U.S. Bureau of Labor Statistics
On behalf of the Office of Management and Budget (OMB)
and the Standard Occupational Classification Policy Committee (SOCPC)

November 2017 (for reference year January 2018)

2018 Standard Occupational Classification

User Guide

Contents

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:

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

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

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

- o Information technology (minor group 15-1200 Computer Occupations) and
- o 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

2018 SOC code	*2018 SOC Title*
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

2018 SOC code	2018 SOC Title
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

2018 SOC code	*2018 SOC Title*
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

2018 SOC code	*2018 SOC Title*
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

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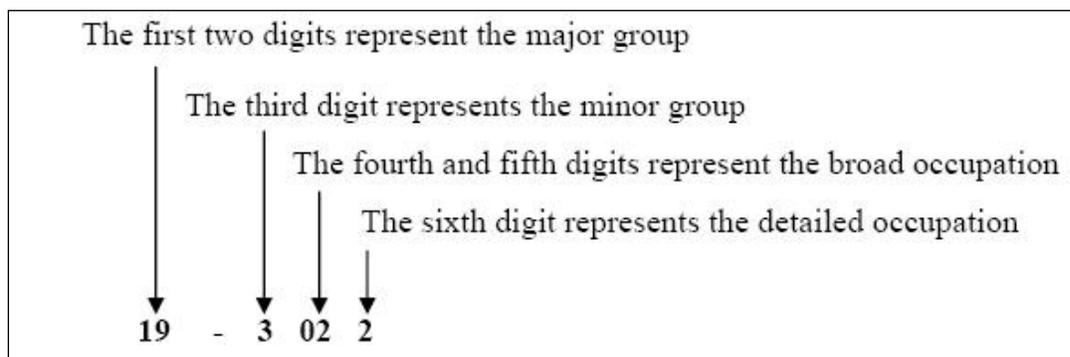
Major groups are broken into minor groups, which, in turn, are divided into broad occupations. Broad occupations are then divided into one or more detailed occupations, as follows:

29-0000 Healthcare Practitioners and Technical Occupations

29-1000 Health Diagnosing or Treating Practitioners

29-1020 Dentists

29-1022 Oral and Maxillofacial Surgeons

- o Major group codes end with 0000 (e.g., 29-0000 Healthcare Practitioners and Technical Occupations).

- o 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.

- o Broad occupations end with 0 (e.g., 29-1020 Dentists).

- o 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.


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The first two digits represent the major group
    The third digit represents the minor group
        The fourth and fifth digits represent the broad occupation
            The sixth digit represents the detailed occupation

        19  -  3  02  2
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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.
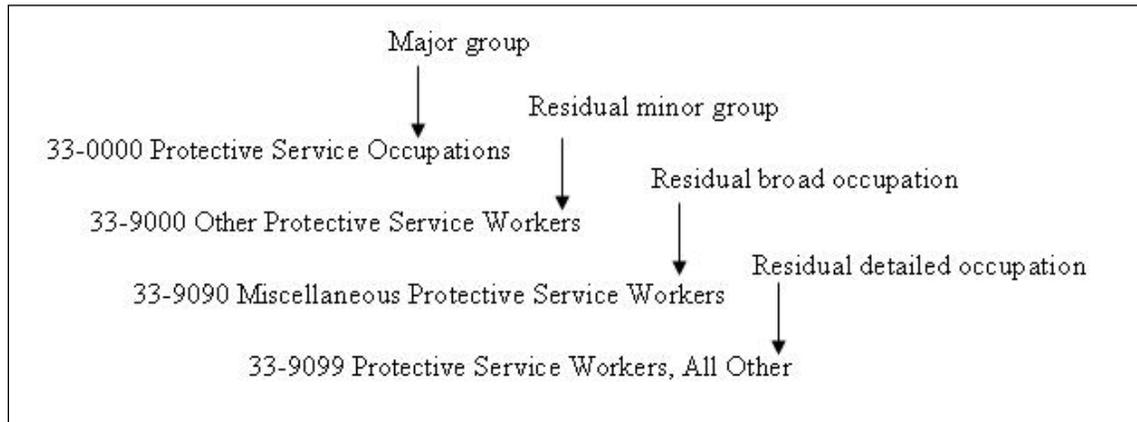
If there are more than nine broad occupations in a minor group (e.g., 51-9000 Other Production Occupations); or more than eight, if there is no "All Other" occupation (e.g., 47-2000 Construction Trades Workers), then the code xx-x090 is skipped (reserved for "All Other" occupations), the code xx-x000 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.
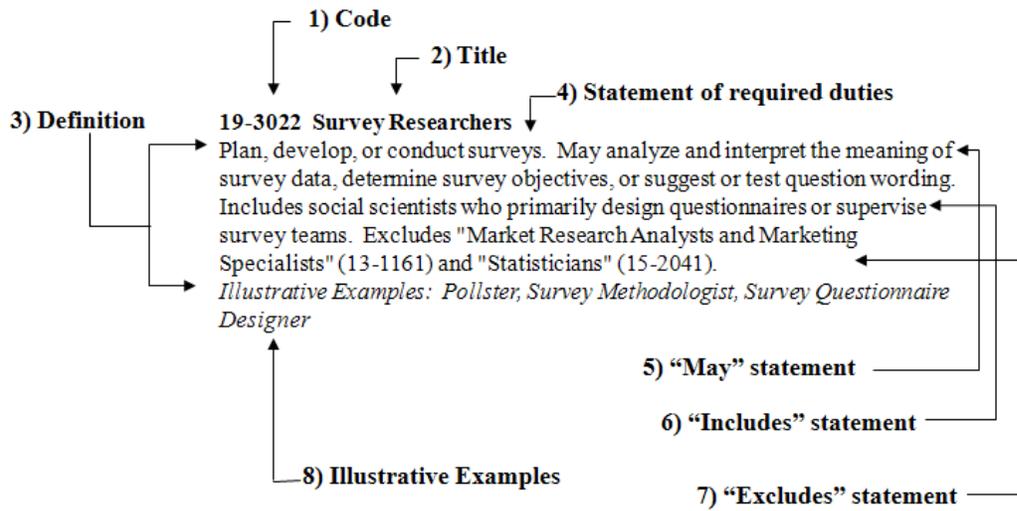
The "May" statements describe tasks that workers in that occupation may—but are not required to—perform in order to be classified with Survey Researchers. The "Includes" statement identifies particular workers who should be classified with Survey Researchers. The "Excludes" statement indicates other 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 SOCPC 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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