

## DIRECTIVE NO. 2<sup>4</sup>

### STANDARDS FOR THE PUBLICATION OF STATISTICS

The growing use of Federal statistics in the determination and appraisal of public and private policies emphasizes the responsibility of Federal statistical agencies to maintain standards governing the publication of statistical data. Many users of Government statistics, particularly those who use the data infrequently, are not familiar with the basic characteristics of the data. To help guard against misunderstanding and misuse of the data, full information should be available to users about sources, definitions, and methods used in collecting and compiling statistics, and their limitations.

The following standards and procedures for the publication of statistics describe practices which should be followed whenever applicable. Because they cover many kinds of data and various types of publications, including single-time reports as well as historical series, they are necessarily somewhat general in character, and every standard and procedure is not applicable in every case. The statistical agencies are encouraged to issue their own supplementary standards.

#### 1. Label Data and Define Terms

Every release and publication of statistics, whether recurring or singletime, must clearly indicate the nature of the data and make reference to any detailed technical description. Forecasts and projections must be clearly labeled and preliminary figures noted. Data taken from other sources should be identified. The date of publication and the time period to which the data refer should be shown. Technical terms (except in publications designed solely for technicians) should be defined and the use of standard classifications should be

noted, either in the report itself or in a separate technical source. In economic or social analyses there should be a clear distinction between actual data and inferences or interpretations drawn from the data.

#### 2. Describe the Survey Design

If the data to be published are part of a statistical series, or present the results of a statistical survey, a description of the survey design and methods used in implementing the design should be available. If this is not done in the release or report, the reader should be referred to a technical source. The amount of detail in this description will depend upon the importance and complexity of the data. The description should include what is measured, the source(s) of information, the sampling plan if sampling is used, the method of collecting the data, the extent of nonresponse and other sources of bias, and the methods used to deal with the problem. (See Directive No. 1, "Standards for Statistical Surveys.") It is desirable to include a copy of the form and instructions used.

#### 3. Appraise the Data

There should be available to the user an appraisal of the statistics which would make it possible to evaluate their appropriateness for any intended use. Conceptual or other limitations of the data should be pointed out, and comparison made with any statistics of similar title or scope with which the data are related or which they might be confused.

Accuracy of the data should be stated as far as possible. This should include not only the sampling error (where probability sampling is used) but also the nature and extent of non-sampling errors. "Standards for Discussion and

<sup>4</sup> Directive No. 2 supersedes section 7(b) and Exhibit B of OMB Circular No. A-46 dated May 3, 1974.

Presentation of Errors in Survey and Census Data," published as Part II of the September 1975 *Journal of the American Statistical Association* presents the need to discuss the error information of published data, as well as illustrates methods of presenting error information. This information and illustrations should be taken into account by Federal agencies publishing statistical data. (The publication on "Standards for Discussion and Presentation of Errors in Survey and Census Data" can be obtained from the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, Washington, D.C. 20230.)

#### **4. Review Before Publication**

Before publication every statistical report of any importance should be reviewed by persons who are familiar with the subject matter to detect inconsistencies or other errors, as well

as omissions. Such reports should also be reviewed by a statistical expert from the standpoint of the validity and reliability of statistical statements and conclusions. Analytical reports based on data from sample surveys should be carefully reviewed to avoid inclusion of statements which fail to take proper account of sampling errors and other limitations of the data.

#### **5. Explain Revisions**

When an established statistical series is revised, the character of the revision and its effect upon the series must be explained. If at all possible a full explanation should be available with the first publication of such data. If part of the historical series is revised, data for both the old and the new series should be published for a suitable overlap period for the use of analysts.