14.29 2.86	28 3.69
33	1 0.13 5.00 0.56	17 2.24 85.00 3.88	2 0.26 10.00 1.43	20 2.64
34	0 0.00 0.00 0.00	16 2.11 100.00 3.65	0 0.00 0.00 0.00	16 2.11
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF GRADE BY SEX

GRADE CW PAY GRADE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
35	0 0.00 0.00 0.00	7 0.92 100.00 1.60	0 0.00 0.00 0.00	7 0.92
36	0 0.00 0.00 0.00	9 1.19 100.00 2.05	0 0.00 0.00 0.00	9 1.19
37	0 0.00 0.00 0.00	5 0.66 100.00 1.14	0 0.00 0.00 0.00	5 0.66
38	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
39	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
40	1 0.13 14.29 0.56	5 0.66 71.43 1.14	1 0.13 14.29 0.71	7 0.92
42	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
46	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF KNOWED BY SEX

KNOWED KNOWLEDGE-EDUCATION SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	3 0.40 30.00 1.67	4 0.53 40.00 0.91	3 0.40 30.00 2.14	10 1.32
2	38 5.01 48.72 21.11	29 3.83 37.18 6.62	11 1.45 14.10 7.86	78 10.29
3	43 5.67 28.29 23.89	80 10.55 52.63 18.26	29 3.83 19.08 20.71	152 20.05
4	34 4.49 24.29 18.89	93 12.27 66.43 21.23	13 1.72 9.29 9.29	140 18.47
5	8 1.06 14.55 4.44	37 4.88 67.27 8.45	10 1.32 18.18 7.14	55 7.26
6	52 6.86 18.44 28.89	163 21.50 57.80 37.21	67 8.84 23.76 47.86	282 37.20
7	1 0.13 5.56 0.56	15 1.98 83.33 3.42	2 0.26 11.11 1.43	18 2.37
8	1 0.13 4.35 0.56	17 2.24 73.91 3.88	5 0.66 21.74 3.57	23 3.03
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF KNOWEX BY SEX

KNOWEX KNOWLEDGE-EXPERIENCE SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
1	11	10	8	29
	1.45	1.32	1.06	3.83
	37.93	34.48	27.59	
	6.11	2.28	5.71	
2	44	35	22	101
	5.80	4.62	2.90	13.32
	43.56	34.65	21.78	
	24.44	7.99	15.71	
3	54	82	35	171
	7.12	10.82	4.62	22.56
	31.58	47.95	20.47	
	30.00	18.72	25.00	
4	56	153	50	259
	7.39	20.18	6.60	34.17
	21.62	59.07	19.31	
	31.11	34.93	35.71	
5	14	126	24	164
	1.85	16.62	3.17	21.64
	8.54	76.83	14.63	
	7.78	28.77	17.14	
6	1	32	1	34
	0.13	4.22	0.13	4.49
	2.94	94.12	2.94	
	0.56	7.31	0.71	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF COMPLEX BY SEX

COMPLEX COMPLEXITY SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	16 2.11 44.44 8.89	14 1.85 38.89 3.20	6 0.79 16.67 4.29	36 4.75
2	72 9.50 47.68 40.00	59 7.78 39.07 13.47	20 2.64 13.25 14.29	151 19.92
3	50 6.60 21.10 27.78	140 18.47 59.07 31.96	47 6.20 19.83 33.57	237 31.27
4	27 3.56 14.75 15.00	114 15.04 62.30 26.03	42 5.54 22.95 30.00	183 24.14
5	14 1.85 11.57 7.78	84 11.08 69.42 19.18	23 3.03 19.01 16.43	121 15.96
6	0 0.00 0.00 0.00	18 2.37 90.00 4.11	2 0.26 10.00 1.43	20 2.64
7	1 0.13 10.00 0.56	9 1.19 90.00 2.05	0 0.00 0.00 0.00	10 1.32
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF GUIDE BY SEX

GUIDE GUIDELINES SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	42	30	13	85
	5.54	3.96	1.72	11.21
	49.41	35.29	15.29	
	23.33	6.85	9.29	
2	67	99	38	204
	8.84	13.06	5.01	26.91
	32.84	48.53	18.63	
	37.22	22.60	27.14	
3	53	188	70	311
	6.99	24.80	9.23	41.03
	17.04	60.45	22.51	
	29.44	42.92	50.00	
4	15	103	18	136
	1.98	13.59	2.37	17.94
	11.03	75.74	13.24	
	8.33	23.52	12.86	
5	3	18	1	22
	0.40	2.37	0.13	2.90
	13.64	81.82	4.55	
	1.67	4.11	0.71	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF CONPUR BY SEX

CONPUR PERSONAL CONTACTS-PURPOSE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	51	76	14	141
	6.73	10.03	1.85	18.60
	36.17	53.90	9.93	
	28.33	17.35	10.00	
2	59	111	44	214
	7.78	14.64	5.80	28.23
	27.57	51.87	20.56	
	32.78	25.34	31.43	
3	55	165	63	283
	7.26	21.77	8.31	37.34
	19.43	58.30	22.26	
	30.56	37.67	45.00	
4	14	78	19	111
	1.85	10.29	2.51	14.64
	12.61	70.27	17.12	
	7.78	17.81	13.57	
5	1	8	0	9
	0.13	1.06	0.00	1.19
	11.11	88.89	0.00	
	0.56	1.83	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF CONTYPE BY SEX

CONTYPE PERSONAL CONTACTS-TYPE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	12 1.58 23.08 6.67	32 4.22 61.54 7.31	8 1.06 15.38 5.71	52 6.86
2	19 2.51 16.24 10.56	69 9.10 58.97 15.75	29 3.83 24.79 20.71	117 15.44
3	52 6.86 26.26 28.89	114 15.04 57.58 26.03	32 4.22 16.16 22.86	198 26.12
4	97 12.80 24.81 53.89	223 29.42 57.03 50.91	71 9.37 18.16 50.71	391 51.58
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF PHYS BY SEX

PHYS PHYSICAL DEMANDS SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	87	212	94	393
	11.48	27.97	12.40	51.85
	22.14	53.94	23.92	
	48.33	48.40	67.14	
2	61	117	32	210
	8.05	15.44	4.22	27.70
	29.05	55.71	15.24	
	33.89	26.71	22.86	
3	26	82	12	120
	3.43	10.82	1.58	15.83
	21.67	68.33	10.00	
	14.44	18.72	8.57	
4	6	27	2	35
	0.79	3.56	0.26	4.62
	17.14	77.14	5.71	
	3.33	6.16	1.43	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF MENT BY SEX

MENT MENTAL & VISUAL DEMANDS SEX

MENT FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
2	140	392	109	641
	18.47	51.72	14.38	84.56
	21.84	61.15	17.00	
	77.78	89.50	77.86	
3	31	36	25	92
	4.09	4.75	3.30	12.14
	33.70	39.13	27.17	
	17.22	8.22	17.86	
4	5	9	6	20
	0.66	1.19	0.79	2.64
	25.00	45.00	30.00	
	2.78	2.05	4.29	
5	4	1	0	5
	0.53	0.13	0.00	0.66
	80.00	20.00	0.00	
	2.22	0.23	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF SUPNAT BY SEX

SUPNAT SUPERVISION-NATURE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	113 14.91 29.97 62.78	178 23.48 47.21 40.64	86 11.35 22.81 61.43	377 49.74
2	31 4.09 22.96 17.22	88 11.61 65.19 20.09	16 2.11 11.85 11.43	135 17.81
3	28 3.69 16.37 15.56	114 15.04 66.67 26.03	29 3.83 16.96 20.71	171 22.56
4	6 0.79 12.24 3.33	36 4.75 73.47 8.22	7 0.92 14.29 5.00	49 6.46
5	2 0.26 13.33 1.11	11 1.45 73.33 2.51	2 0.26 13.33 1.43	15 1.98
6	0 0.00 0.00 0.00	11 1.45 100.00 2.51	0 0.00 0.00 0.00	11 1.45
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF SUPNUM BY SEX

SUPNUM SUPERVISION-NUMBER SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	113	176	86	375
	14.91	23.22	11.35	49.47
	30.13	46.93	22.93	
	62.78	40.18	61.43	
2	20	81	19	120
	2.64	10.69	2.51	15.83
	16.67	67.50	15.83	
	11.11	18.49	13.57	
3	28	83	19	130
	3.69	10.95	2.51	17.15
	21.54	63.85	14.62	
	15.56	18.95	13.57	
4	12	74	14	100
	1.58	9.76	1.85	13.19
	12.00	74.00	14.00	
	6.67	16.89	10.00	
5	6	22	2	30
	0.79	2.90	0.26	3.96
	20.00	73.33	6.67	
	3.33	5.02	1.43	
6	1	2	0	3
	0.13	0.26	0.00	0.40
	33.33	66.67	0.00	
	0.56	0.46	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF SCOPE BY SEX

SCOPE SCOPE & EFFECT SEX

SCOPE FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	50	64	19	133
	6.60	8.44	2.51	17.55
	37.59	48.12	14.29	
	27.78	14.61	13.57	
2	73	104	50	227
	9.63	13.72	6.60	29.95
	32.16	45.81	22.03	
	40.56	23.74	35.71	
3	45	178	61	284
	5.94	23.48	8.05	37.47
	15.85	62.68	21.48	
	25.00	40.64	43.57	
4	11	73	9	93
	1.45	9.63	1.19	12.27
	11.83	78.49	9.68	
	6.11	16.67	6.43	
5	1	19	1	21
	0.13	2.51	0.13	2.77
	4.76	90.48	4.76	
	0.56	4.34	0.71	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF ERRORS BY SEX

ERRORS IMPACT OF ERRORS SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	39 5.15 49.37 21.67	27 3.56 34.18 6.16	13 1.72 16.46 9.29	79 10.42
2	66 8.71 35.11 36.67	91 12.01 48.40 20.78	31 4.09 16.49 22.14	188 24.80
3	64 8.44 20.25 35.56	179 23.61 56.65 40.87	73 9.63 23.10 52.14	316 41.69
4	10 1.32 6.62 5.56	119 15.70 78.81 27.17	22 2.90 14.57 15.71	151 19.92
5	1 0.13 4.17 0.56	22 2.90 91.67 5.02	1 0.13 4.17 0.71	24 3.17
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF ENVIR BY SEX

ENVIR WORK ENVIRONMENT SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	86 11.35 25.52 47.78	169 22.30 50.15 38.58	82 10.82 24.33 58.57	337 44.46
2	78 10.29 26.80 43.33	159 20.98 54.64 36.30	54 7.12 18.56 38.57	291 38.39
3	16 2.11 13.11 8.89	102 13.46 83.61 23.29	4 0.53 3.28 2.86	122 16.09
4	0 0.00 0.00 0.00	8 1.06 100.00 1.83	0 0.00 0.00 0.00	8 1.06
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF HAZ BY SEX

HAZ HAZARDS & RISKS SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	116	210	109	435
	15.30	27.70	14.38	57.39
	26.67	48.28	25.06	
	64.44	47.95	77.86	
2	48	162	25	235
	6.33	21.37	3.30	31.00
	20.43	68.94	10.64	
	26.67	36.99	17.86	
3	15	39	5	59
	1.98	5.15	0.66	7.78
	25.42	66.10	8.47	
	8.33	8.90	3.57	
4	1	23	1	25
	0.13	3.03	0.13	3.30
	4.00	92.00	4.00	
	0.56	5.25	0.71	
5	0	4	0	4
	0.00	0.53	0.00	0.53
	0.00	100.00	0.00	
	0.00	0.91	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF WKPACE BY SEX

WKPACE WORK CONDITIONS-PACE SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	50 6.60 38.76 27.78	62 8.18 48.06 14.16	17 2.24 13.18 12.14	129 17.02
2	119 15.70 22.04 66.11	321 42.35 59.44 73.29	100 13.19 18.52 71.43	540 71.24
3	11 1.45 12.36 6.11	55 7.26 61.80 12.56	23 3.03 25.84 16.43	89 11.74
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF WKINTER BY SEX

WKINTER WORK CONDITIONS-INTERRUPTIONS SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
1	39 5.15 35.14 21.67	58 7.65 52.25 13.24	14 1.85 12.61 10.00	111 14.64
2	113 14.91 23.16 62.78	278 36.68 56.97 63.47	97 12.80 19.88 69.29	488 64.38
3	28 3.69 17.61 15.56	102 13.46 64.15 23.29	29 3.83 18.24 20.71	159 20.98
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

APPENDIX G

SUMMARY STATISTICS FOR DEGREES BY SEX

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
KNOWED	KNOWLEDGE-EDUCATION	758	4.56	1.64	1.00	8.00
KNOWEX	KNOWLEDGE-EXPERIENCE	758	3.70	1.19	1.00	6.00
COMPLEX	COMPLEXITY	758	3.40	1.25	1.00	7.00
GUIDE	GUIDELINES	758	2.74	0.97	1.00	5.00
CONPUR	PERSONAL CONTACTS-PURPOSE	758	2.52	0.99	1.00	5.00
CONTYPE	PERSONAL CONTACTS-TYPE	758	3.22	0.95	1.00	4.00
PHYS	PHYSICAL DEMANDS	758	1.73	0.89	1.00	4.00
MENT	MENTAL & VISUAL DEMANDS	758	2.19	0.50	2.00	5.00
SUPNAT	SUPERVISION-NATURE	758	1.97	1.18	1.00	6.00
SUPNUM	SUPERVISION-NUMBER	758	2.08	1.27	1.00	6.00
SCOPE	SCOPE & EFFECT	758	2.53	1.01	1.00	5.00
ERRORS	IMPACT OF ERRORS	758	2.81	0.98	1.00	5.00
ENVIR	WORK ENVIRONMENT	758	1.74	0.76	1.00	4.00
HAZ	HAZARDS & RISKS	758	1.59	0.81	1.00	5.00
WKPACE	WORK CONDITIONS-PACE	758	1.95	0.53	1.00	3.00
WKINTER	WORK CONDITIONS-INTERRUPTIONS	758	2.06	0.59	1.00	3.00

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=F					
KNOWED	KNOWLEDGE-EDUCATION	180	3.95	1.61	1.00	8.00
KNOWEX	KNOWLEDGE-EXPERIENCE	180	3.12	1.07	1.00	6.00
COMPLEX	COMPLEXITY	180	2.75	1.12	1.00	7.00
GUIDE	GUIDELINES	180	2.28	0.97	1.00	5.00
CONPUR	PERSONAL CONTACTS-PURPOSE	180	2.19	0.96	1.00	5.00
CONTYPE	PERSONAL CONTACTS-TYPE	180	3.30	0.91	1.00	4.00
PHYS	PHYSICAL DEMANDS	180	1.73	0.83	1.00	4.00
MENT	MENTAL & VISUAL DEMANDS	180	2.29	0.63	2.00	5.00
SUPNAT	SUPERVISION-NATURE	180	1.63	0.94	1.00	5.00
SUPNUM	SUPERVISION-NUMBER	180	1.78	1.18	1.00	6.00
SCOPE	SCOPE & EFFECT	180	2.11	0.90	1.00	5.00
ERRORS	IMPACT OF ERRORS	180	2.27	0.88	1.00	5.00
ENVIR	WORK ENVIRONMENT	180	1.61	0.65	1.00	3.00
HAZ	HAZARDS & RISKS	180	1.45	0.67	1.00	4.00
WKPACE	WORK CONDITIONS-PACE	180	1.78	0.54	1.00	3.00
WKINTER	WORK CONDITIONS-INTERRUPTIONS	180	1.94	0.61	1.00	3.00
	SEX=M					
KNOWED	KNOWLEDGE-EDUCATION	438	4.74	1.58	1.00	8.00
KNOWEX	KNOWLEDGE-EXPERIENCE	438	4.02	1.14	1.00	6.00
COMPLEX	COMPLEXITY	438	3.65	1.25	1.00	7.00
GUIDE	GUIDELINES	438	2.95	0.95	1.00	5.00
CONPUR	PERSONAL CONTACTS-PURPOSE	438	2.61	1.03	1.00	5.00
CONTYPE	PERSONAL CONTACTS-TYPE	438	3.21	0.96	1.00	4.00
PHYS	PHYSICAL DEMANDS	438	1.83	0.94	1.00	4.00
MENT	MENTAL & VISUAL DEMANDS	438	2.13	0.41	2.00	5.00
SUPNAT	SUPERVISION-NATURE	438	2.19	1.26	1.00	6.00
SUPNUM	SUPERVISION-NUMBER	438	2.29	1.31	1.00	6.00
SCOPE	SCOPE & EFFECT	438	2.72	1.04	1.00	5.00
ERRORS	IMPACT OF ERRORS	438	3.04	0.96	1.00	5.00
ENVIR	WORK ENVIRONMENT	438	1.88	0.82	1.00	4.00
HAZ	HAZARDS & RISKS	438	1.74	0.89	1.00	5.00
WKPACE	WORK CONDITIONS-PACE	438	1.98	0.52	1.00	3.00
WKINTER	WORK CONDITIONS-INTERRUPTIONS	438	2.10	0.60	1.00	3.00

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
SEX=X						
KNOWED	KNOWLEDGE-EDUCATION	140	4.79	1.67	1.00	8.00
KNOWEX	KNOWLEDGE-EXPERIENCE	140	3.45	1.14	1.00	6.00
COMPLEX	COMPLEXITY	140	3.44	1.10	1.00	6.00
GUIDE	GUIDELINES	140	2.69	0.84	1.00	5.00
CONPUR	PERSONAL CONTACTS-PURPOSE	140	2.62	0.84	1.00	4.00
CONTYPE	PERSONAL CONTACTS-TYPE	140	3.19	0.96	1.00	4.00
PHYS	PHYSICAL DEMANDS	140	1.44	0.71	1.00	4.00
MENT	MENTAL & VISUAL DEMANDS	140	2.26	0.53	2.00	4.00
SUPNAT	SUPERVISION-NATURE	140	1.74	1.04	1.00	5.00
SUPNUM	SUPERVISION-NUMBER	140	1.76	1.11	1.00	5.00
SCOPE	SCOPE & EFFECT	140	2.45	0.83	1.00	5.00
ERRORS	IMPACT OF ERRORS	140	2.76	0.85	1.00	5.00
ENVIR	WORK ENVIRONMENT	140	1.44	0.55	1.00	3.00
HAZ	HAZARDS & RISKS	140	1.27	0.56	1.00	4.00
WKPACE	WORK CONDITIONS-PACE	140	2.04	0.53	1.00	3.00
WKINTER	WORK CONDITIONS-INTERRUPTIONS	140	2.11	0.55	1.00	3.00

APPENDIX H

REGRESSION ANALYSIS FOR EVALUATION FACTORS

DEP VARIABLE: GRADE CW PAY GRADE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	17	31450.694	1850.041	579.925	0.0001
ERROR	740	2360.704	3.190140		
C TOTAL	757	33811.398			

ROOT MSE	1.786096	R-SQUARE	0.9302
DEP MEAN	23.812665	ADJ R-SQ	0.9286
C.V.	7.500615		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	3.888090	0.711787	5.462	0.0001	0.000000	INTERCEPT
KNOWED	1	1.162385	0.074167	15.673	0.0001	0.284569	KNOWLEDGE-EDUCATION
KNOWEX	1	0.920129	0.095969	9.588	0.0001	0.163488	KNOWLEDGE-EXPERIENCE
COMPLEX	1	1.013224	0.130641	7.756	0.0001	0.189419	COMPLEXITY
GUIDE	1	0.496364	0.148408	3.345	0.0009	0.072350	GUIDELINES
CONPUR	1	0.757288	0.120671	6.276	0.0001	0.112585	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-0.029860	0.082711	-0.361	0.7182	-0.004228	PERSONAL CONTACTS-TYPE
PHYS	1	-0.024532	0.123518	-0.199	0.8426	-0.003264	PHYSICAL DEMANDS
MENT	1	0.435594	0.140878	3.092	0.0021	0.032523	MENTAL & VISUAL DEMANDS
SUPNAT	1	0.115504	0.144035	0.802	0.4229	0.020398	SUPERVISION-NATURE
SUPNUM	1	0.093963	0.127972	0.734	0.4630	0.017839	SUPERVISION-NUMBER
SCOPE	1	0.724446	0.141297	5.127	0.0001	0.109106	SCOPE & EFFECT
ERRORS	1	0.769398	0.129817	5.927	0.0001	0.112470	IMPACT OF ERRORS
ENVIR	1	-0.027558	0.132579	-0.208	0.8354	-0.003139	WORK ENVIRONMENT
HAZ	1	0.035031	0.111904	0.313	0.7543	0.004260	HAZARDS & RISKS
WKPACE	1	0.047199	0.151755	0.311	0.7559	0.003772	WORK CONDITIONS-PACE
WKINTER	1	-0.00105491	0.131301	-0.008	0.9936	-0.000094	WORK CONDITIONS-INTERRUPTIONS
PERWOMEN	1	-0.024526	0.002002136	-12.250	0.0001	-0.141126	PERCENT OF FEMALE INCUMBENTS

DEP VARIABLE: GRADE CW PAY GRADE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	30971.967	1935.748	505.168	0.0001
ERROR	741	2839.431	3.831891		
C TOTAL	757	33811.398			

ROOT MSE	1.957522	R-SQUARE	0.9160
DEP MEAN	23.812665	ADJ R-SQ	0.9142
C.V.	8.220507		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	1.440632	0.748742	1.924	0.0547	0.000000	INTERCEPT
KNOWED	1	1.203592	0.081201	14.822	0.0001	0.294657	KNOWLEDGE-EDUCATION
KNOWEX	1	1.086223	0.104125	10.432	0.0001	0.192999	KNOWLEDGE-EXPERIENCE
COMPLEX	1	1.126040	0.142824	7.884	0.0001	0.210510	COMPLEXITY
GUIDE	1	0.676521	0.161852	4.180	0.0001	0.098609	GUIDELINES
CONPUR	1	0.641133	0.131844	4.863	0.0001	0.095316	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-0.126443	0.090236	-1.401	0.1616	-0.017904	PERSONAL CONTACTS-TYPE
PHYS	1	0.163863	0.134320	1.220	0.2229	0.021804	PHYSICAL DEMANDS
MENT	1	0.251409	0.153517	1.638	0.1019	0.018771	MENTAL & VISUAL DEMANDS
SUPNAT	1	0.181260	0.157750	1.149	0.2509	0.032011	SUPERVISION-NATURE
SUPNUM	1	0.005064834	0.140029	0.036	0.9712	0.000962	SUPERVISION-NUMBER
SCOPE	1	0.723191	0.154859	4.670	0.0001	0.108917	SCOPE & EFFECT
ERRORS	1	0.925442	0.141590	6.536	0.0001	0.135280	IMPACT OF ERRORS
ENVIR	1	0.214315	0.143683	1.492	0.1362	0.024414	WORK ENVIRONMENT
HAZ	1	0.101398	0.122500	0.828	0.4081	0.012330	HAZARDS & RISKS
WKPACE	1	-0.027285	0.166187	-0.164	0.8696	-0.002180	WORK CONDITIONS-PACE
WKINTER	1	-0.065804	0.143787	-0.458	0.6473	-0.005847	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: GRADE CW PAY GRADE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	6229.078	389.317	114.443	0.0001
ERROR	163	554.500	3.401841		
C TOTAL	179	6783.578			

ROOT MSE	1.844408	R-SQUARE	0.9183
DEP MEAN	19.188889	ADJ R-SQ	0.9102
C.V.	9.611854		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	4.831253	1.404515	3.440	0.0007	0.000000	INTERCEPT
KNOWED	1	1.194131	0.199252	5.993	0.0001	0.311818	KNOWLEDGE-EDUCATION
KNOWEX	1	0.661594	0.219579	3.013	0.0030	0.115445	KNOWLEDGE-EXPERIENCE
COMPLEX	1	0.891334	0.314594	2.833	0.0052	0.161880	COMPLEXITY
GUIDE	1	0.786236	0.332865	2.362	0.0194	0.123772	GUIDELINES
CONPUR	1	0.936586	0.301611	3.105	0.0022	0.145713	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-0.356086	0.181961	-1.957	0.0521	-0.052561	PERSONAL CONTACTS-TYPE
PHYS	1	0.062630	0.262821	0.238	0.8119	0.008456	PHYSICAL DEMANDS
MENT	1	-0.216331	0.261764	-0.826	0.4098	-0.022193	MENTAL & VISUAL DEMANDS
SUPNAT	1	-0.217592	0.362692	-0.600	0.5494	-0.033214	SUPERVISION-NATURE
SUPNUM	1	0.458140	0.275915	1.660	0.0987	0.088047	SUPERVISION-NUMBER
SCOPE	1	1.087196	0.352057	3.088	0.0024	0.159376	SCOPE & EFFECT
ERRORS	1	0.713913	0.303083	2.356	0.0197	0.102267	IMPACT OF ERRORS
ENVIR	1	0.293907	0.320685	0.916	0.3608	0.030858	WORK ENVIRONMENT
HAZ	1	-0.388326	0.304989	-1.273	0.2047	-0.042316	HAZARDS & RISKS
WKPACE	1	-0.147513	0.311526	-0.474	0.6365	-0.012983	WORK CONDITIONS-PACE
WKINTER	1	-0.607997	0.272044	-2.235	0.0268	-0.060120	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: GRADE CW PAY GRADE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	15465.959	966.622	302.305	0.0001
ERROR	421	1346.150	3.197506		
C TOTAL	437	16812.110			

ROOT MSE	1.788157	R-SQUARE	0.9199
DEP MEAN	25.821918	ADJ R-SQ	0.9169
C.V.	6.924959		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	2.407602	0.977810	2.462	0.0142	0.000000	INTERCEPT
KNOWED	1	1.225268	0.099544	12.309	0.0001	0.311320	KNOWLEDGE-EDUCATION
KNOWEX	1	1.098329	0.129142	8.505	0.0001	0.201499	KNOWLEDGE-EXPERIENCE
COMPLEX	1	0.949918	0.168482	5.638	0.0001	0.191821	COMPLEXITY
GUIDE	1	0.117224	0.203314	0.577	0.5645	0.017925	GUIDELINES
CONPUR	1	0.545746	0.156197	3.494	0.0005	0.090253	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	0.228191	0.117336	1.945	0.0525	0.035264	PERSONAL CONTACTS-TYPE
PHYS	1	0.019247	0.170640	0.113	0.9103	0.002927	PHYSICAL DEMANDS
MENT	1	0.804209	0.219972	3.656	0.0003	0.053204	MENTAL & VISUAL DEMANDS
SUPNAT	1	0.364550	0.176837	2.061	0.0399	0.074094	SUPERVISION-NATURE
SUPNUM	1	-0.098601	0.161589	-0.610	0.5421	-0.020784	SUPERVISION-NUMBER
SCOPE	1	0.873125	0.180049	4.849	0.0001	0.146850	SCOPE & EFFECT
ERRORS	1	0.714873	0.167767	4.261	0.0001	0.110990	IMPACT OF ERRORS
ENVIR	1	-0.134130	0.175461	-0.764	0.4450	-0.017829	WORK ENVIRONMENT
HAZ	1	0.163687	0.133291	1.228	0.2201	0.023545	HAZARDS & RISKS
WKPACE	1	-0.146814	0.209218	-0.702	0.4832	-0.012242	WORK CONDITIONS-PACE
WKINTER	1	0.285838	0.175031	1.633	0.1032	0.027497	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: GRADE CW PAY GRADE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	4310.023	269.376	121.429	0.0001
ERROR	123	272.862	2.218392		
C TOTAL	139	4582.886			

ROOT MSE	1.489427	R-SQUARE	0.9405
DEP MEAN	23.471429	ADJ R-SQ	0.9327
C.V.	6.345701		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	1.838716	1.382454	1.330	0.1860	0.000000	INTERCEPT
KNOWED	1	0.974835	0.139359	6.995	0.0001	0.284220	KNOWLEDGE-EDUCATION
KNOWEX	1	0.833235	0.184355	4.520	0.0001	0.165431	KNOWLEDGE-EXPERIENCE
COMPLEX	1	1.483152	0.290924	5.098	0.0001	0.284427	COMPLEXITY
GUIDE	1	0.883744	0.298976	2.956	0.0037	0.129345	GUIDELINES
CONPUR	1	0.696115	0.250790	2.776	0.0064	0.102279	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-0.214061	0.156793	-1.365	0.1747	-0.035658	PERSONAL CONTACTS-TYPE
PHYS	1	0.225488	0.256372	0.880	0.3808	0.027976	PHYSICAL DEMANDS
MENT	1	0.728309	0.277462	2.625	0.0098	0.067376	MENTAL & VISUAL DEMANDS
SUPNAT	1	0.602438	0.364741	1.652	0.1011	0.109433	SUPERVISION-NATURE
SUPNUM	1	-0.416073	0.336232	-1.237	0.2183	-0.080423	SUPERVISION-NUMBER
SCOPE	1	0.186348	0.290628	0.641	0.5226	0.027062	SCOPE & EFFECT
ERRORS	1	1.239604	0.286296	4.330	0.0001	0.184225	IMPACT OF ERRORS
ENVIR	1	0.122778	0.291775	0.421	0.6746	0.011829	WORK ENVIRONMENT
HAZ	1	-0.545474	0.300635	-1.814	0.0721	-0.053257	HAZARDS & RISKS
WKPACE	1	0.007833152	0.318122	0.025	0.9804	0.000729	WORK CONDITIONS-PACE
WKINTER	1	-0.094300	0.294184	-0.321	0.7491	-0.008962	WORK CONDITIONS-INTERRUPTIONS

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWED	758	4.56332454	1.63614249	3459.00000000	1.00000000	8.00000000
KNOWEX	758	3.69920844	1.18746176	2804.00000000	1.00000000	6.00000000
COMPLEX	758	3.39841689	1.24940044	2576.00000000	1.00000000	7.00000000
GUIDE	758	2.74406332	0.97413599	2080.00000000	1.00000000	5.00000000
CONPUR	758	2.51583113	0.99357914	1907.00000000	1.00000000	5.00000000
CONTYPE	758	3.22427441	0.94629455	2444.00000000	1.00000000	4.00000000
PHYS	758	1.73218997	0.88926859	1313.00000000	1.00000000	4.00000000
MENT	758	2.19393140	0.49899779	1663.00000000	2.00000000	5.00000000
SUPNAT	758	1.97493404	1.18026694	1497.00000000	1.00000000	6.00000000
SUPNUM	758	2.07519789	1.26882846	1573.00000000	1.00000000	6.00000000
SCOPE	758	2.52770449	1.00652968	1916.00000000	1.00000000	5.00000000
ERRORS	758	2.80606860	0.97694161	2127.00000000	1.00000000	5.00000000
ENVIR	758	1.73746702	0.76131356	1317.00000000	1.00000000	4.00000000
HAZ	758	1.58575198	0.81265269	1202.00000000	1.00000000	5.00000000
WKPACE	758	1.94722955	0.53403227	1476.00000000	1.00000000	3.00000000
WKINTER	758	2.06332454	0.59384828	1564.00000000	1.00000000	3.00000000
PERWOMEN	758	33.50290237	38.45544616	25395.20000000	0	100.00000000
GRADE	758	23.81266491	6.68318721	18050.00000000	8.00000000	46.00000000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 758

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR
GRADE	0.80024	0.73612	0.90138	0.85844	0.78466	0.29135	-0.53746	-0.16299	0.54703	0.47103	0.84579	0.82902	-0.30592
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

	HAZ	WKPACE	WKINTER	PERWOMEN
GRADE	-0.17946	0.48728	0.43303	-0.41542
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWED	180	3.95000000	1.60750683	711.00000000	1.00000000	8.00000000
KNOWEX	180	3.11666667	1.07420232	561.00000000	1.00000000	6.00000000
COMPLEX	180	2.75000000	1.11803399	495.00000000	1.00000000	7.00000000
GUIDE	180	2.27777778	0.96910692	410.00000000	1.00000000	5.00000000
CONPUR	180	2.19444444	0.95775122	395.00000000	1.00000000	5.00000000
CONTYPE	180	3.30000000	0.90867944	594.00000000	1.00000000	4.00000000
PHYS	180	1.72777778	0.83117038	311.00000000	1.00000000	4.00000000
MENT	180	2.29444444	0.63154703	413.00000000	2.00000000	5.00000000
SUPNAT	180	1.62777778	0.93969302	293.00000000	1.00000000	5.00000000
SUPNUM	180	1.78333333	1.18309791	321.00000000	1.00000000	6.00000000
SCOPE	180	2.11111111	0.90244168	380.00000000	1.00000000	5.00000000
ERRORS	180	2.26666667	0.88184672	408.00000000	1.00000000	5.00000000
ENVIR	180	1.61111111	0.64633811	290.00000000	1.00000000	3.00000000
HAZ	180	1.45000000	0.67082039	261.00000000	1.00000000	4.00000000
WKPACE	180	1.78333333	0.54182600	321.00000000	1.00000000	3.00000000
WKINTER	180	1.93888889	0.60872510	349.00000000	1.00000000	3.00000000
GRADE	180	19.18888889	6.15606064	3454.00000000	8.00000000	40.00000000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 180

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR
GRADE	0.84720	0.65391	0.89651	0.86109	0.83609	0.17357	-0.42881	-0.28022	0.43039	0.39454	0.86806	0.80056	-0.03619
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0198	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.6295

	HAZ	WKPACE	WKINTER
GRADE	0.00636	0.40594	0.37282
CW PAY GRADE	0.9325	0.0001	0.0001

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWED	438	4.74429224	1.57596415	2078.00000000	1.00000000	8.00000000
KNOWEX	438	4.01826484	1.13791922	1760.00000000	1.00000000	6.00000000
COMPLEX	438	3.65068493	1.25250759	1599.00000000	1.00000000	7.00000000
GUIDE	438	2.95433790	0.94842608	1294.00000000	1.00000000	5.00000000
CONPUR	438	2.61415525	1.02574663	1145.00000000	1.00000000	5.00000000
CONTYPE	438	3.20547945	0.95853011	1404.00000000	1.00000000	4.00000000
PHYS	438	1.82648402	0.94325594	800.00000000	1.00000000	4.00000000
MENT	438	2.13013699	0.41034169	933.00000000	2.00000000	5.00000000
SUPNAT	438	2.19406393	1.26065669	961.00000000	1.00000000	6.00000000
SUPNUM	438	2.29452055	1.30743942	1005.00000000	1.00000000	6.00000000
SCOPE	438	2.72374429	1.04320078	1193.00000000	1.00000000	5.00000000
ERRORS	438	3.04109589	0.96300002	1332.00000000	1.00000000	5.00000000
ENVIR	438	1.88356164	0.82448464	825.00000000	1.00000000	4.00000000
HAZ	438	1.74200913	0.89218195	763.00000000	1.00000000	5.00000000
WKPACE	438	1.98401826	0.51718329	869.00000000	1.00000000	3.00000000
WKINTER	438	2.10045662	0.59667252	920.00000000	1.00000000	3.00000000
GRADE	438	25.82191781	6.20255162	11310.00000000	12.00000000	46.00000000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 438

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR
GRADE	0.79783	0.72995	0.89449	0.84235	0.79808	0.42801	-0.69446	-0.00975	0.56778	0.48534	0.84929	0.80422	-0.56967
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.8387	0.0001	0.0001	0.0001	0.0001	0.0001

	HAZ	WKPACE	WKINTER
GRADE	-0.38131	0.48276	0.43581
CW PAY GRADE	0.0001	0.0001	0.0001

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWED	140	4.78571429	1.67411832	670.00000000	1.00000000	8.00000000
KNOWEX	140	3.45000000	1.14001767	483.00000000	1.00000000	6.00000000
COMPLEX	140	3.44285714	1.10115328	482.00000000	1.00000000	6.00000000
GUIDE	140	2.68571429	0.84039828	376.00000000	1.00000000	5.00000000
CONPUR	140	2.62142857	0.84366328	367.00000000	1.00000000	4.00000000
CONTYPE	140	3.18571429	0.95650529	446.00000000	1.00000000	4.00000000
PHYS	140	1.44285714	0.71239215	202.00000000	1.00000000	4.00000000
MENT	140	2.26428571	0.53119540	317.00000000	2.00000000	4.00000000
SUPNAT	140	1.73571429	1.04303593	243.00000000	1.00000000	5.00000000
SUPNUM	140	1.76428571	1.10986884	247.00000000	1.00000000	5.00000000
SCOPE	140	2.45000000	0.83386074	343.00000000	1.00000000	5.00000000
ERRORS	140	2.76428571	0.85335322	387.00000000	1.00000000	5.00000000
ENVIR	140	1.44285714	0.55323026	202.00000000	1.00000000	3.00000000
HAZ	140	1.27142857	0.56061191	178.00000000	1.00000000	4.00000000
WKPACE	140	2.04285714	0.53471472	286.00000000	1.00000000	3.00000000
WKINTER	140	2.10714286	0.54570169	295.00000000	1.00000000	3.00000000
GRADE	140	23.47142857	5.74198579	3286.00000000	8.00000000	40.00000000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 140

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR
GRADE	0.79042	0.68063	0.90659	0.84941	0.73362	0.24461	-0.61596	-0.14728	0.46541	0.38219	0.78028	0.82596	-0.28814
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0036	0.0001	0.0825	0.0001	0.0001	0.0001	0.0001	0.0006

	HAZ	WKPACE	WKINTER
GRADE	-0.19201	0.54636	0.48658
CW PAY GRADE	0.0230	0.0001	0.0001

DEP VARIABLE: MAXSAL MAXIMUM OF SALARY RANGE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	17	54743200	3220188	336.070	0.0001
ERROR	740	7090612	9581.909		
C TOTAL	757	61833813			

ROOT MSE	97.887224	R-SQUARE	0.8853
DEP MEAN	897.023	ADJ R-SQ	0.8827
C.V.	10.91246		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	116.041	39.009594	2.975	0.0030	0.000000	INTERCEPT
KNOWED	1	33.387495	4.064709	8.214	0.0001	0.191135	KNOWLEDGE-EDUCATION
KNOWEX	1	21.584470	5.259588	4.104	0.0001	0.089680	KNOWLEDGE-EXPERIENCE
COMPLEX	1	68.784388	7.159816	9.607	0.0001	0.300695	COMPLEXITY
GUIDE	1	8.916657	8.133538	1.096	0.2733	0.030392	GUIDELINES
CONPUR	1	28.640025	6.613375	4.331	0.0001	0.099566	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-0.372541	4.532980	-0.082	0.9345	-0.001233	PERSONAL CONTACTS-TYPE
PHYS	1	16.061752	6.769434	2.373	0.0179	0.049976	PHYSICAL DEMANDS
MENT	1	16.209479	7.720836	2.099	0.0361	0.028301	MENTAL & VISUAL DEMANDS
SUPNAT	1	43.233140	7.893857	5.477	0.0001	0.178539	SUPERVISION-NATURE
SUPNUM	1	-14.238539	7.013527	-2.030	0.0427	-0.063213	SUPERVISION-NUMBER
SCOPE	1	41.646612	7.743811	5.378	0.0001	0.146670	SCOPE & EFFECT
ERRORS	1	37.060227	7.114624	5.209	0.0001	0.126681	IMPACT OF ERRORS
ENVIR	1	-14.314447	7.266013	-1.970	0.0492	-0.038131	WORK ENVIRONMENT
HAZ	1	-9.662627	6.132895	-1.576	0.1156	-0.027475	HAZARDS & RISKS
WKPACE	1	-16.431394	8.316956	-1.976	0.0486	-0.030703	WORK CONDITIONS-PACE
WKINTER	1	-5.020578	7.195987	-0.698	0.4856	-0.010432	WORK CONDITIONS-INTERRUPTIONS
PERWOMEN	1	-0.783067	0.109727	-7.136	0.0001	-0.105364	PERCENT OF FEMALE INCUMBENTS

DEP VARIABLE: MAXSAL MAXIMUM OF SALARY RANGE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	54255200	3390950	331.551	0.0001
ERROR	741	7578613	10227.548		
C TOTAL	757	61833813			

ROOT MSE	101.131	R-SQUARE	0.8774
DEP MEAN	897.023	ADJ R-SQ	0.8748
C.V.	11.27411		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	37.899695	38.682216	0.980	0.3275	0.000000	INTERCEPT
KNOWED	1	34.703137	4.195097	8.272	0.0001	0.198667	KNOWLEDGE-EDUCATION
KNOWEX	1	26.887427	5.379394	4.998	0.0001	0.111713	KNOWLEDGE-EXPERIENCE
COMPLEX	1	72.386339	7.378700	9.810	0.0001	0.316441	COMPLEXITY
GUIDE	1	14.668624	8.361734	1.754	0.0798	0.049997	GUIDELINES
CONPUR	1	24.931480	6.811426	3.660	0.0003	0.086673	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-3.456219	4.661883	-0.741	0.4587	-0.011444	PERSONAL CONTACTS-TYPE
PHYS	1	22.076735	6.939361	3.181	0.0015	0.068691	PHYSICAL DEMANDS
MENT	1	10.328887	7.931155	1.302	0.1932	0.018034	MENTAL & VISUAL DEMANDS
SUPNAT	1	45.332558	8.149805	5.562	0.0001	0.187208	SUPERVISION-NATURE
SUPNUM	1	-17.076848	7.234305	-2.361	0.0185	-0.075813	SUPERVISION-NUMBER
SCOPE	1	41.606549	8.000449	5.201	0.0001	0.146529	SCOPE & EFFECT
ERRORS	1	42.042343	7.314940	5.747	0.0001	0.143711	IMPACT OF ERRORS
ENVIR	1	-6.592015	7.423103	-0.888	0.3748	-0.017560	WORK ENVIRONMENT
HAZ	1	-7.543675	6.328717	-1.192	0.2337	-0.021450	HAZARDS & RISKS
WKPACE	1	-18.809505	8.585692	-2.191	0.0288	-0.035146	WORK CONDITIONS-PACE
WKINTER	1	-7.087849	7.428446	-0.954	0.3403	-0.014727	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: MAXSAL MAXIMUM OF SALARY RANGE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	7603924	475245	81.590	0.0001
ERROR	163	949447	5824.827		
C TOTAL	179	8553371			

ROOT MSE	76.320553	R-SQUARE	0.8890
DEP MEAN	723.964	ADJ R-SQ	0.8781
C.V.	10.54203		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	229.272	58.118051	3.945	0.0001	0.000000	INTERCEPT
KNOWED	1	29.446064	8.244926	3.571	0.0005	0.216540	KNOWLEDGE-EDUCATION
KNOWEX	1	6.086598	9.086068	0.670	0.5039	0.029910	KNOWLEDGE-EXPERIENCE
COMPLEX	1	58.130092	13.017721	4.465	0.0001	0.297313	COMPLEXITY
GUIDE	1	33.558950	13.773745	2.436	0.0159	0.148778	GUIDELINES
CONPUR	1	29.513940	12.480495	2.365	0.0192	0.129312	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-10.248500	7.529423	-1.361	0.1754	-0.042602	PERSONAL CONTACTS-TYPE
PHYS	1	17.847988	10.875369	1.641	0.1027	0.067864	PHYSICAL DEMANDS
MENT	1	-6.057388	10.831646	-0.559	0.5768	-0.017500	MENTAL & VISUAL DEMANDS
SUPNAT	1	22.308310	15.007991	1.486	0.1391	0.095898	SUPERVISION-NATURE
SUPNUM	1	-0.509631	11.417222	-0.045	0.9645	-0.002758	SUPERVISION-NUMBER
SCOPE	1	34.847355	14.567927	2.392	0.0179	0.143862	SCOPE & EFFECT
ERRORS	1	29.577793	12.541394	2.358	0.0195	0.119321	IMPACT OF ERRORS
ENVIR	1	-1.549536	13.269782	-0.117	0.9072	-0.004582	WORK ENVIRONMENT
HAZ	1	-21.548281	12.620263	-1.707	0.0896	-0.066127	HAZARDS & RISKS
WKPACE	1	-14.039411	12.890750	-1.089	0.2777	-0.034799	WORK CONDITIONS-PACE
WKINTER	1	-21.666221	11.257020	-1.925	0.0560	-0.060334	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: MAXSAL MAXIMUM OF SALARY RANGE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	33203860	2075241	177.506	0.0001
ERROR	421	4921946	11691.084		
C TOTAL	437	38125806			

ROOT MSE	108.125	R-SQUARE	0.8709
DEP MEAN	977.247	ADJ R-SQ	0.8660
C.V.	11.06427		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	-3.722181	59.125707	-0.063	0.9498	0.000000	INTERCEPT
KNOWED	1	44.593798	6.019166	7.409	0.0001	0.237932	KNOWLEDGE-EDUCATION
KNOWEX	1	32.810269	7.808891	4.202	0.0001	0.126402	KNOWLEDGE-EXPERIENCE
COMPLEX	1	67.425383	10.187664	6.618	0.0001	0.285914	COMPLEXITY
GUIDE	1	-1.472230	12.293882	-0.120	0.9047	-0.004727	GUIDELINES
CONPUR	1	27.915751	9.444829	2.956	0.0033	0.096944	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	0.974694	7.095036	0.137	0.8908	0.003163	PERSONAL CONTACTS-TYPE
PHYS	1	17.145333	10.318147	1.662	0.0973	0.054753	PHYSICAL DEMANDS
MENT	1	17.129256	13.301128	1.288	0.1985	0.023797	MENTAL & VISUAL DEMANDS
SUPNAT	1	45.740309	10.692910	4.278	0.0001	0.195221	SUPERVISION-NATURE
SUPNUM	1	-17.147916	9.770903	-1.755	0.0800	-0.075904	SUPERVISION-NUMBER
SCOPE	1	50.338274	10.887125	4.624	0.0001	0.177786	SCOPE & EFFECT
ERRORS	1	35.091467	10.144447	3.459	0.0006	0.114409	IMPACT OF ERRORS
ENVIR	1	-7.343618	10.609667	-0.692	0.4892	-0.020499	WORK ENVIRONMENT
HAZ	1	-1.671429	8.059756	-0.207	0.8358	-0.005049	HAZARDS & RISKS
WKPACE	1	-28.524451	12.650877	-2.255	0.0247	-0.049945	WORK CONDITIONS-PACE
WKINTER	1	9.693586	10.583687	0.916	0.3602	0.019582	WORK CONDITIONS-INTERRUPTIONS

DEP VARIABLE: MAXSAL MAXIMUM OF SALARY RANGE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	16	6137519	383595	68.016	0.0001
ERROR	123	693693	5639.782		
C TOTAL	139	6831212			

ROOT MSE	75.098484	R-SQUARE	0.8985
DEP MEAN	868.537	ADJ R-SQ	0.8852
C.V.	8.646548		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	92.778844	69.704811	1.331	0.1856	0.000000	INTERCEPT
KNOWED	1	25.775898	7.026606	3.668	0.0004	0.194652	KNOWLEDGE-EDUCATION
KNOWEX	1	17.897705	9.295353	1.925	0.0565	0.092038	KNOWLEDGE-EXPERIENCE
COMPLEX	1	79.489231	14.668703	5.419	0.0001	0.394834	COMPLEXITY
GUIDE	1	27.176868	15.074699	1.803	0.0739	0.103025	GUIDELINES
CONPUR	1	10.609731	12.645105	0.839	0.4031	0.040377	PERSONAL CONTACTS-PURPOSE
CONTYPE	1	-6.408168	7.905648	-0.811	0.4192	-0.027649	PERSONAL CONTACTS-TYPE
PHYS	1	30.462208	12.926573	2.357	0.0200	0.097890	PHYSICAL DEMANDS
MENT	1	12.130784	13.989912	0.867	0.3876	0.029067	MENTAL & VISUAL DEMANDS
SUPNAT	1	51.560638	18.390647	2.804	0.0059	0.242592	SUPERVISION-NATURE
SUPNUM	1	-30.082391	16.953190	-1.774	0.0785	-0.150606	SUPERVISION-NUMBER
SCOPE	1	16.782690	14.653784	1.145	0.2543	0.063127	SCOPE & EFFECT
ERRORS	1	57.394756	14.435352	3.976	0.0001	0.220932	IMPACT OF ERRORS
ENVIR	1	-6.851366	14.711585	-0.466	0.6422	-0.017098	WORK ENVIRONMENT
HAZ	1	-28.227221	15.158337	-1.862	0.0650	-0.071382	HAZARDS & RISKS
WKPACE	1	-5.222019	16.040027	-0.326	0.7453	-0.012596	WORK CONDITIONS-PACE
WKINTER	1	-6.916426	14.833073	-0.466	0.6418	-0.017025	WORK CONDITIONS-INTERRUPTIONS

APPENDIX I

REGRESSION ANALYSIS USING (COMMITTEE ASSIGNED) WEIGHT

DEP VARIABLE: TOTAL TOTAL EVALUATION POINTS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	13	8918868	686067	999999.999	0.0001
ERROR	744	1.96815E-09	2.64536E-12		
C TOTAL	757	8918868			

ROOT MSE	.00000162646	R-SQUARE	1.0000
DEP MEAN	324.356	ADJ R-SQ	1.0000
C.V.	5.01441E-07		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEP	1	8.17124E-13	4.56099E-07	0.000	1.0000
KNOWEDPT	1	1.000000	2.61620E-09	99999.999	0.0001
KNOWEXPT	1	1.000000	4.90695E-09	99999.999	0.0001
COMPPT	1	1.000000	6.79898E-09	99999.999	0.0001
GUIDEPT	1	1.000000	1.40269E-08	99999.999	0.0001
CONPT	1	1.000000	4.93723E-09	99999.999	0.0001
PHYSPT	1	1.000000	9.03373E-09	99999.999	0.0001
MENTPT	1	1.000000	1.30760E-08	99999.999	0.0001
SUPPT	1	1.000000	6.39141E-09	99999.999	0.0001
SCOPEPT	1	1.000000	7.01778E-09	99999.999	0.0001
ERRPT	1	1.000000	1.17957E-08	99999.999	0.0001
ENVIRPT	1	1.000000	1.15263E-08	99999.999	0.0001
HAZPT	1	1.000000	1.21816E-08	99999.999	0.0001
WKCONPT	1	1.000000	9.50275E-09	99999.999	0.0001

VARIABLE	DF	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	0.000000	INTERCEPT
KNOWEDPT	1	0.321175	KNOWLEDGE-EDUCATION
KNOWEXPT	1	0.196095	KNOWLEDGE-EXPERIENCE
COMPPT	1	0.163724	COMPLEXITY
GUIDEPT	1	0.084929	GUIDELINES
CONPT	1	0.164626	PERSONAL CONTACTS
PHYSPT	1	0.090054	PHYSICAL DEMANDS
MENTPT	1	0.044134	MENTAL & VISUAL DEMANDS
SUPPT	1	0.118447	SUPERVISION
SCOPEPT	1	0.165771	SCOPE & EFFECT
ERRPT	1	0.086528	IMPACT OF ERRORS
ENVIRPT	1	0.068406	WORK ENVIRONMENT
HAZPT	1	0.055211	hazards & risks
WKCONPT	1	0.071467	WORK CONDITIONS

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWEDPT	758	49.47230	34.86174	37500.00	6.00000	150.00000
KNOWEXPT	758	36.76913	21.28503	27871.00	8.00000	100.00000
COMPPT	758	23.90369	17.77126	18119.00	6.00000	120.00000
GUIDEPT	758	17.85224	9.21857	13532.00	6.00000	50.00000
CONPT	758	47.37071	17.86922	35907.00	17.00000	100.00000
PHYSPT	758	17.74802	9.77480	13453.00	11.00000	50.00000
MENTPT	758	12.60818	4.79054	9557.00	11.00000	50.00000
SUPPT	758	10.07388	12.85679	7636.00	0	80.00000
SCOPEPT	758	32.48945	17.99352	24627.00	13.00000	100.00000
ERRPT	758	18.41689	9.39211	13960.00	6.00000	50.00000
ENVIRPT	758	17.15699	7.42504	13005.00	11.00000	50.00000
HAZPT	758	9.50792	5.99289	7207.00	6.00000	50.00000
WKCONPT	758	30.98681	7.75737	23488.00	18.00000	50.00000
GRADE	758	23.81266	6.68319	18050.00	8.00000	46.00000
TOTAL	758	324.35620	108.54428	245862.00	130.00000	800.00000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 758

	KNOWEDPT	KNOWEXPT	COMPPT	GUIDEPT	CONPT
GRADE	0.75273	0.72814	0.79129	0.82385	0.66129
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001
TOTAL	0.73708	0.76902	0.88857	0.87542	0.71983
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001	0.0001	0.0001

	PHYSPT	MENTPT	SUPPT	SCOPEPT	ERRPT
GRADE	-0.48478	-0.15851	0.50916	0.79782	0.79674
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001
TOTAL	-0.39147	-0.17912	0.62978	0.87685	0.85068
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001	0.0001	0.0001

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 758

	ENVIRPT	HAZPT	WKCONPT
GRADE	-0.27781	-0.12361	0.52923
CW PAY GRADE	0.0001	0.0006	0.0001
TOTAL	-0.21036	-0.06377	0.58267
TOTAL EVALUATION POINTS	0.0001	0.0793	0.0001

SEX=F

DEP VARIABLE: TOTAL TOTAL EVALUATION POINTS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	13	1411705	108593	0.000	0.0000
ERROR	166	0	0		
C TOTAL	179	1411705			

ROOT MSE	.	R-SQUARE	1.0000
DEP MEAN	269.322	ADJ R-SQ	1.0000
C.V.	0		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEP	1	-2.20624E-12	0	.	1.0000
KNOWEDPT	1	1.000000	0	.	1.0000
KNOWEXPT	1	1.000000	0	.	1.0000
COMPPT	1	1.000000	0	.	1.0000
GUIDEPT	1	1.000000	0	.	1.0000
CONPT	1	1.000000	0	.	1.0000
PHYSPT	1	1.000000	0	.	1.0000
MENTPT	1	1.000000	0	.	1.0000
SUPPT	1	1.000000	0	.	1.0000
SCOPEPT	1	1.000000	0	.	1.0000
ERRPT	1	1.000000	0	.	1.0000
ENVIRPT	1	1.000000	0	.	1.0000
HAZPT	1	1.000000	0	.	1.0000
WKCONPT	1	1.000000	0	.	1.0000

VARIABLE	DF	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	0.000000	INTERCEPT
KNOWEDPT	1	0.331333	KNOWLEDGE-EDUCATION
KNOWEXPT	1	0.166293	KNOWLEDGE-EXPERIENCE
COMPPT	1	0.140259	COMPLEXITY
GUIDEPT	1	0.091674	GUIDELINES
CONPT	1	0.174652	PERSONAL CONTACTS
PHYSPT	1	0.099903	PHYSICAL DEMANDS
MENTPT	1	0.076173	MENTAL & VISUAL DEMANDS
SUPPT	1	0.115431	SUPERVISION
SCOPEPT	1	0.151260	SCOPE & EFFECT
ERRPT	1	0.075049	IMPACT OF ERRORS
ENVIRPT	1	0.062893	WORK ENVIRONMENT
HAZPT	1	0.044859	hazards & risks
WKCONPT	1	0.080027	WORK CONDITIONS

SEX=M

DEP VARIABLE: TOTAL TOTAL EVALUATION POINTS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	13	5566531	428195	0.000	0.0000
ERROR	424	0	0		
C TOTAL	437	5566531			

ROOT MSE	.	R-SQUARE	1.0000
DEP MEAN	351.703	ADJ R-SQ	1.0000
C.V.	0		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEP	1	-2.10676E-12	0	.	1.0000
KNOWEDPT	1	1.000000	0	.	1.0000
KNOWEXPT	1	1.000000	0	.	1.0000
COMPPT	1	1.000000	0	.	1.0000
GUIDEPT	1	1.000000	0	.	1.0000
CONPT	1	1.000000	0	.	1.0000
PHYSPT	1	1.000000	0	.	1.0000
MENTPT	1	1.000000	0	.	1.0000
SUPPT	1	1.000000	0	.	1.0000
SCOPEPT	1	1.000000	0	.	1.0000
ERRPT	1	1.000000	0	.	1.0000
ENVIRPT	1	1.000000	0	.	1.0000
HAZPT	1	1.000000	0	.	1.0000
WKCONPT	1	1.000000	0	.	1.0000

VARIABLE	DF	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	0.000000	INTERCEPT
KNOWEDPT	1	0.317735	KNOWLEDGE-EDUCATION
KNOWEXPT	1	0.202238	KNOWLEDGE-EXPERIENCE
COMPPT	1	0.177849	COMPLEXITY
GUIDEPT	1	0.085947	GUIDELINES
CONPT	1	0.169248	PERSONAL CONTACTS
PHYSPT	1	0.094339	PHYSICAL DEMANDS
MENTPT	1	0.032958	MENTAL & VISUAL DEMANDS
SUPPT	1	0.124671	SUPERVISION
SCOPEPT	1	0.176855	SCOPE & EFFECT
ERRPT	1	0.089792	IMPACT OF ERRORS
ENVIRPT	1	0.074577	WORK ENVIRONMENT
HAZPT	1	0.062106	hazards & risks
WKCONPT	1	0.069216	WORK CONDITIONS

SEX=X

DEP VARIABLE: TOTAL TOTAL EVALUATION POINTS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	13	1037235	79787.273	0.000	0.0000
ERROR	126	0	0		
C TOTAL	139	1037235			

ROOT MSE	.	R-SQUARE	1.0000
DEP MEAN	309.557	ADJ R-SQ	1.0000
C.V.	0		

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEP	1	-1.74083E-12	0	.	1.0000
KNOWEDPT	1	1.000000	0	.	1.0000
KNOWEXPT	1	1.000000	0	.	1.0000
COMPPT	1	1.000000	0	.	1.0000
GUIDEPT	1	1.000000	0	.	1.0000
CONPT	1	1.000000	0	.	1.0000
PHYSPT	1	1.000000	0	.	1.0000
MENTPT	1	1.000000	0	.	1.0000
SUPPT	1	1.000000	0	.	1.0000
SCOPEPT	1	1.000000	0	.	1.0000
ERRPT	1	1.000000	0	.	1.0000
ENVIRPT	1	1.000000	0	.	1.0000
HAZPT	1	1.000000	0	.	1.0000
WKCONPT	1	1.000000	0	.	1.0000

VARIABLE	DF	STANDARDIZED ESTIMATE	VARIABLE LABEL
INTERCEP	1	0.000000	INTERCEPT
KNOWEDPT	1	0.404147	KNOWLEDGE-EDUCATION
KNOWEXPT	1	0.197081	KNOWLEDGE-EXPERIENCE
COMPPT	1	0.144963	COMPLEXITY
GUIDEPT	1	0.082932	GUIDELINES
CONPT	1	0.186737	PERSONAL CONTACTS
PHYSPT	1	0.081772	PHYSICAL DEMANDS
MENTPT	1	0.051905	MENTAL & VISUAL DEMANDS
SUPPT	1	0.117249	SUPERVISION
SCOPEPT	1	0.151748	SCOPE & EFFECT
ERRPT	1	0.085264	IMPACT OF ERRORS
ENVIRPT	1	0.050237	WORK ENVIRONMENT
HAZPT	1	0.039386	hazards & risks
WKCONPT	1	0.091049	WORK CONDITIONS

SEX=F

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWEDPT	180	37.58889	29.424610	6766.000	6.00000	150.00000
KNOWEXPT	180	26.68889	14.767959	4804.000	8.00000	100.00000
COMPPT	180	16.88889	12.455906	3040.000	6.00000	120.00000
GUIDEPT	180	14.12778	8.141233	2543.000	6.00000	50.00000
CONPT	180	43.88889	15.510274	7900.000	17.00000	100.00000
PHYSPT	180	17.41667	8.872073	3135.000	11.00000	50.00000
MENTPT	180	13.60000	6.764680	2448.000	11.00000	50.00000
SUPPT	180	6.78889	10.251033	1222.000	0	48.00000
SCOPEPT	180	25.75556	13.432896	4636.000	13.00000	100.00000
ERRPT	180	13.67778	6.664888	2462.000	6.00000	50.00000
ENVIRPT	180	15.72222	5.585352	2830.000	11.00000	30.00000
HAZPT	180	8.46667	3.983766	1524.000	6.00000	30.00000
WKCONPT	180	28.71111	7.106916	5168.000	18.00000	50.00000
GRADE	180	19.18889	6.156061	3454.000	8.00000	40.00000
TOTAL	180	269.32222	88.806654	48478.000	130.00000	713.00000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 180

	KNOWEDPT	KNOWEXPT	COMPPT	GUIDEPT	CONPT
GRADE	0.83614	0.65577	0.79048	0.83197	0.69139
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001
TOTAL	0.82074	0.71356	0.87214	0.86688	0.74016
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001	0.0001	0.0001

	PHYSPT	MENTPT	SUPPT	SCOPEPT	ERRPT
GRADE	-0.37725	-0.25481	0.42017	0.83578	0.78047
CW PAY GRADE	0.0001	0.0006	0.0001	0.0001	0.0001
TOTAL	-0.20506	-0.24055	0.54321	0.87760	0.83592
TOTAL EVALUATION POINTS	0.0058	0.0011	0.0001	0.0001	0.0001

SEX=F

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 180

	ENVIRPT	HAZPT	WKCONPT
GRADE	-0.05127	0.00208	0.47997
CW PAY GRADE	0.4943	0.9779	0.0001
TOTAL	0.10459	0.13858	0.57689
TOTAL EVALUATION POINTS	0.1623	0.0636	0.0001

SEX=M

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWEDPT	438	52.76027	35.86058	23109.00	6.00000	150.00000
KNOWEXPT	438	42.48174	22.82524	18607.00	8.00000	100.00000
COMPPT	438	27.09132	20.07254	11866.00	6.00000	120.00000
GUIDEPT	438	19.73288	9.70029	8643.00	6.00000	50.00000
CONPT	438	48.76256	19.10188	21358.00	17.00000	100.00000
PHYSPT	438	18.83105	10.64741	8248.00	11.00000	50.00000
MENTPT	438	12.05479	3.71979	5280.00	11.00000	50.00000
SUPPT	438	12.38356	14.07072	5424.00	0	80.00000
SCOPEPT	438	36.09132	19.96039	15808.00	13.00000	100.00000
ERRPT	438	20.67352	10.13415	9055.00	6.00000	50.00000
ENVIRPT	438	18.67808	8.41699	8181.00	11.00000	50.00000
HAZPT	438	10.57991	7.00943	4634.00	6.00000	50.00000
WKCONPT	438	31.58219	7.81194	13833.00	18.00000	50.00000
GRADE	438	25.82192	6.20255	11310.00	12.00000	46.00000
TOTAL	438	351.70320	112.86301	154046.00	156.00000	800.00000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 438

	KNOWEDPT	KNOWEXPT	COMPPT	GUIDEPT	CONPT
GRADE	0.74887	0.73271	0.79472	0.82057	0.71059
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001
TOTAL	0.71573	0.77396	0.89361	0.87703	0.73556
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001	0.0001	0.0001

	PHYSPT	MENTPT	SUPPT	SCOPEPT	ERRPT
GRADE	-0.63798	-0.01009	0.52448	0.80900	0.78353
CW PAY GRADE	0.0001	0.8332	0.0001	0.0001	0.0001
TOTAL	-0.51471	-0.07346	0.64339	0.87719	0.83898
TOTAL EVALUATION POINTS	0.0001	0.1247	0.0001	0.0001	0.0001

SEX=M

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 438

	ENVIRPT	HAZPT	WKCONPT
GRADE	-0.51884	-0.27121	0.51819
CW PAY GRADE	0.0001	0.0001	0.0001
TOTAL	-0.40357	-0.18775	0.56805
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001

SEX=X

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWEDPT	140	54.46429	34.911689	7625.000	6.00000	150.00000
KNOWEXPT	140	31.85714	17.024558	4460.000	8.00000	100.00000
COMPPT	140	22.95000	12.522397	3213.000	6.00000	72.00000
GUIDEPT	140	16.75714	7.163930	2346.000	6.00000	50.00000
CONPT	140	47.49286	16.130982	6649.000	17.00000	78.00000
PHYSPT	140	14.78571	7.063724	2070.000	11.00000	50.00000
MENTPT	140	13.06429	4.483721	1829.000	11.00000	30.00000
SUPPT	140	7.07143	10.128415	990.000	0	48.00000
SCOPEPT	140	29.87857	13.108549	4183.000	13.00000	100.00000
ERRPT	140	17.45000	7.365411	2443.000	6.00000	50.00000
ENVIRPT	140	14.24286	4.339664	1994.000	11.00000	30.00000
HAZPT	140	7.49286	3.402277	1049.000	6.00000	30.00000
WKCONPT	140	32.05000	7.865163	4487.000	18.00000	50.00000
GRADE	140	23.47143	5.741986	3286.000	8.00000	40.00000
TOTAL	140	309.55714	86.383558	43338.000	145.00000	645.00000

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 140

	KNOWEDPT	KNOWEXPT	COMPPT	GUIDEPT	CONPT
GRADE	0.72901	0.64428	0.83708	0.80049	0.54817
CW PAY GRADE	0.0001	0.0001	0.0001	0.0001	0.0001
TOTAL	0.75103	0.62473	0.86801	0.80951	0.67387
TOTAL EVALUATION POINTS	0.0001	0.0001	0.0001	0.0001	0.0001

	PHYSPT	MENTPT	SUPPT	SCOPEPT	ERRPT
GRADE	-0.57538	-0.14146	0.42793	0.72526	0.78714
CW PAY GRADE	0.0001	0.0955	0.0001	0.0001	0.0001
TOTAL	-0.44328	-0.25560	0.52509	0.82716	0.82104
TOTAL EVALUATION POINTS	0.0001	0.0023	0.0001	0.0001	0.0001

SEX=X

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=O / N = 140

	ENVIRPT	HAZPT	WKCONPT
GRADE	-0.27573	-0.18801	0.58490
CW PAY GRADE	0.0010	0.0261	0.0001
TOTAL	-0.16433	-0.06361	0.63411
TOTAL EVALUATION POINTS	0.0524	0.4553	0.0001

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION
KNOWEDPT	KNOWLEDGE-EDUCATION	758	49.47	34.86
KNOWEXPT	KNOWLEDGE-EXPERIENCE	758	36.77	21.29
COMPPT	COMPLEXITY	758	23.90	17.77
GUIDEPT	GUIDELINES	758	17.85	9.22
CONPT	PERSONAL CONTACTS	758	47.37	17.87
PHYSPT	PHYSICAL DEMANDS	758	17.75	9.77
MENTPT	MENTAL & VISUAL DEMANDS	758	12.61	4.79
SUPPT	SUPERVISION	758	10.07	12.86
SCOPEPT	SCOPE & EFFECT	758	32.49	17.99
ERRPT	IMPACT OF ERRORS	758	18.42	9.39
ENVIRPT	WORK ENVIRONMENT	758	17.16	7.43
HAZPT	hazards & risks	758	9.51	5.99
WKCONPT	WORK CONDITIONS	758	30.99	7.76
TOTAL	TOTAL EVALUATION POINTS	758	324.36	108.54

VARIABLE	MINIMUM VALUE	MAXIMUM VALUE
KNOWEDPT	6.00	150.00
KNOWEXPT	8.00	100.00
COMPPT	6.00	120.00
GUIDEPT	6.00	50.00
CONPT	17.00	100.00
PHYSPT	11.00	50.00
MENTPT	11.00	50.00
SUPPT	0.00	80.00
SCOPEPT	13.00	100.00
ERRPT	6.00	50.00
ENVIRPT	11.00	50.00
HAZPT	6.00	50.00
WKCONPT	18.00	50.00
TOTAL	130.00	800.00

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION
SEX=F				
KNOWEDPT	KNOWLEDGE-EDUCATION	180	37.59	29.42
KNOWEXPT	KNOWLEDGE-EXPERIENCE	180	26.69	14.77
COMPPT	COMPLEXITY	180	16.89	12.46
GUIDEPT	GUIDELINES	180	14.13	8.14
CONPT	PERSONAL CONTACTS	180	43.89	15.51
PHYSPT	PHYSICAL DEMANDS	180	17.42	8.87
MENTPT	MENTAL & VISUAL DEMANDS	180	13.60	6.76
SUPPT	SUPERVISION	180	6.79	10.25
SCOPEPT	SCOPE & EFFECT	180	25.76	13.43
ERRPT	IMPACT OF ERRORS	180	13.68	6.66
ENVIRPT	WORK ENVIRONMENT	180	15.72	5.59
HAZPT	hazards & risks	180	8.47	3.98
WKCONPT	WORK CONDITIONS	180	28.71	7.11
TOTAL	TOTAL EVALUATION POINTS	180	269.32	88.81

VARIABLE	MINIMUM VALUE	MAXIMUM VALUE
SEX=F		
KNOWEDPT	6.00	150.00
KNOWEXPT	8.00	100.00
COMPPT	6.00	120.00
GUIDEPT	6.00	50.00
CONPT	17.00	100.00
PHYSPT	11.00	50.00
MENTPT	11.00	50.00
SUPPT	0.00	48.00
SCOPEPT	13.00	100.00
ERRPT	6.00	50.00
ENVIRPT	11.00	30.00
HAZPT	6.00	30.00
WKCONPT	18.00	50.00
TOTAL	130.00	713.00

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION
SEX=M				
KNOWEDPT	KNOWLEDGE-EDUCATION	438	52.76	35.86
KNOWEXPT	KNOWLEDGE-EXPERIENCE	438	42.48	22.83
COMPPT	COMPLEXITY	438	27.09	20.07
GUIDEPT	GUIDELINES	438	19.73	9.70
CONPT	PERSONAL CONTACTS	438	48.76	19.10
PHYSPT	PHYSICAL DEMANDS	438	18.83	10.65
MENTPT	MENTAL & VISUAL DEMANDS	438	12.05	3.72
SUPPT	SUPERVISION	438	12.38	14.07
SCOPEPT	SCOPE & EFFECT	438	36.09	19.96
ERRPT	IMPACT OF ERRORS	438	20.67	10.13
ENVIRPT	WORK ENVIRONMENT	438	18.68	8.42
HAZPT	hazards & risks	438	10.58	7.01
WKCONPT	WORK CONDITIONS	438	31.58	7.81
TOTAL	TOTAL EVALUATION POINTS	438	351.70	112.86

VARIABLE	MINIMUM VALUE	MAXIMUM VALUE
SEX=M		
KNOWEDPT	6.00	150.00
KNOWEXPT.	8.00	100.00
COMPPT	6.00	120.00
GUIDEPT	6.00	50.00
CONPT	17.00	100.00
PHYSPT	11.00	50.00
MENTPT	11.00	50.00
SUPPT	0.00	80.00
SCOPEPT	13.00	100.00
ERRPT	6.00	50.00
ENVIRPT	11.00	50.00
HAZPT	6.00	50.00
WKCONPT	18.00	50.00
TOTAL	156.00	800.00

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION
---------- SEX=X ----------				
KNOWEDPT	KNOWLEDGE-EDUCATION	140	54.46	34.91
KNOWEXPT	KNOWLEDGE-EXPERIENCE	140	31.86	17.02
COMPPT	COMPLEXITY	140	22.95	12.52
GUIDEPT	GUIDELINES	140	16.76	7.16
CONPT	PERSONAL CONTACTS	140	47.49	16.13
PHYSPT	PHYSICAL DEMANDS	140	14.79	7.06
MENTPT	MENTAL & VISUAL DEMANDS	140	13.06	4.48
SUPPT	SUPERVISION	140	7.07	10.13
SCOPEPT	SCOPE & EFFECT	140	29.88	13.11
ERRPT	IMPACT OF ERRORS	140	17.45	7.37
ENVIRPT	WORK ENVIRONMENT	140	14.24	4.34
HAZPT	hazards & risks	140	7.49	3.40
WKCONPT	WORK CONDITIONS	140	32.05	7.87
TOTAL	TOTAL EVALUATION POINTS	140	309.56	86.38

VARIABLE	MINIMUM VALUE	MAXIMUM VALUE
---------- SEX=X ----------		
KNOWEDPT	6.00	150.00
KNOWEXPT	8.00	100.00
COMPPT	6.00	72.00
GUIDEPT	6.00	50.00
CONPT	17.00	78.00
PHYSPT	11.00	50.00
MENTPT	11.00	30.00
SUPPT	0.00	48.00
SCOPEPT	13.00	100.00
ERRPT	6.00	50.00
ENVIRPT	11.00	30.00
HAZPT	6.00	30.00
WKCONPT	18.00	50.00
TOTAL	145.00	645.00

APPENDIX J

DEGREE CORRELATION MATRIX

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
KNOWED	758	4.56332454	1.63614249	3459.00000000	1	8
KNOWEX	758	3.69920844	1.18746176	2804.00000000	1	6
COMPLEX	758	3.39841689	1.24940044	2576.00000000	1	7
GUIDE	758	2.74406332	0.97413599	2080.00000000	1	5
CONPUR	758	2.51583113	0.99357914	1907.00000000	1	5
CONTYPE	758	3.22427441	0.94629455	2444.00000000	1	4
PHYS	758	1.73218997	0.88926859	1313.00000000	1	4
MENT	758	2.19393140	0.49899779	1663.00000000	2	5
SUPNAT	758	1.97493404	1.18026694	1497.00000000	1	6
SUPNUM	758	2.07519789	1.26882846	1573.00000000	1	6
SCOPE	758	2.52770449	1.00652968	1916.00000000	1	5
ERRORS	758	2.80606860	0.97694161	2127.00000000	1	5
ENVIR	758	1.73746702	0.76131356	1317.00000000	1	4
HAZ	758	1.58575198	0.81265269	1202.00000000	1	5
WKPACE	758	1.94722955	0.53403227	1476.00000000	1	3
WKINTER	758	2.06332454	0.59384828	1564.00000000	1	3

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SUPLOC
KNOWED KNOWLEDGE-EDUCATION	1.00000 0.0000 758	0.38922 0.0001 758	0.77862 0.0001 758	0.68319 0.0001 758	0.68075 0.0001 758	0.26726 0.0001 758	-0.57893 0.0001 758	-0.10163 0.0051 758	0.27616 0.0001 758	0.19783 0.0001 758	0
KNOWEX KNOWLEDGE-EXPERIENCE	0.38922 0.0001 758	1.00000 0.0000 758	0.68279 0.0001 758	0.70307 0.0001 758	0.55267 0.0001 758	0.15181 0.0001 758	-0.35911 0.0001 758	-0.15335 0.0001 758	0.62047 0.0001 758	0.58230 0.0001 758	0
COMPLEX COMPLEXITY	0.77862 0.0001 758	0.68279 0.0001 758	1.00000 0.0000 758	0.84475 0.0001 758	0.76642 0.0001 758	0.28298 0.0001 758	-0.54469 0.0001 758	-0.16012 0.0001 758	0.51561 0.0001 758	0.43522 0.0001 758	0
GUIDE GUIDELINES	0.68319 0.0001 758	0.70307 0.0001 758	0.84475 0.0001 758	1.00000 0.0000 75	0.73711 0.0001 758	0.32316 0.0001 758	-0.53823 0.0001 758	-0.15865 0.0001 758	0.56545 0.0001 758	0.49119 0.0001 758	0

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT	SUPNAT	SUPNUM	SUPLOC
CONPUR PERSONAL CONTACTS-PURPOSE	0.68075 0.0001 758	0.55267 0.0001 758	0.76642 0.0001 758	0.73711 0.0001 758	1.00000 0.0000 758	0.43177 0.0001 758	-0.57454 0.0001 758	-0.23667 0.0001 758	0.40531 0.0001 758	0.35794 0.0001 758	0
CONTYPE PERSONAL CONTACTS-TYPE	0.26726 0.0001 758	0.15181 0.0001 758	0.28298 0.0001 758	0.32316 0.0001 758	0.43177 0.0001 758	1.00000 0.0000 758	-0.37435 0.0001 758	-0.23770 0.0001 758	0.14461 0.0001 758	0.13886 0.0001 758	0
PHYS PHYSICAL DEMANDS	-0.57893 0.0001 758	-0.35911 0.0001 758	-0.54469 0.0001 758	-0.53823 0.0001 758	-0.57454 0.0001 758	-0.37435 0.0001 758	1.00000 0.0000 758	0.03087 0.3961 758	-0.24051 0.0001 758	-0.16945 0.0001 758	0
MENT MENTAL & VISUAL DEMANDS	-0.10163 0.0051 758	-0.15335 0.0001 758	-0.16012 0.0001 758	-0.15865 0.0001 758	-0.23667 0.0001 758	-0.23770 0.0001 758	0.03087 0.3961 758	1.00000 0.0000 758	-0.18912 0.0001 758	-0.19624 0.0001 758	0
SUPNAT SUPERVISION-NATURE	0.27616 0.0001 758	0.62047 0.0001 758	0.51561 0.0001 758	0.56545 0.0001 758	0.40531 0.0001 758	0.14461 0.0001 758	-0.24051 0.0001 758	-0.18912 0.0001 758	1.00000 0.0000 758	0.91071 0.0001 758	0
SUPNUM SUPERVISION-NUMBER	0.19783 0.0001 758	0.58230 0.0001 758	0.43522 0.0001 758	0.49119 0.0001 758	0.35794 0.0001 758	0.13886 0.0001 758	-0.16945 0.0001 758	-0.19624 0.0001 758	0.91071 0.0001 758	1.00000 0.0000 758	0
SUPLOC	0	0	0	0	0	0	0	0	0	0	0
SCOPE SCOPE & EFFECT	0.65590 0.0001 758	0.69776 0.0001 758	0.80006 0.0001 758	0.81696 0.0001 758	0.74984 0.0001 758	0.36932 0.0001 758	-0.54441 0.0001 758	-0.22770 0.0001 758	0.56825 0.0001 758	0.49848 0.0001 758	0
ERRORS IMPACT OF ERRORS	0.64364 0.0001 758	0.66590 0.0001 758	0.77010 0.0001 758	0.75703 0.0001 758	0.67886 0.0001 758	0.31432 0.0001 758	-0.45521 0.0001 758	-0.16663 0.0001 758	0.49414 0.0001 758	0.41994 0.0001 758	0
ENVIR WORK ENVIRONMENT	-0.35517 0.0001 758	-0.22044 0.0001 758	-0.34680 0.0001 758	-0.34187 0.0001 758	-0.30972 0.0001 758	-0.14737 0.0001 758	0.65114 0.0001 758	-0.08487 0.0194 758	-0.14700 0.0001 758	-0.09031 0.0129 758	0
HAZ HAZARDS & RISKS	-0.22068 0.0001 758	-0.13751 0.0001 758	-0.22755 0.0001 758	-0.23590 0.0001 758	-0.24382 0.0001 758	-0.06283 0.0839 758	0.50800 0.0001 758	-0.06224 0.0868 758	-0.04803 0.1866 758	-0.00306 0.9330 758	0
WKPACE WORK CONDITIONS-PACE	0.35610 0.0001 758	0.42906 0.0001 758	0.48692 0.0001 758	0.43616 0.0001 758	0.46465 0.0001 758	0.18029 0.0001 758	-0.31909 0.0001 758	-0.11026 0.0024 758	0.37096 0.0001 758	0.35093 0.0001 758	0
WKINTER WORK CONDITIONS-INTERRUPTIONS	0.30042 0.0001 758	0.40545 0.0001 758	0.45201 0.0001 758	0.42996 0.0001 758	0.42368 0.0001 758	0.25678 0.0001 758	-0.29554 0.0001 758	-0.16186 0.0001 758	0.38864 0.0001 758	0.36885 0.0001 758	0

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	SCOPE	ERRORS	ENVIR	HAZ	WKPACE	WKINTER
KNOWED	0.65590	0.64364	-0.35517	-0.22068	0.35610	0.30042
KNOWLEDGE-EDUCATION	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
KNOWEX	0.69776	0.66590	-0.22044	-0.13751	0.42906	0.40545
KNOWLEDGE-EXPERIENCE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
COMPLEX	0.80006	0.77010	-0.34680	-0.22755	0.48692	0.45201
COMPLEXITY	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
GUIDE	0.81696	0.75703	-0.34187	-0.23590	0.43616	0.42996
GUIDELINES	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
CONPUR	0.74984	0.67886	-0.30972	-0.24382	0.46465	0.42368
PERSONAL CONTACTS-PURPOSE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
CONTYPE	0.36932	0.31432	-0.14737	-0.06283	0.18029	0.25678
PERSONAL CONTACTS-TYPE	0.0001	0.0001	0.0001	0.0839	0.0001	0.0001
	758	758	758	758	758	758
PHYS	-0.54441	-0.45521	0.65114	0.50800	-0.31909	-0.29554
PHYSICAL DEMANDS	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
MENT	-0.22770	-0.16663	-0.08487	-0.06224	-0.11026	-0.16186
MENTAL & VISUAL DEMANDS	0.0001	0.0001	0.0194	0.0868	0.0024	0.0001
	758	758	758	758	758	758
SUPNAT	0.56825	0.49414	-0.14700	-0.04803	0.37096	0.38864
SUPERVISION-NATURE	0.0001	0.0001	0.0001	0.1866	0.0001	0.0001
	758	758	758	758	758	758
SUPNUM	0.49848	0.41994	-0.09031	-0.00306	0.35093	0.36885
SUPERVISION-NUMBER	0.0001	0.0001	0.0129	0.9330	0.0001	0.0001
	758	758	758	758	758	758
SUPLOC						
	0	0	0	0	0	0
SCOPE	1.00000	0.79069	-0.32752	-0.22659	0.46721	0.44128
SCOPE & EFFECT	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001
	758	758	758	758	758	758
ERRORS	0.79069	1.00000	-0.22662	-0.05307	0.50196	0.39007
IMPACT OF ERRORS	0.0001	0.0000	0.0001	0.1444	0.0001	0.0001
	758	758	758	758	758	758

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=O / NUMBER OF OBSERVATIONS

	SCOPE	ERRORS	ENVIR	HAZ	WKPACE	WKINTER
ENVIR	-0.32752	-0.22662	1.00000	0.64390	-0.11535	-0.13557
WORK ENVIRONMENT	0.0001	0.0001	0.0000	0.0001	0.0015	0.0002
	758	758	758	758	758	758
HAZ	-0.22659	-0.05307	0.64390	1.00000	-0.12654	-0.09339
HAZARDS & RISKS	0.0001	0.1444	0.0001	0.0000	0.0005	0.0101
	758	758	758	758	758	758
WKPACE	0.46721	0.50196	-0.11535	-0.12654	1.00000	0.41876
WORK CONDITIONS-PACE	0.0001	0.0001	0.0015	0.0005	0.0000	0.0001
	758	758	758	758	758	758
WKINTER	0.44128	0.39007	-0.13557	-0.09339	0.41876	1.00000
WORK CONDITIONS-INTERRUPTIONS	0.0001	0.0001	0.0002	0.0101	0.0001	0.0000
	758	758	758	758	758	758

APPENDIX K

RESULTS OF FACTOR ANALYSIS

INITIAL FACTOR METHOD: PRINCIPAL FACTORS

PRIOR COMMUNALITY ESTIMATES: SMC

KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT
0.713220	0.668892	0.841031	0.796369	0.705019	0.305775	0.645211	0.137408

SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR	HAZ	WKPACE	WKINTER
0.853977	0.839647	0.791650	0.735444	0.576964	0.489220	0.357327	0.305729

EIGENVALUES OF THE REDUCED CORRELATION MATRIX: TOTAL = 9.762882 AVERAGE = 0.610180

	1	2	3	4	5	6	7	8
EIGENVALUE	7.074740	1.684378	0.917099	0.432267	0.219995	0.155185	0.074983	-0.002066
DIFFERENCE	5.390362	0.767279	0.484833	0.212272	0.064810	0.080202	0.077049	0.035656
PROPORTION	0.7247	0.1725	0.0939	0.0443	0.0225	0.0159	0.0077	-0.0002
CUMULATIVE	0.7247	0.8972	0.9911	1.0354	1.0579	1.0738	1.0815	1.0813

	9	10	11	12	13	14	15	16
EIGENVALUE	-0.037722	-0.040302	-0.070267	-0.076921	-0.089446	-0.118463	-0.173050	-0.187528
DIFFERENCE	0.002580	0.029965	0.006654	0.012526	0.029017	0.054587	0.014478	
PROPORTION	-0.0039	-0.0041	-0.0072	-0.0079	-0.0092	-0.0121	-0.0177	-0.0192
CUMULATIVE	1.0774	1.0733	1.0661	1.0582	1.0491	1.0369	1.0192	1.0000

5 FACTORS WILL BE RETAINED BY THE NFACTOR CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	
KNOWED	0.72868	-0.27218	0.25168	0.13066	-0.19353	KNOWLEDGE-EDUCATION
KNOWEX	0.75058	0.23187	-0.08552	0.17313	0.15392	KNOWLEDGE-EXPERIENCE
COMPLEX	0.90075	-0.05389	0.15150	0.17846	-0.02618	COMPLEXITY
GUIDE	0.89015	-0.00509	0.07040	0.11521	-0.05861	GUIDELINES
CONPUR	0.82049	-0.12000	0.19668	-0.14032	-0.00845	PERSONAL CONTACTS-PURPOSE
CONTYPE	0.38046	-0.09746	0.16888	-0.42132	-0.05682	PERSONAL CONTACTS-TYPE
PHYS	-0.64505	0.49703	0.14949	0.13799	0.01379	PHYSICAL DEMANDS
MENT	-0.20959	-0.17575	-0.13470	0.27740	0.04292	MENTAL & VISUAL DEMANDS
SUPNAT	0.66777	0.52443	-0.38992	-0.02293	-0.11653	SUPERVISION-NATURE
SUPNUM	0.59778	0.58009	-0.40086	-0.07760	-0.09761	SUPERVISION-NUMBER
SCOPE	0.89385	0.01674	0.09209	-0.00263	-0.01494	SCOPE & EFFECT
ERRORS	0.82256	0.07894	0.23680	0.11655	0.03509	IMPACT OF ERRORS
ENVIR	-0.41580	0.56490	0.40865	-0.01322	0.02706	WORK ENVIRONMENT
HAZ	-0.28589	0.54128	0.40480	0.00864	-0.08276	HAZARDS & RISKS
WKPACE	0.54712	0.09165	0.05102	-0.03400	0.27316	WORK CONDITIONS-PACE
WKINTER	0.51566	0.11503	0.00945	-0.15926	0.20649	WORK CONDITIONS-INTERRUPTIONS

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
7.074740	1.684378	0.917099	0.432267	0.219995

FINAL COMMUNALITY ESTIMATES: TOTAL = 10.328479

KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT
0.722920	0.678116	0.869743	0.814062	0.746051	0.363513	0.704704	0.171754

INITIAL FACTOR METHOD: PRINCIPAL FACTORS

SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR	HAZ	WKPACE	WKINTER
0.887091	0.870076	0.807960	0.753726	0.659913	0.545511	0.386112	0.347226

ROTATION METHOD: VARIMAX

ORTHOGONAL TRANSFORMATION MATRIX

	1	2	3	4	5
1	0.75738	0.43234	-0.31114	0.29010	0.24185
2	-0.11346	0.65307	0.73893	0.01550	0.11989
3	0.46102	-0.59701	0.58751	0.29154	0.02961
4	0.41868	-0.01396	0.10690	-0.89896	-0.07037
5	-0.16019	-0.17312	-0.02419	-0.14993	0.95985

ROTATED FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	
KNOWED	0.78451	0.01870	-0.26133	0.19210	-0.04390	KNOWLEDGE-EDUCATION
KNOWEX	0.55058	0.49792	-0.09765	0.01769	0.34236	KNOWLEDGE-EXPERIENCE
COMPLEX	0.83709	0.26583	-0.21136	0.14813	0.17818	COMPLEXITY
GUIDE	0.76485	0.34803	-0.22562	0.18389	0.15240	GUIDELINES
CONPUR	0.66832	0.16236	-0.24320	0.42091	0.19164	PERSONAL CONTACTS-PURPOSE
CONTYPE	0.20977	0.01574	-0.13484	0.54537	0.06044	PERSONAL CONTACTS-TYPE
PHYS	-0.42046	-0.04784	0.67021	-0.26195	-0.08847	PHYSICAL DEMANDS
MENT	-0.09164	-0.13628	-0.11518	-0.35860	-0.05407	MENTAL & VISUAL DEMANDS
SUPNAT	0.27557	0.88447	-0.04897	0.12626	0.10259	SUPERVISION-NATURE
SUPNUM	0.18528	0.89458	0.00121	0.14993	0.11403	SUPERVISION-NUMBER
SCOPE	0.71884	0.34502	-0.21155	0.29101	0.20676	SCOPE & EFFECT
ERRORS	0.76639	0.25810	-0.04686	0.19885	0.24089	IMPACT OF ERRORS
ENVIR	-0.20048	-0.05932	0.78482	0.01510	0.00616	WORK ENVIRONMENT
HAZ	-0.07445	0.00242	0.72967	0.04811	-0.07230	HAZARDS & RISKS
WKPACE	0.36951	0.21912	-0.08277	0.16462	0.40940	WORK CONDITIONS-PACE
WKINTER	0.28209	0.25890	-0.09191	0.26634	0.34819	WORK CONDITIONS-INTERRUPTIONS

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
4.356319	2.374305	1.926194	1.028003	0.643658

FINAL COMMUNALITY ESTIMATES: TOTAL = 10.328479

KNOWED	KNOWEX	COMPLEX	GUIDE	CONPUR	CONTYPE	PHYS	MENT
0.722920	0.678116	0.869743	0.814062	0.746051	0.363513	0.704704	0.171754

SUPNAT	SUPNUM	SCOPE	ERRORS	ENVIR	HAZ	WKPACE	WKINTER
0.887091	0.870076	0.807960	0.753726	0.659913	0.545511	0.386112	0.347226

APPENDIX L

TOTAL GRADE ANALYSIS

VARIABLE	LABEL	N	MEAN
	SEX=F		
GRADE	CW PAY GRADE	180	19.2
TOTALL		180	20.6
TOTMALE		180	21.6
TOTPFEM		180	20.8
STATALL		180	20.3
STATMALE		180	21.5
STATPFEM		180	20.7
DTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	180	1.4
DTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	180	2.4
DTOTPFEM	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	180	1.6
DSTATALL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	180	1.1
DSTATMAL	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	180	2.3
DSTATPFE	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	180	1.5

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=F		
GRADE	6.2	8.0	40.0
TOTALL	5.0	13.0	45.0
TOTMALE	4.5	15.0	44.0
TOTPFEM	4.8	13.0	45.0
STATALL	6.1	9.0	40.0
STATMALE	5.5	11.0	39.0
STATPFEM	5.7	10.0	39.0
DTOTALL	2.7	-10.0	7.0
DTOTMAL	2.9	-9.0	9.0
DTOTPFEM	2.8	-10.0	8.0
DSTATALL	1.9	-8.0	5.0
DSTATMAL	2.1	-7.0	7.0
DSTATPFE	1.9	-7.0	5.0

VARIABLE	LABEL	N	MEAN
	SEX=M		
GRADE	CW PAY GRADE	438	25.8
TOTALL		438	25.2
TOTMALE		438	25.7
TOTPFEM		438	25.3
STATALL		438	25.3
STATMALE		438	25.8
STATPFEM		438	25.1
DTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	438	-0.6
DTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	438	-0.1
DTOTPFEM	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	438	-0.5
DSTATALL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	438	-0.5
DSTATMAL	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	438	0.0
DSTATPFE	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	438	-0.7

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=M		
GRADE	6.2	12.0	46.0
TOTALL	6.3	14.0	50.0
TOTMALE	5.6	16.0	48.0
TOTPFEM	6.1	15.0	50.0
STATALL	6.2	9.0	42.0
STATMALE	5.9	10.0	41.0
STATPFEM	6.0	10.0	40.0
DTOTALL	2.6	-8.0	10.0
DTOTMAL	2.5	-8.0	8.0
DTOTPFEM	2.5	-8.0	10.0
DSTATALL	1.9	-7.0	5.0
DSTATMAL	1.8	-7.0	6.0
DSTATPFE	1.8	-8.0	6.0

VARIABLE	LABEL	N	MEAN
	SEX=X		
GRADE	CW PAY GRADE	140	23.5
TOTALL		140	22.9
TOTMALE		140	23.6
TOTPFEM		140	23.0
STATALL		140	23.6
STATMALE		140	24.6
STATPFEM		140	23.8
DTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	140	-0.6
DTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	140	0.1
DTOTPFEM	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	140	-0.4
DSTATALL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	140	0.1
DSTATMAL	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	140	1.1
DSTATPFE	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	140	0.3

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=X		
GRADE	5.7	8.0	40.0
TOTALL	4.9	14.0	42.0
TOTMALE	4.3	15.0	40.0
TOTPFEM	4.7	14.0	41.0
STATALL	5.7	9.0	37.0
STATMALE	5.3	10.0	37.0
STATPFEM	5.4	10.0	36.0
DTOTALL	2.4	-5.0	6.0
DTOTMAL	2.5	-5.0	8.0
DTOTPFEM	2.4	-5.0	7.0
DSTATALL	1.6	-3.0	5.0
DSTATMAL	1.6	-3.0	6.0
DSTATPFE	1.6	-4.0	5.0

VARIABLE	LABEL	N	MEAN
	SEX=F		
RDTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	180	1.4
RDTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	180	2.4
RDTOTPFE	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	180	1.6
RDSTATAL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	180	1.1
RDSTATMA	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	180	2.3
RDSTATPF	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	180	1.5

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=F		
RDTOTALL	2.7	-10.0	7.0
RDTOTMAL	2.9	-9.0	9.0
RDTOTPFE	2.8	-10.0	8.0
RDSTATAL	1.9	-8.0	5.0
RDSTATMA	2.1	-7.0	7.0
RDSTATPF	1.9	-7.0	5.0

VARIABLE	LABEL	N	MEAN
	SEX=M		
RDTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	438	-0.6
RDTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	438	-0.1
RDTOTPFE	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	438	-0.5
RDSTATAL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	438	-0.5
RDSTATMA	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	438	0.0
RDSTATPF	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	438	-0.7

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
	SEX=M		
RDTOTALL	2.6	-8.0	10.0
RDTOTMAL	2.5	-8.0	8.0
RDTOTPFE	2.5	-8.0	10.0
RDSTATAL	1.9	-7.0	5.0
RDSTATMA	1.8	-7.0	6.0
RDSTATPF	1.8	-8.0	6.0

VARIABLE	LABEL	N	MEAN
SEX=X			
RDTOTALL	PRED. MINUS ACTUAL PAY GRADE(TOTALL)	140	-0.6
RDTOTMAL	PRED. MINUS ACTUAL PAY GRADE(TOTMALE)	140	0.1
RDTOTPFE	PRED. MINUS ACTUAL PAY GRADE(TOTPFEM)	140	-0.4
RDSTATAL	PRED. MINUS ACTUAL PAY GRADE(STATALL)	140	0.1
RDSTATMA	PRED. MINUS ACTUAL PAY GRADE(STATMALE)	140	1.1
RDSTATPF	PRED. MINUS ACTUAL PAY GRADE(STATPFEM)	140	0.3

VARIABLE	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
SEX=X			
RDTOTALL	2.4	-5.0	6.0
RDTOTMAL	2.5	-5.0	8.0
RDTOTPFE	2.4	-5.0	7.0
RDSTATAL	1.6	-3.0	5.0
RDSTATMA	1.6	-3.0	6.0
RDSTATPF	1.6	-4.0	5.0

TABLE OF RDTOTALL BY SEX

RDTOTALL PRED. MINUS ACTUAL PAY GRADE(TOTALL) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-10	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
-8	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
-7	0	3	0	3
	0.00	0.40	0.00	0.40
	0.00	100.00	0.00	
	0.00	0.68	0.00	
-6	1	5	0	6
	0.13	0.66	0.00	0.79
	16.67	83.33	0.00	
	0.56	1.14	0.00	
-5	0	18	3	21
	0.00	2.37	0.40	2.77
	0.00	85.71	14.29	
	0.00	4.11	2.14	
-4	4	27	9	40
	0.53	3.56	1.19	5.28
	10.00	67.50	22.50	
	2.22	6.16	6.43	
-3	11	43	19	73
	1.45	5.67	2.51	9.63
	15.07	58.90	26.03	
	6.11	9.82	13.57	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTALL BY SEX

RDTOTALL PRED. MINUS ACTUAL PAY GRADE(TOTALL) SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
-2	8	55	24	87
	1.06	7.26	3.17	11.48
	9.20	63.22	27.59	
	4.44	12.56	17.14	
-1	20	71	25	116
	2.64	9.37	3.30	15.30
	17.24	61.21	21.55	
	11.11	16.21	17.86	
0	16	76	21	113
	2.11	10.03	2.77	14.91
	14.16	67.26	18.58	
	8.89	17.35	15.00	
1	20	70	15	105
	2.64	9.23	1.98	13.85
	19.05	66.67	14.29	
	11.11	15.98	10.71	
2	29	31	5	65
	3.83	4.09	0.66	8.58
	44.62	47.69	7.69	
	16.11	7.08	3.57	
3	26	19	12	57
	3.43	2.51	1.58	7.52
	45.61	33.33	21.05	
	14.44	4.34	8.57	
4	26	9	2	37
	3.43	1.19	0.26	4.88
	70.27	24.32	5.41	
	14.44	2.05	1.43	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTALL BY SEX

RDTOTALL PRED. MINUS ACTUAL PAY GRADE(TOTALL) SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
5	13 1.72 81.25 7.22	1 0.13 6.25 0.23	2 0.26 12.50 1.43	16 2.11
6	3 0.40 30.00 1.67	4 0.53 40.00 0.91	3 0.40 30.00 2.14	10 1.32
7	2 0.26 100.00 1.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.26
8	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
10	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF RDTOTMAL BY SEX

RDTOTMAL PRED. MINUS ACTUAL PAY GRADE(TOTMALE) SEX

RDTOTMAL	F	M	X	TOTAL
-9	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
-8	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
-7	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
-6	1	3	0	4
	0.13	0.40	0.00	0.53
	25.00	75.00	0.00	
	0.56	0.68	0.00	
-5	0	9	1	10
	0.00	1.19	0.13	1.32
	0.00	90.00	10.00	
	0.00	2.05	0.71	
-4	0	26	2	28
	0.00	3.43	0.26	3.69
	0.00	92.86	7.14	
	0.00	5.94	1.43	
-3	6	37	15	58
	0.79	4.88	1.98	7.65
	10.34	63.79	25.86	
	3.33	8.45	10.71	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTMAL BY SEX

RDTOTMAL PRED. MINUS ACTUAL PAY GRADE(TOTMALE) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-2	10	45	20	75
	1.32	5.94	2.64	9.89
	13.33	60.00	26.67	
	5.56	10.27	14.29	
-1	12	68	23	103
	1.58	8.97	3.03	13.59
	11.65	66.02	22.33	
	6.67	15.53	16.43	
0	19	73	29	121
	2.51	9.63	3.83	15.96
	15.70	60.33	23.97	
	10.56	16.67	20.71	
1	15	70	19	104
	1.98	9.23	2.51	13.72
	14.42	67.31	18.27	
	8.33	15.98	13.57	
2	12	44	9	65
	1.58	5.80	1.19	8.58
	18.46	67.69	13.85	
	6.67	10.05	6.43	
3	27	32	7	66
	3.56	4.22	0.92	8.71
	40.91	48.48	10.61	
	15.00	7.31	5.00	
4	29	16	5	50
	3.83	2.11	0.66	6.60
	58.00	32.00	10.00	
	16.11	3.65	3.57	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTMAL BY SEX

RDTOTMAL PRED. MINUS ACTUAL PAY GRADE(TOTMALE) SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
5	29 3.83 70.73 16.11	7 0.92 17.07 1.60	5 0.66 12.20 3.57	41 5.41
6	14 1.85 70.00 7.78	4 0.53 20.00 0.91	2 0.26 10.00 1.43	20 2.64
7	1 0.13 50.00 0.56	0 0.00 0.00 0.00	1 0.13 50.00 0.71	2 0.26
8	3 0.40 42.86 1.67	2 0.26 28.57 0.46	2 0.26 28.57 1.43	7 0.92
9	1 0.13 100.00 0.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF RDTOTPFE BY SEX

RDTOTPFE PRED. MINUS ACTUAL PAY GRADE(TOTPFEM) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-10	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
-8	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
-7	0	2	0	2
	0.00	0.26	0.00	0.26
	0.00	100.00	0.00	
	0.00	0.46	0.00	
-6	1	4	0	5
	0.13	0.53	0.00	0.66
	20.00	80.00	0.00	
	0.56	0.91	0.00	
-5	0	18	2	20
	0.00	2.37	0.26	2.64
	0.00	90.00	10.00	
	0.00	4.11	1.43	
-4	3	23	7	33
	0.40	3.03	0.92	4.35
	9.09	69.70	21.21	
	1.67	5.25	5.00	
-3	11	44	19	74
	1.45	5.80	2.51	9.76
	14.86	59.46	25.68	
	6.11	10.05	13.57	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTPFE BY SEX

RDTOTPFE PRED. MINUS ACTUAL PAY GRADE(TOTPFEM) SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
-2	8	47	21	76
	1.06	6.20	2.77	10.03
	10.53	61.84	27.63	
	4.44	10.73	15.00	
-1	18	77	28	123
	2.37	10.16	3.69	16.23
	14.63	62.60	22.76	
	10.00	17.58	20.00	
0	14	70	19	103
	1.85	9.23	2.51	13.59
	13.59	67.96	18.45	
	7.78	15.98	13.57	
1	18	75	20	113
	2.37	9.89	2.64	14.91
	15.93	66.37	17.70	
	10.00	17.12	14.29	
2	27	33	6	66
	3.56	4.35	0.79	8.71
	40.91	50.00	9.09	
	15.00	7.53	4.29	
3	28	25	9	62
	3.69	3.30	1.19	8.18
	45.16	40.32	14.52	
	15.56	5.71	6.43	
4	30	9	4	43
	3.96	1.19	0.53	5.67
	69.77	20.93	9.30	
	16.67	2.05	2.86	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDTOTPFE BY SEX

RDTOTPFE PRED. MINUS ACTUAL PAY GRADE(TOTPFEM) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
5	15	2	2	19
	1.98	0.26	0.26	2.51
	78.95	10.53	10.53	
	8.33	0.46	1.43	
6	2	3	2	7
	0.26	0.40	0.26	0.92
	28.57	42.86	28.57	
	1.11	0.68	1.43	
7	3	3	1	7
	0.40	0.40	0.13	0.92
	42.86	42.86	14.29	
	1.67	0.68	0.71	
8	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
9	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
10	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF RDSTATAL BY SEX

RDSTATAL PRED. MINUS ACTUAL PAY GRADE(STATALL) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-8	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
-7	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
-6	0	2	0	2
	0.00	0.26	0.00	0.26
	0.00	100.00	0.00	
	0.00	0.46	0.00	
-5	0	10	0	10
	0.00	1.32	0.00	1.32
	0.00	100.00	0.00	
	0.00	2.28	0.00	
-4	1	13	0	14
	0.13	1.72	0.00	1.85
	7.14	92.86	0.00	
	0.56	2.97	0.00	
-3	2	32	5	39
	0.26	4.22	0.66	5.15
	5.13	82.05	12.82	
	1.11	7.31	3.57	
-2	8	60	14	82
	1.06	7.92	1.85	10.82
	9.76	73.17	17.07	
	4.44	13.70	10.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF RDSTATAL BY SEX

RDSTATAL PRED. MINUS ACTUAL PAY GRADE(STATALL) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-1	26	96	29	151
	3.43	12.66	3.83	19.92
	17.22	63.58	19.21	
	14.44	21.92	20.71	
0	27	100	39	166
	3.56	13.19	5.15	21.90
	16.27	60.24	23.49	
	15.00	22.83	27.86	
1	28	69	32	129
	3.69	9.10	4.22	17.02
	21.71	53.49	24.81	
	15.56	15.75	22.86	
2	47	36	13	96
	6.20	4.75	1.72	12.66
	48.96	37.50	13.54	
	26.11	8.22	9.29	
3	22	14	0	36
	2.90	1.85	0.00	4.75
	61.11	38.89	0.00	
	12.22	3.20	0.00	
4	13	4	5	22
	1.72	0.53	0.66	2.90
	59.09	18.18	22.73	
	7.22	0.91	3.57	
5	5	1	3	9
	0.66	0.13	0.40	1.19
	55.56	11.11	33.33	
	2.78	0.23	2.14	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF RDSTATMA BY SEX

RDSTATMA PRED. MINUS ACTUAL PAY GRADE(STATMALE) SEX

FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
-7	1 0.13 50.00 0.56	1 0.13 50.00 0.23	0 0.00 0.00 0.00	2 0.26
-5	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
-4	1 0.13 7.69 0.56	12 1.58 92.31 2.74	0 0.00 0.00 0.00	13 1.72
-3	0 0.00 0.00 0.00	14 1.85 87.50 3.20	2 0.26 12.50 1.43	16 2.11
-2	2 0.26 3.64 1.11	50 6.60 90.91 11.42	3 0.40 5.45 2.14	55 7.26
-1	12 1.58 10.62 6.67	88 11.61 77.88 20.09	13 1.72 11.50 9.29	113 14.91
0	18 2.37 11.69 10.00	105 13.85 68.18 23.97	31 4.09 20.13 22.14	154 20.32
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF RDSTATMA BY SEX

RDSTATMA PRED. MINUS ACTUAL PAY GRADE(STATMALE) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
1	27	82	44	153
	3.56	10.82	5.80	20.18
	17.65	53.59	28.76	
	15.00	18.72	31.43	
2	27	52	26	105
	3.56	6.86	3.43	13.85
	25.71	49.52	24.76	
	15.00	11.87	18.57	
3	36	21	10	67
	4.75	2.77	1.32	8.84
	53.73	31.34	14.93	
	20.00	4.79	7.14	
4	30	10	5	45
	3.96	1.32	0.66	5.94
	66.67	22.22	11.11	
	16.67	2.28	3.57	
5	17	0	3	20
	2.24	0.00	0.40	2.64
	85.00	0.00	15.00	
	9.44	0.00	2.14	
6	8	1	3	12
	1.06	0.13	0.40	1.58
	66.67	8.33	25.00	
	4.44	0.23	2.14	
7	1	0	0	1
	0.13	0.00	0.00	0.13
	100.00	0.00	0.00	
	0.56	0.00	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF RDSTATPF BY SEX

RDSTATPF PRED. MINUS ACTUAL PAY GRADE(STATPFEM) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
-8	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
-7	1 0.13 100.00 0.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13
-6	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
-5	0 0.00 0.00 0.00	10 1.32 100.00 2.28	0 0.00 0.00 0.00	10 1.32
-4	1 0.13 7.14 0.56	12 1.58 85.71 2.74	1 0.13 7.14 0.71	14 1.85
-3	0 0.00 0.00 0.00	33 4.35 91.67 7.53	3 0.40 8.33 2.14	36 4.75
-2	7 0.92 7.29 3.89	80 10.55 83.33 18.26	9 1.19 9.38 6.43	96 12.66
-1	20 2.64 13.61 11.11	102 13.46 69.39 23.29	25 3.30 17.01 17.86	147 19.39
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF RDSTATPF BY SEX

RDSTATPF PRED. MINUS ACTUAL PAY GRADE(STATPFEM) SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
0	22	95	45	162
	2.90	12.53	5.94	21.37
	13.58	58.64	27.78	
	12.22	21.69	32.14	
1	32	56	34	122
	4.22	7.39	4.49	16.09
	26.23	45.90	27.87	
	17.78	12.79	24.29	
2	40	31	11	82
	5.28	4.09	1.45	10.82
	48.78	37.80	13.41	
	22.22	7.08	7.86	
3	33	13	5	51
	4.35	1.72	0.66	6.73
	64.71	25.49	9.80	
	18.33	2.97	3.57	
4	17	0	4	21
	2.24	0.00	0.53	2.77
	80.95	0.00	19.05	
	9.44	0.00	2.86	
5	7	0	3	10
	0.92	0.00	0.40	1.32
	70.00	0.00	30.00	
	3.89	0.00	2.14	
6	0	1	0	1
	0.00	0.13	0.00	0.13
	0.00	100.00	0.00	
	0.00	0.23	0.00	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

TABLE OF TOTALL BY SEX

TOTALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
13	1 0.13 100.00 0.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13
14	4 0.53 40.00 2.22	2 0.26 20.00 0.46	4 0.53 40.00 2.86	10 1.32
15	11 1.45 47.83 6.11	7 0.92 30.43 1.60	5 0.66 21.74 3.57	23 3.03
16	25 3.30 60.98 13.89	10 1.32 24.39 2.28	6 0.79 14.63 4.29	41 5.41
17	17 2.24 47.22 9.44	15 1.98 41.67 3.42	4 0.53 11.11 2.86	36 4.75
18	17 2.24 40.48 9.44	18 2.37 42.86 4.11	7 0.92 16.67 5.00	42 5.54
19	15 1.98 30.61 8.33	24 3.17 48.98 5.48	10 1.32 20.41 7.14	49 6.46
20	13 1.72 28.89 7.22	25 3.30 55.56 5.71	7 0.92 15.56 5.00	45 5.94
21	14 1.85 25.45 7.78	26 3.43 47.27 5.94	15 1.98 27.27 10.71	55 7.26
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTALL BY SEX

TOTALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
22	13	33	11	57
	1.72	4.35	1.45	7.52
	22.81	57.89	19.30	
	7.22	7.53	7.86	
23	7	34	10	51
	0.92	4.49	1.32	6.73
	13.73	66.67	19.61	
	3.89	7.76	7.14	
24	7	33	10	50
	0.92	4.35	1.32	6.60
	14.00	66.00	20.00	
	3.89	7.53	7.14	
25	2	24	11	37
	0.26	3.17	1.45	4.88
	5.41	64.86	29.73	
	1.11	5.48	7.86	
26	13	28	7	48
	1.72	3.69	0.92	6.33
	27.08	58.33	14.58	
	7.22	6.39	5.00	
27	4	28	13	45
	0.53	3.69	1.72	5.94
	8.89	62.22	28.89	
	2.22	6.39	9.29	
28	5	23	3	31
	0.66	3.03	0.40	4.09
	16.13	74.19	9.68	
	2.78	5.25	2.14	
29	3	19	7	29
	0.40	2.51	0.92	3.83
	10.34	65.52	24.14	
	1.67	4.34	5.00	
30	3	22	3	28
	0.40	2.90	0.40	3.69
	10.71	78.57	10.71	
	1.67	5.02	2.14	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF TOTALL BY SEX

TOTALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
31	1 0.13 10.00 0.56	8 1.06 80.00 1.83	1 0.13 10.00 0.71	10 1.32
32	1 0.13 6.67 0.56	12 1.58 80.00 2.74	2 0.26 13.33 1.43	15 1.98
33	1 0.13 9.09 0.56	9 1.19 81.82 2.05	1 0.13 9.09 0.71	11 1.45
34	0 0.00 0.00 0.00	5 0.66 83.33 1.14	1 0.13 16.67 0.71	6 0.79
35	0 0.00 0.00 0.00	4 0.53 80.00 0.91	1 0.13 20.00 0.71	5 0.66
36	1 0.13 14.29 0.56	6 0.79 85.71 1.37	0 0.00 0.00 0.00	7 0.92
37	1 0.13 25.00 0.56	3 0.40 75.00 0.68	0 0.00 0.00 0.00	4 0.53
38	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
39	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTALL BY SEX

TOTALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
40	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
41	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
42	0 0.00 0.00 0.00	1 0.13 50.00 0.23	1 0.13 50.00 0.71	2 0.26
43	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
45	1 0.13 33.33 0.56	2 0.26 66.67 0.46	0 0.00 0.00 0.00	3 0.40
46	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
48	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
49	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
50	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF TOTMALE BY SEX

TOTMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
15	2 0.26 66.67 1.11	0 0.00 0.00 0.00	1 0.13 33.33 0.71	3 0.40
16	8 1.06 47.06 4.44	4 0.53 23.53 0.91	5 0.66 29.41 3.57	17 2.24
17	16 2.11 51.61 8.89	9 1.19 29.03 2.05	6 0.79 19.35 4.29	31 4.09
18	24 3.17 52.17 13.33	16 2.11 34.78 3.65	6 0.79 13.04 4.29	46 6.07
19	23 3.03 46.00 12.78	19 2.51 38.00 4.34	8 1.06 16.00 5.71	50 6.60
20	15 1.98 32.61 8.33	22 2.90 47.83 5.02	9 1.19 19.57 6.43	46 6.07
21	15 1.98 27.78 8.33	31 4.09 57.41 7.08	8 1.06 14.81 5.71	54 7.12
22	14 1.85 23.33 7.78	29 3.83 48.33 6.62	17 2.24 28.33 12.14	60 7.92
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTMALE BY SEX

TOTMALE SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
23	13	39	12	64
	1.72	5.15	1.58	8.44
	20.31	60.94	18.75	
	7.22	8.90	8.57	
24	9	37	10	56
	1.19	4.88	1.32	7.39
	16.07	66.07	17.86	
	5.00	8.45	7.14	
25	7	35	10	52
	0.92	4.62	1.32	6.86
	13.46	67.31	19.23	
	3.89	7.99	7.14	
26	7	31	13	51
	0.92	4.09	1.72	6.73
	13.73	60.78	25.49	
	3.89	7.08	9.29	
27	10	31	11	52
	1.32	4.09	1.45	6.86
	19.23	59.62	21.15	
	5.56	7.08	7.86	
28	4	23	7	34
	0.53	3.03	0.92	4.49
	11.76	67.65	20.59	
	2.22	5.25	5.00	
29	3	23	7	33
	0.40	3.03	0.92	4.35
	9.09	69.70	21.21	
	1.67	5.25	5.00	
30	4	22	3	29
	0.53	2.90	0.40	3.83
	13.79	75.86	10.34	
	2.22	5.02	2.14	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF TOTMALE BY SEX

TOTMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
31	1 0.13 7.14 0.56	11 1.45 78.57 2.51	2 0.26 14.29 1.43	14 1.85
32	1 0.13 7.69 0.56	11 1.45 84.62 2.51	1 0.13 7.69 0.71	13 1.72
33	1 0.13 9.09 0.56	8 1.06 72.73 1.83	2 0.26 18.18 1.43	11 1.45
34	0 0.00 0.00 0.00	7 0.92 87.50 1.60	1 0.13 12.50 0.71	8 1.06
35	1 0.13 16.67 0.56	5 0.66 83.33 1.14	0 0.00 0.00 0.00	6 0.79
36	1 0.13 16.67 0.56	5 0.66 83.33 1.14	0 0.00 0.00 0.00	6 0.79
37	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
38	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTMALE BY SEX

TOTMALE SEX

FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
39	0 0.00 0.00 0.00	5 0.66 100.00 1.14	0 0.00 0.00 0.00	5 0.66
40	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13 100.00 0.71	1 0.13
41	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
43	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
44	1 0.13 33.33 0.56	2 0.26 66.67 0.46	0 0.00 0.00 0.00	3 0.40
46	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
47	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
48	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF TOTPFEM BY SEX

TOTPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
13	1 0.13 100.00 0.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13
14	1 0.13 25.00 0.56	0 0.00 0.00 0.00	3 0.40 75.00 2.14	4 0.53
15	8 1.06 44.44 4.44	6 0.79 33.33 1.37	4 0.53 22.22 2.86	18 2.37
16	20 2.64 62.50 11.11	7 0.92 21.88 1.60	5 0.66 15.63 3.57	32 4.22
17	19 2.51 47.50 10.56	15 1.98 37.50 3.42	6 0.79 15.00 4.29	40 5.28
18	23 3.03 48.94 12.78	16 2.11 34.04 3.65	8 1.06 17.02 5.71	47 6.20
19	13 1.72 30.95 7.22	22 2.90 52.38 5.02	7 0.92 16.67 5.00	42 5.54
20	17 2.24 32.08 9.44	29 3.83 54.72 6.62	7 0.92 13.21 5.00	53 6.99
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTPFEM BY SEX

TOTPFEM	SEX			
FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
21	15	28	17	60
	1.98	3.69	2.24	7.92
	25.00	46.67	28.33	
	8.33	6.39	12.14	
22	11	24	8	43
	1.45	3.17	1.06	5.67
	25.58	55.81	18.60	
	6.11	5.48	5.71	
23	7	37	12	56
	0.92	4.88	1.58	7.39
	12.50	66.07	21.43	
	3.89	8.45	8.57	
24	8	42	10	60
	1.06	5.54	1.32	7.92
	13.33	70.00	16.67	
	4.44	9.59	7.14	
25	3	23	11	37
	0.40	3.03	1.45	4.88
	8.11	62.16	29.73	
	1.67	5.25	7.86	
26	13	29	8	50
	1.72	3.83	1.06	6.60
	26.00	58.00	16.00	
	7.22	6.62	5.71	
27	4	27	14	45
	0.53	3.56	1.85	5.94
	8.89	60.00	31.11	
	2.22	6.16	10.00	
28	5	25	3	33
	0.66	3.30	0.40	4.35
	15.15	75.76	9.09	
	2.78	5.71	2.14	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF TOTPFEM BY SEX

TOTPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
29	3 0.40 10.34 1.67	19 2.51 65.52 4.34	7 0.92 24.14 5.00	29 3.83
30	3 0.40 10.71 1.67	22 2.90 78.57 5.02	3 0.40 10.71 2.14	28 3.69
31	1 0.13 9.09 0.56	9 1.19 81.82 2.05	1 0.13 9.09 0.71	11 1.45
32	1 0.13 6.67 0.56	12 1.58 80.00 2.74	2 0.26 13.33 1.43	15 1.98
33	1 0.13 10.00 0.56	8 1.06 80.00 1.83	1 0.13 10.00 0.71	10 1.32
34	0 0.00 0.00 0.00	7 0.92 77.78 1.60	2 0.26 22.22 1.43	9 1.19
35	1 0.13 25.00 0.56	3 0.40 75.00 0.68	0 0.00 0.00 0.00	4 0.53
36	1 0.13 14.29 0.56	6 0.79 85.71 1.37	0 0.00 0.00 0.00	7 0.92
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTPFEM BY SEX

TOTPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
37	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
38	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
39	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
40	0 0.00 0.00 0.00	3 0.40 100.00 0.68	0 0.00 0.00 0.00	3 0.40
41	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13 100.00 0.71	1 0.13
42	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
44	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
45	1 0.13 50.00 0.56	1 0.13 50.00 0.23	0 0.00 0.00 0.00	2 0.26
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF TOTPFEM BY SEX

TOTPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
46	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
47	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
48	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
49	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
50	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF STATALL BY SEX

STATALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
9	1 0.13 20.00 0.56	2 0.26 40.00 0.46	2 0.26 40.00 1.43	5 0.66
10	4 0.53 44.44 2.22	2 0.26 22.22 0.46	3 0.40 33.33 2.14	9 1.19
11	5 0.66 55.56 2.78	3 0.40 33.33 0.68	1 0.13 11.11 0.71	9 1.19
12	6 0.79 60.00 3.33	3 0.40 30.00 0.68	1 0.13 10.00 0.71	10 1.32
13	6 0.79 50.00 3.33	5 0.66 41.67 1.14	1 0.13 8.33 0.71	12 1.58
14	14 1.85 56.00 7.78	7 0.92 28.00 1.60	4 0.53 16.00 2.86	25 3.30
15	10 1.32 50.00 5.56	9 1.19 45.00 2.05	1 0.13 5.00 0.71	20 2.64
16	7 0.92 46.67 3.89	4 0.53 26.67 0.91	4 0.53 26.67 2.86	15 1.98
17	11 1.45 40.74 6.11	13 1.72 48.15 2.97	3 0.40 11.11 2.14	27 3.56
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATALL BY SEX

STATALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
18	14 1.85 43.75 7.78	13 1.72 40.63 2.97	5 0.66 15.63 3.57	32 4.22
19	12 1.58 41.38 6.67	15 1.98 51.72 3.42	2 0.26 6.90 1.43	29 3.83
20	5 0.66 19.23 2.78	14 1.85 53.85 3.20	7 0.92 26.92 5.00	26 3.43
21	9 1.19 17.65 5.00	30 3.96 58.82 6.85	12 1.58 23.53 8.57	51 6.73
22	16 2.11 31.37 8.89	26 3.43 50.98 5.94	9 1.19 17.65 6.43	51 6.73
23	9 1.19 25.00 5.00	19 2.51 52.78 4.34	8 1.06 22.22 5.71	36 4.75
24	5 0.66 12.50 2.78	27 3.56 67.50 6.16	8 1.06 20.00 5.71	40 5.28
25	5 0.66 11.11 2.78	29 3.83 64.44 6.62	11 1.45 24.44 7.86	45 5.94
26	7 0.92 17.07 3.89	24 3.17 58.54 5.48	10 1.32 24.39 7.14	41 5.41
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATALL BY SEX

STATALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
27	8 1.06 16.00 4.44	33 4.35 66.00 7.53	9 1.19 18.00 6.43	50 6.60
28	7 0.92 18.42 3.89	21 2.77 55.26 4.79	10 1.32 26.32 7.14	38 5.01
29	4 0.53 10.26 2.22	23 3.03 58.97 5.25	12 1.58 30.77 8.57	39 5.15
30	6 0.79 17.14 3.33	23 3.03 65.71 5.25	6 0.79 17.14 4.29	35 4.62
31	3 0.40 10.71 1.67	20 2.64 71.43 4.57	5 0.66 17.86 3.57	28 3.69
32	3 0.40 10.34 1.67	25 3.30 86.21 5.71	1 0.13 3.45 0.71	29 3.83
33	1 0.13 5.56 0.56	14 1.85 77.78 3.20	3 0.40 16.67 2.14	18 2.37
34	0 0.00 0.00 0.00	10 1.32 90.91 2.28	1 0.13 9.09 0.71	11 1.45
35	1 0.13 16.67 0.56	5 0.66 83.33 1.14	0 0.00 0.00 0.00	6 0.79
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF STATALL BY SEX

STATALL	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
36	0 0.00 0.00 0.00	5 0.66 100.00 1.14	0 0.00 0.00 0.00	5 0.66
37	0 0.00 0.00 0.00	4 0.53 80.00 0.91	1 0.13 20.00 0.71	5 0.66
38	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
39	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
40	1 0.13 50.00 0.56	1 0.13 50.00 0.23	0 0.00 0.00 0.00	2 0.26
41	0 0.00 0.00 0.00	1 0.13 100.00 0.23	0 0.00 0.00 0.00	1 0.13
42	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF STATMALE BY SEX

STATMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
10	0 0.00 0.00 0.00	1 0.13 50.00 0.23	1 0.13 50.00 0.71	2 0.26
11	2 0.26 33.33 1.11	2 0.26 33.33 0.46	2 0.26 33.33 1.43	6 0.79
12	4 0.53 40.00 2.22	3 0.40 30.00 0.68	3 0.40 30.00 2.14	10 1.32
13	6 0.79 54.55 3.33	5 0.66 45.45 1.14	0 0.00 0.00 0.00	11 1.45
14	6 0.79 50.00 3.33	4 0.53 33.33 0.91	2 0.26 16.67 1.43	12 1.58
15	6 0.79 40.00 3.33	7 0.92 46.67 1.60	2 0.26 13.33 1.43	15 1.98
16	12 1.58 52.17 6.67	9 1.19 39.13 2.05	2 0.26 8.70 1.43	23 3.03
17	12 1.58 54.55 6.67	7 0.92 31.82 1.60	3 0.40 13.64 2.14	22 2.90
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATMALE BY SEX

STATMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
18	8 1.06 25.81 4.44	18 2.37 58.06 4.11	5 0.66 16.13 3.57	31 4.09
19	12 1.58 48.00 6.67	10 1.32 40.00 2.28	3 0.40 12.00 2.14	25 3.30
20	17 2.24 45.95 9.44	17 2.24 45.95 3.88	3 0.40 8.11 2.14	37 4.88
21	8 1.06 25.00 4.44	18 2.37 56.25 4.11	6 0.79 18.75 4.29	32 4.22
22	9 1.19 22.50 5.00	23 3.03 57.50 5.25	8 1.06 20.00 5.71	40 5.28
23	19 2.51 29.69 10.56	29 3.83 45.31 6.62	16 2.11 25.00 11.43	64 8.44
24	9 1.19 23.08 5.00	24 3.17 61.54 5.48	6 0.79 15.38 4.29	39 5.15
25	5 0.66 11.63 2.78	31 4.09 72.09 7.08	7 0.92 16.28 5.00	43 5.67
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATMALE BY SEX

STATMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
26	6 0.79 15.38 3.33	17 2.24 43.59 3.88	16 2.11 41.03 11.43	39 5.15
27	8 1.06 17.02 4.44	30 3.96 63.83 6.85	9 1.19 19.15 6.43	47 6.20
28	9 1.19 18.00 5.00	30 3.96 60.00 6.85	11 1.45 22.00 7.86	50 6.60
29	7 0.92 15.22 3.89	26 3.43 56.52 5.94	13 1.72 28.26 9.29	46 6.07
30	5 0.66 12.82 2.78	23 3.03 58.97 5.25	11 1.45 28.21 7.86	39 5.15
31	4 0.53 11.76 2.22	27 3.56 79.41 6.16	3 0.40 8.82 2.14	34 4.49
32	4 0.53 12.50 2.22	26 3.43 81.25 5.94	2 0.26 6.25 1.43	32 4.22
33	0 0.00 0.00 0.00	17 2.24 85.00 3.88	3 0.40 15.00 2.14	20 2.64
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATMALE BY SEX

STATMALE	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
34	1 0.13 8.33 0.56	9 1.19 75.00 2.05	2 0.26 16.67 1.43	12 1.58
35	0 0.00 0.00 0.00	7 0.92 100.00 1.60	0 0.00 0.00 0.00	7 0.92
36	0 0.00 0.00 0.00	6 0.79 100.00 1.37	0 0.00 0.00 0.00	6 0.79
37	0 0.00 0.00 0.00	3 0.40 75.00 0.68	1 0.13 25.00 0.71	4 0.53
38	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
39	1 0.13 50.00 0.56	1 0.13 50.00 0.23	0 0.00 0.00 0.00	2 0.26
40	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
41	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

TABLE OF STATPFEM BY SEX

STATPFEM	SEX			
FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
10	1	3	3	7
	0.13	0.40	0.40	0.92
	14.29	42.86	42.86	
	0.56	0.68	2.14	
11	4	3	2	9
	0.53	0.40	0.26	1.19
	44.44	33.33	22.22	
	2.22	0.68	1.43	
12	7	4	1	12
	0.92	0.53	0.13	1.58
	58.33	33.33	8.33	
	3.89	0.91	0.71	
13	5	4	2	11
	0.66	0.53	0.26	1.45
	45.45	36.36	18.18	
	2.78	0.91	1.43	
14	10	9	1	20
	1.32	1.19	0.13	2.64
	50.00	45.00	5.00	
	5.56	2.05	0.71	
15	13	8	4	25
	1.72	1.06	0.53	3.30
	52.00	32.00	16.00	
	7.22	1.83	2.86	
16	9	5	3	17
	1.19	0.66	0.40	2.24
	52.94	29.41	17.65	
	5.00	1.14	2.14	
17	9	15	1	25
	1.19	1.98	0.13	3.30
	36.00	60.00	4.00	
	5.00	3.42	0.71	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF STATPFEM BY SEX

STATPFEM	SEX			
FREQUENCY / PERCENT / ROW PCT / COL PCT	F	M	X	TOTAL
18	12	13	5	30
	1.58	1.72	0.66	3.96
	40.00	43.33	16.67	
	6.67	2.97	3.57	
19	13	16	4	33
	1.72	2.11	0.53	4.35
	39.39	48.48	12.12	
	7.22	3.65	2.86	
20	9	13	6	28
	1.19	1.72	0.79	3.69
	32.14	46.43	21.43	
	5.00	2.97	4.29	
21	7	27	6	40
	0.92	3.56	0.79	5.28
	17.50	67.50	15.00	
	3.89	6.16	4.29	
22	15	30	13	58
	1.98	3.96	1.72	7.65
	25.86	51.72	22.41	
	8.33	6.85	9.29	
23	13	23	12	48
	1.72	3.03	1.58	6.33
	27.08	47.92	25.00	
	7.22	5.25	8.57	
24	7	26	8	41
	0.92	3.43	1.06	5.41
	17.07	63.41	19.51	
	3.89	5.94	5.71	
25	6	28	11	45
	0.79	3.69	1.45	5.94
	13.33	62.22	24.44	
	3.33	6.39	7.86	
TOTAL	180	438	140	758
	23.75	57.78	18.47	100.00

(CONTINUED)

TABLE OF STATPFEM BY SEX

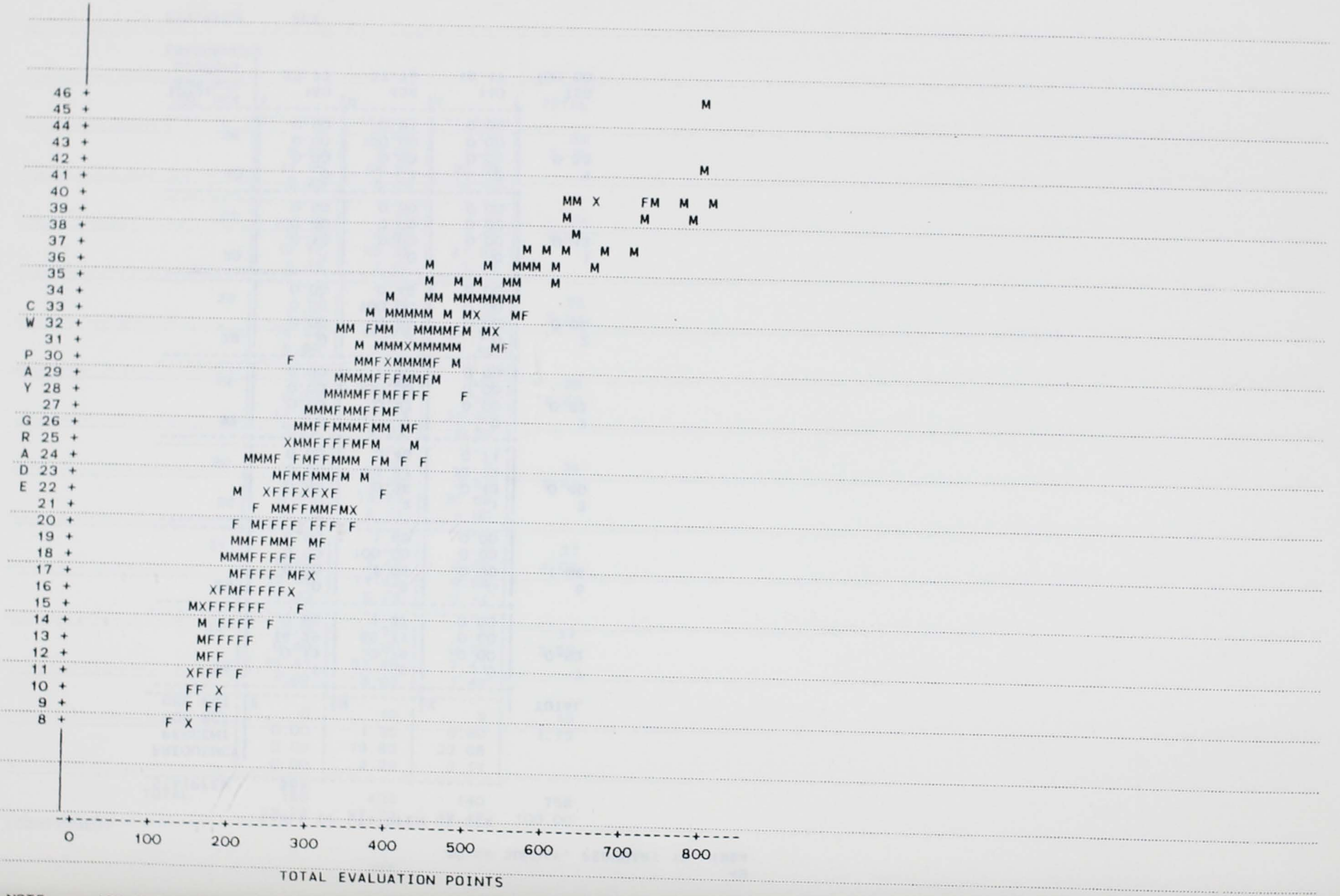
STATPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
26	7 0.92 17.95 3.89	23 3.03 58.97 5.25	9 1.19 23.08 6.43	39 5.15
27	6 0.79 12.77 3.33	31 4.09 65.96 7.08	10 1.32 21.28 7.14	47 6.20
28	10 1.32 26.32 5.56	17 2.24 44.74 3.88	11 1.45 28.95 7.86	38 5.01
29	6 0.79 12.50 3.33	30 3.96 62.50 6.85	12 1.58 25.00 8.57	48 6.33
30	2 0.26 5.88 1.11	25 3.30 73.53 5.71	7 0.92 20.59 5.00	34 4.49
31	4 0.53 12.90 2.22	24 3.17 77.42 5.48	3 0.40 9.68 2.14	31 4.09
32	3 0.40 11.11 1.67	22 2.90 81.48 5.02	2 0.26 7.41 1.43	27 3.56
33	0 0.00 0.00 0.00	10 1.32 76.92 2.28	3 0.40 23.08 2.14	13 1.72
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

(CONTINUED)

TABLE OF STATPFEM BY SEX

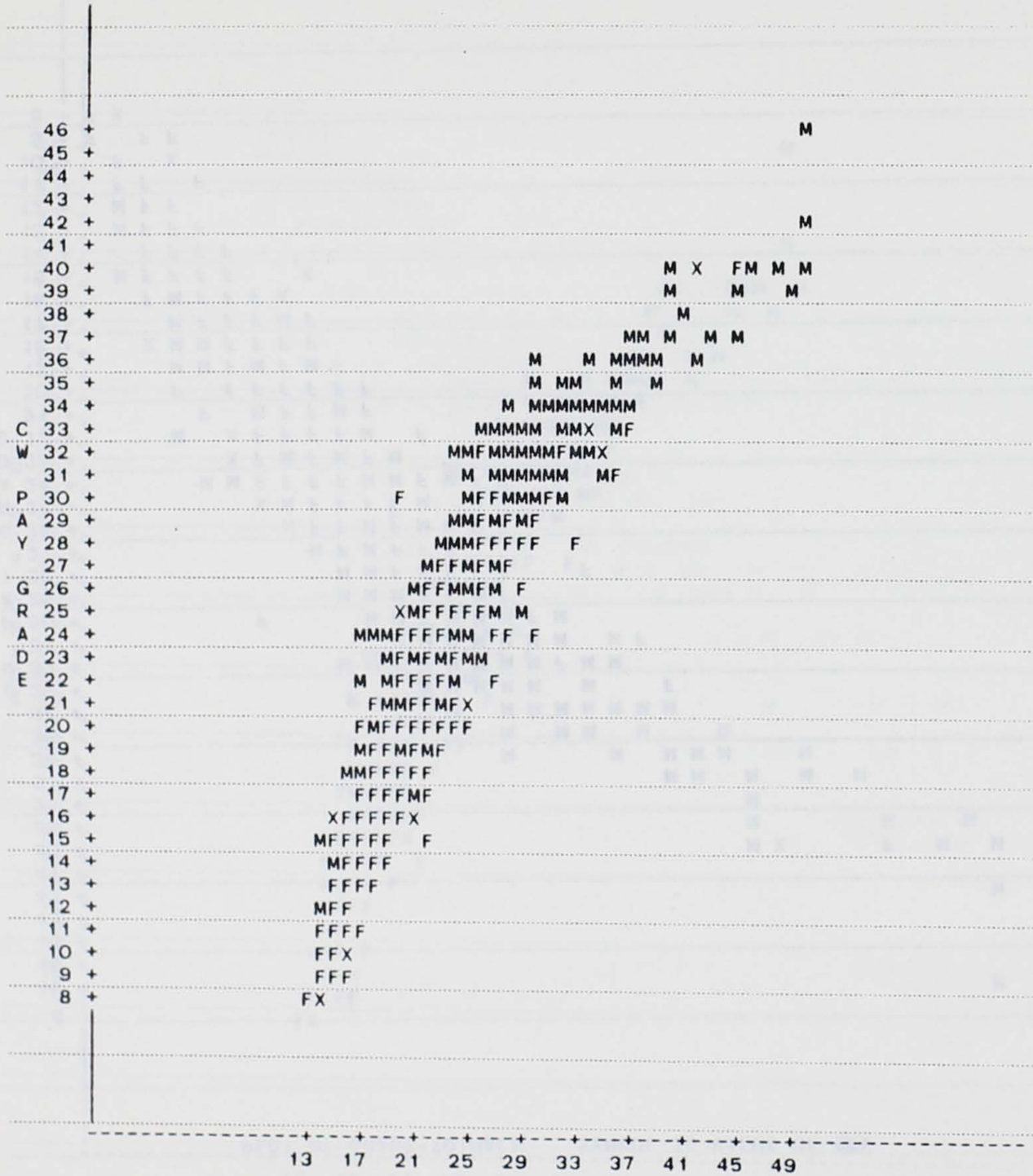
STATPFEM	SEX			
FREQUENCY PERCENT ROW PCT COL PCT	F	M	X	TOTAL
34	1 0.13 14.29 0.56	6 0.79 85.71 1.37	0 0.00 0.00 0.00	7 0.92
35	0 0.00 0.00 0.00	8 1.06 100.00 1.83	0 0.00 0.00 0.00	8 1.06
36	0 0.00 0.00 0.00	2 0.26 66.67 0.46	1 0.13 33.33 0.71	3 0.40
37	0 0.00 0.00 0.00	7 0.92 100.00 1.60	0 0.00 0.00 0.00	7 0.92
38	0 0.00 0.00 0.00	2 0.26 100.00 0.46	0 0.00 0.00 0.00	2 0.26
39	1 0.13 100.00 0.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.13
40	0 0.00 0.00 0.00	4 0.53 100.00 0.91	0 0.00 0.00 0.00	4 0.53
TOTAL	180 23.75	438 57.78	140 18.47	758 100.00

PLOT OF GRADE*TOTAL SYMBOL IS VALUE OF SEX



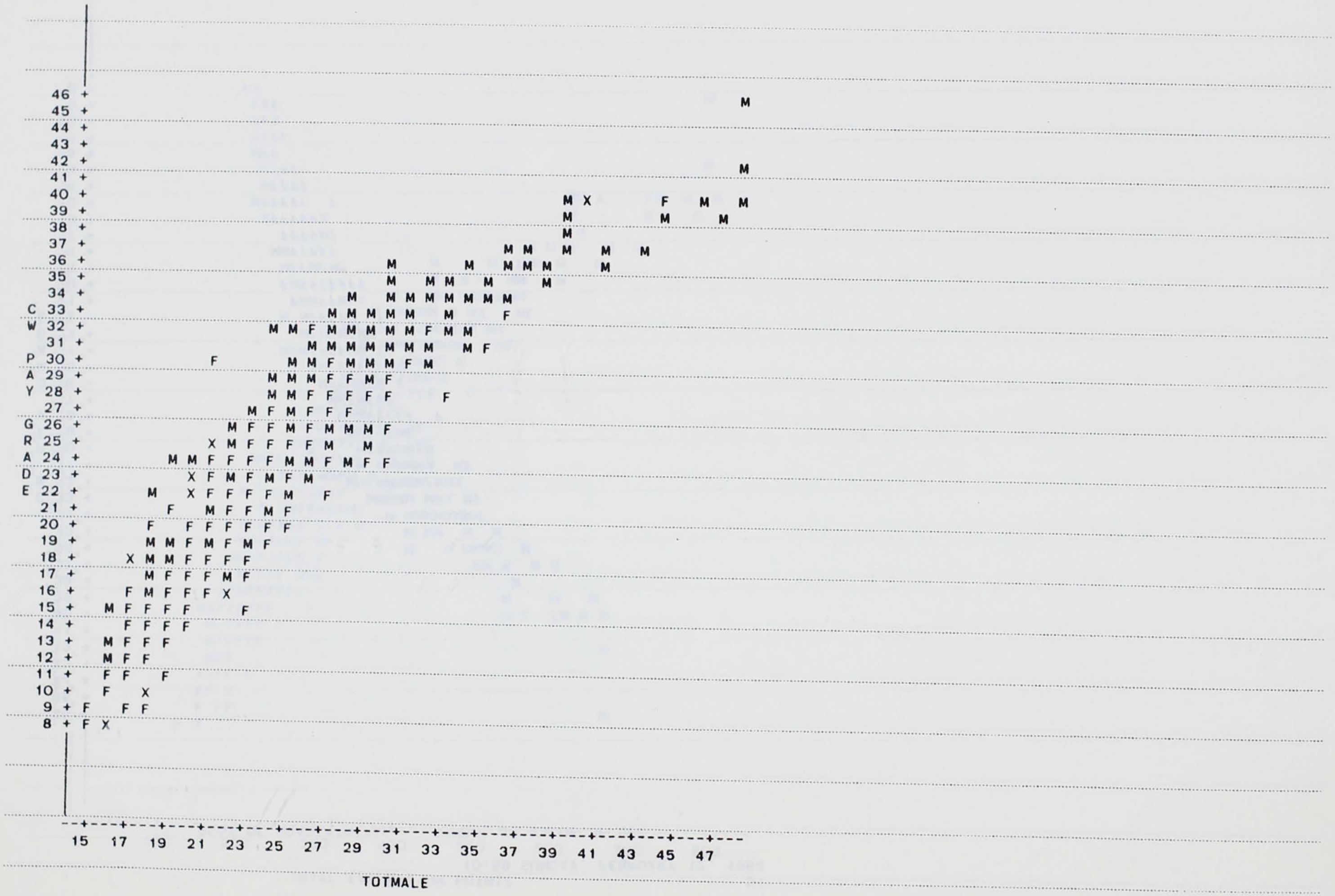
NOTE: 488 OBS HIDDEN

PLOT OF GRADE*TOTALL SYMBOL IS VALUE OF SEX



NOTE: 537 OBS HIDDEN

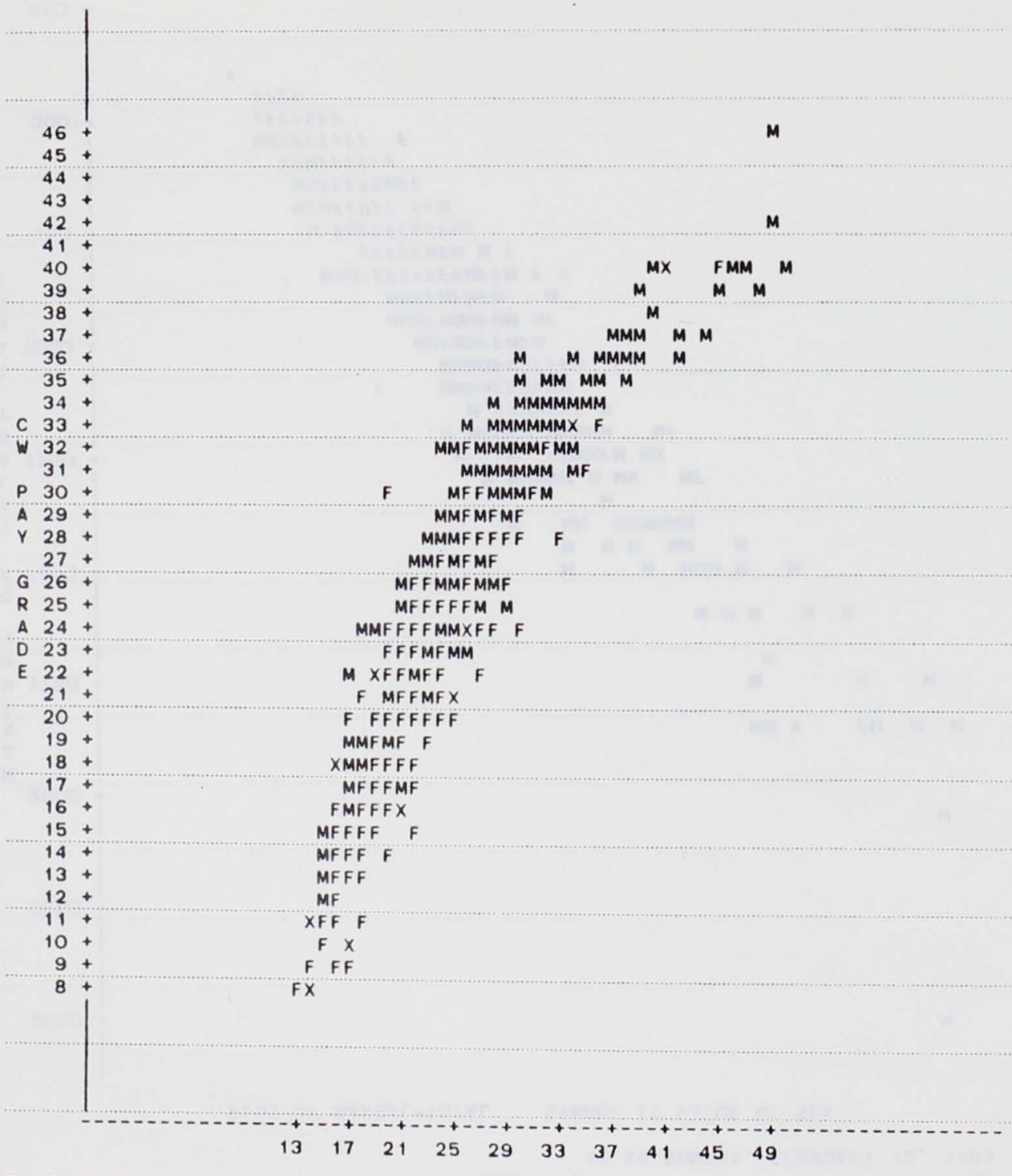
PLOT OF GRADE*TOTMALE SYMBOL IS VALUE OF SEX



NOTE: 556 OBS HIDDEN

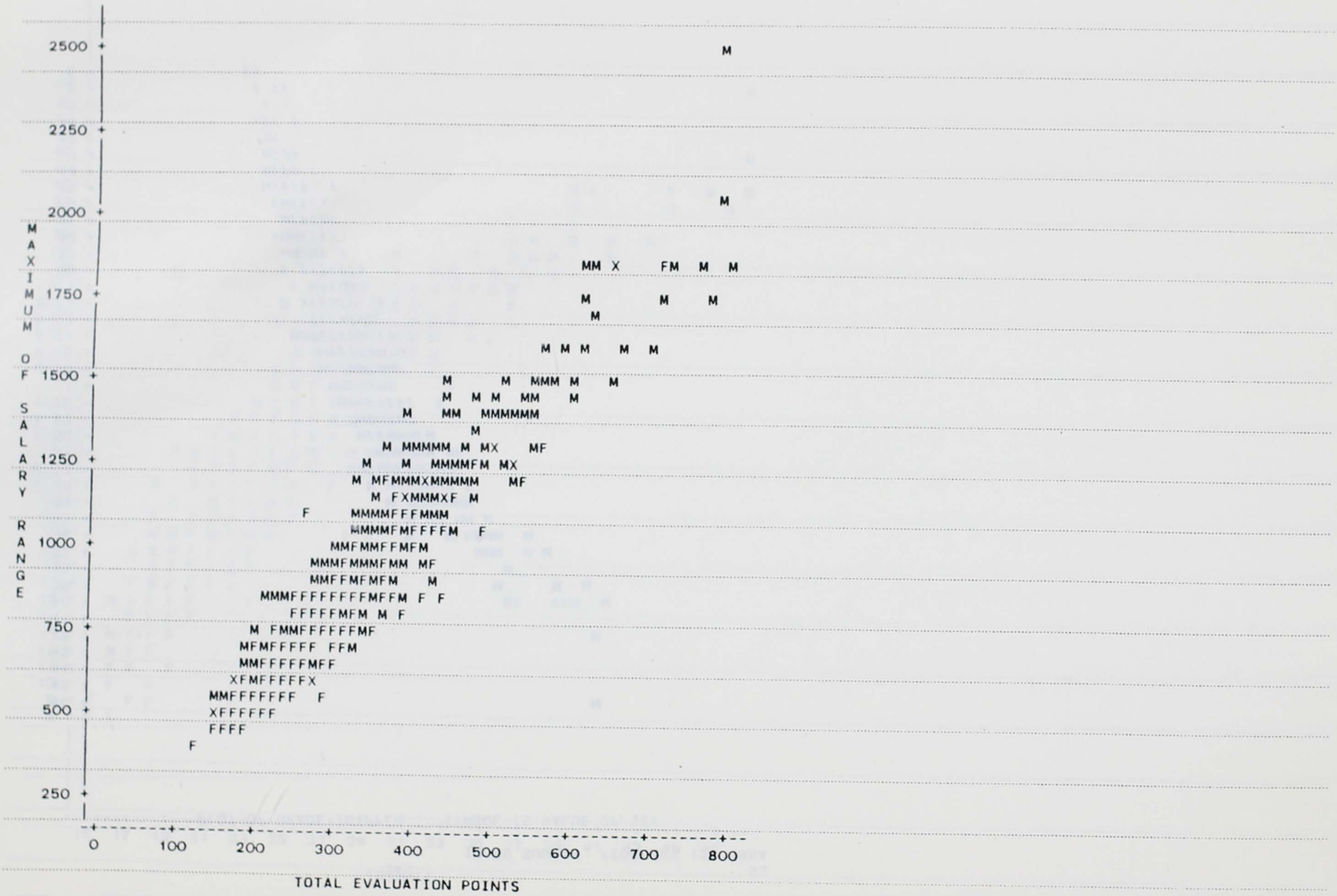
NOTE: 556 OBS HIDDEN

PLOT OF GRADE*TOTPFEM SYMBOL IS VALUE OF SEX



NOTE: 547 OBS HIDDEN

PLOT OF MAXSAL*TOTAL SYMBOL IS VALUE OF SEX



NOTE: 527 OBS HIDDEN

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