

Arizona: 2002

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2002 Economic Census

Utilities

Geographic Area Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in "2" and "7."

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the federal government use the data to monitor economic activity and to assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

INDUSTRY CLASSIFICATIONS

Data from the 2002 Economic Census are published primarily according to the 2002 North American Industry Classification System (NAICS). NAICS was first adopted in the United States, Canada, and Mexico in 1997. The 2002 Economic Census covers the following NAICS sectors:

| | |
|-------|--|
| 21 | Mining |
| 22 | Utilities |
| 23 | Construction |
| 31-33 | Manufacturing |
| 42 | Wholesale Trade |
| 44-45 | Retail Trade |
| 48-49 | Transportation and Warehousing |
| 51 | Information |
| 52 | Finance and Insurance |
| 53 | Real Estate and Rental and Leasing |
| 54 | Professional, Scientific, and Technical Services |
| 55 | Management of Companies and Enterprises |
| 56 | Administrative and Support and Waste Management and Remediation Services |
| 61 | Educational Services |
| 62 | Health Care and Social Assistance |
| 71 | Arts, Entertainment, and Recreation |
| 72 | Accommodation and Food Services |
| 81 | Other Services (except Public Administration) |

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), largely covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 100 subsectors (three-digit codes), 317 industry groups (four-digit codes), and, as implemented in the United States, 1,179 industries (six-digit codes).

RELATIONSHIP TO HISTORICAL INDUSTRY CLASSIFICATIONS

Prior to the 1997 Economic Census, data were published according to the Standard Industrial Classification (SIC) system. While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The 1997 Economic Census *Bridge Between NAICS and SIC* demonstrates the relationships between NAICS and SIC industries. Where changes are significant, it may not be possible to construct time series that include data for points both before and after 1997.

Most industry classifications remained unchanged between 1997 and 2002, but NAICS 2002 includes substantial revisions within the construction and wholesale trade sectors, and a number of revisions for the retail trade and information sectors. These changes are noted in industry definitions and will be demonstrated in the *Bridge Between NAICS 2002 and NAICS 1997*.

For 2002, data for enterprise support establishments (those functioning primarily to support the activities of their company's operating establishments, such as a warehouse or a research and development laboratory) are included in the industry that reflects their activities (such as warehousing). For 1997, such establishments were termed auxiliaries and were excluded from industry totals.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company. (For selected industries, only payroll, employment, and classification are collected for individual establishments, while other data are collected on a consolidated basis.)

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for states, metropolitan and micropolitan statistical areas, counties, and corporate municipalities (places) including cities, towns, townships, villages, and boroughs. Respondents were required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from administrative sources is used as a basis for coding.

AVAILABILITY OF ADDITIONAL DATA

All results of the 2002 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on digital versatile discs (DVD-ROMs) for sale by the Census Bureau. The American FactFinder system at the Internet site allows selective retrieval and downloading of the data. For more information, including a description of reports being issued, see the Internet site, write to the U.S. Census Bureau, Washington, DC 20233-6100, or call Customer Services at 301-763-4100.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart

from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some service trades in 1933. Censuses of construction, manufacturing, and the other business censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated, providing comparable census data across economic sectors and using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by 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 report forms.

The range of industries covered in the economic census expanded between 1967 and 2002. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity. New for 2002 is coverage of four industries classified in the agriculture, forestry, and fishing sector under the SIC system: landscape architectural services, landscaping services, veterinary services, and pet care services.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. Reports for 1997 were published primarily on the Internet and copies of 1992 reports are also available there. CD-ROMs issued from the 1987, 1992, and 1997 Economic Censuses contain databases that include all or nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for the 2002 Economic Census and related surveys is published in the *Guide to the 2002 Economic Census* at www.census.gov/econ/census02/guide. More information on the methodology, procedures, and history of the census will be published in the *History of the 2002 Economic Census* at www.census.gov/econ/www/history.html.

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Utilities

SCOPE

The Utilities sector (sector 22) comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal. Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities.

Among electric, gas, and water utilities, many locations with activities that might in other industries be considered as support or auxiliary activities (such as headquarters operations), are included in this report as operating locations.

Exclusions. Establishments primarily engaged in waste management services are not included in this sector. These establishments are classified in Subsector 562, Waste Management and Remediation Services. These establishments also collect, treat, and dispose of waste materials; however, they do not use sewer systems or sewage treatment facilities.

The reports described below exclude establishments of firms with no paid employees. These “nonemployers,” typically self-employed individuals or partnerships operating businesses that they have not chosen to incorporate, are reported separately in *Nonemployer Statistics*. The contribution of nonemployers, relatively small for this sector, may be examined at www.census.gov/nonemployerimpact.

Definitions. Industry categories are defined in Appendix B, NAICS Codes, Titles, and Descriptions. Other terms are defined in Appendix A, Explanation of Terms.

REPORTS

The following reports provide statistics on this sector.

Industry Series. There are three reports, each covering a group of related industries. The reports present, by kind of business for the United States, general statistics for establishments of firms with payroll on number of establishments, revenue, payroll, and employment; comparative statistics for 2002 and 1997; product lines; and concentration of business activity in the largest firms. The data in industry reports are preliminary and subject to change in the following reports.

Geographic Area Series. There is a separate report for each state, the District of Columbia, and the United States. Each state report presents, for establishments of firms with payroll, general statistics on number of establishments, revenue, payroll, and employment by kind of business for the state and metropolitan and micropolitan statistical areas. Greater kind-of-business detail is shown for larger areas. The United States report presents data for the United States as a whole for detailed kind-of-business classifications.

Subject Series:

- **Product Lines.** This report presents product lines data for establishments of firms with payroll by kind of business. Data are presented for the United States only.
- **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 of firms with payroll; and by revenue size (including concentration by largest firms), by employment size, and by number of establishments operated (single units and multiunits) for firms with payroll.

-
- **Miscellaneous Subjects.** This report presents data for a variety of industry-specific topics for establishments of firms with payroll. Presentation of data varies by kind of business.

Other reports. Data for this sector are also included in reports with multisector coverage, including *Nonemployer Statistics*, *Comparative Statistics*, *Bridge Between 2002 NAICS and 1997 NAICS*, *Business Expenses*, and the Survey of Business Owners reports.

GEOGRAPHIC AREAS COVERED

The level of geographic detail varies by report. Maps are available at www.census.gov/econ2002maps. Notes specific to areas in the state are included in Appendix D, Geographic Notes. Data may be presented for –

1. The United States as a whole.
2. States and the District of Columbia.
3. Metropolitan and micropolitan statistical areas. A core based statistical area (CBSA) contains a core area with a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core. CBSAs are differentiated into metropolitan and micropolitan statistical areas based on size criteria. Both metropolitan and micropolitan statistical areas are defined in terms of entire counties, and are listed in Appendix E, Metropolitan and Micropolitan Statistical Areas.
 - a. Metropolitan Statistical Areas (metro areas). Metro areas have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.
 - b. Micropolitan Statistical Areas (micro areas). Micro areas have at least one urban cluster of at least 10,000 but less than 50,000 population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.
 - c. Metropolitan Divisions (metro divisions). If specified criteria are met, a metro area containing a single core with a population of 2.5 million or more may be subdivided to form smaller groupings of counties referred to as Metropolitan Divisions.
 - d. Combined Statistical Areas (combined areas). If specified criteria are met, adjacent metro and micro areas, in various combinations, may become the components of a new set of areas called Combined Statistical Areas. The areas that combine retain their own designations as metro or micro areas within the larger combined area.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 2002 data are expressed in 2002 dollars, and 1997 data, in 1997 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

COMPARABILITY OF THE 1997 AND 2002 ECONOMIC CENSUSES

Both the 2002 Economic Census and the 1997 Economic Census present data based on the North American Industry Classification System (NAICS). While there were revisions to some industries for 2002, none of those affect this sector.

Among electric, gas, and water utilities, many locations with activities that might in other industries be considered as support or auxiliary activities (such as headquarters operations), are included in this report as operating locations.

RELIABILITY OF DATA

All data compiled for this sector are subject to nonsampling errors. Nonsampling errors can be attributed to many sources: inability to identify all cases in the actual universe; definition and classification difficulties; differences in the interpretation of questions; errors in recording or coding the data obtained; and other errors of collection, response, coverage, processing, and estimation for missing or misreported data. Data presented in the Miscellaneous Subjects and Product Lines reports for this sector are subject to sampling errors, as well as nonsampling errors.

The accuracy of these tabulated data is determined by the joint effects of the various nonsampling errors or by the joint effects of sampling and nonsampling errors. No direct measurement of these effects has been obtained except for estimation for missing or misreported data, as by the percentages shown in the tables. Precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize the effects of nonsampling errors. More information on the reliability of the data is included in Appendix C, Methodology.

DISCLOSURE

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county, and Statistics of U.S. Businesses provides annual statistics classified by the employment size of the enterprise, further classified by industry for the United States, and by broader categories for states and metropolitan areas.

CONTACTS FOR DATA USERS

Questions about these data may be directed to the U.S. Census Bureau, Service Sector Statistics Division, Utilities and Financial Census Branch, 1-800-541-8345 or ucb@census.gov.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with these data:

| | |
|------|---|
| D | Withheld to avoid disclosing data of individual companies; data are included in higher level totals |
| N | Not available or not comparable |
| Q | Revenue not collected at this level of detail for multiestablishment firms |
| S | Withheld because estimates did not meet publication standards |
| X | Not applicable |
| Z | Less than half the unit shown |
| a | 0 to 19 employees |
| b | 20 to 99 employees |
| c | 100 to 249 employees |
| e | 250 to 499 employees |
| f | 500 to 999 employees |
| g | 1,000 to 2,499 employees |
| h | 2,500 to 4,999 employees |
| i | 5,000 to 9,999 employees |
| j | 10,000 to 24,999 employees |
| k | 25,000 to 49,999 employees |
| l | 50,000 to 99,999 employees |
| m | 100,000 employees or more |
| r | Revised |
| – | Represents zero (page image/print only) |
| (CC) | Consolidated city |
| (IC) | Independent city |
| CDP | Census designated place |

Table 1. Summary Statistics for the State: 2002

[Includes only establishments of firms with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see note at end of table]

| NAICS code | Geographic area and 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) | Percent of revenue— | |
|----------------|---|--------------------------|-------------------|--------------------------|---------------------------------|---|---|------------------------|
| | | | | | | | From admini-strative records ¹ | Estimated ² |
| ARIZONA | | | | | | | | |
| 22 | Utilities | 236 | Q | D | D | j | Q | Q |
| 221 | Utilities | 236 | Q | D | D | j | Q | Q |
| 2211 | Electric power generation, transmission, and distribution | 63 | Q | 526 498 | 145 385 | 7 776 | Q | Q |
| 22111 | Electric power generation | 11 | Q | D | D | i | Q | Q |
| 221112 | Fossil fuel electric power generation | 10 | Q | D | D | i | Q | Q |
| 22112 | Electric power transmission, control, and distribution | 52 | Q | D | D | g | Q | Q |
| 221122 | Electric power distribution | 52 | Q | D | D | g | Q | Q |
| 2212 | Natural gas distribution | 26 | Q | 97 989 | 26 861 | 1 667 | Q | Q |
| 22121 | Natural gas distribution | 26 | Q | 97 989 | 26 861 | 1 667 | Q | Q |
| 221210 | Natural gas distribution | 26 | Q | 97 989 | 26 861 | 1 667 | Q | Q |
| 2213 | Water, sewage, and other systems | 147 | Q | D | D | g | Q | Q |
| 22131 | Water supply and irrigation systems | 133 | Q | 55 343 | 12 484 | 1 337 | Q | Q |
| 221310 | Water supply and irrigation systems | 133 | Q | 55 343 | 12 484 | 1 337 | Q | Q |
| 22132 | Sewage treatment facilities | 14 | Q | D | D | b | Q | Q |
| 221320 | Sewage treatment facilities | 14 | Q | D | D | b | Q | Q |

¹Includes revenue information obtained from administrative records of other federal agencies.

²Includes revenue information that was imputed based on historic data, administrative data, industry averages, or other statistical methods.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling error. Data users who create their own estimates using data from this table should cite the Census Bureau as the source of the original data only. See also explanation of terms and geographic definitions. For the full technical documentation, see Appendix C.

Table 2. Summary Statistics for Metropolitan and Micropolitan Statistical Areas: 2002

[Includes only establishments of firms with payroll. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For definitions and hierarchy of metropolitan and micropolitan statistical areas (CSAs, MeSAs, MiSAs, and MDs), see Appendix E. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see note at end of table]

| NAICS code | Geographic area and 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) | Percent of revenue— | |
|---|---|---------------------------------|----------------------|--------------------------------|---------------------------------------|--|---|------------------------|
| | | | | | | | From admini- strative records ¹ | Estimated ² |
| FLAGSTAFF, AZ METROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 16 | Q | 20 739 | 5 419 | 330 | Q | Q |
| 221 | Utilities | 16 | Q | 20 739 | 5 419 | 330 | Q | Q |
| 2213 | Water, sewage, and other systems | 12 | Q | D | D | b | Q | Q |
| LAKE HAVASU CITY-KINGMAN, AZ MICROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 30 | Q | 14 070 | 3 943 | 299 | Q | Q |
| 221 | Utilities | 30 | Q | 14 070 | 3 943 | 299 | Q | Q |
| 2211 | Electric power generation, transmission, and distribution | 14 | Q | D | D | c | Q | Q |
| 22112 | Electric power transmission, control, and distribution | 11 | Q | 7 764 | 2 147 | 159 | Q | Q |
| 221122 | Electric power distribution | 11 | Q | 7 764 | 2 147 | 159 | Q | Q |
| 2213 | Water, sewage, and other systems | 14 | Q | D | D | b | Q | Q |
| 22131 | Water supply and irrigation systems | 12 | Q | 1 874 | 435 | 66 | Q | Q |
| 221310 | Water supply and irrigation systems | 12 | Q | 1 874 | 435 | 66 | Q | Q |
| NOGALES, AZ MICROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 5 | Q | D | D | b | Q | Q |
| PAYSON, AZ MICROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 5 | Q | 4 575 | 1 191 | 81 | Q | Q |
| PHOENIX-MESA-SCOTTSDALE, AZ METROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 71 | Q | 412 891 | 114 330 | 6 021 | Q | Q |
| 221 | Utilities | 71 | Q | 412 891 | 114 330 | 6 021 | Q | Q |
| 2211 | Electric power generation, transmission, and distribution | 12 | Q | D | D | h | Q | Q |
| 22112 | Electric power transmission, control, and distribution | 10 | Q | 22 495 | 5 842 | 346 | Q | Q |
| 221122 | Electric power distribution | 10 | Q | 22 495 | 5 842 | 346 | Q | Q |
| 2212 | Natural gas distribution | 12 | Q | D | D | f | Q | Q |
| 22121 | Natural gas distribution | 12 | Q | D | D | f | Q | Q |
| 221210 | Natural gas distribution | 12 | Q | D | D | f | Q | Q |
| 2213 | Water, sewage, and other systems | 47 | Q | D | D | f | Q | Q |
| 22131 | Water supply and irrigation systems | 42 | Q | D | D | f | Q | Q |
| 221310 | Water supply and irrigation systems | 42 | Q | D | D | f | Q | Q |
| PRESCOTT, AZ METROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 21 | Q | 23 492 | 5 831 | 436 | Q | Q |
| 221 | Utilities | 21 | Q | 23 492 | 5 831 | 436 | Q | Q |
| 2213 | Water, sewage, and other systems | 19 | Q | D | D | c | Q | Q |
| 22131 | Water supply and irrigation systems | 17 | Q | D | D | c | Q | Q |
| 221310 | Water supply and irrigation systems | 17 | Q | D | D | c | Q | Q |
| SAFFORD, AZ MICROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 7 | Q | 5 143 | 1 255 | 133 | Q | Q |
| SIERRA VISTA-DOUGLAS, AZ MICROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 24 | Q | 34 036 | 8 204 | 564 | Q | Q |
| 221 | Utilities | 24 | Q | 34 036 | 8 204 | 564 | Q | Q |
| 2213 | Water, sewage, and other systems | 11 | Q | D | D | b | Q | Q |
| 22131 | Water supply and irrigation systems | 10 | Q | D | D | b | Q | Q |
| 221310 | Water supply and irrigation systems | 10 | Q | D | D | b | Q | Q |
| TUCSON, AZ METROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 21 | Q | 104 253 | 29 074 | 1 752 | Q | Q |
| 221 | Utilities | 21 | Q | 104 253 | 29 074 | 1 752 | Q | Q |
| 2213 | Water, sewage, and other systems | 17 | Q | 2 418 | 576 | 79 | Q | Q |
| 22131 | Water supply and irrigation systems | 17 | Q | 2 418 | 576 | 79 | Q | Q |
| 221310 | Water supply and irrigation systems | 17 | Q | 2 418 | 576 | 79 | Q | Q |
| YUMA, AZ METROPOLITAN STATISTICAL AREA | | | | | | | | |
| 22 | Utilities | 9 | Q | 12 838 | 3 502 | 231 | Q | Q |

¹Includes revenue information obtained from administrative records of other federal agencies.

²Includes revenue information that was imputed based on historic data, administrative data, industry averages, or other statistical methods.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling error. Data users who create their own estimates using data from this table should cite the Census Bureau as the source of the original data only. See also explanation of terms and geographic definitions. For the full technical documentation, see Appendix C.

Appendix A.

Explanation of Terms

ANNUAL PAYROLL

Payroll includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation allowances, sick-leave pay, and employee contributions to qualified pension plans paid during the year to all employees and reported on Internal Revenue Service (IRS) Form 941 as taxable Medicare Wages and tips (even if not subject to income or FICA tax). For corporations, payroll includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit or other compensation of proprietors or partners. Payroll is reported before deductions for social security, income tax, insurance, union dues, etc. This definition of payroll is the same as that used by the IRS on Form 941.

ESTABLISHMENTS

An establishment is a single physical location at which business is conducted. It is not necessarily identical to a company or enterprise, which may consist of one establishment or more. Economic census figures represent a summary of reports for individual establishments rather than companies. For cases where a census report was received, separate information was obtained for each location where business was conducted. When administrative records of other federal agencies were used instead of a census report, no information was available on the number of locations operated. Each economic census establishment was tabulated according to the physical location at which the business was conducted. The count of establishments represents those in business at any time during 2002.

When two or more activities were carried on at a single location under a single ownership, all activities generally were grouped together as a single establishment. The entire establishment was classified on the basis of its major activity and all data for it were included in that classification. However, when distinct and separate economic activities (for which different industry classification codes were appropriate) were conducted at a single location under a single ownership, separate establishment reports for each of the different activities were obtained in the census.

FIRST-QUARTER PAYROLL

Represents payroll paid to persons employed at any time during the quarter January to March 2002.

PAID EMPLOYEES FOR PAY PERIOD INCLUDING MARCH 12

Paid employees consist of full- and part-time employees, including salaried officers and executives of corporations, who were on the payroll during the pay period including March 12. Included are employees on paid sick leave, paid holidays, and paid vacations; not included are proprietors and partners of unincorporated businesses; full- and part-time leased employees whose payroll was filed under an employee leasing company's Employer Identification Number (EIN); and temporary staffing obtained from a staffing service. The definition of paid employees is the same as that used by the Internal Revenue Service (IRS) on Form 941.

REVENUE

Includes revenue from all business activities whether or not payment was received in the census year. Revenue does not include sales and other taxes (including Hawaii's General Excise Tax) collected from customers and paid directly by the firm to a local, state, or federal tax agency.

Appendix B.

NAICS Codes, Titles, and Descriptions

22 UTILITIES

The Utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal. Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities.

Excluded from this sector are establishments primarily engaged in waste management services classified in Subsector 562, Waste Management and Remediation Services. These establishments also collect, treat, and dispose of waste materials; however, they do not use sewer systems or sewage treatment facilities.

221 UTILITIES

Industries in the Utilities subsector provide electric power, natural gas, steam supply, water supply, and sewage removal through a permanent infrastructure of lines, mains, and pipes. Establishments are grouped together based on the utility service provided and the particular system or facilities required to perform the service.

2211 ELECTRIC POWER GENERATION, TRANSMISSION, AND DISTRIBUTION

This industry group comprises establishments primarily engaged in generating, transmitting, and/or distributing electric power. Establishments in this industry group may perform one or more of the following activities: (1) operate generation facilities that produce electric energy; (2) operate transmission systems that convey the electricity from the generation facility to the distribution system; and (3) operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.

22111 ELECTRIC POWER GENERATION

This industry comprises establishments primarily engaged in operating electric power generation facilities. These facilities convert other forms of energy, such as water power (i.e., hydroelectric), fossil fuels, nuclear power, and solar power, into electrical energy. The establishments in this industry produce electric energy and provide electricity to transmission systems or to electric power distribution systems.

221111 HYDROELECTRIC POWER GENERATION

This industry comprises establishments primarily engaged in operating hydroelectric power generation facilities. These facilities use water power to drive a turbine and produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

221112 FOSSIL FUEL ELECTRIC POWER GENERATION

This industry comprises establishments primarily engaged in operating fossil fuel powered electric power generation facilities.

These facilities use fossil fuels, such as coal, oil, or gas, in internal combustion or combustion turbine conventional steam process to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

221113 NUCLEAR ELECTRIC POWER GENERATION

This industry comprises establishments primarily engaged in operating nuclear electric power generation facilities. These facilities use nuclear power to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

221119 OTHER ELECTRIC POWER GENERATION

This industry comprises establishments primarily engaged in operating electric power generation facilities (except hydroelectric, fossil fuel, nuclear). These facilities convert other forms of energy, such as solar, wind, or tidal power, into electrical energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

22112 ELECTRIC POWER TRANSMISSION, CONTROL, AND DISTRIBUTION

This industry comprises establishments primarily engaged in operating electric power transmission systems, controlling (i.e., regulating voltage) the transmission of electricity, and/or distributing electricity. The transmission system includes lines and transformer stations. These establishments arrange, facilitate, or coordinate the transmission of electricity from the generating source to the distribution centers, other electric utilities, or final consumers. The distribution system consists of lines, poles, meters, and wiring that deliver the electricity to final consumers.

221121 ELECTRIC BULK POWER TRANSMISSION AND CONTROL

This industry comprises establishments primarily engaged in operating electric power transmission systems and/or controlling (i.e., regulating voltage) the transmission of electricity from the generating source to distribution centers or other electric utilities. The transmission system includes lines and transformer stations.

221122 ELECTRIC POWER DISTRIBUTION

This industry comprises electric power establishments primarily engaged in either (1) operating electric power distribution systems (i.e., consisting of lines, poles, meters, and wiring) or (2) operating as electric power brokers or agents that arrange the sale of electricity via power distribution systems operated by others.

2212 NATURAL GAS DISTRIBUTION

This industry group comprises: (1) establishments primarily engaged in operating gas distribution systems (e.g., mains, meters); (2) establishments known as gas marketers that buy gas from the well and sell it to a distribution system; (3) establishments known as gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others; and (4) establishments primarily engaged in transmitting and distributing gas to final consumers.

22121 NATURAL GAS DISTRIBUTION

This industry comprises: (1) establishments primarily engaged in operating gas distribution systems (e.g., mains, meters); (2) establishments known as gas marketers that buy gas from the well and sell it to a distribution system; (3) establishments known as gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others; and (4) establishments primarily engaged in transmitting and distributing gas to final consumers.

221210 NATURAL GAS DISTRIBUTION

This industry comprises: (1) establishments primarily engaged in operating gas distribution systems (e.g., mains, meters); (2) establishments known as gas marketers that buy gas from the well and sell it to a distribution system; (3) establishments known as gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others; and (4) establishments primarily engaged in transmitting and distributing gas to final consumers.

2213 WATER, SEWAGE, AND OTHER SYSTEMS

This industry group includes establishments classified in the following NAICS industries: 22131, Water Supply and Irrigation Systems; 22132, Sewage Treatment Facilities; and 22133, Steam and Air-Conditioning Supply.

22131 WATER SUPPLY AND IRRIGATION SYSTEMS

This industry comprises establishments primarily engaged in operating water treatment plants and/or operating water supply systems. The water supply system may include pumping stations, aqueducts, and/or distribution mains. The water may be used for drinking, irrigation, or other uses.

221310 WATER SUPPLY AND IRRIGATION SYSTEMS

This industry comprises establishments primarily engaged in operating water treatment plants and/or operating water supply systems. The water supply system may include pumping stations, aqueducts, and/or distribution mains. The water may be used for drinking, irrigation, or other uses.

22132 SEWAGE TREATMENT FACILITIES

This industry comprises establishments primarily engaged in operating sewer systems or sewage treatment facilities that collect, treat, and dispose of waste.

221320 SEWAGE TREATMENT FACILITIES

This industry comprises establishments primarily engaged in operating sewer systems or sewage treatment facilities that collect, treat, and dispose of waste.

22133 STEAM AND AIR-CONDITIONING SUPPLY

This industry comprises establishments primarily engaged in providing steam, heated air, or cooled air. The steam distribution may be through mains.

221330 STEAM AND AIR-CONDITIONING SUPPLY

This industry comprises establishments primarily engaged in providing steam, heated air, or cooled air. The steam distribution may be through mains.

Appendix C.

Methodology

SOURCES OF THE DATA

For this sector, large- and medium-size firms, plus all firms known to operate more than one establishment, were sent report forms to be completed for each of their establishments and returned to the Census Bureau. For most very small firms, data from existing administrative records of other federal agencies were used instead. These records provide basic information on location, kind of business, revenue, payroll, number of employees, and legal form of organization.

Firms in the 2002 Economic Census are divided into those sent report forms and those not sent report forms. The coverage of and the method of obtaining census information from each are described below:

1. Establishments sent a report form:
 - a. Large employers, i.e., all multiestablishment firms, and all employer firms with payroll above a specified cutoff. (The term “employers” refers to firms with one or more paid employees at any time during 2002 as shown in the active administrative records of other federal agencies.)
 - b. A sample of small employers, i.e., single-establishment firms with payroll below a specified cutoff in classifications for which specialized data precludes reliance solely on administrative records sources. The sample was stratified by industry and geography.
2. Establishments not sent a report form:
 - a. Small employers, i.e., single-establishment firms with payroll below a specified cutoff, not selected into the small employer sample. Although the payroll cutoff varies by kind of business, small employers not sent a report form generally include firms with less than 10 employees and represent about 10 percent of total revenue of establishments covered in the census. Data on revenue, payroll, and employment for these small employers were derived or estimated from administrative records of other federal agencies.
 - b. All nonemployers, i.e., all firms subject to federal income tax with no paid employees during 2002. Revenue information for these firms was obtained from administrative records of other federal agencies. Although consisting of many firms, nonemployers account for less than 10 percent of total revenue of all establishments covered in the census. Data for nonemployers are not included in this report, but are released in the annual *Nonemployer Statistics* series.

The report forms used to collect information for establishments in this sector are available at help.econ.census.gov/econhelp/resources/.

A more detailed examination of census methodology is presented in the *History of the Economic Census* at www.census.gov/econ/www/history.html.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

The classifications for all establishments are based on the *North American Industry Classification System, United States, 2002* manual. There were no changes between the 2002 edition and the 1997 edition affecting this sector. Tables at www.census.gov/epcd/naics02/ identify all industries that changed between the 1997 North American Industry Classification System (NAICS) and 2002 NAICS.

The method of assigning classifications and the level of detail at which establishments were classified depends on whether a report form was obtained for the establishment.

1. Establishments that returned a report form were classified on the basis of their self-designation, product line revenue, and responses to other industry-specific inquiries.
2. Establishments without a report form:
 - a. Small employers not sent a form were, where possible, classified on the basis of the most current kind-of-business classification available from one of the Census Bureau's current sample surveys or the 1997 Economic Census. Otherwise, the classification was obtained from administrative records of other federal agencies. If the census or administrative record classifications proved inadequate (none corresponded to a 2002 Economic Census classification in the detail required for employers), the firm was sent a brief inquiry requesting information necessary to assign a kind-of-business code.
 - b. Nonemployers were classified on the basis of information obtained from administrative records of other federal agencies.

RELIABILITY OF DATA

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

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

Data presented in the Miscellaneous Subjects and the Product Lines reports for this sector are subject to sampling errors, as well as nonsampling errors. Specifically, these data are estimated based on information obtained from census report forms mailed to all large employers and to a sample of small employers in the universe. Sampling errors affect these estimates, insofar, as they may differ from results that would be obtained from a complete enumeration.

The accuracy of these tabulated data is determined by the joint effects of the various nonsampling errors or by the joint effects of sampling and nonsampling errors. No direct measurement of these effects has been obtained except for estimation for missing or misreported data; however, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize the effects of nonsampling errors.

The Census Bureau obtains limited information extracted from administrative records of other federal agencies, such as gross revenue from federal income tax records and employment and payroll from payroll tax records. This information is used in conjunction with other information available to the Census Bureau to develop estimates for nonemployers, small employers, and other establishments for which responses were not received in time for publication.

Key tables in this report include a column for "Percent of revenue from administrative records." This includes revenue information obtained from administrative records of other federal agencies. The "Percent of revenue estimated" includes revenue information that was imputed based on historic company ratios or administrative records, or on industry averages.

The Census Bureau recommends that data users incorporate this information into their analyses, as nonsampling error and sampling error could impact the conclusions drawn from economic census data.

TREATMENT OF NONRESPONSE

Census report forms included two different types of inquiries, “basic” and “industry-specific.” Data for the basic inquiries, which include location, kind of business or operation, revenue, payroll, and number of employees, were available from a combination of sources for all establishments. Data for industry-specific inquiries, tailored to the particular kinds of business or operation covered by the report form, were available only from establishments responding to those inquiries.

Data for industry-specific inquiries in this sector were expanded in most cases to account for establishments that did not respond to the particular inquiry for which data are presented. Unless otherwise noted in specific reports, data for industry-specific inquiries were expanded in direct relationship to total revenue of all establishments included in the category. In a few cases, expansion on the basis of the revenue item was not appropriate, and another basic data item was used as the basis for expansion of reported data to account for nonrespondents.

All reports in which industry-specific data were expanded include a coverage indicator for each publication category, which shows the revenue of establishments responding to the industry-specific inquiry as a percent of total revenue for all establishments for which data are shown. For some inquiries, coverage is determined by the ratio of total payroll or employment of establishments responding to the inquiry to total payroll or employment of all establishments in the category.

DISCLOSURE

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

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E.

Metropolitan and Micropolitan Statistical Areas

FLAGSTAFF, AZ METROPOLITAN STATISTICAL AREA

Coconino County, AZ

LAKE HAVASU CITY-KINGMAN, AZ MICROPOLITAN STATISTICAL AREA

Mohave County, AZ

NOGALES, AZ MICROPOLITAN STATISTICAL AREA

Santa Cruz County, AZ

PAYSON, AZ MICROPOLITAN STATISTICAL AREA

Gila County, AZ

PHOENIX-MESA-SCOTTSDALE, AZ METROPOLITAN STATISTICAL AREA

Maricopa County, AZ

Pinal County, AZ

PRESCOTT, AZ METROPOLITAN STATISTICAL AREA

Yavapai County, AZ

SAFFORD, AZ MICROPOLITAN STATISTICAL AREA

Graham County, AZ

Greenlee County, AZ

SIERRA VISTA-DOUGLAS, AZ MICROPOLITAN STATISTICAL AREA

Cochise County, AZ

TUCSON, AZ METROPOLITAN STATISTICAL AREA

Pima County, AZ

YUMA, AZ METROPOLITAN STATISTICAL AREA

Yuma County, AZ

