detailed level of the classification system (unit group).

- 7. Large size should not by itself be considered sufficient reason for separate identification of a group.
- 8. Small size should not by itself be considered sufficient reason for excluding a group from separate identification, although size must be considered, or the system could become too large to be useful.
- 9. Supervisors should be identified separately from the workers they supervise wherever possible in keeping with the real structure of the world of work.

The 1980 SOC did not separately identify those who supervise professional or technical workers. Should any distinction be made between supervisors and workers in the case of professional or technical workers?

- 10. Apprentices and trainees should be classified with the occupations for which training is being taken.
- 11. Helpers should be identified separately when their work is such that they are not in training for the occupation for which they are providing help, or if their work is truly different.

Is there a need to distinguish among these workers according to the type of worker that they assist?

12. The need for comparability to the International Standard Classification of Occupations (ISCO) should be considered in developing the new structure, but it should not be an overriding factor.

Should the ISCO be the anchor for the U.S. system? (Please refer to the description of ISCO 88 below.)

#### **Request for Comments**

The Committee invites comments on the principles used in the current SOC. Suggestions for alternative principles are particularly welcomed.

## **Conceptual Options for the New SOC**

The Policy Committee has identified four broad conceptual foundations of occupational classification systems: (1) The type of work performed, for example, the 1980 SOC, the U.S. Bureau of the Census system, the Dictionary of Occupational Titles (DOT) of the Employment and Training Administration, and the Occupational Employment Statistics (OES) system of the U.S. Bureau of Labor Statistics; (2) the International Standard Classification of Occupations (ISCO); (3) a skills-based system, for example, the National Occupational Classification (NOC) of Canada; and (4) an economic-based system.

# (1) Type of Work Performed

The two major sources of occupational employment data in the U.S., the Census of Population and the OES survey, are based on the 1980 SOC. Both use classification systems based primarily upon work performed. The Census system, used to collect occupational data from households, consists of 501 occupations; <sup>2</sup> the OES system, used to collect data from establishments, consists of 760 occupations. <sup>3</sup> The DOT, used by the U.S. Employment Service, consists of more than 12,000 titles that also are based primarily on work performed. <sup>4</sup>

### (2) The International Standard Classification of Occupations (ISCO-88)

ISCO-88 has a dual framework: The concept of the kind of work performed, or job; and the concept of skill. Job is defined as a set of tasks and duties executed by one person. It is the statistical unit classified by ISCO-88. A set of jobs whose main tasks and duties are characterized by a high degree of similarity constitutes an occupation. Persons are classified by occupation through their relationship to a past, present or future job.

Skill is defined as the ability to carry out the tasks and duties of a given job. It has two dimensions—skill level, which is a function of the complexity and range of the tasks and duties involved, and skill specialization, which is defined by the field of knowledge required, the tools and machinery used, the materials worked on or with, as well as the kinds of goods and services produced.

These were the basis for the delineation and further aggregation of the occupational groups in ISCO–88. In part due to the international properties of the classification, only four broad skill levels were defined, each according to the categories that appear in the International Standard Classification of Education (ISCED). Although there is a direct linkage with educational attainment, it does not follow that the

skills necessary to perform the tasks and duties of a given job can be acquired only through formal education. Skills often are acquired through informal training and experience.<sup>5</sup>

There are some obstacles that may limit the desirability of completely adopting ISCO-88 for the U.S. SOC. A major focus of a new SOC would be to meet user needs that center on job placement, career guidance, and program planning; less demand exists for internationally-comparable occupational data. Only four skill levels are identified in ISCO-88, based upon formal education or vocational training, which are the basis for identifying major occupational groups. This leads to major groups that are somewhat divergent, resulting in a classification system that is not markedly different from existing "work content based" occupational classifications.

#### (3) Skills-Based Systems

Discussions about skills-based occupational classification concepts often are difficult, because the term "skills" means different things to different people. A number of other countries have dealt with this issue in revising their national classification systems, and it is useful to look to their experiences.

The National Occupational Classification of Canada merits study since Canada and the United States have a great deal in common in terms of occupational structure. The two major attributes that were used as classification criteria in developing the NOC were skill level and skill type. Other factors, such as industry and occupational mobility, also were taken into consideration. Skill level is defined as the amount and type of education and training required to enter and perform the duties of an occupation. In determining skill level, the experience required for entry and the complexity of the responsibilities typical of an occupation were also considered. Four skill levels are identified in the NOC: 6

#### Skill Level A

—University degree (bachelor's, master's, or other post-graduate)

<sup>&</sup>lt;sup>2</sup>Information on the Census classification system can be obtained by contacting the Bureau of the Census, HHES, Iverson Mall, Room 416, U.S. Department of Commerce, Washington, DC 20233–3300, or calling 301–763–8574.

<sup>&</sup>lt;sup>3</sup>Information on the OES classification system can be obtained by writing the Bureau of Labor Statistics, Occupational Employment Statistics Program, Suite 4840, 2 Massachusetts Avenue, NE., Washington, DC 20212, or calling 202–606–6569.

<sup>&</sup>lt;sup>4</sup>Information on the DOT can be obtained by writing the U.S. Department of Labor, Employment and Training Administration, Room N4470, 200 Constitution Ave., NW., Washington, DC 20210 or by calling 202–219–7161. Copies can be obtained by contacting the U.S. Government Printing Office, 732 North Capitol St., NW., Washington, DC 20401 or calling 202–512–1800.

<sup>&</sup>lt;sup>5</sup>The ISCO can be obtained by contacting the International Labour Organisation (ILO), International Labour Office, CH–1211 Geneva 22, Switzerland or ILO Publications, 49 Sheridan Avenue, Albany, NY 12210 or by calling 518–436–9686, ext. 123.

<sup>&</sup>lt;sup>6</sup>The NOC can be obtained by contacting Canada Communication Group—Publishing, Ottawa, Canada K1A 0S9 or by calling 819–956–4802.