

# Appendix B. Occupational Classifications

NOTE: The 4-digit code before each occupation title is used to classify it into one of three major groups. **White-collar** workers include those classified in Major groups A through D. **Blue-collar** workers include those classified in Major groups E through H. **Service** workers are classified in Major group K.

## Major group A:

### PROFESSIONAL SPECIALTY AND TECHNICAL OCCUPATIONS

#### PROFESSIONAL SPECIALTY OCCUPATIONS

##### ENGINEERS, ARCHITECTS, AND SURVEYORS

- A043 Architects
- A044 Aerospace Engineers
- A045 Metallurgical and Materials Engineers
- A046 Mining Engineers
- A047 Petroleum Engineers
- A048 Chemical Engineers
- A049 Nuclear Engineers
- A053 Civil Engineers
- A054 Agricultural Engineers
- A055 Electrical and Electronic Engineers
- A056 Industrial Engineers
- A057 Mechanical Engineers
- A058 Marine Engineers and Naval Architects
- A059 Engineers, n.e.c.<sup>1</sup>
- A063 Surveyors and Mapping Scientists

##### MATHEMATICAL AND COMPUTER SCIENTISTS

- A064 Computer Systems Analysts and Scientists
- A065 Operations and Systems Researchers and Analysts
- A066 Actuaries
- A067 Statisticians
- A068 Mathematical Scientists, n.e.c.

##### NATURAL SCIENTISTS

- A069 Physicists and Astronomers
- A073 Chemists, Except Biochemists
- A074 Atmospheric and Space Scientists
- A075 Geologists and Geodesists
- A076 Physical Scientists, n.e.c.
- A077 Agricultural and Food Scientists
- A078 Biological and Life Scientists
- A079 Forestry and Conservation Scientists
- A083 Medical Scientists

##### HEALTH RELATED OCCUPATIONS

- A084 Physicians
- A085 Dentists
- A086 Veterinarians
- A087 Optometrists
- A088 Podiatrists
- A089 Health Diagnosing Practitioners, n.e.c.
- A095 Registered Nurses
- A096 Pharmacists
- A097 Dietitians
- A098 Respiratory Therapists
- A099 Occupational Therapists
- A103 Physical Therapists
- A104 Speech Therapists
- A105 Therapists, n.e.c.
- A106 Physicians' Assistants

##### TEACHERS, COLLEGE AND UNIVERSITY

- A113 Earth, Environmental and Marine Science Teachers

<sup>1</sup> n.e.c. in an occupation title means not elsewhere classified.

A114 Biological Science Teachers  
A115 Chemistry Teachers  
A116 Physics Teachers  
A117 Natural Science Teachers, n.e.c.  
A118 Psychology Teachers  
A119 Economics Teachers  
A123 History Teachers  
A124 Political Science Teachers  
A125 Sociology Teachers  
A126 Social Science Teachers, n.e.c.  
A127 Engineering Teachers  
A128 Mathematical Science Teachers  
A129 Computer Science Teachers  
A133 Medical Science Teachers  
A134 Health Specialties Teachers  
A135 Business, Commerce and Marketing Teachers  
A136 Agriculture and Forestry Teachers  
A137 Art, Drama, and Music Teachers  
A138 Physical Education Teachers  
A139 Education Teachers  
A143 English Teachers  
A144 Foreign Language Teachers  
A145 Law Teachers  
A146 Social Work Teachers  
A147 Theology Teachers  
A148 Trade and Industrial Teachers  
A149 Home Economics Teachers  
A153, A154 Other Post-Secondary Teachers

#### TEACHERS, EXCEPT COLLEGE AND UNIVERSITY

A155 Prekindergarten and Kindergarten Teachers  
A156 Elementary School Teachers  
A157 Secondary School Teachers  
A158 Teachers, Special Education  
A159 Teachers, n.e.c.  
A160 Substitute Teachers  
A163 Vocational and Educational Counselors

#### LIBRARIANS, ARCHIVISTS AND CURATORS

A164 Librarians  
A165 Archivists and Curators

#### SOCIAL SCIENTISTS AND URBAN PLANNERS

A166 Economists  
A167 Psychologists  
A168 Sociologists  
A169 Social Scientists, n.e.c.  
A173 Urban Planners

#### SOCIAL, RECREATION, AND RELIGIOUS WORKERS

A174 Social Workers  
A175 Recreation Workers  
A176 Clergy  
A177 Religious Workers, n.e.c.

#### LAWYERS AND JUDGES

A178 Lawyers  
A179 Judges

#### WRITERS, AUTHORS, ENTERTAINERS, ATHLETES AND PROFESSIONALS, N.E.C.

A183 Authors  
A184 Technical Writers  
A185 Designers  
A186 Musicians and Composers  
A187 Actors and Directors  
A188 Painters, Sculptors, Craft-Artists, and Artist Print-Makers  
A189 Photographers  
A193 Dancers  
A194 Artists, Performers, and Related Workers, n.e.c.  
A195 Editors and Reporters  
A197 Public Relations Specialists  
A198 Announcers  
A199 Athletes  
A999 Professional Occupations, n.e.c.

#### TECHNICAL OCCUPATIONS

##### HEALTH TECHNOLOGISTS AND TECHNICIANS

A203 Clinical Laboratory Technologists and Technicians  
A204 Dental Hygienists  
A205 Health Record Technologists and Technicians  
A206 Radiologic Technicians  
A207 Licensed Practical Nurses  
A208 Health Technologists and Technicians, n.e.c.

##### ENGINEERING AND RELATED TECHNOLOGISTS AND TECHNICIANS

A213 Electrical and Electronic Technicians  
A214 Industrial Engineering Technicians  
A215 Mechanical Engineering Technicians  
A216 Engineering Technicians, n.e.c.  
A217 Drafters  
A218 Surveying and Mapping Technicians

SCIENCE TECHNICIANS

- A223 Biological Technicians
- A224 Chemical Technicians
- A225 Science Technicians, n.e.c.

MISCELLANEOUS TECHNICIANS

- A226 Airplane Pilots and Navigators
- A227 Air Traffic Controllers
- A228 Broadcast Equipment Operators
- A229 Computer Programmers
- A233 Tool Programmers, Numerical Control
- A234 Legal Assistants
- A235 Technical and Related Occupations, n.e.c.

**Major group B:**

**EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS**

EXECUTIVES, ADMINISTRATORS, AND MANAGERS

- B003 Legislators
- B004 Chief Executives and General Administrators, Public Administration
- B005 Administrators and Officials, Public Administration
- B007 Financial Managers
- B008 Personnel and Labor Relations Managers
- B009 Purchasing Managers
- B013 Managers: Marketing, Advertising and Public Relations
- B014 Administrators, Education and Related Fields
- B015 Managers, Medicine and Health
- B016 Postmasters and Mail Superintendents
- B017 Managers, Food Serving and Lodging Establishments
- B018 Managers, Properties and Real Estate
- B019 Funeral Directors
- B021 Managers, Service Organizations, n.e.c.
- B022 Managers and Administrators, n.e.c.

MANAGEMENT RELATED OCCUPATIONS

- B023 Accountants and Auditors
- B024 Underwriters
- B025 Other Financial Officers
- B026 Management Analysts
- B027 Personnel, Training, and Labor Relations Specialists

- B028 Purchasing Agents and Buyers, Farm Products
- B029 Buyers, Wholesale and Retail Trade, Except Farm Products
- B033 Purchasing Agents and Buyers, n.e.c.
- B034 Business and Promotion Agents
- B035 Construction Inspectors
- B036 Inspectors and Compliance Officers, Except Construction
- B037 Management Related Occupations, n.e.c.

**Major group C:**

**SALES OCCUPATIONS**

- C243 Supervisors: Sales Occupations

FINANCE AND BUSINESS SERVICES, SALES REPRESENTATIVES

- C253 Insurance Sales Occupations
- C254 Real Estate Sales Occupations
- C255 Securities and Financial Services Sales Occupations
- C256 Advertising and Related Sales Occupations
- C257 Sales Occupations, Other Business Services

SALES REPRESENTATIVES, COMMODITIES EXCEPT RETAIL

- C258 Sales Engineers
- C259 Sales Representatives: Mining, Manufacturing, and Wholesale

RETAIL AND PERSONAL SERVICES SALES WORKERS

- C263 Sales Workers, Motor Vehicles and Boats
- C264 Sales Workers, Apparel
- C265 Sales Workers, Shoes
- C266 Sales Workers, Furniture and Home Furnishings
- C267 Sales Workers, Radio, TV, Hi-Fi, and Appliances
- C268 Sales Workers, Hardware and Building Supplies
- C269 Sales Workers, Parts
- C274 Sales Workers, Other Commodities
- C275 Sales Counter Clerks
- C276 Cashiers
- C277 Street and Door-To-Door Sales Workers
- C278 News Vendors

SALES RELATED OCCUPATIONS

- C283 Demonstrators, Promoters, and Models, Sales
- C284 Auctioneers
- C285 Sales Support Occupations, n.e.c.

**Major group D:**

**ADMINISTRATIVE SUPPORT OCCUPATIONS,  
INCLUDING CLERICAL**

SUPERVISORS, CLERICAL AND ADMINISTRATIVE  
SUPPORT

- D303 Supervisors: General Office
- D304 Supervisors: Computer Equipment Operators
- D305 Supervisors: Financial Records Processing
- D306 Chief Communications Operators
- D307 Supervisors: Distribution, Scheduling, and  
Adjusting Clerks

COMPUTER EQUIPMENT OPERATORS

- D308 Computer Operators
- D309 Peripheral Equipment Operators

SECRETARIES, STENOGRAPHERS, AND TYPISTS

- D313 Secretaries
- D314 Stenographers
- D315 Typists

INFORMATION CLERKS

- D316 Interviewers
- D317 Hotel Clerks
- D318 Transportation Ticket and Reservation Agents
- D319 Receptionists
- D323 Information Clerks, n.e.c.

RECORDS PROCESSING CLERKS, EXCEPT  
FINANCIAL

- D325 Classified-Ad Clerks
- D326 Correspondence Clerks
- D327 Order Clerks
- D328 Personnel Clerks, Except Payroll and Time-  
keeping
- D329 Library Clerks
- D335 File Clerks
- D336 Records Clerks, n.e.c.

FINANCIAL RECORDS PROCESSING CLERKS

- D337 Bookkeepers, Accounting and Auditing Clerks
- D338 Payroll and Timekeeping Clerks

- D339 Billing Clerks
- D343 Cost and Rate Clerks
- D344 Billing, Posting, and Calculating Machine Op-  
erators

DUPLICATING, MAIL, AND OTHER OFFICE  
MACHINE OPERATORS

- D345 Duplicating Machine Operators
- D346 Mail Preparing and Paper Handling Machine  
Operators
- D347 Office Machine Operators, n.e.c.

COMMUNICATIONS EQUIPMENT OPERATORS

- D348 Telephone Operators
- D353 Communications Equipment Operators, n.e.c.

MAIL AND MESSAGE DISTRIBUTING  
OCCUPATIONS

- D356 Mail Clerks, Except Postal Service
- D357 Messengers

MATERIAL RECORDING, SCHEDULING, AND  
DISTRIBUTING CLERKS

- D359 Dispatchers
- D363 Production Coordinators
- D364 Traffic, Shipping, and Receiving Clerks
- D365 Stock and Inventory Clerks
- D366 Meter Readers
- D368 Weighers, Measurers, Checkers, and Samplers
- D373 Expeditors
- D374 Material Recording, Scheduling, and Distrib-  
uting Clerks, n.e.c.

ADJUSTERS AND INVESTIGATORS

- D375 Insurance Adjusters, Examiners, and Investi-  
gators
- D376 Investigators and Adjusters, Except Insurance
- D377 Eligibility Clerks, Social Welfare
- D378 Bill and Account Collectors

MISCELLANEOUS ADMINISTRATIVE SUPPORT  
OCCUPATIONS

- D379 General Office Clerks
- D383 Bank Tellers
- D384 Proofreaders
- D385 Data Entry Keyers
- D386 Statistical Clerks

D387 Teachers' Aides  
D389 Administrative Support Occupations, n.e.c.

E564 Brickmason and Stonemason Apprentices  
E565 Tile Setters, Hard and Soft  
E566 Carpet Installers

### Major group E:

## PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

### MECHANICS AND REPAIRERS

E503 Supervisors: Mechanics and Repairers  
E505 Automobile Mechanics  
E506 Automobile Mechanic Apprentices  
E507 Bus, Truck, and Stationary Engine Mechanics  
E508 Aircraft Engine Mechanics  
E509 Small Engine Repairers  
E514 Automobile Body and Related Repairers  
E515 Aircraft Mechanics, Except Engine  
E516 Heavy Equipment Mechanic  
E517 Farm Equipment Mechanics  
E518 Industrial Machinery Repairers  
E519 Machinery Maintenance Occupations  
E523 Electronic Repairers, Communications and Industrial Equipment  
E525 Data Processing Equipment Repairers  
E526 Household Appliance and Power Tool Repairers  
E527 Telephone Line Installers and Repairers  
E529 Telephone Installers and Repairers  
E534 Heating, Air Conditioning, and Refrigeration Mechanics  
E535 Camera, Watch, and Musical Instrument Repairers  
E536 Locksmiths and Safe Repairers  
E538 Office Machine Repairers  
E539 Mechanical Controls and Valve Repairers  
E543 Elevator Installers and Repairers  
E544 Millwrights  
E547 Mechanics and Repairers, n.e.c.

### SUPERVISORS, CONSTRUCTION TRADES

E553 Supervisors: Brickmasons, Stonemasons, and Tilesetters  
E554 Supervisors: Carpenters and Related Workers  
E555 Supervisors: Electricians and Power Transmission Installers  
E556 Supervisors: Painters, Paperhangers, and Plasterers  
E557 Supervisors: Plumbers, Pipefitters, and Steamfitters  
E558 Supervisors: Construction Trades, n.e.c.

### CONSTRUCTION TRADES OCCUPATIONS

E563 Brickmasons and Stonemasons

E567 Carpenters  
E569 Carpenter Apprentices  
E573 Drywall Installers  
E575 Electricians  
E576 Electrician Apprentices  
E577 Electrical Power Installers and Repairers  
E579 Painters, Construction and Maintenance  
E583 Paperhangers  
E584 Plasterers  
E585 Plumbers, Pipefitters, and Steamfitters  
E587 Plumber, Pipefitter, and Steamfitter Apprentices  
E588 Concrete and Terrazzo Finishers  
E589 Glaziers  
E593 Insulation Workers  
E594 Paving, Surfacing, and Tamping Equipment Operators  
E595 Roofers  
E596 Sheetmetal Duct Installers  
E597 Structural Metal Workers  
E598 Drillers, Earth  
E599 Construction Trades, n.e.c.

### EXTRACTIVE OCCUPATIONS

E613 Supervisors: Extractive Occupations  
E614 Drillers, Oil Well  
E615 Explosives Workers  
E616 Mining Machine Operators  
E617 Mining Occupations, n.e.c.

### PRECISION PRODUCTION OCCUPATIONS

E628 Supervisors: Production Occupations

### PRECISION METAL WORKING OCCUPATIONS

E634 Tool and Die Makers  
E635 Tool and Die Maker Apprentices  
E636 Precision Assemblers, Metal  
E637 Machinists  
E639 Machinist Apprentices  
E643 Boilermakers  
E644 Precision Grinders, Filers, and Tool Sharpeners  
E645 Patternmakers and Modelmakers, Metal  
E646 Layout Workers  
E647 Precious Stones and Metals Workers  
E649 Engravers, Metal  
E653 Sheet Metal Workers  
E654 Sheet Metal Worker Apprentices

#### PRECISION WOODWORKING OCCUPATIONS

- E656 Patternmakers and Modelmakers, Wood
- E657 Cabinet Makers and Bench Carpenters
- E658 Furniture and Wood Finishers

#### PRECISION TEXTILE, APPAREL, AND FURNISHINGS MACHINE WORKERS

- E666 Dressmakers
- E667 Tailors
- E668 Upholsterers
- E669 Shoe Repairers

#### PRECISION WORKERS, ASSORTED MATERIALS

- E675 Hand Molders and Shapers, Except Jewelers
- E676 Patternmakers, Layout Workers, and Cutters
- E677 Optical Goods Workers
- E678 Dental Laboratory and Medical Appliance Technicians
- E679 Bookbinders
- E683 Electrical and Electronic Equipment Assemblers
- E684 Miscellaneous Precision Workers, n.e.c.

#### PRECISION FOOD PRODUCTION OCCUPATIONS

- E685 Precision Food Production Occupations, n.e.c.
- E686 Butchers and Meat Cutters
- E687 Bakers
- E688 Food Batchmakers

#### PRECISION INSPECTORS, TESTERS, AND RELATED WORKERS

- E689 Inspectors, Testers, and Graders
- E690 Precision Inspectors, Testers, and Related Workers, n.e.c.
- E693 Adjusters and Calibrators

#### PLANT AND SYSTEM OPERATORS

- E694 Water and Sewage Treatment Plant Operators
- E695 Power Plant Operators
- E696 Stationary Engineers
- E699 Miscellaneous Plant and System Operators, n.e.c.

#### **Major group F:**

#### **MACHINE OPERATORS, ASSEMBLERS, AND INSPECTORS**

##### METALWORKING AND PLASTIC WORKING MACHINE OPERATORS

- F703 Lathe and Turning-Machine Set-Up Operators
- F704 Lathe and Turning-Machine Operators
- F705 Milling and Planing Machine Operators
- F706 Punching and Stamping Press Operators
- F707 Rolling Machine Operators
- F708 Drilling and Boring Machine Operators
- F709 Grinding, Abrading, Buffing, and Polishing Machine Operators
- F713 Forging Machine Operators
- F714 Numerical Control Machine Operators
- F717 Fabricating Machine Operators, n.e.c.
- F719 Molding and Casting Machine Operators
- F723 Metal Plating Machine Operators
- F724 Heat Treating Equipment Operators

#### WOODWORKING MACHINE OPERATORS

- F726 Wood Lathe, Routing, and Planing Machine Operators
- F727 Sawing Machine Operators
- F728 Shaping and Joining Machine Operators
- F729 Nailing and Tacking Machine Operators

#### PRINTING MACHINE OPERATORS

- F734 Printing Press Operators
- F735 Photoengravers and Lithographers
- F736 Typesetters and Compositors

#### TEXTILE, APPAREL, AND FURNISHINGS MACHINE OPERATORS

- F738 Winding and Twisting Machine Operators
- F739 Knitting, Looping, Taping, and Weaving Machine Operators
- F743 Textile Cutting Machine Operators
- F744 Textile Sewing Machine Operators
- F745 Shoe Machine Operators
- F747 Pressing Machine Operators
- F748 Laundering and Dry Cleaning Machine Operators

#### MACHINE OPERATORS, ASSORTED MATERIALS

- F753 Cementing and Gluing Machine Operators
- F754 Packaging and Filling Machine Operators
- F755 Extruding and Forming Machine Operators
- F756 Mixing and Blending Machine Operators
- F757 Separating, Filtering, and Clarifying Machine Operators
- F758 Compressing and Compacting Machine Operators
- F759 Painting and Paint Spraying Machine Operators
- F763 Roasting and Baking Machine Operators, Food
- F764 Washing, Cleaning, and Pickling Machine Operators

F765 Folding Machine Operators  
F766 Furnace, Kiln, and Oven Operators, Except Food  
F768 Crushing and Grinding Machine Operators  
F769 Slicing and Cutting Machine Operators  
F773 Motion Picture Projectionists  
F774 Photographic Process Machine Operators  
F777 Miscellaneous Machine Operators, n.e.c.

#### FABRICATORS, ASSEMBLERS, AND HAND WORKING OCCUPATIONS

F783 Welders and Cutters  
F784 Solderers and Braziers  
F785 Assemblers  
F786 Hand Cutting and Trimming Occupations  
F787 Hand Molding, Casting, and Forming Occupations  
F789 Hand Painting, Coating, and Decorating Occupations  
F793 Hand Engraving and Printing Occupations  
F795 Miscellaneous Hand Working Occupations, n.e.c.

#### PRODUCTION INSPECTORS, TESTERS, SAMPLERS, AND WEIGHERS

F796 Production Inspectors, Checkers, and Examiners  
F797 Production Testers  
F798 Production Samplers and Weighers  
F799 Graders and Sorters, Except Agricultural  
F800 Hand Inspectors, n.e.c.

#### Major group G:

#### TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

##### MOTOR VEHICLE OPERATORS

G803 Supervisors: Motor Vehicle Operators  
G804 Truck Drivers  
G806 Driver-Sales Workers  
G808 Bus Drivers  
G809 Taxicab Drivers and Chauffeurs  
G813 Parking Lot Attendants  
G814 Motor Transportation Occupations, n.e.c.

##### RAILROAD TRANSPORTATION OCCUPATIONS

G823 Railroad Conductors and Yardmasters  
G824 Locomotive Operating Occupations  
G825 Railroad Brake, Signal, and Switch Operators

G826 Rail Vehicle Operators, n.e.c.

#### WATER TRANSPORTATION OCCUPATIONS

G828 Ship Captains and Mates, Except Fishing Boats  
G829 Sailors and Deckhands  
G833 Marine Engineers  
G834 Bridge, Lock, and Lighthouse Tenders

#### MATERIAL MOVING EQUIPMENT OPERATORS

G843 Supervisors: Material Moving Equipment Operators  
G844 Operating Engineers  
G845 Longshore Equipment Operators  
G848 Hoist and Winch Operators  
G849 Crane and Tower Operators  
G853 Excavating and Loading Machine Operators  
G855 Grader, Dozer, and Scraper Operators  
G856 Industrial Truck and Tractor Equipment Operators  
G859 Miscellaneous Material Moving Equipment Operators, n.e.c.

#### Major group H:

#### HANDLERS, EQUIPMENT CLEANERS, HELPERS, AND LABORERS

##### FARM, FISHING AND FORESTRY OCCUPATIONS - NONFARM SECTOR

H483 Marine Life Cultivation Workers  
H484 Nursery Workers  
H485 Supervisors, Agriculture-Related Workers  
H486 Groundskeepers and Gardeners, Except Farm  
H487 Animal Caretakers, Except Farm  
H489 Inspectors, Agricultural Products  
H494 Supervisors, Forestry and Logging Workers  
H495 Forestry Workers, Except Logging  
H496 Timber Cutting and Logging Occupations  
H497 Captains and Other Officers, Fishing Vessels  
H498 Fishers, Hunters, and Trappers

##### HELPERS, HANDLERS, AND LABORERS

H864 Supervisors: Handlers, Equipment Cleaners, and Laborers, n.e.c.  
H865 Helpers, Mechanics and Repairers  
H866 Helpers, Construction Trades  
H867 Helpers, Surveyor  
H868 Helpers, Extractive Occupations  
H869 Construction Laborers

H874 Production Helpers  
H875 Garbage Collectors  
H876 Stevedores  
H877 Stock Handlers and Baggers  
H878 Machine Feeders and Offbearers  
H883 Freight, Stock, and Material Handlers, n.e.c.  
H885 Garage and Service Station Related Occupations  
H887 Vehicle Washers and Equipment Cleaners  
H888 Hand Packers and Packagers  
H889 Laborers, Except Construction, n.e.c.

**Major group K:**

**SERVICE OCCUPATIONS, EXCEPT PRIVATE HOUSEHOLD**

**PROTECTIVE SERVICE OCCUPATIONS**

K413 Supervisors: Firefighting and Fire Prevention Occupations  
K414 Supervisors: Police and Detectives  
K415 Supervisors: Guards  
K416 Fire Inspection and Fire Prevention Occupations  
K417 Firefighting Occupations  
K418 Police and Detectives, Public Service  
K423 Sheriffs, Bailiffs, and Other Law Enforcement Officers  
K424 Correctional Institution Officers  
K425 Crossing Guards  
K426 Guards and Police, Except Public Service  
K427 Protective Service Occupations, n.e.c.

**FOOD SERVICE OCCUPATIONS**

**WAITERS, WAITRESSES, AND BARTENDERS**

K434 Bartenders  
K435 Waiters and Waitresses  
K443 Waiters'/Waitresses' Assistants

**OTHER FOOD SERVICE**

K433 Supervisors: Food Preparation and Service Occupations  
K436 Cooks  
K438 Food Counter, Fountain, and Related Occupation  
K439 Kitchen Workers, Food Preparation  
K444 Food Preparation Occupations, n.e.c.

**HEALTH SERVICE OCCUPATIONS**

K445 Dental Assistants  
K446 Health Aides, Except Nursing  
K447 Nursing Aides, Orderlies, and Attendants

**CLEANING AND BUILDING SERVICE OCCUPATIONS**

K448 Supervisors: Cleaning and Building Service Workers  
K449 Maids and Housemen  
K453 Janitors and Cleaners  
K454 Elevator Operators  
K455 Pest Control Occupations

**PERSONAL SERVICE OCCUPATIONS**

K456 Supervisors: Personal Service Occupations  
K457 Barbers  
K458 Hairdressers and Cosmetologists  
K459 Attendants, Amusement and Recreation Facilities  
K461 Guides  
K462 Ushers  
K463 Public Transportation Attendants  
K464 Baggage Porters and Bellhops  
K465 Welfare Service Aides  
K467 Early Childhood Teacher's Assistants  
K468 Child Care Workers, n.e.c.  
K469 Service Occupations, n.e.c.



# Appendix C. Occupational Leveling Criteria

Below are the 10 criteria for the occupational leveling of occupations. The description of each level within a factor is included. An example of using these criteria for leveling a job follows in appendix D.

**KNOWLEDGE** measures the nature and extent of information or facts which the workers must understand to do acceptable work (e.g., steps, procedures, practices, rules, policies, theories, principles, and concepts) and the nature and extent of the skills needed to apply those knowledge's. To be used as a basis for selecting a level under this factor, a knowledge must be required and applied.

1. Knowledge of simple, routine, or repetitive tasks or operations that typically includes following step-by-step instructions and requires little or no previous training or experience;

OR

Skill to operate simple equipment or equipment that operates repetitively, requiring little or no previous training or experience;

OR

Equivalent knowledge and skill.

2. Knowledge of basic or commonly-used rules, procedures, or operations that typically requires some previous training or experience;

OR

Basic skill to operate equipment requiring some previous training or experience, such as keyboard equipment;

OR

Equivalent knowledge and skill.

3. Knowledge of a body of standardized rules, procedures, operations, goods, services, tools, or equipment requiring considerable training and experience to perform the full range of standard clerical assignments and resolve recurring problems;

OR

Skill, acquired through considerable training and experience, to operate and adjust varied equipment for purposes such as performing numerous standardized tests or operations;

OR

Equivalent knowledge and skill.

4. Knowledge of an extensive body of rules, procedures, operations, products or services requiring extended training and experience to perform a wide variety of interrelated or nonstandard procedural assignments and resolve a wide range of problems;

OR

Practical knowledge of standard procedures in a technical field, requiring extended training or experience, to perform such work as: adapting equipment when this requires considering the functioning characteristics of equipment; interpreting results of tests based on previous experience and observations (rather than directly reading instruments or other measures); or extracting information from various sources when this requires considering the applicability of information and the characteristics and quality of the sources;

OR

Comprehensive knowledge of a blue-collar skill, usually acquired through a formal apprenticeship;

OR

Equivalent knowledge and skill;

5. Knowledge (such as would be acquired through a pertinent baccalaureate educational program or its equivalent in experience, training, or independent study) of basic principles, concepts, and methodology of a professional or administrative occupation, and skill in applying this knowledge in carrying out elementary assignments, operations, or procedures;

OR

In addition to the practical knowledge of standard procedures in Level 4, practical knowledge of technical methods to perform assignments such as carrying out limited projects that involve use of specialized, complicated techniques;

OR

Advanced knowledge of a blue-collar skill to solve unusually complex problems;

OR

Equivalent knowledge and skill.

6. Knowledge of the principles, concepts, and methodology of a professional or administrative occupation as described at Level 5 that has been either: (a) supplemented by skill gained through job experience to permit independ-

ent performance of recurring assignments, or (b) supplemented by expanded professional or administrative knowledge gained through relevant graduate study or experience, that has provided skill in carrying out assignments, operations, and procedures in the occupation that are significantly more difficult and complex than those covered by Level 5;

OR

Practical knowledge of a wide range of technical methods, principles, and practices similar to a narrow area of a professional field, and skill in applying this knowledge to such assignments as the design and planning of difficult, but well-precedented projects;

OR

Equivalent knowledge and skill.

7. Knowledge of a wide range of concepts, principles, and practices in a professional or administrative occupation, such as would be gained through extended graduate study or experience, and skill in applying this knowledge to difficult and complex work assignments;

OR

A comprehensive, intensive, practical knowledge of a technical field and skill in applying this knowledge to the development of new methods, approaches, or procedures;

OR

Equivalent knowledge and skill.

8. Mastery of a professional or administrative field to:

Apply experimental theories and new developments to problems not susceptible to treatment by accepted methods;

OR

Make decisions or recommendations significantly changing, interpreting, or developing important policies or programs;

OR

Equivalent knowledge and skill.

9. Mastery of a professional field to generate and develop new hypotheses and theories;

OR

Equivalent knowledge and skill.

**SUPERVISION RECEIVED** 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 com-

pleted 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.

1. For both one-of-a-kind and repetitive tasks the supervisor makes specific assignments that are accompanied by clear, detailed, and specific instructions.

The employee works as instructed and consults with the supervisor as needed on all matters not specifically covered in the original instructions or guidelines.

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.

2. The supervisor provides continuing or individual assignments by indicating generally what is to be done, limitations, quality and quantity expected, deadlines, and priority of assignments. The supervisor provides additional, specific instructions for new, difficult, or unusual assignments including suggested work methods or advice on source material available.

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.

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.

3. The supervisor makes assignments by defining objectives, priorities, and deadlines; and assists employee with unusual situations that do not have clear precedents.

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 usually is 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.

4. The supervisor sets the overall objectives and resources available. The employee and supervisor, in consultation, develop the deadlines, projects, and work to be done.

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 that

arise; coordinating the work with others as necessary; and interpreting policy on own initiative in terms of established objectives. In some assignments, the employee also determines the approach to be taken and the methodology 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.

5. The supervisor provides administrative direction with assignments in terms of broadly defined missions or functions.

The employee has responsibility for planning, designing, and carrying out programs, projects, studies, or other work independently.

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 and influence on the overall program, or the contribution to the advancement of technology. Recommendations for new projects and alteration of objectives usually are evaluated for such considerations as availability of funds and other resources, broad program goals, or priorities.

**GUIDELINES** covers the nature of guidelines and the judgment needed to apply them. Guides used include, for example: desk manuals, established procedures and policies, traditional practices, and reference materials such as dictionaries, style manuals, engineering handbooks, and the pharmacopoeia.

Individual jobs in different occupations vary in the specificity, applicability and availability of the guidelines for performance of assignments. Consequently, the constraints and judgmental demands 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 literature and developing new methods.

Guidelines should not be confused with the knowledge's described under Factor 1, Knowledge. Guidelines either provide reference data or impose certain constraints on the use of knowledge's. For example, in the field of medical technology, for a particular diagnosis there may be three or four standardized tests set forth in a technical manual. A medical technologist is expected to know these diagnostic tests. However, in a given laboratory the policy may be to use only one of the tests; or the policy may state specifically under what conditions one or the other of these tests may be used.

1. Specific, detailed guidelines covering all important aspects of the assignment are provided to the employee. The employee works in strict adherence to the guidelines; deviations must be authorized by the supervisor.

2. Procedures for doing the work have been established and a number of specific guidelines are available.

The number and similarity of guidelines and work situations requires the employee to use judgment in locating and selecting the most appropriate guidelines, references, and procedures for application, and in making minor deviations to adapt the guidelines in specific cases. 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.

3. 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 policies, regulations, precedents, and work directions for application to specific cases or problems. The employee analyzes results and recommends changes.

4. Administrative policies and precedents are applicable but are stated in general terms. Guidelines for performing the work are scarce or of limited use.

The employee uses initiative and resourcefulness in deviating from traditional methods or researching trends and patterns to develop new methods, criteria, or proposed new policies.

5. Guidelines are broadly stated and nonspecific, e.g., broad policy statements and basic legislation that require extensive interpretation.

The employee must use judgment and ingenuity in interpreting the intent of the guides that do exist and in developing applications to specific areas of work. Frequently, the employee is recognized as a technical authority in the development and interpretation of guidelines.

**COMPLEXITY** covers 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 involved in performing the work.

1. The work consists of tasks that are clear-cut and directly related. There is little or no choice to be made in deciding what needs to be done. Actions to be taken or responses to be made are readily discernible. The work is quickly mastered.

2. The work consists of duties that involve related steps, processes, or methods.

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, or other differences of a factual nature.

3. 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, 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.

4. The work typically includes varied duties requiring many different and unrelated processes and methods such as those relating to well-established aspects of an administrative or professional field.

Decisions regarding what needs to be done include the assessment of unusual circumstances, variations in approach, and incomplete or conflicting data.

The work requires making many decisions concerning such things as the interpreting of considerable data, planning of the work, or refining the methods and techniques to be used.

5. 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, typically for an administrative or professional field.

Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretation and evaluation processes resulting from such elements as continuing changes in program, technological developments, unknown phenomena, or conflicting requirements.

The work requires originating new techniques, establishing criteria, or developing new information.

6. The work consists of broad functions and processes of an administrative or professional field. 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.

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.

**SCOPE AND EFFECT** covers the relationship between the nature of the work, i.e., the purpose, breadth, and depth of the assignment, and the effect of work products or services both within and outside the organization.

Effect 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 research conclusions. The concept of effect alone does not provide sufficient information to properly understand and evaluate the impact of the position. The scope of the work completes the picture, allowing consistent evaluations. Only the effect of properly performed work is to be considered.

1. The work involves the performance of specific, routine operations that include a few separate tasks or procedures.

The work product or service 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.

2. The work involves the execution of specific rules, regulations, or procedures and typically comprises a complete segment of an assignment or project of broader scope.

The work product or service affects the accuracy, reliability, or acceptability of further processes or services.

3. The work involves treating a variety of conventional problems, questions, or situations in conformance with established criteria.

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.

4. The work involves establishing criteria; formulating projects; assessing program effectiveness; or investigating or analyzing variety of unusual conditions, problems, or questions.

The work product or service affects a wide range of establishment activities, major activities of industrial concerns, or the operation of other organizations.

5. The work involves isolating and defining unknown conditions, resolving critical problems, or developing new theories.

The work product or service affects the work of other experts, the development of major aspects of administrative or scientific programs or missions, or the well-being of substantial numbers of people.

6. The work involves planning, developing, and carrying out vital administrative or scientific programs.

The programs are essential to the missions of the overall organization or affect large numbers of people on a long-term or continuing basis.

**PERSONAL CONTACTS** includes face-to-face contacts and telephone and radio dialogue with persons not in the supervisory chain. (NOTE: Personal contacts with supervisors are covered under Factor 2, Supervision Received.) Levels described under this factor are based on what is required to make the initial contact, the difficulty of communicating with those contacted, and the setting in which the contact takes place (e.g., the degree to which the employee and those contacted recognize their relative roles and authorities).

Above the lowest level, points should be credited under this factor only for contacts that are essential for successful performance of the work, and that have a demonstrable impact on the difficulty and responsibility of the work performed.

The relationship of Factors 6 (Personal Contacts) and 7 (Purpose of Contacts) presumes that the same contacts will be evaluated for both factors. Therefore, use the personal contacts that serve as the basis for the level selected for Factor 7 as the basis for selecting a level for Factor 6.

1. The personal contacts are with employees within the immediate organization, office, project, or work unit, and in related or support units;

AND/OR

The contacts are with members of the general public in very highly structured situations (e.g., the purpose of the contact and the question of with whom to deal are relatively clear). Typical of contacts at this level are purchases of admission tickets at a ticket window.

2. The personal contacts are with employees in the same overall organization, but outside the immediate organization. People contacted generally are engaged in different functions, missions, and kinds of work, e.g., representatives from various levels within the overall organizations such as headquarters, district offices, or local offices, plants, stores, or other operating units in the immediate installation.

AND/OR

The contacts are with members of the general public, as individuals or groups, in a moderately structured setting (e.g., the contacts are generally established on a routine basis, usually at the employee's work place; the exact purpose of the contact may be unclear at first to one or more of the parties; and one or more of the parties may be uninformed concerning the role and authority of other participants).

3. The personal contacts are with individuals or groups from outside the employing establishment in a moderately unstructured setting (e.g., the contacts are not established on a routine basis; the purpose and extent of each contact is different and the role and authority of each party is identified and developed during the course of the contact). Typical of contacts at this level are those with persons in

their capacities as attorneys; contractors; or representatives of professional organizations, the news media, or public action groups.

4. The personal contacts are with high-ranking officials from outside the employing establishment at national or international levels in highly unstructured settings (e.g., contacts are characterized by problems such as: the officials may be relatively inaccessible; arrangements may have to be made for accompanying staff members; appointments may have to be made well in advance; each party may be very unclear as to the role and authority of the other; and each contact may be conducted under different ground rules). Typical of contacts at this level are those with presidents of large national or international firms, nationally recognized representatives of the news media, presidents of national unions, members of Congress, leading representatives of foreign governments, State governors, or mayors of large cities.

**PURPOSE OF CONTACTS** ranges from factual exchanges of information to situations involving significant or controversial issues and differing viewpoints, goals, or objectives. The personal contacts that serve as the basis for the level selected for this factor must be the same as the contacts that are the basis for the level selected for Factor 6.

1. The purpose is to obtain, clarify, or give facts or information regardless of the nature of those facts, i.e., the facts or information may range from easily understood to highly technical.

2. The purpose is to plan, coordinate, or advise on work efforts or to resolve operating problems by influencing or motivating individuals or groups who are working toward mutual goals and who have basically cooperative attitudes.

3. The purpose is to influence, motivate, convince, or question persons or groups. Those contacted may be hesitant or skeptical, so the employee must be skillful in approaching the individual or group in order to obtain the desired response.

OR

The purpose is to interrogate or control persons or groups who may be fearful, uncooperative, or dangerous. Therefore, the employee must be skillful in approaching the individual or group in order to obtain the desired effect, such as, gaining compliance with established policies and regulations by persuasion or negotiation, or gaining information by establishing rapport with a suspicious informant.

4. The purpose is to justify, defend, negotiate, or settle matters involving significant or controversial issues. Work at this level usually involves active participation in conferences, meetings, hearings, or presentations involv-

ing problems or issues of considerable consequence or importance. The persons contacted typically have diverse viewpoints, goals, or objectives requiring the employee to achieve a common understanding of the problem and a satisfactory solution by convincing them, arriving at a compromise, or developing suitable alternatives.

**PHYSICAL DEMANDS** covers the requirements and physical demands placed on the employee by the work assignment. This includes physical characteristics and abilities (e.g., specific agility and dexterity requirements) and the physical exertion involved in the work (e.g., climbing, lifting, pushing, balancing, stooping, kneeling, crouching, crawling, or reaching). To some extent the frequency or intensity of physical exertion must also be considered, e.g., a job requiring prolonged standing involves more physical exertion than a job requiring intermittent standing.

1. The work is sedentary. Typically, the employee may sit comfortably to do the work. However, there may be some walking; standing; bending; carrying of light items such as papers, books, or small parts; driving an automobile, etc. No special physical demands are required to perform the work.

2. The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as personal computers and record boxes. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

3. The work requires considerable and strenuous physical exertion such as frequent climbing of tall ladders, lifting heavy objects over 50 pounds, crouching or crawling in restricted areas, and defending oneself or others against physical attack.

**WORK ENVIRONMENT** considers the risks and discomforts in the employee's physical surroundings or the nature of the work assignment and the safety regulations required. Although the use of safety precautions can practically eliminate a certain danger or discomfort, such situations typically place additional demands upon the employee in carrying out safety regulations and techniques.

1. The work environment involves everyday risks or discomforts that require normal safety precautions typical of such places as offices, meeting and training rooms, libraries, and residences or commercial vehicles, e.g.,

use of safe work practices with office equipment, avoidance of trips and falls, observance of fire regulations and traffic signals, etc. The work area is adequately lighted, heated, and ventilated.

2. The work involves moderate risks or discomforts that require special safety precautions, e.g., working around moving parts, carts, or machines; with contagious diseases or irritant chemicals; etc. Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

3. The work environment involves high risks with exposure to potentially dangerous situations or unusual environmental stress that require a range of safety and other precautions, e.g., working at great heights under extreme outdoor weather conditions, subject to possible physical attack or mob conditions, or similar situations where conditions cannot be controlled.

**SUPERVISORY DUTIES** describes the level of supervisory responsibility for a position.

1. No supervisory responsibility.

2. A nonsupervisory position. Incumbent sets the pace of work for the group and shows other workers in the group how to perform assigned tasks. Commonly performs the same work as the group, in addition to lead duties. Can also be called group leader, team leader, or lead worker.

3. Directs staff through face to face meetings. Organizational structure is not complex and internal and administrative procedures are simple. Performing the same work as subordinates is not the principal duty. Typically, this is the first supervisory level.

4. Directs staff through intermediate supervisors. Internal procedures and administrative controls are formal. Organizational structure is complex and is divided into subordinate groups that may differ from each other as to subject matter and function

5. Directs staff through two or more subordinate supervisory levels with several subdivisions at each level. Programs are usually inter-locked on a direct and continuing basis with other organizational segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls.

# Appendix D. Evaluating Your Firm's Jobs

To compare data on their firm's jobs with statistics contained in this bulletin, data users need to be able to determine their jobs' work levels. Using the example of a dental hygienist, this appendix will go through the procedure for determining the work level of a particular job.

To determine the work level of a job, it must be evaluated using the occupational leveling factors. With the information available, such as a written position description and other knowledge of the job, each factor must be reviewed. Comparing that information to the descriptions of each level within a factor as shown in Appendix C, the level best matching the job should be chosen and recorded. (Note that the number of levels varies by factor.)

## Occupational leveling: an example

### Knowledge

Hygienist must have a dental hygienist license, which requires 2 years of schooling and passage of a technical exam. This is a mid-level hygienist job, which means a worker must have at least 3 years of experience. The procedures are essentially the same every day, such as cleaning teeth, checking gums, and taking x-rays.

Level 4.

### Supervision received

Most of the tasks are performed without supervision. For more complicated procedures, such as tooth filling, the dental hygienist assists the dentist.

Level 2.

### Guidelines

A hygienist knows which procedure to use for different dental problems. Unusual situations are handled after checking with the supervisor.

Level 2.

### Complexity

Each procedure performed leads to the next, for example, examining gums, scraping plaque, then cleaning teeth.

Level 2.

### Scope and effect

In terms of process, the dentist's work follows the hygienist's. In terms of effect, the hygienist doing a thorough cleaning in preparation for the dentist's work allows the dentist to do a complete exam and properly treat the patient.

Level 2.

### Personal contacts

Patients come to the clinic or occasionally the hygienist will travel to perform work or give a talk at a school.

Level 2.

### Purpose of contacts

Most of hygienist's interaction is with patients; no planning or coordination work is involved.

Level 1.

### Physical demands

The work is sedentary.

Level 1.

### Work environment

Hygienist must take precautions not to be exposed to x-rays, punctures, etc.

Level 2.

### Supervisory duties

A dental hygienist at this level does not supervise anyone.

Level 1.

## Assigning points

Once the correct level has been identified within each factor, the points associated with each level are recorded.

Summing the points for all factors gives the total points for the job. Using the factors above and the table at the end of this section showing the points associated with each level within a factor, a sample worksheet was filled out for the dental hygienist position.

### Occupational leveling worksheet

Company job title: Dental Hygienist

Factor	Level	Points
Knowledge	4	550
Supervision received	2	125
Guidelines	2	125
Complexity	2	75
Scope and effect	2	75
Personal contacts	2	25
Purpose of contacts	1	20
Physical demands	1	5
Work environment	2	20
Supervisory duties	1	0
<b>Total</b>	<b>5</b>	<b>1,020</b>

### Determining the work level

The following chart takes the point total determined using the worksheet and converts it to an overall work level for

the job. There are 15 work levels, based on those used to rank Federal civil service white-collar jobs, each identified by a point range. The 1,020 total points for the dental hygienist job puts it in level 5.

### Point ranges by work level

Range of Occupational Level Points

Level	Low	High
1	190	254
2	255	454
3	455	654
4	655	854
5	855	1,104
6	1,105	1,354
7	1,355	1,604
8	1,605	1,854
9	1,855	2,104
10	2,105	2,354
11	2,355	2,754
12	2,755	3,154
13	3,155	3,604
14	3,605	4,054
15	4,055	and up

### Comparing wages

Once the work level has been identified for a job, wages for that job can be compared to wages for similar jobs at the same work level. BLS publishes hourly wage rates by work level within nine major occupational groups, which are combinations of similar individual occupations. The groups and work levels available vary by area. Employers can also use the data on work levels to compare different jobs in their establishment.

### Points associated with each factor level

Factor	1	2	3	4	5	6	7	8	9
Knowledge	50	200	350	550	750	950	1,250	1,550	1,850
Supervision received	25	125	275	450	650	X	X	X	X
Guidelines	25	125	275	450	650	X	X	X	X
Complexity	25	75	150	225	325	450	X	X	X
Scope and effect	25	75	150	225	325	450	X	X	X
Personal contacts	10	25	60	110	X	X	X	X	X
Purpose of contacts	20	50	120	220	X	X	X	X	X
Physical demands	5	20	50	X	X	X	X	X	X
Work environment	5	20	50	X	X	X	X	X	X
Supervisory duties	0	0	0	0	0	X	X	X	X

Note: X indicates that a level is not associated with a given factor. For example, for physical demands, point levels 1, 2, and 3 are the only choices.