

# Guide to the **1987** **Economic** **Censuses** and Related Statistics



Retail Trade



Wholesale Trade



Service Industries



Transportation Industries



Manufactures



Mineral Industries



Construction Industries



# ACKNOWLEDGMENTS

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Statistics shown in many of the sample tables in this document were developed for illustrative purposes prior to the completion of the corresponding reports. They should not be construed as actual results of the 1987 Economic Censuses.

Guide to the **1987**  
**Economic**  
**Censuses**  
and Related  
**Statistics**

EC87-R-2



Issued January 1990



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Library of Congress Card No. 89-600742

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Distributed by Customer Services, Bureau of the Census,  
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**What's New for 1987? — See p. 23**Expanded coverage — SIC changes  
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# General Information 1

## INTRODUCTION

### Economic Censuses

The economic censuses provide statistics about business establishments once every 5 years, covering years ending in "2" and "7." The 1987 Economic Censuses, collected in early 1988 to cover economic activity during calendar year 1987, include the

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

and several related programs, including statistics on minority- and women-owned businesses, enterprise statistics, and censuses of economic activity in Puerto Rico and other outlying areas under U.S. jurisdiction. (There are also concurrent censuses of agriculture and governments, but they are not considered part of the economic censuses.)

### Economic Surveys

While the economic censuses provide complete enumerations once every 5 years, many applications require more frequent data. The Census Bureau has a number of programs for providing current statistics on such measures as total sales of particular kinds of businesses or production of particular products. These programs include monthly, quarterly, and annual surveys, the results of which appear in publication series such as

- Current Business Reports
- Annual Survey of Manufactures
- Current Industrial Reports
- Quarterly Financial Reports

While not technically a survey, the County Business Patterns (CBP) program offers annual statistics based on data compiled primarily from administrative records of the Federal Government.

## Comparison of Censuses and Surveys

The censuses present a complete, detailed picture of the economic sectors they cover, from the national down to the local level. By comparison, current surveys generally have much less geographic and other detail. Key survey items generally are published only for the United States as a whole. Because they are taken more often, the current surveys provide the frequent reference points needed to analyze national trends and business cycles.

## HOW ECONOMIC STATISTICS ARE USED

The economic censuses and surveys constitute the major body of facts about the structure and functioning of the Nation's economy. They provide information that is essential to government, business, industry, academia, and the general public.

### For Government

- Federal agencies that produce composite statistics, such as the gross national product and indexes of productivity or price levels, depend on the economic censuses and surveys for many of the basic numbers that go into their formulas.
- Federal and State agencies monitor trends that could portend economic dislocations, for example, shortages of water, fuel or strategic materials.
- Government agencies look to economic census data to help them gauge the effectiveness of government programs, as in trade policies, contracting guidelines for minority business, and job retraining to staff changing industries.
- States and communities use census data to better understand their own economic base and to attract new investment.

### For Individual Businesses

- Business firms compare their own company statistics with census figures for their industry or area to—
  - Compute market share
  - Evaluate their own growth
  - Evaluate product lines relative to the competition

- Firms that make or sell products used by other businesses use census data to identify their markets, and apply this information to—
  - Lay out sales territories
  - Allocate funds for advertising
  - Locate plants, warehouses, or stores
  - Make sales forecasts
- Manufacturers and distributors use census data to pinpoint the location of retailers, wholesalers, contractors, and others who may redistribute their products.
- Small businesses use census data describing their markets or their industry to enhance their business-opportunity presentations to bank officers or venture capitalists when they seek financing.

#### For Associations and Media That Serve Businesses

- Trade associations alert their members to statistical trends affecting their industry, such as changes in domestic production relative to imports.
- Trade associations use census statistics to adjust the results of their own surveys to be more representative.
- Trade associations use figures on the number of companies and employment in their industries to set targets for recruiting new members.
- Business magazines republish selected statistics from the censuses and use them as background for articles.
- Local newspapers use census statistics for stories about economic trends in their communities.

#### For Colleges and Universities

- Professors use census data in teaching marketing and business management.
- Researchers apply the data in their study of long-term economic and environmental trends.
- Many universities run small-business development centers that provide assistance to individual business people, in many cases using data from these censuses and surveys.

#### For Individuals

- People evaluate new business opportunities and investments by looking at the characteristics and trends within the target industry, competing industries, and the market before making further investment.
- Professionals and students facing career choices evaluate the characteristics and well-being of different industries.

Specific examples of the many and varied uses of these data are featured throughout this guide.

## SCOPE AND CONTENT OF THE ECONOMIC CENSUSES

Figure 1 below portrays the major sectors of the economy and their relative contribution to the gross national product (GNP). It also shows that, while the economic censuses cover most of the economy, they do not cover all of it. Figure 3 in chapter 2 further defines the coverage of both census and current programs in terms of the Standard Industrial Classification (SIC) system.

Figure 1. **Coverage of the 1987 Economic Censuses**  
[In terms of contribution to the 1987 GNP]

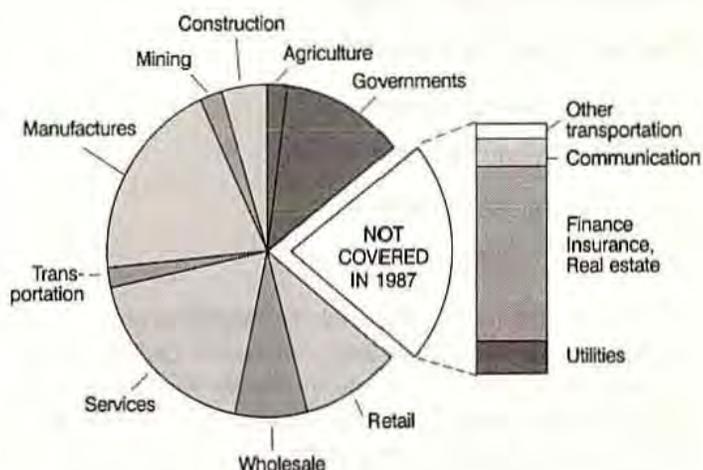


Figure 2 summarizes the specific data items collected and published in the basic economic censuses. Corresponding charts in chapter 5 focus on each sector and tell which report series, whether census or current, include the specific statistics.

In planning the items to be collected in the economic censuses and surveys, the Census Bureau consults with trade, business, and professional associations; individual business firms; unions; census advisory committees; and other government agencies. The Office of Management and Budget (OMB) of the Executive Office of the President reviews the plans to make certain that the information to be collected is not available from other sources. The Business Council on the Reduction of Paperwork, comprised of representatives of each major field of business activity, verifies that the data requested are necessary and available from company records. Congressional committees also participate in the review process.

**Figure 2. Major Data Items Published in Economic Census and Related Reports, by Geographic Level**

(Legend: •—All levels (U.S., States, substate areas except ZIP Codes). M—MSA's, States, and national. N—National only. S—State and national. Z—ZIP Codes and States.)

| Item  | Economic programs |                  |                    |                |                   |                    |                         |                       |                           |                          |
|---|-------------------|------------------|--------------------|----------------|-------------------|--------------------|-------------------------|-----------------------|---------------------------|--------------------------|
|   | Retail Trade      | Wholesale Trade  | Service Industries | Transportation | Manufactures      | Mineral Industries | Construction Industries | Enterprise Statistics | Minority-Owned Businesses | County Business Patterns |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                                       |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| Establishments with payroll .....   | •, Z              | •                | •, Z               | M              | •, Z              | •                  | M                       | N                     |                           | •, Z                     |
| Establishments without payroll (nonemployers) .....                             | •                 |                  | •                  |                |                   |                    | S                       |                       |                           |                          |
| Establishments by legal form of organization .....                              | •                 | N                | •                  | N              | S                 | N                  | N                       | N                     | •                         |                          |
| Firms .....   | N                 | N                | N                  | N              | S                 | N                  | N                       | N                     | •                         |                          |
| Single- and multiestablishments .....   | N                 | N                | N                  | N              | S                 | N                  | N                       | N                     |                           |                          |
| Concentration by major firms .....  | N                 | N                | N                  | N              |                   |                    |                         |                       |                           |                          |
| <b>EMPLOYMENT</b>   |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| All employees .....   | •, Z              | •                | •, Z               | M              | •                 | •                  | M                       | N                     | •                         | •                        |
| Production (construction) workers/hours .....                                   |                   |                  |                    |                | •                 | •                  | S                       |                       |                           |                          |
| Employment size of establishment .....  | N, Z              | N                | N, Z               | N              | <sup>1</sup> •, Z | •                  | S                       | <sup>2</sup> N        | N                         | •, Z                     |
| Employment related to exports .....   |                   |                  |                    |                | S                 |                    |                         |                       |                           |                          |
| Employment by principal activity .....  |                   | N                |                    |                |                   |                    |                         |                       |                           |                          |
| <b>PAYROLL</b>  |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| All employees, entire year .....  | •, Z              | •                | •, Z               | M              | •                 | •                  | M                       | N                     | •                         | •                        |
| All employees, first quarter .....  | •                 | S                | •                  | M              |                   |                    | S                       |                       |                           | •                        |
| Production (construction) workers .....   |                   |                  |                    |                | •                 | •                  | S                       |                       |                           |                          |
| Supplemental labor costs, legally required and voluntary .....                  | N                 | N                | N                  |                | S                 | S                  | S                       | N                     |                           |                          |
| <b>SALES, RECEIPTS, OR VALUE OF SHIPMENTS/CONSTRUCTION WORK DONE</b>            |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| Establishments with payroll .....   | •, Z              | •                | •, Z               | M              | •                 | •                  | M                       | N                     | •                         |                          |
| Establishments without payroll .....  | •                 |                  | •                  |                |                   |                    | S                       |                       | •                         |                          |
| Specific product, line, or type of construction .....                           | <sup>3</sup> M    | <sup>3,4</sup> M | <sup>4,5</sup> M   |                | S                 | S                  | S                       |                       |                           |                          |
| Class of customer .....   | N                 | N                | <sup>4,5</sup> S   |                | N                 | N                  | S                       |                       |                           |                          |
| Sales size of establishment .....   | N, Z              | N                | N, Z               | N              | N                 | N                  | S                       | <sup>2</sup> N        |                           |                          |
| Value of exports .....  |                   |                  | <sup>5</sup> N     |                | S                 |                    |                         |                       |                           |                          |
| <b>OPERATING EXPENSES</b>   |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| Total .....   | N                 | S                | <sup>5</sup> N     |                |                   |                    |                         |                       |                           |                          |
| Cost of materials, etc. ....  | N                 | N                |                    |                | •                 | •                  | M                       |                       |                           |                          |
| Specific materials consumed (quantity/cost) .....                               |                   | N                |                    |                | N                 | N                  |                         |                       |                           |                          |
| Cost of fuels .....   | N                 | N                | N                  |                | S                 | S                  | M                       |                       |                           |                          |
| Energy consumed (quantity/cost) ..  |                   |                  |                    |                | S                 | S                  |                         |                       |                           |                          |
| Cost of electricity .....   | N                 | N                | N                  |                |                   |                    |                         |                       |                           |                          |
| Contract work .....   |                   |                  |                    |                | S                 | S                  | M                       |                       |                           |                          |
| Products bought or sold (resales) ..  |                   |                  |                    |                | S                 | S                  |                         |                       |                           |                          |
| Advertising .....   | N                 | N                | N                  |                |                   |                    |                         | N                     |                           |                          |
| Rental payments .....   | N                 | N                | N                  |                | S                 | S                  | S                       | N                     |                           |                          |
| Communications services .....   | N                 | N                | N                  |                | S                 | S                  | S                       |                       |                           |                          |
| Purchased repairs .....   | N                 | N                | N                  |                | S                 |                    | S                       |                       |                           |                          |
| <b>OTHER</b>  |                   |                  |                    |                |                   |                    |                         |                       |                           |                          |
| Value added .....   | N                 | N                |                    |                | •                 | •                  | M                       |                       |                           |                          |
| Net income produced .....   | N                 | N                |                    |                |                   |                    |                         |                       |                           |                          |
| Capital expenditures, total .....   | N                 | N                | N                  |                | S                 | •                  | M                       | N                     |                           |                          |
| New .....   | N                 | N                | N                  |                | •                 | S                  | S                       | N                     |                           |                          |
| Depreciable assets, gross value of building/equipment (end of 1986, 1987) ..... | N                 | N                | N                  |                | S                 | S                  | S                       | N                     |                           |                          |
| Inventories (end of 1986, 1987) .....   | N                 | S                |                    |                | S                 | S                  | S                       | N                     |                           |                          |
| Specialization by type of manufacturing/construction .....                      |                   |                  |                    |                | N                 |                    | N                       |                       |                           |                          |
| Water use .....   |                   |                  |                    |                | S                 | S                  |                         |                       |                           |                          |
| Auxiliary establishments .....  |                   |                  |                    |                | •                 |                    | N                       | S                     |                           | •                        |

<sup>1</sup>No MSA summaries. <sup>2</sup>Size of company. <sup>3</sup>State and metropolitan statistical area data available only in computerized media. <sup>4</sup>Selected States and metropolitan statistical areas. <sup>5</sup>For selected industries only.

## HOW THE DATA ARE COLLECTED

### Economic Censuses

The 1987 Economic Censuses encompass approximately 12.4 million establishments (see chapter 2 for definitions). Information was collected using a combination of mail questionnaires and data from the administrative records of other government agencies.

Questionnaires were mailed to 3.9 million establishments in December of 1987, with a due date for return of February 15, 1988. In general, forms were sent to all larger firms and, in sectors where small businesses are found in large numbers (retail, services, and construction), to a sample of smaller firms. The dividing line between "larger" and "smaller" firms averaged around 4 employees, but actually varied from industry to industry, designed so that questionnaires typically cover 90 percent or more of the business activity (in terms of employment, payroll, sales) in each industry. The Census Bureau selects firms and mails questionnaires based on a master list of businesses kept up to date with information from tax and other Federal administrative records.

Over 500 different report forms were used in the 1987 censuses, each tailored to a particular industry or group of industries. Each form asked general questions about the type of business or industrial activity, location, type of ownership, number of employees, amount of payroll, and dollar volume of business during calendar year 1987. More specific inquiries, as listed in figure 2, varied from form to form based on user requirements and record-keeping practices in each industry.

Firms with more than one business location received a separate form for each establishment, though all forms were sent to the company headquarters.

Limited information for 8.5 million small businesses, with or without paid employees, was obtained from the administrative records of the Internal Revenue Service and the Social Security Administration. These provide basic data—total receipts, total payroll, and total employment—needed to produce statistics for individual geographic areas and types of businesses. In this way, the Census Bureau relieved 69 percent of all covered businesses from filling out a census form, even though these small firms collectively account for less than 10 percent of business activity in dollar terms. Data from administrative records are processed and merged with the census questionnaire data, and tabulations used in the census publication program are prepared from these combined files. (For specific details about census procedures, see the introductory text and appendixes that appear in the published reports, or see the Census Bureau's official history of each census (see p. 111).)

### Current Economic Surveys

Each current economic survey covers a particular year, quarter, or month. As with the censuses, data collection can begin only after the period ends, since most of the

inquiries refer to sales or expenditures during that period. The number of establishments or companies included in each survey ranges from fewer than 20 for some industrial surveys to about 55,000 establishments for the Annual Survey of Manufactures. To spread the reporting burden, most samples are reselected every 5 years. Even with resampling, very large companies may remain in the sample continuously.

Many monthly and quarterly survey results are adjusted for seasonality. Reports based on sample surveys generally include measures of sampling variability and, where applicable, seasonal adjustment factors.

Virtually all direct data collection, whether in the censuses or surveys, is accomplished by mail. Telephone followup is used only when a company's reports are long overdue. Some large companies, needing to file reports for many establishments in the censuses, send their information to the Census Bureau on computer tape or diskette.

### Legal Authority

While not all establishments may be sent a questionnaire, title 13 of the United States Code requires that firms receiving the census forms complete and return them. Most annual surveys are also mandatory; on the other hand, most monthly and quarterly surveys are voluntary.

Title 13 also requires the Census Bureau to keep information about individual companies confidential. No data may be published that can be used to identify an individual or firm (see "Disclosure Analysis," p. 17), nor may the data furnished be used for any but statistical purposes. Only sworn officials or employees of the Census Bureau may have access to the individual report forms. Neither the census and survey returns nor file copies retained by respondents can be used for purposes of taxation, investigation, or regulation.

## HOW ECONOMIC CENSUSES RELATE TO CURRENT ECONOMIC SURVEYS

Most of Census Bureau's economic statistical programs are closely integrated.

- To the extent possible, the concepts, definitions, classifications, and reporting units are consistent among the censuses, surveys, and related programs.
- The census results supply the sample frames, benchmark statistics, and list of establishments and firms for the surveys taken more frequently.
- Survey results can be reconciled with those from the census and vice versa.

A few economic statistical programs are related more loosely to the core censuses and surveys. The Truck Inventory and Use Survey, conducted under the auspices of the census of transportation, is actually a survey of truck

owners, not business establishments. The Quarterly Financial Report, while not part of the integrated program, surveys corporations in several sectors—manufacturing, mining, and retail and wholesale trade—that are covered extensively in the censuses.

Statistics on exports and imports are an important complement to economic census data on domestic production. The Census Bureau's foreign trade data are virtually a monthly census of merchandise trade shipments, based on U.S. customs documents, and yield closely followed figures on the merchandise trade balance.

Since 1982, the agriculture census has been taken coincident with the economic censuses, covering years ending in "2" and "7." This permits the study of agricultural goods in production (farming), processing (manufacture) and distribution (wholesale and retail trade) for the same time period. Similarly, information on agricultural supplies and equipment can be linked from one sector to another.

The census of governments, also taken in the same years as the economic censuses, and governmental surveys cover another significant part of the economy. Governments at all levels purchase goods and services, employ consumers, and invest in capital equipment and construction.

Complementing these economic programs are "demographic" programs, including the census of population and housing, taken every 10 years in years ending in "0," and related surveys and estimates programs. These demographic statistics provide the denominators necessary for calculating per-capita figures (such as retail sales per capita), and the characteristics of people who work in the various industries. Even more important for the many businesses marketing consumer goods, they provide information on the consumer marketplace in terms of both characteristics and geographic distribution.

## HISTORICAL NOTES

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to 1954, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commerce. When Congress established a permanent Census Bureau in 1902, it also directed that a census of manufactures be taken every 5 years. The 1905 manufactures census marked the first time a census was taken apart from the regular 10-year population census.

The first census of business was taken in 1930, with a reference year of 1929. Initially covering retail and wholesale trade, the census was broadened in 1933 to include some of the service industries.

The 1954 Economic Censuses were the first to be fully integrated and to provide comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were also the first economic censuses to be taken entirely by mail, using lists of firms provided from the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses has continued to expand. The census of construction industries began on a regular basis in 1967, and the scope of service industries was broadened successively in 1967, 1977, and 1987 and is slated for further expansion for 1992. The census of transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation.

Economic censuses have been taken in Puerto Rico since 1909, the Virgin Islands and Guam since 1958, and the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are on file in many large libraries throughout the United States. All of the census and survey data published since 1967 are still available for sale on microfiche from the Census Bureau.





# The Classification System 2

## ESTABLISHMENT/COMPANY CLASSIFICATION

The core data from the economic censuses and surveys are collected and published in terms of "establishments"; for example, the sales of sporting goods **stores** in Cleveland, the production of fertilizer **plants** in Florida, or the employment in electronic repair **shops**. An establishment, as defined for census and survey purposes, is a business or industrial unit at a single geographic location that produces or distributes goods or performs services, for example, a single store or factory.

A few census statistics, and some other Federal statistics, are summarized in terms of "companies" or "firms." A company or firm is an organization consisting of one or more establishments under common ownership or control. If a company owns or controls other companies, all of the subsidiaries' establishments are considered part of the owning or controlling company. (On the other hand, establishments operated under franchises are not considered to be owned or controlled by the firm granting the franchise.) After the establishment data have been summarized and published, the Census Bureau regroups establishments under common ownership or control to show characteristics of the owning or controlling companies. (See "Enterprise Statistics," p. 76).

Because different establishments within the same company can be located in different geographic areas or be engaged in different kinds of business, the Census Bureau obtains separate reports for each establishment. This yields more precise information than if the company were simply to file a single report.

When more than one economic activity is conducted at a single location, each activity under separate ownership is regarded as a separate establishment. Thus a leased department within a department store is classified as a separate establishment.

Establishments functioning primarily to manage, service, or support the activities of their companies' operating establishments (for example, separate administrative offices or warehouses) are identified as auxiliaries, and statistics are published in a separate report (see "Auxiliary Establishments," p. 76). Statistics for auxiliaries of manufacturing and construction companies are also shown in selected reports in the appropriate censuses.

Users frequently need data by product line. Unfortunately, most of the statistics collected in the economic censuses, such as employment or capital expenditures, are associated with a particular establishment but cannot generally be reported by product line. Thus, only a few

specialized data series, like merchandise line sales in the census of retail trade or product tables in the manufactures census reports, present statistics by product line. Most of the basic census statistics reflect the classification of establishments, not companies or products.

## THE STANDARD INDUSTRIAL CLASSIFICATION SYSTEM

Most economic data are tabulated on the basis of the Standard Industrial Classification (SIC) system, as defined under the auspices of the Office of Management and Budget (OMB). The SIC system is used to classify establishments by the type of activity in which they are engaged.

The SIC system covers the entire field of economic activity. It is a hierarchical system, which at its broadest level divides the Nation's economy into 10 divisions, listed in figure 3 below and illustrated in figure 1 in the last chapter. Each division is subdivided into two-digit major groups, three-digit industry groups, and four-digit industries. For example:

| SIC level            |      | Example                            |
|----------------------|------|------------------------------------|
| Division             |      | Manufacturing                      |
| Major industry group | 35   | Industrial machinery and equipment |
| Industry group       | 357  | Computer and office equipment      |
| Industry             | 3572 | Computer storage devices           |

This hierarchic structure allows data to be presented at whatever level of industry detail is appropriate. For example, if the publication of information about SIC 3572 within a particular State must be withheld to avoid disclosing information about a particular company, data can still be published for the broader industry group SIC 357.

A complete list of the SIC's covered in the censuses appears as appendix A. The more definitive reference is the *Standard Industrial Classification Manual: 1987* (see p. 106). The SIC Manual defines each industry, lists the subindustries or alternate names that are associated with it, and presents a comprehensive index, which can be quite useful in locating desired data.

## OTHER CLASSIFICATION SYSTEMS

In some cases, more detailed classifications have been devised for census purposes, so that additional activities, kinds of business, or specific products can be identified within a single SIC category. For instance, the census of wholesale trade further classifies each establishment by type of operation (merchant wholesalers, agents and brokers, and manufacturers' sales branches and offices).

The census of manufactures classifies manufactured products into about 1,500 five-digit product classes and about 11,000 seven-digit products, in a manner generally consistent with the SIC system. For example, related to the computer storage devices industry (SIC 3572) are product classifications such as—

|               |          |   |
|---------------|----------|---|
| Product class | 35721    | Computer storage equipment, auxiliary               |
| Product       | 35721 27 | Flexible magnetic disk drives, less than 5 1/4 inch |

A similar product structure is used in the census of mineral industries. For export and import statistics (see p. 87), commodities are classified, starting in 1989, according to a new "harmonized system" used by most other major trading countries, with six-digit commodity codes extended to eight digits for exports and ten digits for imports. While there are more separate commodity classifications in foreign trade statistics than product codes in the censuses, the two classification systems are not always compatible.

For the censuses of retail trade and wholesale trade, there is classification of product lines sold. The categories are much broader than those defined in the census of manufactures, and many merchandise lines do not correspond directly to SIC categories.

While the SIC system governs the classification of establishments, the Census Bureau has developed an Enterprise Industrial Classification system for companies. A separate company-classification system is necessary because a high percentage of the establishments in many four-digit industries is operated by firms primarily engaged in other industries. The Enterprise Industrial Classification is used for the Enterprise Statistics program (see p. 76) and the Quarterly Financial Report (see p: 85).

## SIC COVERAGE OF THE CENSUSES AND CURRENT PROGRAMS

The Census Bureau's program of economic statistics covers most but not all sectors of the economy. Figure 3 shows that economic and related censuses do not cover agricultural services, forestry and fisheries, communications, utilities, finance, insurance, most of real estate, and parts of transportation. A few individual SIC categories are not included in the censuses because private organizations or other Federal agencies already collect the necessary statistics. For example, elementary and secondary schools (SIC 821) are adequately covered by the U.S. Department of Education. In the transportation area, census coverage is gradually expanding, in part because the reduction in Federal regulation of that sector has left data users without the statistics that formerly were collected by regulatory agencies.

The economic censuses cover about 60 percent of the national economy measured in terms of gross national product (GNP) (see fig. 1, p. 2) or about 75 percent in terms

of employment. When considered together with the censuses of agriculture and governments, which are organized somewhat differently, coverage expands to about 75 percent of GNP and over 85 percent of employment. The 1992 Economic Censuses will be expanded substantially to include virtually all of the remaining areas.

Figure 3 also shows that County Business Patterns includes many of the industrial sectors not covered by the censuses. Other current programs touch most sectors, although only for retail and wholesale trade, services, and manufactures are there comprehensive surveys fully integrated with the corresponding censuses.

## COVERAGE OF NONEMPLOYERS

Another limitation to the coverage of the economic censuses and current programs is that most of the statistics apply only to establishments with payroll, i.e., they omit nonemployers—small, single-establishment companies with no paid employees—what are sometimes called "mom and pop" businesses. This limitation is a practical one, since the censuses are conducted by mail and the best records for developing the mailing list of businesses come from the Federal payroll-tax (social security) system. To gauge the number and sales of the nonemployer businesses, i.e., those not covered by payroll tax records, the Census Bureau obtains sales figures from business income tax returns from the Internal Revenue Service. For two sectors—retail trade and services—the Census Bureau publishes limited data in separate reports on nonemployers. For the construction sector, geographic area reports include separate tables for nonemployers.

In 1982, nonemployer establishments accounted for 3 percent of all retail sales, over 7 percent of service receipts, and about 10 percent of construction receipts. Statistics on manufactures and mining are not much affected by the exclusion of nonemployer establishments.

## A LIMITATION OF SIC-BASED DATA

Some establishments engage in more than one kind of activity and, thus, may not fit neatly into a single SIC category. Nonetheless, each establishment is classified into only one SIC on the basis of its primary activity. Its secondary activities are still counted, e.g., toward total sales, but they do not generally affect the classification. For instance, the total sales of furniture retailers (SIC 5712) in a given area should not be interpreted as the total sales of furniture. Stores in that SIC may sell other items in addition to furniture, and other kinds of businesses, such as department stores (SIC 5311), also sell furniture. This is an inevitable limitation of the establishment basis of classification.

Despite its limitations, there are major advantages to the use of the SIC system. Its widespread use, inside and outside the government, promotes uniformity and comparability in the presentation of statistics collected by various Federal and State agencies, trade associations, and private research organizations.

Figure 3. **SIC Coverage in 1987 Census and Survey Programs**

| <b>SIC range</b> | <b>Economic sector</b>                   | <b>Census</b>  | <b>Survey</b>  |
|------------------|--|--|--|
| 01-02,07-09      | Agriculture, forestry and fishing        | Agriculture, 01 and 02 only (not reported by SIC; also excludes agricultural services, forestry, and fisheries)  | Cotton Ginnings, 0724 only<br>County Business Patterns, 07-09  |
| 10-14            | Mining                                   | <b>Mineral Industries</b>  | Current Industrial Reports, 13 only<br>County Business Patterns<br>Quarterly Financial Report  |
| 15-17            | Construction                             | <b>Construction Industries</b>   | Current Construction Reports deal with building material and housing characteristics<br>County Business Patterns   |
| 20-38            | Manufacturing                            | <b>Manufactures</b>  | Annual Survey of Manufactures<br>Current Industrial Reports (selected products)<br>County Business Patterns<br>Quarterly Financial Report  |
| 40-49            | Transportation, communication, utilities | <b>Transportation</b> , 42, 44, and 47 only (excludes rail, air, highway passenger transportation, U.S. Postal Service, pipelines, communication, and utilities)   | County Business Patterns, except U.S. Postal Service, 43<br>County Business Reports, 42 only   |
| 50-51            | Wholesale Trade                          | <b>Wholesale Trade</b>   | Current Business Reports<br>County Business Reports<br>Quarterly Financial Report  |
| 52-59            | Retail Trade                             | <b>Retail Trade</b>  | Current Business Reports<br>County Business Patterns<br>Quarterly Financial Report   |
| 60-67            | Finance, insurance, real estate          | Not covered, except 6552, land subdividers and developers, which are in the census of construction industries  | County Business Patterns   |
| 70-89            | Services                                 | <b>Service Industries</b> , except elementary and secondary schools; colleges, universities, professional schools, and junior colleges; labor unions and similar labor organizations; political organizations; religious organizations; private households | Current Business Reports, except selected educational and social services; museums, art galleries, and botanical and zoological gardens; membership organizations; private households; and services, not elsewhere classified<br>County Business Patterns, except private households |
| 91-97            | Public administration                    | Governments, but not by SIC  | Governments (parts covered, but not by SIC)  |
| 99               | Nonclassifiable                          | Not covered  | Not covered  |

## CHANGES IN THE SIC SYSTEM FOR 1987

The SIC system has been used as the basis for industry classification in the economic censuses since it was first established in 1945. In the years that have followed, there have been some significant changes in the structure of the economy, and at various times, most recently 1972 and 1987, revisions were introduced. For example, the three computer-related services industry categories (old SIC's 7372, 7374, and 7379) have been subdivided for 1987 into nine new SIC's. In other areas, some differentiations have been dropped. For instance, the manufacture of buttons is now grouped with zippers and other fasteners. All in all, the 1987 revisions affect about one-quarter of all four-digit

industries, and have resulted in a net increase of 19 industries for the service sector, 8 for wholesale trade, and 7 for manufacturing. This was compensated by a net decrease of 34 for the other SIC divisions.

The introduction of changes to the SIC system affects the comparability of data among the 1987 and earlier censuses. For this reason, the 1987 census reports include certain tables to help define the impact of those changes and create a bridge to the earlier classifications. Chapter 7 discusses the use of these statistics and also shows features in the SIC Manual that highlight the changes. Fortunately, most SIC categories have remained quite comparable between the 1982 and 1987 censuses.



# Geographic Area Detail 3

## INTRODUCTION

The 1987 Economic Censuses present statistics for the Nation, States, metropolitan areas, counties, places, and ZIP Codes, but that coverage varies among the censuses. The greatest variety of statistics and the most detailed classifications usually are published at the national level. There are fewer statistics and less detailed classifications for States, and fewer still for smaller areas, to avoid disclosing information about individual firms and to reduce publishing costs.

By comparison, most current economic surveys provide very little geographic detail. The retail trade survey publishes data for only the largest States and metropolitan areas. The Annual Survey of Manufactures publishes State data, but only a few of the Current Industrial Reports have State data. Among the current programs, only those based on governmental administrative records—County Business Patterns and current construction reports—provide information for counties or places.

Figure 5 (see p. 12) shows the types of geographic areas for which data are available from those economic census and survey programs with subnational geography.

The reference date for the geographic definition of cities and counties in the economic censuses is January 1, 1987; for metropolitan areas the cutoff was June 30, 1987. Therefore, if a place or metropolitan area has changed boundaries since those dates, those changes are not reflected in census tabulations. Geographic comparability between 1982 and 1987 is discussed in chapter 7, pages 109-110.

A geographic reference manual lists all areas covered in the censuses, along with the codes used on computerized products, and is discussed on page 107.

## DEFINITIONS OF GEOGRAPHIC CONCEPTS

### Regions/Divisions

The Census Bureau groups the 50 States and the District of Columbia into four census geographic regions and nine census divisions, as shown in figure 4. A few current surveys show data for regions and divisions. While no economic census statistics are published for these areas, geographic area reports for construction and mineral industries group the States by division for publication, and nonemployer statistics for retail trade and services are grouped into reports by region.

Figure 4. **Census Regions and Geographic Divisions of the United States**



### States

Statistics for each of the 50 States and the District of Columbia are reported in the economic censuses and a few of the current programs. (Statistics for Puerto Rico, the U.S. Virgin Islands, Guam, and the Northern Mariana Islands are published only in the separate 1987 Economic Censuses of Outlying Areas, and are not included in any United States totals.)

### Counties

Counties and their equivalents, 3,141 in all, are the primary political and administrative divisions of States. These areas are called parishes in Louisiana. In Alaska, 23 boroughs and "census areas" are treated as county equivalents for census purposes. Kalawao County, HI, is combined with Maui County for statistical purposes. Several cities (Baltimore, MD; St. Louis, MO; Carson City, NV; and 41 cities in Virginia) are independent of any county organization and, because they constitute primary divisions of their States, are accorded the same treatment as counties in census tabulations. Independent cities are identified with the symbol (IC) in county tables.

**Figure 5. Geographic Area Detail for the Economic Census and Survey Reports With Subnational Focus**

[Legend: • —Data are available for all areas. a—Only limited detail is available for areas with fewer than 350 retail establishments with employees. b—Only limited detail is available for areas with fewer than 200 wholesale establishments. c—Only 15 States and 15 MSA's are shown, see p. 36. d—Only limited detail is available for areas with fewer than 350 service establishments with employees. e—Shows industries with 150 or more manufacturing employees. f—Shows industries with 250 or more manufacturing employees. g—Shows areas with 450 or more manufacturing employees, and within those areas, industries with 950 or more manufacturing employees. h—Shows industries with 100 or more employees. i—MSA's with 500,000 or more inhabitants in 1980, see app. B. j—Shows areas with 100 or more firms owned by members of group. k—Only 19 States, 28 MSA's, and 4 cities, see p. 30. l—Selected reports only, see p. 59. m—Only 40 selected MSA's, CMSA's, and PMSA's, see app. B. n—Approximately 17,000 permit-issuing places in annual report, 4,700 monthly. o—Special tabulation required, see p. 83]

| Program  | States | MSA'S,<br>CMSA'S, and<br>PMSA'S <sup>1</sup> | Counties | Places <sup>2</sup> | ZIP Codes |
|--|--------|--|----------|---------------------|-----------|
| <b>ECONOMIC CENSUSES</b>                             |        |  |          |                     |           |
| <b>Retail Trade</b>                                  |        |  |          |                     |           |
| Geographic Area Series.....                          | •      | •  | a        | a                   |           |
| Nonemployer Statistics.....                          | •      | •  | •        | •                   |           |
| ZIP Code Statistics.....                             | •      |  |          |                     | •         |
| Special Series.....                                  | •      | •  |          |                     |           |
| Merchandise Line Sales.....                          | •      | •  |          |                     |           |
| <b>Wholesale Trade</b>                               |        |  |          |                     |           |
| Geographic Area Series.....                          | •      | •  | b        | b                   |           |
| Commodity Line Sales.....                            | c      | c  |          |                     |           |
| <b>Service Industries</b>                            |        |  |          |                     |           |
| Geographic Area Series.....                          | •      | •  | d        | d                   |           |
| Nonemployer Statistics.....                          | •      | •  | •        | •                   |           |
| ZIP Code Statistics.....                             | •      |  |          |                     | •         |
| <b>Transportation</b>                                |        |  |          |                     |           |
| Geographic Area Series.....                          | •      | •  |          |                     |           |
| Truck Inventory and Use Survey.....                  | •      |  |          |                     |           |
| <b>Manufactures</b>                                  |        |  |          |                     |           |
| Geographic Area Series.....                          | e      | f  | g        | g                   |           |
| Location of Manufacturing Plants.....                | •      |  | •        | •                   | •         |
| <b>Mineral Industries</b>                            |        |  |          |                     |           |
| Geographic Area Series.....                          | h      |  | h        |                     |           |
| <b>Construction Industries</b>                       |        |  |          |                     |           |
| Geographic Area Series.....                          | •      | i  |          |                     |           |
| <b>Other</b>   |        |  |          |                     |           |
| Enterprise Statistics: Auxiliary Establishments..... | •      |  |          |                     |           |
| Minority-Owned Businesses.....                       | •      | j  | j        | j                   |           |
| Women-Owned Businesses.....                          | •      | j  | j        | j                   |           |
| <b>CURRENT ECONOMIC SURVEYS</b>                      |        |  |          |                     |           |
| Monthly Retail Trade.....                            | k      | k  | k        |                     |           |
| Annual Survey of Manufactures.....                   | •      |  |          |                     |           |
| Current Industrial Reports.....                      | l      |  |          |                     |           |
| New Residential Construction in Selected SMSA's..... |        | m  |          |                     |           |
| Housing Units Authorized by Building Permits.....    | •      | •  |          | n                   |           |
| County Business Patterns.....                        | •      |  | •        |                     |           |
| Foreign Trade: Exports.....                          | •      |  |          |                     | o         |

<sup>1</sup>Metropolitan statistical areas, consolidated metropolitan statistical areas, and primary metropolitan statistical areas. <sup>2</sup>Cities and other incorporated places with 1980 census population of 2,500+ . Also included are towns in 6 New England States and townships and in New Jersey and Pennsylvania with 1980 census population of 10,000+ .

## Metropolitan Statistical Areas (MSA's)

An MSA is an integrated economic and social unit with a recognized population nucleus. Generally, each MSA consists of one or more entire counties that meet specified standards pertaining to population, commuting patterns, and metropolitan character. In New England, towns and cities, rather than counties, are the basic geographic units for defining MSA's. MSA's are defined under the auspices of the U.S. Office of Management and Budget (OMB).

The MSA concept represents a revision to what were previously known as standard metropolitan statistical areas (SMSA's), a change that went into effect in 1983, after the reference date for the 1982 Economic Censuses. About one third of all MSA's changed boundaries, largely reflecting changes in commuting patterns as shown in the 1980 population census. All MSA's are listed in appendix B, and those that changed since the 1982 Economic Censuses are denoted with an asterisk.

## Consolidated Metropolitan Statistical Areas (CMSA's) and Primary Metropolitan Statistical Areas (PMSA's)

Prior to their final definition in 1983, MSA's with a million or more people were given the option to be subdivided (for statistical purposes) into two or more primary MSA's (PMSA's), in which case the MSA became known as a consolidated MSA (CMSA). Twenty metropolitan areas opted for this two-tiered definition, and were subdivided into 71 PMSA's. The CMSA concept replaces what were called standard consolidated statistical areas (SCSA's) in the 1982 censuses.

In statistical tables, data for the MSA's and CMSA's are intermingled in alphabetic sequence, with the PMSA's presented alphabetically under their parent CMSA's.

Figure 6 shows the 20 CMSA's, 71 PMSA's, and 261 freestanding MSA's in the Nation as of the reference date for the 1987 censuses. For a list of the counties that comprise each MSA, CMSA, and PMSA, refer to an appendix in a census report with metropolitan area data, or to the *Geographic Reference Manual* (see p. 107).

## Incorporated Places

The 1987 Economic Censuses provide information for legally defined, incorporated municipalities (cities, towns, villages, and boroughs) with 2,500 or more inhabitants as of the 1980 population census (or as of a more recent special census where available). Hawaii does not have incorporated places that are recognized for census purposes, so data there are provided for census designated places (CDP's) with 2,500 or more inhabitants. All told, data are presented for 6,362 places in the United States.

## Selected Towns and Townships

Some county subdivisions, such as towns and townships, are not classified as incorporated places for census purposes. Statistics are presented in the 1987 Economic Censuses for towns in the six New England States and

townships in New Jersey and Pennsylvania with a 1980 census population of 10,000 or more. Data for these 432 towns and townships are presented in the same tables as places.

## ZIP Codes

ZIP Codes are administrative entities of the U.S. Postal Service. Limited statistics are summarized for individual five-digit ZIP Codes in the censuses of retail trade, service industries, and manufactures. These statistics are generally limited to a count of the establishments in each industry or kind of business, further classified by size. In addition, statistics on employment, payrolls, and sales or receipts are presented for the total of all retail and service businesses within a ZIP Code, not by kind of business. ZIP Codes generally do not coincide with the Census Bureau's geographic or political areas, and they change according to postal requirements. Most ZIP Codes do not have specific boundaries, and their implied boundaries do not necessarily follow clearly identifiable physical features. At the time of the 1987 Economic Censuses, there were about 30,000 ZIP Codes with business establishments.

## The Outlying Areas

The 1987 Economic Censuses of Outlying Areas provide data for—

- Puerto Rico: The island as a whole, 4 MSA's, 1 CMSA, 2 PMSA's, 9 commercial regions, 78 municipios (county equivalents), and barrios and pueblos (place equivalents). The commercial regions are groups of municipios that collectively cover Puerto Rico. They are used in the censuses of retail trade and service industries in lieu of MSA's, but are not used in other censuses.
- Guam: The island as a whole and 19 election districts
- U.S. Virgin Islands: The territory as a whole; the islands of St. Thomas and St. John combined, and St. Croix; and three towns
- The Northern Mariana Islands: The territory as a whole and four municipalities

The Census Bureau does not collect economic census data for American Samoa or the Trust Territory of the Pacific Islands, although the census of agriculture includes American Samoa.

## Special-Purpose Areas

The census of mineral industries presents some statistics on petroleum and natural gas industries for selected offshore areas (as well as by State and county). The Current Industrial Report series presents selected statistics for other nonstandard regions—for example, "brick industry regions" and "lumber industry regions" in appropriate reports.





**Major Retail Centers (MRC's) and Central Business Districts (CBD's)**

MRC's and CBD's were large concentrations of retail stores within metropolitan areas, reported in the census of

retail trade from 1948 to 1982. This series of reports was discontinued because of the high cost of defining the areas. For many purposes, the newly available statistics for ZIP Codes can substitute for the discontinued MRC and CBD statistics.



# Publication of the Data 4

## INTRODUCTION

Economic census and survey data are published in several forms, some designed to be read by eye—printed reports and microfiche—and others by computer—tapes, CD-ROM (compact discs with read-only memory), flexible diskettes, and online. The data presented in these various media are essentially the same, differing only in coverage. Some very large data sets appear only on tape and CD-ROM, while most survey reports and certain, more specialized census tabulations are issued only in print. Ordering information for all of these products is presented in chapter 7.

## Disclosure Analysis

To preserve the confidentiality of economic census and survey information, the Census Bureau makes certain that no individual firm's operations can be identified in published statistics by direct observation, by subtraction of data within a table, or by comparing totals and subtotals across several tables. This is done through a process called "disclosure analysis" in which the data are examined both by computer programs and by census analysts with extensive knowledge of each industry.

Disclosure analysis identifies data cells where a very small number of firms are dominant—i.e., they account for all or a major portion of the sales or other reported activity in the industry or kind of business, geographic area, or other category for which data are shown. When such situations are found, the data are withheld from publication—suppressed—or in some cases grouped into higher-level aggregates. Frequently, when numbers have been suppressed, it also is necessary to withhold additional data so that the suppressed figure cannot be reconstructed by subtracting the remaining data from a total published at a higher level. Statistics for higher geographic levels (e.g., national over State) or broader industrial categories (two-digit SIC's over three-digit SIC's) are given preference where choices must be made in avoiding disclosure.

In the published tables, suppressed data cells are identified by the symbol (D) for disclosure. On computerized products, special codes or "flags" associated with each data cell indicate whether data have been withheld. The number of establishments in an industry or kind of business in an area is not considered to be a disclosure and is published even though other data may be withheld.

## Report Numbering

All reports and other data series are numbered according to a consistent pattern. The first two or three letters

indicate the census or current series, generally followed by the reference year, a hyphen, and then series designation and number within series. For example, RC87-A-17 indicates the retail census for 1987, the geographic area series, and the 17th report in the series (i.e., the report for Indiana, which is 17th in an alphabetic list of States, not the 17th report to appear).

Census reports include—

- RC87 Retail Census
- WC87 Wholesale Census
- SC87 Service Industries Census
- TC87 Transportation Census
- MC87 Manufactures Census
- MIC87 Mineral Industries Census
- CC87 Construction Industries Census

Current reports include—

- BR Business—Retail
- BW Business—Wholesale
- BS Business—Service
- M Manufactures and Minerals
- C Construction

In the text of chapters 5 through 7, the following symbols indicate in which media each report is published.

- Printed report
- Microfiche
- Ⓢ Computer tape
- Ⓞ CD-ROM
- Flexible diskettes
- Ⓜ Online (CENDATA™)

Unless otherwise indicated, all economic censuses printed reports are sold by the U.S. Government Printing Office (GPO). For current reports denoted "subscription," annual subscriptions may be placed with the GPO, although single copies are sold by the Census Bureau. All microfiche and computerized products are sold by the Census Bureau. See chapter 7 for ordering information.

## PRINTED REPORTS

Printed statistical reports are the most widely used type of output from economic censuses and surveys. There are 571 different reports published from the 1987 economic censuses, and the current economic series result in 70 monthly, 20 quarterly, and 91 annual publications.

While each of the economic censuses is published separately, each census's publication program shares a common structure. The body of each report consists of statistical tables featuring data for the census year 1987. Relatively few statistics are presented from previous censuses for comparison, so the user must obtain reports from previous censuses in order to carry out detailed analysis of changes over time. Introductory material in each report discusses basic concepts and methodology. There is a table-finding guide, also at the front of the volume. At the back of the report are detailed explanations of methodology and definitions of terms, especially the industry or kind-of-business classifications.

Most census reports include a narrative "Summary of Findings" immediately preceding the statistical tables, which highlights a number of key statistics and frequently cites the top ranking geographic areas or industries. Thus, the summary is an excellent place to begin in reviewing any of these publications, though it touches only the surface in terms of the comparisons, rankings, and interpretations that users can employ to add their own analytic value to the data.

The reports from each economic census fall into several basic categories: geographic area reports, industry reports (both preliminary and final), summary reports, subject reports, and other miscellaneous reports.

### Geographic Area Series

Area reports feature general statistics—the number of establishments, the number of employees, payroll, and sales or other measures of revenue—for each State and its metropolitan areas, counties, and places. Figure 5 in the previous chapter shows the specific areas covered in each census. Geographic area reports are issued State-by-State in most cases. Broader groupings of States are used for those censuses that publish less voluminous data: The censuses of mineral and construction industries issue geographic area reports grouped according to census divisions (nine geographic groups of States), and the census of transportation geographic area series appears in a single report.

The level of detail available in the area reports varies generally with the number of establishments or the number of employees in each particular sector. Thus, a county with many people employed in manufacturing is likely to have more industry detail in the manufactures census report than a county with fewer manufacturing workers. Because there are more retail and service establishments than establishments in other sectors, these two censuses generally have more data for smaller counties and cities than do other censuses.

For retail and services there are separate "nonemployer statistics" reports that parallel the geographic coverage of the geographic area reports containing data for establishments with employees. Thus, to get a full geographic picture for retail and services, the user should obtain both the geographic area and nonemployer reports.

### Industry Series

In the three censuses covering the goods-producing sector of the economy (i.e., manufactures, and mineral and construction industries), the analysis of economic statistics by industry nationwide is so important that separate reports are prepared focusing on the characteristics of groups of related industries. These reports are published before corresponding geographic area reports within the same censuses.

**Preliminary** industry reports present general statistics for the Nation as a whole by industry, and national summary tables on industry products and materials consumed. These reports typically are published roughly 8 months before they are superseded by corresponding final industry series reports.

**Final** industry reports present general statistics for the Nation as a whole and by State, and also more detailed statistics and specialized measures unique to particular industries at the national level. In the manufactures and mineral industries censuses, tables summarize the key products made and the various materials, supplies, and fuels consumed by each industry. These final statistics reflect revisions from the preliminary figures, and also feature more detail than is shown in preliminary reports.

There are no comprehensive industry reports for retail and wholesale trade, service industries, or transportation.

### U.S. Summary and General Summary Reports

Each of the censuses publishes a single volume that presents data for all covered industries at the national and State levels, with limited data for metropolitan areas, while omitting the local-area and specialized detail carried in the geographic and industry reports. For retail and wholesale trade and service and construction industries, the *U.S. Summary* is the last report in the Geographic Area Series. For transportation, the Geographic Area Series report suffices since it is already a single volume. For manufactures and mineral industries, the *General Summary* is part of the subject series. In all cases, these convenient compendia appear only after the last of the industry and area series reports have been published.

### Subject Series

Each census includes one or more reports that add further dimension to the analysis of industries, primarily at the national level. Most common are statistics on establishment and firm size (e.g., for differentiating big and small businesses) and on capital expenditures and assets. Others include information on legal form of organization

(corporations, partnerships, and individual proprietorships), concentration of activity in the largest firms in each industry, and measures unique to a particular sector. Of special significance are the *Merchandise Line Sales* report for retail businesses and the *Commodity Line Sales* report for wholesale trade which interrelate the kinds of merchandise sold with the kinds of businesses carrying each line. (A corresponding classification of manufacturing and mineral industries by products produced is included in the Industry Series reports for those censuses.)

## Other Series

There are a few economic census series that present specialized data that do not correspond to the foregoing types: minority- and women-owned businesses, characteristics of business owners, enterprise statistics, and the truck inventory and use survey.

## MICROFICHE

Beginning with the 1967 Economic Censuses, almost all census and current publications (but not including preliminary reports) have been photographed page-by-page, and the images reproduced on microfiche (4" x 6" sheets of film, each containing 98 or more miniature page images) as an archival backup to census publications. Even after a publication has gone out of print, a copy on microfiche can always be obtained, or a paper print can be generated from the microfiche. This is especially important when assembling a time series of comparable statistics across several censuses, since printed reports from the 1967, 1972, and 1977 censuses and most reports from the 1982 censuses are no longer available for sale.

## COMPUTERIZED MEDIA IN GENERAL

Data in computerized media have three primary advantages over their printed counterparts:

**Ease of manipulation.** Computerized data can more easily be ranked, compared, analyzed, reformatted, and extracted than can data fixed in print. For example, commercial software programs are available to convert the data into graphs, charts, and even maps. Data from different databases can be merged, as in the combination of retail census and population data to yield per-capita retail sales figures. Computers allow users to manipulate and analyze much larger quantities of information than could be managed manually.

**More data series.** The Census Bureau is able to make available on computer tape and CD-ROM certain large data series which are not practical to print because of the high cost of printing:

- Retail merchandise line sales and wholesale commodity line sales for States and metropolitan areas (national data also available in print)

- ZIP Code statistics for retail trade, service industries, and manufacturing
- Location of manufacturing plants, for counties, places, and ZIP Codes.
- Minority- and women-owned businesses (data for more places and counties than in print)
- County Business Patterns (data for more small industries not in print)

With the exception of these series and microdata from the Truck Inventory and Use Survey (see pp. 48), the data available on computer tape and CD-ROM are limited to the data items presented in printed reports. All data suppressed in the reports are also suppressed on computer tape to preserve the confidentiality of figures supplied by individual businesses.

**Faster release of selected statistics via CENDATA™.** While data on computer tape and CD-ROM are issued at about the same time as corresponding printed reports, press releases are made available on the Census Bureau's online service approximately 3 to 4 weeks before corresponding reports become available for sale—i.e., while the reports are being printed and CD-ROM discs are being manufactured. Further, the user does not have to wait for the products to be delivered by mail.

## COMPUTER TAPE

Economic census files are available on tape for mainframe and minicomputers (2400-foot reels), but not on the kind of tape used for backup on microcomputers. Data files consist of records in fixed-field character format. Technical documentation, containing record layouts and the kind of descriptive information carried in the text of reports, is provided in paper copy with each tape. Record layouts also are recorded on computerized "data dictionary" files. While the files are well designed, most users require the services of a programmer in order to use the data on tape.

Computer tapes are priced by the tape, not by how much data the tape contains. Since most of the economic files are relatively small, a single tape can accommodate the data from one or more entire series of publications (e.g., retail trade geographic area series files for all States). The user has the option of obtaining the data as soon as a particular State is available, or of waiting until all States have been issued and thus get more data for the same price.

## MICROCOMPUTER FORMATS: DISKETTE AND CD-ROM

Economic census files are issued in two formats designed for use on microcomputers—flexible diskette (IBM PC-compatible format) and CD-ROM. Flexible diskettes, or "floppies," are relatively limited in capacity (500 standard

5.25-inch diskettes are required to hold as much data as can be stored on a single high-density tape), so only a few small data sets are issued on floppies.

On the other hand, a single 4 3/4-inch CD-ROM, using laser technology, can hold over 500 million characters—equivalent to the combined storage capacity of more than three high-density tapes or 1,500 flexible diskettes. That is enough to hold all of the 1987 Economic Censuses files on two discs. To use a CD-ROM, the microcomputer user must obtain and install a CD-ROM reader (typically priced at \$500 to \$800 as of 1989) along with software to allow the operating system to access the CD-ROM like a diskette or other storage device on the microcomputer (e.g., MS-DOS Extensions or Macintosh CD Setup software).

Data on both diskette and CD-ROM are recorded in a format compatible with dBASE III™, which can also be used by dBASE IV and a variety of other programs. A number of spreadsheet, statistical, and graphics software packages have utilities that allow dBASE III files to be imported, although not all can handle files as large as those stored on CD-ROM.

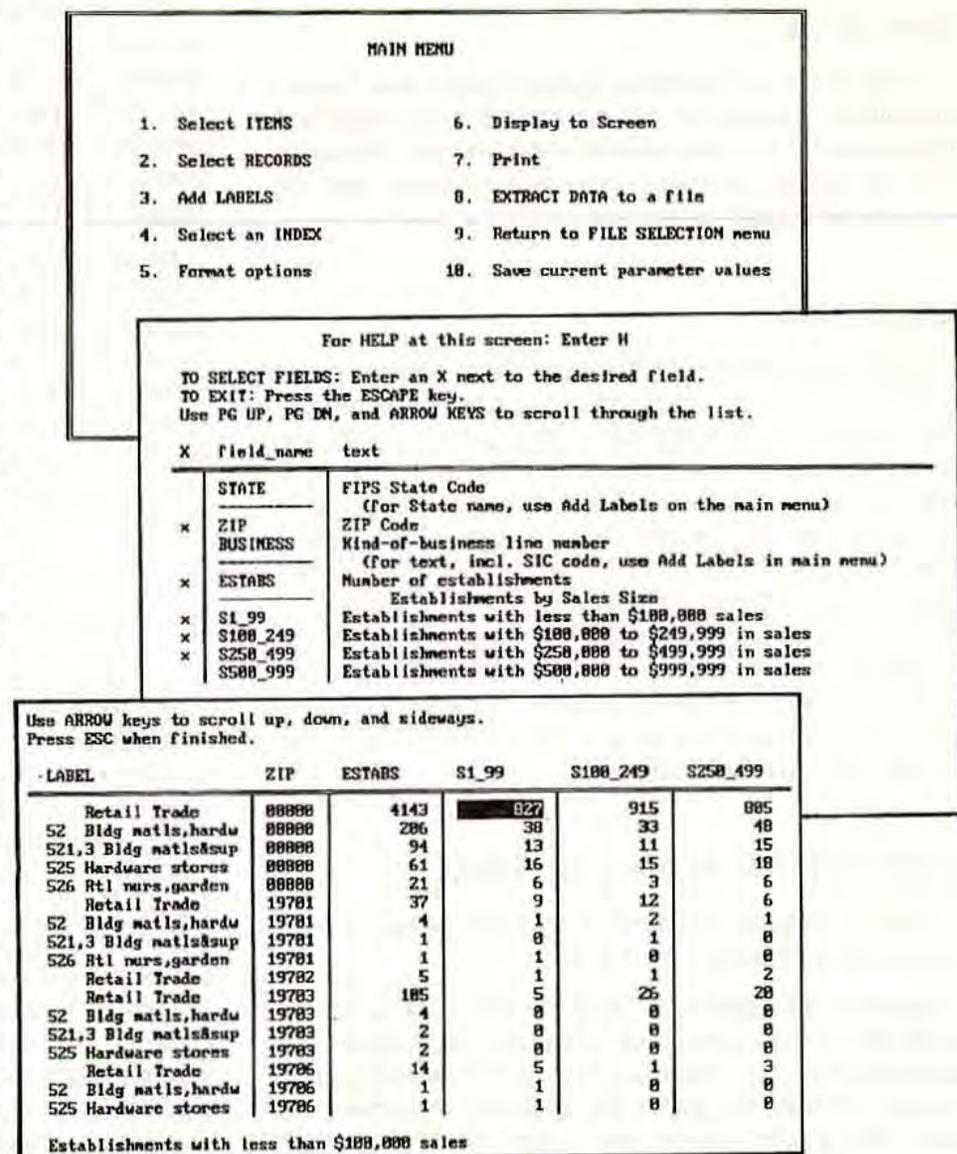
To assist users in importing files in dBASE format into other software, the Census Bureau has developed an IBM-compatible, public-domain software program called EXTRACT. This program reads the dBASE files and prompts the user through the steps necessary to select desired data, add labels, display the data to the screen or printer, and extract data to a file. The program can create extract files in any of three formats for importing into commercial software packages: dBASE format, comma-delimited files (used for Lotus 1-2-3™ and many other programs), and fixed format files. Extracted files can be saved onto the user's floppy or hard disk, but not onto the CD-ROM itself, because the CD-ROM is a "read-only" device. Thus, while only a limited number of small files are being issued by the Census Bureau on flexible diskette, any user with access to a CD-ROM reader can extract (or "download") small data sets to diskettes for use elsewhere. Figure 7 illustrates sample screens from the EXTRACT program.

The EXTRACT program and other public-domain software developed to work with Census Bureau files on CD-ROM are available for a nominal charge from an organization that has agreed to act as a clearinghouse for such software: the Center for Electronic Data Analysis; 316

Stokley Management Center; Department of Marketing, Logistics, and Transportation; University of Tennessee; Knoxville, TN 37996-0530; (615) 974-5311.

Since CD-ROM has such a large capacity, all economic censuses files other than ZIP Code data can be accom-

Figure 7. Illustrative Screens from EXTRACT Using ZIP Code Data



modated on a single disc. The user has the choice of buying that disc (designated Volume 1) when all economic files are available in mid-1991 or of buying interim versions, starting in mid-1989 and reissued every 3 or 4 months, containing all of the files available to that point. ZIP Code data are being issued on a separate disc (Volume 2) in the latter part of 1990. To obtain all CD-ROM's as soon as they are issued, it is possible to subscribe for a special package price (see chapter 7).

The specific files issued on CD-ROM and diskette are listed in appendix C, along with their projected timing.

## CENDATA™

CENDATA™ is an online data service offering the most current and widely used facts, specializing in press releases and information on ordering the latest data products. A number of Current Industrial Reports (CIR's) are issued in entirety on CENDATA™. CENDATA™ is made available through cooperating private vendors, DIALOG and CompuServe, that provide nationwide access to information supplied by the Census Bureau through their own long-distance networks. They bill customers for time used on their systems, but no extra charge is made for access to the census data. CENDATA™ is set up for very simple access: the user retrieves any of several thousand screensful of information simply by selecting appropriate items on a succession of menus. DIALOG also supports key-word searching, but neither vendor provides any mechanism for manipulating the data.

Any computer with a modem and communications software can access CENDATA™, once an account has been set up with one of the vendors. Most communications software packages can send the information from CENDATA™ to the user's printer or save it to a file on a floppy or hard disk. With some effort, the resulting file can be imported into the user's analytic software, although frequently it is necessary to first edit the data in another program.

Most data sets accessible via CENDATA™ are relatively small, because it takes a relatively long time to transmit data over phone lines. Even at 2400 baud (the fastest speed that currently works well over conventional long distance phone lines), it takes more than 20 minutes to transmit as much data as fit on a floppy disk, and more than a week of continuous transmission to fill up a high-density tape.

Among the economic data sets on CENDATA™ are—

- Press releases. Short narrative releases and one or two tables, issued to the press when certain major reports are issued, become available immediately on CENDATA™. State-by-State press releases for retail trade, wholesale trade, and service industries appear on CENDATA™ several weeks before the corresponding reports can be purchased.
- Up-to-date information on the availability of publications.
- Highlights from other data series denoted with the CENDATA™ symbol ♣ later in this guide. While the CIR's shown with the CENDATA™ symbol on page 59 appear on CENDATA™ in essentially full detail, only key tables from the larger census reports are included.

## TIMING OF DATA RELEASE

Most of the reports from the 1987 Economic Censuses are being published during 1989 and 1990, with a few specialized reports following during 1991. Appendix C presents the projected schedule for each report series,

information which is also included in order forms for the corresponding series. The schedule indicates the range of months from the first publication to the last in a series, but does not show specific months for individual industry or State reports.

There are a few principles of report timing. Within geographic area series, States having few establishments tend to be published sooner than those States having a large number of establishments or States with metropolitan areas that cross State lines. Summaries presenting national totals generally appear only after the last State has been published. Area reports for retail, wholesale, and services are published between early and late 1989; in other censuses, they appear mostly in the first half of 1990.

State-by-State press releases are issued through the news media and CENDATA™ for retail trade, wholesale trade, and service industries, and they may appear a few weeks prior to the availability of corresponding data in print because they are not subject to the delays associated with printing and mailing publications. Those reports for which press releases are issued on CENDATA™ are indicated by the symbol ♣ in chapters 5 and 6.

Censuses with industry series reports (those in the goods-producing sector—i.e., manufactures, mineral industries, and construction industries) are issued in two waves: (1) preliminary and (2) final. Preliminary reports were published in the first half of 1989, on average 8 months before the final industry reports, scheduled for release in late 1989 and early 1990. In these censuses, geographic area reports follow the industry series in early 1990.

Subject reports and other specialized series appear only after the area and industry series are published.

While printed reports are issued in relatively small units, e.g., reports for individual States, data on computer tape and CD-ROM are reissued in a cumulative fashion. Computerized data in geographic area series for retail trade, wholesale trade, services industries, and manufactures are issued for whatever States are ready. In all other series, CD-ROM and tape files are not created until the entire series is complete.

To minimize delay in receiving the data once they are available, users may order any of the products in advance, as discussed in chapter 7.

## SPECIAL TABULATIONS

Even with the large number of reports and data files issued, the budgets for the economic censuses and surveys cannot accommodate every possible way that the data collected could be presented for use. For this reason, data users with special needs occasionally contract with the Census Bureau to prepare special tabulations from its confidential records covering individual establishments. The results may be prepared as printouts, microfiche, computer tape, or diskettes. The special tabulations must adhere to the same confidentiality requirements as apply to the regular census or survey publications (see p. 17).

Examples of special tabulations include—

- General statistics by kind-of-business for multicounty planning districts in a State. (This is particularly useful when some of the details for individual counties have not been published because they did not meet certain size or disclosure criteria.)
- Consumption of fuels for heat and power in manufacturing by State and MSA. (Census publications include these data only at the national level.)
- County Business Patterns data by ZIP Code. (Publications include only county data.)

The Census Bureau's costs in preparing a special tabulation, typically in the thousands of dollars, must be

reimbursed by the customer or group of customers requesting their preparation. Timing can also be a problem for special-tabulation customers, since the scheduled reports for the general public get priority where personnel or other resources are not available to do both at the same time.

Some special tabulations, such as those cited above, prove to be of interest to others besides the original customer, and the Census Bureau may cite them in the *Census Catalog and Guide*. Once the original customer has had use of the special tabulation for at least 6 months, anyone else can obtain a copy of the tables for the cost of reproduction.

More information about how to request a cost estimate for a special tabulation can be obtained by contacting the appropriate subject specialist, listed in appendix E.



# Economic Census Programs 5

## WHAT'S NEW FOR 1987?

**Expanded coverage.** The *1987 Census of Service Industries* was expanded to include hospitals, while the *1987 Census of Transportation* was expanded to include establishment statistics on motor freight and water transportation and those transportation services not previously covered.

**SIC changes.** The 1987 data are reported in terms of the newly revised SIC system. Nonetheless, selected reports include "bridge" tables showing 1987 data classified according to the old SIC system, for direct comparison with 1982 data in the 1982 census reports. Most SIC's, however, have remained comparable between the 1982 and 1987 censuses.

**New metropolitan definitions.** A new set of metropolitan areas (i.e., MSA's, CMSA's, and PMSA's) have replaced the standard metropolitan statistical areas (SMSA's) and the standard consolidated statistical areas (SCSA's) shown in 1982 census publications. While the titles of most metropolitan areas have remained unchanged, about one-third have new boundaries.

**Fewer preliminary reports.** To expedite production of final reports, the preliminary reports series for retail trade, wholesale trade, and service industries have been discontinued. Preliminary data for manufactures and mineral industries have been consolidated into fewer reports.

**More statistics reflecting the globalized economy.** Statistics for manufacturing industries now show what fraction of materials, parts, and supplies were purchased overseas. Exports of services are now shown for more service industries.

**Separate nonemployer reports.** For 1987, data for retail trade and service industries establishments with no paid employees (e.g., "mom and pop" stores) are being published in separate reports. Aside from a few nonemployer tables in the census of construction industries, regular census reports cover only establishments with paid employees.

**ZIP Code statistics.** Limited data are being issued for individual ZIP Codes on computer tape and CD-ROM for retail trade, service industries, and manufacturing.

**Two series discontinued.** The Major Retail Centers (MRC) series and the Commodity Transportation Survey were canceled for budgetary reasons.

**More data in computerized form.** More files are being released on computer tape than for any previous economic censuses, and the publication of statistics on CD-ROM and diskette is completely new for the 1987 Economic Censuses.

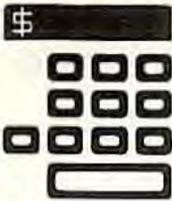
For other changes, see the "What's New for 1987" box under the headings for the individual censuses in the next chapter.

**Figure 8. Major Data Items Published in Retail Trade Reports by Geographic Level**

[Legend: \* —Places, counties, MSA's, States, and national. M—MSA's, States, and national. N—National only. S—States and national. Z—Zip Codes and States]

| Item   | Series <sup>1</sup> |            |   |            |              |              |              |              |    |                |   |
|--|---------------------|------------|---|------------|--------------|--------------|--------------|--------------|----|----------------|---|
|  | RC87<br>-A          | RC87<br>-N | RC87<br>-SP   | RC87<br>-Z | RC87<br>-S-1 | RC87<br>-S-2 | RC87<br>-S-3 | RC87<br>-S-4 | CB | BR             |   |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                            |                     |            |   |            |              |              |              |              |    |                |   |
| All establishments . . . . .   |                     | N          | M   |            |              |              |              |              |    |                |   |
| Establishments with payroll . . . . .                                | *                   | N          | M   | Z          | N            |              | M            | M            |    |                |   |
| Establishments without payroll (nonemployers) . . . . .              |                     | *          | M   |            |              |              |              |              |    |                |   |
| Establishments by legal form of organization . . . . .               | *                   | N          | N   |            | N            |              |              | N            |    |                |   |
| Firms . . . . .  |                     |            |   |            | N            |              |              |              |    |                |   |
| Single- and multiestablishment . . . . .                             |                     |            |   |            | N            |              |              |              |    |                |   |
| Concentration by major firms . . . . .                               |                     |            |   |            | N            |              |              |              |    |                |   |
| <b>EMPLOYMENT</b>  |                     |            |   |            |              |              |              |              |    |                |   |
| All employees, March 12 . . . . .                                    | *                   |            |   | Z          | N            |              |              | M            |    |                |   |
| Employment size of establishment . . . . .                           |                     |            |   | Z          | N            |              |              |              |    |                |   |
| Employment size of firm . . . . .                                    |                     |            |   |            | N            |              |              |              |    |                |   |
| <b>PAYROLL</b>   |                     |            |   |            |              |              |              |              |    |                |   |
| All employees, entire year . . . . .                                 | *                   |            | M   | Z          | N            | N            |              | M            |    |                |   |
| All employees, first quarter . . . . .                               | *                   |            |   |            | N            |              |              |              |    |                |   |
| Supplemental labor costs, legally required and voluntary . . . . .   |                     |            |   |            |              | N            |              |              |    |                |   |
| <b>SALES</b>   |                     |            |   |            |              |              |              |              |    |                |   |
| All establishments . . . . .   |                     | N          | N   |            |              |              |              |              | N  | M <sup>2</sup> |   |
| Establishments with payroll . . . . .                                | *                   | N          | M   | Z          | N            | N            | M            | M            |    |                |   |
| Establishments without payroll . . . . .                             |                     | *          | N   |            |              |              |              |              |    |                |   |
| Sales by—  |                     |            |   |            |              |              |              |              |    |                |   |
| Merchandise line . . . . .   |                     |            |   |            |              |              | M            |              |    |                |   |
| Class of customer . . . . .  |                     |            |   |            |              |              |              | N            |    |                |   |
| Size of establishments . . . . .                                     |                     |            | N   | Z          | N            |              |              |              |    |                |   |
| Size of firms . . . . .  |                     |            |   |            | N            |              |              |              |    |                |   |
| Item   | RC87-S-2            | BR         | Item  |            |              |              |              | RC87-S-4     |    |                |   |
| <b>OPERATING EXPENSES</b>  |                     |            | <b>SPECIFIC KINDS OF BUSINESS</b>   |            |              |              |              |              |    |                |   |
| Total . . . . .  | N                   |            | Auto and home supply stores:  |            |              |              |              |              |    |                |   |
| Cost of materials, etc. . . . .                                      | N                   |            | Automotive services bays . . . . .  |            |              |              |              |              |    |                | S |
| Cost of fuels . . . . .  | N                   |            | Vendors:  |            |              |              |              |              |    |                |   |
| Cost of electricity . . . . .  | N                   |            | Percent of sales from vending machines by product . . . . .                             |            |              |              |              |              |    |                | S |
| Advertising . . . . .  | N                   |            | Contract feeding . . . . .  |            |              |              |              |              |    |                | S |
| Rental payments, total . . . . .                                     | N                   |            | Drug stores:  |            |              |              |              |              |    |                |   |
| Buildings and structures . . . . .                                   | N                   |            | Prescriptions and pharmacists . . . . .   |            |              |              |              |              |    |                | M |
| Machinery and equipment . . . . .                                    | N                   |            | Third-party prescriptions . . . . .   |            |              |              |              |              |    |                | M |
| Communications services . . . . .                                    | N                   |            | Eating and drinking places:   |            |              |              |              |              |    |                |   |
| Purchased repairs . . . . .  | N                   |            | Concession operations . . . . .   |            |              |              |              |              |    |                | S |
| <b>CAPITAL EXPENDITURES</b>  |                     |            | Average cost per meal . . . . .   |            |              |              |              |              |    |                | M |
| Total . . . . .  | N                   |            | Primary type of food service . . . . .  |            |              |              |              |              |    |                | S |
| New, total . . . . .   | N                   |            | Franchise holders . . . . .   |            |              |              |              |              |    |                | S |
| Buildings/equipment . . . . .  | N                   |            | Seating capacity . . . . .  |            |              |              |              |              |    |                | M |
| Used, total . . . . .  | N                   |            | General merchandise and food stores:  |            |              |              |              |              |    |                |   |
| <b>DEPRECIABLE ASSETS, GROSS VALUE OF BUILDING/EQUIPMENT</b>         |                     |            | Floor space . . . . .   |            |              |              |              |              |    |                | M |
| End of 1986 . . . . .  | N                   |            | Fuel oil dealers:   |            |              |              |              |              |    |                |   |
| End of 1987 . . . . .  | N                   |            | Gallon sales of oil and other fuels . . . . .   |            |              |              |              |              |    |                | S |
| Depreciation (detail for buildings/equipment and/or total) . . . . . | N                   |            | Gasoline service stations:  |            |              |              |              |              |    |                |   |
| Retirements . . . . .  | N                   |            | Gallon sales . . . . .  |            |              |              |              |              |    |                | M |
| <b>INVENTORIES</b>   |                     |            | Number of gasoline stations . . . . .   |            |              |              |              |              |    |                | M |
| End of 1986 (previous period) . . . . .                              | N                   | N          | Self-service stations . . . . .   |            |              |              |              |              |    |                | M |
| End of 1987 (current period) . . . . .                               | N                   | N          | Number of automotive mechanics . . . . .  |            |              |              |              |              |    |                | S |
| <b>OTHER</b>   |                     |            | Department, miscellaneous general merchandise stores; and apparel and accessory stores: |            |              |              |              |              |    |                |   |
| Value added . . . . .  | N                   |            | Leased departments . . . . .  |            |              |              |              |              |    |                | N |
| Net income produced . . . . .  | N                   |            | Liquefied petroleum gas dealers:  |            |              |              |              |              |    |                |   |
| Purchases . . . . .  |                     | N          | Number selling bottle gas . . . . .   |            |              |              |              |              |    |                | S |
| Accounts receivable . . . . .  |                     | N          | Storage capacity . . . . .  |            |              |              |              |              |    |                | S |
| Gross margin . . . . .   |                     | N          | Optical goods stores:   |            |              |              |              |              |    |                |   |
|  |                     |            | Number of opticians . . . . .   |            |              |              |              |              |    |                | S |

<sup>1</sup>For complete titles, see descriptions starting on page 27. <sup>2</sup>Data are presented for 19 States, 28 MSA's, and 4 cities (see p. 30).



# Retail Trade

## WHAT IS RETAIL TRADE?

The census and surveys of retail trade cover establishments engaged in **selling merchandise for personal or household consumption** and rendering services incidental to the sale of the goods. By comparison, establishments in wholesale trade sell primarily to retailers (who may resell the goods to household consumers), to other wholesalers, or to other business and institutions for their own use. In principle, then, the difference between retail and wholesale trade is based on the type of customer—retailers sell primarily to individuals while wholesalers sell primarily to businesses and institutions.

In actual practice, there are gray areas between what is considered retail trade and wholesale trade, since some types of stores sell to both the general public and to businesses. Normally, a store is classified as retail if more than half of its sales are to the general public. Lumber yards; paint, glass, and wallpaper stores; and gasoline service stations can be classified as retail even when sales to businesses exceed sales to individuals. On the other hand, several types of establishments are counted in wholesale trade even if a higher proportion of their sales is made to individuals for personal or household consumption—stores primarily engaged in selling plumbing equipment, electrical supplies, used automobile parts, and office furniture. Since retailers are defined as businesses that buy goods for resale, farmers who sell only their own produce are not classified as retailers.

## HOW ARE RETAIL ESTABLISHMENTS CLASSIFIED?

In general, retail establishments are classified by kind of business according to the principal lines of commodities they sell (groceries, hardware, etc.), or the usual trade designations (drug store, cigar store, etc.). There are eight major industry groups in retail trade in the Standard Industrial Classification (SIC) system—

- 52 Building materials, hardware, garden supply, and mobile home dealers
- 53 General merchandise stores
- 54 Food stores
- 55 Automotive dealers and gasoline service stations

- 56 Apparel and accessory stores
- 57 Home furniture, furnishings, and equipment stores
- 58 Eating and drinking places
- 59 Miscellaneous retail

These major SIC groups are subdivided into three-digit industry groups, which in turn are subdivided into four-digit industries, as shown in appendix A.

Central administrative offices, warehouses, and other auxiliary establishments that primarily serve retail establishments within the same company are not included in the census of retail trade, but are included in the *Auxiliary Establishments* report (see p. 76).

## HOW ARE THE DATA COLLECTED?

For the 1987 Census of Retail Trade, data were gathered through a combination of questionnaires, which were sent to all but the smallest firms, and the administrative records of other Federal agencies. There were 36 variants of the census questionnaire, permitting each kind of business to answer in terms of categories relevant to its operations. Questionnaires were mailed to **all** firms above a certain size cutoff (generally equivalent to four or more paid employees), and to a **sample** of smaller firms with paid employees. Information for firms with no employees and for small firms not in the sample were obtained from Federal administrative records, as discussed in chapter 1.

In addition to the regular census forms, a small sample of establishments were sent an additional questionnaire for 1987 covering operating expenses, capital expenditures, depreciable assets, and value added. The results are published as part of the census in the subject series (see below).

The Census Bureau also conducts monthly and annual retail trade surveys to obtain more current data. These surveys are based on samples of firms with employees identified in the census, supplemented with area samples of nonemployers and recent "births" (newly created firms) identified from administrative records during the years between the 5-year census. Most of the data are obtained by mail. These surveys concentrate on a much narrower set of data items than the census—i.e., monthly and annual sales, monthly and year-end inventories, and inventory/sales ratios.

## What's New for 1987?

## Retail Trade

- **SIC changes.** The 1987 SIC now identifies several new kinds of retail businesses separately, for example:
  - Computer and software stores (5734)
  - Record and prerecorded tape stores (5735)
  - Optical goods stores (5995)Other adjustments include—
  - Used motor vehicle parts were transferred from retail trade to wholesale trade (5015)
  - Two types of retail bakeries were merged (5461)
  - Furriers and fur shops have been combined with women's accessory and specialty stores (5632)The impact of these changes can be explored in Geographic Area Series table 3, which shows 1982 data together with 1987 data classified on the 1982 system (see p. 27).
- **No preliminary reports.** To expedite the production of final reports, preliminary reports, such as were published for 1982, were dropped. Instead, selected final data are issued in the form of press releases to the media and via CENDATA™ several weeks before corresponding State reports are available.
- **Nonemployer reports.** Data for establishments with no paid employees are published in separate Nonemployer Statistics reports. Most other census reports cover only establishments with paid employees.
- **Special report.** A new report shows metropolitan statistical area (MSA) rankings on sales per capita, sales in central cities vs. balance of MSA, and MSA-level changes between 1982 and 1987.
- **Different threshold for counties and places.** Statistics by detailed kind of business in geographic area reports are provided for counties and places with 350 or more retail establishments with paid employees. The 1982 criterion was 500 or more establishments, including those without paid employees. Under the new criterion, there are data for about the same number of counties and places as in 1982.
- **Expanded merchandise line information.** The number of broad lines is increased from 34 to 41.
- **Major retail centers (MRC's) dropped.** Data on MRC's and central business districts (CBD's) were not collected.
- **ZIP Code data.** Limited data are issued for individual ZIP Codes, and ZIP Code statistics are now available for 1982 as well.
- **Terminology.** Retail census subject reports were labelled "industry reports" for 1982.

## How Have Retail Trade Data Been Used?

A major food store chain uses census data as the basis for its estimates of potential weekly food store sales in the trade area for each of its stores—estimates that allow calculation of market share and other measures of performance for each existing store, and support evaluations of prospective sites for new stores. Since each store's trade area is defined in terms of census tracts and blocks, areas too small for retail trade statistics to be available, the chain calculates per capita weekly (PCW) food store sales from retail census data and population estimates for counties, then multiplies the appropriate PCW times the estimated population of the target trade area to estimate potential food store sales. They adjust PCW to reflect national changes in food store sales since the last census using Monthly Retail Trade.

An entrepreneur hoping to market an edible stirring straw for mixed drinks looked to retail and service census data about his potential customers, including liquor stores, hotels, and restaurants.

The publisher of *Television News*, a magazine designed to be given away free at retail stores, wanted the number of retail stores by ZIP Code in order to design sales territories. The ZIP Code data on CD-ROM proved especially useful, since they differentiated stores by sales and employment size; the publisher's sales people had found that owners of small stores were more willing to listen to their pitch than were owners of large stores.

The editor of a personal finance newsletter used historical census data on patterns of retail sales during the 1930's along with more recent statistics to compare depression years with current conditions.

A manufacturer of automobile parts and supplies, who had previously marketed his products primarily through new and used car dealers, was impressed by figures from the Merchandise Line Sales subject report, which showed that automobile supply stores, gas stations, and department stores sell far more automobile parts and supplies than do car dealers. Using data from the Geographic Area Series on the geographic distribution of these stores, he developed a new marketing program.

# REPORTS

## Press Releases

Press releases,  $\Delta$ , are issued for each State report of the Geographic Area Series a few weeks before the availability of the corresponding reports. The releases highlight key findings and include data from tables 3 and 11 illustrated below.

## Final Reports

- **Geographic Area Series, RC87-A-1 to -52,  $\square$   $\boxplus$   $\otimes$   $\oplus$   $\boxminus$   $\boxdot$ .**  
A separate report is issued for the United States, each State, and the District of Columbia. Each report contains

statistics for establishments with payroll (see below for nonemployer statistics) on the number of establishments, employment, payroll, sales, and number of proprietorships and partnerships, by kind of business. Each State report presents the basic data items by kind of business for the State, for each MSA, and for counties and places with at least 350 retail establishments with payroll (see table 8, below). The number of kinds of business shown depends on the number of establishments in each area. The reports also include more limited data (establishments and sales for 10 major kind-of-business groups) for all counties and for incorporated places with 2,500 or more inhabitants (see table 5, p. 28). The major counties and places are ranked by

### Tables From Retail Geographic Area Series, RC87-A

**Table 3. Comparative Statistics Based on 1972 Standard Industrial Classification for the State: 1987 and 1982—Con.**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For explanation of changes in kind-of-business classifications between 1982 and 1987, also see appendix A.]

| 1972 SIC code | 1987 SIC code | Kind of business                                    | Establishments |               | Sales          |                |                             | Annual payroll |                |                             | Paid employees for pay period including March 12 |               |
|---------------|---------------|---|----------------|---------------|----------------|----------------|-----------------------------|----------------|----------------|-----------------------------|--|---------------|
|               |               |   | 1987 (number)  | 1982 (number) | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (number)                                    | 1982 (number) |
| 57            | 57            | Furniture and home furnishings stores ..            | 12 417         | 11 078        | 10 448 777     | 5 914 096      | 76.8                        | 1 315 306      | 784 183        | 67.7                        | 86 811   | 63 883        |
| 5712          | 5712          | Furniture stores .....                              | 3 432          | 3 181         | 3 023 249      | 1 974 941      | 53.1                        | 434 605        | 291 499        | 49.1                        | 25 167   | 21 878        |
| 5713, 4, 9    | 5713, 4, 9    | Home furnishings stores .....                       | 3 784          | 3 146         | 2 257 647      | 1 109 853      | 103.4                       | 325 857        | 163 574        | 99.2                        | 21 898   | 14 606        |
| 5713          | 5713          | Floor covering stores .....                         | 1 546          | 1 287         | 1 263 144      | 608 614        | 107.5                       | 181 315        | 84 084         | 115.6                       | 9 327  | 5 792         |
| 5714          | 5714          | Drapery and upholstery stores .....                 | 500            | 549           | 142 085        | 110 176        | 29.0                        | 29 469         | 20 887         | 41.1                        | 2 328  | 2 229         |
| 5719          | 5719          | Miscellaneous home furnishings stores ..            | 1 738          | 1 310         | 852 417        | 390 863        | 118.1                       | 115 073        | 58 603         | 96.4                        | 10 243   | 6 585         |
| 572           | 572           | Household appliance stores .....                    | 987            | 1 054         | 1 037 478      | 656 782        | 58.0                        | 106 488        | 73 354         | 45.2                        | 6 455  | 5 914         |
| 573           | 573           | Radio, television, computer, and music stores ..... | 4 214          | 3 895         | 4 128 403      | 2 172 520      | 90.0                        | 448 356        | 255 756        | 75.3                        | 33 091   | 20 485        |
| 5732          | 5732          | Radio and television stores <sup>11</sup> .....     | 2 866          | 2 478         | 2 947 935      | 1 581 046      | 86.5                        | 325 158        | 189 884        | 71.2                        | 21 216   | 13 401        |
| 5734          | 5731          | Radio, television, and electronics stores .....     | 2 265          | (NA)          | 2 385 687      | (NA)           | (NA)                        | 267 288        | (NA)           | (NA)                        | 17 276   | (NA)          |
| 5734          | 5734          | Computer and software stores .....                  | 601            | (NA)          | 562 248        | (NA)           | (NA)                        | 57 870         | (NA)           | (NA)                        | 3 940  | (NA)          |
| 5733          | 5733          | Music stores .....                                  | 1 348          | 1 217         | 1 180 468      | 591 474        | 99.6                        | 123 188        | 65 872         | 87.0                        | 11 875   | 7 084         |
| 5735          | 5735          | Record and prerecorded tape stores .....            | 810            | 615           | 829 025        | 321 733        | 157.7                       | 77 065         | 29 861         | 158.1                       | 6 705  | 3 872         |
| 5736          | 5736          | Musical instrument stores .....                     | 538            | 602           | 351 443        | 269 741        | 30.3                        | 46 133         | 38 011         | 28.1                        | 3 170  | 3 212         |

**Table 8. Summary Statistics for Metropolitan Statistical Areas: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For definitions of CMSA's, MSA's, and PMSA's, see appendix D.]

| 1987 SIC code | Geographic area and kind of business                       | Estab-lishments (number) | Sales (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Unincorporated businesses            |                        |
|---------------|--|--------------------------|-----------------|--------------------------|---------------------------------|---|--------------------------------------|------------------------|
|               |  |                          |                 |                          |                                 |   | Individual proprie-torships (number) | Partne-rships (number) |
|               | <b>BAKERSFIELD, CA MSA</b>                                 |                          |                 |                          |                                 |   |                                      |                        |
|               | Retail trade .....   | 2 745                    | 2 762 816       | 335 191                  | 79 395                          | 32 031  | 1 134                                | 412                    |
| 52            | Building materials and garden supplies stores .....        | 112                      | 164 708         | 18 382                   | 4 578                           | 1 411   | 30                                   | 13                     |
| 521, 3        | Building materials and supply stores .....                 | 57                       |                 |                          |                                 |   |                                      |                        |
| 521           | Lumber and other building materials dealers .....          | 42                       |                 |                          |                                 |   |                                      |                        |
| 523           | Paint, glass, and wallpaper stores .....                   | 15                       |                 |                          |                                 |   |                                      |                        |
| 525           | Hardware stores .....                                      | 28                       |                 |                          |                                 |   |                                      |                        |
| 526           | Retail nurseries, lawn and garden supply stores .....      | 19                       |                 |                          |                                 |   |                                      |                        |
| 527           | Mobile home dealers .....                                  | 10                       |                 |                          |                                 |   |                                      |                        |
| 53            | General merchandise stores .....                           | 70                       |                 |                          |                                 |   |                                      |                        |
| 531           | Department stores (incl. leased depts.) <sup>2</sup> ..... | 17                       | 237 078         | (NA)                     | (NA)                            | (NA)  | -                                    | -                      |

This format is also used to show data for—  
 Table 1, State  
 Table 6, Places with 350 establishments or more  
 Table 7, Counties with 350 establishments or more  
 Table 9, Area outside MSA's

**Tables From Retail Trade Subject Series,  
RC87-S-3, Merchandise Line Sales**

**Table 1. Merchandise Lines by Kind of Business: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1977 and 1982 censuses, see appendix A]

| ML code | Kind of business and merchandise line                       | Sales of specified merchandise line |                      |                               |                    |
|---------|---|-------------------------------------|----------------------|-------------------------------|--------------------|
|         |   | Establishments (number)             | Amount (\$1,000)     | As percent of total sales of— |                    |
|         |   |                                     |                      | Establishments handling line  | All establishments |
|         | <b>Retail trade</b> .....                                   | <b>1 330 318</b>                    | <b>1 039 028 742</b> | <b>(X)</b>                    | <b>100.0</b>       |
| 100     | Groceries and other foods .....                             | 268 550                             | 198 704 555          | 51.8                          | 18.1               |
| 120     | Meats and snacks .....                                      | 391 216                             | 92 676 874           | 40.9                          | 8.9                |
| 130     | Alcoholic drinks .....                                      | 140 366                             | 14 965 474           | 33.1                          | 1.4                |
| 140     | Packaged alcoholic beverages .....                          | 157 377                             | 25 632 579           | 13.5                          | 2.5                |
| 150     | Cigars, cigarettes, and tobacco .....                       | 240 883                             | 14 664 444           | 4.9                           | 1.4                |
| 160     | Drugs, health aids, and beauty aids .....                   | 187 219                             | 42 337 314           | 12.4                          | 4.1                |
| 200     | Men's and boys' wear, except footwear .....                 | 104 078                             | 29 461 020           | 17.7                          | 2.8                |
| 220     | Women's and girls' wear, except footwear .....              | 145 965                             | 57 552 885           | 30.6                          | 5.5                |
| 260     | Footwear, except infants' and toddlers' .....               | 111 807                             | 17 016 801           | 12.3                          | 1.6                |
| 270     | Sewing, knitting, and needlework goods .....                | 45 306                              | 4 132 014            | 3.9                           | .4                 |
| 280     | Curtains, draperies, and dry goods .....                    | 65 350                              | 8 926 133            | 6.4                           | .9                 |
| 300     | Major household appliances .....                            | 61 383                              | 11 336 558           | -10.1                         | 1.1                |
| 310     | Small electric appliances .....                             | 69 910                              | 4 380 812            | 2.7                           | .4                 |
| 320     | TV's and video recorders and tapes .....                    | 58 735                              | 6 841 209            | 6.1                           | .7                 |
| 330     | Audio equipment and musical instruments and supplies .....  | 74 084                              | 11 278 674           | 8.2                           | 1.1                |
| 340     | Furniture and sleep equipment .....                         | 67 720                              | 19 086 032           | 14.4                          | 1.8                |
| 380     | Floor coverings .....                                       | 56 540                              | 6 907 682            | 6.2                           | .7                 |
| 390     | Kitchenware and home furnishings .....                      | 150 023                             | 15 642 082           | 6.3                           | 1.5                |
| 400     | Jewelry .....   | 85 026                              | 12 133 233           | 8.1                           | 1.2                |
| 490     | Optical goods .....   | 21 348                              | 1 850 965            | 4.3                           | .2                 |
| 500     | Sporting goods .....  | 70 488                              | 13 038 094           | 11.4                          | 1.3                |
| 580     | Recreational vehicles .....                                 | 5 818                               | 2 957 381            | 20.8                          | .3                 |
| 600     | Hardware, tools, and plumbing and electrical supplies ..... | 102 938                             | 13 977 928           | 8.2                           | 1.3                |
| 620     | Lawn and garden equipment and supplies .....                | 94 838                              | 11 189 200           | 7.5                           | 1.1                |
| 640     | Lumber and building materials .....                         | 74 070                              | 32 179 299           | 26.1                          | 3.1                |
| 680     | Mobile homes .....  | 4 835                               | 3 795 092            | 90.8                          | .4                 |
| 700     | Cars, trucks, and powered vehicles .....                    | 48 683                              | 139 687 212          | 83.9                          | 13.4               |
| 720     | Automotive fuels .....                                      | 155 892                             | 89 287 986           | 83.9                          | 8.6                |
| 730     | Automotive lubricants .....                                 | 156 610                             | 2 849 776            | 1.1                           | .3                 |
| 740     | Auto tires, batteries, and accessories .....                | 166 160                             | 31 049 957           | 10.3                          | 3.0                |
| 780     | Household fuels .....                                       | 20 667                              | 14 791 363           | 65.5                          | 1.4                |
| 850     | All other merchandise .....                                 | 268 919                             | 52 892 406           | 14.8                          | 5.1                |
| 880     | Unclassified merchandise .....                              | 146 751                             | 5 450 840            | 3.5                           | .5                 |
| 900     | Nonmerchandise receipts .....                               | 248 928                             | 30 354 888           | 8.8                           | 2.9                |

**Table 2. Kinds of Business by Broad Merchandise Line: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1977 and 1982 censuses, see appendix A]

| SIC code     | Merchandise line and kind of business           | Establishments (number) | Sales (\$1,000)    | Percent of sales accounted for by specified kind of business <sup>1</sup> |
|--------------|---|-------------------------|--------------------|---|
|              | <b>Groceries and other foods (ML 100)</b> ..... | <b>268 550</b>          | <b>198 704 555</b> | <b>100.0</b>  |
| 53           | General merchandise group stores .....          | 19 760                  | 3 132 239          | 1.6   |
| 531          | Department stores <sup>2</sup> .....            | 7 311                   | 2 487 453          | 1.3   |
| 533          | Variety stores .....                            | 6 892                   | 239 730            | .1  |
| 539          | Miscellaneous general merchandise stores .....  | 5 757                   | 405 056            | .2  |
| 54           | Food stores .....                               | 176 219                 | 169 848 375        | 95.5  |
| 541          | Grocery stores .....                            | 128 484                 | 177 232 953        | 89.2  |
| 542          | Meat and fish (seafood) markets .....           | 10 995                  | 5 141 388          | 2.6   |
| 546          | Retail bakeries .....                           | 17 580                  | 3 433 688          | 1.7   |
| 5462         | Retail bakeries—baking and selling .....        | 15 693                  | 3 062 953          | 1.5   |
| 5463         | Retail bakeries—selling only .....              | 1 887                   | 370 715            | .2  |
| 543, 4, 5, 9 | Other food stores .....                         | 19 150                  | 4 040 366          | 2.0   |
| 543          | Fruit stores and vegetable markets .....        | 2 943                   | 1 269 604          | .6  |
| 544          | Candy, nut, and confectionery stores .....      | 5 113                   | 760 903            | .4  |

sell radios and televisions—important facts for marketers in related industries. Only national data are available in print. Computer tapes and CD-ROM contain data for States, for MSA's, and for the area within each State outside any MSA.

The illustration for table 1 shows the 41 broad lines presented. In addition, more detailed lines are shown for certain kinds of business in table 1. Table 2 reorganizes the data to feature the kinds of business that carry each broad line.

4. **Miscellaneous Subjects**, □ ■, presents specialized data for the Nation as a whole and, where feasible, for States and MSA's on the facilities and operating characteristics of eating and drinking places, gasoline service stations, liquefied petroleum (LP) gas dealers, and other subjects not published elsewhere.

**Current Retail Trade Statistics (Current Business Reports)**

- **Advance Monthly Retail Sales**, series CB-[year/month] □ (subscription from Census Bureau) ■. An early report of monthly retail sales and trends by kind-of-business groups at the national level only. The figures are based on a subsample of the Census Bureau's retail trade survey sample. The series provides the following: advance estimates for the current month, preliminary and final estimates for the two preceding months, and final estimates for the same two months a year earlier. Each report is released about 2 weeks after the end of the month it covers.

- **Monthly Retail Trade: Sales and Inventories**, series BR-[year/month] □ (subscription from Census Bureau) ■ ■. A monthly report of sales estimates, including dollar volume and percentage changes, summarized by major kind-of-business groups for the United States, and summarized by a few selected kind-of-business groups for census regions and divisions, and for the most populous 19 States (CA, FL, IL, IN, LA, MD, MA, MI, MN, MO, NJ, NY, NC, OH, PA, TN, TX, VA, WI), 25 MSA's and CMSA's (see appendix B), 15 PMSA's, and 4 cities (New York, Los Angeles, Chicago, Philadelphia). Comparable data are shown for the prior 12 months, along with the percent change from the previous month, the same month in the previous year, and cumulative year to year. Separate sales figures are displayed for large firms operating 11 or more retail stores, with comparative data for previous comparative data for previous months. In addition, national estimates of end-of-month inventories and inventory/sales ratios are presented for broad kind-of-business categories.

A 10-year time series of monthly and annual data is published each year as part of the same subscription package, a few months after the close of the calendar

Tables From Monthly Retail Trade, Series BR

Table 1. Estimated Monthly Retail Sales, by Kind of Business

(Data in millions of dollars)

| SIC code      | Kind of business   | 1989          |               |               |               |               |                   | 1988          |               |               |               |               |               | Total 6 mos   |                |                |
|---------------|--|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
|               |  | Jan.          | Feb.          | Mar.          | Apr.          | May           | June <sup>a</sup> | Jun.          | July          | Aug.          | Sept.         | Oct.          | Nov.          | Dec.          | 1989           | 1988           |
|               | <b>Unadjusted</b>  |               |               |               |               |               |                   |               |               |               |               |               |               |               |                |                |
|               | Retail trade, total . . . . .                                | 122,467       | 118,891       | 139,769       | 137,924       | 148,165       | 148,939           | 139,051       | 135,371       | 140,201       | 133,000       | 135,898       | 140,249       | 170,811       | 814,145        | 773,620        |
|               | Total (excl. automotive group)                               | 95,234        | 91,890        | 106,497       | 105,433       | 112,923       | 112,265           | 104,339       | 103,528       | 107,238       | 103,252       | 106,238       | 111,483       | 142,198       | 624,042        | 586,187        |
|               | <b>Durable goods, total . . . . .</b>                        | <b>48,036</b> | <b>45,148</b> | <b>53,784</b> | <b>53,764</b> | <b>58,971</b> | <b>58,316</b>     | <b>57,196</b> | <b>53,020</b> | <b>55,153</b> | <b>51,076</b> | <b>51,113</b> | <b>51,683</b> | <b>59,847</b> | <b>316,007</b> | <b>306,651</b> |
| 52            | Building materials group stores . . .                        | 5,880         | 5,491         | 6,774         | 7,885         | 9,069         | 8,748             | 8,476         | 7,814         | 8,150         | 7,811         | 7,876         | 7,318         | 7,255         | 43,827         | 42,670         |
| 521,3,5       | Building materials, supply stores, hardware . . . . .        | 5,313         | 4,857         | 5,892         | 6,833         | 7,534         | 7,441             | 7,251         | 6,915         | 7,143         | 6,894         | 6,913         | 6,519         | 6,349         | 37,870         | 36,430         |
| 521,3         | Building materials, supply stores                            | 4,361         | 3,982         | 4,842         | 5,405         | 6,180         | 6,120             | 6,071         | 5,675         | 5,957         | 5,707         | 5,691         | 5,337         | 4,979         | 30,900         | 29,788         |
| 525           | Hardware stores . . . . .                                    | 952           | 865           | 1,050         | 1,228         | 1,354         | 1,321             | 1,280         | 1,240         | 1,198         | 1,222         | 1,187         | 1,182         | 1,370         | 8,770          | 6,644          |
| 55 ex 554     | Automotive dealers . . . . .                                 | 27,233        | 27,201        | 33,262        | 32,491        | 35,242        | 34,674            | 34,712        | 31,845        | 32,963        | 29,748        | 29,660        | 28,766        | 28,613        | 190,103        | 187,433        |
| 551,2,5 6,7,9 | Motor vehicle and miscellaneous automobile dealers . . . . . | 25,134        | 25,218        | 30,818        | 29,965        | 32,516        | 31,972            | 31,910        | 29,200        | 30,188        | 27,161        | 27,073        | 26,281        | 26,180        | 175,621        | 172,887        |
| 551,2         | Motor vehicle dealers . . . . .                              | 24,281        | 24,153        | 29,352        | 28,120        | 30,440        | 29,817            | 29,850        | 27,380        | 28,588        | 25,909        | 25,637        | 25,278        | 24,802        | 168,163        | 163,314        |
| 551           | Motor vehicle dealers, (franch.)                             | 22,877        | 22,696        | 27,545        | 26,371        | 28,438        | 28,018            | 28,224        | 25,878        | 27,001        | 24,300        | 24,127        | 23,898        | 23,365        | 155,943        | 154,638        |
| 553           | Auto & Home supply stores . . . . .                          | 2,099         | 1,985         | 2,444         | 2,528         | 2,726         | 2,702             | 2,802         | 2,645         | 2,775         | 2,587         | 2,587         | 2,485         | 2,433         | 14,482         | 14,548         |
| 57            | Furniture group stores . . . . .                             | 7,505         | 7,054         | 7,840         | 7,596         | 8,089         | 8,346             | 7,725         | 7,490         | 7,837         | 7,543         | 7,713         | 8,643         | 11,130        | 46,430         | 42,596         |
| 571           | Furniture & home furn. stores . . . . .                      | 3,719         | 3,471         | 3,882         | 3,818         | 3,965         | 4,027             | 3,881         | 3,742         | 3,910         | 3,780         | 3,831         | 4,236         | 4,636         | 22,912         | 21,801         |
| 5712          | Furniture stores . . . . .                                   | 2,283         | 2,113         | 2,336         | 2,315         | 2,382         | 2,397             | 2,357         | 2,270         | 2,291         | 2,254         | 2,341         | 2,498         | 2,758         | 13,828         | 13,474         |
| 5713          | Floor covering stores . . . . .                              | 818           | 775           | 951           | 896           | 946           | 949               | 963           | 996           | 994           | 944           | 947           | 973           | 969           | 5,333          | 5,041          |
| 5722,32       | Household appliance, radio & tv . . . . .                    | 3,256         | 3,075         | 3,427         | 3,274         | 3,587         | 3,788             | 3,336         | 3,251         | 3,372         | 3,220         | 3,237         | 3,844         | 5,493         | 20,405         | 18,152         |
| 5722          | Household appliance stores . . . . .                         | 745           | 654           | 759           | 740           | 821           | 862               | 846           | 842           | 820           | 804           | 814           | 935           | 1,208         | 4,581          | 4,690          |
| 5732          | Radio and television stores . . . . .                        | 2,511         | 2,421         | 2,888         | 2,534         | 2,766         | 2,924             | 2,390         | 2,309         | 2,452         | 2,416         | 2,423         | 2,909         | 4,285         | 15,824         | 13,462         |
| 5941          | Sporting goods stores and bicycle shops . . . . .            | 1,028         | 1,083         | 1,257         | 1,256         | 1,351         | 1,350             | 1,368         | 1,264         | 1,359         | 1,155         | 1,075         | 1,275         | 1,989         | 7,325          | 7,023          |
| 5942          | Book stores . . . . .  | 542           | 368           | 368           | 380           | 409           | 404               | 411           | 368           | 499           | 515           | 392           | 453           | 822           | 2,469          | 2,363          |
| 5944          | Jewelry stores . . . . .                                     | 721           | 849           | 818           | 827           | 1,059         | 951               | 875           | 828           | 875           | 830           | 887           | 1,131         | 3,020         | 5,225          | 5,024          |

Table 9. Estimated Monthly Retail Sales, by Selected Kind of Business for Specified Areas and Cities

(Data in millions of dollars, not adjusted for seasonal variations, holiday, or trading day differences)

| Area and kind of business <sup>1</sup>                     | 1989         |              |              |              |              |                   | 1988         |              |              |              |              |              | Percent change |                |             |                            |
|--|--------------|--------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|-------------|----------------------------|
|  | Jan.         | Feb.         | Mar.         | Apr.         | May          | June <sup>a</sup> | Jun.         | July         | Aug.         | Sept.        | Oct.         | Nov.         | Dec.           | Jun. 1989 from |             | 6 mos 1989 from 6 mos 1988 |
|  |              |              |              |              |              |                   |              |              |              |              |              |              |                | Jun. 1988      | May 1989    |                            |
| <b>Atlanta, GA MSA, total . . . . .</b>                    | <b>1,738</b> | <b>1,677</b> | <b>1,926</b> | <b>1,851</b> | <b>1,962</b> | <b>1,919</b>      | <b>1,848</b> | <b>1,783</b> | <b>1,865</b> | <b>1,798</b> | <b>1,838</b> | <b>1,914</b> | <b>2,354</b>   | <b>+3.4</b>    | <b>-2.7</b> | <b>+4.7</b>                |
| Nondurable goods, total . . . . .                          | 1,019        | 1,025        | 1,184        | 1,130        | 1,184        | 1,170             | 1,105        | 1,092        | 1,153        | 1,108        | 1,184        | 1,251        | 1,525          | +5.9           | -1.2        | +5.3                       |
| Dept. stores, (excl. leased depts.) . . . . .              | 115          | 119          | 175          | 178          | 193          | 184               | 173          | 158          | 185          | 177          | 198          | 238          | 359            | +8.4           | -4.7        | +2.1                       |
| Dept. stores, (incl. leased depts.) <sup>2</sup> . . . . . | 120          | 124          | 179          | 180          | 167          | 188               | 178          | 162          | 191          | 183          | 202          | 244          | 371            | +5.8           | -4.8        | +1.8                       |
| GAF, total <sup>3</sup> . . . . .                          | 343          | 345          | 442          | 431          | 479          | 480               | 436          | 407          | 460          | 433          | 464          | 544          | 842            | +5.5           | -4.0        | +2.6                       |
| <b>Baltimore, MD MSA, total . . . . .</b>                  | <b>1,088</b> | <b>1,069</b> | <b>1,241</b> | <b>1,226</b> | <b>1,294</b> | <b>1,316</b>      | <b>1,250</b> | <b>1,178</b> | <b>1,236</b> | <b>1,190</b> | <b>1,222</b> | <b>1,302</b> | <b>1,819</b>   | <b>+5.3</b>    | <b>+1.7</b> | <b>+4.5</b>                |
| Nondurable goods, total . . . . .                          | 695          | 695          | 803          | 782          | 817          | 831               | 734          | 722          | 747          | 749          | 784          | 827          | 1,083          | +13.2          | +1.7        | +10.9                      |
| Dept. stores, (excl. leased depts.) . . . . .              | 78           | 83           | 105          | 118          | 120          | 118               | 110          | 97           | 107          | 113          | 121          | 156          | 251            | +5.5           | -3.3        | +4.2                       |
| Dept. stores, (incl. leased depts.) <sup>2</sup> . . . . . | 81           | 87           | 110          | 121          | 125          | 121               | 114          | 101          | 111          | 118          | 128          | 162          | 259            | +6.1           | -3.2        | +4.4                       |

year. For example, *Revised Monthly Retail Sales and Inventories: January 1979 through December 1988*, BR-13-88S, was published in April 1989.

- **Annual Retail Trade**, series BR-[year]-13 □ (part of monthly subscription) ■ . An annual report of estimates of annual sales, year-end inventories, inventory/sales ratios, methods of inventory valuation, and accounts-receivable balances for the United States. Comparable data are shown for the previous year, along with year-to-year percentage changes. This report typically becomes available about 1 year after the end of the reference year.

For more information about retail trade, see also—

- Outlying Areas (p. 73)
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Quarterly Financial Report (p. 85)
- Population and Housing (p. 96), for characteristics of persons employed in retail trade.

**Figure 9. Major Data Items Published in Wholesale Trade Reports by Geographic Level**

[Legend: •—Places, counties, MSA's, States, and national. M—MSA's, States, and national. N—National only. S—States and national.]

| Item   | Series <sup>1</sup> |                |                |                |                |           |
|--|---------------------|----------------|----------------|----------------|----------------|-----------|
|  | WC87-A              | WC87-S-1       | WC87-S-2       | WC87-S-3       | WC87-S-4       | BW-[Year] |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                            |                     |                |                |                |                |           |
| Establishments with payroll . . . . .                                | •                   | N              |                |                | <sup>4</sup> N |           |
| Single- and multiestablishments . . . . .                            |                     | N              |                |                |                |           |
| Establishments by legal form of organization . . . . .               |                     | N              |                |                |                |           |
| Firms . . . . .  |                     | N              |                |                |                |           |
| Single- and multiestablishment . . . . .                             |                     | N              |                |                |                |           |
| Concentration by major firms . . . . .                               |                     | N              |                |                |                |           |
| <b>EMPLOYMENT</b>  |                     |                |                |                |                |           |
| All employees, March 12. . . . .                                     | •                   | <sup>2</sup> N |                |                | N              |           |
| Employment size of establishments. . . . .                           |                     | N              |                |                |                |           |
| Employment size of firms . . . . .                                   |                     | N              |                |                |                |           |
| Employment by principal activity. . . . .                            |                     |                |                |                | N              |           |
| <b>PAYROLL</b>   |                     |                |                |                |                |           |
| All employees, entire year . . . . .                                 | •                   | <sup>2</sup> N | <sup>2</sup> N |                |                |           |
| All employees, first quarter . . . . .                               | S                   | <sup>2</sup> N |                |                |                |           |
| Supplemental labor costs, legally required<br>and voluntary. . . . . |                     |                | <sup>2</sup> N |                |                |           |
| <b>SALES, RECEIPTS, OR VALUE OF SHIPMENTS</b>                        |                     |                |                |                |                |           |
| Establishments with payroll . . . . .                                | •                   | N              | <sup>2</sup> N |                |                | N         |
| Sales by—  |                     |                |                |                |                |           |
| Commodity line . . . . .   |                     |                |                | <sup>3</sup> M |                |           |
| Class of customer. . . . .   |                     |                |                |                | N              |           |
| Size of establishments. . . . .                                      |                     | N              |                |                |                |           |
| Size of firms . . . . .  |                     | N              |                |                |                |           |
| <b>OPERATING EXPENSES</b>  |                     |                |                |                |                |           |
| Total . . . . .  | S                   | <sup>2</sup> N | <sup>2</sup> N |                |                |           |
| Cost of materials, etc. . . . .                                      |                     |                | <sup>2</sup> N |                |                |           |
| Cost of fuels. . . . .   |                     |                | <sup>2</sup> N |                |                |           |
| Cost of electricity. . . . .   |                     |                | <sup>2</sup> N |                |                |           |
| Contract work . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| Advertising . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| Rental payments, total . . . . .                                     |                     |                | <sup>2</sup> N |                |                |           |
| Building and structures . . . . .                                    |                     |                | <sup>2</sup> N |                |                |           |
| Machinery and equipment . . . . .                                    |                     |                | <sup>2</sup> N |                |                |           |
| Communications services . . . . .                                    |                     |                | <sup>2</sup> N |                |                |           |
| Purchased repairs . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| <b>CAPITAL EXPENDITURES</b>  |                     |                |                |                |                |           |
| Total . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| New, total. . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| Buildings/equipment . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| Used . . . . .   |                     |                | <sup>2</sup> N |                |                |           |
| <b>DEPRECIABLE ASSETS, GROSS VALUE OF<br/>BUILDING/EQUIPMENT</b>     |                     |                |                |                |                |           |
| End of 1986 . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| End of 1987 . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| Depreciation (detail for buildings/equipment and/or total) . . . . . |                     |                | <sup>2</sup> N |                |                |           |
| Retirements . . . . .  |                     |                | <sup>2</sup> N |                |                |           |
| <b>INVENTORIES</b>   |                     |                |                |                |                |           |
| End of 1986 (previous period) . . . . .                              | S                   | N              | S              |                | N              | N         |
| LIFO <sup>4</sup> , non-LIFO, and reserves . . . . .                 |                     | N              | N              |                | N              |           |
| End of 1987 (current period) . . . . .                               | S                   | N              | S              |                | N              | N         |
| LIFO, non-LIFO, and reserves. . . . .                                |                     | N              | N              |                | N              |           |
| <b>OTHER</b>   |                     |                |                |                |                |           |
| Value added . . . . .  |                     |                | N              |                |                |           |
| Central administrative offices and auxiliaries. . . . .              |                     |                | S              |                |                |           |
| Employment by principal activity. . . . .                            |                     |                |                |                | N              |           |
| Commission sales and commissions for agents<br>and brokers. . . . .  |                     |                |                |                | N              |           |
| <b>SPECIFIC KINDS OF BUSINESS</b>                                    |                     |                |                |                |                |           |
| Petroleum bulk plants:   |                     |                |                |                |                |           |
| Bulk storage capacity by type of product. . . . .                    |                     |                |                |                | <sup>5</sup> • |           |
| Gallon sales of petroleum by type of product. . . . .                |                     |                |                |                | <sup>5</sup> • |           |
| Method of receiving petroleum bulk liquid<br>products . . . . .      |                     |                |                |                | S              |           |

<sup>1</sup>For complete title, see descriptions starting on page 35. <sup>2</sup>Merchant wholesalers only. <sup>3</sup>Fifteen States and 15 metropolitan statistical areas. <sup>4</sup>Last in, first out. <sup>5</sup>States and counties presented for petroleum bulk stations and terminals.



# Wholesale Trade

## WHAT IS WHOLESALE TRADE?

The census and current surveys of wholesale trade cover establishments engaged in **selling merchandise to retailers; to industrial, commercial, institutional, farm, or professional users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.** In addition to selling, functions frequently performed by wholesale establishments include maintaining inventories of goods; extending credit; physically assembling, sorting, and grading goods in large lots; breaking bulk and redistributing smaller lots; delivery; refrigeration; and various types of promotion such as advertising and label designing.

As discussed in the section on retail trade, there are gray areas between what is considered wholesale trade (establishments selling primarily to businesses and institutions) and retail trade (establishments selling merchandise primarily for personal or household consumption). Normally a store is classified as wholesale if more than half of its sales are to businesses and institutions. Lumber yards; paint, glass, and wallpaper stores; and gasoline service stations can be classified as retail even when sales to businesses exceed sales to individuals. On the other hand, firms primarily engaged in selling such merchandise as plumbing equipment, electrical supplies, used automobile parts, and office furniture are classified in wholesale trade even if a higher proportion of their sales is made to individuals for household use. Establishments primarily engaged in wholesale distribution of used products (except automobile used parts, which has its own classification) are classified on the basis of the products sold.

Wholesale firms without employees were excluded from the census. In the census of retail trade, the sales of firms with no paid employees are derived from administrative records of other Federal agencies rather than from a direct mail canvass. These sources have proven impractical for wholesale firms without paid employees since these administrative records do not have consistent sales figures nor adequate classification by kind of business for wholesalers. Warehouses, administrative offices, and other auxiliary establishments that primarily serve wholesale establishments within the same company are not counted in the census of wholesale trade, but are included in the *Auxiliary Establishments* report (see p. 76).

## HOW ARE WHOLESALE ESTABLISHMENTS CLASSIFIED?

### By SIC

In general, wholesale establishments are classified by kind of business according to the principal lines of goods sold. There are 2 major Standard Industrial Classification (SIC) groups in wholesale trade, subdivided into 18 industry groups—

- 50 Durable goods wholesalers**
- 501 Motor vehicles and motor vehicle parts and supplies
- 502 Furniture and home furnishings
- 503 Lumber and other construction materials
- 504 Professional and commercial equipment and supplies
- 505 Metals and minerals, except petroleum
- 506 Electrical goods
- 507 Hardware, and plumbing and heating equipment and supplies
- 508 Machinery, equipment, and supplies
- 509 Miscellaneous durable goods
- 51 Nondurable goods wholesalers**
- 511 Paper and paper products
- 512 Drugs, drug proprietaries, and druggists' sundries
- 513 Apparel, piece goods, and notions
- 514 Groceries and related products
- 515 Farm-product raw materials
- 516 Chemicals and allied products
- 517 Petroleum and petroleum products
- 518 Beer, wine, and distilled alcoholic beverages
- 519 Miscellaneous nondurable goods

These major SIC groups are subdivided into four-digit industries, as shown in appendix A.

### By type of operation

In addition to classification by SIC, the census of wholesale trade also categorizes establishments by type of operation, the principal types being—

- Merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers; industrial distributors; voluntary group wholesalers; exporters and importers; cash-and-carry wholesalers; drop shippers; truck distributors; retailer cooperative

warehouses; terminal grain elevators; cooperative buying associations; and assemblers, buyers, or cooperatives engaged in the marketing of farm products.

- Sales branches and sales offices (but not retail stores) maintained by manufacturing, refining, or mining enterprises apart from their plants or mines for the purposes of marketing products that they manufacture or mine in the United States or its possessions.
- Agents, merchandise or commodity brokers, and commission merchants who buy and sell goods on the account of others and receive a commission for the transaction.

Merchant wholesalers account for over 80 percent of all wholesale establishments, and for many users they are the main group of interest. Many of the more specialized statistics in the census of wholesale trade are collected only for merchant wholesalers. For all types of operation, the sales figures reported represent the total value of goods involved in transactions, even though agents and brokers may never handle funds beyond their own commissions.

## HOW ARE THE DATA COLLECTED?

For the 1987 Census of Wholesale Trade, questionnaires were used to obtain the census data by mail from all firms with paid employees. (Those without paid employees are not included in the census.) There were 47 variants of the census questionnaire so that each kind of business could answer the items in terms of categories relevant to its operations.

In addition to the regular census reports, a small sample of establishments was sent an additional questionnaire for 1987 covering operating expenses, capital expenditures, and depreciable assets. The results are published as part of the census in the Subject Series.

The monthly and annual wholesale trade survey data also are collected by mail, but from a sample of merchant-wholesaler firms only. The sample list from the census is updated with "births" obtained from administrative records during the years between censuses. These surveys concentrate on a much narrower set of data items than the census—i.e., monthly and annual sales, monthly and year-end inventories, and inventory and sales ratios.

### What's New for 1987?

### Wholesale Trade

- **SIC changes.** The 1987 SIC now identifies several new kinds of wholesale trade businesses separately, for example:
    - Office equipment (5044)
    - Computers and computer peripheral equipment and software (5045)
  - Other adjustments include—
    - Those used motor vehicle parts previously classified in retail trade were transferred to wholesale trade and combined with wholesale used motor vehicle parts (5015)
    - Several four-digit industries are grouped differently into three-digit industry groups
- The impact of these changes can be explored in Geographic Area Series table 3, which shows 1982 data together with 1987 data classified on the 1982 system (see p. 36).
- **No preliminary reports.** To expedite the production of final reports, preliminary reports, such as were published for 1982, were dropped. Instead, selected final data are being issued in the form of press releases to the media and via CENDATA™ several weeks before corresponding State reports are available.
  - **Terminology.** Wholesale census subject reports were labelled "industry reports" for 1982.

### How Have Wholesale Trade Data Been Used?

A restaurant supply wholesaler calculated that it had roughly an 11-percent market share in its primary sales region in the northern Mountain States, and used that figure as a target when it expanded into Arizona and New Mexico.

An insurance company used counts of establishments and sales by kind of business on computer tape to redesign sales territories and set quotas and incentive levels for agents. By comparing census figures to their own records on customers by kind of business, company executives quantified the extent to which some kinds of business were better prospects than others.

## REPORTS

### Press Releases

Press releases,  $\square$ , are issued for each State report of the Geographic Area Series several weeks before the availability of the corresponding reports. The releases highlight key findings and include data from table 1 illustrated below, as well as county rankings.

### Final Reports

• **Geographic Area Series**, WC87-A-1 to -52,  $\square$   $\blacksquare$   $\otimes$   $\odot$   $\blacksquare$   $\square$ . A separate report is issued for the United States, each State, and the District of Columbia. Each State report provides data for the State, its MSA's, and counties and places with 200 or more wholesale establishments, on the number of establishments, sales, payroll, and employment by kind of business and type of operation (total, merchant wholesalers, other operating types). Data at the State level are more extensive, with the addition of statistics on inventories and operating expenses and detailed types of operation, such as country grain elevators and export agents. The report also includes statistics for wholesale trade in all counties and incorporated places with 2,500 inhabitants or more, but without any kind-of-business detail. Comparative statistics are shown from the 1982 census only at the State level in "bridge" tables which show the relationship between old and new SIC's where changes have occurred (see table 3).

The *U.S. Summary* report, WC87-A-52, offers corresponding data at the national level and serves as a convenient compendium of abbreviated data for States, MSA's, and the 250 top ranking counties and places.

Only selected data for States (tables 1 and 3) and counties (from table 5) are available on diskette  $\blacksquare$ .

• **Subject Series**, WC87-S-1 to -4.

1. **Establishment and Firm Size (including Legal Form of Organization)**,  $\square$   $\blacksquare$   $\otimes$   $\odot$ , presents data for the United States based on size of establishment, size of firm, and legal form of organization. Data are shown by kind of business and type of operation on the number of establishments and sales. For merchant wholesalers, the data include payroll, employment, operating expenses and inventories. Establishment data are provided by sales and employment size; data are presented for firms by sales size (including concentration by largest firms), by employment size, and by number of establishments operated.

2. **Measures of Value Produced, Capital Expenditures, Depreciable Assets, and Operating Expenses**,  $\square$   $\blacksquare$ , presents data for the United States for merchant wholesalers with payroll by major kind-of-business categories. Data are presented on capital expenditures, depreciable assets, gross margin, value added, and net income produced. These data are based on a sample of 5,100 wholesale firms

## Tables From Wholesale Trade Geographic Area Series, WC87-A

Table 1. Summary Statistics for the State: 1987

(For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A)

| 1987 SIC code | Type of operation and kind of business                            | Estab-lish-ments (number) | Sales (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Operating expenses (\$1,000) | End-of-1986 inventories (\$1,000) | End-of-1987 inventories (\$1,000) |
|---------------|---|---------------------------|-----------------|--------------------------|---------------------------------|---|------------------------------|-----------------------------------|-----------------------------------|
|               | <b>Wholesale trade</b> .....                                      | 7 100                     | 29 971 953      | 1 770 867                | 431 410                         | 76 393  | 3 526 721                    | 1 730 576                         | 1 784 730                         |
|               | <b>TYPES OF OPERATION</b>   |                           |                 |                          |                                 |   |                              |                                   |                                   |
|               | Merchant wholesalers .....  | 5 675                     | 15 436 921      | 1 217 749                | 290 651                         | 57 298  | 2 470 801                    | 1 437 874                         | 1 513 491                         |
|               | Wholesale distributors and jobbers .....                          | 5 330                     | 13 235 572      | 1 132 454                | 271 179                         | 53 217  | 2 258 911                    | 1 278 380                         | 1 329 505                         |
|               | Importers .....   | 165                       | 1 382 825       | 50 288                   | 11 351                          | 2 079   | 118 599                      | 119 158                           | 130 350                           |
|               | Exporters .....   | 33                        | 166 770         | 6 223                    | 1 429                           | 243   | 15 622                       | 9 200                             | 12 669                            |
|               | Terminal grain elevators .....                                    | 3                         | 33 718          | 1 365                    | 251                             | 68  | 3 941                        | 2 559                             | 6 255                             |
|               | Country grain elevators .....                                     | 101                       | 328 984         | 12 269                   | 2 812                           | 656   | 36 372                       | 19 685                            | 25 942                            |
|               | Assemblers of farm products, except country grain elevators ..... | 43                        | 289 052         | 15 150                   | 3 658                           | 1 035   | 37 356                       |                                   | 8 770                             |
|               | <b>TYPES OF OPERATION BY KIND OF BUSINESS</b>                     |                           |                 |                          |                                 |   |                              |                                   |                                   |
|               | Wholesale trade .....   | 7 100                     | 29 971 953      | 1 770 867                | 431 410                         | 76 393  | 3 526 721                    | 1 730 576                         | 1 784 730                         |
| 50            | <b>Durable goods</b> .....  | 4 830                     | 16 578 433      | 1 145 521                | 281 797                         | 47 175  | 2 231 657                    | 1 206 217                         | 1 202 832                         |
| 501           | Motor vehicles and motor vehicle parts and supplies .....         | 683                       | 5 440 305       | 137 060                  | 33 077                          | 6 721   | 278 339                      | 242 862                           | 244 021                           |
| 5012          | Automobiles and other motor vehicles .....                        | 127                       | 4 373 275       | 48 072                   | 12 054                          | 2 105   | 95 887                       | 119 292                           | 119 790                           |
| 5013          | Motor vehicle supplies and new parts .....                        | 381                       | 820 634         | 68 483                   | 15 883                          | 3 439   | 136 361                      | 93 494                            | 95 024                            |
| 5014          | Tires and tubes .....   | 66                        | 214 581         | 13 275                   | 3 405                           | 613   | 32 151                       | 27 353                            | 26 361                            |
| 5015          | Motor vehicle parts, used .....                                   | 109                       | 31 815          | 7 230                    | 1 735                           | 563   | 13 940                       | 2 723                             | 2 846                             |

**Table 3. Comparative Statistics Based on 1972 Standard Industrial Classification for the State: 1987 and 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A]

| 1972 SIC code | 1987 SIC code | Type of operation and kind of business               | Establishments |               | Sales          |                |                             | Annual payroll |                |                             | Paid employees for pay period including March 12 |               |
|---------------|---------------|--|----------------|---------------|----------------|----------------|-----------------------------|----------------|----------------|-----------------------------|--|---------------|
|               |               |  | 1987 (number)  | 1982 (number) | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (number)                                    | 1982 (number) |
|               |               | <b>Wholesale trade</b> .....                         | 7 038          | 6 667         | 29 957 807     | 26 879 561     | 11.5                        | 1 787 686      | 1 478 017      | 19.6                        | 76 107   | 76 868        |
| 50            |               | <b>Durable goods</b> .....                           | 4 733          | 4 432         | 16 536 525     | 14 443 096     | 14.5                        | 1 140 411      | 964 528        | 18.2                        | 46 752   | 47 631        |
| 501           |               | Motor vehicles and automotive parts and supplies ... | 621            | 590           | 5 426 159      | 3 930 286      | 38.1                        | 133 859        | 121 881        | 9.8                         | 6 435  | 6 656         |
| 5012          | 5012          | Automobiles and other motor vehicles .....           | 127            | 114           | 4 373 275      | 3 042 323      | 43.7                        | 48 072         | 42 055         | 14.3                        | 2 106  | 1 941         |
| 5013          |               | Automotive parts and supplies .....                  | 428            | 408           | 838 303        | 658 895        | 27.2                        | 72 512         | 63 396         | 14.4                        | 3 716  | 3 888         |
|               | 5013          | Motor vehicle supplies and new parts .....           | 381            | 380           | 820 634        | 646 757        | 26.9                        | 68 483         | 61 861         | 10.7                        | 3 439  | 3 751         |
|               | 5015 pL       | Motor vehicle parts, used .....                      | 47             | 28            | 17 669         | 12 138         | 45.6                        | 4 029          | 1 535          | 162.5                       | 277  | 137           |
| 5014          | 5014          | Tires and tubes .....                                | 66             | 68            | 214 581        | 229 068        | -8.3                        | 13 275         | 16 430         | -19.2                       | 613  | 827           |
| 502           |               | Furniture and home furnishings .....                 | 251            | 266           | 672 218        | 591 177        | 13.7                        | 47 871         | 53 695         | -10.8                       | 2 162  | 2 766         |
| 5021          | 5021          | Furniture .....                                      | 123            | 120           | 293 551        | 260 409        | 12.7                        | 23 221         | 27 780         | -16.4                       | 1 021  | 1 341         |
| 5023          | 5023          | Home furnishings .....                               | 128            | 146           | 378 667        | 330 768        | 14.5                        | 24 650         | 25 905         | -4.9                        | 1 141  | 1 425         |

**Table 8. Summary Statistics for Metropolitan Statistical Areas: 1987**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For definitions of CMSA's, MSA's, and PMSA's, see appendix D]

| 1987 SIC code | Geographic area and kind of business                      | Establishments (number) | Sales (\$1,000) | Annual payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Merchant wholesalers    |                 |                          | Other operating types                                     |                         |                 |
|---------------|---|-------------------------|-----------------|--------------------------|---|-------------------------|-----------------|--------------------------|---|-------------------------|-----------------|
|               |   |                         |                 |                          |   | Establishments (number) | Sales (\$1,000) | Annual payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Establishments (number) | Sales (\$1,000) |
|               | <b>COLORADO SPRINGS, CO MSA</b>                           |                         |                 |                          |   |                         |                 |                          |   |                         |                 |
|               | <b>Wholesale trade</b> .....                              | 537                     | 986 408         | 88 777                   | 4 483   | 465                     | 650 314         | 64 371                   | 3 654   | 72                      | 336 094         |
| 50            | <b>Durable goods</b> .....                                | 416                     | 672 511         | 66 381                   | 3 233   | 369                     | 423 321         | 47 493                   | 2 646   | 47                      | 249 190         |
| 501           | Motor vehicles and motor vehicle parts and supplies ..... | 69                      | 104 756         | 7 064                    |   |                         |                 |                          |   |                         | (D)             |
| 5012          | Automobiles and other motor vehicles .....                | 12                      | 69 959          | 1 730                    |   |                         |                 |                          |   |                         | (D)             |
| 5013          | Motor vehicle supplies and new parts .....                | 33                      | 17 841          | 3 158                    |   |                         |                 |                          |   |                         | (D)             |
| 5014          | Tires and tubes .....                                     | 8                       | 12 772          | 996                      |   |                         |                 |                          |   |                         | -               |
| 5015          | Motor vehicle parts, used .....                           | 16                      | 4 184           | 1 180                    |   |                         |                 |                          |   |                         | -               |
| 502           | Furniture and home furnishings .....                      | 16                      | 16 026          | 2 168                    |   |                         |                 |                          |   |                         | -               |
| 5021          | Furniture .....   | 7                       | 12 772          | 1 815                    |   |                         |                 |                          |   |                         | -               |
| 5023          | Home furnishings .....                                    | 9                       | 3 254           | 353                      |   |                         |                 |                          |   |                         | -               |
| 503           | Lumber and other construction materials .....             | 35                      | 57 982          | 7 066                    |   |                         |                 |                          |   |                         | 5 661           |
| 5031          | Lumber, plywood, millwork, and wood panels .....          | 12                      | 34 393          | 3 653                    | 164   | 10                      | (D)             | (D)                      | (D)   | 2                       | (D)             |

This format is also used to show data for—  
 Table 6, Places with 200 establishments or more  
 Table 7, Counties with 200 establishments or more  
 Table 9, Area outside MSA's

selected prior to the census and, therefore, establishments are classified according to the old SIC, unlike other 1987 census reports.

3. **Commodity Line Sales**, □ ■ ⊗ ⊙, shows which commodities are sold by which kinds of business, statistics essential for tracing the flow of goods from production through the various distribution channels. Only national data are available in print. Computer tape and CD-ROM include not only data at the national level but also 15 States (CA, CT, FL, GA, IL, MA, MI, MN, MO, NJ, NY, NC, OH, PA, TX) and 15 MSA's (see app. B). One set of tables shows sales by detailed commodity lines within kind of business. Another set of tables reorganizes the data to feature the kinds of business that carry each of 140 broad commodity lines. Table formats are

essentially the same as for retail merchandise line sales (see p. 30), except that there are separate tables for each of the three major types of operation.

4. **Miscellaneous Subjects**, □ ■, contains data by kind of business and type of operation for the United States on sales by class of customer, employment by principal activity, inventories by method of valuation, and commissions and gross selling value of agents and brokers. Special statistics for petroleum bulk stations and terminals report sales (in gallons and dollars) and storage capacities by type of product and facility for the United States, States, and selected counties.

**Table From Wholesale Trade Subject Series, WC87-S-4**

**Table 1. Sales by Class of Customer for the United States: 1987**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1977 and 1982 censuses, see appendix A]

| SIC code | Kind of business and type of operation                        | Estab-lish-ments (number) | Sales (\$1,000)      | Percent distribution of sales by class of customer <sup>1</sup> |                          |            |                            |             |  |   |  |                                       | Cover-age <sup>2</sup> |
|----------|---|---------------------------|----------------------|---|--------------------------|------------|----------------------------|-------------|--|---|--|---------------------------------------|------------------------|
|          |   |                           |                      | Farmers (for farm use)  | Builders and contractors | For export | Retailers and repair shops | Wholesalers | Household consumers and individual users | Industrial users manufacturing and mining | Institutional, commercial, and professional, etc., users | Federal, State, and local governments |                        |
|          | <b>Wholesale trade</b> .....                                  | <b>415 829</b>            | <b>1 997 894 780</b> | <b>3.6</b>  | <b>3.5</b>               | <b>7.3</b> | <b>28.6</b>                | <b>25.5</b> | <b>1.1</b>                               | <b>18.8</b>                               | <b>9.8</b>   | <b>2.2</b>                            | <b>B</b>               |
|          | Merchant wholesalers .....                                    | 337 943                   | 1 159 333 813        | 5.2   | 4.5                      | 9.8        | 28.0                       | 24.8        | 1.6                                      | 15.0                                      | 8.9  | 2.2                                   | C                      |
|          | Manufacturers' sales branches and offices .....               | 38 234                    | 626 986 078          | .7  | 2.4                      | 3.1        | 32.5                       | 22.6        | 6  | 24.5                                      | 11.3   | 2.3                                   | B                      |
|          | Agents, brokers, and commission merchants .....               | 39 652                    | 211 574 888          | 4.5   | 1.6                      | 6.9        | 19.7                       | 37.5        | 3  | 19.6                                      | 8.1  | 1.8                                   | B                      |
| 50       | <b>Durable goods</b> .....                                    | <b>256 103</b>            | <b>881 212 118</b>   | <b>1.9</b>  | <b>7.4</b>               | <b>4.9</b> | <b>25.6</b>                | <b>18.7</b> | <b>1.2</b>                               | <b>25.5</b>                               | <b>11.8</b>  | <b>3.0</b>                            | <b>C</b>               |
|          | Merchant wholesalers .....                                    | 209 326                   | 478 818 459          | 3.5   | 10.5                     | 5.2        | 22.2                       | 20.5        | 2.0                                      | 22.4                                      | 10.7   | 3.1                                   | C                      |
|          | Manufacturers' sales branches and offices .....               | 22 098                    | 320 745 138          | .3  | 4.1                      | 4.3        | 31.6                       | 14.7        | .4                                       | 27.6                                      | 14.0   | 3.0                                   | B                      |
|          | Agents, brokers, and commission merchants .....               | 24 679                    | 83 648 521           | .3  | 4.0                      | 5.5        | 19.2                       | 25.9        | .3                                       | 33.6                                      | 8.8  | 2.5                                   | B                      |
| 501      | <b>Motor vehicles and automotive parts and supplies</b> ..... | <b>39 460</b>             | <b>187 607 295</b>   | <b>.6</b>   | <b>.9</b>                | <b>1.8</b> | <b>64.5</b>                | <b>21.8</b> | <b>1.9</b>                               | <b>3.4</b>                                | <b>3.8</b>   | <b>1.4</b>                            | <b>B</b>               |
|          | Merchant wholesalers .....                                    | 36 438                    | 91 394 201           | 1.3   | 1.8                      | 1.7        | 42.5                       | 37.2        | 3.7                                      | 3.6                                       | 6.1  | 2.1                                   | B                      |
|          | Manufacturers' sales branches and offices .....               | 1 633                     | 87 247 526           | .1  | .1                       | 1.9        | 88.4                       | 5.9         | .3                                       | 1.3                                       | 1.3  | .8                                    | B                      |
|          | Agents, brokers, and commission merchants .....               | 1 389                     | 8 965 568            | .2  | .1                       | .9         | 37.7                       | 31.2        | .3                                       | 22.9                                      | 5.9  | .8                                    | B                      |

**Table From Monthly Wholesale Trade, Series BW**

**Table 1B. Unadjusted Estimated Monthly Sales, Inventories, and Stock/Sales Ratios of Merchant Wholesalers: 1989 and 1988**

(Data not adjusted for seasonal variation or trading-day differences. Sales and Inventories in millions of dollars)

| SIC code | Kind of business   | 1989           |                |                |                |                |                |                   | 1988           |                |                |                |                |                | Total 7 mos.   |                |
|----------|--|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          |  | Jan.           | Feb.           | Mar.           | Apr.           | May            | June           | July <sup>P</sup> | July           | Aug.           | Sept.          | Oct.           | Nov.           | Dec.           | 1989           | 1988           |
|          | <b>Sales, Total</b> .....  | <b>131,786</b> | <b>127,414</b> | <b>148,920</b> | <b>137,567</b> | <b>148,832</b> | <b>146,662</b> | <b>133,981</b>    | <b>128,841</b> | <b>138,551</b> | <b>138,994</b> | <b>141,335</b> | <b>139,289</b> | <b>136,599</b> | <b>975,162</b> | <b>896,562</b> |
| 50       | Durable goods .....  | 63,265         | 62,003         | 72,948         | 68,014         | 73,231         | 72,803         | 66,352            | 62,555         | 67,904         | 68,511         | 70,825         | 68,957         | 67,281         | 478,614        | 439,288        |
| 501      | Motor vehicles & auto. equip. ....                                     | 13,084         | 13,008         | 15,068         | 14,259         | 14,103         | 14,063         | 12,625            | 13,335         | 13,458         | 12,722         | 14,893         | 14,531         | 14,185         | 98,188         | 84,259         |
| 502      | Furniture & home furnishings .....                                     | 2,171          | 2,136          | 2,428          | 2,284          | 2,402          | 2,320          | 2,243             | 2,124          | 2,463          | 2,435          | 2,686          | 2,604          | 2,393          | 15,964         | 15,404         |
| 503      | Lumber & other construction mat. ..                                    | 3,982          | 3,616          | 4,399          | 4,482          | 4,959          | 5,114          | 4,816             | 4,979          | 5,272          | 5,041          | 5,111          | 4,482          | 4,058          | 31,398         | 31,690         |
| 504      | Sporting, recreational, photographic & hobby goods, toys & supplies .. | 2,070          | 1,842          | 2,301          | 1,872          | 1,838          | 2,080          | 1,771             | 1,832          | 2,198          | 2,331          | 2,460          | 2,551          | 2,438          | 13,774         | 12,517         |
| 505      | Metals & minerals, ex. petroleum ..                                    | 5,939          | 5,334          | 7,052          | 6,093          | 6,819          | 7,438          | 6,821             | 5,403          | 6,542          | 5,797          | 5,804          | 5,678          | 5,678          | 45,296         | 39,188         |
| 506      | Electrical goods .....   | 8,633          | 8,334          | 9,456          | 8,675          | 9,728          | 9,376          | 8,781             | 8,167          | 9,201          | 9,200          | 9,828          | 9,778          | 9,068          | 62,983         | 57,010         |
| 507      | Hardware, plumbing & heating equipment .....                           | 3,786          | 3,495          | 3,838          | 3,972          | 4,375          | 4,225          | 3,901             | 4,198          | 4,274          | 3,967          | 4,263          | 3,922          | 3,771          | 27,592         | 26,798         |
| 508      | Machinery, equip. & supplies .....                                     | 17,218         | 17,868         | 20,892         | 19,732         | 21,017         | 20,999         | 19,001            | 16,279         | 18,575         | 19,145         | 18,534         | 18,243         | 18,692         | 136,725        | 115,996        |
| 509      | Miscellaneous durable goods .....                                      | 6,404          | 6,370          | 7,514          | 6,665          | 7,990          | 7,188          | 6,593             | 6,238          | 6,505          | 7,128          | 7,255          | 7,042          | 6,982          | 48,724         | 46,424         |

**Current Wholesale Trade Statistics (Current Business Reports)**

- **Monthly Wholesale Trade: Sales and Inventories**, series BW-[year/month], □ (subscription) ■ □ . A monthly report for selected kinds of business (three-digit SIC's classified on the 1972 system) for merchant wholesalers on sales, inventories, and stock (inventory)/sales ratios, with percentage changes and estimated dollar volume, for the United States only, issued 5 to 6 weeks after the end of the month. The January report contains all final data for the previous year.
- **Annual Wholesale Trade**, series BW-[year]-13 □ (part of monthly subscription) ■ □ . An annual report with estimates of annual sales, year-end inventories, sales/inventory ratios, method of inventory valuation, purchases,

and gross margins by selected three-digit SIC kinds of business, for merchant wholesalers for the United States. Comparable statistics are shown for the previous year, along with year-to-year percentage changes. The report is issued 8 to 9 months after the end of the year.

For more information about wholesale trade, see also—

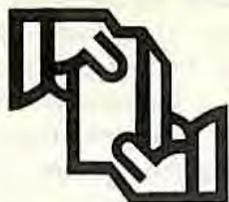
- Outlying Areas (p. 73)
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Quarterly Financial Report (p. 85)
- Population and Housing (p. 96), for characteristics of persons employed in wholesale trade.

**Figure 10. Major Data Items Published in Service Industries Reports by Geographic Level**

[Legend: \* —Places, counties, MSA's, States, and national. M—MSA's, States, and national. N—National only. S—States and national. Z—Zip Codes and States]

| Item   | Series <sup>1</sup> |                |  |          |          |                |                |    |
|--|---------------------|----------------|--|----------|----------|----------------|----------------|----|
|  | SC87-A              | SC87-N         | SC87-Z   | SC87-S-1 | SC87-S-2 | SC87-S-3       | SC87-S-4       | BS |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                    |                     |                |  |          |          |                |                |    |
| All establishments   |                     | N              |  |          |          |                |                |    |
| Establishments with payroll:                                 |                     |                |  |          |          |                |                |    |
| Subject to Federal income tax                                | *                   | N              | Z  | N        |          | <sup>2</sup> M | <sup>2</sup> M |    |
| Tax-exempt   | M                   |                |  | N        |          | <sup>2</sup> M | <sup>2</sup> M |    |
| Establishments without payroll                               |                     | *              |  |          |          |                |                |    |
| Establishments by legal form of organization                 | *                   | N              |  | N        |          | <sup>2</sup> S | N              | N  |
| Firms  |                     |                |  | N        |          |                |                |    |
| Single- and multiestablishment                               |                     |                |  | N        |          |                |                |    |
| Concentration by major firms                                 |                     |                |  | N        |          |                |                |    |
| <b>EMPLOYMENT</b>  |                     |                |  |          |          |                |                |    |
| All employees, March 12                                      | *                   |                | Z  | N        | N        | <sup>2</sup> S | <sup>2</sup> M |    |
| Employment size of establishment                             |                     |                | Z  | N        |          |                |                |    |
| Employment size of firm                                      |                     |                |  | N        |          |                |                |    |
| <b>PAYROLL</b>   |                     |                |  |          |          |                |                |    |
| All employees, entire year                                   | *                   |                | Z  | N        |          | <sup>2</sup> S | <sup>2</sup> M |    |
| All employees, first quarter                                 | *                   |                |  | N        |          | <sup>2</sup> S | <sup>2</sup> M |    |
| Supplemental labor costs, legally required and voluntary     |                     |                |  |          | N        |                |                |    |
| <b>RECEIPTS/REVENUES</b>                                     |                     |                |  |          |          |                |                |    |
| All establishments   |                     | N              |  |          |          |                |                |    |
| All establishments with payroll:                             |                     |                |  |          |          |                |                |    |
| Receipts of taxable establishments                           | *                   | N              | Z  | N        | N        | <sup>2</sup> M | <sup>2</sup> M | N  |
| Revenues of tax-exempt establishments                        | M                   |                |  | N        | N        | <sup>2</sup> S | <sup>2</sup> M | N  |
| Establishments without payroll                               |                     | *              |  |          |          |                |                |    |
| Major sources of receipts                                    |                     |                |  |          |          |                | <sup>2</sup> S |    |
| Class of client  |                     |                |  |          |          |                | <sup>2</sup> M |    |
| Type of service provided                                     |                     |                |  |          |          |                | <sup>2</sup> M |    |
| Receipt size of establishments                               |                     |                | Z  | N        |          |                | <sup>2</sup> M |    |
| Receipt size of firm   |                     |                |  | N        |          |                |                |    |
| Merchandise sales  |                     |                |  |          |          |                | <sup>2</sup> N |    |
| Exported services  |                     |                |  |          |          |                | <sup>4</sup> N |    |
| Item   | SC87-S-2            | SC87-S-3       | Item   |          |          |                | SC87-S-4       |    |
| <b>OPERATING EXPENSES</b>                                    |                     |                | <b>SPECIFIC KINDS OF BUSINESS—Con.</b>                             |          |          |                |                |    |
| Total  | <sup>2</sup> N      |                | Funeral services and crematories:                                  |          |          |                |                |    |
| Cost of fuels  | N                   |                | Repayment of cash advances   |          |          |                | S              |    |
| Cost of electricity  | N                   |                | Advertising agencies:  |          |          |                |                |    |
| Advertising  | N                   |                | Gross billings   |          |          |                | <sup>6</sup> M |    |
| Rental payments, total                                       | N                   |                | Help supply services:  |          |          |                |                |    |
| Buildings and structures                                     | N                   |                | Type of personnel supplied   |          |          |                | <sup>6</sup> M |    |
| Machinery and equipment                                      | N                   |                | Automotive parking:  |          |          |                |                |    |
| Communications services                                      | N                   |                | Parking facilities   |          |          |                | <sup>6</sup> M |    |
| Purchased repairs  | N                   |                | Motion picture theaters:   |          |          |                |                |    |
| <b>CAPITAL EXPENDITURES</b>                                  |                     |                | Admissions and capacity  |          |          |                | <sup>5</sup> M |    |
| Total  | N                   |                | Number of screens operated   |          |          |                | <sup>5</sup> M |    |
| New, total   | N                   |                | Bowling centers:   |          |          |                |                |    |
| Buildings/equipment  | N                   |                | Lanes operated and paid lanes bowled                               |          |          |                | S              |    |
| Used   | N                   |                | Hospitals:   |          |          |                |                |    |
| <b>DEPRECIABLE ASSETS, GROSS VALUE OF BUILDING/EQUIPMENT</b> |                     |                | Home health care and nursing home services                         |          |          |                | <sup>6</sup> S |    |
| End of 1986  | N                   |                | Contracted activities  |          |          |                | <sup>6</sup> S |    |
| End of 1987  | N                   |                | Legal form of organization for tax-exempt hospitals                |          |          |                | S              |    |
| Depreciation (detail for buildings/equipment and/or total)   | N                   |                | Medical and dental laboratories:                                   |          |          |                |                |    |
| Retirements  | N                   |                | Personnel by occupation  |          |          |                | S              |    |
| <b>SPECIFIC KINDS OF BUSINESS</b>                            |                     |                | Legal services:  |          |          |                |                |    |
| Hotels and motels:   |                     |                | Personnel and payroll by occupation and legal form of organization |          |          |                | <sup>5</sup> M |    |
| Major sources of receipts                                    |                     | <sup>3</sup> M | Primary fields of practice   |          |          |                | <sup>5</sup> M |    |
| Receipts from other sources                                  |                     | <sup>5</sup> M | Social services and membership organizations:                      |          |          |                |                |    |
| Guestroom size   |                     | N              | Transferred contributions  |          |          |                | N              |    |
| Number of guestrooms   |                     | <sup>3</sup> M | Engineering, architectural services:                               |          |          |                |                |    |
| Organization affiliation                                     |                     | <sup>5</sup> M | Personnel and payroll by occupation                                |          |          |                | S              |    |
| Transient and residential occupancy                          |                     | <sup>5</sup> M | Fees by type of project  |          |          |                | S              |    |
| Rooming and boarding houses:                                 |                     |                | Accounting, auditing, and bookkeeping services:                    |          |          |                |                |    |
| Transient and residential occupancy                          |                     | <sup>3</sup> M | Personnel and payroll by occupation and legal form of organization |          |          |                | S              |    |

<sup>1</sup>For complete titles, see descriptions starting on page 41. <sup>2</sup>Selected industries. <sup>3</sup>United States, selected States, and selected metropolitan statistical areas. <sup>4</sup>28 kinds of businesses within advertising agencies, equipment rental, computer/data processing, legal services, engineering/management. <sup>5</sup>Selected metropolitan statistical areas and U.S. <sup>6</sup>United States and selected States.



# Service Industries

## WHAT ARE SERVICE INDUSTRIES?

The census of service industries and the Service Annual Survey (SAS) cover establishments engaged in **providing services for individuals, business and government establishments, and other organizations**; for example, establishments providing personal, business, repair, amusement, health, legal, and engineering services. The census corresponds to one of the major SIC divisions, except for the exclusion of elementary and secondary schools; colleges; labor, political, and religious organizations; and private household services. At the same time, the service division of the SIC is much smaller than what is frequently referred to as the economy's service sector, which encompasses everything except agriculture, construction, manufacturing, and mining (the goods-producing sector).

Specialized services closely allied to activities in other sectors are classified in those SIC divisions rather than as service industries. For example, agricultural services such as veterinarians and farm labor contractors are classified in the agriculture sector (though not included in the census of agriculture); mining services such as oil well drilling are counted in the census of mineral industries; plumbing, painting, and electrical work are included in the census of construction industries; printing and services closely related to manufacturing such as gold plating and engraving are covered in the census of manufactures. Finance, insurance, and real estate constitute an SIC division of their own, which will not be covered until the 1992 Economic Censuses.

For further discussion of services as they may be performed in industries both inside and outside the services division of the SIC, see the *Guide to Service Industry Statistics and Related Data*, cited on p. 111.

## HOW ARE SERVICE ESTABLISHMENTS CLASSIFIED?

### By SIC

In general, service establishments are classified by kind of business according to the principal services provided. There are 16 SIC major groups, but one major group and parts of two others are not covered in the census—

- 70 Hotels, rooming houses, camps, and other lodging places
- 72 Personal services
- 73 Business services

- 75 Automotive repair, services, and garages
- 76 Miscellaneous repair services
- 78 Motion pictures
- 79 Amusement and recreation services, except motion pictures
- 80 Health services
- 81 Legal services
- 82 Educational services (the census excludes 821, elementary and secondary schools; and 822, colleges, universities, professional schools, and junior colleges)
- 83 Social services
- 84 Museums, art galleries, and botanical and zoological gardens
- 86 Membership organizations (the census excludes 863, labor unions and similar organizations; 865, political organizations; and 866, religious organizations)
- 87 Engineering, accounting, research, management, and related services
- 88 Private households (not covered)
- 89 Services, n.e.c.

These major SIC groups are subdivided into three-digit industry groups, which in turn are subdivided into four-digit industries, as shown in appendix A.

The scope of the Service Annual Survey is more limited than the census, excluding all of SIC's 82 to 86, 88, and 89 except for the following industries that are included: 824, vocational schools (taxable, see below); 835, child day-care services (taxable and tax-exempt); 833, job training and vocational rehabilitation (tax-exempt); 836, residential care (tax-exempt); and 8733 (old 892), noncommercial research organizations. In addition, the SAS includes SIC's 4722, arrangement of passenger transportation (covered in the census of transportation), and 653, real estate agents and managers (not covered in the economic censuses).

### By tax status

In addition to classification by SIC, the census of service industries also differentiates those services which are subject to Federal income tax from those that are exempt. About 10 percent of service establishments with payroll are tax-exempt, accounting for over 15 percent of employment in service industries.

Most of the service industries do not have tax-exempt components, while a few, for example, SIC major group 86, membership organizations, are defined as tax-exempt.

Some service industries include both taxable and tax-exempt establishments, for example, SIC 806, hospitals, and 835, child day-care services.

Taxable and tax-exempt services are always summarized in separate tables, as illustrated by tables 1a and 1b on pages 41-42. Separate tables are required because the primary measure of the dollar volume of business for taxable service establishments is **receipts**, while for tax-exempt establishments it is **revenue**—i.e., operating receipts plus contributions, grants and other nonoperating revenues. In the census, statistics on tax-exempt services are presented for States and MSA's, but not for smaller geographic areas. Further, while there is a special report series for nonemployers subject to Federal income tax, there are no census statistics for tax-exempt nonemployers.

## HOW ARE THE DATA COLLECTED?

For the 1987 Census of Service Industries, data were gathered through a combination of questionnaires, which

were sent to all but the smallest firms, and the administrative records of other Federal agencies. There were 37 variants of the census questionnaire and 10 different classification forms so that each kind of business would answer in terms of categories relevant to its operations. Questionnaires were mailed to all firms above a certain size cutoff (generally equivalent to four or more paid employees), and to a sample of smaller firms with paid employees. Information for firms with no employees and for small firms not in the sample were obtained from Federal administrative records, as discussed in chapter 1.

In addition to the regular census reports, a separate survey collected data on capital expenditures, depreciable assets, and selected operating expenses; the results are published as part of the census Subject Series.

The Service Annual Survey is based on a mail sample of firms covered by the census, updated with "births" reported in administrative records during years between economic censuses. The survey concentrates on receipts.

### What's New for 1987?

### Service Industries

- **Hospitals.** The 1987 census is expanded to include hospitals, omitted in 1982 but included in the 1977 census.
- **SIC changes.** The number of service SIC's has expanded from 131 to 150. Among the most important changes are—
  - Computer and data processing services—three SIC's expanded to nine.
  - Management and public relations—one SIC expanded to five.
  - Equipment rental and leasing—one SIC expanded to three, including videotape rental (7841).
  - A new major group 87—engineering, accounting, research, management, and related services—formed with components drawn from other areas.

The impact of these changes can be explored in Geographic Area Series tables 3a and 3b, which show 1982 data together with 1987 data classified on the 1982 system.

- **New inquiries.** For selected industries, data are reported by class of client (e.g., differentiating government from other clients). Export of services is reported for more industries than in 1982.
- **No preliminary reports.** To expedite the production of final reports, preliminary reports, such as were published for 1982, were dropped. Instead, selected final data are issued in the form of press releases to the media and via CENDATA™ several weeks before corresponding printed reports are available.
- **Nonemployer reports.** Data for service industries establishments with no paid employees (e.g., "mom and pop" stores) are published in separate reports. All other census reports cover only establishments with payroll.
- **More kinds of business for small counties and places.** Receipts for 10 kinds of business, up from 5 in 1982, are tabulated for all counties and places regardless of the number of establishments. More detailed kinds of business are provided for those counties and places with 350 or more service establishments with paid employees, as compared to a cutoff of 300 in 1982.
- **ZIP Code data.** Limited data are issued for individual ZIP Codes on computer tape and CD-ROM.
- **Terminology.** Service census subject reports were labelled "industry reports" for 1982.

### How Have Service Industries Data Been Used?

A manufacturer of solar water heater panels sought to attract new investors. He found census data showing growth among the kinds of firms he thought would be his best customers: hotels, motels, and institutional health care facilities. He changed his prospectus to prominently feature that growth.

A beautician contemplated branching out and starting her own children's shop. Using the subject report, *Establishment and Firm Size*, she calculated payroll per employee and sales for firms with one to four employees. She used these figures as part of her estimates of startup costs and revenue.

A west coast purveyor of diskette duplication services is planning to use the numbers of businesses by ZIP Code on CD-ROM in assessing the completeness and coverage of its direct mail list of service and retail businesses. For industries where its coverage is poor, the purveyor may purchase other industry-specific mailing lists or purchase advertising space in appropriate trade periodicals.

## REPORTS

### Press Releases

Press releases,  , are issued for each State report in the Geographic Area Series several weeks before the availability of the corresponding reports. The press releases highlight key findings and include data similar to table 3b illustrated below, except for taxable establishments.

### Final Reports

- **Geographic Area Series**, SC87-A-1 to -52,      . A separate report is issued for the United States, each State, and the District of Columbia. Each report contains statistics for establishments with payroll (see below for nonemployer statistics) on the number of establishments, receipts/revenue, payroll, and employment, by kind of business, for the State and its MSA's, and for counties and incorporated places with 350 or more taxable service establishments. In addition, each State report provides basic data for 10 kinds of taxable business for all counties and for incorporated places with 2,500 inhabitants or more. Basic data are also published by kind of business for tax-exempt industries for each State and MSA. Some comparative statistics from the previous census are shown.

The *U.S. Summary*, SC87-A-52, provides corresponding data at the national level and serves as a convenient compendium of abbreviated data for States, MSA's, and the 250 top ranking counties and places.

Only selected data for States (tables 1a, 1b, 3a, and 3b) and counties (from table 5) are available on diskette  .

- **Nonemployer Statistics Series**, SC87-N-1 to -4,     . A separate report for each of four geographic regions (see p. 11) presents statistics on the number of establishments without payroll and their receipts by kind of business for the same areas as in the Geographic Area Series: States, MSA's, counties, and places with 2,500 inhabitants or more. While more detailed classifications are shown for States and MSA's, only 12 kinds of business are shown for counties and places (see table 4, p. 44). Establishments and receipts are also shown in each regional report for the United States as a whole on all establishments, establishments with payroll, and establishments without payroll by kind of business. Only firms subject to Federal income tax are included.
- **ZIP Code Statistics Series**, SC87-Z,   , includes data for employer service establishments by kind of business for each five-digit ZIP Code on number of establishments in various sales-size and employment-size groups. These establishment counts by size class are not considered to be a disclosure of confidential information, so there is a data line for every kind of business with one or more establishments within a ZIP Code. Also included for each five-digit ZIP Code, for service industries as a whole (not by kind of business), are statistics on number of establishments, receipts, annual payroll, and number of employees. Only firms subject to Federal income tax are included.

## Tables From Service Industries Geographic Area Series, SC87-A

Table 1a. Summary Statistics for Firms Subject to Federal Income Tax for the State: 1987

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A]

| 1987<br>SIC code  | Kind of business or operation  | Establish-<br>ments<br>(number) | Receipts<br>(\$1,000) | Annual<br>payroll<br>(\$1,000) | First<br>quarter<br>payroll<br>(\$1,000) | Paid<br>employees<br>for pay<br>period<br>including<br>March 12<br>(number) | Unincorporated<br>businesses or<br>operations  |                               |
|-------------------|--|---------------------------------|-----------------------|--------------------------------|--|---|--|-------------------------------|
|                   |  |                                 |                       |                                |  |   | Individual<br>proprietor-<br>ships<br>(number) | Partners-<br>hips<br>(number) |
|                   | <b>Total</b> .....   | <b>25 250</b>                   | <b>10 639 463</b>     | <b>4 011 254</b>               | <b>979 596</b>                           | <b>243 999</b>  | <b>7 852</b>                                   | <b>1 753</b>                  |
| <b>70 ex. 704</b> | <b>Hotels, rooming houses, camps, and other lodging places (except membership lodging)</b> ..... | <b>833</b>                      | <b>1 072 892</b>      | <b>301 893</b>                 | <b>73 782</b>                            | <b>34 345</b>   | <b>244</b>                                     | <b>230</b>                    |
| 7011              | Hotels and motels.....   | 699                             | 1 030 663             | 293 781                        | 71 968                                   | 33 437  | 199  | 192                           |
| 7011 pt.          | Hotels.....  | 270                             | 816 770               | 246 004                        | 61 085                                   | 27 129  | 48   | 81                            |
| 7011 pt.          | Hotels, 25 guestrooms or more.....   | 230                             | 809 781               | 244 321                        | 60 758                                   | 26 950  | 32   | 74                            |
| 7011 pt.          | Hotels, less than 25 guestrooms.....   | 40                              | 6 989                 | 1 683                          | 307                                      | 179   | 16   | 7                             |
| 7011 pt.          | Motels, motor hotels, and tourist courts.....  | 429                             | 213 893               | 47 777                         | 10 903                                   | 6 308   | 151  | 111                           |
| 7011 pt.          | Motels, tourist courts.....  | 380                             | 149 890               | 30 493                         | 6 351                                    | 3 862   | 137  | 88                            |
| 7011 pt.          | Motor hotels.....  | 69                              | 64 003                | 17 284                         | 4 552                                    | 2 446   | 14   | 23                            |
| 702, 3            | Other lodging places.....  | 134                             | 42 029                | 7 912                          | 1 794                                    | 908   | 45   | 38                            |
| 702               | Rooming and boarding houses.....   | 23                              | 2 954                 | 742                            | 173                                      | 132   | 12   | 5                             |
| 703               | Camps and recreational vehicle parks.....  | 111                             | 59 075                | 7 170                          | 1 621                                    | 776   | 33   | 33                            |
| 7032              | Sporting and recreational camps.....   | 22                              | 4 725                 | 1 074                          | 249                                      | 137   | 5  | 1                             |
| 7033              | Recreational vehicle parks and campsites.....  | 89                              | 34 350                | 6 096                          | 1 372                                    | 639   | 28   | 32                            |
| <b>72</b>         | <b>Personal services</b> .....   | <b>2 655</b>                    | <b>453 973</b>        | <b>167 027</b>                 | <b>40 847</b>                            | <b>17 416</b>   | <b>1 340</b>                                   | <b>262</b>                    |
| 721               | Laundry, cleaning, and garment services.....   | 640                             | 174 640               | 56 150                         | 13 552                                   | 5 435   | 298  | 74                            |
| 7211              | Power laundries, family and commercial.....  | 19                              | 4 882                 | 1 992                          | 444                                      | 193   | 6  | 1                             |
| 7213              | Linen supply.....  | 18                              | 33 280                | 11 800                         | 2 601                                    | 801   | 2  | 1                             |
| 7215              | Coin-operated laundries and drycleaning.....   | 155                             | 29 165                | 4 091                          | 985                                      | 598   | 92   | 25                            |
| 7215 pt.          | Coin-operated laundries and drycleaning stores.....  | 147                             | (D)                   | (D)                            | (D)                                      | (D)   | 88   | 25                            |
| 7215 pt.          | Coin-operated laundry machine routes.....  | 8                               | (D)                   | (D)                            | (D)                                      | (D)   | 4  | -                             |
| 7216              | Drycleaning plants, except rug cleaning.....   | 252                             | 51 870                | 18 526                         | 4 414                                    | 2 084   | 102  | 29                            |
| 7217              | Carpet and upholstery cleaning.....  | 125                             | 17 728                | 6 761                          | 1 831                                    | 747   | 66   | 11                            |
| 7218              | Industrial laundries.....  | 15                              | 31 819                | 10 417                         | 2 633                                    | 720   | -  | -                             |

**Table 1b. Summary Statistics for Firms Exempt From Federal Income Tax for the State: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A.]

| 1987 SIC code                     | Kind of business or operation  | Establishments (number) |      | Revenue (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) |               |
|-----------------------------------|--|-------------------------|------|-------------------|--------------------------|---------------------------------|---|---------------|
|                                   |  | 1987                    | 1982 | 1987              | 1987                     | 1987                            | 1987  | 1982          |
|                                   | <b>Total</b> .....   | <b>2 020</b>            |      | <b>3 241 019</b>  | <b>1 327 806</b>         | <b>319 599</b>                  |   | <b>75 849</b> |
| 7032, 704                         | Camps and membership lodging .....   | 33                      |      | 5 007             | 1 035                    | 203                             |   | 162           |
| 7032                              | Sporting and recreational camps .....  | 16                      |      | 2 424             | 694                      | 112                             |   | 97            |
| 704                               | Organization hotels and lodging houses, on membership basis .....                        | 17                      |      | 2 583             | 341                      | 91                              |   | 65            |
| 792, 7991 pt., 7997, 7999 pt., 84 | Selected amusement, recreation, and related services .....                               | 139                     |      | 113 213           | 42 581                   | 10 228                          |   | 3 722         |
| 792                               | Theatrical producers (except motion picture), bands, orchestras, and entertainers .....  | 24                      |      |                   |                          |                                 |   | 30            |
| 7922                              | Theatrical producers (except motion picture) and miscellaneous theatrical services ..... | 11                      |      |                   |                          |                                 |   | 57            |
| 7929                              | Bands, orchestras, actors, and other entertainers and entertainment groups .....         | 13                      |      |                   |                          |                                 |   | 33            |
| 7991 pt., 7997                    | Membership gymnasiums, sports and recreation clubs .....                                 | 71                      |      |                   |                          |                                 |   | 35            |
| 7991 pt., 7997                    | Membership gymnasiums and athletic clubs .....   | -                       |      | -                 | -                        | -                               |   | -             |
| 7997                              | Membership sports and recreation clubs .....   | 71                      |      | 50 795            | 21 723                   | 5 007                           |   | 2 035         |
| 7999 pt.                          | Fairs .....  | 10                      |      | 3 972             | 871                      | 196                             |   | 210           |
| 84                                | Museums, art galleries, and botanical and zoological gardens .....                       | 34                      |      | 26 534            | 9 825                    | 2 424                           |   | 687           |
| 8412                              | Museums and art galleries .....  | 31                      |      | (D)               | (D)                      | (D)                             |   | (D)           |
| 8412 pt.                          | Commercial museums and art galleries .....   | 10                      |      | 9 445             | 3 444                    | 891                             |   | 259           |
| 8412 pt.                          | Noncommercial museums and art galleries .....  | 21                      |      | (D)               | (D)                      | (D)                             |   | (D)           |
| 8422                              | Arboreta and botanical or zoological gardens .....                                       | 3                       |      | (D)               | (D)                      | (D)                             |   | (D)           |
| 8422 pt.                          | Commercial arboreta and botanical or zoological gardens .....                            | 2                       |      | (D)               | (D)                      | (D)                             |   | (D)           |
| 8422 pt.                          | Noncommercial arboreta and botanical or zoological gardens .....                         | 1                       |      | (D)               | (D)                      | (D)                             |   | (D)           |

This format is also used to show data for—  
 Table 8b, MSA's  
 Table 9b, Area outside MSA's

**Table 3b. Comparative Statistics Based on 1972 Standard Industrial Classification for Firms Exempt From Federal Income Tax for the State: 1987 and 1982**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For explanation of changes in kind-of-business classifications between 1982 and 1987, also see appendix A.]

| 1972 SIC code       | 1987 SIC code                | Kind of business or operation                               | Establishments |               | Expenses       |                |                             | Annual payroll |                |                             | Paid employees for pay period including March 12 |               |
|---------------------|------------------------------|---|----------------|---------------|----------------|----------------|-----------------------------|----------------|----------------|-----------------------------|--|---------------|
|                     |                              |   | 1987 (number)  | 1982 (number) | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (\$1,000) | 1982 (\$1,000) | Percent change 1982 to 1987 | 1987 (number)                                    | 1982 (number) |
|                     |                              | <b>Total, except hospitals</b> .....                        | <b>1 945</b>   | <b>1 656</b>  | <b>859 870</b> | <b>478 713</b> | <b>79.8</b>                 | <b>357 864</b> | <b>207 118</b> | <b>72.8</b>                 | <b>29 833</b>                                    | <b>21 551</b> |
| 7011 pt., 7032, 704 | 7032, 704                    | Hotels, camps, and membership lodging .....                 | 33             | (NC)          | 5 059          | (NC)           | (X)                         | 1 035          | (NC)           | (X)                         | 162  | (NC)          |
| 7391, 2, 7          | 873 ex., 8733, 874 ex., 8744 | Research, testing, and consulting services .....            | 14             | 12            | 30 373         | 13 980         | 117.3                       | 14 309         | 8 147          | 75.6                        | 546  | 375           |
| 7391                | 8731                         | Commercial physical and biological research .....           | 7              | 3             | (D)            | (D)            | (D)                         | (D)            | (D)            | (D)                         | (D)  | (D)           |
| 7392                | 8732, 874 ex., 8744          | Management, consulting, and public relations services ..... | 5              | 7             | (D)            | (D)            | (D)                         | (D)            | (D)            | (D)                         | (D)  | (D)           |

**Table 5. Summary Statistics for Firms Subject to Federal Income Tax for Counties and for Places With 2,500 Inhabitants or More: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For information on geographic areas followed by Δ, see appendix F]

| Geographic area     | Establishments (number) | Receipts (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Unincorporated businesses or operations |                       | Selected kind-of-business or operation groups  |                    |                            |                    |                            |                    |
|---------------------|-------------------------|--------------------|--------------------------|---------------------------------|---|---|-----------------------|--|--------------------|----------------------------|--------------------|----------------------------|--------------------|
|                     |                         |                    |                          |                                 |   | Individual proprietorships (number)     | Partnerships (number) | Hotels, rooming houses, camps, and other lodging places (except membership lodging) (SIC 70 ex. 704) |                    | Personal services (SIC 72) |                    | Business services (SIC 73) |                    |
|                     |                         |                    |                          |                                 |   |   |                       | Number   | Receipts (\$1,000) | Number                     | Receipts (\$1,000) | Number                     | Receipts (\$1,000) |
| 1 Arizona           | 25 250                  | 10 639 483         | 4 011 254                | 979 596                         | 243 999   | 7 852                                   | 1 753                 | 833  | 1 072 692          | 2 655                      | 453 973            | 4 180                      | 2 165 352          |
| 2 Apache County     | 83                      | 16 596             | 4 409                    | 1 016                           | 430   | 40                                      | 9                     | 13   | 6 527              | 9                          | 945                | 3                          | (D)                |
| 3 Eagar             | 10                      | 1 511              | 527                      | 129                             | 37  | 5                                       | 1                     | -  | -                  | -                          | -                  | -                          | -                  |
| 4 St. Johns         | 13                      | 1 698              | 510                      | 149                             | 45  | 8                                       | 1                     | -  | -                  | 2                          | (D)                | 1                          | (D)                |
| 5 Balance of county | 60                      | 13 387             | 3 372                    | 738                             | 348   | 27                                      | 7                     | 13   | 6 527              | 7                          | (D)                | 2                          | (D)                |
| 6 Conchisa County   | 417                     | 98 720             | 36 647                   | 8 765                           | 2 936   | 197                                     | 36                    | 37   | 14 267             | 57                         | 4 979              | 33                         | 10 620             |
| 7 Benson            | 29                      | 2 302              | 609                      | 155                             | 83  | 20                                      | 2                     | 6  | 742                | 4                          | 229                | -                          | -                  |
| 8 Bisbee            | 42                      | 5 430              | 1 926                    | 477                             | 235   | 22                                      | 6                     | 6  | 2 041              | 9                          | 361                | -                          | -                  |

| Selected kind-of-business or operation groups - Con. |                    |  |                    |   |                    |                          |                    |                         |                    |                          |                    |   |                    |
|--|--------------------|--|--------------------|---|--------------------|--------------------------|--------------------|-------------------------|--------------------|--------------------------|--------------------|---|--------------------|
| Automotive repair, services, and parking (SIC 75)    |                    | Miscellaneous repair services (SIC 76) |                    | Amusement and recreation services, including motion pictures and museums (SIC 78, 79, 84) |                    | Health services (SIC 80) |                    | Legal services (SIC 81) |                    | Social services (SIC 83) |                    | Engineering, accounting, research, management, and related services (except noncommercial research organizations) (SIC 87 ex. 8733) |                    |
| Number   | Receipts (\$1,000) | Number                                 | Receipts (\$1,000) | Number  | Receipts (\$1,000) | Number                   | Receipts (\$1,000) | Number                  | Receipts (\$1,000) | Number                   | Receipts (\$1,000) | Number  | Receipts (\$1,000) |
| 2 370  | 864 984            | 968                                    | 272 405            | 1 135   | 523 843            | 6 459                    | 2 570 945          | 1 890                   | 888 688            | 648                      | 155 804            | 3 593   | 1 497 156          |
| 10   | 1 959              | -                                      | -                  | 7   | 701                | 22                       | 3 287              | 5                       | 753                | 1                        | (D)                | 12  | 2 201              |
| 1  | (D)                | -                                      | -                  | 1   | (D)                | 4                        | 448                | -                       | -                  | -                        | -                  | 4   | (D)                |
| 2  | (D)                | -                                      | -                  | 1   | (D)                | 5                        | 794                | 1                       | (D)                | -                        | -                  | 1   | (D)                |
| 7  | (D)                | -                                      | -                  | 5   | (D)                | 13                       | 2 047              | 4                       | (D)                | 1                        | (D)                | 7   | 1 456              |
| 50   | 6 556              | 19                                     | 2 949              | 25  | 3 405              | 108                      | 25 448             | 27                      | 4 177              | 15                       | 1 871              | 42  | 24 236             |
| 4  | (D)                | 1                                      | (D)                | 2   | (D)                | 5                        | 436                | 3                       | (D)                | 2                        | (D)                | 2   | (D)                |
| 2  | (D)                | 4                                      | 220                | 1   | (D)                | 10                       | 1 432              | 6                       | 762                | 1                        | (D)                | 3   | 199                |

**Table 6. Summary Statistics for Firms Subject to Federal Income Tax for Places With 350 Establishments or More: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For information on geographic areas followed by Δ, see appendix F]

| 1987 SIC code | Geographic area and kind of business or operation                                   | Establishments (number) | Receipts (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Unincorporated businesses or operations |                       |
|---------------|---|-------------------------|--------------------|--------------------------|---------------------------------|---|---|-----------------------|
|               |   |                         |                    |                          |                                 |   | Individual proprietorships (number)     | Partnerships (number) |
|               | <b>FLAGSTAFF</b>  |                         |                    |                          |                                 |   |   |                       |
|               | Total   | 467                     | 135 818            | 41 476                   | 9 635                           | 3 490   | 202                                     | 49                    |
| 70 ex. 704    | Hotels, rooming houses, camps, and other lodging places (except membership lodging) | 43                      | 24 179             | 5 262                    | 1 023                           | 767   | 16                                      | 12                    |
| 7011          | Hotels and motels   | 40                      | -                  | -                        | -                               | -   | -                                       | 11                    |
| 7011 pt.      | Hotels  | 10                      | -                  | -                        | -                               | -   | -                                       | 2                     |
| 7011 pt.      | Motels, motor hotels, and tourist courts  | 30                      | -                  | -                        | -                               | -   | -                                       | 9                     |
| 702, 3        | Other lodging places  | 3                       | -                  | -                        | -                               | -   | -                                       | 1                     |
| 72            | <b>Personal services</b>  | 42                      | -                  | -                        | -                               | -   | -                                       | 2                     |
| 721           | Laundry, cleaning, and garment services   | 15                      | -                  | -                        | -                               | -   | -                                       | 2                     |
| 7211          | Power laundries, family and commercial*   | -                       | -                  | -                        | -                               | -   | -                                       | -                     |
| 7213          | Linen supply*   | 2                       | -                  | -                        | -                               | -   | -                                       | -                     |
| 7215          | Coin-operated laundries and drycleaning   | 6                       | -                  | -                        | -                               | -   | -                                       | 2                     |
| 7216          | Drycleaning plants, except rug cleaning*  | 5                       | -                  | -                        | -                               | -   | -                                       | -                     |
| 7217          | Carpet and upholstery cleaning  | 1                       | -                  | -                        | -                               | -   | -                                       | -                     |
| 7218          | Industrial laundries*   | 1                       | -                  | -                        | -                               | -   | -                                       | -                     |
| 7212, 9       | Other laundry, cleaning, and garment services*                                      | -                       | (D)                | (D)                      | (D)                             | (D)   | -                                       | -                     |

This format is also used to show data for—  
 Table 7, Counties with 350 establishments or more  
 Table 8a, MSA's  
 Table 9a, Area outside MSA's

**Table 11. Counties Ranked by Volume of Receipts of Firms Subject to Federal Income Tax: 1987**

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, see appendix A. For information on geographic areas followed by Δ, see appendix F]

| Geographic area | Receipts          |                  | Cumulative receipts |                        | Geographic area  | Receipts          |                  | Cumulative receipts |                        |
|-----------------|-------------------|------------------|---------------------|------------------------|------------------|-------------------|------------------|---------------------|------------------------|
|                 | Rank <sup>1</sup> | Amount (\$1,000) | Amount (\$1,000)    | Percent of State total |                  | Rank <sup>1</sup> | Amount (\$1,000) | Amount (\$1,000)    | Percent of State total |
| Arizona -----   | (X)               | 10 639 463       | 10 639 463          | 100.0                  | Arizona—Con.     |                   |                  |                     |                        |
| Maricopa -----  | 1                 | 7 765 068        | 7 765 068           | 73.0                   | Pinal -----      | 8                 | 74 805           | 10 473 285          | 98.4                   |
| Pima -----      | 2                 | 1 915 150        | 9 680 218           | 91.0                   | Navajo -----     | 9                 | 61 168           | 10 534 453          | 99.0                   |
| Cocconino ----- | 3                 | 220 368          | 9 900 586           | 93.1                   | Gila -----       | 10                | 39 752           | 10 574 205          | 99.4                   |
| Yuma Δ -----    | 4                 | 154 962          | 10 055 548          | 94.5                   | Santa Cruz ----- | 11                | 21 443           | 10 595 648          | 99.6                   |
| Yavapai -----   | 5                 | 129 244          | 10 184 792          | 95.7                   | Graham -----     | 12                | 16 606           | 10 612 256          | 99.7                   |
| Mohave -----    | 6                 | 114 968          | 10 299 750          | 96.8                   | Apache -----     | 13                | 16 596           | 10 628 852          | 99.9                   |
| Cochise -----   | 7                 | 98 720           | 10 398 480          | 97.7                   | La Paz Δ -----   | 14                | 9 209            | 10 638 061          | 100.0                  |
|                 |                   |                  |                     |                        | Greenlee -----   | 15                | 1 402            | 10 639 463          | 100.0                  |

**Table From Service Industries Nonemployer Statistics Series, SC87-N**

**Table 4. Nonemployer Statistics for Counties and for Places With 2,500 Inhabitants or More: 1987**

[Includes only establishments without payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A. For information on geographic areas followed by Δ, see appendix F]

| Geographic area            | Total                   |                    | Hotels, rooming houses, camps, and other lodging places (except membership lodging) (SIC 70, ex. 704) |                    | Personal services (SIC 72) |                    | Business services (SIC 73) |                    | Automotive repair, services, and parking (SIC 75) |                    | Miscellaneous repair services (SIC 76) |                    |
|----------------------------|-------------------------|--------------------|---|--------------------|----------------------------|--------------------|----------------------------|--------------------|---|--------------------|--|--------------------|
|                            | Establishments (number) | Receipts (\$1,000) | Establishments (number)   | Receipts (\$1,000) | Establishments (number)    | Receipts (\$1,000) | Establishments (number)    | Receipts (\$1,000) | Establishments (number)                           | Receipts (\$1,000) | Establishments (number)                | Receipts (\$1,000) |
| 1 Arizona -----            | 136 851                 | 912 341            | 5 281   | 8 147 664          | 2 105                      | 20 347 830         | 17 957                     | 36 592 715         | 7 592   | 36 857 439         | 8 295                                  | 11 579 284         |
| 2 Apache County -----      | 43 606                  | 54 071 842         | 1 291   | 2 284 242          | 574                        | 6 262 732          | 5 116                      | 10 600 480         | 2 429   | 2 787              | 943 151                                | 5 156              |
| 3 Eagar -----              | 664                     | 699 992            | 10  | 5 408              | 14                         | 205 243            | 60                         | 102 420            | 30  | 105 928            | 17                                     | 18 337             |
| 4 St. Johns -----          | 95                      | 92 119             | 2   | (D)                | 2                          | (D)                | 10                         | (D)                | 8   | (D)                | 2                                      | (D)                |
| 5 Balance of county -----  | 877                     | 830 837            | 26  | 39 674             | 6                          | (D)                | 105                        | 158 085            | 31  | 127 307            | 28                                     | 25 802             |
| 6 Cochise County -----     | 31                      | 65 304             | 1   | 1                  | 1                          | (D)                | 2                          | (D)                | 1   | 1                  | 1                                      | 1                  |
| 7 Benson -----             | 73                      | 86 920             | 4   | 1                  | 1                          | 4 148              | 5                          | (D)                | 3   | (D)                | 1                                      | 1                  |
| 8 Bisbee -----             | 714                     | 1 097 694          | 36  | 68 475             | 10                         | 68 308             | 103                        | 221 358            | 53  | 369 988            | 42                                     | 57 847             |
| 9 Douglas -----            | 599                     | 979 060            | 17  | 16 693             | 6                          | 215 700            | 76                         | 150 846            | 65  | 313 837            | 47                                     | 41 794             |
| 10 Sierra Vista -----      | 235                     | 297 541            | 9   | 16 829             | 3                          | (D)                | 24                         | 79 135             | 20  | 73 444             | 19                                     | 20 674             |
| 11 Wilcox -----            | 180                     | 277 998            | 8   | 20 248             | 4                          | 51 577             | 21                         | 78 238             | 10  | 11 653             | 8                                      | 6 443              |
| 12 Balance of county ----- | 1 921                   | 1 768 715          | 55  | 92 318             | 17                         | 115 365            | 322                        | 390 607            | 92  | 377 873            | 99                                     | 106 375            |

| Amusement and recreation services, including motion pictures and museums (SIC 78, 79, 84) | Health services (SIC 80) |                    | Legal services (SIC 81) | Selected educational services (SIC 823, 4, 9) <sup>1</sup> | Social services (SIC 83) <sup>2</sup> | Engineering, accounting, research, management, and related services (except research, development and testing services) (SIC 87 ex. 873) | Service, n.e.c. (SIC 89) <sup>3</sup> |            |                         |
|---|--------------------------|--------------------|-------------------------|--|---------------------------------------|--|---------------------------------------|------------|-------------------------|
|   | Establishments (number)  | Receipts (\$1,000) |                         |  |                                       |  |                                       |            | Establishments (number) |
| 16 134  | 9 597 700                | 12 417             | 10 446 777              | 45 910   | 19 989 156                            | 7 319 546  | 31 489                                | 15 758 838 | 1                       |
| 3 329 225   | 3 383                    | 3 350 918          | 12 809                  | 6 095 035  | 1 355                                 | 1 876 649  | 8 706                                 | 5 126 683  | 2                       |
| 163   | 87 214                   | 48                 | 26 713                  | 173  | 63 733                                | 31 410   | 137                                   | 53 586     | 3                       |
| 3   | 85                       | 11                 | 7 772                   | 12 525   | 1                                     | (D)  | 18                                    | 6 456      | 4                       |
| 67  | 38 781                   | 73                 | 83 286                  | 284  | 115 566                               | 19   | 23 790                                | 238        | 5                       |
| (D)   | 8                        | 13 122             | 10                      | (D)  | 1                                     | 1  | 8                                     | 6 275      | 6                       |
| (D)   | 8                        | 4 213              | 28                      | 18 552   | 1                                     | (D)  | 19                                    | 6 968      | 7                       |
| 33  | 19 011                   | 69                 | 71 083                  | 214  | 98 300                                | 15   | 44 079                                | 79 247     | 8                       |
| 30  | 19 442                   | 42                 | 51 124                  | 195  | 76 827                                | 16   | 38 716                                | 105        | 9                       |
| 15  | 8 428                    | 20                 | 10 461                  | 63   | 26 838                                | 7  | 19 106                                | 69 540     | 10                      |
| 18  | 12 523                   | 10                 | 13 296                  | 61   | 19 106                                | 4  | 36                                    | (D)        | 11                      |
| 160   | 60 736                   | 127                | 95 687                  | 622  | 248 721                               | 110 624  | 369                                   | 170 409    | 12                      |

Table 52. Major Sources of Revenue of Firms Exempt From Federal Income Tax for the United States and Selected States: 1987

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A]

| Geographic area and kind of business or operation                          | Establishments (number) | Sources of revenue |   |                                    |  |                                      |                 |   |                 | Revenue of establishments reporting sources of revenue as percent of total revenue |
|--|-------------------------|--------------------|---|------------------------------------|--|--------------------------------------|-----------------|---|-----------------|--|
|  |                         | Total (\$1,000)    | Receipts from customers, patrons, and contract fees |                                    |  |                                      |                 | Other receipts or revenue                     |                 |  |
|  |                         |                    | Admissions (\$1,000)                                | Membership dues and fees (\$1,000) | Sales of food, refreshments, and alcoholic beverages (\$1,000) | Sales of other merchandise (\$1,000) | Other (\$1,000) | Government or private contributions (\$1,000) | Other (\$1,000) |  |
| <b>UNITED STATES</b>   |                         |                    |   |                                    |  |                                      |                 |   |                 |  |
| Museums, art galleries, and botanical and zoological gardens               | 8 667                   | 2 147 297          | 415 548   | 14 258                             | 113 209  | 11 981                               | 70 084          | 1 880 944                                     | 261 158         | B  |
| Commercial museums, art galleries, and botanical and zoological gardens    | 458                     | 123 125            | (S)   | (S)                                | (S)  | (S)                                  | (S)             | (S)   | (S)             | E  |
| Noncommercial museums, art galleries, and botanical and zoological gardens | 6 775                   | 2 386 578          | 68 317  | 56 123                             | 15 897   | 69 131                               | 55 075          | 1 859 984                                     | 241 901         | B  |
| Noncommercial museums and art galleries                                    | 1 217                   | 2 267 261          | 61 989  | 51 119                             | 15 892   | 65 023                               | 48 833          | 1 800 025                                     | 221 506         | B  |
| Noncommercial arboreta, botanical and zoological gardens                   | 171                     | 101 231            | 6 708   | 3 905                              | 1 071  | 3 976                                | 4 453           | 59 939  | 20 641          | D  |
| <b>ALABAMA</b>   |                         |                    |   |                                    |  |                                      |                 |   |                 |  |
| Museums, art galleries, and botanical and zoological gardens               | 43                      | 5 113              | 5 414   | 321                                | (D)  | (D)                                  | 157             | 986   | 775             | D  |
| Commercial museums, art galleries, and botanical and zoological gardens    | 1                       | (D)                | (S)   | (S)                                | (S)  | (S)                                  | (S)             | (S)   | (S)             | E  |

• **Subject Series, SC87-S-1 to -4:**

- Establishments and Firm Size (including Legal Form of Organization)**, □ ■ ⊗ ⊙, presents data for the United States based on size of establishment, size of firm, and legal form of organization. Information is provided for both taxable and tax-exempt industries, by kind of business, on the number of establishments, receipts or revenues, payroll, and employment. Establishment data are published by receipts size and by employment size; data for firms are shown by receipts size (including concentration by largest firms), by employment size, and by number of establishments operated.
- Capital Expenditures, Depreciable Assets, and Operating Expenses**, □ ■, provides data for the Nation as a whole on capital expenditures, depreciable assets, and selected operating expenses for service establishments by kind of business. These data are based on a sample of 19,000 service firms selected prior to the census and, therefore, establishments are classified according to the old SIC, unlike other 1987 census reports.
- Hotels, Motels, and Other Lodging Places**, □ ■, shows data for the United States, States, and selected MSA's on the number of rooms and other facilities and operating characteristics of hotels, motels, and other lodging places. Specialized data include source of receipts, membership in franchise or co-ownership group, transient and residential occupancy, and merchandise sales.

4. **Miscellaneous Subjects**, □ ■, provides specialized data not published elsewhere on receipts by class of customer, merchandise sales, exported services, and personnel and payroll classified by occupation. Only selected service industries are covered (see fig. 10 for the items and their geographic levels).

**Current Service Industries Statistics (Current Business Reports)**

- **Service Annual Survey**, series BS-[year] □ (Subscription) ■. An annual report with estimates of receipts of selected service industries (see SIC categories under, "How are Service Establishments Classified" above). Data shown include current- and previous-year estimates, year-to-year percentage changes, and legal form of organization by kind of business based on pre-1987 SIC's. The report is issued about 9 months after the end of the survey reference year.

For more information about service industries, see also—

- Outlying Areas (p. 73)
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Population and Housing (p. 96), for characteristics of persons employed in service industries.

Figure 11. Major Data Items Published in Transportation Reports by Geographic Level

[Legend: M—MSA's, States, and national. N—National only. S—States and national]

| Item  | Series <sup>1</sup> |                |           |                      |
|---|---------------------|----------------|-----------|----------------------|
|   | TC87-A-1            | TC87-S-1       | TC87-1-52 | BT <sup>2</sup> [yr] |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>               |                     |                |           |                      |
| Establishments with payroll.....                        | M                   | M              |           |                      |
| By legal form of organization.....                      | M                   | S              |           |                      |
| Firms.....  |                     | N              |           |                      |
| Single- and multiestablishment.....                     |                     | N              |           |                      |
| Concentration by major firms.....                       |                     | N              |           |                      |
| <b>EMPLOYMENT</b>                                       |                     |                |           |                      |
| All employees, March 12.....                            | M                   | S              |           |                      |
| Employment size of establishment.....                   |                     | N              |           |                      |
| Employment size of firm.....                            |                     | N              |           |                      |
| <b>PAYROLL</b>  |                     |                |           |                      |
| All employees, entire year.....                         | M                   | S              |           |                      |
| All employees, first quarter.....                       | M                   | S              |           |                      |
| <b>REVENUE</b>  |                     |                |           |                      |
| Establishments with payroll.....                        | M                   | M              |           |                      |
| By source (type of activity).....                       |                     | <sup>3</sup> M |           |                      |
| Revenue size of establishment.....                      |                     | N              |           |                      |
| Operating revenue.....                                  |                     |                |           | N                    |
| By type of commodity.....                               |                     |                |           | N                    |
| By size of shipment.....                                |                     |                |           | N                    |
| <b>OPERATING EXPENSES</b>                               |                     |                |           |                      |
| Total.....  |                     |                |           | N                    |
| <b>INVENTORIES</b>                                      |                     |                |           |                      |
| Revenue-generating equipment.....                       |                     |                |           | N                    |
| <b>TRUCKS, TRUCK MILES, AND AVERAGE MILES PER TRUCK</b> |                     |                |           |                      |
| Major use.....  |                     |                | S         |                      |
| Body type.....  |                     |                | S         |                      |
| Annual miles.....                                       |                     |                | S         |                      |
| Range of operation.....                                 |                     |                | S         |                      |
| Base of operation.....                                  |                     |                | S         |                      |
| Average weight.....                                     |                     |                | S         |                      |
| Total length.....                                       |                     |                | S         |                      |
| Year model.....   |                     |                | S         |                      |
| Vehicle acquisition.....                                |                     |                | S         |                      |
| Lease characteristics.....                              |                     |                | S         |                      |
| Operator classification.....                            |                     |                | S         |                      |
| Products carried.....                                   |                     |                | S         |                      |
| Hazardous materials carried.....                        |                     |                | S         |                      |
| Truck fleet size.....                                   |                     |                | S         |                      |
| Miles per gallon.....                                   |                     |                | S         |                      |
| Equipment type.....                                     |                     |                | S         |                      |
| Fuel conservation equipment.....                        |                     |                | S         |                      |
| Maintenance.....  |                     |                | S         |                      |
| Engine type and size.....                               |                     |                | S         |                      |
| Truck type and axle arrangement.....                    |                     |                | S         |                      |
| Cab type.....   |                     |                | S         |                      |

<sup>1</sup>For complete titles, see descriptions starting on page 48.

<sup>2</sup>Data for SIC 42 only.

<sup>3</sup>Selected industries and selected areas only.



# Transportation

The 1987 Census of Transportation consists of two parts: establishment-based statistics for selected transportation industries and a survey of trucks and their uses. Another component of previous censuses, the Commodity Transportation Survey, was cancelled for budgetary reasons. There are also limited establishment statistics generated from one annual survey.

## STATISTICS ON TRANSPORTATION ESTABLISHMENTS

The transportation establishment statistics correspond to those collected for other kinds of business in the other economic censuses. At the same time, they cover only three of the eight major groups in the transportation-related part of the Standard Industrial Classification (SIC) system.

- 40 Railroad transportation (not covered)
- 41 Local and interurban passenger transit (not covered)
- 42 Trucking and warehousing**
- 43 U.S. Postal Service (not covered)
- 44 Water transportation**
- 45 Transportation by air (not covered)
- 46 Pipelines, except natural gas (not covered)
- 47 Transportation services**

(The 1987 Economic Censuses also exclude SIC major groups 48, communications, and 49, electric, gas, and sanitary services.)

Major group 42 and industry group 472 are covered by annual surveys discussed below.

For many of the industries in the transportation census (e.g., trucking), the establishments have activities, workers, and equipment that may move from place to place. For the census, an establishment is a relatively permanent office, shop, station, terminal, or warehouse that is either (1) directly responsible for supervising such activities or (2) the base from which personnel operate to carry out these activities. Census figures for States and metropolitan areas reflect establishment location and not necessarily the location where the trucking or other activities take place.

The establishments counted in the census of transportation furnish services to the general public or to other business enterprises. Establishments that furnish similar services (e.g., warehousing) only to other establishments of the same company are classified as auxiliary to the establishments or units of the company which they serve. Data for auxiliaries are presented in a report issued as part

of the Enterprise Statistics series (see p. 76), but not in the census of transportation.

The census excludes firms without paid employees. Thus, for example, many independent truckers are not included in the establishment statistics.

Two basic sources were used to obtain the census data: questionnaires and administrative records. Three different questionnaires and one classification form, allowing for the different types of transportation activities covered, were mailed to all firms above a certain size cutoff (generally equivalent to four or more paid employees), and to a sample of smaller employer firms; information for the balance was obtained from Federal administrative records.

The annual Motor Freight Transportation and Warehousing Survey is based on a mail sample of firms covered by the census, updated with "births" reported in administrative records during the years between censuses.

Annual statistics on receipts by type for SIC 472, arrangement of passenger transportation, are included in the Service Annual Survey (see p. 45).

## TRUCK INVENTORY AND USE SURVEY

The Truck Inventory and Use Survey (TIUS), taken every 5 years as part of the economic censuses program, reports on the physical characteristics and operational use of the Nation's private and commercial trucks. Unlike other economic censuses programs, the coverage of TIUS cuts across SIC classifications and even personal use, although vehicles owned by Federal, State, and local government agencies are not covered. Some privately or commercially owned vehicles that do not have to be licensed (e.g., "off-highway" trucks used exclusively on private property) are also excluded.

The 1987 TIUS includes physical characteristics of the Nation's private trucking fleet, such as vehicle type, gross weight, type and size of engine, type of transmission, type of braking system, power steering, fuel conservation, air conditioning, type and size of body, power axles, axle arrangement of trailer units, and cab type. The survey also includes operational characteristics, such as base of operation; number of trucks, truck-tractors, and trailers operated from base of operation; area of operation; vehicle miles; miles per gallon; use of vehicle; and type of commodities carried, including hazardous cargo.

About 135,000 private and commercial trucks were sampled from approximately 44.8 million State vehicle registrations. One of two questionnaires was sent to the registered owner of each sampled truck.

- **Expanded coverage.** The 1987 coverage of SIC's 42, 44, and 47 is much broader than the 1982 coverage which included only parts of two of them: Public warehousing and storage (SIC 422) and arrangement of passenger transportation (new SIC 472).
- **SIC changes.** While there were various changes to transportation SIC's, most have little effect on the census user given that 1982 data are not available for most transportation SIC's. New industries separately identified include—
  - Travel agencies (4724)
  - Tour operators (4725)
  - Passenger transport arrangement, n.e.c. (4729).
- **Commodity Transportation Survey.** This survey, last conducted in 1984 for 1983, was cancelled.

REPORTS

- **Geographic Area Series—Selected Transportation Industries, Summary,** TC87-A-1, □ ■ ⊗ ○ . The report presents data for establishments with payroll for selected transportation industries for the United States, each State, the District of Columbia, and MSA's. It provides general data on number of establishments, revenue, payroll, and employment by varied transportation classifications. Data are also provided on revenue and employees per establishment, and on revenue and payroll per employee. Comparative statistics showing percent changes in revenue and payroll between 1987 and 1982 also are shown for some kind-of-business classifications.
- **Subject Series, Miscellaneous Subjects,** TC87-S-1, □ ■ . This report presents data for the Nation as a whole and, where feasible, for States and selected MSA's for establishments with payroll, based on size of establishment, size of company or firm, and legal form of organization. Establishments are given by revenue size and by employment size; statistics for firms, by revenue size (including concentration by largest firms), by employment size, and by number of establishments operated (single- and multiestablishment). Major sources of revenue and purchased transportation are provided for some

kinds of business. Data are presented by kind of business on the number of establishments, revenue, and payroll.

- **Truck Inventory and Use Survey,** series TC87-1 to -52, □ ■ . The publications—one for each State, the District of Columbia, and the United States as a whole—provide data on the number of vehicles and selected vehicle characteristics and use. Statistics include number of vehicles, number of truck miles, principal products carried, type of cab, fuel conservation equipment, power steering and air conditioning, type of transmission and braking system, engine size, classification of operator, acquisition (purchased new or used/leased or rented), area of operation (local, short range, or long range), type of fuel, single unit or combination and axle arrangement, vehicle size class, body type, model year, major use of vehicle (see tables 1 and 2), average weight, and length.
- **Truck Inventory and Use Survey Microdata,** ⊗ . Unlike the computerized files from other economic censuses programs, TIUS data on computer tape are not summary tables but are records for individual trucks, designed so that the users can create a wide variety of cross-tabulations to meet their own needs. Certain truck characteristics have been consolidated or omitted to

Table From Transportation Geographic Area Series, TC87-A

Table 1. Summary Statistics for the United States and States: 1987

[Includes only establishments with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms and comparability of 1982 and 1987 censuses, including revised methodology for presenting establishment counts, see appendix A]

| 1987 SIC code | Kind of business                                   | Estab-lishments (number) | Revenue (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including March 12 (number) | Unincorporated businesses          |                      |
|---------------|--|--------------------------|-------------------|--------------------------|---------------------------------|---|------------------------------------|----------------------|
|               |  |                          |                   |                          |                                 |   | Individual proprietorship (number) | Partnership (number) |
| 42            | Motor freight transportation and warehousing ..... | 17 947                   | 17 785            | 17 778                   | 16 132                          | 15 689  | 1 654                              | 2 089                |
| 421           | Trucking and courier services, except air .....    | 222                      | 206               | 201                      | 127                             | 147   | 79                                 | 54                   |
| 4212          | Local trucking without storage .....               | 1 520                    | 1 899             | 1 569                    | 1 619                           | 1 223   | 280                                | 346                  |
| 4212 pt.      | Household goods moving .....                       | 201                      | 200               | 196                      | 122                             | 144   | 78                                 | 52                   |
| 4212 pt.      | General freight .....                              | 816                      | 608               | 690                      | 453                             | 527   | 156                                | 163                  |
| 4212 pt.      | Garbage and trash collection .....                 | 49                       | 49                | 48                       | 36                              | 41  | 13                                 | 7                    |
| 4212 pt.      | Dump trucking .....                                | 1 420                    | 1 291             | 879                      | 1 167                           | 696   | 125                                | 183                  |
| 4212 pt.      | Other local trucking without storage .....         | 150                      | 154               | 148                      | 106                             | 104   | 48                                 | 44                   |
| 4212 pt.      | Hazardous materials .....                          | 13 390                   | 13 390            | 13 368                   | 12 289                          | 12 117  | 1 101                              | 1 251                |
| 4212 pt.      | Agricultural products .....                        | 48                       | 49                | 38                       | 20                              | 23  | 29                                 | 15                   |
| 4212 pt.      | Other local trucking without storage, n.e.c. ....  | 1 796                    | 1 836             | 1 604                    | 1 654                           | 1 278   | 162                                | 326                  |

**Table From Transportation Truck Inventory and Use Survey, TC87-T**

**Table 2. Trucks, Truck Miles, and Average Annual Miles: 1987**

[Data relate to State of registration. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text.]

| Vehicular and operational characteristics | Trucks and truck miles |                        |                                     | Trucks and truck miles, excluding pickups, panels, utilities, and station wagons |                        |                                     | Relative standard error of estimate (percent) for column-- |            |            |            |            |            |
|---|------------------------|------------------------|-------------------------------------|--|------------------------|-------------------------------------|--|------------|------------|------------|------------|------------|
|   | Trucks (thousands)     | Truck miles (millions) | Average miles per truck (thousands) | Trucks (thousands)   | Truck miles (millions) | Average miles per truck (thousands) |  |            |            |            |            |            |
|   | A                      | B                      | C                                   | D  | E                      | F                                   | A  | B          | C          | D          | E          | F          |
| <b>Total trucks</b> .....                 | <b>597.5</b>           | <b>7 070.1</b>         | <b>11.8</b>                         | <b>62.0</b>  | <b>1 158.2</b>         | <b>18.7</b>                         | <b>.4</b>  | <b>2.8</b> | <b>2.8</b> | <b>1.8</b> | <b>3.2</b> | <b>2.8</b> |
| <b>MAJOR USE</b>                          |                        |                        |                                     |  |                        |                                     |  |            |            |            |            |            |
| Agriculture .....                         | 44.3                   | 413.0                  | 9.3                                 | 11.6   | 71.4                   | 6.2                                 | 11.7   | 16.3       | 10.1       | 7.4        | 12.9       | 12.3       |
| Forestry and lumbering .....              | 3.5                    | 99.8                   | 28.9                                | 2.6  | 86.1                   | 33.1                                | 26.2   | 16.9       | 13.9       | 11.4       | 11.4       | 10.4       |
| Mining and quarrying .....                | .9                     | 10.4                   | 12.0                                | .9   | 10.4                   | 12.0                                | 29.3   | 42.9       | 31.5       | 29.3       | 42.9       | 31.5       |
| Construction .....                        | 66.8                   | 1 049.8                | 15.7                                | 11.3   | 153.7                  | 13.6                                | 9.9  | 12.7       | 7.5        | 7.1        | 9.0        | 7.2        |
| Manufacturing .....                       | 9.9                    | 233.8                  | 23.7                                | 4.6  | 114.5                  | 24.9                                | 22.3   | 25.9       | 15.0       | 11.5       | 11.9       | 9.5        |
| Wholesale trade .....                     | 11.3                   | 261.5                  | 23.0                                | 7.0  | 174.9                  | 24.9                                | 17.9   | 17.2       | 7.7        | 8.9        | 10.5       | 7.4        |
| Retail trade .....                        | 28.4                   | 428.8                  | 15.1                                | 8.1  | 155.9                  | 19.2                                | 14.7   | 15.3       | 7.9        | 8.9        | 10.9       | 8.9        |
| For-hire transportation .....             | 7.3                    | 307.2                  | 42.0                                | 5.4  | 276.7                  | 50.9                                | 18.3   | 9.4        | 11.7       | 7.9        | 7.2        | 5.7        |
| Utilities .....                           | 8.5                    | 94.3                   | 11.1                                | 3.0  | 30.1                   | 10.0                                | 25.4   | 28.8       | 9.3        | 14.8       | 18.0       | 11.0       |
| Services .....                            | 21.2                   | 311.3                  | 14.7                                | 1.7  | 22.3                   | 12.8                                | 19.0   | 24.1       | 14.7       | 20.2       | 24.5       | 19.4       |
| Daily rental .....                        | 1.4                    | 32.7                   | 23.3                                | .6   | 20.4                   | 36.9                                | 62.1   | 42.2       | 27.7       | 32.4       | 30.0       | 29.0       |
| One way rental .....                      | 2.7                    | 33.3                   | 12.5                                | 1.8  | 20.5                   | 11.3                                | 35.5   | 41.3       | 8.8        | 22.1       | 24.0       | 9.5        |
| Personal transportation .....             | 384.1                  | 3 758.8                | 9.8                                 | 2.7  | 21.2                   | 7.8                                 | 2.6  | 4.8        | 4.0        | 36.1       | 84.8       | 53.1       |
| Other .....                               | .9                     | 30.0                   | 35.0                                | (Z)  | (Z)                    | (Z)                                 | 89.9   | 99.9       | (Z)        | (Z)        | (Z)        | (Z)        |
| Not in use .....                          | 6.6                    | 5.5                    | .8                                  | .6   | .3                     | .5                                  | 34.1   | 94.1       | 87.2       | 36.9       | 97.8       | 89.4       |
| Not reported .....                        | (Z)                    | (Z)                    | (Z)                                 | (Z)  | (Z)                    | (Z)                                 | (Z)  | (Z)        | (Z)        | (Z)        | (Z)        | (Z)        |

avoid disclosure of information about specific trucks or truck owners. Otherwise, all of the characteristics cited above, plus State of registration, are included on the files.

**Current Transportation Statistics (Current Business Reports)**

- **Motor Freight Transportation and Warehousing Survey**, part of series BT □ (subscription) ■. An annual report providing estimates of operating revenues, operating expenses, and inventories of revenue-generating equipment for establishments in SIC 42 for the United States. Comparable statistics are shown for the previous year along with year-to-year percentage changes. Reports typically are published 10 to 12 months after the end of the year.

For more information about transportation, see also—

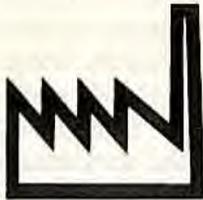
- Enterprise Statistics (p. 76)
- County Business Patterns (p. 83)
- Foreign Trade Statistics (p. 87), for international transportation of imports and exports by vessel, air, or other modes)
- Population and Housing (p. 96), for characteristics of persons employed in transportation, and on transportation to work

Figure 12. Major Data Items Published in Manufactures Reports by Geographic Level

[Legend: • —Places, counties, MSA's, States, and national. M—MSA's, States, and national. N—National only. S—States and national. Z—ZIP Codes and States]

| Item  | Series <sup>1</sup> |        |        |                   |          |          |          |          |          |          |          |   | AR87-1 | ASM |
|---|---------------------|--------|--------|-------------------|----------|----------|----------|----------|----------|----------|----------|---|--------|-----|
|   | MC87-(P)            | MC87-I | MC87-A | MC87-LM           | MC87-S-1 | MC87-S-2 | MC87-S-3 | MC87-S-4 | MC87-S-5 | MC87-S-6 | MC87-S-7 |   |        |     |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                                   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Establishments with payroll . . . . .                                       | N                   | N      | •      | <sup>2</sup> •, Z | M        |          |          |          | N        |          |          |   |        |     |
| Single- and multiestablishments . . . . .                                   |                     |        |        |                   |          |          |          |          | N        |          |          |   |        |     |
| Establishments by legal form of organization . . . . .                      |                     |        |        |                   |          |          |          |          | N        |          |          |   |        |     |
| Firms . . . . .   | N                   | N      | S      |                   | S        |          |          |          | N        |          |          |   |        |     |
| Single- and multiestablishments . . . . .                                   |                     |        |        |                   |          |          |          |          | N        |          |          |   |        |     |
| <b>EMPLOYMENT</b>   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| All employees . . . . .   | N                   | S      | •      |                   | M        |          |          |          | N        |          | N        | S | S      | S   |
| Production workers . . . . .  | N                   | S      | •      |                   | M        |          |          |          | N        |          |          |   |        | S   |
| Employment related to manufactured exports . . . . .                        |                     |        |        |                   |          |          |          |          |          |          |          | S |        |     |
| Employment size of establishments . . . . .                                 |                     | N      | •      | <sup>2</sup> •, Z | S        |          |          |          |          |          |          |   |        |     |
| Production worker hours . . . . .   | N                   | S      | •      |                   | M        |          |          |          | N        |          |          |   |        | S   |
| <b>PAYROLLS</b>   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| All employees, entire year . . . . .  | N                   | S      | •      |                   | M        |          |          |          | N        |          |          |   |        |     |
| Production workers . . . . .  | N                   | S      | •      |                   | M        |          |          |          | N        |          |          |   |        |     |
| Supplemental labor costs, legally required and voluntary . . . . .          |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| <b>VALUE OF SHIPMENTS</b>   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Establishments with payroll . . . . .                                       | N                   | N      | •      |                   | M        |          |          | N        | N        |          | N        | S | S      | N   |
| By 5-digit product class . . . . .  | N                   | S      |        |                   | N        |          |          |          |          |          |          |   |        | N   |
| By 7-digit product . . . . .  | N                   | N      |        |                   |          |          |          |          |          |          |          |   |        |     |
| By size of establishments . . . . .   |                     | N      |        |                   | N        |          |          |          |          |          |          |   |        |     |
| By class of customer . . . . .  |                     |        |        |                   |          |          |          | N        |          |          |          |   |        |     |
| Shipments to Federal agencies . . . . .                                     |                     |        |        |                   |          |          |          |          |          |          | N        |   | S      |     |
| Export shipments . . . . .  |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| <b>OPERATING EXPENSES</b>   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Cost of materials, etc . . . . .  | N                   | S      | •      |                   | M        |          |          |          | N        |          |          |   |        | S   |
| Foreign content . . . . .   |                     | N      |        |                   |          |          |          |          |          |          |          |   |        |     |
| Specific materials consumed (quantity/cost) . . . . .                       | N                   | N      |        |                   |          |          |          |          |          |          |          |   |        |     |
| Cost of fuels . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Energy consumed . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Contract work . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Products bought or sold (resale) . . . . .                                  |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Rental payments, total . . . . .  |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Buildings and structures . . . . .  |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Machinery and equipment . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Communications services . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Purchased repairs . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| <b>CAPITAL EXPENDITURES</b>   |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Total . . . . .   |                     | N      | S      |                   | S        |          |          |          | N        |          |          |   |        | S   |
| New, total . . . . .  | N                   | S      | •      |                   | M        |          |          |          |          |          |          |   |        | S   |
| Buildings/equipment . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        | S   |
| Used, total . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        | S   |
| Buildings/equipment . . . . .   |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        | S   |
| <b>DEPRECIABLE ASSETS, GROSS VALUE OF BUILDING/EQUIPMENT</b>                |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| End of 1986 (previous year) . . . . .                                       |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| End of 1987 (reference year) . . . . .                                      |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Depreciation (detail for buildings/equipment and/or total) . . . . .        |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Retirements (detail for buildings/equipment and/or total) . . . . .         |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| Gross assets . . . . .  |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        |     |
| <b>INVENTORIES</b>  |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| End of 1986 (previous year) . . . . .                                       |                     | N      | S      |                   | S        |          |          |          |          |          |          |   |        | S   |
| End of 1987 (reference year) . . . . .                                      | N                   | N      | S      |                   | S        |          |          |          | N        |          |          |   |        | S   |
| <b>OTHER</b>  |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Value added . . . . .   | N                   | S      | •      |                   | M        |          |          |          | N        |          | N        |   |        | S   |
| Concentration ratios . . . . .  |                     |        |        |                   |          |          |          |          |          |          | N        |   |        |     |
| Specialization by type of manufacturing . . . . .                           | N                   | N      |        |                   | N        |          |          |          |          |          |          |   |        |     |
| Water use . . . . .   |                     |        |        |                   |          |          | S        |          |          |          |          |   |        |     |
| Auxiliary establishments (including administrative offices) . . . . .       |                     |        | •      |                   | S        |          |          |          |          |          |          |   |        |     |
| <b>SPECIFIC INDUSTRIES</b>  |                     |        |        |                   |          |          |          |          |          |          |          |   |        |     |
| Fabric weaving looms, broad and narrow, by type and width of loom . . . . . |                     |        |        |                   |          |          | N        |          |          |          |          |   |        |     |
| Other textile machinery by type . . . . .                                   |                     |        |        |                   |          |          | N        |          |          |          |          |   |        |     |

<sup>1</sup>For complete titles, see descriptions starting on p. 53. <sup>2</sup>No MSA summaries.



# Manufactures

## WHAT IS MANUFACTURING?

The census and surveys of manufactures cover establishments engaged in the **mechanical or chemical transformation of materials or substances into new products**. These establishments are usually described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. Establishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor other fixed improvement. The blending of materials into new products, such as lubricating oils, plastics resins, or liquors, is also included.

Manufacturers normally sell their products through wholesalers or direct to industrial users, but not usually direct to household consumers. Some manufacturers in a few industries sell to household consumers through the mail or through sales persons, but, where possible, these activities and outlet stores are classified as separate retail establishments.

Not all activities classified as manufacturing are commonly recognized as such. Logging, for instance, is classified in manufacturing, not forestry. Newspaper, magazine, and book publishing is also classified as manufacturing. On the other hand, repackaging and bottling of bulk liquids are not manufacturing activities if they do not involve transforming raw materials into new products. Fabricating operations performed at a construction site by a contractor are classified as construction rather than manufacturing.

## HOW ARE MANUFACTURING ESTABLISHMENTS, PRODUCTS, AND MATERIALS CLASSIFIED?

### Manufacturing Establishments

In general, manufacturing establishments are classified by the principal type of products produced. There are 20 major groups in the Standard Industrial Classification (SIC) for manufacturing—

- 20 Food and kindred products
- 21 Tobacco products
- 22 Textile mill products
- 23 Apparel and other finished products made from fabrics and similar materials
- 24 Lumber and wood products, except furniture
- 25 Furniture and fixtures
- 26 Paper and allied products

- 27 Printing, publishing, and allied industries
- 28 Chemicals and allied products
- 29 Petroleum refining and related industries
- 30 Rubber and miscellaneous plastics products
- 31 Leather and leather products
- 32 Stone, clay, glass, and concrete products
- 33 Primary metal industries
- 34 Fabricated metal products, except machinery and transportation equipment
- 35 Industrial and commercial machinery and computer equipment
- 36 Electronic and other electrical equipment and components, except computer equipment
- 37 Transportation equipment
- 38 Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks
- 39 Miscellaneous manufacturing industries

These major SIC groups are subdivided into three-digit industry groups, which in turn are subdivided into four-digit industries (as shown in appendix A).

Some surveys distinguish between durable goods manufacturing (SIC's 24, 25, and 32 to 39) and nondurable goods manufacturing (SIC's 20 to 23, and 26 to 31).

### Manufactured Products

The Census Bureau has developed a system for classifying manufactured products into approximately 1,500 product classes (five-digit code) and 11,000 products (seven-digit code), in a manner consistent with the four-digit SIC code for the industry from which those products typically originate. For example:

- Industry            3861            Photographic equipment and supplies
- Product class    38611          Still picture equipment
- Product            38611 11      Hand-type cameras

Some changes occur in this product coding between censuses as obsolete products are combined into broader categories and new categories are identified for new products or to address marketing needs within the respective industries. Additional changes were made for 1987 where necessary to reflect changes in the SIC system and

to increase comparability with the new "harmonized system" for classifying commodities in export and import statistics. (See discussion of foreign trade data, p. 87.)

### Materials consumed

A separate set of six-digit codes is used to classify important raw materials consumed in the manufacturing process. Material categories are typically broader than those used for product statistics because manufacturers generally maintain less specific information at the establishment level on the materials they use than on the products they make.

### HOW ARE THE DATA COLLECTED

In the 1987 Census of Manufactures, approximately 220,000 establishments reported by mail on one of 282 industry-tailored questionnaires. Data for an additional 150,000 small, single-establishment firms were obtained from Federal administrative records. Only establishments with payroll were counted. Data on water use reported in the Subject Series (see below) are being collected in 1990 (covering 1989 water use from a sample of manufacturing firms that reported on the census questionnaire that they used 20 million or more gallons of water in 1987).

The Annual Survey of Manufactures (ASM) collects data from a scientifically designed sample of about 55,000 of the 370,000 plants covered in the census. During census years, the establishments in the ASM sample receive a form more extensive than do establishments not in the sample, including extra detail on subjects such as assets and inventories. Estimates on these subjects are published in census reports in tables separate from those based on the full census (see table 3c, p. 54). During the 4 years between censuses each 5-year cycle, only the ASM establishments are surveyed. ASM reports include many of the same kinds of statistics found in census reports, albeit with much less geographic and product detail.

Data for the *Current Industrial Reports* (CIR's) come from nearly 100 separate surveys, most with scope restricted to the producers of a particular group of products. Collectively, the CIR's cover about 4,400 of the 11,000 seven-digit categories of manufactured products. Some of the CIR surveys are monthly, some quarterly, and some annual in frequency. These data are gathered by mail, using the complete list of producers as obtained in the census for the mailing list or sampling frame. CIR results are subjected to a three-way comparison with ASM and census figures for cross-validation or adjustment, since all three programs use the same concepts, definitions, and classification systems.

The CIR's typically present quantity and value of product shipments, and sometimes other measures, such as production and inventories, on detailed commodities and products. A few surveys provide specialized measures such as unfilled orders, receipts, and consumption. Most CIR's include comparative data on domestic production, exports, and imports of the products they cover, allowing the estimation of "apparent consumption" of commodities in the United States.

Where available, CIR statistics on quantity and value of shipments for 1987 are included in census reports, so that it was not necessary to collect detailed data on those product lines on the census of manufactures questionnaires. Consequently, census reports can be used as a guide to the coverage of CIR's, since the CIR-based statistics are identified as such.

The CIR series includes the monthly *Survey of Manufacturers' Shipments, Inventories, and Orders* (M3). These data, shown for 45 industry categories and other special-purpose classifications, provide sensitive indicators of short-run changes in business conditions. In addition to the M3 survey, there are surveys of pollution abatement (MA-200) and plant capacity (MQ-C1), both with industry detail.

### What's New for 1987?

### Manufactures

#### • SIC changes—

- Expanded detail for high-technology and expanding industries like computers, communications equipment, and plastics. For example, electronic computing equipment (old SIC 3573) has been subdivided into three new categories and parts of two more.
- Reduced detail (broader categories) for industries that now account for a smaller share of the economy, such as textiles.

The impact of these changes can be explored at the national level in tables 1c-1 and 1c-2 in the Industry Series reports, where 1987 data are shown according to both the old and new SIC classifications.

- **Foreign content.** For the first time, data were collected on the cost of materials, parts, and supplies purchased overseas. Results are reported by industry at the national level in the Industry Series reports.
- **ZIP Code data.** ZIP Codes are now added to the *Location of Manufacturing Plants* series on computer tape and CD-ROM.
- **Preliminary Geographic Area Series dropped.** Limited State totals are instead included in the *Preliminary Summary* report.

## REPORTS

### Press Releases

Press releases, , are issued for each State a few weeks before the publication of corresponding Geographic Area Series reports, and in conjunction with several of the other reports.

### Preliminary Reports

Data in preliminary reports are superseded by the final reports.

- **Preliminary Industry Series**, MC87-I-20A(P) to -39D(P), . National data for the 459 manufacturing industries are covered in 83 bulletins that present general and historical statistics. Each bulletin covers one or more three-digit industry groups (see app. A). Preliminary totals are shown on each industry, on the quantity and value of product shipments for the products primary to the industry (similar to table 6a, p. 55), and on the quantity and cost of materials consumed by establishments classified in the industry (similar to table 7, p. 55).
- **Preliminary Summary**, MC87-SUM-1(P),     . This report contains general statistics for two-, three-, and four-digit manufacturing industries at the national level, and for all manufacturing (not by SIC) for the 50 States and the District of Columbia.

## Final Reports

- **Industry Series**, MC87-I-20A to -39D,     . Each report provides final data for the Nation as a whole, with limited data for States, for one of 83 groups of related industries. General statistics include number of establishments, number of firms, payroll, value of shipments, cost of materials, new capital expenditures, inventories, production hours worked, and value added by manufacture. Comparative data for earlier years are provided where available. Bridge tables (see tables 1c-1 and 1c-2, below) show 1987 data classified according to both the old and new SIC schemes.

For each industry, data on employment, payroll, value of shipments, capital expenditures, and value added by manufacture are also shown by employment-size class of establishment and degree of primary product specialization. Some of the most widely used statistics are the tables on shipments of specific products (see table 6a, p. 55) and consumption of various materials (see table 7, p. 55). Product data include shipments by all producers, not just those classified in the primary industry.

Each individual Industry Series report covers one or more three-digit industry groups.

Only the statistics on products and materials are available on diskette .

## Tables From Manufactures Industry Series, MC87-I

Table 1c-1. 1987 Statistics for the Industry Showing the Distribution of the 1987 SIC-Based Industries Among the 1972 SIC-Based Industries

| Industry   | All establishments (number) | All employees  |                           | Production workers |                  |                         | Value added by manufactures (million dollars) | Cost of materials (million dollars) | Value of shipments (million dollars) | New capital expenditures (million dollars) | End-of-year inventories (million dollars) |
|--|-----------------------------|----------------|---------------------------|--------------------|------------------|-------------------------|---|-------------------------------------|--------------------------------------|--|---|
|  |                             | Number (1,000) | Payroll (million dollars) | Number (1,000)     | Hours (millions) | Wages (million dollars) |   |                                     |                                      |  |   |
| New Industry 3363, Aluminum Die-Castings                     | 245                         | 24.2           | 496.9                     | 19.6               | 37.3             | 371.2                   | 850.7   | 795.6                               | 1 655.1                              | 79.3                                       | 154.4                                     |
| Old Industry 3361, Aluminum Foundries                        | 245                         | 24.2           | 496.9                     | 19.6               | 37.3             | 371.2                   | 850.7   | 795.6                               | 1 655.1                              | 79.3                                       | 154.4                                     |
| New Industry 3364, Nonferrous Die-Casting Excluding Aluminum | 149                         | 10.5           | 183.5                     | 8.6                | 16.0             | 128.0                   | 322.32  | 300.3                               | 626.2                                | 19.4                                       | 162.5                                     |
| Old Industry 3362, Brass, Bronze, and Copper Foundries       | 9                           | .2             | 3.6                       | .2                 | .3               | 2.5                     | 6.4   | 5.6                                 | 12.6                                 | .3   | 82.7                                      |
| Old Industry 3369, Nonferrous Foundries, N.E.C.              | 140                         | 10.3           | 179.9                     | 8.4                | 15.7             | 125.5                   | 315.9   | 294.7                               | 613.6                                | 19.1                                       | 79.8                                      |
| New Industry 3365, Aluminum Foundries                        | 807                         | 25.0           | 429.3                     | 20.6               | 38.9             | 317.4                   | 761.9   | 588.4                               | 1 258.5                              | 47.1                                       | 126.7                                     |
| Old Industry 3361, Aluminum Foundries                        | 807                         | 25.0           | 429.3                     | 20.6               | 38.9             | 317.4                   | 761.9   | 588.4                               | 1 358.5                              | 47.1                                       | 126.7                                     |
| New Industry 3366, Copper Foundries                          | 490                         | 11.6           | 198.2                     | 9.0                | 16.3             | 136.0                   | 375.5   | 306.0                               | 689.6                                | 19.0                                       | 91.0                                      |
| Old Industry 3362, Brass, Bronze, and Copper Foundries       | 490                         | 11.6           | 198.2                     | 9.0                | 16.3             | 136.0                   | 375.5   | 306.0                               | 689.6                                | 19.0                                       | 91.0                                      |
| New Industry 3369, Nonferrous Foundries, N.E.C.              | 218                         | 4.6            | 85.0                      | 3.4                | 6.6              | 55.3                    | 162.6   | 133.1                               | 302.5                                | 8.4  | 39.4                                      |
| Old Industry 3369, Nonferrous Foundries, N.E.C.              | 218                         | 4.6            | 85.0                      | 3.4                | 6.6              | 55.3                    | 162.6   | 133.1                               | 302.5                                | 8.4  | 39.4                                      |

**Table 1c-2. 1987 Statistics for the Industry Showing the Distribution of the 1972 SIC-Based Industries Among the 1987 SIC-Based Industries**

| Industry   | All establishments (number) | All employees  |                           | Production workers |                  |                         | Value added by manufacture (million dollars) | Cost of materials (million dollars) | Value of shipments (million dollars) | New capital expenditures (million dollars) | End-of-year inventories (million dollars) |
|--|-----------------------------|----------------|---------------------------|--------------------|------------------|-------------------------|--|-------------------------------------|--------------------------------------|--|---|
|  |                             | Number (1,000) | Payroll (million dollars) | Number (1,000)     | Hours (millions) | Wages (million dollars) |  |                                     |                                      |  |   |
| Old Industry 3381, Aluminum Foundries                        | 1 052                       | 49.2           | 926.2                     | 40.2               | 76.2             | 688.6                   | 1 612.6                                      | 1 384.0                             | 3 013.6                              | 826.4                                      | 281.1                                     |
| New Industry 3363, Aluminum Die-Casting                      | 245                         | 24.2           | 496.9                     | 19.6               | 37.3             | 371.2                   | 850.7  | 795.6                               | 1 655.1                              | 79.3                                       | 154.4                                     |
| New Industry 3385, Aluminum Foundries                        | 807                         | 25.0           | 429.3                     | 20.6               | 38.9             | 317.4                   | 761.9  | 588.4                               | 1 358.5                              | 47.1                                       | 126.7                                     |
| Old Industry 3362, Brass, Bronze, and Copper Foundries       | 499                         | 11.8           | 201.8                     | 9.2                | 16.6             | 138.5                   | 381.9  | 311.6                               | 702.2                                | 19.3                                       | 173.7                                     |
| New Industry 3364, Nonferrous Die-Casting Excluding Aluminum | 9                           | .2             | 3.6                       | .2                 | .3               | 2.5                     | 6.4  | 5.6                                 | 12.6                                 | .3   | 82.7                                      |
| New Industry 3366, Copper Foundries                          | 490                         | 11.6           | 198.2                     | 9.0                | 16.3             | 136.0                   | 375.5  | 306.0                               | 689.6                                | 19.0                                       | 91.0                                      |
| Old Industry 3364, Nonferrous Die-Casting Excluding Aluminum | 140                         | 10.3           | 179.9                     | 8.4                | 15.7             | 125.5                   | 315.9  | 294.7                               | 613.6                                | 19.1                                       | 79.8                                      |
| New Industry 3369, Nonferrous Foundries, N.E.C.              | 218                         | 4.6            | 85.0                      | 3.4                | 6.6              | 55.3                    | 162.6  | 133.1                               | 302.5                                | 8.4  | 39.4                                      |

**Table 2. Industry Statistics for Selected States: 1987 and 1982**

[Excludes data for auxiliaries. Includes data for States with 150 employees or more. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Industry and geographic area                            | E <sup>1</sup> | 1987               |                                  |                             |                           |                    |                  |                         |  |                                     |                                      | 1982                                       |                                     |  |
|---|----------------|--------------------|----------------------------------|-----------------------------|---------------------------|--------------------|------------------|-------------------------|--|-------------------------------------|--------------------------------------|--|-------------------------------------|--|
|   |                | All establishments |                                  | All employees               |                           | Production workers |                  |                         | Value added by manufacture (million dollars) | Cost of materials (million dollars) | Value of shipments (million dollars) | New capital expenditures (million dollars) | All employ-ees <sup>2</sup> (1,000) | Value added by manufacture (million dollars) |
|   |                | Total (no.)        | With 20 employ-ees or more (no.) | Number <sup>2</sup> (1,000) | Payroll (million dollars) | Number (1,000)     | Hours (millions) | Wages (million dollars) |  |                                     |                                      |  |                                     |  |
| <b>INDUSTRY 2051, BREAD, CAKE, AND RELATED PRODUCTS</b> |                |                    |                                  |                             |                           |                    |                  |                         |  |                                     |                                      |  |                                     |  |
| United States   | E1             | 2 305              | 1 074                            | 170.7                       | 3 249.6                   | 88.9               | 175.1            | 1 520.1                 | 7 861.1                                      | 5 282.7                             | 13 143.3                             | 382.4                                      | 178.0                               | 5 370.4                                      |
| Alabama   | -              | 19                 | 14                               | FF                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | FF                                  | (D)  |
| Arizona   | -              | 30                 | 9                                | EE                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | EE                                  | (D)  |
| Arkansas  | -              | 15                 | 13                               | EE                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | EE                                  | (D)  |
| California  | E1             | 273                | 122                              | 19.2                        | 432.0                     | 9.2                | 17.3             | 197.8                   | 961.3  | 583.7                               | 1 544.0                              | 53.2                                       | 16.8                                | 598.8  |
| Colorado  | -              | 44                 | 18                               | EE                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | EE                                  | (D)  |
| Connecticut   | -              | 44                 | 21                               | 4.0                         | 70.2                      | 2.3                | 6.6              | 37.9                    | 157.2  | 146.3                               | 303.4                                | 12.7                                       | FF                                  | (D)  |
| Delaware  | -              | 4                  | 2                                | BB                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | BB                                  | (D)  |
| District of Columbia                                    | -              | 6                  | 2                                | CC                          | (D)                       | (D)                | (D)              | (D)                     | (D)  | (D)                                 | (D)                                  | (D)  | EE                                  | (D)  |

**Table 3c. Supplemental Industry Statistics Based on Sample Estimates: 1987**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Item   | Meat packing plants (SIC 2011) |  | Sausages and other prepared meat products (SIC 2013) |  | Poultry slaughtering and processing (SIC 2015) |  |
|--|--------------------------------|--|--|--|--|--|
|  | Amount (million dollars)       | Relative standard error of estimate <sup>1</sup> (percent) | Amount (million dollars)                             | Relative standard error of estimate <sup>1</sup> (percent) | Amount (million dollars)                       | Relative standard error of estimate <sup>1</sup> (percent) |
| <b>Purchased services:</b>                               |                                |  |  |  |  |  |
| Cost of purchased services for the repair of-            |                                |  |  |  |  |  |
| Buildings and other structures                           | 63.0                           | 4  | 43.2   | 7  | 18.9   | 3  |
| Response coverage ratio (percent) <sup>2</sup>           | 9.8                            | 7  | 11.9   | 24   | 15.2   | 4  |
| Machinery  | 68.1                           | (X)  | 61.4   | (X)  | 70.2   | (X)  |
| Response coverage ratio (percent) <sup>2</sup>           | 63.3                           | 5  | 35.4   | 10   | 43.2   | 3  |
| Cost of purchased communication services                 | 71.3                           | (X)  | 68.1   | (X)  | 72.3   | (X)  |
| Response coverage ratio (percent) <sup>2</sup>           | 21.4                           | 4  | 12.0   | 7  | 12.5   | 3  |
| <b>New machinery and equipment expenditures</b>          |                                |  |  |  |  |  |
| Automobiles, trucks, etc.                                | 75.1                           | (X)  | 68.8   | (X)  | 68.8   | (X)  |
| Computers and peripheral                                 | 1 078.3                        | 2  | 978.2  | 2  | 874.3  | 1  |
| All other  | 14.0                           | 13   | 8.8  | 12   | 3.3  | 8  |
| Adjustment ratio (percent) <sup>3</sup>                  | 4.6                            | 27   | 2.4  | 17   | .8   | 18   |
|  | 130.0                          | 5  | 78.6   | 11   | 68.4   | 2  |
| <b>Cost of materials, components, parts, etc., used</b>  |                                |  |  |  |  |  |
| Materials purchased or transferred from foreign sources  | 71.3                           | (X)  | 68.1   | (X)  | 72.3   | (X)  |
| Materials purchased or transferred from domestic sources | 63.0                           | 4  | 43.2   | 7  | 18.9   | 3  |
| Adjustment ratio <sup>3</sup>                            | 19.7                           | 6  | 15.6   | 10   | 5.8  | 3  |
|  | 43.3                           | 5  | 27.6   | 9  | 13.1   | 5  |

**Table 6a. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

| 1987 product code | Product   | 1987  |                                |                         | 1982  |                                |                         |
|-------------------|---|---|--------------------------------|-------------------------|---|--------------------------------|-------------------------|
|                   |   | Number of companies with shipments of \$100,000 or more | Product shipments <sup>1</sup> |                         | Number of companies with shipments of \$100,000 or more | Product shipments <sup>1</sup> |                         |
|                   |   |   | Quantity <sup>2</sup>          | Value (million dollars) |   | Quantity <sup>2</sup>          | Value (million dollars) |
| <b>2043—</b>      | <b>CEREAL BREAKFAST FOODS</b>   |   |                                |                         |   |                                |                         |
|                   | <b>Total</b> .....  | (NA)  | (X)                            | 5 081.1                 | (NA)  | (X)                            | 3 111.5                 |
| 20430 —           | Cereal breakfast foods:   |   |                                |                         |   |                                |                         |
|                   | Ready to serve:   |   |                                |                         |   |                                |                         |
| 20430 11          | Corn flakes and other corn breakfast foods .....  | 9   | 804.9                          | 1 302.3                 | 6   | 705.3                          | 811.2                   |
| 20430 12          | Wheat flakes and other wheat breakfast foods .....  | 10  | 844.7                          | 1 359.6                 | 10  | 719.8                          | 811.1                   |
| 20430 15          | Oat breakfast foods .....   | 10  | 380.4                          | 706.9                   | 9   | (D)                            | (D)                     |
| 20430 17          | Rice breakfast foods .....  | 9   | 256.9                          | 518.1                   | 7   | 275.6                          | 394.2                   |
| 20430 21          | Preparations of other grains and mixed grains, except infants' cereals .....                              | 13  | 366.0                          | 743.1                   | 13  | 269.0                          | 339.5                   |
| 20430 23          | Infants' cereals, all types of grains .....   | 4   | (D)                            | (D)                     |   |                                |                         |
|                   | To be cooked before serving:  |   |                                |                         |   |                                |                         |
| 20430 55          | Farina and other wheat foods, except instant cereals .....  | 5   | 82.0                           | 60.2                    | 8   | 118.7                          | 84.3                    |
| 20430 57          | Rolled oats and oatmeal, except instant cereals .....   | 4   | 287.7                          | 120.5                   | 5   | (D)                            | (D)                     |
| 20430 61          | Preparations of other grains and mixed grains, except instant cereals .....                               | 3   | 9.8                            | 9.0                     | 3   | 9.2                            | 7.2                     |
| 20430 83          | Instant hot cereals, all types of grain (mix-and-eat type) .....  | 3   | (D)                            | (D)                     |   |                                |                         |
| 20430 00          | Cereal breakfast foods, n.s.k., typically for establishments with 10 employees or more (see note) .....   | (NA)  | (X)                            | 6.2                     | (NA)  | (X)                            | 2.4                     |
| 20430 02          | Cereal breakfast foods, n.s.k., typically for establishments with less than 10 employees (see note) ..... | (NA)  | (X)                            | 9.7                     | (NA)  | (X)                            | 3.1                     |
| <b>2044—</b>      | <b>RICE MILLING</b>   |   |                                |                         |   |                                |                         |
|                   | <b>Total</b> .....  | (NA)  | (X)                            | *1 257.4                | (NA)  | (X)                            | *1 797.0                |
| 20440 —           | Milled rice and byproducts:   |   |                                |                         |   |                                |                         |
|                   | Head rice not packaged with other ingredients:  |   |                                |                         |   |                                |                         |
| 20440 11          | Packed in bags 100 lb or more .....   | 27  | **5 357.7                      | 517.7                   | 25  | 5 491.7                        | 935.3                   |
| 20440 15          | Packed in containers 3 lb or less .....   | 12  | 651.8                          | 106.1                   | 17  | 554.0                          | 176.5                   |
| 20440 17          | Packed in all other containers .....  | 15  | *3 321.7                       | 446.3                   | 19  | 2 229.2                        | 492.4                   |
| 20440 21          | Second heads .....  | 14  | 480.8                          | 30.3                    | 13  | 348.5                          | 38.6                    |
| 20440 35          | Screenings and brewers' rice .....  | 14  | 622.4                          | 33.1                    | 16  | 542.8                          | 47.0                    |
| 20440 51          | Bran .....  | 14  | (S)                            | 14.8                    | 16  | 897.7                          | 29.7                    |
| 20440 89          | All other milled rice and byproducts, including rice flour .....  | 12  | (S)                            | 65.0                    | 15  | 4 050.1                        | 46.8                    |
| 20440 00          | Milled rice products, n.s.k., typically for establishments with 10 employees or more (see note) .....     | (NA)  | (X)                            | 27.3                    | (NA)  | (X)                            | 24.4                    |
| 20440 02          | Milled rice products, n.s.k., typically for establishments with less than 10 employees (see note) .....   | (NA)  | (X)                            | 18.8                    | (NA)  | (X)                            | 8.2                     |

**Table 7. Materials Consumed by Kind: 1987 and 1982**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

| 1987 material code | Material  | 1987                  |                                  | 1982                  |                                  |
|--------------------|---|-----------------------|----------------------------------|-----------------------|----------------------------------|
|                    |   | Quantity <sup>1</sup> | Delivered cost (million dollars) | Quantity <sup>1</sup> | Delivered cost (million dollars) |
|                    | <b>INDUSTRY 2043, CEREAL BREAKFAST FOODS</b>                                |                       |                                  |                       |                                  |
|                    | <b>Materials, ingredients, containers, and supplies</b> .....               | (X)                   | 1 423.7                          | (X)                   | 1 250.7                          |
| 011111             | Wheat .....   | 29.4                  | 68.3                             | 11.8                  | 68.2                             |
| 011241             | Rice, rough .....   | 282.5                 | 30.6                             | 265.1                 | 50.7                             |
| 011931             | Oats .....  | 42.8                  | 46.7                             | (D)                   | (D)                              |
| 203415             | Dried fruits and nuts (including raisins) .....                             | 1 803.8               | 163.1                            | 797.9                 | 78.9                             |
| 204110             | Wheat flour .....   | 4 022.5               | 31.0                             | 3 577.3               | 42.1                             |
| 204001             | Flour other than wheat and prepared flour mixes .....                       | 4 069.2               | 47.8                             | 2 965.8               | 45.1                             |
| 206011             | Sugar (cane and beet) .....   | 408.2                 | 198.7                            | 328.4                 | 161.3                            |
| 207003             | Fats and oils for use in flour and prepared flour mixes .....               | 88.2                  | 23.0                             | (D)                   | (D)                              |
| 190003             | Flexible packaging materials .....  | (X)                   | 90.7                             | (X)                   | 55.9                             |
| 265001             | Paperboard containers, boxes, and corrugated paperboard .....               | (X)                   | 313.6                            | (X)                   | 257.2                            |
| 970089             | All other materials, ingredients, containers, and supplies .....            | (X)                   | 407.9                            | (X)                   | 382.1                            |
| 971000             | Materials, ingredients, containers, and supplies, n.s.k. <sup>2</sup> ..... | (X)                   | 2.3                              | (X)                   | 1.4                              |
|                    | <b>INDUSTRY 2044, RICE MILLING</b>  |                       |                                  |                       |                                  |
|                    | <b>Materials, ingredients, containers, and supplies</b> .....               | (X)                   | 798.1                            | (NA)                  | (NA)                             |
| 011241             | Rice, rough .....   | 11 733.2              | 737.4                            | (NA)                  | (NA)                             |
| 970089             | All other materials, ingredients, containers, and supplies .....            | (X)                   | 43.2                             | (NA)                  | (NA)                             |
| 971000             | Materials, ingredients, containers, and supplies, n.s.k. <sup>2</sup> ..... | (X)                   | 15.5                             | (NA)                  | (NA)                             |

- **Geographic Area Series**, MC87-A-1 to -51, □ ■ ⊕ ⊙ ■ . These reports, issued for each State and the District of Columbia, present data by industry on the number of establishments, payroll, employment, value of shipments, expenditures for new capital equipment, hours worked, and value added by manufacture, together with comparative statistics for earlier years. Statistics for auxiliary establishments are shown within each geographic area wherever they account for significant employment. Similar totals are also shown by industry for MSA's, counties, and incorporated places with a minimum number of manufacturing employees. Some statistics, including assets, rents, inventories, and cost of materials, are presented in statewide totals only. The number of establishments is shown by employment size class for two-digit major SIC groups at the county level. Only the county-level summary totals are available on diskette ■ .
- **Location of Manufacturing Plants**, MC87-LM, ⊕ ⊙ . These files, not available in print, present the number of establishments by employment-size class by four-digit SIC for States, counties, places, and ZIP Codes, as illustrated on page 57. These establishment counts by size class are not considered to be a disclosure of confidential information, so a data line is present for every industry with one or more establishments within the area. Thus, they provide much more industry detail than can be shown in the Geographic Area Series.
- **Subject Series**, MC87-S-1 to -7, □ ■ . This series provides seven separate detailed reports, with data at the national level except where noted otherwise.
  1. **General Summary: Industry, Product Class, and Geographic Area Statistics** consolidates into a single volume many of the key statistics previously published in the industry and geographic area series along with any subsequent corrections or revisions. Most data are at the national level, but limited data are also reported for States and MSA's. (Also ⊕ ⊙ )
  2. **Textile Machinery in Place** provides data on the number and type of textile machinery in place in textile mills.
  3. **Water Use in Manufacturing** presents data by industry on the intake, recirculation, and discharge of water during 1989 for establishments that used 20 million gallons of water or more in 1987. Separate tables show the source, type, and purpose of the water used and the point of discharge of both treated and untreated water for the Nation by industry, and for each State and 19 water resource regions by two-digit major industry groups.
  4. **Distribution of Sales by Class of Customer** provides information on the primary channels through which manufacturers distributed their products, for example, through retailers, wholesalers, or other manufacturers. Shipments to other establishments within the same company are tallied separately. The data are based on a survey of companies conducted as part of the census of manufactures. Comparable data were last published for 1977.
  5. **Type of Organization** provides statistics by industry on type of organization (single- or multiestablishment) and legal form of organization (corporation, individual proprietorship, partnership, and other).
  6. **Concentration Ratios in Manufacturing** presents measures of the share of individual activity accounted for by the largest companies. Concentration measures are shown for each four-digit industry, with time series data across as many censuses as have comparable statistics. (Also ⊕ ⊙ )
  7. **Manufacturers' Shipments to Federal Government** shows estimates from a special survey on the value of manufactured goods shipped to the Department of Defense, the Department of Energy, the National Aeronautics and Space Administration, and all other Federal agencies, for 69 four digit industries that tend to have large Federal contacts.

### How Have Manufactures Data Been Used?

A Fort Worth man planning to form a new company to specialize in frozen Mexican foods looked to the manufactures Industry Series report on the frozen food industry to tell him the value of frozen specialty products already being produced and where existing establishments were located.

A community action corporation in western Pennsylvania used census of manufactures data on the steel industry and its customers at the State and national level to determine the feasibility of local efforts to reopen a steel plant closed a few years earlier. Census figures helped convince them that this was not a good investment, despite local enthusiasm for the project.

A major bank in North Carolina sought to diversify its base of investments rather than remaining dependent on textile and furniture manufacturers. It used census of manufactures data to identify promising industries that were not yet heavily represented in the State.

A professor at the Boston University School of Medicine used data on the geographic distribution of meat processing plants from the *Location of Manufacturing Plants* on computer tape in his study of the spread of brucellosis, an infection in livestock.

The marketing department of a chemical manufacturing company looked to the subject report *Water Use in Manufacturing* for information on industries that might use its products for water treatment and purification. Census data on water use by different industries and by State were used to determine the size of the market, to assign market areas, and to allocate resources for contacting potential product users.

**Tables From Manufactures Geographic Area Series, MC87-A**

**Table 5. Statistics by Selected Industry Group and Industry for the State: 1987**

[Includes operating manufacturing establishments and auxiliaries. Includes industry groups and industries with 150 employees or more. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| SIC code | Industry                                | E <sup>1</sup> | All establishments <sup>2</sup> |                                 | All employees               |                           | Production workers |                  |                         | Value added by manufacture <sup>3</sup> (million dollars) | Cost of materials <sup>4</sup> (million dollars) | Value of shipments <sup>5</sup> (million dollars) | New capital expenditures (million dollars) |
|----------|---|----------------|---------------------------------|---------------------------------|-----------------------------|---------------------------|--------------------|------------------|-------------------------|---|--|---|--|
|          |   |                | Total (no.)                     | With 20 employees or more (no.) | Number <sup>2</sup> (1,000) | Payroll (million dollars) | Number (1,000)     | Hours (millions) | Wages (million dollars) |   |  |   |  |
|          | All industries .....                    | E1             | 47 625                          | 14 467                          | 2 005.0                     | 42 636.4                  | 1 209.4            | 2 317.9          | 20 564.8                | 94 374.0  | 105 592.9  | 199 704.1   | 8 443.6                                    |
| 20       | Food and kindred products .....         | -              | 2 536                           | 1 208                           | 173.5                       | 3 286.0                   | 127.9              | 240.7            | 2 159.7                 | 10 936.5  | 20 339.9   | 31 263.3  | 906.3                                      |
| 201      | Meat products .....                     | E2             | 260                             | 139                             | 18.7                        | 318.8                     | 15.5               | 31.0             | 243.8                   | 720.5   | 3 019.5  | 3 747.9   | 91.7                                       |
| 2011     | Meat packing plants .....               | E2             | 86                              | 43                              | 4.6                         | 99.3                      | 3.7                | 7.4              | 77.4                    | 218.2   | 1 583.5  | 1 809.9   | (D)  |
| 2013     | Sausages and other prepared meats ..... | E1             | 127                             | 65                              | 5.6                         | 117.5                     | 4.0                | 7.6              | 78.3                    | 332.5   | 849.4  | 1 180.5   | 13.5                                       |
| 2016     | Poultry dressing plants .....           | E2             | 32                              | 2                               | 8.2                         | 98.0                      | 7.5                | 15.5             | 85.1                    | 161.5   | 554.6  | 717.5   | (D)  |
| 2017     | Poultry and egg processing .....        | E3             | 15                              | 7                               | .3                          | 4.0                       | .3                 | .8               | 3.0                     | 8.2   | 32.1   | 40.1  | 1.1  |

**Table 7. Statistics by Selected Industry Group and Industry for Selected Counties: 1987**

[Includes operating manufacturing establishments and auxiliaries. Includes counties with 950 employees or more and industry groups and industries with 950 employees or more within counties, except those that would disclose data for individual companies. For information on geographic areas followed by Δ, general geographic information, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

| SIC code | Geographic area and industry            | E <sup>1</sup> | All establishments <sup>2</sup> |                                 | All employees  |                           | Production workers |                  |                         | Value added by manufacture <sup>3</sup> (million dollars) | Cost of materials <sup>4</sup> (million dollars) | Value of shipments <sup>5</sup> (million dollars) | New capital expenditures (million dollars) |
|----------|---|----------------|---------------------------------|---------------------------------|----------------|---------------------------|--------------------|------------------|-------------------------|---|--|---|--|
|          |   |                | Total (no.)                     | With 20 employees or more (no.) | Number (1,000) | Payroll (million dollars) | Number (1,000)     | Hours (millions) | Wages (million dollars) |   |  |   |  |
|          | Alameda County .....                    | E1             | 2 202                           | 671                             | 76.4           | 1 757.2                   | 45.6               | 887.1            | 916.2                   | 3 637.8   | 4 248.8  | 7 948.6   | 247.5                                      |
| 20       | Food and kindred products .....         | -              | 181                             | 86                              | 11.9           | 259.5                     | 7.4                | 13.7             | 147.8                   | 977.1   | 1 383.2  | 2 370.6   | 32.4                                       |
| 201      | Meat products .....                     | E3             | 25                              | 12                              | .8             |                           |                    |                  |                         |   |  |   | 1.2  |
| 2013     | Sausages and other prepared meats ..... | E2             | 18                              | 10                              | CC             |                           |                    |                  |                         |   |  |   | (D)  |
| 202      | Dairy products .....                    | E2             | 17                              | 9                               | EE             |                           |                    |                  |                         |   |  |   | (D)  |
| 2026     | Fluid milk .....                        | -              | 6                               | 4                               | EE             |                           |                    |                  |                         |   |  |   | (D)  |
| 203      | Preserved fruits and vegetables .....   | -              | 10                              | 6                               | 1.4            |                           |                    |                  |                         |   |  |   | 2.6  |
| 2032     | Canned specialties .....                | -              | 3                               | 2                               | CC             |                           |                    |                  |                         |   |  |   | (D)  |
| 2033     | Canned fruits and vegetables .....      | -              | 2                               | 2                               | CC             |                           |                    |                  |                         |   |  |   | (D)  |
| 204      | Grain mill products .....               | -              | 16                              | 6                               | .9             |                           |                    |                  |                         |   |  |   | 3.3  |
| 2043     | Cereal breakfast foods .....            | -              | 2                               | 2                               | CC             |                           |                    |                  |                         |   |  |   | (D)  |

This format is also used to show data for—  
 Table 6, MSA's (industries with 450 employees or more)  
 Table 8, Places (industries with 950 employees or more)

**Display From Location of Manufacturing Plants Files, MC87-LM**

**SIC 2641, Paper Coating and Glazing: No. of Establishments by Employment Size**

| LABEL               | SIC  | ESTABS | E1T019 | E20T049 | E50T099 | E100T0249 |
|---------------------|------|--------|--------|---------|---------|-----------|
| United States       | 2641 | 574    | 276    | 124     | 74      | 61        |
| Alabama             | 2641 | 3      | 1      | 2       | 0       | 0         |
| Cullman County      | 2641 | 1      | 0      | 1       | 0       | 0         |
| Jefferson County    | 2641 | 1      | 1      | 0       | 0       | 0         |
| Lee County          | 2641 | 1      | 0      | 1       | 0       | 0         |
| Arizona             | 2641 | 2      | 2      | 0       | 0       | 0         |
| Maricopa County     | 2641 | 1      | 1      | 0       | 0       | 0         |
| Pima County         | 2641 | 1      | 1      | 0       | 0       | 0         |
| Arkansas            | 2641 | 2      | 1      | 0       | 1       | 0         |
| Ouachita County     | 2641 | 1      | 1      | 0       | 0       | 0         |
| White County        | 2641 | 1      | 0      | 0       | 1       | 0         |
| California          | 2641 | 67     | 42     | 13      | 6       | 6         |
| Alameda County      | 2641 | 9      | 3      | 2       | 2       | 2         |
| Contra Costa County | 2641 | 1      | 1      | 0       | 0       | 0         |
| El Dorado County    | 2641 | 1      | 1      | 0       | 0       | 0         |
| Los Angeles County  | 2641 | 27     | 18     | 7       | 0       | 2         |
| Monterey County     | 2641 | 1      | 0      | 1       | 0       | 0         |

Establishments with 1 to 19 employees

Table 5a. Manufacturing Industries—Shipments and Employment Related to Manufactured Exports for States by Major Group: 1986

| SIC code | Geographic area and major group          | Value of manufacturers' shipments    |   |   |   |  | Manufacturing employment   |  |   |   |   | Relative standard error of estimate <sup>a</sup> (percent) for column— |    |
|----------|--|--------------------------------------|---|---|---|--|----------------------------|--|---|---|---|--|----|
|          |  | Total <sup>1</sup> (million dollars) | Direct exports <sup>2</sup> (million dollars) | Supporting exports <sup>3</sup> (million dollars) | Total export related <sup>4</sup> (million dollars) | Total export related as percent of total shipments | Total <sup>5</sup> (1,000) | Direct export related <sup>6</sup> (1,000) | Supporting exports <sup>7</sup> (1,000) | Total export related <sup>8</sup> (1,000) | Total export related as percent of total employment |  |    |
|          |  | A                                    | B   | C   | D   | E  | F                          | G  | H                                       | I   | J   | B  | G  |
|          | United States ....                       | 2 260 314.6                          | 159 376.8                                     | 134 962.7   | 294 339.5   | 13.0   | 18 371.2                   | 1 060.9                                    | 1 257.3                                 | 2 318.2                                   | 12.6  | 1  | 1  |
|          | Alabama .....                            | 36 537.2                             | 1 684.9                                       | 2 725.0   | 4 409.9   | 12.1   | 328.9                      | 12.1                                       | 19.6                                    | 31.7                                      | 9.6   | 2  | 4  |
| 20       | Food and kindred products..              | 3 836.0                              | 222.6   | 65.1  | 287.7   | 7.5  | 25.3                       | 1.1  | .3                                      | 1.4                                       | 5.5   | 5  | 9  |
| 21       | Tobacco products .....                   | 34.6                                 | (D)   | (D)   | (D)   | (D)  | .5                         | (D)  | (D)                                     | (Z)                                       | (Z)   | (X)  | 1  |
| 22       | Textile mill products .....              | 2 755.8                              | 69.6  | 160.7   | 230.3   | 8.4  | 32.0                       | .8   | 1.6                                     | 2.4                                       | 7.5   | 9  | 10 |
| 23       | Apparel and other textile products ..... | 2 418.2                              | 92.1  | 23.4  | 115.5   | 4.8  | 56.3                       | .8   | .4                                      | 1.2                                       | 2.1   | 1  | 1  |
| 24       | Lumber and wood products .....           | 2 051.4                              | 75.9  | 100.5   | 176.4   | 8.6  | 22.7                       | .8   | 1.2                                     | 2.0                                       | 8.8   | 53   | 56 |

**Analytical Reports**

Analytical Reports include information from the census of manufactures and related sources.

- **Exports From Manufacturing Establishments**, AR87-1, □ ■ ⊕ ⊙ ▣, presents information on the value of direct and indirect export shipments and estimates of the employment required to manufacture these products, reported by two- and three-digit SIC codes for the Nation as a whole and for States.

For years other than census years, this report is published based on data from the Annual Survey of Manufactures, but with only two-digit SIC detail for States. ASM reports also do not feature the counts of establishments that export, as shown in the following report.

- **Selected Characteristics of Manufacturing Establishments That Export**, AR87-2 □ ■ ⊕ ▣, publishes the number of establishments that export by "export intensity" (percent of goods produced that are exported) by two- or three- digit SIC for States and separately by employment-size class.
- **Indexes of Production**, AR87-3, □ ■, is designed to measure the change in physical output of manufacturing and mineral industries between 1982 and 1987. Price deflators used in converting the value of shipments to constant dollars are presented at the four- and five-digit levels. This is the only report from the economic censuses where the topic of adjusting the data for inflation is discussed (see also p. 110).

The corresponding report for the 1982 census was released in 1989 as a "working paper." (Contact Industry Division, Bureau of the Census, Washington, D.C. 20233.)

**Current Manufactures Statistics**

- **Annual Survey of Manufactures**, series M[year] (AS)-1 to -3, □ ■ ⊕. The ASM is published for years other than census years (e.g., 1988-1991). Census years are excluded

because census reports include statistics normally collected in the ASM. These reports typically are published 15 to 18 months after the close of the reference year.

1. **Statistics for Industry Groups and Industries**, similar to the general statistics in the census Industry Series but less detailed, at the national level, with comparable data for the previous year.
  2. **Value of Product Shipments**, featuring approximately 1,500 product classes, with comparable data for the previous few years.
  3. **Geographic Area Statistics**, presents general statistics for States by three-digit industry, with comparable data for the previous year. Prior to 1985, the ASM also included data on the origin of exports of manufactured products. The data are now published in separate reports in the Analytical Report series (see above).
- **Current Industrial Reports**, □ (subscription) ■, also ▣ where indicated on page 59. The various publications series include monthly, quarterly, annual, and biennial reports. Some monthly and quarterly series are linked to separate annual reports; those that are not have annual summaries within the same series. Titles and frequency are listed on page 59, along with an indication of those reports that include State data. (The list is subject to change from time to time, since many of the surveys depend for funding on outside sponsors.)

CIR's are generally commodity reports, covering selected products. Many include import and export data, as collected separately (see "Foreign Trade Data," p. 87), allowing the estimation of "apparent consumption" of commodities in the United States. Report numbering generally includes the two-digit SIC for the major industry group.

There are also several general purpose reports not restricted to one industry group:

## CURRENT INDUSTRIAL REPORTS

| Report series | Frequency <sup>1</sup> |   | Report series | Frequency <sup>1</sup> |  |
|---------------|------------------------|---|---------------|------------------------|--|
|               |                        | <b>SPECIAL SURVEYS</b>  |               |                        | <b>PRIMARY METALS</b>  |
| MQC1          | A                      | Survey of Plant Capacity <sup>2</sup>   | M33A          | M                      | Iron and Steel Foundries   |
| MA200         | A                      | Pollution Abatement Costs and Expenditures  | MA33A         | A                      | Iron and Steel Foundries   |
|               |                        | <b>ALL MANUFACTURING INDUSTRIES</b>   | MA33B         | A                      | Steel Mill Products  |
| M3            | M                      | Manufacturers' Shipments, Inventories, and Orders <sup>2</sup>  | M33E          | M                      | Nonferrous Castings <sup>2</sup>   |
|               |                        | <b>FOOD</b>   | MA33E         | A                      | Nonferrous Castings  |
| M20A          | M                      | Flour Milling Products <sup>2</sup> <sup>2</sup>  | M33J          | M                      | Steel Mill Shapes and Forms (Producers' Net Shipments and Inventories)                               |
| MA20D         | A                      | Confectionery   | M33D          | M                      | Aluminum Ingot and Mill Products <sup>2</sup>  |
| M20J          | M                      | Oilseeds, Beans, and Nuts (primary processors) <sup>2</sup>   | MA33L         | A                      | Insulated Wire and Cable   |
| M20K          | M                      | Fats and Oils—Production, Consumption, and Stocks   |               |                        | <b>INTERMEDIATE METAL PRODUCTS</b>   |
|               |                        | <b>TEXTILE MILL PRODUCTS</b>  | MQ34E         | Q                      | Plumbing Fixtures <sup>2</sup>   |
| M22D          | M                      | Consumption of Fibers in Woolen Spinning and Production of Tops and Noils and Tow to Top <sup>2</sup>                 | MQ34H         | Q                      | Closures for Containers  |
| MA22F.1       | A                      | Textured Yarn Production  | MQ34K         | Q                      | Steel Shipping Barrels, Drums, and Pails   |
| MA22F.2       | A                      | Spun Yarn Production <sup>2</sup>   |               |                        | <b>MACHINERY AND EQUIPMENT</b>   |
| MA22G         | A                      | Narrow Fabrics  | MA35A         | A                      | Farm Machinery and Lawn and Garden Equipment   |
| MA22K         | A                      | Knit Fabric Production  | MQ35D         | Q                      | Construction Machinery   |
| MA22M         | B                      | Stocks of Wool and Related Fabrics  | MA35D         | A                      | Construction Machinery Shipments   |
| M22P          | M                      | Cotton, Manmade Fiber Staple, and Raw Linters (Consumption and Stocks and Spindle Activity) <sup>2</sup> <sup>2</sup> | MA35F         | A                      | Mining Machinery, Mineral Processing Equipment   |
| MQ22Q         | Q                      | Carpet and Rugs   | MA35L         | A                      | Internal Combustion Engines  |
| MA22Q         | A                      | Carpet and Rugs   | MA35N         | A                      | Fluid Power Products, Including Aerospace  |
| MQ22T         | Q                      | Broadwoven Fabrics (Gray) <sup>2</sup>  | MA35P         | A                      | Pumps and compressors  |
| MQ23X         | Q                      | Sheets, Pillowcases, and Towels <sup>2</sup>  | MA35Q         | A                      | Antifriction Bearings  |
|               |                        | <b>APPAREL</b>  | MQ35W         | Q                      | Metalworking Machinery   |
| MA23A         | A                      | Apparel   | MA35X         | A                      | Robotics   |
| MQ23A         | Q                      | Apparel   | MA37D         | A                      | Aerospace Orders   |
| MA23D         | A                      | Gloves and Mittens  | M37G          | M                      | New Complete Aircraft and Aircraft Engines, Except Military <sup>2</sup>                             |
| M31A          | M                      | Footwear  | M37L          | M                      | Truck Trailers <sup>2</sup>  |
| MA31A         | A                      | Footwear  |               |                        | <b>INDUSTRIAL EQUIPMENT AND CONSUMER GOODS</b>   |
|               |                        | <b>WOOD AND PAPER PRODUCTS</b>  | MA34N         | A                      | Selected Heating Equipment   |
| MA24F         | A                      | Hardwood Plywood  | MA35J         | A                      | Selected Industrial Air Pollution Control Equipment  |
| MA24H         | A                      | Softwood Plywood  | MA35M         | A                      | Refrigeration and Air-Conditioning Equipment, Including Warm Air Furnaces                            |
| MA24T         | A                      | Lumber Production and Mill Stocks <sup>2</sup>  | MA35U         | A                      | Coin-Operated Vending Machines   |
| MA26A         | A                      | Pulp, Paper, and Board  | MA36E         | A                      | Electric Housewares and Fans   |
|               |                        | <b>OFFICE FURNITURE, SUPPLIES, AND RELATED PRODUCTS</b>   | MA36F         | A                      | Major Household Appliances   |
| MA25H         | A                      | Office Furniture  | MA36L         | A                      | Electric Lighting Fixtures   |
|               |                        | <b>CHEMICALS AND RELATED PRODUCTS</b>   | MA36M         | A                      | Radio Receivers and Television Sets, Phonographs and Record Players, Speakers, and Related Equipment |
| M28A          | M                      | Inorganic Chemicals <sup>2</sup>  | MA35R         | A                      | Computers and Office and Accounting Machines   |
| MA28A         | A                      | Inorganic Chemicals <sup>2</sup>  | MA36P         | A                      | Communication Equipment, Including Telephones and Other Electronic Systems and Equipment             |
| M28B          | M                      | Inorganic Fertilizer Materials and Related Products <sup>2</sup>  | MA36Q         | A                      | Semiconductors, Printed Circuit Boards, and Other Electronic Components                              |
| MA28B         | A                      | Inorganic Fertilizer Materials and Related Products <sup>2</sup>  | MA36R         | A                      | Electromedical Equipment and Irradiation Equipment (Including X-Ray)                                 |
| M28C          | M                      | Industrial Gases <sup>2</sup>   |               |                        | <b>SWITCHGEAR AND INDUSTRIAL CONTROLS</b>  |
| MA28C         | A                      | Industrial Gases <sup>2</sup> <sup>3</sup>  | MA36A         | A                      | Switchgear, Switchboard Apparatus, Relays, and Industrial Controls                                   |
| M28F          | M                      | Paint, Varnish, and Lacquer Products <sup>2</sup>   | MA38B         | A                      | Selected Instruments and Related Products  |
| MA28F         | A                      | Paint and Allied Products   |               |                        | <b>ELECTRICAL AND ELECTRONICS</b>  |
| MA28G         | A                      | Pharmaceutical Preparations, Except Biologicals   | M36D          | M                      | Electric Lamps   |
|               |                        | <b>RUBBER AND PLASTICS PRODUCTS</b>   | MQ36B         | Q                      | Electric Lamps   |
| MA30A         | A                      | Rubber  | MQ36C         | Q                      | Fluorescent Lamp Ballasts  |
| MA30B         | A                      | Rubber and Plastics Hose and Beltings   |               |                        | <b>MOTORS, GENERATORS, AND ELECTRICAL DISTRIBUTION EQUIPMENT</b>                                     |
| MA30C         | A                      | Rubber Mechanical Products  | MA36H         | A                      | Motors and Generators  |
| MA30E         | A                      | Plastics Bottles  | MA36K         | A                      | Wiring Devices and Supplies  |
|               |                        | <b>GLASS, CLAY, AND RELATED PRODUCTS</b>  |               |                        | <b>AEROSPACE</b>   |
| MQ32A         | Q                      | Flat Glass  | MA37D         | A                      | Aerospace Industry (Orders, Sales, and Backlog)  |
| MA32C         | A                      | Shipments of Refractories   |               |                        |  |
| M32D          | M                      | Clay Construction Products <sup>2</sup> <sup>3</sup>  |               |                        |  |
| MA32E         | A                      | Consumer, Scientific, Technical, and Industrial Glassware   |               |                        |  |
| M32G          | M                      | Glass Containers <sup>2</sup>   |               |                        |  |
| MA32J         | A                      | Fibrous Glass   |               |                        |  |

<sup>1</sup>Frequency of publication: M, monthly; Q, quarterly; A, annual; B, biennial).

<sup>2</sup>Includes data for some or all States.

<sup>3</sup>Includes data for census regions.

- **Manufacturers' Shipments, Inventories and Orders**, M3-1, □ ■ ■, provides these three key measures of manufacturing activity at the national level. This report is issued about 30 days after the end of the reference month.

- **Survey of Plant Capacity**, MQ-C1, □ ■ ■, presents fourth-quarter data for the United States by industry on capacity utilization rates and reasons plants operated at less than 100 percent of capacity. Data are issued roughly 14 months after the close of the year.

- **Pollution Abatement Costs and Expenditures**, MA-200, Plant Capacity, MQ-C1, □ ■ ■, presents annual data on total operating costs, capital expenditures, and cost recovered by manufacture for air, water, and solid-waste pollution abatement in the United States during the year. Data for establishments with 20 or more employees are shown by four-digit SIC for the United States and by two-digit SIC for States. The report appears about 14 months after the close of the reference year.

- **Survey of Manufacturing Technology**, SMT(88)-1, □ ■ ■, a one-time survey conducted in 1988, shows manufacturers' current use and plans for acquiring and implementing specific technologies, such as robotics, computer-aided design, and computer-assisted manufacturing within SIC major group 34 to 38.

For more information about manufactures, see also—

- Outlying Areas (p. 73)
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Quarterly Financial Report (p. 85)
- Plant and Equipment Expenditures Survey (p. 86)
- Foreign Trade (p. 87), with statistics on the import and export of manufactured goods.
- Agriculture (p. 90), including cotton ginnings.
- Population and Housing (p. 96), for characteristics of persons employed in manufacturing.

**Table From Current Industrial Report M3-1, Manufacturers' Shipments, Inventories and Orders**

**Table 1. VALUE OF MANUFACTURERS' SHIPMENTS FOR INDUSTRY GROUPS, MARKET CATEGORIES AND SUPPLEMENTARY SERIES (Millions of dollars)**

| Industry  | Seasonally adjusted    |                        |          |                        |                       |          | Not seasonally adjusted <sup>1</sup> |                        |          |           |   |                   |           |
|---|------------------------|------------------------|----------|------------------------|-----------------------|----------|--------------------------------------|------------------------|----------|-----------|---|-------------------|-----------|
|   | Monthly                |                        |          | Percent Change         |                       |          | Monthly                              |                        |          |           | Percent change<br>July 89/88 <sup>P</sup> | Year to date      |           |
|   | July 1989 <sup>P</sup> | June 1989 <sup>F</sup> | May 1989 | June-July <sup>P</sup> | May-June <sup>F</sup> | Apr.-May | July 1989 <sup>P</sup>               | June 1989 <sup>F</sup> | May 1989 | July 1988 |   | 1989 <sup>P</sup> | 1988      |
| All manufacturing industries . . . . .                  | 226,933                | 231,236                | 233,071  | -1.9                   | -0.8                  | -0.4     | 208,628                              | 245,779                | 233,725  | 199,670   | +4.5                                      | 1,603,254         | 1,481,762 |
| Manufacturing industries with unfilled orders . . . . . | 126,109                | 128,182                | 128,363  | -1.6                   | -0.1                  | -0.3     | 114,099                              | 137,090                | 127,503  | 108,677   | +5.0                                      | 880,636           | 816,404   |
| Durable goods industries . . . . .                      | 117,688                | 121,720                | 122,962  | -3.3                   | -1.0                  | -0.3     | 104,870                              | 131,766                | 124,193  | 101,393   | +3.4                                      | 847,544           | 786,936   |
| With unfilled orders . . . . .                          | 98,908                 | 101,142                | 101,168  | -2.2                   | 0.0                   | -0.1     | 88,676                               | 109,350                | 100,808  | 84,419    | +5.0                                      | 693,812           | 640,554   |
| Stone, clay, and glass products . . . . .               | 5,289                  | 5,466                  | 5,404    | -3.2                   | +1.1                  | -0.9     | 5,028                                | 5,915                  | 5,556    | 4,999     | +0.6                                      | 37,342            | 36,472    |
| Primary metals . . . . .                                | 12,117                 | 12,179                 | 12,250   | -0.5                   | -0.6                  | -1.9     | 11,080                               | 12,955                 | 12,537   | 10,728    | +3.3                                      | 87,673            | 80,934    |
| Blast furnaces, steel mills . . . . .                   | 4,862                  | 4,858                  | 5,048    | +0.1                   | -3.8                  | -1.6     | 4,478                                | 5,208                  | 5,239    | 4,641     | -3.5                                      | 35,947            | 35,811    |
| Iron and steel foundries . . . . .                      | 807                    | 843                    | 875      | -4.3                   | -3.7                  | -2.9     | 696                                  | 900                    | 939      | 715       | -2.7                                      | 6,097             | 5,892     |
| Nonferrous and other primary metals . . . . .           | 6,448                  | 6,478                  | 6,327    | -0.5                   | +2.4                  | -2.0     | 5,906                                | 6,847                  | 6,359    | 5,372     | +9.9                                      | 45,629            | 39,231    |

**Table From Current Industrial Report M28A, Inorganic Chemicals**

**Table 2. PRIMARY PRODUCTION AND STOCKS OF INORGANIC CHEMICALS (Short tons)**

| Product code | Product description   | June 1989         |                            | May 1989          |                            | June 1988         |                            |
|--------------|---|-------------------|----------------------------|-------------------|----------------------------|-------------------|----------------------------|
|              |   | Quantity produced | Stocks at producing plants | Quantity produced | Stocks at producing plants | Quantity produced | Stocks at producing plants |
|              | Chlorine and alkalies:  |                   |                            |                   |                            |                   |                            |
|              | Chlorine (100%):  |                   |                            |                   |                            |                   |                            |
| 28121 11     | Gas <sup>1</sup> . . . . .  | 910,411           | (NA)                       | 930,238           | (NA)                       | 903,590           | (NA)                       |
| 28121 15     | Liquid . . . . .  | 677,092           | (NA)                       | 717,825           | (NA)                       | 704,779           | (NA)                       |
|              | Sodium hydroxide (caustic soda) (100% (all processes):                        |                   |                            |                   |                            |                   |                            |
|              | Liquid <sup>2</sup> . . . . .   | 972,189           | (NA)                       | 987,834           | (NA)                       | 957,082           | (NA)                       |
| 28123 50     | Dry (all forms) . . . . .   | *14,295           | (NA)                       | *20,258           | (NA)                       | 18,740            | (NA)                       |
| 28123 67     | Potassium hydroxide (caustic potash) (88 to 92% liquid <sup>1</sup> . . . . . | 31,459            | (NA)                       | 31,281            | (NA)                       | 28,996            | (NA)                       |



# Mineral Industries

## WHAT ARE MINERAL INDUSTRIES?

The census of mineral industries enumerates establishments primarily engaged in mining—**extracting minerals** that occur naturally, whether in solid, liquid, or gaseous form; **preparing them** on site as necessary; and **exploring and developing mineral properties**.

Mineral industries do not include the purification and distribution of water, classified under transportation and public utilities, and the bottling and distribution of natural spring and mineral waters, classified under wholesale trade. Crushing, grinding, or otherwise preparing clay, ceramic, and refractory minerals, barite, and miscellaneous nonmetallic minerals other than fuels is classified as manufacturing unless performed in conjunction with mining and quarrying operations. Dressing of stone or slabs is classified as manufacturing whether or not mining is done at the same establishment.

Mining operations carried on as secondary activities at manufacturing establishments (such as sand and gravel operations at ready-mixed concrete plants) are also not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1987 Census of Manufactures and are included in census of mineral industries reports.

## HOW ARE MINERAL ESTABLISHMENTS, PRODUCTS, AND MATERIALS CLASSIFIED?

### Mineral Industries Establishments

In general, mining establishments are classified by the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. There are four major groups in the Standard Industrial Classification (SIC) for mineral industries—

- 10 Metal mining
- 12 Coal mining
- 13 Oil and gas extraction
- 14 Mining and quarrying of nonmetallic minerals, except fuels

These major groups are broken down into 19 three-digit industry groups and 31 four-digit industries as shown in appendix A.

Central administrative offices, warehouses, and other auxiliary establishments that primarily serve mining establishments are classified at the four-digit SIC level and are

included in all tallies of establishments, employment, and payroll. This is different from the other economic censuses, where auxiliaries are either excluded or shown separately. Auxiliaries are very important to mining operations, since many operating establishments (mines) have little administrative support on site. Additional characteristics of auxiliaries are shown in an Enterprise Statistics report (see p. 76).

### Mineral Products

The Census Bureau has developed a system for classifying the products of mineral industries into a hierarchical structure of 76 product classes (five-digit code) and 180 products (seven-digit code). These codes are consistent with the four-digit SIC code for the industry from which those products typically originate. For example—

- Industry 1011 Iron ores
- Product class 10111 Crude iron ores
- Product 10111 21 Direct-shipping ores

Some changes occur in this product coding between censuses as obsolete products are combined into broader categories and new categories are defined in response to the development of new products, new technologies, and changing marketing needs within the respective industries. Additional changes were made for 1987 where necessary to reflect changes in the SIC system and to increase comparability with the "harmonized system" for classifying commodities in export and import statistics. (See discussion of foreign trade data, p. 87.)

### Materials Consumed

A separate set of six-digit codes is used to classify important raw materials consumed by mining establishments.

## HOW ARE THE DATA COLLECTED?

The census data were collected by mail directly from about 22,000 single and multiestablishment companies using 11 variants of the census questionnaire. Limited data (employment, payroll, and receipts) for the approximately 11,000 additional small firms, those below a cutoff that varied by industry, were obtained from administrative records of other Federal agencies.

Data on water use reported in the Subject Series (see below) are being collected in 1990 (covering water use during 1989) from mining establishments that reported on the 1987 census questionnaire that they used at least 20 million gallons of water.

Figure 13. Major Data Items Published in Mineral Industries Reports by Geographic Level

[Legend: \* —Counties, States, and national. N—National only. S—States and national]

| Item  | Series <sup>1</sup> |         |         |           |           |           |
|---|---------------------|---------|---------|-----------|-----------|-----------|
|   | MIC87-I(P)          | MIC87-I | MIC87-A | MIC87-S-1 | MIC87-S-2 | MIC87-S-3 |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>   |                     |         |         |           |           |           |
| Establishments with payroll . . . . .   | N                   | S       | *       | S         |           |           |
| Establishments by legal form of organization . . . . .  |                     |         |         | N         |           |           |
| Firms . . . . .   |                     | N       |         |           |           |           |
| Single- and multiestablishments . . . . .   |                     |         |         | N         |           |           |
| <b>EMPLOYMENT</b>   |                     |         |         |           |           |           |
| All employees . . . . .   | N                   | S       | *       | S         |           |           |
| Production workers . . . . .  | N                   | S       | *       | S         |           |           |
| Production worker hours . . . . .   | N                   | S       | *       | S         |           |           |
| Employment size of establishments . . . . .   |                     | N       | *       | N         |           |           |
| <b>PAYROLLS</b>   |                     |         |         |           |           |           |
| All employees, entire year . . . . .  | N                   | S       | *       | S         |           |           |
| Production workers . . . . .  | N                   | S       | *       | S         |           |           |
| Supplemental labor costs, legally required and voluntary . . . . .  |                     | N       | S       | N         |           |           |
| <b>VALUE OF SHIPMENTS</b>   |                     |         |         |           |           |           |
| Establishments with payroll . . . . .   | N                   | S       | *       | S         |           |           |
| By product . . . . .  | N                   | S       |         |           |           |           |
| By size of establishments . . . . .   |                     | N       |         | N         |           |           |
| <b>OPERATING EXPENSES</b>   |                     |         |         |           |           |           |
| Cost of materials, etc . . . . .  | N                   | S       | *       | S         |           |           |
| Specific materials consumed (quantity/cost) . . . . .   |                     | N       |         |           |           |           |
| Cost of fuels . . . . .   |                     | N       | S       | N         |           |           |
| Energy consumed (quantity/cost) . . . . .   |                     | N       | S       | N         |           |           |
| Contract work . . . . .   |                     | N       | S       | N         |           |           |
| Products bought or sold (resales) . . . . .   |                     | N       | S       | N         |           |           |
| Rental payments, total . . . . .  |                     | N       | S       | S         |           |           |
| Buildings and structures . . . . .  |                     | N       | S       | S         |           |           |
| Machinery and equipment . . . . .   |                     | N       | S       | S         |           |           |
| Communications services . . . . .   |                     | N       | S       | N         |           |           |
| <b>CAPITAL EXPENDITURES</b>   |                     |         |         |           |           |           |
| Total . . . . .   | N                   | S       | *       | S         |           |           |
| New, total . . . . .  |                     | N       | S       | S         |           |           |
| Buildings/equipment . . . . .   |                     | N       | S       | S         |           |           |
| Used, total . . . . .   |                     | N       | S       | S         |           |           |
| Buildings/equipment . . . . .   |                     | N       | S       | S         |           |           |
| <b>DEPRECIABLE ASSETS, GROSS VALUE BUILDING/EQUIPMENT</b>   |                     |         |         |           |           |           |
| End of 1986 . . . . .   |                     | N       |         | S         |           |           |
| End of 1987 . . . . .   |                     | N       |         | S         |           |           |
| Depreciation (detail for buildings/equipment and/or total) . . . . .  |                     | N       |         | S         |           |           |
| Retirements (detail for buildings/equipment and/or total) . . . . .   |                     | N       |         | S         |           |           |
| <b>INVENTORIES</b>  |                     |         |         |           |           |           |
| End of 1986 . . . . .   |                     | N       | S       | N         |           |           |
| End of 1987 . . . . .   |                     | N       | S       | N         |           |           |
| <b>OTHER</b>  |                     |         |         |           |           |           |
| Value added . . . . .   | N                   | S       | *       | S         |           |           |
| Central administrative offices and auxiliaries . . . . .  |                     | N       |         | S         |           |           |
| Water use . . . . .   |                     |         |         |           |           | S         |
| <b>SPECIFIC INDUSTRIES</b>  |                     |         |         |           |           |           |
| Crude petroleum and natural gas:  |                     |         |         |           |           |           |
| Lease tanks and stocks . . . . .  |                     | S       |         |           |           |           |
| Quantity of shipments by ownership . . . . .  |                     | S       |         |           |           |           |
| Coal mined by type of mining . . . . .  |                     | S       |         |           |           |           |
| Lead, zinc, copper, gold, and silver ores:  |                     |         |         |           |           |           |
| Metal content . . . . .   |                     | N       |         |           |           |           |
| <b>ALL INDUSTRIES</b>   |                     |         |         |           |           |           |
| Lease rents by type of operation . . . . .  |                     | N       |         | N         |           |           |
| Expensed mineral development and exploration expenditures by type of operation . . . . .  |                     | N       |         |           |           |           |
| Quantities and costs of detailed fuels consumed in production . . . . .   |                     | N       |         |           | S         |           |
| Assets, capital expenditures, and retirements for mineral exploration and development and mineral land and rights (except for metal mining services; coal mining services; crude petroleum and natural gas (capital expenditures only); natural gas liquids; drilling oil and gas wells; oil and gas field exploration services, n.e.c.; and nonmetallic mineral (except fuels) services) . . . . . |                     | N       |         | S         |           |           |

<sup>1</sup>For complete titles, see descriptions starting on p. 63.

• **SIC Changes—**

- Detail has been reduced through combining a number of relatively minor industries into broader categories. For example, bauxite and aluminum ores and mercury ores are combined into metal ores, not elsewhere classified (SIC 1099).
- Anthracite coal mining has been moved into the same two-digit SIC major group as bituminous coal mining. Underground and surface bituminous coal mining are now differentiated.

The extra detail in the old SIC classifications is shown for 1987 at the national level in table 1c in the Industry Series reports.

- **Survey dropped.** The Annual Survey of Oil and Gas, which was begun in 1973, was discontinued after 1982.

**REPORTS**

**Preliminary Reports**

Data in preliminary reports are superseded by the final reports.

- **Preliminary Industry Series**, MIC87-I-10A(P) to -14E(P), □ . Each of the 12 reports furnishes general statistics for the United States for a group of related industries, with information by State insofar as there are significant operations in the State. Preliminary totals are also shown for quantity and value of shipments for the products primary to the industry. The data are similar to those in the final reports (below), but in less detail.
- **Preliminary Summary Series**, MIC87-SUM-1(P), □ . This report provides general statistics for the Nation as a whole from the Preliminary Industry Series for each of the four-digit SIC industries. One table shows totals for States without industry detail.

**Final Reports**

- **Industry Series**, MIC87-I-10A to -14E, □ ■ ⊕ ⊙ . Each of the 12 reports provides statistics for the Nation as a whole for a group of industries (e.g., oil and gas field exploration services). Final figures are provided for each of 31 four-digit SIC industries on the number of establishments and companies; payroll; employment; hours worked; quantity and value of products shipped and supplies used; cost of purchased machinery; capital expenditures; assets; depreciation, amortization, and depletion; rents; inventories; quantity and cost of fuels produced and consumed; value added by mining; and mineral development and exploration costs. Comparative statistics for earlier years are included. Bridge tables (see table 1c) show 1987 data classified according to both the old and new SIC's. General statistics are shown by State and offshore area, type of operation (surface or underground mining and method of ore concentration or preparation), and size of establishment.

**Table From Mineral Industries Industry Series, MIC87-I**

**Table 6a. Products or Services for Selected States: 1987 and 1982**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

| Product or service code                | Geographic area and product or service  | 1987 shipments or receipts for services |                         | 1982 shipments or receipts for services |                         |
|--|---|---|-------------------------|---|-------------------------|
|  |   | Quantity                                | Value (million dollars) | Quantity                                | Value (million dollars) |
| <b>CRUDE PETROLEUM AND NATURAL GAS</b> |   |   |                         |   |                         |
| <b>Texas</b>                           |   |   |                         |   |                         |
|  | <b>Total</b> .....  | (X)                                     | 26 213.6                | (X)                                     | 45 515.8                |
| 13111 00                               | Crude petroleum, including lease condensate (volumes corrected to 60°263 F) shipped.....mil bbl...                        | 783.6                                   | 13 447.5                | 797.9                                   | 24 996.7                |
|  | From stripper well leases.....do..  | 166.4                                   | (X)                     | 131.1                                   | (X)                     |
| 13111 07                               | Lease condensate produced (volumes corrected to 60°263 F).....do..  | 51.4                                    | (X)                     | 57.4                                    | (X)                     |
| 13115 00                               | Natural gas (volumes adjusted to pressure base of 14.73 pounds absolute at 60°263 F) shipped to consumers.....bil cu ft.. | 5 632.0                                 | 8 694.9                 | 5 580.9                                 | 14 299.8                |
| 13110 00                               | Crude petroleum and natural gas, n.s.k. <sup>1</sup> .....  | (X)                                     | 4 071.3                 | (X)                                     | 6 219.3                 |
| <b>Utah</b>                            |   |   |                         |   |                         |
|  | <b>Total</b> .....  | (X)                                     | 812.7                   | (X)                                     | 1 027.5                 |
| 13111 00                               | Crude petroleum, including lease condensate (volumes corrected to 60°263 F) shipped.....mil bbl...                        | 31.6                                    | 558.5                   | 23.1                                    | 672.3                   |

**Table From Mineral Industries Geographic Area Series MIC87-A**

**Table 5. Industry Group Statistics for Counties: 1987 and 1982**

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| SIC code | Geographic area and industry group               | 1987           |                            |                                    |                             |                           |  |                  |                         |   |  |   | 1982                                   |                       |   |
|----------|--|----------------|----------------------------|------------------------------------|-----------------------------|---------------------------|--|------------------|-------------------------|---|--|---|--|-----------------------|---|
|          |  | E <sup>1</sup> | Establishments during year |                                    | All employees               |                           | Production, development, and exploration workers |                  |                         | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expenditures (million dollars) | All employees (1,000) | Value added by mining (million dollars) |
|          |  |                | Total (number)             | With 20 employees or more (number) | Number <sup>2</sup> (1,000) | Payroll (million dollars) | Number (1,000)                                   | Hours (millions) | Wages (million dollars) |   |  |   |  |                       |   |
|          | Iowa .....                                       | E2             | 216                        | 26                                 | 2.1                         | 38.2                      | 1.6  | 3.3              | 27.4                    | 103.5                                   | 66.5   | 153.1   | 16.9                                   | 2.9                   | 87.6                                    |
|          | Linn County .....                                | E3             | 11                         | 4                                  | .3                          | 5.7                       | .2   | .4               | 3.7                     | 12.9                                    | 6.7  | 16.3  | 3.3                                    | (NA)                  | (NA)                                    |
| 14       | Nonmetallic minerals, except fuels .....         | E3             | 9                          | 4                                  | BB                          | (D)                       | (D)  | (D)              | (D)                     | (D)                                     | (D)  | (D)   | (D)                                    | (NA)                  | (NA)                                    |
| 142      | Crushed and broken stone, including riprap ..... | E3             | 6                          | 4                                  | .3                          | 5.4                       | .2   | .4               | 3.4                     | 11.9                                    | 6.2  | 15.0  | 3.2                                    | (NA)                  | (NA)                                    |
|          | Monroe County .....                              | -              | 1                          | 1                                  | ZZ                          | (D)                       | (D)  | (D)              | (D)                     | (D)                                     | (D)  | (D)   | (D)                                    | (NA)                  | (NA)                                    |

**Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987**

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Geographic area and employment-size class <sup>1</sup> | All mineral industries | Metal mining (SIC 10) | Coal mining (SIC 12) | Oil and gas extraction (SIC 13) | Non-metallic minerals mining (SIC 14) |
|--|------------------------|-----------------------|----------------------|---------------------------------|---------------------------------------|
| Iowa .....   | 216                    | 2                     | 10                   | 23                              | 181                                   |
| 0 to 4 employees .....                                 | 100                    | 1                     | 5                    | 20                              | 74                                    |
| 5 to 9 employees .....                                 | 53                     | 1                     | 1                    | 2                               | 49                                    |
| 10 to 19 employees .....                               | 37                     | -                     | 1                    | 1                               | 35                                    |
| 20 to 49 employees .....                               | 21                     | -                     | 2                    | -                               | 19                                    |
| 50 to 99 employees .....                               | 3                      | -                     | 1                    | -                               | 2                                     |
| 100 to 249 employees .....                             | 2                      | -                     | -                    | -                               | 2                                     |
| Adair County .....                                     | 4                      | -                     | -                    | 2                               | 2                                     |
| 0 to 19 employees .....                                | 3                      | -                     | -                    | 2                               | 1                                     |
| 100 to 249 employees .....                             | 1                      | -                     | -                    | -                               | 1                                     |
| Allamakee County .....                                 | 1                      | -                     | -                    | -                               | 1                                     |
| 0 to 19 employees .....                                | 1                      | -                     | -                    | -                               | 1                                     |
| Appanoose County .....                                 | 5                      | -                     | 1                    | -                               | 4                                     |
| 0 to 19 employees .....                                | 4                      | -                     | 1                    | -                               | 3                                     |
| 20 to 99 employees .....                               | 1                      | -                     | -                    | -                               | 1                                     |

• **Geographic Area Series, MIC87-A-1 to -9, □ ■ ⊕ ⊙ .**  
 These nine reports present data for the States and for offshore areas grouped according to the nine census geographic divisions (see p. 11) on the number of establishments, payroll, employment, hours worked, value of shipments, cost of supplies, capital expenditures, assets, rental payments, inventories, and value added by mining. Comparative 1982 data on employment and value added by mining are provided at the State level. Selected data are shown for each of the four-digit industries insofar as they have significant operations in the State, and by type of operation (surface or underground mining and method of ore concentration or preparation).

Two types of data are presented for counties and for the offshore areas under each State's jurisdiction: General statistics for two- and three-digit industries with 450 or more employees in the county (see table 5, above) and the number of establishments by employment-size class for two-digit major industry groups with no size cutoff (see table 6).

**How Have Mineral Industries Data Been Used?**

A manufacturer of mine safety equipment used Geographic Area Series information by state on the types of mining operations, and by county on size of mining establishments in a review of its marketing plans. While past sales contacts had been only with relatively large companies, the manufacturer wanted to explore the feasibility of targeting small mining establishments with their new line of safety equipment.

A new manager of a sand and gravel mine in Texas was concerned about efficiency. She consulted the census Industry Series report, and found that the industry averages for both shipments and capital expenditures relative to payroll were higher than was true for her own mine. This information helped her convince the mine owners that the plant would need a modernization program to stay competitive.

A number of Federal agencies are concerned with water usage by both mines and manufacturers: The Corps of Engineers, the Water Resource Management Branch of the U.S. Geological Survey, and the Environmental Protection Agency, among others. They use data from the subject report *Water Use in Mineral Industries*, as well as its counterpart for manufacturing, noting changes over the years since the previous census. These trends in water use by industry are combined with projections of past trends in the expansion or decline of the industries themselves to project future industrial water demand.

• **Subject Series**, MIC87-S-1 to -3, □ ■ .

1. **General Summary** presents summary totals for all 31 mineral industries nationally. The report also contains information that previously appeared in the 1982 report Gross Book Value of Depreciable Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments. (Also ☉ ☉ )
2. **Fuels and Electric Energy Consumed** presents quantity and cost of purchased fuels and electric energy used by mineral establishments to produce heat and power. Data are presented nationally by two-, three-, and four-digit SIC and by State.
3. **Water Use in Mineral Industries** presents data by industry on the intake, recirculation, and discharge of water during 1989, for establishments using 20million gallons of water or more annually. Data are shown by industry, by State and by U.S. Geological Survey water resource regions.

For more information about mineral industries, see also—

- Census of Manufactures (p. 51) covers oil and gas refining and ore smelting; the *Indexes of Production* report (p. 58) covers both manufacturing and mineral industries.
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Foreign Trade (p. 87), with statistics on the import and export of mineral products.
- Population and Housing (p. 96), for characteristics of persons employed in mineral industries.

Figure 14. Major Data Items Published in Construction Industries Reports by Geographic Level

[Legend: M—MSA's with 500,000 inhabitants or more, States, national. N—National only. S—States and national]

| Item  | Series <sup>1</sup> |        |           |        |          |
|---|---------------------|--------|-----------|--------|----------|
|   | CC87-I(P)           | CC87-I | CC87-I-28 | CC87-A | CC87-S-1 |
| <b>NUMBER OF ESTABLISHMENTS AND FIRMS</b>                                 |                     |        |           |        |          |
| All establishments . . . . .  |                     |        | N         | S      | N        |
| Establishments with payroll . . . . .                                     | N                   | S      | N         | M      | N        |
| Establishments without payroll . . . . .                                  |                     |        | N         | S      | N        |
| Establishments by legal form of organization . . . . .                    |                     |        |           |        | N        |
| Single- and multiestablishments . . . . .                                 | N                   | N      | N         |        | N        |
| <b>EMPLOYMENT</b>   |                     |        |           |        |          |
| All employees . . . . .   | N                   | S      |           | M      | N        |
| Construction workers . . . . .  | N                   | S      |           | S      |          |
| Construction worker hours . . . . .                                       | N                   | S      |           | S      |          |
| Employment size of establishments . . . . .                               | N                   | N      |           | S      |          |
| <b>PAYROLLS</b>   |                     |        |           |        |          |
| All employees, entire year . . . . .                                      | N                   | S      |           | M      | N        |
| All employees, first quarter . . . . .                                    | N                   | N      |           | S      |          |
| Construction workers . . . . .  | N                   | S      |           | S      |          |
| Supplemental labor costs, legally required and voluntary . . . . .        | N                   | N      |           | S      |          |
| <b>VALUE OF CONSTRUCTION WORK DONE</b>                                    |                     |        |           |        |          |
| All establishments . . . . .  |                     |        | N         | S      | N        |
| Establishments with payroll . . . . .                                     | N                   | S      | N         | M      | N        |
| Establishments without payroll . . . . .                                  |                     |        | N         | S      |          |
| By type of construction . . . . .   | N                   | N      |           | S      |          |
| By size of establishment . . . . .  |                     | N      |           | S      |          |
| <b>OPERATING EXPENSES</b>   |                     |        |           |        |          |
| Cost of materials, etc . . . . .  | N                   | S      |           | M      |          |
| Cost of fuels . . . . .   | N                   | S      |           | M      |          |
| Contract work . . . . .   | N                   | S      |           | M      | N        |
| Rental payments, total . . . . .  | N                   | S      |           | S      |          |
| Buildings and structures . . . . .  | N                   | N      |           | S      |          |
| Machinery and equipment . . . . .   | N                   | N      |           | S      |          |
| Communications services . . . . .   | N                   | N      |           | S      |          |
| Purchased repairs . . . . .   | N                   | N      |           | S      |          |
| <b>CAPITAL EXPENDITURES</b>   |                     |        |           |        |          |
| Total . . . . .   |                     | S      |           | M      |          |
| New, total . . . . .  |                     | N      |           | S      |          |
| Buildings/equipment . . . . .   |                     | N      |           | S      |          |
| Used, total . . . . .   |                     | N      |           | S      |          |
| Buildings/equipment . . . . .   |                     | N      |           | S      |          |
| <b>DEPRECIABLE ASSETS, GROSS VALUE BUILDING/EQUIPMENT</b>                 |                     |        |           |        |          |
| End of 1986 . . . . .   |                     | N      |           | S      |          |
| End of 1987 . . . . .   |                     | S      |           | S      |          |
| Depreciation (detail for buildings/equipment and/or total) . . . . .      |                     | N      |           | S      |          |
| Retirements (detail for buildings/equipment and/or total) . . . . .       |                     | N      |           | S      |          |
| <b>INVENTORIES</b>  |                     |        |           |        |          |
| End of 1986 . . . . .   |                     | N      |           | S      |          |
| End of 1987 . . . . .   |                     | N      |           | S      |          |
| <b>OTHER</b>  |                     |        |           |        |          |
| Business receipts by kind of business activity . . . . .                  |                     | N      |           |        |          |
| Value added . . . . .   | N                   | S      |           | M      | N        |
| Specialization by type of construction . . . . .                          |                     | N      |           |        |          |
| Proprietors and working partners in establishments with payroll . . . . . | N                   | N      |           | S      | N        |
| Value of construction work subcontracted to others . . . . .              | N                   | S      |           | S      | N        |
| Repairs to buildings and other structures . . . . .                       | N                   | N      |           | S      |          |
| Repairs to machinery and equipment . . . . .                              | N                   | N      |           | S      |          |
| Number of establishments in business at end of year . . . . .             | N                   | N      |           | S      |          |
| Auxiliary establishments (including administrative offices) . . . . .     |                     | N      |           |        |          |
| <b>SPECIFIC INDUSTRIES</b>  |                     |        |           |        |          |
| Operative builders; land subdividers and developers:                      |                     |        |           |        |          |
| Land receipts . . . . .   | N                   | N      |           |        |          |
| General building contractors:   |                     |        |           |        |          |
| Work in progress and finished units not sold: Inventories . . . . .       |                     | N      |           |        |          |

<sup>1</sup>For complete titles, see descriptions starting on p. 68.



# Construction Industries

## WHAT ARE CONSTRUCTION INDUSTRIES?

The census of construction industries enumerates establishments engaged primarily in **constructing new homes and other buildings; heavy construction**, such as highways; and **special trades**, such as plumbing and electrical work. In addition, the construction census covers land subdividers and developers, which the SIC system categorizes as real estate rather than construction.

Most construction establishments are described as contractors (general contractors and special trades contractors), but the census also includes operative builders who construct buildings or other structures on their own account to be sold when completed. Investment builders who engage in construction on their own account for rent or lease are not included within the scope of the census. Similarly, construction undertaken by homeowners or by nonconstruction businesses is not covered.

Construction activities are usually administered or managed from a fixed place of business, but the actual construction work is performed at one or more different sites. Because data are reported by establishment rather than by construction site, census figures on the distribution of establishments do not reflect where the construction was performed. (Only one table shows value of construction put in place by State.)

While this census describes establishments primarily engaged in construction, current surveys in that sector relate to all construction activities regardless of who performs the work. Most of these focus on residential construction.

## HOW ARE CONSTRUCTION ESTABLISHMENTS CLASSIFIED?

In general, construction establishments are classified by kind of business according to the principal work performed. There are three major Standard Industrial Classification (SIC) groups in construction industries—

- 15 Building construction—general contractors and operative builders
- 16 Heavy construction other than building construction—contractors
- 17 Special trade contractors

These major SIC groups are subdivided into 13 three-digit industry groups which in turn are subdivided into 26 four-digit industries, as shown in appendix A.

The construction census covers an additional four-digit industry, which the SIC system defines as part of SIC Major Group 65, real estate—

- 6552 Land subdividers and developers, except cemeteries

## HOW ARE THE DATA COLLECTED?

At the time of the 1987 census, there were about 1.4 million construction establishments, and about one third of them had paid employees. Establishments without paid employees, typically one-person operations or partnerships, were not sent a questionnaire, but limited data were obtained from the administrative records of other Federal agencies. Statistical information for the establishments with paid employees was obtained by mail, using 24 variants of the census questionnaire. These were sent to all medium and large-size employers and to a sample of the smaller firms. Because of the extensive use of sampling, most data tables indicate the relative impact of sampling variability for each measure.

Prior to 1987, the census published receipts as the primary measure of construction activity. For 1987, the census is publishing the "value of construction work done" as the primary measure. This conceptual change was made because receipts during a calendar year may include advance payments or payments for work done in a prior year, and thus not accurately reflect construction work done during the census year. For certain key industries, such as operative builders and developers, receipts and work done may also differ because receipts do not include work contractors perform for their own account and use, which can be substantial.

Unlike the other economic programs, the current surveys in the construction sector are not integrated with the census. The reports and sampling frames for these surveys are based on public records, such as building permits, and they relate to all construction activities regardless of who performs the work. Much of the current survey data is collected by the Census Bureau's field staff.

The current surveys focus on the level and characteristics of construction activity. Most involve various aspects of residential construction, but one monthly survey measures the value of all types of construction.

- **SIC changes.** Two components previously classified as part of highway and street construction were moved to other industries:
  - Recreational facilities and trailer camp construction became part of SIC 1629, heavy construction, n.e.c.
  - Culverts and curbs was moved to SIC 1771, concrete work.
- **"Value of construction work done"** replaces receipts as the primary measure of construction activity. Differences between the two concepts occur because work can be done in one year with payment received either before or after the year, and because some contractors perform work on their own account, as with operative builders and developers.
- **New detail—**
  - Additions, alterations, or reconstruction are collected for all industries.
  - Federal, State and local detail are collected for government-owned construction.
  - On- and off-highway usage of gasoline and diesel fuel are collected.
  - Dollar volume of business done is broken down by more categories of construction and other activities within each industry.

### How Have Construction Industries Statistics Been Used?

A distributor of electrical supplies consulted the Industry Series report for *Electrical Special Trades Contractors* to determine receipts of electrical contractors by State and to examine trends in their payments for materials and supplies.

An engineer in the Boston area seeking job advancement examined census data about a number of construction industries where he thought his skills could be used. After studying statistics, he concentrated his job search on the industries that had grown the most between the last two censuses.

## REPORTS

### Press Releases

Press releases ■ are issued for selected reports.

### Preliminary Reports

Data in preliminary reports are superseded by final reports.

- **Preliminary Industry Series**, CC87-I-1(P) to -28(P), □ , includes a report for each four-digit industry, featuring two tables prior to their reissuance in the final Industry Series: detailed statistics for 1982 and 1987, and value of construction work done by type of construction, all at the national level. This is followed by the *Summary*, CC87-I-28(P) □ .

### Final Reports

- **Industry Series**, CC87-I-1 to -28, □ ■ ⊕ ⊙ . Separate reports (CC87-I-1 to -27) present data for the Nation as a whole and for States for establishments with payroll in each of the 27 industries included in the census. Each industry report provides 1987 data on the number of construction establishments; value of construction work done; payroll; employment; hours worked; payments to subcontractors; payments for materials, components, supplies, and fuels; payments for selected purchased services; payments for the rental of structures, machinery, and equipment; value added; capital expenditures during the year; depreciable assets; and inventories. Statistics on type of construction and kind of business

activity within each industry show details beyond simple classification by SIC. Key data for 1972, 1977, and 1982 are also included. General statistics are shown for the industry by State and separately by size of employment and dollar value of business done. One table shows value of construction work by State where the work was performed. A bridge table in the introductory text presents 1987 data classified according to both the old and new SIC's.

The *Summary* (CC87-I-28) republishes key data for establishments with payroll as presented in the 27 individual industry reports and presents new information on establishments without payroll. Preliminary data on separate auxiliary establishments also are shown. Final and more detailed auxiliary data are included in the enterprise statistics report *Auxiliary Establishments* (see p. 76).

- **Geographic Area Series**, CC87-A-1 to -10, □ ■ ⊕ ⊙ . There are nine reports (CC87-A-1 to -9) for States grouped according to the nine census geographic divisions (see p. 11). Some of the Geographic Area Series data are the same as in the Industry Series, except that they are organized by State rather than by industry. General statistics are presented for MSA's with 500,000 or more inhabitants. Limited data for 1972, 1977, and 1982, and for establishments with no payroll are shown, as well as selected data for establishments classified by size of employment and dollar value of business done.

The *U.S. Summary* (CC87-A-10) summarizes the data, as presented in the nine individual reports, for establishments both with and without payroll.

**Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Item  | 1987    | 1982    | 1977    | 1972    | Relative standard error of estimate (percent) |      |      |      |
|---|---------|---------|---------|---------|---|------|------|------|
|   |         |         |         |         | 1987  | 1982 | 1977 | 1972 |
| Number of establishments in business during year .....        | 20 188  | 24 815  | 23 896  | 19 820  | 1   | 1    | 2    | 2    |
| Number of establishments in business at end of year .....     | 19 511  | (NA)    | (NA)    | (NA)    | 1   | (NA) | (NA) | (NA) |
| Proprietors and working partners .....                        | 10 954  | 19 568  | 20 444  | 17 932  | 2   | 2    | 3    | 3    |
| All employees** .....   | 120 600 | 152 167 | 165 580 | 144 935 | 1   | 1    | 2    | 1    |
| Construction workers:   |         |         |         |         |   |      |      |      |
| March .....   | 93 633  | 124 832 | 136 579 | 120 174 | 1   | 1    | 2    | 1    |
| May .....   | 111 019 | 148 859 | 157 245 | 140 163 | 1   | 1    | 2    | 1    |
| August .....  | 115 403 | 154 352 | 168 130 | 148 644 | 1   | 1    | 2    | 1    |
| November .....  | 108 733 | 142 600 | 154 054 | 135 262 | 1   | 1    | 2    | 1    |
| Average .....   | 109 576 | 142 797 | 156 395 | 138 203 | 1   | 1    | 2    | 1    |
| Other employees:  |         |         |         |         |   |      |      |      |
| March .....   | 10 940  | 8 810   | 8 745   | 6 634   | 2   | 1    | 3    | 2    |
| May .....   | 29 559  | (NA)    | (NA)    | (NA)    | 2   | (NA) | (NA) | (NA) |
| August .....  | 36 982  | (NA)    | (NA)    | (NA)    | 1   | (NA) | (NA) | (NA) |
| November .....  | 39 930  | (NA)    | (NA)    | (NA)    | 1   | (NA) | (NA) | (NA) |
| Average .....   | 36 269  | (NA)    | (NA)    | (NA)    | 1   | (NA) | (NA) | (NA) |
| Dollar value of business done .....                           | 10 954  | 19 568  | 20 444  | 17 932  | 2   | 2    | 3    | 3    |
| Value of construction work <sup>1</sup> .....                 | 120 600 | 152 167 | 165 580 | 144 935 | 1   | 1    | 2    | 1    |
| Value of construction work subcontracted in from others ..... | 93 633  | 124 832 | 138 579 | 120 174 | 1   | 1    | 2    | 1    |
| Land receipts <sup>2</sup> .....                              | 111 019 | 148 859 | 157 245 | 140 163 | 1   | 1    | 2    | 1    |
| Other business receipts .....                                 | 115 403 | 154 352 | 168 130 | 148 644 | 1   | 1    | 2    | 1    |

**Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Type of construction  | Value of construction work <sup>1</sup> |                  |  |                        | Relative standard error of estimate (percent) for column— |    |    |    |
|---|---|------------------|--|------------------------|---|----|----|----|
|   | Total                                   | New construction | Additions, alterations, or reconstruction <sup>2</sup> | Maintenance and repair | A   | B  | C  | D  |
|   | A                                       | B                | C  | D                      | A   | B  | C  | D  |
| <b>1987</b>   |   |                  |  |                        |   |    |    |    |
| Value of construction work .....  | 4 109 576                               | 3 142 797        | 856 395  | 4 138 203              | 1   | 1  | 2  | 1  |
| <b>Building construction</b> .....  | 3 10 940                                | 3 8 810          | 668 745  | 346 634                | 2   | 1  | 3  | 2  |
| Single-family houses .....  | 639 250                                 | 629 559          | 781 890  | 951 159                | 2   | 2  | 3  | 2  |
| Single-family houses, detached .....  | 136 982                                 | 788 497          | 621 282  | 147 215                | 2   | 2  | 4  | 2  |
| Single-family houses, attached .....  | 239 930                                 | 268 907          | 237 106  | 31 801                 | 3   | 3  | 4  | 2  |
| Apartment buildings with two or more apartments .....   | 136 269                                 | 128 822          | 115 231  | 13 590                 | 2   | 2  | 5  | 2  |
| Hotels and motels .....   | 142 739                                 | 707 332          | 583 400  | 123 822                | 1   | 1  | 1  | 1  |
| Other residential buildings including hotels and motels .....   | 669 479                                 | 603 626          | 497 788  | 105 838                | 1   | 1  | 1  | 1  |
| Office buildings .....  | 102 596                                 | 103 696          | 85 612   | 18 084                 | 4   | 4  | 8  | 4  |
| Industrial buildings and warehouses .....   | 44 907                                  | 10 773           | 8 185  | 2 588                  | 13  | 12 | 17 | 12 |
| Industrial buildings .....  | 651 370                                 | 690 172          | 552 279  | 137 893                | 1   | 2  | 4  | 2  |
| Warehouses .....  | 550 759                                 | 493 214          | 310 777  | 816 889                | 1   | 1  | 1  | 2  |
| Other commercial buildings such as stores, restaurants, public garages, and automobile service stations ..... | 344 226                                 | 350 307          | 199 012  | 58 683                 | 1   | 1  | 2  | 1  |
| Religious buildings .....   | 206 530                                 | 142 907          | 111 765  | 58 538                 | 1   | 1  | 2  | 1  |
| Educational buildings .....   | 56 934                                  | 85 349           | 62 401   | 25 123                 | 3   | 5  | 4  | 5  |
| Hospitals and institutional buildings .....   | 286 650                                 | 279 356          | 200 189  | 41 862                 | 3   | 3  | 3  | 4  |
| Amusement, social, and recreational buildings .....   | 230 188                                 | 124 815          | 123 896  | 19 820                 | 1   | 1  | 2  | 2  |
| Other nonresidential buildings .....  | 19 511                                  | 35 089           | 29 400   | 5 688                  | 6   | 6  | 6  | 12 |
| <b>Nonbuilding construction</b> .....   | 10 954                                  | 19 568           | 20 444   | 7 932                  | 2   | 2  | 3  | 3  |
| Highways, streets, and related facilities .....   | 120 600                                 | 152 167          | 165 580  | 144 935                | 1   | 1  | 2  | 1  |
| Power and communication transmission lines, towers, and related facilities .....                              | 93 633                                  | 124 832          | 136 579  | 120 174                | 1   | 1  | 2  | 1  |
| Sewage treatment and water treatment plants .....   | 136 982                                 | 788 497          | 621 282  | 147 215                | 2   | 2  | 4  | 2  |
| Sewage treatment plants .....   | 239 930                                 | 268 907          | 237 106  | 31 801                 | 3   | 3  | 4  | 2  |
| Water treatment plants .....  | 136 269                                 | 128 822          | 115 231  | 13 590                 | 2   | 2  | 2  | 5  |
| Blast furnaces, petroleum refineries, and chemical complexes .....  | 142 739                                 | 707 332          | 583 400  | 123 822                | 1   | 1  | 1  | 1  |
| Power plants .....  | 669 479                                 | 603 626          | 497 788  | 105 838                | 1   | 1  | 1  | 1  |
| Power plants, nuclear .....   | 102 596                                 | 103 696          | 85 612   | 18 084                 | 4   | 4  | 4  | 8  |
| Power plants, except nuclear .....  | 1 44 907                                | 3 10 773         | 8 185  | 2 588                  | 13  | 12 | 17 | 12 |
| Other nonbuilding construction .....  | 2 651 370                               | 2 690 172        | 552 279  | 137 893                | 1   | 2  | 4  | 2  |
| Construction work, n.s.k. ....  | 1 550 759                               | 1 493 214        | 310 777  | 816 889                | 1   | 1  | 2  | 1  |
| <b>1982</b>   |   |                  |  |                        |   |    |    |    |
| Total construction receipts <sup>1</sup> .....  | 344 228                                 | 350 307          | 199 012  | 58 683                 | 1   | 1  | 2  | 1  |
| <b>Building construction</b> .....  | 206 530                                 | 142 907          | 111 765  | 58 538                 | 1   | 1  | 2  | 1  |
| Single-family houses .....  | 56 934                                  | 85 349           | 62 401   | 25 123                 | 3   | 5  | 4  | 2  |
| Apartment buildings with two or more apartments .....   | 286 650                                 | 279 356          | 200 189  | 41 862                 | 3   | 3  | 3  | 4  |

**Table From Construction Industries Geographic Area Series, CC87-A**

**Table 3. General Statistics for Establishments With Payroll by Industry: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

| 1987<br>SIC<br>code | Industry   | 1987                             |             |                         |                  |                         |   |                                  |                                      |
|---------------------|--|----------------------------------|-------------|-------------------------|------------------|-------------------------|---|----------------------------------|--------------------------------------|
|                     |  | Number of<br>establish-<br>ments | Employees** |                         | Payroll          |                         | Construction<br>worker hours<br>(thousands) | Value of<br>construction<br>work | Net value of<br>construction<br>work |
|                     |  |                                  | All         | Construction<br>workers | All<br>employees | Construction<br>workers |   |                                  |                                      |
| A                   | B  | C                                | D           | E                       | F                | G                       |   |                                  |                                      |
|                     | <b>Construction Industries and subdividers and developers</b> .....      | 1 391                            | 15 618      | 13 088                  | 296 027          | 245 224                 | 23 080                                      | 1 497 170                        | 1 065 262                            |
| 15,16,<br>17        | <b>Construction Industries:</b>  |                                  |             |                         |                  |                         |   |                                  |                                      |
| 15                  | <b>Building construction—General contractors and operative builders:</b> |                                  |             |                         |                  |                         |   |                                  |                                      |
| 152                 | General contractors, residential buildings:                              |                                  |             |                         |                  |                         |   |                                  |                                      |
| 1521                | Single-family houses .....   | 243                              | 1 105       | 921                     | 11 505           | 8 500                   | 1 432                                       | 55 951                           | 48 182                               |
| 1522                | Other residential buildings .....  | 19                               | 211         | 110                     | 2 070            | 190                     | 15 586                                      | 8 832                            | 5 053                                |
| 1531                | Operative builders .....   | 39                               | 385         | 297                     | 7 068            | 5 243                   | 465   | 139 080                          | 21 96                                |
| 154                 | General contractors, nonresidential buildings:                           |                                  |             |                         |                  |                         |   |                                  |                                      |
| 1541                | Industrial buildings and warehouses .....                                | 29                               | 626         | 509                     | 10 968           | 7 833                   | 949   | 65 673                           | 31 830                               |
| 1542                | Nonresidential buildings, n.e.c. ....                                    | 55                               | 647         | 502                     | 12 327           | 8 489                   | 844   | 98 753                           | 37 021                               |
| 16                  | <b>Heavy construction other than building construction—contractors:</b>  |                                  |             |                         |                  |                         |   |                                  |                                      |
| 1611                | Highway and street construction .....                                    | 40                               | 1 078       | 872                     | 20 850           | 15 824                  | 1 595                                       | 92 006                           | 77 87                                |
| 162                 | Heavy construction, except highway:                                      |                                  |             |                         |                  |                         |   |                                  |                                      |
| 1622                | Bridge, tunnel, and elevated highway construction .....                  | 3                                | (D)         | (D)                     | (D)              | (D)                     | (D)   | (D)                              | (D)                                  |
| 1623                | Water, sewer, and utility lines .....                                    | 16                               | 645         | 581                     | 11 397           | 9 501                   | 1 283                                       | 33 545                           | 31 201                               |
| 1629                | Heavy construction, n.e.c. ....  | 26                               | 1 367       | 1 290                   | (D)              | (D)                     | (D)   | (D)                              | (D)                                  |

| 1987—Con.     |  |  |  |                                       |  | 1982            |                              |               | Relative standard error of estimate (percent) for column— |    |     | 1987<br>SIC<br>code |
|---------------|--|--|--|---------------------------------------|--|-----------------|------------------------------|---------------|---|----|-----|---------------------|
| Value added†† | Cost of materials, components, supplies, and fuels | Cost of construction work sub-contracted to others | Rental cost of machinery, equipment, and buildings | Capital expenditures, other than land | End-of-year gross book value of depreciable assets | All employees** | Total construction receipts¹ | Value added†† | B   | H  | M   |                     |
| I             | J  | K  | L  | M                                     | N  | O               | P                            | Q             |   |    |     |                     |
| 602 031       | 492 511  | 431 908  | 15 132   | 17 989                                | 218 485  | 17 826          | 1 067 681                    | 402 371       | 2   | 1  | 4   | 15,16,<br>17        |
|               |  |  |  |                                       |  |                 |                              |               |   |    |     | 15                  |
| 30 583        | 18 234   | 17 769   | 439  | 591                                   | 4 998  | 1 660           | 62 635                       | 26 071        | 11  | 16 | 14  | 152                 |
| 3 961         | 6 754  | 92   | 78   | 56                                    | 1 866  | (D)             | (D)                          | (D)           | 2   | 2  | 9   | 1521                |
|               |  |  |  |                                       |  |                 |                              |               |   |    |     | 1522                |
| 13 332        | 8 956  | 17 114   | 207  | 557                                   | 26 661   | 396             | 37 981                       | 11 509        | 14  | 16 | 20  | 1531                |
| 17 266        | 15 122   | 33 843   | 321  | 588                                   | 4 674  | 972             | 49 477                       | 6 133         | 6   | 5  | 7   | 154                 |
| 22 270        | 15 606   | 61 732   | 903  | 998                                   | 9 002  | 776             | 51 468                       | 15 344        | 12  | 9  | 2   | 1541                |
|               |  |  |  |                                       |  |                 |                              |               |   |    |     | 1542                |
|               |  |  |  |                                       |  |                 |                              |               |   |    |     | 16                  |
| 61 327        | (D)  | 14 135   | 2 756  | 3 467                                 | 52 803   | 949             | 41 083                       | 22 233        | 5   | 4  | 6   | 1611                |
| (D)           | (D)  | (D)  | (D)  | (D)                                   | (D)  |                 |                              |               |   |    |     | 162                 |
| 22 827        | (D)  | 2 344  | 692  | 3 177                                 | 22 847   | 358             | 21 430                       | 10 247        | -   | -  | -   | 1622                |
| (D)           | (D)  | (D)  | (D)  | 1 119                                 | 13 147   | 706             | 27 924                       | 18 961        | 5   | 6  | 6   | 1623                |
|               |  |  |  |                                       |  | (D)             | (D)                          | (D)           | 1   | -  | (W) | 1629                |

• **Subject Series, Legal Form of Organization and Type of Operation, CC87-S-1, □ ■**. This one report presents for the Nation as a whole selected data (number of establishments, number of proprietors and working partners, and total employment) for construction establishments with and without payroll and for the aggregate, classified by industry and by

legal form of organization. The report also contains selected statistics (number of establishments, employment, payroll, payments to subcontractors, and value added) for construction establishments with payroll, classified by industry, type of operation (single- or multiestablishment), and legal form of organization.

## Current Construction Reports

- **Housing Starts**, series C20, □ (subscription) ■ □ . A monthly report presenting statistics for the United States on new privately owned housing units started by type of structure (single and multifamily) and purpose of construction (sale, rent, etc.). Totals are also included for census regions and for area inside and outside MSA's. Additional detail by region is presented quarterly. Other statistics cover unused permits, selected characteristics of apartment buildings, and mobile home shipments. Mobile homes are excluded from housing starts. Press releases are scheduled 2 weeks after the end of the month; reports appear 4 to 6 weeks later.
- **New Residential Construction in Selected Metropolitan Statistical Areas**, series C21 □ (subscription) ■ . A quarterly report containing statistics for 40 CMSA's, PMSA's, and MSA's (see app. B) on new housing units authorized; authorized but not started; started, under construction; and completed. Reports appear 4 months after the end of the quarter.
- **Housing Completions**, series C22 □ (subscription) ■ □ . A monthly report providing statistics for the United States on new privately owned housing units completed and under construction, by type of structure, plus totals for census regions and for area inside and outside MSA's. Includes additional detail by region on a quarterly basis. Press releases are scheduled 5 weeks after the end of the month; reports appear 4 to 6 weeks later.
- **New One-Family Houses Sold and for Sale**, series C25 □ (subscription) ■ □ . A monthly report containing national and regional totals for new privately owned

one-family houses sold and for sale. Data include the ratio of houses for sale to those sold; the number sold and for sale, by stage of construction; and median and average sales prices. Quarterly supplements provide additional information on sales prices and type of financing. Press releases appear 3 weeks after the end of the month; reports, 3 to 5 weeks later.

- **Characteristics of New Housing**, series C25 □ (part of C25 subscription, see above) ■ □ . An annual report containing detailed information for the United States, census regions, and area inside and outside MSA's for selected physical and financial characteristics of new one-family houses completed and sold, including square-foot area, number of bedrooms and bathrooms, type of fuel used, heating systems, price, down payment, etc. Also includes selected characteristics for multifamily buildings. Reports are published in June or July of the following year.

A public-use microdata file ⊕ of the survey records can be obtained from Construction Statistics Division, Bureau of the Census, Washington, D.C. 20233. This file allows users to design and produce their own tabulations.

- **Price Index of New One-Family Houses Sold**, series C27 □ (subscription) ■ □ . A quarterly report that provides a measure of change over time in the national sales prices of new one-family houses (including land) that are the same with respect to 10 important characteristics as houses sold in 1982, including floor area, number of bathrooms, central air conditioning, parking, and geographic location. Regional data are provided

**Table From Housing Starts, Series C20**

**Table 1. New Privately Owned Housing Units Started**  
(Thousands of units. Detail may not add to total because of rounding)

| Period                         | Total   | In structures with— |         |               |                 | Inside MSA's <sup>1</sup> | Outside MSA's <sup>1</sup> | North-east | Midwest | South | West  |
|--------------------------------|---------|---------------------|---------|---------------|-----------------|---------------------------|----------------------------|------------|---------|-------|-------|
|                                |         | 1 unit              | 2 units | 3 and 4 units | 5 units or more |                           |                            |            |         |       |       |
| <b>ANNUAL DATA</b>             |         |                     |         |               |                 |                           |                            |            |         |       |       |
| 1979 .....                     | 1,745.1 | 1,194.1             | 56.1    | 65.9          | 429.0           | 1,240.6                   | 504.6                      | 177.9      | 349.2   | 747.5 | 470.5 |
| 1980 .....                     | 1,292.2 | 852.2               | 48.8    | 60.7          | 330.5           | 913.6                     | 378.7                      | 125.4      | 218.1   | 642.7 | 306.0 |
| 1981 .....                     | 1,084.2 | 705.4               | 38.2    | 52.9          | 287.7           | 759.8                     | 324.3                      | 117.3      | 165.2   | 561.6 | 240.0 |
| 1982 .....                     | 1,062.2 | 662.6               | 31.9    | 48.1          | 319.6           | 784.8                     | 277.4                      | 116.7      | 149.1   | 591.0 | 205.4 |
| 1983 .....                     | 1,703.0 | 1,067.6             | 41.8    | 71.7          | 522.0           | 1,351.1                   | 351.9                      | 167.6      | 217.9   | 935.2 | 382.3 |
| 1984 .....                     | 1,749.5 | 1,084.2             | 38.6    | 82.8          | 544.0           | 1,414.6                   | 334.9                      | 204.1      | 243.4   | 866.0 | 436.0 |
| 1985 .....                     | 1,741.8 | 1,072.4             | 37.0    | 56.4          | 576.1           | 1,493.9                   | 247.9                      | 251.7      | 239.7   | 782.3 | 468.2 |
| 1986 .....                     | 1,805.4 | 1,179.4             | 36.1    | 47.9          | 542.0           | 1,546.3                   | 259.1                      | 293.5      | 295.8   | 733.1 | 483.0 |
| 1987 .....                     | 1,620.5 | 1,148.4             | 27.8    | 37.5          | 408.7           | 1,372.2                   | 248.2                      | 269.0      | 297.9   | 633.9 | 419.8 |
| 1988 .....                     | 1,488.1 | 1,081.3             | 23.4    | 35.4          | 348.0           | 1,243.0                   | 245.1                      | 235.3      | 274.0   | 674.9 | 403.9 |
| <b>MONTHLY DATA</b>            |         |                     |         |               |                 |                           |                            |            |         |       |       |
| <b>Not Seasonally Adjusted</b> |         |                     |         |               |                 |                           |                            |            |         |       |       |
| 1988: January .....            | 78.2    | 55.8                | 1.0     | 2.6           | 18.8            | 69.0                      | 9.2                        | 14.4       | 7.6     | 32.1  | 24.1  |
| February .....                 | 90.2    | 64.0                | 1.5     | 2.2           | 22.5            | 77.6                      | 12.6                       | 12.1       | 10.8    | 41.5  | 25.8  |
| March .....                    | 128.8   | 99.9                | 1.3     | 3.8           | 23.8            | 109.7                     | 19.1                       | 21.7       | 18.4    | 52.9  | 35.7  |
| April .....                    | 153.2   | 106.1               | 2.7     | 2.7           | 41.7            | 129.4                     | 23.8                       | 24.9       | 31.6    | 59.3  | 37.4  |
| May .....                      | 140.2   | 104.0               | 2.0     | 2.8           | 31.4            | 114.1                     | 26.1                       | 20.0       | 30.3    | 54.4  | 35.6  |
| June .....                     | 150.2   | 113.6               | 2.7     | 3.3           | 30.6            | 125.4                     | 24.8                       | 26.3       | 31.7    | 54.9  | 37.3  |
| July .....                     | 137.0   | 100.3               | 2.2     | 2.5           | 32.0            | 112.2                     | 24.8                       | 24.7       | 28.2    | 49.5  | 34.5  |
| August .....                   | 138.8   | 101.4               | 1.7     | 4.0           | 29.6            | 112.5                     | 24.2                       | 23.9       | 25.2    | 49.0  | 38.7  |
| September .....                | 131.1   | 91.7                | 2.4     | 2.7           | 34.4            | 108.1                     | 23.0                       | 19.6       | 28.0    | 49.7  | 36.8  |
| October .....                  | 135.1   | 97.7                | 2.1     | 3.5           | 31.8            | 111.7                     | 23.4                       | 18.4       | 26.4    | 49.8  | 40.5  |

annually. Preliminary data appear in a press release 5 weeks after the end of the quarter; final reports, 10 to 12 weeks after the quarter.

- **Value of New Construction Put in Place**, series C30, □ (subscription) ■ □ . A monthly report on the total value of new private and public construction put in place: residential and nonresidential buildings, public utilities, nonbuilding construction, and residential additions and alterations. Includes unadjusted and seasonally adjusted figures in both current and constant dollars. Press releases are scheduled 4 weeks after the reference month; reports, 2 to 4 weeks later.
- **Housing Units Authorized by Building Permits**, series C40, □ (subscription) ■ □ . This monthly report provides information on new housing units authorized for the United States, census regions and divisions, each State, 131 selected MSA's, and approximately 4,700 of the more active permit-issuing places. Monthly reports typically appear 6 to 8 weeks after the end of the month. The annual report includes all MSA's and about 17,000 permit-issuing places, and is published about 6 months after the end of the year. These reports exclude hotels, motels, and other group residential structures, as well as mobile homes.

**Table From Housing Authorized by Building Permits and Public Contracts, Series C40**

**Table 4. New Privately Owned Housing Units Authorized in Selected Permit-Issuing Places: July 1989**

[Number of units]

| Permit-issuing places | Current month |        | Year to date |        |
|-----------------------|---------------|--------|--------------|--------|
|                       | Total         | 1 unit | Total        | 1 unit |
| <b>ALABAMA</b>        |               |        |              |        |
| Baldwin County        |               |        |              |        |
| Bay Minette .....     | 2             | 2      | 5            | 5      |
| Fairhope .....        | 3             | 3      | 43           | 43     |
| Gulf Shores .....     | 7             | 5      | 38           | 30     |
| Barbour County        |               |        |              |        |
| Eufaula .....         | 3             | 3      | 35           | 32     |
| Blount County         |               |        |              |        |
| Oneonta .....         | 2             | 2      | 11           | 11     |
| Calhoun County        |               |        |              |        |
| Anniston .....        | (NA)          | (NA)   | (06)         | 53     |
| Jacksonville .....    | 2             | 2      | 45           | 23     |

- **Expenditures for Residential Upkeep and Improvements**, series C50, □ (subscription) ■ . Quarterly and annual reports for the United States. The quarterly reports cover expenditures of residential property owners, by number of units on the property. The annual report shows expenditures made by owners of all types of residential properties and by owner-occupants of one-housing-unit properties, by type of construction, type of property, and region. Reports appear about 6 months after the end of the quarter.

For more information about construction industries, see also—

- 1987 Census of Retail Trade (p. 29). Construction receipts of certain kinds of retail establishments (e.g., lumber dealers) are reported separately in *Merchandise Lines Sales*.
- 1987 Census of Manufactures (p. 51). Force-account construction is reported for several industries.
- The construction industries use a variety of products. See those products which are classified in wholesale trade (p. 33) as well as in manufactures (p. 51).
- Outlying Areas (p. 73)
- Enterprise Statistics (p. 76)
- Minority- and Women-Owned Businesses (p. 79)
- County Business Patterns (p. 83)
- Population and Housing (p. 96), for characteristics of persons employed in construction, and for characteristics of the existing housing stock and new construction.
- Governments (p. 93) for expenditures for highway construction
- The Bureau of Industrial Economics issues the monthly *Construction Review*. This report republishes selected Census Bureau information described above under "Current Construction Reports", and also includes some unpublished data on nonresidential building permits.



# Outlying Areas

## DEFINITION AND SCOPE

Economic censuses of retail trade, wholesale trade, some service industries, construction industries, and manufactures (but not mineral industries and transportation) are conducted in Puerto Rico, the U.S. Virgin Islands, Guam, and the Northern Mariana Islands. Collectively, these enumerations are known as the 1987 Economic Censuses of Outlying Areas.

The most detailed data collections were in Puerto Rico, where both English- and Spanish-language questionnaires

were used to gather the necessary data. In Puerto Rico, the principal means of data collection was by mail, although statistics were collected from a sample of nonemployers by personal interview. For the U.S. Virgin Islands, Guam, and the Northern Mariana Islands, enumerators visited each establishment.

The economic censuses of outlying areas generally have fewer inquiries and publish less detailed results than their United States counterparts.

### What's New for 1987?

### Outlying Areas

- **Commercial Regions in Puerto Rico.** The censuses of retail trade and service industries present statistics for commercial regions, nine groups of municipios (county equivalents) that collectively cover Puerto Rico, instead of MSA's.

### How Have Outlying Areas Data Been Used?

As one analyst put it, "The American pharmaceutical industry is alive and well and living in Puerto Rico." His trade association showed special interest in data for the industry as shown in the census report for manufacturing in Puerto Rico. Apparently because of lower labor costs and favorable trade laws, pharmaceuticals in Puerto Rico have grown to exceed 10 percent of stateside production.

## REPORTS

There are no preliminary reports; the following are all final series.

- **Retail Trade, Wholesale Trade, Service Industries—Puerto Rico: Geographic Area Statistics**, OA87-E-1, □ ■ . This report presents data for Puerto Rico as a whole, commercial regions (retail trade and services only), MSA's and PMSA's (wholesale trade only), and municipios for establishments with payroll in retail trade, wholesale trade, and some service industries, by varied kind-of-business detail. The report provides data on the number of establishments, sales (or receipts), payroll, employment, number of working partners and proprietors, and unpaid family workers. Data on operating expenses and inventories are also presented for wholesale trade. Data for all establishments (with and without payroll) in retail trade and covered service industries are presented for the Commonwealth as a whole and commercial regions.
- **Subject Statistics**, OA87-E-2, Part 1, **Establishment and Firm Size, Legal Form of Organization, and Corporate Ownership**, □ ■ , provides data (similar to

OA87-E-1) for the Commonwealth as a whole, by size of sales or receipts, employment size, legal form of organization, type of firm (single and multiestablishment), corporate ownership, number of working partners and proprietors, and unpaid family workers. Part 2, **Miscellaneous Subjects** □ ■ , contains additional retail trade information on merchandise line sales, class of customer, total and selling floor space for selected kinds of business, and sales of retail stores in MSA's. Wholesale trade data are provided on commodity line sales, inventories by method of valuation, employment by principal activity, and class of customer. For services, there are fairly detailed data for hotels and motels, including type of receipts and number of rooms.

- **Construction Industries—Puerto Rico**, OA87-E-3, □ ■ . This report presents industry, geographic area, and summary statistics. The industry chapter has data for the Commonwealth as a whole, MSA's, PMSA's, and municipios, by industry, on the number of construction establishments, employment, number of working partners and proprietors, unpaid family workers, payroll, fringe benefits, hours worked, receipts, net construction receipts,

value added, and capital expenditures. The tables also show payments for materials, components, and supplies; selected purchased services; rental or lease of machinery, equipment, and structures; power, fuels, and lubricants; and payments to subcontractors. The report also shows detailed information on construction receipts by type of structure, summary information by geographic location of establishments and by legal form of organization, and general statistics by employment size of establishments. A summary chapter presents totals derived from the industry and area tabulations for the Commonwealth as a whole, MSA's, PMSA's and municipios. The geographic area chapter provides data for MSA's, PMSA's, and municipios.

- **Manufactures—Puerto Rico**, OA87-E-4, □ ■ . This report furnishes data by industry for Puerto Rico as a whole, MSA's, PMSA's, and municipios on the number of establishments; employment, including the number of production workers; number of working partners and proprietors; unpaid family workers; payroll; value of shipments; value added by manufacture; class of customer; inventories; cost of materials; capital expenditures; products produced; and country of destination. All reports for Puerto Rico include introductory material and appendixes in English and Spanish.
- **Construction Industries, Manufactures, Wholesale Trade, Retail Trade, Service Industries—Virgin Islands of the United States**, OA87-E-5, □ ■ . This report presents statistics for the territory as a whole, the island

of St. Croix, the islands of St. John and St. Thomas combined, and the major towns, by kind of business, on the number of establishments, employment, number of working partners and proprietors, unpaid family workers, payroll, and sales or receipts. Summary statistics are presented by legal form of organization, employment size, and sales or receipts size. Detailed data are provided for hotels and motels for the islands as a whole.

- **Construction Industries, Manufactures, Wholesale Trade, Retail Trade, Service Industries—Guam**, OA87-E-6, □ ■ . The statistics in this report, for Guam as a whole and its election districts, are the same as in the U.S. Virgin Islands report.
- **Construction Industries, Manufactures, Wholesale Trade, Retail Trade, Service Industries—Northern Mariana Islands**, OA87-E-7, □ ■ . The statistics in this report, for the territory as a whole and its four municipalities, are the same as in the Virgin Islands report, except that there is no separate table for hotels and motels.

For more information about economic activity in outlying areas, see also—

- County Business Patterns (p. 83) for Puerto Rico

**Table From Outlying Areas Series, OA87-E-4 (Puerto Rico, Manufactures, by Industry and Geographic Area)**

**Table 2. Detailed Statistics by Industry Groups and Industries: 1987**

(Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A)

| Item  | Men's and boys' separate trousers (SIC 2327) | Men's and boys' work clothing (SIC 2328) | Men's and boys' clothing, n.e.c. (SIC 2329) | Women's and misses' outerwear (SIC 233) | Women's and misses' blouses and waists (SIC 2331) | Women's and misses' dresses (SIC 2335) | Women's and misses' suits and coats (SIC 2337) | Women's and misses' outerwear, n.e.c. (SIC 2339) |
|---|--|--|---|---|---|--|--|--|
| <b>ALL ESTABLISHMENTS</b>                       |  |  |   |   |   |  |  |  |
| Total.....number..                              | 13   | 26                                       | 7   | 67                                      | 10  | 38                                     | 7  | 12   |
| With less than 10 employees.....do..            | 6  | 3  | 2   | 17                                      | 4   | 10                                     | 2  | 1  |
| With 10 employees or more.....do..              | 7  | 23                                       | 5   | 50                                      | 6   | 28                                     | 5  | 11   |
| Proprietors and partners, working.....do..      | 7  | -  | (D)   | 7                                       | 2   | 4                                      | 1  | -  |
| Unpaid family workers <sup>1</sup> .....do..    | -  | -  | -   | 5                                       | 1   | 3                                      | 1  | -  |
| <b>All employees:</b>                           |  |  |   |   |   |  |  |  |
| Average for year.....do..                       | 449  | 4 052                                    | (D)   | 4 642                                   | 381   | 1 883                                  | 427  | 1 951  |
| March.....do..                                  | 471  | 4 232                                    | (D)   | 4 830                                   | 370   | 1 995                                  | 435  | 2 030  |
| May.....do..                                    | 508  | 4 055                                    | (D)   | 4 645                                   | 391   | 1 828                                  | 429  | 1 997  |
| August.....do..                                 | 395  | 3 930                                    | (D)   | 4 412                                   | 376   | 1 718                                  | 430  | 1 888  |
| November.....do..                               | 420  | 3 983                                    | (D)   | 4 665                                   | 385   | 1 981                                  | 413  | 1 886  |
| Annual payroll.....\$1,000..                    | 2 620  | 29 655                                   | (D)   | 34 839                                  | 2 190   | 13 795                                 | 3 541  | 15 313   |
| First quarter payroll.....do..                  | 493  | 6 771                                    | (D)   | 7 639                                   | 572   | 2 840                                  | 933  | 3 294  |
| Cost of materials, etc.....do..                 | 5 634  | 85 990                                   | (D)   | 48 034                                  | 2 387   | 22 495                                 | 1 626  | 21 526   |
| Value of shipments.....do..                     | 12 015                                       | 145 751                                  | (D)   | 109 637                                 | 7 111   | 49 779                                 | 4 575  | 48 172   |
| Value added by manufacture.....do..             | 5 664  | 59 648                                   | (D)   | 61 735                                  | 4 755   | 27 080                                 | 2 924  | 26 976   |
| <b>ESTABLISHMENTS WITH 10 EMPLOYEES OR MORE</b> |  |  |   |   |   |  |  |  |
| All employees, average for year.....number..    | 416  | 4 047                                    | (D)   | 4 557                                   | 363   | 1 833                                  | (D)  | (D)  |
| Payroll for year, all employees.....\$1,000..   | 2 460  | 29 630                                   | (D)   | 34 403                                  | 2 111   | 13 534                                 | (D)  | (D)  |
| First quarter payroll.....do..                  | 448  | 6 764                                    | (D)   | 7 545                                   | 522   | 2 789                                  | (D)  | (D)  |

**Table From Outlying Areas Series, OA87-E-5, Virgin Island of the U.S.**

**Table 5a. General Statistics by Selected Industry Group and Kind of Business for the Islands of St. Thomas and St. John: 1987**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

| 1987 SIC code | Selected industry group and kind of business             | Establishments (number) | Sales and receipts <sup>1</sup> (\$1,000) | Annual payroll (\$1,000) | First quarter payroll (\$1,000) | Paid employees for pay period including Mar. 12 (number) | Proprietors and partners <sup>2</sup> (number) | Unpaid family workers <sup>3</sup> (number) |
|---------------|--|-------------------------|---|--------------------------|---------------------------------|--|--|---|
|               | <b>Total .....</b>                                       | <b>1 582</b>            | <b>863 545</b>                            | <b>104 117</b>           | <b>25 940</b>                   | <b>10 779</b>  | <b>880</b>                                     | <b>273</b>                                  |
| —             | <b>Construction and subdividers and developers .....</b> | <b>89</b>               | <b>66 639</b>                             | <b>13 859</b>            | <b>3 715</b>                    | <b>1 248</b>   | <b>36</b>                                      | <b>16</b>                                   |
| 15            | General building contractors .....                       | 35                      | 30 880                                    | 5 374                    | 1 428                           | 525  | 16   | 10  |
| 18            | Heavy construction, except building .....                | 9                       | 23 074                                    | 4 758                    | 1 307                           | 335  | 2  | —   |
| 17            | Special trade contractors .....                          | 45                      | 12 905                                    | 3 727                    | 917                             | 388  | 18   | 6   |
| 6552          | Land subdividers and developers, except cemeteries ..    | 30                      | 10 395                                    | 1 111                    | 714                             | 352  | 16   | 2   |
| 20-39         | <b>Manufacturing .....</b>                               | <b>28</b>               | <b>19 762</b>                             | <b>4 000</b>             | <b>993</b>                      | <b>325</b>   | <b>5</b>                                       | <b>2</b>                                    |
| 20            | Food and kindred products .....                          | 6                       | 6 234                                     | 1 255                    | 310                             | 86   | —  | 1   |
| 27            | Printing and publishing .....                            | 5                       | 3 176                                     | 1 245                    | 306                             | 107  | 1  | —   |
| 387           | Watches, clocks, watchcases, and parts .....             | —                       | —   | —                        | —                               | —  | —  | —   |



# Enterprise Statistics

## STATISTICS ABOUT COMPANIES

The enterprise statistics program regroups data from the economic censuses for establishments under common ownership or control in order to show various economic characteristics of the owning or controlling firms. The program's primary contribution to the economic analysis of the U.S. industrial organization is in its unique ability to relate each company's data directly with its component establishment statistics. Enterprise statistics allow analysis of industrial organization in terms of the company's primary industrial activity, employment and sales size, industry concentration, and other economic characteristics, including those of the establishments they own or control. These data also support the study of historical shifts in the relative economic importance of large and small businesses, the changing patterns of diversification among large industrial firms, and similar economic characteristics by broad industry groupings.

## AUXILIARY ESTABLISHMENTS

The Enterprise Statistics Program also yields separate data about auxiliary establishments. An auxiliary is an establishment whose employees are primarily engaged in supportive services for other establishments of the same company (e.g., its mines, factories, retail stores), rather than for the general public or for other business firms. Most auxiliary establishments perform administrative functions (e.g., management, accounting, purchasing) for the company, but auxiliaries also include such diverse activities as central warehouses for the company's merchandise; research, development, and testing laboratories of manufacturing firms developing new or improved products primarily with the company's own funds; and electronic data processing.

Sales branches and sales offices of manufacturing and mining companies are not classified as auxiliaries but as wholesale trade establishments. Similarly, commercial laboratories primarily engaged in research, development, and testing of products for other business firms on a fee or contract basis are classified as service establishments, not auxiliaries.

In addition to the auxiliary establishments report cited below, auxiliaries are reported separately in County Business Patterns (by sector), the census of manufactures (Geographic Area Series and *General Summary* only), and the census of construction industries (Industry Series: *Summary* only). The census of mineral industries includes auxiliaries in all counts of establishments, employment, and payroll. On the other hand, none of the data products

from the censuses of retail and wholesale trade, service industries, and transportation include auxiliary establishments, so that the auxiliary establishments report is necessary for a complete look at employment and payroll in those sectors.

## HOW ARE COMPANY DATA CLASSIFIED?

The SIC system discussed in chapter 2 was designed for the classification of individual establishments. A broader, less detailed classification is more useful for companies, since many four-digit SIC's are dominated by establishments owned by companies primarily engaged in other closely related industries. The Census Bureau's Enterprise Industrial Classification (EIC) provides an intermediate level of detail tailored to company classification, with codes that include the first two digits of corresponding SIC codes, plus a letter code identifying different combinations of three- or four-digit industries within the two-digit major group. For example, new and used car dealers EIC 55A corresponds to SIC's 551 (motor vehicle dealers, new and used) and 552 (motor vehicle dealers, used only).

## HOW ARE THE DATA COLLECTED?

Each multiestablishment company that had 500 or more employees was mailed a special enterprise summary report to obtain unduplicated, consolidated company totals for selected statistics. For those multiestablishment companies that had fewer than 500 employees, the sales and receipts, capital expenditures, and inventory data were derived from aggregates of the reported establishment data. Reports from single-establishment firms were used directly.

## HOW COMPARABLE ARE THESE DATA TO OTHER ECONOMIC CENSUS DATA ON COMPANIES?

Each of the separate economic censuses includes a subject report with limited data for firms. The user should recognize that those reports treat a firm as all establishments under common ownership or control within the scope of one particular census. The enterprise statistics treat the company in entirety, even including components that may be outside the scope of any economic census, for example, a company primarily engaged in retail trade but with subsidiaries in insurance or finance. Each company is counted only under its primary industry classification, although some tabulations differentiate single-industry from multi-industry companies.

- **Coverage.** The 1987 Enterprise Statistics reports cover transportation for the first time. At the same time, they no longer cover agriculture, although their 1982 counterparts did.
- **State data.** New company-level data are published for States, featuring the statistics for all companies operating in the State; those companies entirely within the State; and those companies also operating elsewhere (with separate data for operations inside and outside the State).
- **New report titles.** The report entitled *General Report on Industrial Organization* in previous censuses is being published as two reports for 1987: *Large Companies* and *Company Summary*. The statistics on large companies have greater detail than in 1982.

### How Have Enterprise Statistics Been Used?

A soft drink bottler considered expanding into two related beverage manufacturing operations: fluid milk and alcoholic beverages. Data from the *Company Summary* shed light on industry specialization, employment, and company size. Figures on many expense and receipt items compared favorably to bottling industry statistics and encouraged the bottler to diversify.

A consultant in economic development found in the census of manufactures Geographic Area Series that nearly a quarter of manufacturing employment in the Detroit area was in auxiliary establishments. He turned to the *Auxiliary Establishments* report for a better understanding of the range of functions (administration, research and development, data processing, etc.) performed by manufacturing auxiliaries in Michigan. He used figures from that report in projecting the economic impact to the State of various cost-cutting efforts within major industries which he felt would disproportionately affect expenditures at auxiliary establishments.

A trade association used information from the *Company Summary* in an information packet for its convention. It examined trends toward corporate ownership, as well as financial information on inventories, assets, and expenditures.

The Small Business Administration relies on data from the *Company Summary* in determining size standards for small businesses.

### REPORTS

- **Large Companies, ES87-1, □ ■ .** This report presents data for companies with 500 or more employees covered by the 1987 Economic Censuses. Data include number of companies, number of employees, annual payroll, sales and receipts, beginning and end-of-year inventories, capital expenditures, assets, depreciation charges, and selected operating expenses. Data are shown by enterprise industrial classification categories at the national level. In 1982, most of these data were issued as part of the *General Report on Industrial Organization*.
- **Auxiliary Establishments, ES87-2, □ ■ ⊕ ⊙ .** This report supplies information for the United States and States on separately operated central administrative offices and other auxiliary establishments (i.e., warehouses, research and development laboratories, etc.) of multiestablishment firms. State figures show the number of auxiliaries and payroll, plus the number of employees classified by the type of service performed (administration, warehousing, etc.). National figures show the same data by two- or three-digit SIC of the establishments serviced. Other subjects include sales or receipts, end-of-year inventories, rental payments, capital expenditures by type (structures, vehicles, computers, etc.), gross value of fixed assets, selected operating expenses, and research and development costs. The report also provides information on the enterprise industrial classification, company size, and other economic characteristics of the firms that operate these auxiliary establishments.
- **Company Summary, ES87-3, □ ■ .** This report, previously part of the *General Report on Industrial Organization*, offers data for the Nation as a whole and by State, by enterprise industrial classification, on employment and sales size, legal form of organization, and company/establishment cross tabulations. Data include the number of companies, number and primary industry of owned or operated establishments, number of employees, annual payroll, and sales or receipts.

For more information on companies, see also—

- Quarterly Financial Report (p. 85)

**Table From Enterprise Statistics Series, ES87-2, Auxiliary Establishments**

**Table 3. Employees by Type of Work Performed for States: 1987**

[For meaning of abbreviations and symbols, see introductory text]

| Geographic area and industry division of establishment serviced | All auxiliaries |                    |                          | Employees by type of work performed |   |                      |                                     |   |                           |
|---|-----------------|--------------------|--------------------------|-------------------------------------|---|----------------------|-------------------------------------|---|---------------------------|
|   | Number          | Employees (number) | Annual payroll (\$1,000) | Administration (number)             | Research, development, and testing (number) | Warehousing (number) | Electronic data processing (number) | Sales to customers directly from this location (number) | Other activities (number) |
| <b>United States</b> .....                                      | <b>35 986</b>   | <b>2 569 063</b>   | <b>70 058 572</b>        | <b>1 569 150</b>                    | <b>239 775</b>                              | <b>267 503</b>       | <b>133 619</b>                      | <b>157 349</b>  | <b>201 687</b>            |
| Mineral industries .....  | 1 471           | 149 226            | 5 314 862                | 112 001                             | 12 333                                      | 879                  | 9 698                               | 1 679   | 12 636                    |
| Construction industries .....                                   | 391             | 22 961             | 663 016                  | 16 640                              | 989   | 187                  | 1 040                               | 889   | 3 201                     |
| Manufacturing .....   | 10 026          | 1 232 599          | 38 069 065               | 737 133                             | 198 957                                     | 48 861               | 71 113                              | 80 496  | 96 039                    |
| Wholesale trade .....   | 6 219           | 279 691            | 7 430 357                | 165 109                             | 13 453                                      | 47 630               | 15 119                              | 21 922  | 16 458                    |
| Retail trade .....  | 12 867          | 712 557            | 14 412 897               | 426 835                             | 2 143                                       | 164 226              | 23 601                              | 45 340  | 50 412                    |
| Selected service industries .....                               | 5 012           | 172 029            | 4 168 175                | 111 432                             | 11 900                                      | 5 720                | 13 048                              | 7 023   | 22 906                    |
| <b>Alabama</b> .....  | <b>384</b>      | <b>12 903</b>      | <b>257 567</b>           | <b>6 638</b>                        | <b>512</b>                                  | <b>2 839</b>         | <b>508</b>                          | <b>852</b>  | <b>1 554</b>              |
| Mineral industries .....  | 12              | E                  | (D)                      | D                                   | B   | B                    | A                                   | A   | C                         |
| Construction industries .....                                   | 6               | C                  | (D)                      | C                                   | A   | A                    | A                                   | A   | A                         |
| Manufacturing .....   | 102             | 4 735              | 104 862                  | 2 070                               | 490   | 540                  | 314                                 | 531   | 790                       |
| Wholesale trade .....   | 66              | 1 446              | 29 086                   | 677                                 | 2   | 558                  | 49                                  | 88  | 72                        |
| Retail trade .....  | 136             | 5 112              | 77 494                   | 2 648                               | -   | 1 670                | 112                                 | 207   | 475                       |
| Selected service industries .....                               | 62              | 784                | 18 884                   | 672                                 | -   | 15                   | 10                                  | 9   | 78                        |

**Table From Enterprise Statistics Series, ES87-3, Company Summary**

**Table 1. Company Statistics by Classification Status of Owned Establishments: 1987**

[For meaning of abbreviations and symbols, see introductory text]

| Code                  | Industry of company and classification status of owned establishments | Companies (number) | Owned establishments (number) | Employees (number) | Annual payroll (mil. dol.) | Sales and receipts (mil. dol.) | Value added (mil. dol.) | New capital expenditures (mil. dol.) | End-of-year inventories (mil. dol.) |
|-----------------------|---|--------------------|-------------------------------|--------------------|----------------------------|--------------------------------|-------------------------|--------------------------------------|-------------------------------------|
| <b>ALL INDUSTRIES</b> |   |                    |                               |                    |                            |                                |                         |                                      |                                     |
|                       | <b>All companies</b> .....  | <b>4 256 243</b>   | <b>5 014 025</b>              | <b>61 660 233</b>  | <b>913 861.7</b>           | <b>5 362 011.0</b>             | (NA)                    | (NA)                                 | (NA)                                |
|                       | <b>Establishments:</b>  |                    |                               |                    |                            |                                |                         |                                      |                                     |
|                       | In same category .....  | 4 256 243          | 4 690 141                     | 49 175 227         | 655 898.4                  | 4 257 747.2                    | (NA)                    | (NA)                                 | (NA)                                |
|                       | In other categories .....   | 39 099             | 247 069                       | 9 020 158          | 166 180.7                  | 1 184 622.1                    | (NA)                    | (NA)                                 | (NA)                                |
|                       | Auxiliary and sales branch .....                                      | 16 856             | 76 815                        | 3 464 848          | 91 784.4                   | 695 830.6                      | (NA)                    | (NA)                                 | (NA)                                |
|                       | Industry specialization ratio .....                                   | (X)                | 95.5                          | 84.5               | 79.8                       | 78.1                           | (NA)                    | (NA)                                 | (NA)                                |
|                       | <b>Single-industry companies</b> .....                                | <b>4 217 144</b>   | <b>4 447 303</b>              | <b>35 516 074</b>  | <b>422 363.5</b>           | <b>2 551 732.3</b>             | (NA)                    | (NA)                                 | (NA)                                |
|                       | <b>Establishments:</b>  |                    |                               |                    |                            |                                |                         |                                      |                                     |
|                       | In same category .....  | 4 217 144          | 4 435 041                     | 35 280 993         | 417 121.9                  | 2 543 814.4                    | (NA)                    | (NA)                                 | (NA)                                |
|                       | Auxiliary and sales branch .....                                      | 8 844              | 12 262                        | 235 081            | 5 241.0                    | 25 093.8                       | (NA)                    | (NA)                                 | (NA)                                |



# Minority- and Women-Owned Businesses

## DEFINITION AND SCOPE

The 1987 Survey of Minority-Owned Business Enterprises determines the extent of business ownership by specific minority groups in the United States:

- Blacks
- Hispanics (persons of Spanish origin)
- Asian Americans
- American Indians
- Other minorities

A parallel series reports on business ownership by women.

Generally, a firm falls within the scope of these programs if the sole owner or one-half or more of the partners are women or members of minority groups. A "Subchapter S" corporation is counted if at least 50 percent of the stockholders are women or minorities. (Subchapter S businesses are corporations that elect to be taxed like partnerships, in that their income or loss is reported on the individual income tax returns of their shareholders, avoiding corporate income tax. This arrangement is most advantageous for small firms likely to have tax losses.)

These statistics do not include regular corporations because there are no uniform records for classifying their stockholders by sex or minority status. Consequently, statistics on minority- and women-owned businesses concentrate on those smaller firms that have not found it advantageous to file regular corporate tax returns.

## HOW ARE THE DATA COLLECTED?

Under strict confidentiality standards, the Census Bureau matched business tax returns (Internal Revenue Service forms 1040-Schedule C, 1065, and 1120S) to race and sex identifiers in Social Security Administration (SSA) records to identify minority- and women-owned businesses. These sources were supplemented by a survey to locate additional Hispanic and other minority-owned businesses not well identified in SSA files. The resulting lists of minority- and women-owned businesses were matched to

census records to supply SIC code, geographic location, legal form of organization, number of employees, annual payroll, and sales or receipts.

## COMPARABILITY WITH DATA FROM THE ECONOMIC CENSUSES

Statistics on minority- and women-owned businesses are useful for studying the characteristics and distribution of those businesses. On the other hand, comparisons of their characteristics to totals from other economic census reports should be made with caution, even though the key statistics are taken directly from other economic census records.

First, by excluding regular corporations (those that file IRS form 1120), these statistics exclude the largest and most profitable firms. At the other end of the spectrum, the minority- and women-owned business data include firms without paid employees, while nonemployers are omitted from most economic census data. The censuses of retail trade, service industries and construction industries do feature separate tabulations of those nonemployers with gross business receipts of \$1,000 or more, while minority- and women-owned business tabulations include firms with receipts as low as \$500.

Second, there is some difference in industrial scope. These surveys include agricultural services; public utilities; finance, insurance, and real estate; and parts of the transportation sector that are not covered in the censuses.

Finally, the censuses report data in terms of establishments while the business tax returns on which these reports are based summarize data for firms. That difference is not as significant as it may seem, since relatively few of the firms within the scope of these surveys have more than one establishment.

Minority- and women-owned business reports for 1987 include statistics for the corresponding universe (i.e., the total number of businesses other than regular corporations, along with their employment, payroll, and receipts) for the Nation, States, and MSA's. These figures make it possible to calculate minority- or women-owned businesses as a percentage of all businesses in the same universe.

## What's New for 1987?

## Minority- and Women-Owned Businesses

- **Changed scope.** These reports exclude regular corporations, while reports from earlier surveys of minority-owned business included corporations identified as minority-owned by various private directories or other contacts. (Statistics on women-owned businesses have never included regular corporations.)
- **Denominators.** Comparative information for all businesses in this universe are now published for the Nation, States, and MSA's.
- **Summary report.** The new *Summary* presents data for all minorities together and identifies duplication among the minority groups.

### Reports

- **Minority-Owned Businesses—Black**, MB87-1, [table icon] [book icon] [CD-ROM icon] [floppy disk icon]; **Minority-Owned Businesses—Spanish Origin**, MB87-2, [table icon] [book icon] [CD-ROM icon] [floppy disk icon]; and **Minority-Owned Businesses—Asian American, American Indian, and Other Minorities**, MB87-3, [table icon] [book icon] [CD-ROM icon] [floppy disk icon]. These three reports provide statistics for the United States, States, the District of Columbia, and those MSA's, counties, and places with 100 or more firms owned by the specified minority. National-level data present general statistics (see table 1, p. below) by two-digit industry, legal form of organization (sole proprietorships, partnerships, and small corporations), and receipt size and employment size of firm. Data for States and MSA's are confined to general statistics by nine broad economic sectors. Data for counties and places are presented without industry detail (see table 5, p. 81). Files on tape and CD-ROM include records for all MSA's, counties, and places, including those with fewer than 100 minority-owned firms.

- **Minority-Owned Businesses—Summary**, MB87-4, [table icon] [book icon] [CD-ROM icon] [floppy disk icon]. This new report provides totals for all minorities together and identifies the duplication among minority groups at the State level.
- **Women-Owned Businesses: 1987**, WB87-1, [table icon] [book icon] [CD-ROM icon] [floppy disk icon]. This report provides statistics for the United States, States, the District of Columbia, and those MSA's, counties, and places with 100 or more women-owned firms. Tables correspond directly to those in the MB87 reports. Files on tape and CD-ROM include all MSA's, counties, and places.

For more information about minorities and women, see also—

- Characteristics of Business Owners (below)
- Agriculture (p. 90) for characteristics and distribution of farms operated by minorities and women.
- Population and Housing (p. 96) for characteristics of workers and self-employed persons by race, Spanish origin, and sex.

**Table From Minority-Owned Businesses—Black, MB87-1**

**Table 1. Major Industry Statistics: 1987**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

| SIC code | Industry division, industry group, and industry           | All firms        |                              | Firms with paid employees |  |                          |                              |
|----------|---|------------------|------------------------------|---------------------------|--|--------------------------|------------------------------|
|          |   | Firms (number)   | Sales and receipts (\$1,000) | Firms (number)            | Employees for pay period including March 12 (number) | Annual payroll (\$1,000) | Sales and receipts (\$1,000) |
|          | <b>All Industries</b> .....                               | <b>2 884 450</b> | <b>98 291 513</b>            | <b>311 662</b>            | <b>1 354 588</b>                                     | <b>11 156 389</b>        | <b>65 347 449</b>            |
|          | <b>Agricultural services, forestry, and fishing</b> ..... | <b>21 344</b>    | <b>685 728</b>               | <b>2 843</b>              | <b>8 998</b>   | <b>77 475</b>            | <b>408 228</b>               |
| 07       | Agricultural services .....                               | 16 650           | 562 030                      | 2 487                     | 7 960  | 67 137                   | 355 269                      |
| 08       | Forestry .....  | 3 468            | 87 757                       | 526                       | 1 551  | 11 983                   | 53 064                       |
| 09       | Fishing, hunting, and trapping .....                      | 735              | 15 200                       | 35                        | 94   | 909                      | 4 024                        |
|          | <b>Mining</b> .....                                       | <b>301</b>       | <b>36 651</b>                | <b>42</b>                 | <b>323</b>   | <b>5 384</b>             | <b>25 908</b>                |
| 10       | Metal mining .....  | 11               | 553                          | 2                         | (D)  | (D)                      | (D)                          |
| 11       | Anthracite mining .....                                   | 10               | 848                          | -                         | -  | -                        | -                            |
| 12       | Bituminous coal and lignite mining .....                  | 1                | 1                            | (D)                       | (D)  | (D)                      | (D)                          |
| 13       | Oil and gas extraction .....                              | 257              | 31 214                       | 34                        | 259  | 4 411                    | 22 029                       |
| 14       | Nonmetallic minerals, except fuels .....                  | 22               | (D)                          | 5                         | (D)  | (D)                      | (D)                          |

**Table From Women-Owned Businesses, WB87-1**

**Table 5. Statistics for Counties With 100 or More Women-Owned Firms: 1987**

[For meaning of abbreviations and symbols, see introductory text]

| Geographic area | All firms      |                              | Firms with paid employees |                              |                    |                          |
|-----------------|----------------|------------------------------|---------------------------|------------------------------|--------------------|--------------------------|
|                 | Firms (number) | Sales and receipts (\$1,000) | Firms (number)            | Sales and receipts (\$1,000) | Employees (number) | Annual payroll (\$1,000) |
| <b>ALABAMA</b>  |                |                              |                           |                              |                    |                          |
| Autauga .....   | 270            | 7 161                        | 35                        | 4 267                        | 119                | 7 426                    |
| Baldwin .....   | 1 009          | 34 862                       | 117                       | 21 422                       | 457                | 2 358                    |
| Barbour .....   | 217            | 9 345                        | 37                        | 5 865                        | 67                 | 579                      |
| Bibb .....      | 100            | 4 092                        | 14                        | 2 573                        | 44                 | 242                      |
| Blount .....    | 210            | 8 174                        | 35                        | 4 858                        | 105                | 531                      |
| Butler .....    | 143            | 7 286                        | 27                        | 4 878                        | 242                | 1 391                    |
| Calhoun .....   | 1 012          | 30 641                       | 124                       | 20 836                       | 531                | 4 162                    |
| Chambers .....  | 201            | 8 323                        | 38                        | 5 077                        | 103                | 692                      |
| Cherokee .....  | 133            | 25 435                       | 35                        | 22 831                       | 568                | 6 345                    |
| Chilton .....   | 241            | 12 307                       | 36                        | 8 056                        | 154                | 941                      |

**How Have These Statistics Been Used?**

A reporter for the *Seattle Post-Intelligencer* compared Asian-owned businesses with those of other races as background for an article on business and race in the area.

Federal and State agencies look to the Survey of Minority-Owned Business Enterprises to help them gauge the effectiveness of various government programs, including the development of contracting guidelines for minority businesses.



# Characteristics of Business Owners

## DEFINITION AND SCOPE

While the minority- and women-owned business reports yield only the narrow range of data items discussed above, the Characteristics of Business Owners Survey explores demographic, social, and financial characteristics not traditionally available from economic censuses. Separate samples are included for businesses owned by Blacks, Hispanics, other minorities, women, and a comparison group of nonminority males. Responses from the questionnaires are matched to economic censuses data about the firm.

Each of the following characteristics is presented at the national level cross-tabulated by nine industry divisions, receipt size, employment size, and legal form of organization:

- Owner characteristics: Age, marital status, educational background, veteran status, work experience, hours worked, and percent of owner's income derived from the business.
- Acquisition and financing: Year and method by which business was acquired, whether based in the home, starting capital requirements, percent and sources of borrowed capital, and sources of equity capital.
- Business operations: Net income, percent women employees, percent minority employees, and percent minority customers.

## COMPARABILITY

Comparability with other census figures is affected by the same factors discussed for the minority- and women-owned business reports above. The scope of the survey excluded all regular corporations and Subchapter S corporations with 10 or more shareholders, but at the same time included some businesses outside the scope of the economic censuses, such as real estate.

The sample design for 1987 allows tabulation of data for all businesses within that universe. Samples for each group within the 1982 survey were drawn independently, so that those data did not account for the overlap that occurs among the various minority categories and women. Thus, the 1982 report included no overall totals, and if a user simply added up the data for minorities, women, and nonminority men, the result was a modest overstatement of businesses in the survey universe.

## REPORT

- *Characteristics of Business Owners: 1987*, series CBO87, □ ■. This report presents demographic and financial characteristics of Black, Hispanic, other minority (including Asian American and American Indian), women, and nonminority male business owners and their businesses at the national level. The primary characteristics are listed in the text above. In addition, the total number of firms and their sales or receipts are presented for each of the five groups at the State level, and by two-digit SIC at the national level.

**Table From Characteristics of Business Owners: 1982, CBO82**

**Table 4a. Educational Background of Owner by Industry Division: 1982**

[All data are shown as percents, except firms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

| Type of firm and industry division                           | Firms (number) | Owner's highest level of formal schooling completed <sup>1</sup> |               |                                    |                         |                    |                            |              |
|--|----------------|--|---------------|------------------------------------|-------------------------|--------------------|----------------------------|--------------|
|  |                | Less than 9 years  | 9 to 11 years | 12 years or high school equivalent | 1 to 3 years of college | 4 years of college | 5 years or more of college | Not reported |
|  |                | A  | B             | C                                  | D                       | E                  | F                          | G            |
| 1 Hispanic-owned businesses .....                            | 248 141        | 19.0   | 11.4          | 27.3                               | 19.5                    | 7.2                | 11.7                       | 4.0          |
| 2 Agricultural services, forestry, fishing, and mining ..... | 7 640          | 33.8   | 15.5          | 22.5                               | 13.3                    | 4.9                | 4.9                        | 5.0          |
| 3 Construction .....   | 26 699         | 28.2   | 15.6          | 30.0                               | 15.6                    | 3.7                | 2.8                        | 4.0          |
| 4 Manufacturing .....  | 4 364          | 14.9   | 9.8           | 32.0                               | 21.3                    | 8.8                | 7.5                        | 5.4          |
| 5 Transportation and public utilities .....                  | 13 155         | 31.5   | 16.0          | 28.1                               | 13.9                    | 3.4                | 2.0                        | 5.0          |
| 6 Wholesale trade .....                                      | 3 623          | 14.9   | 10.1          | 23.7                               | 24.6                    | 10.8               | 8.9                        | 7.0          |
| 7 Retail trade .....   | 58 274         | 20.7   | 11.9          | 30.0                               | 20.1                    | 6.2                | 6.9                        | 4.2          |
| 8 Finance, insurance, and real estate .....                  | 11 123         | 2.4  | 3.3           | 23.0                               | 31.2                    | 18.2               | 19.2                       | 2.6          |
| 9 Selected services .....                                    | 98 279         | 14.5   | 10.3          | 26.1                               | 19.6                    | 7.8                | 18.1                       | 3.6          |
| 10 Industries not classified .....                           | 24 983         | 21.1   | 11.5          | 25.0                               | 19.2                    | 7.8                | 11.7                       | 3.9          |



# Other Related Statistics **6**



## County Business Patterns

### DEFINITION AND SCOPE

County Business Patterns (CBP) presents economic data every year for States and counties nationwide and also for Puerto Rico. CBP covers nearly the entire economy, including two sectors not covered in the 5-year economic censuses—agricultural services, forestry, and fisheries; and finance, insurance, and real estate—and parts of two others—religious organizations within the service sector; and local and interurban ground transportation, air transportation, pipelines, communication, and public utilities within the transportation and public utilities sector. Coverage is spelled out in figure 3, p. 9.

The data in the CBP reports represent types of employment covered by the Federal Insurance Contributions Act (FICA) and are obtained from several different sources, including Federal administrative records, an annual company organization survey, and the economic censuses. The basic tabulations in the reports exclude establishments without paid employees, farm and domestic-service workers, railroad employment subject to the Railroad Retirement Act, employment on oceangoing vessels or in foreign countries, and government employees. (Prior to 1985, Federal civilian employment and payroll were shown.)

The printed reports show State and county figures to the extent that each industry has 50 or more employees in the given area. Computerized files include data records for all four-digit industry categories with one or more employees. The published data items include—

- Employment as of March 12
- Payroll, first-quarter and annual
- Number of establishments in nine employment-size categories.

Auxiliary establishments are summarized in separate records within each sector (e.g., manufacturing) for each State and county, and are included in sector-level totals. Auxiliaries are also shown at the two-digit SIC level in the *U.S. Summary* report.

Establishment classification by SIC is updated once every 5 years, after each census. CBP reports for 1987 reflect the old SIC system (see ch. 2). Statistics for 1988 are based on the new 1987 SIC, and 1988 reports include revised 1987 totals at the State level updated to the new SIC system, serving the same function as the "bridge" tables discussed for the various censuses. (Revised 1987 data may be issued on tape and CD-ROM at the State and county level during 1990.)

Special tabulations have also been created by ZIP Code, including the number of establishments by employment-size class, but not the employment and payroll figures provided in the regular publications. These tabulations do not reflect any editing, and invalid ZIP Codes could be present. Two-digit SIC data for metropolitan areas are also available as a special tabulation. These special tabulations are available on a cost-sharing basis through the Economic Surveys Division, Bureau of the Census.

### USING CBP TO UPDATE CENSUS DATA

CBP data are used for many of the same applications as economic censuses data, as long as statistics on sales or receipts are not required. They are particularly useful in studying employment across sectors.

When estimates of sales or other measures of business activity are required, users frequently employ "synthetic estimation," where CBP payroll figures for the latest available year are compared with corresponding CBP figures for the preceding census year, and the resulting percent increase or decrease is applied to the available census figures for sales or shipments. Synthetic estimation should be performed with caution, however, since relationships between payroll and other variables may change over time, as in the reduction of employment in some industries due to automation or contracting out, even while production is maintained or increased. In addition, for any SIC which changed for 1987, it may be necessary to use 1987 State-level totals as published in the 1988 reports, since the county-level data in 1987 reports classified on the old SIC basis are not directly comparable with either the census data or CBP data for 1988 or subsequent years. (Revised 1987 data according to the new SIC may be issued down to the county level on tape and CD-ROM during 1990.)

### How Have QFR Data Been Used?

- The Department of Commerce regularly uses QFR data as an important component in determining the gross national product (GNP) and national income estimates.
- The Federal Reserve Board uses the QFR to assess industrial debt structure, liquidity, and profitability.
- The Department of the Treasury estimates aggregate corporate tax liability through use of QFR data.
- The Council of Economic Advisers and congressional committees use key indicators derived from QFR data as they design economic policies and draft legislation.
- The Federal Trade Commission uses the series as a basic reference point in analyzing the financial performance of American industries.
- Banking institutions and financial analysts draw upon the series in making investment evaluations.



## Plant and Equipment Expenditures Survey

The Plant and Equipment Expenditures Survey is a company-based, quarterly survey which estimates actual and planned capital expenditures by business. These estimates are adjusted for systematic biases in the reported investment plans of businesses, for seasonality, and for price changes.

The survey covers all industries except farming and public administration. Data are classified generally by sector and within manufacturing by major group.

There is no formal report series. A quarterly press release is issued about 3 months after the end of the reference quarter. Data are also available on computer tape files and printouts, including extensive time series.

### Table From Plant and Equipment Expenditures Press Release

**Table 2. New Plant and Equipment Expenditures by Business in Current Dollars**

Billions of dollars; quarters seasonally adjusted at annual rates

|   | 1987   | 1988   | 1989 <sup>5</sup> | 88:1   | 88:2   | 88:3   | 88:4   | 89:1   | 89:2 <sup>5</sup> | 89:3 <sup>5</sup> | 89:4 <sup>5</sup> |
|---|--------|--------|-------------------|--------|--------|--------|--------|--------|-------------------|-------------------|-------------------|
| All industries <sup>1</sup> .....           | 389.67 | 429.67 | 472.08            | 412.02 | 426.94 | 436.01 | 443.71 | 457.64 | 467.50            | 478.79            | 484.38            |
| Manufacturing.....                          | 145.90 | 165.70 | 179.35            | 158.60 | 161.69 | 168.91 | 173.61 | 175.83 | 177.10            | 182.70            | 181.79            |
| Durable goods.....                          | 71.01  | 78.12  | 82.13             | 75.70  | 76.87  | 79.48  | 80.42  | 81.71  | 80.21             | 84.08             | 82.54             |
| Primary metals <sup>2</sup> .....           | 8.71   | 10.98  | 12.06             | 10.38  | 10.59  | 11.81  | 11.14  | 11.19  | 11.12             | 12.59             | 13.32             |
| Blast furnaces, steel works....             | 4.69   | 6.16   | 7.09              | 5.52   | 5.98   | 6.75   | 6.40   | 6.24   | 6.50              | 7.56              | 8.07              |
| Nonferrous metals.....                      | 2.16   | 2.77   | 2.83              | 2.85   | 2.59   | 2.87   | 2.77   | 2.91   | 2.60              | 2.83              | 2.98              |
| Fabricated metals.....                      | 4.02   | 4.32   | 4.54              | 4.36   | 4.49   | 4.30   | 4.12   | 4.44   | 4.65              | 4.51              | 4.56              |
| Electrical machinery.....                   | 15.28  | 18.29  | 18.32             | 17.45  | 18.08  | 19.19  | 18.44  | 18.30  | 18.39             | 19.14             | 17.46             |
| Machinery, except electrical.....           | 13.85  | 15.22  | 15.07             | 15.40  | 15.46  | 14.13  | 15.89  | 16.40  | 15.18             | 14.95             | 13.73             |
| Transportation equipment <sup>2</sup> ..... | 16.62  | 15.36  | 17.48             | 14.77  | 14.77  | 15.84  | 16.06  | 16.67  | 16.60             | 18.09             | 18.55             |
| Motor vehicles.....                         | 11.91  | 10.61  | 12.21             | 10.03  | 10.08  | 11.16  | 11.16  | 10.41  | 11.60             | 13.05             | 13.80             |
| Aircraft.....                               | 3.54   | 3.43   | 3.83              | 3.43   | 3.41   | 3.44   | 3.46   | 4.72   | 3.61              | 3.71              | 3.29              |
| Stone, clay, and glass.....                 | 3.37   | 3.59   | 4.01              | 3.51   | 3.64   | 3.53   | 3.68   | 4.00   | 3.82              | 3.99              | 4.23              |
| Other durables <sup>3</sup> .....           | 9.17   | 10.37  | 10.66             | 9.84   | 9.85   | 10.67  | 11.10  | 10.71  | 10.45             | 10.81             | 10.68             |



## Foreign Trade

Statistics on exports and imports are an important complement to economic census data on production. The strength of exports is widely regarded as a measure of the competitive effectiveness of industries or regions. Analysts compute "apparent consumption" of specific commodities by adding imports and subtracting exports from census figures on the products of domestic manufacturers. Businesses study patterns of exports and imports when seeking markets for their own products and services.

In concept, official U.S. merchandise trade data reflect a monthly "census" (i.e., complete count) of American export and import transactions, based on the official documents that shippers and receivers must file with the U.S. Customs Service in connection with each individual shipment. The Census Bureau receives these documents or their computerized counterparts from the Customs Service and shippers, reviews and edits them, and compiles the data into statistical reports.

These figures reflect the flow of merchandise, but not intangibles like services and financial commitments. (The 1987 Census of Service Industries does include limited information on exported services for 26 kinds of business most likely to have foreign customers [see p. 45], but these services are not included in the merchandise trade data.) The trade figures trace commodity movements out of and into U.S. Customs jurisdiction, which includes Puerto Rico and the U.S. Virgin Islands as well as the 50 States and the District of Columbia. (Data are published separately on trade between the United States and Puerto Rico, the U.S. Virgin Islands, and other U.S. possessions.)

Both import and export data exclude merchandise shipped in transit through the United States from one foreign country to another. Exports include intracompany shipments and also foreign aid, military sales, and agricultural assistance commodities; but they exclude certain shipments made by the Federal Government.

### CONTENT

The key variables in foreign trade reports are—

- Export value calculated free alongside ship (f.a.s.)
- Import value, presented either as customs value alone or with insurance and freight added in (c.i.f.)

- Specific commodities (classification discussed below)
- Foreign country of origin (for imports) or destination (exports)

Additional variables shown selectively include—

- SIC-based product codes (regrouped from the more detailed commodity classification)
- Method of transportation (air, sea, or other)
- State of origin of movement for exports
- U.S. Customs District of export or import
- U.S. and foreign ports for sea shipments
- Quantities shipped (units of measure vary from commodity to commodity)
- Shipment weight for air and sea shipments

### CLASSIFICATION

Prior to 1989, exported and imported commodities were classified according to two different systems, both based generally on the type of materials of which they were made. This is in contrast to product classifications used in the censuses of manufactures and mineral industries, which are generally organized according to the industry producing them, and which use an independent set of codes. With the implementation of the new "harmonized system" of trade classification at the beginning of 1989, export and import classifications are now based on a system also used by most other major trading countries. Further, some of the industrial (SIC) and product classifications used in the 1987 Economic Censuses were adjusted to enhance comparability with the new harmonized system.

Tabulations showing value of exports by State of origin of movement are another new feature of the trade statistics. These are an important complement to the *Exports from Manufacturing Establishments* reports (see p. 58), not only because they specify country of destination of exports (in addition to classification by two-digit SIC-based product codes), but also because the trade figures are generated much more quickly and more frequently than is possible in the censuses and annual surveys of manufactures. It should be recognized, however, that the origin of movement is the point where the commodity began its export journey, not necessarily the point where the goods were manufactured, grown, or mined. For nonmanufactured goods, such as agricultural commodities or petroleum, the origin of export movement is often the port of export.

#### What's New?

#### Foreign Trade

- With the conversion to the "harmonized system" for trade classification as of January 1989, many changes were made to the publication program.
- Starting with 1987, quarterly statistics on State of origin of movement for exports by two-digit SIC-based commodity classification and by country of destination are available on tape.

## SELECTED REPORTS

- **Summary of U.S. Export and Import Merchandise Trade**, FT-900, □ (order subscription from Foreign Trade Division, Bureau of the Census, Washington, D.C. 20233) □. Closely watched monthly report of trade balance, value of exports and imports, with and without adjustment for seasonal variation. Report includes selected commodity groups and trading countries. Monthly and cumulative year to date. Released 6 weeks after end of reference month.

The same subscription also includes the FT-900 Supplement □ □, with tables showing "State of origin of movement" for manufactured and nonmanufactured merchandise exports; and imports, exports and trade balance by SIC-based product classification and by country. Issued 8 weeks after end of reference month.

- FT-925, **U.S. Merchandise Trade: Exports, General Imports, and Imports for Consumption; SITC Commodity by Country** □ □. This report includes more detailed commodity and country classifications than FT-900 each month. (This report replaces reports FT-410 and FT-135.)
- FT-895, **U.S. Trade with Puerto Rico and U.S. Possessions** □ □. Monthly and annual issues.

More detailed or specialized data are issued on computer tape and microfiche, including—

- EM-545, **Exports Data Bank** ⊕ ⊙. Parts also in two microfiche □ series. Monthly.
- IM-145, **Imports Data Bank** ⊕. Parts also in three microfiche □ series. Monthly.
- **State of Origin of Movement of Exports** ⊕. Quarterly.

An updated *Guide to Foreign Trade Statistics* may be published in early 1990.

## RELATED REPORT

- **Trade and Employment**, TM-[qtr]-[yr], □ □. This quarterly report republishes import and export data classified by two- and four-digit SIC-based commodity groups in a manner designed to highlight year-to-year changes. Special tables present import and export commodity groups rank-ordered on the percent change to the current quarter from the same quarter a year ago. Complementary tables show employment at the national level for the same periods and with similar measures of change, based on data from the Bureau of Labor Statistics.

## Tables From FT-900 Supplement: Report on U.S. Merchandise Trade

### EXHIBIT 2. EXPORTS, IMPORTS AND MERCHANDISE TRADE BALANCE BY SELECTED SIC-BASED PRODUCT CODE, NOT SEASONALLY ADJUSTED: 1989

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures. (-) Represents zero. (X) - Not applicable. (Z) - Less than one half unit of measurement shown.

| SIC-Based Product Code Description                     | Trade balance |                             | Exports (F.a.s. value) |                             | Imports for consumption (Customs value) |                             |                 |                             |
|--|---------------|-----------------------------|------------------------|-----------------------------|---|-----------------------------|-----------------|-----------------------------|
|  | June          | Cumulative, January to date | June                   | Cumulative, January to date | Total                                   |                             | Calculated duty |                             |
|  |               |                             |                        |                             | June                                    | Cumulative, January to date | June            | Cumulative, January to date |
| Grand total.....                                       | -8,828.5      | -48,369.2                   | 31,159.0               | 182,186.2                   | 39,987.5                                | 230,555.4                   | 1,405.2         | 7,699.4                     |
| Agricultural, forestry & fishery products.. (Domestic) | 1,007.4       | 6,794.5                     | 2,010.6                | 13,980.3                    | 1,003.2                                 | 7,185.8                     | 10.9            | 108.0                       |
| Agricultural products, total.....                      | 1,403.4       | 9,131.2                     | 1,811.0                | 12,632.6                    | 407.7                                   | 3,501.5                     | 8.6             | 93.8                        |
| Livestock and livestock products.....                  | -36.6         | -348.8                      | 49.0                   | 379.3                       | 85.7                                    | 728.1                       | 1.1             | 8.6                         |
| Forestry products ,nspf.....                           | -73.5         | -533.9                      | 19.0                   | 154.7                       | 92.5                                    | 688.6                       | 0.4             | 1.9                         |
| Fish, fresh or chilled; and other marine products..... | -285.8        | -1,453.9                    | 131.6                  | 813.7                       | 417.4                                   | 2,267.6                     | 0.8             | 3.7                         |
| Mineral commodities, total..... (Domestic)             | -3,001.2      | -15,998.0                   | 647.0                  | 3,226.2                     | 3,648.2                                 | 19,224.3                    | 17.3            | 94.8                        |
| Metallic ores and concentrates.....                    | -6.0          | -69.8                       | 123.9                  | 581.0                       | 129.9                                   | 650.7                       | (Z)             | 0.3                         |
| Bituminous, lignite and anthracite coal...             | 403.0         | 2,072.7                     | 411.5                  | 2,114.1                     | 8.5                                     | 41.4                        | (-)             | (-)                         |
| Crude petroleum and natural gas.....                   | -3,409.3      | -18,012.1                   | 18.3                   | 50.9                        | 3,427.6                                 | 18,063.0                    | 16.9            | 92.1                        |
| Nonmetallic minerals, except fuels.....                | 11.1          | 11.2                        | 93.3                   | 480.4                       | 82.2                                    | 469.1                       | 0.3             | 2.4                         |
| Manufactured commodities, total..... (Domestic)        | -7,638.0      | -43,178.1                   | 26,376.2               | 153,294.5                   | 34,014.4                                | 196,472.4                   | 1,376.9         | 7,493.2                     |
| Food and kindred products.....                         | -51.0         | 419.7                       | 1,201.6                | 7,660.0                     | 1,252.6                                 | 7,240.3                     | 42.3            | 272.3                       |
| Tobacco manufactures.....                              | 298.4         | 1,564.3                     | 304.9                  | 1,602.9                     | 6.5                                     | 38.6                        | 4.0             | 21.8                        |
| Textile mill products.....                             | -458.6        | -1,894.0                    | 245.2                  | 1,376.8                     | 703.7                                   | 3,270.8                     | 109.0           | 441.7                       |

**EXHIBIT 3. ORIGIN OF MOVEMENT OF U.S. EXPORTS OF MERCHANDISE BY STATE, BY SIC-BASED PRODUCT CODE GROUPINGS, NOT SEASONALLY ADJUSTED: JUNE 1989**

In millions of dollars. Foreign Trade Zone (FTZ) shipments are included in the U.S. total, and distributed among individual states and territories. Separate FTZ total line is for reference only. Details may not equal totals due to rounding and other statistical procedures.

| Item                    | SIC-Based Product Code Groupings. |                     |         |                                  |                     |         | Total         |                         |
|-------------------------|-----------------------------------|---------------------|---------|----------------------------------|---------------------|---------|---------------|-------------------------|
|                         | Manufactured Commodities          |                     |         | Non-Manufactured Commodities (1) |                     |         |               |                         |
|                         | Current month                     | Cumulative to date. |         | Current month                    | Cumulative to date. |         | Current month | Cumulative, Jan to date |
|                         |                                   | Total               | Percent |                                  | Total               | Percent |               |                         |
| U.S. Total.....         | 27,402.2                          | 159,134.0           | 100.0   | 3,756.8                          | 23,052.3            | 100.0   | 31,159.0      | 182,186.2               |
| (Foreign trade zone)... | 565.0                             | 3,194.1             | 2.0     | 6.6                              | 45.4                | 0.2     | 571.6         | 3,239.5                 |
| Alabama.....            | 225.4                             | 1,218.2             | 0.8     | 33.0                             | 243.8               | 1.1     | 258.4         | 1,462.0                 |
| Alaska.....             | 116.5                             | 523.7               | 0.3     | 65.9                             | 374.9               | 1.6     | 182.4         | 898.6                   |
| Arizona.....            | 241.1                             | 1,456.0             | 0.9     | 23.6                             | 165.4               | 0.7     | 264.7         | 1,621.4                 |
| Arkansas.....           | 62.8                              | 321.1               | 0.2     | 5.7                              | 20.6                | 0.1     | 68.5          | 341.7                   |
| California.....         | 3,187.4                           | 17,874.7            | 11.2    | 295.1                            | 1,542.4             | 6.7     | 3,482.5       | 19,417.1                |

**EXHIBIT 5. EXPORTS AND GENERAL IMPORTS BY COUNTRY AND AREA, NOT SEASONALLY ADJUSTED: 1989 AND 1988**

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures. (X) Not applicable.

| Country and Area | Trade balance (Customs imports) |                          |         | Domestic and foreign exports, f.a.s. basis |                          |         | General imports |                          |         |              |                          |         |
|------------------|---------------------------------|--------------------------|---------|--|--------------------------|---------|-----------------|--------------------------|---------|--------------|--------------------------|---------|
|                  | June                            | Cumulative, Jan. to date |         | June                                       | Cumulative, Jan. to date |         | Customs basis   |                          |         | C.i.f. basis |                          |         |
|                  |                                 | Total                    | R a n k |  | Total                    | R a n k | June            | Cumulative, Jan. to date |         | June         | Cumulative, Jan. to date |         |
|                  |                                 |                          |         |  |                          |         |                 | Total                    | R a n k |              | Total                    | R a n k |
| 0.0              | 1989                            |                          |         |  |                          |         |                 |                          |         |              |                          |         |
| Grand Total..... | (9,121.5)                       | (50,041.1)               | (X)     | 31,159.0                                   | 182,186.2                | (X)     | 40,280.5        | 232,227.3                | (X)     | 41,913.0     | 241,757.6                | (X)     |
| Country:         |                                 |                          |         |  |                          |         |                 |                          |         |              |                          |         |
| Algeria.....     | (77.7)                          | (642.5)                  | 20      | 57.2                                       | 326.4                    | 51      | 134.9           | 968.9                    | 32      | 145.0        | 1,045.2                  | 32      |
| Angola.....      | (133.3)                         | (864.7)                  | 18      | 3.9  | 43.4                     | 73      | 137.2           | 908.1                    | 33      | 146.3        | 980.5                    | 33      |
| Argentina.....   | (70.2)                          | (144.0)                  | 37      | 67.7                                       | 530.8                    | 38      | 137.9           | 674.8                    | 42      | 153.8        | 747.6                    | 40      |
| Aruba.....       | 8.5                             | 49.3                     | 59      | 8.7  | 50.1                     | 71      | 0.2             | 0.8                      | 81      | 0.2          | 0.9                      | 81      |
| Australia.....   | 358.7                           | 1,995.3                  | 78      | 690.7                                      | 3,839.1                  | 11      | 332.0           | 1,843.8                  | 23      | 360.0        | 1,985.3                  | 23      |
| Austria.....     | (33.9)                          | (136.9)                  | 39      | 59.1                                       | 385.9                    | 47      | 93.0            | 522.8                    | 44      | 96.9         | 545.8                    | 44      |

**How Have Foreign Trade Data Been Used?**

The Federal Government uses the foreign trade data to—

- Develop merchandise-trade figures in the balance-of-payments accounts
- Appraise and analyze major movements and trends in international trade
- Implement operations under various international agreements

Nongovernment users in industry, finance, transportation, and in research institutions use the statistics to—

- Appraise the general trade situation and outlook
- Conduct share-of-the-market analyses and market-penetration studies
- Undertake product and market development
- Measure the impact of competition



## Agriculture

Since 1982, the census of agriculture has been conducted concurrently with the economic censuses. As a result, census on the Nation's entire food and fiber system, including agricultural production (factories), and distribution (retail and wholesale trades). Agriculture census data also yield information about farms as markets for the output of the rest of the economy, such as farm supplies and equipment.

The agriculture census is the only source of uniform agricultural data at the county level. Data include the number and size of farms; land use and ownership; livestock, poultry, and crops; value of products sold; irrigated land; type of organization; corporate structure; operator's characteristics; machinery and equipment; fertilizer and chemical usage; energy expenditures; production expenditures; and farm program participation.

The 1987 census was conducted in the 50 States, Puerto Rico, Guam, and the U.S. Virgin Islands. Agriculture data also are being collected in American Samoa and the Northern Mariana Islands at the time of the 1990 Census of Population, for later publication in the 1987 Census of Agriculture report series.

Three surveys (i.e., 1988 Farm and Ranch Irrigation Survey, 1988 Census of Horticulture Specialties, and 1988 Agricultural Economics and Land Ownership Survey), described further under "Reports" below, are published in conjunction with the 1987 Census of Agriculture.

Most current surveys dealing with agriculture are conducted by the U.S. Department of Agriculture. Exceptions include the cotton ginnings reports listed below, and the Current Population Survey (CPS) reports on the farm population (P-27 series, see p. 100).

For statistical purposes, a farm is defined as a place from which \$1,000 or more of agricultural products were sold or normally would have been sold during the census year. This definition is compatible with the economic census definition of an establishment, except that most economic census tabulations omit nonemployers, an exclusion that would be unreasonable in a census of farms.

While the coverage of the census of agriculture corresponds to SIC major groups 01 and 02, only a few census tabulations present statistics by SIC. Agricultural services such as crop harvesting and veterinary services are not covered.

The *Guide to the 1987 Census of Agriculture and Related Statistics* □ further describes the publication program.

### How Have Agriculture Data Been Used?

A marketing representative sought information for a business client who manufactures livestock feed and water containers. He obtained from the Geographic Area Series data on computer tape the number of livestock per county by type, and calculated the number of cattle, sheep, and other livestock per square mile as one of the factors determining where to put a distributor.

A researcher with the Environmental Protection Agency (EPA) studied census data on the size and distribution of farms operated by tenants, as part of a study to determine whether tenant farms are more likely to cause environmental problems than are owner-operated farms.

## REPORTS

### 1987 Census of Agriculture

- **Advance Reports**, AC87-A-01(A) to -51(A) □ ⊕ ■ □ . A separate report is issued for States and each county with 10 or more farms, but the printed reports are sold only in State packages. There is also a U.S. Summary. These reports contain highlights of the final data in a convenient profile format.
- **Volume 1, Geographic Area Series, State and County Data**, AC87-A-1 to -56 □ ⊕ ⊙ ■ . A separate report for the United States, each of the 50 States, Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, and the Northern Mariana Islands. County-level data in these reports are more detailed than in the advance reports, and include the number of farms, land in farms, land use, irrigation, crops, livestock, poultry, value of farm products sold, expenses and operator characteristics.

State-level data are much more extensive, featuring cross-tabulations by size of farm, tenure of operator, type of organization, age and principal occupation of operator, and SIC.

- **Volume 2, Subject Series**, AC87-S-1 to -6.

1. **Agricultural Atlas of the United States** □ illustrates the Nation's agriculture by dot and multicolor pattern maps.
2. **Coverage Evaluation** □ estimates coverage (e.g., omissions, duplications) of the census from an independent enumeration for regions, and selected States or groups of States.
3. **Rankings of States and Counties** □ ■ shows the 20 leading States and 100 leading counties ranked for market value of agricultural products sold, production and acres of major crops, and so forth.

4. **History** □ describes the planning and conduct of the census in detail and includes copies of the questionnaires.
  5. **Government Payments and Market Value of Agricultural Products Sold** □ ⊕ □ cross-tabulates market value of agricultural products sold by Government payments received at the national level, with selected State data.
  6. **ZIP Code Tabulations** □ ⊕ ⊙ □ reports the number of farms, market value of agricultural products sold, and a frequency distribution of number of farms by size by ZIP Code. These files appear on the same CD-ROM with ZIP Code data from the 1987 censuses of retail trade, service industries, and manufactures.
- **Volume 3, Related Surveys**, AC87-RS-1 and -2.
    1. **1988 Farm and Ranch Irrigation Survey** □ ⊕ □ supplements the basic irrigation data collected from all farm operators in the 1987 Census of Agriculture. The survey provides data on acreage irrigated, crops, method of 1987 farm-water distribution, source of water used, energy used, and irrigation practices.
    2. **1988 Agricultural Economics and Land Ownership Survey** □ ⊕ □ provides economic and land ownership data on farm land owned and leased, land use, amount and source of debt, production contracts, taxes, assets, and off-farm income. The survey, last conducted for 1979, also includes data on landlords providing type of ownership and their characteristics.
  - **Volume 4, 1988 Census of Horticulture Specialties**, AC87-HOR-1 □ ⊕ □. Conducted every 10 years, this census provides data on florist cut flowers, potted plants, florist greens, bedding plants, foliage plants, sod, and other horticultural specialties by county and State.

## CURRENT AGRICULTURE STATISTICS

- **Cotton Ginnings**, A-10, A-20, and A-30 □ ■ □. The A-10 reports are published biweekly for States, the A-20 monthly for counties, and the A-30 annually for States and counties on cotton ginnings during the ginning season. These data can be related to others in a *Current Industrial Report* for textile mill products (see p. 59) for cotton in subsequent stages of processing, and to cotton exports in annual foreign trade series.

**Table From Agriculture Advance State Report, AC87-A**

### Farms, Land in Farms, and Selected Items: 1987 and 1982

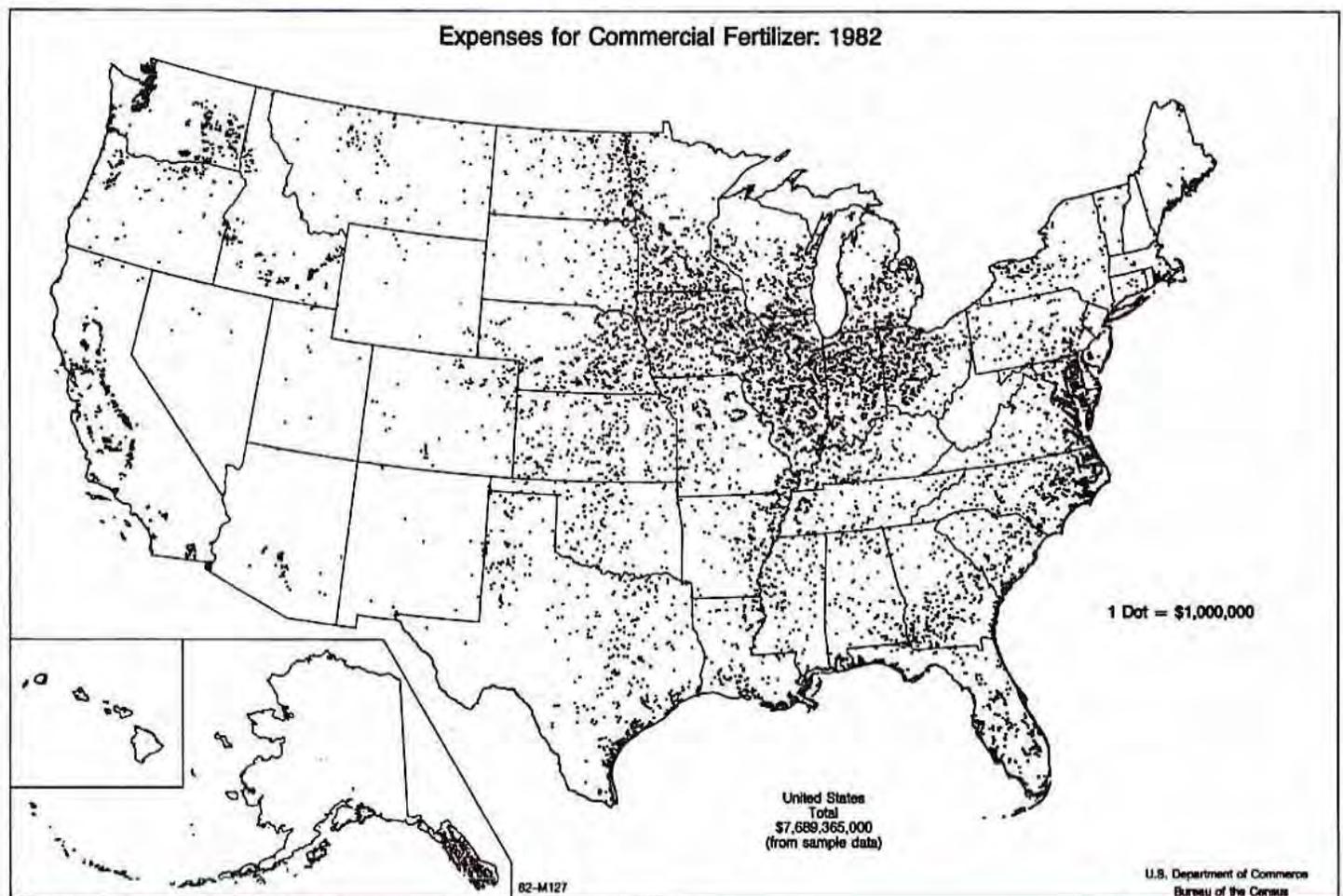
| Item  | All farms  |            | Farms with sales of \$10,000 or more |                   |
|---|------------|------------|--------------------------------------|-------------------|
|   | 1987       | 1982       | 1987                                 | 1982 <sup>1</sup> |
| Farms..... number.....  | 36 556     | 36 352     | 14 687                               | 14 754            |
| Land in farms..... acres.....                                       | 11 194 090 | 12 814 216 | 9 358 893                            | 10 818 508        |
| Average size of farm..... acres.....                                | 306        | 353        | 638                                  | 733               |
| Value of land and buildings: <sup>2</sup>                           |            |            |                                      |                   |
| Average per farm..... dollars.....                                  | 543 830    | 552 586    | 1 096 096                            | 1 130 664         |
| Average per acre..... dollars.....                                  | 1 790      | 1 576      | 1 717                                | 1 552             |
| Estimated market value of all machinery and equipment: <sup>2</sup> |            |            |                                      |                   |
| Average per farm..... dollars.....                                  | 34 799     | 30 895     | 68 938                               | 61 715            |
| Farms by size:  |            |            |                                      |                   |
| 1 to 9 acres.....   | 7 300      | 8 790      | 1 988                                | 1 628             |
| 10 to 49 acres.....   | 13 346     | 12 981     | 3 919                                | 3 558             |
| 50 to 179 acres.....  | 8 379      | 8 711      | 3 274                                | 3 682             |
| 180 to 499 acres.....   | 4 255      | 4 409      | 2 706                                | 2 944             |
| 500 to 999 acres.....   | 1 598      | 1 660      | 1 279                                | 1 354             |
| 1,000 acres or more.....  | 1 678      | 1 801      | 1 521                                | 1 610             |
| Total cropland..... farms.....                                      | 29 388     | 30 565     | 12 994                               | 13 300            |
| ..... acres.....  | 3 790 599  | 4 093 583  | 3 118 414                            | 3 438 745         |
| Harvested cropland..... farms.....                                  | 22 677     | 24 396     | 11 859                               | 12 287            |
| ..... acres.....  | 2 240 831  | 2 643 147  | 2 082 244                            | 2 462 593         |
| Irrigated land..... farms.....                                      | 11 981     | 10 550     | 7 788                                | 6 952             |
| ..... acres.....  | 1 622 750  | 1 585 080  | 1 587 861                            | 1 519 015         |

Table 18. Selected Characteristics of Farms by Standard Industrial Classification: 1987

[For meaning of abbreviations and symbols, see introductory text]

| SIC code                                   | Farms | Land in farms (acres) | Harvested cropland (acres) | Value of selected capital assets <sup>1</sup> , average per farm (dollars) |                         | Market value of agricultural products sold (\$1,000) |   |  |
|--|-------|-----------------------|----------------------------|--|-------------------------|--|---|--|
|  |       |                       |                            | Land and buildings   | Machinery and equipment | Total  | Crops, including nursery and greenhouse crops | Livestock, poultry, and their products |
| Total.....                                 | 6 269 | 1 342 588             | 410 891                    | 210 777  | 38 325                  | 405 484  | 157 828                                       | 247 656                                |
| Crops (01).....                            | 3 380 | 747 291               | 233 463                    | 303 505  | 75 034                  | 156 081  | 154 811                                       | 1 270                                  |
| Cash grains (011).....                     | 70    | 25 171                | 6 493                      | 272 265  | 47 541                  | 885  | 879   | 6                                      |
| Wheat (0111).....                          | 3     | 740                   | 100                        | -  | -                       | 12   | 12  | -                                      |
| Rice (0112).....                           | -     | -                     | -                          | -  | -                       | -  | -   | -                                      |
| Corn (0115).....                           | 6     | 2 520                 | 720                        | 254 000  | 85 333                  | 104  | (D)   | (D)                                    |
| Soybeans (0116).....                       | -     | -                     | -                          | -  | -                       | -  | -   | -                                      |
| Cash grains, n.e.c. (0119).....            | 61    | 21 911                | 5 673                      | 274 032  | 43 884                  | 769  | (D)   | (D)                                    |
| Field crops, except cash grains (013)..... | 1 730 | 475 249               | 177 609                    | 292 398  | 98 338                  | 106 131  | 105 349                                       | 782                                    |
| Cotton (0131).....                         | -     | -                     | -                          | -  | -                       | -  | -   | -                                      |
| Tobacco (0132).....                        | -     | -                     | -                          | -  | -                       | -  | -   | -                                      |
| Suicane and sugar beets (0133).....        | -     | -                     | -                          | -  | -                       | -  | -   | -                                      |

Map From Agriculture Volume 2, Subject Series (1982)





## Governments

Governments at all levels purchase goods and services, employ consumers, levy taxes, invest in capital equipment and construction, and in some cases even engage in manufacturing. Thus, statistics on governments help round out a picture of the economy, as well as provide key information on an important market segment for many businesses.

The Census Bureau conducts a census of governments for the same years as the economic censuses (those ending in "2" and "7") that covers all governments: Federal, State, county, municipal, township, school district, and special district. Annual and quarterly surveys cover the same principal subjects, but only for States and the larger local governments.

The coverage of the census of governments is broader than the SIC division for public administration (major groups 91 through 97), including, for instance, many activities classified in the service sector (e.g., education, health care). Figures on government employment and payroll do not generally overlap employment and payroll as counted in the economic censuses, but government expenditures include amounts for activities—from road construction to child day care—contracted out to private firms within the scope of the economic censuses. On the other hand, the economic censuses cover two economic activities of governments: State-run liquor stores in the census of retail trade and government-owned hospitals in the census of service industries.

### How Have Governments Data Been Used?

A manufacturer of reflectorized materials for marking highways and signs uses the annual government finances data file to determine which governments are spending the most money on streets and highways. The census of governments directory file then, in effect, provides an address list for their sales prospects.

The Jet Propulsion Laboratory used government employment data to determine the market in non-metropolitan areas for land mobile radio systems—satellite-to-ground radio links substituting for cellular telephone systems. The *Compendium of Public Employment* provided the numbers of certain types of workers, by county, who would be prime users for mobile systems—for example, police officers and firefighters. (Complementary statistics on private-sector employment in industries likely to be good prospects were obtained from *County Business Patterns*.)

## REPORTS

- **Government Organization**, GC87-1-1 and -2.

1. **Government Organization** □ ■ presents detailed data on governmental units and public school systems as of the beginning of 1987 for the United States, States, and counties. The report shows

county, municipal, and township governments by type and population size; school systems by enrollment, area served, grades provided, and number of schools operated; and special districts by services performed. A list of all local governmental units identified in the census (approximately 83,000), by name and address is available on tape ⊕.

2. **Popularly Elected Officials** □ ■ provides data for the Nation and by State on the number of officials directly elected by the voters, by type of office and by type of government. Also included is the number of officials that are directly elected by the voters in each county. The report also includes a tabular presentation of elective offices authorized by State constitutions and general laws, with information for each office on length of term, geographic area, and method of compensation.

- **Taxable Property Values**, GC87-2 □ ■, covers 1986 aggregate gross and net assessed valuations for all taxable real and personal property in the United States. It also provides numbers of locally assessed taxable real properties and related assessed values, by property use category, for over 2,000 sampled counties and large cities.

- **Government Employment**, GC87-3-1 to -4.

1. **Employment in Major Local Governments** □ ■ ⊕ provides employment, payroll, and average earnings as of October 1987 for individual county governments, municipal governments (and township governments in selected States) having 10,000 or more population within their jurisdictions, school systems having 5,000 or more enrollment, and special districts having 100 or more full-time employees.
2. **Compendium of Public Employment** □ ■ ⊕ contains national and State-by-State data on Federal, State, and local government employment and payroll, by function and type of government. Local government data also are presented by county area and government-size group.
3. **Labor-Management Relations in State and Local Governments** □ ■ ⊕ reports on State and local government labor relations policies, number of organized employees, labor-management agreements, and employee bargaining units by State and type of government.
4. **Government Costs for Employee Benefits** □ ■ ⊕ presents summary and State-by-State statistics on State and local government employer costs for major employee benefits: Social Security, retirement, disability insurance, unemployment insurance, hospital/medical insurance, uniform/equipment allowances, and employee bonuses and cash awards.

- **Government Finances**, GC87-4-1 to -6 □ ■ ⊕. This series presents detailed data for fiscal year 1986-1987: revenue by source and type, expenditure by function and

object, indebtedness and debt transactions, and cash and security holdings. Each part provides national and State summaries. In addition, each of the six parts presents data for individual governments or areas related to that report.

1. **Finances of Public School Systems** includes data for systems with 5,000 or more enrollment.
  2. **Finances of Special Districts** shows data for selected large districts.
  3. **Finances of County Governments** includes each county government.
  4. **Finances of Municipal and Township Governments** displays data for municipalities and selected townships with 10,000 or more persons.
  5. **Compendium of Government Finances** includes derivative statistics and a summary of local governments in each county area.
  6. **Employee Retirement Systems of State and Local Governments** shows membership, receipts, expenditures, and assets for large individual government systems.
- **Topical Studies, GC87-5** □ ■ , contains four sections. The first part, "Historical Statistics on Government Finances and Employment," recapitulates data from the finance and employment parts of the 1987 and prior censuses. The second segment, "State Payments to Local Governments," describes the financial grant and reimbursement programs to local governments in each State and the amounts paid under each programs. The third, "Government Statistics for Puerto Rico," provides summary findings on the organization, employment and finances of governments in Puerto Rico. The final part, "Graphic Summary," compiles charts and maps first issued in other census reports.

## Annual and Quarterly Surveys

- **Government Employment, GE** □ ■ ☉ ■ . (annual)
- **Government Finances, GF** □ ■ ☉ ■ . (annual)
- **Finances of Selected Public Employee Retirement Systems, GR** □ ■ . (quarterly)
- **Quarterly Summary of Federal, State, and Local Tax Revenue, GT** □ ■ .

Two other reports in the governments area are of interest to some economic-data users—

- **Federal Expenditures by State for Fiscal Year [year]** □ ■ ☉ ■ . Annual reports covering, by State or territory, such items as grants to State and local governments, salaries and wages, procurement, direct payments for individuals, and certain other major programs (such as agricultural stabilization) for which figures are available geographically. Per capita and percentage distributions of expenditures by State and territory are included. The data are collected from Federal departments and agencies.
- **Federal Assistance Award Data System** ☉ . Quarterly data by State, county, and place on Federal domestic financial assistance programs, including grants and payments to State and local governments; direct, guaranteed, and insured loans to individuals, small businesses, and other qualified recipients; direct payments for a specified use, such as subsidies, or for unrestricted use, such as pensions or veterans' benefits (reported primarily at the county level); and insurance or other types of financial assistance. There are no publications associated with this quarterly survey. Data are available on computer tape or through special requests only.

## Table From Government Employment, GE, No. 1

Table 12. Full-Time Equivalent Employment of State and Local Governments Per 10,000 Population, by Function and by States: October 1987

[For meaning of symbols, see text]

| State                             | All functions | Education |                  |                         |                 |                                    |                         |                 | Functions other than education |       |                   |                |
|-----------------------------------|---------------|-----------|------------------|-------------------------|-----------------|------------------------------------|-------------------------|-----------------|--------------------------------|-------|-------------------|----------------|
|                                   |               | Total     | Higher education |                         |                 | Elementary and secondary education |                         |                 | Other education (State)        | Total | Libraries (local) | Public welfare |
|                                   |               |           | Total            | Instructional employees | Other employees | Total                              | Instructional employees | Other employees |                                |       |                   |                |
| <b>United States, total</b> ..... | 491.6         | 242.7     | 56.1             | 19.4                    | 36.8            | 182.6                              | 126.9                   | 55.8            | 3.9                            | 248.9 | 3.5               | 17.0           |
| Alabama .....                     | 497.0         | 248.5     | 62.4             | 20.9                    | 41.5            | 175.4                              | 120.6                   | 54.8            | 10.7                           | 248.5 | 1.7               | 11.9           |
| Alaska .....                      | 770.3         | 335.7     | 71.4             | 25.0                    | 46.4            | 256.4                              | 172.8                   | 83.6            | 7.9                            | 434.6 | 5.2               | 28.9           |
| Arizona .....                     | 486.0         | 259.3     | 67.5             | 25.1                    | 42.4            | 183.6                              | 124.7                   | 58.9            | 8.1                            | 226.7 | 2.7               | 13.3           |
| Arkansas .....                    | 461.6         | 246.9     | 51.1             | 17.0                    | 34.0            | 187.9                              | 131.3                   | 56.6            | 8.0                            | 214.7 | 1.3               | 12.7           |
| California .....                  | 461.2         | 214.8     | 55.7             | 19.2                    | 36.5            | 157.6                              | 106.8                   | 50.8            | 1.6                            | 246.3 | 3.8               | 13.8           |
| Colorado .....                    | 529.4         | 280.6     | 79.7             | 35.8                    | 44.0            | 197.9                              | 132.3                   | 65.6            | 3.0                            | 248.8 | 3.8               | 13.6           |
| Connecticut .....                 | 472.0         | 239.8     | 40.4             | 13.0                    | 27.4            | 189.2                              | 142.2                   | 47.0            | 10.3                           | 232.2 | 4.4               | 15.4           |
| Delaware .....                    | 524.1         | 261.5     | 80.6             | 23.7                    | 56.8            | 177.0                              | 121.0                   | 56.0            | 3.9                            | 262.6 | 1.3               | 27.7           |
| District of Columbia .....        | 817.1         | 196.1     | 22.7             | 9.0                     | 13.7            | 173.4                              | 100.9                   | 72.5            | -                              | 621.0 | 6.4               | 30.8           |
| Florida .....                     | 454.4         | 206.3     | 40.3             | 14.9                    | 25.5            | 164.0                              | 99.0                    | 65.0            | 2.0                            | 248.0 | 2.6               | 11.0           |

**Table From Government Finances, GF, No. 4 (City Governments)**

**Table 6. Per Capita Amounts of Financial Items for Individual City and Selected Urban Town and Township Governments Having 50,000 Population or More: 1986-87**

[For meaning of symbols, see text]

| Item                             | Alabama    |          |            |        |            |            | Alaska    | Arizona  |
|----------------------------------|------------|----------|------------|--------|------------|------------|-----------|----------|
|                                  | Birmingham | Dothan   | Huntsville | Mobile | Montgomery | Tuscaloosa | Anchorage | Glendale |
| Revenue, total .....             | 914.40     | 1 222.08 | 1 993.72   | 747.27 | 500.46     | 560.94     | 3 142.61  | 741.10   |
| General revenue .....            | 601.11     | 421.48   | 1 707.51   | 681.19 | 376.40     | 464.40     | 2 733.00  | 646.72   |
| Intergovernmental revenue .....  | 131.66     | 44.42    | 114.97     | 56.15  | 62.87      | 156.87     | 1 250.15  | 273.29   |
| From State Government .....      | 27.84      | 9.94     | 16.91      | 20.15  | 16.72      | 9.33       | 1 185.18  | 158.87   |
| From Federal Government .....    | 70.56      | 28.85    | 85.01      | 25.00  | 40.68      | 68.38      | 64.60     | 108.11   |
| Taxes .....                      | 435.21     | 240.56   | 337.64     | 336.30 | 239.53     | 190.81     | 579.20    | 153.30   |
| Property .....                   | 69.34      | 17.76    | 53.10      | 25.15  | 36.97      | 36.11      | 513.71    | 41.68    |
| Other .....                      | 365.87     | 222.79   | 284.53     | 311.15 | 202.66     | 154.70     | 65.49     | 111.62   |
| Charges and miscellaneous .....  | 234.25     | 136.51   | 617.91     | 288.74 | 74.00      | 116.82     | 903.65    | 220.12   |
| Expenditure, total .....         | 823.77     | 1 241.08 | 2 107.13   | 584.37 | 488.73     | 439.76     | 3 487.36  | 621.20   |
| General expenditure, total ..... | 785.68     | 511.10   | 1 052.36   | 504.00 | 366.51     | 355.29     | 2 898.44  | 540.22   |
| Current operation .....          | 497.49     | 338.73   | 718.34     | 314.56 | 295.48     | 267.93     | 2 177.77  | 265.08   |

**Table From Federal Expenditures by State For Fiscal Year 1988**

**Table 2. Federal Government Grants to State and Local Governments by Agency and for Selected Programs by State and Territory: Fiscal Year 1987**

[Thousands of dollars. For meaning of symbols, see text]

| State and territory        | Department of Agriculture |            |  |  |  |                              |                                 |                   |                                       |                                |
|----------------------------|---------------------------|------------|--|--|--|------------------------------|---------------------------------|-------------------|---------------------------------------|--------------------------------|
|                            | Total                     | Total      | Agricultural Marketing Service—cooperative projects in marketing | Cooperative State Research Service—agriculture experiment stations | Extension Service—extension activities | Farmers Home Administration  |                                 |                   |                                       |                                |
|                            |                           |            |  |  |  | Mutual and self-help housing | Rural community fire protection | Rural development | Rural housing for domestic farm labor | Rural water and waste disposal |
| United States, total ..... | 107 962 463               | 10 730 955 | 916  | 268 007  | 303 855                                | 5 787                        | 2 335                           | 10 281            | 8 801                                 | 157 080                        |
| Alabama .....              | 1 559 202                 | 229 731    | -  | 7 486  | 9 969                                  | -                            | 48                              | 365               | -                                     | 2 824                          |
| Alaska .....               | 623 914                   | 23 877     | 15   | 1 042  | 1 116                                  | -                            | 57                              | -                 | -                                     | 1 466                          |
| Arizona .....              | 623 914                   | 23 877     | 15   | 1 042  | 1 116                                  | -                            | 57                              | -                 | -                                     | 45                             |
| Arkansas .....             | 1 008 653                 | 140 522    | -  | 4 984  | 7 238                                  | 175                          | -                               | 244               | -                                     | 9 334                          |
| California .....           | 11 005 940                | 989 627    | -  | 12 272   | 9 324                                  | 1 977                        | 30                              | 311               | 4 916                                 | 1 263                          |
| Colorado .....             | 1 151 955                 | 104 631    | 40   | 3 835  | 3 241                                  | 127                          | 61                              | 224               | -                                     | 319                            |
| Connecticut .....          | 1 489 038                 | 66 086     | -  | 2 345  | 2 184                                  | 68                           | 22                              | 58                | -                                     | 314                            |
| Delaware .....             | 301 429                   | 25 530     | -  | 2 691  | 1 543                                  | -                            | 16                              | 165               | 108                                   | -                              |
| District of Columbia ..... | 1 514 779                 | 32 702     | -  | 701  | 908                                    | -                            | -                               | -                 | -                                     | -                              |

### How Have Population and Housing Data Been Used With Economic Data?

The owner of a chain of automobile accessory stores compared the sales figures from the census of retail trade with population, family income, and vehicle ownership from the population and housing census for several neighboring metropolitan areas. He found that the ratio of accessory sales to family income in his own area was already well above national averages. Concluding that the local market for automobile accessory stores might already be saturated, he decided to expand into a nearby metropolitan area with a lower ratio of sales to family income instead of adding another store locally.

An entrepreneur used census data to support her loan application, as she sought financing to start a tailoring and alterations shop for women executives. She used data from the census of service industries on her line of business in conjunction with data on women in professional and managerial occupations from the population census for the neighborhood where she planned to locate.

## REPORTS

Detail varies by series according to subject and geographic coverage; for more information, see the *Census Catalog and Guide* or the *1980 Census of Population and Housing: Users' Guide*, PHC80-R1 □ ■ . The *Users' Guide* consists of a text and several supplements, including a glossary and table-finding guides. A similar guide for 1990 is in preparation.

### 1980 Census

**State reports**—Unless otherwise noted, the following reports are issued by State and include statistics for standard metropolitan statistical areas (SMSA's), counties, and places (subject to certain minimum population thresholds). Some also include data for county subdivisions, American Indian reservations, and urbanized areas. U.S. summary reports are published in each series, and in most cases there are also reports for Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, the Northern Mariana Islands, and the Trust Territory of the Pacific Islands (excluding the Northern Mariana Islands). Where the symbol ⊕ appears, it indicates that the contents of the report may also be retrieved from more detailed summary tape files. (See "Computerized Files" below.)

- **Number of Inhabitants**, PC80-1-A □ ■ ⊕ . This series includes population counts with a historical perspective.
- **General Population Characteristics**, PC80-1-B □ ■ ⊕ . This series includes 100-percent data items (see fig. 15).

- **General Social and Economic Characteristics**, PC80-1-C □ ■ ⊕ . This series presents estimates for 100-percent and sample characteristics (see fig. 15), including occupation, industry, and class of worker for employed persons by race and ethnicity.
- **Detailed Population Characteristics**, PC80-1-D □ ■ . This series provides detailed cross-tabulations of subjects for States and sometimes also for SMSA's with 250,000 or more inhabitants, including employed persons by detailed occupation, industry by occupation, occupation and industry by earnings, age and education by occupation, and so forth. (Counterpart data for 1990 will be published in the Subject Report series; see below.)
- **General Housing Characteristics**, HC80-1-A □ ■ ⊕ . This series presents data for the 100-percent housing items (see fig. 15).
- **Detailed Housing Characteristics**, HC80-1-B □ ■ ⊕ . This series provides estimates for the 100-percent and sample housing characteristics (see fig. 15).
- **Metropolitan Housing Characteristics**, HC80-2 □ ■ . This series presents detailed cross-tabulations of housing subjects for States and SMSA's. Data for SMSA's are published in separate reports. (No counterpart reports are planned for 1990; see Subject Report series below.)
- **Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas**, PHC80-3 □ ■ . This series presents selected 100-percent and sample population and housing data for each of some 40,000 general-purpose governments in the United States.
- **Congressional Districts of the 98th Congress**, PHC80-4 □ ■ ⊕ . This series provides selected 100-percent and sample data on the characteristics of persons and housing units by congressional district.

**Reports issued by SMSA**—The following reports concentrate on small-area statistics:

- **Block Statistics**, PHC80-1 ■ ⊕ . This series provides selected 100-percent data by census block within all urbanized areas and all other places with 10,000 or more inhabitants. Five States were entirely blocked, urban and rural areas alike. (The entire Nation will have block statistics in the 1990 census.)
- **Census Tracts**, PHC80-2 □ ■ ⊕ . This series presents 100-percent data and sample estimates for most of the 1980 population and housing subjects for census tracts (locally defined areas averaging 4,000 population) in all SMSA's and other areas in which census tracts were defined. The reports include county-or city-of-work data for workers residing in each census tract.

**Tables From Population, PC80-1-C, General Social and Economic Characteristics**

**Table 178. Industry of Employed Persons for Counties: 1980—Con.**

[Data are estimates based on a sample; see Introduction. For meaning

| Counties   | Craighead    |              |
|--|--------------|--------------|
|  | Cleburne     | Cleveland    |
| <b>Employed persons 16 years and over</b> .....                  | <b>5 462</b> | <b>2 697</b> |
| Agriculture .....  | 324          | 96           |
| Forestry and fisheries .....                                     | 27           | 24           |
| Mining .....   | 13           | 7            |
| Construction .....   | 724          | 310          |
| <b>Manufacturing</b> .....                                       | <b>1 380</b> | <b>913</b>   |
| Nondurable goods .....   | 539          | 292          |
| Food and kindred products .....                                  | 168          | 38           |
| Textile mill and finished textile products .....                 | 144          | 126          |
| Printing, publishing, and allied industries .....                | 51           | 12           |
| Chemicals and allied products .....                              | 11           | —            |
| Durable goods .....  | 841          | —            |
| Furniture, lumber, and wood products .....                       | 191          | 397          |
| Primary metal industries .....                                   | —            | 42           |
| Fabricated metal industries, including ordnance .....            | 61           | 18           |
| Machinery, except electrical .....                               | 385          | 25           |
| Electrical machinery, equipment, and supplies .....              | 9            | 104          |
| Transportation equipment .....                                   | 87           | 12           |
| Transportation, communications, and other public utilities ..... | 281          | 364          |
| Railroads .....  | —            | 124          |
| Trucking service and warehousing .....                           | 98           | 68           |
| Other transportation .....                                       | 83           | 53           |
| Communications .....   | 46           | 31           |
| Utilities and sanitary services .....                            | 54           | 88           |
| Wholesale trade .....  | 86           | 50           |
| Retail trade .....   | 988          | 270          |
| General merchandise stores .....                                 | 124          | 50           |

**Table 185. Occupation of Employed Persons by Race and Spanish Origin for Counties: 1980**

[Data are estimates based on a sample; see Introduction. For meaning of symbols, see

| Counties<br>[400 or More of the Specified<br>Racial or Spanish Origin Group] | Craighead     |            |                             |
|--|---------------|------------|-----------------------------|
|  | Race          |            | Spanish origin <sup>1</sup> |
|  | White         | Black      |                             |
| <b>Employed persons 16 years and over</b> .....                              | <b>26 451</b> | <b>895</b> | <b>81</b>                   |
| Managerial and professional specialty occupations .....                      | 4 987         | 89         | 12                          |
| Executive, administrative, and managerial occupations .....                  | 2 344         | 18         | —                           |
| Officials and administrators, public administration .....                    | 118           | —          | —                           |
| Management related occupations .....   | 467           | 7          | —                           |
| Professional specialty occupations .....                                     | 2 643         | 71         | 12                          |
| Engineers and natural scientists .....                                       | 233           | 6          | —                           |
| Engineers .....  | 151           | —          | —                           |
| Health diagnosing occupations .....  | 145           | —          | —                           |
| Health assessment and treating occupations .....                             | 341           | 11         | —                           |
| Teachers, librarians, and counselors .....                                   | 1 382         | 42         | 7                           |
| Teachers, elementary and secondary schools .....                             | 936           | 26         | 7                           |
| Technical, sales, and administrative support occupations .....               | 7 369         | 173        | —                           |
| Health technologists and technicians .....                                   | 299           | 30         | —                           |
| Technologists and technicians, except health .....                           | 225           | 7          | —                           |
| Sales occupations .....  | 2 937         | 22         | —                           |
| Supervisors and proprietors, sales occupations .....                         | 540           | —          | —                           |
| Sales representatives, commodities and finance .....                         | 803           | —          | —                           |
| Other sales occupations .....  | 1 594         | 22         | —                           |
| Cashiers .....   | 501           | 13         | —                           |
| Administrative support occupations, including clerical .....                 | 3 908         | 114        | —                           |
| Computer equipment operators .....   | 93            | —          | —                           |
| Secretaries, stenographers, and typists .....                                | 1 141         | 17         | —                           |

**Table From Population and Housing, PHC80-2, Census Tracts**

**Table H-7. Structural, Equipment, and Household Characteristics of Housing Units: 1980**

[Data are estimates based on a sample; see Introduction. For meaning of symbols, see Introduction. For definitions of terms, see appendixes A and B]

| Census Tracts   | Tracted remainder | Lincoln County |               |              |              |              |              | Warren County |              |
|---|-------------------|----------------|---------------|--------------|--------------|--------------|--------------|---------------|--------------|
|   |                   | Lincoln County | Warren County | Tract 8101   | Tract 8102   | Tract 8103   | Tract 8104   | Tract 8201    | Tract 8202   |
| <b>Year-round housing units</b> .....                   | <b>14 551</b>     | <b>8 518</b>   | <b>6 033</b>  | <b>1 264</b> | <b>2 165</b> | <b>3 149</b> | <b>1 840</b> | <b>3 898</b>  | <b>2 135</b> |
| <b>SELECTED CHARACTERISTICS</b>                         |                   |                |               |              |              |              |              |               |              |
| Complete kitchen facilities .....                       | 13 889            | 8 134          | 5 755         | 1 327        | 1 953        | 3 039        | 1 815        | 3 754         | 2 001        |
| 1 complete bathroom plus half bath(s) .....             | 1 826             | 1 030          | 796           | 164          | 247          | 399          | 220          | 490           | 306          |
| 2 or more complete bathrooms .....                      | 2 998             | 1 554          | 1 444         | 217          | 352          | 655          | 330          | 891           | 553          |
| Air-conditioning .....                                  | 8 748             | 5 184          | 3 564         | 866          | 990          | 2 120        | 1 208        | 2 406         | 1 158        |
| Central system .....                                    | 5 157             | 2 813          | 2 344         | 356          | 524          | 1 303        | 630          | 1 578         | 766          |
| Source of water, public system or private company ..... | 17 016            | 4 229          | 2 787         | 852          | 360          | 1 971        | 1 046        | 2 266         | 521          |
| Sewage disposal, public sewer .....                     | 4 836             | 2 477          | 2 359         | 670          | 200          | 1 159        | 448          | 1 973         | 386          |
| <b>UNITS IN STRUCTURE</b>                               |                   |                |               |              |              |              |              |               |              |
| 1, detached or attached .....                           | 11 562            | 6 954          | 4 608         | 1 150        | 1 861        | 2 528        | 1 415        | 2 812         | 1 796        |
| 2 .....   | 209               | 110            | 99            | 18           | 8            | 41           | 43           | 95            | 4            |
| 3 and 4 .....   | 242               | 141            | 101           | 30           | 8            | 89           | 14           | 45            | 56           |
| 5 to 9 .....  | 223               | 44             | 179           | 9            | —            | 30           | 5            | 149           | 30           |
| 10 to 49 .....  | 193               | 59             | 134           | —            | —            | 42           | 17           | 102           | 32           |
| 50 or more .....  | —                 | —              | —             | —            | —            | —            | —            | —             | —            |
| Mobile home or trailer etc. ....                        | 2 122             | 1 210          | 912           | 157          | 288          | 419          | 346          | 695           | 217          |

**National reports**

- **Subject Reports**, PC80-2 and HC80-3 □ ■ . These reports provide detailed characteristics on specific subjects, such as lifetime and recent migration; living arrangements of adults and children; journey to work; characteristics of persons with a work disability; occupation by industry; and earnings by occupation and education. Housing reports include such topics as mobile homes, condominium housing, and mover households.
- **Supplementary Reports**, PC80-S1 and HC80-S1 □ ■ . These reports are generally reprints of selected tables

from U.S. summary or subject reports, plus a few special topics, such as gross migration for counties: 1975-1980.

- **Components of Inventory Change**, HC80-4 □ ■ . This report presents estimates for the United States and its four regions on the characteristics of the changes (such as conversions to more units, mergers to fewer units, from nonresidential use, demolitions or disaster losses, etc.) that occurred in the housing inventory between 1973 and 1980.
- **Residential Finance**, HC80-5 □ ■ . This report provides estimates for the United States and its four regions on

the financing of nonfarm homeowner and rental properties, as well as the characteristics of mortgages, properties, and owners.

### Computerized files

- **Summary Tape Files (STF's)** ☉ . Virtually all of the population and housing census data published for sub-State areas also appear on computer tapes, in considerably greater detail than in the printed reports, and for small geographic areas for which no data are available in print. Most STF's are issued by State, although there also are some consolidated national files. Two of the STF's (numbers 1 and 3) are also displayed on microfiche ■ . (Counterparts to STF's 1 and 3 from the 1990 census will also be issued on CD-ROM ☉ .)
- **Master Area Reference Files (MARF's)** ■ ☉ . Abbreviated summary tape files, in some cases with additional geographic information. MARF 2 includes the 1980 land area and geographic coordinates for the population centroid of each area (e.g., counties, cities). (Note: Land area and centroid may no longer be accurate for places that have annexed significant territory since 1980.)
- **Equal Employment Opportunity (EEO) File** ■ ☉ . A tabulation of race/Spanish origin and sex for the civilian labor force by approximately 500 detailed occupation categories, also race/Spanish origin and sex by education and age, for counties and places of 50,000 or more inhabitants.
- **Urban Transportation Planning Package** ■ ☉ . Special tabulations, including commuter flows and related data for individual SMSA's by census areas of residence and work, such as places, census tracts, and traffic-analysis zones defined by local planning organizations.
- **Public-Use Microdata Samples** ☉ . Samples of records for individual households and persons with identification removed and other information reduced to avoid disclosure of confidential information. States and county groups with 100,000 or more inhabitants are identifiable on a 5-percent sample and metropolitan areas on a 1-percent sample.

### Geographic Files for the 1990 Census

- **TIGER/Line Files** ☉ ☉ . These geographic files produced in conjunction with the 1990 census have boundary coordinates for all census geographic areas nationwide, as well as address ranges related to each street segment in urbanized areas. These files can be used in computer mapping and to assign geographic codes to customer or other records with street addresses. Pre-census files were issued in mid-1989.

### Population—Current Statistics

- **Population Estimates and Projections**, P-25 ■ ■ ■ . Includes monthly estimates of the United States population; annual estimates by age and components of

change (births, deaths, and net migration); and annual estimates of State populations by age group and components of change; and population projections for the Nation and States.

- **Local Population Estimates**, P-26, ■ ■ ☉ ■ . Includes—

- Annual estimates of the population by county and metropolitan area. (Preliminary county estimates for 1987 appear in P-26, No. 87-A; revised 1987 estimates appear in P-26, No. 88-A. Estimates for 1982 and 1987 are included in economic CD-ROM Volume 1.)
- Biennial population and per capita income estimates for States, counties, and incorporated places. (The reports for July 1986 population (1985 income) are published by region, with the Midwest in two volumes, in P-26, No. 86 NE-SC, ENC-SC, WNC-SC, S-SC, and W-SC. Reports featuring July 1988 population and 1987 per capita income are being published in early 1990.)

- The following series are all based on the annual supplements to the monthly CPS. For more information on specific titles, see the *Census Catalog and Guide*. Public-use microdata ☉ are also available.

— **Population Characteristics**, P-20 ■ ■ ■ .

— **Special Studies**, P-23 ■ ■ ■ .

— **Farm Population**, P-27 ■ ■ .

— **Consumer Income**, P-60 ■ ■ ■ ■

- **Economic Characteristics of Households in the United States**, P-70 ■ ■ ■ . This series is based on the Survey of Income and Program Participation, which collects highly detailed information on income, labor force activity, participation in government assistance programs, and related topics, such as assets, liabilities, health insurance coverage, child care, taxes, pensions, etc. Longitudinal public-use microdata ☉ are available that allow the study of changes in household composition and economic well-being over a 2 1/2-year period.

### Housing—Current Statistics

- **American Housing Survey**, H-150 and H-170 ■ ■ ■ . This program consists of two types of surveys. Public-use microdata ☉ are available for each.

- The H-150 reports are based on a national sample conducted once every 2 years. They furnish housing statistics comparable to the census plus many other items, such as indicators of housing and neighborhood quality, more detailed financial characteristics, and energy subjects. Six volumes cover different subject areas. All data are shown for the Nation and its four regions by metropolitan/non-metropolitan and central-city residence.

- The H-170 reports are based on samples of 44 individual metropolitan areas, one fourth of which are surveyed each year on a rotating basis. Each report covers a specific metropolitan area and includes the same topics as in the H-150 reports.
- **Housing Vacancy Survey, H-111** □ ■ □ . Quarterly reports contain national and regional data on vacancy rates and selected characteristics of vacant and occupied units.

- **Market Absorption of Apartments, H-130** □ ■ . Quarterly reports show the percentage of new rental apartments rented (absorbed) nationally and regionally 3, 6, 9, and 12 months after completion, by such characteristics as monthly rent and number of bedrooms. Similar data are available for cooperative and condominium apartments, including asking price of the condominiums.

**Table From Current Population Reports, P-26**

**Table 1. County Population Estimates: July 1, 1988, 1987, and 1986, and Components of Change, 1980-88**

[A dash "-" represents zero or rounds to zero. Includes corrections to 1980 census counts. Estimates are consistent with special censuses since 1980; see text. Percents are based on 1980 census]

| State and county    | Estimate as of July 1 |                   |                   | April 1, 1980<br>(census) | Change, 1980-88 |         | Components of change |            |               |         |
|---------------------|-----------------------|-------------------|-------------------|---------------------------|-----------------|---------|----------------------|------------|---------------|---------|
|                     | 1988                  | 1987<br>(revised) | 1986<br>(revised) |                           | Number          | Percent | Births               | Deaths     | Net migration |         |
|                     |                       |                   |                   |                           |                 |         |                      |            | Number        | Percent |
| United States.....  | 245 803 000           | 243 416 000       | 241 104 000       | 226 542 204               | 19 261 000      | 8.5     | 30 528 000           | 16 835 000 | 5 568 000     | 2.5     |
| Alabama.....        | 4 103 000             | 4 084 000         | 4 051 000         | 3 894 025                 | 209 000         | 5.4     | 496 000              | 300 000    | 13 000        | 0.3     |
| Autauga County..... | 35 700                | 35 100            | 34 500            | 32 259                    | 3 400           | 10.7    | 4 100                | 2 100      | 1 400         | 4.4     |
| Baldwin County..... | 96 400                | 94 700            | 92 600            | 78 556                    | 17 900          | 22.8    | 10 800               | 6 500      | 13 600        | 17.3    |
| Barbour County..... | 25 700                | 25 600            | 25 400            | 24 756                    | 900             | 3.7     | 3 400                | 2 200      | -300          | -1.1    |
| Bibb County.....    | 16 900                | 16 800            | 16 500            | 15 723                    | 1 100           | 7.3     | 2 000                | 1 400      | 500           | 3.5     |
| Blount County.....  | 38 400                | 38 100            | 38 100            | 36 459                    | 1 900           | 5.2     | 3 700                | 2 600      | 900           | 2.4     |
| Bullock County..... | 11 000                | 10 900            | 10 500            | 10 596                    | 400             | 3.4     | 1 700                | 1 100      | -200          | -2.3    |
| Butler County.....  | 22 200                | 22 400            | 22 400            | 21 680                    | 500             | 2.5     | 3 100                | 2 100      | -500          | -2.3    |

**Table From American Housing Survey, H-170**

**Table 2-7. Additional Indicators of Housing Quality - Occupied Units**

[Numbers in thousands. ... means not applicable or sample too small. - means zero or rounds to zero.]

| Characteristics   | Total occupied units | Tenure       |              | Housing unit characteristics |              |                   |             | Household characteristics |             |               |                    | Selected subareas <sup>1</sup> |              |             |             |
|---|----------------------|--------------|--------------|------------------------------|--------------|-------------------|-------------|---------------------------|-------------|---------------|--------------------|--------------------------------|--------------|-------------|-------------|
|   |                      | Owner        | Renter       | New construction 4 yrs       | Mobile homes | Physical problems |             | Black                     | Hispanic    | Elderly (65+) | Moved in past year | Below poverty level            | Area one     | Area two    | Area three  |
|   |                      |              |              |                              |              | Severe            | Moderate    |                           |             |               |                    |                                |              |             |             |
| <b>Total.....</b>   | <b>1 487.9</b>       | <b>884.2</b> | <b>623.7</b> | <b>59.2</b>                  | <b>7.6</b>   | <b>19.3</b>       | <b>49.9</b> | <b>71.2</b>               | <b>33.5</b> | <b>334.5</b>  | <b>237.4</b>       | <b>128.2</b>                   | <b>234.5</b> | <b>30.2</b> | <b>32.4</b> |
| <b>Selected Amenities<sup>2</sup></b>                     |                      |              |              |                              |              |                   |             |                           |             |               |                    |                                |              |             |             |
| Porch, deck, balcony, or patio.....                       | 993.4                | 663.4        | 330.0        | 45.1                         | 3.9          | 9.1               | 32.1        | 39.5                      | 20.8        | 209.5         | 133.5              | 65.2                           | 125.2        | 13.3        | 20.7        |
| Not reported.....   | 1.1                  | -            | 1.1          | -                            | -            | -                 | .4          | -                         | .3          | .3            | .7                 | .3                             | -            | .3          | -           |
| Telephone available.....                                  | 1 409.5              | 832.5        | 577.0        | 54.4                         | 6.3          | 16.2              | 46.5        | 62.0                      | 28.5        | 313.6         | 221.8              | 111.8                          | 216.2        | 29.5        | 29.4        |
| Usable fireplace.....                                     | 504.5                | 443.0        | 61.5         | 26.6                         | .4           | 1.8               | 10.8        | 7.7                       | 4.8         | 89.1          | 56.3               | 14.0                           | 35.7         | 4.2         | 7.5         |
| Separate dining room.....                                 | 733.8                | 560.8        | 173.0        | 30.5                         | 2.0          | 3.8               | 18.6        | 22.4                      | 9.5         | 157.4         | 85.4               | 37.0                           | 89.2         | 7.9         | 14.2        |
| With 2 or more living rooms or recreation rooms, etc..... | 584.9                | 493.1        | 91.8         | 23.8                         | 2.8          | 2.2               | 13.4        | 14.6                      | 6.1         | 103.8         | 52.5               | 17.0                           | 47.3         | 3.8         | 11.0        |
| Garage or carport included with home.....                 | 560.4                | 483.8        | 76.6         | 28.3                         | .8           | 2.6               | 10.7        | 10.8                      | 6.4         | 125.2         | 51.7               | 20.4                           | 37.9         | 3.5         | 9.0         |
| Not included.....   | 923.4                | 378.2        | 545.3        | 31.0                         | 6.8          | 18.7              | 39.3        | 60.0                      | 27.1        | 208.2         | 185.3              | 105.7                          | 195.0        | 26.7        | 23.4        |
| Offstreet parking included.....                           | 691.2                | 330.2        | 361.0        | 25.1                         | 0.8          | 5.2               | 22.7        | 25.9                      | 14.9        | 157.2         | 130.3              | 63.7                           | 66.9         | 10.0        | 18.5        |
| Offstreet parking not reported.....                       | 7.3                  | 2.6          | 4.6          | -                            | -            | -                 | -           | 1.3                       | .4          | 1.4           | 2.7                | .7                             | 2.9          | -           | .3          |
| Garage or carport not reported.....                       | 4.0                  | 2.3          | 1.7          | -                            | -            | -                 | -           | .4                        | -           | 1.1           | .4                 | -                              | 1.5          | -           | -           |



# Statistical Compendia

Statistical compendia republish data from a number of sources in convenient volumes. All include selected data from recent economic censuses and many related data sets produced inside and outside of the Census Bureau.

- **Statistical Abstract of the United States: [year]** in cloth or paperbound editions □ ■ ▢ . A comprehensive selection of social, political, and economic statistics from the publications and records of government and private agencies. The 1989 edition contains over 1,500 tables and charts with data from over 200 agencies. In contrast to most census publications, the *Statistical Abstract* presents key tables in a time-series context, usually with data for several years for comparison. In addition, special notes link the data with those found in *Historical Statistics of the United States, Colonial Times to 1970* (see below). The abstract also includes a guide to sources listing over 1,000 publications, State rankings, and a section with comparative international statistics.
- **Historical Statistics of the United States, Colonial Times to 1970** □ ■ . The two-part clothbound set contains more than 12,500 statistical series on subjects ranging from population and land area to production figures for crops and manufactured products. Over 300 pages of text cover definitions of terms, development

and reliability of the data, and reference to other sources. The original printing is exhausted, but the work has been reprinted commercially and is available from Kraus International Publications, White Plains, N.Y. (phone 800/247-8519).

- **County and City Data Book: 1988** □ ■ ⊕ ⊙ ■ . This one-volume compendium, published every 5 years, presents social and economic data from recent censuses and from other government agencies and private sources. It provides statistics for every city with a population of 25,000 or more, as well as all counties and States, and a limited selection of population and income data for all places with 2,500 or more people. The *County and City Data Book* serves as a convenient compendium of small-area data from each of the economic censuses, although 1982 were the latest available at the time of this publication. The publication also features ranking tables, maps of every State, and handy appendixes.
- **State and Metropolitan Area Data Book, 1986** □ ■ ⊕ ■ . This volume presents a variety of statistical information for States, census regions and divisions, and metropolitan statistical areas (MSA's) and their component counties and central cities, from economic and other censuses and 60 other governmental and private agencies. This is the only source of selected 1982 Economic Censuses data summarized in terms of the current MSA definitions. (The 1982 censuses publications used then-current SMSA's). The next edition, tentatively scheduled for 1990 or 1991, will include data from the 1987 Economic Censuses.

## Table From State and Metropolitan Area Data Book, 1986

Table A. Metropolitan Areas  
Service Industries, Banking, and Elections

[MSA = Metropolitan statistical area. CMSA = Consolidated MSA. PMSA = Primary MSA. Data for New England county metropolitan areas (NECMA's), not New England MSA's, are presented in this table; see appendix 3 for data for New England MSA's. All areas defined as of October 12, 1984. See appendix 2 for alphabetic listing of PMSA's with parent CMSA]

| States,<br>metropolitan statistical areas,<br>and component counties | Taxable service industries—establishments with payroll, 1982—Con. |                   |   |  |  |  |                   | Bank deposits, <sup>a</sup> June 1983 |                                     |                                  | Elections, 1984 <sup>b</sup>  |   |  |
|--|---|-------------------|---|--|--|--|-------------------|---------------------------------------|-------------------------------------|----------------------------------|---|---|--|
|  | Receipts  |                   |   |  |  |  |                   | Total<br>(Mil. dol.)                  | Percent<br>change,<br>1982-<br>1983 | Time <sup>c</sup><br>(Mil. dol.) | Savings<br>and loan<br>associa-<br>tions,<br>savings<br>capital,<br>Sept.<br>1983 <sup>d</sup><br>(Mil. dol.) | Total<br>vote<br>cast<br>for<br>President | Vote<br>for<br>leading<br>party<br>(Percent) |
|  | Total <sup>1</sup><br>(Mil. dol.)                                 | Rank <sup>2</sup> | Selected kinds of business (Mil. dol.)                  |  |  |  |                   |                                       |                                     |                                  |   |   |  |
|  |   |                   | Hotels,<br>motels,<br>and<br>other<br>lodging<br>places | Auto-<br>motive<br>repair,<br>services,<br>and<br>garages <sup>3</sup> | Amuse-<br>ment<br>and<br>recreation<br>services <sup>4</sup> | Health<br>services,<br>except<br>hospitals | Legal<br>services |                                       |                                     |                                  |   |   |  |
| 286  | 287   | 288               | 289   | 290  | 291  | 292  | 293               | 294                                   | 295                                 | 296                              | 297   | 298                                       |  |
| UNITED STATES .....  | 426 982.0   | X                 | 33 214.8  | 30 694.9   | 33 115.0   | 95 609.7                                   | 34 325.4          | 1 600 625.5                           | 10.9                                | 1 130 128.3                      | 644 519.5   | 92 652 842                                | R—58.8                                       |
| Metropolitan areas .....   | 383 824.3   | X                 | D   | D  | D  | D  | D                 | 1 299 684.6                           | 11.1                                | 896 385.1                        | NA  | 70 782 979                                | R—57.8                                       |
| Nonmetropolitan areas .....  | 43 157.7  | X                 | D   | D  | D  | D  | D                 | 300 940.9                             | 10.1                                | 233 743.2                        | NA  | 21 869 863                                | R—62.0                                       |
| ALABAMA .....  | 4 338.9   | X                 | 223.9   | 406.4  | 145.9  | 1 316.3                                    | 293.4             | 16 786.3                              | 7.9                                 | 11 246.3                         | 5 171.4   | 1 441 713                                 | R—60.5                                       |
| Metropolitan areas .....   | 3 639.1   | X                 | D   | 334.5  | D  | D  | 251.9             | 10 965.5                              | 7.9                                 | 7 034.9                          | 3 941.8   | 917 571                                   | R—61.7                                       |
| Nonmetropolitan areas .....  | 699.9   | X                 | D   | 71.9   | D  | D  | 41.5              | 5 820.8                               | 7.7                                 | 4 211.4                          | 1 229.6   | 524 142                                   | R—58.5                                       |
| ANNISTON, AL MSA† (Calhoun) .....                                    | 84.4  | 268               | 7.8   | 8.6  | 2.8  | D  | 4.4               | 484.5                                 | 8.7                                 | 364.6                            | 70.5  | 38 082                                    | R—61.2                                       |
| BIRMINGHAM, AL MSA .....   | 1 582.7   | 44                | D   | 131.0  | 35.6   | 403.7                                      | 119.5             | 4 551.9                               | 6.4                                 | 2 759.4                          | 1 567.0   | 345 504                                   | R—61.4                                       |
| Blount .....   | 10.6  | X                 | D   | 1.1  | .3   | 4.6  | .7                | 114.6                                 | 6.1                                 | 89.4                             | 12.6  | 12 482                                    | R—68.2                                       |
| Jefferson .....  | 1 469.9   | X                 | 51.4  | 120.2  | 33.3   | 359.0                                      | 113.9             | 3 903.6                               | 5.5                                 | 2 295.9                          | 1 358.6   | 266 547                                   | R—59.4                                       |
| St. Clair .....  | 11.7  | X                 | D   | 1.1  | .4   | 4.8  | .7                | 101.8                                 | 12.7                                | 70.9                             | 30.4  | 14 654                                    | R—71.0                                       |
| Shelby .....   | 44.2  | X                 | D   | 2.7  | .4   | 13.2                                       | 1.2               | 165.5                                 | 16.0                                | 113.9                            | 23.7  | 28 068                                    | R—77.9                                       |
| Walker .....   | 48.4  | X                 | D   | 5.9  | 1.3  | 22.4                                       | 2.9               | 266.4                                 | 12.0                                | 189.3                            | 141.8   | 23 753                                    | R—54.1                                       |
| COLUMBUS, GA-AL MSA<br>(see data under GA)                           |   |                   |   |  |  |  |                   |                                       |                                     |                                  |   |   |  |
| DOTHAN, AL MSA .....   | 136.0   | 230               | 5.4   | 12.3   | D  | 55.7                                       | 5.6               | 533.5                                 | 8.3                                 | 362.8                            | 197.9   | 41 177                                    | R—75.7                                       |
| Dale .....   | 25.7  | X                 | D   | .9   | D  | 6.0  | 1.5               | 128.3                                 | 9.2                                 | 86.4                             | 20.9  | 13 692                                    | R—75.4                                       |
| Houston .....  | 110.4   | X                 | D   | 11.4   | 4.6  | 49.7                                       | 4.1               | 405.2                                 | 8.0                                 | 276.4                            | 177.1   | 27 465                                    | R—75.8                                       |



# Acquiring and Using the Data 7

## ACQUIRING THE DATA

### Primary Sales Outlets for Economic Reports

As with other Census Bureau data products, economic census and survey reports, computer tapes, and other products are sold by mail order through the U.S. Government Printing Office (GPO) or by the Census Bureau's Customer Services unit.

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|---|--|
| Printed reports<br><i>(1987 censuses plus subscriptions to most periodic reports)</i>   | Superintendent of Documents<br>U.S. Government Printing Office<br>Washington, DC 20402<br>(202) 783-3238<br>(7:30 a.m. to 4 p.m. e.s.t.)<br>FAX: (202) 275-0019<br>Teletype: TWX 710-822-9413<br>ANSWERBACK USGPOWSH |
| Computer tapes<br>CD-ROM<br>Flexible diskettes<br>Microfiche<br>Printed reports<br><i>(1982 and earlier censuses, if still in print, or single copies of subscription publications)</i> | Customer Services<br>Data User Services Division<br>Bureau of the Census<br>Washington, DC 20233<br>(301) 763-4100<br>(8:30 a.m. to 4:30 p.m. e.s.t.)<br>FAX: (301) 763-4794   |

Both GPO and the Census Bureau accept telephone orders (voice) or by facsimile transmission (FAX), but both require that such orders be charged either to a major credit card (VISA, MasterCard) or to a deposit account arranged with that agency in advance. (The Census Bureau can accept credit card orders on tapes, CD-ROM, diskettes, and fiche, but not on printed reports.) All orders must be prepaid, and purchase orders from outside the Federal Government are not accepted.

While GPO sells reports from the 1987 Economic Censuses and subscriptions to the various monthly, quarterly, and annual survey reports, GPO no longer stocks most reports from 1982 and earlier censuses, nor does it service requests for a single issue of a monthly or quarterly subscription publication. For these items, contact Census Customer Services.

Census reports for 1987 are priced somewhat higher than their 1982 counterparts, not only due to increased printing costs, but also so that reports can be sent by first-class mail instead of third or fourth class as was done in the past.

### How to Find Out What is Available and When

**Publication order forms (POF's)**—Order forms for major groups of products are distributed free of charge by Census Customer Services and may be requested by telephone (see above). The order forms supplement this Guide by listing specific titles, prices, expected release dates and, where applicable, the GPO stock numbers or subscription series identifiers. The time schedules for data release as projected in the order forms are tentative and subject to some change.

Most 1987 census products may be ordered in advance. Orders may be placed for individual reports or entire series, with the assurance that publications will be sent as soon as they are available. In fact, subscribing to an entire series of geographic area or industry reports results in significant cost savings, 15 percent or more off the sum of single copy prices.

Where individual titles have been ordered in advance, GPO routinely sends confirmations of back orders every 90 days. To avoid confusion, customers should keep their own records of what they have ordered and its projected availability.

The 1987 Economic Censuses order forms present price and ordering information, with GPO order blanks for printed reports and instructions for ordering tapes, CD-ROM, and diskettes. Separate forms are issued for the following groups of census reports:

- 1987 Censuses of Retail Trade, Wholesale Trade, and Services Industries and Transportation
- 1987 Censuses of Manufactures and Mineral Industries
  - Preliminary reports (for use only during 1989)
  - Final reports
- 1987 Census of Construction Industries
- Other economic census reports, including Enterprise Statistics, Minority- and Women-Owned Businesses, and Characteristics of Business Owners, and Economic Censuses of Outlying Areas

Special forms also summarize the economic census data available on computer tape, CD-ROM, and diskette as they are issued.

Order forms will be reissued if changes are made to prices or the list of publications. Anyone may request to be placed on a mailing list to receive future order forms by calling Census Customer Services or by completing the form at the end of this document.

There are also order forms available for each of the following related series:

- Current Business Reports
- Current Construction Reports
- Current Industrial Reports (CIR's)
- Annual Survey of Manufactures (ASM)
- County Business Patterns (CBP)
- Foreign Trade
- Census of Agriculture
- Census of Governments

**Census Catalog and Guide: [year]** □ (1989 edition: \$21, GPO stock number 003-024-07009-0) ■ . The *Catalog* is a cumulative annual volume describing all Census Bureau publications, computer tapes, and other products. The 1989 volume, for example, lists all products issued from 1980 to the end of 1988, including all reports of the 1982 Economic Censuses, as well as those from all current surveys. In addition, the *Catalog* incorporates many lists users need for reference, such as the locations of the GPO bookstores, Census Bureau regional offices, State data centers, depository libraries, and key statistical contacts in other Federal Government agencies. The *Catalog* is issued in the middle of the year in the title.

**Monthly Product Announcement (MPA)** □ . The MPA updates the *Catalog* by giving titles, price, and ordering information for all census reports and other products issued during a particular month. These reports are not cumulative, so it is necessary to maintain back issues at least until coverage of the most recent *Catalog* takes over, although cumulative listings of 1987 Economic Census reports are included from time to time. A subscription to the MPA is available free of charge from Census Customer Services.

**Census and You** □ (GPO subscription, \$12 per year; see the order form at the end of this document). This monthly newsletter, formerly entitled *Data User News*, describes activities, products, and services from the Census Bureau. Articles highlight important features of particular publications, discuss plans for new censuses and surveys, describe applications of the data, and spotlight statistical products from other Federal agencies.

**CENDATA™**, the Census Bureau's on-line service, discussed in chapter 4, maintains a cumulative list of 1987 census products currently available, along with price and ordering information, updated on a daily basis. For current surveys and other reports, CENDATA™ lists only the reports issued within the previous 2 or 3 months, long enough so that it covers all reports issued since the closing date for the most recent issue of the MPA. For information on access fees, contact either of the two private vendors directly.

CompuServe  
5000 Arlington Centre Blvd.  
Columbus, OH 43220  
(800) 848-8199

DIALOG  
3460 Hillview Avenue  
Palo Alto, CA 9430  
(800) 334-2564

**Economic census electronic bulletin board**—The Census Bureau maintains an electronic bulletin board accessible to anyone with a computer and modem. While most of the bulletin board's features are oriented toward support of the State data center system, there are several "conferences" or sections of the board that are open to all census users. Like CENDATA™, the "ECON" conference on the bulletin board maintains a cumulative and frequently updated list of available 1987 Economic Censuses reports and other products. Unlike CENDATA™, the bulletin board also lists bulletins of a more technical nature, and offers the opportunity for two-way communication via a "messaging" system with Census Bureau experts. The board does not offer access to detailed data files. To access the board, call (301) 763-1568; for more information via a voice line, call (301) 763-1580.

**Telephone inquiries**—Customer Services, a branch of the Census Bureau's Data User Services Division, provides product price and availability information by telephone ([301] 763-4100). Customer Services offers order forms and other information not only about the computer tapes, CD-ROM's, diskettes, and microfiche sold by the Census Bureau, but also about the printed reports sold by the Government Printing Office. For reports from previous censuses no longer in stock at GPO, Customer Services can sometimes provide printed copies, and in other cases can sell microfiche or paper copy blown back from microfiche.

## GETTING ASSISTANCE

### Seminars and Workshops

Conferences, seminars, and workshops are being held across the country to introduce the 1987 Economic Censuses and to train people in their use. For information about forthcoming sessions in your area, or to request a presentation for your own group, contact the nearest Census Bureau regional office or State data center (see below). In the Washington, DC area, you may also contact—

User Training Branch  
Data User Services Division  
Bureau of the Census  
Washington, DC 20233  
(301) 763-1510

### Census Bureau Regional Offices

The Census Bureau has regional offices in 12 cities around the country (see appendix D), and each has a substantial library of census publications for reference.

Information specialists are available to assist users in locating, understanding, and using Census Bureau products and services. They also conduct workshops on census-related topics and are available to make presentations to local or regional groups.

### Economic Subject-Matter Specialists

While information services specialists at the 12 regional offices and at Customer Services at Census Bureau headquarters can answer general questions about available data, subject specialists at Census Bureau headquarters can provide detailed information concerning specific problems or data requirements (see appendix E).

### State Data Centers

Under a cooperative agreement with the Census Bureau, each State maintains a State data center that redistributes census data and information about the data within the State. Each center has a network of affiliates within the State (e.g., city and regional planning agencies, local libraries, chambers of commerce, etc.) which, in turn, have basic sets of census publications and provides training in their use. These affiliates serve as statistical resource centers in their respective communities. Most State data centers can prepare, on a fee basis, printouts or other extracts of computerized economic census data tailored to meet particular needs—e.g., a floppy disk containing selected data downloaded from a CD-ROM.

A special initiative, called the Business and Industry Data Center program, is underway in a number of States, specializing in economic data and other needs of business data users.

State data centers are listed in appendix D, and a list of their local affiliates appears in the *Census Catalog and Guide*.

### National Clearinghouse for Census Data Services

The clearinghouse is a list of public and private organizations offering services to data users. Some of these organizations offer quite sophisticated services, such as interrelating census data with client data or projecting future trends. Organizations in the clearinghouse are listed in the *Census Catalog and Guide*. More information about the clearinghouse is available by calling (301) 763-1580.

### Depository Libraries

About half of the 1,400 Federal depository libraries (typically major public and university libraries) maintain substantial collections of census documents. Most collections are open to general use or can make their holdings available to smaller libraries via interlibrary loan. There are also about 130 census depository libraries. While most of these libraries maintain data only in printed reports and microfiche, an increasing number can provide limited access to data on CD-ROM. A list of the libraries is included in the *Census Catalog and Guide*.

The Census Bureau library maintains an extensive collection of historical census publications, available to other libraries through interlibrary loan, or for onsite reference.

Bureau of the Census Library  
Reference Room 2475, Federal Building 3  
Suitland and Silver Hill Roads  
Suitland, MD (Mail: Washington, DC 20233)  
(301) 763-5042

### WORKING WITH THE DATA

#### Finding the Data You Need

The charts in chapter 5 show which data items appear in what report series. Table locators found in most reports direct the user to specific tables within them, as illustrated in figure 16 below.

Figure 16. Example of "Users' Guide" in Economic Census Reports

| Information shown in tables            | Table |   |   |   |   |                |                |                |   |                |
|--|-------|---|---|---|---|----------------|----------------|----------------|---|----------------|
|  | 1     | 2 | 3 | 4 | 5 | 6              | 7              | 8              | 9 | 10             |
| <b>GEOGRAPHIC AREAS</b>                |       |   |   |   |   |                |                |                |   |                |
| The State .....                        | X     | X | X |   |   |                |                | X              | X | X              |
| SCSA's in the State .....              |       |   |   | X |   |                |                |                |   |                |
| MSA's in the State .....               |       |   |   | X |   |                |                |                |   |                |
| Area in the State not in any MSA ..... |       |   |   |   | X |                |                |                |   |                |
| Counties in the State .....            |       |   |   |   |   | <sup>1</sup> X |                | X              | X |                |
| Places in the State .....              |       |   |   |   |   |                | <sup>1</sup> X | <sup>2</sup> X |   | <sup>2</sup> X |
| <b>DATA ITEMS</b>                      |       |   |   |   |   |                |                |                |   |                |
| All establishments:                    |       |   |   |   |   |                |                |                |   |                |
| Establishments .....                   | X     | X |   | X | X | X              | X              | X              |   |                |
| Sales .....                            | X     | X |   | X | X | X              | X              | X              |   |                |
| Unincorporated businesses .....        | X     |   |   | X | X | X              | X              | X              |   |                |

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**COMPUTER AND OFFICE EQUIPMENT**

**3571 Electronic Computers**

Establishments primarily engaged in manufacturing electronic computers. Electronic computers are machines which: (1) store the processing program or programs and the data immediately necessary for execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program which requires them to modify their execution by logical decision during the processing run. Included in this industry are digital computers, analog computers, and hybrid digital/analog computers. Establishments primarily engaged in manufacturing machinery or equipment which incorporate computers or a central processing unit for the purpose of performing functions such as measuring, displaying, or controlling process variables are classified based on the manufactured end product.

Computers: digital, analog, and hybrid  
Mainframe computers  
Microcomputers

Minicomputers  
Personal computers

**3572 Computer Storage Devices**

Establishments primarily engaged in manufacturing computer storage devices.

Auxiliary computer storage units  
Computer storage units  
Disk drives, computer  
Drum drives, computer

Magnetic storage devices for computers  
Optical storage devices for computers  
Recorders, tape: for computers  
Tape storage units, computer

The following references provide additional aids in locating data for specific industrial, product, or geographic categories:

- **Standard Industrial Classification Manual: 1987** □ (GPO stock number 041-001-00314-2, \$24) ■ . This product is also available on computer tape ⊕ for \$178 from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, order number PB-87-100020.) The SIC Manual, discussed in chapter 2, has three major sections. The first defines each SIC category in detail and lists those activities or products that characterize it, as illustrated in figure 17.

The second major section is an alphabetic index to SIC's, and includes close to 20,000 references, as illustrated in figure index entries are more detailed than the SIC itself, so it is necessary to refer to the first part of the SIC Manual to see how the category of interest relates to the SIC as defined.

The third section of interest is a series of appendixes, which define the relationships between the 1987 SIC categories and their counterparts in the 1972 SIC and its 1977 supplement.

- **Numerical List of Manufactured and Mineral Industries Products, 1987**, MC87-R-1 □ (\$15, GPO stock number 003-024-06925-3) ■ ⊕ ⊙ . The numerical list includes a description of the principal products and services published in the 1987 Census of Manufactures

Figure 18. SIC Manual Alphabetic Index

- 3695 Computer software tape and disks, blank: rigid and floppy—*mfg*
- 8243 Computer software training
- 7371 Computer software writers, free-lance
- 5961 Computer software, mail-order—retail
- 3572 Computer storage units—*mfg*
- 5734 Computer stores—retail
- 3575 Computer terminals—*mfg*
- 5045 Computer terminals—wholesale
- 7374 Computer time brokerage
- 7374 Computer time-sharing
- 7373 Computer-aided design (CAD) systems services
- 7373 Computer-aided engineering (CAE) systems services
- 7373 Computer-aided manufacturing (CAM) systems services
- 3845 Computerized axial tomography (CT/CAT scanner) apparatus—*mfg*
- 3571 Computers: digital, analog, and hybrid—*mfg*
- 5045 Computers—wholesale
- 2087 Concentrates, drink: except frozen fruit—*mfg*

and the 1987 Census of Mineral Industries. The products are presented in hierarchical/numerical sequence: seven-digit products sequenced within five-digit product classes, within four-digit SIC industries. The manual also includes

Figure 19. SIC Manual: Relationship of 1977 to 1987 SIC Industries

(For all industries other than those listed below, 1987 SIC industries are the same as in 1977 or the changes in the industries will affect the classification of few, if any, establishments)—Con.

| 1977 industry     |   | 1987 industry |                                      |
|-------------------|---|---------------|--------------------------------------|
| Code              | Short title                               | Code          | Short title                          |
| 3572              | Typewriters.....                          | Part 3579     | Office machines, nec                 |
| 3573              | Electronic computing equipment.....       | 3571          | Electronic computers                 |
|                   |   | 3572          | Computer storage devices             |
| 3574 <sup>2</sup> | Calculating and accounting machines.....  | Part 3575     | Computer terminals                   |
|                   |   | 3577          | Computer peripheral equipment, nec   |
| 3576 <sup>2</sup> | Scales and balances, exc. laboratory..... | Part 3695     | Magnetic and optical recording media |
|                   |   | 3578          | Calculating and accounting equipment |
| 3579              | Office machines, nec.....                 | 3596          | Scales and balances, exc. laboratory |
|                   |   | Part 3579     | Office machines, nec                 |

Figure 20. SIC Manual: Relationship of 1987 to 1977 SIC Industries

(For all industries other than those listed below, 1987 SIC industries are the same as in 1977 or the changes in the industries will affect the classification of few, if any, establishments)—Con.

| 1987 industry     |   | 1977 industry |                                     |
|-------------------|---|---------------|-------------------------------------|
| 3571              | Electronic computers.....                 | } Part 3573   | Electronic computing equipment      |
| 3572              | Computer storage devices.....             |               |                                     |
| 3575              | Computer terminals                        |               |                                     |
|                   | Terminals.....                            | Part 3573     | Electronic computing equipment      |
|                   | Teletypewriters.....                      | Part 3661     | Telephone and telegraph apparatus   |
| 3577              | Computer peripheral equipment, nec.....   | Part 3573     | Electronic computing equipment      |
| 3578 <sup>2</sup> | Calculating and accounting equipment..... | 3574          | Calculating and accounting machines |
| 3579              | Office machines, nec.....                 | 3579          | Office machines, nec                |
|                   |   | 3572          | Typewriters                         |

cross-references to reports in the Current Industrial Reports series that provide more frequent product information.

- **Industry and Product Classification Manual**, EC87-R-3 □ ■ . While the SIC Manual presents a comprehensive index to SIC's in all sectors at once, the *Industry and Product Classification Manual* presents similar index entries in separate sections for each census. The indexes for some of the censuses have somewhat more detail than corresponding entries in the SIC Manual, in order to carry the coding to subindustry or kind-of-business categories that further subdivide SIC's for some reports. Indexes are also included for retail merchandise lines and wholesale commodity lines and types of operation.

Since this document was originally designed as a coding manual for internal Census Bureau use, it includes some information, such as check digits and form numbers, that is superfluous for outside use.

- **1987 Economic Censuses Geographic Reference Manual**, EC87-R-1 □ (\$5.50 from Census Customer Services) ■ . As discussed in chapter 3, this manual lists the names and geographic codes for every named entity recognized in the 1987 Economic Censuses: States, metropolitan statistical areas, consolidated metropolitan statistical areas, primary metropolitan statistical areas, counties and places (incorporated cities and selected

Figure 21. Industry and Product Classification Manual

**H6. RETAIL TRADE—ALPHABETIC INDEX TO MERCHANDISE LINES**

| Broad line code | Detail line code      | Type of merchandise  |
|-----------------|-----------------------|--|
| <b>A</b>        |                       |  |
| 380             | 381, 385, 387, 391    | Accessories, kitchen   |
| 640             | 652,658,662-63,665-66 | Acrylic sheets, window   |
| 200             | 213                   | Active sportswear, men's   |
| 220             | 228                   | Active sportswear, women's                                       |
| 370             | 375, 376              | Adding machines  |
| 640             | 652,658,662-63,665-66 | Adhesives, glues   |
| 900             | 965 <sup>1</sup>      | Advertising, direct mail   |
| 300             | 303                   | Air-conditioners, room, self-contained                           |
| 850             | 854, 879              | Aircraft: include engines, accessories, and parts—new            |
| 850             | 855, 879              | Aircraft: include engines, accessories, and parts—used           |
| 850             | 879                   | Alarm signal systems   |
| 140             | 141                   | Alcoholic beverages, distilled spirits: off-premises consumption |
| 140             | 142                   | Alcoholic beverages, wine: off-premises consumption              |
| 140             | 143                   | Alcoholic beverages, beer and ale: off-premises consumption      |
| 130             |                       | Alcoholic drinks, served at this establishment                   |
| 140             | 143                   | Ale, off-premises consumption                                    |
| 380             | 381, 385, 387, 391    | Aluminumware, kitchen  |
| 640             | 644,652,662-63,665-66 | Aluminum windows, doors, and screens                             |
| 500             | 507, 516-518          | Ammunition and firearms  |
| 330             | 331, 334              | Amplifiers, audio and household                                  |
| 500             | 507, 516-518          | Animal traps   |
| 320             | 321                   | Antennas, television: include satellite dishes                   |
| 740             | 742, 743, 754         | Antifreeze, automobile   |
| 850             | 857, 879              | Antiques, include furniture                                      |
| 460             | 463                   | Antiquing kits, wood   |
| 300             | 301-303               | Appliances, household  |

towns and townships in the Northeast). The manual does not include ZIP Codes since there are no separate names for them.

For the user of data on computer tape or CD-ROM, knowing what codes represent what areas can be handy in making simple searches on those media. At the same time, data files on computer tape include geographic names, and on CD-ROM and diskette, separate name files are always present, so using the manual is a convenience rather than a necessity. Even for the user of printed reports, the manual may be of some use in presenting a comprehensive list of all geographic areas recognized for census purposes.

**Comparability Issues**

The fact that census data can be compared over time, with most series available back to the early 1950's and some much further, is one of the most important features of the economic censuses. Census reports for 1987 include only a few comparisons to 1982 and earlier census statistics, so it is largely up to the user to find corresponding figures in the earlier reports. As noted in chapter 4, while most are out of print, all reports from the 1967 to 1982 censuses can still be purchased on microfiche or as paper prints reproduced from the microfiche from Census Customer Services. Access to 1982 and earlier reports in

printed form is available only through certain major libraries. Computer tapes can be purchased with major files from each census starting with 1972. CD-ROM's from the 1987 Economic Censuses include selected files with historical data from 1982 and 1977.

Making comparisons between 1987 and 1982 data involves working with four areas of potential comparability problems: (1) industry and product coding, (2) establishment definition, (3) geographic boundaries, and (4) changes in the value of the dollar.

**SIC Comparability.** As discussed in chapter 2, many of the SIC categories changed between 1982 and 1987, the first major change since 1972.

Three sources give three different levels of detail about the SIC changes. At the simplest level, appendix A in this guide denotes with a special symbol (#) all SIC's which were changed in definition for 1987. To get any idea of what changed, the user needs to refer to the SIC Manual. Figures 19 and 20 illustrate that the SIC Manual shows what industry parts were split, combined, or readjusted and where components went or came from. Still, the manual gives little idea of the relative impact of the changes, except that the old SIC codes were changed and not reused in most cases where the change was significant (expected to affect 20 percent or more of the old classifications).

To provide more precise information, certain key 1987 census reports present "bridge" tables (i.e., bridging between the old and new classifications) for affected industries. These bridge tables show 1987 data classified according to the 1972-1982 SIC system, with subdivisions as necessary to clarify which components went to which new industries. This allows direct comparison with 1982 data in the 1982 census reports. The reclassification of 1987 data is possible because the 1987 data were collected and coded with that objective in mind. At the same time, it is not generally possible to recode 1982 data to fit the 1987 classifications; in many cases this would require information that was not collected in 1982.

These bridge tables give specific information on the impact of the changes in the classification system. One could determine, for instance, what percentage of an old industry was moved to a new one. For the most part, however, the bridging information is not available for detailed geography.

The specific bridge tables and their contents are listed below, and most are illustrated in chapter 5.

- Census of Retail Trade, Geographic Area Series, table 3.
- Census of Wholesale Trade, Geographic Area Series, table 3.
- Census of Service Industries, Geographic Area Series, tables 3a and 3b.

Data in the above bridge tables are presented at the State and national levels. The 1987 data are classified according to the old SIC system, and 1982 numbers are included where possible.

- Census of Manufactures, Industry Series, tables 1c.1 and 1c.2.
- Census of Mineral Industries, Industry Series, tables 1b.1 and 1b.2.

Data in these bridge tables are shown at the national level only, grouped by both old and new classifications.

- Census of Construction Industries, Industry Series; table is in the introductory text of the affected reports.

Data in this table are at the national level only, grouped by both the old and new SIC classifications.

Not all Census Bureau programs have changed to the new definitions at the same time. *County Business Patterns* reports will present data according to the 1987 SIC's starting with reports for 1988. Reports for retail trade, wholesale trade, and service industries based on sample surveys retain the old SIC codes in effect when the samples were drawn. Thus, reports from the Assets and Expenditures Survey (see pp. 29, 35, and 45) published in

the census subject report series and all *Current Business Reports* (see pp. 30, 37, and 45) will continue to use the old SIC codes until the samples are redrawn prior to the 1992 censuses.

**Change in Establishment Definition.** For all of the 1987 Economic Censuses, an establishment is counted if it was in business at any time during calendar year 1987.

For 1982 and earlier censuses, the censuses of retail trade, wholesale trade, and service industries included in establishment counts only those locations that were still in business at the end of the calendar year. On the other hand, sales and payroll figures included data for all establishments in business at any time during the year, including some that had gone out of business or were sold to someone else during the year. The establishment counts were broadened for 1987 for comparability with data from other censuses and *County Business Patterns*.

Establishment counts for 1982 and 1987 as presented in bridge tables in 1987 reports are comparable, since 1982 data were retabulated for that purpose using the new establishment definition. On the other hand, comparisons of 1987 data with 1982 data as originally published in reports or on computer tape may show a spurious increase in establishment counts due to the broader definition in 1987. This difference tends to be greater for kinds of business that have a high rate of failure or change of ownership, such as restaurants.

*Geographic Area Series* reports for each of the affected censuses feature a special appendix (appendix G) that serves to bridge between the different establishment definitions in the same way that the bridge tables discussed above interrelate the old and new SIC categories. The appendix shows the number of establishments for 1987 and 1982 by kind of business at the State level for both the old and new definitions: establishments in business any time during the year (current definition) and establishments in business at the end of the year (previous definition).

**Geographic Comparability.** Statistics for counties and places in reports of the 1987 Economic Censuses refer to their boundaries as of January 1, 1987. The reference date for MSA's was June 30, 1987. Data from the publications of earlier censuses have corresponding reference dates at the beginning or middle of the nominal year. While the definitions of States have not changed and county changes have been very few in recent years, many MSA's, places, and ZIP Codes have changed during the 1982-to-1987 and prior intervals. Users should take these changes into account in making any comparisons between censuses.

**Metropolitan statistical areas (MSA's)**—As noted in chapter 3, the terminology for metropolitan areas changed between 1982 and 1987, from standard metropolitan statistical areas (SMSA's) and standard consolidated statistical areas (SCSA's) to MSA's, consolidated metropolitan statistical areas (CMSA's), and primary

metropolitan statistical areas (PMSA's). Nonetheless, for two thirds of all metropolitan areas, the boundaries remained the same, so data in 1982 and 1987 reports are comparable.

For the remaining third, denoted with an asterisk (\*) in appendix B, some boundary change was made after 1982, or the MSA came into being after 1982. Most frequently, the boundary changes involved the addition of one or more whole counties, although some MSA's lost counties during the interval. Definition changes for MSA's in New England involved the addition or deletion of individual cities and towns rather than whole counties.

To determine which areas were added to or deleted from MSA's between 1982 and 1987, the user may compare the lists of components as shown in appendixes in the 1982 and 1987 Geographic Area Series reports. The 1987 Economic Censuses *Geographic Reference Manual* shows both 1987 MSA and 1982 SMSA codes for counties in 1987 MSA's, but that reference does not show which counties may have been dropped from 1982 SMSA's. The county reference file included on the economic census CD-ROM volume 1 is more complete, since it has both 1982 SMSA and 1987 MSA codes for each county.

In many cases, the user can add or subtract the appropriate county-level data from 1982 SMSA summaries or add 1982 county-level summaries to match the 1987 MSA boundaries. That is not always possible, however, since some detailed county-level data are suppressed to avoid disclosure of confidential company information. Also, MSA's in New England are defined in terms of towns and cities, rather than whole counties, and data may not be available for towns transferred into or out of an MSA between 1982 and 1987.

The SMSA boundaries in effect for the 1982 censuses had remained unchanged since the 1977 and 1972 censuses, except for the creation of a number of new SMSA's during the period.

Only one census report, the retail trade *Special Series* report, presents 1982 data alongside 1987 data for MSA's in terms of 1987 boundaries.

**Counties**—There were only two changes in county definitions between 1982 and 1987: (1) the subdivision of Yuma County, AZ, into La Paz County and Yuma County, (2) and the incorporation of the Northwest Arctic Borough in Alaska, replacing Kobuk census area, which covered essentially the same area.

**Places**—The lists of incorporated places reported in the 1987 and 1982 censuses are essentially the same because they both include places which had a 1980 census population of 2,500 or more. The few additions for 1987 primarily represent new incorporations. Roughly half of the covered incorporated places changed boundaries between the 1982 and 1987 censuses, generally through the annexation of relatively small parcels of land.

**ZIP Codes**—ZIP Codes are designated for the administrative convenience of the U.S. Postal Service, and they change boundaries whenever the Postal Service finds it expedient. Many of the changes are easily handled, as in the subdivision of one ZIP Code area into two. There have also been wholesale changes, however, as in the redefinitions of ZIP Codes across much of Florida.

Private vendors of ZIP Code maps may be able to assist in determining which ZIP Codes are not comparable between 1982 and 1987.

**Adjusting for Changes in the Value of the Dollar**—Statistics in economic censuses reports are presented in current dollars. Most measures of dollar volume of economic activity show increases between 1982 and 1987 simply because of inflation during the intervening years. How, then, should the user subtract the impact of inflation to obtain a true measure of the change in activity? There are several possible answers, but they are not uniformly satisfactory for different applications.

The most commonly used measure of inflation is the consumer price index (CPI), measured monthly and annually by the Bureau of Labor Statistics (BLS). By that measure, across all goods sold at retail, 1987 dollars could be adjusted backward to 1982 dollars by reducing them by 15 percent. (To "inflate" 1982 dollars to 1987 dollars, add 17.6 percent.) Separate indexes are available for a number of different types of consumer goods. For example, during the 1982-to-1987 interval, the consumer price index for medical care rose over 40 percent while the index for energy costs dropped 8 percent.

Another alternative is to use one of the price indexes created for the deflation of goods and services for the gross national product (GNP), as published monthly by the Bureau of Economic Analysis (BEA) in the *Survey of Current Business*.

More detailed figures are also available for the study of specific industries. The BLS publishes the producer price index (PPI) for individual commodities. The BEA constructs weighted averages of the PPI at the two-, three-, and four-digit SIC levels, usable for deflating manufacturing and wholesaling activity in general and retailers' inventories. (The CPI is more appropriate for deflating retail sales.)

More information is contained in publications of the BLS's *Monthly Labor Review* and *Consumer Price Index Detailed Report* and the BEA's *Survey of Current Business*.

The Census Bureau publishes some of the basic material used to develop these indexes. The 1982 *Indexes of Production* report is being published as an informal "working paper". (Contact Industry Division, Bureau of the Census, Washington, DC 20233, phone [301] 763-1503.) The 1987 report will be published in the *Analytical Report* series (see p. 58). These reports are primarily of methodological interest, however, since their findings become available only well after the census reference year.

## OTHER REFERENCES

**Introduction to the Economic Censuses**, EC87-R-4 □ (free from Customer Services). This concise brochure, an update of *A Preview to the 1987 Economic Censuses*, presents the most basic facts on the coverage, subject matter, and timing of 1987 Economic Censuses reports and computerized products. The brochure has several useful reference charts.

**Videotape: An Introduction to the 1987 Economic Census** (\$10 from Customer Services). This 17-minute VHS videotape provides a quick overview of the economic censuses and related statistics. It is especially useful in staff training and college classrooms.

**Guide to Service Industry Statistics and Related Data** □ (free from Customer Services). This booklet describes the data available about the service sector of the economy, and much of its content is similar to that of the present document. Its unique contribution is its discussion of secondary service activities of establishments classified outside of the "service industries" division of the SIC, and the data about those activities that may be available in other economic census reports. For example, a table shows that it is possible to find information not only about establishments primarily engaged in car washing (SIC 7542) in the census of service industries, but also about car washing as a secondary activity of gasoline stations in a retail trade subject report. A bibliography is included.

**History of the 1982 Economic Censuses** □ ■ (\$19, GPO stock number 003-02406243-7). This report documents the procedures employed in collecting the 1982 censuses, from planning through publication. Appendixes include facsimiles of key questionnaires. The 1987 volume will likely be published in 1992.

**1982 Economic Censuses and Census of Governments: Evaluation Studies** □ (\$6 from Census Customer Services) ■. This report documents the 1982 census programs to evaluate reporting errors, coverage errors, errors due to nonresponse, errors due to the use of administrative data in lieu of reported data, and errors committed in the geographic assignment of establishments to local areas. One of the objectives of these studies was to help users interpret census and survey estimates by providing information on their limitations. A corresponding report of evaluation studies conducted in connection with the 1987 census may be published in 1991 or 1992.

**Government Information Quarterly**, Volume 4, Number 3 (1987). A special issue of this commercially published periodical featured a "Symposium on the Economic Censuses," including the following articles:

- "U.S. Economic Censuses, 1810 to the Present," by Frederick G. Bohme
- "Uses of Economic Census Data," by Gaylord Worden
- "Determining the Content of the Economic Censuses," by John R. Wikoff and Pamela Powell-Hill
- "Conducting the Economic Censuses," by Lawrence A. Blum, James E. Bowman, and John M. Sullivan
- "Making Economic Census Data Available," by Paul T. Zeisset
- "Economic Censuses Around the World," by Michael J. Hartz, James M. Ray, and Linda A. Schlueter

**Factfinder for the Nation** □ (single copies free from Census Customer Services). This series of brochures, updated irregularly, provides brief descriptions of different census program areas. The brochures on economic topics are less detailed than this guide. Some *Factfinders* bring together information from a number of census areas, especially numbers 4, 5, 8, 18, and 22.

1. Statistics on Race and Ethnicity
2. Availability of Census Records About Individuals
3. Agricultural Statistics
4. History and Organization
5. Reference Sources
6. Housing Statistics
7. Population Statistics
8. Census Geography—Concepts and Products
9. Construction Statistics
10. Retail Trade Statistics
11. Wholesale Trade Statistics
12. Statistics on Service Industries
13. Transportation Statistics
14. Foreign Trade Statistics
15. Statistics on Manufactures
16. Statistics on Mineral Industries
17. Statistics on Governments
18. Census Bureau Programs and Products
19. Enterprise Statistics
20. Energy and Conservation
21. International Programs
22. Data for Small Communities

**Economic Data Product Primer**, No. 13, "County Business Patterns", and No. 14, "Census of Retail Trade". (\$1 each from Customer Services.) These brochures were prepared primarily for college-level instructors, but may also be used for self-study. They contain student exercises, lecture outlines, and background information.





**D MANUFACTURING—Con.**

|           |   |
|-----------|---|
| 2092      | Fresh or frozen prepared fish             |
| 2095      | Roasted coffee                            |
| 2096 #    | Potato chips and similar snacks           |
| 2097      | Manufactured ice                          |
| 2098      | Macaroni and spaghetti                    |
| 2099 #    | Food preparations, n.e.c.                 |
| <b>21</b> | <b>Tobacco Products</b>                   |
| 211       | Cigarettes                                |
| 212       | Cigars                                    |
| 213       | Chewing and Smoking Tobacco               |
| 214       | Tobacco Stemming and Redrying             |
| <b>22</b> | <b>Textile Mill Products</b>              |
| 221       | Broadwoven Fabric Mills, Cotton           |
| 222       | Broadwoven Fabric Mills, Manmade          |
| 223       | Broadwoven Fabric Mills, Wool             |
| 224       | Narrow Fabric Mills                       |
| 225 #     | Knitting Mills                            |
| 2251      | Women's hosiery, except socks             |
| 2252      | Hosiery, n.e.c.                           |
| 2253      | Knit outerwear mills                      |
| 2254      | Knit underwear mills                      |
| 2257      | Weft knit fabric mills                    |
| 2258 #    | Lace and warp knit fabric mills           |
| 2259      | Knitting mills, n.e.c.                    |
| 226       | Textile Finishing, Except Wool            |
| 2261      | Finishing plants, cotton                  |
| 2262      | Finishing plants, manmade                 |
| 2269      | Finishing plants, n.e.c.                  |
| 227 #     | Carpets and Rugs                          |
| 228       | Yarn and Thread Mills                     |
| 2281 #    | Yarn spinning mills                       |
| 2282 #    | Throwing and winding mills                |
| 2284 #    | Thread mills                              |
| 229 #     | Miscellaneous Textile Goods               |
| 2295      | Coated fabrics, not rubberized            |
| 2296      | Tire cord and fabrics                     |
| 2297      | Nonwoven fabrics                          |
| 2298      | Cordage and twine                         |
| 2299 #    | Textile goods, n.e.c.                     |
| <b>23</b> | <b>Apparel and Other Textile Products</b> |
| 231       | Men's and Boys' Suits and Coats           |
| 232       | Men's and Boys' Furnishings               |
| 2321 #    | Men's and boys' shirts                    |
| 2322 #    | Men's and boys' underwear and nightwear   |
| 2323      | Men's and boys' neckwear                  |
| 2325 #    | Men's and boys' trousers and slacks       |
| 2326 #    | Men's and boys' work clothing             |
| 2329      | Men's and boys' clothing, n.e.c.          |
| 233       | Women's and Misses' Outerwear             |
| 2331      | Women's and misses' blouses and shirts    |
| 2335      | Women's, junior's, and misses' dresses    |
| 2337      | Women's and misses' suits and coats       |
| 2339      | Women's and misses' outerwear, n.e.c.     |
| 234       | Women's and Children's Undergarments      |
| 2341      | Women's and children's underwear          |
| 2342      | Bras, girdles, and allied garments        |
| 235 #     | Hats, Caps, and Millinery (2353)          |
| 236       | Girls' and Children's Outerwear           |
| 2361      | Girls' and children's dresses, blouses    |
| 2369 #    | Girls' and children's outerwear, n.e.c.   |
| 237       | Fur Goods                                 |
| 238       | Miscellaneous Apparel and Accessories     |
| 2381      | Fabric dress and work gloves              |
| 2384      | Robes and dressing gowns                  |
| 2385      | Waterproof outerwear                      |

**D MANUFACTURING—Con.**

|             |  |
|-------------|--|
| 2386        | Leather and sheep-lined clothing       |
| 2387        | Apparel belts                          |
| 2389        | Apparel and accessories, n.e.c.        |
| 239         | Misc. Fabricated Textile Products      |
| 2391        | Curtains and draperies                 |
| 2392        | Housefurnishings, n.e.c.               |
| 2393        | Textile bags                           |
| 2394        | Canvas and related products            |
| 2395        | Pleating and stitching                 |
| 2396        | Automotive and apparel trimmings       |
| 2397        | Schiffli machine embroideries          |
| 2399        | Fabricated textile products, n.e.c.    |
| <b>24 #</b> | <b>Lumber and Wood Products</b>        |
| 241 #       | Logging                                |
| 242 #       | Sawmills and Planing Mills             |
| 2421 #      | Sawmills and planing mills, general    |
| 2426        | Hardwood dimension and flooring mills  |
| 2429        | Special product sawmills, n.e.c.       |
| 243 #       | Millwork, Plywood & Structural Members |
| 2431 #      | Millwork                               |
| 2434        | Wood kitchen cabinets                  |
| 2435        | Hardwood veneer and plywood            |
| 2436        | Softwood veneer and plywood            |
| 2439        | Structural wood members, n.e.c.        |
| 244         | Wood Containers                        |
| 2441        | Nailed wood boxes and shoo             |
| 2448        | Wood pallets and skids                 |
| 2449        | Wood containers, n.e.c.                |
| 245         | Wood Buildings and Mobile Homes        |
| 2451        | Mobile homes                           |
| 2452        | Prefabricated wood buildings           |
| 249 #       | Miscellaneous Wood Products            |
| 2491        | Wood preserving                        |
| 2493 #      | Reconstituted wood products            |
| 2499 #      | Wood products, n.e.c.                  |
| <b>25</b>   | <b>Furniture and Fixtures</b>          |
| 251         | Household Furniture                    |
| 2511        | Wood household furniture               |
| 2512        | Upholstered household furniture        |
| 2514        | Metal household furniture              |
| 2515        | Mattresses and bedsprings              |
| 2517        | Wood TV and radio cabinets             |
| 2519        | Household furniture, n.e.c.            |
| 252 #       | Office Furniture                       |
| 2521        | Wood office furniture                  |
| 2522 #      | Office furniture, except wood          |
| 253         | Public Building and Related Furniture  |
| 2531        | Public building and related furniture  |
| 254 #       | Partitions and Fixtures                |
| 2541        | Wood partitions and fixtures           |
| 2542 #      | Partitions and fixtures, except wood   |
| 259 #       | Miscellaneous Furniture and Fixtures   |
| 2591        | Drapery hardware and blinds and shades |
| 2599 #      | Furniture and fixtures, n.e.c.         |
| <b>26 #</b> | <b>Paper and Allied Products</b>       |
| 261 #       | Pulp Mills                             |
| 262 #       | Paper Mills                            |
| 263 #       | Paperboard Mills                       |
| 265         | Paperboard Containers and Boxes        |
| 2652        | Setup paperboard boxes                 |
| 2653        | Corrugated and solid fiber boxes       |
| 2655        | Fiber cans, drums and similar products |
| 2656 #      | Sanitary food containers               |
| 2657 #      | Folding paperboard boxes               |
| 267 #       | Misc. Converted Paper Products         |
| 2671 #      | Paper coated and laminated, packaging  |
| 2672 #      | Paper coated and laminated, n.e.c.     |
| 2673 #      | Bags: plastics, laminated, and coated  |

**D MANUFACTURING—Con.**

|             |   |
|-------------|---|
| 2674 #      | Bags: uncoated paper and multiwall        |
| 2675 *      | Die-cut paper and board                   |
| 2676 *      | Sanitary paper products                   |
| 2677 *      | Envelopes                                 |
| 2678 *      | Stationery products                       |
| 2679 #      | Converted paper products, n.e.c.          |
| <b>27</b>   | <b>Printing and Publishing</b>            |
| 271         | Newspapers                                |
| 272         | Periodicals                               |
| 273         | Books                                     |
| 2731        | Book publishing                           |
| 2732        | Book printing                             |
| 274         | Miscellaneous Publishing                  |
| 275 #       | Commercial Printing                       |
| 2752        | Commercial printing, lithographic         |
| 2754 #      | Commercial printing, gravure              |
| 2759 #      | Commercial printing, n.e.c.               |
| 276         | Manifold Business Forms                   |
| 277         | Greeting Cards                            |
| 2771        | Greeting cards                            |
| 2782        | Blankbooks and looseleaf binders          |
| 2789        | Bookbinding and related work              |
| 279 #       | Printing Trade Services                   |
| 2791        | Typesetting                               |
| 2796 #      | Platemaking services                      |
| <b>28</b>   | <b>Chemicals and Allied Products</b>      |
| 281 #       | Industrial Inorganic Chemicals            |
| 2812        | Alkalies and chlorine                     |
| 2813        | Industrial gases                          |
| 2816        | Inorganic pigments                        |
| 2819 #      | Industrial inorganic chemicals, n.e.c.    |
| 282         | Plastics Materials and Synthetics         |
| 2821        | Plastics materials and resins             |
| 2822        | Synthetic rubber                          |
| 2823        | Cellulosic manmade fibers                 |
| 2824        | Organic fibers, noncellulosic             |
| 283         | Drugs                                     |
| 2833        | Medicinals and botanicals                 |
| 2834        | Pharmaceutical preparations               |
| 2835 #      | Diagnostic substances                     |
| 2836 #      | Biological products exc. diagnostic       |
| 284         | Soap, Cleaners, and Toilet Goods          |
| 2841        | Soap and other detergents                 |
| 2842        | Polishes and sanitation goods             |
| 2843        | Surface active agents                     |
| 2844        | Toilet preparations                       |
| 285         | Paints and Allied Products                |
| 286 #       | Industrial Organic Chemicals              |
| 2861        | Gum and wood chemicals                    |
| 2865        | Cyclic crudes and intermediates           |
| 2869 #      | Industrial organic chemicals, n.e.c.      |
| 287         | Agricultural Chemicals                    |
| 2873        | Nitrogenous fertilizers                   |
| 2874        | Phosphatic fertilizers                    |
| 2875        | Fertilizers, mixing only                  |
| 2879        | Agricultural chemicals, n.e.c.            |
| 289         | Miscellaneous Chemical Products           |
| 2891        | Adhesives and sealants                    |
| 2892        | Explosives                                |
| 2893        | Printing ink                              |
| 2895        | Carbon black                              |
| 2899        | Chemical preparations, n.e.c.             |
| <b>29</b>   | <b>Petroleum and Coal Products</b>        |
| 291         | Petroleum Refining                        |
| 295         | Asphalt Paving and Roofing Materials      |
| 2951        | Asphalt paving mixtures and blocks        |
| 2952        | Asphalt felts and coatings                |
| 299         | Misc. Petroleum and Coal Products         |
| 2992        | Lubricating oils and greases              |
| 2999        | Petroleum and coal products, n.e.c.       |
| <b>30 #</b> | <b>Rubber and Misc. Plastics Products</b> |
| 301         | Tires and Inner Tubes                     |

**D MANUFACTURING—Con.**

|             |  |
|-------------|--|
| 302         | Rubber and Plastics Footwear             |
| 305 #       | Hose and Belting and Gaskets and Packing |
| 3052*       | Rubber and plastics hose and belting     |
| 3053*       | Gaskets, packing and sealing devices     |
| 306 #       | Fabricated Rubber Products, N.E.C.       |
| 3061 #      | Mechanical rubber goods                  |
| 3069 #      | Fabricated rubber products, n.e.c.       |
| 308 #       | Miscellaneous Plastics Products, N.E.C.  |
| 3081 #      | Unsupported plastics film and sheet      |
| 3082 #      | Unsupported plastics profile shapes      |
| 3083 #      | Laminated plastics plate and sheet       |
| 3084 #      | Plastics pipe                            |
| 3085 #      | Plastics bottles                         |
| 3086 #      | Plastics foam products                   |
| 3087 #      | Custom compound purchased resins         |
| 3088 #      | Plastics plumbing fixtures               |
| 3089 #      | Plastics products, n.e.c.                |
| <b>31</b>   | <b>Leather and Leather Products</b>      |
| 311         | Leather Tanning and Finishing            |
| 313         | Footwear Cut Stock                       |
| 314         | Footwear, Except Rubber                  |
| 3142        | House slippers                           |
| 3143        | Men's footwear, except athletic          |
| 3144        | Women's footwear, except athletic        |
| 3149        | Footwear, except rubber, n.e.c.          |
| 315         | Leather Gloves and Mittens               |
| 316         | Luggage                                  |
| 3161        | Luggage                                  |
| 317         | Handbags and Personal Leather Goods      |
| 3171        | Women's handbags and purses              |
| 3172        | Personal leather goods, n.e.c.           |
| 319         | Leather Goods, N.E.C. (3199)             |
| <b>32 #</b> | <b>Stone, Clay, and Glass Products</b>   |
| 321         | Flat Glass                               |
| 322         | Glass and Glassware, Pressed or Blown    |
| 3221        | Glass containers                         |
| 3229        | Pressed and blown glass, n.e.c.          |
| 323         | Products of Purchased Glass              |
| 324         | Cement, Hydraulic                        |
| 325         | Structural Clay Products                 |
| 3251        | Brick and structural clay tile           |
| 3253        | Ceramic wall and floor tile              |
| 3255        | Clay refractories                        |
| 3259        | Structural clay products, n.e.c.         |
| 326 #       | Pottery and Related Products             |
| 3261        | Vitreous plumbing fixtures               |
| 3262        | Vitreous china table and kitchenware     |
| 3263        | Semivitreous table and kitchenware       |
| 3264 #      | Porcelain electrical supplies            |
| 3269        | Pottery products, n.e.c.                 |
| 327         | Concrete, Gypsum, and Plaster Products   |
| 3271        | Concrete block and brick                 |
| 3272        | Concrete products, n.e.c.                |
| 3273        | Ready-mixed concrete                     |
| 3274        | Lime                                     |
| 3275        | Gypsum products                          |
| 328         | Cut Stone and Stone Products             |
| 329         | Misc. Nonmetallic Mineral Products       |
| 3291        | Abrasive products                        |
| 3292        | Asbestos products                        |
| 3295        | Minerals, ground or treated              |
| 3296        | Mineral wool                             |
| 3297        | Nonclay refractories                     |
| 3299        | Nonmetallic mineral products, n.e.c.     |

**D MANUFACTURING—Con.**

|             |  |
|-------------|--|
| <b>33</b>   | <b>Primary Metal Industries/</b>       |
| 331         | Blast Furnace and Basic Steel Products |
| 3312        | Blast furnaces and steel mills         |
| 3313        | Electrometallurgical products          |
| 3315        | Steel wire and related products        |
| 3316        | Cold finishing of steel shapes         |
| 3317        | Steel pipe and tubes                   |
| 332         | Iron and Steel Foundries               |
| 3321        | Gray and ductile iron foundries        |
| 3322        | Malleable iron foundries               |
| 3324        | Steel investment foundries             |
| 3325        | Steel foundries, n.e.c.                |
| 333         | Primary Nonferrous Metals              |
| 3331        | Primary copper                         |
| 3334        | Primary aluminum                       |
| 3339 #      | Primary nonferrous metals, n.e.c.      |
| 334         | Secondary Nonferrous Metals            |
| 335         | Nonferrous Rolling and Drawing         |
| 3351        | Copper rolling and drawing             |
| 3353        | Aluminum sheet, plate, and foil        |
| 3354        | Aluminum extruded products             |
| 3355        | Aluminum rolling and drawing, n.e.c.   |
| 3356        | Nonferrous rolling and drawing, n.e.c. |
| 3357        | Nonferrous wiredrawing and insulating  |
| 336         | Nonferrous Foundries (Castings)        |
| 3363 #      | Aluminum die-castings                  |
| 3364 #      | Nonferrous die-casting exc. aluminum   |
| 3365 #      | Aluminum foundries                     |
| 3366 #      | Copper foundries                       |
| 3369 #      | Nonferrous foundries, n.e.c.           |
| 339         | Miscellaneous Primary Metal Products   |
| 3398        | Metal heat treating                    |
| 3399        | Primary metal products, n.e.c.         |
| <b>34 #</b> | <b>Fabricated Metal Products</b>       |
| 341         | Metal Cans and Shipping Containers     |
| 3411        | Metal cans                             |
| 3412        | Metal barrels, drums, and pails        |
| 342 #       | Cutlery, Handtools, and Hardware       |
| 3421        | Cutlery                                |
| 3423 #      | Hand and edge tools, n.e.c.            |
| 3425        | Saw blades and handsaws                |
| 3429        | Hardware, n.e.c.                       |
| 343 #       | Plumbing and Heating, Except Electric  |
| 3431        | Metal sanitary ware                    |
| 3432 #      | Plumbing fixture fittings and trim     |
| 3433 #      | Heating equipment, except electric     |
| 344 #       | Fabricated Structural Metal Products   |
| 3441        | Fabricated structural metal            |
| 3442 #      | Metal doors, sash, and trim            |
| 3443        | Fabricated plate work (boiler shops)   |
| 3444 #      | Sheet metalwork                        |
| 3446        | Architectural metal work               |
| 3448        | Prefabricated metal buildings          |
| 3449 #      | Miscellaneous metal work               |
| 345         | Screw Machine Products, Bolts, Etc.    |
| 3451        | Screw machine products                 |
| 3452        | Bolts, nuts, rivets, and washers       |
| 346 #       | Metal Forgings and Stampings           |
| 3462        | Iron and steel forgings                |
| 3463        | Nonferrous forgings                    |
| 3465        | Automotive stampings                   |
| 3466        | Crowns and closures                    |
| 3469 #      | Metal stampings, n.e.c.                |
| 347         | Metal Services, N.E.C.                 |

**D MANUFACTURING—Con.**

|             |   |
|-------------|---|
| 3471        | Plating and polishing                     |
| 3479        | Metal coating and allied services         |
| 348         | Ordnance and Accessories, N.E.C.          |
| 3482        | Small arms ammunition                     |
| 3483        | Ammunition, exc. for small arms, n.e.c.   |
| 3484        | Small arms                                |
| 3489        | Ordnance and accessories, n.e.c.          |
| 349 #       | Misc. Fabricated Metal Products           |
| 3491 #      | Industrial valves                         |
| 3492 #      | Fluid power valves and hose fittings      |
| 3493        | Steel springs, except wire                |
| 3494 #      | Valves and pipe fittings, n.e.c.          |
| 3495        | Wire springs                              |
| 3496        | Misc. fabricated wire products            |
| 3497        | Metal foil and leaf                       |
| 3498        | Fabricated pipe and fittings              |
| 3499        | Fabricated metal products, n.e.c.         |
| <b>35 #</b> | <b>Industrial Machinery and Equipment</b> |
| 351         | Engines and Turbines                      |
| 3511        | Turbines and turbine generator sets       |
| 3519        | Internal combustion engines, n.e.c.       |
| 352         | Farm and Garden Machinery                 |
| 3523        | Farm machinery and equipment              |
| 3524        | Lawn and garden equipment                 |
| 353         | Construction and Related Machinery        |
| 3531 #      | Construction machinery                    |
| 3532        | Mining machinery                          |
| 3533        | Oil and gas field machinery               |
| 3534        | Elevators and moving stairways            |
| 3535        | Conveyors and conveying equipment         |
| 3536 #      | Hoists, cranes, and monorails             |
| 3537 #      | Industrial trucks and tractors            |
| 354 #       | Metalworking Machinery                    |
| 3541        | Machine tools, metal cutting types        |
| 3542        | Machine tools, metal forming types        |
| 3543*       | Industrial patterns                       |
| 3544        | Special dies, tools, jigs and fixtures    |
| 3545        | Machine tool accessories                  |
| 3546        | Power-driven handtools                    |
| 3547        | Rolling mill machinery                    |
| 3548 #      | Welding apparatus                         |
| 3549 #      | Metalworking machinery, n.e.c.            |
| 355 #       | Special Industry Machinery                |
| 3552        | Textile machinery                         |
| 3553        | Woodworking machinery                     |
| 3554        | Paper industries machinery                |
| 3555 #      | Printing trades machinery                 |
| 3556 #      | Food products machinery                   |
| 3559 #      | Special industry machinery, n.e.c.        |
| 356 #       | General Industrial Machinery              |
| 3561 #      | Pumps and pumping equipment               |
| 3562        | Ball and roller bearings                  |
| 3563        | Air and gas compressors                   |
| 3564        | Blowers and fans                          |
| 3565 #      | Packaging machinery                       |
| 3566 #      | Speed changers, drives, and gears         |
| 3567 #      | Industrial furnaces and ovens             |
| 3568        | Power transmission equipment, n.e.c.      |
| 3569 #      | General industrial machinery, n.e.c.      |
| 357 #       | Computer and Office Equipment             |
| 3571 #      | Electronic computers                      |
| 3572 #      | Computer storage devices                  |
| 3575 #      | Computer terminals                        |
| 3577 #      | Computer peripheral equipment, n.e.c.     |
| 3578*       | Calculating and accounting equipment      |
| 3579 #      | Office machines, n.e.c.                   |
| 358 #       | Refrigeration and Service Machinery       |
| 3581        | Automatic vending machines                |

| D           | MANUFACTURING—Con.                             |
|-------------|--|
| 3582        | Commercial laundry equipment                   |
| 3585 #      | Refrigeration and heating equipment            |
| 3586        | Measuring and dispensing pumps                 |
| 3589        | Service industry machinery, n.e.c.             |
| 359 #       | Industrial Machinery, N.E.C.                   |
| 3592        | Carburetors, pistons, rings, valves            |
| 3593 #      | Fluid power cylinders and actuators            |
| 3594 #      | Fluid power pumps and motors                   |
| 3596*       | Scales and balances, exc. laboratory           |
| 3599 #      | Industrial machinery, n.e.c.                   |
| <b>36 #</b> | <b>Electronic and Other Electric Equipment</b> |
| 361 #       | Electric Distribution Equipment                |
| 3612        | Transformers, except electronic                |
| 3613 #      | Switchgear and switchboard apparatus           |
| 362 #       | Electrical Industrial Apparatus                |
| 3621        | Motors and generators                          |
| 3624        | Carbon and graphite products                   |
| 3625 #      | Relays and industrial controls                 |
| 3629        | Electrical industrial apparatus, n.e.c.        |
| 363 #       | Household Appliances                           |
| 3631        | Household cooking equipment                    |
| 3632        | Household refrigerators and freezers           |
| 3633        | Household laundry equipment                    |
| 3634        | Electric housewares and fans                   |
| 3635        | Household vacuum cleaners                      |
| 3639 #      | Household appliances, n.e.c.                   |
| 364 #       | Electric Lighting and Wiring Equipment         |
| 3641 #      | Electric lamps                                 |
| 3643        | Current-carrying wiring devices                |
| 3644        | Noncurrent-carrying wiring devices             |
| 3645        | Residential lighting fixtures                  |
| 3646        | Commercial lighting fixtures                   |
| 3647        | Vehicular lighting equipment                   |
| 3648        | Lighting equipment, n.e.c.                     |
| 365         | Household Audio and Video Equipment            |
| 3651        | Household audio and video equipment            |
| 3652        | Prerecorded records and tapes                  |
| 366 #       | Communication Equipment                        |
| 3661 #      | Telephone and telegraph apparatus              |
| 3663 #      | Radio and TV communications equipment          |
| 3669 #      | Communications equipment, n.e.c.               |
| 367 #       | Electronic Components and Accessories          |
| 3671 #      | Electron tubes                                 |
| 3672 #      | Printed circuit boards                         |
| 3674        | Semiconductors and related devices             |
| 3675        | Electronic capacitors                          |
| 3676        | Electronic resistors                           |
| 3677        | Electronic coils and transformers              |
| 3678        | Electronic connectors                          |
| 3679 #      | Electronic components, n.e.c.                  |
| 369 #       | Misc. Electrical Equipment and Supplies        |
| 3691        | Storage batteries                              |
| 3692        | Primary batteries, dry and wet                 |
| 3694        | Engine electrical equipment                    |
| 3695 #      | Magnetic and optical recording media           |
| 3699 #      | Electrical equipment & supplies, n.e.c.        |
| <b>37 #</b> | <b>Transportation Equipment</b>                |
| 371         | Motor Vehicles and Equipment                   |
| 3711        | Motor vehicles and car bodies                  |
| 3713        | Truck and bus bodies                           |
| 3714        | Motor vehicle parts and accessories            |

| D           | MANUFACTURING—Con.                            |
|-------------|---|
| 3715        | Truck trailers                                |
| 3716        | Motor homes                                   |
| 372 #       | Aircraft and Parts                            |
| 3721        | Aircraft                                      |
| 3724        | Aircraft engines and engine parts             |
| 3728 #      | Aircraft parts and equipment, n.e.c.          |
| 373         | Ship and Boat Building and Repairing          |
| 3731        | Ship building and repairing                   |
| 3732        | Boat building and repairing                   |
| 374         | Railroad Equipment (3743)                     |
| 375         | Motorcycles, Bicycles, and Parts              |
| 376         | Guided Missiles, Space Vehicles, Parts        |
| 3761        | Guided missiles and space vehicles            |
| 3764        | Space propulsion units and parts              |
| 3769        | Space vehicle equipment, n.e.c.               |
| 379         | Miscellaneous Transportation Equipment        |
| 3792        | Travel trailers and campers                   |
| 3795        | Tanks and tank components                     |
| 3799        | Transportation equipment, n.e.c.              |
| <b>38 #</b> | <b>Instruments and Related Products</b>       |
| 381 #       | Search and Navigation Equipment (3812)        |
| 382 #       | Measuring and Controlling Devices             |
| 3821 #      | Laboratory apparatus and furniture            |
| 3822        | Environmental controls                        |
| 3823        | Process control instruments                   |
| 3824        | Fluid meters and counting devices             |
| 3825        | Instruments to measure electricity            |
| 3826 #      | Analytical instruments                        |
| 3827 #      | Optical instruments and lenses                |
| 3829 #      | Measuring & controlling devices, n.e.c.       |
| 384 #       | Medical Instruments and Supplies              |
| 3841        | Surgical and medical instruments              |
| 3842        | Surgical appliances and supplies              |
| 3845        | Dental equipment and supplies                 |
| 3844 #      | X-ray apparatus and tubes                     |
| 3845 #      | Electromedical equipment                      |
| 385         | Ophthalmic Goods                              |
| 3851        | Ophthalmic goods                              |
| 386         | Photographic Equipment and Supplies           |
| 3861        | Photographic equipment and supplies           |
| 387         | Watches, Clocks, Watchcases and Parts         |
| <b>39</b>   | <b>Miscellaneous Manufacturing Industries</b> |
| 391         | Jewelry, Silverware, and Plated Ware          |
| 3911        | Jewelry, precious metal                       |
| 3914        | Silverware and plated ware                    |
| 3915        | Jewelers' materials and lapidary work         |
| 393         | Musical Instruments                           |
| 3931        | Musical instruments                           |
| 394         | Toys and Sporting Goods                       |
| 3942        | Dolls and stuffed toys                        |
| 3944        | Games, toys, and children's vehicles          |
| 3949        | Sporting and athletic goods, n.e.c.           |
| 395         | Pens, Pencils, Office, and Art Supplies       |
| 3951        | Pens and mechanical pencils                   |
| 3952        | Lead pencils and art goods                    |
| 3953        | Marking devices                               |
| 3955        | Carbon paper and inked ribbons                |
| 396 #       | Costume Jewelry and Notions                   |
| 3961        | Costume jewelry                               |
| 3965 #      | Fasteners, buttons, needles, and pins         |
| 399 #       | Miscellaneous Manufactures                    |

| E           | TRANSPORTATION AND PUBLIC UTILITIES                |
|-------------|--|
| 3991        | Brooms and brushes                                 |
| 3993        | Signs and advertising specialties                  |
| 3995        | Burial caskets                                     |
| 3996        | Hard surface floor coverings, n.e.c.               |
| 3999 #      | Manufacturing industries, n.e.c.                   |
| <b>40</b>   | <b>Railroad Transportation †</b>                   |
| <b>41</b>   | <b>Local &amp; Interurban Passenger Transit †</b>  |
| <b>42</b>   | <b>Trucking and Warehousing</b>                    |
| 421         | Trucking and Courier Services, Ex. Air             |
| 4212 #      | Local trucking, without storage                    |
| 4213 #      | Trucking, except local                             |
| 4214        | Local trucking with storage                        |
| 4215 #      | Courier services, except by air                    |
| 422         | Public Warehousing and Storage                     |
| 4221        | Farm product warehousing and storage               |
| 4222        | Refrigerated warehousing and storage               |
| 4225        | General warehousing and storage                    |
| 4226 #      | Special warehousing and storage, n.e.c.            |
| 423         | Trucking Terminal Facilities                       |
| <b>43</b>   | <b>U.S. Postal Service †</b>                       |
| <b>44</b>   | <b>Water Transportation</b>                        |
| 441 #       | Deep Sea Foreign Transportation of Freight (4412)  |
| 442 #       | Deep Sea Domestic Transportation of Freight (4424) |
| 443 #       | Freight Trans. on the Great Lakes (4432)           |
| 444 #       | Water Transportation of Freight, n.e.c. (4449)     |
| 448 #       | Water Transportation of Passengers                 |
| 4481 #      | Deep sea passenger trans., ex. ferry               |
| 4482 #      | Ferries  |
| 4489 #      | Water passenger transportation, n.e.c.             |
| 449 #       | Water Transportation Services                      |
| 4491*       | Marine cargo handling                              |
| 4492*       | Towing and tugboat service                         |
| 4493 #      | Marinas  |
| 4499 #      | Water transportation services, n.e.c.              |
| <b>45</b>   | <b>Transportation by Air †</b>                     |
| <b>46</b>   | <b>Pipelines, Except Natural Gas †</b>             |
| <b>47</b>   | <b>Transportation Services</b>                     |
| 472 #       | Passenger Transportation Arrangement               |
| 4724 #      | Travel agencies                                    |
| 4725 #      | Tour operators                                     |
| 4729 #      | Passenger transport arrangement, n.e.c.            |
| 473 #       | Freight Transportation Arrangement                 |
| 474 #       | Rental of Railroad Cars                            |
| 478         | Miscellaneous Transportation Services              |
| 4783        | Packing and crating                                |
| 4785 #      | Inspection and fixed facilities                    |
| 4789        | Transportation services, n.e.c.                    |
| <b>48</b>   | <b>Communication †</b>                             |
| <b>49 #</b> | <b>Electric, Gas, and Sanitary Services †</b>      |

| F #    | WHOLESALE TRADE                          |
|--------|--|
| 50 #   | <b>Wholesale Trade—Durable Goods</b>     |
| 501 #  | Motor Vehicles, Parts, and Supplies      |
| 5012   | Automobiles and other motor vehicles     |
| 5013 # | Motor vehicle supplies and new parts     |
| 5014   | Tires and tubes                          |
| 5015 # | Motor vehicle parts, used                |
| 502    | Furniture and Homefurnishings            |
| 5021   | Furniture                                |
| 5023   | Homefurnishings                          |
| 503    | Lumber and Construction Materials        |
| 5031   | Lumber, plywood, and millwork            |
| 5032 # | Brick, stone, and related materials      |
| 5033 # | Roofing, siding, and insulation          |
| 5039 # | Construction materials, n.e.c.           |
| 504 #  | Professional and Commercial Equipment    |
| 5043   | Photographic equipment and supplies      |
| 5044 # | Office equipment                         |
| 5045 # | Computers, peripherals and software      |
| 5046 # | Commercial equipment, n.e.c.             |
| 5047 # | Medical and hospital equipment           |
| 5048 # | Ophthalmic goods                         |
| 5049 # | Professional equipment, n.e.c.           |
| 505    | Metals and Minerals, Except Petroleum    |
| 5051   | Metals service centers and offices       |
| 5052   | Coal and other minerals and ores         |
| 506 #  | Electrical Goods                         |
| 5063 # | Electrical apparatus and equipment       |
| 5064   | Electrical appliances, TV and radios     |
| 5065 # | Electronic parts and equipment           |
| 507    | Hardware, Plumbing and Heating Equipment |
| 5072   | Hardware                                 |
| 5074   | Plumbing and hydronic heating supplies   |
| 5075   | Warm air heating and air-conditioning    |
| 5078   | Refrigeration equipment and supplies     |
| 508 #  | Machinery, Equipment, and Supplies       |
| 5082   | Construction and mining machinery        |
| 5083   | Farm and garden machinery                |
| 5084 # | Industrial machinery and equipment       |
| 5085   | Industrial supplies                      |
| 5087   | Service establishment equipment          |
| 5088   | Transportation equipment and supplies    |
| 509 #  | Miscellaneous Durable Goods              |
| 5091 * | Sporting and recreational goods          |
| 5092 * | Toys and hobby goods and supplies        |
| 5093   | Scrap and waste materials                |
| 5094   | Jewelry and precious stones and metals   |
| 5099   | Durable goods, n.e.c.                    |
| 51     | <b>Wholesale Trade—Nondurable Goods</b>  |
| 511    | Paper and Paper Products                 |
| 5111   | Printing and writing paper               |
| 5112   | Stationery and office supplies           |
| 5113   | Industrial and personal service paper    |
| 512    | Drugs, Proprietaries, & Sundries (5122)  |
| 513    | Apparel, Piece Goods, and Notions        |
| 5131 # | Piece goods and notions                  |
| 5138   | Men's and boys' clothing                 |
| 5137   | Women's and children's clothing          |

| F #    | WHOLESALE TRADE—Con.                   |
|--------|--|
| 5139   | Footwear                               |
| 514    | Groceries and Related Products         |
| 5141   | Groceries, general line                |
| 5142   | Packaged frozen foodstuffs             |
| 5143   | Dairy products, exc. dried or canned   |
| 5144   | Poultry and poultry products           |
| 5145   | Confectionery                          |
| 5146   | Fish and seafoods                      |
| 5147   | Meats and meat products                |
| 5148   | Fresh fruits and vegetables            |
| 5149   | Groceries and related products, n.e.c. |
| 515    | Farm-Product Raw Materials             |
| 5153   | Grain and field beans                  |
| 5154   | Livestock                              |
| 5159 # | Farm-product raw materials, n.e.c.     |
| 516    | Chemicals and Allied Products          |
| 5162 # | Plastics materials and basic shapes    |
| 5169 # | Chemicals and allied products, n.e.c.  |
| 517    | Petroleum and Petroleum Products       |
| 5171   | Petroleum bulk stations and terminals  |
| 5172   | Petroleum products with no storage     |
| 518    | Beer, Wine, and Distilled Beverages    |
| 5181   | Beer and ale                           |
| 5182   | Wine and distilled beverages           |
| 519    | Misc. Nondurable Goods                 |
| 5191   | Farm supplies                          |
| 5192 # | Books, periodicals, and newspapers     |
| 5193 # | Flowers and florists' supplies         |
| 5194   | Tobacco and tobacco products           |
| 5198   | Paints, varnishes, and supplies        |
| 5199 # | Nondurable goods, n.e.c.               |

| G #   | RETAIL TRADE                                   |
|-------|--|
| 52    | <b>Building Materials and Garden Supplies</b>  |
| 521   | Lumber and Other Building Materials            |
| 523   | Paint, Glass, and Wallpaper Stores             |
| 525   | Hardware Stores                                |
| 526   | Retail Nurseries and Garden Stores             |
| 527   | Mobile Home Dealers                            |
| 53    | <b>General Merchandise Stores</b>              |
| 531 # | Department Stores                              |
| 533   | Variety Stores                                 |
| 539 # | Misc. General Merchandise Stores (5399)        |
| 54    | <b>Food Stores</b>                             |
| 541   | Grocery Stores                                 |
| 542 # | Meat and Fish Markets                          |
| 543   | Fruit and Vegetable Markets                    |
| 544   | Candy, Nut, and Confectionery Stores           |
| 545   | Dairy Products Stores                          |
| 546 # | Retail Bakeries                                |
| 549   | Miscellaneous Food Stores (5499)               |
| 55    | <b>Automotive Dealers and Service Stations</b> |
| 551   | New and Used Car Dealers                       |
| 552   | Used Car Dealers                               |
| 553   | Auto and Home Supply Stores                    |
| 554   | Gasoline Service Stations                      |
| 555   | Boat Dealers                                   |
| 556 # | Recreational Vehicle Dealers                   |
| 557   | Motorcycle Dealers                             |

| G #    | RETAIL TRADE—Con.                             |
|--------|---|
| 559 #  | Automotive Dealers, N.E.C. (5599)             |
| 56     | <b>Apparel and Accessory Stores</b>           |
| 561    | Men's and Boys' Clothing Stores               |
| 562    | Women's Clothing Stores                       |
| 563 #  | Women's Accessory and Specialty Stores (5632) |
| 564    | Children's and Infants' Wear Stores           |
| 565    | Family Clothing Stores                        |
| 566    | Shoe Stores                                   |
| 569    | Misc. Apparel & Accessory Stores (5699)       |
| 57     | <b>Furniture and Homefurnishings Stores</b>   |
| 571    | Furniture and Homefurnishings Stores          |
| 5712   | Furniture stores                              |
| 5713   | Floor covering stores                         |
| 5714   | Drapery and upholstery stores                 |
| 5719   | Misc. homefurnishings stores                  |
| 572    | Household Appliance Stores (5722)             |
| 573    | Radio, Television, and Computer Stores        |
| 5731 # | Radio, TV, and electronic stores              |
| 5734 # | Computer and software stores                  |
| 5735 # | Record and prerecorded tape stores            |
| 5736 # | Musical instrument stores                     |
| 58     | <b>Eating and Drinking Places</b>             |
| 581    | Eating and Drinking Places                    |
| 5812   | Eating places                                 |
| 5813   | Drinking places                               |
| 59 #   | <b>Miscellaneous Retail</b>                   |
| 591    | Drug Stores and Proprietary Stores (5912)     |
| 592    | Liquor Stores                                 |
| 593 #  | Used Merchandise Stores (5932)                |
| 594    | Miscellaneous Shopping Goods Stores           |
| 5941   | Sporting goods and bicycle shops              |
| 5942   | Book stores                                   |
| 5943   | Stationery stores                             |
| 5944   | Jewelry stores                                |
| 5945   | Hobby, toy, and game shops                    |
| 5946   | Camera and photographic supply stores         |
| 5947   | Gift, novelty, and souvenir shops             |
| 5948   | Luggage and leather goods stores              |
| 5949   | Sewing, needlework, and piece goods           |
| 596    | Nonstore Retailers                            |
| 5961   | Catalog and mail-order houses                 |
| 5962   | Merchandising machine operators               |
| 5963   | Direct selling establishments                 |
| 598 #  | Fuel Dealers                                  |
| 5983   | Fuel oil dealers                              |
| 5984   | Liquefied petroleum gas dealers               |
| 5989 # | Fuel dealers, n.e.c.                          |
| 599 #  | Retail Stores, N.E.C.                         |
| 5992   | Florists                                      |
| 5993   | Tobacco stores and stands                     |
| 5994   | News dealers and newsstands                   |
| 5995 # | Optical goods stores                          |
| 5999 # | Miscellaneous retail stores, n.e.c.           |

| H    | FINANCE, INSURANCE, AND REAL ESTATE |
|------|-------------------------------------|
| 60 # | Depository Institutions †           |
| 61 # | Nondepository Institutions †        |
| 62   | Security and Commodity Brokers †    |

**H FINANCE, INSURANCE, AND REAL ESTATE—Con**

- 63 Insurance Carriers †  
 64 # Insurance Agents, Brokers, & Service †  
 65 # Real Estate †  
 67 Holding and Other Investment Offices †

**I # SERVICES**

- 70 Hotels and Other Lodging Places  
 701 Hotels and Motels  
 702 Rooming and Boarding Houses  
 703 Camps and Recreational Vehicle Parks  
 7032 Sporting and recreational camps  
 7033 Trailer parks and campsites  
 704 Membership-Basis Organization Hotels
- 72 # Personal Services  
 721 # Laundry, Cleaning, and Garment Services  
 7211 Power laundries, family and commercial  
 7212 Garment pressing and cleaners' agents  
 7213 Linen supply  
 7215 Coin-operated laundries and cleaning  
 7216 Drycleaning plants, except rug  
 7217 Carpet and upholstery cleaning  
 7218 Industrial launderers  
 7219 # Laundry and garment services, n.e.c.  
 722 Photographic Studios, Portrait  
 723 Beauty Shops  
 724 Barber Shops  
 725 Shoe Repair and Shoeshine Parlors  
 726 Funeral Service and Crematories  
 729 # Miscellaneous Personal Services  
 7291 # Tax return preparation services  
 7299 # Miscellaneous personal services, n.e.c.
- 73 # Business Services  
 731 Advertising  
 7311 Advertising agencies  
 7312 Outdoor advertising services  
 7313 Radio, TV, publisher's representatives  
 7319 Advertising, n.e.c.  
 732 Credit Reporting and Collection  
 7322 # Adjustment and collection services  
 7323 # Credit reporting services  
 733 Mailing, Reproduction, Stenographic  
 7331 Direct mail advertising services  
 7334 # Photocopying and duplicating services  
 7335 # Commercial photography  
 7336 # Commercial art and graphic design  
 7338 # Secretarial and court reporting  
 734 Services to Buildings  
 7342 Disinfecting and pest control services  
 7349 # Building maintenance services, n.e.c.  
 735 # Misc. Equipment Rental and Leasing  
 7352 # Medical equipment rental

**I # SERVICES—Con.**

- 7353 # Heavy construction equipment rental  
 7359 # Equipment rental and leasing, n.e.c.  
 736 Personnel Supply Services  
 7361 Employment agencies  
 7363 # Help supply services  
 737 Computer and Data Processing Services  
 7371 # Computer programming services  
 7372 # Prepackaged software  
 7373 # Computer integrated systems design  
 7374 # Data processing and preparation  
 7375 # Information retrieval services  
 7376 # Computer facilities management  
 7377 # Computer rental and leasing  
 7378 # Computer maintenance and repair  
 7379 # Computer related services, n.e.c.  
 738 # Miscellaneous Business Services  
 7381 # Detective and armored car services  
 7382 # Security systems services  
 7383 \* News syndicates  
 7384 \* Photofinishing laboratories  
 7389 # Business services, n.e.c.
- 75 Auto Repair, Services, and Parking  
 751 Automotive Rentals Without Drivers  
 7513 Truck rental & leasing without drivers  
 7514 # Passenger car rental  
 7515 # Passenger car leasing  
 7519 Utility and recreational trailer rental  
 752 # Automobile Parking  
 753 Automotive Repair Shops  
 7532 # Top and body repair and paint shops  
 7533 # Auto exhaust system repair shops  
 7534 Tire retreading and repair shops  
 7536 # Automotive glass replacement shops  
 7537 # Automotive transmission repair shops  
 7538 General automotive repair shops  
 7539 # Automotive repair shops, n.e.c.  
 754 Automotive Services, Except Repair  
 7542 Carwashes  
 7549 Automotive services, n.e.c.
- 76 Miscellaneous Repair Services  
 762 Electrical Repair Shops  
 7622 Radio and television repair  
 7623 Refrigeration service and repair  
 7629 Electrical repair shops, n.e.c.  
 763 Watch, Clock, and Jewelry Repair  
 764 Reupholstery and Furniture Repair  
 769 Miscellaneous Repair Shops  
 7692 Welding repair  
 7694 Armature rewinding shops  
 7699 Repair services, n.e.c.
- 78 # Motion Pictures  
 781 Motion Picture Production and Services  
 7812 # Motion picture and videotape production  
 7819 Services allied to motion pictures  
 782 Motion Picture Distribution and Services  
 7822 # Motion picture and videotape distribution  
 7829 Motion picture distribution services  
 783 Motion Picture Theaters  
 7832 Motion picture theaters, ex. drive-in  
 7833 Drive-in motion picture theaters  
 784 # Video Tape Rental

**I # SERVICES—Con.**

- 79 # Amusement and Recreation Services  
 791 Dance Studios, Schools, and Halls  
 792 Producers, Orchestras, Entertainers  
 7922 Theatrical producers and services  
 7929 Entertainers and entertainment groups  
 793 # Bowling Centers (7933)  
 794 Commercial Sports  
 7941 Sports clubs, managers, and promoters  
 7948 Racing, including track operation  
 799 # Misc. Amusement, Recreation Services  
 7991 # Physical fitness facilities  
 7992 Public golf courses  
 7993 Coin-operated amusement devices  
 7996 Amusement parks  
 7997 # Membership sports and recreation clubs  
 7999 # Amusement and recreation, n.e.c.
- 80 Health Services  
 801 # Offices and Clinics of Medical Doctors  
 802 # Offices and Clinics of Dentists  
 803 Offices of Osteopathic Physicians  
 804 Offices of Other Health Practitioners  
 8041 Offices and clinics of chiropractors  
 8042 Offices and clinics of optometrists  
 8043 # Offices and clinics of podiatrists  
 8049 # Offices of health practitioners, n.e.c.  
 805 Nursing and Personal Care Facilities  
 8051 Skilled nursing care facilities  
 8052 # Intermediate care facilities  
 8059 # Nursing and personal care, n.e.c.  
 806 Hospitals  
 8062 General medical and surgical hospitals  
 8063 Psychiatric hospitals  
 8069 Specialty hospitals exc. psychiatric  
 807 Medical and Dental Laboratories  
 8071 Medical laboratories  
 8072 Dental laboratories  
 808 # Home Health Care Services (8082)  
 809 # Health and Allied Services, N.E.C.  
 8092 # Kidney dialysis centers  
 8093 # Specialty outpatient clinics, n.e.c.  
 8099 # Health and allied services, n.e.c.
- 81 Legal Services  
 811 Legal Services
- 82 Educational Services  
 821 Elementary and Secondary Schools †  
 822 Colleges and Universities †  
 823 Libraries  
 824 Vocational Schools  
 8243 Data processing schools  
 8244 Business and secretarial schools  
 8249 # Vocational schools, n.e.c.  
 829 Schools and Educational Services, N.E.C. (8299)
- 83 Social Services  
 832 # Individual and Family Services (8322)  
 833 Job Training and Related Services  
 835 Child Day Care Services  
 836 Residential Care  
 839 # Social Services, N.E.C. (8399)
- 84 # Museums, Botanical, Zoological Gardens  
 841 # Museums and Art Galleries (8412)

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| <b>I #</b>  | <b>SERVICES—Con.</b>                       |
|-------------|--|
| 842 #       | Botanical and Zoological Gardens (8422)    |
| <b>86</b>   | <b>Membership Organizations</b>            |
| 861         | Business Associations                      |
| 862         | Professional Organizations                 |
| 863         | Labor Organizations †                      |
| 864         | Civic and Social Associations              |
| 865         | Political Organizations †                  |
| 866         | Religious Organizations †                  |
| 869         | Membership Organizations, N.E.C. (8699)    |
| <b>87 #</b> | <b>Engineering and Management Services</b> |
| 871*        | Engineering and Architectural Services     |
| 8711 #      | Engineering services                       |
| 8712 #      | Architectural services                     |
| 8713 #      | Surveying services                         |
| 872*        | Accounting, Auditing, and Book-keeping     |
| 873 #       | Research and Testing Services              |

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| <b>I #</b>  | <b>SERVICES—Con.</b>                 |
|-------------|--------------------------------------|
| 8731*       | Commercial physical research         |
| 8732 #      | Commercial nonphysical research      |
| 8733*       | Noncommercial research organizations |
| 8734*       | Testing laboratories                 |
| 874 #       | Management and Public Relations      |
| 8741 #      | Management services                  |
| 8742 #      | Management consulting services       |
| 8743 #      | Public relations services            |
| 8744 #      | Facilities support services          |
| 8748 #      | Business consulting, n.e.c.          |
| <b>88</b>   | <b>Private Households †</b>          |
| <b>89 #</b> | <b>Services, N.E.C.</b>              |
| 899         | Services, N.E.C. (8999)              |

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| <b>J</b>  | <b>PUBLIC ADMINISTRATION</b>                 |
|-----------|--|
| <b>91</b> | <b>Executive, Legislative, and General †</b> |

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| <b>J</b>  | <b>PUBLIC ADMINISTRATION—Con.</b>                 |
|-----------|---|
| <b>92</b> | <b>Justice, Public Order, and Safety †</b>        |
| <b>93</b> | <b>Finance, Taxation, &amp; Monetary Policy †</b> |
| <b>94</b> | <b>Administration of Human Resources †</b>        |
| <b>95</b> | <b>Environmental Quality and Housing †</b>        |
| <b>96</b> | <b>Administration of Economic Programs †</b>      |
| <b>97</b> | <b>National Security and Intl. Affairs †</b>      |

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| <b>K</b>  | <b>NONCLASSIFIABLE ESTABLISHMENTS</b>   |
|-----------|---|
| <b>99</b> | <b>Nonclassifiable Establishments †</b> |



## APPENDIX B. Metropolitan Statistical Areas

[MSA—Metropolitan Statistical Area. CMSA—Consolidated MSA. PMSA—Primary MSA. \* New area or area redefined between 1982 and 1987. Codes for PMSA's are shown in italics since they must be used together with the CMSA code above them]

|      |  |      |  |      |   |
|------|--|------|--|------|---|
| 0040 | Abilene, TX MSA*                                       |      | Boulder-Longmont, CO<br>PMSA—see Denver                        | 1922 | Dallas-Fort Worth, TX<br>CMSA* <sup>1 2 3 6</sup>                 |
|      | Akron, OH PMSA—see Cleveland                           |      | Bradenton, FL MSA  | 1920 | Dallas, TX PMSA* <sup>1 2</sup>                                   |
| 0120 | Albany, GA MSA   | 1140 | Brazoria, TX PMSA—see Houston                                  | 2800 | Fort Worth-Arlington, TX<br>PMSA* <sup>1</sup>                    |
| 0160 | Albany-Schenectady-Troy, NY<br>MSA* <sup>1</sup>       | 1150 | Bremerton, WA MSA  |      | Danbury, CT PMSA—see New<br>York                                  |
| 0200 | Albuquerque, NM MSA*                                   |      | Bridgeport-Milford, CT PMSA—<br>see New York                   |      | Danville, VA MSA  |
| 0220 | Alexandria, LA MSA*                                    |      | Bristol, CT PMSA—see Hartford                                  | 1950 | Davenport Rock Island-Moline,<br>IA-IL MSA                        |
| 0240 | Allentown-Bethlehem, PA-NJ<br>MSA* <sup>1</sup>        |      | Brockton, MA PMSA—see<br>Boston                                | 1960 | Dayton-Springfield, OH MSA* <sup>1</sup>                          |
| 0280 | Altoona, PA MSA  |      | Brownsville-Harlingen, TX MSA                                  | 2000 | Daytona Beach, FL MSA   |
| 0320 | Amarillo, TX MSA                                       | 1240 | Bryan-College Station, TX MSA                                  | 2020 | Decatur, IL MSA   |
|      | Anaheim-Santa Ana, CA<br>PMSA—see Los Angeles          | 1260 | Buffalo-Niagara Falls, NY<br>CMSA* <sup>1</sup>                | 2040 | Denver-Boulder, CO CMSA* <sup>1 2 3</sup>                         |
| 0380 | Anchorage, AK MSA                                      | 1282 | Buffalo, NY PMSA* <sup>1</sup>                                 | 2082 | Boulder-Longmont, CO<br>PMSA* <sup>1</sup>                        |
| 0400 | Anderson, IN MSA                                       | 1280 | Niagara Falls, NY PMSA* <sup>1</sup>                           | 1125 | Denver, CO PMSA* <sup>1 2</sup>                                   |
| 0405 | Anderson, SC MSA                                       | 5700 | Burlington, NC MSA   | 2080 | Des Moines, IA MSA*   |
|      | Ann Arbor, MI PMSA—see Detroit                         | 1300 | Burlington, VT MSA*  | 2120 | Detroit-Ann Arbor, MI CMSA* <sup>1 3 6</sup>                      |
| 0450 | Anniston, AL MSA                                       | 1305 | Canton, OH MSA   | 2162 | Ann Arbor, MI PMSA* <sup>1</sup>                                  |
| 0460 | Appleton-Oshkosh-Neenah, WI<br>MSA                     | 1320 | Casper, WY MSA   | 0440 | Detroit, MI PMSA* <sup>1 3</sup>                                  |
| 0480 | Asheville, NC MSA*                                     | 1350 | Cedar Rapids, IA MSA   | 2160 | Dothan, AL MSA*   |
| 0500 | Athens, GA MSA   | 1360 | Champaign-Urbana-Rantoul, IL<br>MSA                            | 2180 | Dubuque, IA MSA   |
| 0520 | Atlanta, GA MSA* <sup>1 2 3 6</sup>                    | 1400 | Charleston, SC MSA   | 2240 | Duluth, MN-WI MSA   |
| 0560 | Atlantic City, NJ MSA*                                 | 1440 | Charleston, WV MSA   | 2290 | Eau Claire, WI MSA  |
| 0600 | Augusta, GA-SC MSA*                                    | 1480 | Charlotte-Gastonia-Rock Hill,<br>NC-SC MSA* <sup>1 2</sup>     | 2320 | El Paso, TX MSA   |
|      | Aurora-Elgin, IL PMSA—see<br>Chicago                   | 1520 | Charlottesville, VA MSA  | 2330 | Elkhart-Goshen, IN MSA  |
| 0640 | Austin, TX MSA* <sup>1</sup>                           | 1540 | Chattanooga, TN-GA MSA   | 2335 | Elmira, NY MSA  |
| 0680 | Bakersfield, CA MSA                                    | 1560 | Cheyenne, WY MSA*  | 2340 | Enid, OK MSA  |
| 0720 | Baltimore, MD MSA* <sup>1 2 3</sup>                    | 1580 | Chicago-Gary-Lake County,<br>IL-IN-WI CMSA* <sup>1 2 3 6</sup> | 2360 | Erie, PA MSA  |
| 0730 | Bangor, ME MSA   | 1602 | Aurora-Elgin, IL PMSA* <sup>1</sup>                            | 2400 | Eugene-Springfield, OR MSA  |
| 0760 | Baton Rouge, LA MSA                                    | 0620 | Chicago, IL PMSA* <sup>1 2 3</sup>                             | 2440 | Evansville, IN-KY MSA*  |
| 0780 | Battle Creek, MI MSA*                                  | 1600 | Gary-Hammond, IN PMSA* <sup>1</sup>                            | 2520 | Fall River, MA-RI MSA—see<br>Providence                           |
| 0840 | Beaumont-Port Arthur, TX MSA                           | 3690 | Joliet, IL PMSA* <sup>1</sup>                                  | 2560 | Fargo-Moorhead, ND-MN MSA   |
|      | Beaver County, PA PMSA—see<br>Pittsburgh               | 3800 | Kenosha, WI PMSA* <sup>1</sup>                                 | 2580 | Fayetteville, NC MSA  |
| 0860 | Bellingham, WA MSA                                     | 3965 | Lake County, IL PMSA* <sup>1</sup>                             | 2600 | Fayetteville-Springdale, AR MSA*                                  |
| 0870 | Benton Harbor, MI MSA                                  | 1620 | Chico, CA MSA  | 2600 | Fitchburg-Leominster, MA MSA*                                     |
|      | Bergen-Passaic, NJ PMSA—see<br>New York                | 1642 | Cincinnati-Hamilton, OH-KY-IN<br>CMSA* <sup>1 3</sup>          | 2640 | Flint, MI MSA*  |
| 0880 | Billings, MT MSA                                       |      | Cincinnati, OH-KY-IN PMSA* <sup>1</sup>                        | 2650 | Florence, AL MSA  |
| 0920 | Biloxi-Gulfport, MS MSA*                               | 1640 | Hamilton-Middletown, OH<br>PMSA* <sup>1</sup>                  | 2655 | Florence, SC MSA  |
| 0960 | Binghamton, NY MSA*                                    | 3200 | Clarksville-Hopkinsville, TN-KY<br>MSA                         | 2670 | Fort Collins-Loveland, CO MSA                                     |
| 1000 | Birmingham, AL MSA* <sup>1</sup>                       |      | Cleveland-Akron-Lorain, OH<br>CMSA* <sup>1 3 6</sup>           |      | Fort Lauderdale-Hollywood-<br>Pompano Beach, FL<br>PMSA—see Miami |
| 1010 | Bismarck, ND MSA                                       | 1660 | Akron, OH PMSA* <sup>1</sup>                                   | 2700 | Fort Myers-Cape Coral, FL MSA                                     |
| 1020 | Bloomington, IN MSA                                    |      | Cleveland, OH PMSA* <sup>1 3</sup>                             | 2710 | Fort Pierce, FL MSA*  |
| 1040 | Bloomington-Normal, IL MSA                             | 1692 | Lorain-Elyria, OH PMSA* <sup>1</sup>                           | 2720 | Fort Smith, AR-OK MSA*  |
| 1080 | Boise City, ID MSA                                     | 0080 | Colorado Springs, CO MSA* <sup>2</sup>                         | 2750 | Fort Walton Beach, FL MSA   |
| 1122 | Boston-Lawrence-Salem, MA-NH<br>CMSA* <sup>1 4 6</sup> | 1680 | Columbia, MO MSA   | 2760 | Fort Wayne, IN MSA*   |
|      | Boston, MA PMSA* <sup>1</sup>                          | 4440 | Columbia, SC MSA   |      | Fort Worth-Arlington, TX<br>PMSA—see Dallas                       |
| 1120 | Brockton, MA PMSA* <sup>1</sup>                        | 1720 | Columbus, GA-AL MSA  | 2840 | Fresno, CA MSA* <sup>1</sup>                                      |
| 4160 | Lawrence-Haverhill, MA-NH<br>PMSA* <sup>1</sup>        | 1740 | Columbus, OH MSA* <sup>1</sup>                                 | 2880 | Gadsden, AL MSA   |
|      | Lowell, MA-NH PMSA* <sup>1</sup>                       | 1760 | Corpus Christi, TX MSA   | 2900 | Gainesville, FL MSA*  |
| 4560 | Nashua, NH PMSA* <sup>1</sup>                          | 1800 | Cumberland, MD-WV MSA  |      | Galveston-Texas City, TX<br>PMSA—see Houston                      |
| 5350 | Salem-Gloucester, MA<br>PMSA* <sup>1</sup>             | 1840 |  |      | Gary-Hammond, IN PMSA—see<br>Chicago                              |
| 7090 |  | 1880 |  |      |   |
|      |  | 1900 |  |      |   |

|      |   |      |   |      |   |
|------|---|------|---|------|---|
| 2975 | Glens Falls, NY MSA                                       | 4200 | Lawton, OK MSA  | 5602 | New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA* <sup>1 2 3 6</sup> |
| 2985 | Grand Forks, ND MSA*                                      | 4240 | Lewiston-Auburn, ME MSA*  |      |   |
| 3000 | Grand Rapids, MI MSA <sup>1</sup>                         | 4280 | Lexington-Fayette, KY MSA                                       | 0875 | Bergen-Passaic, NJ PMSA* <sup>1</sup>                                       |
| 3040 | Great Falls, MT MSA                                       | 4320 | Lima, OH MSA*   | 1160 | Bridgeport-Milford, CT PMSA* <sup>1</sup>                                   |
| 3060 | Greeley, CO MSA   | 4360 | Lincoln, NE MSA   | 1930 | Danbury, CT PMSA* <sup>1</sup>  |
| 3080 | Green Bay, WI MSA   | 4400 | Little Rock-North Little Rock, AR MSA*                          | 3640 | Jersey City, NJ PMSA <sup>1</sup>   |
| 3120 | Greensboro—Winston-Salem—High Point, NC MSA* <sup>1</sup> | 4420 | Longview-Marshall, TX MSA                                       | 5015 | Middlesex-Somerset-Hunterdon, NJ PMSA* <sup>1</sup>                         |
| 3160 | Greenville-Spartanburg, SC MSA <sup>1</sup>               |      | Lorain-Elyria, OH PMSA—see Cleveland                            | 5190 | Monmouth-Ocean, NJ PMSA* <sup>1</sup>                                       |
| 3180 | Hagerstown, MD MSA  | 4472 | Los Angeles-Anaheim-Riverside, CA CMSA* <sup>1 2 3 5</sup>      | 5380 | Nassau-Suffolk, NY PMSA <sup>1 3</sup>                                      |
|      | Hamilton-Middletown, OH PMSA—see Cincinnati               |      | Anaheim-Santa Ana, CA PMSA <sup>1 2 3 5</sup>                   | 5600 | New York, NY PMSA* <sup>1 2 3 5</sup>                                       |
| 3240 | Harrisburg-Lebanon-Carlisle, PA MSA* <sup>1</sup>         | 0360 | Los Angeles-Long Beach, CA P MSA <sup>1 2 3 5</sup>             | 5640 | Newark, NJ PMSA* <sup>1 3</sup>   |
| 3282 | Hartford-New Britain-Middletown, CT CMSA* <sup>1</sup>    | 4480 | Oxnard-Ventura, CA PMSA <sup>1</sup>                            | 5760 | Norwalk, CT PMSA <sup>1</sup>   |
|      | Bristol, CT PMSA <sup>1</sup>                             | 6000 | Riverside-San Bernardino, CA PMSA <sup>1 2</sup>                | 5950 | Orange County, NY PMSA <sup>1</sup>   |
| 3280 | Hartford, CT PMSA* <sup>1</sup>                           | 6780 | Louisville, KY-IN MSA* <sup>1</sup>                             | 8040 | Stamford, CT PMSA <sup>1</sup>  |
| 5020 | Middletown, CT PMSA* <sup>1</sup>                         |      | Lowell, MA-NH PMSA—see Boston                                   |      | Newark, NJ PMSA—see New York  |
| 5440 | New Britain, CT PMSA <sup>1</sup>                         | 4520 | Lubbock, TX MSA   |      | Niagara Falls, NY PMSA—see Buffalo  |
| 3290 | Hickory, NC MSA*  | 4600 | Lynchburg, VA MSA*  | 5720 | Norfolk-Virginia Beach-Newport News, VA MSA* <sup>1 2</sup>                 |
| 3320 | Honolulu, HI MSA <sup>1</sup>                             | 4640 | Macon-Warner Robins, GA MSA*                                    |      | Norwalk, CT PMSA—see New York   |
| 3350 | Houma-Thibodaux, LA MSA*                                  | 4680 | Madison, WI MSA   |      | Oakland, CA PMSA—see San Francisco  |
| 3362 | Houston-Galveston-Brazoria, TX CMSA* <sup>1 2 3 6</sup>   | 4720 | Manchester, NH MSA*   | 5790 | Ocala, FL MSA   |
|      | Brazoria, TX PMSA* <sup>1</sup>                           | 4760 | Mansfield, OH MSA   | 5800 | Odessa, TX MSA  |
| 1145 | Galveston-Texas City, TX PMSA <sup>1</sup>                | 4800 | McAllen-Edinburg-Mission, TX MSA                                | 5880 | Oklahoma City, OK MSA* <sup>1</sup>   |
| 2920 | Houston, TX PMSA* <sup>1 2 3</sup>                        | 4880 | Medford, OR MSA   | 5910 | Olympia, WA MSA   |
| 3360 | Huntington-Ashland, WV-KY-OH MSA*                         | 4890 | Melbourne-Titusville-Palm Bay, FL MSA                           | 5920 | Omaha, NE-IA MSA* <sup>1</sup>  |
| 3400 | Huntsville, AL MSA*                                       | 4900 | Memphis, TN-AR-MS MSA <sup>1</sup>                              |      | Orange County, NY PMSA—see New York   |
| 3440 | Indianapolis, IN MSA <sup>1</sup>                         | 4920 | Merced, CA MSA*   | 5960 | Orlando, FL MSA <sup>1 2</sup>  |
| 3480 | Iowa City, IA MSA   | 4940 | Miami-Fort Lauderdale, FL CMSA* <sup>1 2 3 6</sup>              |      | Oxnard-Ventura, CA PMSA—see Los Angeles                                     |
| 3500 | Jackson, MI MSA   | 4992 | Fort Lauderdale-Hollywood-Pompano Beach, FL PMSA <sup>1 2</sup> | 5990 | Owensboro, KY MSA   |
| 3520 | Jackson, MS MSA*  | 2680 | Miami-Hialeah, FL PMSA <sup>1 2 3</sup>                         | 6015 | Panama City, FL MSA   |
| 3560 | Jackson, TN MSA*  | 5000 | Middlesex-Somerset-Hunterdon, NJ PMSA—see New York              | 6020 | Parkersburg-Marietta, WV-OH MSA*  |
| 3580 | Jacksonville, FL MSA* <sup>1 2</sup>                      |      | Middletown, CT PMSA—see Hartford                                | 6025 | Pascagoula, MS MSA  |
| 3600 | Jacksonville, NC MSA                                      | 5040 | Midland, TX MSA   | 6080 | Pawtucket-Woonsocket-Attleboro, RI-MA PMSA—see Providence                   |
| 3605 | Janesville-Beloit, WI MSA                                 | 5082 | Milwaukee-Racine, WI CMSA* <sup>1</sup>                         | 6120 | Pensacola, FL MSA   |
| 3620 | Jersey City, NJ PMSA—see New York                         | 5080 | Milwaukee, WI PMSA <sup>1</sup>                                 | 6162 | Peoria, IL MSA  |
| 3660 | Johnson City-Kingsport-Bristol, TN-VA MSA                 | 6600 | Racine, WI PMSA <sup>1</sup>                                    |      | Philadelphia-Wilmington-Trenton, PA-NJ-DE-MD CMSA* <sup>1 3 6</sup>         |
| 3680 | Johnstown, PA MSA   | 5120 | Minneapolis-St. Paul, MN-WI MSA* <sup>1 2 3 6</sup>             | 6160 | Philadelphia, PA-NJ PMSA <sup>1 3</sup>                                     |
|      | Joliet, IL PMSA—see Chicago                               | 5160 | Mobile, AL MSA  | 8480 | Trenton, NJ PMSA <sup>1</sup>   |
| 3710 | Joplin, MO MSA  | 5170 | Modesto, CA MSA   | 8760 | Vineland-Millville-Bridgeton, NJ PMSA <sup>1</sup>                          |
| 3720 | Kalamazoo, MI MSA*  |      | Monmouth-Ocean, NJ PMSA—see New York                            | 9160 | Wilmington, DE-NJ-MD PMSA <sup>1</sup>                                      |
| 3740 | Kankakee, IL MSA  | 5200 | Monroe, LA MSA  | 6200 | Phoenix, AZ MSA <sup>1 2 3</sup>  |
| 3760 | Kansas City, MO-KS MSA* <sup>1 2 3</sup>                  | 5240 | Montgomery, AL MSA  | 6240 | Pine Bluff, AR MSA  |
|      | Kenosha, WI PMSA—see Chicago                              | 5280 | Muncie, IN MSA  | 6282 | Pittsburgh-Beaver Valley, PA CMSA* <sup>1 3</sup>                           |
| 3810 | Killeen-Temple, TX MSA                                    | 5320 | Muskegon, MI MSA*   | 0845 | Beaver County, PA PMSA* <sup>1</sup>  |
| 3840 | Knoxville, TN MSA* <sup>1</sup>                           | 5345 | Naples, FL MSA*   | 6280 | Pittsburgh, PA PMSA* <sup>1 3</sup>   |
| 3850 | Kokomo, IN MSA  | 5360 | Nashua, NH PMSA—see Boston                                      | 6320 | Pittsfield, MA MSA*   |
| 3870 | La Crosse, WI MSA   |      | Nashville, TN MSA <sup>1</sup>                                  | 6400 | Portland, ME MSA*   |
| 3880 | Lafayette, LA MSA*  | 5400 | Nassau-Suffolk, NY PMSA—see New York                            | 6442 | Portland-Vancouver, OR-WA CMSA* <sup>4</sup>                                |
| 3920 | Lafayette-West Lafayette, IN MSA                          |      | New Bedford, MA MSA*  | 6440 | Portland, OR PMSA* <sup>1</sup>   |
| 3960 | Lake Charles, LA MSA                                      |      | New Britain, CT PMSA—see Hartford                               | 8725 | Vancouver, WA PMSA* <sup>1</sup>  |
|      | Lake County, IL PMSA—see Chicago                          | 5480 | New Haven-Meriden, CT MSA* <sup>1</sup>                         | 6450 | Portsmouth-Dover-Rochester, NH-ME MSA*                                      |
| 3980 | Lakeland-Winter Haven, FL MSA                             | 5520 | New London-Norwich, CT-RI MSA*                                  | 6460 | Poughkeepsie, NY MSA  |
| 4000 | Lancaster, PA MSA   | 5560 | New Orleans, LA MSA* <sup>1 2</sup>                             |      |   |
| 4040 | Lansing-East Lansing, MI MSA*                             |      |   |      |   |
| 4080 | Laredo, TX MSA  |      |   |      |   |
| 4100 | Las Cruces, NM MSA  |      |   |      |   |
| 4120 | Las Vegas, NV MSA <sup>2</sup>                            |      |   |      |   |
| 4150 | Lawrence, KS MSA  |      |   |      |   |
|      | Lawrence-Haverhill, MA-NH PMSA—see Boston                 |      |   |      |   |

|      |   |      |   |      |  |
|------|---|------|---|------|--|
| 6482 | Providence-Pawtucket-Fall River, RI-MA CMSA* <sup>1</sup> |      | San Jose, CA PMSA—see San Francisco                       | 8680 | Utica-Rome, NY MSA   |
| 2480 | Fall River, MA-RI PMSA* <sup>1</sup>                      | 7480 | Santa Barbara-Santa Maria-Lompoc, CA MSA                  |      | Vallejo-Fairfield-Napa, CA PMSA—see San Francisco              |
| 6060 | Pawtucket-Woonsocket-Attleboro, RI-MA PMSA* <sup>1</sup>  |      | Santa Cruz, CA PMSA—see San Francisco                     |      | Vancouver, WA PMSA—see Seattle                                 |
| 6480 | Providence, RI PMSA* <sup>1</sup>                         |      |   | 8750 | Victoria, TX MSA   |
| 6520 | Provo-Orem, UT MSA  | 7490 | Santa Fe, NM MSA*   |      | Vineland-Millville-Bridgeton, NJ PMSA—see Philadelphia         |
| 6560 | Pueblo, CO MSA  |      | Santa Rosa-Petaluma, CA PMSA—see San Francisco            | 8780 | Visalia-Tulare-Porterville, CA MSA                             |
|      | Racine, WI PMSA—see Milwaukee                             | 7510 | Sarasota, FL MSA  | 8800 | Waco, TX MSA   |
| 6640 | Raleigh-Durham, NC MSA* <sup>1</sup>                      | 7520 | Savannah, GA MSA*   | 8840 | Washington, DC-MD-VA MSA* <sup>1 2 3</sup>                     |
| 6660 | Rapid City, SD MSA*                                       | 7560 | Scranton—Wilkes-Barre, PA MSA* <sup>1</sup>               | 8880 | Waterbury, CT MSA*   |
| 6680 | Reading, PA MSA   |      |   | 8920 | Waterloo-Cedar Falls, IA MSA*                                  |
| 6690 | Redding, CA MSA   | 7602 | Seattle-Tacoma, WA CMSA* <sup>1 2 3 6</sup>               | 8940 | Wausau, WI MSA   |
| 6720 | Reno, NV MSA  |      | Seattle, WA PMSA <sup>1 2</sup>                           | 8960 | West Palm Beach-Boca Raton-Delray Beach, FL MSA <sup>1 2</sup> |
| 6740 | Richland-Kennewick-Pasco, WA MSA                          | 7600 | Tacoma, WA PMSA <sup>1</sup>                              | 9000 | Wheeling, WV-OH MSA  |
| 6760 | Richmond-Petersburg, VA MSA* <sup>1</sup>                 | 7610 | Sharon, PA MSA  | 9040 | Wichita, KS MSA*   |
|      | Riverside-San Bernardino, CA PMSA—see Los Angeles         | 7620 | Sheboygan, WI MSA   | 9080 | Wichita Falls, TX MSA*   |
| 6800 | Roanoke, VA MSA*  | 7640 | Sherman-Denison, TX MSA                                   | 9140 | Williamsport, PA MSA   |
| 6820 | Rochester, MN MSA   | 7680 | Shreveport, LA MSA*                                       |      | Wilmington, DE-NJ-MD PMSA—see Philadelphia                     |
| 6840 | Rochester, NY MSA <sup>1</sup>                            | 7720 | Sioux City, IA-NE MSA                                     | 9200 | Wilmington, NC MSA*  |
| 6880 | Rockford, IL MSA  | 7760 | Sioux Falls, SD MSA                                       | 9240 | Worcester, MA MSA*   |
| 6920 | Sacramento, CA MSA* <sup>1 2</sup>                        | 7800 | South Bend-Mishawaka, IN MSA*                             | 9260 | Yakima, WA MSA   |
| 6960 | Saginaw-Bay City-Midland, MI MSA*                         | 7840 | Spokane, WA MSA   | 9280 | York, PA MSA   |
| 6980 | St. Cloud, MN MSA   | 7880 | Springfield, IL MSA                                       | 9320 | Youngstown-Warren, OH MSA <sup>1</sup>                         |
| 7000 | St. Joseph, MO MSA*                                       | 7920 | Springfield, MO MSA                                       | 9340 | Yuba City, CA MSA  |
| 7040 | St. Louis, MO-IL MSA* <sup>1 2 3 6</sup>                  | 8000 | Springfield, MA MSA* <sup>1</sup>                         |      |  |
| 7080 | Salem, OR MSA   |      | Stamford, CT PMSA—see New York                            |      |  |
|      | Salem-Gloucester, MA PMSA—see Boston                      | 8050 | State College, PA MSA                                     |      |  |
| 7120 | Salinas-Seaside-Monterey, CA MSA                          | 8080 | Steubenville-Weirton, OH-WV MSA                           |      |  |
| 7160 | Salt Lake City-Ogden, UT MSA* <sup>1 2</sup>              | 8120 | Stockton, CA MSA  |      |  |
| 7200 | San Angelo, TX MSA  | 8160 | Syracuse, NY MSA <sup>1</sup>                             |      |  |
| 7240 | San Antonio, TX MSA <sup>1 2</sup>                        | 8240 | Tallahassee, FL MSA*                                      |      |  |
| 7320 | San Diego, CA MSA <sup>1 2 3</sup>                        |      | Tacoma, WA PMSA—see Seattle                               |      |  |
| 7362 | San Francisco-Oakland-San Jose, CA CMSA* <sup>1 3 6</sup> | 8280 | Tampa-St. Petersburg-Clearwater, FL MSA* <sup>1 2 3</sup> |      |  |
| 5775 | Oakland, CA PMSA* <sup>1 3</sup>                          | 8320 | Terre Haute, IN MSA*                                      |      |  |
| 7360 | San Francisco, CA PMSA* <sup>1 3</sup>                    | 8360 | Texarkana, TX-Texarkana, AR MSA*                          |      |  |
| 7400 | San Jose, CA PMSA <sup>1</sup>                            | 8400 | Toledo, OH MSA* <sup>1</sup>                              |      |  |
| 7485 | Santa Cruz, CA PMSA <sup>1</sup>                          | 8440 | Topeka, KS MSA*   |      |  |
| 7500 | Santa Rosa-Petaluma, CA PMSA <sup>1</sup>                 |      | Trenton, NJ PMSA—see Philadelphia                         |      |  |
| 8720 | Vallejo-Fairfield-Napa, CA PMSA <sup>1</sup>              | 8520 | Tucson, AZ MSA <sup>1 2</sup>                             |      |  |
|      |   | 8560 | Tulsa, OK MSA* <sup>1</sup>                               |      |  |
|      |   | 8600 | Tuscaloosa, AL MSA  |      |  |
|      |   | 8640 | Tyler, TX MSA   |      |  |

Note: See figure 5, p. 12, for programs with data for all metropolitan areas.

<sup>1</sup>Data in Census of Construction Industries

<sup>2</sup>Data in New Residential Construction in Selected MSA's, C21

<sup>3</sup>Data in Monthly Retail Trade, BR

<sup>4</sup>Boston NECMA in Monthly Retail Trade, BR

<sup>5</sup>Central city in Monthly Retail Trade, BR

<sup>6</sup>Data in Wholesale Commodity Line Sales on tape and CD-ROM.



# APPENDIX C. Approximate Publication Schedule for 1987 Economic Census Reports

| Census  | Series designation   | Media for release <sup>2</sup>   | Projected availability of printed reports <sup>1</sup> |            |            |            |            |      |
|---|--|--|--|------------|------------|------------|------------|------|
|   |  |  | 1989   |            | 1990       |            | 1991       |      |
|   |  |  | Early  | Late       | Early      | Late       | Early      | Late |
| <b>RETAIL TRADE</b> (p. 61)<br>Geographic Area<br>U.S. Summary<br>Subject<br>Merchandise Line Sales:<br>United States<br>States and MSAs<br>Nonemployer Statistics<br>Special Report<br>ZIP Code Statistics | RC87-A-1 to 51<br>RC87-A-52<br>RC87-S1,2, and 4<br><br>RC87-S-3<br>RC87-S-3<br>RC87-N-1 to 4<br>RC87-SP<br>RC87-Z          | ☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐<br><br>☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 2 | ██████████   | ██████████ | ██████████ | ██████████ |            |      |
| <b>WHOLESALE TRADE</b> (p. 77)<br>Geographic Area<br>U.S. Summary<br>Subject<br>Commodity Line Sales:<br>United States<br>15 States, 15 MSAs  | WC87-A-1 to 51<br>WC87-A-52<br>WC87-S-1, 2, and 4<br><br>WC87-S-3<br>WC87-S-3  | ☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐<br><br>☐ ☑ ○ 1<br>☐ ☑ ○ 1  | ██████████   | ██████████ | ██████████ | ██████████ |            |      |
| <b>SERVICE INDUSTRIES</b> (p. 91)<br>Geographic Area<br>U.S. Summary<br>Subject<br>Nonemployer Statistics<br>ZIP Code Statistics  | SC87-A-1 to 51<br>SC87-A-52<br>SC87-S-1 to 4<br>SC87-N-1 to 4<br>SC87-Z  | ☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1                                      | ██████████   | ██████████ | ██████████ | ██████████ |            |      |
| <b>TRANSPORTATION</b> (p. 102)<br>Geographic Area<br>Subject<br>Truck Inventory and Use Survey<br>U.S. Summary  | TC87-A-1<br>TC87-S-1<br>TC87-A-1 to 51<br>TC87-A-52  | ☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1   | ██████████   | ██████████ | ██████████ | ██████████ |            |      |
| <b>MANUFACTURES</b> (p. 115)<br>Preliminary Industry<br>U.S. Summary<br>Industry<br>Geographic Area<br>Subject<br>Location of Manufacturing Plants<br>Analytical: Exports                                   | MC87-I-20A(P) to 39D(P)<br>MC87-SUM-1(P)<br>MC87-I-20A to 39D<br>MC87-A-1 to 51<br>MC87-S-1 to 7<br>MC87-LM<br>AR87-1 to 2 | ☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐ ☑ ○ 1 ☐ p ☐<br>☐<br>☐ ☑ ○ 2<br>☐ ☑ ○ 1 ☐        | ██████████   | ██████████ | ██████████ | ██████████ | ██████████ |      |
| <b>MINERAL INDUSTRIES</b> (p. 137)<br>Preliminary Industry<br>U.S. Summary<br>Industry<br>Geographic Area<br>Subject  | MIC87-I-10(P) to 14E(P)<br>MIC87-SUM-1(P)<br>MIC87-I-10A to 14E<br>MIC87-A-1 to 9<br>MIC87-S-1 to 3                        | ☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1<br>☐ ☑ ○ 1   | ██████████   | ██████████ | ██████████ | ██████████ | ██████████ |      |
| <b>CONSTRUCTION INDUSTRIES</b> (p. 147)<br>Preliminary Industry<br>U.S. Summary<br>Industry<br>U.S. Summary<br>Geographic Area<br>U.S. Summary<br>Subject   | CC87-I-1(P) to 27(P)<br>CC87-I-28(P)<br>CC87-I-1 to 27<br>CC87-I-28<br>CC87-A-1 to 9<br>CC87-A-10<br>CC87-S-1              | ☐ ☑ ○ 1<br>☐ ☑ ○ 1                            | ██████████   | ██████████ | ██████████ | ██████████ | ██████████ |      |
| <b>OTHER</b> (pp. 157, 165, 170, 174)<br>Outlying Areas<br>Enterprise Statistics<br>Minority-Owned Business Enterprises<br>Women-Owned Businesses<br>Characteristics of Business Owners                     | OA87-E-1 to 7<br>ES87-1 to 3<br>MB87-1 to 4<br>WB87-1<br>CBO87-1   | ☐ ☑ ○ 1 ☐ p<br>☐  | ██████████   | ██████████ | ██████████ | ██████████ | ██████████ |      |

<sup>1</sup>Except where noted with the symbol ☑, electronic files (tape, CD-ROM, diskette) become available at roughly the end of the range of dates shown for corresponding reports. <sup>2</sup>Media for release: ☐—Printed report and microfiche; ☑—Computer tape; ○ 1—CD-ROM Vol. 1; ○ 2—CD-ROM Vol. 2; ☐—Diskette; p—Part on diskette; ☐—Highlights from the report on CENDATA™.



## APPENDIX D. Census Regional Offices and State Data Centers

### BUREAU OF THE CENSUS REGIONAL OFFICES Information Services Staff

**Atlanta**  
1375 Peachtree Street, NE.  
3rd Floor  
Atlanta, GA 30309-3147  
(404) 347-2274

**Boston**  
10 Causeway Street  
Rm. 553  
Boston, MA 02222-1084  
(617) 565-7078

**Charlotte**  
222 South Church Street  
Suite 525  
Charlotte, NC 28202-3220  
(704) 371-6144

**Chicago**  
175 West Jackson Boulevard  
Rm. 557  
Chicago, IL 60604-2689  
(312) 353-0980

**Dallas**  
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(214) 767-7105

**Denver**  
6900 West Jefferson Avenue  
Lakewood, CO 80235-2307  
(303) 969-7750

**Detroit**  
27300 West 11 Mile Road  
Suite 200  
Southfield, MI 48034-2244  
(313) 354-4654

**Kansas City**  
1332 NW Prairie View Road  
P.O. Box 901390  
Kansas City, MO 64191-1390  
(816) 891-7562

**Los Angeles**  
Valley Corporate Park  
Bldg. # 1, 16300 Roscoe Blvd.  
Van Nuys, CA 91406-1215  
(818) 892-6674

**New York**  
26 Federal Plaza, Rm. 37-130  
New York, NY 10278-0044  
(212) 264-3860

**Philadelphia**  
105 South 7th Street, 1st Floor  
Philadelphia, PA 19106-3395  
(215) 597-4920

**Seattle**  
101 Stewart Street  
Suite 500  
Seattle, WA 98101-1098  
(206) 728-5300

### STATE DATA CENTERS: PRINCIPAL STATE ORGANIZATIONS (For other lead agencies and local affiliates, see *Census Catalog and Guide*)

**Alabama**  
Center for Business and Economic  
Research  
University of Alabama  
P.O. Box 870221  
Tuscaloosa, AL 35487-0221  
Ms. Annette Watters  
(205) 348-6191

**Alaska**  
Alaska State Data Center  
Research & Analysis  
Department of Labor  
P.O. Box 25504  
Juneau, AK 99802-5504  
Ms. Kathryn Lizik  
(907) 465-4500

**Arizona**  
Arizona Department of Economic  
Development  
1300 West Washington  
P.O. Box 6123-045Z  
Phoenix, AZ 85005  
Ms. Betty Jeffries  
(602) 542-5984

**Arkansas**  
State Data Center  
University of Arkansas-Little Rock  
2801 South University  
Little Rock, AR 72204  
Ms. Sarah Breshears  
(501) 569-8530

**California**  
State Census Data Center  
Department of Finance  
915 L Street, 8th Floor  
Sacramento, CA 95814  
Ms. Linda Gage  
(916) 322-4651

**Colorado**  
Division of Local Government  
Colorado Department of Local Affairs  
1313 Sherman Street, Rm. 521  
Denver, CO 80203  
Mr. Reid Reynolds  
(303) 866-2156

**Connecticut**  
Comprehensive Planning Division  
Connecticut Office of Policy and  
Management  
80 Washington Street  
Hartford, CT 06106  
Mr. Theron Schnure  
(203) 566-8285

**Delaware**  
Delaware Development Office  
99 Kings Highway  
P.O. Box 1401  
Dover, DE 19903  
Ms. Judy McKinney-Cherry  
(302) 736-4271

**District of Columbia**  
Data Services Division  
Mayor's Office of Planning  
Rm. 314, Presidential Bldg.  
415 12th Street, N.W.  
Washington, DC 20004  
Mr. Gan Ahuja  
(202) 727-6533

**Florida**  
Florida State Data Center  
Executive Office of the Governor  
Office of Planning & Budgeting  
The Capitol  
Tallahassee, FL 32399-0001  
Mr. Steve Kimble  
(904) 487-2814

**Georgia**  
Division of Demographic & Statistical  
Services  
Georgia Office of Planning and Budget  
270 Washington Street, SW.,  
Rm. 608  
Atlanta, GA 30334  
Ms. Robin Kirkpatrick  
(404) 656-0911

**Guam**  
Guam Department of Commerce  
590 South Marine Drive  
Suite 601, 6th Floor GTC Bldg.  
Tamuning, Guam 96911  
Mr. Peter R. Barcinas  
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**Hawaii**  
Hawaii State Data Center  
State Department of Business &  
Economic Development  
Kamamalu Bldg., Rm. 602A  
250 South King Street  
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Honolulu, HI 96804  
Ms. Sharon Nishi  
(808) 548-3067

**Idaho**  
Idaho Department of Commerce  
700 West State Street  
Boise, ID 83720  
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**Illinois**

Division of Planning and Financial  
Analysis  
Illinois Bureau of the Budget  
William Stratton Bldg.  
Room 605  
Springfield, IL 62706  
Ms. Suzanne Ebetsch  
(217) 782-1381

**Indiana**

Indiana State Library  
Indiana State Data Center  
140 North Senate Avenue  
Indianapolis, IN 46204  
Ms. Roberta Eads  
(317) 232-3733

**Iowa**

State Library of Iowa  
East 12th and Grand  
Des Moines, IA 50319  
Miss Shirley George  
(515) 281-4105

**Kansas**

State Library  
Rm. 343-N  
State Capitol Bldg.  
Topeka, KS 66612  
Mr. Marc Galbraith  
(913) 296-3296  
(800) 432-3919

**Kentucky**

Urban Studies Center  
College of Urban & Public Affairs  
University of Louisville  
Louisville, KY 40292  
Mr. Ron Crouch  
(502) 588-7990

**Louisiana**

Louisiana State Planning Office  
Division of Administration  
P.O. Box 94095  
Baton Rouge, LA 70804  
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(504) 342-7410

**Maine**

Division of Economic Analysis and  
Research  
Maine Department of Labor  
20 Union Street  
Augusta, ME 04330  
Ms. Jean Martin  
(207) 289-2271

**Maryland**

Maryland Department of State Planning  
301 West Preston Street  
Baltimore, MD 21201  
Mr. Arthur Benjamin  
(301) 225-4450

**Massachusetts**

Massachusetts Institute for Social and  
Economic Research  
128 Thompson Hall  
University of Massachusetts  
Amherst, MA 01003  
Mr. Roy Williams  
(413) 545-0176

**Michigan**

Michigan Information Center  
Department of Management & Budget  
Office of Revenue and Tax Analysis  
P.O. Box 30026  
Lansing, MI 48909  
Dr. Laurence Rosen  
(517) 373-2697

**Minnesota**

State Demographer's Office  
Minnesota State Planning Agency  
300 Centennial Office Bldg.  
658 Cedar Street  
St. Paul, MN 55155  
Mr. David Birkholz  
(612) 296-4886

**Mississippi**

Center for Population Studies  
The University of Mississippi  
Bondurant Bldg., Rm. 3W  
University, MS 38677  
Ms. Pattie Byrd  
(601) 232-7288

**Missouri**

Missouri State Library  
2002 Missouri Boulevard  
Jefferson City, MO 65102  
Ms. Marlys Davis  
(314) 751-3615

**Montana**

Census and Economic Information  
Center  
Montana Department of Commerce  
1424 9th Avenue  
Capitol Station  
Helena, MT 59620-0401  
Ms. Patricia Roberts  
(406) 444-2896

**Nebraska**

Center for Applied Urban Research  
The University of Nebraska- Omaha  
Peter Kiewit Conference Center  
1313 Farnam-on-the-Mall  
Omaha, NE 68182  
Mr. Jerome Deichert  
(402) 554-8311

**Nevada**

Nevada State Library  
Capitol Complex  
401 North Carson  
Carson City, NV 89710  
Ms. Betty McNeal  
(702) 885-5160

**New Hampshire**

Office of State Planning  
2 1/2 Beacon Street  
Concord, NH 03301  
Mr. Tom Duffy  
(603) 271-2155

**New Jersey**

New Jersey Department of Labor  
Division of Labor Market and  
Demographic Research  
CN 388-John Fitch Plaza  
Trenton, NJ 08625-0388  
Ms. Connie O. Hughes  
(609) 984-2593

**New Mexico**

Economic Development and Tourism  
Department  
1100 St. Francis Drive  
Santa Fe, NM 87503  
Ms. Carol Selleck  
(505) 827-0276

**New York**

Division of Policy & Research  
Department of Economic Development  
1 Commerce Plaza, Rm. 905  
99 Washington Avenue  
Albany, NY 12245  
Mr. Robert Scardamalia  
(518) 474-6005

**North Carolina**

North Carolina Office of State Budget  
and Management  
116 West Jones Street  
Raleigh, NC 27603-8005  
Ms. Francine Stephenson  
(919) 733-7061

**North Dakota**

Department of Agricultural Economics  
North Dakota State University  
Morrill Hall, Rm. 224  
P.O. Box 5636  
Fargo, ND 58105  
Dr. Richard Rathge  
(701) 237-8621

**Ohio**

Ohio Data Users Center  
Ohio Department of Development  
P.O. Box 1001  
Columbus, OH 43266-0101  
Mr. Barry Bennett  
(614) 466-2115

**Oklahoma**

Oklahoma State Data Center  
Oklahoma Department of Commerce  
6601 Broadway Extension  
Oklahoma City, OK 73116-8214  
Ms. Karen Selland  
(405) 841-5184

**Oregon**

Center for Population Research and  
Census  
Portland State University  
P.O. Box 751  
Portland, OR 97207-0751  
Mr. Ed Shafer  
(503) 464-3922

**Pennsylvania**

Pennsylvania State Data Center  
Institute of State and Regional Affairs  
Pennsylvania State University at  
Harrisburg  
Middletown, PA 17057-4898  
Mr. Bob Surridge  
(717) 948-6336

**Puerto Rico**

Puerto Rico Planning Board  
Minillas Government Center  
North Bldg., Avenida De Diego  
P.O. Box 41119  
San Juan, PR 00940  
Sra. Migdalia Pena  
(809) 728-4430

**Rhode Island**

Office of Municipal Affairs  
275 Westminster Mall  
Providence, RI 02903  
Mr. Paul Egan  
(401) 277-2886

**South Carolina**

Division of Research and Statistical  
Services  
South Carolina Budget and Control  
Board  
Rembert Dennis Bldg., Rm. 425  
Columbia, SC 29201  
Mr. Mike MacFarlane  
(803) 734-3780

**South Dakota**

Business Research Bureau  
School of Business  
University of South Dakota  
414 East Clark  
Vermillion, SD 57069  
Ms. DeVee Dykstra  
(605) 677-5287

**Tennessee**

Tennessee State Planning Office  
John Sevier State Office Bldg.  
500 Charlotte Avenue, Ste. 307  
Nashville, TN 37219  
Mr. Charles Brown  
(615) 741-1676

**Texas**

State Data Center  
Texas Department of Commerce  
9th and Congress Streets  
(P.O. Box 12728 Capitol Station)  
Austin, TX 78711  
Ms. Susan Tully  
(512) 472-5059

**Utah**

Office of Planning & Budget  
State Capitol, Rm. 116  
Salt Lake City, UT 84114  
Ms. Scanlon Romer  
(801) 538-1036

**Vermont**

Office of Policy Research and  
Coordination  
Pavilion Office Bldg.  
109 State Street  
Montpelier, VT 05602  
Mr. David Healy  
(802) 828-3326

**Virginia**

Virginia Employment Commission  
703 East Main Street  
Richmond, VA 23219  
Mr. Larry Robinson  
(804) 786-8624

**U.S. Virgin Islands**

University of the Virgin Islands  
Caribbean Research Institute  
Charlotte Amalie  
St. Thomas, VI 00802  
Dr. Frank Mills  
(809) 776-9200

**Washington**

Estimation & Forecasting Unit  
Office of Financial Management  
Insurance Bldg., AQ-44  
Olympia, WA 98504-0202  
Mr. Michael Knight  
(206) 586-2504

**West Virginia**

Community Development Division  
Governor's Office of Community and  
Industrial Development  
Capital Complex  
Bldg. 6, Rm. 553  
Charleston, WV 25305  
Ms. Mary C. Harless  
(304) 348-4010

**Wisconsin**

Demographic Services Center  
Department of Administration  
101 South Webster, Street, 6th Floor  
P.O. Box 7868  
Madison, WI 53707-7868  
Mr. Robert Naylor  
(608) 266-1927

**Wyoming**

Department of Administration and  
Fiscal Control  
Research & Statistics Division  
Emerson Building  
Cheyenne, WY 82002-0060  
Ms. Mary Byrnes  
(307) 777-7505



# Appendix E. Economic Subject Specialists

| Subject   | Contact            | Area code (301) |
|---|--------------------|-----------------|
| <b>Cross-cutting issues:</b>  |                    |                 |
| Data on computer tape, CD-ROM, diskette:  |                    |                 |
| To order .....  | Customer Services  | 763-4100        |
| File design and use .....   | Robert Marske      | 763-1792        |
| Electronic bulletin board .....   | Lee Bowling        | 763-1580        |
| CENDATA™, information about data included .....                                       | Customer Services  | 763-4100        |
| <b>Agriculture:</b>   |                    |                 |
| Crop statistics .....   | Donald Jahnke      | 763-8567        |
| Farm economics .....  | James A. Liefer    | 763-8514        |
| General information .....   | Deborah Norton     | 763-1113        |
| Irrigation and horticulture statistics .....  | John Blackledge    | 763-8560        |
| Livestock statistics .....  | Thomas Monroe      | 763-8569        |
| Puerto Rico, U.S. Virgin Islands, and Guam .....                                      | Kent Hoover        | 763-8509        |
| <b>Construction statistics:</b>   |                    |                 |
| Census/industry surveys .....   | Barry Rappaport    | 763-5435        |
| General contactors; special trades .....  | Andrew Visnansky   | 763-7546        |
| Current programs .....  | William Mittendorf | 763-7165        |
| Construction authorized by building permits (C40) .....                               | Linda Hoyle        | 763-7244        |
| Expenditures for residential upkeep/improvements (C50) .....                          | George Roff        | 763-5705        |
| New residential construction:   |                    |                 |
| Characteristics; price index; sales (C25,C27) .....                                   | Steve Berman       | 763-7842        |
| Housing starts (C20 series); completions (C22) .....                                  | David Fondelier    | 763-5731        |
| In selected MSA's (C21) .....   | Dale Jacobson      | 763-7842        |
| Value of new construction put in place (C30) .....                                    | Allan Meyer        | 763-5717        |
| <b>County Business Patterns</b> .....   | Zigmund Decker     | 763-5430        |
| <b>Employment/unemployment statistics</b> .....                                       | Thomas Palumbo     | 763-8574        |
| <b>Enterprise statistics</b> .....  | Johnny Monaco      | 763-1758        |
| <b>Finance, insurance, and real estate (for 1992)</b> .....                           | Sidney Marcus      | 763-1386        |
| <b>Foreign trade data</b> .....   | Staff              | 763-5140        |
| <b>Governments:</b>   |                    |                 |
| Criminal justice statistics .....   | Diana Cull         | 763-7789        |
| Eastern States government sector .....  | Genevieve Speight  | 763-7783        |
| Employment .....  | Alan Stevens       | 763-5086        |
| Federal expenditure data .....  | David Kellerman    | 763-5276        |
| Finance .....   | Henry Wulf         | 763-7664        |
| Government organization, criminal justice statistics .....                            | Diana Cull         | 763-7789        |
| Taxation .....  | Gerard Keffer      | 763-5356        |
| Western States government sector .....  | Ulvey Harris       | 763-5344        |
| <b>Industries and commodities classification</b> .....                                | C. Harvey Monk     | 763-1935        |
| <b>Manufacturing:</b>   |                    |                 |
| Industry data:  |                    |                 |
| Durables .....  | Kenneth Hansen     | 763-7304        |
| Nondurables .....   | Michael Zampogna   | 763-2510        |
| Product data:   |                    |                 |
| Durables (Current Industrial Reports) .....   | Malcolm Bernhardt  | 763-2518        |
| Durables (census/annual survey) .....   | Kenneth Hansen     | 763-7304        |
| Nondurables (Current Industrial Reports) .....  | Thomas Flood       | 763-5911        |
| Nondurables (census/annual survey) .....  | Michael Zampogna   | 763-2510        |
| Special topics:   |                    |                 |
| Concentration, exports from manufacturing establishments .....                        | Bruce Goldhirsch   | 763-1503        |
| Fuels/electric energy consumed and water use .....                                    | John McNamee       | 763-5938        |
| Monthly shipments, inventories, and orders .....                                      | Ruth Runyan        | 763-2502        |
| Research and development, capacity, production index, pollution abatement .....       | Elinor Champion    | 763-5616        |
| <b>Mineral Industries</b> .....   | John McNamee       | 763-5938        |
| <b>Minority- and Women-Owned Businesses, Characteristics of Business Owners</b> ..... | Donna McCutcheon   | 763-5517        |
| <b>Outlying Areas, Economic Censuses of</b> .....                                     | Kent Hoover        | 763-5656        |
| <b>Quarterly Financial Report</b> .....   | Paul Zarrett       | 763-2718        |
| <b>Retail trade:</b>  |                    |                 |
| Advance monthly/annual sales, monthly inventories .....                               | Ronald Piencykoski | 763-5294        |
| Census .....  | Mark Wallace       | 763-7038        |
| Monthly retail trade report .....   | Irving True        | 763-7128        |
| <b>Service Industries:</b>  |                    |                 |
| Census .....  | Jack Moody         | 763-7039        |
| Current selected services reports .....   | Thomas Zabelsky    | 763-5528        |
| <b>Transportation, communications, and utilities:</b>                                 |                    |                 |
| Truck Inventory and Use Survey .....  | Robert Crowther    | 763-4364        |
| Establishment census .....  | Dennis Shoemaker   | 763-2662        |
| <b>Wholesale trade:</b>   |                    |                 |
| Census .....  | John Trimble       | 763-5281        |
| Current wholesale sales and inventories .....   | Shirley Roberts    | 763-3916        |



## APPENDIX F. Index

|  |        |  |     |
|--|--------|--|-----|
| Administrative offices—see Auxiliary establishments        |        |  |     |
| Administrative records used in data collection .....       | 4      | Computer tape:   |     |
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| American-Indian-owned businesses .....                     | 79     | Confidentiality:   |     |
| Analytic Reports (manufactures) .....                      | 58     | Disclosure analysis .....                                      | 17  |
| Annual Survey of Manufactures:                             |        | Legal authority .....  | 4   |
| Data collection .....                                      | 52     | Consolidated metropolitan statistical areas—see                |     |
| Reports .....  | 58     | Metropolitan statistical areas                                 |     |
| Asian-owned businesses .....                               | 79     | Construction industries, censuses and surveys .....            | 66  |
| ASM—see Annual Survey of Manufactures                      |        | Content—see Data items   |     |
| Assets and Expenditures Survey .....                       | 109    | Corporations—see Data items (legal form of organization)       |     |
| Auxiliary establishments:                                  |        | <i>Cotton Ginnings</i> .....                                   | 91  |
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