



STANDARD OCCUPATIONAL CLASSIFICATION MANUAL

United States, 2018

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET

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Introduction

The 2018 Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers and jobs into occupational categories for the purpose of collecting, calculating, analyzing, or disseminating data.

Users of occupational data include government program managers, industrial and labor relations practitioners, students considering career training, jobseekers, career and employment counselors, educational institutions, and employers wishing to set salary scales or to locate to a new facility. Federal agencies use the SOC system to collect occupational data. The implementation of the 2000 SOC meant that for the first time, all major occupational data sources produced by the federal statistical system provided data that are comparable, greatly improving the usefulness of the data. The 2018 SOC continues to serve this purpose and has been revised to improve data collection and reflect the current occupational structure of the United States.

The SOC classifies all occupations in which work is performed for pay or profit. The SOC covers all jobs in the national economy, including occupations in the public, private, and military sectors. All federal agencies that publish occupational data for statistical purposes are required to use the SOC to increase data comparability across federal programs. State and local government agencies are strongly encouraged to use this national system to promote a common language for categorizing and analyzing occupations.

To facilitate classification and presentation of data, the SOC is organized into a tiered system with four levels, ranging from major groups to detailed occupations. As in the 2000 and 2010 SOC, the 2018 SOC contains 23 major groups which are broken into minor groups. In the 2018 SOC there are 98 minor groups. Each minor group is broken into broad occupations, of which there are 459. There are, at the highest level of specification, 867 detailed occupations. Detailed occupations with similar job duties, and in some cases, similar skills, education, and/or training, are grouped together in the SOC. Each worker is classified into only one of the 867 detailed occupations based on the tasks he or she performs.

Overview of SOC Manual 2018

The *SOC Manual 2018* is available in electronic format only. This Introduction describes the history of the SOC, the revision process, and coding structure. It also provides answers to frequently asked questions. The full 2018 SOC system showing the different levels of aggregation, as well as the occupation titles, definitions, and illustrative examples, is available from https://bls.gov/soc/2018/major_groups.htm. Other downloadable materials related to the 2018 SOC can be found on the SOC website at <https://www.bls.gov/soc>.

Historical background

The Standard Occupational Classification (SOC) manual was first published in 1980, but was rarely used. The Office of Management and Budget (OMB) created the SOC Revision Policy Committee (SOCRPC) to revise the SOC for 2000, with the purpose of creating a system of classification that would allow all government agencies and private industry to produce comparable data.

Completed in 1998, the 2000 SOC resulted from 4 years of research by the SOCRPC and workgroups composed of members of more than 15 government agencies. The SOCRPC used the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) occupational classification system as the starting point for the new SOC framework.

Beginning in 2006, OMB published notices in the *Federal Register* to solicit public comment, questions, and suggestions for the 2010 SOC. Based on these comments, the Standard Occupational Classification Policy Committee (SOCPC) formulated recommendations to OMB. Working with the SOCPC, OMB made its final decisions on the 2010 SOC, published these decisions in the *Federal Register* in January 2009, and then published final definitions for all detailed 2010 SOC occupations in the *SOC Manual 2010*.

The *SOC Manual 2018* replaces the 2010 edition, and will be adopted by all federal agencies that use the *SOC Manual 2010*.

Revision process for the 2018 edition

OMB first met in 2013 with the SOCPC, which includes representatives from the following agencies:

- Department of Labor, Bureau of Labor Statistics
- Department of Labor, Employment and Training Administration
- Department of Commerce, Census Bureau
- Department of Defense, Defense Manpower Data Center
- Department of Education, National Center for Education Statistics
- Department of Transportation, Bureau of Transportation Statistics
- Equal Employment Opportunity Commission
- Department of Health and Human Services, Health Resources and Services Administration
- National Science Foundation, National Center for Science and Engineering Statistics
- Office of Personnel Management
- Office of Management and Budget, Office of Information and Regulatory Affairs

To initiate the formal 2018 SOC revision process, OMB and the SOCPC requested public comment in a May 22, 2014, *Federal Register* notice (79 FR 29620–29624) on:

- the proposed revision to the 2010 SOC Classification Principles
- the intention to retain the 2010 SOC Coding Guidelines

- the intention to retain the 2010 SOC Major Group structure
- proposals for the correction, change, or combination of 2010 SOC detailed occupations
- inclusion of new detailed occupations

The comment period for the May 22, 2014, notice closed on July 21, 2014.

To carry out the bulk of the revision effort, the SOCPC created eight workgroups composed of agency staff to examine occupations in the following major groups:

- Management; Business and Financial Operations; and Legal Occupations (codes 11-0000, 13-0000, and 23-0000)
- Computer and Mathematical; Architecture and Engineering; and Life, Physical, and Social Science Occupations (codes 15-0000 through 19-0000)
- Community and Social Service; Healthcare Practitioners and Technical; and Healthcare Support Occupations (codes 21-0000, 29-0000, and 31-0000)
- Education, Training, and Library; and Arts, Design, Entertainment, Sports, and Media Occupations (codes 25-0000 through 27-0000)
- Protective Service; Food Preparation and Serving Related; Building and Grounds Cleaning and Maintenance; Personal Care and Service; Sales and Related; and Office and Administrative Support Occupations (codes 33-0000 through 43-0000)
- Farming, Fishing, and Forestry; Construction and Extraction; Installation, Maintenance, and Repair; and Transportation and Material Moving Occupations (codes 45-0000 through 49-0000 and 53-0000)
- Production Occupations (code 51-0000)
- Military Specific Occupations (code 55-0000)

The workgroups were charged with reviewing comments received in response to the May 22, 2014, *Federal Register* notice and providing recommendations to the SOCPC. Guided by the Classification Principles, the SOCPC reviewed the recommendations from the workgroups and reached decisions by consensus.

OMB announced the proposed new structure in a *Federal Register* notice on July 22, 2016, (81 FR 48306–48310). OMB, in conjunction with the SOCPC, reviewed and carefully considered the comments received in response to this notice in the process of making its final decisions. The final 2018 occupation changes were announced in a *Federal Register* notice on November 28, 2017 (82 FR 56271-56273).

Future of the SOC

The SOCPC will continue to serve as a standing committee after electronic publication of the *SOC Manual 2018*, in order to perform maintenance functions such as recommending clarifications of SOC definitions, place new occupations within the existing structure, and update title files, including the Direct Match Title File.

Developed for the 2010 SOC, the Direct Match Title File lists associated job titles for almost all detailed SOC occupations. Each of these titles directly matches to a single SOC detailed

occupation (i.e. one-to-one mappings, where all workers with the job title listed in the Direct Match Title File are classified into exactly one detailed SOC occupation code). All federal agencies that use the SOC will adopt the Direct Match Title File, although some may maintain separate program-specific title files. The Direct Match Title File allows data users to compare occupational information for these titles across federal statistical agencies.

The SOCPC will continue to update the Direct Match Title File on a regular basis. Interested parties may suggest additional job titles to the SOCPC by emailing SOC@bls.gov. Instructions for submitting your recommendation, and other files related to the Direct Match Title File, are available at <https://www.bls.gov/soc>.

What's new in the 2018 SOC

In comparison with the 2010 SOC, the 2018 SOC had a net gain of 27 detailed occupations and 1 minor group. The net number of broad occupations fell by 2 and the number of major groups remained unchanged. The 2018 SOC system contains 867 detailed occupations, aggregated into 459 broad occupations. In turn, the SOC combines these 459 broad occupations into 98 minor groups and 23 major groups. Of the 867 occupations in the 2018 structure, 391 remained completely unchanged from the 2010 SOC, 355 had at least a definition change, 131 had at least a title change, and 115 had at least a code change. Most of the definition changes (254) were editorial revisions or clarifications that did not change occupational content. Therefore, no substantive change occurred for about 88 percent of the detailed occupations in the 2010 SOC.

Occupational areas with significant revisions and additions included

- Information technology (minor group 15-1200 Computer Occupations) and
- Healthcare (major groups 29-0000 Healthcare Practitioners and Technical Occupations and 31-0000 Healthcare Support Occupations)

The seven detailed occupations in Table 1 moved from one major group in the 2010 SOC to a different major group in 2018 and received new 2018 SOC codes as a result.

Table 1. Detailed occupations that moved from one major group to another

<i>2018 SOC code</i>	<i>2018 SOC Title</i>
19-5011	Occupational Health and Safety Specialists
19-5012	Occupational Health and Safety Technicians
27-3092	Court Reporters and Simultaneous Captioners
31-1122	Personal Care Aides
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining
47-5044	Loading and Moving Machine Operators, Underground Mining
53-7065	Stockers and Order Fillers

The minor group “Occupational Health and Safety Specialists and Technicians” (19-5000) moved into major group “Life, Physical and Social Science Occupations” (19-0000) from its former location as a broad occupation, “Occupational Health and Safety Specialists and Technicians” (29-9010 in the 2010 SOC) in the major group “Healthcare Practitioners and Technical Occupations” (29-0000). Four detailed occupations moved across minor groups: “Teaching Assistants, Postsecondary” (25-9044, formerly 25-1191), “Dental Hygienists” (29-1292, formerly 29-2021), “Computer Numerically Controlled Tool Operators” (51-9161, formerly 51-4011), and Computer Numerically Controlled Tool Programmers (51-9162, formerly 51-4012).

The major group level title for “Education, Training, and Library Occupations” (25-0000) changed to “Educational Instruction and Library Occupations” to clarify that not all personnel at education institutions should be placed in major group 25-0000 (e.g. school principals are in major group 11-0000), and that other types of instructors, such as flight instructors (who are included in “Aircraft Pilots and Flight Engineers” (53-2010) and corporate trainers (who are included in “Training and Development Specialists” (13-1151), exist outside of major group 25-0000.

The minor group code for “Computer Occupations” (15-1200, formerly 15-1100) was changed to highlight the impact of the many changes made to the detailed occupations within that group on time series analysis. The minor group code and title, as well as the broad occupations included, changed with the creation of “Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides” (31-1100, formerly 31-1000), which now includes “Personal Care Aides” (31-1122, formerly 39-9021).

Seventy detailed occupations are new to the 2018 SOC. The 32 detailed occupations in Table 2 resulted from splitting existing detailed 2010 SOC occupations into more than one detailed 2018 SOC occupation.

Table 2. Occupations new to the 2018 SOC due to breakouts of 2010 SOC detailed occupations

<i>2018 SOC code</i>	<i>2018 SOC Title</i>
11-2032	Public Relations Managers
11-2033	Fundraising Managers
11-3012	Administrative Services Managers
11-3013	Facilities Managers
13-2022	Appraisers of Personal and Business Property
13-2023	Appraisers and Assessors of Real Estate
13-2054	Financial Risk Specialists
15-1243	Database Architects
15-1253	Software Quality Assurance Analysts and Testers
15-1255	Web and Digital Interface Designers
19-3033	Clinical and Counseling Psychologists
19-3034	School Psychologists
19-4012	Agricultural Technicians
19-4013	Food Science Technicians
25-2055	Special Education Teachers, Kindergarten
25-2056	Special Education Teachers, Elementary School
25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education
25-9043	Teaching Assistants, Special Education
25-9049	Teaching Assistants, All Other
29-1242	Orthopedic Surgeons, Except Pediatric
29-1243	Pediatric Surgeons
29-1249	Surgeons, All Other

29-2042	Emergency Medical Technicians
29-2043	Paramedics
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining
53-1043	First-Line Supervisors of Material-Moving Machine and Vehicle Operators
53-1044	First-Line Supervisors of Passenger Attendants
53-1049	First-Line Supervisors of Transportation Workers, All Other
53-3051	Bus Drivers, School
53-3053	Shuttle Drivers and Chauffeurs
53-3054	Taxi Drivers

Table 3 presents the 27 new 2018 SOC detailed occupations that stemmed from splitting out occupations within 2010 SOC “All Other” occupations.

Table 3. Occupations new to the 2018 SOC due to breakouts of 2010 SOC “All Other” occupations

<i>2018 SOC code</i>	<i>2018 SOC Title</i>
11-9072	Entertainment and Recreation Managers, Except Gambling
11-9179	Personal Service Managers, All Other
13-1082	Project Management Specialists
15-2051	Data Scientists
17-3028	Calibration Technologists and Technicians
19-4044	Hydrologic Technicians
25-3031	Substitute Teachers, Short-Term
25-3041	Tutors
27-2091	Disc Jockeys, Except Radio
27-4015	Lighting Technicians
29-1212	Cardiologists
29-1213	Dermatologists
29-1214	Emergency Medicine Physicians
29-1217	Neurologists
29-1222	Physicians, Pathologists
29-1224	Radiologists
29-1229	Physicians, All Other
29-1241	Ophthalmologists, Except Pediatric
29-1291	Acupuncturists
29-2036	Medical Dosimetrists
29-9021	Health Information Technologists and Medical Registrars
29-9093	Surgical Assistants
33-1091	First-Line Supervisors of Security Workers
33-9094	School Bus Monitors
39-4012	Crematory Operators

41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel
53-6032	Aircraft Service Attendants

Eleven 2018 SOC detailed occupations resulted from combinations of existing 2010 SOC detailed occupations, such as “Software Developers” (15-1252) which combined “Software Developers, Applications” (15-1132 in the 2010 SOC) and “Software Developers, Systems Software” (15-1133 in the 2010 SOC). Other occupations that resulted from combining existing 2010 detailed occupations are shown in Table 4.

Table 4. Occupations new to the 2018 due to combining existing detailed 2010 SOC occupations

<i>2018 SOC code</i>	<i>2018 SOC Title</i>
15-1252	Software Developers
25-4022	Librarians and Media Collections Specialists
27-3023	News Analysts, Reporters, and Journalists
35-3023	Fast Food and Counter Workers
39-1013	First-Line Supervisors of Gambling Services Workers
45-3031	Fishing and Hunting Workers
47-5044	Loading and Moving Machine Operators, Underground Mining
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9161	Computer Numerically Controlled Tool Operators
51-9162	Computer Numerically Controlled Tool Programmers
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers

Multiple codes contained in the 2010 SOC will no longer appear in the 2018 SOC due to structural changes stemming from the merging, breaking out, or collapsing of detailed occupations. A complete list of the codes deleted from the 2010 SOC is available at: <https://www.bls.gov/soc/2018/home.htm>.

Classification principles

The SOC Classification Principles form the basis on which the SOC system is structured.

1. The SOC covers all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises by family members who are not directly compensated. It excludes occupations unique to volunteers. Each occupation is assigned to only one occupational category at the most detailed level of the classification.
2. Occupations are classified based on work performed and, in some cases, on the skills, education and/or training needed to perform the work.
3. Workers primarily engaged in planning and the directing of resources are classified in management occupations in Major Group 11–0000. Duties of these workers may include supervision.
4. Supervisors of workers in Major Groups 13–0000 through 29–0000 usually have work experience and perform activities similar to those of the workers they supervise, and therefore are classified with the workers they supervise.
5. Workers in Major Group 31–0000 Healthcare Support Occupations assist and are usually supervised by workers in Major Group 29–0000 Healthcare Practitioners and Technical Occupations, and therefore there are no first-line supervisor occupations in Major Group 31–0000.
6. Workers in Major Groups 33–0000 through 53–0000 whose primary duty is supervising are classified in the appropriate first-line supervisor category because their work activities are distinct from those of the workers they supervise.
7. Apprentices and trainees are classified with the occupations for which they are being trained, while helpers and aides are classified separately because they are not in training for the occupation they are helping.
8. If an occupation is not included as a distinct detailed occupation in the structure, it is classified in an appropriate “All Other” occupation. “All Other” occupations are placed in the structure when it is determined that the detailed occupations comprising a broad occupation group do not account for all of the workers in the group, even though such workers may perform a distinct set of work activities. These occupations appear as the last occupation in the group with a code ending in “9” and are identified in their title by having “All Other” appear at the end.
9. The U.S. Bureau of Labor Statistics and the U.S. Census Bureau are charged with collecting and reporting data on total U.S. employment across the full spectrum of SOC Major Groups. Thus, for a detailed occupation to be included in the SOC, either the Bureau of Labor Statistics or the Census Bureau must be able to collect and report data on that occupation.
10. To maximize the comparability of data, time series continuity is maintained to the extent possible.

Coding guidelines

The following SOC coding guidelines are intended to assist users in consistently assigning SOC codes and titles to survey responses and in other coding activities.

1. A worker should be assigned to an SOC occupation code based on work performed.
2. When workers in a single job could be coded in more than one occupation, they should be coded in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers should be coded in the occupation in which they spend the most time. Workers whose job is to teach at different levels (e.g., elementary, middle, or secondary) should be coded in the occupation corresponding to the highest educational level they teach.
3. Data collection and reporting agencies should assign workers to the most detailed occupation possible. Different agencies may use different levels of aggregation, depending on their ability to collect data.
4. Workers who perform activities not described in any distinct detailed occupation in the SOC structure should be coded in an appropriate “All Other” occupation. These occupations appear as the last occupation in a group with a code ending in “9” and are identified by having the words “All Other” appear at the end of the title.
5. Workers in Major Groups 33–0000 through 53–0000 who spend 80 percent or more of their time performing supervisory activities are coded in the appropriate first-line supervisor category in the SOC. In these same Major Groups (33–0000 through 53– 0000), persons with supervisory duties who spend less than 80 percent of their time supervising are coded with the workers they supervise.
6. Licensed and non-licensed workers performing the same work should be coded together in the same detailed occupation, except where specified otherwise in the SOC definition.

SOC coding structure

The occupations in the SOC are classified at four levels of aggregation to suit the needs of various data users: major group, minor group, broad occupation, and detailed occupation. Each lower level of detail identifies a more specific group of occupations. The 23 major groups, listed below, are divided into 98 minor groups, 459 broad occupations, and 867 detailed occupations.

2018 SOC major groups

<i>Code</i>	<i>Title</i>
11-0000	Management Occupations
13-0000	Business and Financial Operations Occupations
15-0000	Computer and Mathematical Occupations
17-0000	Architecture and Engineering Occupations
19-0000	Life, Physical, and Social Science Occupations
21-0000	Community and Social Service Occupations
23-0000	Legal Occupations
25-0000	Educational Instruction and Library Occupations
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations
29-0000	Healthcare Practitioners and Technical Occupations
31-0000	Healthcare Support Occupations
33-0000	Protective Service Occupations
35-0000	Food Preparation and Serving Related Occupations
37-0000	Building and Grounds Cleaning and Maintenance Occupations
39-0000	Personal Care and Service Occupations
41-0000	Sales and Related Occupations
43-0000	Office and Administrative Support Occupations
45-0000	Farming, Fishing, and Forestry Occupations
47-0000	Construction and Extraction Occupations
49-0000	Installation, Maintenance, and Repair Occupations
51-0000	Production Occupations
53-0000	Transportation and Material Moving Occupations
55-0000	Military Specific Occupations

Some users may require aggregations other than the SOC system built on these major groups. Further details on alternate occupational aggregations and approved modifications to the SOC structure are provided in the following section, Approved modifications to the structure.

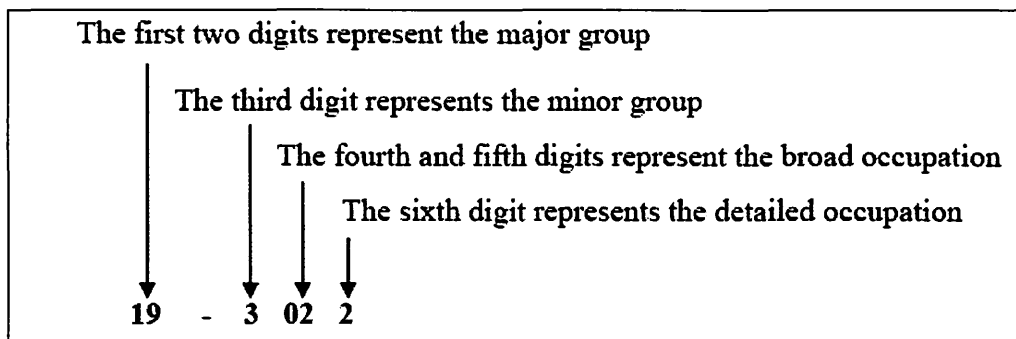
Major groups are broken into minor groups, which, in turn, are divided into broad occupations. Broad occupations are then divided into one or more detailed occupations, as follows:

- 29-0000 Healthcare Practitioners and Technical Occupations
 - 29-1000 Health Diagnosing or Treating Practitioners
 - 29-1020 Dentists
 - 29-1022 Oral and Maxillofacial Surgeons

- Major group codes end with 0000 (e.g., 29-0000 Healthcare Practitioners and Technical Occupations).
- Minor groups generally end with 000 (e.g., 29-1000 Health Diagnosing or Treating Practitioners)—the exceptions are minor groups 15-1200 Computer Occupations, 31-1100 Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides, and 51-5100 Printing Workers, which end with 00.
- Broad occupations end with 0 (e.g., 29-1020 Dentists).
- Detailed occupations end with a number other than 0 (e.g., 29-1022 Oral and Maxillofacial Surgeons).

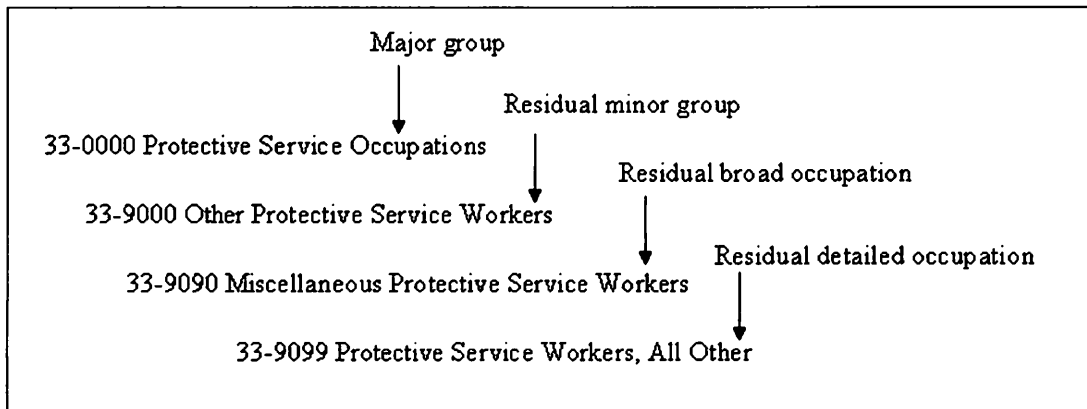
Each item in the SOC is designated by a six-digit code. The hyphen between the second and third digit is used only for clarity. (See figure 1).

Figure 1.



As shown in figure 2, “All Other” occupations (and “Other” or “Miscellaneous” occupations), whether at the detailed or broad occupation or minor group level, contain a “9” at the level of the “All Other” occupation. Minor groups that are major group “All Other” occupations end in 9000 (e.g., 33-9000, Other Protective Service Workers). Broad occupations that are minor group “All Other” occupations end in 90 (e.g., 33-9090, Miscellaneous Protective Service Workers): Detailed “All Other” occupations end in 9 (e.g., 33-9099, Protective Service Workers, All Other).

Figure 2.



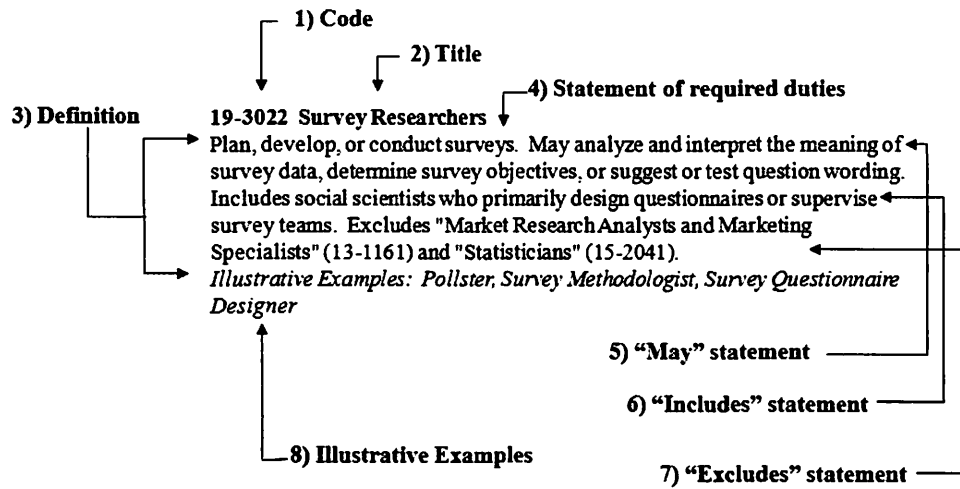
If there are more than nine broad occupations in a minor group (e.g., 51-9000 Other Production Occupations); or more than eight, if there is no “All Other” occupation (e.g., 47-2000 Construction Trades Workers), then the code xx-x090 is skipped (reserved for “All Other” occupations), the code xx-x000 is skipped (reserved for minor groups), and the numbering system will continue with code xx-x110. The “All Other” broad occupation is then code xx-x190 or xx-x290 (e.g., 51-9190, Miscellaneous Production Workers).

The structure is comprehensive, and encompasses all occupations in the U.S. economy. If a specific occupation is not listed, it is included in an “All Other” category with similar occupations.

Detailed occupations are identified and defined so that each occupation includes workers who perform similar job tasks as described in Classification Principle 2. Definitions begin with the duties that all workers in the occupation perform. Some definitions include a sentence at the end describing tasks workers in an occupation *may*, but do not necessarily *have to* perform, in order to be included in the occupation. Where the definitions include tasks also performed by workers in another occupation, cross-references to that occupation are provided in the definition.

Figure 3 identifies the eight elements that appear in detailed SOC occupations. All six-digit detailed occupations have a (1) SOC code, (2) title, and (3) definition. All workers classified in an occupation are required to perform the duties described in (4) the first sentence(s) of each definition that do not start with “May.” Some definitions also have a (5) “May” statement, a (6) “Includes” statement, and/or a (7) “Excludes” statement. Almost all occupations have one or more (8) “Illustrative Examples.” Illustrative examples are job titles classified in only that occupation, and were selected from the Direct Match Title File.

Figure 3.



The "May" statements describe tasks that workers in that occupation may—but are not required to—perform in order to be classified with Survey Researchers. The "Includes" statement identifies particular workers who should be classified with Survey Researchers. The "Excludes" statement indicates other detailed occupations that may be similar to Survey Researchers and clarifies that workers who fall into those occupations should be excluded from Survey Researchers.

Approved modifications to the structure

Agencies may use the SOC or parts of the SOC at varying levels of the system. For example, data may be collected at the broad occupation level in some areas and at the detailed level in others.

Occupations below the detailed level

The coding system is designed to allow SOC users desiring a delineation of occupations below the detailed occupation level to use a decimal point and additional digit(s) after the sixth digit. For example, Secondary School Teachers, Except Special and Career/Technical Education (25-2031) is a detailed occupation. Agencies wishing to collect more particular information on teachers by subject matter might use 25-2031.01 for secondary school science teachers or 25-2031.02 for secondary school mathematics teachers. Additional levels of detail also may be used to distinguish workers who have different training or years of experience.

OMB recommends that SOC users needing extra detail should employ the structure of the Department of Labor's Employment and Training Administration's Occupational Information Network (O*NET). For more information, see <https://online.onetcenter.org>.

Higher levels of aggregation

Some users may wish to present occupational data at higher levels of aggregation than the SOC major groups. To meet this need and to maintain consistency and comparability across datasets, BLS recommends that either the intermediate or the high-level aggregations presented in tables 5 and 6 should be used for data tabulation purposes.

Table 5. Intermediate aggregation to 13 groups, 2018 SOC

Intermediate aggregation	Major groups included	Intermediate aggregation title
1	11–13	Management, Business, and Financial Occupations
2	15–19	Computer, Engineering, and Science Occupations
3	21–27	Education, Legal, Community Service, Arts, and Media Occupations
4	29	Healthcare Practitioners and Technical Occupations
5	31–39	Service Occupations
6	41	Sales and Related Occupations
7	43	Office and Administrative Support Occupations
8	45	Farming, Fishing, and Forestry Occupations
9	47	Construction and Extraction Occupations
10	49	Installation, Maintenance, and Repair Occupations
11	51	Production Occupations
12	53	Transportation and Material Moving Occupations
13	55	Military Specific Occupations

Table 6. High-level aggregation to 6 groups, 2018 SOC

High-level aggregation	Major groups included	High-level aggregation title
1	11–29	Management, Business, Science, and Arts Occupations
2	31–39	Service Occupations
3	41–43	Sales and Office Occupations
4	45–49	Natural Resources, Construction, and Maintenance Occupations
5	51–53	Production, Transportation, and Material Moving Occupations
6	55	Military Specific Occupations

Alternate aggregations

Data collection issues or confidentiality concerns may prevent agencies from reporting all the detail indicated in the SOC. For example, an agency might report the detail of at least one occupational category at a particular level of the SOC structure but must aggregate the other occupations at that level. In such cases, the agency may adjust the occupational categories so long as these adjustments permit aggregation to the next higher SOC level. In such a situation, agencies must distinguish such groups from the official SOC aggregation. If agencies choose this option, they must obtain approval from the SOCPC for their proposed aggregation scheme.

Frequently asked questions

1. How do the U.S. Bureau of Labor Statistics and the Census Bureau determine if they can collect and report on an occupation? (See Classification Principle 9.)

The Bureau of Labor Statistics (BLS) develops estimates of occupational employment and wages, by wage and salary workers in nonfarm establishments in its Occupational Employment Statistics (OES) Survey. This survey collects information from business establishments sampled by industry and geographic area. The information provided by employers on their workers' job titles and job descriptions must be distinct and sufficient to classify into a single occupation. If employers do not provide information to classify workers into a proposed occupation, that occupation would not be collectable for the OES program. BLS looks at the definition, and at the size and dispersion of (estimated) employment, in determining whether it can collect and report data on an occupation. If the occupation is widely dispersed across areas and/or industries, employment in an occupation must be sizeable to be reliably measured. If the occupation is highly concentrated in a single industry or area, smaller levels of employment can be reliably measured.

The Census Bureau develops estimates of occupational employment of the population with its household-based Current Population Survey (a joint program with BLS) and American Community Survey. As with the BLS collection procedures, the Census Bureau is concerned about the size and dispersion of employment in an occupation in determining if it can collect and report reliable data on that occupation. In addition, the Census Bureau considers whether the respondents to its household surveys, who may provide information for themselves as well as for other household members, are likely to report the job titles and job activities associated with an occupation accurately and completely. Household survey respondents tend to give general or informal, rather than specific or technical, occupational titles. For example, a household survey respondent may report "doctor," rather than "pediatrician." This makes it difficult for the Census Bureau to report on such specialized occupations.

2. What is the difference between an occupation and a job?

When reviewing and evaluating individual proposals, the SOCP considered the degree to which a proposed addition relates to a job rather than an occupation. In many cases, job titles intrinsically represent jobs, rather than true occupations as defined in the SOC. Specifically, a job is a set of work activities performed by an individual. The exact set of activities varies depending on the size and organization of the establishment and is often, but not always, unique to that individual worker. An occupation is a grouping of a number of individual jobs. Thus, an occupational definition is a collective description of a number of similar individual jobs performed, with minor variations, in different establishments. Occupational classification schemes such as the SOC organize millions of jobs into discrete occupations on the basis of their similarities as determined by the schemes' classification principles. For example, in the 2018 SOC, workers with the job title "Coronary Care Unit Staff Nurse" are classified in the 2018 SOC occupation "Registered Nurses (29-1141)." Likewise, workers with the job title "Automotive Fuel Injection Servicer" are classified in the 2018 SOC occupation Automotive Service Technicians and Mechanics (49-3023).

3. Why doesn't every job title have its own code in the SOC?

Occupational classification schemes examine and organize the millions of jobs and tens of thousands of job titles in the economy into occupations based upon their similarities as determined by the scheme's classification principles. The organizing principle of the SOC system is work performed rather than job title so there are many fewer occupation codes in the SOC than there are jobs in the economy.

4. What is the difference between the SOC Classification Principles and the Coding Guidelines?

The SOC Classification Principles form the basis on which the SOC system is structured. The Coding Guidelines are intended to assist SOC users in consistently assigning SOC occupational codes to survey responses.

5. Who uses the SOC?

Government agencies that collect and publish occupational statistical data use the SOC. See FAQ number 6 for more detail. At the federal level, these agencies and programs include:

- Department of Commerce
 - Census Bureau
- Department of Defense
- Department of Education
- Department of Health and Human Services
- Department of Labor
 - Bureau of Labor Statistics
 - Employment Projections Program
 - Labor Force Statistics from the Current Population Survey
 - National Compensation Survey
 - National Longitudinal Surveys
 - Occupational Employment Statistics
 - Occupational Health and Safety Statistics
 - Occupational Requirements Survey
 - Employment and Training Administration
 - Employment Standards Administration
- Department of Transportation
 - Bureau of Transportation Statistics
- Department of Veterans Affairs
 - National Center for Veterans Analysis and Statistics
- Equal Employment Opportunity Commission
- National Science Foundation
 - National Center for Science and Engineering Statistics
- Office of Personnel Management

6. Where can I get information on the occupations in the SOC?

Depending on the type of information you are seeking, you may obtain information from several agencies:

- a) The Bureau of Labor Statistics' Occupational Employment Statistics (OES) program produces cross-industry occupational employment and wage estimates for the nation, all states, the District of Columbia, Guam, Puerto Rico, the U.S. Virgin Islands, metropolitan areas, metropolitan divisions, and nonmetropolitan areas. (See <https://www.bls.gov/oes/tables.htm>). OES also publishes national industry-specific occupational employment and wage estimates for sectors and three-, four-, and selected five-digit North American Industry Classification System (NAICS) industries. For assistance with these data, contact the OES program at (202) 691-6569 or send an email to oesinfo@bls.gov. Industry-specific occupational data for states are available from BLS as a research data set. Metropolitan and nonmetropolitan area industry data may be available from the state workforce agencies by contacting the individual state or states for which information is needed. Contact information for the state workforce agencies is available at <https://www.bls.gov/bls/ofolist.htm>.
- b) The Bureau of Labor Statistics' Employment Projections (EP) program produces 10-year projections of employment by occupation and industry for the nation as a whole. BLS national projections are shared with state workforce agencies to produce state and local area projections. In addition, EP publishes two career information publications that provide narrative descriptions of occupations: the *Occupational Outlook Handbook* (<https://www.bls.gov/ooh>) and *Career Outlook* (<https://www.bls.gov/careeroutlook>). For more information about these data and publications, visit <https://www.bls.gov/emp> or contact the program at ep-info@bls.gov or (202) 691-5700.
- c) The Bureau of Labor Statistics' National Compensation Survey (NCS) program provides comprehensive measures of job requirements and occupational compensation. Its Occupational Requirements Survey (ORS) component gathers job-related information regarding physical demands, environmental conditions, mental and cognitive demands, and vocational preparation requirements at the detailed occupational level. Its Compensation Levels and Trends component publishes changes and levels of labor costs, as well as the incidence and provisions of employer-provided benefits, by worker and establishment characteristics. The OES and NCS are combined to produce the Bureau's Modeled Wage Estimates, which provide annual estimates of average hourly wages for occupations by selected job characteristics and within geographical locations. For more information, see the main program pages at <https://www.bls.gov/ncs/>, <https://www.bls.gov/ors/>, and <http://www.bls.gov/mwe> or call (202) 691-6199, or email NCSInfo@bls.gov. Correspondence may be sent to U.S. Bureau of Labor Statistics National Compensation Survey, 2 Massachusetts Ave., NE., Room 4160, Washington, DC 20212-0001.
- d) The Current Population Survey (CPS), a joint program of the Census Bureau and the Bureau of Labor Statistics, uses the Census occupational classification system, which is derived from the Standard Occupational Classification. CPS data series are available on this classification beginning with the year 2011. The 2010 Census occupational classification was introduced with CPS data for January 2011 and replaced an earlier version that was based on the 2000

SOC. Historical data were not revised. As a result, CPS occupational data beginning with January 2011 are not strictly comparable with earlier years. The Bureau of Labor Statistics publishes national-level estimates of occupational employment, unemployment, and earnings with demographic detail from the CPS. The CPS homepage on the BLS website is at <https://www.bls.gov/cps/home.htm>; contact information for the BLS CPS program can be found at <https://www.bls.gov/cps/contact.htm>.

- e) The U.S. Census Bureau publishes occupational data annually, collected through the American Community Survey (ACS), for the nation, all states and the District of Columbia, Puerto Rico, and all counties and places with populations of at least 65,000. The Census Bureau also publishes 5-year ACS data for all geographies in the United States and Puerto Rico. Census 2020 will collect, classify, and publish occupational data for Guam, American Samoa, the Commonwealth of Northern Mariana Islands, and the U.S. Virgin Islands. Other household surveys publish occupational data at varying levels of detail and geography. Standard tabulations are available through the American FactFinder at <http://www.factfinder.census.gov>. Information about occupation coding and written reports on occupational trends can be found at <https://www.census.gov/people/io/>. For additional information, contact the Census Bureau's Question and Answer Center at <http://ask.census.gov> or contact the Call Center at (301) 763-INFO.
- f) The Department of Defense publishes data that cross-reference military occupational codes of the Army, Navy, Air Force, Marine Corps, and Coast Guard with civilian equivalent occupations. Additional information on available data products can be obtained at <https://www.dmdc.osd.mil>; or by writing to Director, Defense Manpower Data Center, 1600 Wilson Blvd., Suite 400, Arlington, VA 22209-2593.
- g) The National Center for Education Statistics (NCES) uses the SOC to code occupational data on a national sample of adults in its Adult Training and Education Survey, which examines adults' attainment of professional certifications and licenses and their participation in work-experience programs. The SOC is also used in the National Teacher and Principal Survey to code the employment of elementary and secondary teachers prior to their entry to teaching and after they leave teaching. NCES also uses the SOC to code staff at postsecondary education institutions, collected through the Integrated Postsecondary Education Data System. Finally, NCES conducts various longitudinal studies that follow high school and college students into their working years and uses the SOC to classify their occupations. Data, reports, and other products based on these data collections are available at <http://nces.ed.gov>.
- h) The Employment and Training Administration's (ETA) Occupational Information Network (O*NET) system is a comprehensive database of occupational competency profiles. ETA sponsors the development, updating, and dissemination of O*NET information through a grant with the North Carolina Employment Security Commission. The O*NET system is based on the SOC system and also provides information on additional detailed occupations within an SOC category in selected instances. The O*NET Content Model of occupational descriptors is the foundation for a series of survey questionnaires that go out to incumbent workers in various occupations, which form the basis for the O*NET occupational

competency profiles. The O*NET system is the successor to the Dictionary of Occupational Titles, which was last published by the Department of Labor in 1991. O*NET information is available at <https://online.onetcenter.org> and also as a downloadable electronic database from the O*NET Resource Center: <https://www.onetcenter.org/database.html>. For more information, contact O*NET Customer Support at onet@ncmail.net or contact the Department of Labor at o-net@dol.gov. You can also write to the O*NET project director at Office of Workforce Investment, Employment and Training Administration, U.S. Department of Labor, FPB Room S 4231, 200 Constitution Ave., NW., Washington, DC 20210.

- i) The Equal Employment Opportunity Commission (EEOC) uses SOC occupational classifications, and equivalent Census occupational classifications, to create broader categories as part of the Commission's data survey and enforcement programs. Under the survey program, employer workforce information is collected periodically from private sector firms on the Employer Information Report (EEO-1) and public sector employers on the State and Local Government Report (EEO-4). More information may be obtained at <https://www.eeoc.gov>.
- j) The National Science Foundation (NSF) National Center for Science and Engineering Statistics (NCSES) website provides access to the Scientists and Engineers Statistical Data System (SESTAT), a comprehensive and integrated system of information about the employment, educational, and demographic characteristics of scientists and engineers in the United States. It is intended for both policy analysis and general research, having features for both the casual and more intensive data user. More information may be obtained from the SESTAT at <https://www.nsf.gov/statistics/sestat>.

7. Whom should I contact if I have a question about the SOC?

For questions about how the SOC is used in specific programs, contact the program. For specific questions about the SOC you may call the SOC information line at 202-691-6500 or send an email to SOC@bls.gov.

8. Why are there different levels of detail in the SOC?

The four-tiered levels in the SOC enable users to choose the level or levels of detail corresponding to their interest and ability to collect data on different occupations. Users needing different levels of detail will still be able to compare data at the defined levels. Approved modifications to the structure allow for alternative levels of aggregation.

9. Why can't I find my job title in the SOC?

This manual lists occupations that include workers with many different job titles. It does not attempt to provide an exhaustive list of job titles. Often, a job title can be found in more than one occupation or occupational group (ex. "Team Supervisor"). When a job title is found in only one occupation, it may be included in a list of additional titles called the Direct Match Title File, which is available at <https://www.bls.gov/soc>. If your title is not listed, you may email

SOC@bls.gov to suggest its inclusion. Instructions for submitting your recommendation, and other files related to the Direct Match Title File, are also available on that website.

10. Which occupations in the SOC cover “professionals”?

The 2018 SOC does not classify or identify workers using the term “professional.” The SOC covers all workers who work for pay or profit and does not cover occupations unique to volunteers. The SOC does not use other similar terms such as “white collar,” “blue collar,” “skilled,” or “unskilled.” The SOC was created solely for statistical purposes (See FAQ number 12.), and the classification structure is not intended to rank or group occupations by education, credentials, earnings, or any other similar user-defined indicator of status. However, government agencies or private users may define and use various terms to suit their own purposes. For example, the Employment and Training Administration’s O*NET program classifies occupations into 1 of 5 “job zones,” based on data regarding the levels of education, experience, and training needed for work in an occupation, ranging from “little or no” to “extensive” preparation. A detailed report on the procedure for using O*NET survey data and other information to assign job zones to O*NET occupations is available at: <http://www.onetcenter.org/reports/JobZoneProcedure.html>.

11. Why are supervisors of workers in Major Groups 13-0000 through 31-0000 not listed? Where should they be classified?

Supervisors of workers in Major Groups 13-0000 through 29-0000 are classified with the occupations they supervise because they generally have the same type of training, education, and experience as the workers they supervise. Classification Principle 4 states that these supervisors are classified with the workers they supervise. Supervisors of workers in Major Group 31-0000 are usually classified in Major Group 29-0000. See Classification Principles 5.

12. How are workers classified into occupations under the SOC system? Can the SOC provide classification determinations for nonstatistical purposes, such as prevailing wages?

The SOC Coordinating Team is often asked about coding occupations for reasons that are not statistical in nature, such as for prevailing wage determinations. The SOC was developed for use by federal statistical agencies to classify workers into occupational categories for the specific purpose of producing statistical data. The SOC Coordinating Team can provide guidance that is in accordance with the 2018 SOC Classification Principles and Coding Guidelines. However, this guidance is solely to help users of statistical data find workers who perform a specific set of work activities or to help statistical data collectors. The SOC Coordinating Team cannot make official classification determinations for nonstatistical purposes, such as prevailing wages. It is up to customers using the SOC for nonstatistical purposes to review the detailed definitions for the SOC codes and determine the best match, in light of their own program and policy purposes. Such users are not limited to following the SOC classification principles and guidelines used by federal statistical agencies. For example, users may develop their own policies concerning workers that meet the definition of two or more occupations.

Under the SOC system, workers are classified into occupations based on their job duties, not their job titles. Workers with the same title may be classified in different occupations, based on their individual job duties.

The best way to proceed is to look at the various definitions for the SOC codes and determine which best matches the work being performed. Starting with the major group level, you can examine more and more specific groups from minor groups to detailed occupations. Definitions are available only at the detailed occupation level, which is indicated by a code ending in a number other than 0. Workers who do not perform activities described in any distinct detailed occupation are included in an appropriate (“All Other”) occupation. The “All Other” occupations appear as the last occupation in a group and are indicated by a code ending in the number 9.

More information on using the SOC to classify workers can be found in the 2018 SOC Classification Principles and Coding Guidelines. The Classification Principles form the basis on which the SOC system is structured. The Coding Guidelines are intended to assist users in the federal statistical agencies in consistently assigning SOC codes and titles to survey responses and in other coding activities.

Warranting specific mention are Classification Principles 1 and 2, as well as Coding Guideline 2. Classification Principle 1 states that “Each occupation is assigned to only one occupational category at the most detailed level of the classification.” Classification Principle 2 states that “Occupations are classified based on work performed and, in some cases, on the skills, education, and/or training needed to perform the work.” Coding Guideline 2 states that “When workers in a single job could be coded in more than one occupation, they should be coded in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers should be coded in the occupation in which they spend the most time.”

The 2018 SOC was designed solely for statistical purposes. Although it is likely that the 2018 SOC also will be used for various nonstatistical purposes (e.g., for administrative, regulatory, or taxation functions), the requirements of government agencies or private users that choose to use the 2018 SOC for nonstatistical purposes have played no role in its development, nor will OMB modify the classification to meet the requirements of any nonstatistical program. Consequently, the 2018 SOC is not to be used in any administrative, regulatory, or tax program unless the head of the agency administering that program has first determined that the use of such occupational definitions is appropriate to the implementation of the program’s objectives.

13. Where can I find how the 2018 SOC relates to the 2010 SOC?

The official crosswalks can be found at <https://www.bls.gov/soc>. Occupations are crosswalked from the 2018 SOC to the 2010 SOC and from the 2010 SOC to the 2018 SOC.

14. When will federal statistical agencies begin using the 2018 SOC in survey collection?

Federal statistical agencies will begin using the 2018 SOC for occupational data they publish for reference years beginning on or after January 1, 2018. However, it is important to note that for some programs, full implementation of the 2018 SOC will occur in stages, as sufficient data are needed to produce estimates at the full level of occupational detail. Contact an agency or

program directly for specific information on implementation. A schedule of implementation dates for programs within the Bureau of Labor Statistics will be available at <https://www.bls.gov/soc>.

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11-0000 MANAGEMENT OCCUPATIONS

11-1000 Top Executives

11-1010 Chief Executives

This broad occupation is the same as the detailed occupation:

11-1011 Chief Executives

11-1011 Chief Executives

Determine and formulate policies and provide overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body. Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers.

Illustrative examples: Admiral, Chief Financial Officer, Chief Operating Officer, Governor, School Superintendent, University President

11-1020 General and Operations Managers

This broad occupation is the same as the detailed occupation:

11-1021 General and Operations Managers

11-1021 General and Operations Managers

Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes First-Line Supervisors.

Illustrative examples: Department Store Manager, General Superintendent, Operational Risk Manager, Radio Station Manager

11-1030 Legislators

This broad occupation is the same as the detailed occupation:

11-1031 Legislators

11-1031 Legislators

Develop, introduce, or enact laws and statutes at the local, tribal, state, or federal level. Includes only workers in elected positions.

Illustrative examples: City Council Member, Senator, Tribal Council Member

11-2000 Advertising, Marketing, Promotions, Public Relations, and Sales Managers

11-2010 Advertising and Promotions Managers

This broad occupation is the same as the detailed occupation:

11-2011 Advertising and Promotions Managers

11-2011 Advertising and Promotions Managers

Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or giveaways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.

11-0000 MANAGEMENT OCCUPATIONS

Illustrative examples: Advertising Director, Advertising Executive, Promotions Director

11-2020 Marketing and Sales Managers

This broad occupation includes the following two detailed occupations:

11-2021 Marketing Managers

11-2022 Sales Managers

11-2021 Marketing Managers

Plan, direct, or coordinate marketing policies and programs, such as determining the demand for products and services offered by a firm and its competitors, and identify potential customers. Develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.

Illustrative examples: Internet Marketing Manager, Marketing Administrator, Marketing Director

11-2022 Sales Managers

Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.

Illustrative examples: District Sales Manager, Export Manager, Regional Sales Manager, Sales Director

11-2030 Public Relations and Fundraising Managers

This broad occupation includes the following two detailed occupations:

11-2032 Public Relations Managers

11-2033 Fundraising Managers

11-2032 Public Relations Managers

Plan, direct, or coordinate activities designed to create or maintain a favorable public image or raise issue awareness for their organization or client.

Illustrative examples: Public Affairs Director, Publicity Director

11-2033 Fundraising Managers

Plan, direct, or coordinate activities to solicit and maintain funds for special projects or nonprofit organizations.

Illustrative examples: Donor Relations Manager, Foundation Director, Funding Coordinator, Fundraising Director

11-3000 Operations Specialties Managers

11-3010 Administrative Services and Facilities Managers

This broad occupation includes the following two detailed occupations:

11-3012 Administrative Services Managers

11-3013 Facilities Managers

11-3012 Administrative Services Managers

11-0000 MANAGEMENT OCCUPATIONS

Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, and other office support services. Medical records administrators are included in "Medical and Health Services Managers" (11-9111). Excludes "Facilities Managers" (11-3013) and "Purchasing Managers" (11-3061).

Illustrative examples: Records and Information Manager, Records Management Director, University Registrar

11-3013 Facilities Managers

Plan, direct, or coordinate operations and functionalities of facilities and buildings. May include surrounding grounds or multiple facilities of an organization's campus. Excludes "Administrative Services Managers" (11-3012), "Property, Real Estate, and Community Association Managers" (11-9141), "First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers" (37-1010), "First-Line Supervisors of Mechanics and Repairers" (49-1011), and "Maintenance and Repair Workers, General" (49-9071).

Illustrative examples: Conference Center Manager, Director of University Housing, Stadium Manager

11-3020 Computer and Information Systems Managers

This broad occupation is the same as the detailed occupation:

11-3021 Computer and Information Systems Managers

11-3021 Computer and Information Systems Managers

Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming. Excludes "Computer Occupations" (15-1211 through 15-1299).

Illustrative examples: Chief Technology Officer, Information Technology Systems Director, Management Information Systems Director

11-3030 Financial Managers

This broad occupation is the same as the detailed occupation:

11-3031 Financial Managers

11-3031 Financial Managers

Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment. Excludes "Financial Risk Specialists" (13-2054).

Illustrative examples: Bank Branch Manager, Comptroller, Financial Director

11-3050 Industrial Production Managers

This broad occupation is the same as the detailed occupation:

11-3051 Industrial Production Managers

11-3051 Industrial Production Managers

Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.

Illustrative examples: Manufacturing Director, Plant Manager, Production Control Manager

11-3060 Purchasing Managers

This broad occupation is the same as the detailed occupation:

11-3061 Purchasing Managers

11-0000 MANAGEMENT OCCUPATIONS

11-3061 Purchasing Managers

Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services. Includes wholesale or retail trade merchandising managers and procurement managers.

Illustrative examples: Contracting Manager, Procurement Manager, Purchasing Director

11-3070 Transportation, Storage, and Distribution Managers

This broad occupation is the same as the detailed occupation:

11-3071 Transportation, Storage, and Distribution Managers

11-3071 Transportation, Storage, and Distribution Managers

Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.

Illustrative examples: Distribution Center Manager, Traffic Safety Administrator, Warehouse Manager

11-3110 Compensation and Benefits Managers

This broad occupation is the same as the detailed occupation:

11-3111 Compensation and Benefits Managers

11-3111 Compensation and Benefits Managers

Plan, direct, or coordinate compensation and benefits activities of an organization. Job analysis and position description managers are included in "Human Resources Managers" (11-3121).

Illustrative examples: Compensation Director, Employee Benefits Director, Wage and Salary Administrator

11-3120 Human Resources Managers

This broad occupation is the same as the detailed occupation:

11-3121 Human Resources Managers

11-3121 Human Resources Managers

Plan, direct, or coordinate human resources activities and staff of an organization. Excludes managers who primarily focus on compensation and benefits (11-3111) and training and development (11-3131).

Illustrative examples: Job Analysis Manager, Labor Relations Director, Personnel Manager, Position Description Manager

11-3130 Training and Development Managers

This broad occupation is the same as the detailed occupation:

11-3131 Training and Development Managers

11-3131 Training and Development Managers

Plan, direct, or coordinate the training and development activities and staff of an organization.

Illustrative examples: E-Learning Manager, Employee Development Director, Labor Training Manager

11-9000 Other Management Occupations

11-0000 MANAGEMENT OCCUPATIONS

11-9010 Farmers, Ranchers, and Other Agricultural Managers

This broad occupation is the same as the detailed occupation:

11-9013 Farmers, Ranchers, and Other Agricultural Managers

11-9013 Farmers, Ranchers, and Other Agricultural Managers

Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities. Excludes "First-Line Supervisors of Farming, Fishing, and Forestry Workers" (45-1011).

Illustrative examples: Animal Husbandry Manager, Dairy Farm Manager, Fish Hatchery Manager, Orchard

11-9020 Construction Managers

This broad occupation is the same as the detailed occupation:

11-9021 Construction Managers

11-9021 Construction Managers

Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.

Illustrative examples: Construction Coordinator, Construction Superintendent, General Contractor

11-9030 Education and Childcare Administrators

This broad occupation includes the following four detailed occupations:

11-9031 Education and Childcare Administrators, Preschool and Daycare

11-9032 Education Administrators, Kindergarten through Secondary

11-9033 Education Administrators, Postsecondary

11-9039 Education Administrators, All Other

11-9031 Education and Childcare Administrators, Preschool and Daycare

Plan, direct, or coordinate academic or nonacademic activities of preschools or childcare centers and programs, including before- and after-school care. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Childcare Workers" (39-9011).

Illustrative examples: Childcare Center Administrator, Head Start Director, Preschool Director

11-9032 Education Administrators, Kindergarten through Secondary

Plan, direct, or coordinate the academic, administrative, or auxiliary activities of kindergarten, elementary, or secondary schools.

Illustrative examples: Elementary School Principal, High School Principal, Middle School Principal

11-9033 Education Administrators, Postsecondary

Plan, direct, or coordinate student instruction, administration, and services, as well as other research and educational activities, at postsecondary institutions, including universities, colleges, and junior and community colleges.

Illustrative examples: Director of Student Services, Provost, University Dean, University Department Chair

11-0000 MANAGEMENT OCCUPATIONS

11-9039 Education Administrators, All Other

All education administrators not listed separately.

11-9040 Architectural and Engineering Managers

This broad occupation is the same as the detailed occupation:

11-9041 Architectural and Engineering Managers

11-9041 Architectural and Engineering Managers

Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields. Excludes "Natural Sciences Managers" (11-9121).

Illustrative examples: Engineering Design Manager, Global Engineering Manager, Mechanical Engineering

11-9050 Food Service Managers

This broad occupation is the same as the detailed occupation:

11-9051 Food Service Managers

11-9051 Food Service Managers

Plan, direct, or coordinate activities of an organization or department that serves food and beverages. Excludes "Chefs and Head Cooks" (35-1011).

Illustrative examples: Banquet Director, Food Service Director, Tavern Operator

11-9070 Entertainment and Recreation Managers

This broad occupation includes the following two detailed occupations:

11-9071 Gambling Managers

11-9072 Entertainment and Recreation Managers, Except Gambling

11-9071 Gambling Managers

Plan, direct, or coordinate gambling operations in a casino. May formulate house rules.

Illustrative examples: Casino Manager, Slot Operations Director, Table Games Manager

11-9072 Entertainment and Recreation Managers, Except Gambling

Plan, direct, or coordinate entertainment and recreational activities and operations of a recreational facility, including cruise ships and parks.

Illustrative examples: Amusement Park Manager, Fitness Club Manager, Marina Club Manager, Skating Rink Manager, Ski Resort Manager

11-9080 Lodging Managers

This broad occupation is the same as the detailed occupation:

11-9081 Lodging Managers

11-9081 Lodging Managers

Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations. Excludes "Food Service Managers" (11-9051) in lodging establishments.

Illustrative examples: Bed and Breakfast Innkeeper, Hotel Manager, Innkeeper

11-0000 MANAGEMENT OCCUPATIONS

11-9110 Medical and Health Services Managers

This broad occupation is the same as the detailed occupation:

11-9111 Medical and Health Services Managers

11-9111 Medical and Health Services Managers

Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

Illustrative examples: Chief Medical Information Officer, Clinic Director, Clinical Informatics Director, Health Information Services Manager, Hospital Administrator, Medical Records Administrator, Mental Health Program Manager

11-9120 Natural Sciences Managers

This broad occupation is the same as the detailed occupation:

11-9121 Natural Sciences Managers

11-9121 Natural Sciences Managers

Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields. Excludes "Computer and Information Systems Managers" (11-3021) and "Architecture and Engineering Managers" (11-9041).

Illustrative examples: Agricultural Research Director, Geophysical Manager, Ocean Program Administrator

11-9130 Postmasters and Mail Superintendents

This broad occupation is the same as the detailed occupation:

11-9131 Postmasters and Mail Superintendents

11-9131 Postmasters and Mail Superintendents

Plan, direct, or coordinate operational, administrative, management, and support services of a U.S. post office; or coordinate activities of workers engaged in postal and related work in assigned post office.

Illustrative examples: Postal Supervisor, Postmaster

11-9140 Property, Real Estate, and Community Association Managers

This broad occupation is the same as the detailed occupation:

11-9141 Property, Real Estate, and Community Association Managers

11-9141 Property, Real Estate, and Community Association Managers

Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).

Illustrative examples: Apartment Manager, Building Rental Manager, Leasing Property Manager

11-9150 Social and Community Service Managers

This broad occupation is the same as the detailed occupation:

11-9151 Social and Community Service Managers

11-9151 Social and Community Service Managers

11-0000 MANAGEMENT OCCUPATIONS

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Illustrative examples: Child Welfare Director, Family Service Center Director, Youth Program Director

11-9160 Emergency Management Directors

This broad occupation is the same as the detailed occupation:

11-9161 Emergency Management Directors

11-9161 Emergency Management Directors

Plan and direct disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural (e.g., hurricanes, floods, earthquakes), wartime, or technological (e.g., nuclear power plant emergencies or hazardous materials spills) disasters or hostage situations.

Illustrative examples: Disaster Response Director, Emergency Preparedness Coordinator, Public Safety Director

11-9170 Personal Service Managers

This broad occupation includes the following two detailed occupations:

11-9171 Funeral Home Managers

11-9179 Personal Service Managers, All Other

11-9171 Funeral Home Managers

Plan, direct, or coordinate the services or resources of funeral homes. Includes activities such as determining prices for services or merchandise and managing the facilities of funeral homes. Excludes "Morticians, Undertakers, and Funeral Arrangers" (39-4031).

Illustrative examples: Funeral Home Director

11-9179 Personal Service Managers, All Other

All personal service managers not listed separately. Excludes "Financial Specialists" (13-2000). Daycare Managers are included in Education and Childcare Administrators, Preschool and Daycare (11-9031).

Illustrative examples: Day Spa Director, Nail Salon Manager, Travel Agency Manager

11-9190 Miscellaneous Managers

This broad occupation is the same as the detailed occupation:

11-9199 Managers, All Other

11-9199 Managers, All Other

All managers not listed separately.

Illustrative examples: Clerk of Court, Social Science Manager, Utilities Manager

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

13-1000 Business Operations Specialists

13-1010 Agents and Business Managers of Artists, Performers, and Athletes

This broad occupation is the same as the detailed occupation:

13-1011 Agents and Business Managers of Artists, Performers, and Athletes

13-1011 Agents and Business Managers of Artists, Performers, and Athletes

Represent and promote artists, performers, and athletes in dealings with current or prospective employers. May handle contract negotiation and other business matters for clients.

Illustrative examples: Band Manager, Literary Agent, Theatrical Agent

13-1020 Buyers and Purchasing Agents

This broad occupation includes the following three detailed occupations:

13-1021 Buyers and Purchasing Agents, Farm Products

13-1022 Wholesale and Retail Buyers, Except Farm Products

13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products

13-1021 Buyers and Purchasing Agents, Farm Products

Purchase farm products either for further processing or resale. Includes tree farm contractors, grain brokers and market operators, grain buyers, and tobacco buyers. May negotiate contracts.

Illustrative examples: Cotton Broker, Fruit Buyer, Livestock Buyer

13-1022 Wholesale and Retail Buyers, Except Farm Products

Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts. Includes assistant wholesale and retail buyers of nonfarm products. Excludes "Procurement Clerks" (43-3061).

Illustrative examples: Gold Buyer, Merchandise Buyer

13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products

Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semifinished materials for manufacturing. May negotiate contracts. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021) and "Wholesale and Retail Buyers, Except Farm Products" (13-1022).

Illustrative examples: Equipment, Supplies, and Tools Purchasing Agent, Radio Time Buyer

13-1030 Claims Adjusters, Appraisers, Examiners, and Investigators

This broad occupation includes the following two detailed occupations:

13-1031 Claims Adjusters, Examiners, and Investigators

13-1032 Insurance Appraisers, Auto Damage

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

13-1031 Claims Adjusters, Examiners, and Investigators

Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims. Excludes "Fire Inspectors and Investigators" (33-2021).

Illustrative examples: Fire Claims Adjuster, Health Insurance Adjuster, Property and Casualty Insurance Claims Examiner

13-1032 Insurance Appraisers, Auto Damage

Appraise automobile or other vehicle damage to determine repair costs for insurance claim settlement. Prepare insurance forms to indicate repair cost or cost estimates and recommendations. May seek agreement with automotive repair shop on repair costs.

Illustrative examples: Automobile Damage Appraiser, Vehicle Damage Appraiser

13-1040 Compliance Officers

This broad occupation is the same as the detailed occupation:

13-1041 Compliance Officers

13-1041 Compliance Officers

Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere. Excludes "Financial Examiners" (13-2061), "Tax Examiners and Collectors, and Revenue Agents" (13-2081), "Occupational Health and Safety Specialists" (19-5011), "Occupational Health and Safety Technicians" (19-5012), "Transportation Security Screeners" (33-9093), "Agricultural Inspectors" (45-2011), "Construction and Building Inspectors" (47-4011), and "Transportation Inspectors" (53-6051).

Illustrative examples: Driver's License Examiner, Environmental Compliance Inspector, Equal Employment Opportunity Officer

13-1050 Cost Estimators

This broad occupation is the same as the detailed occupation:

13-1051 Cost Estimators

13-1051 Cost Estimators

Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.

Illustrative examples: Construction Job Cost Estimator, Crating and Moving Estimator, Production Cost Estimator

13-1070 Human Resources Workers

This broad occupation includes the following three detailed occupations:

13-1071 Human Resources Specialists

13-1074 Farm Labor Contractors

13-1075 Labor Relations Specialists

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

13-1071 Human Resources Specialists

Recruit, screen, interview, or place individuals within an organization. May perform other activities in multiple human resources areas. Excludes "Compensation, Benefits, and Job Analysis Specialists" (13-1141) and "Training and Development Specialists" (13-1151).

Illustrative examples: Human Resources Generalist, Personnel Recruiter, Staffing Coordinator, Student Recruiter, Volunteer Coordinator

13-1074 Farm Labor Contractors

Recruit and hire seasonal or temporary agricultural laborers. May transport, house, and provide meals for workers.

Illustrative examples: Harvesting Contractor

13-1075 Labor Relations Specialists

Resolve disputes between workers and managers, negotiate collective bargaining agreements, or coordinate grievance procedures to handle employee complaints. Excludes equal employment opportunity (EEO) officers, who are included in "Compliance Officers" (13-1041).

Illustrative examples: Employee Relations Specialist, Labor Relations Consultant, Union Representative

13-1080 Logisticians and Project Management Specialists

This broad occupation includes the following two detailed occupations:

13-1081 Logisticians

13-1082 Project Management Specialists

13-1081 Logisticians

Analyze and coordinate the ongoing logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes "Transportation, Storage, and Distribution Managers" (11-3071) and "Project Management Specialists" (13-1082).

Illustrative examples: Logistics Analyst, Logistics Planner, Logistics Specialist

13-1082 Project Management Specialists

Analyze and coordinate the schedule, timeline, procurement, staffing, and budget of a product or service on a per project basis. Lead and guide the work of technical staff. May serve as a point of contact for the client or customer. Excludes "Management Occupations" (11-0000), "Logisticians" (13-1081), "Meeting, Convention, and Event Planners" (13-1121), and "Production, Planning, and Expediting Clerks" (43-5061).

Illustrative examples: Design Project Management Specialists, Movie Project Management Specialists

13-1110 Management Analysts

This broad occupation is the same as the detailed occupation:

13-1111 Management Analysts

13-1111 Management Analysts

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants. Excludes "Computer Systems Analysts" (15-1211) and "Operations Research Analysts" (15-2031).

Illustrative examples: Business Management Analyst, Business Process Consultant, Industrial Analyst, University Institutional Researcher

13-1120 Meeting, Convention, and Event Planners

This broad occupation is the same as the detailed occupation:

13-1121 Meeting, Convention, and Event Planners

13-1121 Meeting, Convention, and Event Planners

Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.

Illustrative examples: Conference Planner, Corporate Meeting Planner, Wedding Planner

13-1130 Fundraisers

This broad occupation is the same as the detailed occupation:

13-1131 Fundraisers

13-1131 Fundraisers

Organize activities to raise funds or otherwise solicit and gather monetary donations or other gifts for an organization. May design and produce promotional materials. May also raise awareness of the organization's work, goals, and financial needs.

Illustrative examples: Campaign Fundraiser, Donor Relations Officer, Fundraising Officer

13-1140 Compensation, Benefits, and Job Analysis Specialists

This broad occupation is the same as the detailed occupation:

13-1141 Compensation, Benefits, and Job Analysis Specialists

13-1141 Compensation, Benefits, and Job Analysis Specialists

Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.

Illustrative examples: Employee Benefits Specialist, Job Analyst, Retirement Plan Specialist

13-1150 Training and Development Specialists

This broad occupation is the same as the detailed occupation:

13-1151 Training and Development Specialists

13-1151 Training and Development Specialists

Design or conduct work-related training and development programs to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness. Excludes "Career/Technical Education Teachers, Postsecondary" (25-1194) and "Other Teachers and Instructors" (25-3000). Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

Illustrative examples: Computer Software Training Specialist, Computer Training Specialist, Corporate Trainer, Insurance Employee Trainer

13-1160 Market Research Analysts and Marketing Specialists

This broad occupation is the same as the detailed occupation:

13-1161 Market Research Analysts and Marketing Specialists

13-1161 Market Research Analysts and Marketing Specialists

Research conditions in local, regional, national, or online markets. Gather information to determine potential sales of a product or service, or plan a marketing or advertising campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution. May employ search marketing tactics, analyze web metrics, and develop recommendations to increase search engine ranking and visibility to target markets. Excludes "Web and Digital Interface Designers" (15-1255), "Art Directors" (27-1011), "Graphic Designers" (27-1024), and "Public Relations Specialists" (27-3031).

Illustrative examples: Advertising Analyst, Market Research Specialist, Marketing Consultant, Marketing Forecaster, Search Marketing Strategist

13-1190 Miscellaneous Business Operations Specialists

This broad occupation is the same as the detailed occupation:

13-1199 Business Operations Specialists, All Other

13-1199 Business Operations Specialists, All Other

All business operations specialists not listed separately.

Illustrative examples: Mystery Shopper, Ship Purser

13-2000 Financial Specialists

13-2010 Accountants and Auditors

This broad occupation is the same as the detailed occupation:

13-2011 Accountants and Auditors

13-2011 Accountants and Auditors

Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data. Excludes "Tax Examiners and Collectors, and Revenue Agents" (13-2081).

Illustrative examples: Certified Public Accountant, Field Auditor, Internal Auditor

13-2020 Property Appraisers and Assessors

This broad occupation includes the following two detailed occupations:

13-2022 Appraisers of Personal and Business Property

13-2023 Appraisers and Assessors of Real Estate

13-2022 Appraisers of Personal and Business Property

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

Appraise and estimate the fair value of tangible personal or business property, such as jewelry, art, antiques, collectibles, and equipment. Includes workers who appraise both personal and business property as well as real estate. May also appraise land. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031), "Insurance Appraisers, Auto Damage" (13-1032), "Appraisers and Assessors of Real Estate" (13-2023), and "Tax Examiners and Collectors, and Revenue Agents" (13-2081).

Illustrative examples: Estate Appraiser, Machinery Appraiser, Personal Property Assessor

13-2023 Appraisers and Assessors of Real Estate

Appraise real estate, exclusively, and estimate its fair value. May assess taxes in accordance with prescribed schedules. Excludes "Appraisers of Personal and Business Property" (13-2022).

13-2030 Budget Analysts

This broad occupation is the same as the detailed occupation:

13-2031 Budget Analysts

13-2031 Budget Analysts

Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports. Excludes "Financial and Investment Analysts" (13-2051).

Illustrative examples: Budget Examiner, Budget Officer, Cost Analyst

13-2040 Credit Analysts

This broad occupation is the same as the detailed occupation:

13-2041 Credit Analysts

13-2041 Credit Analysts

Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decisionmaking. Excludes "Financial Risk Specialists" (13-2054).

Illustrative examples: Credit Assessment Analyst, Credit Risk Analyst

13-2050 Financial Analysts and Advisors

This broad occupation includes the following four detailed occupations:

13-2051 Financial and Investment Analysts

13-2052 Personal Financial Advisors

13-2053 Insurance Underwriters

13-2054 Financial Risk Specialists

13-2051 Financial and Investment Analysts

Conduct quantitative analyses of information involving investment programs or financial data of public or private institutions, including valuation of businesses. Excludes "Budget Analysts" (13-2031), "Financial Risk Specialists" (13-2054), and "Securities, Commodities, and Financial Services Sales Agents" (41-3031).

Illustrative examples: Corporate Financial Analyst, Corporate Securities Research Analyst, Institutional Commodity Analyst, Organizational Investment Analyst

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

13-2052 Personal Financial Advisors

Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives. May also buy and sell financial assets for clients. Excludes "Securities, Commodities, and Financial Services Sales Agents" (41-3031).

Illustrative examples: Estate Planner, Individual Pension Adviser, Personal Investment Adviser

13-2053 Insurance Underwriters

Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.

Illustrative examples: Automobile and Property Underwriter, Bond Underwriter, Insurance Analyst

13-2054 Financial Risk Specialists

Analyze and measure exposure to credit and market risk threatening the assets, earning capacity, or economic state of an organization. May make recommendations to limit risk. Excludes "Credit Analysts" (13-2041).

Illustrative examples: Financial Risk Analyst

13-2060 Financial Examiners

This broad occupation is the same as the detailed occupation:

13-2061 Financial Examiners

13-2061 Financial Examiners

Enforce or ensure compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions. May examine, verify, or authenticate records.

Illustrative examples: Bank Examiner, Financial Compliance Examiner, Home Mortgage Disclosure Act Specialist

13-2070 Credit Counselors and Loan Officers

This broad occupation includes the following two detailed occupations:

13-2071 Credit Counselors

13-2072 Loan Officers

13-2071 Credit Counselors

Advise and educate individuals or organizations on acquiring and managing debt. May provide guidance in determining the best type of loan and explain loan requirements or restrictions. May help develop debt management plans or student financial aid packages. May advise on credit issues, or provide budget, mortgage, bankruptcy, or student financial aid counseling.

Illustrative examples: Debt Management Counselor, Student Financial Aid Counselor, Student Loan Counselor

13-2072 Loan Officers

13-0000 BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS

Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, loan underwriters, and payday loan officers.

Illustrative examples: Commercial Lender, Loan Reviewer, Payday Loan Officer, Real Estate Loan Officer

13-2080 Tax Examiners, Collectors and Preparers, and Revenue Agents

This broad occupation includes the following two detailed occupations:

13-2081 Tax Examiners and Collectors, and Revenue Agents

13-2082 Tax Preparers

13-2081 Tax Examiners and Collectors, and Revenue Agents

Determine tax liability or collect taxes from individuals or business firms according to prescribed laws and regulations.

Illustrative examples: Internal Revenue Service Agent, Revenue Collector, Tax Investigator

13-2082 Tax Preparers

Prepare tax returns for individuals or small businesses. Excludes "Accountants and Auditors" (13-2011).

Illustrative examples: Income Tax Advisor, Income Tax Preparer, Licensed Tax Consultant

13-2090 Miscellaneous Financial Specialists

This broad occupation is the same as the detailed occupation:

13-2099 Financial Specialists, All Other

13-2099 Financial Specialists, All Other

All financial specialists not listed separately.

Illustrative examples: Bail Bondsman, Executor of Estate, Foreign Exchange Trader

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

15-1200 Computer Occupations

15-1210 Computer and Information Analysts

This broad occupation includes the following two detailed occupations:

15-1211 Computer Systems Analysts

15-1212 Information Security Analysts

15-1211 Computer Systems Analysts

Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.

Illustrative examples: Applications Analyst, Data Processing Systems Analyst, Information Systems Analyst, Systems Architect

15-1212 Information Security Analysts

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses. Excludes "Computer Network Architects" (15-1241).

Illustrative examples: Computer Security Specialist, IT Risk Specialist, Network Security Analyst

15-1220 Computer and Information Research Scientists

This broad occupation is the same as the detailed occupation:

15-1221 Computer and Information Research Scientists

15-1221 Computer and Information Research Scientists

Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.

Illustrative examples: Computational Theory Scientist, Control System Computer Scientist, Programming Methodology and Languages Researcher

15-1230 Computer Support Specialists

This broad occupation includes the following two detailed occupations:

15-1231 Computer Network Support Specialists

15-1232 Computer User Support Specialists

15-1231 Computer Network Support Specialists

Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Computer Network Architects" (15-1241) and "Network and Computer Systems Administrators" (15-1244).

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

Illustrative examples: Network Diagnostic Support Specialist, Network Support Technician, Network Technician

15-1232 Computer User Support Specialists

Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone, or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems. Excludes "Network and Computer Systems Administrators" (15-1244).

Illustrative examples: End-User Support Specialist, Help Desk Technician, IT Support Specialist

15-1240 Database and Network Administrators and Architects

This broad occupation includes the following four detailed occupations:

15-1241 Computer Network Architects

15-1242 Database Administrators

15-1243 Database Architects

15-1244 Network and Computer Systems Administrators

15-1241 Computer Network Architects

Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning, including analysis of capacity needs for network infrastructures. May also design network and computer security measures. May research and recommend network and data communications hardware and software. Excludes "Information Security Analysts" (15-1212), "Computer Network Support Specialists" (15-1231), and "Network and Computer Systems Administrators" (15-1244).

Illustrative examples: Computer Network Engineer, Network Designer, Network Developer

15-1242 Database Administrators

Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. Identify, investigate, and resolve database performance issues, database capacity, and database scalability. May plan, coordinate, and implement security measures to safeguard computer databases. Excludes "Information Security Analysts" (15-1212) and "Database Architects" (15-1243).

Illustrative examples: Database Programmer, Database Security Administrator

15-1243 Database Architects

Design strategies for enterprise databases, data warehouse systems, and multidimensional networks. Set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality. Excludes "Database Administrators" (15-1242).

Illustrative examples: Data Architect, Data Integration Specialist, Data Warehousing Specialist, Database Developer

15-1244 Network and Computer Systems Administrators

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

Install, configure, and maintain an organization's local area network (LAN), wide area network (WAN), data communications network, operating systems, and physical and virtual servers. Perform system monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Review system and application logs and verify completion of scheduled jobs, including system backups. Analyze network and server resource consumption and control user access. Install and upgrade software and maintain software licenses. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. Excludes "Information Security Analysts" (15-1212), "Computer Network Support Specialists" (15-1231), and "Computer User Support Specialists" (15-1232).

Illustrative examples: Network Analyst, Network Coordinator, Wide Area Network Administrator

15-1250 Software and Web Developers, Programmers, and Testers

This broad occupation includes the following five detailed occupations:

15-1251 Computer Programmers

15-1252 Software Developers

15-1253 Software Quality Assurance Analysts and Testers

15-1254 Web Developers

15-1255 Web and Digital Interface Designers

15-1251 Computer Programmers

Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Illustrative examples: Applications Programmer, Computer Language Coder, IT Programmer, Systems Programmer

15-1252 Software Developers

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Illustrative examples: Computer Applications Engineer, Computer Systems Engineer, Mobile Applications Developer, Software Applications Architect, Software Engineer, Systems Software Developer

15-1253 Software Quality Assurance Analysts and Testers

Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

Illustrative examples: Applications Tester, Software Quality Assurance Technician, Software Quality Control Specialist, Software Quality Engineer, Software Test Engineer

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

15-1254 Web Developers

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications. Excludes "Special Effects Artists and Animators" (27-1014).

Illustrative examples: Intranet Developer, Web Applications Developer, Web Architect

15-1255 Web and Digital Interface Designers

Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links. Excludes "Special Effects Artists and Animators" (27-1014) and "Graphic Designers" (27-1024).

Illustrative examples: Digital Designer, Graphic Web Designer, Web Content Specialist

15-1290 Miscellaneous Computer Occupations

This broad occupation is the same as the detailed occupation:

15-1299 Computer Occupations, All Other

15-1299 Computer Occupations, All Other

All computer occupations not listed separately. Excludes "Computer and Information Systems Managers" (11-3021), "Computer Hardware Engineers" (17-2061), "Electrical and Electronics Engineers" (17-2070), "Computer Science Teachers, Postsecondary" (25-1021), "Special Effects Artists and Animators" (27-1014), "Graphic Designers" (27-1024), "Health Information Technologists and Medical Registrars" (29-9021), and "Computer, Automated Teller, and Office Machine Repairers" (49-2011).

Illustrative examples: Computer Console Operator, Computer Laboratory Technician, Data Center Operator

15-2000 Mathematical Science Occupations

15-2010 Actuaries

This broad occupation is the same as the detailed occupation:

15-2011 Actuaries

15-2011 Actuaries

Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates and construct probability tables to forecast risk and liability for payment of future benefits. May ascertain insurance rates required and cash reserves necessary to ensure payment of future benefits.

Illustrative examples: Actuarial Mathematician, Health Actuary, Insurance Actuary

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

15-2020 Mathematicians

This broad occupation is the same as the detailed occupation:

15-2021 Mathematicians

15-2021 Mathematicians

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields using mathematical methods.

Illustrative examples: Algebraist, Cryptographer, Cryptographic Vulnerability Analyst

15-2030 Operations Research Analysts

This broad occupation is the same as the detailed occupation:

15-2031 Operations Research Analysts

15-2031 Operations Research Analysts

Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decisionmaking, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, services, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation.

Illustrative examples: Operations Analyst, Procedure Analyst, Process Analyst

15-2040 Statisticians

This broad occupation is the same as the detailed occupation:

15-2041 Statisticians

15-2041 Statisticians

Develop or apply mathematical or statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields such as biostatistics, agricultural statistics, business statistics, or economic statistics. Includes mathematical and survey statisticians. Excludes "Survey Researchers" (19-3022).

Illustrative examples: Biostatistician, Statistical Analyst, Time Study Statistician

15-2050 Data Scientists

This broad occupation is the same as the detailed occupation:

15-2051 Data Scientists

15-2051 Data Scientists

Develop and implement a set of techniques or analytics applications to transform raw data into meaningful information using data-oriented programming languages and visualization software. Apply data mining, data modeling, natural language processing, and machine learning to extract and analyze information from large structured and unstructured datasets. Visualize, interpret, and report data findings. May create dynamic data reports. Excludes "Statisticians" (15-2041), "Cartographers and Photogrammetrists" (17-1021), and "Health Information Technologists and Medical Registrars" (29-9021).

Illustrative examples: Business Intelligence Developer, Data Analytics Specialist, Data Mining Analyst, Data Visualization Developer

15-0000 COMPUTER AND MATHEMATICAL OCCUPATIONS

15-2090 Miscellaneous Mathematical Science Occupations

This broad occupation is the same as the detailed occupation:

15-2099 Mathematical Science Occupations, All Other

15-2099 Mathematical Science Occupations, All Other

All mathematical scientists not listed separately.

Illustrative examples: Harmonic Analyst, Mathematical Engineering Technician

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

17-1000 Architects, Surveyors, and Cartographers

17-1010 Architects, Except Naval

This broad occupation includes the following two detailed occupations:

17-1011 Architects, Except Landscape and Naval

17-1012 Landscape Architects

17-1011 Architects, Except Landscape and Naval

Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property. Excludes "Landscape Architects" (17-1012) and "Marine Engineers and Naval Architects" (17-2121).

Illustrative examples: Building Architect, Building Architectural Designer, Structural Architect

17-1012 Landscape Architects

Plan and design land areas for projects such as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.

Illustrative examples: Golf Course Architect, Golf Course Designer, Landscape Designer

17-1020 Surveyors, Cartographers, and Photogrammetrists

This broad occupation includes the following two detailed occupations:

17-1021 Cartographers and Photogrammetrists

17-1022 Surveyors

17-1021 Cartographers and Photogrammetrists

Research, study, and prepare maps and other spatial data in digital or graphic form for one or more purposes, such as legal, social, political, educational, and design purposes. May work with Geographic Information Systems (GIS). May design and evaluate algorithms, data structures, and user interfaces for GIS and mapping systems. May collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data.

Illustrative examples: Digital Cartographer, Mapper, Topographer

17-1022 Surveyors

Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes.

Illustrative examples: Geodetic Surveyor, Land Surveyor, Mineral Surveyor

17-2000 Engineers

17-2010 Aerospace Engineers

This broad occupation is the same as the detailed occupation:

17-2011 Aerospace Engineers

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

17-2011 Aerospace Engineers

Perform engineering duties in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques.

Illustrative examples: Aeronautical Engineer, Aircraft Design Engineer, Flight Test Engineer

17-2020 Agricultural Engineers

This broad occupation is the same as the detailed occupation:

17-2021 Agricultural Engineers

17-2021 Agricultural Engineers

Apply knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products.

Illustrative examples: Agricultural Production Engineer, Agricultural Research Engineer, Farm Equipment Engineer

17-2030 Bioengineers and Biomedical Engineers

This broad occupation is the same as the detailed occupation:

17-2031 Bioengineers and Biomedical Engineers

17-2031 Bioengineers and Biomedical Engineers

Apply knowledge of engineering, biology, chemistry, computer science, and biomechanical principles to the design, development, and evaluation of biological, agricultural, and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and health management and care delivery systems.

Illustrative examples: Biomaterials Engineer, Bio-Mechanical Engineer, Dialysis Engineer

17-2040 Chemical Engineers

This broad occupation is the same as the detailed occupation:

17-2041 Chemical Engineers

17-2041 Chemical Engineers

Design chemical plant equipment and devise processes for manufacturing chemicals and products, such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, by applying principles and technology of chemistry, physics, and engineering.

Illustrative examples: Fuels Engineer, Plastics Engineer, Polymerization Engineer

17-2050 Civil Engineers

This broad occupation is the same as the detailed occupation:

17-2051 Civil Engineers

17-2051 Civil Engineers

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems. Includes architectural, structural, traffic, and geotechnical engineers. Excludes "Hydrologists" (19-2043).

Illustrative examples: Bridge Engineer, Construction Engineer, Highway Engineer

17-2060 Computer Hardware Engineers

This broad occupation is the same as the detailed occupation:

17-2061 Computer Hardware Engineers

17-2061 Computer Hardware Engineers

Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components. Excludes "Software Developers" (15-1252) and "Web Developers" (15-1254).

Illustrative examples: Computer Hardware Designer, Computer Hardware Developer

17-2070 Electrical and Electronics Engineers

This broad occupation includes the following two detailed occupations:

17-2071 Electrical Engineers

17-2072 Electronics Engineers, Except Computer

17-2071 Electrical Engineers

Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Excludes "Computer Hardware Engineers" (17-2061).

Illustrative examples: Electrical Systems Engineer, Illuminating Engineer, Power Distribution Engineer

17-2072 Electronics Engineers, Except Computer

Research, design, develop, or test electronic components and systems for commercial, industrial, military, or scientific use employing knowledge of electronic theory and materials properties. Design electronic circuits and components for use in fields such as telecommunications, aerospace guidance and propulsion control, acoustics, or instruments and controls. Excludes "Computer Hardware Engineers" (17-2061).

Illustrative examples: Circuit Design Engineer, Electronic Design Automation Engineer, Telecommunication Engineer

17-2080 Environmental Engineers

This broad occupation is the same as the detailed occupation:

17-2081 Environmental Engineers

17-2081 Environmental Engineers

Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

Illustrative examples: Environmental Remediation Engineer, Pollution Control Engineer, Soil Engineer, Water Treatment Plant Engineer

17-2110 Industrial Engineers, Including Health and Safety

This broad occupation includes the following two detailed occupations:

17-2111 Health and Safety Engineers, Except Mining Safety Engineers and Inspectors

17-2112 Industrial Engineers

17-2111 Health and Safety Engineers, Except Mining Safety Engineers and Inspectors

Promote worksite or product safety by applying knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws. Includes industrial product safety engineers.

Illustrative examples: Fire Protection Engineer, Industrial Safety Engineer, Product Safety Engineer

17-2112 Industrial Engineers

Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination. Excludes "Health and Safety Engineers, Except Mining Safety Engineers and Inspectors" (17-2111).

Illustrative examples: Efficiency Engineer, Manufacturing Engineer, Packaging Engineer, Production Engineer

17-2120 Marine Engineers and Naval Architects

This broad occupation is the same as the detailed occupation:

17-2121 Marine Engineers and Naval Architects

17-2121 Marine Engineers and Naval Architects

Design, develop, and evaluate the operation of marine vessels, ship machinery, and related equipment, such as power supply and propulsion systems.

Illustrative examples: Marine Architect, Marine Structural Designer, Naval Engineer

17-2130 Materials Engineers

This broad occupation is the same as the detailed occupation:

17-2131 Materials Engineers

17-2131 Materials Engineers

Evaluate materials and develop machinery and processes to manufacture materials for use in products that must meet specialized design and performance specifications. Develop new uses for known materials. Includes those engineers working with composite materials or specializing in one type of material, such as graphite, metal and metal alloys, ceramics and glass, plastics and polymers, and naturally occurring materials. Includes metallurgists and metallurgical engineers, ceramic engineers, and welding engineers.

Illustrative examples: Automotive Sheet Metal Engineer, Forensic Materials Engineer, Metallographer

17-2140 Mechanical Engineers

This broad occupation is the same as the detailed occupation:

17-2141 Mechanical Engineers

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

17-2141 Mechanical Engineers

Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.

Illustrative examples: Combustion Engineer, Engine Designer, Heating and Cooling Systems Engineer, Tool and Die Engineer

17-2150 Mining and Geological Engineers, Including Mining Safety Engineers

This broad occupation is the same as the detailed occupation:

17-2151 Mining and Geological Engineers, Including Mining Safety Engineers

17-2151 Mining and Geological Engineers, Including Mining Safety Engineers

Conduct subsurface surveys to identify the characteristics of potential land or mining development sites. May specify the ground support systems, processes, and equipment for safe, economical, and environmentally sound extraction or underground construction activities. May inspect areas for unsafe geological conditions, equipment, and working conditions. May design, implement, and coordinate mine safety programs. Excludes "Petroleum Engineers" (17-2171).

Illustrative examples: Geophysical Engineer, Mineral Engineer, Seismic Engineer

17-2160 Nuclear Engineers

This broad occupation is the same as the detailed occupation:

17-2161 Nuclear Engineers

17-2161 Nuclear Engineers

Conduct research on nuclear engineering projects or apply principles and theory of nuclear science to problems concerned with release, control, and use of nuclear energy and nuclear waste disposal.

Illustrative examples: Atomic Process Engineer, Nuclear Radiation Engineer, Radiation Engineer, Reactor Engineer

17-2170 Petroleum Engineers

This broad occupation is the same as the detailed occupation:

17-2171 Petroleum Engineers

17-2171 Petroleum Engineers

Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice.

Illustrative examples: Natural Gas Engineer, Oil Drilling Engineer, Oil Exploration Engineer

17-2190 Miscellaneous Engineers

This broad occupation is the same as the detailed occupation:

17-2199 Engineers, All Other

17-2199 Engineers, All Other

All engineers not listed separately. Excludes "Sales Engineers" (41-9031), "Locomotive Engineers" (53-4011), and "Ship Engineers" (53-5031).

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

Illustrative examples: Calibration Engineer, Metrologist, Optical Engineer, Ordnance Engineer, Photonics Engineer, Salvage Engineer

17-3000 Drafters, Engineering Technicians, and Mapping Technicians

17-3010 Drafters

This broad occupation includes the following four detailed occupations:

17-3011 Architectural and Civil Drafters

17-3012 Electrical and Electronics Drafters

17-3013 Mechanical Drafters

17-3019 Drafters, All Other

17-3011 Architectural and Civil Drafters

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Illustrative examples: Building Drafter, Civil Computer-Aided Design and Drafting Technician, Structural Drafter

17-3012 Electrical and Electronics Drafters

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.

Illustrative examples: Electrical Computer Aided Design and Drafting Technician, Electrical Systems Drafter, Printed Circuit Board Drafter

17-3013 Mechanical Drafters

Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.

Illustrative examples: Aeronautical Drafter, Automotive Design Drafter, Tool and Die Designer

17-3019 Drafters, All Other

All drafters not listed separately.

Illustrative examples: Blueprint Tracer, Geological Drafter, Marine Drafter

17-3020 Engineering Technologists and Technicians, Except Drafters

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

This broad occupation includes the following nine detailed occupations:

17-3021 Aerospace Engineering and Operations Technologists and Technicians

17-3022 Civil Engineering Technologists and Technicians

17-3023 Electrical and Electronic Engineering Technologists and Technicians

17-3024 Electro-Mechanical and Mechatronics Technologists and Technicians

17-3025 Environmental Engineering Technologists and Technicians

17-3026 Industrial Engineering Technologists and Technicians

17-3027 Mechanical Engineering Technologists and Technicians

17-3028 Calibration Technologists and Technicians

17-3029 Engineering Technologists and Technicians, Except Drafters, All Other

17-3021 Aerospace Engineering and Operations Technologists and Technicians

Operate, install, adjust, and maintain integrated computer/communications systems, consoles, simulators, and other data acquisition, test, and measurement instruments and equipment, which are used to launch, track, position, and evaluate air and space vehicles. May record and interpret test data.

Illustrative examples: Altitude Chamber Technician, Flight Data Technician, Wind Tunnel Technician

17-3022 Civil Engineering Technologists and Technicians

Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.

Illustrative examples: Geotechnical Engineering Technician, Highway Engineering Technician, Structural Engineering Technician

17-3023 Electrical and Electronic Engineering Technologists and Technicians

Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, adjust, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions. Excludes "Broadcast Technicians" (27-4012).

Illustrative examples: Electrical Design Technician, Lighting Engineering Technician, Semiconductor Development Technician

17-3024 Electro-Mechanical and Mechatronics Technologists and Technicians

Operate, test, maintain, or adjust unmanned, automated, servomechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.

Illustrative examples: Mechatronics Technician, Remotely Piloted Vehicle Engineering Technician, Robotics Testing Technician, Unmanned Air Systems Operator

17-3025 Environmental Engineering Technologists and Technicians

Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientists. May assist in the development of environmental remediation devices.

17-0000 ARCHITECTURE AND ENGINEERING OCCUPATIONS

Illustrative examples: Air Analysis Engineering Technician, Environmental Remediation Engineering Technician, Pollution Control Engineering Technician

17-3026 Industrial Engineering Technologists and Technicians

Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.

Illustrative examples: Motion Study Technician, Production Control Technologist, Time Study Technician

17-3027 Mechanical Engineering Technologists and Technicians

Apply theory and principles of mechanical engineering to modify, develop, test, or adjust machinery and equipment under direction of engineering staff or physical scientists.

Illustrative examples: Gyroscopic Engineering Technician, Heat Transfer Technician, Optomechanical Technician

17-3028 Calibration Technologists and Technicians

Execute or adapt procedures and techniques for calibrating measurement devices, by applying knowledge of measurement science, mathematics, physics, chemistry, and electronics, sometimes under the direction of engineering staff. Determine measurement standard suitability for calibrating measurement devices. May perform preventive maintenance on equipment. May perform corrective actions to address identified calibration problems. Excludes "Medical Equipment Preparers" (31-9093) and "Timing Device Assemblers and Adjusters" (51-2061).

Illustrative examples: Calibration Technician, Calibration Technologist, Hydrometer Calibrator

17-3029 Engineering Technologists and Technicians, Except Drafters, All Other

All engineering technologists and technicians, except drafters, not listed separately.

Illustrative examples: Agricultural Engineering Technician, Biomedical Engineering Technician, Metallurgical Engineering Technician, Optical Engineering Technician, Radar Technicians, Sonar Technicians

17-3030 Surveying and Mapping Technicians

This broad occupation is the same as the detailed occupation:

17-3031 Surveying and Mapping Technicians

17-3031 Surveying and Mapping Technicians

Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist, to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps. Excludes "Cartographers and Photogrammetrists" (17-1021), "Surveyors" (17-1022), and "Geoscientists, Except Hydrologists and Geographers" (19-2042).

Illustrative examples: Cartographic Technician, Field Map Technician, GIS Mapping Technician

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

19-1000 Life Scientists

19-1010 Agricultural and Food Scientists

This broad occupation includes the following three detailed occupations:

19-1011 Animal Scientists

19-1012 Food Scientists and Technologists

19-1013 Soil and Plant Scientists

19-1011 Animal Scientists

Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.

Illustrative examples: Animal Nutritionist, Dairy Scientist, Poultry Scientist

19-1012 Food Scientists and Technologists

Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.

Illustrative examples: Dairy Bacteriologist, Enologist, Food Safety Scientist

19-1013 Soil and Plant Scientists

Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

Illustrative examples: Arboreal Scientist, Horticulturist, Plant Physiologist

19-1020 Biological Scientists

This broad occupation includes the following four detailed occupations:

19-1021 Biochemists and Biophysicists

19-1022 Microbiologists

19-1023 Zoologists and Wildlife Biologists

19-1029 Biological Scientists, All Other

19-1021 Biochemists and Biophysicists

Study the chemical composition or physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. May conduct research to further understanding of the complex chemical combinations and reactions involved in metabolism, reproduction, growth, and heredity. May determine the effects of foods, drugs, serums, hormones, and other substances on tissues and vital processes of living organisms.

Illustrative examples: Biological Chemist, Clinical Biochemist, Physical Biochemist

19-1022 Microbiologists

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Includes medical microbiologists who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.

Illustrative examples: Bacteriologist, Public Health Microbiologist, Virologist

19-1023 Zoologists and Wildlife Biologists

Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May specialize in wildlife research and management. May collect and analyze biological data to determine the environmental effects of present and potential use of land and water habitats.

Illustrative examples: Herpetologist, Ichthyologist, Marine Biologist, Ornithologist

19-1029 Biological Scientists, All Other

All biological scientists not listed separately.

Illustrative examples: Embryologist, Osteologist, Paleobotanist

19-1030 Conservation Scientists and Foresters

This broad occupation includes the following two detailed occupations:

19-1031 Conservation Scientists

19-1032 Foresters

19-1031 Conservation Scientists

Manage, improve, and protect natural resources to maximize their use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering. Excludes "Zoologists and Wildlife Biologists" (19-1023) and "Foresters" (19-1032).

Illustrative examples: Grassland Conservationist, Range Ecologist, Soil Conservationist

19-1032 Foresters

Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine optimal harvesting schedules.

Illustrative examples: Environmental Protection Forester, Forest Ecologist, Timber Management Specialist

19-1040 Medical Scientists

This broad occupation includes the following two detailed occupations:

19-1041 Epidemiologists

19-1042 Medical Scientists, Except Epidemiologists

19-1041 Epidemiologists

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Investigate and describe the determinants and distribution of disease, disability, or health outcomes. May develop the means for prevention and control.

Illustrative examples: Epidemiology Investigator, Malariologist, Pharmacoepidemiologist

19-1042 Medical Scientists, Except Epidemiologists

Conduct research dealing with the understanding of human diseases and the improvement of human health. Engage in clinical investigation, research and development, or other related activities. Includes physicians, dentists, pharmacologists, and medical pathologists who primarily conduct research. Practitioners who primarily provide medical or dental care or dispense drugs are included in "Healthcare Diagnosing or Treating Practitioners" (29-1000).

Illustrative examples: Cancer Researcher, Immunochemist, Toxicologist

19-1090 Miscellaneous Life Scientists

This broad occupation is the same as the detailed occupation:

19-1099 Life Scientists, All Other

19-1099 Life Scientists, All Other

All life scientists not listed separately.

Illustrative examples: Life Science Taxonomist

19-2000 Physical Scientists

19-2010 Astronomers and Physicists

This broad occupation includes the following two detailed occupations:

19-2011 Astronomers

19-2012 Physicists

19-2011 Astronomers

Observe, research, and interpret astronomical phenomena to increase basic knowledge or apply such information to practical problems.

Illustrative examples: Astrophysicist, Cosmologist

19-2012 Physicists

Conduct research into physical phenomena, develop theories on the basis of observation and experiments, and devise methods to apply physical laws and theories. Excludes "Biochemists and Biophysicists" (19-1021).

Illustrative examples: Fluid Dynamicist, Molecular Physicist, Optical Scientist, Rheologist

19-2020 Atmospheric and Space Scientists

This broad occupation is the same as the detailed occupation:

19-2021 Atmospheric and Space Scientists

19-2021 Atmospheric and Space Scientists

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Investigate atmospheric phenomena and interpret meteorological data, gathered by surface and air stations, satellites, and radar to prepare reports and forecasts for public and other uses. Includes weather analysts and forecasters whose functions require the detailed knowledge of meteorology.

Illustrative examples: Atmospheric Chemist, Climatologist, Hurricane Tracker, Meteorologist

19-2030 Chemists and Materials Scientists

This broad occupation includes the following two detailed occupations:

19-2031 Chemists

19-2032 Materials Scientists

19-2031 Chemists

Conduct qualitative and quantitative chemical analyses or experiments in laboratories for quality or process control or to develop new products or knowledge. Excludes "Biochemists and Biophysicists" (19-1021) and "Geoscientists, Except Hydrologists and Geographers" (19-2042).

Illustrative examples: Food Chemist, Industrial Chemist, Inorganic Chemist, Research and Development Chemist

19-2032 Materials Scientists

Research and study the structures and chemical properties of various natural and synthetic or composite materials, including metals, alloys, rubber, ceramics, semiconductors, polymers, and glass. Determine ways to strengthen or combine materials or develop new materials with new or specific properties for use in a variety of products and applications. Includes glass scientists, ceramic scientists, metallurgical scientists, and polymer scientists.

Illustrative examples: Metal Alloy Scientist, Plastics Scientist

19-2040 Environmental Scientists and Geoscientists

This broad occupation includes the following three detailed occupations:

19-2041 Environmental Scientists and Specialists, Including Health

19-2042 Geoscientists, Except Hydrologists and Geographers

19-2043 Hydrologists

19-2041 Environmental Scientists and Specialists, Including Health

Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or public health. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources. Excludes "Zoologists and Wildlife Biologists" (19-1023), "Conservation Scientists" (19-1031), "Forest and Conservation Technicians" (19-4071), "Occupational Health and Safety Specialists" (19-5011), "Fish and Game Wardens" (33-3031), and "Forest and Conservation Workers" (45-4011).

Illustrative examples: Hazardous Substances Scientist, Health Environmentalist, Water Pollution Scientist

19-2042 Geoscientists, Except Hydrologists and Geographers

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Study the composition, structure, and other physical aspects of the Earth. May use geological, physics, and mathematics knowledge in exploration for oil, gas, minerals, or underground water; or in waste disposal, land reclamation, or other environmental problems. May study the Earth's internal composition, atmospheres, and oceans, and its magnetic, electrical, and gravitational forces. Includes mineralogists, paleontologists, stratigraphers, geodesists, and seismologists.

Illustrative examples: Geochemist, Oceanographer, Petrologist, Volcanologist

19-2043 Hydrologists

Research the distribution, circulation, and physical properties of underground and surface waters; and study the form and intensity of precipitation and its rate of infiltration into the soil, movement through the earth, and return to the ocean and atmosphere.

Illustrative examples: Hydrogeologist, Isotope Hydrologist, Surface Hydrologist

19-2090 Miscellaneous Physical Scientists

This broad occupation is the same as the detailed occupation:

19-2099 Physical Scientists, All Other

19-2099 Physical Scientists, All Other

All physical scientists not listed separately.

19-3000 Social Scientists and Related Workers

19-3010 Economists

This broad occupation is the same as the detailed occupation:

19-3011 Economists

19-3011 Economists

Conduct research, prepare reports, or formulate plans to address economic problems related to the production and distribution of goods and services or monetary and fiscal policy. May collect and process economic and statistical data using sampling techniques and econometric methods. Excludes "Market Research Analysts and Marketing Specialists" (13-1161).

Illustrative examples: Econometrician, Economic Research Analyst, Environmental Economist, Industrial Economist

19-3020 Survey Researchers

This broad occupation is the same as the detailed occupation:

19-3022 Survey Researchers

19-3022 Survey Researchers

Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine survey objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Specialists" (13-1161) and "Statisticians" (15-2041).

Illustrative examples: Pollster, Survey Methodologist, Survey Questionnaire Designer

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

19-3030 Psychologists

This broad occupation includes the following four detailed occupations:

19-3032 Industrial-Organizational Psychologists

19-3033 Clinical and Counseling Psychologists

19-3034 School Psychologists

19-3039 Psychologists, All Other

19-3032 Industrial-Organizational Psychologists

Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training, and development; and organizational development and analysis. May work with management to organize the work setting to improve worker productivity.

Illustrative examples: Engineering Psychologist, Human Resources Psychologist, Management Psychologist

19-3033 Clinical and Counseling Psychologists

Assess, diagnose, and treat mental and emotional disorders of individuals through observation, interview, and psychological tests. Help individuals with distress or maladjustment understand their problems through their knowledge of case history, interviews with patients, and theory. Provide individual or group counseling services to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment. May design behavior modification programs and consult with medical personnel regarding the best treatment for patients. Excludes "Psychiatrists" (29-1223).

Illustrative examples: Eating Disorder Psychologists, Geropsychologists

19-3034 School Psychologists

Diagnose and implement individual or schoolwide interventions or strategies to address educational, behavioral, or developmental issues that adversely impact educational functioning in a school. May address student learning and behavioral problems and counsel students or families. May design and implement performance plans, and evaluate performance. May consult with other school-based personnel.

Illustrative examples: Educational Psychologists

19-3039 Psychologists, All Other

All psychologists not listed separately.

Illustrative examples: Forensic Psychologist, Social Psychologist, Sports Psychologist

19-3040 Sociologists

This broad occupation is the same as the detailed occupation:

19-3041 Sociologists

19-3041 Sociologists

Study human society and social behavior by examining the groups and social institutions that people form, as well as various social, religious, political, and business organizations. May study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members.

Illustrative examples: Criminologist, Family Sociologist, Rural Sociologist

19-3050 Urban and Regional Planners

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

This broad occupation is the same as the detailed occupation:

19-3051 Urban and Regional Planners

19-3051 Urban and Regional Planners

Develop comprehensive plans and programs for use of land and physical facilities of jurisdictions, such as towns, cities, counties, and metropolitan areas.

Illustrative examples: City Planner, Community Development Planner

19-3090 Miscellaneous Social Scientists and Related Workers

This broad occupation includes the following five detailed occupations:

19-3091 Anthropologists and Archeologists

19-3092 Geographers

19-3093 Historians

19-3094 Political Scientists

19-3099 Social Scientists and Related Workers, All Other

19-3091 Anthropologists and Archeologists

Study the origin, development, and behavior of human beings. May study the way of life, language, or physical characteristics of people in various parts of the world. May engage in systematic recovery and examination of material evidence, such as tools or pottery remaining from past human cultures, in order to determine the history, customs, and living habits of earlier civilizations.

Illustrative examples: Ethnoarchaeologist, Political Anthropologist, Research Archaeologist

19-3092 Geographers

Study the nature and use of areas of the Earth's surface, relating and interpreting interactions of physical and cultural phenomena. Conduct research on physical aspects of a region, including land forms, climates, soils, plants, and animals, and conduct research on the spatial implications of human activities within a given area, including social characteristics, economic activities, and political organization, as well as researching interdependence between regions at scales ranging from local to global.

Illustrative examples: Economic Geographer, Geomorphologist, GIS Geographer, Political Geographer

19-3093 Historians

Research, analyze, record, and interpret the past as recorded in sources, such as government and institutional records, newspapers and other periodicals, photographs, interviews, films, electronic media, and unpublished manuscripts, such as personal diaries and letters.

Illustrative examples: Genealogist, Historiographer, Protohistorian

19-3094 Political Scientists

Study the origin, development, and operation of political systems. May study topics, such as public opinion, political decisionmaking, and ideology. May analyze the structure and operation of governments, as well as various political entities. May conduct public opinion surveys, analyze election results, or analyze public documents. Excludes "Survey Researchers" (19-3022).

Illustrative examples: Government Affairs Specialist, Political Consultant, Political Research Scientist

19-3099 Social Scientists and Related Workers, All Other

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

All social scientists and related workers not listed separately.

Illustrative examples: Demographer, Ethnologist, Linguist

19-4000 Life, Physical, and Social Science Technicians

19-4010 Agricultural and Food Science Technicians

This broad occupation includes the following two detailed occupations:

19-4012 Agricultural Technicians

19-4013 Food Science Technicians

19-4012 Agricultural Technicians

Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

Illustrative examples: Feed Research Technician, Feed Research Technician, Seed Analyst

19-4013 Food Science Technicians

Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.

Illustrative examples: Flavor Technician, Food Quality Control Technician, Food Quality Technician

19-4020 Biological Technicians

This broad occupation is the same as the detailed occupation:

19-4021 Biological Technicians

19-4021 Biological Technicians

Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.

Illustrative examples: Bacteriology Technician, Marine Fisheries Technician, Wildlife Technician

19-4030 Chemical Technicians

This broad occupation is the same as the detailed occupation:

19-4031 Chemical Technicians

19-4031 Chemical Technicians

Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Illustrative examples: Assayer, Chemical Laboratory Technician, Inorganic Chemical Technician

19-4040 Environmental Science and Geoscience Technicians

This broad occupation includes the following three detailed occupations:

19-4042 Environmental Science and Protection Technicians, Including Health

19-4043 Geological Technicians, Except Hydrologic Technicians

19-4044 Hydrologic Technicians

19-4042 Environmental Science and Protection Technicians, Including Health

Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist. May collect samples of gases, soil, water, and other materials for testing.

Illustrative examples: Certified Indoor Environmentalist, Environmental Science Technician, Infectious Waste Technician, Pollution Control Technician

19-4043 Geological Technicians, Except Hydrologic Technicians

Assist scientists or engineers in the use of electronic, sonic, or nuclear measuring instruments in laboratory, exploration, and production activities to obtain data indicating resources such as metallic ore, minerals, gas, coal, or petroleum. Analyze mud and drill cuttings. Chart pressure, temperature, and other characteristics of wells or bore holes.

Illustrative examples: Crude Tester, Geophysical Prospector, Seismic Observer

19-4044 Hydrologic Technicians

Collect and organize data concerning the distribution and circulation of ground and surface water, and data on its physical, chemical, and biological properties. Measure and report on flow rates and ground water levels, maintain field equipment, collect water samples, install and collect sampling equipment, and process samples for shipment to testing laboratories. May collect data on behalf of hydrologists, engineers, developers, government agencies, or agriculture. Excludes "Hydrologists" (19-2043).

Illustrative examples: Groundwater Monitoring Technician

19-4050 Nuclear Technicians

This broad occupation is the same as the detailed occupation:

19-4051 Nuclear Technicians

19-4051 Nuclear Technicians

Assist nuclear physicists, nuclear engineers, or other scientists in laboratory, power generation, or electricity production activities. May operate, maintain, or provide quality control for nuclear testing and research equipment. May monitor radiation.

Illustrative examples: Nuclear Monitoring Technician, Radiochemical Technician

19-4060 Social Science Research Assistants

This broad occupation is the same as the detailed occupation:

19-4061 Social Science Research Assistants

19-4061 Social Science Research Assistants

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Assist social scientists in laboratory, survey, and other social science research. May help prepare findings for publication and assist in laboratory analysis, quality control, or data management. Excludes "Teaching Assistants, Postsecondary" (25-9044).

Illustrative examples: City Planning Aide, Economic Research Assistant, Historian Research Assistant

19-4070 Forest and Conservation Technicians

This broad occupation is the same as the detailed occupation:

19-4071 Forest and Conservation Technicians

19-4071 Forest and Conservation Technicians

Provide technical assistance regarding the conservation of soil, water, forests, or related natural resources. May compile data pertaining to size, content, condition, and other characteristics of forest tracts under the direction of foresters, or train and lead forest workers in forest propagation and fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats. Excludes "Conservation Scientists" (19-1031) and "Foresters" (19-1032).

Illustrative examples: Forestry Aide, Soil Conservation Technician, Timber Management Technician

19-4090 Miscellaneous Life, Physical, and Social Science Technicians

This broad occupation includes the following two detailed occupations:

19-4092 Forensic Science Technicians

19-4099 Life, Physical, and Social Science Technicians, All Other

19-4092 Forensic Science Technicians

Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.

Illustrative examples: Ballistics Expert, Crime Scene Technician, Trace Evidence Technician

19-4099 Life, Physical, and Social Science Technicians, All Other

All life, physical, and social science technicians not listed separately.

Illustrative examples: Meteorological Aide, Polygraph Examiner

19-5000 Occupational Health and Safety Specialists and Technicians

19-5010 Occupational Health and Safety Specialists and Technicians

This broad occupation includes the following two detailed occupations:

19-5011 Occupational Health and Safety Specialists

19-5012 Occupational Health and Safety Technicians

19-5011 Occupational Health and Safety Specialists

Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector.

19-0000 LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS

Illustrative examples: Environmental Health Sanitarian, Health and Safety Inspector, Industrial Hygienist

19-5012 Occupational Health and Safety Technicians

Collect data on work environments for analysis by occupational health and safety specialists. Implement and conduct evaluation of programs designed to limit chemical, physical, biological, and ergonomic risks to workers.

Illustrative examples: Construction Health and Safety Technician, Ergonomics Technician, Occupational Health and Safety Technologist (OHST)

21-0000 COMMUNITY AND SOCIAL SERVICE OCCUPATIONS

21-1000 Counselors, Social Workers, and Other Community and Social Service Specialists

21-1010 Counselors

This broad occupation includes the following six detailed occupations:

- 21-1011 Substance Abuse and Behavioral Disorder Counselors
- 21-1012 Educational, Guidance, and Career Counselors and Advisors
- 21-1013 Marriage and Family Therapists
- 21-1014 Mental Health Counselors
- 21-1015 Rehabilitation Counselors
- 21-1019 Counselors, All Other

21-1011 Substance Abuse and Behavioral Disorder Counselors

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Excludes "Psychologists" (19-3031 through 19-3039), "Mental Health Counselors" (21-1014), and "Social Workers" (21-1021 through 21-1029) providing these services.

Illustrative examples: Addiction Counselor, Alcohol and Drug Counselor, Chemical Dependency Counselor

21-1012 Educational, Guidance, and Career Counselors and Advisors

Advise and assist students and provide educational and vocational guidance services.

Illustrative examples: Admissions Counselor, Career Counselor, Guidance Counselor, Student Services Counselor

21-1013 Marriage and Family Therapists

Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders. Excludes "Psychologists" (19-3031 through 19-3039) and "Social Workers" (21-1020).

Illustrative examples: Child and Family Counselor, Couples Therapist, Marriage Counselor

21-1014 Mental Health Counselors

Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging. Excludes "Psychologists" (19-3030), "Social Workers" (21-1020), and "Psychiatrists" (29-1223).

Illustrative examples: Licensed Clinical Mental Health Counselor (LCMHC), Licensed Mental Health Counselor (LMHC)

21-1015 Rehabilitation Counselors

21-0000 COMMUNITY AND SOCIAL SERVICE OCCUPATIONS

Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, aging, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement. Excludes "Occupational Therapists" (29-1122).

Illustrative examples: Psychosocial Rehabilitation Counselor, Veterans Rehabilitation Counselor, Vocational Rehabilitation Job Coach

21-1019 Counselors, All Other

All counselors not listed separately.

Illustrative examples: Anger Control Counselor, Grief Counselor, Sexual Assault Counselor

21-1020 Social Workers

This broad occupation includes the following four detailed occupations:

21-1021 Child, Family, and School Social Workers

21-1022 Healthcare Social Workers

21-1023 Mental Health and Substance Abuse Social Workers

21-1029 Social Workers, All Other

21-1021 Child, Family, and School Social Workers

Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers.

Illustrative examples: Certified Children, Youth, and Family Social Worker, Child Abuse Worker, Foster Care Worker

21-1022 Healthcare Social Workers

Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family caregivers. Provide patients with information and counseling, and make referrals for other services. May also provide case and care management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare.

Illustrative examples: Hospice Social Worker, Oncology Social Worker, Public Health Social Worker

21-1023 Mental Health and Substance Abuse Social Workers

Assess and treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education.

Illustrative examples: Community Mental Health Social Worker, Drug Abuse Social Worker, Psychiatric Social Worker

21-1029 Social Workers, All Other

All social workers not listed separately.

21-0000 COMMUNITY AND SOCIAL SERVICE OCCUPATIONS

Illustrative examples: Adult Protective Service Social Worker, Criminal Justice Social Worker, Forensic Social Worker, Sexual Assault Social Worker

21-1090 Miscellaneous Community and Social Service Specialists

This broad occupation includes the following two detailed occupations:

21-1091 Health Education Specialists

21-1092 Probation Officers and Correctional Treatment Specialists

21-1093 Social and Human Service Assistants

21-1094 Community Health Workers

21-1099 Community and Social Service Specialists, All Other

21-1091 Health Education Specialists

Provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Use data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May link health systems, health providers, insurers, and patients to address individual and population health needs. May serve as resource to assist individuals, other health professionals, or the community, and may administer fiscal resources for health education programs. Excludes "Community Health Workers" (21-1094).

Illustrative examples: Community Health Education Coordinator, Diabetes Educator, Public Health Educator

21-1092 Probation Officers and Correctional Treatment Specialists

Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Make recommendations for actions involving formulation of rehabilitation plan and treatment of offender, including conditional release and education and employment stipulations.

Illustrative examples: Juvenile Probation Officer, Parole Agent, Parole Officer

21-1093 Social and Human Service Assistants

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care. Excludes "Rehabilitation Counselors" (21-1015), "Psychiatric Technicians" (29-2053), "Personal Care Aides" (31-1122), and "Eligibility Interviewers, Government Programs" (43-4061).

Illustrative examples: Case Work Aide, Family Service Assistant, Human Services Worker

21-1094 Community Health Workers

Promote health within a community by assisting individuals to adopt healthy behaviors. Serve as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Act as liaison or advocate and implement programs that promote, maintain, and improve individual and overall community health. May deliver health-related preventive services such as blood pressure, glaucoma, and hearing screenings. May collect data to help identify community health needs. Excludes "Health Education Specialists" (21-1091).

21-0000 COMMUNITY AND SOCIAL SERVICE OCCUPATIONS

Illustrative examples: Lay Health Advocate, Peer Health Promoter, Promotor(a)

21-1099 Community and Social Service Specialists, All Other

All community and social service specialists not listed separately.

Illustrative examples: Community Organization Worker, Veterans Service Officer

21-2000 Religious Workers

21-2010 Clergy

This broad occupation is the same as the detailed occupation:

21-2011 Clergy

21-2011 Clergy

Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.

Illustrative examples: Imam, Priest, Rabbi

21-2020 Directors, Religious Activities and Education

This broad occupation is the same as the detailed occupation:

21-2021 Directors, Religious Activities and Education

21-2021 Directors, Religious Activities and Education

Coordinate or design programs and conduct outreach to promote the religious education or activities of a denominational group. May provide counseling, guidance, and leadership relative to marital, health, financial, and religious problems.

Illustrative examples: Religious Education Director, Youth Ministry Director

21-2090 Miscellaneous Religious Workers

This broad occupation is the same as the detailed occupation:

21-2099 Religious Workers, All Other

21-2099 Religious Workers, All Other

All religious workers not listed separately.

Illustrative examples: Missionary, Mohel, Verger

23-0000 LEGAL OCCUPATIONS

23-1000 Lawyers, Judges, and Related Workers

23-1010 Lawyers and Judicial Law Clerks

This broad occupation includes the following two detailed occupations:

23-1011 Lawyers

23-1012 Judicial Law Clerks

23-1011 Lawyers

Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.

Illustrative examples: Attorney, Corporate Counsel, Public Defender

23-1012 Judicial Law Clerks

Assist judges in court or by conducting research or preparing legal documents. Excludes "Lawyers" (23-1011) and "Paralegals and Legal Assistants" (23-2011).

Illustrative examples: Judicial Clerk

23-1020 Judges, Magistrates, and Other Judicial Workers

This broad occupation includes the following three detailed occupations:

23-1021 Administrative Law Judges, Adjudicators, and Hearing Officers

23-1022 Arbitrators, Mediators, and Conciliators

23-1023 Judges, Magistrate Judges, and Magistrates

23-1021 Administrative Law Judges, Adjudicators, and Hearing Officers

Conduct hearings to recommend or make decisions on claims concerning government programs or other government-related matters. Determine liability, sanctions, or penalties, or recommend the acceptance or rejection of claims or settlements. Excludes "Arbitrators, Mediators, and Conciliators" (23-1022).

Illustrative examples: Appeals Examiner, Justice of The Peace, Traffic Court Referee

23-1022 Arbitrators, Mediators, and Conciliators

Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.

Illustrative examples: Alternative Dispute Resolution Coordinator, Mediation Commissioner, Ombudsman

23-1023 Judges, Magistrate Judges, and Magistrates

Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes or sentencing guidelines. May determine liability of defendant in civil cases. May perform wedding ceremonies.

Illustrative examples: Circuit Court Judge, Justice, Tribal Judge

23-2000 Legal Support Workers

23-0000 LEGAL OCCUPATIONS

23-2010 Paralegals and Legal Assistants

This broad occupation is the same as the detailed occupation:

23-2011 Paralegals and Legal Assistants

23-2011 Paralegals and Legal Assistants

Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action. Excludes "Legal Secretaries and Administrative Assistants" (43-6012).

Illustrative examples: Legal Aide

23-2090 Miscellaneous Legal Support Workers

This broad occupation includes the following two detailed occupations:

23-2093 Title Examiners, Abstractors, and Searchers

23-2099 Legal Support Workers, All Other

23-2093 Title Examiners, Abstractors, and Searchers

Search real estate records, examine titles, or summarize pertinent legal or insurance documents or details for a variety of purposes. May compile lists of mortgages, contracts, and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies, or title insurance companies. Excludes "Loan Officers" (13-2072).

Illustrative examples: Escrow Officer, Lien Searcher, Title Officer

23-2099 Legal Support Workers, All Other

All legal support workers not listed separately.

Illustrative examples: Legal Technician

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-1000 Postsecondary Teachers

25-1010 Business Teachers, Postsecondary

This broad occupation is the same as the detailed occupation:

25-1011 Business Teachers, Postsecondary

25-1011 Business Teachers, Postsecondary

Teach courses in business administration and management, such as accounting, finance, human resources, labor and industrial relations, marketing, and operations research. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Accounting Professor, Finance Professor, Marketing Professor

25-1020 Math and Computer Science Teachers, Postsecondary

This broad occupation includes the following two detailed occupations:

25-1021 Computer Science Teachers, Postsecondary

25-1022 Mathematical Science Teachers, Postsecondary

25-1021 Computer Science Teachers, Postsecondary

Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Computer Information Systems Professor, Information Technology Professor, Java Programming Professor

25-1022 Mathematical Science Teachers, Postsecondary

Teach courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Actuarial Science Professor, Calculus Professor, Statistics Professor

25-1030 Engineering and Architecture Teachers, Postsecondary

This broad occupation includes the following two detailed occupations:

25-1031 Architecture Teachers, Postsecondary

25-1032 Engineering Teachers, Postsecondary

25-1031 Architecture Teachers, Postsecondary

Teach courses in architecture and architectural design, such as architectural environmental design, interior architecture/design, and landscape architecture. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Architectural Design Professor, Landscape Architecture Professor

25-1032 Engineering Teachers, Postsecondary

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

Teach courses pertaining to the application of physical laws and principles of engineering for the development of machines, materials, instruments, processes, and services. Includes teachers of subjects such as chemical, civil, electrical, industrial, mechanical, mineral, and petroleum engineering. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Computer Science Teachers, Postsecondary" (25-1021).

Illustrative examples: Aeronautical Engineering Professor, Civil Engineering Professor, Electrical Engineering Professor, Marine Engineering Professor

25-1040 Life Sciences Teachers, Postsecondary

This broad occupation includes the following three detailed occupations:

25-1041 Agricultural Sciences Teachers, Postsecondary

25-1042 Biological Science Teachers, Postsecondary

25-1043 Forestry and Conservation Science Teachers, Postsecondary

25-1041 Agricultural Sciences Teachers, Postsecondary

Teach courses in the agricultural sciences. Includes teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Forestry and Conservation Science Teachers, Postsecondary" (25-1043).

Illustrative examples: Agronomy Professor, Aquaculture and Fisheries Professor, Farm Management Professor

25-1042 Biological Science Teachers, Postsecondary

Teach courses in biological sciences. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Bacteriology Professor, Biochemistry Professor, Botany Professor

25-1043 Forestry and Conservation Science Teachers, Postsecondary

Teach courses in forestry and conservation science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Agricultural Science Teachers, Postsecondary" (25-1041) and "Environmental Science Teachers, Postsecondary" (25-1053).

Illustrative examples: Forest Ecology Professor, Timber Management Professor, Wildlife Conservation Professor

25-1050 Physical Sciences Teachers, Postsecondary

This broad occupation includes the following four detailed occupations:

25-1051 Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary

25-1052 Chemistry Teachers, Postsecondary

25-1053 Environmental Science Teachers, Postsecondary

25-1054 Physics Teachers, Postsecondary

25-1051 Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary

Teach courses in the physical sciences, except chemistry and physics. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research.

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

Illustrative examples: Climatology Professor, Geology Professor, Oceanography Professor

25-1052 Chemistry Teachers, Postsecondary

Teach courses pertaining to the chemical and physical properties and compositional changes of substances. Work may include providing instruction in the methods of qualitative and quantitative chemical analysis. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research. Excludes "Biological Science Teachers, Postsecondary" (25-1042) who teach biochemistry.

Illustrative examples: Inorganic Chemistry Professor, Organic Chemistry Professor, Physical Chemistry Professor

25-1053 Environmental Science Teachers, Postsecondary

Teach courses in environmental science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Forestry and Conservation Science Teachers, Postsecondary" (25-1043).

Illustrative examples: Environmental Science, Management and Policy Professor, Environmental Studies Professor

25-1054 Physics Teachers, Postsecondary

Teach courses pertaining to the laws of matter and energy. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Astrophysics Professor, Ballistics Professor, Hydrodynamics Professor, Thermodynamics Professor

25-1060 Social Sciences Teachers, Postsecondary

This broad occupation includes the following eight detailed occupations:

- 25-1061 Anthropology and Archeology Teachers, Postsecondary
- 25-1062 Area, Ethnic, and Cultural Studies Teachers, Postsecondary
- 25-1063 Economics Teachers, Postsecondary
- 25-1064 Geography Teachers, Postsecondary
- 25-1065 Political Science Teachers, Postsecondary
- 25-1066 Psychology Teachers, Postsecondary
- 25-1067 Sociology Teachers, Postsecondary
- 25-1069 Social Sciences Teachers, Postsecondary, All Other

25-1061 Anthropology and Archeology Teachers, Postsecondary

Teach courses in anthropology or archeology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Cultural Anthropology Professor, Ethnoarchaeology Professor, Paleology Professor

25-1062 Area, Ethnic, and Cultural Studies Teachers, Postsecondary

Teach courses pertaining to the culture and development of an area, an ethnic group, or any other group, such as Latin American studies, women's studies, or urban affairs. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Ethnology Professor, Latin American Studies Professor, Women's Studies Professor

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-1063 Economics Teachers, Postsecondary

Teach courses in economics. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Agricultural Economics Professor, Econometrics Professor, Labor Economics Professor

25-1064 Geography Teachers, Postsecondary

Teach courses in geography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Cartography Professor, Geomatics Professor, GIS Professor

25-1065 Political Science Teachers, Postsecondary

Teach courses in political science, international affairs, and international relations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Government Professor, International Relations Professor, Public Policy Professor

25-1066 Psychology Teachers, Postsecondary

Teach courses in psychology, such as child, clinical, and developmental psychology, and psychological counseling. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Child Development Professor, Educational Psychology Professor, Industrial/Organizational Psychology Professor

25-1067 Sociology Teachers, Postsecondary

Teach courses in sociology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Comparative Sociology Professor

25-1069 Social Sciences Teachers, Postsecondary, All Other

All postsecondary social sciences teachers not listed separately.

Illustrative examples: Survey Research Professor, Urban Planning Professor

25-1070 Health Teachers, Postsecondary

This broad occupation includes the following two detailed occupations:

25-1071 Health Specialties Teachers, Postsecondary

25-1072 Nursing Instructors and Teachers, Postsecondary

25-1071 Health Specialties Teachers, Postsecondary

Teach courses in health specialties, in fields such as dentistry, laboratory technology, medicine, pharmacy, public health, therapy, and veterinary medicine. Excludes "Biological Science Teachers, Postsecondary" (25-1042) and "Nursing Instructors and Teachers, Postsecondary" (25-1072) who teach medical science.

Illustrative examples: Nutrition Professor, Pharmacology Professor, Public Health Professor

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-1072 Nursing Instructors and Teachers, Postsecondary

Demonstrate and teach patient care in classroom and clinical units to nursing students. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Advanced Nursing Professor, Clinical Nursing Professor, Registered Nursing Professor

25-1080 Education and Library Science Teachers, Postsecondary

This broad occupation includes the following two detailed occupations:

25-1081 Education Teachers, Postsecondary

25-1082 Library Science Teachers, Postsecondary

25-1081 Education Teachers, Postsecondary

Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Primary Education Professor, Special Education Professor

25-1082 Library Science Teachers, Postsecondary

Teach courses in library science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Library and Information Science Professor, Medical Records Library Professor

25-1110 Law, Criminal Justice, and Social Work Teachers, Postsecondary

This broad occupation includes the following three detailed occupations:

25-1111 Criminal Justice and Law Enforcement Teachers, Postsecondary

25-1112 Law Teachers, Postsecondary

25-1113 Social Work Teachers, Postsecondary

25-1111 Criminal Justice and Law Enforcement Teachers, Postsecondary

Teach courses in criminal justice, corrections, and law enforcement administration. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Criminology Professor, Penology Professor

25-1112 Law Teachers, Postsecondary

Teach courses in law. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Constitutional Law Professor, Environmental Law Professor, Torts Law Professor

25-1113 Social Work Teachers, Postsecondary

Teach courses in social work. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Family Welfare Social Work Professor, Geriatric Social Work Professor, Health Social Work Professor

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-1120 Arts, Communications, History, and Humanities Teachers, Postsecondary

This broad occupation includes the following six detailed occupations:

25-1121 Art, Drama, and Music Teachers, Postsecondary

25-1122 Communications Teachers, Postsecondary

25-1123 English Language and Literature Teachers, Postsecondary

25-1124 Foreign Language and Literature Teachers, Postsecondary

25-1125 History Teachers, Postsecondary

25-1126 Philosophy and Religion Teachers, Postsecondary

25-1121 Art, Drama, and Music Teachers, Postsecondary

Teach courses in drama, music, and the arts including fine and applied art, such as painting and sculpture, or design and crafts. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Ballet Professor, Photography Professor, Piano Professor

25-1122 Communications Teachers, Postsecondary

Teach courses in communications, such as organizational communications, public relations, radio/television broadcasting, and journalism. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Journalism Professor, Public Speaking Professor

25-1123 English Language and Literature Teachers, Postsecondary

Teach courses in English language and literature, including linguistics and comparative literature. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Contemporary English Literature Professor, Creative Writing English Professor, Etymology Professor

25-1124 Foreign Language and Literature Teachers, Postsecondary

Teach languages and literature courses in languages other than English. Includes teachers of American Sign Language (ASL). Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Chinese Language Professor, Russian Language Professor, Spanish Literature Professor

25-1125 History Teachers, Postsecondary

Teach courses in human history and historiography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: African History Professor, American History Professor, Jewish History Professor, Russian History Professor

25-1126 Philosophy and Religion Teachers, Postsecondary

Teach courses in philosophy, religion, and theology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

Illustrative examples: Divinity Professor, Eastern Philosophy Professor, Theology Professor

25-1190 Miscellaneous Postsecondary Teachers

This broad occupation includes the following four detailed occupations:

25-1192 Family and Consumer Sciences Teachers, Postsecondary

25-1193 Recreation and Fitness Studies Teachers, Postsecondary

25-1194 Career/Technical Education Teachers, Postsecondary

25-1199 Postsecondary Teachers, All Other

25-1192 Family and Consumer Sciences Teachers, Postsecondary

Teach courses in childcare, family relations, finance, nutrition, and related subjects pertaining to home management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Family and Consumer Sciences Professor, Family Resource Management Professor, Home Economics Professor

25-1193 Recreation and Fitness Studies Teachers, Postsecondary

Teach courses pertaining to recreation, leisure, and fitness studies, including exercise physiology and facilities management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Illustrative examples: Kinesiology Professor, Leisure Studies Professor, Physical Education (PE) Professor

25-1194 Career/Technical Education Teachers, Postsecondary

Teach vocational courses intended to provide occupational training below the baccalaureate level in subjects such as construction, mechanics/repair, manufacturing, transportation, or cosmetology, primarily to students who have graduated from or left high school. Teaching takes place in public or private schools whose primary business is academic or vocational education. Excludes "Training and Development Specialists" (13-1151), "Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors" (25-3011), and postsecondary teachers classified elsewhere in the 25-1000 minor group. Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).

Illustrative examples: Automotive Technology Instructor, Cosmetology Instructor, HVAC Instructor, Mechanical Maintenance Instructor

25-1199 Postsecondary Teachers, All Other

All postsecondary teachers not listed separately.

Illustrative examples: Military Science Instructor, Packaging Professor

25-2000 Preschool, Elementary, Middle, Secondary, and Special Education Teachers

25-2010 Preschool and Kindergarten Teachers

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

This broad occupation includes the following two detailed occupations:

25-2011 Preschool Teachers, Except Special Education

25-2012 Kindergarten Teachers, Except Special Education

25-2011 Preschool Teachers, Except Special Education

Instruct preschool-aged students, following curricula or lesson plans, in activities designed to promote social, physical, and intellectual growth. Excludes "Special Education Teachers" (25-2050), "Substitute Teachers, Short-Term" (25-3031), and "Childcare Workers" (39-9011).

Illustrative examples: Home-based Preschool Teacher, Nursery School Teacher, Preschool Head Start Teacher

25-2012 Kindergarten Teachers, Except Special Education

Teach academic and social skills to kindergarten students. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Bilingual Education Kindergarten Teacher

25-2020 Elementary and Middle School Teachers

This broad occupation includes the following three detailed occupations:

25-2021 Elementary School Teachers, Except Special Education

25-2022 Middle School Teachers, Except Special and Career/Technical Education

25-2023 Career/Technical Education Teachers, Middle School

25-2021 Elementary School Teachers, Except Special Education

Teach academic and social skills to students at the elementary school level. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: 4th Grade Math Teacher, Elementary School Music Teacher

25-2022 Middle School Teachers, Except Special and Career/Technical Education

Teach one or more subjects to students at the middle, intermediate, or junior high school level. Excludes "Career/Technical Education Teachers, Middle School" (25-2023), "Special Education Teachers" (25-2050), and "Substitute Teachers, Short Term" (25-3031).

Illustrative examples: Intermediate School Social Studies Teacher, Junior High School Teacher, Middle School Science Teacher

25-2023 Career/Technical Education Teachers, Middle School

Teach occupational, vocational, career, or technical subjects to students at the middle, intermediate, or junior high school level. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Junior High School Business Teacher, Middle School Technology Education Teacher

25-2030 Secondary School Teachers

This broad occupation includes the following two detailed occupations:

25-2031 Secondary School Teachers, Except Special and Career/Technical Education

25-2032 Career/Technical Education Teachers, Secondary School

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-2031 Secondary School Teachers, Except Special and Career/Technical Education

Teach one or more subjects to students at the secondary school level. Excludes "Career/Technical Education Teachers, Secondary School" (25-2032), "Special Education Teachers" (25-2050), and "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: High School English Teacher, High School French Teacher, High School History Teacher

25-2032 Career/Technical Education Teachers, Secondary School

Teach occupational, vocational, career, or technical subjects to students at the secondary school level. Excludes "Special Education Teachers" (25-2050), and "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: High School Auto Repair Teacher, High School Cosmetology Teacher

25-2050 Special Education Teachers

This broad occupation includes the following six detailed occupations:

- 25-2051 Special Education Teachers, Preschool
- 25-2055 Special Education Teachers, Kindergarten
- 25-2056 Special Education Teachers, Elementary School
- 25-2057 Special Education Teachers, Middle School
- 25-2058 Special Education Teachers, Secondary School
- 25-2059 Special Education Teachers, All Other

25-2051 Special Education Teachers, Preschool

Teach academic, social, and life skills to preschool-aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Early Childhood Special Education Teacher, Pre-Kindergarten Education Intervention Teacher, Pre-Kindergarten Special Education Teacher

25-2055 Special Education Teachers, Kindergarten

Teach academic, social, and life skills to kindergarten students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Kindergarten Special Education Teacher

25-2056 Special Education Teachers, Elementary School

Teach academic, social, and life skills to elementary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Elementary School Inclusion Teacher

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-2057 Special Education Teachers, Middle School

Teach academic, social, and life skills to middle school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: Junior High School Special Education Teacher, Middle School Special Education Teacher

25-2058 Special Education Teachers, Secondary School

Teach academic, social, and life skills to secondary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).

Illustrative examples: High School Special Education Resource Teacher

25-2059 Special Education Teachers, All Other

All special education teachers not listed separately.

Illustrative examples: Special Education Teacher for Adults with Disabilities

25-3000 Other Teachers and Instructors

25-3010 Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors

This broad occupation is the same as the detailed occupation:

25-3011 Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors

25-3011 Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors

Teach or instruct out-of-school youths and adults in basic education, literacy, or English as a Second Language classes, or in classes for earning a high school equivalency credential.

Illustrative examples: Adult Education Teacher, Adult English as a Second Language (ESL) Teacher, Adult Literacy Instructor, General Educational Development (GED®) Teacher

25-3020 Self-Enrichment Teachers

This broad occupation is the same as the detailed occupation:

25-3021 Self-Enrichment Teachers

25-3021 Self-Enrichment Teachers

Teach or instruct individuals or groups for the primary purpose of self-enrichment or recreation, rather than for an occupational objective, educational attainment, competition, or fitness. Excludes "Coaches and Scouts" (27-2022) and "Exercise Trainers and Group Fitness Instructors" (39-9031). Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).

Illustrative examples: Citizenship Teacher, Knitting Instructor, Recreational Activities Instructor

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-3030 Substitute Teachers, Short-Term

This broad occupation is the same as the detailed occupation:

25-3031 Substitute Teachers, Short-Term

25-3031 Substitute Teachers, Short-Term

Teach students on a short-term basis as a temporary replacement for a regular classroom teacher, typically using the regular teacher's lesson plan. Excludes long-term substitute teachers who perform all the duties of a regular teacher; these teachers are coded within the 25-1000 or 25-2000 minor groups.

Illustrative examples: Elementary School Substitute Teacher, English Substitute Teacher

25-3040 Tutors

This broad occupation is the same as the detailed occupation:

25-3041 Tutors

25-3041 Tutors

Instruct individual students or small groups of students in academic subjects to support formal class instruction or to prepare students for standardized or admissions tests. Excludes "Postsecondary Teachers" (25-1000), "Elementary, Middle, Secondary, and Special Education Teachers" (25-2000), "Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors" (25-3011), and "Self-Enrichment Teachers" (25-3021).

Illustrative examples: Algebra Tutor, Reading Tutor, Spanish Tutor, Standardized Test Tutor

25-3090 Miscellaneous Teachers and Instructors

This broad occupation is the same as the detailed occupation:

25-3099 Teachers and Instructors, All Other

25-3099 Teachers and Instructors, All Other

All teachers and instructors not listed separately.

Illustrative examples: Sunday School Teacher

25-4000 Librarians, Curators, and Archivists

25-4010 Archivists, Curators, and Museum Technicians

This broad occupation includes the following three detailed occupations:

25-4011 Archivists

25-4012 Curators

25-4013 Museum Technicians and Conservators

25-4011 Archivists

Appraise, edit, and direct safekeeping of permanent records and historically valuable documents. Participate in research activities based on archival materials.

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

Illustrative examples: Film Archivist, Historical Records Administrator, Reference Archivist

25-4012 Curators

Administer collections, such as artwork, collectibles, historic items, or scientific specimens of museums or other institutions. May conduct instructional, research, or public service activities of institution.

Illustrative examples: Herbarium Curator, Photography and Prints Curator

25-4013 Museum Technicians and Conservators

Restore, maintain, or prepare objects in museum collections for storage, research, or exhibit. May work with specimens such as fossils, skeletal parts, or botanicals; or artifacts, textiles, or art. May identify and record objects or install and arrange them in exhibits. Includes book or document conservators.

Illustrative examples: Ethnographic Materials Conservator, Museum Exhibit Technician, Textile Conservator

25-4020 Librarians and Media Collections Specialists

This broad occupation is the same as the detailed occupation:

25-4022 Librarians and Media Collections Specialists

25-4022 Librarians and Media Collections Specialists

Administer and maintain libraries or collections of information, for public or private access through reference or borrowing. Work in a variety of settings, such as educational institutions, museums, and corporations, and with various types of informational materials, such as books, periodicals, recordings, films, and databases. Tasks may include acquiring, cataloging, and circulating library materials, and user services such as locating and organizing information, providing instruction on how to access information, and setting up and operating a library's media equipment.

Illustrative examples: Library Media Specialist, Multimedia Services Coordinator, Music Librarian, School Librarian

25-4030 Library Technicians

This broad occupation is the same as the detailed occupation:

25-4031 Library Technicians

25-4031 Library Technicians

Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books or other media; remove or repair damaged books or other media; register patrons; and check materials in and out of the circulation process. Replace materials in shelving area (stacks) or files. Includes bookmobile drivers who assist with providing services in mobile libraries.

Illustrative examples: Library Acquisitions Technician, Library Circulation Technician

25-9000 Other Educational Instruction and Library Occupations

25-9020 Farm and Home Management Educators

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

This broad occupation is the same as the detailed occupation:

25-9021 Farm and Home Management Educators

25-9021 Farm and Home Management Educators

Instruct and advise individuals and families engaged in agriculture, agricultural-related processes, or home management activities. Demonstrate procedures and apply research findings to advance agricultural and home management activities. May develop educational outreach programs. May instruct on either agricultural issues such as agricultural processes and techniques, pest management, and food safety, or on home management issues such as budgeting, nutrition, and child development. Excludes "Dietitians and Nutritionists" (29-1031).

Illustrative examples: Agricultural Extension Educator, Family Resource Management Specialist, Feed Management Advisor

25-9030 Instructional Coordinators

This broad occupation is the same as the detailed occupation:

25-9031 Instructional Coordinators

25-9031 Instructional Coordinators

Develop instructional material, coordinate educational content, and incorporate current technology into instruction in order to provide guidelines to educators and instructors for developing curricula and conducting courses. May train and coach teachers. Includes educational consultants and specialists, and instructional material directors.

Illustrative examples: Curriculum and Assessment Director, Curriculum Specialist, Special Education Curriculum Specialist

25-9040 Teaching Assistants

This broad occupation includes the following four detailed occupations:

25-9042 Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

25-9043 Teaching Assistants, Special Education

25-9044 Teaching Assistants, Postsecondary

25-9049 Teaching Assistants, All Other

25-9042 Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services. Excludes "Teaching Assistants, Special Education" (25-9043).

Illustrative examples: Elementary Learning Support Aide, Middle School Paraeducator

25-9043 Teaching Assistants, Special Education

Assist a preschool, elementary, middle, or secondary school teacher to provide academic, social, or life skills to students who have learning, emotional, or physical disabilities. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.

Illustrative examples: Special Education Classroom Aide

25-0000 EDUCATIONAL INSTRUCTION AND LIBRARY OCCUPATIONS

25-9044 Teaching Assistants, Postsecondary

Assist faculty or other instructional staff in postsecondary institutions by performing instructional support activities, such as developing teaching materials, leading discussion groups, preparing and giving examinations, and grading examinations or papers. Graduate students who teach one or more full courses should be classified in the 25-1000 minor group.

Illustrative examples: Assistant Instructor, College Biology Teaching Assistant, University Teaching Assistant

25-9049 Teaching Assistants, All Other

All teaching assistants not listed separately.

Illustrative examples: Adult ESL Teacher Aide, Adult Literacy Teaching Aide, Sunday School Teacher Aide

25-9090 Miscellaneous Educational Instruction and Library Workers

This broad occupation is the same as the detailed occupation:

25-9099 Educational Instruction and Library Workers, All Other

25-9099 Educational Instruction and Library Workers, All Other

All educational instruction and library workers not listed separately.

Illustrative examples: Aptitude Test (SAT) Grader, General Educational Development (GED®) Examiner

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

27-1000 Art and Design Workers

27-1010 Artists and Related Workers

This broad occupation includes the following five detailed occupations:

27-1011 Art Directors

27-1012 Craft Artists

27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators

27-1014 Special Effects Artists and Animators

27-1019 Artists and Related Workers, All Other

27-1011 Art Directors

Formulate design concepts and presentation approaches for visual productions and media, such as print, broadcasting, video, and film. Direct workers engaged in artwork or layout design. Excludes "Set and Exhibit Designers" (27-1027).

Illustrative examples: Magazine Designer

27-1012 Craft Artists

Create or reproduce handmade objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft.

Illustrative examples: Hand Potter, Metal Crafts Artist, Quilter

27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators

Create original artwork using any of a wide variety of media and techniques.

Illustrative examples: Ice Sculptor, Political Cartoonist, Scientific Illustrator, Sketch Artist

27-1014 Special Effects Artists and Animators

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Illustrative examples: 3D Animator, Special Effects Artist

27-1019 Artists and Related Workers, All Other

All artists and related workers not listed separately.

Illustrative examples: Calligrapher, Tattoo Artist

27-1020 Designers

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

This broad occupation includes the following eight detailed occupations:

27-1021 Commercial and Industrial Designers

27-1022 Fashion Designers

27-1023 Floral Designers

27-1024 Graphic Designers

27-1025 Interior Designers

27-1026 Merchandise Displayers and Window Trimmers

27-1027 Set and Exhibit Designers

27-1029 Designers, All Other

27-1021 Commercial and Industrial Designers

Design and develop manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.

Illustrative examples: Automobile Designer, Package Designer

27-1022 Fashion Designers

Design clothing and accessories. Create original designs or adapt fashion trends.

Illustrative examples: Costume Designer, Custom Furrier, Dress Designer

27-1023 Floral Designers

Design, cut, and arrange live, dried, or artificial flowers and foliage.

Illustrative examples: Corsage Maker, Florist, Flower Arranger

27-1024 Graphic Designers

Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects. Excludes "Web and Digital Interface Designers" (15-1255).

Illustrative examples: Graphic Artist, Visual Designer

27-1025 Interior Designers

Plan, design, and furnish the internal space of rooms or buildings. Design interior environments or create physical layouts that are practical, aesthetic, and conducive to the intended purposes. May specialize in a particular field, style, or phase of interior design. Excludes "Merchandise Displayers and Window Trimmers" (27-1026).

Illustrative examples: Home Lighting Adviser, Interior Decorator, Kitchen Designer

27-1026 Merchandise Displayers and Window Trimmers

Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.

Illustrative examples: Display Artist, Mannequin Decorator, Window Decorator

27-1027 Set and Exhibit Designers

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

Design special exhibits and sets for film, video, television, and theater productions. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.

Illustrative examples: Set Decorator, Stage Scenery Designer

27-1029 Designers, All Other

All designers not listed separately.

Illustrative examples: Memorial Marker Designer

27-2000 Entertainers and Performers, Sports and Related Workers

27-2010 Actors, Producers, and Directors

This broad occupation includes the following two detailed occupations:

27-2011 Actors

27-2012 Producers and Directors

27-2011 Actors

Play parts in stage, television, radio, video, or film productions, or other settings for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement to entertain or inform audience. May dance and sing.

Illustrative examples: Actress, Dramatic Reader, Voice-Over Artist

27-2012 Producers and Directors

Produce or direct stage, television, radio, video, or film productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.

Illustrative examples: Casting Director, Independent Film Maker, Stage Manager

27-2020 Athletes, Coaches, Umpires, and Related Workers

This broad occupation includes the following three detailed occupations:

27-2021 Athletes and Sports Competitors

27-2022 Coaches and Scouts

27-2023 Umpires, Referees, and Other Sports Officials

27-2021 Athletes and Sports Competitors

Compete in athletic events.

Illustrative examples: Professional Football Player, Professional Jockey, Professional Race Car Driver

27-2022 Coaches and Scouts

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

Instruct or coach groups or individuals in the fundamentals of sports for the primary purpose of competition. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching certifications should be reported in the appropriate teaching category. Excludes "Athletic Trainers" (29-9091).

Illustrative examples: Baseball Scout, Boxing Coach, Football Coach

27-2023 Umpires, Referees, and Other Sports Officials

Officiate at competitive athletic or sporting events. Detect infractions of rules and decide penalties according to established regulations. Includes all sporting officials, referees, and competition judges.

Illustrative examples: Athletic Events Scorer, Paddock Judge, Race Starter

27-2030 Dancers and Choreographers

This broad occupation includes the following two detailed occupations:

27-2031 Dancers

27-2032 Choreographers

27-2031 Dancers

Perform dances. May perform on stage, for broadcasting, or for video recording.

Illustrative examples: Ballerina, Dance Artist, Tap Dancer

27-2032 Choreographers

Create new dance routines. Rehearse performance of routines. May direct and stage presentations.

Illustrative examples: Dance Director, Dance Master

27-2040 Musicians, Singers, and Related Workers

This broad occupation includes the following two detailed occupations:

27-2041 Music Directors and Composers

27-2042 Musicians and Singers

27-2041 Music Directors and Composers

Conduct, direct, plan, and lead instrumental or vocal performances by musical artists or groups, such as orchestras, bands, choirs, and glee clubs; or create original works of music.

Illustrative examples: Choirmaster, Orchestra Conductor, Orchestrator, Songwriter

27-2042 Musicians and Singers

Play one or more musical instruments or sing. May perform on stage, for broadcasting, or for sound or video recording.

Illustrative examples: Instrumentalist, Oboist, Rapper

27-2090 Miscellaneous Entertainers and Performers, Sports and Related Workers

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

This broad occupation includes the following two detailed occupations:

27-2091 Disc Jockeys, Except Radio

27-2099 Entertainers and Performers, Sports and Related Workers, All Other

27-2091 Disc Jockeys, Except Radio

Play prerecorded music for live audiences at venues or events such as clubs, parties, or wedding receptions. May use techniques such as mixing, cutting, or sampling to manipulate recordings. May also perform as emcee (master of ceremonies). Radio disc jockeys are included in "Broadcast Announcers and Radio Disc Jockeys" (27-3011). Excludes "Musicians and Singers" (27-2042), "Audio and Video Technicians" (27-4011), and "Sound Engineering Technicians" (27-4014).

Illustrative examples: Club DJ, Deejay, DJ

27-2099 Entertainers and Performers, Sports and Related Workers, All Other

All entertainers and performers, sports and related workers not listed separately.

Illustrative examples: Clown, Comedian, Magician, Professional Poker Player

27-3000 Media and Communication Workers

27-3010 Broadcast Announcers and Radio Disc Jockeys

This broad occupation is the same as the detailed occupation:

27-3011 Broadcast Announcers and Radio Disc Jockeys

27-3011 Broadcast Announcers and Radio Disc Jockeys

Speak or read from scripted materials, such as news reports or commercial messages, on radio, television, or other communications media. May play and queue music, announce artist or title of performance, identify station, or interview guests. Excludes "News Analysts, Reporters, and Journalists" (27-3023).

Illustrative examples: Game Show Host, Radio Disc Jockey, Talk Show Host

27-3020 News Analysts, Reporters, and Journalists

This broad occupation is the same as the detailed occupation:

27-3023 News Analysts, Reporters, and Journalists

27-3023 News Analysts, Reporters, and Journalists

Narrate or write news stories, reviews, or commentary for print, broadcast, or other communications media such as newspapers, magazines, radio, or television. May collect and analyze information through interview, investigation, or observation.

Illustrative examples: Columnist, Correspondent, Film Critic, News Anchor

27-3030 Public Relations Specialists

This broad occupation is the same as the detailed occupation:

27-3031 Public Relations Specialists

27-3031 Public Relations Specialists

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

Promote or create an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media. May specialize in using social media.

Illustrative examples: Lobbyist, Press Secretary, Publicity Writer

27-3040 Writers and Editors

This broad occupation includes the following three detailed occupations:

27-3041 Editors

27-3042 Technical Writers

27-3043 Writers and Authors

27-3041 Editors

Plan, coordinate, revise, or edit written material. May review proposals and drafts for possible publication.

Illustrative examples: Advertising Editor, Copy Editor, Technical Editor

27-3042 Technical Writers

Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.

Illustrative examples: Documentation Writer, Specifications Writer

27-3043 Writers and Authors

Originate and prepare written material, such as scripts, stories, advertisements, and other material. Excludes "News Analysts, Reporters, and Journalists" (27-3023), "Public Relations Specialists" (27-3031), and "Technical Writers" (27-3042).

Illustrative examples: Advertising Copy Writer, Playwright, Television Writer

27-3090 Miscellaneous Media and Communication Workers

This broad occupation includes the following three detailed occupations:

27-3091 Interpreters and Translators

27-3092 Court Reporters and Simultaneous Captioners

27-3099 Media and Communication Workers, All Other

27-3091 Interpreters and Translators

Interpret oral or sign language, or translate written text from one language into another.

Illustrative examples: American Sign Language Interpreter, Court Interpreter, Diplomatic Interpreter

27-3092 Court Reporters and Simultaneous Captioners

Use verbatim methods and equipment to capture, store, retrieve, and transcribe pretrial and trial proceedings or other information. Includes stenocaptioners who operate computerized stenographic captioning equipment to provide captions of live or prerecorded broadcasts for hearing-impaired viewers.

Illustrative examples: Court Stenographer, Court Transcriber, Deposition Reporter, Realtime Captioner

27-3099 Media and Communication Workers, All Other

All media and communication workers not listed separately.

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

Illustrative examples: Stage Technician

27-4000 Media and Communication Equipment Workers

27-4010 Broadcast, Sound, and Lighting Technicians

This broad occupation includes the following four detailed occupations:

27-4011 Audio and Video Technicians

27-4012 Broadcast Technicians

27-4014 Sound Engineering Technicians

27-4015 Lighting Technicians

27-4011 Audio and Video Technicians

Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, meetings, conventions, presentations, podcasts, news conferences, and sporting events. Excludes "Sound Engineering Technicians" (27-4014), "Lighting Technicians" (27-4015), and "Audiovisual Equipment Installers and Repairers" (49-2097).

Illustrative examples: Video Control Operator, Video Production Assistant

27-4012 Broadcast Technicians

Set up, operate, and maintain the electronic equipment used to acquire, edit, and transmit audio and video for radio or television programs. Control and adjust incoming and outgoing broadcast signals to regulate sound volume, signal strength, and signal clarity. Operate satellite, microwave, or other transmitter equipment to broadcast radio or television programs.

Illustrative examples: Broadcast Engineer

27-4014 Sound Engineering Technicians

Assemble and operate equipment to record, synchronize, mix, edit, or reproduce sound, including music, voices, or sound effects, for theater, video, film, television, podcasts, sporting events, and other productions. Excludes "Audio and Video Technicians" (27-4011).

Illustrative examples: Audio Recording Engineer, Sound Editor, Sound Effects Technician

27-4015 Lighting Technicians

Set up, maintain, and dismantle light fixtures, lighting control devices, and the associated lighting electrical and rigging equipment used for photography, television, film, video, and live productions. May focus or operate light fixtures, or attach color filters or other lighting accessories. Excludes "Audio and Video Technicians" (27-4011).

Illustrative examples: Gaffer, Lamp Operator

27-4020 Photographers

This broad occupation is the same as the detailed occupation:

27-4021 Photographers

27-0000 ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS

27-4021 Photographers

Photograph people, landscapes, merchandise, or other subjects. May use lighting equipment to enhance a subject's appearance. May use editing software to produce finished images and prints. Includes commercial and industrial photographers, scientific photographers, and photojournalists. Excludes "Camera Operators, Television, Video, and Film" (27-4031).

Illustrative examples: Aerial Photographer, Medical Photographer, Portrait Photographer

27-4030 Television, Video, and Film Camera Operators and Editors

This broad occupation includes the following two detailed occupations:

27-4031 Camera Operators, Television, Video, and Film

27-4032 Film and Video Editors

27-4031 Camera Operators, Television, Video, and Film

Operate television, video, or film camera to record images or scenes for television, video, or film productions.

Illustrative examples: News Videographer

27-4032 Film and Video Editors

Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images. Excludes "Sound Engineering Technicians" (27-4014).

Illustrative examples: Cue Selector, Film Editor, Television News Video Editor

27-4090 Miscellaneous Media and Communication Equipment Workers

This broad occupation is the same as the detailed occupation:

27-4099 Media and Communication Equipment Workers, All Other

27-4099 Media and Communication Equipment Workers, All Other

All media and communication equipment workers not listed separately.

Illustrative examples: Satellite Communications Operator

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1000 Healthcare Diagnosing or Treating Practitioners

29-1010 Chiropractors

This broad occupation is the same as the detailed occupation:

29-1011 Chiropractors

29-1011 Chiropractors

Assess, treat, and care for patients by manipulation of spine and musculoskeletal system. May provide spinal adjustment or address sacral or pelvic misalignment.

Illustrative examples: Chiropractic Physician

29-1020 Dentists

This broad occupation includes the following five detailed occupations:

29-1021 Dentists, General

29-1022 Oral and Maxillofacial Surgeons

29-1023 Orthodontists

29-1024 Prosthodontists

29-1029 Dentists, All Other Specialists

29-1021 Dentists, General

Examine, diagnose, and treat diseases, injuries, and malformations of teeth and gums. May treat diseases of nerve, pulp, and other dental tissues affecting oral hygiene and retention of teeth. May fit dental appliances or provide preventive care. Excludes "Oral and Maxillofacial Surgeons" (29-1022), "Orthodontists" (29-1023), "Prosthodontists" (29-1024), and "Dentists, All Other Specialists" (29-1029).

Illustrative examples: Family Dentist

29-1022 Oral and Maxillofacial Surgeons

Perform surgery and related procedures on the hard and soft tissues of the oral and maxillofacial regions to treat diseases, injuries, or defects. May diagnose problems of the oral and maxillofacial regions. May perform surgery to improve function or appearance.

Illustrative examples: Dental Surgeon

29-1023 Orthodontists

Examine, diagnose, and treat dental malocclusions and oral cavity anomalies. Design and fabricate appliances to realign teeth and jaws to produce and maintain normal function and to improve appearance.

Illustrative examples: Dentofacial Orthopedics Dentist, Invisible Braces Orthodontist, Pediatric Orthodontist

29-1024 Prosthodontists

Diagnose, treat, rehabilitate, design, and fit prostheses that maintain oral function, health, and appearance for patients with clinical conditions associated with teeth, oral and maxillofacial tissues, or the jaw.

Illustrative examples: Maxillofacial Prosthetics Dentist, Reconstructive Dentist

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1029 Dentists, All Other Specialists

All dentists not listed separately.

Illustrative examples: Endodontist, Oral Pathologist, Periodontist

29-1030 Dietitians and Nutritionists

This broad occupation is the same as the detailed occupation:

29-1031 Dietitians and Nutritionists

29-1031 Dietitians and Nutritionists

Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.

Illustrative examples: Clinical Dietitian, Pediatric Dietician, Public Health Nutritionist

29-1040 Optometrists

This broad occupation is the same as the detailed occupation:

29-1041 Optometrists

29-1041 Optometrists

Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment. May prescribe therapeutic drugs to treat specific eye conditions. Ophthalmologists are included in "Ophthalmologists, Except Pediatric" (29-1241).

Illustrative examples: Doctor of Optometry

29-1050 Pharmacists

This broad occupation is the same as the detailed occupation:

29-1051 Pharmacists

29-1051 Pharmacists

Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.

Illustrative examples: Apothecary, Hospital Pharmacist

29-1070 Physician Assistants

This broad occupation is the same as the detailed occupation:

29-1071 Physician Assistants

29-1071 Physician Assistants

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment, and counsel patients. May, in some cases, prescribe medication. Must graduate from an accredited educational program for physician assistants. Excludes "Registered Nurses" (29-1141), "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), "Nurse Practitioners" (29-1171), "Emergency Medical Technicians" (29-2042), "Paramedics" (29-2043), "Surgical Assistants" (29-9093), and "Medical Assistants" (31-9092).

Illustrative examples: Anesthesiologist Assistant, Family Practice Physician Assistant

29-1080 Podiatrists

This broad occupation is the same as the detailed occupation:

29-1081 Podiatrists

29-1081 Podiatrists

Diagnose and treat diseases and deformities of the human foot.

Illustrative examples: Chiropodist, Foot Doctor, Foot Orthopedist

29-1120 Therapists

This broad occupation includes the following eight detailed occupations:

29-1122 Occupational Therapists

29-1123 Physical Therapists

29-1124 Radiation Therapists

29-1125 Recreational Therapists

29-1126 Respiratory Therapists

29-1127 Speech-Language Pathologists

29-1128 Exercise Physiologists

29-1129 Therapists, All Other

29-1122 Occupational Therapists

Assess, plan, and organize rehabilitative programs that help build or restore vocational, homemaking, and daily living skills, as well as general independence, to persons with disabilities or developmental delays. Use therapeutic techniques, adapt the individual's environment, teach skills, and modify specific tasks that present barriers to the individual. Excludes "Rehabilitation Counselors" (21-1015).

Illustrative examples: Registered Occupational Therapist

29-1123 Physical Therapists

Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.

Illustrative examples: Geriatric Physical Therapist, Physiotherapist, Pulmonary Physical Therapist

29-1124 Radiation Therapists

Provide radiation therapy to patients as prescribed by a radiation oncologist according to established practices and standards. Duties may include reviewing prescription and diagnosis; acting as liaison with physician and supportive care personnel; preparing equipment, such as immobilization, treatment, and protection devices; and maintaining records, reports, and files. May assist in dosimetry procedures and tumor localization.

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

Illustrative examples: Radiation Therapy Technologist

29-1125 Recreational Therapists

Plan, direct, or coordinate medically-approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and crafts. May assess a patient condition and recommend appropriate recreational activity. Excludes "Recreation Workers" (39-9032).

Illustrative examples: Certified Recreational Therapist, Drama Therapist, Therapeutic Recreation Specialist

29-1126 Respiratory Therapists

Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.

Illustrative examples: Inhalation Therapist, Oxygen Therapist, Registered Respiratory Therapist

29-1127 Speech-Language Pathologists

Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.

Illustrative examples: Public School Speech Therapist, Speech Clinician, Speech Therapist

29-1128 Exercise Physiologists

Assess, plan, or implement fitness programs that include exercise or physical activities such as those designed to improve cardiorespiratory function, body composition, muscular strength, muscular endurance, or flexibility. Excludes "Physical Therapists" (29-1123), "Athletic Trainers" (29-9091), and "Exercise Trainers and Group Fitness Instructors" (39-9031).

Illustrative examples: Applied Exercise Physiologist, Clinical Exercise Physiologist, Kinesiotherapist

29-1129 Therapists, All Other

All therapists not listed separately.

Illustrative examples: Art Therapist, Hydrotherapist, Music Therapist

29-1130 Veterinarians

This broad occupation is the same as the detailed occupation:

29-1131 Veterinarians

29-1131 Veterinarians

Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.

Illustrative examples: Animal Surgeon, Doctor of Veterinary Medicine (DVM), Veterinary Cardiologist, Veterinary Medicine Scientist, Veterinary Radiologist, Wildlife Veterinarian

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1140 Registered Nurses

This broad occupation is the same as the detailed occupation:

29-1141 Registered Nurses

29-1141 Registered Nurses

Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists. Excludes "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), and "Nurse Practitioners" (29-1171).

Illustrative examples: Coronary Care Unit Nurse, Hospice Registered Nurse, Psychiatric Nurse

29-1150 Nurse Anesthetists

This broad occupation is the same as the detailed occupation:

29-1151 Nurse Anesthetists

29-1151 Nurse Anesthetists

Administer anesthesia, monitor patient's vital signs, and oversee patient recovery from anesthesia. May assist anesthesiologists, surgeons, other physicians, or dentists. Must be registered nurses who have specialized graduate education.

Illustrative examples: Certified Registered Nurse Anesthetist (CRNA)

29-1160 Nurse Midwives

This broad occupation is the same as the detailed occupation:

29-1161 Nurse Midwives

29-1161 Nurse Midwives

Diagnose and coordinate all aspects of the birthing process, either independently or as part of a healthcare team. May provide well-woman gynecological care. Must have specialized, graduate nursing education.

Illustrative examples: Certified Nurse Midwife (CNM)

29-1170 Nurse Practitioners

This broad occupation is the same as the detailed occupation:

29-1171 Nurse Practitioners

29-1171 Nurse Practitioners

Diagnose and treat acute, episodic, or chronic illness, independently or as part of a healthcare team. May focus on health promotion and disease prevention. May order, perform, or interpret diagnostic tests such as lab work and x rays. May prescribe medication. Must be registered nurses who have specialized graduate education.

Illustrative examples: Cardiology Nurse Practitioner, Family Practice Nurse Practitioner, Gerontological Nurse Practitioner

29-1180 Audiologists

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

This broad occupation is the same as the detailed occupation:

29-1181 Audiologists

29-1181 Audiologists

Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.

Illustrative examples: Clinical Audiologist, Pediatric Audiologist

29-1210 Physicians

This broad occupation includes the following thirteen detailed occupations:

29-1211 Anesthesiologists

29-1212 Cardiologists

29-1213 Dermatologists

29-1214 Emergency Medicine Physicians

29-1215 Family Medicine Physicians

29-1216 General Internal Medicine Physicians

29-1217 Neurologists

29-1218 Obstetricians and Gynecologists

29-1221 Pediatricians, General

29-1222 Physicians, Pathologists

29-1223 Psychiatrists

29-1224 Radiologists

29-1229 Physicians, All Other

29-1211 Anesthesiologists

Administer anesthetics and analgesics for pain management prior to, during, or after surgery.

Illustrative examples: Ambulatory Anesthesiologist, Obstetrical Anesthesiologist

29-1212 Cardiologists

Diagnose, treat, manage, and prevent diseases or conditions of the cardiovascular system. May further subspecialize in interventional procedures (e.g., balloon angioplasty and stent placement), echocardiography, or electrophysiology.

Illustrative examples: Electrophysiology Cardiologist, Interventional Cardiologist

29-1213 Dermatologists

Diagnose and treat diseases relating to the skin, hair, and nails. May perform both medical and dermatological surgery functions.

Illustrative examples: Dermatopathologist, Procedural Dermatologist

29-1214 Emergency Medicine Physicians

Make immediate medical decisions and act to prevent death or further disability. Provide immediate recognition, evaluation, care, stabilization, and disposition of patients. May direct emergency medical staff in an emergency department.

Illustrative examples: Critical Care Physician, Disaster Medicine Physician

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1215 Family Medicine Physicians

Diagnose, treat, and provide preventive care to individuals and families across the lifespan. May refer patients to specialists when needed for further diagnosis or treatment. Excludes "General Internal Medicine Physicians" (29-1216) and "Pediatricians, General" (29-1221).

Illustrative examples: Family Practice Physician, General Practitioner

29-1216 General Internal Medicine Physicians

Diagnose and provide nonsurgical treatment for a wide range of diseases and injuries of internal organ systems. Provide care mainly for adults and adolescents, and are based primarily in an outpatient care setting. Excludes "Family Medicine Physicians" (29-1215) and "Pediatricians, General" (29-1221).

Illustrative examples: General Internist, Internal Medicine Physician, Internist

29-1217 Neurologists

Diagnose, manage, and treat disorders and diseases of the brain, spinal cord, and peripheral nerves, with a primarily nonsurgical focus.

Illustrative examples: Clinical Neuromuscular Pathologist, Epileptologist, Headache Specialist

29-1218 Obstetricians and Gynecologists

Provide medical care related to pregnancy or childbirth. Diagnose, treat, and help prevent diseases of women, particularly those affecting the reproductive system. May also provide general care to women. May perform both medical and gynecological surgery functions.

Illustrative examples: Gynecological Oncologist, Maternal-Fetal Medicine Physician, OB Specialist, OB/GYN

29-1221 Pediatricians, General

Diagnose, treat, and help prevent diseases and injuries in children. May refer patients to specialists for further diagnosis or treatment, as needed. Excludes "Family Medicine Physicians" (29-1215) and "General Internal Medicine Physicians" (29-1216).

Illustrative examples: Internal Medicine Pediatrician, Paediatrician, Pediatric Cardiologist, Pediatricist, Primary Care Pediatrician

29-1222 Physicians, Pathologists

Diagnose diseases and conduct lab tests using organs, body tissues, and fluids. Includes medical examiners.

Illustrative examples: Clinical Pathologist, Immunopathologist, Neuropathologist

29-1223 Psychiatrists

Diagnose, treat, and help prevent mental disorders. Excludes "Clinical and Counseling Psychologists" (19-3033) and "School Psychologists" (19-3034).

Illustrative examples: Addiction Psychiatrist, Forensic Psychiatrist, Geriatric Psychiatrist, Geriatric Psychiatrist, Neuropsychiatrist

29-1224 Radiologists

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

Diagnose and treat diseases and injuries using medical imaging techniques, such as x rays, magnetic resonance imaging (MRI), nuclear medicine, and ultrasounds. May perform minimally invasive medical procedures and tests.

Illustrative examples: Diagnostic Radiologist, Interventional Radiologist

29-1229 Physicians, All Other

All physicians not listed separately.

Illustrative examples: Gastroenterologist, Oncologist, Pulmonologist

29-1240 Surgeons

This broad occupation includes the following four detailed occupations:

29-1241 Ophthalmologists, Except Pediatric

29-1242 Orthopedic Surgeons, Except Pediatric

29-1243 Pediatric Surgeons

29-1249 Surgeons, All Other

29-1241 Ophthalmologists, Except Pediatric

Diagnose and perform surgery to treat and help prevent disorders and diseases of the eye. May also provide vision services for treatment including glasses and contacts. Excludes "Optometrists" (29-1041) and "Pediatric Surgeons" (29-1243).

Illustrative examples: Cornea and External Disease Physician, Viteroretinal Disease Physician

29-1242 Orthopedic Surgeons, Except Pediatric

Diagnose and perform surgery to treat and prevent rheumatic and other diseases in the musculoskeletal system. Excludes "Pediatric Surgeons" (29-1243).

Illustrative examples: Joint Preservationist, Orthopedic Sports Medicine Physician

29-1243 Pediatric Surgeons

Diagnose and perform surgery to treat fetal abnormalities and birth defects, diseases, and injuries in fetuses, premature and newborn infants, children, and adolescents. Includes all pediatric surgical specialties and subspecialties. Excludes "Oral and Maxillofacial Surgeons" (29-1022), "Ophthalmologists, Except Pediatric" (29-1241), and "Orthopedic Surgeons, Except Pediatric" (29-1242).

Illustrative examples: Pediatric Neurosurgeon, Pediatric Vascular Surgeon

29-1249 Surgeons, All Other

All surgeons not listed separately. Excludes "Oral and Maxillofacial Surgeons" (29-1022).

Illustrative examples: Neurological Surgeon, Otolaryngologist, Thoracic Surgeon, Urologist

29-1290 Miscellaneous Healthcare Diagnosing or Treating Practitioners

This broad occupation includes the following three detailed occupations:

29-1291 Acupuncturists

29-1292 Dental Hygienists

29-1299 Healthcare Diagnosing or Treating Practitioners, All Other

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-1291 Acupuncturists

Diagnose, treat, and prevent disorders by stimulating specific acupuncture points within the body using acupuncture needles. May also use cups, nutritional supplements, therapeutic massage, acupressure, and other alternative health therapies. Excludes "Chiropractors" (29-1011).

Illustrative examples: Acupuncture Physician, Licensed Acupuncturist

29-1292 Dental Hygienists

Administer oral hygiene care to patients. Assess patient oral hygiene problems or needs and maintain health records. Advise patients on oral health maintenance and disease prevention. May provide advanced care such as providing fluoride treatment or administering topical anesthesia.

Illustrative examples: Oral Hygienist, Registered Dental Hygienist

29-1299 Healthcare Diagnosing or Treating Practitioners, All Other

All healthcare diagnosing or treating practitioners not listed separately.

Illustrative examples: Homeopathic Doctor, Naturopathic Physician

29-2000 Health Technologists and Technicians

29-2010 Clinical Laboratory Technologists and Technicians

This broad occupation includes the following two detailed occupations:

29-2011 Medical and Clinical Laboratory Technologists

29-2012 Medical and Clinical Laboratory Technicians

29-2011 Medical and Clinical Laboratory Technologists

Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.

Illustrative examples: Blood Bank Laboratory Technologist, Cytogenetic Technologist, Immunohematologist

29-2012 Medical and Clinical Laboratory Technicians

Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.

Illustrative examples: Histology Technician, Pathology Technician, Serology Technician

29-2030 Diagnostic Related Technologists and Technicians

This broad occupation includes the following six detailed occupations:

29-2031 Cardiovascular Technologists and Technicians

29-2032 Diagnostic Medical Sonographers

29-2033 Nuclear Medicine Technologists

29-2034 Radiologic Technologists and Technicians

29-2035 Magnetic Resonance Imaging Technologists

29-2036 Medical Dosimetrists

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-2031 Cardiovascular Technologists and Technicians

Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic, therapeutic, or research purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary functions, lung capacity, and similar tests.

Illustrative examples: Cardiac Catheterization Technologist, EKG Technician

29-2032 Diagnostic Medical Sonographers

Produce ultrasonic recordings of internal organs for use by physicians. Includes vascular technologists. Excludes "Cardiovascular Technologists and Technicians" (29-2031).

Illustrative examples: Echocardiographer, Registered Diagnostic Medical Sonographer, Ultrasound Technologist

29-2033 Nuclear Medicine Technologists

Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies using a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.

Illustrative examples: Certified Nuclear Medicine Technologist, Nuclear Cardiology Technologist, Radioisotope Technologist

29-2034 Radiologic Technologists and Technicians

Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes. Includes radiologic technologists and technicians who specialize in other scanning modalities. Excludes "Diagnostic Medical Sonographers" (29-2032) and "Magnetic Resonance Imaging Technologists" (29-2035).

Illustrative examples: Computed Tomography (CT) Scanner Operator, X-Ray Technician

29-2035 Magnetic Resonance Imaging Technologists

Operate Magnetic Resonance Imaging (MRI) scanners. Monitor patient safety and comfort, and view images of area being scanned to ensure quality of pictures. May administer gadolinium contrast dosage intravenously. May interview patient, explain MRI procedures, and position patient on examining table. May enter into the computer data such as patient history, anatomical area to be scanned, orientation specified, and position of entry.

Illustrative examples: Computed Tomography/Magnetic Resonance Imaging (CT/MRI) Technologist, MRI Technologist

29-2036 Medical Dosimetrists

Generate radiation treatment plans, develop radiation dose calculations, communicate and supervise the treatment plan implementation, and consult with members of radiation oncology team.

Illustrative examples: Certified Medical Dosimetrist, Qualified Medical Dosimetrist

29-2040 Emergency Medical Technicians and Paramedics

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

This broad occupation includes the following two detailed occupations:

29-2042 Emergency Medical Technicians

29-2043 Paramedics

29-2042 Emergency Medical Technicians

Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities. Excludes "Paramedics" (29-2043), "Firefighters" (33-2011), and "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011).

Illustrative examples: EMT

29-2043 Paramedics

Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals. Excludes "Emergency Medical Technicians" (29-2042) and "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011).

Illustrative examples: Flight Paramedic

29-2050 Health Practitioner Support Technologists and Technicians

This broad occupation includes the following six detailed occupations:

29-2051 Dietetic Technicians

29-2052 Pharmacy Technicians

29-2053 Psychiatric Technicians

29-2055 Surgical Technologists

29-2056 Veterinary Technologists and Technicians

29-2057 Ophthalmic Medical Technicians

29-2051 Dietetic Technicians

Assist in the provision of food service and nutritional programs, under the supervision of a dietitian. May plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.

Illustrative examples: Dietary Technician, Registered Diet Technician

29-2052 Pharmacy Technicians

Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.

Illustrative examples: Certified Pharmacy Technician, Pharmacist Technician

29-2053 Psychiatric Technicians

Care for individuals with mental or emotional conditions or disabilities, following the instructions of physicians or other health practitioners. Monitor patients' physical and emotional well-being and report to medical staff. May participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral or injectable medications.

Illustrative examples: Behavioral Health Technician, Mental Health Technician

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

29-2055 Surgical Technologists

Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeons' assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Excludes "Surgical Assistants" (29-9093).

Illustrative examples: Certified Surgical Technologist, OR Tech, Surgical Scrub Technologist

29-2056 Veterinary Technologists and Technicians

Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines. May assist a veterinarian during surgery.

Illustrative examples: Veterinary Laboratory Technician, Veterinary Surgery Technologist, Veterinary X-Ray Operator

29-2057 Ophthalmic Medical Technicians

Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.

Illustrative examples: Ocular Care Technologist, Ophthalmic Technologist

29-2060 Licensed Practical and Licensed Vocational Nurses

This broad occupation is the same as the detailed occupation:

29-2061 Licensed Practical and Licensed Vocational Nurses

29-2061 Licensed Practical and Licensed Vocational Nurses

Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

Illustrative examples: LPN, LVN, Pediatric Licensed Practical Nurse

29-2070 Medical Records Specialists

This broad occupation is the same as the detailed occupation:

29-2072 Medical Records Specialists

29-2072 Medical Records Specialists

Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Classify medical and healthcare concepts, including diagnosis, procedures, medical services, and equipment, into the healthcare industry's numerical coding system. Includes medical coders. Excludes "Health Information Technologists and Medical Registrars" (29-9021) and "File Clerks" (43-4071).

Illustrative examples: Health Information Coder, Medical Bill Coder

29-2080 Opticians, Dispensing

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

This broad occupation is the same as the detailed occupation:

29-2081 Opticians, Dispensing

29-2081 Opticians, Dispensing

Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with inserting, removing, and caring for contact lenses. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Includes contact lens opticians.

Illustrative examples: Contact Lens Fitter, Eyeglass Fitter

29-2090 Miscellaneous Health Technologists and Technicians

This broad occupation includes the following three detailed occupations:

29-2091 Orthotists and Prosthetists

29-2092 Hearing Aid Specialists

29-2099 Health Technologists and Technicians, All Other

29-2091 Orthotists and Prosthetists

Design, measure, fit, and adapt orthopedic braces, appliances or prostheses, such as limbs or facial parts for patients with disabling conditions.

Illustrative examples: Artificial Limb Fitter, Certified Orthotic Fitter, Pedorthist

29-2092 Hearing Aid Specialists

Select and fit hearing aids for customers. Administer and interpret tests of hearing. Assess hearing instrument efficacy. Take ear impressions and prepare, design, and modify ear molds. Excludes "Audiologists" (29-1181).

Illustrative examples: Hearing Aid Fitter, Hearing Aid Technician, Hearing Instrument Specialist

29-2099 Health Technologists and Technicians, All Other

All health technologists and technicians not listed separately.

Illustrative examples: Dialysis Technician, Electroencephalogram (EEG) Technologist, Electroneurodiagnostic Technologist, Polysomnograph Tech

29-9000 Other Healthcare Practitioners and Technical Occupations

29-9020 Health Information Technologists and Medical Registrars

This broad occupation is the same as the detailed occupation:

29-9021 Health Information Technologists and Medical Registrars

29-9021 Health Information Technologists and Medical Registrars

29-0000 HEALTHCARE PRACTITIONERS AND TECHNICAL OCCUPATIONS

Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification and analysis of computerized healthcare systems. Abstract, collect, and analyze treatment and followup information of patients. May educate staff and assist in problem solving to promote the implementation of the healthcare information system. May design, develop, test, and implement databases with complete history, diagnosis, treatment, and health status to help monitor diseases. Excludes "Medical Records Specialists" (29-2072).

Illustrative examples: Cancer Registrar, Health Informatics Specialist, Health Information Analyst

29-9090 Miscellaneous Health Practitioners and Technical Workers

This broad occupation includes the following four detailed occupations:

29-9091 Athletic Trainers

29-9092 Genetic Counselors

29-9093 Surgical Assistants

29-9099 Healthcare Practitioners and Technical Workers, All Other

29-9091 Athletic Trainers

Evaluate and treat musculoskeletal injuries or illnesses. Provide preventive, therapeutic, emergency, and rehabilitative care. Excludes "Physical Therapists" (29-1123).

Illustrative examples: Certified Athletic Trainer

29-9092 Genetic Counselors

Assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects. Provide information to other healthcare providers or to individuals and families concerned with the risk of inherited conditions. Advise individuals and families to support informed decisionmaking and coping methods for those at risk. May help conduct research related to genetic conditions or genetic counseling.

Illustrative examples: Chromosomal Disorders Counselor, Mitochondrial Disorders Counselor, Prenatal Genetic Counselor

29-9093 Surgical Assistants

Assist in operations, under the supervision of surgeons. May, in accordance with state laws, help surgeons to make incisions and close surgical sites, manipulate or remove tissues, implant surgical devices or drains, suction the surgical site, place catheters, clamp or cauterize vessels or tissue, and apply dressings to surgical site. Excludes "Registered Nurses" (29-1141) and "Surgical Technologists" (29-2055).

Illustrative examples: Surgical First Assistant

29-9099 Healthcare Practitioners and Technical Workers, All Other

All healthcare practitioners and technical workers not listed separately.

Illustrative examples: Podiatric Technician, Traditional Chinese Herbalist

31-1100 Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides

31-1120 Home Health and Personal Care Aides

This broad occupation includes the following two detailed occupations:

31-1121 Home Health Aides

31-1122 Personal Care Aides

31-1121 Home Health Aides

Monitor the health status of an individual with disabilities or illness, and address their health-related needs, such as changing bandages, dressing wounds, or administering medication. Work is performed under the direction of offsite or intermittent onsite licensed nursing staff. Provide assistance with routine healthcare tasks or activities of daily living, such as feeding, bathing, toileting, or ambulation. May also help with tasks such as preparing meals, doing light housekeeping, and doing laundry depending on the patient's abilities.

Illustrative examples: Home Health Attendant, Home Hospice Aide

31-1122 Personal Care Aides

Provide personalized assistance to individuals with disabilities or illness who require help with personal care and activities of daily living support (e.g., feeding, bathing, dressing, grooming, toileting, and ambulation). May also provide help with tasks such as preparing meals, doing light housekeeping, and doing laundry. Work is performed in various settings depending on the needs of the care recipient and may include locations such as their home, place of work, out in the community, or at a daytime nonresidential facility.

Illustrative examples: Blind Escort, Elderly Companion, Geriatric Personal Care Aide

31-1130 Nursing Assistants, Orderlies, and Psychiatric Aides

This broad occupation includes the following three detailed occupations:

31-1131 Nursing Assistants

31-1132 Orderlies

31-1133 Psychiatric Aides

31-1131 Nursing Assistants

Provide or assist with basic care or support under the direction of onsite licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants. Excludes "Home Health Aides" (31-1121), "Personal Care Aides" (31-1122), "Orderlies" (31-1132), and "Psychiatric Aides" (31-1133).

Illustrative examples: Certified Nurse Aide, Certified Nursing Assistant, Nursing Care Attendant

31-1132 Orderlies

Transport patients to areas such as operating rooms or x-ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment. Excludes "Nursing Assistants" (31-1131). Psychiatric orderlies are included in "Psychiatric Aides" (31-1133).

Illustrative examples: Hospital Orderly, Medical Orderly, Surgical Orderly

31-1133 Psychiatric Aides

31-0000 HEALTHCARE SUPPORT OCCUPATIONS

Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from examinations and treatments. May restrain violent patients. Includes psychiatric orderlies.

Illustrative examples: Mental Health Orderly, Psychiatric Nursing Aide, Psychiatric Technician Assistant

31-2000 Occupational Therapy and Physical Therapist Assistants and Aides

31-2010 Occupational Therapy Assistants and Aides

This broad occupation includes the following two detailed occupations:

31-2011 Occupational Therapy Assistants

31-2012 Occupational Therapy Aides

31-2011 Occupational Therapy Assistants

Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with state laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training.

Illustrative examples: Certified Occupational Therapy Assistant, Licensed Occupational Therapy Assistant

31-2012 Occupational Therapy Aides

Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.

Illustrative examples: Occupational Rehabilitation Aide, Occupational Therapist Aide

31-2020 Physical Therapist Assistants and Aides

This broad occupation includes the following two detailed occupations:

31-2021 Physical Therapist Assistants

31-2022 Physical Therapist Aides

31-2021 Physical Therapist Assistants

Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with state laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.

Illustrative examples: Licensed Physical Therapist Assistant, Physiotherapy Assistant

31-2022 Physical Therapist Aides

Under close supervision of a physical therapist or physical therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing the patient and the treatment area.

Illustrative examples: Clinical Rehabilitation Aide, Physical Therapy Aide

31-9000 Other Healthcare Support Occupations

31-0000 HEALTHCARE SUPPORT OCCUPATIONS

31-9010 Massage Therapists

This broad occupation is the same as the detailed occupation:

31-9011 Massage Therapists

31-9011 Massage Therapists

Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.

Illustrative examples: Deep Tissue Massage Therapist, Licensed Massage Therapist, Swedish Masseuse

31-9090 Miscellaneous Healthcare Support Occupations

This broad occupation includes the following eight detailed occupations:

31-9091 Dental Assistants

31-9092 Medical Assistants

31-9093 Medical Equipment Preparers

31-9094 Medical Transcriptionists

31-9095 Pharmacy Aides

31-9096 Veterinary Assistants and Laboratory Animal Caretakers

31-9097 Phlebotomists

31-9099 Healthcare Support Workers, All Other

31-9091 Dental Assistants

Perform limited clinical duties under the direction of a dentist. Clinical duties may include equipment preparation and sterilization, preparing patients for treatment, assisting the dentist during treatment, and providing patients with instructions for oral healthcare procedures. May perform administrative duties such as scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes.

Illustrative examples: Certified Dental Assistant, Orthodontic Assistant

31-9092 Medical Assistants

Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Excludes "Physician Assistants" (29-1071).

Illustrative examples: Chiropractic Assistant, Morgue Attendant, Orthopedic Cast Specialist

31-9093 Medical Equipment Preparers

Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.

Illustrative examples: Central Sterile Supply Technician, Sterilization Specialist

31-9094 Medical Transcriptionists

31-0000 HEALTHCARE SUPPORT OCCUPATIONS

Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.

Illustrative examples: Medical Stenographer, Medical Transcriber, Pathology Transcriptionist

31-9095 Pharmacy Aides

Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.

Illustrative examples: Pharmacist Assistant, Pharmacy Clerk, Prescription Clerk

31-9096 Veterinary Assistants and Laboratory Animal Caretakers

Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine postoperative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists. Excludes "Animal Caretakers" (39-2021).

Illustrative examples: Veterinarian Helper, Veterinary Attendant

31-9097 Phlebotomists

Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.

Illustrative examples: Phlebotomy Technician, Venipuncturist

31-9099 Healthcare Support Workers, All Other

All healthcare support workers not listed separately.

Illustrative examples: Ortho/Prosthetic Aide

33-0000 PROTECTIVE SERVICE OCCUPATIONS

33-1000 Supervisors of Protective Service Workers

33-1010 First-Line Supervisors of Law Enforcement Workers

This broad occupation includes the following two detailed occupations:

33-1011 First-Line Supervisors of Correctional Officers

33-1012 First-Line Supervisors of Police and Detectives

33-1011 First-Line Supervisors of Correctional Officers

Directly supervise and coordinate activities of correctional officers and jailers.

Illustrative examples: Corrections Sergeant, Prison Guard Supervisor

33-1012 First-Line Supervisors of Police and Detectives

Directly supervise and coordinate activities of members of police force.

Illustrative examples: Commanding Officer Homicide Squad, Detective Lieutenant, Police Lieutenant, Traffic Sergeant

33-1020 First-Line Supervisors of Firefighting and Prevention Workers

This broad occupation is the same as the detailed occupation:

33-1021 First-Line Supervisors of Firefighting and Prevention Workers

33-1021 First-Line Supervisors of Firefighting and Prevention Workers

Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.

Illustrative examples: Fire Lieutenant, Municipal Fire Fighting and Prevention Supervisor, Supervising Fire Marshal

33-1090 Miscellaneous First-Line Supervisors, Protective Service Workers

This broad occupation includes the following two detailed occupations:

33-1091 First-Line Supervisors of Security Workers

33-1099 First-Line Supervisors of Protective Service Workers, All Other

33-1091 First-Line Supervisors of Security Workers

Directly supervise and coordinate activities of security workers and security guards.

Illustrative examples: Loss Prevention Supervisor, Security Guard Supervisor, TSA Screener Supervisor

33-1099 First-Line Supervisors of Protective Service Workers, All Other

All protective service supervisors not listed separately above.

Illustrative examples: Animal Cruelty Investigation Supervisor

33-2000 Firefighting and Prevention Workers

33-2010 Firefighters

33-0000 PROTECTIVE SERVICE OCCUPATIONS

This broad occupation is the same as the detailed occupation:

33-2011 Firefighters

33-2011 Firefighters

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.

Illustrative examples: Fire Engine Pump Operator, Forest Firefighter, Marine Firefighter, Smoke Jumper

33-2020 Fire Inspectors

This broad occupation includes the following two detailed occupations:

33-2021 Fire Inspectors and Investigators

33-2022 Forest Fire Inspectors and Prevention Specialists

33-2021 Fire Inspectors and Investigators

Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.

Illustrative examples: Arson Investigator, Certified Vehicle Fire Investigator, Fire Hazard Inspector, Fire Prevention Inspector

33-2022 Forest Fire Inspectors and Prevention Specialists

Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.

Illustrative examples: Environmental Protection Fire Control Officer, Forest Fire Control Officer, Wildfire Prevention Specialist

33-3000 Law Enforcement Workers

33-3010 Bailiffs, Correctional Officers, and Jailers

This broad occupation includes the following two detailed occupations:

33-3011 Bailiffs

33-3012 Correctional Officers and Jailers

33-3011 Bailiffs

Maintain order in courts of law.

Illustrative examples: Court Bailiff, Court Security Officer, Deputy Bailiff

33-3012 Correctional Officers and Jailers

Guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Includes deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions.

Illustrative examples: Certified Detention Deputy, Juvenile Corrections Officer, Prison Guard

33-3020 Detectives and Criminal Investigators

33-0000 PROTECTIVE SERVICE OCCUPATIONS

This broad occupation is the same as the detailed occupation:

33-3021 Detectives and Criminal Investigators

33-3021 Detectives and Criminal Investigators

Conduct investigations related to suspected violations of federal, state, or local laws to prevent or solve crimes. Excludes "Private Detectives and Investigators" (33-9021).

Illustrative examples: Deputy United States Marshal, Homicide Detective, Narcotics Investigator

33-3030 Fish and Game Wardens

This broad occupation is the same as the detailed occupation:

33-3031 Fish and Game Wardens

33-3031 Fish and Game Wardens

Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.

Illustrative examples: Conservation Enforcement Officer, Wildlife and Game Protector, Wildlife Officer

33-3040 Parking Enforcement Workers

This broad occupation is the same as the detailed occupation:

33-3041 Parking Enforcement Workers

33-3041 Parking Enforcement Workers

Patrol assigned area, such as public parking lot or city streets to issue tickets to overtime parking violators and illegally parked vehicles.

Illustrative examples: Meter Maid, Parking Enforcement Officer

33-3050 Police Officers

This broad occupation includes the following two detailed occupations:

33-3051 Police and Sheriff's Patrol Officers

33-3052 Transit and Railroad Police

33-3051 Police and Sheriff's Patrol Officers

Maintain order and protect life and property by enforcing local, tribal, state, or federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts. Includes police officers working at educational institutions.

Illustrative examples: Border Patrol Officer, Campus Police Officer, Motorcycle Police, Park Police, State Trooper

33-3052 Transit and Railroad Police

Protect and police railroad and transit property, employees, or passengers.

Illustrative examples: Railroad Detective, Track Patrol, Transit Authority Police

33-9000 Other Protective Service Workers

33-0000 PROTECTIVE SERVICE OCCUPATIONS

33-9010 Animal Control Workers

This broad occupation is the same as the detailed occupation:

33-9011 Animal Control Workers

33-9011 Animal Control Workers

Handle animals for the purpose of investigations of mistreatment, or control of abandoned, dangerous, or unattended animals.

Illustrative examples: Animal Control Officer, Animal Warden, Dog Catcher, Humane Officer

33-9020 Private Detectives and Investigators

This broad occupation is the same as the detailed occupation:

33-9021 Private Detectives and Investigators

33-9021 Private Detectives and Investigators

Gather, analyze, compile, and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.

Illustrative examples: Private Eye, Skip Tracer, Store Detective

33-9030 Security Guards and Gambling Surveillance Officers

This broad occupation includes the following two detailed occupations:

33-9031 Gambling Surveillance Officers and Gambling Investigators

33-9032 Security Guards

33-9031 Gambling Surveillance Officers and Gambling Investigators

Observe gambling operation for irregular activities such as cheating or theft by either employees or patrons. Investigate potential threats to gambling assets such as money, chips, and gambling equipment. Act as oversight and security agent for management and customers.

Illustrative examples: Casino Investigator, Casino Surveillance Officer, Gambling Monitor

33-9032 Security Guards

Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment. Excludes "Police Officers" (33-3050) and "Transportation Security Screeners" (33-9093).

Illustrative examples: Bank Guard, Bodyguard, Bouncer

33-9090 Miscellaneous Protective Service Workers

This broad occupation includes the following five detailed occupations:

33-9091 Crossing Guards and Flaggers

33-9092 Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers

33-9093 Transportation Security Screeners

33-9094 School Bus Monitors

33-9099 Protective Service Workers, All Other

33-9091 Crossing Guards and Flaggers

33-0000 PROTECTIVE SERVICE OCCUPATIONS

Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.

Illustrative examples: Construction Site Crossing Guard, School Traffic Guard

33-9092 Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers

Monitor recreational areas, such as pools, beaches, or ski slopes, to provide assistance and protection to participants.

Illustrative examples: Beach Lifeguard, Outdoor Emergency Care Technician

33-9093 Transportation Security Screeners

Conduct screening of passengers, baggage, or cargo to ensure compliance with Transportation Security Administration (TSA) regulations. May operate basic security equipment such as x-ray machines and hand wands at screening checkpoints.

Illustrative examples: Airport Baggage Screener, Airport Security Screener, Transportation Security Administration (TSA) Screener, Transportation Security Officer

33-9094 School Bus Monitors

Maintain order among students on a school bus. Duties include helping students safely board and exit and communicating behavioral problems. May perform pretrip and posttrip inspections and prepare for and assist in emergency evacuations.

Illustrative examples: Bus Monitor

33-9099 Protective Service Workers, All Other

All protective service workers not listed separately.

Illustrative examples: Warrant Server

35-0000 FOOD PREPARATION AND SERVING RELATED OCCUPATIONS

35-1000 Supervisors of Food Preparation and Serving Workers

35-1010 Supervisors of Food Preparation and Serving Workers

This broad occupation includes the following two detailed occupations:

35-1011 Chefs and Head Cooks

35-1012 First-Line Supervisors of Food Preparation and Serving Workers

35-1011 Chefs and Head Cooks

Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.

Illustrative examples: Executive Chef, Pastry Chef, Sous Chef

35-1012 First-Line Supervisors of Food Preparation and Serving Workers

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Illustrative examples: Banquet Supervisor, Bar Manager, Kitchen Supervisor

35-2000 Cooks and Food Preparation Workers

35-2010 Cooks

This broad occupation includes the following six detailed occupations:

35-2011 Cooks, Fast Food

35-2012 Cooks, Institution and Cafeteria

35-2013 Cooks, Private Household

35-2014 Cooks, Restaurant

35-2015 Cooks, Short Order

35-2019 Cooks, All Other

35-2011 Cooks, Fast Food

Prepare and cook food in a fast food restaurant with a limited menu. Duties of these cooks are limited to preparation of a few basic items and normally involve operating large-volume single-purpose cooking equipment.

Illustrative examples: Fast Food Fry Cook

35-2012 Cooks, Institution and Cafeteria

Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.

Illustrative examples: Camp Cook, Galley Cook, Mess Cook, School Cook

35-2013 Cooks, Private Household

Prepare meals in private homes. Includes personal chefs.

Illustrative examples: Certified Personal Chef, Private Chef

35-2014 Cooks, Restaurant

35-0000 FOOD PREPARATION AND SERVING RELATED OCCUPATIONS

Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.

Illustrative examples: Banquet Cook, Line Cook, Saucier

35-2015 Cooks, Short Order

Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables. Excludes "Cooks, Fast Food" (35-2011).

Illustrative examples: Griddle Cook

35-2019 Cooks, All Other

All cooks not listed separately.

Illustrative examples: Falafel Cart Cook, Fraternity House Cook

35-2020 Food Preparation Workers

This broad occupation is the same as the detailed occupation:

35-2021 Food Preparation Workers

35-2021 Food Preparation Workers

Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.

Illustrative examples: Fruit and Vegetable Parer, Salad Maker, Sandwich Maker

35-3000 Food and Beverage Serving Workers

35-3010 Bartenders

This broad occupation is the same as the detailed occupation:

35-3011 Bartenders

35-3011 Bartenders

Mix and serve drinks to patrons, directly or through waitstaff.

Illustrative examples: Barkeep, Mixologist, Taproom Attendant

35-3020 Fast Food and Counter Workers

This broad occupation is the same as the detailed occupation:

35-3023 Fast Food and Counter Workers

35-3023 Fast Food and Counter Workers

Perform duties such as taking orders and serving food and beverages. Serve customers at counter or from a steam table. May take payment. May prepare food and beverages. Counter attendants who also wait tables are included in "Waiters and Waitresses" (35-3031),

Illustrative examples: Barista, Cafeteria Server, Ice Cream Server, Mess Attendant, Snack Bar Attendant

35-3030 Waiters and Waitresses

35-0000 FOOD PREPARATION AND SERVING RELATED OCCUPATIONS

This broad occupation is the same as the detailed occupation:

35-3031 Waiters and Waitresses

35-3031 Waiters and Waitresses

Take orders and serve food and beverages to patrons at tables in dining establishment. Excludes "Fast Food and Counter Workers" (35-3023).

Illustrative examples: Cocktail Server, Dining Car Server, Wine Steward

35-3040 Food Servers, Nonrestaurant

This broad occupation is the same as the detailed occupation:

35-3041 Food Servers, Nonrestaurant

35-3041 Food Servers, Nonrestaurant

Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars. Excludes "Fast Food and Counter Workers" (35-3023) and "Door-to-Door Sales Workers, News and Street Vendors, and Related Workers" (41-9091).

Illustrative examples: Boat Hop, Hospital Food Service Worker, Room Service Food Server

35-9000 Other Food Preparation and Serving Related Workers

35-9010 Dining Room and Cafeteria Attendants and Bartender Helpers

This broad occupation is the same as the detailed occupation:

35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers

35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers

Facilitate food service. Clean tables; remove dirty dishes; replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve items such as water, condiments, and coffee to patrons.

Illustrative examples: Bar Back, Busser, Lunchroom Attendant

35-9020 Dishwashers

This broad occupation is the same as the detailed occupation:

35-9021 Dishwashers

35-9021 Dishwashers

Clean dishes, kitchen, food preparation equipment, or utensils.

Illustrative examples: Dish Room Worker, Silverware Cleaner

35-9030 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

This broad occupation is the same as the detailed occupation:

35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.

35-0000 FOOD PREPARATION AND SERVING RELATED OCCUPATIONS

Illustrative examples: Dining Room Host, Maitre D'

35-9090 Miscellaneous Food Preparation and Serving Related Workers

This broad occupation is the same as the detailed occupation:

35-9099 Food Preparation and Serving Related Workers, All Other

35-9099 Food Preparation and Serving Related Workers, All Other

All food preparation and serving related workers not listed separately.

Illustrative examples: Kitchen Steward

37-0000 BUILDING AND GROUNDS CLEANING AND MAINTENANCE OCCUPATIONS

37-1000 Supervisors of Building and Grounds Cleaning and Maintenance Workers

37-1010 First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers

This broad occupation includes the following two detailed occupations:

37-1011 First-Line Supervisors of Housekeeping and Janitorial Workers

37-1012 First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers

37-1011 First-Line Supervisors of Housekeeping and Janitorial Workers

Directly supervise and coordinate work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.

Illustrative examples: Building Cleaning Supervisor, Cleaning Staff Supervisor, Custodial Supervisor

37-1012 First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers

Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.

Illustrative examples: Grounds Maintenance Supervisor, Head Greenskeeper, Horticultural Services Supervisor

37-2000 Building Cleaning and Pest Control Workers

37-2010 Building Cleaning Workers

This broad occupation includes the following three detailed occupations:

37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners

37-2012 Maids and Housekeeping Cleaners

37-2019 Building Cleaning Workers, All Other

37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners

Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.

Illustrative examples: Industrial Plant Custodian, School Custodian, Window Washer

37-2012 Maids and Housekeeping Cleaners

Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. Duties may include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.

Illustrative examples: Chambermaid, House Cleaner, Housekeeping Staff

37-2019 Building Cleaning Workers, All Other

All building cleaning workers not listed separately.

37-0000 BUILDING AND GROUNDS CLEANING AND MAINTENANCE OCCUPATIONS

Illustrative examples: Building Pressure Washer, Chimney Sweeper

37-2020 Pest Control Workers

This broad occupation is the same as the detailed occupation:

37-2021 Pest Control Workers

37-2021 Pest Control Workers

Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.

Illustrative examples: Exterminator, Fumigator, Rodent Exterminator

37-3000 Grounds Maintenance Workers

37-3010 Grounds Maintenance Workers

This broad occupation includes the following four detailed occupations:

37-3011 Landscaping and Groundskeeping Workers

37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation

37-3013 Tree Trimmers and Pruners

37-3019 Grounds Maintenance Workers, All Other

37-3011 Landscaping and Groundskeeping Workers

Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Excludes "Farmworkers and Laborers, Crop, Nursery, and Greenhouse" (45-2092).

Illustrative examples: Greenskeeper, Hedge Trimmer, Lawn Caretaker, Shrub Planter

37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation

Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and state or federal certification. Crop dusters are included in "Commercial Pilots" (53-2012).

Illustrative examples: Fruit Sprayer, Weed Sprayer

37-3013 Tree Trimmers and Pruners

Using sophisticated climbing and rigging techniques, cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, hand pruners, clippers, and power pruners. Works off the ground in the tree canopy and may use truck-mounted lifts. Excludes workers who primarily perform duties of "Landscaping and Groundskeeping Workers" (37-3011) and "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37-3012).

Illustrative examples: Tree Specialist, Tree Surgeon, Utility Arborist

37-3019 Grounds Maintenance Workers, All Other

All grounds maintenance workers not listed separately.

37-0000 BUILDING AND GROUNDS CLEANING AND MAINTENANCE OCCUPATIONS

Illustrative examples: Trailhead Maintenance Worker, Tree Trimmer Helper

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

39-1000 Supervisors of Personal Care and Service Workers

39-1010 First-Line Supervisors of Entertainment and Recreation Workers

This broad occupation includes the following two detailed occupations:

39-1013 First-Line Supervisors of Gambling Services Workers

39-1014 First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services

39-1013 First-Line Supervisors of Gambling Services Workers

Directly supervise and coordinate activities of workers in assigned gambling areas. May circulate among tables, observe operations, and ensure that stations and games are covered for each shift. May verify and pay off jackpots. May reset slot machines after payoffs and make repairs or adjustments to slot machines or recommend removal of slot machines for repair. May plan and organize activities and services for guests in hotels/casinos.

Illustrative examples: Cardroom Supervisor, Casino Slot Supervisor, Electronic Gambling Device Supervisor, Pit Boss, Slot Key Person, Table Games Supervisor

39-1014 First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services

Directly supervise and coordinate activities of entertainment and recreation related workers.

Illustrative examples: Arcade Supervisor, Caddy Master, Recreation Attendant Supervisor

39-1020 First-Line Supervisors of Personal Service Workers

This broad occupation is the same as the detailed occupation:

39-1022 First-Line Supervisors of Personal Service Workers

39-1022 First-Line Supervisors of Personal Service Workers

Supervise and coordinate activities of personal service workers.

Illustrative examples: Animal Trainer Supervisor, Child Care Worker Supervisor, Hair Salon Supervisor

39-2000 Animal Care and Service Workers

39-2010 Animal Trainers

This broad occupation is the same as the detailed occupation:

39-2011 Animal Trainers

39-2011 Animal Trainers

Train animals for riding, harness, security, performance, or obedience, or for assisting persons with disabilities. Accustom animals to human voice and contact, and condition animals to respond to commands. Train animals according to prescribed standards for show or competition. May train animals to carry pack loads or work as part of pack team.

Illustrative examples: Guide Dog Trainer, Horse Breaker, Marine Mammal Trainer

39-2020 Animal Caretakers

This broad occupation is the same as the detailed occupation:

39-2021 Animal Caretakers

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

39-2021 Animal Caretakers

Feed, water, groom, bathe, exercise, or otherwise provide care to promote and maintain the well-being of pets and other animals that are not raised for consumption, such as dogs, cats, race horses, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks. Excludes "Veterinary Assistants and Laboratory Animal Caretakers" (31-9096) and "Farmworkers, Farm, Ranch, and Aquacultural Animals" (45-2093).

Illustrative examples: Animal Shelter Worker, Dog Groomer, Kennel Worker, Zookeeper

39-3000 Entertainment Attendants and Related Workers

39-3010 Gambling Services Workers

This broad occupation includes the following three detailed occupations:

39-3011 Gambling Dealers

39-3012 Gambling and Sports Book Writers and Runners

39-3019 Gambling Service Workers, All Other

39-3011 Gambling Dealers

Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gambling equipment. Distribute winnings or collect players' money or chips. May compare the house's hand against players' hands.

Illustrative examples: Blackjack Dealer, Craps Dealer, Poker Dealer, Roulette Dealer

39-3012 Gambling and Sports Book Writers and Runners

Post information enabling patrons to wager on various races and sporting events. Assist in the operation of games such as keno and bingo. May operate random number-generating equipment and announce the numbers for patrons. Receive, verify, and record patrons' wagers. Scan and process winning tickets presented by patrons and pay out winnings for those wagers.

Illustrative examples: Betting Clerk, Keno Runner, Race Book Writer

39-3019 Gambling Service Workers, All Other

All gambling service workers not listed separately.

Illustrative examples: Bingo Worker, Pit Clerk, Proposition Player, Shill

39-3020 Motion Picture Projectionists

This broad occupation is the same as the detailed occupation:

39-3021 Motion Picture Projectionists

39-3021 Motion Picture Projectionists

Set up and operate motion picture projection and related sound reproduction equipment.

Illustrative examples: Film Projector Operator, Movie Projectionist

39-3030 Ushers, Lobby Attendants, and Ticket Takers

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

This broad occupation is the same as the detailed occupation:

39-3031 Ushers, Lobby Attendants, and Ticket Takers

39-3031 Ushers, Lobby Attendants, and Ticket Takers

Assist patrons at entertainment events by performing duties, such as collecting admission tickets and passes from patrons, assisting in finding seats, searching for lost articles, and helping patrons locate such facilities as restrooms and telephones.

Illustrative examples: Theater Usher, Ticket Collector

39-3090 Miscellaneous Entertainment Attendants and Related Workers

This broad occupation includes the following four detailed occupations:

39-3091 Amusement and Recreation Attendants

39-3092 Costume Attendants

39-3093 Locker Room, Coatroom, and Dressing Room Attendants

39-3099 Entertainment Attendants and Related Workers, All Other

39-3091 Amusement and Recreation Attendants

Perform a variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.

Illustrative examples: Arcade Attendant, Golf Caddy, Ski Lift Operator

39-3092 Costume Attendants

Select, fit, and take care of costumes for cast members, and aid entertainers. May assist with multiple costume changes during performances.

Illustrative examples: Theatrical Wardrobe Dresser, Wardrobe Attendant

39-3093 Locker Room, Coatroom, and Dressing Room Attendants

Provide personal items to patrons or customers in locker rooms, dressing rooms, or coatrooms.

Illustrative examples: Bathhouse Attendant, Coat Checker, Washroom Attendant

39-3099 Entertainment Attendants and Related Workers, All Other

All entertainment attendants and related workers not listed separately.

39-4000 Funeral Service Workers

39-4010 Embalmers and Crematory Operators

This broad occupation includes the following two detailed occupations:

39-4011 Embalmers

39-4012 Crematory Operators

39-4011 Embalmers

Prepare bodies for interment in conformity with legal requirements.

Illustrative examples: Licensed Embalmer, Restorative Art Embalmer

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

39-4012 Crematory Operators

Operate crematory equipment to reduce human or animal remains to bone fragments in accordance with state and local regulations. Duties may include preparing the body for cremation and performing general maintenance on crematory equipment. May use traditional flame-based cremation, calcination, or alkaline hydrolysis.

Illustrative examples: Cremator, Crematory Operator

39-4020 Funeral Attendants

This broad occupation is the same as the detailed occupation:

39-4021 Funeral Attendants

39-4021 Funeral Attendants

Perform a variety of tasks during funeral, such as placing casket in parlor or chapel prior to service, arranging floral offerings or lights around casket, directing or escorting mourners, closing casket, and issuing and storing funeral equipment.

Illustrative examples: Funeral Home Assistant, Mortician Helper, Pallbearer

39-4030 Morticians, Undertakers, and Funeral Arrangers

This broad occupation is the same as the detailed occupation:

39-4031 Morticians, Undertakers, and Funeral Arrangers

39-4031 Morticians, Undertakers, and Funeral Arrangers

Perform various tasks to arrange and direct individual funeral services, such as coordinating transportation of body to mortuary, interviewing family or other authorized person to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners. Excludes "Funeral Home Managers" (11-9171).

Illustrative examples: Certified Mortician, Funeral Arranger

39-5000 Personal Appearance Workers

39-5010 Barbers, Hairdressers, Hairstylists and Cosmetologists

This broad occupation includes the following two detailed occupations:

39-5011 Barbers

39-5012 Hairdressers, Hairstylists, and Cosmetologists

39-5011 Barbers

Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.

Illustrative examples: Barber Apprentice, Master Barber

39-5012 Hairdressers, Hairstylists, and Cosmetologists

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services. Excludes "Makeup Artists, Theatrical and Performance" (39-5091), "Manicurists and Pedicurists" (39-5092), and "Skincare Specialists" (39-5094).

Illustrative examples: Beautician, Wig Stylist

39-5090 Miscellaneous Personal Appearance Workers

This broad occupation includes the following four detailed occupations:

39-5091 Makeup Artists, Theatrical and Performance

39-5092 Manicurists and Pedicurists

39-5093 Shampooers

39-5094 Skincare Specialists

39-5091 Makeup Artists, Theatrical and Performance

Apply makeup to performers to reflect period, setting, and situation of their role.

Illustrative examples: Special Effects Makeup Artist

39-5092 Manicurists and Pedicurists

Clean and shape customers' fingernails and toenails. May polish or decorate nails.

Illustrative examples: Fingernail Sculptor, Nail Technician

39-5093 Shampooers

Shampoo and rinse customers' hair.

Illustrative examples: Scalp Treatment Specialist, Shampoo Assistant

39-5094 Skincare Specialists

Provide skincare treatments to face and body to enhance an individual's appearance. Includes electrologists and laser hair removal specialists.

Illustrative examples: Electrolysis Operator, Facialist, Medical Esthetician

39-6000 Baggage Porters, Bellhops, and Concierges

39-6010 Baggage Porters, Bellhops, and Concierges

This broad occupation includes the following two detailed occupations:

39-6011 Baggage Porters and Bellhops

39-6012 Concierges

39-6011 Baggage Porters and Bellhops

Handle baggage for travelers at transportation terminals or for guests at hotels or similar establishments.

Illustrative examples: Bellstaff, Hotel Baggage Handler, Skycap

39-6012 Concierges

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

Assist patrons at hotel, apartment, or office building with personal services. May take messages; arrange or give advice on transportation, business services, or entertainment; or monitor guest requests for housekeeping and maintenance.

Illustrative examples: Activities Concierge, Hotel Concierge, Hotel Guest Service Agent

39-7000 Tour and Travel Guides

39-7010 Tour and Travel Guides

This broad occupation includes the following two detailed occupations:

39-7011 Tour Guides and Escorts

39-7012 Travel Guides

39-7011 Tour Guides and Escorts

Escort individuals or groups on sightseeing tours or through places of interest, such as industrial establishments, public buildings, and art galleries.

Illustrative examples: Historical Site Guide, Museum Guide, Sightseeing Guide

39-7012 Travel Guides

Plan, organize, and conduct long-distance travel, tours, and expeditions for individuals and groups.

Illustrative examples: Cruise Director, River Expedition Guide

39-9000 Other Personal Care and Service Workers

39-9010 Childcare Workers

This broad occupation is the same as the detailed occupation:

39-9011 Childcare Workers

39-9011 Childcare Workers

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education" (25-9042).

Illustrative examples: Au Pair, Daycare Provider, Nanny

39-9030 Recreation and Fitness Workers

This broad occupation includes the following two detailed occupations:

39-9031 Exercise Trainers and Group Fitness Instructors

39-9032 Recreation Workers

39-9031 Exercise Trainers and Group Fitness Instructors

39-0000 PERSONAL CARE AND SERVICE OCCUPATIONS

Instruct or coach groups or individuals in exercise activities for the primary purpose of personal fitness. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills. Develop and implement individualized approaches to exercise. Excludes "Educational Instruction and Library Occupations" (25-0000), "Coaches and Scouts" (27-2022), and "Athletic Trainers" (29-9091).

Illustrative examples: Aerobics Instructor, Personal Trainer, Yoga Instructor

39-9032 Recreation Workers

Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.

Illustrative examples: Camp Counselor, Recreational Activities Aide

39-9040 Residential Advisors

This broad occupation is the same as the detailed occupation:

39-9041 Residential Advisors

39-9041 Residential Advisors

Coordinate activities in resident facilities in secondary school and college dormitories, group homes, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May maintain household records and assign rooms. May assist residents with problem solving or refer them to counseling resources.

Illustrative examples: Dormitory Counselor, House Parent, Residence Life Coordinator

39-9090 Miscellaneous Personal Care and Service Workers

This broad occupation is the same as the detailed occupation:

39-9099 Personal Care and Service Workers, All Other

39-9099 Personal Care and Service Workers, All Other

All personal care and service workers not listed separately.

Illustrative examples: Butler, House Sitter, Shoe Shiner, Valet

41-0000 SALES AND RELATED OCCUPATIONS

41-1000 Supervisors of Sales Workers

41-1010 First-Line Supervisors of Sales Workers

This broad occupation includes the following two detailed occupations:

41-1011 First-Line Supervisors of Retail Sales Workers

41-1012 First-Line Supervisors of Non-Retail Sales Workers

41-1011 First-Line Supervisors of Retail Sales Workers

Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.

Illustrative examples: Cashier Supervisor, Delicatessen Department Manager

41-1012 First-Line Supervisors of Non-Retail Sales Workers

Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.

Illustrative examples: Insurance Sales Supervisor, Real Estate Sales Supervisor, Telemarketer Supervisor

41-2000 Retail Sales Workers

41-2010 Cashiers

This broad occupation includes the following two detailed occupations:

41-2011 Cashiers

41-2012 Gambling Change Persons and Booth Cashiers

41-2011 Cashiers

Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks. Excludes "Gambling Change Persons and Booth Cashiers" (41-2012).

Illustrative examples: Cash Register Operator, Grocery Checker, Toll Collector

41-2012 Gambling Change Persons and Booth Cashiers

Exchange coins, tokens, and chips for patrons' money. May issue payoffs and obtain customer's signature on receipt. May operate a booth in the slot machine area and furnish change persons with money bank at the start of the shift, or count and audit money in drawers. Excludes "Cashiers" (41-2011).

Illustrative examples: Mutuel Teller, Slot Attendant

41-2020 Counter and Rental Clerks and Parts Salespersons

This broad occupation is the same as the detailed occupation:

41-2021 Counter and Rental Clerks

41-2022 Parts Salespersons

41-0000 SALES AND RELATED OCCUPATIONS

41-2021 Counter and Rental Clerks

Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment. Excludes "Fast Food and Counter Workers" (35-3023), "Hotel, Motel, and Resort Desk Clerks" (43-4081), "Order Clerks" (43-4151), and "Reservation and Transportation Ticket Agents and Travel Clerks" (43-4181).

Illustrative examples: Automotive Service Writer, Car Rental Agent, Dry Cleaning Counter Clerk

41-2022 Parts Salespersons

Sell spare and replacement parts and equipment in repair shop or parts store.

Illustrative examples: Auto Parts Salesperson, Electronic Parts Salesperson

41-2030 Retail Salespersons

This broad occupation is the same as the detailed occupation:

41-2031 Retail Salespersons

41-2031 Retail Salespersons

Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers. Excludes "Cashiers" (41-2011).

Illustrative examples: Used Car Salesperson, Women's Apparel Salesperson

41-3000 Sales Representatives, Services

41-3010 Advertising Sales Agents

This broad occupation is the same as the detailed occupation:

41-3011 Advertising Sales Agents

41-3011 Advertising Sales Agents

Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.

Illustrative examples: Advertising Account Executive, Display Advertising Sales Representative, Yellow Pages Space Salesperson

41-3020 Insurance Sales Agents

This broad occupation is the same as the detailed occupation:

41-3021 Insurance Sales Agents

41-3021 Insurance Sales Agents

Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.

Illustrative examples: Life Insurance Salesperson, Pension Agent

41-0000 SALES AND RELATED OCCUPATIONS

41-3030 Securities, Commodities, and Financial Services Sales Agents

This broad occupation is the same as the detailed occupation:

41-3031 Securities, Commodities, and Financial Services Sales Agents

41-3031 Securities, Commodities, and Financial Services Sales Agents

Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.

Illustrative examples: Foreign Exchange Trader, Investment Banker, Securities Trader, Stock Broker

41-3040 Travel Agents

This broad occupation is the same as the detailed occupation:

41-3041 Travel Agents

41-3041 Travel Agents

Plan and sell transportation and accommodations for customers. Determine destination, modes of transportation, travel dates, costs, and accommodations required. May also describe, plan, and arrange itineraries and sell tour packages. May assist in resolving clients' travel problems.

Illustrative examples: Corporate Travel Expert, Travel Service Consultant

41-3090 Miscellaneous Sales Representatives, Services

This broad occupation is the same as the detailed occupation:

41-3091 Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel

41-3091 Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel

Sell services to individuals or businesses. May describe options or resolve client problems. Excludes "Advertising Sales Agents" (41-3011), "Insurance Sales Agents" (41-3021), "Securities, Commodities, and Financial Services Sales Agents" (41-3031), "Travel Agents" (41-3041), "Sales Representatives, Wholesale and Manufacturing" (41-4010), and "Telemarketers" (41-9041).

Illustrative examples: Business Services Sales Representative, Membership Solicitor, Pest Control Service Sales Agent

41-4000 Sales Representatives, Wholesale and Manufacturing

41-4010 Sales Representatives, Wholesale and Manufacturing

This broad occupation includes the following two detailed occupations:

41-4011 Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products

41-4012 Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products

41-4011 Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products

Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of postsecondary education. Excludes "Sales Engineers" (41-9031).

41-0000 SALES AND RELATED OCCUPATIONS

Illustrative examples: Pharmaceutical Sales Representative, Surgical Instruments Sales Representative, Wholesale Ultrasonic Equipment Salesperson

41-4012 Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products

Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.

Illustrative examples: Hotel Supplies Salesperson, Pulpwood Dealer, Wholesale Diamond Broker

41-9000 Other Sales and Related Workers

41-9010 Models, Demonstrators, and Product Promoters

This broad occupation includes the following two detailed occupations:

41-9011 Demonstrators and Product Promoters

41-9012 Models

41-9011 Demonstrators and Product Promoters

Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.

Illustrative examples: Home Demonstrator, In-Store Demonstrator

41-9012 Models

Model garments or other apparel and accessories for prospective buyers at fashion shows, private showings, or retail establishments. May pose for photos to be used in magazines or advertisements. May pose as subject for paintings, sculptures, and other types of artistic expression.

Illustrative examples: Fashion Model, Hand Model, Photographer's Model

41-9020 Real Estate Brokers and Sales Agents

This broad occupation includes the following two detailed occupations:

41-9021 Real Estate Brokers

41-9022 Real Estate Sales Agents

41-9021 Real Estate Brokers

Operate real estate office, or work for commercial real estate firm, overseeing real estate transactions. Other duties usually include selling real estate or renting properties and arranging loans.

Illustrative examples: Licensed Real Estate Broker

41-9022 Real Estate Sales Agents

Rent, buy, or sell property for clients. Perform duties such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.

41-0000 SALES AND RELATED OCCUPATIONS

Illustrative examples: Apartment Rental Agent, Right of Way Agent

41-9030 Sales Engineers

This broad occupation is the same as the detailed occupation:

41-9031 Sales Engineers

41-9031 Sales Engineers

Sell business goods or services, the selling of which requires a technical background equivalent to a baccalaureate degree in engineering. Excludes "Engineers" (17-2011 through 17-2199) whose primary function is not marketing or sales.

Illustrative examples: Aerospace Products Sales Engineer, Missile Navigation Systems Sales Engineer, Nuclear Equipment Sales Engineer

41-9040 Telemarketers

This broad occupation is the same as the detailed occupation:

41-9041 Telemarketers

41-9041 Telemarketers

Solicit donations or orders for goods or services over the telephone.

Illustrative examples: Telemarketing Sales Representative, Telephone Solicitor

41-9090 Miscellaneous Sales and Related Workers

This broad occupation includes the following two detailed occupations:

41-9091 Door-to-Door Sales Workers, News and Street Vendors, and Related Workers

41-9099 Sales and Related Workers, All Other

41-9091 Door-to-Door Sales Workers, News and Street Vendors, and Related Workers

Sell goods or services door-to-door or on the street.

Illustrative examples: Newspaper Carrier, Peddler, Souvenir Street Vendor

41-9099 Sales and Related Workers, All Other

All sales and related workers not listed separately.

Illustrative examples: Auctioneer, Blood Donor Recruiter, Pawn Shop Clerk, Personal Shopper, Store Gift Wrap Associate

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

43-1000 Supervisors of Office and Administrative Support Workers

43-1010 First-Line Supervisors of Office and Administrative Support Workers

This broad occupation is the same as the detailed occupation:

43-1011 First-Line Supervisors of Office and Administrative Support Workers

43-1011 First-Line Supervisors of Office and Administrative Support Workers

Directly supervise and coordinate the activities of clerical and administrative support workers.

Illustrative examples: Clerical Supervisor, Payroll Supervisor, Teller Supervisor

43-2000 Communications Equipment Operators

43-2010 Switchboard Operators, Including Answering Service

This broad occupation is the same as the detailed occupation:

43-2011 Switchboard Operators, Including Answering Service

43-2011 Switchboard Operators, Including Answering Service

Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages.

Illustrative examples: Private Branch Exchange Operator, Telephone Answering Service Operator, Telephone Switchboard Operator

43-2020 Telephone Operators

This broad occupation is the same as the detailed occupation:

43-2021 Telephone Operators

43-2021 Telephone Operators

Provide information by accessing alphabetical, geographical, or other directories. Assist customers with special billing requests, such as charges to a third party and credits or refunds for incorrectly dialed numbers or bad connections. May handle emergency calls and assist children or people with physical disabilities to make telephone calls.

Illustrative examples: Directory Assistance Operator, Information Operator, Long Distance Operator

43-2090 Miscellaneous Communications Equipment Operators

This broad occupation is the same as the detailed occupation:

43-2099 Communications Equipment Operators, All Other

43-2099 Communications Equipment Operators, All Other

All communications equipment operators not listed separately.

Illustrative examples: Radio Operator

43-3000 Financial Clerks

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

43-3010 Bill and Account Collectors

This broad occupation is the same as the detailed occupation:

43-3011 Bill and Account Collectors

43-3011 Bill and Account Collectors

Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account, preparing statements to credit department if customer fails to respond, initiating repossession proceedings or service disconnection, and keeping records of collection and status of accounts.

Illustrative examples: Collection Agent, Debt Collector, Repossessor

43-3020 Billing and Posting Clerks

This broad occupation is the same as the detailed occupation:

43-3021 Billing and Posting Clerks

43-3021 Billing and Posting Clerks

Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods. Excludes "Medical Records Specialists" (29-2072).

Illustrative examples: Invoice Control Clerk, Statement Processor

43-3030 Bookkeeping, Accounting, and Auditing Clerks

This broad occupation is the same as the detailed occupation:

43-3031 Bookkeeping, Accounting, and Auditing Clerks

43-3031 Bookkeeping, Accounting, and Auditing Clerks

Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers. Excludes "Payroll and Timekeeping Clerks" (43-3051).

Illustrative examples: Accounts Receivable Clerk, Bookkeeper, Mortgage Accounting Clerk

43-3040 Gambling Cage Workers

This broad occupation is the same as the detailed occupation:

43-3041 Gambling Cage Workers

43-3041 Gambling Cage Workers

In a gambling establishment, conduct financial transactions for patrons. Accept patron's credit application and verify credit references to provide check-cashing authorization or to establish house credit accounts. May reconcile daily summaries of transactions to balance books. May sell gambling chips, tokens, or tickets to patrons, or to other workers for resale to patrons. May convert gambling chips, tokens, or tickets to currency upon patron's request. May use a cash register or computer to record transaction.

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Illustrative examples: Cage Cashier, Casino Cashier

43-3050 Payroll and Timekeeping Clerks

This broad occupation is the same as the detailed occupation:

43-3051 Payroll and Timekeeping Clerks

43-3051 Payroll and Timekeeping Clerks

Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks. Excludes "Bookkeeping, Accounting, and Auditing Clerks" (43-3031).

Illustrative examples: Time and Attendance Clerk, Timekeeper

43-3060 Procurement Clerks

This broad occupation is the same as the detailed occupation:

43-3061 Procurement Clerks

43-3061 Procurement Clerks

Compile information and records to draw up purchase orders for procurement of materials and services. Excludes "Wholesale and Retail Buyers, Except Farm Products" (13-1022).

Illustrative examples: Procurement Assistant, Purchasing Clerk

43-3070 Tellers

This broad occupation is the same as the detailed occupation:

43-3071 Tellers

43-3071 Tellers

Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.

Illustrative examples: Foreign Exchange Clerk, Money Order Clerk, Securities Teller

43-3090 Miscellaneous Financial Clerks

This broad occupation is the same as the detailed occupation:

43-3099 Financial Clerks, All Other

43-3099 Financial Clerks, All Other

All financial clerks not listed separately.

Illustrative examples: Bank Vault Attendant, Financial Reserve Clerk, Safety Deposit Clerk

43-4000 Information and Record Clerks

43-4010 Brokerage Clerks

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

This broad occupation is the same as the detailed occupation:

43-4011 Brokerage Clerks

43-4011 Brokerage Clerks

Perform duties related to the purchase, sale, or holding of securities. Duties include writing orders for stock purchases or sales, computing transfer taxes, verifying stock transactions, accepting and delivering securities, tracking stock price fluctuations, computing equity, distributing dividends, and keeping records of daily transactions and holdings.

Illustrative examples: Commodities Clerk, Dividend Clerk

43-4020 Correspondence Clerks

This broad occupation is the same as the detailed occupation:

43-4021 Correspondence Clerks

43-4021 Correspondence Clerks

Compose letters or electronic correspondence in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services. Duties may include gathering data to formulate reply and preparing correspondence.

Illustrative examples: Fan Mail Editor, Medicare Correspondence Representative

43-4030 Court, Municipal, and License Clerks

This broad occupation is the same as the detailed occupation:

43-4031 Court, Municipal, and License Clerks

43-4031 Court, Municipal, and License Clerks

Perform clerical duties for courts of law, municipalities, or governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; and record data, administer tests, or collect fees. Clerks of Court are classified in "Managers, All Other" (11-9199).

Illustrative examples: Circuit Court Clerk, Motor Vehicle License Clerk, Warrant Clerk

43-4040 Credit Authorizers, Checkers, and Clerks

This broad occupation is the same as the detailed occupation:

43-4041 Credit Authorizers, Checkers, and Clerks

43-4041 Credit Authorizers, Checkers, and Clerks

Authorize credit charges against customers' accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants to obtain personal and financial data, determine credit worthiness, process applications, and notify customers of acceptance or rejection of credit.

Illustrative examples: Charge Authorizer, Commercial Credit Reviewer, Credit Rating Checker

43-4050 Customer Service Representatives

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

This broad occupation is the same as the detailed occupation:

43-4051 Customer Service Representatives

43-4051 Customer Service Representatives

Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.

Illustrative examples: Customer Complaint Clerk, Passenger Relations Representative, Warranty Clerk

43-4060 Eligibility Interviewers, Government Programs

This broad occupation is the same as the detailed occupation:

43-4061 Eligibility Interviewers, Government Programs

43-4061 Eligibility Interviewers, Government Programs

Determine eligibility of persons applying to receive assistance from government programs and agency resources, such as welfare, unemployment benefits, social security, and public housing.

Illustrative examples: Medicare Interviewer, Public Housing Interviewer, Unemployment Benefits Claims Taker

43-4070 File Clerks

This broad occupation is the same as the detailed occupation:

43-4071 File Clerks

43-4071 File Clerks

File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested.

Illustrative examples: Document Clerk, Records Clerk

43-4080 Hotel, Motel, and Resort Desk Clerks

This broad occupation is the same as the detailed occupation:

43-4081 Hotel, Motel, and Resort Desk Clerks

43-4081 Hotel, Motel, and Resort Desk Clerks

Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.

Illustrative examples: Hotel Front Desk Clerk, Hotel Registration Clerk

43-4110 Interviewers, Except Eligibility and Loan

This broad occupation is the same as the detailed occupation:

43-4111 Interviewers, Except Eligibility and Loan

43-4111 Interviewers, Except Eligibility and Loan

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.

Illustrative examples: Census Taker, Market Research Interviewer, Outpatient Interviewing Clerk

43-4120 Library Assistants, Clerical

This broad occupation is the same as the detailed occupation:

43-4121 Library Assistants, Clerical

43-4121 Library Assistants, Clerical

Compile records, and sort, shelve, issue, and receive library materials such as books, electronic media, pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials. Excludes "Library Technicians" (25-4031).

Illustrative examples: Braille and Talking Books Clerk, Circulation Clerk, Microfilm Clerk

43-4130 Loan Interviewers and Clerks

This broad occupation is the same as the detailed occupation:

43-4131 Loan Interviewers and Clerks

43-4131 Loan Interviewers and Clerks

Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.

Illustrative examples: Loan Processor, Mortgage Loan Closer

43-4140 New Accounts Clerks

This broad occupation is the same as the detailed occupation:

43-4141 New Accounts Clerks

43-4141 New Accounts Clerks

Interview persons desiring to open accounts in financial institutions. Explain account services available to prospective customers and assist them in preparing applications.

Illustrative examples: Banking Services Clerk, New Accounts Banking Representative

43-4150 Order Clerks

This broad occupation is the same as the detailed occupation:

43-4151 Order Clerks

43-4151 Order Clerks

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Generally receives orders via mail, phone, fax, or other electronic means. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints. Excludes "Dispatchers, Except Police, Fire, and Ambulance" (43-5032) who both dispatch and take orders for services.

Illustrative examples: Catalogue Clerk, Classified Ad Clerk, Subscription Clerk

43-4160 Human Resources Assistants, Except Payroll and Timekeeping

This broad occupation is the same as the detailed occupation:

43-4161 Human Resources Assistants, Except Payroll and Timekeeping

43-4161 Human Resources Assistants, Except Payroll and Timekeeping

Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports, and date of and reason for termination. May prepare reports for employment records, file employment records, or search employee files and furnish information to authorized persons.

Illustrative examples: HR Clerk, Personnel Clerk

43-4170 Receptionists and Information Clerks

This broad occupation is the same as the detailed occupation:

43-4171 Receptionists and Information Clerks

43-4171 Receptionists and Information Clerks

Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization. Excludes "Switchboard Operators, Including Answering Service" (43-2011).

Illustrative examples: Appointment Clerk, Front Desk Receptionist, Land Leasing Information Clerk

43-4180 Reservation and Transportation Ticket Agents and Travel Clerks

This broad occupation is the same as the detailed occupation:

43-4181 Reservation and Transportation Ticket Agents and Travel Clerks

43-4181 Reservation and Transportation Ticket Agents and Travel Clerks

Make and confirm reservations for transportation or lodging, or sell transportation tickets. May check baggage and direct passengers to designated concourse, pier, or track; deliver tickets and contact individuals and groups to inform them of package tours; or provide tourists with travel or transportation information. Excludes "Cashiers" (41-2011), "Travel Agents" (41-3041), and "Hotel, Motel, and Resort Desk Clerks" (43-4081) who sell tickets for local transportation.

Illustrative examples: Airline Ticket Agent, Gate Agent, Hotel Reservationist, Train Reservation Clerk

43-4190 Miscellaneous Information and Record Clerks

This broad occupation is the same as the detailed occupation:

43-4199 Information and Record Clerks, All Other

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

43-4199 Information and Record Clerks, All Other

All information and record clerks not listed separately.

Illustrative examples: Election Clerk, Probate Clerk, Student Admissions Clerk

43-5000 Material Recording, Scheduling, Dispatching, and Distributing Workers

43-5010 Cargo and Freight Agents

This broad occupation is the same as the detailed occupation:

43-5011 Cargo and Freight Agents

43-5011 Cargo and Freight Agents

Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs.

Illustrative examples: Cargo Router, Freight Shipping Agent

43-5020 Couriers and Messengers

This broad occupation is the same as the detailed occupation:

43-5021 Couriers and Messengers

43-5021 Couriers and Messengers

Pick up and deliver messages, documents, packages, and other items between offices or departments within an establishment or directly to other business concerns, traveling by foot, bicycle, motorcycle, automobile, or public conveyance. Excludes "Light Truck Drivers" (53-3033).

Illustrative examples: Bicycle Messenger, Laboratory Courier, Office Runner

43-5030 Dispatchers

This broad occupation includes the following two detailed occupations:

43-5031 Public Safety Telecommunicators

43-5032 Dispatchers, Except Police, Fire, and Ambulance

43-5031 Public Safety Telecommunicators

Operate telephone, radio, or other communication systems to receive and communicate requests for emergency assistance at 9-1-1 public safety answering points and emergency operations centers. Take information from the public and other sources regarding crimes, threats, disturbances, acts of terrorism, fires, medical emergencies, and other public safety matters. May coordinate and provide information to law enforcement and emergency response personnel. May access sensitive databases and other information sources as needed. May provide additional instructions to callers based on knowledge of and certification in law enforcement, fire, or emergency medical procedures.

Illustrative examples: 911 Operator, Emergency Operator, Public Safety Dispatcher, Public Safety Telecommunicator

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

43-5032 Dispatchers, Except Police, Fire, and Ambulance

Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.

Illustrative examples: Taxicab Dispatcher, Tow Truck Dispatcher, Train Dispatcher

43-5040 Meter Readers, Utilities

This broad occupation is the same as the detailed occupation:

43-5041 Meter Readers, Utilities

43-5041 Meter Readers, Utilities

Read meter and record consumption of electricity, gas, water, or steam.

Illustrative examples: Electric Meter Reader, Gas Meter Reader, Water Meter Reader

43-5050 Postal Service Workers

This broad occupation includes the following three detailed occupations:

43-5051 Postal Service Clerks

43-5052 Postal Service Mail Carriers

43-5053 Postal Service Mail Sorters, Processors, and Processing Machine Operators

43-5051 Postal Service Clerks

Perform any combination of tasks in a United States Postal Service (USPS) post office, such as receive letters and parcels; sell postage and revenue stamps, postal cards, and stamped envelopes; fill out and sell money orders; place mail in pigeon holes of mail rack or in bags; and examine mail for correct postage. Includes postal service clerks employed by USPS contractors.

Illustrative examples: Bulk Mail Clerk, Parcel Post Clerk, Postal Service Window Clerk

43-5052 Postal Service Mail Carriers

Sort and deliver mail for the United States Postal Service (USPS). Deliver mail on established route by vehicle or on foot. Includes postal service mail carriers employed by USPS contractors.

Illustrative examples: Letter Carrier, Mail Deliverer, Rural Route Carrier

43-5053 Postal Service Mail Sorters, Processors, and Processing Machine Operators

Prepare incoming and outgoing mail for distribution for the United States Postal Service (USPS). Examine, sort, and route mail. Load, operate, and occasionally adjust and repair mail processing, sorting, and canceling machinery. Keep records of shipments, pouches, and sacks, and perform other duties related to mail handling within the postal service. Includes postal service mail sorters and processors employed by USPS contractors. Excludes "Postal Service Clerks" (43-5051) and "Postal Service Mail Carriers" (43-5052).

Illustrative examples: Flat Sorting Machine Clerk, Mail Forwarding System Markup Clerk

43-5060 Production, Planning, and Expediting Clerks

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

This broad occupation is the same as the detailed occupation:

43-5061 Production, Planning, and Expediting Clerks

43-5061 Production, Planning, and Expediting Clerks

Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems. Excludes "Project Management Specialists" (13-1082) and "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111).

Illustrative examples: Expeditor, Material Control Clerk, Production Scheduler

43-5070 Shipping, Receiving, and Inventory Clerks

This broad occupation is the same as the detailed occupation:

43-5071 Shipping, Receiving, and Inventory Clerks

43-5071 Shipping, Receiving, and Inventory Clerks

Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment. Excludes "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111), "Mail Clerks and Mail Machine Operators, except Postal Service" (43-9051), and "Stockers and Order Fillers" (53-7065).

Illustrative examples: Incoming Freight Clerk, Route Delivery Clerk, Store Receiving Clerk, Warehouse Clerk

43-5110 Weighers, Measurers, Checkers, and Samplers, Recordkeeping

This broad occupation is the same as the detailed occupation:

43-5111 Weighers, Measurers, Checkers, and Samplers, Recordkeeping

43-5111 Weighers, Measurers, Checkers, and Samplers, Recordkeeping

Weigh, measure, and check materials, supplies, and equipment for the purpose of keeping relevant records. Duties are primarily clerical by nature. Includes workers who collect and keep record of samples of products or materials. Excludes "Inspectors, Testers, Sorters, Samplers, and Weighers" (51-9061).

Illustrative examples: Cheese Weigher, Scale Attendant, Weighing Station Operator

43-6000 Secretaries and Administrative Assistants

43-6010 Secretaries and Administrative Assistants

This broad occupation includes the following four detailed occupations:

43-6011 Executive Secretaries and Executive Administrative Assistants

43-6012 Legal Secretaries and Administrative Assistants

43-6013 Medical Secretaries and Administrative Assistants

43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

43-6011 Executive Secretaries and Executive Administrative Assistants

Provide high-level administrative support by conducting research, preparing statistical reports, and handling information requests, as well as performing routine administrative functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Excludes "Secretaries" (43-6012 through 43-6014).

Illustrative examples: Executive Assistant

43-6012 Legal Secretaries and Administrative Assistants

Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.

Illustrative examples: Law Secretary, Legal Administrative Assistant

43-6013 Medical Secretaries and Administrative Assistants

Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.

Illustrative examples: Dental Secretary, Psychiatric Secretary

43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. Excludes legal, medical, and executive secretaries (43-6011 through 43-6013).

Illustrative examples: Office Secretary, Personal Secretary

43-9000 Other Office and Administrative Support Workers

43-9020 Data Entry and Information Processing Workers

This broad occupation includes the following two detailed occupations:

43-9021 Data Entry Keyers

43-9022 Word Processors and Typists

43-9021 Data Entry Keyers

Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing. Excludes "Word Processors and Typists" (43-9022).

Illustrative examples: Data Input Clerk, Data Typist

43-9022 Word Processors and Typists

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Use word processor, computer, or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Excludes "Court Reporters and Simultaneous Captioners" (27-3092), "Medical Transcriptionists" (31-9094), "Secretaries and Administrative Assistants" (43-6010), and "Data Entry Keyers" (43-9021).

Illustrative examples: Clerk Typist, Transcription Typist

43-9030 Desktop Publishers

This broad occupation is the same as the detailed occupation:

43-9031 Desktop Publishers

43-9031 Desktop Publishers

Format typescript and graphic elements using computer software to produce publication-ready material.

Illustrative examples: Desktop Publishing Specialist, Electronic Publisher

43-9040 Insurance Claims and Policy Processing Clerks

This broad occupation is the same as the detailed occupation:

43-9041 Insurance Claims and Policy Processing Clerks

43-9041 Insurance Claims and Policy Processing Clerks

Process new insurance policies, modifications to existing policies, and claims forms. Obtain information from policyholders to verify the accuracy and completeness of information on claims forms, applications and related documents, and company records. Update existing policies and company records to reflect changes requested by policyholders and insurance company representatives. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031).

Illustrative examples: Insurance Policy Issue Clerk, Underwriting Clerk

43-9050 Mail Clerks and Mail Machine Operators, Except Postal Service

This broad occupation is the same as the detailed occupation:

43-9051 Mail Clerks and Mail Machine Operators, Except Postal Service

43-9051 Mail Clerks and Mail Machine Operators, Except Postal Service

Prepare incoming and outgoing mail for distribution. Time-stamp, open, read, sort, and route incoming mail; and address, seal, stamp, fold, stuff, and affix postage to outgoing mail or packages. Duties may also include keeping necessary records and completed forms.

Illustrative examples: Direct Mail Clerk, Mailroom Clerk, Packaging Clerk

43-9060 Office Clerks, General

This broad occupation is the same as the detailed occupation:

43-9061 Office Clerks, General

43-9061 Office Clerks, General

43-0000 OFFICE AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.

Illustrative examples: Administrative Clerk, Office Assistant, Real Estate Clerk

43-9070 Office Machine Operators, Except Computer

This broad occupation is the same as the detailed occupation:

43-9071 Office Machine Operators, Except Computer

43-9071 Office Machine Operators, Except Computer

Operate one or more of a variety of office machines, such as photocopying, photographic, and duplicating machines, or other office machines. Excludes "Billing and Posting Clerks" (43-3021) and "Mail Clerks and Mail Machine Operators, Except Postal Service" (43-9051).

Illustrative examples: Coin Wrapping Machine Operator, Copy Machine Operator, Scanning Equipment Operators

43-9080 Proofreaders and Copy Markers

This broad occupation is the same as the detailed occupation:

43-9081 Proofreaders and Copy Markers

43-9081 Proofreaders and Copy Markers

Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Excludes workers whose primary duty is editing copy. Includes proofreaders of braille.

Illustrative examples: Braille Proofreader, Copy Reader, Editorial Assistant

43-9110 Statistical Assistants

This broad occupation is the same as the detailed occupation:

43-9111 Statistical Assistants

43-9111 Statistical Assistants

Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Includes actuarial clerks.

Illustrative examples: Actuarial Assistant, Statistical Clerk

43-9190 Miscellaneous Office and Administrative Support Workers

This broad occupation is the same as the detailed occupation:

43-9199 Office and Administrative Support Workers, All Other

43-9199 Office and Administrative Support Workers, All Other

All office and administrative support workers not listed separately.

Illustrative examples: Envelope Stuffer, Fingerprint Clerk, Notary Public

45-0000 FARMING, FISHING, AND FORESTRY OCCUPATIONS

45-1000 Supervisors of Farming, Fishing, and Forestry Workers

45-1010 First-Line Supervisors of Farming, Fishing, and Forestry Workers

This broad occupation is the same as the detailed occupation:

45-1011 First-Line Supervisors of Farming, Fishing, and Forestry Workers

45-1011 First-Line Supervisors of Farming, Fishing, and Forestry Workers

Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers. Excludes "First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers" (37-1012).

Illustrative examples: Corral Boss, Cranberry Bog Supervisor, Fish Hatchery Supervisor

45-2000 Agricultural Workers

45-2010 Agricultural Inspectors

This broad occupation is the same as the detailed occupation:

45-2011 Agricultural Inspectors

45-2011 Agricultural Inspectors

Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.

Illustrative examples: Cattle Examiner, Grain Sampler, Milk Tester

45-2020 Animal Breeders

This broad occupation is the same as the detailed occupation:

45-2021 Animal Breeders

45-2021 Animal Breeders

Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree. Excludes "Animal Scientists" (19-1011) whose primary function is research and "Animal Caretakers" (39-2021) who may occasionally breed animals as part of their other caretaking duties.

Illustrative examples: Dairy Husbandry Worker, Horse Breeder

45-2040 Graders and Sorters, Agricultural Products

This broad occupation is the same as the detailed occupation:

45-2041 Graders and Sorters, Agricultural Products

45-2041 Graders and Sorters, Agricultural Products

Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition. Excludes "Agricultural Inspectors" (45-2011).

Illustrative examples: Cotton Grader, Egg Grader, Fruit Sorter, Meat Grader

45-0000 FARMING, FISHING, AND FORESTRY OCCUPATIONS

45-2090 Miscellaneous Agricultural Workers

This broad occupation includes the following four detailed occupations:

45-2091 Agricultural Equipment Operators

45-2092 Farmworkers and Laborers, Crop, Nursery, and Greenhouse

45-2093 Farmworkers, Farm, Ranch, and Aquacultural Animals

45-2099 Agricultural Workers, All Other

45-2091 Agricultural Equipment Operators

Drive and control equipment to support agricultural activities such as tilling soil; planting, cultivating, and harvesting crops; feeding and herding livestock; or removing animal waste. May perform tasks such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks such as husking, shelling, threshing, and ginning.

Illustrative examples: Combine Operator, Feed Mixer Operator, Hay Baler, Tractor Operator

45-2092 Farmworkers and Laborers, Crop, Nursery, and Greenhouse

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities. Excludes "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37-3012), "Graders and Sorters, Agricultural Products" (45-2041), and "Forest, Conservation, and Logging Workers" (45-4011 through 45-4029).

Illustrative examples: Greenhouse Transplanter, Pecan Gatherer, Pepper Picker

45-2093 Farmworkers, Farm, Ranch, and Aquacultural Animals

Attend to live farm, ranch, open range or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, rabbits, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, milking, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep and collect eggs in hatcheries.

Illustrative examples: Cattle Brander, Sheep Shearer, Shrimp Pond Laborer

45-2099 Agricultural Workers, All Other

All agricultural workers not listed separately.

Illustrative examples: Crop Scout, Irrigation Worker

45-3000 Fishing and Hunting Workers

45-3030 Fishing and Hunting Workers

This broad occupation is the same as the detailed occupation:

45-3031 Fishing and Hunting Workers

45-0000 FARMING, FISHING, AND FORESTRY OCCUPATIONS

45-3031 Fishing and Hunting Workers

Hunt, trap, catch, or gather wild animals or aquatic animals and plants. May use nets, traps, or other equipment. May haul catch onto ship or other vessel. Aquacultural laborers who work on fish farms are included in "Farmworkers, Farm, Ranch, and Aquacultural Animals" (45-2093).

Illustrative examples: Bird Trapper, Deer Hunter, Predatory Animal Trapper, Seaweed Harvester, Wild Oyster Harvester

45-4000 Forest, Conservation, and Logging Workers

45-4010 Forest and Conservation Workers

This broad occupation is the same as the detailed occupation:

45-4011 Forest and Conservation Workers

45-4011 Forest and Conservation Workers

Under supervision, perform manual labor necessary to develop, maintain, or protect areas such as forests, forested areas, woodlands, wetlands, and rangelands through such activities as raising and transporting seedlings; combating insects, pests, and diseases harmful to plant life; and building structures to control water, erosion, and leaching of soil. Includes forester aides, seedling pullers, tree planters, and gatherers of nontimber forestry products such as pine straw.

Illustrative examples: Forestry Laborer, Rangelands Conservation Laborer, Reforestation Worker, Wetlands Conservation Laborer

45-4020 Logging Workers

This broad occupation includes the following four detailed occupations:

45-4021 Fallers

45-4022 Logging Equipment Operators

45-4023 Log Graders and Scalers

45-4029 Logging Workers, All Other

45-4021 Fallers

Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.

Illustrative examples: Lumberjack, Pulpwood Cutter, Timber Cutter

45-4022 Logging Equipment Operators

Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; to skid, load, unload, or stack logs; or to pull stumps or clear brush. Includes operating stand-alone logging machines, such as log chippers. Logging truck drivers are included in "Heavy and Tractor-Trailer Truck Drivers" (53-3032).

Illustrative examples: Grapple Skidder Operator, Log Hauler, Logging Tractor Operator, Lumber Stacker Operator

45-4023 Log Graders and Scalers

45-0000 FARMING, FISHING, AND FORESTRY OCCUPATIONS

Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021).

Illustrative examples: Log Check Scaler, Timber Estimator, Veneer Grader

45-4029 Logging Workers, All Other

All logging workers not listed separately.

Illustrative examples: Log Roper, Rigging Slinger, Timber Hand

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

47-1000 Supervisors of Construction and Extraction Workers

47-1010 First-Line Supervisors of Construction Trades and Extraction Workers

This broad occupation is the same as the detailed occupation:

47-1011 First-Line Supervisors of Construction Trades and Extraction Workers

47-1011 First-Line Supervisors of Construction Trades and Extraction Workers

Directly supervise and coordinate activities of construction or extraction workers.

Illustrative examples: Carpenter Supervisor, Quarry Boss, Rig Supervisor, Solar Panel Installation Supervisor

47-2000 Construction Trades Workers

47-2010 Boilermakers

This broad occupation is the same as the detailed occupation:

47-2011 Boilermakers

47-2011 Boilermakers

Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.

Illustrative examples: Boiler Installer, Boiler Mechanic, Boiler Tester

47-2020 Brickmasons, Blockmasons, and Stonemasons

This broad occupation includes the following two detailed occupations:

47-2021 Brickmasons and Blockmasons

47-2022 Stonemasons

47-2021 Brickmasons and Blockmasons

Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terracotta block, with mortar and other substances, to construct or repair walls, partitions, arches, sewers, and other structures. Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers" (37-3011). Excludes "Stonemasons" (47-2022).

Illustrative examples: Adobe Layer, Brick Chimney Builder, Refractory Bricklayer

47-2022 Stonemasons

Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.

Illustrative examples: Curbstone Setter, Granite Setter, Monument Mason

47-2030 Carpenters

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

This broad occupation is the same as the detailed occupation:

47-2031 Carpenters

47-2031 Carpenters

Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall, and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.

Illustrative examples: Building Carpenter, Custom Wood Stair Builder, Wood Floor Layer

47-2040 Carpet, Floor, and Tile Installers and Finishers

This broad occupation includes the following four detailed occupations:

47-2041 Carpet Installers

47-2042 Floor Layers, Except Carpet, Wood, and Hard Tiles

47-2043 Floor Sanders and Finishers

47-2044 Tile and Stone Setters

47-2041 Carpet Installers

Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials. Excludes "Floor Layers, Except Carpet, Wood, and Hard Tiles" (47-2042).

Illustrative examples: Carpet Layer, Wall-to-Wall Carpet Installer

47-2042 Floor Layers, Except Carpet, Wood, and Hard Tiles

Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors.

Illustrative examples: Composition Floor Layer, Cork Floor Installer, Linoleum Installer, Shock-Absorption Floor Layer

47-2043 Floor Sanders and Finishers

Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.

Illustrative examples: Floor Sanding Machine Operator, Floor Scraper, Hardwood Finisher

47-2044 Tile and Stone Setters

Apply hard tile, stone, and comparable materials to walls, floors, ceilings, countertops, and roof decks.

Illustrative examples: Ceramic Tile Installer, Hard Tile Setter, Marble Ceiling Installer, Parquet Floor Layer

47-2050 Cement Masons, Concrete Finishers, and Terrazzo Workers

This broad occupation includes the following two detailed occupations:

47-2051 Cement Masons and Concrete Finishers

47-2053 Terrazzo Workers and Finishers

47-2051 Cement Masons and Concrete Finishers

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints. Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers" (37-3011).

Illustrative examples: Cement Patcher, Concrete Floor Installer, Concrete Swimming Pool Installer

47-2053 Terrazzo Workers and Finishers

Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.

Illustrative examples: Onyx-Chip Terrazzo Worker, Terrazzo Grinder, Terrazzo Setter

47-2060 Construction Laborers

This broad occupation is the same as the detailed occupation:

47-2061 Construction Laborers

47-2061 Construction Laborers

Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under "Helpers, Construction Trades" (47-3010). Excludes "Hazardous Materials Removal Workers" (47-4041).

Illustrative examples: Air Hammer Operator, Construction Craft Laborer, Construction Trench Digger

47-2070 Construction Equipment Operators

This broad occupation includes the following three detailed occupations:

47-2071 Paving, Surfacing, and Tamping Equipment Operators

47-2072 Pile Driver Operators

47-2073 Operating Engineers and Other Construction Equipment Operators

47-2071 Paving, Surfacing, and Tamping Equipment Operators

Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways or for tamping gravel, dirt, or other materials. Includes concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.

Illustrative examples: Asphalt Roller Operator, Blacktop-Paver Operator, Road Grader

47-2072 Pile Driver Operators

Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures such as buildings, bridges, and piers.

Illustrative examples: Hydraulic Pile Hammer Operator, Vibratory Pile Driver

47-2073 Operating Engineers and Other Construction Equipment Operators

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. Excludes "Extraction Workers" (47-5000) and "Crane and Tower Operators" (53-7021).

Illustrative examples: Construction Bulldozer Operator, Road Grader, Steam Shovel Operator

47-2080 Drywall Installers, Ceiling Tile Installers, and Tapers

This broad occupation includes the following two detailed occupations:

47-2081 Drywall and Ceiling Tile Installers

47-2082 Tapers

47-2081 Drywall and Ceiling Tile Installers

Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Includes lathers who fasten wooden, metal, or rockboard lath to walls, ceilings, or partitions of buildings to provide support base for plaster, fireproofing, or acoustical material. Excludes "Carpenters" (47-2031), "Carpet Installers" (47-2041), and "Tile and Stone Setters" (47-2044).

Illustrative examples: Acoustical Ceiling Installer, Drywall Finisher, Sheet Rock Hanger

47-2082 Tapers

Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.

Illustrative examples: Drywall Taper, Sheet Rock Taper, Wall Taper

47-2110 Electricians

This broad occupation is the same as the detailed occupation:

47-2111 Electricians

47-2111 Electricians

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Excludes "Security and Fire Alarm Systems Installers" (49-2098).

Illustrative examples: Electrical Sign Wirer, Master Electrician, Solar Photovoltaic Electrician

47-2120 Glaziers

This broad occupation is the same as the detailed occupation:

47-2121 Glaziers

47-2121 Glaziers

Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops.

Illustrative examples: Plate Glass Installer, Stained Glass Joiner

47-2130 Insulation Workers

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

This broad occupation includes the following two detailed occupations:

47-2131 Insulation Workers, Floor, Ceiling, and Wall

47-2132 Insulation Workers, Mechanical

47-2131 Insulation Workers, Floor, Ceiling, and Wall

Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.

Illustrative examples: Ceiling Insulation Blower, Composition Weatherboard Installer, Interior Surface Insulation Worker

47-2132 Insulation Workers, Mechanical

Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.

Illustrative examples: Boiler Coverer, Pipe Coverer, Pipe Insulator

47-2140 Painters and Paperhangers

This broad occupation includes the following two detailed occupations:

47-2141 Painters, Construction and Maintenance

47-2142 Paperhangers

47-2141 Painters, Construction and Maintenance

Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. Excludes "Paperhangers" (47-2142).

Illustrative examples: Bridge Painter, House Painter, Traffic Line Painter

47-2142 Paperhangers

Cover interior walls or ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces such as walls and billboards. May remove old materials or prepare surfaces to be papered.

Illustrative examples: Billboard Poster, Wall Covering Installer, Wallpaperer

47-2150 Pipelayers, Plumbers, Pipefitters, and Steamfitters

This broad occupation includes the following two detailed occupations:

47-2151 Pipelayers

47-2152 Plumbers, Pipefitters, and Steamfitters

47-2151 Pipelayers

Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Excludes "Welders, Cutters, Solderers, and Brazers" (51-4121).

Illustrative examples: Cast-Iron Drain Pipe Layer, Trench Pipe Layer, Water Main Pipe Layer

47-2152 Plumbers, Pipefitters, and Steamfitters

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinkler fitters.

Illustrative examples: Fire Sprinkler Installer, Solar Thermal Installer, Sprinkler Fitter

47-2160 Plasterers and Stucco Masons

This broad occupation is the same as the detailed occupation:

47-2161 Plasterers and Stucco Masons

47-2161 Plasterers and Stucco Masons

Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.

Illustrative examples: Ornamental Plasterer, Stucco Worker, Swimming Pool Plasterer

47-2170 Reinforcing Iron and Rebar Workers

This broad occupation is the same as the detailed occupation:

47-2171 Reinforcing Iron and Rebar Workers

47-2171 Reinforcing Iron and Rebar Workers

Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Includes rod busters.

Illustrative examples: Post Tensioning Ironworker, Steel Rod Buster

47-2180 Roofers

This broad occupation is the same as the detailed occupation:

47-2181 Roofers

47-2181 Roofers

Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.

Illustrative examples: Hot Tar Roofer, Shingles Roofer, Terra Cotta Roofer

47-2210 Sheet Metal Workers

This broad occupation is the same as the detailed occupation:

47-2211 Sheet Metal Workers

47-2211 Sheet Metal Workers

Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.

Illustrative examples: Heating, Ventilation, and Air Conditioning (HVAC) Sheet Metal Installer, Sheet Metal Former, Tinsmith

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

47-2220 Structural Iron and Steel Workers

This broad occupation is the same as the detailed occupation:

47-2221 Structural Iron and Steel Workers

47-2221 Structural Iron and Steel Workers

Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. Excludes "Reinforcing Iron and Rebar Workers" (47-2171).

Illustrative examples: Bridge Ironworker, Precast Concrete Ironworker, Wind Turbine Erector

47-2230 Solar Photovoltaic Installers

This broad occupation is the same as the detailed occupation:

47-2231 Solar Photovoltaic Installers

47-2231 Solar Photovoltaic Installers

Assemble, install, or maintain solar photovoltaic (PV) systems on roofs or other structures in compliance with site assessment and schematics. May include measuring, cutting, assembling, and bolting structural framing and solar modules. May perform minor electrical work such as current checks. Excludes solar PV electricians who are included in "Electricians" (47-2111) and solar thermal installers who are included in "Plumbers, Pipefitters, and Steamfitters" (47-2152).

Illustrative examples: Photovoltaic (PV) Installation Technician, Solar PV Installer

47-3000 Helpers, Construction Trades

47-3010 Helpers, Construction Trades

This broad occupation includes the following seven detailed occupations:

47-3011 Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters

47-3012 Helpers--Carpenters

47-3013 Helpers--Electricians

47-3014 Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons

47-3015 Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

47-3016 Helpers--Roofers

47-3019 Helpers, Construction Trades, All Other

47-3011 Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters

Help brickmasons, blockmasons, stonemasons, or tile and marble setters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist brickmasons, blockmasons, and stonemasons or tile and marble setters are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Brick Carrier, Brick Washer, Refractory Tile Helper

47-3012 Helpers--Carpenters

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Help carpenters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist carpenters are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Carpenter Assistant, Hardwood Floor Installation Helper

47-3013 Helpers--Electricians

Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist electricians are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Marine Electrician Helper, Stage Electrician Helper

47-3014 Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons

Help painters, paperhangers, plasterers, or stucco masons by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist painters, paperhangers, plasterers, or stucco masons are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Bridge Painter Helper, Dry Plasterer Helper, Wallpaperer Helper

47-3015 Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist plumbers, pipefitters, steamfitters, or pipelayers are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Industrial Gas Fitter Helper, Marine Pipefitter Helper, Plumber Assistant, Water Main Installer Helper

47-3016 Helpers--Roofers

Help roofers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist roofers are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Hot Tar Roofer Helper, Shingles Roofer Helper, Slate Roofer Helper, Terra Cotta Roofer Helper

47-3019 Helpers, Construction Trades, All Other

All construction trades helpers not listed separately.

Illustrative examples: Cellulose Insulation Helper, Drywall Hanger Helper, Rod Buster Helper, Terrazzo Finisher Helper

47-4000 Other Construction and Related Workers

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

47-4010 Construction and Building Inspectors

This broad occupation is the same as the detailed occupation:

47-4011 Construction and Building Inspectors

47-4011 Construction and Building Inspectors

Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.

Illustrative examples: Electrical Inspector, Elevator Inspector, Highway Inspector, Home Inspector

47-4020 Elevator and Escalator Installers and Repairers

This broad occupation is the same as the detailed occupation:

47-4021 Elevator and Escalator Installers and Repairers

47-4021 Elevator and Escalator Installers and Repairers

Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.

Illustrative examples: Elevator Mechanic, Escalator Installer, Hydraulic Elevator Constructor

47-4030 Fence Erectors

This broad occupation is the same as the detailed occupation:

47-4031 Fence Erectors

47-4031 Fence Erectors

Erect and repair fences and fence gates, using hand and power tools.

Illustrative examples: Wire Fence Builder, Wood Fence Installer

47-4040 Hazardous Materials Removal Workers

This broad occupation is the same as the detailed occupation:

47-4041 Hazardous Materials Removal Workers

47-4041 Hazardous Materials Removal Workers

Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.

Illustrative examples: Asbestos Abatement Worker, Decontamination Worker, Irradiated Fuel Handler

47-4050 Highway Maintenance Workers

This broad occupation is the same as the detailed occupation:

47-4051 Highway Maintenance Workers

47-4051 Highway Maintenance Workers

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement and repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road, or plow snow from roadway. Excludes "Tree Trimmers and Pruners" (37-3013).

Illustrative examples: Road Patcher, Road Sign Installer

47-4060 Rail-Track Laying and Maintenance Equipment Operators

This broad occupation is the same as the detailed occupation:

47-4061 Rail-Track Laying and Maintenance Equipment Operators

47-4061 Rail-Track Laying and Maintenance Equipment Operators

Lay, repair, and maintain track for standard or narrow-gauge railroad equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Includes ballast cleaning machine operators and railroad bed tamping machine operators.

Illustrative examples: Rail Maintenance Worker, Track Repairer, Track Surfacing Machine Operator

47-4070 Septic Tank Servicers and Sewer Pipe Cleaners

This broad occupation is the same as the detailed occupation:

47-4071 Septic Tank Servicers and Sewer Pipe Cleaners

47-4071 Septic Tank Servicers and Sewer Pipe Cleaners

Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping.

Illustrative examples: Electric Sewer Cleaning Machine Operator, Septic Tank Cleaner, Sewage Screen Operator

47-4090 Miscellaneous Construction and Related Workers

This broad occupation includes the following two detailed occupations:

47-4091 Segmental Pavers

47-4099 Construction and Related Workers, All Other

47-4091 Segmental Pavers

Lay out, cut, and place segmental paving units. Includes installers of bedding and restraining materials for the paving units.

Illustrative examples: Concrete Pavement Installer, Paving Stone Installer

47-4099 Construction and Related Workers, All Other

All construction and related workers not listed separately.

Illustrative examples: Aluminum Pool Installer, Waterproofer

47-5000 Extraction Workers

47-5010 Derrick, Rotary Drill, and Service Unit Operators, Oil and Gas

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

This broad occupation includes the following three detailed occupations:

47-5011 Derrick Operators, Oil and Gas

47-5012 Rotary Drill Operators, Oil and Gas

47-5013 Service Unit Operators, Oil and Gas

47-5011 Derrick Operators, Oil and Gas

Rig derrick equipment and operate pumps to circulate mud or fluid through drill hole.

Illustrative examples: Fracturing Derrick Operator, Rotary Derrick Operator, Well Service Derrick Worker

47-5012 Rotary Drill Operators, Oil and Gas

Set up or operate a variety of drills to remove underground oil and gas, or remove core samples for testing during oil and gas exploration. Excludes "Earth Drillers, Except Oil and Gas" (47-5023).

Illustrative examples: Fracturing Rotary Drill Operator, Oil Well Cable Tool Operator, Oil Well Driller

47-5013 Service Unit Operators, Oil and Gas

Operate equipment to increase oil flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells. Includes fishing-tool technicians.

Illustrative examples: Well Servicing Rig Operator

47-5020 Surface Mining Machine Operators and Earth Drillers

This broad occupation includes the following two detailed occupations:

47-5022 Excavating and Loading Machine and Dragline Operators, Surface Mining

47-5023 Earth Drillers, Except Oil and Gas

47-5022 Excavating and Loading Machine and Dragline Operators, Surface Mining

Operate or tend machinery at surface mining site, equipped with scoops, shovels, or buckets to excavate and load loose materials.

Illustrative examples: Mining Bulldozer Operator, Mining Shovel Operator

47-5023 Earth Drillers, Except Oil and Gas

Operate a variety of drills such as rotary, churn, and pneumatic to tap subsurface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. Includes horizontal and earth boring machine operators.

Illustrative examples: Blast Hole Driller, Churn Driller, Earth Auger Operator

47-5030 Explosives Workers, Ordnance Handling Experts, and Blasters

This broad occupation is the same as the detailed occupation:

47-5032 Explosives Workers, Ordnance Handling Experts, and Blasters

47-5032 Explosives Workers, Ordnance Handling Experts, and Blasters

Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures.

Illustrative examples: Blast Setter, Dynamiter, Explosive Technician, Mining Powder Crew Worker

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

47-5040 Underground Mining Machine Operators

This broad occupation includes the following four detailed occupations:

47-5041 Continuous Mining Machine Operators

47-5043 Roof Bolters, Mining

47-5044 Loading and Moving Machine Operators, Underground Mining

47-5049 Underground Mining Machine Operators, All Other

47-5041 Continuous Mining Machine Operators

Operate self-propelled mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the mine face and load it onto conveyors, shuttle cars, or trucks in a continuous operation.

Illustrative examples: Continuous Mining Machine Lode Miner, Continuous Mining Machine Miner, Self-Propelled Mining Machine Operator

47-5043 Roof Bolters, Mining

Operate machinery to install roof support bolts in underground mine.

Illustrative examples: Roof Bolting Coal Miner, Underground Bolting Machine Operator, Underground Roof Bolter

47-5044 Loading and Moving Machine Operators, Underground Mining

Operate underground loading or moving machine to load or move core, ore, or rock using shuttle or mine car or conveyors. Equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms and conveyor.

Illustrative examples: Coal Hauler Operator, Coke Loader, Mine Shuttle Car Operator, Mobile Bridge Conveyor Operator

47-5049 Underground Mining Machine Operators, All Other

All underground mining machine operators not listed separately.

Illustrative examples: Long Wall Operator, Long Wall Shearer, Rock Dust Sprayer, Underground Jumbo Driller

47-5050 Rock Splitters, Quarry

This broad occupation is the same as the detailed occupation:

47-5051 Rock Splitters, Quarry

47-5051 Rock Splitters, Quarry

Separate blocks of rough dimension stone from quarry mass using jackhammers, wedges, or chop saws.

Illustrative examples: Quarry Chop Saw Operator, Quarry Plug and Feather Driller, Sandstone Splitter

47-5070 Roustabouts, Oil and Gas

This broad occupation is the same as the detailed occupation:

47-5071 Roustabouts, Oil and Gas

47-5071 Roustabouts, Oil and Gas

Assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed.

47-0000 CONSTRUCTION AND EXTRACTION OCCUPATIONS

Illustrative examples: Gas Floorhand, Oil Field Roustabout, Oil Rig Roughneck

47-5080 Helpers--Extraction Workers

This broad occupation is the same as the detailed occupation:

47-5081 Helpers--Extraction Workers

47-5081 Helpers--Extraction Workers

Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties requiring less skill. Duties include supplying equipment or cleaning work area. Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Illustrative examples: Blaster Helper, Mining Helper, Roof Bolter Helper

47-5090 Miscellaneous Extraction Workers

This broad occupation is the same as the detailed occupation:

47-5099 Extraction Workers, All Other

47-5099 Extraction Workers, All Other

All extraction workers not listed separately.

Illustrative examples: Mine Milling Worker, Mine Tailings Worker

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

49-1000 Supervisors of Installation, Maintenance, and Repair Workers

49-1010 First-Line Supervisors of Mechanics, Installers, and Repairers

This broad occupation is the same as the detailed occupation:

49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers

49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers

Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.

Illustrative examples: Automobile Body Repair Supervisor, Fleet Maintenance Supervisor, Railroad Car Repair Supervisor

49-2000 Electrical and Electronic Equipment Mechanics, Installers, and Repairers

49-2010 Computer, Automated Teller, and Office Machine Repairers

This broad occupation is the same as the detailed occupation:

49-2011 Computer, Automated Teller, and Office Machine Repairers

49-2011 Computer, Automated Teller, and Office Machine Repairers

Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.

Illustrative examples: ATM Servicer, Cash Register Servicer, Data Processing Equipment Repairer

49-2020 Radio and Telecommunications Equipment Installers and Repairers

This broad occupation includes the following two detailed occupations:

49-2021 Radio, Cellular, and Tower Equipment Installers and Repairers

49-2022 Telecommunications Equipment Installers and Repairers, Except Line Installers

49-2021 Radio, Cellular, and Tower Equipment Installers and Repairers

Repair, install, or maintain mobile or stationary radio transmitting, broadcasting, and receiving equipment, and two-way radio communications systems used in cellular telecommunications, mobile broadband, ship-to-shore, aircraft-to-ground communications, and radio equipment in service and emergency vehicles. May test and analyze network coverage.

Illustrative examples: Radio Frequency Technician, Radio Mechanic, Two-Way Radio Technician

49-2022 Telecommunications Equipment Installers and Repairers, Except Line Installers

Install, set up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property. May install communications equipment or communications wiring in buildings. Excludes "Telecommunications Line Installers and Repairers" (49-9052).

Illustrative examples: Fiber Optic Central Office Installer, Private Branch Exchange (PBX) Installer and Repairer

49-2090 Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

This broad occupation includes the following eight detailed occupations:

49-2091 Avionics Technicians

49-2092 Electric Motor, Power Tool, and Related Repairers

49-2093 Electrical and Electronics Installers and Repairers, Transportation Equipment

49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment

49-2095 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay

49-2096 Electronic Equipment Installers and Repairers, Motor Vehicles

49-2097 Audiovisual Equipment Installers and Repairers

49-2098 Security and Fire Alarm Systems Installers

49-2091 Avionics Technicians

Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.

Illustrative examples: Aircraft Electrician, Aircraft Instrument Mechanic, Automatic Pilot Mechanic

49-2092 Electric Motor, Power Tool, and Related Repairers

Repair, maintain, or install electric motors, wiring, or switches.

Illustrative examples: Armature Rewinder, Electrical Parts Reconditioner

49-2093 Electrical and Electronics Installers and Repairers, Transportation Equipment

Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment. Excludes "Avionics Technicians" (49-2091) and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).

Illustrative examples: Locomotive Electrician, Marine Electronics Repairer

49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment

Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas. Excludes "Avionics Technicians" (49-2091), "Electrical and Electronics Installers and Repairers, Transportation Equipment" (49-2093), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).

Illustrative examples: Industrial Robotics Mechanic, Missile Pad Mechanic, Public Address System Mechanic

49-2095 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay

Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and in-service relays.

Illustrative examples: Power Transformer Repairer, Powerhouse Electrician, Relay Technician

49-2096 Electronic Equipment Installers and Repairers, Motor Vehicles

Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.

Illustrative examples: Automotive Electrician, Car Alarm Installer, Car Stereo Installer, GPS Car Navigation Installer

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

49-2097 Audiovisual Equipment Installers and Repairers

Install, repair, or adjust audio or television receivers, stereo systems, camcorders, video systems, or other electronic entertainment equipment in homes or other venues. May perform routine maintenance. Excludes "Audio and Video Technicians" (27-4011).

Illustrative examples: Electronic Musical Instrument Repairer, Home Theater Installer, Satellite Dish Installer, Wireless Internet Installer

49-2098 Security and Fire Alarm Systems Installers

Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Excludes "Electricians" (47-2111) who do a broad range of electrical wiring.

Illustrative examples: Burglar Alarm Installer, Fire Alarm Installer, Home Security Alarm Installer

49-3000 Vehicle and Mobile Equipment Mechanics, Installers, and Repairers

49-3010 Aircraft Mechanics and Service Technicians

This broad occupation is the same as the detailed occupation:

49-3011 Aircraft Mechanics and Service Technicians

49-3011 Aircraft Mechanics and Service Technicians

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Excludes "Avionics Technicians" (49-2091).

Illustrative examples: Aircraft Engine Specialist, Airframe Mechanic, Flight Test Mechanic, Helicopter Engine Mechanic

49-3020 Automotive Technicians and Repairers

This broad occupation includes the following three detailed occupations:

49-3021 Automotive Body and Related Repairers

49-3022 Automotive Glass Installers and Repairers

49-3023 Automotive Service Technicians and Mechanics

49-3021 Automotive Body and Related Repairers

Repair and refinish automotive vehicle bodies and straighten vehicle frames. Excludes "Automotive Glass Installers and Repairers" (49-3022) and "Coating, Painting, and Spraying Machine Setters, Operators, and Tenders" (51-9124).

Illustrative examples: Auto Body Customizer, Auto Bumper Straightener, Truck Body Repairer

49-3022 Automotive Glass Installers and Repairers

Replace or repair broken windshields and window glass in motor vehicles.

Illustrative examples: Auto Glass Mechanic, Automotive Glazier, Windshield Installer

49-3023 Automotive Service Technicians and Mechanics

Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes "Automotive Body and Related Repairers" (49-3021), "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Illustrative examples: Auto Transmission Specialist, Automotive Brake Technician, Automotive Fuel Injection Servicer, Hybrid Car Mechanic

49-3030 Bus and Truck Mechanics and Diesel Engine Specialists

This broad occupation is the same as the detailed occupation:

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines.

Includes mechanics working primarily with automobile or marine diesel engines.

Illustrative examples: Biodiesel Engine Specialist, Marine Diesel Technician, School Bus Mechanic, Tractor Trailer Mechanic

49-3040 Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics

This broad occupation includes the following three detailed occupations:

49-3041 Farm Equipment Mechanics and Service Technicians

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

49-3043 Rail Car Repairers

49-3041 Farm Equipment Mechanics and Service Technicians

Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).

Illustrative examples: Combine Mechanic, Dairy Equipment Repairer, Irrigation Equipment Mechanic

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and mining. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) and "Rail Car Repairers" (49-3043).

Illustrative examples: Bulldozer Mechanic, Construction Equipment Mechanic, Forklift Mechanic

49-3043 Rail Car Repairers

Diagnose, adjust, repair, or overhaul railroad rolling stock, mine cars, or mass transit rail cars. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).

Illustrative examples: Mine Car Mechanic, Streetcar Repairer, Subway Car Repairer, Trolley Car Overhauler

49-3050 Small Engine Mechanics

This broad occupation includes the following three detailed occupations:

49-3051 Motorboat Mechanics and Service Technicians

49-3052 Motorcycle Mechanics

49-3053 Outdoor Power Equipment and Other Small Engine Mechanics

49-3051 Motorboat Mechanics and Service Technicians

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).

Illustrative examples: Certified Marine Mechanic, Outboard Motor Mechanic

49-3052 Motorcycle Mechanics

Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.

Illustrative examples: All Terrain Vehicle Technician, Motor Scooter Mechanic, Motorcycle Service Technician

49-3053 Outdoor Power Equipment and Other Small Engine Mechanics

Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment, and related equipment.

Illustrative examples: Golf Cart Mechanic, Lawn Mower Repairer, Mobility Scooter Repairer, Power Saw Mechanic

49-3090 Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers

This broad occupation includes the following three detailed occupations:

49-3091 Bicycle Repairers

49-3092 Recreational Vehicle Service Technicians

49-3093 Tire Repairers and Changers

49-3091 Bicycle Repairers

Repair and service bicycles.

Illustrative examples: Bicycle Mechanic, Bicycle Service Technician

49-3092 Recreational Vehicle Service Technicians

Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Includes workers who perform customized van conversions. Excludes "Automotive Service Technicians and Mechanics" (49-3023) and "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) who also work on recreation vehicles.

Illustrative examples: Recreational Vehicle (RV) Repairer, RV Mechanic

49-3093 Tire Repairers and Changers

Repair and replace tires.

Illustrative examples: Tire Balancer, Tire Fixer

49-9000 Other Installation, Maintenance, and Repair Occupations

49-9010 Control and Valve Installers and Repairers

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

This broad occupation includes the following two detailed occupations:

49-9011 Mechanical Door Repairers

49-9012 Control and Valve Installers and Repairers, Except Mechanical Door

49-9011 Mechanical Door Repairers

Install, service, or repair automatic door mechanisms and hydraulic doors. Includes garage door mechanics.

Illustrative examples: Automatic Door Mechanic

49-9012 Control and Valve Installers and Repairers, Except Mechanical Door

Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.

Illustrative examples: Air Valve Mechanic, Gas Meter Installer, Thermostat Repairer

49-9020 Heating, Air Conditioning, and Refrigeration Mechanics and Installers

This broad occupation is the same as the detailed occupation:

49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers

49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Illustrative examples: Gas Furnace Installer, Heating, Ventilation, and Air Conditioning (HVAC) Mechanic, Oil Burner Repairer

49-9030 Home Appliance Repairers

This broad occupation is the same as the detailed occupation:

49-9031 Home Appliance Repairers

49-9031 Home Appliance Repairers

Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.

Illustrative examples: Vacuum Cleaner Repairer, Washing Machine Installer, Window Air Conditioner Installer

49-9040 Industrial Machinery Installation, Repair, and Maintenance Workers

This broad occupation includes the following four detailed occupations:

49-9041 Industrial Machinery Mechanics

49-9043 Maintenance Workers, Machinery

49-9044 Millwrights

49-9045 Refractory Materials Repairers, Except Brickmasons

49-9041 Industrial Machinery Mechanics

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans. Excludes "Mobile Heavy Equipment Mechanics, Except Engines" (49-3042), and "Maintenance Workers, Machinery" (49-9043).

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Illustrative examples: Boilerhouse Mechanic, Foundry Equipment Mechanic, Hydroelectric Machinery Mechanic

49-9043 Maintenance Workers, Machinery

Lubricate machinery, change parts, or perform other routine machinery maintenance. Excludes "Maintenance and Repair Workers, General" (49-9071).

Illustrative examples: Crane Oiler

49-9044 Millwrights

Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.

Illustrative examples: Machine Erector, Machinery Dismantler, Maintenance Millwright

49-9045 Refractory Materials Repairers, Except Brickmasons

Build or repair equipment such as furnaces, kilns, cupolas, boilers, converters, ladles, soaking pits, and ovens, using refractory materials.

Illustrative examples: Bondactor Machine Operator, Cupola Repairer, Kiln Door Builder, Ladle Repairer

49-9050 Line Installers and Repairers

This broad occupation includes the following two detailed occupations:

49-9051 Electrical Power-Line Installers and Repairers

49-9052 Telecommunications Line Installers and Repairers

49-9051 Electrical Power-Line Installers and Repairers

Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers. Excludes "Electrical and Electronics Repairers, Powerhouse, Substation, and Relay" (49-2095).

Illustrative examples: Electric Powerline Examiner, Electric Utility Lineworker, Electrical High Tension Tester, Electrical Lineworker

49-9052 Telecommunications Line Installers and Repairers

Install and repair telecommunications cable, including fiber optics.

Illustrative examples: Cable Television Installer, FIOS Line Installer, Telephone Cable Splicer

49-9060 Precision Instrument and Equipment Repairers

This broad occupation includes the following five detailed occupations:

49-9061 Camera and Photographic Equipment Repairers

49-9062 Medical Equipment Repairers

49-9063 Musical Instrument Repairers and Tuners

49-9064 Watch and Clock Repairers

49-9069 Precision Instrument and Equipment Repairers, All Other

49-9061 Camera and Photographic Equipment Repairers

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Repair and adjust cameras and photographic equipment, including commercial video and motion picture camera equipment.

Illustrative examples: Aircraft Photographic Equipment Repairer, Camera Repairer, Photographic Equipment Technician

49-9062 Medical Equipment Repairers

Test, adjust, or repair biomedical or electromedical equipment.

Illustrative examples: Biomedical Equipment Technician, Radiology Equipment Servicer, Surgical Instrument Mechanic

49-9063 Musical Instrument Repairers and Tuners

Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning. Excludes "Audiovisual Equipment Installers and Repairers" (49-2097) who repair electrical and electronic musical instruments.

Illustrative examples: Brass and Wind Instrument Repairer, Piano Tuner, Violin Repairer

49-9064 Watch and Clock Repairers

Repair, clean, and adjust mechanisms of timing instruments, such as watches and clocks. Includes watchmakers, watch technicians, and mechanical timepiece repairers. Excludes "Timing Device Assemblers and Adjusters" (51-2061).

Illustrative examples: Antique Clock Repairer, Clock Repair Technician, Horologist

49-9069 Precision Instrument and Equipment Repairers, All Other

All precision instrument and equipment repairers not listed separately.

Illustrative examples: Gyroscope Repairer, Telescope Repairer

49-9070 Maintenance and Repair Workers, General

This broad occupation is the same as the detailed occupation:

49-9071 Maintenance and Repair Workers, General

49-9071 Maintenance and Repair Workers, General

Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of a building in repair. Duties may involve pipe fitting; HVAC maintenance; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Excludes "Facilities Managers" (11-3013) and "Maintenance Workers, Machinery" (49-9043).

Illustrative examples: Building Maintenance Mechanic, Facilities Maintenance Worker, General Maintenance Worker

49-9080 Wind Turbine Service Technicians

This broad occupation is the same as the detailed occupation:

49-9081 Wind Turbine Service Technicians

49-9081 Wind Turbine Service Technicians

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Inspect, diagnose, adjust, or repair wind turbines. Perform maintenance on wind turbine equipment including resolving electrical, mechanical, and hydraulic malfunctions.

Illustrative examples: Wind Energy Technician, Wind Turbine Mechanic

49-9090 Miscellaneous Installation, Maintenance, and Repair Workers

This broad occupation includes the following eight detailed occupations:

49-9091 Coin, Vending, and Amusement Machine Servicers and Repairers

49-9092 Commercial Divers

49-9094 Locksmiths and Safe Repairers

49-9095 Manufactured Building and Mobile Home Installers

49-9096 Riggers

49-9097 Signal and Track Switch Repairers

49-9098 Helpers--Installation, Maintenance, and Repair Workers

49-9099 Installation, Maintenance, and Repair Workers, All Other

49-9091 Coin, Vending, and Amusement Machine Servicers and Repairers

Install, service, adjust, or repair coin, vending, or amusement machines including video games, juke boxes, pinball machines, or slot machines.

Illustrative examples: Arcade Games Mechanic, Parking Meter Collector, Slot Machine Mechanic, Vending Machine Filler

49-9092 Commercial Divers

Work below surface of water, using surface-supplied air or scuba equipment to inspect, repair, remove, or install equipment and structures. May use a variety of power and hand tools, such as drills, sledgehammers, torches, and welding equipment. May conduct tests or experiments, rig explosives, or photograph structures or marine life. Excludes "Athletes and Sports Competitors" (27-2021), "Police and Sheriff's Patrol Officers" (33-3051), and "Fishing and Hunting Workers" (45-3031).

Illustrative examples: Marine Diver, Salvage Diver, Scuba Diver, Underwater Welder

49-9094 Locksmiths and Safe Repairers

Repair and open locks, make keys, change locks and safe combinations, and install and repair safes.

Illustrative examples: Key Maker, Safe and Vault Installer, Safe and Vault Mechanic

49-9095 Manufactured Building and Mobile Home Installers

Move or install mobile homes or prefabricated buildings.

Illustrative examples: Housetrailer Servicer, Mobile Home Mechanic, Mobile Home Servicer

49-9096 Riggers

Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.

Illustrative examples: Acrobatic Rigger, Crane Rigger, Yard Rigger

49-9097 Signal and Track Switch Repairers

49-0000 INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS

Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system.

Illustrative examples: Light Rail Signal Technician, Rail Signal Mechanic, Third Rail Installer

49-9098 Helpers--Installation, Maintenance, and Repair Workers

Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.

Illustrative examples: Automobile Body Repairer Helper, Locksmith Helper, Motorboat Mechanic Helper

49-9099 Installation, Maintenance, and Repair Workers, All Other

All installation, maintenance, and repair workers not listed separately.

Illustrative examples: Bowling Alley Mechanic, Fabric Awning Repairer, Fire Extinguisher Installer, Gasoline Pump Installer, Gunsmith, Parachute Repairer, Sail Repairer

51-0000 PRODUCTION OCCUPATIONS

51-1000 Supervisors of Production Workers

51-1010 First-Line Supervisors of Production and Operating Workers

This broad occupation is the same as the detailed occupation:

51-1011 First-Line Supervisors of Production and Operating Workers

51-1011 First-Line Supervisors of Production and Operating Workers

Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.

Illustrative examples: Assembly Line Supervisor, Machinist Supervisor, Printing Worker Supervisor

51-2000 Assemblers and Fabricators

51-2010 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers

This broad occupation is the same as the detailed occupation:

51-2011 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers

51-2011 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers

Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.

Illustrative examples: Aircraft De-Icer Installer, Aircraft Fuselage Framer, Aircraft Riveter

51-2020 Electrical, Electronics, and Electromechanical Assemblers

This broad occupation includes the following three detailed occupations:

51-2021 Coil Winders, Tapers, and Finishers

51-2022 Electrical and Electronic Equipment Assemblers

51-2023 Electromechanical Equipment Assemblers

51-2021 Coil Winders, Tapers, and Finishers

Wind wire coils used in electrical components, such as resistors and transformers, and in electrical equipment and instruments, such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.

Illustrative examples: Coil Builder, Motor Winder, Wire Coiler

51-2022 Electrical and Electronic Equipment Assemblers

Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.

Illustrative examples: Anode Builder, Battery Builder, Circuit Board Assembler, Electric Motor Controls Assembler

51-2023 Electromechanical Equipment Assemblers

51-0000 PRODUCTION OCCUPATIONS

Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.

Illustrative examples: Programmable Logic Controller Assembler, Synchronous Motor Assembler, Vacuum Cleaner Assembler, Vending Machine Assembler

51-2030 Engine and Other Machine Assemblers

This broad occupation is the same as the detailed occupation:

51-2031 Engine and Other Machine Assemblers

51-2031 Engine and Other Machine Assemblers

Construct, assemble, or rebuild machines, such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.

Illustrative examples: Gas Turbine Assembler, Machine Builder, Steam Turbine Assembler

51-2040 Structural Metal Fabricators and Fitters

This broad occupation is the same as the detailed occupation:

51-2041 Structural Metal Fabricators and Fitters

51-2041 Structural Metal Fabricators and Fitters

Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic" (51-4192).

Illustrative examples: Mill Beam Fitter, Protector Plate Attacher

51-2050 Fiberglass Laminators and Fabricators

This broad occupation is the same as the detailed occupation:

51-2051 Fiberglass Laminators and Fabricators

51-2051 Fiberglass Laminators and Fabricators

Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.

Illustrative examples: Fiberglass Boat Builder, Fiberglass Ski Maker

51-2060 Timing Device Assemblers and Adjusters

This broad occupation is the same as the detailed occupation:

51-2061 Timing Device Assemblers and Adjusters

51-2061 Timing Device Assemblers and Adjusters

Perform precision assembling or adjusting, within narrow tolerances, of timing devices such as digital clocks or timing devices with electrical or electronic components. Watchmakers are included in "Watch and Clock Repairers" (49-9064).

Illustrative examples: Digital Watch Assembler, Electrical Timing Device Adjuster, Marine Chronometer Assembler

51-2090 Miscellaneous Assemblers and Fabricators

51-0000 PRODUCTION OCCUPATIONS

This broad occupation includes the following two detailed occupations:

51-2092 Team Assemblers

51-2099 Assemblers and Fabricators, All Other

51-2092 Team Assemblers

Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them, rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team. Assemblers who continuously perform the same task are classified elsewhere in 51-2000.

Illustrative examples: Lead Team Assembler, Team Assembly Line Machine Operator, Team Automobile Assembler

51-2099 Assemblers and Fabricators, All Other

All assemblers and fabricators not listed separately.

Illustrative examples: Air Bag Builder, Crate Builder, Doll Maker

51-3000 Food Processing Workers

51-3010 Bakers

This broad occupation is the same as the detailed occupation:

51-3011 Bakers

51-3011 Bakers

Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Pastry chefs in restaurants and hotels are included with "Chefs and Head Cooks" (35-1011).

Illustrative examples: Bagel Maker, Bread Baker, Pastry Finisher

51-3020 Butchers and Other Meat, Poultry, and Fish Processing Workers

This broad occupation includes the following three detailed occupations:

51-3021 Butchers and Meat Cutters

51-3022 Meat, Poultry, and Fish Cutters and Trimmers

51-3023 Slaughterers and Meat Packers

51-3021 Butchers and Meat Cutters

Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.

Illustrative examples: Butcher Apprentice, Kosher Butcher, Meat Carver, Meat Counter Worker

51-3022 Meat, Poultry, and Fish Cutters and Trimmers

Use hands or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.

Illustrative examples: Fish Filleter, Oyster Shucker, Poultry Eviscerator, Shrimp Picker

51-3023 Slaughterers and Meat Packers

51-0000 PRODUCTION OCCUPATIONS

Perform nonroutine or precision functions involving the preparation of large portions of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats. Work typically occurs in slaughtering, meat packing, or wholesale establishments. Excludes "Meat, Poultry, and Fish Cutters and Trimmers" (51-3022) who perform routine meat cutting.

Illustrative examples: Halal Meat Packer, Poultry Slaughterer, Shochet

51-3090 Miscellaneous Food Processing Workers

This broad occupation includes the following four detailed occupations:

51-3091 Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders

51-3092 Food Batchmakers

51-3093 Food Cooking Machine Operators and Tenders

51-3099 Food Processing Workers, All Other

51-3091 Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders

Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.

Illustrative examples: Coffee Roaster, Fish Smoker, Meat Curer, Smokehouse Worker

51-3092 Food Batchmakers

Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.

Illustrative examples: Frozen Yogurt Maker, Honey Blender, Peanut Butter Maker

51-3093 Food Cooking Machine Operators and Tenders

Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products. Excludes "Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders" (51-3091).

Illustrative examples: Doughnut Machine Operator, Dumpling Machine Operator, Potato Chip Frier

51-3099 Food Processing Workers, All Other

All food processing workers not listed separately

Illustrative examples: Olive Pitter, Poultry Hanger, Yeast Maker

51-4000 Metal Workers and Plastic Workers

51-4020 Forming Machine Setters, Operators, and Tenders, Metal and Plastic

This broad occupation includes the following three detailed occupations:

51-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic

51-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic

51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic

51-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic

51-0000 PRODUCTION OCCUPATIONS

Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.

Illustrative examples: Wire Drawing Machine Tender

51-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.

Illustrative examples: Cold Header Operator, Forging Roll Operator, Spike Machine Operator, Swager Operator

51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate, or to flatten, temper, or reduce gauge of material.

Illustrative examples: Brass Roller, Forming Roll Operator, Plastic Straightening Roll Operator, Steel Roller

51-4030 Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic

This broad occupation includes the following five detailed occupations:

51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic

51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.

Illustrative examples: Crimping Machine Operator for Metal, Metal Punch Press Operator, Metal Slitter

51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.

Illustrative examples: Boring Mill Operator for Metal, Drill Press Operator for Metal, Radial Drill Press Operator for Plastic

51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.

Illustrative examples: Aluminum Polisher, Jewel Bearing Facer, Metal Grinder, Tool Polishing Machine Operator

51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Engine Lathe Operator, Gear Cutter, Screw Machine Operator

51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.

Illustrative examples: Metal Milling Machine Operator, Plastic Thread Milling Machine Setup Operator

51-4040 Machinists

This broad occupation is the same as the detailed occupation:

51-4041 Machinists

51-4041 Machinists

Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures. Machinists who primarily program or operate computer numerically controlled (CNC) equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).

Illustrative examples: Automotive Machinist, Gear Machinist, Production Machinist

51-4050 Metal Furnace Operators, Tenders, Pourers, and Casters

This broad occupation includes the following two detailed occupations:

51-4051 Metal-Refining Furnace Operators and Tenders

51-4052 Pourers and Casters, Metal

51-4051 Metal-Refining Furnace Operators and Tenders

Operate or tend furnaces, such as gas, oil, coal, electric-arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before casting or to produce specified types of steel. Excludes "Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic" (51-4191).

Illustrative examples: Electric Arc Furnace Operator, Smelter Operator

51-4052 Pourers and Casters, Metal

Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.

Illustrative examples: Ingot Caster, Molten Iron Purer, Steel Purer

51-4060 Model Makers and Patternmakers, Metal and Plastic

This broad occupation includes the following two detailed occupations:

51-4061 Model Makers, Metal and Plastic

51-4062 Patternmakers, Metal and Plastic

51-4061 Model Makers, Metal and Plastic

Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Metal Mockup Maker, Plastic Jig and Fixture Builder

51-4062 Patternmakers, Metal and Plastic

Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.

51-4070 Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic

This broad occupation includes the following two detailed occupations:

51-4071 Foundry Mold and Coremakers

51-4072 Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

51-4071 Foundry Mold and Coremakers

Make or form wax or sand cores or molds used in the production of metal castings in foundries. Excludes "Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4072) and "Molders, Shapers, and Casters, Except Metal and Plastic" (51-9195).

Illustrative examples: Airset Caster, Green Sand Molder, Wax Pattern Coater

51-4072 Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.

Illustrative examples: Aluminum Molding Machine Operator, Blow Mold Operator, Plastic Cup Fabricating Machine Operator

51-4080 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

This broad occupation is the same as the detailed occupation:

51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend more than one type of cutting or forming machine tool or robot.

Illustrative examples: Combination Machine Tool Operator, Multi-operation Forming Machine Setter

51-4110 Tool and Die Makers

This broad occupation is the same as the detailed occupation:

51-4111 Tool and Die Makers

51-4111 Tool and Die Makers

Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.

Illustrative examples: Jig Bore Tool Maker, Metal Die Finisher, Metal Gauge Maker

51-4120 Welding, Soldering, and Brazing Workers

This broad occupation includes the following two detailed occupations:

51-4121 Welders, Cutters, Solderers, and Brazers

51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

51-0000 PRODUCTION OCCUPATIONS

51-4121 Welders, Cutters, Solderers, and Brazers

Use hand-welding, flame-cutting, hand-soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Illustrative examples: Arc Welder, Cutting Torch Operator, Pipe Welder, Silver Solderer

51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes workers who operate laser cutters or laser-beam machines.

Illustrative examples: Electron Beam Welder Setter, Ultrasonic Welding Machine Operator

51-4190 Miscellaneous Metal Workers and Plastic Workers

This broad occupation includes the following five detailed occupations:

51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

51-4192 Layout Workers, Metal and Plastic

51-4193 Plating Machine Setters, Operators, and Tenders, Metal and Plastic

51-4194 Tool Grinders, Filers, and Sharpeners

51-4199 Metal Workers and Plastic Workers, All Other

51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat treat metal or plastic objects.

Illustrative examples: Annealing Furnace Operator, Induction Machine Setter, Wire Temperer

51-4192 Layout Workers, Metal and Plastic

Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Includes shipfitters.

Illustrative examples: Shipfitter Apprentice

51-4193 Plating Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend plating machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or decorate surfaces. Typically, the product being coated is immersed in molten metal or an electrolytic solution. Excludes "Coating, Painting, and Spraying Machine Setters, Operators, and Tenders" (51-9124).

Illustrative examples: Anodizer, Galvanizer, Nickel Plater

51-4194 Tool Grinders, Filers, and Sharpeners

Perform precision smoothing, sharpening, polishing, or grinding of metal objects.

Illustrative examples: Tool Grinding Machine Operator

51-4199 Metal Workers and Plastic Workers, All Other

All metal workers and plastic workers not listed separately.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Electrical Discharge Machine Setup Operator, Metal Rivet Machine Operator, Tin Recovery Worker

51-5100 Printing Workers

51-5110 Printing Workers

This broad occupation includes the following three detailed occupations:

51-5111 Prepress Technicians and Workers

51-5112 Printing Press Operators

51-5113 Print Binding and Finishing Workers

51-5111 Prepress Technicians and Workers

Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.

Illustrative examples: Digital Proofing and Platemaker, Photoengraver, Plate Mounter

51-5112 Printing Press Operators

Set up and operate digital, letterpress, lithographic, flexographic, gravure, or other printing machines. Includes short-run offset printing presses.

Illustrative examples: Gravure Press Operator, Offset Press Operator, Web Press Operator

51-5113 Print Binding and Finishing Workers

Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.

Illustrative examples: Bookbinder, Bookbinding Machine Operator

51-6000 Textile, Apparel, and Furnishings Workers

51-6010 Laundry and Dry-Cleaning Workers

This broad occupation is the same as the detailed occupation:

51-6011 Laundry and Dry-Cleaning Workers

51-6011 Laundry and Dry-Cleaning Workers

Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles, such as cloth garments, suede, leather, furs, blankets, draperies, linens, rugs, and carpets. Includes spotters and dyers of these articles.

Illustrative examples: Laundry Attendant, Laundry Equipment Operator, Laundry Sorter

51-6020 Pressers, Textile, Garment, and Related Materials

This broad occupation is the same as the detailed occupation:

51-6021 Pressers, Textile, Garment, and Related Materials

51-6021 Pressers, Textile, Garment, and Related Materials

Press or shape articles by hand or machine.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Clothes Ironer, Pants Presser, Wool Presser

51-6030 Sewing Machine Operators

This broad occupation is the same as the detailed occupation:

51-6031 Sewing Machine Operators

51-6031 Sewing Machine Operators

Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or nongarment products.

Illustrative examples: Blind Stitch Machine Operator, Button Sewing Machine Operator, Custom T-Shirt Embroidery Machine Operator

51-6040 Shoe and Leather Workers

This broad occupation includes the following two detailed occupations:

51-6041 Shoe and Leather Workers and Repairers

51-6042 Shoe Machine Operators and Tenders

51-6041 Shoe and Leather Workers and Repairers

Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles. May use hand tools.

Illustrative examples: Cobbler, Saddle Maker, Shoe Repairer, Shoemaker

51-6042 Shoe Machine Operators and Tenders

Operate or tend a variety of machines to join, decorate, reinforce, or finish shoes and shoe parts.

Illustrative examples: Arch Cushion Press Operator, Lasting Machine Operator, Rasper Machine Operator

51-6050 Tailors, Dressmakers, and Sewers

This broad occupation includes the following two detailed occupations:

51-6051 Sewers, Hand

51-6052 Tailors, Dressmakers, and Custom Sewers

51-6051 Sewers, Hand

Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items. Includes weavers and stitchers.

Illustrative examples: Hand Quilter, Hand Stitcher

51-6052 Tailors, Dressmakers, and Custom Sewers

Design, make, alter, repair, or fit garments.

Illustrative examples: Alterations Tailor, Coat Maker, Vest Maker

51-6060 Textile Machine Setters, Operators, and Tenders

51-0000 PRODUCTION OCCUPATIONS

This broad occupation includes the following four detailed occupations:

51-6061 Textile Bleaching and Dyeing Machine Operators and Tenders

51-6062 Textile Cutting Machine Setters, Operators, and Tenders

51-6063 Textile Knitting and Weaving Machine Setters, Operators, and Tenders

51-6064 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

51-6061 Textile Bleaching and Dyeing Machine Operators and Tenders

Operate or tend machines to bleach, shrink, wash, dye, or finish textiles or synthetic or glass fibers.

Illustrative examples: Cloth Dyer, Rug Dyer, Skein Yarn Dyer

51-6062 Textile Cutting Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that cut textiles.

Illustrative examples: Canvas Cutter, Industrial Fabric Cutter, Welt Trimming Machine Operator

51-6063 Textile Knitting and Weaving Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that knit, loop, weave, or draw in textiles. Excludes "Sewing Machine Operators" (51-6031).

Illustrative examples: Crochet Machine Operator, Jacquard Loom Weaver, Looping Machine Operator

51-6064 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that wind or twist textiles; or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Includes slubber machine and drawing frame operators.

Illustrative examples: Rope Machine Setter, Silk Winding Machine Operator

51-6090 Miscellaneous Textile, Apparel, and Furnishings Workers

This broad occupation includes the following four detailed occupations:

51-6091 Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers

51-6092 Fabric and Apparel Patternmakers

51-6093 Upholsterers

51-6099 Textile, Apparel, and Furnishings Workers, All Other

51-6091 Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers

Set up, operate, or tend machines that extrude and form continuous filaments from synthetic materials, such as liquid polymer, rayon, and fiberglass.

Illustrative examples: Fiber Machine Tender, Synthetic Filament Extruder

51-6092 Fabric and Apparel Patternmakers

Draw and construct sets of precision master fabric patterns or layouts. May also mark and cut fabrics and apparel.

Illustrative examples: Clothing Patternmaker, Embroidery Patternmaker, Fabric Pattern Grader

51-6093 Upholsterers

Make, repair, or replace upholstery for household furniture or transportation vehicles.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Aircraft Seat Upholsterer, Furniture Upholsterer

51-6099 Textile, Apparel, and Furnishings Workers, All Other

All textile, apparel, and furnishings workers not listed separately.

Illustrative examples: Apparel Embroidery Digitizer, Feltmaker, Hat Blocking Machine Operator

51-7000 Woodworkers

51-7010 Cabinetmakers and Bench Carpenters

This broad occupation is the same as the detailed occupation:

51-7011 Cabinetmakers and Bench Carpenters

51-7011 Cabinetmakers and Bench Carpenters

Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products. Excludes "Woodworking Machine Setters, Operators, and Tenders" (51-7040).

Illustrative examples: Cabinet Builder, Marquetry Worker, Wood Furniture Assembler

51-7020 Furniture Finishers

This broad occupation is the same as the detailed occupation:

51-7021 Furniture Finishers

51-7021 Furniture Finishers

Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.

Illustrative examples: Furniture Sander, Piano Refinisher, Wood Cabinet Finisher

51-7030 Model Makers and Patternmakers, Wood

This broad occupation includes the following two detailed occupations:

51-7031 Model Makers, Wood

51-7032 Patternmakers, Wood

51-7031 Model Makers, Wood

Construct full-size and scale wooden precision models of products. Includes wood jig builders and loft workers.

Illustrative examples: Architectural Wood Model Maker

51-7032 Patternmakers, Wood

Plan, lay out, and construct wooden unit or sectional patterns used in forming sand molds for castings.

Illustrative examples: Wood Die Maker

51-7040 Woodworking Machine Setters, Operators, and Tenders

51-0000 PRODUCTION OCCUPATIONS

This broad occupation includes the following two detailed occupations:

51-7041 Sawing Machine Setters, Operators, and Tenders, Wood

51-7042 Woodworking Machine Setters, Operators, and Tenders, Except Sawing

51-7041 Sawing Machine Setters, Operators, and Tenders, Wood

Set up, operate, or tend wood sawing machines. May operate computer numerically controlled (CNC) equipment. Includes lead sawyers. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).

Illustrative examples: Buzzsaw Operator, Circle Saw Operator, Rip Saw Operator, Trim Saw Operator

51-7042 Woodworking Machine Setters, Operators, and Tenders, Except Sawing

Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate computer numerically controlled (CNC) equipment. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).

Illustrative examples: Wood Dowel Machine Operator, Wood Lathe Operator, Wood Planer

51-7090 Miscellaneous Woodworkers

This broad occupation is the same as the detailed occupation:

51-7099 Woodworkers, All Other

51-7099 Woodworkers, All Other

All woodworkers not listed separately.

Illustrative examples: Pole Framer, Wood Carver, Wood Casket Assembler

51-8000 Plant and System Operators

51-8010 Power Plant Operators, Distributors, and Dispatchers

This broad occupation includes the following three detailed occupations:

51-8011 Nuclear Power Reactor Operators

51-8012 Power Distributors and Dispatchers

51-8013 Power Plant Operators

51-8011 Nuclear Power Reactor Operators

Operate or control nuclear reactors. Move control rods, start and stop equipment, monitor and adjust controls, and record data in logs. Implement emergency procedures when needed. May respond to abnormalities, determine cause, and recommend corrective action.

Illustrative examples: Nuclear Control Room Operator, Nuclear Reactor Operator, Nuclear Station Operator

51-8012 Power Distributors and Dispatchers

Coordinate, regulate, or distribute electricity or steam.

Illustrative examples: Steam Plant Control Room Operator, Substation Operator

51-0000 PRODUCTION OCCUPATIONS

51-8013 Power Plant Operators

Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators. Excludes "Nuclear Power Reactor Operators" (51-8011).

Illustrative examples: Hydroelectric Plant Operator, Powerhouse Operator

51-8020 Stationary Engineers and Boiler Operators

This broad occupation is the same as the detailed occupation:

51-8021 Stationary Engineers and Boiler Operators

51-8021 Stationary Engineers and Boiler Operators

Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment such as steam engines, generators, motors, turbines, and steam boilers.

Illustrative examples: Boiler Engineer, Boiler Room Operator, Heating, Ventilation, and Air Conditioning (HVAC) Mechanic Boiler Operator

51-8030 Water and Wastewater Treatment Plant and System Operators

This broad occupation is the same as the detailed occupation:

51-8031 Water and Wastewater Treatment Plant and System Operators

51-8031 Water and Wastewater Treatment Plant and System Operators

Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.

Illustrative examples: Liquid Waste Treatment Plant Operator, Sewage Plant Operator

51-8090 Miscellaneous Plant and System Operators

This broad occupation includes the following four detailed occupations:

51-8091 Chemical Plant and System Operators

51-8092 Gas Plant Operators

51-8093 Petroleum Pump System Operators, Refinery Operators, and Gaugers

51-8099 Plant and System Operators, All Other

51-8091 Chemical Plant and System Operators

Control or operate entire chemical processes or system of machines.

Illustrative examples: Nitric Acid Plant Operator, Pharmaceutical Manufacturing Machine Operator

51-8092 Gas Plant Operators

Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.

Illustrative examples: Gas Controller, Gas Plant Dispatcher

51-8093 Petroleum Pump System Operators, Refinery Operators, and Gaugers

Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.

51-0000 PRODUCTION OCCUPATIONS

Illustrative examples: Hydrotreater Operator, Oil Pipeline Operator, Oil Refiner

51-8099 Plant and System Operators, All Other

All plant and system operators not listed separately.

Illustrative examples: Asphalt Plant Operator, Concrete Batch Plant Operator, Lime Filter Operator

51-9000 Other Production Occupations

51-9010 Chemical Processing Machine Setters, Operators, and Tenders

This broad occupation includes the following two detailed occupations:

51-9011 Chemical Equipment Operators and Tenders

51-9012 Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders

51-9011 Chemical Equipment Operators and Tenders

Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels. Excludes "Chemical Plant and System Operators" (51-8091).

Illustrative examples: Acid Purification Equipment Operator, Chemical Process Equipment Operator

51-9012 Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders

Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators. Excludes "Chemical Equipment Operators and Tenders" (51-9011).

Illustrative examples: Brewmaster, Fermentation Operator, Pasteurizer

51-9020 Crushing, Grinding, Polishing, Mixing, and Blending Workers

This broad occupation includes the following three detailed occupations:

51-9021 Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders

51-9022 Grinding and Polishing Workers, Hand

51-9023 Mixing and Blending Machine Setters, Operators, and Tenders

51-9021 Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to crush, grind, or polish materials, such as coal, glass, grain, stone, food, or rubber.

Illustrative examples: Beveling and Edging Machine Operator, Industrial Coffee Grinder, Marble and Granite Polisher, Pulverizer Operator

51-9022 Grinding and Polishing Workers, Hand

Grind, sand, or polish, using hand tools or hand-held power tools, a variety of metal, wood, stone, clay, plastic, or glass objects. Includes chippers, buffers, and finishers.

Illustrative examples: Hand Buffer, Hand Sander, Jewelry Polisher, Knife Grinder

51-0000 PRODUCTION OCCUPATIONS

51-9023 Mixing and Blending Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients. Excludes "Food Batchmakers" (51-3092).

Illustrative examples: Asphalt Blender, Clay Mixer, Ink Blender

51-9030 Cutting Workers

This broad occupation includes the following two detailed occupations:

51-9031 Cutters and Trimmers, Hand

51-9032 Cutting and Slicing Machine Setters, Operators, and Tenders

51-9031 Cutters and Trimmers, Hand

Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.

Illustrative examples: Fur Trimmer, Hand Cloth Cutter

51-9032 Cutting and Slicing Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material. Excludes "Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4031), "Textile Cutting Machine Setters, Operators, and Tenders" (51-6062), and "Woodworking Machine Setters, Operators, and Tenders" (51-7040).

Illustrative examples: Glass Cutting Machine Operator, Insulation Cutter, Rubber Trimmer

51-9040 Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

This broad occupation is the same as the detailed occupation:

51-9041 Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

51-9041 Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

Set up, operate, or tend machines, such as glass-forming machines, plodder machines, and tuber machines, to shape and form products such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics. Excludes "Shoe Machine Operators and Tenders" (51-6042) and "Paper Goods Machine Setters, Operators, and Tenders" (51-9196).

Illustrative examples: Brick Maker, Rubber Extrusion Operator, Sugar Presser

51-9050 Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

This broad occupation is the same as the detailed occupation:

51-9051 Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

51-9051 Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.

Illustrative examples: Lime Kiln Operator, Lumber Kiln Operator, Rubber Curer

51-9060 Inspectors, Testers, Sorters, Samplers, and Weighers

51-0000 PRODUCTION OCCUPATIONS

This broad occupation is the same as the detailed occupation:

51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers

51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers

Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.

Illustrative examples: Machined Parts Quality Inspector, Petroleum Sampler

51-9070 Jewelers and Precious Stone and Metal Workers

This broad occupation is the same as the detailed occupation:

51-9071 Jewelers and Precious Stone and Metal Workers

51-9071 Jewelers and Precious Stone and Metal Workers

Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Includes diamond polishers and gem cutters, and persons who perform precision casting and modeling of molds, casting metal in molds, or setting precious and semiprecious stones for jewelry and related products.

Illustrative examples: Diamond Setter, Gemologist, Goldsmith

51-9080 Dental and Ophthalmic Laboratory Technicians and Medical Appliance Technicians

This broad occupation includes the following three detailed occupations:

51-9081 Dental Laboratory Technicians

51-9082 Medical Appliance Technicians

51-9083 Ophthalmic Laboratory Technicians

51-9081 Dental Laboratory Technicians

Construct and repair full or partial dentures or dental appliances. Excludes "Dental Assistants" (31-9091).

Illustrative examples: Crown and Bridge Technician, Dental Ceramist, Orthodontic Technician

51-9082 Medical Appliance Technicians

Construct, maintain, or repair medical supportive devices such as braces, orthotics and prosthetic devices, joints, arch supports, and other surgical and medical appliances.

Illustrative examples: Brace Maker, Manufacturing Orthopedic Technologist, Orthotics Technician, Prosthetics Technician

51-9083 Ophthalmic Laboratory Technicians

Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centerer-edgers, and lens mounters. Excludes "Opticians, Dispensing" (29-2081).

Illustrative examples: Eyeglass Maker, Lens Grinder, Precision Lens Centerer and Edger

51-9110 Packaging and Filling Machine Operators and Tenders

This broad occupation is the same as the detailed occupation:

51-9111 Packaging and Filling Machine Operators and Tenders

51-0000 PRODUCTION OCCUPATIONS

51-9111 Packaging and Filling Machine Operators and Tenders

Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.

Illustrative examples: Bottle Capper, Keg Filler, Potato Chip Packaging Machine Operator

51-9120 Painting Workers

This broad occupation includes the following two detailed occupations:

51-9123 Painting, Coating, and Decorating Workers

51-9124 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

51-9123 Painting, Coating, and Decorating Workers

Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather. Excludes "Artists and Related Workers" (27-1010), "Designers" (27-1020), "Photographic Process Workers and Processing Machine Operators" (51-9151), and "Etchers and Engravers" (51-9194).

Illustrative examples: Ceramic Painter, China Decorator, Sign Painter

51-9124 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Set up, operate, or tend spraying or rolling machines to coat or paint any of a wide variety of products, including glassware, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, oil, or rust-proofing materials. Includes painters of transportation vehicles such as painters in auto body repair facilities. Excludes "Plating Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4193).

Illustrative examples: Auto Painter, Electrostatic Paint Operator, Lacquer Spray Booth Operator, Railroad Car Painter

51-9140 Semiconductor Processing Technicians

This broad occupation is the same as the detailed occupation:

51-9141 Semiconductor Processing Technicians

51-9141 Semiconductor Processing Technicians

Perform any or all of the following functions in the manufacture of electronic semiconductors: load semiconductor material into furnace; saw formed ingots into segments; load individual segment into crystal growing chamber and monitor controls; locate crystal axis in ingot using x-ray equipment and saw ingots into wafers; and clean, polish, and load wafers into series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.

Illustrative examples: Electronic Semiconductor Processor, Semiconductor Assembler, Wafer Fabricator

51-9150 Photographic Process Workers and Processing Machine Operators

This broad occupation is the same as the detailed occupation:

51-9151 Photographic Process Workers and Processing Machine Operators

51-9151 Photographic Process Workers and Processing Machine Operators

Perform work involved in developing and processing photographic images from film or digital media. May perform precision tasks such as editing photographic negatives and prints.

Illustrative examples: Digital Photo Printer, Photo Lab Specialist, Photo Retoucher

51-0000 PRODUCTION OCCUPATIONS

51-9160 Computer Numerically Controlled Tool Operators and Programmers

This broad occupation includes the following two detailed occupations:

51-9161 Computer Numerically Controlled Tool Operators

51-9162 Computer Numerically Controlled Tool Programmers

51-9161 Computer Numerically Controlled Tool Operators

Operate computer-controlled tools, machines, or robots to machine or process parts, tools, or other work pieces made of metal, plastic, wood, stone, or other materials. May also set up and maintain equipment.

Illustrative examples: Computer Numerically Controlled (CNC) Machinist, Computer Numerically Controlled (CNC) Milling Machine Operator, Computer Numerically Controlled (CNC) Shot Peening Operator, Jig Boring Machine Operator, Welding Robot Operator

51-9162 Computer Numerically Controlled Tool Programmers

Develop programs to control machining or processing of materials by automatic machine tools, equipment, or systems. May also set up, operate, or maintain equipment.

Illustrative examples: Computer Numerically Controlled (CNC) Programmer, Numerical Control Programmer, Numerical Tool Programmer

51-9190 Miscellaneous Production Workers

This broad occupation includes the following nine detailed occupations:

51-9191 Adhesive Bonding Machine Operators and Tenders

51-9192 Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders

51-9193 Cooling and Freezing Equipment Operators and Tenders

51-9194 Etchers and Engravers

51-9195 Molders, Shapers, and Casters, Except Metal and Plastic

51-9196 Paper Goods Machine Setters, Operators, and Tenders

51-9197 Tire Builders

51-9198 Helpers--Production Workers

51-9199 Production Workers, All Other

51-9191 Adhesive Bonding Machine Operators and Tenders

Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; or joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials. Excludes "Shoe Machine Operators and Tenders" (51-6042).

Illustrative examples: Glue Line Operator, Glue Reel Operator, Paper Gluing Operator

51-9192 Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders

Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.

Illustrative examples: Acid Dipper, Degreaser Operator, Immersion Metal Cleaner

51-9193 Cooling and Freezing Equipment Operators and Tenders

51-0000 PRODUCTION OCCUPATIONS

Operate or tend equipment such as cooling and freezing units, refrigerators, batch freezers, and freezing tunnels, to cool or freeze products, food, blood plasma, and chemicals.

Illustrative examples: Chiller Tender, Refrigerating Machine Operator

51-9194 Etchers and Engravers

Engrave or etch metal, wood, rubber, or other materials. Includes such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers. Photoengravers are included in "Prepress Technicians and Workers" (51-5111).

Illustrative examples: Glass Etcher, Metal Engraver

51-9195 Molders, Shapers, and Casters, Except Metal and Plastic

Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.

Illustrative examples: Cigar Roller, Glass Blower, Neon Tube Bender

51-9196 Paper Goods Machine Setters, Operators, and Tenders

Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.

Illustrative examples: Box Fabricator, Carton Making Machine Operator, Corrugator Operator

51-9197 Tire Builders

Operate machines to build tires.

Illustrative examples: Auto Tire Recapper, Retreader, Tire Molder

51-9198 Helpers--Production Workers

Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment. Apprentice workers are classified in the appropriate production occupations (51-0000).

Illustrative examples: Blending Tank Helper, Commercial Baker Helper, Welder Helper

51-9199 Production Workers, All Other

All production workers not listed separately. Excludes "Packers and Packers, Hand" (53-7064).

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

53-1000 Supervisors of Transportation and Material Moving Workers

53-1040 First-Line Supervisors of Transportation and Material Moving Workers

This broad occupation includes the following five detailed occupations:

53-1041 Aircraft Cargo Handling Supervisors

53-1042 First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand

53-1043 First-Line Supervisors of Material-Moving Machine and Vehicle Operators

53-1044 First-Line Supervisors of Passenger Attendants

53-1049 First-Line Supervisors of Transportation Workers, All Other

53-1041 Aircraft Cargo Handling Supervisors

Supervise and coordinate the activities of ground crew in the loading, unloading, securing, and staging of aircraft cargo or baggage. May determine the quantity and orientation of cargo and compute aircraft center of gravity. May accompany aircraft as member of flight crew and monitor and handle cargo in flight, and assist and brief passengers on safety and emergency procedures. Includes loadmasters.

Illustrative examples: Air Cargo Ground Crew Supervisor, Air Cargo Ground Operations Supervisor, Airport Ramp Supervisor

53-1042 First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand

Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand.

Illustrative examples: Material Handling Crew Supervisor, Warehouse Supervisor

53-1043 First-Line Supervisors of Material-Moving Machine and Vehicle Operators

Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers.

Illustrative examples: Crane Crew Supervisor, Truck Driver Supervisor

53-1044 First-Line Supervisors of Passenger Attendants

Supervise and coordinate activities of passenger attendants. Includes supervisors of "Flight Attendants" (53-2031).

Illustrative examples: Chief Ship Steward, Flight Service Manager

53-1049 First-Line Supervisors of Transportation Workers, All Other

All first-line supervisors of transportation workers not listed separately.

Illustrative examples: Gas Station Supervisor

53-2000 Air Transportation Workers

53-2010 Aircraft Pilots and Flight Engineers

This broad occupation includes the following two detailed occupations:

53-2011 Airline Pilots, Copilots, and Flight Engineers

53-2012 Commercial Pilots

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

53-2011 Airline Pilots, Copilots, and Flight Engineers

Pilot and navigate the flight of fixed-wing aircraft, usually on scheduled air carrier routes, for the transport of passengers and cargo. Requires Federal Air Transport certificate and rating for specific aircraft type used. Includes regional, national, and international airline pilots and flight instructors of airline pilots. Excludes "Electro-Mechanical and Mechatronics Technologists and Technicians" (17-3024).

Illustrative examples: Airline Captain, Airline Pilot In Command, Charter Pilot (Air Transport Pilot Certificate Required), Charter Pilot (Airline)

53-2012 Commercial Pilots

Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes regional, national, and international airline pilots. Excludes "Electro-Mechanical and Mechatronics Technologists and Technicians" (17-3024).

Illustrative examples: Aerial Crop Duster, Charter Pilot (Commercial Pilot Certificate Required), Flight Instructor (Commercial Pilots), Helicopter Pilot

53-2020 Air Traffic Controllers and Airfield Operations Specialists

This broad occupation includes the following two detailed occupations:

53-2021 Air Traffic Controllers

53-2022 Airfield Operations Specialists

53-2021 Air Traffic Controllers

Control air traffic on and within vicinity of airport, and movement of air traffic between altitude sectors and control centers, according to established procedures and policies. Authorize, regulate, and control commercial airline flights according to government or company regulations to expedite and ensure flight safety.

Illustrative examples: Air Traffic Control Operator, Control Tower Operator, Enroute Controller

53-2022 Airfield Operations Specialists

Ensure the safe takeoff and landing of commercial and military aircraft. Duties include coordination between air-traffic control and maintenance personnel, dispatching, using airfield landing and navigational aids, implementing airfield safety procedures, monitoring and maintaining flight records, and applying knowledge of weather information.

Illustrative examples: Aviation Operations Specialist, Flight Operations Coordinator

53-2030 Flight Attendants

This broad occupation is the same as the detailed occupation:

53-2031 Flight Attendants

53-2031 Flight Attendants

Monitor safety of the aircraft cabin. Provide services to airline passengers, explain safety information, serve food and beverages, and respond to emergency incidents.

Illustrative examples: Airline Flight Attendant, Airplane Flight Attendant

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

53-3000 Motor Vehicle Operators

53-3010 Ambulance Drivers and Attendants, Except Emergency Medical Technicians

This broad occupation is the same as the detailed occupation:

53-3011 Ambulance Drivers and Attendants, Except Emergency Medical Technicians

53-3011 Ambulance Drivers and Attendants, Except Emergency Medical Technicians

Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.

Illustrative examples: Emergency Medical Services (EMS) Driver

53-3030 Driver/Sales Workers and Truck Drivers

This broad occupation includes the following three detailed occupations:

53-3031 Driver/Sales Workers

53-3032 Heavy and Tractor-Trailer Truck Drivers

53-3033 Light Truck Drivers

53-3031 Driver/Sales Workers

Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Excludes "Coin, Vending, and Amusement Machine Servicers and Repairers" (49-9091) and "Light Truck Drivers" (53-3033).

Illustrative examples: Newspaper Delivery Driver, Pizza Delivery Driver, Route Salesperson

53-3032 Heavy and Tractor-Trailer Truck Drivers

Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers. Excludes "Refuse and Recyclable Material Collectors" (53-7081).

Illustrative examples: Auto Carrier Driver, Cement Truck Driver, Dump Truck Driver, Garbage Truck Driver

53-3033 Light Truck Drivers

Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle. Excludes "Couriers and Messengers" (43-5021) and "Driver/Sales Workers" (53-3031).

Illustrative examples: Grocery Light Truck Driver, Parcel Truck Driver

53-3050 Passenger Vehicle Drivers

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

This broad occupation includes the following four detailed occupations:

53-3051 Bus Drivers, School

53-3052 Bus Drivers, Transit and Intercity

53-3053 Shuttle Drivers and Chauffeurs

53-3054 Taxi Drivers

53-3051 Bus Drivers, School

Drive a school bus to transport students. Ensure adherence to safety rules. May assist students in boarding or exiting.

Illustrative examples: School Bus Operator, Special Education Bus Driver

53-3052 Bus Drivers, Transit and Intercity

Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.

Illustrative examples: Motor Coach Bus Driver, Public Transit Bus Driver

53-3053 Shuttle Drivers and Chauffeurs

Drive a motor vehicle to transport passengers on a planned or scheduled basis. May collect a fare. Includes nonemergency medical transporters and hearse drivers. Excludes "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011) and "Taxi Drivers" (53-3054).

Illustrative examples: Airport Shuttle Driver, Courtesy Van Driver, Hotel Shuttle Driver, Nonemergency Medical Transporter

53-3054 Taxi Drivers

Drive a motor vehicle to transport passengers on an unplanned basis and charge a fare, usually based on a meter. Excludes "Shuttle Drivers and Chauffeurs" (53-3053).

Illustrative examples: Cab Driver, Rideshare Cab Driver

53-3090 Miscellaneous Motor Vehicle Operators

This broad occupation is the same as the detailed occupation:

53-3099 Motor Vehicle Operators, All Other

53-3099 Motor Vehicle Operators, All Other

All motor vehicle operators not listed separately.

Illustrative examples: Ice-Resurfacing Machine Operators, Motorcycle Deliverer, Street Cleaning Equipment Operator

53-4000 Rail Transportation Workers

53-4010 Locomotive Engineers and Operators

This broad occupation includes the following two detailed occupations:

53-4011 Locomotive Engineers

53-4013 Rail Yard Engineers, Dinkey Operators, and Hostlers

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

53-4011 Locomotive Engineers

Drive electric, diesel-electric, steam, or gas-turbine-electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations. Excludes "Engineers" (17-2011 through 17-2199).

Illustrative examples: Railroad Engineer, Train Engineer

53-4013 Rail Yard Engineers, Dinkey Operators, and Hostlers

Drive switching or other locomotive or dinkey engines within railroad yard, industrial plant, quarry, construction project, or similar location.

Illustrative examples: Coal Tram Driver, Railcar Switcher

53-4020 Railroad Brake, Signal, and Switch Operators and Locomotive Firers

This broad occupation is the same as the detailed occupation:

53-4022 Railroad Brake, Signal, and Switch Operators and Locomotive Firers

53-4022 Railroad Brake, Signal, and Switch Operators and Locomotive Firers

Operate or monitor railroad track switches or locomotive instruments. May couple or uncouple rolling stock to make up or break up trains. Watch for and relay traffic signals. May inspect couplings, air hoses, journal boxes, and hand brakes. May watch for dragging equipment or obstacles on rights-of-way.

Illustrative examples: Diesel Locomotive Firer, Dinkey Engine Firer, Railway Switch Operator, Switch Coupler, Train Brake Operator

53-4030 Railroad Conductors and Yardmasters

This broad occupation is the same as the detailed occupation:

53-4031 Railroad Conductors and Yardmasters

53-4031 Railroad Conductors and Yardmasters

Coordinate activities of switch-engine crew within railroad yard, industrial plant, or similar location. Conductors coordinate activities of train crew on passenger or freight trains. Yardmasters review train schedules and switching orders and coordinate activities of workers engaged in railroad traffic operations, such as the makeup or breakup of trains and yard switching.

Illustrative examples: Freight Conductor, Yard Conductor

53-4040 Subway and Streetcar Operators

This broad occupation is the same as the detailed occupation:

53-4041 Subway and Streetcar Operators

53-4041 Subway and Streetcar Operators

Operate subway or elevated suburban trains with no separate locomotive, or electric-powered streetcar, to transport passengers. May handle fares.

Illustrative examples: Light Rail Transit Operator, Tram Operator, Trolley Car Operator

53-4090 Miscellaneous Rail Transportation Workers

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

This broad occupation is the same as the detailed occupation:

53-4099 Rail Transportation Workers, All Other

53-4099 Rail Transportation Workers, All Other

All rail transportation workers not listed separately.

Illustrative examples: Railway Equipment Operator, Retarder Operator, Transfer Table Operator

53-5000 Water Transportation Workers

53-5010 Sailors and Marine Oilers

This broad occupation is the same as the detailed occupation:

53-5011 Sailors and Marine Oilers

53-5011 Sailors and Marine Oilers

Stand watch to look for obstructions in path of vessel, measure water depth, turn wheel on bridge, or use emergency equipment as directed by captain, mate, or pilot. Break out, rig, overhaul, and store cargo-handling gear, stationary rigging, and running gear. Perform a variety of maintenance tasks to preserve the painted surface of the ship and to maintain line and ship equipment. Must hold government-issued certification and tankerman certification when working aboard liquid-carrying vessels. Includes able seamen and ordinary seamen.

Illustrative examples: Deckhand, Merchant Mariner

53-5020 Ship and Boat Captains and Operators

This broad occupation includes the following two detailed occupations:

53-5021 Captains, Mates, and Pilots of Water Vessels

53-5022 Motorboat Operators

53-5021 Captains, Mates, and Pilots of Water Vessels

Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold license issued by U.S. Coast Guard. Excludes "Motorboat Operators" (53-5022).

Illustrative examples: Barge Captain, First Mate, Harbor Pilot, Port Captain

53-5022 Motorboat Operators

Operate small motor-driven boats. May assist in navigational activities.

Illustrative examples: Launch Operator, Speedboat Operator, Water Taxi Operator

53-5030 Ship Engineers

This broad occupation is the same as the detailed occupation:

53-5031 Ship Engineers

53-5031 Ship Engineers

Supervise and coordinate activities of crew engaged in operating and maintaining engines, boilers, deck machinery, and electrical, sanitary, and refrigeration equipment aboard ship. Excludes "Engineers" (17-2000).

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

Illustrative examples: Barge Engineer, Ferry Engineer, Tugboat Engineer

53-6000 Other Transportation Workers

53-6010 Bridge and Lock Tenders

This broad occupation is the same as the detailed occupation:

53-6011 Bridge and Lock Tenders

53-6011 Bridge and Lock Tenders

Operate and tend bridges, canal locks, and lighthouses to permit marine passage on inland waterways, near shores, and at danger points in waterway passages. May supervise such operations. Includes drawbridge operators, lock operators, and slip bridge operators.

Illustrative examples: Lighthouse Keeper, Lock and Dam Operator

53-6020 Parking Attendants

This broad occupation is the same as the detailed occupation:

53-6021 Parking Attendants

53-6021 Parking Attendants

Park vehicles or issue tickets for customers in a parking lot or garage. May park or tend vehicles in environments such as a car dealership or rental car facility. May collect fee.

Illustrative examples: Parking Ramp Attendant, Valet Parker

53-6030 Transportation Service Attendants

This broad occupation includes the following two detailed occupations:

53-6031 Automotive and Watercraft Service Attendants

53-6032 Aircraft Service Attendants

53-6031 Automotive and Watercraft Service Attendants

Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, and accessories. Collect payment for services and supplies. May lubricate vehicle, change motor oil, refill antifreeze, or replace lights or other accessories, such as windshield wiper blades or fan belts. May repair or replace tires. Excludes "Cashiers" (41-2011).

Illustrative examples: Gas and Oil Servicer, Gas Pump Attendant, Service Station Attendant

53-6032 Aircraft Service Attendants

Service aircraft with fuel. May de-ice aircraft, refill water and cooling agents, empty sewage tanks, service air and oxygen systems, or clean and polish exterior.

Illustrative examples: Aircraft De-Icer, Aircraft Refueler, Airplane Refueler

53-6040 Traffic Technicians

This broad occupation is the same as the detailed occupation:

53-6041 Traffic Technicians

53-6041 Traffic Technicians

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

Conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions, under direction of traffic engineer.

Illustrative examples: Highway Traffic Control Technician, Traffic Signal Technician, Transportation Technician

53-6050 Transportation Inspectors

This broad occupation is the same as the detailed occupation:

53-6051 Transportation Inspectors

53-6051 Transportation Inspectors

Inspect equipment or goods in connection with the safe transport of cargo or people. Includes rail transportation inspectors, such as freight inspectors, rail inspectors, and other inspectors of transportation vehicles not elsewhere classified. Excludes "Transportation Security Screeners" (33-9093).

Illustrative examples: Aircraft Inspector, Motor Vehicle Emissions Inspector, Railroad Car Inspector

53-6060 Passenger Attendants

This broad occupation is the same as the detailed occupation:

53-6061 Passenger Attendants

53-6061 Passenger Attendants

Provide services to ensure the safety of passengers aboard ships, buses, trains, or within the station or terminal. Perform duties such as explaining the use of safety equipment, serving meals or beverages, or answering questions related to travel. Excludes "Baggage Porters and Bellhops" (39-6011) and "Flight Attendants" (53-2031).

Illustrative examples: Ship Steward, Train Attendant

53-6090 Miscellaneous Transportation Workers

This broad occupation is the same as the detailed occupation:

53-6099 Transportation Workers, All Other

53-6099 Transportation Workers, All Other

All transportation workers not listed separately.

Illustrative examples: Rickshaw Driver

53-7000 Material Moving Workers

53-7010 Conveyor Operators and Tenders

This broad occupation is the same as the detailed occupation:

53-7011 Conveyor Operators and Tenders

53-7011 Conveyor Operators and Tenders

Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

Illustrative examples: Conveyor Belt Operator, Grain Elevator Operator

53-7020 Crane and Tower Operators

This broad occupation is the same as the detailed occupation:

53-7021 Crane and Tower Operators

53-7021 Crane and Tower Operators

Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions.

Illustrative examples: Boom Crane Operator, Cherry Picker Operator, Coal Tower Operator

53-7030 Dredge Operators

This broad occupation is the same as the detailed occupation:

53-7031 Dredge Operators

53-7031 Dredge Operators

Operate dredge to remove sand, gravel, or other materials in order to excavate and maintain navigable channels in waterways.

Illustrative examples: Dredger

53-7040 Hoist and Winch Operators

This broad occupation is the same as the detailed occupation:

53-7041 Hoist and Winch Operators

53-7041 Hoist and Winch Operators

Operate or tend hoists or winches to lift and pull loads using power-operated cable equipment. Excludes "Crane and Tower Operators" (53-7021).

Illustrative examples: Winch Derrick Operator

53-7050 Industrial Truck and Tractor Operators

This broad occupation is the same as the detailed occupation:

53-7051 Industrial Truck and Tractor Operators

53-7051 Industrial Truck and Tractor Operators

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Excludes "Logging Equipment Operators" (45-4022).

Illustrative examples: Forklift Operator, Stacker Operator

53-7060 Laborers and Material Movers

This broad occupation includes the following five detailed occupations:

53-7061 Cleaners of Vehicles and Equipment

53-7062 Laborers and Freight, Stock, and Material Movers, Hand

53-7063 Machine Feeders and Offbearers

53-7064 Packers and Packagers, Hand

53-7065 Stockers and Order Fillers

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

53-7061 Cleaners of Vehicles and Equipment

Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses. Excludes "Janitors and Cleaners, Except Maids and Housekeeping Cleaners" (37-2011).

Illustrative examples: Aircraft Cleaner, Auto Detailer, Car Wash Attendant

53-7062 Laborers and Freight, Stock, and Material Movers, Hand

Manually move freight, stock, luggage, or other materials, or perform other general labor. Includes all manual laborers not elsewhere classified. Excludes "Construction Laborers" (47-2061) and "Helpers, Construction Trades" (47-3011 through 47-3019). Excludes "Material Moving Workers" (53-7011 through 53-7199) who use power equipment.

Illustrative examples: Cargo Handler, Wharf Laborer

53-7063 Machine Feeders and Offbearers

Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.

Illustrative examples: Hopper Filler, Spinning Doffer

53-7064 Packers and Packagers, Hand

Pack or package by hand a wide variety of products and materials.

Illustrative examples: Egg Packer, Gift Wrapper, Grocery Store Bagger

53-7065 Stockers and Order Fillers

Receive, store, and issue merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May operate power equipment to fill orders. May mark prices on merchandise and set up sales displays. Excludes "Shipping, Receiving, and Inventory Clerks" (43-5071), "Laborers and Freight, Stock, and Material Movers, Hand" (53-7062), and "Packers and Packagers, Hand" (53-7064).

Illustrative examples: Night Stocker, Store Stocker, Warehouse Stocker

53-7070 Pumping Station Operators

This broad occupation includes the following three detailed occupations:

53-7071 Gas Compressor and Gas Pumping Station Operators

53-7072 Pump Operators, Except Wellhead Pumpers

53-7073 Wellhead Pumpers

53-7071 Gas Compressor and Gas Pumping Station Operators

Operate steam-, gas-, electric motor-, or internal combustion-engine driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.

Illustrative examples: Butane Compressor Operator, Gas Cylinder Processor, Liquid Natural Gas Plant Operator

53-7072 Pump Operators, Except Wellhead Pumpers

53-0000 TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.

Illustrative examples: Brewery Pumper, Fluid Pump Operator

53-7073 Wellhead Pumpers

Operate power pumps and auxiliary equipment to produce flow of oil or gas from wells in oil field.

Illustrative examples: Oil Well Pumper

53-7080 Refuse and Recyclable Material Collectors

This broad occupation is the same as the detailed occupation:

53-7081 Refuse and Recyclable Material Collectors

53-7081 Refuse and Recyclable Material Collectors

Collect and dump refuse or recyclable materials from containers into truck. May drive truck.

Illustrative examples: Garbage Collector, Recyclable Materials Collector, Trash Collector

53-7120 Tank Car, Truck, and Ship Loaders

This broad occupation is the same as the detailed occupation:

53-7121 Tank Car, Truck, and Ship Loaders

53-7121 Tank Car, Truck, and Ship Loaders

Load and unload chemicals and bulk solids, such as coal, sand, and grain, into or from tank cars, trucks, or ships, using material moving equipment. May perform a variety of other tasks relating to shipment of products. May gauge or sample shipping tanks and test them for leaks.

Illustrative examples: Barge Loader, Rail Car Loader, Ship Unloader

53-7190 Miscellaneous Material Moving Workers

This broad occupation is the same as the detailed occupation:

53-7199 Material Moving Workers, All Other

53-7199 Material Moving Workers, All Other

All material moving workers not listed separately.

Illustrative examples: Bulldozer Operator, Freight Elevator Operator, Shovel Operator

55-0000 MILITARY SPECIFIC OCCUPATIONS

55-1000 Military Officer Special and Tactical Operations Leaders

55-1010 Military Officer Special and Tactical Operations Leaders

This broad occupation includes the following eight detailed occupations:

55-1011 Air Crew Officers

55-1012 Aircraft Launch and Recovery Officers

55-1013 Armored Assault Vehicle Officers

55-1014 Artillery and Missile Officers

55-1015 Command and Control Center Officers

55-1016 Infantry Officers

55-1017 Special Forces Officers

55-1019 Military Officer Special and Tactical Operations Leaders, All Other

55-1011 Air Crew Officers

Perform and direct in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Duties include operating aircraft communications and radar equipment, such as establishing satellite linkages and jamming enemy communications capabilities; operating aircraft weapons and defensive systems; conducting preflight, in-flight, and postflight inspections of onboard equipment; and directing cargo and personnel drops.

Illustrative examples: Air Battle Manager, Airdrop Systems Technician, Special Project Airborne Electronics Evaluator

55-1012 Aircraft Launch and Recovery Officers

Plan and direct the operation and maintenance of catapults, arresting gear, and associated mechanical, hydraulic, and control systems involved primarily in aircraft carrier takeoff and landing operations. Duties include supervision of readiness and safety of arresting gear, launching equipment, barricades, and visual landing aid systems; planning and coordinating the design, development, and testing of launch and recovery systems; preparing specifications for catapult and arresting gear installations; evaluating design proposals; determining handling equipment needed for new aircraft; preparing technical data and instructions for operation of landing aids; and training personnel in carrier takeoff and landing procedures.

Illustrative examples: Catapult And Arresting Gear Officer, Flight Deck Officer, Landing Signal Officer

55-1013 Armored Assault Vehicle Officers

Direct the operation of tanks, light armor, and amphibious assault vehicle units during combat situations on land or in aquatic environments. Duties include directing crew members in the operation of targeting and firing systems; coordinating the operation of advanced onboard communications and navigation equipment; directing the transport of personnel and equipment during combat; formulating and implementing battle plans, including the tactical employment of armored vehicle units; and coordinating with infantry, artillery, and air support units.

Illustrative examples: Assault Amphibious Vehicle (AAV) Officer, Cavalry Officer, Tank Officer

55-1014 Artillery and Missile Officers

55-0000 MILITARY SPECIFIC OCCUPATIONS

Manage personnel and weapons operations to destroy enemy positions, aircraft, and vessels. Duties include planning, targeting, and coordinating the tactical deployment of field artillery and air defense artillery missile systems units; directing the establishment and operation of fire control communications systems; targeting and launching intercontinental ballistic missiles; directing the storage and handling of nuclear munitions and components; overseeing security of weapons storage and launch facilities; and managing maintenance of weapons systems.

Illustrative examples: Air Defense Artillery Officer, Naval Surface Fire Support Planner, Targeting Acquisition Officer

55-1015 Command and Control Center Officers

Manage the operation of communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include managing critical communication links between air, naval, and ground forces; formulating and implementing emergency plans for natural and wartime disasters; coordinating emergency response teams and agencies; evaluating command center information and need for high-level military and government reporting; managing the operation of surveillance and detection systems; providing technical information and advice on capabilities and operational readiness; and directing operation of weapons targeting, firing, and launch computer systems.

Illustrative examples: Combat Information Center Officer, Command And Control Officer, Command And Control Systems Integrator

55-1016 Infantry Officers

Direct, train, and lead infantry units in ground combat operations. Duties include directing deployment of infantry weapons, vehicles, and equipment; directing location, construction, and camouflage of infantry positions and equipment; managing field communications operations; coordinating with armor, artillery, and air support units; performing strategic and tactical planning, including battle plan development; and leading basic reconnaissance operations.

Illustrative examples: Infantry Weapons Officer

55-1017 Special Forces Officers

Lead elite teams that implement unconventional operations by air, land, or sea during combat or peacetime. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces officers often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include directing advanced reconnaissance operations and evaluating intelligence information; recruiting, training, and equipping friendly forces; leading raids and invasions on enemy territories; training personnel to implement individual missions and contingency plans; performing strategic and tactical planning for politically sensitive missions; and operating sophisticated communications equipment.

Illustrative examples: Parachute/Combatant Diver Officer, Sea-Air-Land Officer

55-1019 Military Officer Special and Tactical Operations Leaders, All Other

All military officer special and tactical operations leaders not listed separately.

Illustrative examples: Chemical, Biological, Radiological, And Nuclear (CBRN) Officer, Joint Strategic Plans And Policy Officer, Special Technical Operations Officer

55-0000 MILITARY SPECIFIC OCCUPATIONS

55-2000 First-Line Enlisted Military Supervisors

55-2010 First-Line Enlisted Military Supervisors

This broad occupation includes the following three detailed occupations:

55-2011 First-Line Supervisors of Air Crew Members

55-2012 First-Line Supervisors of Weapons Specialists/Crew Members

55-2013 First-Line Supervisors of All Other Tactical Operations Specialists

55-2011 First-Line Supervisors of Air Crew Members

Supervise and coordinate the activities of air crew members. Supervisors may also perform the same activities as the workers they supervise.

Illustrative examples: Airborne Mission Systems Superintendent, In-Flight Refueling Manager

55-2012 First-Line Supervisors of Weapons Specialists/Crew Members

Supervise and coordinate the activities of weapons specialists/crew members. Supervisors may also perform the same activities as the workers they supervise.

Illustrative examples: Armor Senior Sergeant, Field Artillery Senior Sergeant, Infantry Unit Leader

55-2013 First-Line Supervisors of All Other Tactical Operations Specialists

Supervise and coordinate the activities of all other tactical operations specialists not classified separately above. Supervisors may also perform the same activities as the workers they supervise.

Illustrative examples: Command Post Superintendent, Intelligence Chief, Surface Ship USW Supervisor

55-3000 Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members

55-3010 Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members

This broad occupation includes the following eight detailed occupations:

55-3011 Air Crew Members

55-3012 Aircraft Launch and Recovery Specialists

55-3013 Armored Assault Vehicle Crew Members

55-3014 Artillery and Missile Crew Members

55-3015 Command and Control Center Specialists

55-3016 Infantry

55-3018 Special Forces

55-3019 Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

55-3011 Air Crew Members

55-0000 MILITARY SPECIFIC OCCUPATIONS

Perform in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Duties include operating aircraft communications and detection equipment, including establishing satellite linkages and jamming enemy communications capabilities; conducting preflight, in-flight, and postflight inspections of onboard equipment; operating and maintaining aircraft weapons and defensive systems; operating and maintaining aircraft in-flight refueling systems; executing aircraft safety and emergency procedures; computing and verifying passenger, cargo, fuel, and emergency and special equipment weight and balance data; and conducting cargo and personnel drops.

Illustrative examples: Airborne And Air Delivery Specialist, Aviation Electronic Warfare Operator, In-Flight Refueling Craftsman

55-3012 Aircraft Launch and Recovery Specialists

Operate and maintain catapults, arresting gear, and associated mechanical, hydraulic, and control systems involved primarily in aircraft carrier takeoff and landing operations. Duties include installing and maintaining visual landing aids; testing and maintaining launch and recovery equipment using electric and mechanical test equipment and hand tools; activating airfield arresting systems, such as crash barriers and cables, during emergency landing situations; directing aircraft launch and recovery operations using hand or light signals; and maintaining logs of airplane launches, recoveries, and equipment maintenance.

Illustrative examples: Aircraft Launch And Recovery Equipment Maintenance Technician, C-13 Catapult Operator, Expeditionary Airfield Systems Technician

55-3013 Armored Assault Vehicle Crew Members

Operate tanks, light armor, and amphibious assault vehicles during combat situations on land or in aquatic environments. Duties include driving armored vehicles that require specialized training; operating and maintaining targeting and firing systems; operating and maintaining advanced onboard communications and navigation equipment; transporting personnel and equipment in a combat environment; and operating and maintaining auxiliary weapons, including machine guns and grenade launchers.

Illustrative examples: Assault Boat Coxswain, Bradley Linebacker Crewmember, M1A1 Tank Crewman

55-3014 Artillery and Missile Crew Members

Target, fire, and maintain weapons used to destroy enemy positions, aircraft, and vessels. Field artillery crew members predominantly use guns, cannons, and howitzers in ground combat operations, while air defense artillery crew members predominantly use missiles and rockets. Naval artillery crew members predominantly use torpedoes and missiles launched from a ship or submarine. Duties include testing, inspecting, and storing ammunition, missiles, and torpedoes; conducting preventive and routine maintenance on weapons and related equipment; establishing and maintaining radio and wire communications; and operating weapons targeting, firing, and launch computer systems.

Illustrative examples: Air And Missile Defense (AMD) Crewmember, Field Artillery Fire Control Man, Gunner's Mate

55-3015 Command and Control Center Specialists

55-0000 MILITARY SPECIFIC OCCUPATIONS

Operate and monitor communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include maintaining and relaying critical communications between air, naval, and ground forces; implementing emergency plans for natural and wartime disasters; relaying command center information to high-level military and government decisionmakers; monitoring surveillance and detection systems, such as air defense; interpreting and evaluating tactical situations and making recommendations to superiors; and operating weapons targeting, firing, and launch computer systems.

Illustrative examples: Air Defense Command, Control, Communications, Computers And Intelligence Tactical Operations Center Enhanced Operator/Maintainer, C2 Tactical Analysis Technician, Command Post Craftsman

55-3016 Infantry

Operate weapons and equipment in ground combat operations. Duties include operating and maintaining weapons, such as rifles, machine guns, mortars, and hand grenades; locating, constructing, and camouflaging infantry positions and equipment; evaluating terrain and recording topographical information; operating and maintaining field communications equipment; assessing need for and directing supporting fire; placing explosives and performing minesweeping activities on land; and participating in basic reconnaissance operations.

Illustrative examples: Infantryman, Machine Gunner, Mortarman

55-3018 Special Forces

Implement unconventional operations by air, land, or sea during combat or peacetime as members of elite teams. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces members often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include conducting advanced reconnaissance operations and collecting intelligence information; recruiting, training, and equipping friendly forces; conducting raids and invasions on enemy territories; laying and detonating explosives for demolition targets; locating, identifying, defusing, and disposing of ordnance; and operating and maintaining sophisticated communications equipment.

Illustrative examples: Combatant Swimmer (SEAL), Pararescue Craftsman, Special Forces Weapons Sergeant

55-3019 Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

All military enlisted tactical operations and air/weapons specialists and crewmembers not listed separately.

Illustrative examples: Electronic Warfare Specialist, Landing Support Specialist, Psychological Operations Specialist

Appendices

Appendix A: Crosswalk from the 2010 SOC to the 2018 SOC

Appendix A matches every detailed occupation from the 2010 SOC with the corresponding new 2018 SOC code(s) and title(s). A single hashtag (#) after the occupation code and title in the first column means that the occupation in the second column makes up only part of the occupation in the first column; that is, the single hashtag 2010 SOC occupation has been divided into multiple new occupations (i.e. breakout of existing detailed occupation). Likewise, a double hashtag (##) after the occupation code and title in the second column means that the occupation in the first column makes up only part of the occupation in the second column; that is, the double hashtag 2018 SOC occupation has been created from multiple 2010 SOC codes (i.e. merge of existing detailed occupations). Each occupation with the (#) or (##) notation appears multiple times in the chart.

For example, as shown below, the 2018 SOC occupation 25-4022 “Librarians and Media Collections Specialists (##)” (with two hashtags) was created from two 2010 SOC occupations: 25-4021 Librarians and 25-9011 Audio-Visual and Multimedia Collections Specialists. The 2010 SOC occupation; 11-2031 “Public Relations and Fundraising Managers (#)” (with one hashtag) was divided into two occupations in the 2018 SOC: 11-2032 Public Relations Managers and 11-2033 Fundraising Managers.

<i>2010 SOC code</i>	<i>2010 SOC title</i>	<i>2018 SOC code</i>	<i>2018 SOC title</i>
25-4021	Librarians	25-4022	Librarians and Media Collections Specialists (##)
25-9011	Audio-Visual and Multimedia Collections Specialists	25-4022	Librarians and Media Collections Specialists(##)
11-2031	Public Relations and Fundraising Managers (#)	11-2032	Public Relations Managers
11-2031	Public Relations and Fundraising Managers (#)	11-2033	Fundraising Managers

Appendix A: Crosswalk from the 2010 SOC to the 2018 SOC

2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
11-1011	Chief Executives	11-1011	Chief Executives
11-1021	General and Operations Managers	11-1021	General and Operations Managers
11-1031	Legislators	11-1031	Legislators
11-2011	Advertising and Promotions Managers	11-2011	Advertising and Promotions Managers
11-2021	Marketing Managers	11-2021	Marketing Managers
11-2022	Sales Managers	11-2022	Sales Managers
11-2031	Public Relations and Fundraising Managers (#)	11-2032	Public Relations Managers
11-2031	Public Relations and Fundraising Managers (#)	11-2033	Fundraising Managers
11-3011	Administrative Services Managers (#)	11-3012	Administrative Services Managers
11-3011	Administrative Services Managers (#)	11-3013	Facilities Managers
11-3021	Computer and Information Systems Managers	11-3021	Computer and Information Systems Managers
11-3031	Financial Managers	11-3031	Financial Managers
11-3051	Industrial Production Managers	11-3051	Industrial Production Managers
11-3061	Purchasing Managers	11-3061	Purchasing Managers
11-3071	Transportation, Storage, and Distribution Managers	11-3071	Transportation, Storage, and Distribution Managers
11-3111	Compensation and Benefits Managers	11-3111	Compensation and Benefits Managers
11-3121	Human Resources Managers	11-3121	Human Resources Managers
11-3131	Training and Development Managers	11-3131	Training and Development Managers
11-9013	Farmers, Ranchers, and Other Agricultural Managers	11-9013	Farmers, Ranchers, and Other Agricultural Managers
11-9021	Construction Managers	11-9021	Construction Managers
11-9031	Education Administrators, Preschool and Childcare Center/Program	11-9031	Education and Childcare Administrators, Preschool and Daycare
11-9032	Education Administrators, Elementary and Secondary School	11-9032	Education Administrators, Kindergarten through Secondary
11-9033	Education Administrators, Postsecondary	11-9033	Education Administrators, Postsecondary
11-9039	Education Administrators, All Other	11-9039	Education Administrators, All Other
11-9041	Architectural and Engineering Managers	11-9041	Architectural and Engineering Managers
11-9051	Food Service Managers	11-9051	Food Service Managers
11-9061	Funeral Service Managers	11-9171	Funeral Home Managers
11-9071	Gaming Managers	11-9071	Gambling Managers
11-9081	Lodging Managers	11-9081	Lodging Managers
11-9111	Medical and Health Services Managers	11-9111	Medical and Health Services Managers
11-9121	Natural Sciences Managers	11-9121	Natural Sciences Managers
11-9131	Postmasters and Mail Superintendents	11-9131	Postmasters and Mail Superintendents
11-9141	Property, Real Estate, and Community Association Managers	11-9141	Property, Real Estate, and Community Association Managers
11-9151	Social and Community Service Managers	11-9151	Social and Community Service Managers
11-9161	Emergency Management Directors	11-9161	Emergency Management Directors
11-9199	Managers, All Other (#)	11-9072	Entertainment and Recreation Managers, Except Gambling
11-9199	Managers, All Other (#)	11-9179	Personal Service Managers, All Other
11-9199	Managers, All Other (#)	11-9199	Managers, All Other
11-9199	Managers, All Other (#)	13-1082	Project Management Specialists (##)
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	13-1011	Agents and Business Managers of Artists, Performers, and Athletes
13-1021	Buyers and Purchasing Agents, Farm Products	13-1021	Buyers and Purchasing Agents, Farm Products
13-1022	Wholesale and Retail Buyers, Except Farm Products	13-1022	Wholesale and Retail Buyers, Except Farm Products
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1031	Claims Adjusters, Examiners, and Investigators	13-1031	Claims Adjusters, Examiners, and Investigators
13-1032	Insurance Appraisers, Auto Damage	13-1032	Insurance Appraisers, Auto Damage
13-1041	Compliance Officers	13-1041	Compliance Officers
13-1051	Cost Estimators	13-1051	Cost Estimators
13-1071	Human Resources Specialists	13-1071	Human Resources Specialists
13-1074	Farm Labor Contractors	13-1074	Farm Labor Contractors
13-1075	Labor Relations Specialists	13-1075	Labor Relations Specialists
13-1081	Logisticians	13-1081	Logisticians

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
13-1111	Management Analysts	13-1111	Management Analysts
13-1121	Meeting, Convention, and Event Planners	13-1121	Meeting, Convention, and Event Planners
13-1131	Fundraisers	13-1131	Fundraisers
13-1141	Compensation, Benefits, and Job Analysis Specialists	13-1141	Compensation, Benefits, and Job Analysis Specialists
13-1151	Training and Development Specialists	13-1151	Training and Development Specialists
13-1161	Market Research Analysts and Marketing Specialists	13-1161	Market Research Analysts and Marketing Specialists
13-1199	Business Operations Specialists, All Other (#)	13-1082	Project Management Specialists (##)
13-1199	Business Operations Specialists, All Other (#)	13-1199	Business Operations Specialists, All Other
13-2011	Accountants and Auditors	13-2011	Accountants and Auditors
13-2021	Appraisers and Assessors of Real Estate (#)	13-2022	Appraisers of Personal and Business Property
13-2021	Appraisers and Assessors of Real Estate (#)	13-2023	Appraisers and Assessors of Real Estate
13-2031	Budget Analysts	13-2031	Budget Analysts
13-2041	Credit Analysts	13-2041	Credit Analysts
13-2051	Financial Analysts (#)	13-2051	Financial and Investment Analysts
13-2051	Financial Analysts (#)	13-2054	Financial Risk Specialists (##)
13-2052	Personal Financial Advisors	13-2052	Personal Financial Advisors
13-2053	Insurance Underwriters	13-2053	Insurance Underwriters
13-2061	Financial Examiners	13-2061	Financial Examiners
13-2071	Credit Counselors	13-2071	Credit Counselors
13-2072	Loan Officers	13-2072	Loan Officers
13-2081	Tax Examiners and Collectors, and Revenue Agents	13-2081	Tax Examiners and Collectors, and Revenue Agents
13-2082	Tax Preparers	13-2082	Tax Preparers
13-2099	Financial Specialists, All Other (#)	13-2054	Financial Risk Specialists (##)
13-2099	Financial Specialists, All Other (#)	13-2099	Financial Specialists, All Other
15-1111	Computer and Information Research Scientists	15-1221	Computer and Information Research Scientists
15-1121	Computer Systems Analysts	15-1211	Computer Systems Analysts
15-1122	Information Security Analysts	15-1212	Information Security Analysts
15-1131	Computer Programmers	15-1251	Computer Programmers
15-1132	Software Developers, Applications (#)	15-1252	Software Developers (##)
15-1132	Software Developers, Applications (#)	15-1253	Software Quality Assurance Analysts and Testers (##)
15-1133	Software Developers, Systems Software (#)	15-1252	Software Developers (##)
15-1133	Software Developers, Systems Software (#)	15-1253	Software Quality Assurance Analysts and Testers (##)
15-1134	Web Developers (#)	15-1254	Web Developers
15-1134	Web Developers (#)	15-1255	Web and Digital Interface Designers (##)
15-1141	Database Administrators (#)	15-1242	Database Administrators
15-1141	Database Administrators (#)	15-1243	Database Architects (##)
15-1142	Network and Computer Systems Administrators	15-1244	Network and Computer Systems Administrators
15-1143	Computer Network Architects	15-1241	Computer Network Architects
15-1151	Computer User Support Specialists	15-1232	Computer User Support Specialists
15-1152	Computer Network Support Specialists	15-1231	Computer Network Support Specialists
15-1199	Computer Occupations, All Other (#)	13-1082	Project Management Specialists (##)
15-1199	Computer Occupations, All Other (#)	15-1243	Database Architects (##)
15-1199	Computer Occupations, All Other (#)	15-1253	Software Quality Assurance Analysts and Testers (##)
15-1199	Computer Occupations, All Other (#)	15-1255	Web and Digital Interface Designers (##)
15-1199	Computer Occupations, All Other (#)	15-1299	Computer Occupations, All Other (##)
15-2011	Actuaries	15-2011	Actuaries
15-2021	Mathematicians	15-2021	Mathematicians
15-2031	Operations Research Analysts	15-2031	Operations Research Analysts
15-2041	Statisticians	15-2041	Statisticians
15-2091	Mathematical Technicians	15-2099	Mathematical Science Occupations, All Other (##)
15-2099	Mathematical Science Occupations, All Other (#)	15-2051	Data Scientists
15-2099	Mathematical Science Occupations, All Other (#)	15-2099	Mathematical Science Occupations, All Other (##)
17-1011	Architects, Except Landscape and Naval	17-1011	Architects, Except Landscape and Naval
17-1012	Landscape Architects	17-1012	Landscape Architects
17-1021	Cartographers and Photogrammetrists	17-1021	Cartographers and Photogrammetrists
17-1022	Surveyors	17-1022	Surveyors
17-2011	Aerospace Engineers	17-2011	Aerospace Engineers

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
17-2021	Agricultural Engineers	17-2021	Agricultural Engineers
17-2031	Biomedical Engineers	17-2031	Bioengineers and Biomedical Engineers
17-2041	Chemical Engineers	17-2041	Chemical Engineers
17-2051	Civil Engineers	17-2051	Civil Engineers
17-2061	Computer Hardware Engineers	17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers	17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer	17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers	17-2081	Environmental Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers	17-2112	Industrial Engineers
17-2121	Marine Engineers and Naval Architects	17-2121	Marine Engineers and Naval Architects
17-2131	Materials Engineers	17-2131	Materials Engineers
17-2141	Mechanical Engineers	17-2141	Mechanical Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	Nuclear Engineers	17-2161	Nuclear Engineers
17-2171	Petroleum Engineers	17-2171	Petroleum Engineers
17-2199	Engineers, All Other	17-2199	Engineers, All Other
17-3011	Architectural and Civil Drafters	17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters	17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters	17-3013	Mechanical Drafters
17-3019	Drafters, All Other	17-3019	Drafters, All Other
17-3021	Aerospace Engineering and Operations Technicians	17-3021	Aerospace Engineering and Operations Technologists and Technicians
17-3022	Civil Engineering Technicians	17-3022	Civil Engineering Technologists and Technicians
17-3023	Electrical and Electronics Engineering Technicians	17-3023	Electrical and Electronic Engineering Technologists and Technicians
17-3024	Electro-Mechanical Technicians	17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians
17-3025	Environmental Engineering Technicians	17-3025	Environmental Engineering Technologists and Technicians
17-3026	Industrial Engineering Technicians	17-3026	Industrial Engineering Technologists and Technicians
17-3027	Mechanical Engineering Technicians	17-3027	Mechanical Engineering Technologists and Technicians
17-3029	Engineering Technicians, Except Drafters, All Other (#)	17-3028	Calibration Technologists and Technicians
17-3029	Engineering Technicians, Except Drafters, All Other (#)	17-3029	Engineering Technologists and Technicians, Except Drafters, All Other (##)
17-3031	Surveying and Mapping Technicians	17-3031	Surveying and Mapping Technicians
19-1011	Animal Scientists	19-1011	Animal Scientists
19-1012	Food Scientists and Technologists	19-1012	Food Scientists and Technologists
19-1013	Soil and Plant Scientists	19-1013	Soil and Plant Scientists
19-1021	Biochemists and Biophysicists	19-1021	Biochemists and Biophysicists
19-1022	Microbiologists	19-1022	Microbiologists
19-1023	Zoologists and Wildlife Biologists	19-1023	Zoologists and Wildlife Biologists
19-1029	Biological Scientists, All Other	19-1029	Biological Scientists, All Other
19-1031	Conservation Scientists	19-1031	Conservation Scientists
19-1032	Foresters	19-1032	Foresters
19-1041	Epidemiologists	19-1041	Epidemiologists
19-1042	Medical Scientists, Except Epidemiologists	19-1042	Medical Scientists, Except Epidemiologists
19-1099	Life Scientists, All Other	19-1099	Life Scientists, All Other
19-2011	Astronomers	19-2011	Astronomers
19-2012	Physicists	19-2012	Physicists
19-2021	Atmospheric and Space Scientists	19-2021	Atmospheric and Space Scientists
19-2031	Chemists	19-2031	Chemists
19-2032	Materials Scientists	19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health	19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers	19-2042	Geoscientists, Except Hydrologists and Geographers

Appendix A: Crosswalk from the 2010 SOC to the 2018 SOC

2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
19-2043	Hydrologists	19-2043	Hydrologists
19-2099	Physical Scientists, All Other	19-2099	Physical Scientists, All Other
19-3011	Economists	19-3011	Economists
19-3022	Survey Researchers	19-3022	Survey Researchers
19-3031	Clinical, Counseling, and School Psychologists (#)	19-3033	Clinical and Counseling Psychologists
19-3031	Clinical, Counseling, and School Psychologists (#)	19-3034	School Psychologists
19-3032	Industrial-Organizational Psychologists	19-3032	Industrial-Organizational Psychologists
19-3039	Psychologists, All Other	19-3039	Psychologists, All Other
19-3041	Sociologists	19-3041	Sociologists
19-3051	Urban and Regional Planners	19-3051	Urban and Regional Planners
19-3091	Anthropologists and Archeologists	19-3091	Anthropologists and Archeologists
19-3092	Geographers	19-3092	Geographers
19-3093	Historians	19-3093	Historians
19-3094	Political Scientists	19-3094	Political Scientists
19-3099	Social Scientists and Related Workers, All Other	19-3099	Social Scientists and Related Workers, All Other
19-4011	Agricultural and Food Science Technicians (#)	19-4012	Agricultural Technicians
19-4011	Agricultural and Food Science Technicians (#)	19-4013	Food Science Technicians
19-4021	Biological Technicians	19-4021	Biological Technicians
19-4031	Chemical Technicians	19-4031	Chemical Technicians
19-4041	Geological and Petroleum Technicians (#)	19-4043	Geological Technicians, Except Hydrologic Technicians
19-4041	Geological and Petroleum Technicians (#)	19-4044	Hydrologic Technicians (##)
19-4051	Nuclear Technicians	19-4051	Nuclear Technicians
19-4061	Social Science Research Assistants	19-4061	Social Science Research Assistants
19-4091	Environmental Science and Protection Technicians, Including Health	19-4042	Environmental Science and Protection Technicians, Including Health
19-4092	Forensic Science Technicians	19-4092	Forensic Science Technicians
19-4093	Forest and Conservation Technicians	19-4071	Forest and Conservation Technicians
19-4099	Life, Physical, and Social Science Technicians, All Other (#)	19-4044	Hydrologic Technicians (##)
19-4099	Life, Physical, and Social Science Technicians, All Other (#)	19-4099	Life, Physical, and Social Science Technicians, All Other
21-1011	Substance Abuse and Behavioral Disorder Counselors	21-1011	Substance Abuse and Behavioral Disorder Counselors
21-1012	Educational, Guidance, School, and Vocational Counselors	21-1012	Educational, Guidance, and Career Counselors and Advisors
21-1013	Marriage and Family Therapists	21-1013	Marriage and Family Therapists
21-1014	Mental Health Counselors	21-1014	Mental Health Counselors
21-1015	Rehabilitation Counselors	21-1015	Rehabilitation Counselors
21-1019	Counselors, All Other	21-1019	Counselors, All Other
21-1021	Child, Family, and School Social Workers	21-1021	Child, Family, and School Social Workers
21-1022	Healthcare Social Workers	21-1022	Healthcare Social Workers
21-1023	Mental Health and Substance Abuse Social Workers	21-1023	Mental Health and Substance Abuse Social Workers
21-1029	Social Workers, All Other	21-1029	Social Workers, All Other
21-1091	Health Educators	21-1091	Health Education Specialists
21-1092	Probation Officers and Correctional Treatment Specialists	21-1092	Probation Officers and Correctional Treatment Specialists
21-1093	Social and Human Service Assistants	21-1093	Social and Human Service Assistants
21-1094	Community Health Workers	21-1094	Community Health Workers
21-1099	Community and Social Service Specialists, All Other	21-1099	Community and Social Service Specialists, All Other
21-2011	Clergy	21-2011	Clergy
21-2021	Directors, Religious Activities and Education	21-2021	Directors, Religious Activities and Education
21-2099	Religious Workers, All Other	21-2099	Religious Workers, All Other
23-1011	Lawyers	23-1011	Lawyers
23-1012	Judicial Law Clerks	23-1012	Judicial Law Clerks
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers
23-1022	Arbitrators, Mediators, and Conciliators	23-1022	Arbitrators, Mediators, and Conciliators
23-1023	Judges, Magistrate Judges, and Magistrates	23-1023	Judges, Magistrate Judges, and Magistrates

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
23-2011	Paralegals and Legal Assistants	23-2011	Paralegals and Legal Assistants
23-2091	Court Reporters	27-3092	Court Reporters and Simultaneous Captioners
23-2093	Title Examiners, Abstractors, and Searchers	23-2093	Title Examiners, Abstractors, and Searchers
23-2099	Legal Support Workers, All Other	23-2099	Legal Support Workers, All Other
25-1011	Business Teachers, Postsecondary	25-1011	Business Teachers, Postsecondary
25-1021	Computer Science Teachers, Postsecondary	25-1021	Computer Science Teachers, Postsecondary
25-1022	Mathematical Science Teachers, Postsecondary	25-1022	Mathematical Science Teachers, Postsecondary
25-1031	Architecture Teachers, Postsecondary	25-1031	Architecture Teachers, Postsecondary
25-1032	Engineering Teachers, Postsecondary	25-1032	Engineering Teachers, Postsecondary
25-1041	Agricultural Sciences Teachers, Postsecondary	25-1041	Agricultural Sciences Teachers, Postsecondary
25-1042	Biological Science Teachers, Postsecondary	25-1042	Biological Science Teachers, Postsecondary
25-1043	Forestry and Conservation Science Teachers, Postsecondary	25-1043	Forestry and Conservation Science Teachers, Postsecondary
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
25-1052	Chemistry Teachers, Postsecondary	25-1052	Chemistry Teachers, Postsecondary
25-1053	Environmental Science Teachers, Postsecondary	25-1053	Environmental Science Teachers, Postsecondary
25-1054	Physics Teachers, Postsecondary	25-1054	Physics Teachers, Postsecondary
25-1061	Anthropology and Archeology Teachers, Postsecondary	25-1061	Anthropology and Archeology Teachers, Postsecondary
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1063	Economics Teachers, Postsecondary	25-1063	Economics Teachers, Postsecondary
25-1064	Geography Teachers, Postsecondary	25-1064	Geography Teachers, Postsecondary
25-1065	Political Science Teachers, Postsecondary	25-1065	Political Science Teachers, Postsecondary
25-1066	Psychology Teachers, Postsecondary	25-1066	Psychology Teachers, Postsecondary
25-1067	Sociology Teachers, Postsecondary	25-1067	Sociology Teachers, Postsecondary
25-1069	Social Sciences Teachers, Postsecondary, All Other	25-1069	Social Sciences Teachers, Postsecondary, All Other
25-1071	Health Specialties Teachers, Postsecondary	25-1071	Health Specialties Teachers, Postsecondary
25-1072	Nursing Instructors and Teachers, Postsecondary	25-1072	Nursing Instructors and Teachers, Postsecondary
25-1081	Education Teachers, Postsecondary	25-1081	Education Teachers, Postsecondary
25-1082	Library Science Teachers, Postsecondary	25-1082	Library Science Teachers, Postsecondary
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary
25-1112	Law Teachers, Postsecondary	25-1112	Law Teachers, Postsecondary
25-1113	Social Work Teachers, Postsecondary	25-1113	Social Work Teachers, Postsecondary
25-1121	Art, Drama, and Music Teachers, Postsecondary	25-1121	Art, Drama, and Music Teachers, Postsecondary
25-1122	Communications Teachers, Postsecondary	25-1122	Communications Teachers, Postsecondary
25-1123	English Language and Literature Teachers, Postsecondary	25-1123	English Language and Literature Teachers, Postsecondary
25-1124	Foreign Language and Literature Teachers, Postsecondary	25-1124	Foreign Language and Literature Teachers, Postsecondary
25-1125	History Teachers, Postsecondary	25-1125	History Teachers, Postsecondary
25-1126	Philosophy and Religion Teachers, Postsecondary	25-1126	Philosophy and Religion Teachers, Postsecondary
25-1191	Graduate Teaching Assistants	25-9044	Teaching Assistants, Postsecondary
25-1192	Home Economics Teachers, Postsecondary	25-1192	Family and Consumer Sciences Teachers, Postsecondary
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	25-1193	Recreation and Fitness Studies Teachers, Postsecondary
25-1194	Vocational Education Teachers, Postsecondary	25-1194	Career/Technical Education Teachers, Postsecondary
25-1199	Postsecondary Teachers, All Other	25-1199	Postsecondary Teachers, All Other
25-2011	Preschool Teachers, Except Special Education	25-2011	Preschool Teachers, Except Special Education
25-2012	Kindergarten Teachers, Except Special Education	25-2012	Kindergarten Teachers, Except Special Education
25-2021	Elementary School Teachers, Except Special Education	25-2021	Elementary School Teachers, Except Special Education
25-2022	Middle School Teachers, Except Special and Career/Technical Education	25-2022	Middle School Teachers, Except Special and Career/Technical Education
25-2023	Career/Technical Education Teachers, Middle School	25-2023	Career/Technical Education Teachers, Middle School

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	25-2031	Secondary School Teachers, Except Special and Career/Technical Education
25-2032	Career/Technical Education Teachers, Secondary School	25-2032	Career/Technical Education Teachers, Secondary School
25-2051	Special Education Teachers, Preschool	25-2051	Special Education Teachers, Preschool
25-2052	Special Education Teachers, Kindergarten and Elementary School (#)	25-2055	Special Education Teachers, Kindergarten
25-2052	Special Education Teachers, Kindergarten and Elementary School (#)	25-2056	Special Education Teachers, Elementary School
25-2053	Special Education Teachers, Middle School	25-2057	Special Education Teachers, Middle School
25-2054	Special Education Teachers, Secondary School	25-2058	Special Education Teachers, Secondary School
25-2059	Special Education Teachers, All Other	25-2059	Special Education Teachers, All Other
25-3011	Adult Basic and Secondary Education and Literacy Teachers and Instructors	25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors
25-3021	Self-Enrichment Education Teachers	25-3021	Self-Enrichment Teachers
25-3099	Teachers and Instructors, All Other (#)	25-3031	Substitute Teachers, Short-Term
25-3099	Teachers and Instructors, All Other (#)	25-3041	Tutors
25-3099	Teachers and Instructors, All Other (#)	25-3099	Teachers and Instructors, All Other
25-4011	Archivists	25-4011	Archivists
25-4012	Curators	25-4012	Curators
25-4013	Museum Technicians and Conservators	25-4013	Museum Technicians and Conservators
25-4021	Librarians	25-4022	Librarians and Media Collections Specialists (##)
25-4031	Library Technicians	25-4031	Library Technicians
25-9011	Audio-Visual and Multimedia Collections Specialists	25-4022	Librarians and Media Collections Specialists (##)
25-9021	Farm and Home Management Advisors	25-9021	Farm and Home Management Educators
25-9031	Instructional Coordinators	25-9031	Instructional Coordinators
25-9041	Teacher Assistants (#)	25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education
25-9041	Teacher Assistants (#)	25-9043	Teaching Assistants, Special Education
25-9041	Teacher Assistants (#)	25-9049	Teaching Assistants, All Other
25-9099	Education, Training, and Library Workers, All Other	25-9099	Educational Instruction and Library Workers, All Other
27-1011	Art Directors	27-1011	Art Directors
27-1012	Craft Artists	27-1012	Craft Artists
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014	Multimedia Artists and Animators	27-1014	Special Effects Artists and Animators
27-1019	Artists and Related Workers, All Other	27-1019	Artists and Related Workers, All Other
27-1021	Commercial and Industrial Designers	27-1021	Commercial and Industrial Designers
27-1022	Fashion Designers	27-1022	Fashion Designers
27-1023	Floral Designers	27-1023	Floral Designers
27-1024	Graphic Designers	27-1024	Graphic Designers
27-1025	Interior Designers	27-1025	Interior Designers
27-1026	Merchandise Displayers and Window Trimmers	27-1026	Merchandise Displayers and Window Trimmers
27-1027	Set and Exhibit Designers	27-1027	Set and Exhibit Designers
27-1029	Designers, All Other	27-1029	Designers, All Other
27-2011	Actors	27-2011	Actors
27-2012	Producers and Directors	27-2012	Producers and Directors
27-2021	Athletes and Sports Competitors	27-2021	Athletes and Sports Competitors
27-2022	Coaches and Scouts	27-2022	Coaches and Scouts
27-2023	Umpires, Referees, and Other Sports Officials	27-2023	Umpires, Referees, and Other Sports Officials
27-2031	Dancers	27-2031	Dancers
27-2032	Choreographers	27-2032	Choreographers
27-2041	Music Directors and Composers	27-2041	Music Directors and Composers
27-2042	Musicians and Singers	27-2042	Musicians and Singers
27-2099	Entertainers and Performers, Sports and Related Workers, All Other (#)	27-2091	Disc Jockeys, Except Radio
27-2099	Entertainers and Performers, Sports and Related Workers, All Other (#)	27-2099	Entertainers and Performers, Sports and Related Workers, All Other

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
27-3011	Radio and Television Announcers	27-3011	Broadcast Announcers and Radio Disc Jockeys
27-3012	Public Address System and Other Announcers	27-3099	Media and Communication Workers, All Other (##)
27-3021	Broadcast News Analysts	27-3023	News Analysts, Reporters, and Journalists (##)
27-3022	Reporters and Correspondents	27-3023	News Analysts, Reporters, and Journalists (##)
27-3031	Public Relations Specialists	27-3031	Public Relations Specialists
27-3041	Editors	27-3041	Editors
27-3042	Technical Writers	27-3042	Technical Writers
27-3043	Writers and Authors	27-3043	Writers and Authors
27-3091	Interpreters and Translators	27-3091	Interpreters and Translators
27-3099	Media and Communication Workers, All Other	27-3099	Media and Communication Workers, All Other (##)
27-4011	Audio and Video Equipment Technicians	27-4011	Audio and Video Technicians
27-4012	Broadcast Technicians	27-4012	Broadcast Technicians
27-4013	Radio Operators	43-2099	Communications Equipment Operators, All Other (##)
27-4014	Sound Engineering Technicians	27-4014	Sound Engineering Technicians
27-4021	Photographers	27-4021	Photographers
27-4031	Camera Operators, Television, Video, and Motion Picture	27-4031	Camera Operators, Television, Video, and Film
27-4032	Film and Video Editors	27-4032	Film and Video Editors
27-4099	Media and Communication Equipment Workers, All Other (#)	27-4015	Lighting Technicians
27-4099	Media and Communication Equipment Workers, All Other (#)	27-4099	Media and Communication Equipment Workers, All Other
29-1011	Chiropractors	29-1011	Chiropractors
29-1021	Dentists, General	29-1021	Dentists, General
29-1022	Oral and Maxillofacial Surgeons	29-1022	Oral and Maxillofacial Surgeons
29-1023	Orthodontists	29-1023	Orthodontists
29-1024	Prosthodontists	29-1024	Prosthodontists
29-1029	Dentists, All Other Specialists	29-1029	Dentists, All Other Specialists
29-1031	Dietitians and Nutritionists	29-1031	Dietitians and Nutritionists
29-1041	Optometrists	29-1041	Optometrists
29-1051	Pharmacists	29-1051	Pharmacists
29-1061	Anesthesiologists	29-1211	Anesthesiologists
29-1062	Family and General Practitioners	29-1215	Family Medicine Physicians
29-1063	Internists, General	29-1216	General Internal Medicine Physicians
29-1064	Obstetricians and Gynecologists	29-1218	Obstetricians and Gynecologists
29-1065	Pediatricians, General	29-1221	Pediatricians, General
29-1066	Psychiatrists	29-1223	Psychiatrists
29-1067	Surgeons (#)	29-1242	Orthopedic Surgeons, Except Pediatric
29-1067	Surgeons (#)	29-1243	Pediatric Surgeons
29-1067	Surgeons (#)	29-1249	Surgeons, All Other
29-1069	Physicians and Surgeons, All Other (#)	29-1212	Cardiologists
29-1069	Physicians and Surgeons, All Other (#)	29-1213	Dermatologists
29-1069	Physicians and Surgeons, All Other (#)	29-1214	Emergency Medicine Physicians
29-1069	Physicians and Surgeons, All Other (#)	29-1217	Neurologists
29-1069	Physicians and Surgeons, All Other (#)	29-1222	Physicians, Pathologists
29-1069	Physicians and Surgeons, All Other (#)	29-1224	Radiologists
29-1069	Physicians and Surgeons, All Other (#)	29-1229	Physicians, All Other
29-1069	Physicians and Surgeons, All Other (#)	29-1241	Ophthalmologists, Except Pediatric
29-1071	Physician Assistants	29-1071	Physician Assistants
29-1081	Podiatrists	29-1081	Podiatrists
29-1122	Occupational Therapists	29-1122	Occupational Therapists
29-1123	Physical Therapists	29-1123	Physical Therapists
29-1124	Radiation Therapists	29-1124	Radiation Therapists
29-1125	Recreational Therapists	29-1125	Recreational Therapists
29-1126	Respiratory Therapists	29-1126	Respiratory Therapists
29-1127	Speech-Language Pathologists	29-1127	Speech-Language Pathologists
29-1128	Exercise Physiologists	29-1128	Exercise Physiologists
29-1129	Therapists, All Other	29-1129	Therapists, All Other
29-1131	Veterinarians	29-1131	Veterinarians
29-1141	Registered Nurses	29-1141	Registered Nurses

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
29-1151	Nurse Anesthetists	29-1151	Nurse Anesthetists
29-1161	Nurse Midwives	29-1161	Nurse Midwives
29-1171	Nurse Practitioners	29-1171	Nurse Practitioners
29-1181	Audiologists	29-1181	Audiologists
29-1199	Health Diagnosing and Treating Practitioners, All Other (#)	29-1291	Acupuncturists
29-1199	Health Diagnosing and Treating Practitioners, All Other (#)	29-1299	Healthcare Diagnosing or Treating Practitioners, All Other
29-2011	Medical and Clinical Laboratory Technologists	29-2011	Medical and Clinical Laboratory Technologists
29-2012	Medical and Clinical Laboratory Technicians	29-2012	Medical and Clinical Laboratory Technicians
29-2021	Dental Hygienists	29-1292	Dental Hygienists
29-2031	Cardiovascular Technologists and Technicians	29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers	29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists	29-2033	Nuclear Medicine Technologists
29-2034	Radiologic Technologists	29-2034	Radiologic Technologists and Technicians
29-2035	Magnetic Resonance Imaging Technologists	29-2035	Magnetic Resonance Imaging Technologists
29-2041	Emergency Medical Technicians and Paramedics (#)	29-2042	Emergency Medical Technicians
29-2041	Emergency Medical Technicians and Paramedics (#)	29-2043	Paramedics
29-2051	Dietetic Technicians	29-2051	Dietetic Technicians
29-2052	Pharmacy Technicians	29-2052	Pharmacy Technicians
29-2053	Psychiatric Technicians	29-2053	Psychiatric Technicians
29-2054	Respiratory Therapy Technicians	29-2099	Health Technologists and Technicians, All Other (##)
29-2055	Surgical Technologists	29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians	29-2056	Veterinary Technologists and Technicians
29-2057	Ophthalmic Medical Technicians	29-2057	Ophthalmic Medical Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses	29-2061	Licensed Practical and Licensed Vocational Nurses
29-2071	Medical Records and Health Information Technicians (#)	29-2072	Medical Records Specialists
29-2071	Medical Records and Health Information Technicians (#)	29-9021	Health Information Technologists and Medical Registrars (##)
29-2081	Opticians, Dispensing	29-2081	Opticians, Dispensing
29-2091	Orthotists and Prosthetists	29-2091	Orthotists and Prosthetists
29-2092	Hearing Aid Specialists	29-2092	Hearing Aid Specialists
29-2099	Health Technologists and Technicians, All Other (#)	29-2036	Medical Dosimetrists
29-2099	Health Technologists and Technicians, All Other (#)	29-2099	Health Technologists and Technicians, All Other (##)
29-9011	Occupational Health and Safety Specialists	19-5011	Occupational Health and Safety Specialists
29-9012	Occupational Health and Safety Technicians	19-5012	Occupational Health and Safety Technicians
29-9091	Athletic Trainers	29-9091	Athletic Trainers
29-9092	Genetic Counselors	29-9092	Genetic Counselors
29-9099	Healthcare Practitioners and Technical Workers, All Other (#)	29-9021	Health Information Technologists and Medical Registrars (##)
29-9099	Healthcare Practitioners and Technical Workers, All Other (#)	29-9093	Surgical Assistants
29-9099	Healthcare Practitioners and Technical Workers, All Other (#)	29-9099	Healthcare Practitioners and Technical Workers, All Other
31-1011	Home Health Aides	31-1121	Home Health Aides
31-1013	Psychiatric Aides	31-1133	Psychiatric Aides
31-1014	Nursing Assistants	31-1131	Nursing Assistants
31-1015	Orderlies	31-1132	Orderlies
31-2011	Occupational Therapy Assistants	31-2011	Occupational Therapy Assistants
31-2012	Occupational Therapy Aides	31-2012	Occupational Therapy Aides
31-2021	Physical Therapist Assistants	31-2021	Physical Therapist Assistants
31-2022	Physical Therapist Aides	31-2022	Physical Therapist Aides
31-9011	Massage Therapists	31-9011	Massage Therapists
31-9091	Dental Assistants	31-9091	Dental Assistants
31-9092	Medical Assistants	31-9092	Medical Assistants
31-9093	Medical Equipment Preparers	31-9093	Medical Equipment Preparers
31-9094	Medical Transcriptionists	31-9094	Medical Transcriptionists

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
31-9095	Pharmacy Aides	31-9095	Pharmacy Aides
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	31-9096	Veterinary Assistants and Laboratory Animal Caretakers
31-9097	Phlebotomists	31-9097	Phlebotomists
31-9099	Healthcare Support Workers, All Other	31-9099	Healthcare Support Workers, All Other
33-1011	First-Line Supervisors of Correctional Officers	33-1011	First-Line Supervisors of Correctional Officers
33-1012	First-Line Supervisors of Police and Detectives	33-1012	First-Line Supervisors of Police and Detectives
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers
33-1099	First-Line Supervisors of Protective Service Workers, All Other (#)	33-1091	First-Line Supervisors of Security Workers
33-1099	First-Line Supervisors of Protective Service Workers, All Other (#)	33-1099	First-Line Supervisors of Protective Service Workers, All Other
33-2011	Firefighters	33-2011	Firefighters
33-2021	Fire Inspectors and Investigators	33-2021	Fire Inspectors and Investigators
33-2022	Forest Fire Inspectors and Prevention Specialists	33-2022	Forest Fire Inspectors and Prevention Specialists
33-3011	Bailiffs	33-3011	Bailiffs
33-3012	Correctional Officers and Jailers	33-3012	Correctional Officers and Jailers
33-3021	Detectives and Criminal Investigators	33-3021	Detectives and Criminal Investigators
33-3031	Fish and Game Wardens	33-3031	Fish and Game Wardens
33-3041	Parking Enforcement Workers	33-3041	Parking Enforcement Workers
33-3051	Police and Sheriff's Patrol Officers	33-3051	Police and Sheriff's Patrol Officers
33-3052	Transit and Railroad Police	33-3052	Transit and Railroad Police
33-9011	Animal Control Workers	33-9011	Animal Control Workers
33-9021	Private Detectives and Investigators	33-9021	Private Detectives and Investigators
33-9031	Gaming Surveillance Officers and Gaming Investigators	33-9031	Gambling Surveillance Officers and Gambling Investigators
33-9032	Security Guards	33-9032	Security Guards
33-9091	Crossing Guards	33-9091	Crossing Guards and Flaggers
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers
33-9093	Transportation Security Screeners	33-9093	Transportation Security Screeners
33-9099	Protective Service Workers, All Other (#)	33-9094	School Bus Monitors
33-9099	Protective Service Workers, All Other (#)	33-9099	Protective Service Workers, All Other
35-1011	Chefs and Head Cooks	35-1011	Chefs and Head Cooks
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	35-1012	First-Line Supervisors of Food Preparation and Serving Workers
35-2011	Cooks, Fast Food	35-2011	Cooks, Fast Food
35-2012	Cooks, Institution and Cafeteria	35-2012	Cooks, Institution and Cafeteria
35-2013	Cooks, Private Household	35-2013	Cooks, Private Household
35-2014	Cooks, Restaurant	35-2014	Cooks, Restaurant
35-2015	Cooks, Short Order	35-2015	Cooks, Short Order
35-2019	Cooks, All Other	35-2019	Cooks, All Other
35-2021	Food Preparation Workers	35-2021	Food Preparation Workers
35-3011	Bartenders	35-3011	Bartenders
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	35-3023	Fast Food and Counter Workers (##)
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	35-3023	Fast Food and Counter Workers (##)
35-3031	Waiters and Waitresses	35-3031	Waiters and Waitresses
35-3041	Food Servers, Nonrestaurant	35-3041	Food Servers, Nonrestaurant
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers
35-9021	Dishwashers	35-9021	Dishwashers
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
35-9099	Food Preparation and Serving Related Workers, All Other	35-9099	Food Preparation and Serving Related Workers, All Other
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners
37-2012	Maids and Housekeeping Cleaners	37-2012	Maids and Housekeeping Cleaners
37-2019	Building Cleaning Workers, All Other	37-2019	Building Cleaning Workers, All Other
37-2021	Pest Control Workers	37-2021	Pest Control Workers
37-3011	Landscaping and Groundskeeping Workers	37-3011	Landscaping and Groundskeeping Workers
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
37-3013	Tree Trimmers and Pruners	37-3013	Tree Trimmers and Pruners
37-3019	Grounds Maintenance Workers, All Other	37-3019	Grounds Maintenance Workers, All Other
39-1011	Gaming Supervisors	39-1013	First-line Supervisors of Gambling Services Workers (##)
39-1012	Slot Supervisors	39-1013	First-line Supervisors of Gambling Services Workers (##)
39-1021	First-Line Supervisors of Personal Service Workers (#)	39-1014	First-line Supervisors of Entertainment and Recreation Workers, Except Gambling Services
39-1021	First-Line Supervisors of Personal Service Workers (#)	39-1022	First-Line Supervisors of Personal Service Workers
39-1021	First-Line Supervisors of Personal Service Workers (#)	53-1044	First-line Supervisors of Passenger Attendants (##)
39-2011	Animal Trainers	39-2011	Animal Trainers
39-2021	Nonfarm Animal Caretakers	39-2021	Animal Caretakers
39-3011	Gaming Dealers	39-3011	Gambling Dealers
39-3012	Gaming and Sports Book Writers and Runners	39-3012	Gambling and Sports Book Writers and Runners
39-3019	Gaming Service Workers, All Other	39-3019	Gambling Service Workers, All Other
39-3021	Motion Picture Projectionists	39-3021	Motion Picture Projectionists
39-3031	Ushers, Lobby Attendants, and Ticket Takers	39-3031	Ushers, Lobby Attendants, and Ticket Takers
39-3091	Amusement and Recreation Attendants	39-3091	Amusement and Recreation Attendants
39-3092	Costume Attendants	39-3092	Costume Attendants
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	39-3093	Locker Room, Coatroom, and Dressing Room Attendants
39-3099	Entertainment Attendants and Related Workers, All Other	39-3099	Entertainment Attendants and Related Workers, All Other
39-4011	Embalmers	39-4011	Embalmers
39-4021	Funeral Attendants	39-4021	Funeral Attendants
39-4031	Morticians, Undertakers, and Funeral Directors	39-4031	Morticians, Undertakers, and Funeral Arrangers
39-5011	Barbers	39-5011	Barbers
39-5012	Hairdressers, Hairstylists, and Cosmetologists	39-5012	Hairdressers, Hairstylists, and Cosmetologists
39-5091	Makeup Artists, Theatrical and Performance	39-5091	Makeup Artists, Theatrical and Performance
39-5092	Manicurists and Pedicurists	39-5092	Manicurists and Pedicurists
39-5093	Shampooers	39-5093	Shampooers
39-5094	Skincare Specialists	39-5094	Skincare Specialists
39-6011	Baggage Porters and Bellhops	39-6011	Baggage Porters and Bellhops
39-6012	Concierges	39-6012	Concierges
39-7011	Tour Guides and Escorts	39-7011	Tour Guides and Escorts
39-7012	Travel Guides	39-7012	Travel Guides
39-9011	Childcare Workers	39-9011	Childcare Workers
39-9021	Personal Care Aides	31-1122	Personal Care Aides
39-9031	Fitness Trainers and Aerobics Instructors	39-9031	Exercise Trainers and Group Fitness Instructors
39-9032	Recreation Workers	39-9032	Recreation Workers
39-9041	Residential Advisors	39-9041	Residential Advisors
39-9099	Personal Care and Service Workers, All Other (#)	39-4012	Crematory Operators
39-9099	Personal Care and Service Workers, All Other (#)	39-9099	Personal Care and Service Workers, All Other
41-1011	First-Line Supervisors of Retail Sales Workers	41-1011	First-Line Supervisors of Retail Sales Workers
41-1012	First-Line Supervisors of Non-Retail Sales Workers	41-1012	First-Line Supervisors of Non-Retail Sales Workers
41-2011	Cashiers	41-2011	Cashiers
41-2012	Gaming Change Persons and Booth Cashiers	41-2012	Gambling Change Persons and Booth Cashiers
41-2021	Counter and Rental Clerks	41-2021	Counter and Rental Clerks

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
41-2022	Parts Salespersons	41-2022	Parts Salespersons
41-2031	Retail Salespersons	41-2031	Retail Salespersons
41-3011	Advertising Sales Agents	41-3011	Advertising Sales Agents
41-3021	Insurance Sales Agents	41-3021	Insurance Sales Agents
41-3031	Securities, Commodities, and Financial Services Sales Agents	41-3031	Securities, Commodities, and Financial Services Sales Agents
41-3041	Travel Agents	41-3041	Travel Agents
41-3099	Sales Representatives, Services, All Other	41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
41-9011	Demonstrators and Product Promoters	41-9011	Demonstrators and Product Promoters
41-9012	Models	41-9012	Models
41-9021	Real Estate Brokers	41-9021	Real Estate Brokers
41-9022	Real Estate Sales Agents	41-9022	Real Estate Sales Agents
41-9031	Sales Engineers	41-9031	Sales Engineers
41-9041	Telemarketers	41-9041	Telemarketers
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
41-9099	Sales and Related Workers, All Other	41-9099	Sales and Related Workers, All Other
43-1011	First-Line Supervisors of Office and Administrative Support Workers	43-1011	First-Line Supervisors of Office and Administrative Support Workers
43-2011	Switchboard Operators, Including Answering Service	43-2011	Switchboard Operators, Including Answering Service
43-2021	Telephone Operators	43-2021	Telephone Operators
43-2099	Communications Equipment Operators, All Other	43-2099	Communications Equipment Operators, All Other (##)
43-3011	Bill and Account Collectors	43-3011	Bill and Account Collectors
43-3021	Billing and Posting Clerks	43-3021	Billing and Posting Clerks
43-3031	Bookkeeping, Accounting, and Auditing Clerks	43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-3041	Gaming Cage Workers	43-3041	Gambling Cage Workers
43-3051	Payroll and Timekeeping Clerks	43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks	43-3061	Procurement Clerks
43-3071	Tellers	43-3071	Tellers
43-3099	Financial Clerks, All Other	43-3099	Financial Clerks, All Other
43-4011	Brokerage Clerks	43-4011	Brokerage Clerks
43-4021	Correspondence Clerks	43-4021	Correspondence Clerks
43-4031	Court, Municipal, and License Clerks	43-4031	Court, Municipal, and License Clerks
43-4041	Credit Authorizers, Checkers, and Clerks	43-4041	Credit Authorizers, Checkers, and Clerks
43-4051	Customer Service Representatives	43-4051	Customer Service Representatives
43-4061	Eligibility Interviewers, Government Programs	43-4061	Eligibility Interviewers, Government Programs
43-4071	File Clerks	43-4071	File Clerks
43-4081	Hotel, Motel, and Resort Desk Clerks	43-4081	Hotel, Motel, and Resort Desk Clerks
43-4111	Interviewers, Except Eligibility and Loan	43-4111	Interviewers, Except Eligibility and Loan
43-4121	Library Assistants, Clerical	43-4121	Library Assistants, Clerical
43-4131	Loan Interviewers and Clerks	43-4131	Loan Interviewers and Clerks
43-4141	New Accounts Clerks	43-4141	New Accounts Clerks
43-4151	Order Clerks	43-4151	Order Clerks
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	43-4161	Human Resources Assistants, Except Payroll and Timekeeping
43-4171	Receptionists and Information Clerks	43-4171	Receptionists and Information Clerks
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-4199	Information and Record Clerks, All Other	43-4199	Information and Record Clerks, All Other
43-5011	Cargo and Freight Agents	43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers	43-5021	Couriers and Messengers
43-5031	Police, Fire, and Ambulance Dispatchers	43-5031	Public Safety Telecommunicators
43-5032	Dispatchers, Except Police, Fire, and Ambulance	43-5032	Dispatchers, Except Police, Fire, and Ambulance

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
43-5041	Meter Readers, Utilities	43-5041	Meter Readers, Utilities
43-5051	Postal Service Clerks	43-5051	Postal Service Clerks
43-5052	Postal Service Mail Carriers	43-5052	Postal Service Mail Carriers
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators
43-5061	Production, Planning, and Expediting Clerks	43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Traffic Clerks	43-5071	Shipping, Receiving, and Inventory Clerks
43-5081	Stock Clerks and Order Fillers	53-7065	Stockers and Order Fillers
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
43-6011	Executive Secretaries and Executive Administrative Assistants	43-6011	Executive Secretaries and Executive Administrative Assistants
43-6012	Legal Secretaries	43-6012	Legal Secretaries and Administrative Assistants
43-6013	Medical Secretaries	43-6013	Medical Secretaries and Administrative Assistants
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9011	Computer Operators	15-1299	Computer Occupations, All Other (##)
43-9021	Data Entry Keyers	43-9021	Data Entry Keyers
43-9022	Word Processors and Typists	43-9022	Word Processors and Typists
43-9031	Desktop Publishers	43-9031	Desktop Publishers
43-9041	Insurance Claims and Policy Processing Clerks	43-9041	Insurance Claims and Policy Processing Clerks
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks, General	43-9061	Office Clerks, General
43-9071	Office Machine Operators, Except Computer	43-9071	Office Machine Operators, Except Computer
43-9081	Proofreaders and Copy Markers	43-9081	Proofreaders and Copy Markers
43-9111	Statistical Assistants	43-9111	Statistical Assistants
43-9199	Office and Administrative Support Workers, All Other	43-9199	Office and Administrative Support Workers, All Other
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-2011	Agricultural Inspectors	45-2011	Agricultural Inspectors
45-2021	Animal Breeders	45-2021	Animal Breeders
45-2041	Graders and Sorters, Agricultural Products	45-2041	Graders and Sorters, Agricultural Products
45-2091	Agricultural Equipment Operators	45-2091	Agricultural Equipment Operators
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals
45-2099	Agricultural Workers, All Other	45-2099	Agricultural Workers, All Other
45-3011	Fishers and Related Fishing Workers	45-3031	Fishing and Hunting Workers (##)
45-3021	Hunters and Trappers	45-3031	Fishing and Hunting Workers (##)
45-4011	Forest and Conservation Workers	45-4011	Forest and Conservation Workers
45-4021	Fallers	45-4021	Fallers
45-4022	Logging Equipment Operators	45-4022	Logging Equipment Operators
45-4023	Log Graders and Scalers	45-4023	Log Graders and Scalers
45-4029	Logging Workers, All Other	45-4029	Logging Workers, All Other
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2011	Boilermakers	47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons	47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons	47-2022	Stonemasons
47-2031	Carpenters	47-2031	Carpenters
47-2041	Carpet Installers	47-2041	Carpet Installers
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	Floor Sanders and Finishers	47-2043	Floor Sanders and Finishers
47-2044	Tile and Marble Setters	47-2044	Tile and Stone Setters
47-2051	Cement Masons and Concrete Finishers	47-2051	Cement Masons and Concrete Finishers
47-2053	Terrazzo Workers and Finishers	47-2053	Terrazzo Workers and Finishers
47-2061	Construction Laborers	47-2061	Construction Laborers

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
47-2071	Paving, Surfacing, and Tamping Equipment Operators	47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2072	Pile Driver Operators	47-2072	Pile Driver Operators
47-2073	Operating Engineers and Other Construction Equipment Operators	47-2073	Operating Engineers and Other Construction Equipment Operators
47-2081	Drywall and Ceiling Tile Installers	47-2081	Drywall and Ceiling Tile Installers
47-2082	Tapers	47-2082	Tapers
47-2111	Electricians	47-2111	Electricians
47-2121	Glaziers	47-2121	Glaziers
47-2131	Insulation Workers, Floor, Ceiling, and Wall	47-2131	Insulation Workers, Floor, Ceiling, and Wall
47-2132	Insulation Workers, Mechanical	47-2132	Insulation Workers, Mechanical
47-2141	Painters, Construction and Maintenance	47-2141	Painters, Construction and Maintenance
47-2142	Paperhangers	47-2142	Paperhangers
47-2151	Pipelayers	47-2151	Pipelayers
47-2152	Plumbers, Pipefitters, and Steamfitters	47-2152	Plumbers, Pipefitters, and Steamfitters
47-2161	Plasterers and Stucco Masons	47-2161	Plasterers and Stucco Masons
47-2171	Reinforcing Iron and Rebar Workers	47-2171	Reinforcing Iron and Rebar Workers
47-2181	Roofers	47-2181	Roofers
47-2211	Sheet Metal Workers	47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers	47-2221	Structural Iron and Steel Workers
47-2231	Solar Photovoltaic Installers	47-2231	Solar Photovoltaic Installers
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters
47-3012	Helpers--Carpenters	47-3012	Helpers--Carpenters
47-3013	Helpers--Electricians	47-3013	Helpers--Electricians
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters
47-3016	Helpers--Roofers	47-3016	Helpers--Roofers
47-3019	Helpers, Construction Trades, All Other	47-3019	Helpers, Construction Trades, All Other
47-4011	Construction and Building Inspectors	47-4011	Construction and Building Inspectors
47-4021	Elevator Installers and Repairers	47-4021	Elevator and Escalator Installers and Repairers
47-4031	Fence Erectors	47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers	47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers	47-4051	Highway Maintenance Workers
47-4061	Rail-Track Laying and Maintenance Equipment Operators	47-4061	Rail-Track Laying and Maintenance Equipment Operators
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	47-4071	Septic Tank Servicers and Sewer Pipe Cleaners
47-4091	Segmental Pavers	47-4091	Segmental Pavers
47-4099	Construction and Related Workers, All Other	47-4099	Construction and Related Workers, All Other
47-5011	Derrick Operators, Oil and Gas	47-5011	Derrick Operators, Oil and Gas
47-5012	Rotary Drill Operators, Oil and Gas	47-5012	Rotary Drill Operators, Oil and Gas
47-5013	Service Unit Operators, Oil, Gas, and Mining	47-5013	Service Unit Operators, Oil and Gas
47-5021	Earth Drillers, Except Oil and Gas (#)	47-5023	Earth Drillers, Except Oil and Gas
47-5021	Earth Drillers, Except Oil and Gas (#)	47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters (##)
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters (##)
47-5041	Continuous Mining Machine Operators	47-5041	Continuous Mining Machine Operators
47-5042	Mine Cutting and Channeling Machine Operators	47-5049	Underground Mining Machine Operators, All Other (##)
47-5049	Mining Machine Operators, All Other (#)	47-5049	Underground Mining Machine Operators, All Other (##)
47-5049	Mining Machine Operators, All Other (#)	47-5099	Extraction Workers, All Other (##)
47-5051	Rock Splitters, Quarry	47-5051	Rock Splitters, Quarry
47-5061	Roof Bolters, Mining	47-5043	Roof Bolters, Mining
47-5071	Roustabouts, Oil and Gas	47-5071	Roustabouts, Oil and Gas
47-5081	Helpers--Extraction Workers	47-5081	Helpers--Extraction Workers
47-5099	Extraction Workers, All Other	47-5099	Extraction Workers, All Other (##)
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
49-2011	Computer, Automated Teller, and Office Machine Repairers	49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2091	Avionics Technicians	49-2091	Avionics Technicians
49-2092	Electric Motor, Power Tool, and Related Repairers	49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	49-2097	Audiovisual Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers	49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians	49-3011	Aircraft Mechanics and Service Technicians
49-3021	Automotive Body and Related Repairers	49-3021	Automotive Body and Related Repairers
49-3022	Automotive Glass Installers and Repairers	49-3022	Automotive Glass Installers and Repairers
49-3023	Automotive Service Technicians and Mechanics	49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians	49-3041	Farm Equipment Mechanics and Service Technicians
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers	49-3043	Rail Car Repairers
49-3051	Motorboat Mechanics and Service Technicians	49-3051	Motorboat Mechanics and Service Technicians
49-3052	Motorcycle Mechanics	49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3091	Bicycle Repairers	49-3091	Bicycle Repairers
49-3092	Recreational Vehicle Service Technicians	49-3092	Recreational Vehicle Service Technicians
49-3093	Tire Repairers and Changers	49-3093	Tire Repairers and Changers
49-9011	Mechanical Door Repairers	49-9011	Mechanical Door Repairers
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	49-9012	Control and Valve Installers and Repairers, Except Mechanical Door
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
49-9031	Home Appliance Repairers	49-9031	Home Appliance Repairers
49-9041	Industrial Machinery Mechanics	49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery	49-9043	Maintenance Workers, Machinery
49-9044	Millwrights	49-9044	Millwrights
49-9045	Refractory Materials Repairers, Except Brickmasons	49-9045	Refractory Materials Repairers, Except Brickmasons
49-9051	Electrical Power-Line Installers and Repairers	49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers	49-9052	Telecommunications Line Installers and Repairers
49-9061	Camera and Photographic Equipment Repairers	49-9061	Camera and Photographic Equipment Repairers
49-9062	Medical Equipment Repairers	49-9062	Medical Equipment Repairers
49-9063	Musical Instrument Repairers and Tuners	49-9063	Musical Instrument Repairers and Tuners
49-9064	Watch Repairers	49-9064	Watch and Clock Repairers
49-9069	Precision Instrument and Equipment Repairers, All Other	49-9069	Precision Instrument and Equipment Repairers, All Other
49-9071	Maintenance and Repair Workers, General	49-9071	Maintenance and Repair Workers, General
49-9081	Wind Turbine Service Technicians	49-9081	Wind Turbine Service Technicians
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
49-9092	Commercial Divers	49-9092	Commercial Divers
49-9093	Fabric Menders, Except Garment	49-9099	Installation, Maintenance, and Repair Workers, All Other (##)
49-9094	Locksmiths and Safe Repairers	49-9094	Locksmiths and Safe Repairers
49-9095	Manufactured Building and Mobile Home Installers	49-9095	Manufactured Building and Mobile Home Installers
49-9096	Riggers	49-9096	Riggers
49-9097	Signal and Track Switch Repairers	49-9097	Signal and Track Switch Repairers
49-9098	Helpers--Installation, Maintenance, and Repair Workers	49-9098	Helpers--Installation, Maintenance, and Repair Workers
49-9099	Installation, Maintenance, and Repair Workers, All Other	49-9099	Installation, Maintenance, and Repair Workers, All Other (##)
51-1011	First-Line Supervisors of Production and Operating Workers	51-1011	First-Line Supervisors of Production and Operating Workers
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-2021	Coil Winders, Tapers, and Finishers	51-2021	Coil Winders, Tapers, and Finishers
51-2022	Electrical and Electronic Equipment Assemblers	51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers	51-2023	Electromechanical Equipment Assemblers
51-2031	Engine and Other Machine Assemblers	51-2031	Engine and Other Machine Assemblers
51-2041	Structural Metal Fabricators and Fitters	51-2041	Structural Metal Fabricators and Fitters
51-2091	Fiberglass Laminators and Fabricators	51-2051	Fiberglass Laminators and Fabricators
51-2092	Team Assemblers	51-2092	Team Assemblers
51-2093	Timing Device Assemblers and Adjusters	51-2061	Timing Device Assemblers and Adjusters
51-2099	Assemblers and Fabricators, All Other	51-2099	Assemblers and Fabricators, All Other
51-3011	Bakers	51-3011	Bakers
51-3021	Butchers and Meat Cutters	51-3021	Butchers and Meat Cutters
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	51-3022	Meat, Poultry, and Fish Cutters and Trimmers
51-3023	Slaughterers and Meat Packers	51-3023	Slaughterers and Meat Packers
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092	Food Batchmakers	51-3092	Food Batchmakers
51-3093	Food Cooking Machine Operators and Tenders	51-3093	Food Cooking Machine Operators and Tenders
51-3099	Food Processing Workers, All Other	51-3099	Food Processing Workers, All Other
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	51-9161	Computer Numerically Controlled Tool Operators (##)
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	51-9162	Computer Numerically Controlled Tool Programmers (##)
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists	51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders	51-4051	Metal-Refining Furnace Operators and Tenders
51-4052	Pourers and Casters, Metal	51-4052	Pourers and Casters, Metal
51-4061	Model Makers, Metal and Plastic	51-4061	Model Makers, Metal and Plastic
51-4062	Patternmakers, Metal and Plastic	51-4062	Patternmakers, Metal and Plastic

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
51-4071	Foundry Mold and Coremakers	51-4071	Foundry Mold and Coremakers
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers	51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers	51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Layout Workers, Metal and Plastic	51-4192	Layout Workers, Metal and Plastic
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic
51-4194	Tool Grinders, Filers, and Sharpeners	51-4194	Tool Grinders, Filers, and Sharpeners
51-4199	Metal Workers and Plastic Workers, All Other	51-4199	Metal Workers and Plastic Workers, All Other
51-5111	Prepress Technicians and Workers	51-5111	Prepress Technicians and Workers
51-5112	Printing Press Operators	51-5112	Printing Press Operators
51-5113	Print Binding and Finishing Workers	51-5113	Print Binding and Finishing Workers
51-6011	Laundry and Dry-Cleaning Workers	51-6011	Laundry and Dry-Cleaning Workers
51-6021	Pressers, Textile, Garment, and Related Materials	51-6021	Pressers, Textile, Garment, and Related Materials
51-6031	Sewing Machine Operators	51-6031	Sewing Machine Operators
51-6041	Shoe and Leather Workers and Repairers	51-6041	Shoe and Leather Workers and Repairers
51-6042	Shoe Machine Operators and Tenders	51-6042	Shoe Machine Operators and Tenders
51-6051	Sewers, Hand	51-6051	Sewers, Hand
51-6052	Tailors, Dressmakers, and Custom Sewers	51-6052	Tailors, Dressmakers, and Custom Sewers
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers	51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers	51-6093	Upholsterers
51-6099	Textile, Apparel, and Furnishings Workers, All Other	51-6099	Textile, Apparel, and Furnishings Workers, All Other
51-7011	Cabinetmakers and Bench Carpenters	51-7011	Cabinetmakers and Bench Carpenters
51-7021	Furniture Finishers	51-7021	Furniture Finishers
51-7031	Model Makers, Wood	51-7031	Model Makers, Wood
51-7032	Patternmakers, Wood	51-7032	Patternmakers, Wood
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-7099	Woodworkers, All Other	51-7099	Woodworkers, All Other
51-8011	Nuclear Power Reactor Operators	51-8011	Nuclear Power Reactor Operators
51-8012	Power Distributors and Dispatchers	51-8012	Power Distributors and Dispatchers
51-8013	Power Plant Operators	51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators	51-8021	Stationary Engineers and Boiler Operators
51-8031	Water and Wastewater Treatment Plant and System Operators	51-8031	Water and Wastewater Treatment Plant and System Operators
51-8091	Chemical Plant and System Operators	51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators	51-8092	Gas Plant Operators
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-8099	Plant and System Operators, All Other	51-8099	Plant and System Operators, All Other

Appendix A: Crosswalk from the 2010 SOC to the 2018 SOC

2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
51-9011	Chemical Equipment Operators and Tenders	51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
51-9022	Grinding and Polishing Workers, Hand	51-9022	Grinding and Polishing Workers, Hand
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9031	Cutters and Trimmers, Hand	51-9031	Cutters and Trimmers, Hand
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers	51-9071	Jewelers and Precious Stone and Metal Workers
51-9081	Dental Laboratory Technicians	51-9081	Dental Laboratory Technicians
51-9082	Medical Appliance Technicians	51-9082	Medical Appliance Technicians
51-9083	Ophthalmic Laboratory Technicians	51-9083	Ophthalmic Laboratory Technicians
51-9111	Packaging and Filling Machine Operators and Tenders	51-9111	Packaging and Filling Machine Operators and Tenders
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (##)
51-9122	Painters, Transportation Equipment	51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (##)
51-9123	Painting, Coating, and Decorating Workers	51-9123	Painting, Coating, and Decorating Workers
51-9141	Semiconductor Processors	51-9141	Semiconductor Processing Technicians
51-9151	Photographic Process Workers and Processing Machine Operators	51-9151	Photographic Process Workers and Processing Machine Operators
51-9191	Adhesive Bonding Machine Operators and Tenders	51-9191	Adhesive Bonding Machine Operators and Tenders
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-9193	Cooling and Freezing Equipment Operators and Tenders	51-9193	Cooling and Freezing Equipment Operators and Tenders
51-9194	Etchers and Engravers	51-9194	Etchers and Engravers
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders	51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9197	Tire Builders	51-9197	Tire Builders
51-9198	Helpers--Production Workers	51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other (#)	51-9161	Computer Numerically Controlled Tool Operators (##)
51-9199	Production Workers, All Other (#)	51-9162	Computer Numerically Controlled Tool Programmers (##)
51-9199	Production Workers, All Other (#)	51-9199	Production Workers, All Other
53-1011	Aircraft Cargo Handling Supervisors	53-1041	Aircraft Cargo Handling Supervisors
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	53-1042	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)	53-1043	First-Line Supervisors of Material-Moving Machine and Vehicle Operators
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)	53-1044	First-line Supervisors of Passenger Attendants (##)
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)	53-1049	First Line Supervisors of Transportation Workers, All Other
53-2011	Airline Pilots, Copilots, and Flight Engineers	53-2011	Airline Pilots, Copilots, and Flight Engineers

Appendix A: Crosswalk from the 2010 SOC to the 2018 SOC

2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
53-2012	Commercial Pilots	53-2012	Commercial Pilots
53-2021	Air Traffic Controllers	53-2021	Air Traffic Controllers
53-2022	Airfield Operations Specialists	53-2022	Airfield Operations Specialists
53-2031	Flight Attendants	53-2031	Flight Attendants
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3021	Bus Drivers, Transit and Intercity	53-3052	Bus Drivers, Transit and Intercity
53-3022	Bus Drivers, School or Special Client (#)	53-3051	Bus Drivers, School
53-3022	Bus Drivers, School or Special Client (#)	53-3053	Shuttle Drivers and Chauffeurs (##)
53-3031	Driver/Sales Workers	53-3031	Driver/Sales Workers
53-3032	Heavy and Tractor-Trailer Truck Drivers	53-3032	Heavy and Tractor-Trailer Truck Drivers
53-3033	Light Truck or Delivery Services Drivers	53-3033	Light Truck Drivers
53-3041	Taxi Drivers and Chauffeurs (#)	53-3053	Shuttle Drivers and Chauffeurs (##)
53-3041	Taxi Drivers and Chauffeurs (#)	53-3054	Taxi Drivers
53-3099	Motor Vehicle Operators, All Other	53-3099	Motor Vehicle Operators, All Other
53-4011	Locomotive Engineers	53-4011	Locomotive Engineers
53-4012	Locomotive Firers	53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers (##)
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers
53-4021	Railroad Brake, Signal, and Switch Operators	53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers (##)
53-4031	Railroad Conductors and Yardmasters	53-4031	Railroad Conductors and Yardmasters
53-4041	Subway and Streetcar Operators	53-4041	Subway and Streetcar Operators
53-4099	Rail Transportation Workers, All Other	53-4099	Rail Transportation Workers, All Other
53-5011	Sailors and Marine Oilers	53-5011	Sailors and Marine Oilers
53-5021	Captains, Mates, and Pilots of Water Vessels	53-5021	Captains, Mates, and Pilots of Water Vessels
53-5022	Motorboat Operators	53-5022	Motorboat Operators
53-5031	Ship Engineers	53-5031	Ship Engineers
53-6011	Bridge and Lock Tenders	53-6011	Bridge and Lock Tenders
53-6021	Parking Lot Attendants	53-6021	Parking Attendants
53-6031	Automotive and Watercraft Service Attendants	53-6031	Automotive and Watercraft Service Attendants
53-6041	Traffic Technicians	53-6041	Traffic Technicians
53-6051	Transportation Inspectors	53-6051	Transportation Inspectors
53-6061	Transportation Attendants, Except Flight Attendants	53-6061	Passenger Attendants
53-6099	Transportation Workers, All Other (#)	53-6032	Aircraft Service Attendants
53-6099	Transportation Workers, All Other (#)	53-6099	Transportation Workers, All Other
53-7011	Conveyor Operators and Tenders	53-7011	Conveyor Operators and Tenders
53-7021	Crane and Tower Operators	53-7021	Crane and Tower Operators
53-7031	Dredge Operators	53-7031	Dredge Operators
53-7032	Excavating and Loading Machine and Dragline Operators (#)	47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining
53-7032	Excavating and Loading Machine and Dragline Operators (#)	53-7199	Material Moving Workers, All Other (##)
53-7033	Loading Machine Operators, Underground Mining	47-5044	Loading and Moving Machine Operators, Underground Mining (##)
53-7041	Hoist and Winch Operators	53-7041	Hoist and Winch Operators
53-7051	Industrial Truck and Tractor Operators	53-7051	Industrial Truck and Tractor Operators
53-7061	Cleaners of Vehicles and Equipment	53-7061	Cleaners of Vehicles and Equipment
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7063	Machine Feeders and Offbearers	53-7063	Machine Feeders and Offbearers
53-7064	Packers and Packagers, Hand	53-7064	Packers and Packagers, Hand
53-7071	Gas Compressor and Gas Pumping Station Operators	53-7071	Gas Compressor and Gas Pumping Station Operators
53-7072	Pump Operators, Except Wellhead Pumps	53-7072	Pump Operators, Except Wellhead Pumps
53-7073	Wellhead Pumps	53-7073	Wellhead Pumps
53-7081	Refuse and Recyclable Material Collectors	53-7081	Refuse and Recyclable Material Collectors

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2010 SOC Code	2010 SOC Title	2018 SOC Code	2018 SOC Title
53-7111	Mine Shuttle Car Operators	47-5044	Loading and Moving Machine Operators, Underground Mining (##)
53-7121	Tank Car, Truck, and Ship Loaders	53-7121	Tank Car, Truck, and Ship Loaders
53-7199	Material Moving Workers, All Other	53-7199	Material Moving Workers, All Other (##)
55-1011	Air Crew Officers	55-1011	Air Crew Officers
55-1012	Aircraft Launch and Recovery Officers	55-1012	Aircraft Launch and Recovery Officers
55-1013	Armored Assault Vehicle Officers	55-1013	Armored Assault Vehicle Officers
55-1014	Artillery and Missile Officers	55-1014	Artillery and Missile Officers
55-1015	Command and Control Center Officers	55-1015	Command and Control Center Officers
55-1016	Infantry Officers	55-1016	Infantry Officers
55-1017	Special Forces Officers	55-1017	Special Forces Officers
55-1019	Military Officer Special and Tactical Operations Leaders, All Other	55-1019	Military Officer Special and Tactical Operations Leaders, All Other
55-2011	First-Line Supervisors of Air Crew Members	55-2011	First-Line Supervisors of Air Crew Members
55-2012	First-Line Supervisors of Weapons Specialists/Crew Members	55-2012	First-Line Supervisors of Weapons Specialists/Crew Members
55-2013	First-Line Supervisors of All Other Tactical Operations Specialists	55-2013	First-Line Supervisors of All Other Tactical Operations Specialists
55-3011	Air Crew Members	55-3011	Air Crew Members
55-3012	Aircraft Launch and Recovery Specialists	55-3012	Aircraft Launch and Recovery Specialists
55-3013	Armored Assault Vehicle Crew Members	55-3013	Armored Assault Vehicle Crew Members
55-3014	Artillery and Missile Crew Members	55-3014	Artillery and Missile Crew Members
55-3015	Command and Control Center Specialists	55-3015	Command and Control Center Specialists
55-3016	Infantry	55-3016	Infantry
55-3017	Radar and Sonar Technicians	17-3029	Engineering Technologists and Technicians, Except Drafters, All Other (##)
55-3018	Special Forces	55-3018	Special Forces
55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other	55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

Appendix B matches every detailed occupation from the 2018 SOC with the corresponding previous 2010 SOC code(s) and title(s). A double hashtag (##) after the occupation code and title in the first column means that the occupation in the second column makes up only part of the occupation in the first column; that is, the double hashtag 2018 SOC occupation has been created from multiple 2010 SOC codes (i.e. merge of existing detailed occupations). Likewise, a single hashtag (#) after the occupation code and title in the second column means that the occupation in the first column makes up only part of the occupation in the second column; that is, the single hashtag 2010 SOC occupation has been divided into multiple new occupations (i.e. breakout of existing detailed occupation). Each occupation with the (#) or (##) notation appears multiple times in the chart.

For example, as shown below, the 2018 SOC occupation 25-4022 “Librarians and Media Collections Specialists (##)” (with two hashtags) was created from two 2010 SOC occupations: 25-4021 Librarians and 25-9011 Audio-Visual and Multimedia Collections Specialists. The 2010 SOC occupation; 11-2031 “Public Relations and Fundraising Managers (#)” (with one hashtag) was divided into two occupations in the 2018 SOC: 11-2032 Public Relations Managers and 11-2033 Fundraising Managers.

<i>2018 SOC code</i>	<i>2018 SOC title</i>	<i>2010 SOC code</i>	<i>2010 SOC title</i>
25-4022	Librarians and Media Collections Specialists (##)	25-4021	Librarians
25-4022	Librarians and Media Collections Specialists(##)	25-9011	Audio-Visual and Multimedia Collections Specialists
11-2032	Public Relations Managers	11-2031	Public Relations and Fundraising Managers (#)
11-2033	Fundraising Managers	11-2031	Public Relations and Fundraising Managers (#)

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
11-1011	Chief Executives	11-1011	Chief Executives
11-1021	General and Operations Managers	11-1021	General and Operations Managers
11-1031	Legislators	11-1031	Legislators
11-2011	Advertising and Promotions Managers	11-2011	Advertising and Promotions Managers
11-2021	Marketing Managers	11-2021	Marketing Managers
11-2022	Sales Managers	11-2022	Sales Managers
11-2032	Public Relations Managers	11-2031	Public Relations and Fundraising Managers (#)
11-2033	Fundraising Managers	11-2031	Public Relations and Fundraising Managers (#)
11-3012	Administrative Services Managers	11-3011	Administrative Services Managers (#)
11-3013	Facilities Managers	11-3011	Administrative Services Managers (#)
11-3021	Computer and Information Systems Managers	11-3021	Computer and Information Systems Managers
11-3031	Financial Managers	11-3031	Financial Managers
11-3051	Industrial Production Managers	11-3051	Industrial Production Managers
11-3061	Purchasing Managers	11-3061	Purchasing Managers
11-3071	Transportation, Storage, and Distribution Managers	11-3071	Transportation, Storage, and Distribution Managers
11-3111	Compensation and Benefits Managers	11-3111	Compensation and Benefits Managers
11-3121	Human Resources Managers	11-3121	Human Resources Managers
11-3131	Training and Development Managers	11-3131	Training and Development Managers
11-9013	Farmers, Ranchers, and Other Agricultural Managers	11-9013	Farmers, Ranchers, and Other Agricultural Managers
11-9021	Construction Managers	11-9021	Construction Managers
11-9031	Education and Childcare Administrators, Preschool and Daycare	11-9031	Education Administrators, Preschool and Childcare Center/Program
11-9032	Education Administrators, Kindergarten through Secondary	11-9032	Education Administrators, Elementary and Secondary School
11-9033	Education Administrators, Postsecondary	11-9033	Education Administrators, Postsecondary
11-9039	Education Administrators, All Other	11-9039	Education Administrators, All Other
11-9041	Architectural and Engineering Managers	11-9041	Architectural and Engineering Managers
11-9051	Food Service Managers	11-9051	Food Service Managers
11-9071	Gambling Managers	11-9071	Gaming Managers
11-9072	Entertainment and Recreation Managers, Except Gambling	11-9199	Managers, All Other (#)
11-9081	Lodging Managers	11-9081	Lodging Managers
11-9111	Medical and Health Services Managers	11-9111	Medical and Health Services Managers
11-9121	Natural Sciences Managers	11-9121	Natural Sciences Managers
11-9131	Postmasters and Mail Superintendents	11-9131	Postmasters and Mail Superintendents
11-9141	Property, Real Estate, and Community Association Managers	11-9141	Property, Real Estate, and Community Association Managers
11-9151	Social and Community Service Managers	11-9151	Social and Community Service Managers
11-9161	Emergency Management Directors	11-9161	Emergency Management Directors
11-9171	Funeral Home Managers	11-9061	Funeral Service Managers
11-9179	Personal Service Managers, All Other	11-9199	Managers, All Other (#)
11-9199	Managers, All Other	11-9199	Managers, All Other (#)
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	13-1011	Agents and Business Managers of Artists, Performers, and Athletes
13-1021	Buyers and Purchasing Agents, Farm Products	13-1021	Buyers and Purchasing Agents, Farm Products
13-1022	Wholesale and Retail Buyers, Except Farm Products	13-1022	Wholesale and Retail Buyers, Except Farm Products
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1031	Claims Adjusters, Examiners, and Investigators	13-1031	Claims Adjusters, Examiners, and Investigators
13-1032	Insurance Appraisers, Auto Damage	13-1032	Insurance Appraisers, Auto Damage
13-1041	Compliance Officers	13-1041	Compliance Officers
13-1051	Cost Estimators	13-1051	Cost Estimators
13-1071	Human Resources Specialists	13-1071	Human Resources Specialists
13-1074	Farm Labor Contractors	13-1074	Farm Labor Contractors
13-1075	Labor Relations Specialists	13-1075	Labor Relations Specialists
13-1081	Logisticians	13-1081	Logisticians
13-1082	Project Management Specialists (###)	11-9199	Managers, All Other (#)

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
13-1082	Project Management Specialists (##)	13-1199	Business Operations Specialists, All Other (#)
13-1082	Project Management Specialists (##)	15-1199	Computer Occupations, All Other (#)
13-1111	Management Analysts	13-1111	Management Analysts
13-1121	Meeting, Convention, and Event Planners	13-1121	Meeting, Convention, and Event Planners
13-1131	Fundraisers	13-1131	Fundraisers
13-1141	Compensation, Benefits, and Job Analysis Specialists	13-1141	Compensation, Benefits, and Job Analysis Specialists
13-1151	Training and Development Specialists	13-1151	Training and Development Specialists
13-1161	Market Research Analysts and Marketing Specialists	13-1161	Market Research Analysts and Marketing Specialists
13-1199	Business Operations Specialists, All Other	13-1199	Business Operations Specialists, All Other (#)
13-2011	Accountants and Auditors	13-2011	Accountants and Auditors
13-2022	Appraisers of Personal and Business Property	13-2021	Appraisers and Assessors of Real Estate (#)
13-2023	Appraisers and Assessors of Real Estate	13-2021	Appraisers and Assessors of Real Estate (#)
13-2031	Budget Analysts	13-2031	Budget Analysts
13-2041	Credit Analysts	13-2041	Credit Analysts
13-2051	Financial and Investment Analysts	13-2051	Financial Analysts (#)
13-2052	Personal Financial Advisors	13-2052	Personal Financial Advisors
13-2053	Insurance Underwriters	13-2053	Insurance Underwriters
13-2054	Financial Risk Specialists (##)	13-2051	Financial Analysts (#)
13-2054	Financial Risk Specialists (##)	13-2099	Financial Specialists, All Other (#)
13-2061	Financial Examiners	13-2061	Financial Examiners
13-2071	Credit Counselors	13-2071	Credit Counselors
13-2072	Loan Officers	13-2072	Loan Officers
13-2081	Tax Examiners and Collectors, and Revenue Agents	13-2081	Tax Examiners and Collectors, and Revenue Agents
13-2082	Tax Preparers	13-2082	Tax Preparers
13-2099	Financial Specialists, All Other	13-2099	Financial Specialists, All Other (#)
15-1211	Computer Systems Analysts	15-1121	Computer Systems Analysts
15-1212	Information Security Analysts	15-1122	Information Security Analysts
15-1221	Computer and Information Research Scientists	15-1111	Computer and Information Research Scientists
15-1231	Computer Network Support Specialists	15-1152	Computer Network Support Specialists
15-1232	Computer User Support Specialists	15-1151	Computer User Support Specialists
15-1241	Computer Network Architects	15-1143	Computer Network Architects
15-1242	Database Administrators	15-1141	Database Administrators (#)
15-1243	Database Architects (##)	15-1141	Database Administrators (#)
15-1243	Database Architects (##)	15-1199	Computer Occupations, All Other (#)
15-1244	Network and Computer Systems Administrators	15-1142	Network and Computer Systems Administrators
15-1251	Computer Programmers	15-1131	Computer Programmers
15-1252	Software Developers (##)	15-1132	Software Developers, Applications (#)
15-1252	Software Developers (##)	15-1133	Software Developers, Systems Software (#)
15-1253	Software Quality Assurance Analysts and Testers (##)	15-1132	Software Developers, Applications (#)
15-1253	Software Quality Assurance Analysts and Testers (##)	15-1133	Software Developers, Systems Software (#)
15-1253	Software Quality Assurance Analysts and Testers (##)	15-1199	Computer Occupations, All Other (#)
15-1254	Web Developers	15-1134	Web Developers (#)
15-1255	Web and Digital Interface Designers (##)	15-1134	Web Developers (#)
15-1255	Web and Digital Interface Designers (##)	15-1199	Computer Occupations, All Other (#)
15-1299	Computer Occupations, All Other (##)	15-1199	Computer Occupations, All Other (#)
15-1299	Computer Occupations, All Other (##)	43-9011	Computer Operators
15-2011	Actuaries	15-2011	Actuaries
15-2021	Mathematicians	15-2021	Mathematicians
15-2031	Operations Research Analysts	15-2031	Operations Research Analysts
15-2041	Statisticians	15-2041	Statisticians
15-2051	Data Scientists	15-2099	Mathematical Science Occupations, All Other (#)
15-2099	Mathematical Science Occupations, All Other (##)	15-2091	Mathematical Technicians
15-2099	Mathematical Science Occupations, All Other (##)	15-2099	Mathematical Science Occupations, All Other (#)
17-1011	Architects, Except Landscape and Naval	17-1011	Architects, Except Landscape and Naval
17-1012	Landscape Architects	17-1012	Landscape Architects
17-1021	Cartographers and Photogrammetrists	17-1021	Cartographers and Photogrammetrists
17-1022	Surveyors	17-1022	Surveyors

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
17-2011	Aerospace Engineers	17-2011	Aerospace Engineers
17-2021	Agricultural Engineers	17-2021	Agricultural Engineers
17-2031	Bioengineers and Biomedical Engineers	17-2031	Biomedical Engineers
17-2041	Chemical Engineers	17-2041	Chemical Engineers
17-2051	Civil Engineers	17-2051	Civil Engineers
17-2061	Computer Hardware Engineers	17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers	17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer	17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers	17-2081	Environmental Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers	17-2112	Industrial Engineers
17-2121	Marine Engineers and Naval Architects	17-2121	Marine Engineers and Naval Architects
17-2131	Materials Engineers	17-2131	Materials Engineers
17-2141	Mechanical Engineers	17-2141	Mechanical Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	Nuclear Engineers	17-2161	Nuclear Engineers
17-2171	Petroleum Engineers	17-2171	Petroleum Engineers
17-2199	Engineers, All Other	17-2199	Engineers, All Other
17-3011	Architectural and Civil Drafters	17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters	17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters	17-3013	Mechanical Drafters
17-3019	Drafters, All Other	17-3019	Drafters, All Other
17-3021	Aerospace Engineering and Operations Technologists and Technicians	17-3021	Aerospace Engineering and Operations Technicians
17-3022	Civil Engineering Technologists and Technicians	17-3022	Civil Engineering Technicians
17-3023	Electrical and Electronic Engineering Technologists and Technicians	17-3023	Electrical and Electronics Engineering Technicians
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	17-3024	Electro-Mechanical Technicians
17-3025	Environmental Engineering Technologists and Technicians	17-3025	Environmental Engineering Technicians
17-3026	Industrial Engineering Technologists and Technicians	17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technologists and Technicians	17-3027	Mechanical Engineering Technicians
17-3028	Calibration Technologists and Technicians	17-3029	Engineering Technicians, Except Drafters, All Other (#)
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other (##)	17-3029	Engineering Technicians, Except Drafters, All Other (#)
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other (##)	55-3017	Radar and Sonar Technicians
17-3031	Surveying and Mapping Technicians	17-3031	Surveying and Mapping Technicians
19-1011	Animal Scientists	19-1011	Animal Scientists
19-1012	Food Scientists and Technologists	19-1012	Food Scientists and Technologists
19-1013	Soil and Plant Scientists	19-1013	Soil and Plant Scientists
19-1021	Biochemists and Biophysicists	19-1021	Biochemists and Biophysicists
19-1022	Microbiologists	19-1022	Microbiologists
19-1023	Zoologists and Wildlife Biologists	19-1023	Zoologists and Wildlife Biologists
19-1029	Biological Scientists, All Other	19-1029	Biological Scientists, All Other
19-1031	Conservation Scientists	19-1031	Conservation Scientists
19-1032	Foresters	19-1032	Foresters
19-1041	Epidemiologists	19-1041	Epidemiologists
19-1042	Medical Scientists, Except Epidemiologists	19-1042	Medical Scientists, Except Epidemiologists
19-1099	Life Scientists, All Other	19-1099	Life Scientists, All Other
19-2011	Astronomers	19-2011	Astronomers
19-2012	Physicists	19-2012	Physicists
19-2021	Atmospheric and Space Scientists	19-2021	Atmospheric and Space Scientists
19-2031	Chemists	19-2031	Chemists
19-2032	Materials Scientists	19-2032	Materials Scientists

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
19-2041	Environmental Scientists and Specialists, Including Health	19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers	19-2042	Geoscientists, Except Hydrologists and Geographers
19-2043	Hydrologists	19-2043	Hydrologists
19-2099	Physical Scientists, All Other	19-2099	Physical Scientists, All Other
19-3011	Economists	19-3011	Economists
19-3022	Survey Researchers	19-3022	Survey Researchers
19-3032	Industrial-Organizational Psychologists	19-3032	Industrial-Organizational Psychologists
19-3033	Clinical and Counseling Psychologists	19-3031	Clinical, Counseling, and School Psychologists (#)
19-3034	School Psychologists	19-3031	Clinical, Counseling, and School Psychologists (#)
19-3039	Psychologists, All Other	19-3039	Psychologists, All Other
19-3041	Sociologists	19-3041	Sociologists
19-3051	Urban and Regional Planners	19-3051	Urban and Regional Planners
19-3091	Anthropologists and Archeologists	19-3091	Anthropologists and Archeologists
19-3092	Geographers	19-3092	Geographers
19-3093	Historians	19-3093	Historians
19-3094	Political Scientists	19-3094	Political Scientists
19-3099	Social Scientists and Related Workers, All Other	19-3099	Social Scientists and Related Workers, All Other
19-4012	Agricultural Technicians	19-4011	Agricultural and Food Science Technicians (#)
19-4013	Food Science Technicians	19-4011	Agricultural and Food Science Technicians (#)
19-4021	Biological Technicians	19-4021	Biological Technicians
19-4031	Chemical Technicians	19-4031	Chemical Technicians
19-4042	Environmental Science and Protection Technicians, Including Health	19-4091	Environmental Science and Protection Technicians, Including Health
19-4043	Geological Technicians, Except Hydrologic Technicians	19-4041	Geological and Petroleum Technicians (#)
19-4044	Hydrologic Technicians (##)	19-4041	Geological and Petroleum Technicians (#)
19-4044	Hydrologic Technicians (###)	19-4099	Life, Physical, and Social Science Technicians, All Other (#)
19-4051	Nuclear Technicians	19-4051	Nuclear Technicians
19-4061	Social Science Research Assistants	19-4061	Social Science Research Assistants
19-4071	Forest and Conservation Technicians	19-4093	Forest and Conservation Technicians
19-4092	Forensic Science Technicians	19-4092	Forensic Science Technicians
19-4099	Life, Physical, and Social Science Technicians, All Other	19-4099	Life, Physical, and Social Science Technicians, All Other (#)
19-5011	Occupational Health and Safety Specialists	29-9011	Occupational Health and Safety Specialists
19-5012	Occupational Health and Safety Technicians	29-9012	Occupational Health and Safety Technicians
21-1011	Substance Abuse and Behavioral Disorder Counselors	21-1011	Substance Abuse and Behavioral Disorder Counselors
21-1012	Educational, Guidance, and Career Counselors and Advisors	21-1012	Educational, Guidance, School, and Vocational Counselors
21-1013	Marriage and Family Therapists	21-1013	Marriage and Family Therapists
21-1014	Mental Health Counselors	21-1014	Mental Health Counselors
21-1015	Rehabilitation Counselors	21-1015	Rehabilitation Counselors
21-1019	Counselors, All Other	21-1019	Counselors, All Other
21-1021	Child, Family, and School Social Workers	21-1021	Child, Family, and School Social Workers
21-1022	Healthcare Social Workers	21-1022	Healthcare Social Workers
21-1023	Mental Health and Substance Abuse Social Workers	21-1023	Mental Health and Substance Abuse Social Workers
21-1029	Social Workers, All Other	21-1029	Social Workers, All Other
21-1091	Health Education Specialists	21-1091	Health Educators
21-1092	Probation Officers and Correctional Treatment Specialists	21-1092	Probation Officers and Correctional Treatment Specialists
21-1093	Social and Human Service Assistants	21-1093	Social and Human Service Assistants
21-1094	Community Health Workers	21-1094	Community Health Workers
21-1099	Community and Social Service Specialists, All Other	21-1099	Community and Social Service Specialists, All Other
21-2011	Clergy	21-2011	Clergy
21-2021	Directors, Religious Activities and Education	21-2021	Directors, Religious Activities and Education
21-2099	Religious Workers, All Other	21-2099	Religious Workers, All Other

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
23-1011	Lawyers	23-1011	Lawyers
23-1012	Judicial Law Clerks	23-1012	Judicial Law Clerks
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers
23-1022	Arbitrators, Mediators, and Conciliators	23-1022	Arbitrators, Mediators, and Conciliators
23-1023	Judges, Magistrate Judges, and Magistrates	23-1023	Judges, Magistrate Judges, and Magistrates
23-2011	Paralegals and Legal Assistants	23-2011	Paralegals and Legal Assistants
23-2093	Title Examiners, Abstractors, and Searchers	23-2093	Title Examiners, Abstractors, and Searchers
23-2099	Legal Support Workers, All Other	23-2099	Legal Support Workers, All Other
25-1011	Business Teachers, Postsecondary	25-1011	Business Teachers, Postsecondary
25-1021	Computer Science Teachers, Postsecondary	25-1021	Computer Science Teachers, Postsecondary
25-1022	Mathematical Science Teachers, Postsecondary	25-1022	Mathematical Science Teachers, Postsecondary
25-1031	Architecture Teachers, Postsecondary	25-1031	Architecture Teachers, Postsecondary
25-1032	Engineering Teachers, Postsecondary	25-1032	Engineering Teachers, Postsecondary
25-1041	Agricultural Sciences Teachers, Postsecondary	25-1041	Agricultural Sciences Teachers, Postsecondary
25-1042	Biological Science Teachers, Postsecondary	25-1042	Biological Science Teachers, Postsecondary
25-1043	Forestry and Conservation Science Teachers, Postsecondary	25-1043	Forestry and Conservation Science Teachers, Postsecondary
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
25-1052	Chemistry Teachers, Postsecondary	25-1052	Chemistry Teachers, Postsecondary
25-1053	Environmental Science Teachers, Postsecondary	25-1053	Environmental Science Teachers, Postsecondary
25-1054	Physics Teachers, Postsecondary	25-1054	Physics Teachers, Postsecondary
25-1061	Anthropology and Archeology Teachers, Postsecondary	25-1061	Anthropology and Archeology Teachers, Postsecondary
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1063	Economics Teachers, Postsecondary	25-1063	Economics Teachers, Postsecondary
25-1064	Geography Teachers, Postsecondary	25-1064	Geography Teachers, Postsecondary
25-1065	Political Science Teachers, Postsecondary	25-1065	Political Science Teachers, Postsecondary
25-1066	Psychology Teachers, Postsecondary	25-1066	Psychology Teachers, Postsecondary
25-1067	Sociology Teachers, Postsecondary	25-1067	Sociology Teachers, Postsecondary
25-1069	Social Sciences Teachers, Postsecondary, All Other	25-1069	Social Sciences Teachers, Postsecondary, All Other
25-1071	Health Specialties Teachers, Postsecondary	25-1071	Health Specialties Teachers, Postsecondary
25-1072	Nursing Instructors and Teachers, Postsecondary	25-1072	Nursing Instructors and Teachers, Postsecondary
25-1081	Education Teachers, Postsecondary	25-1081	Education Teachers, Postsecondary
25-1082	Library Science Teachers, Postsecondary	25-1082	Library Science Teachers, Postsecondary
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary
25-1112	Law Teachers, Postsecondary	25-1112	Law Teachers, Postsecondary
25-1113	Social Work Teachers, Postsecondary	25-1113	Social Work Teachers, Postsecondary
25-1121	Art, Drama, and Music Teachers, Postsecondary	25-1121	Art, Drama, and Music Teachers, Postsecondary
25-1122	Communications Teachers, Postsecondary	25-1122	Communications Teachers, Postsecondary
25-1123	English Language and Literature Teachers, Postsecondary	25-1123	English Language and Literature Teachers, Postsecondary
25-1124	Foreign Language and Literature Teachers, Postsecondary	25-1124	Foreign Language and Literature Teachers, Postsecondary
25-1125	History Teachers, Postsecondary	25-1125	History Teachers, Postsecondary
25-1126	Philosophy and Religion Teachers, Postsecondary	25-1126	Philosophy and Religion Teachers, Postsecondary
25-1192	Family and Consumer Sciences Teachers, Postsecondary	25-1192	Home Economics Teachers, Postsecondary
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	25-1193	Recreation and Fitness Studies Teachers, Postsecondary
25-1194	Career/Technical Education Teachers, Postsecondary	25-1194	Vocational Education Teachers, Postsecondary
25-1199	Postsecondary Teachers, All Other	25-1199	Postsecondary Teachers, All Other
25-2011	Preschool Teachers, Except Special Education	25-2011	Preschool Teachers, Except Special Education
25-2012	Kindergarten Teachers, Except Special Education	25-2012	Kindergarten Teachers, Except Special Education
25-2021	Elementary School Teachers, Except Special Education	25-2021	Elementary School Teachers, Except Special Education

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
25-2022	Middle School Teachers, Except Special and Career/Technical Education	25-2022	Middle School Teachers, Except Special and Career/Technical Education
25-2023	Career/Technical Education Teachers, Middle School	25-2023	Career/Technical Education Teachers, Middle School
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	25-2031	Secondary School Teachers, Except Special and Career/Technical Education
25-2032	Career/Technical Education Teachers, Secondary School	25-2032	Career/Technical Education Teachers, Secondary School
25-2051	Special Education Teachers, Preschool	25-2051	Special Education Teachers, Preschool
25-2055	Special Education Teachers, Kindergarten	25-2052	Special Education Teachers, Kindergarten and Elementary School (#)
25-2056	Special Education Teachers, Elementary School	25-2052	Special Education Teachers, Kindergarten and Elementary School (#)
25-2057	Special Education Teachers, Middle School	25-2053	Special Education Teachers, Middle School
25-2058	Special Education Teachers, Secondary School	25-2054	Special Education Teachers, Secondary School
25-2059	Special Education Teachers, All Other	25-2059	Special Education Teachers, All Other
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	25-3011	Adult Basic and Secondary Education and Literacy Teachers and Instructors
25-3021	Self-Enrichment Teachers	25-3021	Self-Enrichment Education Teachers
25-3031	Substitute Teachers, Short-Term	25-3099	Teachers and Instructors, All Other (#)
25-3041	Tutors	25-3099	Teachers and Instructors, All Other (#)
25-3099	Teachers and Instructors, All Other	25-3099	Teachers and Instructors, All Other (#)
25-4011	Archivists	25-4011	Archivists
25-4012	Curators	25-4012	Curators
25-4013	Museum Technicians and Conservators	25-4013	Museum Technicians and Conservators
25-4022	Librarians and Media Collections Specialists (##)	25-4021	Librarians
25-4022	Librarians and Media Collections Specialists (##)	25-9011	Audio-Visual and Multimedia Collections Specialists
25-4031	Library Technicians	25-4031	Library Technicians
25-9021	Farm and Home Management Educators	25-9021	Farm and Home Management Advisors
25-9031	Instructional Coordinators	25-9031	Instructional Coordinators
25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	25-9041	Teacher Assistants (#)
25-9043	Teaching Assistants, Special Education	25-9041	Teacher Assistants (#)
25-9044	Teaching Assistants, Postsecondary	25-1191	Graduate Teaching Assistants
25-9049	Teaching Assistants, All Other	25-9041	Teacher Assistants (#)
25-9099	Educational Instruction and Library Workers, All Other	25-9099	Education, Training, and Library Workers, All Other
27-1011	Art Directors	27-1011	Art Directors
27-1012	Craft Artists	27-1012	Craft Artists
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014	Special Effects Artists and Animators	27-1014	Multimedia Artists and Animators
27-1019	Artists and Related Workers, All Other	27-1019	Artists and Related Workers, All Other
27-1021	Commercial and Industrial Designers	27-1021	Commercial and Industrial Designers
27-1022	Fashion Designers	27-1022	Fashion Designers
27-1023	Floral Designers	27-1023	Floral Designers
27-1024	Graphic Designers	27-1024	Graphic Designers
27-1025	Interior Designers	27-1025	Interior Designers
27-1026	Merchandise Displayers and Window Trimmers	27-1026	Merchandise Displayers and Window Trimmers
27-1027	Set and Exhibit Designers	27-1027	Set and Exhibit Designers
27-1029	Designers, All Other	27-1029	Designers, All Other
27-2011	Actors	27-2011	Actors
27-2012	Producers and Directors	27-2012	Producers and Directors
27-2021	Athletes and Sports Competitors	27-2021	Athletes and Sports Competitors
27-2022	Coaches and Scouts	27-2022	Coaches and Scouts
27-2023	Umpires, Referees, and Other Sports Officials	27-2023	Umpires, Referees, and Other Sports Officials
27-2031	Dancers	27-2031	Dancers
27-2032	Choreographers	27-2032	Choreographers
27-2041	Music Directors and Composers	27-2041	Music Directors and Composers

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
27-2042	Musicians and Singers	27-2042	Musicians and Singers
27-2091	Disc Jockeys, Except Radio	27-2099	Entertainers and Performers, Sports and Related Workers, All Other (#)
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	27-2099	Entertainers and Performers, Sports and Related Workers, All Other (#)
27-3011	Broadcast Announcers and Radio Disc Jockeys	27-3011	Radio and Television Announcers
27-3023	News Analysts, Reporters, and Journalists (##)	27-3021	Broadcast News Analysts
27-3023	News Analysts, Reporters, and Journalists (##)	27-3022	Reporters and Correspondents
27-3031	Public Relations Specialists	27-3031	Public Relations Specialists
27-3041	Editors	27-3041	Editors
27-3042	Technical Writers	27-3042	Technical Writers
27-3043	Writers and Authors	27-3043	Writers and Authors
27-3091	Interpreters and Translators	27-3091	Interpreters and Translators
27-3092	Court Reporters and Simultaneous Captioners	23-2091	Court Reporters
27-3099	Media and Communication Workers, All Other (##)	27-3012	Public Address System and Other Announcers
27-3099	Media and Communication Workers, All Other (##)	27-3099	Media and Communication Workers, All Other
27-4011	Audio and Video Technicians	27-4011	Audio and Video Equipment Technicians
27-4012	Broadcast Technicians	27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians	27-4014	Sound Engineering Technicians
27-4015	Lighting Technicians	27-4099	Media and Communication Equipment Workers, All Other (#)
27-4021	Photographers	27-4021	Photographers
27-4031	Camera Operators, Television, Video, and Film	27-4031	Camera Operators, Television, Video, and Motion Picture
27-4032	Film and Video Editors	27-4032	Film and Video Editors
27-4099	Media and Communication Equipment Workers, All Other	27-4099	Media and Communication Equipment Workers, All Other (#)
29-1011	Chiropractors	29-1011	Chiropractors
29-1021	Dentists, General	29-1021	Dentists, General
29-1022	Oral and Maxillofacial Surgeons	29-1022	Oral and Maxillofacial Surgeons
29-1023	Orthodontists	29-1023	Orthodontists
29-1024	Prosthodontists	29-1024	Prosthodontists
29-1029	Dentists, All Other Specialists	29-1029	Dentists, All Other Specialists
29-1031	Dietitians and Nutritionists	29-1031	Dietitians and Nutritionists
29-1041	Optometrists	29-1041	Optometrists
29-1051	Pharmacists	29-1051	Pharmacists
29-1071	Physician Assistants	29-1071	Physician Assistants
29-1081	Podiatrists	29-1081	Podiatrists
29-1122	Occupational Therapists	29-1122	Occupational Therapists
29-1123	Physical Therapists	29-1123	Physical Therapists
29-1124	Radiation Therapists	29-1124	Radiation Therapists
29-1125	Recreational Therapists	29-1125	Recreational Therapists
29-1126	Respiratory Therapists	29-1126	Respiratory Therapists
29-1127	Speech-Language Pathologists	29-1127	Speech-Language Pathologists
29-1128	Exercise Physiologists	29-1128	Exercise Physiologists
29-1129	Therapists, All Other	29-1129	Therapists, All Other
29-1131	Veterinarians	29-1131	Veterinarians
29-1141	Registered Nurses	29-1141	Registered Nurses
29-1151	Nurse Anesthetists	29-1151	Nurse Anesthetists
29-1161	Nurse Midwives	29-1161	Nurse Midwives
29-1171	Nurse Practitioners	29-1171	Nurse Practitioners
29-1181	Audiologists	29-1181	Audiologists
29-1211	Anesthesiologists	29-1061	Anesthesiologists
29-1212	Cardiologists	29-1069	Physicians and Surgeons, All Other (#)
29-1213	Dermatologists	29-1069	Physicians and Surgeons, All Other (#)
29-1214	Emergency Medicine Physicians	29-1069	Physicians and Surgeons, All Other (#)
29-1215	Family Medicine Physicians	29-1062	Family and General Practitioners
29-1216	General Internal Medicine Physicians	29-1063	Internists, General
29-1217	Neurologists	29-1069	Physicians and Surgeons, All Other (#)
29-1218	Obstetricians and Gynecologists	29-1064	Obstetricians and Gynecologists

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
29-1221	Pediatricians, General	29-1065	Pediatricians, General
29-1222	Physicians, Pathologists	29-1069	Physicians and Surgeons, All Other (#)
29-1223	Psychiatrists	29-1066	Psychiatrists
29-1224	Radiologists	29-1069	Physicians and Surgeons, All Other (#)
29-1229	Physicians, All Other	29-1069	Physicians and Surgeons, All Other (#)
29-1241	Ophthalmologists, Except Pediatric	29-1069	Physicians and Surgeons, All Other (#)
29-1242	Orthopedic Surgeons, Except Pediatric	29-1067	Surgeons (#)
29-1243	Pediatric Surgeons	29-1067	Surgeons (#)
29-1249	Surgeons, All Other	29-1067	Surgeons (#)
29-1291	Acupuncturists	29-1199	Health Diagnosing and Treating Practitioners, All Other (#)
29-1292	Dental Hygienists	29-2021	Dental Hygienists
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	29-1199	Health Diagnosing and Treating Practitioners, All Other (#)
29-2011	Medical and Clinical Laboratory Technologists	29-2011	Medical and Clinical Laboratory Technologists
29-2012	Medical and Clinical Laboratory Technicians	29-2012	Medical and Clinical Laboratory Technicians
29-2031	Cardiovascular Technologists and Technicians	29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers	29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists	29-2033	Nuclear Medicine Technologists
29-2034	Radiologic Technologists and Technicians	29-2034	Radiologic Technologists
29-2035	Magnetic Resonance Imaging Technologists	29-2035	Magnetic Resonance Imaging Technologists
29-2036	Medical Dosimetrists	29-2099	Health Technologists and Technicians, All Other (#)
29-2042	Emergency Medical Technicians	29-2041	Emergency Medical Technicians and Paramedics (#)
29-2043	Paramedics	29-2041	Emergency Medical Technicians and Paramedics (#)
29-2051	Dietetic Technicians	29-2051	Dietetic Technicians
29-2052	Pharmacy Technicians	29-2052	Pharmacy Technicians
29-2053	Psychiatric Technicians	29-2053	Psychiatric Technicians
29-2055	Surgical Technologists	29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians	29-2056	Veterinary Technologists and Technicians
29-2057	Ophthalmic Medical Technicians	29-2057	Ophthalmic Medical Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses	29-2061	Licensed Practical and Licensed Vocational Nurses
29-2072	Medical Records Specialists	29-2071	Medical Records and Health Information Technicians (#)
29-2081	Opticians, Dispensing	29-2081	Opticians, Dispensing
29-2091	Orthotists and Prosthetists	29-2091	Orthotists and Prosthetists
29-2092	Hearing Aid Specialists	29-2092	Hearing Aid Specialists
29-2099	Health Technologists and Technicians, All Other (##)	29-2054	Respiratory Therapy Technicians
29-2099	Health Technologists and Technicians, All Other (##)	29-2099	Health Technologists and Technicians, All Other (#)
29-9021	Health Information Technologists and Medical Registrars (##)	29-2071	Medical Records and Health Information Technicians (#)
29-9021	Health Information Technologists and Medical Registrars (##)	29-9099	Healthcare Practitioners and Technical Workers, All Other (#)
29-9091	Athletic Trainers	29-9091	Athletic Trainers
29-9092	Genetic Counselors	29-9092	Genetic Counselors
29-9093	Surgical Assistants	29-9099	Healthcare Practitioners and Technical Workers, All Other (#)
29-9099	Healthcare Practitioners and Technical Workers, All Other	29-9099	Healthcare Practitioners and Technical Workers, All Other (#)
31-1121	Home Health Aides	31-1011	Home Health Aides
31-1122	Personal Care Aides	39-9021	Personal Care Aides
31-1131	Nursing Assistants	31-1014	Nursing Assistants
31-1132	Orderlies	31-1015	Orderlies
31-1133	Psychiatric Aides	31-1013	Psychiatric Aides
31-2011	Occupational Therapy Assistants	31-2011	Occupational Therapy Assistants
31-2012	Occupational Therapy Aides	31-2012	Occupational Therapy Aides
31-2021	Physical Therapist Assistants	31-2021	Physical Therapist Assistants
31-2022	Physical Therapist Aides	31-2022	Physical Therapist Aides
31-9011	Massage Therapists	31-9011	Massage Therapists

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
31-9091	Dental Assistants	31-9091	Dental Assistants
31-9092	Medical Assistants	31-9092	Medical Assistants
31-9093	Medical Equipment Preparers	31-9093	Medical Equipment Preparers
31-9094	Medical Transcriptionists	31-9094	Medical Transcriptionists
31-9095	Pharmacy Aides	31-9095	Pharmacy Aides
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	31-9096	Veterinary Assistants and Laboratory Animal Caretakers
31-9097	Phlebotomists	31-9097	Phlebotomists
31-9099	Healthcare Support Workers, All Other	31-9099	Healthcare Support Workers, All Other
33-1011	First-Line Supervisors of Correctional Officers	33-1011	First-Line Supervisors of Correctional Officers
33-1012	First-Line Supervisors of Police and Detectives	33-1012	First-Line Supervisors of Police and Detectives
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers
33-1091	First-Line Supervisors of Security Workers	33-1099	First-Line Supervisors of Protective Service Workers, All Other (#)
33-1099	First-Line Supervisors of Protective Service Workers, All Other	33-1099	First-Line Supervisors of Protective Service Workers, All Other (#)
33-2011	Firefighters	33-2011	Firefighters
33-2021	Fire Inspectors and Investigators	33-2021	Fire Inspectors and Investigators
33-2022	Forest Fire Inspectors and Prevention Specialists	33-2022	Forest Fire Inspectors and Prevention Specialists
33-3011	Bailiffs	33-3011	Bailiffs
33-3012	Correctional Officers and Jailers	33-3012	Correctional Officers and Jailers
33-3021	Detectives and Criminal Investigators	33-3021	Detectives and Criminal Investigators
33-3031	Fish and Game Wardens	33-3031	Fish and Game Wardens
33-3041	Parking Enforcement Workers	33-3041	Parking Enforcement Workers
33-3051	Police and Sheriff's Patrol Officers	33-3051	Police and Sheriff's Patrol Officers
33-3052	Transit and Railroad Police	33-3052	Transit and Railroad Police
33-9011	Animal Control Workers	33-9011	Animal Control Workers
33-9021	Private Detectives and Investigators	33-9021	Private Detectives and Investigators
33-9031	Gambling Surveillance Officers and Gambling Investigators	33-9031	Gaming Surveillance Officers and Gaming Investigators
33-9032	Security Guards	33-9032	Security Guards
33-9091	Crossing Guards and Flaggers	33-9091	Crossing Guards
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers
33-9093	Transportation Security Screeners	33-9093	Transportation Security Screeners
33-9094	School Bus Monitors	33-9099	Protective Service Workers, All Other (#)
33-9099	Protective Service Workers, All Other	33-9099	Protective Service Workers, All Other (#)
35-1011	Chefs and Head Cooks	35-1011	Chefs and Head Cooks
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	35-1012	First-Line Supervisors of Food Preparation and Serving Workers
35-2011	Cooks, Fast Food	35-2011	Cooks, Fast Food
35-2012	Cooks, Institution and Cafeteria	35-2012	Cooks, Institution and Cafeteria
35-2013	Cooks, Private Household	35-2013	Cooks, Private Household
35-2014	Cooks, Restaurant	35-2014	Cooks, Restaurant
35-2015	Cooks, Short Order	35-2015	Cooks, Short Order
35-2019	Cooks, All Other	35-2019	Cooks, All Other
35-2021	Food Preparation Workers	35-2021	Food Preparation Workers
35-3011	Bartenders	35-3011	Bartenders
35-3023	Fast Food and Counter Workers (##)	35-3021	Combined Food Preparation and Serving Workers, Including Fast Food
35-3023	Fast Food and Counter Workers (##)	35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
35-3031	Waiters and Waitresses	35-3031	Waiters and Waitresses
35-3041	Food Servers, Nonrestaurant	35-3041	Food Servers, Nonrestaurant
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers
35-9021	Dishwashers	35-9021	Dishwashers
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
35-9099	Food Preparation and Serving Related Workers, All Other	35-9099	Food Preparation and Serving Related Workers, All Other
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners
37-2012	Maids and Housekeeping Cleaners	37-2012	Maids and Housekeeping Cleaners
37-2019	Building Cleaning Workers, All Other	37-2019	Building Cleaning Workers, All Other
37-2021	Pest Control Workers	37-2021	Pest Control Workers
37-3011	Landscaping and Groundskeeping Workers	37-3011	Landscaping and Groundskeeping Workers
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
37-3013	Tree Trimmers and Pruners	37-3013	Tree Trimmers and Pruners
37-3019	Grounds Maintenance Workers, All Other	37-3019	Grounds Maintenance Workers, All Other
39-1013	First-line Supervisors of Gambling Services Workers (##)	39-1011	Gaming Supervisors
39-1013	First-line Supervisors of Gambling Services Workers (##)	39-1012	Slot Supervisors
39-1014	First-line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	39-1021	First-Line Supervisors of Personal Service Workers (#)
39-1022	First-Line Supervisors of Personal Service Workers	39-1021	First-Line Supervisors of Personal Service Workers (#)
39-2011	Animal Trainers	39-2011	Animal Trainers
39-2021	Animal Caretakers	39-2021	Nonfarm Animal Caretakers
39-3011	Gambling Dealers	39-3011	Gaming Dealers
39-3012	Gambling and Sports Book Writers and Runners	39-3012	Gaming and Sports Book Writers and Runners
39-3019	Gambling Service Workers, All Other	39-3019	Gaming Service Workers, All Other
39-3021	Motion Picture Projectionists	39-3021	Motion Picture Projectionists
39-3031	Ushers, Lobby Attendants, and Ticket Takers	39-3031	Ushers, Lobby Attendants, and Ticket Takers
39-3091	Amusement and Recreation Attendants	39-3091	Amusement and Recreation Attendants
39-3092	Costume Attendants	39-3092	Costume Attendants
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	39-3093	Locker Room, Coatroom, and Dressing Room Attendants
39-3099	Entertainment Attendants and Related Workers, All Other	39-3099	Entertainment Attendants and Related Workers, All Other
39-4011	Embalmers	39-4011	Embalmers
39-4012	Crematory Operators	39-9099	Personal Care and Service Workers, All Other (#)
39-4021	Funeral Attendants	39-4021	Funeral Attendants
39-4031	Morticians, Undertakers, and Funeral Arrangers	39-4031	Morticians, Undertakers, and Funeral Directors
39-5011	Barbers	39-5011	Barbers
39-5012	Hairdressers, Hairstylists, and Cosmetologists	39-5012	Hairdressers, Hairstylists, and Cosmetologists
39-5091	Makeup Artists, Theatrical and Performance	39-5091	Makeup Artists, Theatrical and Performance
39-5092	Manicurists and Pedicurists	39-5092	Manicurists and Pedicurists
39-5093	Shampooers	39-5093	Shampooers
39-5094	Skincare Specialists	39-5094	Skincare Specialists
39-6011	Baggage Porters and Bellhops	39-6011	Baggage Porters and Bellhops
39-6012	Concierges	39-6012	Concierges
39-7011	Tour Guides and Escorts	39-7011	Tour Guides and Escorts
39-7012	Travel Guides	39-7012	Travel Guides
39-9011	Childcare Workers	39-9011	Childcare Workers
39-9031	Exercise Trainers and Group Fitness Instructors	39-9031	Fitness Trainers and Aerobics Instructors
39-9032	Recreation Workers	39-9032	Recreation Workers
39-9041	Residential Advisors	39-9041	Residential Advisors
39-9099	Personal Care and Service Workers, All Other	39-9099	Personal Care and Service Workers, All Other (#)
41-1011	First-Line Supervisors of Retail Sales Workers	41-1011	First-Line Supervisors of Retail Sales Workers
41-1012	First-Line Supervisors of Non-Retail Sales Workers	41-1012	First-Line Supervisors of Non-Retail Sales Workers
41-2011	Cashiers	41-2011	Cashiers
41-2012	Gambling Change Persons and Booth Cashiers	41-2012	Gaming Change Persons and Booth Cashiers

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
41-2021	Counter and Rental Clerks	41-2021	Counter and Rental Clerks
41-2022	Parts Salespersons	41-2022	Parts Salespersons
41-2031	Retail Salespersons	41-2031	Retail Salespersons
41-3011	Advertising Sales Agents	41-3011	Advertising Sales Agents
41-3021	Insurance Sales Agents	41-3021	Insurance Sales Agents
41-3031	Securities, Commodities, and Financial Services Sales Agents	41-3031	Securities, Commodities, and Financial Services Sales Agents
41-3041	Travel Agents	41-3041	Travel Agents
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	41-3099	Sales Representatives, Services, All Other
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
41-9011	Demonstrators and Product Promoters	41-9011	Demonstrators and Product Promoters
41-9012	Models	41-9012	Models
41-9021	Real Estate Brokers	41-9021	Real Estate Brokers
41-9022	Real Estate Sales Agents	41-9022	Real Estate Sales Agents
41-9031	Sales Engineers	41-9031	Sales Engineers
41-9041	Telemarketers	41-9041	Telemarketers
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
41-9099	Sales and Related Workers, All Other	41-9099	Sales and Related Workers, All Other
43-1011	First-Line Supervisors of Office and Administrative Support Workers	43-1011	First-Line Supervisors of Office and Administrative Support Workers
43-2011	Switchboard Operators, Including Answering Service	43-2011	Switchboard Operators, Including Answering Service
43-2021	Telephone Operators	43-2021	Telephone Operators
43-2099	Communications Equipment Operators, All Other (##)	27-4013	Radio Operators
43-2099	Communications Equipment Operators, All Other (##)	43-2099	Communications Equipment Operators, All Other
43-3011	Bill and Account Collectors	43-3011	Bill and Account Collectors
43-3021	Billing and Posting Clerks	43-3021	Billing and Posting Clerks
43-3031	Bookkeeping, Accounting, and Auditing Clerks	43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-3041	Gambling Cage Workers	43-3041	Gaming Cage Workers
43-3051	Payroll and Timekeeping Clerks	43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks	43-3061	Procurement Clerks
43-3071	Tellers	43-3071	Tellers
43-3099	Financial Clerks, All Other	43-3099	Financial Clerks, All Other
43-4011	Brokerage Clerks	43-4011	Brokerage Clerks
43-4021	Correspondence Clerks	43-4021	Correspondence Clerks
43-4031	Court, Municipal, and License Clerks	43-4031	Court, Municipal, and License Clerks
43-4041	Credit Authorizers, Checkers, and Clerks	43-4041	Credit Authorizers, Checkers, and Clerks
43-4051	Customer Service Representatives	43-4051	Customer Service Representatives
43-4061	Eligibility Interviewers, Government Programs	43-4061	Eligibility Interviewers, Government Programs
43-4071	File Clerks	43-4071	File Clerks
43-4081	Hotel, Motel, and Resort Desk Clerks	43-4081	Hotel, Motel, and Resort Desk Clerks
43-4111	Interviewers, Except Eligibility and Loan	43-4111	Interviewers, Except Eligibility and Loan
43-4121	Library Assistants, Clerical	43-4121	Library Assistants, Clerical
43-4131	Loan Interviewers and Clerks	43-4131	Loan Interviewers and Clerks
43-4141	New Accounts Clerks	43-4141	New Accounts Clerks
43-4151	Order Clerks	43-4151	Order Clerks
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	43-4161	Human Resources Assistants, Except Payroll and Timekeeping
43-4171	Receptionists and Information Clerks	43-4171	Receptionists and Information Clerks
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-4199	Information and Record Clerks, All Other	43-4199	Information and Record Clerks, All Other
43-5011	Cargo and Freight Agents	43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers	43-5021	Couriers and Messengers

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
43-5031	Public Safety Telecommunicators	43-5031	Police, Fire, and Ambulance Dispatchers
43-5032	Dispatchers, Except Police, Fire, and Ambulance	43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-5041	Meter Readers, Utilities	43-5041	Meter Readers, Utilities
43-5051	Postal Service Clerks	43-5051	Postal Service Clerks
43-5052	Postal Service Mail Carriers	43-5052	Postal Service Mail Carriers
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators
43-5061	Production, Planning, and Expediting Clerks	43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Inventory Clerks	43-5071	Shipping, Receiving, and Traffic Clerks
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
43-6011	Executive Secretaries and Executive Administrative Assistants	43-6011	Executive Secretaries and Executive Administrative Assistants
43-6012	Legal Secretaries and Administrative Assistants	43-6012	Legal Secretaries
43-6013	Medical Secretaries and Administrative Assistants	43-6013	Medical Secretaries
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9021	Data Entry Keyers	43-9021	Data Entry Keyers
43-9022	Word Processors and Typists	43-9022	Word Processors and Typists
43-9031	Desktop Publishers	43-9031	Desktop Publishers
43-9041	Insurance Claims and Policy Processing Clerks	43-9041	Insurance Claims and Policy Processing Clerks
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks, General	43-9061	Office Clerks, General
43-9071	Office Machine Operators, Except Computer	43-9071	Office Machine Operators, Except Computer
43-9081	Proofreaders and Copy Markers	43-9081	Proofreaders and Copy Markers
43-9111	Statistical Assistants	43-9111	Statistical Assistants
43-9199	Office and Administrative Support Workers, All Other	43-9199	Office and Administrative Support Workers, All Other
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-2011	Agricultural Inspectors	45-2011	Agricultural Inspectors
45-2021	Animal Breeders	45-2021	Animal Breeders
45-2041	Graders and Sorters, Agricultural Products	45-2041	Graders and Sorters, Agricultural Products
45-2091	Agricultural Equipment Operators	45-2091	Agricultural Equipment Operators
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals
45-2099	Agricultural Workers, All Other	45-2099	Agricultural Workers, All Other
45-3031	Fishing and Hunting Workers (##)	45-3011	Fishers and Related Fishing Workers
45-3031	Fishing and Hunting Workers (##)	45-3021	Hunters and Trappers
45-4011	Forest and Conservation Workers	45-4011	Forest and Conservation Workers
45-4021	Fallers	45-4021	Fallers
45-4022	Logging Equipment Operators	45-4022	Logging Equipment Operators
45-4023	Log Graders and Scalers	45-4023	Log Graders and Scalers
45-4029	Logging Workers, All Other	45-4029	Logging Workers, All Other
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2011	Boilermakers	47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons	47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons	47-2022	Stonemasons
47-2031	Carpenters	47-2031	Carpenters
47-2041	Carpet Installers	47-2041	Carpet Installers
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	Floor Sanders and Finishers	47-2043	Floor Sanders and Finishers
47-2044	Tile and Stone Setters	47-2044	Tile and Marble Setters
47-2051	Cement Masons and Concrete Finishers	47-2051	Cement Masons and Concrete Finishers
47-2053	Terrazzo Workers and Finishers	47-2053	Terrazzo Workers and Finishers
47-2061	Construction Laborers	47-2061	Construction Laborers

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
47-2071	Paving, Surfacing, and Tamping Equipment Operators	47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2072	Pile Driver Operators	47-2072	Pile Driver Operators
47-2073	Operating Engineers and Other Construction Equipment Operators	47-2073	Operating Engineers and Other Construction Equipment Operators
47-2081	Drywall and Ceiling Tile Installers	47-2081	Drywall and Ceiling Tile Installers
47-2082	Tapers	47-2082	Tapers
47-2111	Electricians	47-2111	Electricians
47-2121	Glaziers	47-2121	Glaziers
47-2131	Insulation Workers, Floor, Ceiling, and Wall	47-2131	Insulation Workers, Floor, Ceiling, and Wall
47-2132	Insulation Workers, Mechanical	47-2132	Insulation Workers, Mechanical
47-2141	Painters, Construction and Maintenance	47-2141	Painters, Construction and Maintenance
47-2142	Paperhangers	47-2142	Paperhangers
47-2151	Pipelayers	47-2151	Pipelayers
47-2152	Plumbers, Pipefitters, and Steamfitters	47-2152	Plumbers, Pipefitters, and Steamfitters
47-2161	Plasterers and Stucco Masons	47-2161	Plasterers and Stucco Masons
47-2171	Reinforcing Iron and Rebar Workers	47-2171	Reinforcing Iron and Rebar Workers
47-2181	Roofers	47-2181	Roofers
47-2211	Sheet Metal Workers	47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers	47-2221	Structural Iron and Steel Workers
47-2231	Solar Photovoltaic Installers	47-2231	Solar Photovoltaic Installers
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters
47-3012	Helpers--Carpenters	47-3012	Helpers--Carpenters
47-3013	Helpers--Electricians	47-3013	Helpers--Electricians
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters
47-3016	Helpers--Roofers	47-3016	Helpers--Roofers
47-3019	Helpers, Construction Trades, All Other	47-3019	Helpers, Construction Trades, All Other
47-4011	Construction and Building Inspectors	47-4011	Construction and Building Inspectors
47-4021	Elevator and Escalator Installers and Repairers	47-4021	Elevator Installers and Repairers
47-4031	Fence Erectors	47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers	47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers	47-4051	Highway Maintenance Workers
47-4061	Rail-Track Laying and Maintenance Equipment Operators	47-4061	Rail-Track Laying and Maintenance Equipment Operators
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	47-4071	Septic Tank Servicers and Sewer Pipe Cleaners
47-4091	Segmental Pavers	47-4091	Segmental Pavers
47-4099	Construction and Related Workers, All Other	47-4099	Construction and Related Workers, All Other
47-5011	Derrick Operators, Oil and Gas	47-5011	Derrick Operators, Oil and Gas
47-5012	Rotary Drill Operators, Oil and Gas	47-5012	Rotary Drill Operators, Oil and Gas
47-5013	Service Unit Operators, Oil and Gas	47-5013	Service Unit Operators, Oil, Gas, and Mining
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	53-7032	Excavating and Loading Machine and Dragline Operators (#)
47-5023	Earth Drillers, Except Oil and Gas	47-5021	Earth Drillers, Except Oil and Gas (#)
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters (##)	47-5021	Earth Drillers, Except Oil and Gas (#)
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters (##)	47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters
47-5041	Continuous Mining Machine Operators	47-5041	Continuous Mining Machine Operators
47-5043	Roof Bolters, Mining	47-5061	Roof Bolters, Mining
47-5044	Loading and Moving Machine Operators, Underground Mining (##)	53-7033	Loading Machine Operators, Underground Mining
47-5044	Loading and Moving Machine Operators, Underground Mining (##)	53-7111	Mine Shuttle Car Operators
47-5049	Underground Mining Machine Operators, All Other (##)	47-5042	Mine Cutting and Channeling Machine Operators
47-5049	Underground Mining Machine Operators, All Other (##)	47-5049	Mining Machine Operators, All Other (#)
47-5051	Rock Splitters, Quarry	47-5051	Rock Splitters, Quarry

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2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
47-5071	Roustabouts, Oil and Gas	47-5071	Roustabouts, Oil and Gas
47-5081	Helpers--Extraction Workers	47-5081	Helpers--Extraction Workers
47-5099	Extraction Workers, All Other (##)	47-5049	Mining Machine Operators, All Other (#)
47-5099	Extraction Workers, All Other (##)	47-5099	Extraction Workers, All Other
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-2011	Computer, Automated Teller, and Office Machine Repairers	49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2091	Avionics Technicians	49-2091	Avionics Technicians
49-2092	Electric Motor, Power Tool, and Related Repairers	49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Audiovisual Equipment Installers and Repairers	49-2097	Electronic Home Entertainment Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers	49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians	49-3011	Aircraft Mechanics and Service Technicians
49-3021	Automotive Body and Related Repairers	49-3021	Automotive Body and Related Repairers
49-3022	Automotive Glass Installers and Repairers	49-3022	Automotive Glass Installers and Repairers
49-3023	Automotive Service Technicians and Mechanics	49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians	49-3041	Farm Equipment Mechanics and Service Technicians
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers	49-3043	Rail Car Repairers
49-3051	Motorboat Mechanics and Service Technicians	49-3051	Motorboat Mechanics and Service Technicians
49-3052	Motorcycle Mechanics	49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3091	Bicycle Repairers	49-3091	Bicycle Repairers
49-3092	Recreational Vehicle Service Technicians	49-3092	Recreational Vehicle Service Technicians
49-3093	Tire Repairers and Changers	49-3093	Tire Repairers and Changers
49-9011	Mechanical Door Repairers	49-9011	Mechanical Door Repairers
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	49-9012	Control and Valve Installers and Repairers, Except Mechanical Door
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
49-9031	Home Appliance Repairers	49-9031	Home Appliance Repairers
49-9041	Industrial Machinery Mechanics	49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery	49-9043	Maintenance Workers, Machinery
49-9044	Millwrights	49-9044	Millwrights
49-9045	Refractory Materials Repairers, Except Brickmasons	49-9045	Refractory Materials Repairers, Except Brickmasons
49-9051	Electrical Power-Line Installers and Repairers	49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers	49-9052	Telecommunications Line Installers and Repairers
49-9061	Camera and Photographic Equipment Repairers	49-9061	Camera and Photographic Equipment Repairers
49-9062	Medical Equipment Repairers	49-9062	Medical Equipment Repairers
49-9063	Musical Instrument Repairers and Tuners	49-9063	Musical Instrument Repairers and Tuners
49-9064	Watch and Clock Repairers	49-9064	Watch Repairers

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
49-9069	Precision Instrument and Equipment Repairers, All Other	49-9069	Precision Instrument and Equipment Repairers, All Other
49-9071	Maintenance and Repair Workers, General	49-9071	Maintenance and Repair Workers, General
49-9081	Wind Turbine Service Technicians	49-9081	Wind Turbine Service Technicians
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers
49-9092	Commercial Divers	49-9092	Commercial Divers
49-9094	Locksmiths and Safe Repairers	49-9094	Locksmiths and Safe Repairers
49-9095	Manufactured Building and Mobile Home Installers	49-9095	Manufactured Building and Mobile Home Installers
49-9096	Riggers	49-9096	Riggers
49-9097	Signal and Track Switch Repairers	49-9097	Signal and Track Switch Repairers
49-9098	Helpers--Installation, Maintenance, and Repair Workers	49-9098	Helpers--Installation, Maintenance, and Repair Workers
49-9099	Installation, Maintenance, and Repair Workers, All Other (##)	49-9093	Fabric Menders, Except Garment
49-9099	Installation, Maintenance, and Repair Workers, All Other (##)	49-9099	Installation, Maintenance, and Repair Workers, All Other
51-1011	First-Line Supervisors of Production and Operating Workers	51-1011	First-Line Supervisors of Production and Operating Workers
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-2021	Coil Winders, Tapers, and Finishers	51-2021	Coil Winders, Tapers, and Finishers
51-2022	Electrical and Electronic Equipment Assemblers	51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers	51-2023	Electromechanical Equipment Assemblers
51-2031	Engine and Other Machine Assemblers	51-2031	Engine and Other Machine Assemblers
51-2041	Structural Metal Fabricators and Fitters	51-2041	Structural Metal Fabricators and Fitters
51-2051	Fiberglass Laminators and Fabricators	51-2091	Fiberglass Laminators and Fabricators
51-2061	Timing Device Assemblers and Adjusters	51-2093	Timing Device Assemblers and Adjusters
51-2092	Team Assemblers	51-2092	Team Assemblers
51-2099	Assemblers and Fabricators, All Other	51-2099	Assemblers and Fabricators, All Other
51-3011	Bakers	51-3011	Bakers
51-3021	Butchers and Meat Cutters	51-3021	Butchers and Meat Cutters
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	51-3022	Meat, Poultry, and Fish Cutters and Trimmers
51-3023	Slaughterers and Meat Packers	51-3023	Slaughterers and Meat Packers
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092	Food Batchmakers	51-3092	Food Batchmakers
51-3093	Food Cooking Machine Operators and Tenders	51-3093	Food Cooking Machine Operators and Tenders
51-3099	Food Processing Workers, All Other	51-3099	Food Processing Workers, All Other
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists	51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders	51-4051	Metal-Refining Furnace Operators and Tenders
51-4052	Pourers and Casters, Metal	51-4052	Pourers and Casters, Metal

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
51-4061	Model Makers, Metal and Plastic	51-4061	Model Makers, Metal and Plastic
51-4062	Patternmakers, Metal and Plastic	51-4062	Patternmakers, Metal and Plastic
51-4071	Foundry Mold and Coremakers	51-4071	Foundry Mold and Coremakers
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers	51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers	51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Layout Workers, Metal and Plastic	51-4192	Layout Workers, Metal and Plastic
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
51-4194	Tool Grinders, Filers, and Sharpeners	51-4194	Tool Grinders, Filers, and Sharpeners
51-4199	Metal Workers and Plastic Workers, All Other	51-4199	Metal Workers and Plastic Workers, All Other
51-5111	Prepress Technicians and Workers	51-5111	Prepress Technicians and Workers
51-5112	Printing Press Operators	51-5112	Printing Press Operators
51-5113	Print Binding and Finishing Workers	51-5113	Print Binding and Finishing Workers
51-6011	Laundry and Dry-Cleaning Workers	51-6011	Laundry and Dry-Cleaning Workers
51-6021	Pressers, Textile, Garment, and Related Materials	51-6021	Pressers, Textile, Garment, and Related Materials
51-6031	Sewing Machine Operators	51-6031	Sewing Machine Operators
51-6041	Shoe and Leather Workers and Repairers	51-6041	Shoe and Leather Workers and Repairers
51-6042	Shoe Machine Operators and Tenders	51-6042	Shoe Machine Operators and Tenders
51-6051	Sewers, Hand	51-6051	Sewers, Hand
51-6052	Tailors, Dressmakers, and Custom Sewers	51-6052	Tailors, Dressmakers, and Custom Sewers
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers	51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers	51-6093	Upholsterers
51-6099	Textile, Apparel, and Furnishings Workers, All Other	51-6099	Textile, Apparel, and Furnishings Workers, All Other
51-7011	Cabinetmakers and Bench Carpenters	51-7011	Cabinetmakers and Bench Carpenters
51-7021	Furniture Finishers	51-7021	Furniture Finishers
51-7031	Model Makers, Wood	51-7031	Model Makers, Wood
51-7032	Patternmakers, Wood	51-7032	Patternmakers, Wood
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-7099	Woodworkers, All Other	51-7099	Woodworkers, All Other
51-8011	Nuclear Power Reactor Operators	51-8011	Nuclear Power Reactor Operators
51-8012	Power Distributors and Dispatchers	51-8012	Power Distributors and Dispatchers
51-8013	Power Plant Operators	51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators	51-8021	Stationary Engineers and Boiler Operators
51-8031	Water and Wastewater Treatment Plant and System Operators	51-8031	Water and Wastewater Treatment Plant and System Operators
51-8091	Chemical Plant and System Operators	51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators	51-8092	Gas Plant Operators

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-8099	Plant and System Operators, All Other	51-8099	Plant and System Operators, All Other
51-9011	Chemical Equipment Operators and Tenders	51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
51-9022	Grinding and Polishing Workers, Hand	51-9022	Grinding and Polishing Workers, Hand
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9031	Cutters and Trimmers, Hand	51-9031	Cutters and Trimmers, Hand
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers	51-9071	Jewelers and Precious Stone and Metal Workers
51-9081	Dental Laboratory Technicians	51-9081	Dental Laboratory Technicians
51-9082	Medical Appliance Technicians	51-9082	Medical Appliance Technicians
51-9083	Ophthalmic Laboratory Technicians	51-9083	Ophthalmic Laboratory Technicians
51-9111	Packaging and Filling Machine Operators and Tenders	51-9111	Packaging and Filling Machine Operators and Tenders
51-9123	Painting, Coating, and Decorating Workers	51-9123	Painting, Coating, and Decorating Workers
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (##)	51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (##)	51-9122	Painters, Transportation Equipment
51-9141	Semiconductor Processing Technicians	51-9141	Semiconductor Processors
51-9151	Photographic Process Workers and Processing Machine Operators	51-9151	Photographic Process Workers and Processing Machine Operators
51-9161	Computer Numerically Controlled Tool Operators (##)	51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic
51-9161	Computer Numerically Controlled Tool Operators (##)	51-9199	Production Workers, All Other (#)
51-9162	Computer Numerically Controlled Tool Programmers (##)	51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
51-9162	Computer Numerically Controlled Tool Programmers (##)	51-9199	Production Workers, All Other (#)
51-9191	Adhesive Bonding Machine Operators and Tenders	51-9191	Adhesive Bonding Machine Operators and Tenders
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-9193	Cooling and Freezing Equipment Operators and Tenders	51-9193	Cooling and Freezing Equipment Operators and Tenders
51-9194	Etchers and Engravers	51-9194	Etchers and Engravers
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders	51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9197	Tire Builders	51-9197	Tire Builders
51-9198	Helpers--Production Workers	51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other	51-9199	Production Workers, All Other (#)
53-1041	Aircraft Cargo Handling Supervisors	53-1011	Aircraft Cargo Handling Supervisors
53-1042	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand
53-1043	First-Line Supervisors of Material-Moving Machine and Vehicle Operators	53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)

Appendix B: Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
53-1044	First-line Supervisors of Passenger Attendants (##)	39-1021	First-Line Supervisors of Personal Service Workers (#)
53-1044	First-line Supervisors of Passenger Attendants (##)	53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)
53-1049	First Line Supervisors of Transportation Workers, All Other	53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (#)
53-2011	Airline Pilots, Copilots, and Flight Engineers	53-2011	Airline Pilots, Copilots, and Flight Engineers
53-2012	Commercial Pilots	53-2012	Commercial Pilots
53-2021	Air Traffic Controllers	53-2021	Air Traffic Controllers
53-2022	Airfield Operations Specialists	53-2022	Airfield Operations Specialists
53-2031	Flight Attendants	53-2031	Flight Attendants
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3031	Driver/Sales Workers	53-3031	Driver/Sales Workers
53-3032	Heavy and Tractor-Trailer Truck Drivers	53-3032	Heavy and Tractor-Trailer Truck Drivers
53-3033	Light Truck Drivers	53-3033	Light Truck or Delivery Services Drivers
53-3051	Bus Drivers, School	53-3022	Bus Drivers, School or Special Client (#)
53-3052	Bus Drivers, Transit and Intercity	53-3021	Bus Drivers, Transit and Intercity
53-3053	Shuttle Drivers and Chauffeurs (##)	53-3022	Bus Drivers, School or Special Client (#)
53-3053	Shuttle Drivers and Chauffeurs (##)	53-3041	Taxi Drivers and Chauffeurs (#)
53-3054	Taxi Drivers	53-3041	Taxi Drivers and Chauffeurs (#)
53-3099	Motor Vehicle Operators, All Other	53-3099	Motor Vehicle Operators, All Other
53-4011	Locomotive Engineers	53-4011	Locomotive Engineers
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers (##)	53-4012	Locomotive Firers
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers (##)	53-4021	Railroad Brake, Signal, and Switch Operators
53-4031	Railroad Conductors and Yardmasters	53-4031	Railroad Conductors and Yardmasters
53-4041	Subway and Streetcar Operators	53-4041	Subway and Streetcar Operators
53-4099	Rail Transportation Workers, All Other	53-4099	Rail Transportation Workers, All Other
53-5011	Sailors and Marine Oilers	53-5011	Sailors and Marine Oilers
53-5021	Captains, Mates, and Pilots of Water Vessels	53-5021	Captains, Mates, and Pilots of Water Vessels
53-5022	Motorboat Operators	53-5022	Motorboat Operators
53-5031	Ship Engineers	53-5031	Ship Engineers
53-6011	Bridge and Lock Tenders	53-6011	Bridge and Lock Tenders
53-6021	Parking Attendants	53-6021	Parking Lot Attendants
53-6031	Automotive and Watercraft Service Attendants	53-6031	Automotive and Watercraft Service Attendants
53-6032	Aircraft Service Attendants	53-6099	Transportation Workers, All Other (#)
53-6041	Traffic Technicians	53-6041	Traffic Technicians
53-6051	Transportation Inspectors	53-6051	Transportation Inspectors
53-6061	Passenger Attendants	53-6061	Transportation Attendants, Except Flight Attendants
53-6099	Transportation Workers, All Other	53-6099	Transportation Workers, All Other (#)
53-7011	Conveyor Operators and Tenders	53-7011	Conveyor Operators and Tenders
53-7021	Crane and Tower Operators	53-7021	Crane and Tower Operators
53-7031	Dredge Operators	53-7031	Dredge Operators
53-7041	Hoist and Winch Operators	53-7041	Hoist and Winch Operators
53-7051	Industrial Truck and Tractor Operators	53-7051	Industrial Truck and Tractor Operators
53-7061	Cleaners of Vehicles and Equipment	53-7061	Cleaners of Vehicles and Equipment
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7063	Machine Feeders and Offbearers	53-7063	Machine Feeders and Offbearers
53-7064	Packers and Packagers, Hand	53-7064	Packers and Packagers, Hand
53-7065	Stockers and Order Fillers	43-5081	Stock Clerks and Order Fillers
53-7071	Gas Compressor and Gas Pumping Station Operators	53-7071	Gas Compressor and Gas Pumping Station Operators

Appendix B. Crosswalk from the 2018 SOC to the 2010 SOC

2018 SOC Code	2018 SOC Title	2010 SOC Code	2010 SOC Title
53-7072	Pump Operators, Except Wellhead Pumpers	53-7072	Pump Operators, Except Wellhead Pumpers
53-7073	Wellhead Pumpers	53-7073	Wellhead Pumpers
53-7081	Refuse and Recyclable Material Collectors	53-7081	Refuse and Recyclable Material Collectors
53-7121	Tank Car, Truck, and Ship Loaders	53-7121	Tank Car, Truck, and Ship Loaders
53-7199	Material Moving Workers, All Other (##)	53-7032	Excavating and Loading Machine and Dragline Operators (#)
53-7199	Material Moving Workers, All Other (##)	53-7199	Material Moving Workers, All Other
55-1011	Air Crew Officers	55-1011	Air Crew Officers
55-1012	Aircraft Launch and Recovery Officers	55-1012	Aircraft Launch and Recovery Officers
55-1013	Armored Assault Vehicle Officers	55-1013	Armored Assault Vehicle Officers
55-1014	Artillery and Missile Officers	55-1014	Artillery and Missile Officers
55-1015	Command and Control Center Officers	55-1015	Command and Control Center Officers
55-1016	Infantry Officers	55-1016	Infantry Officers
55-1017	Special Forces Officers	55-1017	Special Forces Officers
55-1019	Military Officer Special and Tactical Operations Leaders, All Other	55-1019	Military Officer Special and Tactical Operations Leaders, All Other
55-2011	First-Line Supervisors of Air Crew Members	55-2011	First-Line Supervisors of Air Crew Members
55-2012	First-Line Supervisors of Weapons Specialists/Crew Members	55-2012	First-Line Supervisors of Weapons Specialists/Crew Members
55-2013	First-Line Supervisors of All Other Tactical Operations Specialists	55-2013	First-Line Supervisors of All Other Tactical Operations Specialists
55-3011	Air Crew Members	55-3011	Air Crew Members
55-3012	Aircraft Launch and Recovery Specialists	55-3012	Aircraft Launch and Recovery Specialists
55-3013	Armored Assault Vehicle Crew Members	55-3013	Armored Assault Vehicle Crew Members
55-3014	Artillery and Missile Crew Members	55-3014	Artillery and Missile Crew Members
55-3015	Command and Control Center Specialists	55-3015	Command and Control Center Specialists
55-3016	Infantry	55-3016	Infantry
55-3018	Special Forces	55-3018	Special Forces
55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other	55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

Appendix C: Type of Change by Detailed Occupation, 2018 SOC

N= No Change, C = Code Change, T = Title Change, D = Definition Content Change/New Coverage, E= Definition Editing/ Clarification Change, F = Illustrative Examples/DMTF Change

2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
11-1011	Chief Executives	F
11-1021	General and Operations Managers	E, F
11-1031	Legislators	E
11-2011	Advertising and Promotions Managers	E, F
11-2021	Marketing Managers	N
11-2022	Sales Managers	N
11-2032	Public Relations Managers	C, T, D, F
11-2033	Fundraising Managers	C, T, D, F
11-3012	Administrative Services Managers	C, T, D, F
11-3013	Facilities Managers	C, T, D, F
11-3021	Computer and Information Systems Managers	E
11-3031	Financial Managers	E, F
11-3051	Industrial Production Managers	N
11-3061	Purchasing Managers	F
11-3071	Transportation, Storage, and Distribution Managers	N
11-3111	Compensation and Benefits Managers	E
11-3121	Human Resources Managers	N
11-3131	Training and Development Managers	N
11-9013	Farmers, Ranchers, and Other Agricultural Managers	N
11-9021	Construction Managers	N
11-9031	Education and Childcare Administrators, Preschool and Daycare	T, E, F
11-9032	Education Administrators, Kindergarten through Secondary	T, E
11-9033	Education Administrators, Postsecondary	E, F
11-9039	Education Administrators, All Other	N
11-9041	Architectural and Engineering Managers	N
11-9051	Food Service Managers	F
11-9071	Gambling Managers	T, E, F
11-9072	Entertainment and Recreation Managers, Except Gambling	C, T, D, F
11-9081	Lodging Managers	N
11-9111	Medical and Health Services Managers	F
11-9121	Natural Sciences Managers	E
11-9131	Postmasters and Mail Superintendents	E
11-9141	Property, Real Estate, and Community Association Managers	N
11-9151	Social and Community Service Managers	N
11-9161	Emergency Management Directors	N
11-9171	Funeral Home Managers	C, T, F
11-9179	Personal Service Managers, All Other	C, T, D, F
11-9199	Managers, All Other	D
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	N
13-1021	Buyers and Purchasing Agents, Farm Products	E
13-1022	Wholesale and Retail Buyers, Except Farm Products	E
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	E
13-1031	Claims Adjusters, Examiners, and Investigators	N
13-1032	Insurance Appraisers, Auto Damage	N
13-1041	Compliance Officers	E
13-1051	Cost Estimators	N
13-1071	Human Resources Specialists	E, F
13-1074	Farm Labor Contractors	N
13-1075	Labor Relations Specialists	N
13-1081	Logisticians	E
13-1082	Project Management Specialists	C, T, D, F
13-1111	Management Analysts	E, F
13-1121	Meeting, Convention, and Event Planners	N
13-1131	Fundraisers	N
13-1141	Compensation, Benefits, and Job Analysis Specialists	N
13-1151	Training and Development Specialists	E, F
13-1161	Market Research Analysts and Marketing Specialists	E, F
13-1199	Business Operations Specialists, All Other	D
13-2011	Accountants and Auditors	N
13-2022	Appraisers of Personal and Business Property	C, T, D, F

Appendix C: Type of Change by Detailed Occupation, 2018 SOC

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
13-2023	Appraisers and Assessors of Real Estate	C, T, D, F
13-2031	Budget Analysts	E
13-2041	Credit Analysts	E
13-2051	Financial and Investment Analysts	T, D, F
13-2052	Personal Financial Advisors	E, F
13-2053	Insurance Underwriters	N
13-2054	Financial Risk Specialists	C, T, D, F
13-2061	Financial Examiners	N
13-2071	Credit Counselors	E, F
13-2072	Loan Officers	E, F
13-2081	Tax Examiners and Collectors, and Revenue Agents	N
13-2082	Tax Preparers	N
13-2099	Financial Specialists, All Other	D
15-1211	Computer Systems Analysts	C, E, F
15-1212	Information Security Analysts	C, E, F
15-1221	Computer and Information Research Scientists	C
15-1231	Computer Network Support Specialists	C, E
15-1232	Computer User Support Specialists	C, E, F
15-1241	Computer Network Architects	C, E
15-1242	Database Administrators	C, D, F
15-1243	Database Architects	C, T, D, F
15-1244	Network and Computer Systems Administrators	C, E, F
15-1251	Computer Programmers	C, E, F
15-1252	Software Developers	C, T, D, F
15-1253	Software Quality Assurance Analysts and Testers	C, T, D, F
15-1254	Web Developers	C, D, F
15-1255	Web and Digital Interface Designers	C, T, D, F
15-1299	Computer Occupations, All Other	C, D, F
15-2011	Actuaries	N
15-2021	Mathematicians	F
15-2031	Operations Research Analysts	E, F
15-2041	Statisticians	F
15-2051	Data Scientists	C, T, D, F
15-2099	Mathematical Science Occupations, All Other	D, F
17-1011	Architects, Except Landscape and Naval	N
17-1012	Landscape Architects	F
17-1021	Cartographers and Photogrammetrists	E
17-1022	Surveyors	N
17-2011	Aerospace Engineers	F
17-2021	Agricultural Engineers	N
17-2031	Bioengineers and Biomedical Engineers	T, E
17-2041	Chemical Engineers	F
17-2051	Civil Engineers	E, F
17-2061	Computer Hardware Engineers	E, F
17-2071	Electrical Engineers	F
17-2072	Electronics Engineers, Except Computer	N
17-2081	Environmental Engineers	F
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	N
17-2112	Industrial Engineers	N
17-2121	Marine Engineers and Naval Architects	N
17-2131	Materials Engineers	N
17-2141	Mechanical Engineers	F
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	N
17-2161	Nuclear Engineers	N
17-2171	Petroleum Engineers	N
17-2199	Engineers, All Other	E, F
17-3011	Architectural and Civil Drafters	N
17-3012	Electrical and Electronics Drafters	N
17-3013	Mechanical Drafters	F
17-3019	Drafters, All Other	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
17-3021	Aerospace Engineering and Operations Technologists and Technicians	T, E
17-3022	Civil Engineering Technologists and Technicians	T
17-3023	Electrical and Electronic Engineering Technologists and Technicians	T, E
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	T, E, F
17-3025	Environmental Engineering Technologists and Technicians	T
17-3026	Industrial Engineering Technologists and Technicians	T
17-3027	Mechanical Engineering Technologists and Technicians	T, E
17-3028	Calibration Technologists and Technicians	C, T, D, F
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	T, D, F
17-3031	Surveying and Mapping Technicians	E
19-1011	Animal Scientists	F
19-1012	Food Scientists and Technologists	N
19-1013	Soil and Plant Scientists	N
19-1021	Biochemists and Biophysicists	N
19-1022	Microbiologists	N
19-1023	Zoologists and Wildlife Biologists	N
19-1029	Biological Scientists, All Other	N
19-1031	Conservation Scientists	F
19-1032	Foresters	N
19-1041	Epidemiologists	N
19-1042	Medical Scientists, Except Epidemiologists	E, F
19-1099	Life Scientists, All Other	N
19-2011	Astronomers	F
19-2012	Physicists	F
19-2021	Atmospheric and Space Scientists	N
19-2031	Chemists	E
19-2032	Materials Scientists	F
19-2041	Environmental Scientists and Specialists, Including Health	E, F
19-2042	Geoscientists, Except Hydrologists and Geographers	E
19-2043	Hydrologists	E, F
19-2099	Physical Scientists, All Other	F
19-3011	Economists	F
19-3022	Survey Researchers	F
19-3032	Industrial-Organizational Psychologists	N
19-3033	Clinical and Counseling Psychologists	C, T, D, F
19-3034	School Psychologists	C, T, D, F
19-3039	Psychologists, All Other	N
19-3041	Sociologists	F
19-3051	Urban and Regional Planners	N
19-3091	Anthropologists and Archeologists	N
19-3092	Geographers	F
19-3093	Historians	N
19-3094	Political Scientists	N
19-3099	Social Scientists and Related Workers, All Other	F
19-4012	Agricultural Technicians	C, T, D, F
19-4013	Food Science Technicians	C, T, D, F
19-4021	Biological Technicians	E
19-4031	Chemical Technicians	F
19-4042	Environmental Science and Protection Technicians, Including Health	C, F
19-4043	Geological Technicians, Except Hydrologic Technicians	C, T, D
19-4044	Hydrologic Technicians	C, T, D, F
19-4051	Nuclear Technicians	E, F
19-4061	Social Science Research Assistants	E
19-4071	Forest and Conservation Technicians	C, E
19-4092	Forensic Science Technicians	F
19-4099	Life, Physical, and Social Science Technicians, All Other	D
19-5011	Occupational Health and Safety Specialists	C, E, F
19-5012	Occupational Health and Safety Technicians	C, F
21-1011	Substance Abuse and Behavioral Disorder Counselors	E
21-1012	Educational, Guidance, and Career Counselors and Advisors	T, E, F

Appendix C: Type of Change by Detailed Occupation, 2018 SOC

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
21-1013	Marriage and Family Therapists	E
21-1014	Mental Health Counselors	E, F
21-1015	Rehabilitation Counselors	E, F
21-1019	Counselors, All Other	N
21-1021	Child, Family, and School Social Workers	N
21-1022	Healthcare Social Workers	E, F
21-1023	Mental Health and Substance Abuse Social Workers	N
21-1029	Social Workers, All Other	F
21-1091	Health Education Specialists	T, E, F
21-1092	Probation Officers and Correctional Treatment Specialists	N
21-1093	Social and Human Service Assistants	E
21-1094	Community Health Workers	E, F
21-1099	Community and Social Service Specialists, All Other	N
21-2011	Clergy	N
21-2021	Directors, Religious Activities and Education	E
21-2099	Religious Workers, All Other	N
23-1011	Lawyers	F
23-1012	Judicial Law Clerks	N
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	N
23-1022	Arbitrators, Mediators, and Conciliators	N
23-1023	Judges, Magistrate Judges, and Magistrates	N
23-2011	Paralegals and Legal Assistants	E, F
23-2093	Title Examiners, Abstractors, and Searchers	E, F
23-2099	Legal Support Workers, All Other	N
25-1011	Business Teachers, Postsecondary	N
25-1021	Computer Science Teachers, Postsecondary	N
25-1022	Mathematical Science Teachers, Postsecondary	N
25-1031	Architecture Teachers, Postsecondary	N
25-1032	Engineering Teachers, Postsecondary	N
25-1041	Agricultural Sciences Teachers, Postsecondary	N
25-1042	Biological Science Teachers, Postsecondary	N
25-1043	Forestry and Conservation Science Teachers, Postsecondary	N
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	N
25-1052	Chemistry Teachers, Postsecondary	E
25-1053	Environmental Science Teachers, Postsecondary	E
25-1054	Physics Teachers, Postsecondary	F
25-1061	Anthropology and Archeology Teachers, Postsecondary	N
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	N
25-1063	Economics Teachers, Postsecondary	N
25-1064	Geography Teachers, Postsecondary	N
25-1065	Political Science Teachers, Postsecondary	N
25-1066	Psychology Teachers, Postsecondary	N
25-1067	Sociology Teachers, Postsecondary	N
25-1069	Social Sciences Teachers, Postsecondary, All Other	N
25-1071	Health Specialties Teachers, Postsecondary	E
25-1072	Nursing Instructors and Teachers, Postsecondary	N
25-1081	Education Teachers, Postsecondary	N
25-1082	Library Science Teachers, Postsecondary	N
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	N
25-1112	Law Teachers, Postsecondary	N
25-1113	Social Work Teachers, Postsecondary	N
25-1121	Art, Drama, and Music Teachers, Postsecondary	N
25-1122	Communications Teachers, Postsecondary	N
25-1123	English Language and Literature Teachers, Postsecondary	N
25-1124	Foreign Language and Literature Teachers, Postsecondary	N
25-1125	History Teachers, Postsecondary	N
25-1126	Philosophy and Religion Teachers, Postsecondary	N
25-1192	Family and Consumer Sciences Teachers, Postsecondary	T, F
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	N
25-1194	Career/Technical Education Teachers, Postsecondary	T, E, F

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
25-1199	Postsecondary Teachers, All Other	F
25-2011	Preschool Teachers, Except Special Education	E, F
25-2012	Kindergarten Teachers, Except Special Education	E, F
25-2021	Elementary School Teachers, Except Special Education	E, F
25-2022	Middle School Teachers, Except Special and Career/Technical Education	E, F
25-2023	Career/Technical Education Teachers, Middle School	E, F
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	E, F
25-2032	Career/Technical Education Teachers, Secondary School	E, F
25-2051	Special Education Teachers, Preschool	E, F
25-2055	Special Education Teachers, Kindergarten	C, T, D, F
25-2056	Special Education Teachers, Elementary School	C, T, D, F
25-2057	Special Education Teachers, Middle School	C, E, F
25-2058	Special Education Teachers, Secondary School	C, E, F
25-2059	Special Education Teachers, All Other	F
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	T, E, F
25-3021	Self-Enrichment Teachers	T, E, F
25-3031	Substitute Teachers, Short-Term	C, T, D, F
25-3041	Tutors	C, T, D, F
25-3099	Teachers and Instructors, All Other	D, F
25-4011	Archivists	F
25-4012	Curators	F
25-4013	Museum Technicians and Conservators	N
25-4022	Librarians and Media Collections Specialists	C, T, D, F
25-4031	Library Technicians	N
25-9021	Farm and Home Management Educators	T, E
25-9031	Instructional Coordinators	E, F
25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	C, T, D, F
25-9043	Teaching Assistants, Special Education	C, T, D, F
25-9044	Teaching Assistants, Postsecondary	C, T, E, F
25-9049	Teaching Assistants, All Other	C, T, D, F
25-9099	Educational Instruction and Library Workers, All Other	T, E, F
27-1011	Art Directors	E, F
27-1012	Craft Artists	F
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	N
27-1014	Special Effects Artists and Animators	T, E
27-1019	Artists and Related Workers, All Other	N
27-1021	Commercial and Industrial Designers	E
27-1022	Fashion Designers	F
27-1023	Floral Designers	N
27-1024	Graphic Designers	E, F
27-1025	Interior Designers	E
27-1026	Merchandise Displayers and Window Trimmers	N
27-1027	Set and Exhibit Designers	E
27-1029	Designers, All Other	N
27-2011	Actors	E
27-2012	Producers and Directors	E
27-2021	Athletes and Sports Competitors	F
27-2022	Coaches and Scouts	E, F
27-2023	Umpires, Referees, and Other Sports Officials	N
27-2031	Dancers	E, F
27-2032	Choreographers	F
27-2041	Music Directors and Composers	E, F
27-2042	Musicians and Singers	E
27-2091	Disc Jockeys, Except Radio	C, T, D, F
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	D, F
27-3011	Broadcast Announcers and Radio Disc Jockeys	T, E, F
27-3023	News Analysts, Reporters, and Journalists	C, T, D, F
27-3031	Public Relations Specialists	E
27-3041	Editors	E
27-3042	Technical Writers	F

Appendix C: Type of Change by Detailed Occupation, 2018 SOC

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
27-3043	Writers and Authors	E, F
27-3091	Interpreters and Translators	N
27-3092	Court Reporters and Simultaneous Captioners	C, T, F
27-3099	Media and Communication Workers, All Other	D, F
27-4011	Audio and Video Technicians	T, E, F
27-4012	Broadcast Technicians	E
27-4014	Sound Engineering Technicians	E, F
27-4015	Lighting Technicians	C, T, D, F
27-4021	Photographers	E, F
27-4031	Camera Operators, Television, Video, and Film	T, E, F
27-4032	Film and Video Editors	E
27-4099	Media and Communication Equipment Workers, All Other	D, F
29-1011	Chiropractors	F
29-1021	Dentists, General	E
29-1022	Oral and Maxillofacial Surgeons	N
29-1023	Orthodontists	F
29-1024	Prosthodontists	E, F
29-1029	Dentists, All Other Specialists	F
29-1031	Dietitians and Nutritionists	N
29-1041	Optometrists	E, F
29-1051	Pharmacists	N
29-1071	Physician Assistants	E
29-1081	Podiatrists	N
29-1122	Occupational Therapists	E
29-1123	Physical Therapists	F
29-1124	Radiation Therapists	E, F
29-1125	Recreational Therapists	E, F
29-1126	Respiratory Therapists	N
29-1127	Speech-Language Pathologists	N
29-1128	Exercise Physiologists	E
29-1129	Therapists, All Other	F
29-1131	Veterinarians	F
29-1141	Registered Nurses	F
29-1151	Nurse Anesthetists	F
29-1161	Nurse Midwives	N
29-1171	Nurse Practitioners	F
29-1181	Audiologists	F
29-1211	Anesthesiologists	C, E, F
29-1212	Cardiologists	C, T, D, F
29-1213	Dermatologists	C, T, D, F
29-1214	Emergency Medicine Physicians	C, T, D, F
29-1215	Family Medicine Physicians	C, T, E, F
29-1216	General Internal Medicine Physicians	C, T, E, F
29-1217	Neurologists	C, T, D, F
29-1218	Obstetricians and Gynecologists	C, E, F
29-1221	Pediatricians, General	C, E, F
29-1222	Physicians, Pathologists	C, T, D, F
29-1223	Psychiatrists	C, E, F
29-1224	Radiologists	C, T, D, F
29-1229	Physicians, All Other	C, T, D, F
29-1241	Ophthalmologists, Except Pediatric	C, T, D, F
29-1242	Orthopedic Surgeons, Except Pediatric	C, T, D, F
29-1243	Pediatric Surgeons	C, T, D, F
29-1249	Surgeons, All Other	C, T, D, F
29-1291	Acupuncturists	C, T, D, F
29-1292	Dental Hygienists	C, E, F
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	C, T, D, F
29-2011	Medical and Clinical Laboratory Technologists	N
29-2012	Medical and Clinical Laboratory Technicians	N
29-2031	Cardiovascular Technologists and Technicians	E

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
29-2032	Diagnostic Medical Sonographers	E, F
29-2033	Nuclear Medicine Technologists	N
29-2034	Radiologic Technologists and Technicians	T, E
29-2035	Magnetic Resonance Imaging Technologists	N
29-2036	Medical Dosimetrists	C, T, D, F
29-2042	Emergency Medical Technicians	C, T, D, F
29-2043	Paramedics	C, T, D, F
29-2051	Dietetic Technicians	F
29-2052	Pharmacy Technicians	F
29-2053	Psychiatric Technicians	F
29-2055	Surgical Technologists	E, F
29-2056	Veterinary Technologists and Technicians	N
29-2057	Ophthalmic Medical Technicians	N
29-2061	Licensed Practical and Licensed Vocational Nurses	N
29-2072	Medical Records Specialists	C, T, D, F
29-2081	Opticians, Dispensing	N
29-2091	Orthotists and Prosthetists	N
29-2092	Hearing Aid Specialists	N
29-2099	Health Technologists and Technicians, All Other	N
29-9021	Health Information Technologists and Medical Registrars	C, T, D, F
29-9091	Athletic Trainers	E, F
29-9092	Genetic Counselors	F
29-9093	Surgical Assistants	C, T, D, F
29-9099	Healthcare Practitioners and Technical Workers, All Other	D, F
31-1121	Home Health Aides	C, E, F
31-1122	Personal Care Aides	C, E, F
31-1131	Nursing Assistants	C, E, F
31-1132	Orderlies	C, E, F
31-1133	Psychiatric Aides	C, F
31-2011	Occupational Therapy Assistants	E
31-2012	Occupational Therapy Aides	N
31-2021	Physical Therapist Assistants	E
31-2022	Physical Therapist Aides	N
31-9011	Massage Therapists	F
31-9091	Dental Assistants	E, F
31-9092	Medical Assistants	N
31-9093	Medical Equipment Preparers	F
31-9094	Medical Transcriptionists	F
31-9095	Pharmacy Aides	N
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	E
31-9097	Phlebotomists	F
31-9099	Healthcare Support Workers, All Other	N
33-1011	First-Line Supervisors of Correctional Officers	N
33-1012	First-Line Supervisors of Police and Detectives	N
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	N
33-1091	First-Line Supervisors of Security Workers	C, T, D, F
33-1099	First-Line Supervisors of Protective Service Workers, All Other	D, F
33-2011	Firefighters	N
33-2021	Fire Inspectors and Investigators	E
33-2022	Forest Fire Inspectors and Prevention Specialists	N
33-3011	Bailiffs	F
33-3012	Correctional Officers and Jailers	N
33-3021	Detectives and Criminal Investigators	E
33-3031	Fish and Game Wardens	F
33-3041	Parking Enforcement Workers	N
33-3051	Police and Sheriff's Patrol Officers	E, F
33-3052	Transit and Railroad Police	N
33-9011	Animal Control Workers	N
33-9021	Private Detectives and Investigators	E
33-9031	Gambling Surveillance Officers and Gambling Investigators	T, E, F

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
33-9032	Security Guards	E
33-9091	Crossing Guards and Flaggers	T
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	E
33-9093	Transportation Security Screeners	N
33-9094	School Bus Monitors	C, T, D, F
33-9099	Protective Service Workers, All Other	D, F
35-1011	Chefs and Head Cooks	N
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	N
35-2011	Cooks, Fast Food	N
35-2012	Cooks, Institution and Cafeteria	N
35-2013	Cooks, Private Household	N
35-2014	Cooks, Restaurant	N
35-2015	Cooks, Short Order	E
35-2019	Cooks, All Other	N
35-2021	Food Preparation Workers	N
35-3011	Bartenders	F
35-3023	Fast Food and Counter Workers	C, T, D, F
35-3031	Waiters and Waitresses	E
35-3041	Food Servers, Nonrestaurant	E
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	E
35-9021	Dishwashers	N
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	N
35-9099	Food Preparation and Serving Related Workers, All Other	N
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	N
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	N
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	N
37-2012	Maids and Housekeeping Cleaners	N
37-2019	Building Cleaning Workers, All Other	N
37-2021	Pest Control Workers	N
37-3011	Landscaping and Groundskeeping Workers	N
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	E
37-3013	Tree Trimmers and Pruners	E, F
37-3019	Grounds Maintenance Workers, All Other	N
39-1013	First-Line Supervisors of Gambling Services Workers	C, T, D, F
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	C, T, D, F
39-1022	First-Line Supervisors of Personal Service Workers	C, D, F
39-2011	Animal Trainers	E, F
39-2021	Animal Caretakers	T, E, F
39-3011	Gambling Dealers	T, E
39-3012	Gambling and Sports Book Writers and Runners	T, F
39-3019	Gambling Service Workers, All Other	T, E, F
39-3021	Motion Picture Projectionists	N
39-3031	Ushers, Lobby Attendants, and Ticket Takers	E
39-3091	Amusement and Recreation Attendants	N
39-3092	Costume Attendants	F
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	N
39-3099	Entertainment Attendants and Related Workers, All Other	N
39-4011	Embalmers	N
39-4012	Crematory Operators	C, T, D, F
39-4021	Funeral Attendants	E, F
39-4031	Morticians, Undertakers, and Funeral Arrangers	T, E, F
39-5011	Barbers	E, F
39-5012	Hairdressers, Hairstylists, and Cosmetologists	E
39-5091	Makeup Artists, Theatrical and Performance	N
39-5092	Manicurists and Pedicurists	N
39-5093	Shampooers	F
39-5094	Skincare Specialists	N
39-6011	Baggage Porters and Bellhops	N
39-6012	Concierges	E, F
39-7011	Tour Guides and Escorts	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
39-7012	Travel Guides	F
39-9011	Childcare Workers	E, F
39-9031	Exercise Trainers and Group Fitness Instructors	T, E, F
39-9032	Recreation Workers	F
39-9041	Residential Advisors	E, F
39-9099	Personal Care and Service Workers, All Other	D
41-1011	First-Line Supervisors of Retail Sales Workers	N
41-1012	First-Line Supervisors of Non-Retail Sales Workers	N
41-2011	Cashiers	E
41-2012	Gambling Change Persons and Booth Cashiers	T, F
41-2021	Counter and Rental Clerks	E, F
41-2022	Parts Salespersons	N
41-2031	Retail Salespersons	N
41-3011	Advertising Sales Agents	N
41-3021	Insurance Sales Agents	N
41-3031	Securities, Commodities, and Financial Services Sales Agents	F
41-3041	Travel Agents	E, F
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	C, T, D, F
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	N
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	N
41-9011	Demonstrators and Product Promoters	N
41-9012	Models	F
41-9021	Real Estate Brokers	F
41-9022	Real Estate Sales Agents	N
41-9031	Sales Engineers	N
41-9041	Telemarketers	F
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	N
41-9099	Sales and Related Workers, All Other	F
43-1011	First-Line Supervisors of Office and Administrative Support Workers	N
43-2011	Switchboard Operators, Including Answering Service	N
43-2021	Telephone Operators	N
43-2099	Communications Equipment Operators, All Other	D, F
43-3011	Bill and Account Collectors	E
43-3021	Billing and Posting Clerks	E, F
43-3031	Bookkeeping, Accounting, and Auditing Clerks	N
43-3041	Gambling Cage Workers	T, E, F
43-3051	Payroll and Timekeeping Clerks	N
43-3061	Procurement Clerks	E, F
43-3071	Tellers	N
43-3099	Financial Clerks, All Other	N
43-4011	Brokerage Clerks	F
43-4021	Correspondence Clerks	F
43-4031	Court, Municipal, and License Clerks	N
43-4041	Credit Authorizers, Checkers, and Clerks	E
43-4051	Customer Service Representatives	E
43-4061	Eligibility Interviewers, Government Programs	N
43-4071	File Clerks	F
43-4081	Hotel, Motel, and Resort Desk Clerks	N
43-4111	Interviewers, Except Eligibility and Loan	N
43-4121	Library Assistants, Clerical	E
43-4131	Loan Interviewers and Clerks	N
43-4141	New Accounts Clerks	N
43-4151	Order Clerks	N
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	N
43-4171	Receptionists and Information Clerks	N
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	E
43-4199	Information and Record Clerks, All Other	N
43-5011	Cargo and Freight Agents	F
43-5021	Couriers and Messengers	E
43-5031	Public Safety Telecommunicators	T, E, F

Appendix C: Type of Change by Detailed Occupation, 2018 SOC

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
43-5032	Dispatchers, Except Police, Fire, and Ambulance	N
43-5041	Meter Readers, Utilities	N
43-5051	Postal Service Clerks	E
43-5052	Postal Service Mail Carriers	E
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	E
43-5061	Production, Planning, and Expediting Clerks	E
43-5071	Shipping, Receiving, and Inventory Clerks	T, E, F
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	N
43-6011	Executive Secretaries and Executive Administrative Assistants	E
43-6012	Legal Secretaries and Administrative Assistants	T
43-6013	Medical Secretaries and Administrative Assistants	T
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	E, F
43-9021	Data Entry Keyers	N
43-9022	Word Processors and Typists	E, F
43-9031	Desktop Publishers	F
43-9041	Insurance Claims and Policy Processing Clerks	N
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	E
43-9061	Office Clerks, General	E
43-9071	Office Machine Operators, Except Computer	E, F
43-9081	Proofreaders and Copy Markers	N
43-9111	Statistical Assistants	N
43-9199	Office and Administrative Support Workers, All Other	N
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	N
45-2011	Agricultural Inspectors	N
45-2021	Animal Breeders	E, F
45-2041	Graders and Sorters, Agricultural Products	N
45-2091	Agricultural Equipment Operators	E, F
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	E
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	E, F
45-2099	Agricultural Workers, All Other	N
45-3031	Fishing and Hunting Workers	C, T, D, F
45-4011	Forest and Conservation Workers	E, F
45-4021	Fallers	N
45-4022	Logging Equipment Operators	E, F
45-4023	Log Graders and Scalers	N
45-4029	Logging Workers, All Other	F
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	F
47-2011	Boilermakers	F
47-2021	Brickmasons and Blockmasons	E
47-2022	Stonemasons	F
47-2031	Carpenters	E
47-2041	Carpet Installers	F
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	N
47-2043	Floor Sanders and Finishers	N
47-2044	Tile and Stone Setters	T, E
47-2051	Cement Masons and Concrete Finishers	N
47-2053	Terrazzo Workers and Finishers	N
47-2061	Construction Laborers	F
47-2071	Paving, Surfacing, and Tamping Equipment Operators	E
47-2072	Pile Driver Operators	T, E, F
47-2073	Operating Engineers and Other Construction Equipment Operators	E, F
47-2081	Drywall and Ceiling Tile Installers	E
47-2082	Tapers	N
47-2111	Electricians	N
47-2121	Glaziers	N
47-2131	Insulation Workers, Floor, Ceiling, and Wall	N
47-2132	Insulation Workers, Mechanical	N
47-2141	Painters, Construction and Maintenance	N
47-2142	Paperhangers	F
47-2151	Pipelayers	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
47-2152	Plumbers, Pipefitters, and Steamfitters	N
47-2161	Plasterers and Stucco Masons	N
47-2171	Reinforcing Iron and Rebar Workers	N
47-2181	Roofers	F
47-2211	Sheet Metal Workers	F
47-2221	Structural Iron and Steel Workers	N
47-2231	Solar Photovoltaic Installers	E
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	N
47-3012	Helpers--Carpenters	N
47-3013	Helpers--Electricians	N
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	N
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	N
47-3016	Helpers--Roofers	N
47-3019	Helpers, Construction Trades, All Other	N
47-4011	Construction and Building Inspectors	F
47-4021	Elevator and Escalator Installers and Repairers	T
47-4031	Fence Erectors	F
47-4041	Hazardous Materials Removal Workers	N
47-4051	Highway Maintenance Workers	E
47-4061	Rail-Track Laying and Maintenance Equipment Operators	N
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	N
47-4091	Segmental Pavers	N
47-4099	Construction and Related Workers, All Other	N
47-5011	Derrick Operators, Oil and Gas	E, F
47-5012	Rotary Drill Operators, Oil and Gas	E, F
47-5013	Service Unit Operators, Oil and Gas	T, E, F
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	C, T, D, F
47-5023	Earth Drillers, Except Oil and Gas	C, D, F
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters	C, D, F
47-5041	Continuous Mining Machine Operators	E, F
47-5043	Roof Bolters, Mining	C, F
47-5044	Loading and Moving Machine Operators, Underground Mining	C, T, D, F
47-5049	Underground Mining Machine Operators, All Other	T, D, F
47-5051	Rock Splitters, Quarry	E, F
47-5071	Roustabouts, Oil and Gas	F
47-5081	Helpers--Extraction Workers	N
47-5099	Extraction Workers, All Other	D, F
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	E
49-2011	Computer, Automated Teller, and Office Machine Repairers	N
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	N
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	N
49-2091	Avionics Technicians	N
49-2092	Electric Motor, Power Tool, and Related Repairers	N
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	N
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	E
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	N
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	N
49-2097	Audiovisual Equipment Installers and Repairers	T, E
49-2098	Security and Fire Alarm Systems Installers	N
49-3011	Aircraft Mechanics and Service Technicians	E, F
49-3021	Automotive Body and Related Repairers	E
49-3022	Automotive Glass Installers and Repairers	N
49-3023	Automotive Service Technicians and Mechanics	N
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	N
49-3041	Farm Equipment Mechanics and Service Technicians	N
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	E, F
49-3043	Rail Car Repairers	N
49-3051	Motorboat Mechanics and Service Technicians	N
49-3052	Motorcycle Mechanics	F
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
49-3091	Bicycle Repairers	F
49-3092	Recreational Vehicle Service Technicians	N
49-3093	Tire Repairers and Changers	N
49-9011	Mechanical Door Repairers	F
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	N
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	E
49-9031	Home Appliance Repairers	N
49-9041	Industrial Machinery Mechanics	E
49-9043	Maintenance Workers, Machinery	N
49-9044	Millwrights	N
49-9045	Refractory Materials Repairers, Except Brickmasons	N
49-9051	Electrical Power-Line Installers and Repairers	N
49-9052	Telecommunications Line Installers and Repairers	N
49-9061	Camera and Photographic Equipment Repairers	N
49-9062	Medical Equipment Repairers	N
49-9063	Musical Instrument Repairers and Tuners	E
49-9064	Watch and Clock Repairers	T, E
49-9069	Precision Instrument and Equipment Repairers, All Other	F
49-9071	Maintenance and Repair Workers, General	E, F
49-9081	Wind Turbine Service Technicians	N
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	N
49-9092	Commercial Divers	E, F
49-9094	Locksmiths and Safe Repairers	E
49-9095	Manufactured Building and Mobile Home Installers	N
49-9096	Riggers	N
49-9097	Signal and Track Switch Repairers	N
49-9098	Helpers--Installation, Maintenance, and Repair Workers	F
49-9099	Installation, Maintenance, and Repair Workers, All Other	D, F
51-1011	First-Line Supervisors of Production and Operating Workers	N
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	N
51-2021	Coil Winders, Tapers, and Finishers	N
51-2022	Electrical and Electronic Equipment Assemblers	N
51-2023	Electromechanical Equipment Assemblers	F
51-2031	Engine and Other Machine Assemblers	N
51-2041	Structural Metal Fabricators and Fitters	N
51-2051	Fiberglass Laminators and Fabricators	C
51-2061	Timing Device Assemblers and Adjusters	C, E, F
51-2092	Team Assemblers	N
51-2099	Assemblers and Fabricators, All Other	N
51-3011	Bakers	N
51-3021	Butchers and Meat Cutters	N
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	E
51-3023	Slaughtering and Meat Packers	E
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	N
51-3092	Food Batchmakers	N
51-3093	Food Cooking Machine Operators and Tenders	N
51-3099	Food Processing Workers, All Other	N
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	N
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	N
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	E
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	N
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	N
51-4041	Machinists	E, F
51-4051	Metal-Refining Furnace Operators and Tenders	N
51-4052	Pourers and Casters, Metal	N
51-4061	Model Makers, Metal and Plastic	N
51-4062	Patternmakers, Metal and Plastic	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
51-4071	Foundry Mold and Coremakers	E
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	N
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N
51-4111	Tool and Die Makers	N
51-4121	Welders, Cutters, Solderers, and Brazers	N
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	N
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	N
51-4192	Layout Workers, Metal and Plastic	N
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	T, E, F
51-4194	Tool Grinders, Filers, and Sharpeners	N
51-4199	Metal Workers and Plastic Workers, All Other	N
51-5111	Prepress Technicians and Workers	N
51-5112	Printing Press Operators	N
51-5113	Print Binding and Finishing Workers	N
51-6011	Laundry and Dry-Cleaning Workers	N
51-6021	Pressers, Textile, Garment, and Related Materials	N
51-6031	Sewing Machine Operators	N
51-6041	Shoe and Leather Workers and Repairers	E, F
51-6042	Shoe Machine Operators and Tenders	N
51-6051	Sewers, Hand	E
51-6052	Tailors, Dressmakers, and Custom Sewers	N
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	N
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	N
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	N
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	N
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	N
51-6092	Fabric and Apparel Patternmakers	N
51-6093	Upholsters	N
51-6099	Textile, Apparel, and Furnishings Workers, All Other	N
51-7011	Cabinetmakers and Bench Carpenters	N
51-7021	Furniture Finishers	N
51-7031	Model Makers, Wood	N
51-7032	Patternmakers, Wood	N
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	E, F
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	E, F
51-7099	Woodworkers, All Other	N
51-8011	Nuclear Power Reactor Operators	N
51-8012	Power Distributors and Dispatchers	N
51-8013	Power Plant Operators	N
51-8021	Stationary Engineers and Boiler Operators	N
51-8031	Water and Wastewater Treatment Plant and System Operators	N
51-8091	Chemical Plant and System Operators	N
51-8092	Gas Plant Operators	F
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	N
51-8099	Plant and System Operators, All Other	N
51-9011	Chemical Equipment Operators and Tenders	N
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	N
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	N
51-9022	Grinding and Polishing Workers, Hand	N
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	N
51-9031	Cutters and Trimmers, Hand	N
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	E
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	E
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	N
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	N
51-9071	Jewelers and Precious Stone and Metal Workers	N
51-9081	Dental Laboratory Technicians	N
51-9082	Medical Appliance Technicians	E, F
51-9083	Ophthalmic Laboratory Technicians	N
51-9111	Packaging and Filling Machine Operators and Tenders	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
51-9123	Painting, Coating, and Decorating Workers	N
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	C, T, D, F
51-9141	Semiconductor Processing Technicians	T
51-9151	Photographic Process Workers and Processing Machine Operators	N
51-9161	Computer Numerically Controlled Tool Operators	C, T, D, F
51-9162	Computer Numerically Controlled Tool Programmers	C, T, D, F
51-9191	Adhesive Bonding Machine Operators and Tenders	N
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	N
51-9193	Cooling and Freezing Equipment Operators and Tenders	N
51-9194	Etchers and Engravers	N
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	F
51-9196	Paper Goods Machine Setters, Operators, and Tenders	N
51-9197	Tire Builders	N
51-9198	Helpers--Production Workers	N
51-9199	Production Workers, All Other	D
53-1041	Aircraft Cargo Handling Supervisors	C
53-1042	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	C, E
53-1043	First-Line Supervisors of Material-Moving Machine and Vehicle Operators	C, T, D, F
53-1044	First-Line Supervisors of Passenger Attendants	C, T, D, F
53-1049	First-Line Supervisors of Transportation Workers, All Other	C, T, D, F
53-2011	Airline Pilots, Copilots, and Flight Engineers	E
53-2012	Commercial Pilots	E
53-2021	Air Traffic Controllers	F
53-2022	Airfield Operations Specialists	E
53-2031	Flight Attendants	E
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	N
53-3031	Driver/Sales Workers	E, F
53-3032	Heavy and Tractor-Trailer Truck Drivers	E, F
53-3033	Light Truck Drivers	T, E, F
53-3051	Bus Drivers, School	C, T, D, F
53-3052	Bus Drivers, Transit and Intercity	C
53-3053	Shuttle Drivers and Chauffeurs	C, T, D, F
53-3054	Taxi Drivers	C, T, D, F
53-3099	Motor Vehicle Operators, All Other	N
53-4011	Locomotive Engineers	E
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	N
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	C, T, D, F
53-4031	Railroad Conductors and Yardmasters	N
53-4041	Subway and Streetcar Operators	N
53-4099	Rail Transportation Workers, All Other	N
53-5011	Sailors and Marine Oilers	N
53-5021	Captains, Mates, and Pilots of Water Vessels	N
53-5022	Motorboat Operators	F
53-5031	Ship Engineers	E
53-6011	Bridge and Lock Tenders	N
53-6021	Parking Attendants	T, E, F
53-6031	Automotive and Watercraft Service Attendants	E
53-6032	Aircraft Service Attendants	C, T, D, F
53-6041	Traffic Technicians	N
53-6051	Transportation Inspectors	E
53-6061	Passenger Attendants	T, E
53-6099	Transportation Workers, All Other	D, F
53-7011	Conveyor Operators and Tenders	N
53-7021	Crane and Tower Operators	E
53-7031	Dredge Operators	F
53-7041	Hoist and Winch Operators	N
53-7051	Industrial Truck and Tractor Operators	F
53-7061	Cleaners of Vehicles and Equipment	N
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	E, F
53-7063	Machine Feeders and Offbearers	N

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2018 SOC Code	2018 SOC Detailed Occupation	Type of Change
53-7064	Packers and Packagers, Hand	N
53-7065	Stockers and Order Fillers	C, T, E, F
53-7071	Gas Compressor and Gas Pumping Station Operators	E
53-7072	Pump Operators, Except Wellhead Pumps	N
53-7073	Wellhead Pumps	F
53-7081	Refuse and Recyclable Material Collectors	N
53-7121	Tank Car, Truck, and Ship Loaders	N
53-7199	Material Moving Workers, All Other	D, F
55-1011	Air Crew Officers	E
55-1012	Aircraft Launch and Recovery Officers	N
55-1013	Armored Assault Vehicle Officers	N
55-1014	Artillery and Missile Officers	N
55-1015	Command and Control Center Officers	N
55-1016	Infantry Officers	F
55-1017	Special Forces Officers	F
55-1019	Military Officer Special and Tactical Operations Leaders, All Other	N
55-2011	First-Line Supervisors of Air Crew Members	N
55-2012	First-Line Supervisors of Weapons Specialists/Crew Members	N
55-2013	First-Line Supervisors of All Other Tactical Operations Specialists	N
55-3011	Air Crew Members	E
55-3012	Aircraft Launch and Recovery Specialists	N
55-3013	Armored Assault Vehicle Crew Members	E
55-3014	Artillery and Missile Crew Members	N
55-3015	Command and Control Center Specialists	N
55-3016	Infantry	N
55-3018	Special Forces	N
55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other	N