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.

Users of OES survey occupational data include government program managers, industrial and labor relations practitioners, students considering career training, jobseekers, vocational training schools, and employers wishing to set salary scales or locate a new plant. OMB requires all Federal statistical agencies collecting occupational data to use the SOC. The new classification system 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 1 of 770 detailed occupations. The major group excluded is military occupations, which are not covered in the OES survey.

Description of the SOC structure

The SOC is an empirically based, economywide 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 those requiring substantial training.

The SOC system has four levels of classification: Major group, minor group, broad occupational detail, and detailed occupation. Occupation codes consist of six digits, with a hyphen between the second and third digits for presentation clarity. The first two digits represent the major group; the third, the minor group; and the fourth and fifth, the broad occupational detail. 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 (for example, 33-2000, Fire Fighting Workers), and broad occupations end with 0 (for example, 33-2020, Fire Inspectors). All residuals ("Other," "Miscellaneous," or "All Other"),

whether at the detailed or broad occupation or minor group level, will contain a 9 at the level of the residual. Detailed residual occupations will end in 9 (for example, 33-9199, Protective Service Workers, All Other); broad occupations that are minor group residuals will end in 90 (for example, 33-9190, Miscellaneous Protective Service Workers); and minor groups that are major group residuals will end in 9000 (for example, 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 numbers of SOC detailed occupations surveyed in the OES program in May 2003 are as follows:

Code	Major occupational group	Detailed occupations
	Total	770
11-0000	Management	30
13-0000	Business and financial operations ..	28
15-0000	Computer and mathematical	16
17-0000	Architecture and engineering	35
19-0000	Life, physical, and social science ...	39
21-0000	Community and social services	14
23-0000	Legal	9
25-0000	Education, training, and library	58
27-0000	Arts, design, entertainment, sports and media	37
29-0000	Healthcare practitioner and technical	46
31-0000	Healthcare support	15
33-0000	Protective service	20
35-0000	Food preparation and serving related	16
37-0000	Building and grounds cleaning and maintenance	9
39-0000	Personal care and service	33
41-0000	Sales and related	21
43-0000	Office and administrative support ..	56
45-0000	Farming, fishing, and forestry	13
47-0000	Construction and extraction	58
49-0000	Installation, maintenance, and repair	53
51-0000	Production	112
53-0000	Transportation and material moving	52

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 occupation 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 on 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 are therefore classified with the workers supervised. 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 workers they supervise.

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 supervise. First-line managers generally are found in smaller establishments, where they perform both supervisory and management functions, such as accounting, marketing, and personnel work.

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 managerial and administrative major groups.

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: "All other sales and related workers" at the major group level, and "All other machinery maintenance mechanics" at the detailed level. For May 2003, residual occupations are not published.

For more information about the SOC, please see the Bureau of Labor Statistics Web site at **www.bls.gov/soc/**.