POSITION

- A GROUP OF CURRENT DUTIES AND RESPONSIBILITIES ASSIGNED OR DELEGATED BY A MANAGER OR BY A SUPERVISOR
- REQUIRES FULL OR PART-TIME EMPLOYMENT OF ONE PERSON
- CLASSIFIED ON THE BASIS OF ITS DUTIES AND RESPONSIBILITIES WHETHER OCCUPIED OR VACANT

GRADE

- A ZONE OF DIFFICULTY AND RESPONSIBILITY OF WORK UNDER THE CLASSIFICATION ACT;
- INCLUDES POSITIONS ACROSS ALL CLASSES WHICH ARE:
  - DIFFERENT IN KIND OF WORK;
  - BUT SUFFICIENTLY ALIKE IN LEVEL OF WORK TO WARRANT INCLUSION IN SAME CLASSIFICATION ACT PAY-RATE RANGE.
- FOR EXAMPLE:
  - GRADE 1 - 15
SERIES

- A SUBDIVISION OF AN OCCUPATIONAL GROUP;
- CONSISTS OF A NUMBER OF POSITIONS WHICH ARE:
  - SIMILAR, AS TO SPECIALIZED TYPE OF WORK;
  - BUT DIFFERENT AS TO RESPONSIBILITY, DIFFICULTY OF WORK, GRADE AND SALARY-RANGE.
- FOR EXAMPLE:
  - PERSONNEL STAFFING SPECIALIST IS IN SERIES 212 AND THE GRADE RANGE IS GS-05 AND ABOVE.

OCCUPATIONAL GROUP

- A MAJOR SUBDIVISION OF A SCHEDULE
- EACH GROUP CONSISTS OF SEVERAL SERIES
- ALL SERIES IN A GROUP ARE RELATED BY OCCUPATION, PROFESSION, OR ACTIVITY
- EXAMPLES:
  - ALL PERSONNEL-RELATED JOBS FALL IN THE OCCUPATIONAL GROUP 200
  - ALL ENGINEERING JOBS FALL IN THE OCCUPATIONAL GROUP 800
CLASSIFICATION STANDARDS

- CONTROLLING GUIDES: USED BY CLASSIFICATION AUTHORITIES TO PLACE POSITIONS IN CLASSES
- ISSUED BY OPM UNDER TITLE IV OF THE CLASSIFICATION ACT OF 1949, AS AMENDED
- ALL GENERAL SCHEDULE (GS) & GENERAL MANAGER (GM) POSITIONS MUST BE CLASSIFIED IN CONFORMANCE WITH OPM CLASSIFICATION STANDARDS
- FEDERAL WAGE SYSTEM (FWS) POSITIONS MUST BE CLASSIFIED IN ACCORDANCE WITH OPM JOB GRADING STANDARDS

POSITION DESCRIPTION

- AN OFFICIAL, WRITTEN STATEMENT OF THE DUTIES, RESPONSIBILITIES, AND ORGANIZATIONAL RELATIONSHIPS OF A POSITION
- DOES NOT PRESCRIBE DUTIES – MERELY REPORTS THEM
- THE POSITION IS CLASSIFIED - NOT THE POSITION DESCRIPTION
MAJOR DUTY

• comprises the reason for the position's establishment or existence, and either:
  
  A. Occupies a significant amount of the incumbent's time (at least 10% or more), or

  B. Governs the qualification requirements of the position.

MINOR DUTY

• An incidental or miscellaneous duty or responsibility

• Does not affect the qualifications required for employment

• Does not occupy a significant amount of the incumbent's time
PATTERNS OF CONCEPTS
A LISTING OF THE FES PATTERNS
(FACTOR EVALUATION SYSTEM)

• FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION
• FACTOR 2 - SUPERVISORY CONTROLS
• FACTOR 3 - GUIDELINES
• FACTOR 4 - COMPLEXITY
• FACTOR 5 - SCOPE AND EFFECT
• FACTOR 6 - PERSONAL CONTACTS
• FACTOR 7 - PURPOSE OF CONTACTS
• FACTOR 8 - PHYSICAL DEMANDS
• FACTOR 9 - WORK ENVIRONMENT

PATTERNS OF CONCEPTS
A SUMMARY
FACTORS 1 AND 2

• FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION
  • KIND OR NATURE OF KNOWLEDGES AND SKILLS NEEDED;
  • HOW THESE KNOWLEDGES AND SKILLS ARE USED IN DOING THE WORK.
• FACTOR 2 - SUPERVISORY CONTROLS
  • HOW THE WORK IS ASSIGNED;
  • THE EMPLOYEE'S RESPONSIBILITY FOR CARRYING OUT THE WORK;
  • HOW THE WORK IS REVIEWED.
PATTERNS OF CONCEPTS
A SUMMARY
FACTORS 3 AND 4

- FACTOR 3 - GUIDELINES
  - THE NATURE OF GUIDELINES FOR PERFORMING THE WORK;
  - JUDGEMENT NEEDED TO APPLY THE GUIDELINES OR DEVELOP NEW GUIDES.

- FACTOR 4 - COMPLEXITY
  - NATURE OF THE ASSIGNMENT;
  - DIFFICULTY IN IDENTIFYING WHAT NEEDS TO BE DONE;
  - DIFFICULTY AND ORIGINALITY INVOLVED IN PERFORMING THE WORK.

PATTERNS OF CONCEPTS
A SUMMARY
FACTORS 5, 6, AND 7

- FACTOR 5 - SCOPE AND EFFECT
  - PURPOSE OF THE WORK;
  - IMPACT OF THE WORK-PRODUCT OR SERVICE.

- FACTOR 6 - PERSONAL CONTACTS
  - PEOPLE AND CONDITIONS UNDER WHICH CONTACTS ARE MADE (EXCEPT WITH THE SUPERVISOR).

- FACTOR 7 - PURPOSE OF CONTACTS
  - REASONS FOR CONTACTS IN FACTOR 8;
  - SKILL NEEDED TO ACCOMPLISH WORK THROUGH PERSON-TO-PERSON ACTIVITIES.
PATTERNS OF CONCEPTS
A SUMMARY
FACTORS 8 AND 9

- FACTOR 8 - PHYSICAL DEMANDS
  - THE NATURE, FREQUENCY, AND INTENSITY OF PHYSICAL ACTIVITY.

- FACTOR 9 - WORK ENVIRONMENT
  - THE RISKS AND DISCOMFORTS IMPOSED BY PHYSICAL SURROUNDINGS AND THE SAFETY PRECAUTIONS NECESSARY TO AVOID ACCIDENTS OR DISCOMFORT

<table>
<thead>
<tr>
<th>FEDERAL WAGE SYSTEM</th>
<th>CONVENTIONAL FEDERAL EIGHT-FACTOR SYSTEM</th>
<th>FACTOR EVALUATION SYSTEM (FES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SKILL &amp; KNOWLEDGE</td>
<td>1. NATURE AND VARIETY OF WORK</td>
<td>1. KNOWLEDGE REQUIRED BY POSITION</td>
</tr>
<tr>
<td>2. RESPONSIBILITY (INCLUDES SUPERVISORY CONTROLS, GUIDELINES, SCOPE AND EFFECT)</td>
<td>2. NATURE OF SUPERVISORY CONTROL EXERCISED OVER THE POSITION</td>
<td>2. SUPERVISORY CONTROLS</td>
</tr>
<tr>
<td>3. PHYSICAL EFFORT</td>
<td>3. NATURE &amp; AVAILABILITY OF GUIDELINES CONTROLLING DECISION AND ACTIONS</td>
<td>3. GUIDELINES</td>
</tr>
<tr>
<td>4. WORKING CONDITIONS</td>
<td>4. ORIGINALITY OF THINKING REQUIRED</td>
<td>4. COMPLEXITY</td>
</tr>
<tr>
<td></td>
<td>5. PURPOSE AND NATURE OF PERSON-TO-PERSON WORK RELATIONSHIPS</td>
<td>5. SCOPE AND EFFECT</td>
</tr>
<tr>
<td></td>
<td>6. NATURE AND SCOPE OF RECOMMENDATIONS, DECISION, COMMITMENTS</td>
<td>6. PERSONAL CONTACTS</td>
</tr>
<tr>
<td></td>
<td>7. NATURE AND EXTENT OF SUPERVISORY CONTROL OVER THE WORK OF OTHERS</td>
<td>7. PURPOSE OF CONTACTS</td>
</tr>
<tr>
<td></td>
<td>8. MINIMUM QUALIFICATION REQUIRED</td>
<td>8. PHYSICAL DEMANDS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. WORK ENVIRONMENT</td>
</tr>
</tbody>
</table>

NOTE: FACTOR 7 IS EVALUATED BY REFERENCE TO THE SUPERVISORY GRADE EVALUATION GUIDE.
TOOLS OF THE SYSTEM - I
THE FACTORS
OPM FACTOR EVALUATION SYSTEM (FES)

1. KNOWLEDGE REQUIRED BY THE POSITION
2. SUPERVISORY CONTROLS
3. GUIDELINES
4. COMPLEXITY
5. SCOPE AND EFFECT
6. PERSONAL CONTACTS
7. PURPOSE OF CONTACTS
8. PHYSICAL DEMANDS
9. WORK ENVIRONMENT

TOOLS OF THE SYSTEM - II
THE STANDARDS - CHART 1 OF 5
THE PRIMARY STANDARD

- IS THE STANDARD FOR STANDARDS
- DESCRIBES LEVELS OF THE FACTORS IN GENERAL TERMS
- ASSIGNS POINT VALUES TO EACH LEVEL
- CONTAINS THE POINT CONVERSION TABLE
Along with traditional occupational information, they contain two parts for grading positions:

a. the factor-level descriptions,
   - and -

b. the benchmarks.

a. THE FACTOR-LEVEL DESCRIPTIONS:

   • ADOPT THE CONCEPTS OF THE PRIMARY STANDARD

   • DESCRIBE LEVELS OF THE FACTORS IN TERMS OF THE SERIES

   • ASSIGN THE POINT VALUES OF THE PRIMARY STANDARD TO THE LEVELS
b. THE BENCHMARKS:

• DESCRIBE ACTUAL WORK SITUATIONS;

• ARE POINT RATED AND GRADED BY REFERENCE TO THE FACTOR-LEVEL DESCRIPTIONS FOR THE OCCUPATIONS, AND THE CONVERSION TABLE;

• DESCRIBE THE LEVELS OF THE FACTORS IN TERMS OF THE POSITION;

• ARE IN THE SAME FORMAT AS POSITION DESCRIPTIONS.

TOOLS OF THE SYSTEM - VI
THE STANDARDS - CHART 5 OF 5
CLASSIFICATION GUIDES
(MULTI-OCCUPATIONAL OR FUNCTIONAL GRADE-LEVEL CRITERIA)

• IS A "STANDARD" FOR SEVERAL SIMILAR OCCUPATIONS OR FOR AN OCCUPATIONAL FUNCTION;

• DESCRIBES LEVELS IN MORE GENERAL TERMS THAN AN OCCUPATIONAL STANDARD, BUT WITH MORE SPECIFICS THAN THE PRIMARY STANDARD;

• ASSIGNS POINT VALUES TO EACH LEVEL;

• CONTAINS THE POINT CONVERSION TABLE;

• CONTAINS INCLUSIONS AND EXCLUSIONS OF COVERAGE.
<table>
<thead>
<tr>
<th>FACTOR LEVELS</th>
<th>TOTAL # OF POINTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACTOR 1 - KNOWLEDGE REQUIRED</td>
<td>50 TO 1850</td>
<td>40%</td>
</tr>
<tr>
<td>BY THE POSITION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FACTOR 2 - SUPERVISORY CONTROLS</td>
<td>25 TO 650</td>
<td>15%</td>
</tr>
<tr>
<td>FACTOR 3 - GUIDELINES</td>
<td>25 TO 650</td>
<td>15%</td>
</tr>
<tr>
<td>FACTOR 4 - COMPLEXITY</td>
<td>25 TO 450</td>
<td>10%</td>
</tr>
<tr>
<td>FACTOR 6 - SCOPE AND EFFECT</td>
<td>25 TO 450</td>
<td>10%</td>
</tr>
<tr>
<td>FACTOR 6 - PERSONAL CONTACTS</td>
<td>10 TO 110</td>
<td>3%</td>
</tr>
<tr>
<td>FACTOR 7 - PURPOSE OF CONTACTS</td>
<td>20 TO 220</td>
<td>5%</td>
</tr>
<tr>
<td>FACTOR 8 - PHYSICAL DEMANDS</td>
<td>6 TO 60</td>
<td>1%</td>
</tr>
<tr>
<td>FACTOR 9 - WORK ENVIRONMENT</td>
<td>6 TO 60</td>
<td>1%</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>GS GRADE</th>
<th>POINT RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>190 - 250</td>
</tr>
<tr>
<td>02</td>
<td>255 - 450</td>
</tr>
<tr>
<td>03</td>
<td>455 - 650</td>
</tr>
<tr>
<td>04</td>
<td>655 - 850</td>
</tr>
<tr>
<td>05</td>
<td>855 - 1100</td>
</tr>
<tr>
<td>06</td>
<td>1100 - 1350</td>
</tr>
<tr>
<td>07</td>
<td>1355 - 1600</td>
</tr>
<tr>
<td>08</td>
<td>1605 - 1850</td>
</tr>
<tr>
<td>09</td>
<td>1855 - 2100</td>
</tr>
<tr>
<td>10</td>
<td>2105 - 2350</td>
</tr>
<tr>
<td>11</td>
<td>2355 - 2750</td>
</tr>
<tr>
<td>12</td>
<td>2755 - 3150</td>
</tr>
<tr>
<td>13</td>
<td>3155 - 3600</td>
</tr>
<tr>
<td>14</td>
<td>3605 - 4050</td>
</tr>
<tr>
<td>15</td>
<td>4055 - UP</td>
</tr>
</tbody>
</table>
### TYPICAL FACTOR LEVEL RELATIONSHIPS
#### NON-SUPERVISORY POSITIONS - GRADES 4 TO 8
(derived from OPM TS - 98 August 1990)

The following table illustrates how FES factor levels combine in typical positions. However, other combinations of factors may be appropriate for particular positions.

<table>
<thead>
<tr>
<th>Factor Levels</th>
<th>GS-04</th>
<th>GS-05</th>
<th>GS-06</th>
<th>GS-07</th>
<th>GS-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge Required</td>
<td>1-3</td>
<td>1-3 or</td>
<td>1-4</td>
<td>1-6</td>
<td>1-6 or</td>
</tr>
<tr>
<td>2. Supervisory Controls</td>
<td>2-2</td>
<td>2-2 or</td>
<td>2-3</td>
<td>2-3</td>
<td>2-3</td>
</tr>
<tr>
<td>3. Guidelines</td>
<td>3-2</td>
<td>3-2</td>
<td>3-2</td>
<td>3-2</td>
<td>3-2 or</td>
</tr>
<tr>
<td>4. Complexity</td>
<td>4-2</td>
<td>4-2</td>
<td>4-2</td>
<td>4-3</td>
<td>4-3</td>
</tr>
<tr>
<td>5. Scope and Effect</td>
<td>5-2</td>
<td>5-2</td>
<td>5-2</td>
<td>5-3</td>
<td>5-3</td>
</tr>
<tr>
<td>6. Personal Contacts</td>
<td>6-1 or 6-2</td>
<td>6-2</td>
<td>6-3</td>
<td>6-3</td>
<td></td>
</tr>
<tr>
<td>7. Purpose of Contacts</td>
<td>7-a</td>
<td>7-a</td>
<td>7-a or 7-b</td>
<td>7-b</td>
<td></td>
</tr>
<tr>
<td>8. Physical Demands</td>
<td>8-2</td>
<td>8-2</td>
<td>8-2</td>
<td>8-2</td>
<td>8-2</td>
</tr>
<tr>
<td>9. Work Environment</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
</tr>
</tbody>
</table>

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### TYPICAL FACTOR LEVEL RELATIONSHIPS
#### NON-SUPERVISORY POSITIONS - GRADES 9 TO 14
(adapted from OPM TS - 98 August 1990)

The following table illustrates how FES factor levels combine in typical positions. However, other combinations of factors may be appropriate for particular positions.

<table>
<thead>
<tr>
<th>Factor Levels</th>
<th>GS-09</th>
<th>GS-11</th>
<th>GS-12</th>
<th>GS-13</th>
<th>GS-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge Required</td>
<td>1-6</td>
<td>1-7</td>
<td>1-7</td>
<td>1-8</td>
<td>1-8</td>
</tr>
<tr>
<td>2. Supervisory Controls</td>
<td>2-3</td>
<td>2-3 or</td>
<td>2-4</td>
<td>2-4 or 2-6</td>
<td></td>
</tr>
<tr>
<td>3. Guidelines</td>
<td>3-3</td>
<td>3-3</td>
<td>3-4</td>
<td>3-4 or 3-6</td>
<td></td>
</tr>
<tr>
<td>4. Complexity</td>
<td>4-3</td>
<td>4-4</td>
<td>4-4 or 4-5</td>
<td>4-5</td>
<td>4-5</td>
</tr>
<tr>
<td>5. Scope and Effect</td>
<td>5-3</td>
<td>5-4</td>
<td>5-4</td>
<td>5-4 or 5-5</td>
<td></td>
</tr>
<tr>
<td>6. Personal Contacts</td>
<td>6-2 or 6-2</td>
<td>6-3</td>
<td>6-3</td>
<td>6-3</td>
<td></td>
</tr>
<tr>
<td>7. Purpose of Contacts</td>
<td>7-b or 7-c</td>
<td>7-b or 7-c</td>
<td>7-c</td>
<td>7-c or 7-d</td>
<td></td>
</tr>
<tr>
<td>8. Physical Demands</td>
<td>8-1</td>
<td>8-1</td>
<td>8-1</td>
<td>8-1</td>
<td>8-1</td>
</tr>
<tr>
<td>9. Work Environment</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
<td>9-1</td>
</tr>
</tbody>
</table>
WINNING THROUGH TECHNOLOGY
— NEW MEXICO STYLE

Dr. Arthur H. Guenther
New Mexico Governor's Science Advisor
Sandia National Laboratory

VUGRAPHS ONLY

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WINNING THROUGH TECHNOLOGY --

NEW MEXICO STYLE
TECHNOLOGY-BASED ECONOMIC IMPACT/RESOURCES

FEDERAL TECHNOLOGY SECTOR
- New Mexico ranks 4th nationally in federal R&D performance.
- $8.4 billion in generated economic activity.
- 83,000 generated jobs.
- $1.2 billion in research, development, testing and evaluation equipment.

UNIVERSITY TECHNOLOGY SECTOR
- New Mexico ranks 4th nationally in R&D performance.
- $400 million in generated economic activity.
- 12,000 generated jobs.
- $100 million in facilities and equipment.

PRIVATE TECHNOLOGY SECTOR
- New Mexico ranks 21st nationally in R&D performance.
- $1.7 billion in generated economic activity.
- 25,000 generated jobs.
NEW MEXICO'S RESEARCH UNIVERSITIES

New Mexico Institute of Mining and Technology

New Mexico State University

University of New Mexico
NEW MEXICO: TOP-RANKING

New Mexico ranks 1st among the 50 states in the ratio of R&D performance to gross state product.

-- National Science Foundation, 1989
RIO GRANDE RESEARCH CORRIDOR

Vision
Not an idea, but a concept that has become a reality

Goal
Economic development by creating an environment conducive to high-technology activities
RIO GRANDE RESEARCH CORRIDOR

Initial Stages

Leveraging extensive federal R&D investment in New Mexico
Use of New Mexico universities as technology transfer agents
Investments in New Mexico

Network Building (Partnerships, Alliances, Consortia, Teaming)

Communication
Cooperation
Coordination
CENTERS OF TECHNICAL EXCELLENCE

Criteria:
- Areas well defined, related to the interests of the federal R&D presence in New Mexico
- World-class directors
- A base exists at the host institution
- Institution must commit to maintaining the level of excellence
- Areas capable of enhancing existing high-technology industry and attracting outside high-technology investment
- Potential for self-sufficiency

State Funding:
- $30 million over six years (1983-1989)

Centers:
- Center for High Technology Materials
- Center for Non-Invasive Diagnosis
- Center for Explosives Technology Research
- Computing Research Laboratory
- Plant Genetic Engineering Laboratory
NEW MEXICO FEDERAL/NATIONAL LABORATORY STRATEGIC ALLIANCE

New Mexico's national and federal laboratories -- Phillips, Los Alamos, and Sandia -- have established a strategic alliance, agreeing to collaborate on future technical efforts that will benefit the state and the nation.

Benefits include:

- More effective use of government, including financial, resources.
- More rapid maturing of technologies.
- Broader application of these technologies by government and industry.
- Better exchange of information and expertise developed within each of the labs.
Mission Statement

The mission of the Strategic Alliance between Phillips Laboratory, Sandia National Laboratories, and the Los Alamos National Laboratory is to enhance our capabilities to accomplish our respective national security missions and provide collective leadership in technology innovation.

The Alliance will form a focus through which the members can bring their talents to bear, in a timely and interrelant manner on technical issues of national importance. The Nation will benefit through effective and efficient use of Alliance resources by facilitating the rapid maturity and broad application of science and technology in both the government and private sectors.
LIBRARY SERVICES ALLIANCE OF NEW MEXICO

The goal of the Alliance is to meet the needs of researchers by:

- Sharing electronic resources
- Working together to enhance the combined collections of the member libraries
- Providing fast interlibrary document delivery
- Sharing access to the expert knowledge of library staff