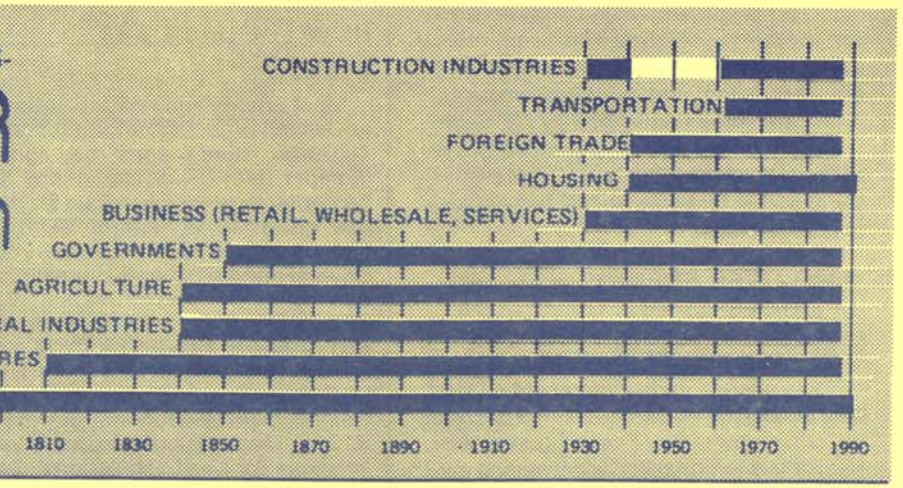
U.S. BUREAU OF THE CENSUS-

FACTFINDER for the Nation



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ENERGY AND RELATED STATISTICS

INTRODUCTION

The Bureau of the Census collects a number of statistics that relate to the production and consumption of energy. Some either directly or indirectly reflect environmental concerns and conservation measures in the United States. These figures come from periodic censuses and current surveys in two broad areas—demographic and economic.

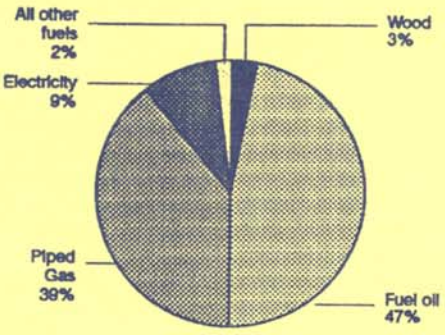
The demographic data cover population and housing, for which the Bureau carries out a census at 10-year intervals in years ending in "0," as well as a variety of monthly, quarterly, and annual surveys. The first decennial census was taken in 1790 as specified in the United States Constitution, Article I, section 2. The economic censuses trace their beginnings to the 1810 Decennial Census, which included questions on manufactures with those for population. By law (Title 13, United States Code), response to census inquiries is mandatory. The periodic surveys fall under the same authority, but response to those conducted more often than once yearly is voluntary. The results usually are presented in summary form. (The Bureau makes certain that no person, household, or individual firm's operations can be identified from the figures in its published products. Violators of the law's confidentiality provisions face heavy penalties.)

The economic subjects, in addition to manufactures, now include wholesale and retail trade; mineral, construction, and service industries; and transportation. Censuses from this group take place every 5 years for years ending in "2" and "7," and, again, there are a number of intercensal surveys. Within each economic category, an establishment or firm is assigned a standard industrial classification (SIC) based upon its primary activity or the principal product or group of products it distributes.

Related subjects include governments and agriculture (census statistics for years ending in "2" and "7" plus periodic survey data), and foreign trade. The Bureau collects foreign trade statistics monthly and publishes them either monthly, quarterly, or annually. Foreign trade data are authorized by the Foreign Trade Statistics Regulation, Title 15, Part 30, *Code of Federal Regulations* (following ch. 9 of Title 13 of the U.S. Code).

TYPICAL CHART FROM AMERICAN HOUSING SURVEY, SERIES H-170 (PROVIDENCE-PAWTUCKET-WARWICK METROPOLITAN AREA, RI, 1988)

Figure 7.
Main House Heating Fuel for All Occupied Units: 1988



Limited to units with heating equipment; percents may not add to 100 due to rounding.

CENSUS GEOGRAPHY

Census data cover the United States, each State, the District of Columbia, Puerto Rico, Guam, the Virgin Islands of the United States, the Commonwealth of the Northern Mariana Islands (CNMI), American Samoa, the Republic of Palau, metropolitan areas (MA's), counties and their

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statistical equivalents, incorporated places, and a variety of other statistical areas down to the level of the census block in the population and housing censuses. There are some tabulations by ZIP Code. Survey data are usually published at the national level only; but selected statistics are available for some States, large MA's, and large cities.

WHO USES ENERGY STATISTICS?

For the most part, the Census Bureau collects energy- and environment-related data through censuses and surveys focused on other programs. These figures offer benchmark information for estimating current conditions and forecasting future trends. Accordingly, they are of concern to all levels of government.

The **Federal Government** uses energy and related statistics in calculating the gross national product and the Nation's wealth in relation to energy; planning and evaluating energy, conservation, pollution-abatement, and other legislation; determining national energy policies and research; and developing and administering energy and related programs.

State and local governments use the data when determining storage and consumption of fuels; and public expenditures and employment for highways, public transit, utilities, and pollution control. Wholesalers, retailers, importers and exporters, trade and professional organizations, utility companies, chambers of commerce, market researchers, and transportation planners are only examples of those in the business community that use the information in studying economic and demographic conditions. Newspapers, magazines, textbooks, and radio and television programs dealing with economic events such as automotive fuel situations, household heating and cooling systems, utility availability and costs, and the like, spotlight for the general public conditions or trends revealed in the census or survey figures.

RELEVANT REPORTS

Retail Trade. The census of retail trade, through its *Subject Series* 🕮 * ▦ +, *Measures of Value Produced, Capital Expenditures, Depreciable Assets, and Operating Expenses,* RC87S-2, displays national data on gasoline service stations, liquefied petroleum (LP), and natural gas dealers. *Miscellaneous Subjects,* RC87-S-4, has tables on gasoline service stations' storage and number of pumps, the number of self-service stations, and LP gas storage. See also *Factfinder* No. 10.

Wholesale Trade. The census of wholesale trade data include minerals, electrical goods, plumbing and heating equipment and supplies, and other goods.

HOW THE DATA ARE PUBLISHED

Most energy and related statistics are issued in printed reports for other subjects. There reports may appear in paper form 🕮, on microfiche ▦, computer tapes or cartridges ⛁, flexible diskettes ▪, and/or CD-ROM (compact disc/read-only memory) ⊙. Several series (as well as analytical data from the censuses) are published also in the form of press releases and through CENDATA™ 💻, an on-line service available from DIALOG, (telephone 800-334-2564) and CompuServe (telephone 800-848-8199). Maps ⊞ accompany or are available for most tabulations. Two other symbols, also used below, indicate where one may purchase printed and electronic materials:

* Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402-9325
Telephone 202-783-3238
FAX 202-275-0019

\+ Data User Services Division
Customer Services
Bureau of the Census
Washington, DC 20233
Telephone 301-763-4100
FAX 301-763-4794

Subject Series 🕮 * ▦ +, *Measures of Value Produced...,* WC87-S-2, presents national data on purchases of fuels. *Miscellaneous Subjects,* WC87-S-4, contains data by kind of business and type of operator for the United States and, where feasible, for States and metropolitan areas (MA's); sales (in gallons and dollars) and storage capacities for petroleum bulk stations and terminals by type of product and facility at the U.S., State, and selected county levels. See also *Factfinder* No. 11.

Service Industries. The census of service industries, through its *Subject Series* 🕮 * ▦ +, *Measures of Value Produced, Capital Expenditures, Depreciable Assets, and Operating Expenses,* SC87-S-2, provides energy-related data for the Nation as a whole. See also *Factfinder* No. 12.

Manufactures and Mineral Industries. The census of manufactures' *Industry Series* (MC87-1) and *Geographic Area Series* (MC87-A) reports 🕮 * ▦ ⛁ ⊙ ▪ + offer information on the quantity and value of products shipped and materials consumed, and costs of fuels and electric energy consumed in the United States. (The Economic Censuses of Outlying Areas [series OA87, 🕮 * ▦ +] have some of these data for Puerto Rico, the U.S. Virgin Islands, Guam, and the CNMI.) The Annual Survey of Manufactures, series M[year](AS)-1, *Statistics for Industry Groups and Industries...* ▦ +, includes costs for purchased fuel, and quantities and costs for purchased electricity. The *Analytical Reports* series (AR87-3, *Indexes of Production*) 🕮 * ▦ + measures the change in physical output of U.S. manufacturing and mineral industries between 1982 and 1987.

The census of mineral industries, through its *Industry Series,* MIC87-1-10A to 14E reports 🕮 * ▦ ⛁ ⊙ +, contains national-level statistics on industries such as oil and gas field exploration services and the cost and quantity of fuels consumed. *Subject Series,* MIC87-S-2, *Fuels and Electric Energy Consumed* 🕮 * ▦ +, includes national- and State-level data on mineral industries' total energy consumed, and purchased fuels and electric energy consumed, by type, by industry, and by major-industry group.

Exports from Manufacturing Establishments, AR87-1, 🕮 * ▦ ⛁ ⊙ + includes national- and State-level data on petroleum and coal, electric and electronic equipment, and transportation major-industry groups.

Among the Bureau's *Current Industrial Reports, Industrial Gases* (M28C) 🕮 (subscription *) ▦ + 💻 contains quantitative information on the production of specified industrial gases, and gives data for gaseous, liquid, or solid form, where applicable, and by quantity produced for type of shipment, including pipeline, bulk, cylinder, or consumption in the producing plants. Data by geographic area are shown for production and shipments of acetylene, carbon dioxide, hydrogen, nitrogen, and oxygen, and shipments of argon. *Pollution Abatement Costs and Expenditures* (MA-200) 🕮 * + ▦ has statistics for the Nation and States on total operating costs and capital expenditures for air, water, and hazardous and nonhazardous solid-waste pollution abatement. *Selected Industrial Air Pollution Control Equipment* (MA-35J) 🕮 * ▦ + presents annual statistics for the Nation on orders and shipments for selected industrial air-pollution control equipment used in the separation, removal, or collection of particulate and gaseous emissions. *Internal Combustion Engines* (MA-35L) 🕮 * ▦ + gives annual statistics for the Nation on piston-displacement ranges, by fuel system; quantity and value of shipments and interplant transfers of gasoline, nonautomotive diesel, automotive diesel, and gas engines, by horsepower-rating ranges; and comparative data on imports, exports, and domestic output. *Fluid Power Products, Including Aerospace* (MA-35N) 🕮 * ▦ + provides annual statistics on total U.S. shipments of fluid power, including aerospace, products such as hydraulic and pneumatic valves; fittings and assemblies for tubing and hose; hydraulic and pneumatic cylinders, actuators,

Table 3. **Farm Production Expenses: 1987, 1982, and 1978**—Con.

[Data are based on a sample of farms; see text. For meaning of abbreviations and symbols, see introductory text]

Item	1987		1982	1978
	Farms	Expenses ($1,000)		
Total farm production expenses—Con.				
Electricity ---------- farms...	1 436 732	(X)	1 482 482	1 474 830
$1,000...	(X)	2 225 206	2 041 384	1 306 290
percent of total...	(X)	2.1	(NA)	(NA)
Farms with expenses of—				
$1 to $499	725 614	146 290	750 846	904 803
$500 to $999	258 412	175 421	279 421	286 474
$1,000 to $1,999	209 619	283 238	226 437	172 857
$2,000 to $4,999	172 324	510 953	164 943	80 332
$5,000 to $9,999	43 682	287 871		
$10,000 to $24,999	19 371	281 516	60 835	30 364
$25,000 or more	7 710	539 917		

accumulators, cushions, and nonvehicular shock absorbers; and hydraulic fluid power pumps, motors, and hydrostatic transmission components, as well as pneumatic (air) motors and motor packages. *Pumps and Compressors* (MA-35P) □ * ▦ + presents annual statistics for the Nation on manufacturers' shipments of pumps (including domestic water systems) and compressors. See also *Factfinders* Nos. 15 and 16.

Governments. The census of governments report *Government Finances*, GC87(4), No. 5, *Compendium of Government Finances* □ * ▦ ⛉ + 🖳, is a summary of census findings, including finances of utilities operated by State and local governments, detailed by State and by type of utility and government. Among the annual survey reports in the GF series, *State Government Finances in [year]* (No. 3) □ * ▦ +, shows revenues and expenditures of State-operated utilities. *City Government Finances in [year]* (No. 4) □ * ▦ +, presents finance data on individual city governments, including city-operated utilities, for cities and selected towns and townships over 75,000 population; and supplementary detail on city utilities by State. *Government Finances in [year]* (No. 5) □ * ▦ +, details utility revenue and expenditures by type; and revenue and expenditures, by State, of government-operated public utilities. See also *Factfinder* No. 17.

Construction and Housing. The census of construction industries, through its *Industry Series*, CC87-1-1 to 28 □ * ▦ ⛉ ⊙ +, enumerates all establishments in the United States (and through the Economic Censuses of Outlying Areas [series OA87] □ * ▦ +, Puerto Rico, Guam, the Virgin Islands, and the CNMI) that operate in the 27 construction industries as building contractors, heavy-construction contractors, and special-trade contractors. The 1987 census covered payments for selected power fuels and lubricants. Much of the *Geographic Area Series* (GC87A-1 to 10) data for the United States are the same as presented in the industry series, except here they are organized by State, rather than by industry.

The *American Housing Survey* is issued jointly by the Census Bureau and the Department of Housing and Urban Development: The H-150 series □ * ▦ ⛉ ⊙ + 🖳, provides a comprehensive report every 2 years for the United States and regions on housing characteristics, including housing costs, equipment and fuels, source of water, sewage disposal, garbage and trash collection, and neighborhood quality. The H-170 series □ ▦ ⛉ ⊙ + contains similar data for 44 selected MA's, 11 each year on a 4-year rotating basis. *American Housing Survey Supplements*, H-151 □ * ▦ ⛉ ⊙ + offers two reports every second year for the United States and regions, one of which contains supplemental data on journey to work; the H-171 series of supplements □ ▦ ⛉ + has similar content for the same 44 MA's as the H-170 reports.

There are several Current Construction Reports of use: *Housing Completions*, series C22 □ * ▦ +, is a monthly tabulation that includes added data every quarter on energy characteristics —central air conditioning, heating fuels, heating systems, and fireplaces. *New One-Family Houses Sold and for Sale*, series C25 □ (subscription *, individual copies +) ▦ + 🖳, is a monthly report of U.S. totals for new privately owned one-family houses sold during the reporting month and for sale at the end of the month. *Characteristics of New Housing*, series C25 □ (part of C25 report subscription *, see above) ▦ ⛉ + is an annual report of detailed information for the United States, the census regions, and areas inside and outside MA's for selected physical and financial characteristics of new one-family houses completed or sold; it includes presence of central air conditioning, number of fireplaces, and type of heating fuel and heating and cooling systems. *Price Index of New One-Family Houses Sold*, series C25 (part of C25 □ report subscription *, individual copies +) ▦ + 🖳, is a quarterly report that measures change over time in the national sales prices of new one-family houses (including land), including type of heating and cooling system and number of fireplaces. *Expenditures for Nonresidential Improvements and Upkeep: 1986* (latest; next, late 1991 for 1989) □ * ▦ +, shows national and regional expenditures, by size of building and selected building characteristics, for improvements and upkeep of private and State and local nonresidential buildings. The 1989 report includes data on energy consumption in commercial structures. See also *Factfinder* Nos. 6 and 9.

Agriculture. The census of agriculture, through its *Volume 1, Geographic Area Series—State and County Data* (AC87-A-1 to 56) □ * ⊙ + 🖳, offers detailed data on agricultural production, resources, and inventories. The census shows farm production expenses, including energy, for every U.S. county and State and a summary for the Nation. The agriculture census for outlying areas has selected data for Puerto Rico, Guam, the Virgin Islands of the United States, American Samoa, and the CNMI. See also *Factfinder* No. 3.

Transportation. The *Truck Inventory and Use Survey*, TC87-1 to -52 □ * ▦ + portion of the census of transportation contains data on the number of truck miles and average miles per truck for such characteristics as area of operation (local, short range, or long range); type of fuel, and vehicle size. See also *Factfinder* No. 13.

Business and Industry. *County Business Patterns*, series CBP □ * ▦ ⛉ ⊙ ▟ + 🖳 Annual intercensal data on employment, number and employment size of establishments and payrolls, by two-, three-, and four-digit SIC levels for States and counties. Separate reports for the United States, each State, the District of Columbia, and Puerto Rico include statistics for utilities and related industries.

Census of Population and Housing. The decennial census collects (on a

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sample basis) some environment- and energy-related data, such as costs of utilities and fuels, fuels used most for heating, source of water, sewage disposal, and means of transportation to work. These appear in 1990 census reports (issued 1991 to 1993, and most including Puerto Rico and the outlying areas) such as the following: *Social and Economic Characteristics*, series 1990 CP-2- (1 [U.S.] or State No.) 🕮*▦+, and *Detailed Housing Characteristics*, series 1990 CH-2- (1 [U.S.] or State No.) 🕮*▦+; some population *Subject Reports*, series 1990 CP-3 🕮*▦+; *Population and Housing Characteristics for Census Tracts and Block-Numbering Areas*, series 1990 CPH-3(State or MSA/PMSA No.) 🕮*▦+; *Summary Social, Economic, and Housing Characteristics*, series 1990 CPH-5- (1 or State No.) 🕮*▦+; *Census Transportation Planning Packages* 🌍⊙▦+; and the *User-Defined Areas Program* 🌍🕮⊞+, which allows users to order tabulations from the census (subject to disclosure constraints) for locally defined geographic areas. Decennial census data on computer tape (summary tape files) 🌍+ and CDROM ⊙+ generally have greater detail than the printed reports and include small geographic areas for which no data are available in print. See *Factfinders* No. 6 and 7.

Among the Bureau's current programs, the Survey of Income and Program Participation (SIPP) 🌍+ provides microdata records for a sample of households interviewed at 4-month intervals (called "waves") for 32 months. The SIPP obtains information about households' participation in energy assistance programs. The tabulations appear in series P70, *Economic Characteristics of Households in the United States* 🕮*▦+.

Foreign Trade. A number of the Bureau's report series from data banks on U.S. imports and exports cover energy-related merchandise. Monthly and annual series on CD-ROM include CDIM-[year] for imports, and CDEX-[year] for exports ⊙+. Annual reports on imports and exports for consumption appear in FT947 and FT247 series 🕮*▦+. The Foreign Trade Division also furnishes some monthly reports: IM145 (general imports) 🕮 and EM545 (exports) 🌍 include energy products by country and customs district. See also *Factfinder* No. 14.

OTHER AIDS AND SOURCES OF DATA

Data on energy and related statistics also appear in the following Census Bureau publications: The annual *Statistical Abstract of the United States* 🕮*▦💻+; *Historical Statistics of the United States, Colonial Times to 1970* 🕮*; and the periodic *County and City Data Book* 🕮*▦🌍⊙▟+💻 and *State and Metropolitan Area Data Book* 🕮*▦⊙▟+💻. Census and survey data also appear in trade journals, textbooks, and other secondary sources.

DATA USER SERVICES

Published reports from censuses and surveys, as well as from other materials mentioned above, are available for use in many of over 1,500 Government and Census depository libraries across the country. (List on request +[1].) These are mainly college, university, and large public libraries, but many smaller libraries also have Bureau publications. Recent reports are available for reference and/or order at U.S. Department of Commerce International Trade Administration district offices and Census Bureau regional offices. Staff members at all of these offices and resource personnel at Bureau headquarters (telephone contact list on request +[1]) are equipped to answer questions and assist in locating data.

Special tabulations of census (in selected situations) or survey results can be ordered from the Bureau at the address shown at the end of this brochure.

State data centers (SDC's) and their affiliates are located in all States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. (List on request +[1].) The SDC's assist users with printed and computerized data. There also are organizations registered with the Bureau's **National Clearinghouse for Census Data Services** that offer tape printouts and other services to their customers. (List on request +[1].)

Business and industry data centers (BIDC's) have been established in some States (list on request +[1]). The Census Bureau and other Federal agencies furnish economic data and related assistance and training to aid BIDC's (list on request +) in furthering economic development in their States.

The Census Bureau assists its data users in a number of ways. It publishes an annual *Catalog & Guide* 🕮*, the monthly *Census and You* newsletter 🕮 (subscription *, single copies or free sample copy +), and guides to particular segments of its statistics. Free aids include the *Factfinder for the Nation* series of 22 brochures (such as this one) 🕮+; the *Monthly Product Announcement* 🕮+; *Data Developments* 🕮+ for most computer tape, microfiche, diskette, and CD-ROM products; and the *Guide to the 1987 Economic Censuses and Related Statistics* 🕮+. General information about the Census Bureau's various statistical products appears in *Factfinder* CFF 18 entitled "Bureau Programs and Products," 🕮+.

There also are workshops on the availability and use of statistics and exhibits and resources for the conventions of interested national organizations. +

FACTFINDER FOR THE NATION

In addition to its normal work, the Census Bureau also carries out surveys for other Federal agencies, such as the Departments of Energy (e.g., on energy consumption in manufacturing and commercial buildings), Housing and Urban Development, Agriculture, and Transportation, where the sponsors publish the resultant tabulations and analyses.

Inquiries and suggestions about any of the Bureau's activities are invited. Write:

Director
Bureau of the Census
Washington, DC 20233-0001

[1]Or see *Census Catalog & Guide*.