

# Appendix C.

## Methodology

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### SOURCES OF THE DATA

The 2002 Economic Census of the Northern Mariana Islands, Guam, Virgin Islands, and Puerto Rico was conducted by mail. The economic census for American Samoa was conducted using a combination of mail and personal enumeration. Descriptions of the sources of data for the island areas follow:

1. Northern Mariana Islands, Guam, Virgin Islands, and Puerto Rico — A census form was mailed to all employer firms (employers of one person or more) in operation at any time during 2002 and classified as being within the scope of the census. One single report form was used to collect data for the Northern Mariana Islands, Guam, and Virgin Islands. Nine separate report forms (*Utilities, Transportation, and Warehousing; Construction; Manufacturing; Wholesale Trade; Retail Trade; Finance, Insurance, Real Estate, Rental and Leasing; Accommodation Services; Services; and General Schedule*) with English and Spanish versions were used to collect data for Puerto Rico. Firms were instructed to return their completed report form by mail. A telephone follow-up was conducted to obtain information from selected firms that failed to return their report form. The Governments of the Northern Mariana Islands and Guam, under the provisions in Title 13 of the United States Code, Section 191(b), were responsible for contacting respondents about overdue census forms. The Director of the Central Statistics Division, Department of Commerce in the Northern Mariana Islands, and the Chief Economist of the Department of Labor in Guam supervised the local activities. Staff from the Census Bureau trained the project leader, supervisors, and interviewers in the Northern Mariana Islands and Guam, respectively. Staff from the Department of Commerce in the Northern Mariana Islands and the Department of Labor in Guam, who worked with census data, were sworn to uphold the confidentiality of the data. The Census Bureau provided the Central Statistics Division and the Department of Labor with a list of the establishments for which a report form had not been received. Interviewers were instructed to contact establishments by telephone to obtain the required information. Personal interviews were conducted to obtain data from establishments that requested a personal visit or could not be contacted by telephone. Quality checks were performed to ensure that the necessary reports were obtained.
2. American Samoa — A combination of mail and personal enumeration was used to conduct the first economic census of American Samoa. Data were collected for establishments with or without employees that were in operation during 2002. A single report form was used to collect data for American Samoa.
  - a. Employer establishments — Establishments with at least one employee and payroll were sent a report form to be completed and returned to the Census Bureau by mail. A telephone follow-up was conducted to collect information for establishments that failed to answer the census.
  - b. Nonemployer establishments — Data for nonemployer establishments were collected through personal enumeration. The Government of American Samoa collected the data under the provisions in Title 13 of the United States Code, Section 191(b). The Chief Statistician of the Statistics Division at the American Samoa Department of Commerce supervised the field enumeration and follow-up of nonemployer and nonrespondent employer establishments referred by the Census Bureau. All persons working with census data were sworn to maintain the confidentiality of Census Bureau information. A Census Advisor trained the project leader as well as the interviewers. The Advisor worked with local staff to ensure that Census Bureau standards and procedures were followed. American Samoa

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was divided into four zones for enumeration — Manu'a Islands, Eastern, Central, and Western districts of Tutuila. Nonemployer establishments were identified from the American Samoa Government Business License List. Interviewers were provided with an assignment list that included the establishments assigned for interview and a labeled report form for each establishment listed. The interviewers obtained information about months in operation, physical location, sales/receipts, employment and payroll, expenses, kind of business, sales by class of customer, description of merchandise sold, construction work done, products produced, or services provided, legal form of organization, ownership status, and status of the establishment at the end of 2002. A consistency review was performed on every report form to ensure the accuracy of the reported data.

The report forms used to collect information for establishments in the island areas are available at [help.econ.census.gov/econhelp/index2002.html](http://help.econ.census.gov/econhelp/index2002.html).

A more detailed examination of census methodology is presented in the *History of the 2002 Economic Census* at [www.census.gov/econ/www/history.html](http://www.census.gov/econ/www/history.html).

### **INDUSTRY CLASSIFICATION OF ESTABLISHMENTS**

The classifications for all establishments are based on the *North American Industry Classification System, United States, 2002* manual. The method of assigning classifications and the level of detail at which establishments are classified depends on whether a report form was obtained for the establishment.

- Establishments that returned a report form are classified on the basis of their self-designation, detail/description of merchandise lines sold, type of construction work done, products produced, or services provided, and other industry-specific inquiries.
- Establishments that did not return a report form are classified on the basis of information obtained from administrative records of other federal agencies.

### **RELIABILITY OF DATA**

All data compiled in this publication are subject to nonsampling errors. Nonsampling errors can be attributed to many sources during the development or execution of the census:

- inability to identify all cases in the actual universe;
- definition and classification difficulties;
- differences in the interpretation of questions;
- errors in recording or coding the data obtained; and
- other errors of collection, response, coverage, processing, and estimation for missing or misreported data.

The accuracy of these tabulated data is determined by the joint effects of the various nonsampling errors. Explicit measures of the effects of these nonsampling errors are not available. Precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize the effects of nonsampling errors.

The Census Bureau obtains limited information extracted from administrative records of other federal agencies, such as employment and payroll. This information is used in conjunction with other information available to the Census Bureau to develop estimates for missing items on the report form or for establishments for which responses were not received in time for publication.

### **TREATMENT OF NONRESPONSE**

Census report forms included two types of inquiries, general inquiries and industry-specific inquiries. Data for the general inquiries, which include location, kind of business or operation, sales, shipments, receipts, or revenue, payroll, and number of employees, were available from a combination of sources for all establishments. Data for industry-specific inquiries, tailored to particular kinds of business, were available only from those establishments that completed the appropriate inquiries on the report form.

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For total nonresponse cases (report forms not returned) and missing items, the establishment's administrative records information was used in conjunction with industry averages, prior period data, and outside reference sources to estimate general and industry-specific inquiries. Large non-response cases were contacted to obtain information for general and industry-specific inquiries, as appropriate.

When reporting was incomplete or inadequate, commodity and merchandise line data for Puerto Rico were expanded on the premise that data for those establishments not reporting this information are similar to commodity and merchandise line data for those establishments in the same kind of business that reported this information. In 2002, the method used to account for nonresponse to commodity and merchandise line inquiries was to expand the total of reported data to represent 100 percent of the universe. Data presented for commodity and merchandise lines were expanded in direct relationship to total sales of all establishments included in the category.

#### **DISCLOSURE**

In accordance with federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or business. However, the number of establishments in a kind-of-business classification is not considered a disclosure; therefore, this information may be released even though other information is withheld. Techniques employed to limit disclosure are discussed at [www.census.gov/epcd/ec02/disclosure.htm](http://www.census.gov/epcd/ec02/disclosure.htm).