



## Transportation and Warehousing, and Utilities Statistics

### Introduction

While there are statistics available as far back as 1789 on U.S. water transportation (number of merchant vessels and their trade) and 1830 on railroads (at that time there were 23 miles of railroads in operation, and 40 miles actually built), the Federal censuses did not begin collecting and reporting data on such subjects until 1880. There were special censuses of water transportation in 1906, 1916, and 1926, as well as one covering "express" business in 1907. The monthly Survey of Current Business in the 1920's and early 1930's also requested some transportation data.

For much of the last century, Federal regulatory agencies have collected and published most of the statistics needed on transportation, and the U.S. Census Bureau's role has been limited to gathering data only for those areas not already covered by other agencies. In 1957, the Census Bureau conducted a national travel survey, sponsored by the travel industry, and took the first "census of transportation" (actually several surveys) in 1963 with funds appropriated by Congress. Similar enumerations followed in 1967 and as part of subsequent economic censuses (carried out every 5 years for years ending in "2" and "7"). Utilities were included in the census for the first time for 1992, and a Commodity Flow Survey

(CFS) was conducted for 1993. The Truck Inventory and Use Survey was first done for 1963. For the 1997 census year, its name was altered to Vehicle Inventory and Use Survey (VIUS).

The censuses are conducted under the authority of Title 13, U.S. Code, which also makes response mandatory. Surveys are similarly authorized, but response is mandatory only for annual, or less frequently done surveys (e.g., the CFS and VIUS), and is voluntary to those occurring more frequently than annually. Responses are confidential by law, and the U.S. Census Bureau must make certain that no individual's or firm's operations can be identified in published reports—including CD-ROM (compact disk; read-only memory) products or the agency's online systems.

### The North American Industry Classification System (NAICS)

The unit of enumeration for the service industries is the establishment—defined as a single physical location that provides services. Prior to the 1997 Economic Census, the U.S. Census Bureau classified business activities in its censuses and surveys using the Standard Industrial Classification (SIC) Code, originally introduced in the 1940's and updated periodically since. The 1997 Economic Census collected, tabulated, and disseminated the bulk of the data in terms of the new North American Industry Classification System

(NAICS). The NAICS was developed after extended negotiations among the United States, Canada, and Mexico to create an integrated industrial classification system providing comparable economic statistics for all three national economies. The 1997 Economic Census was the first major statistical activity conducted by one of the three signatory nations to collect and publish data in terms of the new system.

The NAICS measures of economic activity would be "production-based" and organized economic activity classifications into 20 sectors instead of the 10 "divisions" used by the SIC system. The NAICS provided a more detailed and accurate measurement of industrial activity in the United States, creating several new sectors comprised of specified services, and adding over 150 new services industries to the classification system. The SIC "Transportation, Communications, Electric, Gas, and Sanitary Services Division" was replaced by the NAICS "Transportation and Warehousing Sector"—which was drawn largely from the SIC Transportation Division, together with industries from the SIC "Communications" and "Utilities" Divisions. The NAICS "Utilities Sector" also incorporated industries from the SIC "Transportation, Communications, Electric, Gas, and Sanitary Services Division," particularly from the SIC Major Industry Group 49, "Electric, Gas, and Sanitary Services."

The NAICS was introduced in Census Bureau operations and products in the 1997 Economic Census, although, at the request of the local area governments, the census for the Outlying Areas (Guam, Puerto Rico, the Northern Mariana Islands, and the Virgin Islands of the United States) continued to use the SIC Code. The agency's current economic surveys programs would begin using NAICS classifications after the 1997 census.

## Census Geography

Census data for most of the subjects listed in the following section are available for the United States, the District of Columbia, and selected metropolitan areas (MAs).

## What Subjects Are Covered by the Census and Surveys?

The 1997 Economic Census covered establishments classified as part of the NAICS sectors 22, Utilities Industries, and 48-49, Transportation and Warehousing. The data collected included—

- Physical location.
- Revenues.
- Payroll.
- Number of employees.
- Operational status (i.e., in operation, temporarily or seasonally inactive, ceased operation, or sold or leased to another operator).
- Ownership.
- Legal form of organization (i.e., individual owner [sole proprietorship], partnership, corporation, or other).

The census excluded government operations. With regard to the Utilities Sector, while the sector comprised establishments engaged in providing

electrical power, natural gas, steam supply, water supply, and sewage removal, it excluded establishments involved in waste management services classified in the NAICS subsector 562, Waste Management and Remediation Services.

The principal transportation surveys carried out as part of the 1997 Economic Census were the 1997 Vehicle Inventory and Use Survey (VIUS) and the 1997 Commodity Flow Survey (CFS). The VIUS collected data on the physical and operational characteristics of the Nation's private and commercial truck population. The information requested included body type (e.g. pickup, sport utility vehicle, dump truck, wrecker, etc.), weight, total length, and size; major use; body and cab type; annual miles driven and range of operation; model year; how vehicles were acquired; lease characteristics; primary operator classification; primary products carried; whether hazardous materials were carried; equipment type (e.g., braking system, power steering, vehicle-control aids for handicapped drivers, air-conditioning, navigational aids, etc.); fuel conservation equipment; maintenance (who performed general maintenance and/or major overhauls); and engine type and size.

The 1997 CFS asked for the following information on outbound shipments from establishments in mining, manufacturing, wholesale, and selected service industries: domestic destination or port of exit, commodity, value, weight, mode(s) of transportation, date shipment made, and whether the shipment was an export, hazardous material, or containerized. For shipments including multiple commodities, respondents were asked to report the commodity that made up

the greatest percentage of the shipment's weight. For exports, mode of export and foreign destination city and country were requested. For hazardous material shipments, respondents were asked to report the four-digit United States/North American (UN/NA) code.

## Who Uses the Data?

Transportation statistics are used by Federal and state agencies; railroad, airline, shipping, and trucking associations and carriers; transportation economists; highway improvement bureaus; private traffic departments; students; market research and consulting firms; manufacturers; and other organizations or persons concerned with policy or promotional activities in the general field of travel and transportation.

Utilities data are used by Federal Government and by state and local governments to assess electric power generation, transmission, and distribution capacities; natural gas distribution networks; and water supply, distribution, and treatment, including sewage removal; within and between specified jurisdictions. Analysis of these data contribute to planning and zoning decisions, including promotion of commercial or residential development.

## Censuses

The economic censuses are carried out every 5 years for years ending in "2" and "7," covers business establishments in the United States and the Outlying Areas (Puerto Rico, Guam, the Virgin Islands of the United States, and the Commonwealth of the Northern Mariana Islands). Data collected in the 1997

Economic Census are published in the following economy-wide reports between 1999 and 2001:

- *Core Business Statistics*
  - *Advance Report.* This report contains the first data ever published on a NAICS basis and contains national data at the sector and subsector levels. The NAICS table was limited to 1997 data, but a separate, Standard Industrial Classification (SIC) code-based table shows 1992 and 1997 figures at the two-digit SIC level, which permits calculation of percentage change in sales or employment over the 5-year period.
  - *Comparative Statistics.* This report supercedes the Advance Report. It presents two-, three-, and four-digit SIC summary data at the U.S. level and two-digit SIC data at the state level.
  - *Bridge Between NAICS and SIC.* The Bridge Between NAICS and SIC presents 1997 data cross-tabulated by the old and new classification systems identifying the lowest common denominator between the two systems.
  - *Nonemployer Statistics.* This report summarizes the number of establishments and sales and receipts of companies with no paid employees.
- *Company Statistics.* Data compiled from the 1997 economy-wide programs, including the Surveys of Minority- and Women-Owned Business Enterprises, are released as part of the Company Statistics Series. Each of these reports includes data by industrial classification and/or geographic areas (states, metropolitan areas, counties, and places), size of firm (employment and receipts), and legal form of organization (individual

proprietorships, partnerships, and corporations). This series of seven reports includes—

- Company Summary.
- Women.
- Black.
- Hispanic.
- Asian and Pacific Islander.
- American Indian and Alaska Native.
- Summary.

An eighth report, Business Expenses, shows operating expenses data at the national level for SIC-based service industries and travel industries.

Final census data appear in the following series for the transportation and warehousing, and the utilities sectors:

- *Geographic Area Report.* This series presents general statistics by kind of business on the number of establishments, revenue, payroll, and employment for the U.S., states, the District of Columbia, and for metropolitan areas (MAs), for each sector.
- *Subject Series.*
  - *Sources of Revenue.* This report presents sources of revenue data for establishments by kind of business. Data are presented for the United States.
  - *Establishment and Firm Size* (including legal form of organization). This report presents revenue, payroll, and employment data for the United States by revenue size, by employment size, and by legal form of organization for establishments; and by revenue size (including concentration by largest firms), by employment size, and by number of establishments operated (single- and multiestablishment) for firms.

- *Miscellaneous Subjects Report.* This report presents data for establishments for a variety of industry-specific questions. Presentation of data varies by kind of business.

- *Vehicle Inventory and Use Survey*, series EC97TV-(area). This series consists of online reports for the United States, each state, and the District of Columbia, with data on the number of vehicles by selected characteristics and use. Statistics include number of vehicles by major use, body and cab type, vehicle size, annual miles driven, model year, how vehicles were acquired, range of operation, average weight, total length, lease characteristics, primary operator classification, primary products carried, whether hazardous materials were carried, total size of vehicle fleet, equipment type (e.g., braking system, power steering, vehicle-control aids for handicapped drivers, air-conditioning, navigational aids, etc.), fuel conservation equipment, maintenance (who performed general maintenance and/or major overhauls), and engine type and size. In addition, a microdata CD-ROM was released containing all individual records modified to avoid identifying a specific vehicle or owner, tabulation software, all previously released tables, new tables not previously released, and documentation.
- *Commodity Flow Survey*, series EC97TCF-(area). This series consists of a summary report for the United States, a report for each state, selected metropolitan areas, and a separate report for the United States on the transportation of hazardous materials (EC97TCF-US(HM)). The summary United States report shows basic data on characteristics of

shipments for the United States by mode of transportation, shipment size, two-digit commodity classification, and distance shipped, with some comparable data for 1997 and 1993. The state reports include the same kind of information for "state of origin" and "state of destination" of shipments. The hazardous materials report includes tables on hazardous materials shipments by mode of transportation, hazard class, selected states of origin and destination, shipment characteristics by mode of transportation and selected UN/NA numbers, and shipment characteristics for export by country of destination. The 1997 CFS also includes a separate report presenting major shipment characteristics of exports (series EC97TCF-US(EXP)).

*Summary.* After the publication of all area and subject reports, a single volume was published summarizing the most widely used statistics from all of the previously issued Transportation and Warehousing, and Utilities Industries reports.

## The Census of Population and Housing

A census of population and housing is carried out every 10 years in and for years ending in "0," and collects (on a sample basis) some data on transportation (e.g., mode of transportation to work, carpooling, commuting time, time of departure for work, vehicles available to the household) and utilities (in the home; e.g., cost of utilities and fuels, type of home heating fuel, and presence of telephone service). These data appear in the following Census 2000 products (titles are as of this writing) available online and on CD-ROM:

- *Demographic Profiles* (data for the United States and states)
- *Congressional District Demographic Profiles* (107th Congress—a *Summary File for Congressional Districts* for the 108th Congress also will be produced)

- *Summary Files 3* (detailed population and housing characteristics down to the census tract/block numbering group level) and 4 (population and housing characteristics iterated by many race and ethnic groups, down to the census tract level).

The following products will be available online only:

- *Quick Tables* (tables equivalent to a printed report, but the user may select from specified geographic levels and race/ethnic groups, available down to the tract level).
- *Geographic Comparison Tables* (summary data down to places of 1,000 or more inhabitants).

The principal printed report for the census will be the *Summary Social, Economic, and Housing Characteristics* (also available online, with social, economic, and housing data down to the place level).

## Current Surveys

- *Annual Survey of Communications Services*, series (BC/year). This annual report series provided data for firms that were primarily engaged in providing point-to-point communications services, whether by wire or radio transmission, including telephone, telegraph, or other message communications, such as electronic mail services or facsimile

transmission services. Statistics on operating revenue and expenses were summarized by kind-of-business and by tax status (i.e., tax exempt or taxable) and were published for the United States. This survey was incorporated into the Service Annual Survey beginning with reference year 1999.

- *Transportation Annual Survey*, series BT/(year). An annual report covered firms primarily engaged in commercial motor freight transport or public warehousing services. The reports show data on total operating revenue, expenses, and inventories of revenue generating equipment (e.g. trucks, truck tractors, trailers) for the United States. Comparative data were shown for the previous 4 years, together with year-to-year percentage changes. This survey was incorporated into the Service Annual Survey, beginning with reference year 1999.
- *Service Annual Survey* (SAS) provides estimates for the United States of receipts for companies providing services to individuals, businesses, and governments. Estimates of current- and previous-year receipts, year-to-year percentage changes, and the corresponding estimated coefficient of variations are shown. The report also presents data for selected kinds of business by Federal income-tax status (taxable and tax-exempt). The SAS reports are issued 12 months after the end of the survey year.

The scope of the SAS was expanded, beginning with reference year 1999, to encompass both the *Annual Survey of Communications* and the *Transportation Annual Survey*. The annual report issued included statistics on tax and

organizational status, operating revenue for both taxable and tax-exempt firms and organizations, sources of revenue and expenses by type for selected industries, operating expenses for tax-exempt firms, and selected industry-specific items. The implementation of the NAICS led the Census Bureau to further expand the coverage of the SAS to include approximately 150 new services industries.

- *American Housing Survey.* This biennial survey includes questions on means of transportation to work, number of people in carpools, travel time, distance to work, departure time and telecommuting for owners or renters of housing units. The number of cars and of trucks available to household use is also collected. Utility and fuel costs are tallied along with details on how the fuels are used—home heating, cooking, water heating, cooling or clothes drying.

### Reference Files for Computer and Other Applications

- TIGER/Line® files. These are extracts, by county, of selected information from the U.S., Census Bureau's computerized mapping system called TIGER (topologically integrated geographic encoding and referencing) prepared originally for the 1990 Census of Population and Housing and updated for the 2000 enumeration. TIGER files contain digitized data for all census map features (e.g., roads, railroads, and rivers) and their associated political and statistical geography down to the level of blocks, for the entire country, plus address ranges and ZIP Codes for streets within metropolitan areas. Software for TIGER applications is available commercially.

- Geographic Reference Manual, series EC92-R-1. This manual is a set of geographic codes to which data were tabulated in the 1992 Economic Census. This report contains such areas as state, MAs, counties, incorporated places of 2,500 or more inhabitants, and, in eight Northeastern States, selected towns, and townships with populations of 10,000 or more. As of this writing, the 1992 version is the latest complete Geographic Reference Manual in print. The online version includes some updated material at the Census Bureau's Web site at [www.census.gov](http://www.census.gov).

### Other Aids and Sources of Data

- *County Business Patterns.* This is an annual series that covers most of the Nation's economic activity. Data are provided in the following NAICS economic sectors: forestry, fishing, hunting, and agriculture support; mining; utilities; construction; manufacturing; wholesale trade; retail trade; transportation and warehousing; information; finance and insurance; real estate and rental and leasing professional, scientific, and technical services; management of companies and enterprises; administrative and support and waste management and remediation services; education services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; and other services (except public administration). The series is useful for studying the economic activity of small areas; analyzing economic changes over time; and as a benchmark for statistical series, surveys, and databases between economic censuses. The series serves various business uses such as

analyzing market potential, measuring the effectiveness of sales and advertising programs, setting sales quotas, and developing budgets. The data are also used by government agencies for administration and planning.

- More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys are published in the *Guide to the 1997 Economic Census and Related Statistics* (available at <http://www.census.gov/epcd/www/guide.html>); *The Statistical Abstract of the United States*; the periodic *County and City Data Book* (latest, 1994), *State and Metropolitan Area Data Book* (latest, 1998), *Historical Statistics of the United States from Colonial Times to 1970* (available from the Government Printing Office, out-of-print commercially), and *County and State Profiles* (latest, 1997). Census and survey data also appear in trade journals, textbooks, and other secondary sources. Additional information on the methodology, procedures, and history of the economic censuses will be available in the *History of the 1997 Economic Census* (<http://www.census.gov/econ/www/history.html>).
- *U.S. trade with Puerto Rico and U.S. Possessions*, series FT895/(year). This annual report includes statistics on method of transportation of merchandise shipments; (1) between the United States and Puerto Rico, (2) between the United States (including Puerto Rico) and the Virgin Islands of the United States, and (3) from other U.S. possessions to the United States.
- Information on the Transportation and Warehousing, and Utilities sectors

appear in digest form in reports from the economic census and surveys and are available from more than 1,400 Government and Census depository libraries across the country. These depositories consist primarily of college and university libraries. Many smaller libraries also maintain collections of census publications.

- Business and Industry Data Centers (BIDCs) are the result of a U.S. Census Bureau pilot project launched in 1988. The U.S. Census Bureau and other Federal agencies furnish economic data and related assistance and training to aid a number of BIDCs in furthering economic development in their respective states. As of this writing, 23 states, Puerto Rico, and American Samoa have established BIDCs.
- All of the states, plus the District of Columbia, Puerto Rico, Guam, and the Virgin Islands of the United States have Census State Data Centers that assist the public with printed and electronic census data.

### **How the Data Are Published**

Most of the transportation and warehousing, and utilities industries data

are issued on CD-ROM, and online through the U.S. Census Bureau's American FactFinder, and in PDF format at <http://www.census.gov>. Only selected highlights are published in printed reports. Printed products may be ordered by mail, telephone, and the Internet from—

Superintendent of Documents  
U.S. Government Printing Office  
P.O. Box 371954  
Pittsburgh, PA 15250-7954  
Telephone: 202-512-1800  
Fax: 202-512-2250  
<http://www.gpo.gov>

Electronic products may be purchased by mail from—

U.S. Department of Commerce  
U.S. Census Bureau (MS1921)  
P.O. Box 277943  
Atlanta, GA 30384-7943

Electronic products may be ordered by telephone or fax from—

Administrative and Customer  
Services Division  
Customer Services Branch  
U.S. Census Bureau  
Washington, DC 20233  
Telephone: 301-457-4100  
Fax: 888-249-7295 or 301-457-3842

The U.S. Census Bureau's Customer Services Branch can print and bind any PDF report on demand, priced at \$25 or more per report, depending upon the number of pages. (A list of reports, with page counts, is available via the U.S. Census Bureau's Internet site (<http://www.census.gov>), in the economic census section of the Catalog: Publications.)

### **Factfinder for the Nation**

General information about the U.S. Census Bureau's various statistical programs are contained in the publications of the Factfinder for the Nation. Inquiries and suggestions about the services statistics program and other U.S. Census Bureau activities are invited. Write to—

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Office of the Director  
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