

Appendix A. The Standard Occupational Classification System

The Occupational Employment Statistics (OES) survey fully implemented the Standard Occupational Classification System (SOC) in 2000. The SOC fulfilled a growing need for a universal occupational classification system that permits government agencies and private industry to produce comparable data.

The SOC system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. The 2000 SOC is designed to cover all occupations in which work is performed for pay or profit, reflecting the current occupational structure in the United States.

The OES survey uses 22 of the 23 major occupational groups from the SOC to categorize workers who work for pay in one of 801 detailed occupations. Major group 55-0000, Military specific occupations, is excluded from the OES survey.

Description of the SOC structure

The SOC is an empirically based, economy-wide occupational classification system. The occupations are identified by codes and titles, and by definitions that describe primary job duties. The skill level required for some of the occupations is implicit in the definition. The classification system emphasizes occupations of special interest to many data users, such as technology-related occupations and occupations requiring substantial training.

The SOC system has four levels of classification: major group, minor group, broad occupation, and detailed occupation. Occupation codes consist of six digits, with a hyphen between the 2nd and 3rd digits for presentational clarity. The first two digits represent the major group; the third, the minor group; and the fourth and fifth, the broad occupation. The last digit, along with the preceding five, identifies the detailed occupation.

Major group codes end with 0000 (for example, 33-0000, Protective service occupations), minor groups end with 000 (33-2000, Fire fighting and prevention workers), and broad occupations end with 0 (33-2020, Fire inspectors). All residuals (“Other,” “Miscellaneous,” and “All other”), whether at the detailed or broad occupation or minor group level, contain a 9 at the level of the residual. Detailed residual occupations

end in 9 (for example, 33-9099, Protective service workers, all other); broad occupations that are minor group residuals end in 90 (33-9090, Miscellaneous protective service workers); and minor groups that are major group residuals end in 9000 (33-9000, Other protective service workers).

There are residual categories within the various levels of the system to permit the reporting of occupations not identified at the detailed level. The following sections examine the first level of the system—major group—as well as the residual occupational categories.

Major groups

The major groups and corresponding numbers of detailed occupations surveyed in the OES program in May 2006 are as follows:

SOC code	Major occupational group	Number of detailed occupations
	Total	801
11-0000	Management	34
13-0000	Business and financial operations ...	30
15-0000	Computer and mathematical science	16
17-0000	Architecture and engineering	35
19-0000	Life, physical, and social science ...	44
21-0000	Community and social services	17
23-0000	Legal	9
25-0000	Education, training, and library	61
27-0000	Arts, design, entertainment, sports, and media	41
29-0000	Healthcare practitioner and technical	53
31-0000	Healthcare support	15
33-0000	Protective service	21
35-0000	Food preparation and serving related	18
37-0000	Building and grounds cleaning and maintenance	10
39-0000	Personal care and service	34
41-0000	Sales and related	22
43-0000	Office and administrative support ...	55
45-0000	Farming, fishing, and forestry	16
47-0000	Construction and extraction	59
49-0000	Installation, maintenance, and repair .	51
51-0000	Production	110
53-0000	Transportation and material moving .	50

Classification guidelines

To ensure that all users of occupational data classify workers in the same way, the following classification principles apply:

1. The classification 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 lowest level of the classification. OES does not cover the self-employed. For additional information, see appendix B.
2. Occupations are classified based upon work performed and skills, education, training, and credentials required.
3. Supervisors of professional and technical workers usually have qualifications similar to those of the workers they supervise, and these supervisors are therefore classified with the workers they oversee. Likewise, team leaders, lead workers, and supervisors of production, sales, and service workers who spend at least 20 percent of their time performing work similar to that of the workers they supervise are classified with the employees they oversee.
4. First-line managers and supervisors of production, service, and sales workers who spend 80 percent or more of their time performing supervisory activities are classified separately in the appropriate supervisor category, because their work activities are distinct from those of the workers they oversee.
5. Apprentices and trainees are classified with the occupations for which they are being trained, while helpers and aides are classified separately.
6. If an occupation is not included as a distinct, detailed occupation in the SOC structure, it is classified in the appropriate residual occupation. Residual occupations contain all occupations within a major, minor, or broad group that are not classified separately.
7. When workers may be classified in more than one occupation, they are classified in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers are included in the occupation at which they spend the most time.
8. OES data collection and reporting agencies classify workers at the most detailed level possible. Different agencies may use different levels of aggregation, depending on their ability to collect data and the requirements of data users.

First-line managers and supervisors are included in the last 11 major occupational groups. Professional, paraprofessional, and technical supervisors are classified with the workers they supervise due to the extensive subject matter knowledge required. First-line managers and supervisors may be supervised by top and middle managers in the management major group.

Residual occupational categories

The SOC has detailed categories for occupations that are numerically significant, either in one industry or across all industries. For less populous occupations, residual categories (that is, “All other...”) have been created within most levels of the SOC system. Residual categories provide a complete accounting of all workers employed within an establishment and allow aggregation and analysis of occupational employment data at various levels of detail. Some examples of residual categories are: “Other sales and related workers” at the minor group level, and “All other installation, maintenance, and repair workers” at the detailed level.

For more information about the SOC, see the U.S. Bureau of Labor Statistics Web site at www.bls.gov/oes.