

# Revision of the Factor Evaluation System



**Personnel Resources and Development Center  
U.S. Office of Personnel Management**

# PURPOSE OF THE STUDY

To validate a factor evaluation system that has fewer than nine factors. At the same time, to work with the Bureau of Labor and Statistics (BLS) to develop a simpler way for BLS field economists to gather and analyze the data necessary for use in General Schedule salary surveys.



# THE BENEFITS

To support the mission of the U.S. Office of Personnel Management by (a) simplifying the position classification system, and (b) enhancing the General Schedule salary survey process.



# STRUCTURE OF THE FES

## Factor 1 - Knowledge Required by the Position

- Kind or nature of knowledge and skills needed.
- How the knowledge and skills are used in doing the work.

## Factor 2 - Supervisory Controls

- How the work is assigned.
- Employee's responsibility for carrying out the work.
- How the work is reviewed.

## Factor 3 - Guidelines

- Nature of guidelines for performing the work.
- Judgment needed to apply the guidelines or develop new guidelines.

## Factor 4 - Complexity

- Nature of the assignment.
- Difficulty in identifying what needs to be done.
- Difficulty and originality involved in performing the work.

## Factor 5 - Scope and Effect

- Purpose of the work.
- Impact of the work product or service.

## Factor 6 - Personal Contacts

- People and conditions/settings under which contacts are made.

## Factor 7 - Purpose of Contacts

- Reasons for contacts in Factor 6.

## Factor 8 - Physical Demands

- Nature, frequency, and intensity of physical activity.

## Factor 9 - Work Environment

- Risks and discomforts caused by physical surroundings and the safety precautions necessary to avoid accidents or discomforts.



# THE APPROACH

**Develop a database of federal position descriptions using the FES structure to identify common factor patterns.**

- > Identify representative sample of professional/administrative, technical, and clerical occupations**
  - a. Use CPDF data to identify high frequency jobs**
  - b. Use BLS data to identify benchmark occupations**
- > Select appropriate grade levels to test**
- > Gather governmentwide sample of position descriptions**
- > Create database from factor level points**
- > Conduct a factor analysis to identify factor relationships**



# Target List of Federal Occupations Under FES Structure

0080 Security Administration	0560 Budget Analysis
0083 Police	0561 Budget Clerical and Assistance
0085 Security Guard	0592 Tax Examining
0099 Veterinary Medical Officer	0603 Physician Assistant
0105 Social Security Administration	0610 Nurse
0203 Personnel Clerical Assistance	0621 Nursing Assistant
0260 Equal Employment Opportunity	0630 Dietician and Nutritionist
0270 Federal Retirement Benefits	0644 Medical Technologist
0303 Administrative Assistant	0682 Dental Hygiene
0305 Mail and File Clerk	0701 Veterinary Medical Science
0318 Secretary	0808 Architecture
0326 Office Automation Clerk	0819 Environmental Engineering
0332 Computer Operator	0830 Mechanical Engineering
0334 Computer Specialist	0840 Nuclear Engineering
0335 Computer Clerk and Assistant	0950 Paralegal Specialist
0343 Management/Program Analyst	0993 Claims Examiner
0344 Management Clerical Assistant	1035 Public Affairs Specialist
0345 Program Analyst	1060 Photography
0360 Equal Opportunity Compliance	1071 Audiovisual Production
0391 Telecommunications	1102 Contracting
0404 Laboratory Technician	1106 Procurement Assistant
0501 Management Control Analyst	1152 Production Control
0510 Accounting	1170 Realty
0511 Auditing	1171 Appraising
0512 Internal Revenue Agent	1320 Chemistry
0525 Accounting Technician	1896 Border Patrol Agent
0530 Cash Clerk	1910 Quality Assurance
0540 Voucher Examining	2005 Supply Clerical and Technician
0544 Civilian Pay	

# FES FACTOR POINTS DATABASE

<b>GRADE LEVEL</b>	<b>COUNT</b>
3	32
4	74
5	161
6	171
7	228
8	68
9	231
10	13
11	243
12	165
13	166
14	109
15	2
<b>TOTAL</b>	<b>1863</b>



# PRELIMINARY ANALYSIS RESULTS

## Rotated Component Matrix

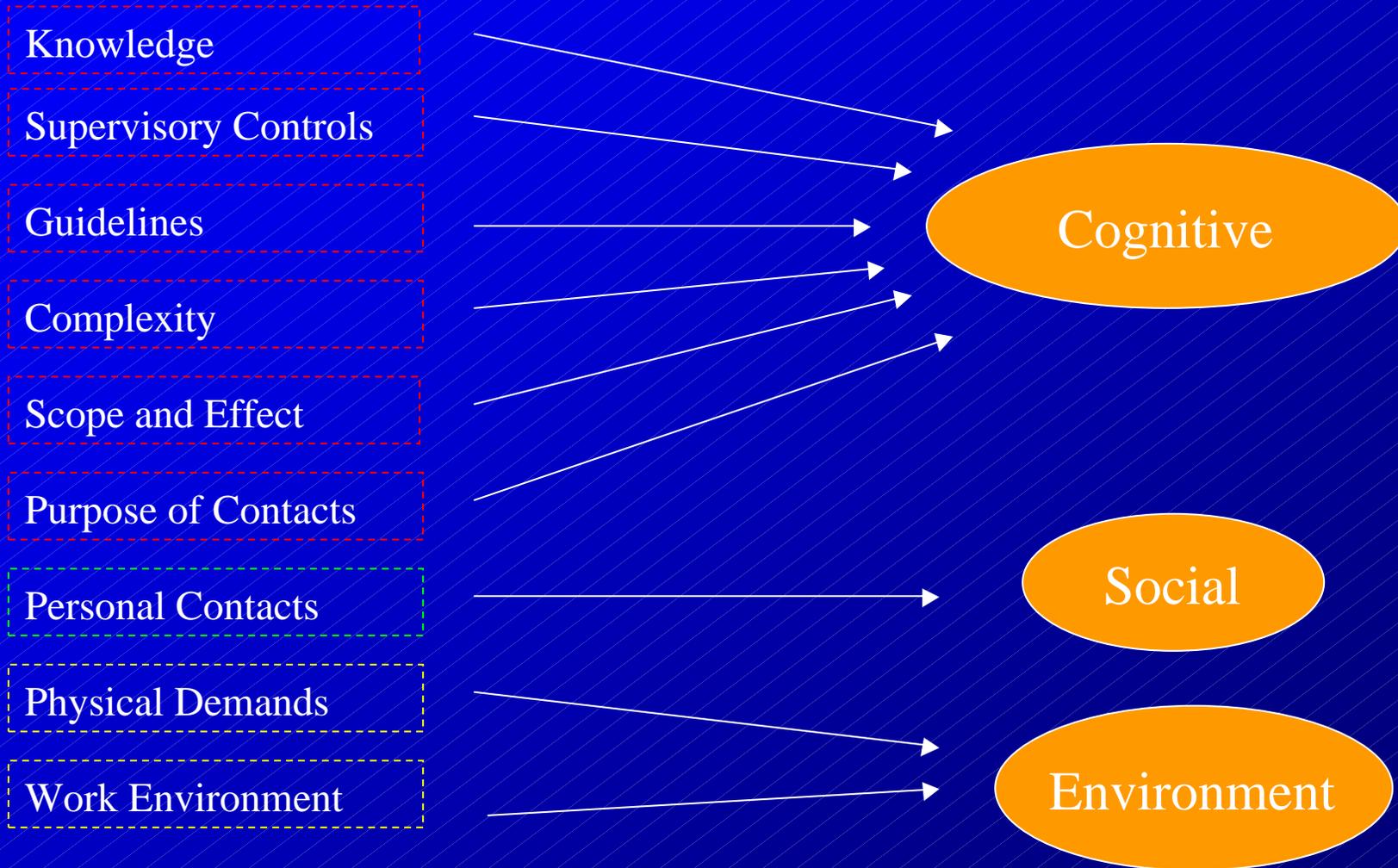
	Component	
	1	2
Factor 1 - Knowledge Required by the Position	<b>.903</b>	-5.708E-04
Factor 2 - Supervisory Controls	<b>.884</b>	-3.953E-02
Factor 3 - Guidelines	<b>.926</b>	-4.350E-02
Factor 4 - Complexity	<b>.921</b>	-4.335E-02
Factor 5 - Scope and Effect	<b>.912</b>	-2.537E-02
Factor 6 - Personal Contacts	<b>.660</b>	1.417E-02
Factor 7 - Purpose of Contacts	<b>.853</b>	6.728E-02
Factor 8 - Physical Demands	-3.495E-02	<b>.896</b>
Factor 9 - Work Environment	1.737E-02	<b>.897</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

# Proposed Less-Than-Nine Factor Combinations



# NEXT STEPS

**Conduct a pilot test of the revised FES factors to compare against standard FES structure for accuracy and reliability in grade classification.**

- > Revise FES guidelines based on new factor combinations.**
- > Select target occupations and grade levels.**
- > Recruit experienced classifiers.**
- > Conduct panels to test the effectiveness of the less-than-nine factors.**

