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A Look at Commercial Buildings in 1995:

Characteristics, Energy Consumption, and Energy Expenditures

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Commercial Buildings Energy Consumption Survey

Energy Information Administration

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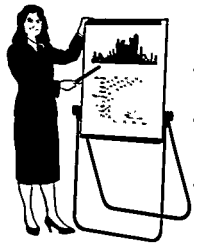
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AT A GLANCE:

Commercial Buildings in Perspective



In-depth information about how energy is used by commercial buildings is provided by the Energy Information Administration (EIA) in this analysis of its 1995 Commercial Buildings Energy Consumption Survey results. Energy use and costs are analyzed by using the buildings' energy-related characteristics, such as size, age, location, and activity (for example, retail sales). Energy uses and sources are also covered.

Commercial buildings typically are small,



They average 13 thousand square feet, with fewer than 5 percent of buildings being larger than 50 thousand square feet, the size of a large supermarket. However, total commercial floorspace in the United States exceeds the area of the State of Delaware and amounts to about 200 square feet for each person in the Nation.

have a median age of 31 years,



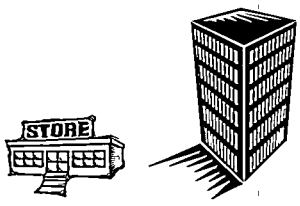
Although new commercial buildings are constructed and older ones demolished every year, older buildings dominate the stock at any one time. More than half of the commercial buildings in the United States were built before 1970.

and are more likely to be in the South.



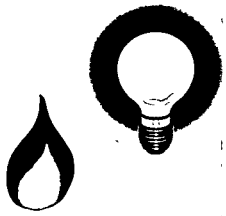
The South also has the highest population of the Census regions. The correlation of building location and population is not surprising, because most commercial activity entails providing goods and services to people.

Retail and wholesale stores and service businesses are the most numerous,



Office buildings and warehouses are also common. However, there are many more types of commercial buildings, ranging from courthouses and corner grocery stores to concert halls and skyscrapers.

and electric lighting and natural gas space heating are the most common uses of energy.



Lighting, space heating, cooling, and water heating (regardless of energy source) account for just over three-fourths of total commercial energy use. The remaining energy is used for ventilation, cooking, refrigeration, and operating office equipment and miscellaneous equipment, such as elevators, telephones, and vending machines.

Commercial Buildings Are Grouped

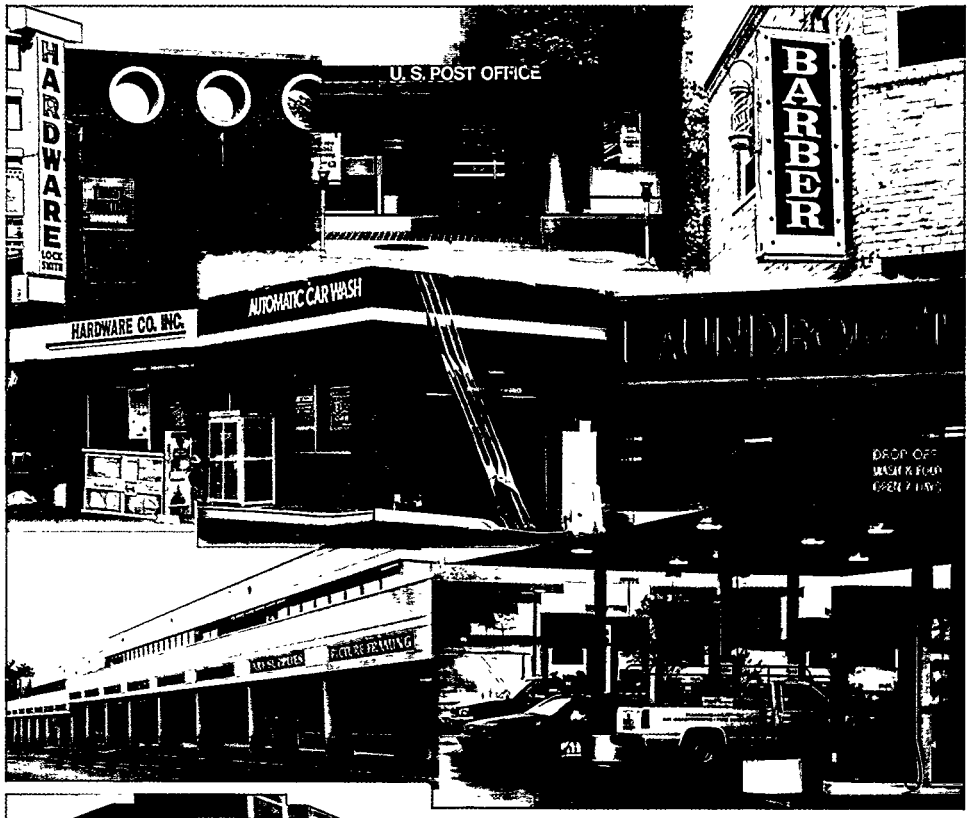
Commercial buildings are classified by the
building. Included in the CBECS are not only
and wholesale stores, offices, hotels, restaurants,
of buildings that would not be considered
such as warehouses, schools, correctional

Retail and wholesale stores and service businesses (**mercantile and service** buildings) are the most common. They account for more than one-fourth of all commercial buildings.

Mercantile and service and **office** buildings together consume one-third of commercial site energy.

Education buildings are, on average, the largest commercial buildings.

Energy-saving features that reduce energy use for lighting are the most common in **education** and **public order and safety** buildings.



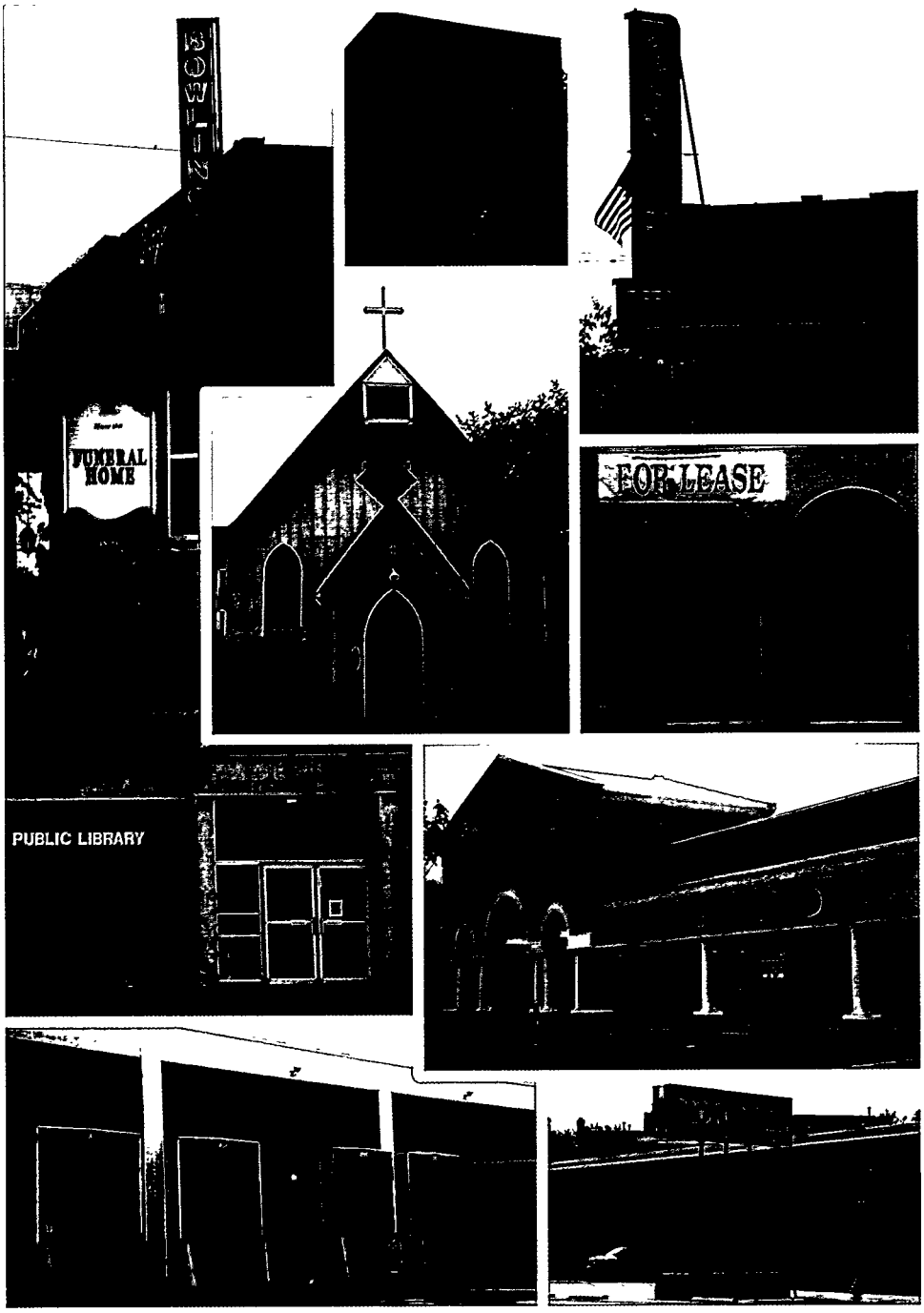






Into 12 Categories in EIA's Survey

principal building activity that occurs in the buildings that provide services, such as retail and hospitals, but also a wide range "commercial" in a traditional economic sense, institutions, and religious organizations.



Food service and **health care** buildings use the most energy per square foot.

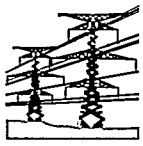
Not surprisingly, **vacant** buildings use the least energy per square foot.

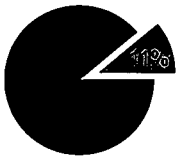
Religious worship buildings also use less energy per square foot than average.

Food sales buildings use 52 percent of their total energy for refrigeration.

In buildings used for **lodging**, 40 percent of the energy is used for water heating.

EIA's 1995 survey shows that U.S. commercial buildings . . .



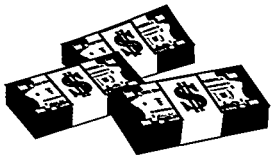


use 5.3 quadrillion Btu* of energy,

The 5.3 quadrillion Btu of site energy use includes electricity. An equal amount of energy is needed to generate electricity and send it to the buildings. Added together, site use and production and delivery losses yield the total amount of energy ("primary energy") used by commercial buildings: 10.6 quadrillion Btu, about 11 percent of U.S. total energy use in 1995.

Of all the energy sources and end uses of site energy, consumption of natural gas for space heating predominates. But of the sources and uses of primary energy, consumption of electricity for lighting is the most prevalent

pay about $70 billion for it,



Building owners pay about $70 billion for electricity, natural gas, fuel oil, and district heat. Most of the outlays are spent on electricity. On average, each building's energy costs totals $15,300, but, as would be expected, costs vary widely, depending on the size of the building and on which activities take place in the building.

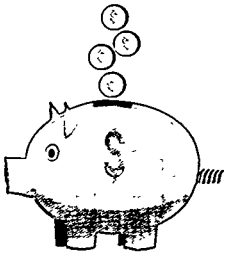
emit carbon dioxide from on-site burning of natural gas,



The major source of on-site carbon emissions by commercial buildings is the burning of natural gas for space heating and other end uses. The 1.9 quadrillion Btu of natural gas consumed emits about 100 million metric tons of carbon dioxide.

Those on-site emissions from natural gas are less than 2 percent of all energy-related carbon dioxide emissions nationwide. However, if emissions from the off-site sources of electricity and district heat were included, the share would be much greater than it is.

and seek to save energy in a variety of ways.



Newer buildings report more energy-saving equipment and practices. However, because they also use more electricity than older buildings, the newer buildings' energy intensity (energy use per square foot) is not as low as their energy-saving activities might imply.

Insulation, awnings, storm glazing, and tinted glass all are energy-saving features in commercial buildings, and all are used more by newer buildings. Similarly, energy-saving features of lighting systems, such as mirrored reflectors, dimmer switches, and natural lighting sensors, also are more prevalent in newer buildings.

*All energy measurements in the body of this report are in British Thermal Units (Btu).

1. Overview

Introduction

The commercial sector consists of business establishments and other organizations that provide services. The sector includes service businesses, such as retail and wholesale stores, hotels and motels, restaurants, and hospitals, as well as a wide range of facilities that would not be considered "commercial" in a traditional economic sense, such as public schools, correctional institutions, and religious and fraternal organizations. Excluded from the sector are the goods-producing industries: manufacturing, agriculture, mining, forestry and fisheries, and construction.

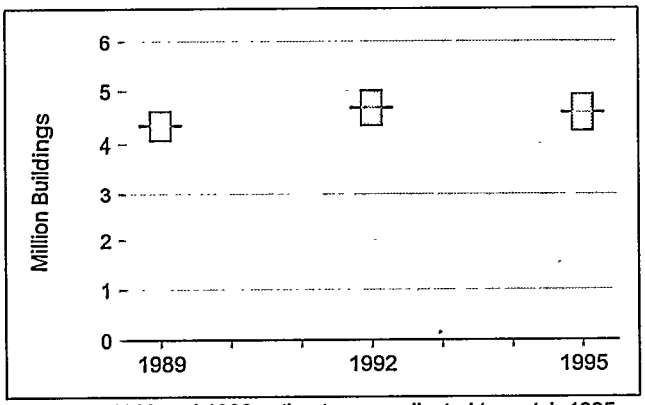
Nearly all energy use in the commercial sector takes place in, or is associated with, the buildings that house these commercial activities. Analysis of the structures, activities, and equipment associated with different types of buildings is the clearest way to evaluate commercial sector energy use. The Commercial Buildings Energy Consumption Survey (CBECS) is a national-level sample survey of commercial buildings and their energy suppliers conducted quadrennially (previously triennially) by the Energy Information Administration (EIA). The target population for the 1995 CBECS consisted of all commercial buildings in the United States with more than 1,000 square feet of floorspace (see box on page 4).

Decision makers, businesses, and other organizations that are concerned with the use of energy—building owners and managers, regulators, legislative bodies and executive agencies at all levels of government, utilities and other energy suppliers—are confronted with a buildings sector that is complex. Data on major characteristics (e.g., type of building, size, year constructed, location) collected from the buildings, along with the amount and types of energy the buildings consume, help answer fundamental questions about the use of energy in commercial buildings.

Commercial Buildings in 1995

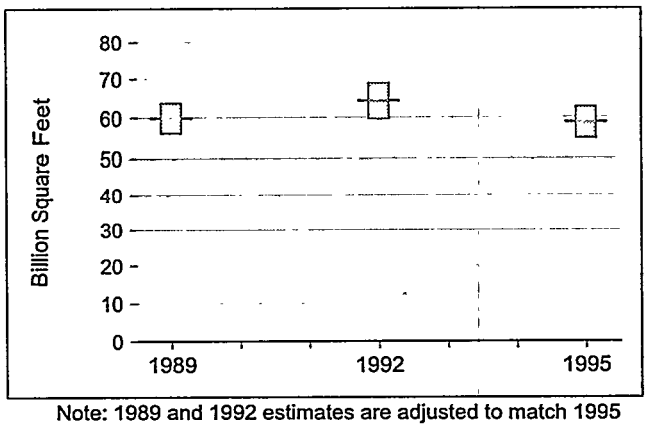
In 1995, there were 4.6 (±0.4) million commercial buildings in the United States comprising 58.8 (±3.9) billion square feet of floorspace. That amount of commercial floorspace exceeds the total area of the State of Delaware and amounts to more than 200 square feet for every resident in the United States. The commercial building population in the 1995 CBECS was defined differently from that of previous CBECS. Two types of buildings, parking garages and commercial buildings on multibuilding manufacturing facilities, that were included in previous cycles, were excluded in 1995. Figures 1 and 2 show estimates for the number of buildings and floorspace and Figures 3 and 4 show estimates for total energy consumption and energy inten-

Figure 1. Total Commercial Buildings, 1989 to 1995



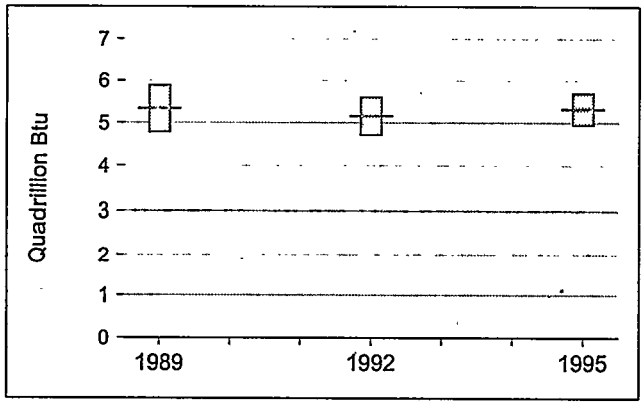
Note: 1989 and 1992 estimates are adjusted to match 1995 CBECS building definition.
Sources: Energy Information Administration; 1989, 1992, and 1995 Commercial Buildings Energy Consumption Surveys.

Figure 2. Total Commercial Floorspace, 1989 to 1995



Note: 1989 and 1992 estimates are adjusted to match 1995 CBECS building definition.
Sources: Energy Information Administration; 1989, 1992, and 1995 Commercial Buildings Energy Consumption Surveys.

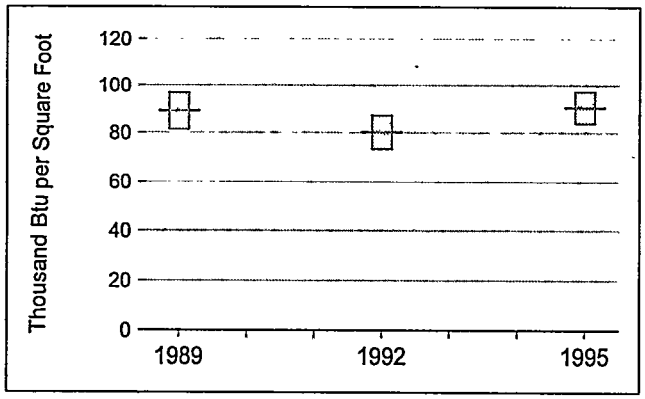
Figure 3. Total Site Energy Consumption in Commercial Buildings, 1989 to 1995



Note: 1989 and 1992 estimates are adjusted to match 1995 CBECS building definition.

Sources: Energy Information Administration; 1989, 1992, and 1995 Commercial Buildings Energy Consumption Surveys.

Figure 4. Total Site Energy Intensity in Commercial Buildings, 1989 to 1995



Note: 1989 and 1992 estimates are adjusted to match 1995 CBECS building definition.

Sources: Energy Information Administration; 1989, 1992, and 1995 Commercial Buildings Energy Consumption Surveys.

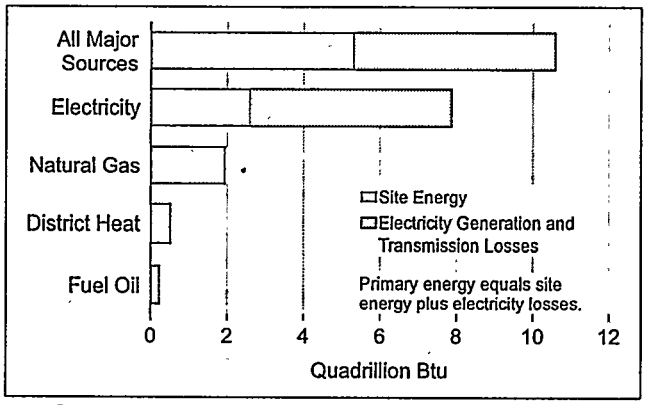
sity for all commercial buildings for 1989, 1992, and 1995. The 95-percent confidence ranges for the estimates are also shown in the four figures. Because of the sampling error associated with the estimates (see box on page 5), the apparent differences between the estimates for different survey years are not statistically significant. To compare the 1995 CBECS with the 1989 CBECS and 1992 CBECS, an adjustment was made to the 1989 and 1992 estimates to match the 1995 definition.

Energy consumption can be expressed as the amount consumed within the building (site energy) or it can include the energy consumed in generating and transmitting electricity (primary energy) (see box on page 6). All consumption data referred to in this report are site energy, unless otherwise indicated. Total primary energy consumption was 10.6 quadrillion Btu and primary electricity consumption (which includes energy consumed in electricity generation and transmission) was 7.9 quadrillion Btu (Figure 5).

In 1995, the total amount of site energy consumed by commercial buildings in the United States for major energy sources (electricity, natural gas, fuel oil, and district heat) was 5.3 quadrillion Btu (Figure 5). The greatest consumption for any energy source was 2.6 quadrillion Btu for electricity, followed by 1.9 quadrillion Btu for natural gas. District heat (0.5 quadrillion Btu) and fuel oil (0.2 quadrillion Btu) were together less than half the consumption of natural gas.

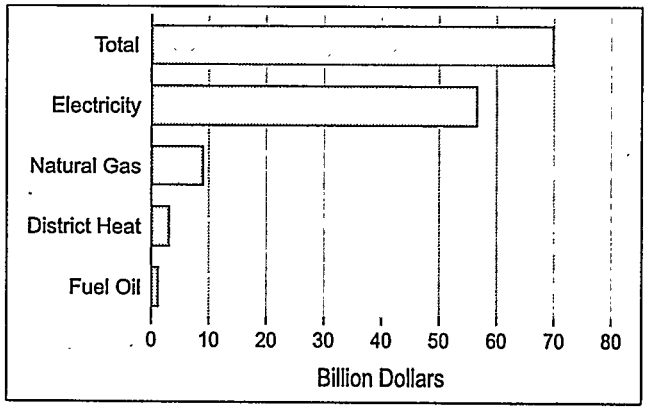
Total expenditures for major sources of energy in 1995 were 69.9 billion dollars (1995 dollars) (Figure 6). Electricity expenditures dominated, accounting for 56.6 billion dollars, or about 80 percent of the total. Total expenditures for natural gas were 9.0 billion dollars, with 3.1 billion dollars for district heat, and 1.2

Figure 5. Primary and Site Energy Consumption by Energy Source, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 6. Total Energy Expenditures by Energy Source, 1995

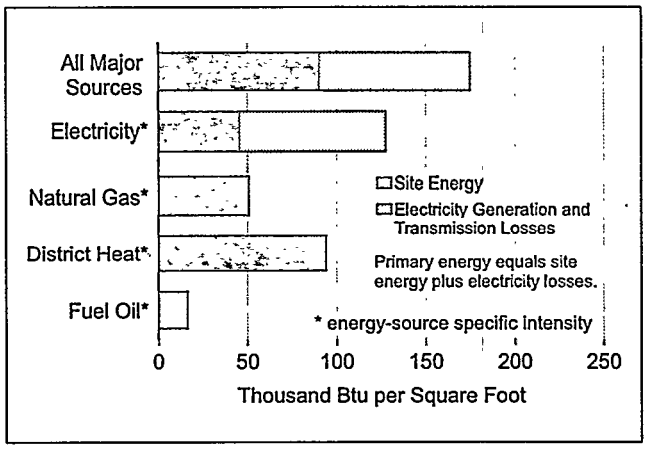


Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

billion dollars for fuel oil. Expenditures per unit of site electricity were 21.7 dollars per million Btu and expenditures per unit of primary electricity were 7.2 dollars per million Btu. For natural gas, expenditures per unit of energy were 4.6 dollars per million Btu, with 5.8 dollars per million Btu for district heat and 5.0 dollars per million Btu for fuel oil.

Energy consumption is one indicator of energy use; another is energy intensity. Energy intensity is the amount of energy consumed per unit of service or activity. For the commercial buildings sector, useful indicators of energy intensity are consumption per square foot, consumption per hour of operation, or consumption per worker. The most commonly used measure of commercial energy intensity is consumption per square foot. Two measures of floorspace can be used, total floorspace and conditional floorspace. Conditional floorspace further defines the floorspace—it may be energy-source specific (e.g., floorspace served by electricity) or end-use specific (e.g., heated floorspace). The site electricity energy intensity and natural gas intensity in 1995 were similar, 45.7 thousand Btu per square foot (for buildings that used electricity) and 51.0 thousand Btu per square foot (for buildings that used natural gas) (Figure 7).

Figure 7. Primary and Site Energy Intensity by Energy Source, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

EIA Surveys

Congress has mandated that EIA collect, analyze, and disseminate impartial, comprehensive data about energy—how much is produced, who uses it, and the purposes for which it is produced. To comply with that Congressional mandate, the EIA conducts two types of surveys:

- **Supply surveys** gather information annually or more frequently from energy suppliers and marketers on the quantities and prices of specific energy sources produced or supplied to the market. The results of the supply surveys are combined and published in energy-source specific EIA publications and in the *Monthly Energy Review*.

- **Consumption surveys** gather information every four years directly from energy end users on the types of energy they use, along with information on the energy-related characteristics of households, commercial buildings, and manufacturing establishments. The results of these surveys are published in energy consumption reports, such as this report. Special analytical reports are also available on the EIA website (www.eia.doe.gov) and on EIA's *Energy InfoDisc* CD-ROM.

These surveys enable EIA to provide meaningful, objective, and accurate energy information for a wide audience that includes Congress; Federal, State and Local agencies; industry; and the general public.

The Commercial Buildings Energy Consumption Survey

Survey Methodology

The Commercial Buildings Energy Consumption Survey (CBECS) is a national sample survey of commercial buildings and their energy suppliers. The 1995 CBECS was the sixth survey in the series begun in 1979. The survey is conducted in two stages, a building characteristics survey and an energy supplier survey. The first, an in-person survey, collects information on physical characteristics of the building, building use and occupancy patterns, major equipment used, conservation practices, and types and uses of energy in the buildings. The supplier survey, a mail survey, collects information on amounts and costs of energy delivered to the building during the survey year.

The target population for the 1995 CBECS consisted of all commercial buildings in the United States with more than 1,000 square feet of floorspace. A commercial building defined by CBECS is an enclosed structure with more than 50 percent of its floorspace devoted to activities that are neither residential, industrial, nor agricultural. To cover this population, a representative sample of 6,639 buildings was chosen. Of these, building characteristics survey interviews were completed at 5,766 buildings for a response rate of 87 percent.

The sample design of CBECS is a multistage area probability cluster sample design supplemented by a list sample of "large" buildings, recently constructed buildings, and "special" buildings (Federal buildings and post offices, hospitals, colleges, and universities). The area sample portion of the design is a sample from the broad spectrum of commercial buildings. This portion uses a four-stage cluster sampling design, a method that involves sampling progressively smaller geographic areas. The supplemental list sample provides an oversample of "large" buildings and "special" buildings to ensure adequate coverage of buildings that are significant energy users. Similarly, for recently constructed buildings, the area sample is used to provide a sample from the broad spectrum of new buildings and the supplemental list sample provides an oversample of "large" new buildings.

Since the purpose of the CBECS is to publish estimates of population values, the CBECS sample is designed so that survey responses can be used to estimate characteristics of the entire stock of commercial buildings in the United States. The method of estimation is to calculate basic sampling weights (base weights) that relate the sampled buildings to the entire stock of commercial buildings. In statistical terms, a base weight is the reciprocal of the probability of selecting a building into the sample. A base weight can be explained as the number of actual buildings represented by a sampled building, e.g., a sampled building that has a base weight of 1,000 represents itself and 999 similar (but unsampled) buildings in the total stock of buildings. Thus, to reduce the bias from unit nonresponse in the survey statistics, the base weights of respondent buildings are adjusted upward, so that the respondent buildings represent not only unsampled buildings but also nonrespondent buildings.

End-Use Consumption Estimation Methodology

The energy consumption data provided by the energy suppliers are for total consumption within the commercial buildings. Estimates for major end uses can be calculated by disaggregating total energy consumption into end-use consumption by using several approaches—engineering simulations, statistical modeling, or a hybrid approach known as statistically adjusted engineering (SAE). CBECS end-use estimates were developed by using the SAE approach. The initial engineering estimates were provided by the Facility Energy Decision Screening (FEDS) system by using CBECS building characteristics data and weather data for the sampled buildings. These estimates were then statistically adjusted to match the observed CBECS consumption data.

Sampling Error, Standard Errors, and Relative Standard Errors

The 1995 Commercial Buildings Energy Consumption Survey produced estimates of numbers of buildings and floorspace for commercial buildings in the United States. Because the estimates are based on the sample selected, they are subject to sampling error. The estimates are based on reported data from representatives of a randomly chosen subset of the entire commercial building population. Consequently, the estimates always differ from the true population values. One source of the difference between the estimated values and the actual values is sampling error. Sampling error is the random difference between the survey estimate and the population value that occurs because the survey estimate is calculated from a randomly chosen subset of the entire population. The sampling error, averaged over all possible samples, would be zero, but since there is only one sample for each CBECS, the sampling error is nonzero and unknown for the particular sample chosen. However, the sample design permits sampling errors to be estimated. Because of sampling error, it is important to note that CBECS estimates should not be considered as finite point estimates, but as estimates with some associated error in each direction.

The standard error is a measure of the reliability or precision of the survey statistic. The value for the standard error can be used to construct confidence intervals and to perform hypothesis tests by standard statistical methods. Relative Standard Error (RSE) is defined as the standard error (square root of the variance) of a survey estimate, divided by the survey estimate and multiplied by 100. In this report, Text Tables 1a through 6b in Chapter 4 include the RSE for each estimate.

The 95-percent confidence range for a given survey estimate can be determined with the RSE. To calculate the 95-percent confidence range:

1. Divide the RSE by 100 and multiply by the survey estimate in the table to determine the standard error.
2. Multiply the standard error by 1.96 to determine the confidence error.
3. The survey estimate plus or minus the confidence error is the 95-percent confidence range.

For example, the estimate for total floorspace in all commercial buildings in the 1995 CBECS is 58,772 million square feet (Text Table 5b) and the estimate's RSE is 3.4 percent. The standard error is (3.4÷100)x(58,772 million square feet) or 1,998 million square feet. The 95-percent confidence error is (1.96)x(1,998 million square feet), or 3,917 million square feet. Therefore, with 95 percent confidence, the true amount of floorspace in commercial buildings in the United States in 1995 was 58,772 (± 3,917) million square feet or, stated another way, the range was from 54,855 to 62,689 million square feet.

Primary and Site Energy

Primary energy is the sum of the energy directly consumed by end users (site energy) and the energy consumed in the production and delivery of energy products. Electricity, of the major energy sources, has the greatest disparity between primary and site energy—a greater amount of energy is used to generate and transmit electricity than in the production and distribution of the other major sources. In 1995, steam-electric utility plants (the largest source of electricity generation) were estimated to have used 10,301 Btu of fossil-fuel energy to generate 1 kilowatthour of electricity; i.e., approximately 3.02 Btu of fossil-fuel energy were used to generate 1 Btu of electricity (3,412 Btu equals 1 kilowatthour of electricity).

The choice of expressing energy consumption data as site energy or primary energy (or site electricity or primary electricity when that energy source alone is considered) depends upon the use of the data. Site energy and site electricity reflect the amount of energy actually consumed within the building. Site energy data are most useful to building engineers, energy managers, building owners and others concerned with consumption directly related to the buildings; e.g., the energy efficiency of end-use equipment. Primary energy data are useful to policymakers and energy analysts who are concerned with environmental issues, such as carbon emissions from energy sources. See the following report for further information: Energy Information Administration. *Emissions of Greenhouse Gases in the United States 1996.* DOE/EIA-0173(96). Washington, DC, October 1997.

The consumption data presented in the 1995 and previous CBECS have been expressed as site energy and site electricity. Primary electricity data reflecting the total energy consumed in generating and transmitting electricity, are given in detailed Tables CE-1 and CE-9 for 1995.

2. Major Characteristics of Commercial Buildings

The CBECS collects statistics on a wide range of physical characteristics of buildings. For any given characteristic, buildings and floorspace (as well as energy consumed) are not evenly distributed. Three major characteristics—principal building activity, building size, and location—are particularly notable for their impact on energy use.

- The amount of energy consumed and the energy intensity vary greatly by building activity. In 1995, health care buildings had a high intensity (240.5 thousand Btu per square foot compared to 90.5 thousand for all buildings), but total energy consumption for those buildings was relatively low (only 10.5 percent of total consumption) because the total number of health care buildings was small.

- Smaller buildings and larger buildings show striking differences in the types of heating or cooling equipment used. These buildings cannot be heated or cooled effectively with the same equipment—residential-type window air conditioning units are quite satisfactory for cooling many very small commercial buildings. Large office buildings require much more complex integrated heating, cooling, and distribution systems.

- Location of buildings imposes very different heating and cooling requirements, which leads to regional differences in the energy sources and equipment used for those end uses.

In the following sections, the distribution of buildings and floorspace for major characteristics along with total site energy consumption and total intensity are discussed. The profiles of major characteristics showed no statistically significant changes from 1989 to 1992 to 1995, the years in which the last three CBECS were conducted.

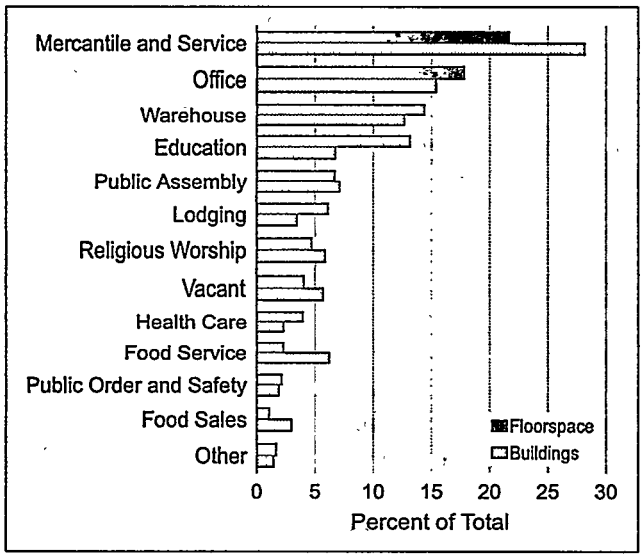
Some of the more notable findings in energy consumption in commercial buildings in 1995 are revealed at the energy source level and in differences between site and primary energy consumption. These are covered in the next chapter.

Principal Building Activities

Four types of building activity—mercantile and service, office, warehouse and storage, and education—comprised 67 percent of commercial floorspace and 63 percent of commercial buildings in 1995 (Figure 8). Mercantile and service buildings were by far the most numerous type (more than 28 percent), but they were not as dominant in floorspace (22 percent). Comparison of the percentage of floorspace and buildings for a given category gives an indication of the mean, or average, size of buildings in the category. For example, education buildings accounted for 13 percent of total floorspace and 7 percent of total buildings; i.e., those buildings were larger in average size (Figure 9). At 25,100 square feet per building, education buildings were the largest type, much larger than the average of all commercial buildings (12,800 square feet per building). Two other activities, lodging and health care (22,900 and 22,200 square feet per building, respectively), had buildings that were also larger than average.

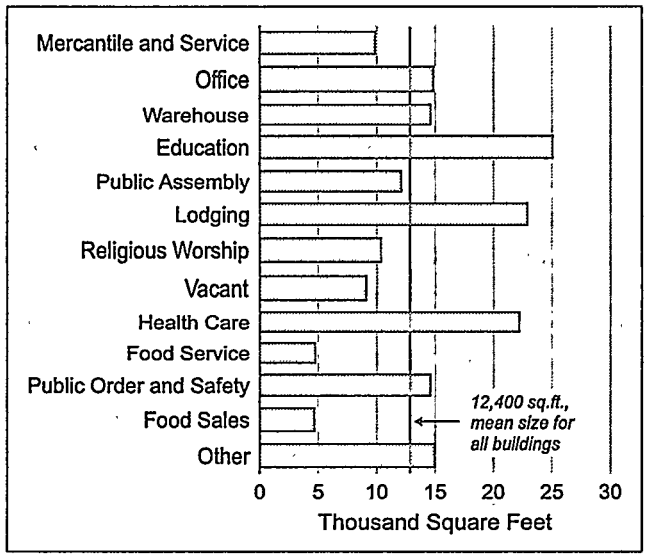
Each principal building activity category has its own set of characteristics (e.g., end-use equipment used, number of workers, hours of operation) that contribute to total energy use. Comparison of Figures 8 and 10 shows that buildings, floorspace, and total consumption are distributed differently across building activity categories. Mercantile and service buildings and office buildings accounted for the largest proportion of energy use—together they accounted for 2.0 quadrillion Btu of consumption, 37.4 percent of total consumption. Three building types—health care, food service, and food sales—each had a significantly higher energy intensity than the average of 90.5 thousand Btu per square foot for all commercial buildings (Figure 11). Warehouses, religious worship buildings, and vacant buildings had lower-than-average intensities; together they accounted for 23.2 percent of floorspace, but only 9.0 percent of total consumption.

Figure 8. Distribution of Floorspace and Buildings by Principal Building Activity, 1995



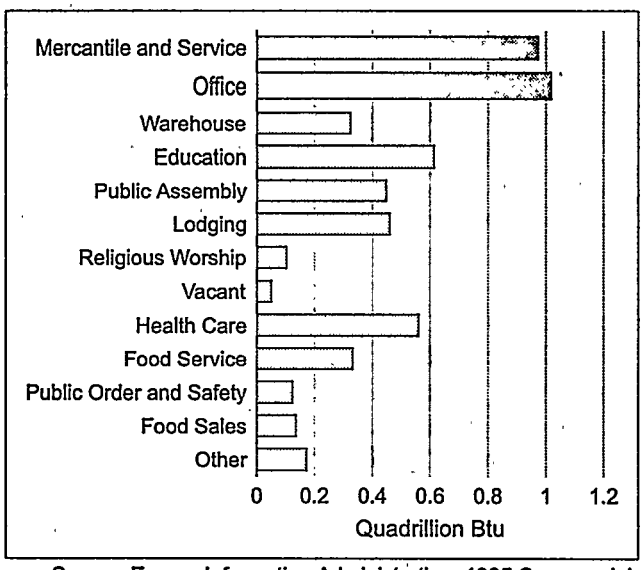
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 9. Mean Building Size by Principal Building Activity, 1995



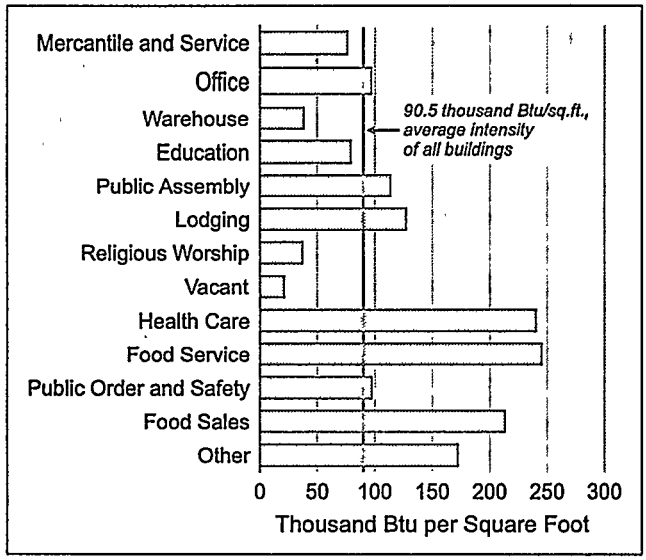
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 10. Site Energy Consumption by Principal Building Activity, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 11. Site Energy Intensity by Principal Building Activity, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

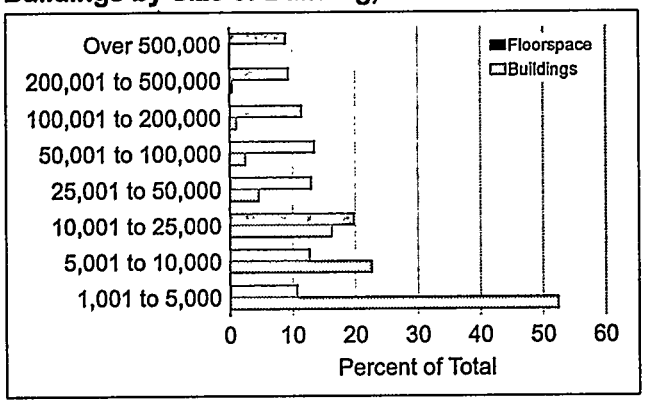
Size of Buildings

There are many more small commercial buildings than large ones. The vast majority of buildings were found in the smallest size categories, with more than half (52 percent) in the smallest category (1,001 to 5,000 square feet) and three-quarters in the two smallest categories (1,001 to 10,000 square feet) (Figure 12). Less than 5 percent of buildings (188,000 buildings) were larger than 50,000 square feet and less than 2 percent (73,000 buildings) were larger than 100,000 square feet.

The energy use characteristics of the smallest and largest commercial buildings are quite different. In smaller buildings, heating and cooling systems are employed primarily to moderate outside air temperatures (as they are in residential buildings). In large commercial buildings, outside air conditions have less impact on heating and cooling systems than do activities within the buildings—equipment used, lighting levels, number of people, and hours of operation. For example, one part of a building might need to be heated and ventilated to provide comfortable conditions for employees, while a computer room might need to be cooled because of excess heat given off by the computer equipment. Chapter 4, "End-Use Equipment and Energy Conservation," explores some of these differences in more detail.

Total energy consumption was fairly evenly distributed across building size categories (the largest size category was slightly less than two categories—1,001 to 5,000 square feet and 10,001 to 25,000 square feet; other differences were not significant) (Figure 13). One category (10,001 to 25,000 square feet) had a lower energy intensity than other categories (Figure 14).

Figure 12. Distribution of Floorspace and Buildings by Size of Building, 1995

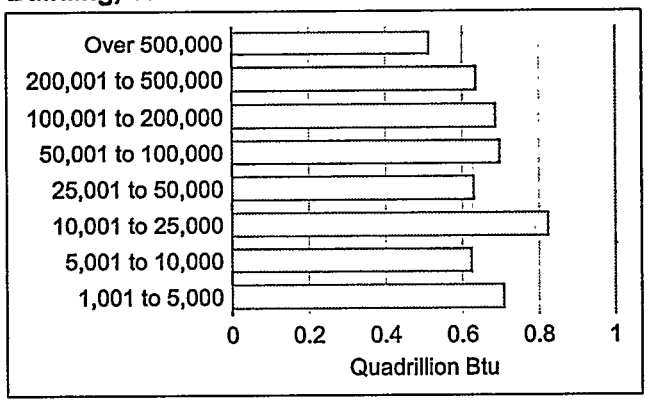


Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Examples of buildings by size category:

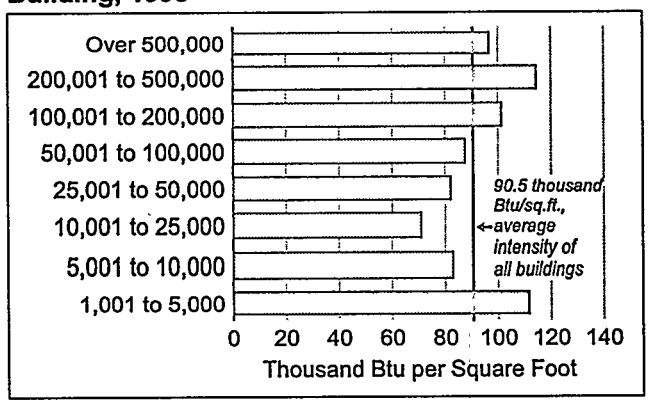
1,001 to 5,000: convenience store
25,001 to 50,000: 1-to-5 story office building; large supermarket
100,001 to 200,000: 3-to-8 story office building; large 2,000 student metropolitan high school
Over 500,000: 15 or more story office building; indoor football or baseball stadium

Figure 13. Site Energy Consumption by Size of Building, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 14. Site Energy Intensity by Size of Building, 1995



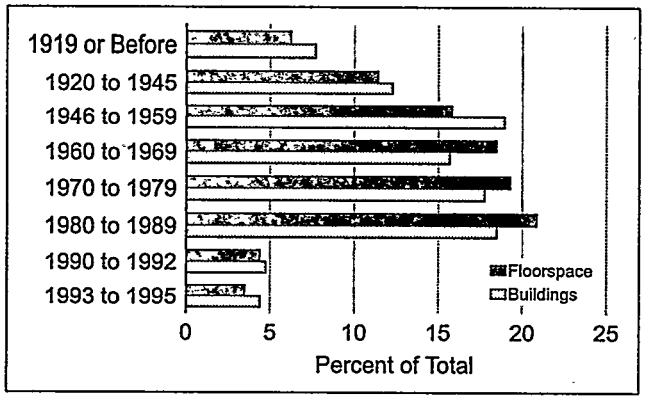
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Year Constructed

Most commercial buildings, once constructed, are expected to last for decades. Although new buildings are constructed each year and older buildings are demolished, the commercial buildings stock at any point in time is dominated by older buildings (the median age of commercial buildings in 1995 was 30.5 years). More than 70 percent of buildings and total floorspace in 1995 were constructed prior to 1980, and more than 50% of buildings and floorspace prior to 1970 (Figure 15). During the 1990's, 420,000 buildings and more than 4.6 billion square feet of floorspace were added to the commercial buildings sector, but they each represented less than 10 percent of buildings and floorspace in the 1995 buildings stock.

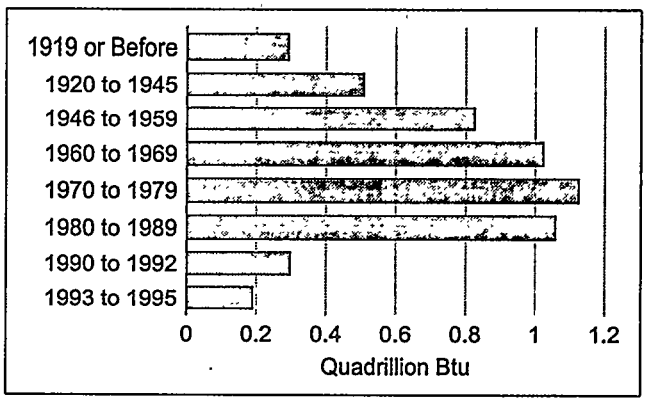
Total energy consumption was concentrated in buildings constructed in the 1960's, 1970's, and 1980's—a reflection of the greater number of buildings in those categories (Figure 16). The energy intensity by year constructed categories showed no statistically significant differences between any of the categories (Figure 17).

Figure 15.Distribution of Floorspace and Buildings by Year Constructed, 1995



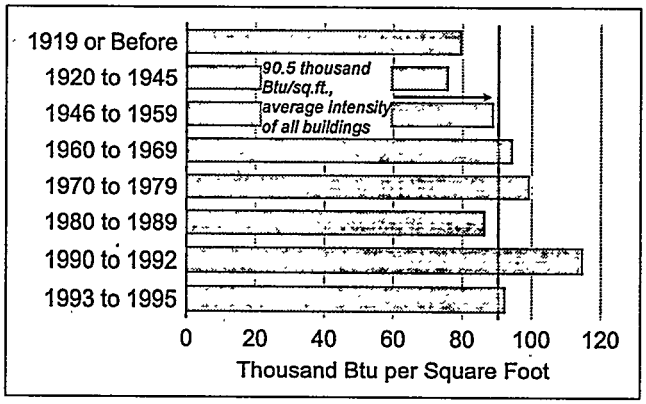
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 16. Site Energy Consumption by Year Constructed, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 17. Site Energy Intensity by Year Constructed, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

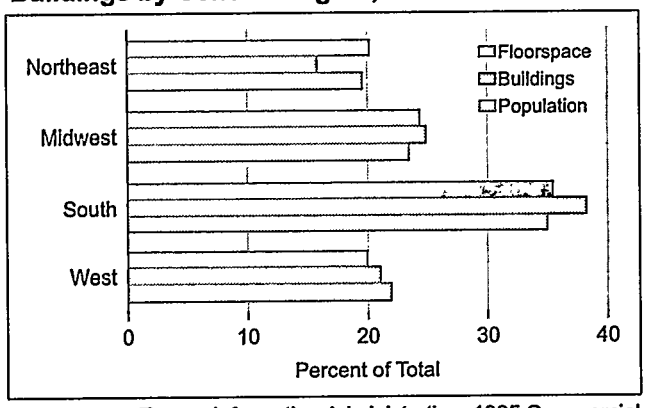
Location

Census Region

The U.S. Census Bureau divides the United States into four Census regions, each with nine to 16 States (see box on following page). For 1995, commercial buildings, floorspace, and population were distributed in a similar pattern for the four regions (Figure 18). The high correlation of buildings and floorspace with population was not surprising because commercial activity mostly entails the provision of services to people. There were slight differences in the regional distribution of buildings and floorspace. Buildings in the Northeast were larger on average (16,400 square feet per building) than those in the other three regions (11,900 to 12,600 square feet per building).

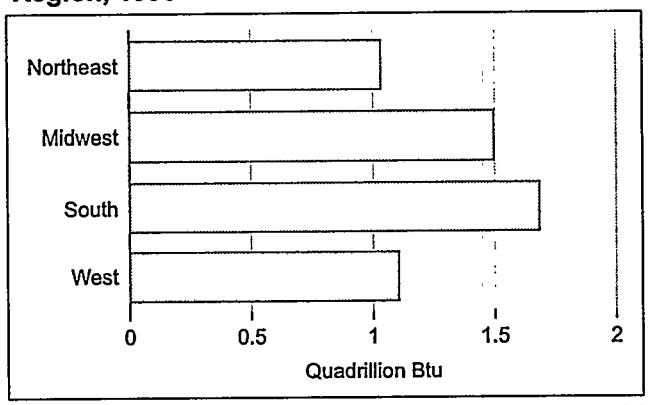
The pattern of energy consumption by Census region is similar to that of buildings and floorspace (Figure 19). Energy intensity in the Midwest region is higher than average and that in the South is lower than average (Figure 20).

Figure 18. Distribution of Floorspace and Buildings by Census Region, 1995



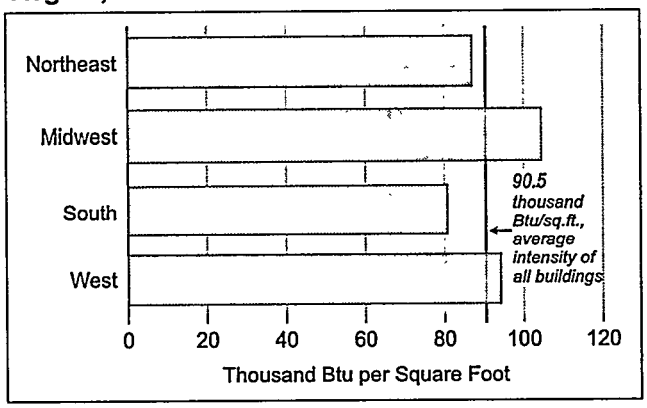
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 19. Site Energy Consumption by Census Region, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 20. Site Energy Intensity by Census Region, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Census Regions

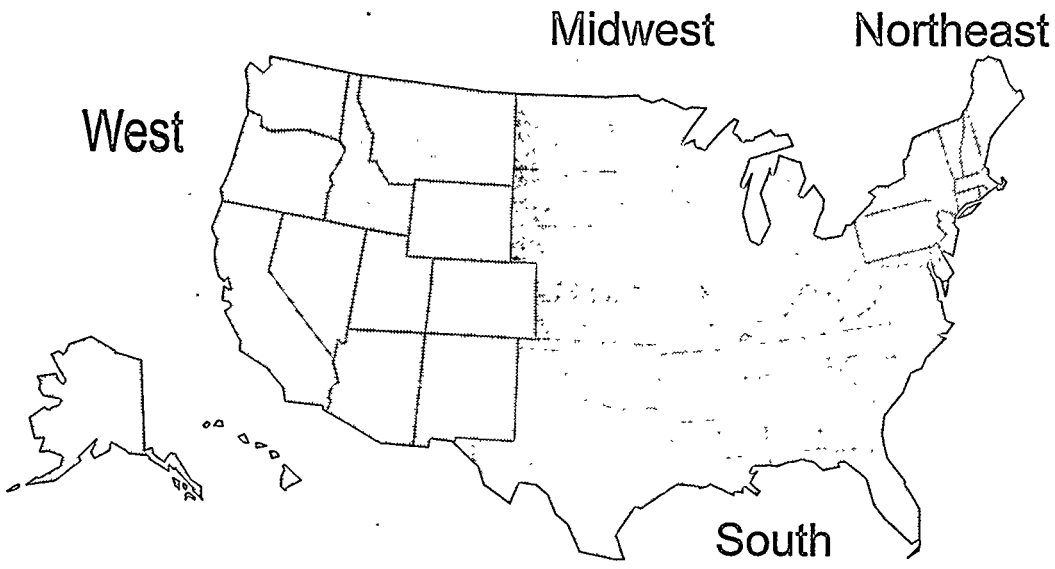
The Bureau of the Census (U.S. Department of Commerce) has divided the United States into four geographic regions, each with nine to sixteen states.

Northeast Region: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont

Midwest Region: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

South Region: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia

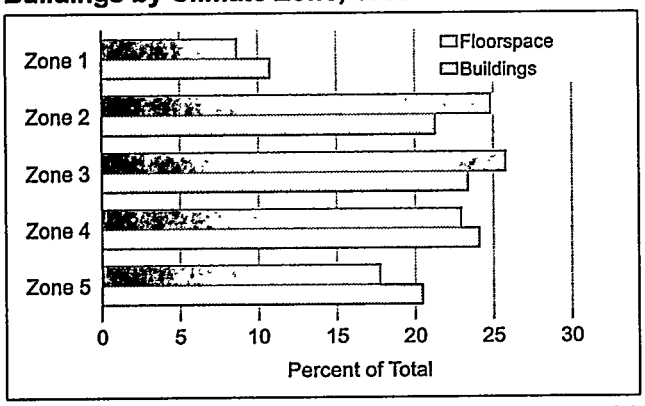
West Region: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming



Climate Zone

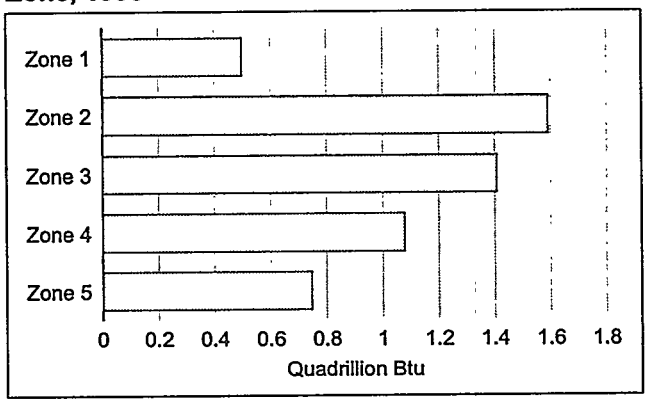
Temperature data from the National Oceanic and Atmospheric Administration were used to define five climate zones for the United States (see box on following page). The zones are oriented roughly east-west, with Zone 1 the northernmost (and coldest) and Zone 5 the southernmost (and warmest). Heating and/or cooling loads would be expected to be similar within each of the zones. Commercial buildings, floorspace, and consumption were unevenly distributed (Figures 21 and 22). Less than 10 percent of floorspace and less than 12 percent of buildings were found in Zone 1, while the other four zones each had roughly equal shares of buildings and floorspace. The average energy intensity of buildings in Zone 2 was greater than that of buildings in Zone 5 (Figure 23). All other comparisons between zones were not statistically significant.

Figure 21. Distribution of Floorspace and Buildings by Climate Zone, 1995



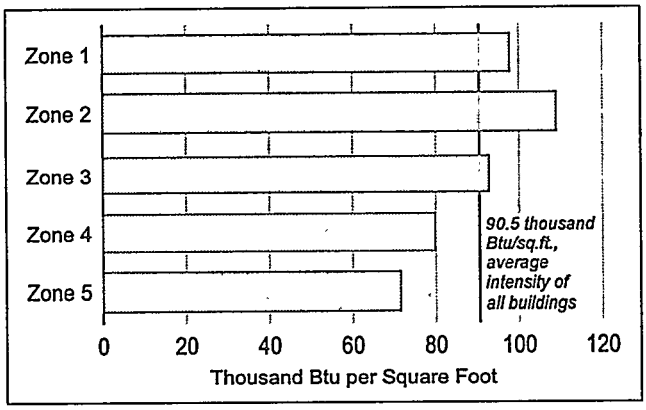
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 22. Site Energy Consumption by Climate Zone, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 23. Site Energy Intensity by Climate Zone, 1995



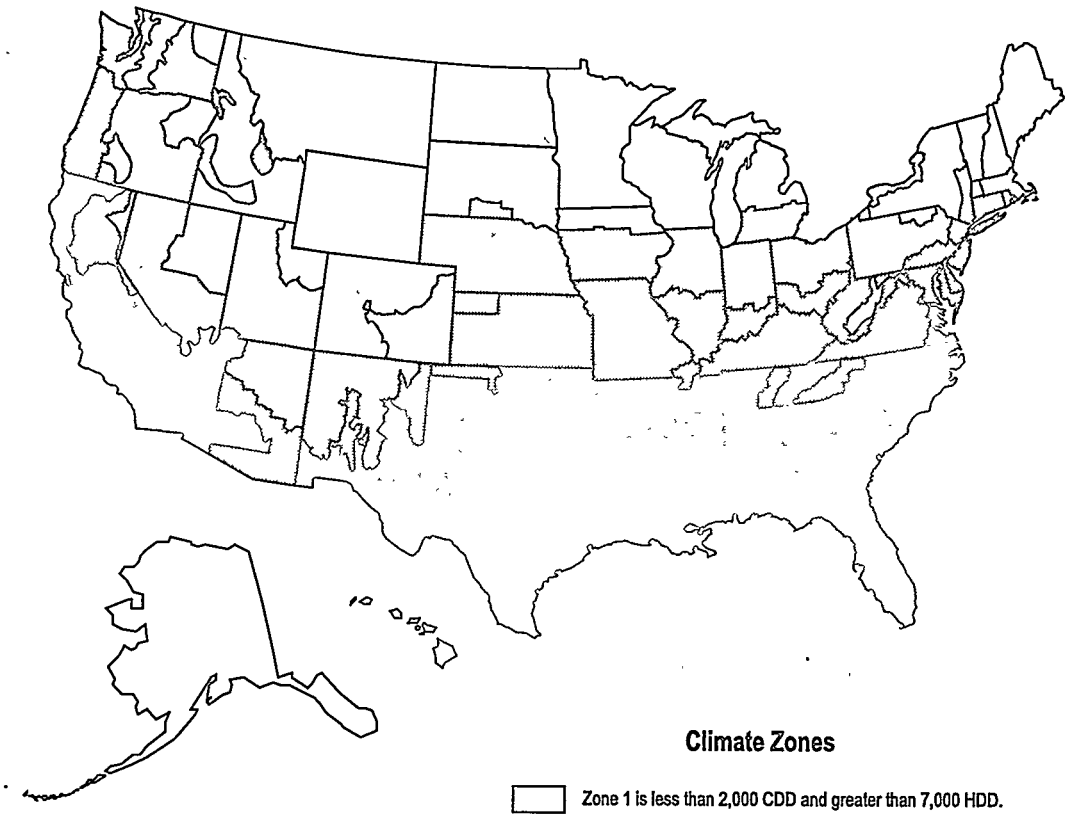
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Climate Zones

The United States is divided into five climatically distinct areas—climate zones—that are defined by long-term weather conditions that affect heating and cooling loads in buildings. The zones are based on the 45-year average annual number of degree-days (with a 65 degree Fahrenheit base). Annual heating degree-days (HDD) are a measure of how cold a building location is relative to the base temperature. The HDD is the numerical difference between the 45-year average temperature and 65 degrees (if less than 65; otherwise it is zero). The annual HDD is the sum of the daily HDD for the reference year. Annual cooling degree-days (CDD) are a measure of how warm a building location is relative to the base temperature. The CDD is the numerical difference between the 45-year average temperature and 65 degrees (if greater than 65; otherwise it is zero). The annual CDD is the sum of the daily CDD for the reference year.

Examples of cities in each of the climate zones:

Climate Zone 1—Billings, Montana; Minneapolis, Minnesota; Augusta, Maine
Climate Zone 2—Omaha, Nebraska; Akron, Ohio; Boston, Massachusetts
Climate Zone 3—Wichita, Kansas; Lexington, Kentucky; Baltimore, Maryland
Climate Zone 4—San Francisco, California; Memphis, Tennessee; Raleigh, North Carolina
Climate Zone 5—Honolulu, Hawaii; New Orleans, Louisiana; Miami, Florida



3. End Uses, Energy Sources, and Energy Consumption

Commercial buildings exist to house commercial establishments and provide a comfortable environment for employees and on-site customers or occupants. Energy is consumed in buildings to maintain the physical environment and to power any equipment needed to accomplish commercial activities. Important energy-related questions are—For what purposes is energy used? What sources of energy are used? How much energy is consumed? How intensely is the energy used? To answer these and related questions, the Commercial Buildings Energy Consumption Survey collects information on energy sources, the end uses of energy, and energy consumption.

- End uses are the purposes for which the energy is consumed, such as space heating, cooling, and lighting.
- Energy sources are the types of energy or fuels consumed in the building—electricity, natural gas, and district heat are examples of energy sources used in commercial buildings.

The box on the following page lists the specific end uses and energy sources that the respondents to the survey were questioned about.

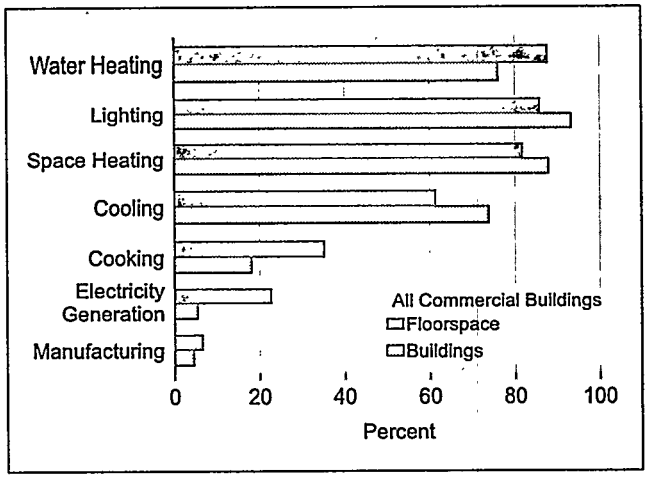
Energy End Uses

The types of activities within commercial buildings determine what specific energy-consuming services will be needed. The vast majority of commercial buildings used energy for lighting, space heating, water heating, and cooling (each of these end uses exceeded 73 percent of buildings and 60 percent of floorspace)[1] (Figure 24). The percentage of buildings and floorspace served by the major end uses showed no significant changes from the 1989 CBECS to the 1992 CBECS to the 1995 CBECS, with the exception of electricity generation. That end use increased from less than two percent of buildings and eight percent of floorspace in 1989 (see *Commercial Buildings Characteristics 1989*, DOE/EIA-246(89)) to more than five percent of buildings and 22 percent of floorspace in 1995.

Space heating had the greatest variety of energy sources; natural gas and electricity were dominant (each used for more than 39 percent of heated floorspace and more than 36 percent of heated buildings) and fuel oil, district heat, and propane were significant contributors (Figure 25). District heat was used primarily for heating in larger buildings (51,400 square feet on average) and propane was used primarily in smaller buildings (6,700 square feet on average). Use of wood for space heating in commercial buildings was very limited (only 1 percent of heated floorspace and 3 percent of heated buildings).

Natural gas and electricity were used in about equal percentages of buildings and floorspace for water heating (more than 44 percent of buildings and floorspace in buildings with water heating) (Figure 26). Fuel oil, district heat, and propane were each used for less than 8 percent of floorspace and 4 percent of buildings with water heating. District heat and propane were used for water heating in larger (72,000 square feet on average) and smaller (9,300 square feet on average) buildings, respectively.

Figure 24. End Uses in Commercial Buildings by Percent of Floorspace and Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

[1]The percentages of floorspace for lighting, heating, and cooling refer only to the portions of floorspace within the buildings that were lit, heated, or cooled, respectively. The percentage of floorspace for each of the other end uses refer to all floorspace in the buildings with that particular end use.

Energy Sources and End Uses in the 1995 CBECS

The respondent for each building in the 1995 CBECS was asked what energy sources were used to supply energy to the building and what end uses those sources were used for:

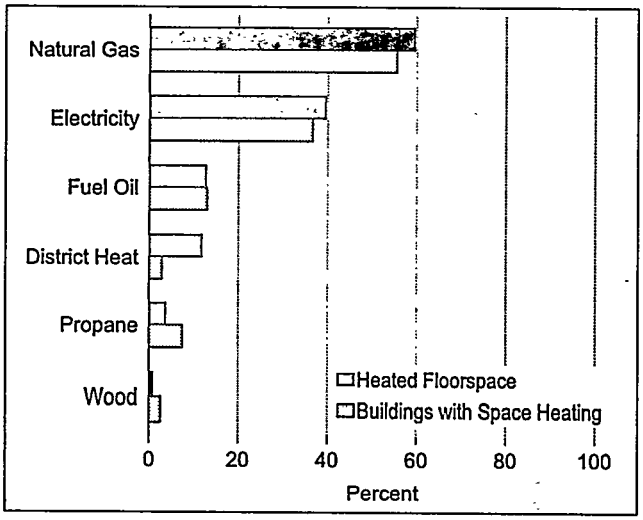
Energy Sources

electricity
natural gas
fuel oil (or diesel or kerosene)
propane (or bottled gas or LPG)
district steam or hot water piped into the building from a central plant or utility
district chilled water piped into the building from a central plant or utility
wood
coal
solar thermal panels that use sunlight to heat fluids
other
no energy used in 1995

End Uses

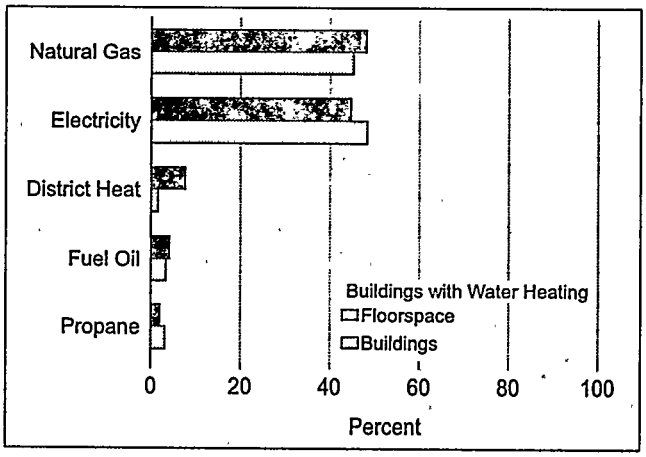
space heating (main and secondary)
air conditioning
domestic water heating
commercial or institutional cooking or food serving
manufacturing or other type of industrial activity
electricity generation, including emergency backup
lighting (electricity-only)
refrigeration (electricity-only)
personal computers and/or computer terminals (electricity-only)

Figure 25. Space Heating Energy Sources, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 26. Water Heating Energy Sources, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Electricity was the most flexible energy source in commercial buildings—a major source for the end uses shown in Figure 24, as well as the sole source for ventilation equipment, office equipment, and all other electrical equipment used in commercial buildings. Electricity was by far the dominant energy source for cooling (97.4 percent of cooled buildings and 95.0 percent of cooled floorspace). District chilled water and natural gas had limited use for cooling (each less than 7 percent of cooled floorspace and 2 percent of buildings with cooling). The former was used primarily in larger buildings (47,600 square feet on average).

Use of natural gas and electricity for cooking for commercial purposes was nearly equal (for natural gas, 54.1 percent of buildings with cooking and 63.7 percent of floorspace; for electricity, 58.1 percent of buildings and 59.1 percent of floorspace), with propane the third most used source (14.9 percent of buildings and 7.2 percent of floorspace). Commercial buildings with cooking were much larger than average, 25,000 square feet per building (compared to 12,800 square feet for all commercial buildings).

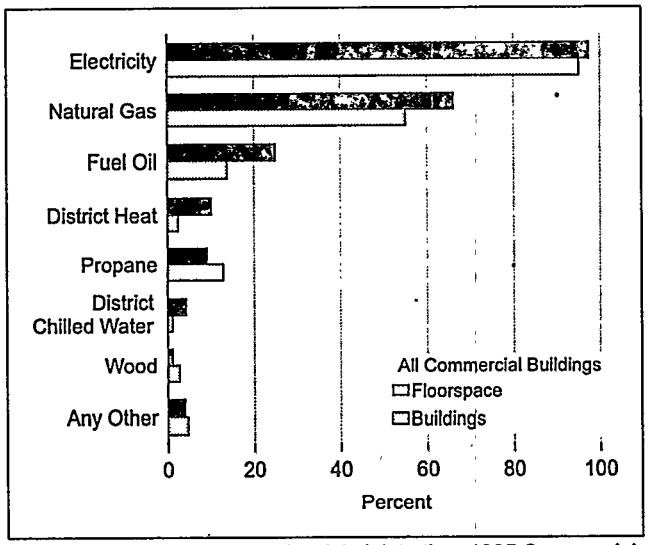
Electricity generation in commercial buildings was used predominantly for emergency back-up generation (78 percent of buildings and 88 percent of floorspace in buildings that had electricity generation). Buildings with electricity generation showed a strong bias towards larger buildings (54,100 square feet per building on average).

Energy Sources Used

Electricity and natural gas were by far the most commonly used sources of energy (for any use) in commercial buildings (Figure 27). Electricity use was nearly universal (95 percent of buildings and 97 percent of floorspace) while natural gas was used in 55 percent of buildings and 66 percent of floorspace. Fuel oil, the next most often used source, was used for 25 percent of total floorspace and 15 percent of buildings. A later section discusses the characteristics of buildings that used the four major energy sources for which CBECS collected consumption data (electricity, natural gas, fuel oil, and district heat). Commercial buildings that used propane or wood were smaller than average (9,000 square feet and 5,500 square feet for propane and wood, respectively, compared to 12,800 square feet for all buildings). The two district energy sources were used in buildings much larger than average (51,400 square feet for district heat and 47,600 square feet per building for district chilled water).

The CBECS collected information on major end uses; those that can be served by more than one type of energy source and those end uses that are exclusively sourced by electricity (e.g., lighting, office equipment, and refrigeration). The major uses of electricity that competed with other sources were cooling, space heating, water heating, and cooking[2] (Figure 28). The two dominant end uses of natural gas were space heating and water heating (Figure 29). Fuel oil and district heat (not shown), were predominantly used for space heating and water heating. Both of those energy sources, along with natural gas, served as the main space heating source when used for space heating. Electricity was more often used as a secondary space heating source than were the other three sources (32.5 percent of heated floorspace used electricity for space heating, but only 19.2 percent used electricity as the main source).

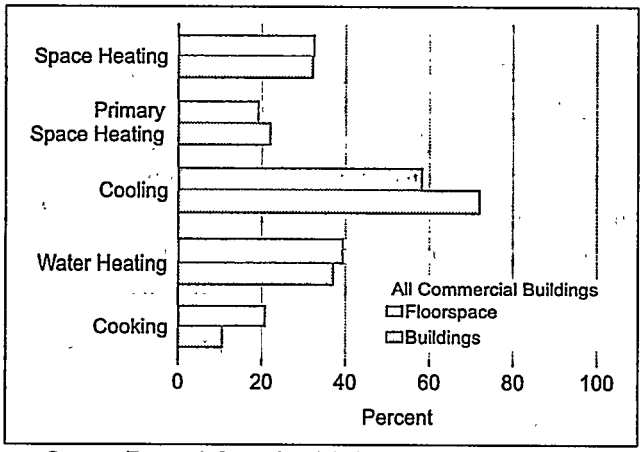
Figure 27. Energy Sources Used in Commercial Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

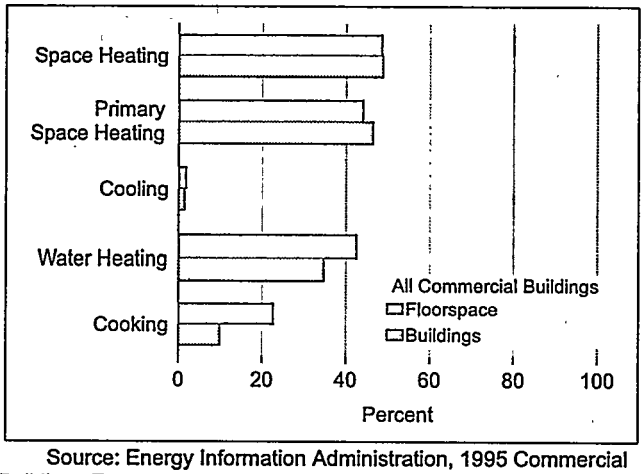
[2]The percentages of floorspace with water heating and cooking were calculated by dividing the sum of *all floorspace* in buildings with those end uses by total floorspace. The percentages of floorspace with space heating or cooling were calculated by dividing the sum of *only the heated or cooled portions of floorspace* within buildings with those end uses by total floorspace.

Figure 28. Electricity End Uses, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 29. Natural Gas End Uses, 1995



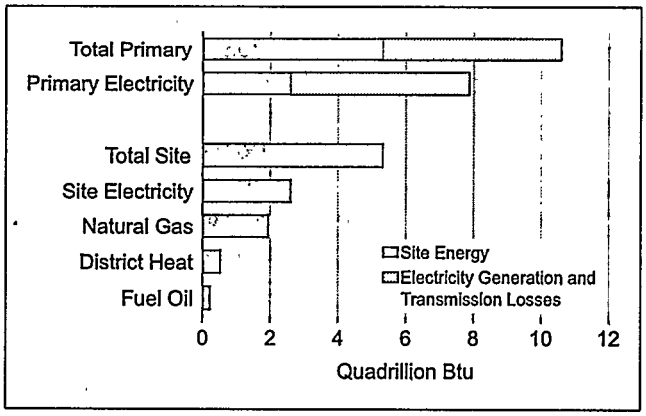
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Energy Consumption by Energy Source and End Use

In 1995, the total amount of site energy consumed by commercial buildings in the United States for major energy sources (electricity, natural gas, fuel oil, and district heat) was 5.3 quadrillion Btu (Figure 30). The greatest consumption for any energy source was 2.6 quadrillion Btu for electricity, followed by 1.9 quadrillion Btu for natural gas. District heat (0.5 quadrillion Btu) and fuel oil (0.2 quadrillion Btu) combined were less than half that of natural gas. Total *primary* energy consumption was 10.6 quadrillion Btu and primary electricity consumption was 7.9 quadrillion Btu.

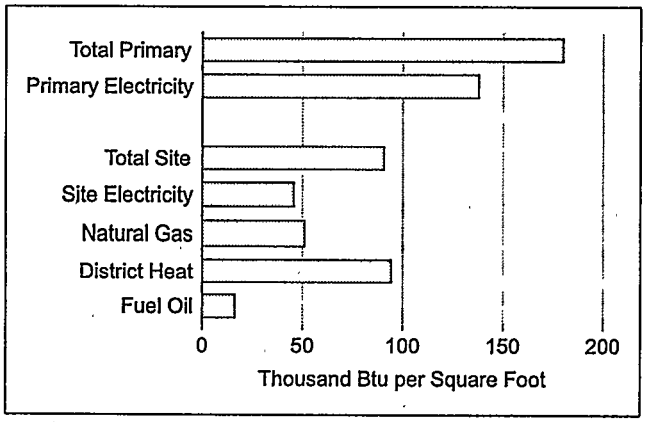
Energy consumption is one indicator of energy use; another is energy intensity, the amount of energy consumed per unit of service or activity.[3] Site electricity energy intensity and natural gas intensity in 1995 were similar, 45.7 thousand Btu per square foot for buildings that used electricity and 51.0 thousand Btu per square foot for buildings that used natural gas (Figure 31). Primary electricity intensity, at 137.9 thousand Btu per square foot, greatly exceeded natural gas intensity. There were no significant changes in energy intensities between the 1989 CBECS and the 1995 CBECS, with the exception of fuel oil intensity, which declined from

Figure 30. Site and Primary Energy Consumption by Energy Source, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 31. Site and Primary Energy Intensity by Energy Source, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

[3]For the commercial buildings sector, useful indicators of energy intensity are consumption per square foot, consumption per hour of operation, and consumption per worker. The most commonly used measure of commercial energy intensity is consumption per square foot. Two measures of floorspace can be used, total floorspace and conditional floorspace. Conditional floorspace may be energy-source specific (e.g., floorspace served by electricity) or end-use specific (e.g., heated floorspace).

27.0 thousand Btu per square foot in 1989 to 16.3 thousand Btu per square foot in 1995. All of these intensities were energy-source specific.

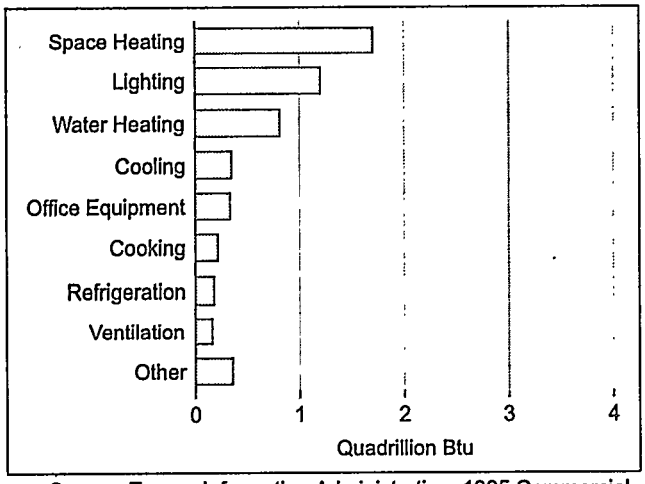
There were notable differences in site and primary end-use consumption (Figures 32 and 33):

- Space heating and lighting were the dominant end uses—combined they account for more than half of total site and primary consumption (54.6 percent of site consumption and 52.5 percent of primary consumption, respectively).

- Space heating site consumption exceeded lighting consumption (1.7 quadrillion Btu and 1.2 quadrillion, respectively) but, measured in terms of primary consumption, lighting energy requirements were nearly twice as large as those of space heating (3.6 quadrillion Btu for lighting and 1.9 quadrillion for space heating). Those differences resulted because lighting is solely electricity consumption, but space heating had only a small component of electricity consumption (Figures 34 and 35).

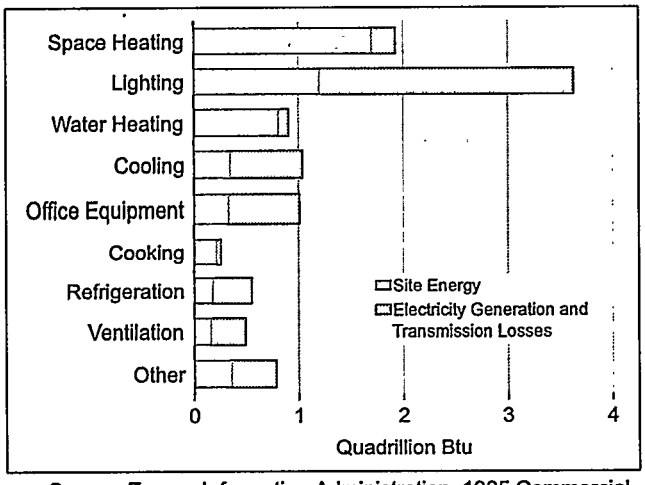
- Water heating site consumption was more than twice that of cooling or office equipment but, for primary consumption, the three end uses were nearly equal.

Figure 32. Total Site Energy Consumption by End Use, 1995



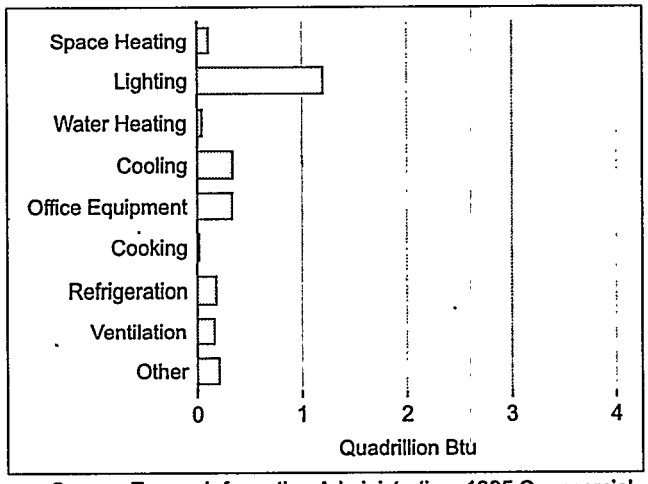
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 33. Total Primary Energy Consumption by End Use, 1995



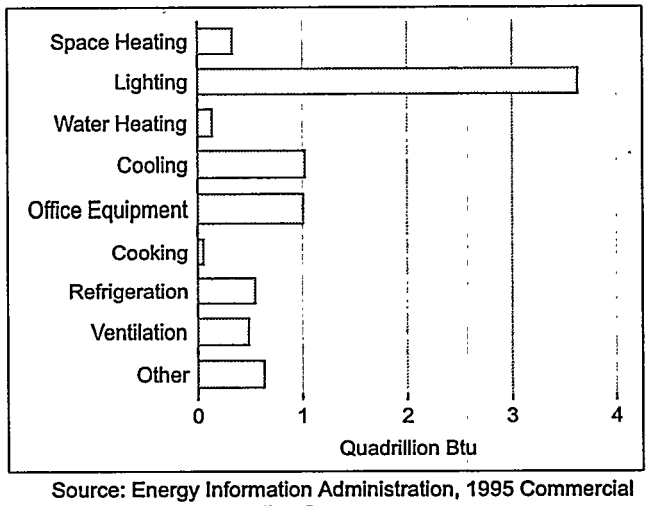
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 34. Site Electricity Consumption by End Use, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

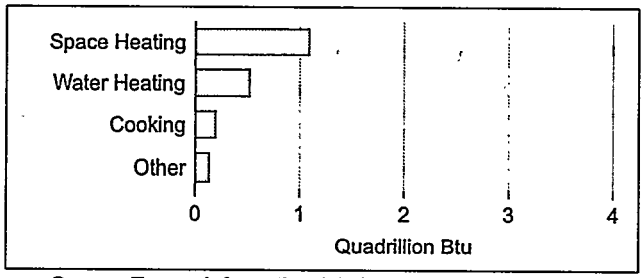
Figure 35. Primary Electricity Consumption by End Use, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Natural gas consumption was distributed mainly among three end uses—space heating, water heating, and cooking. Natural gas and electricity directly competed in those three end uses (compare Figures 34, 35, and 36). In each, natural gas consumption exceeded both site and primary electricity consumption.

Figure 36. Natural Gas Consumption by End Use, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

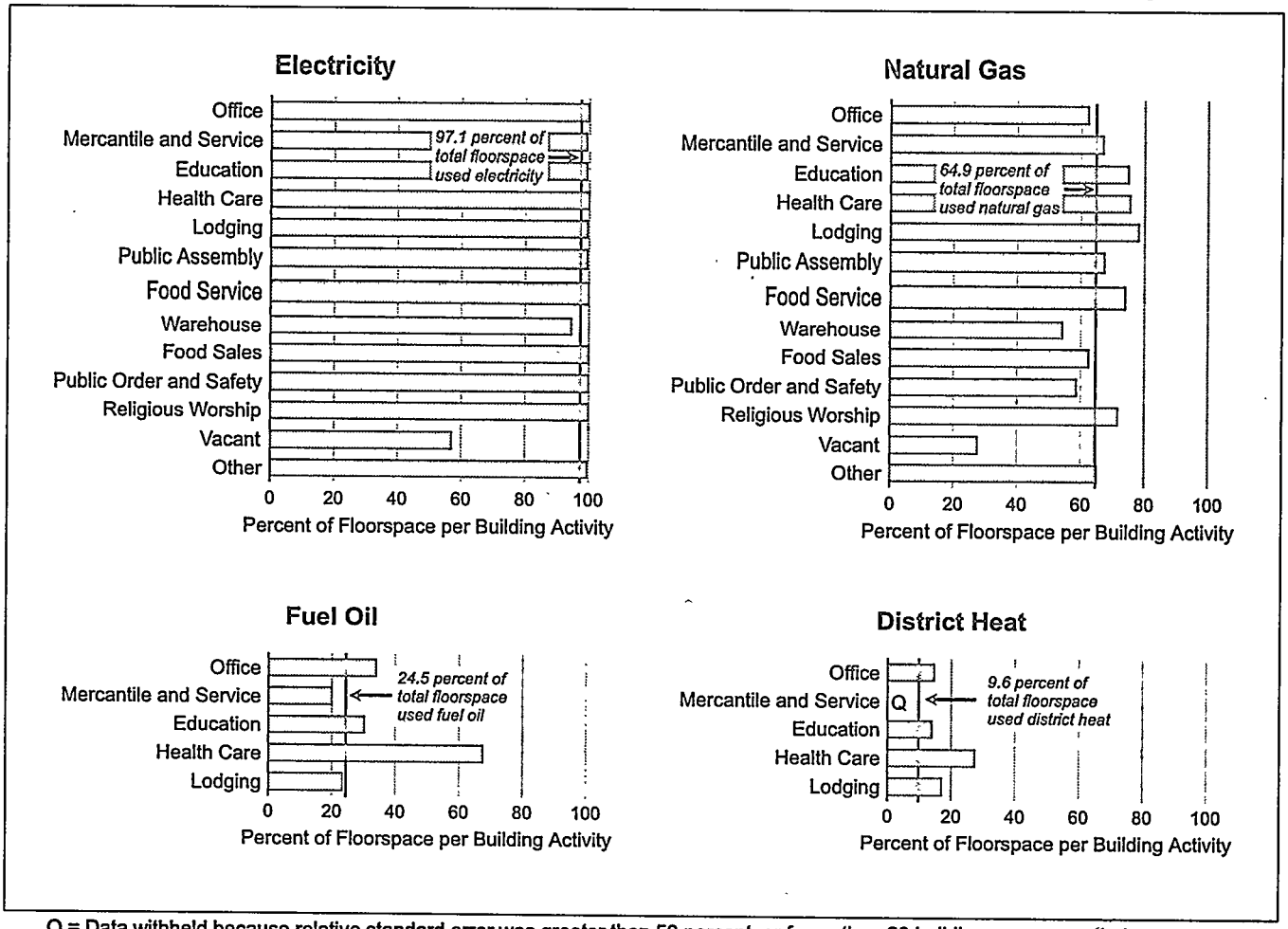
Major Energy Sources and Building Characteristics

The major energy sources used in commercial buildings and their energy intensities varied across categories of building characteristics: in particular, principal building activity, size of building, year constructed, and location.

Energy Sources and Principal Building Activity

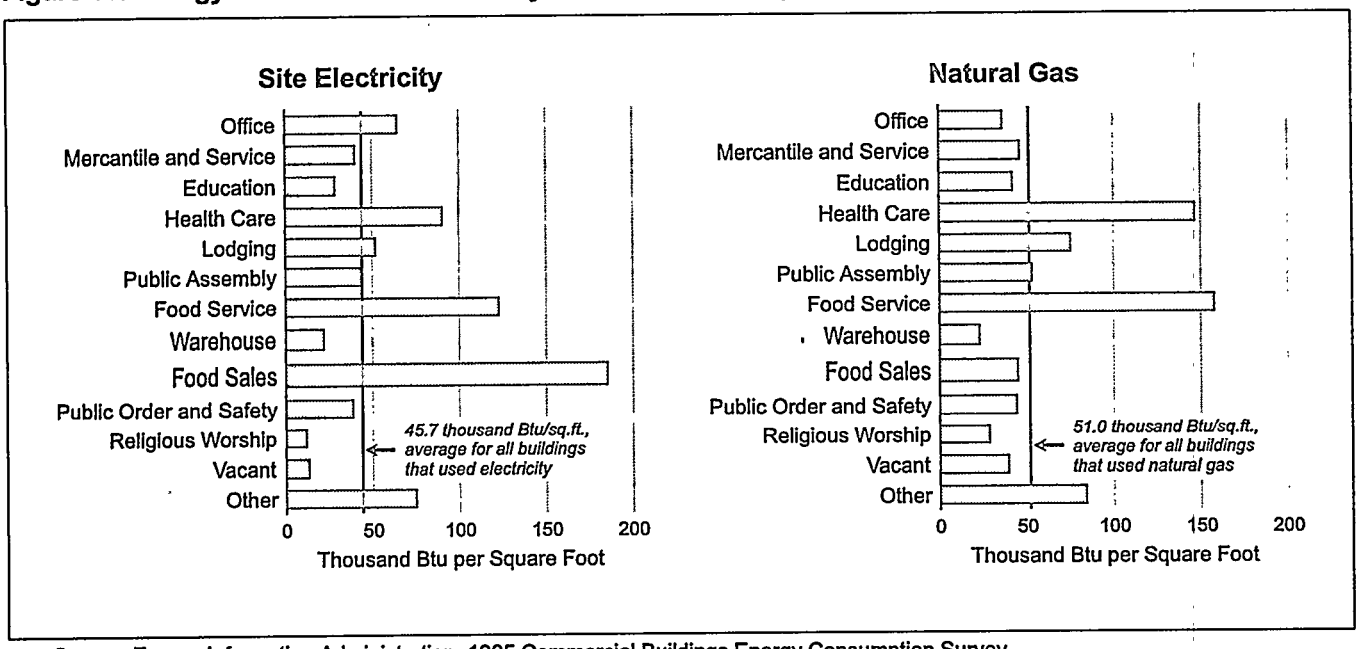
Electricity use was nearly universal in all commercial building types; the percentage of floorspace served by electricity exceeded 99 percent of total floorspace, with the exception of warehouses at 94.5 percent of floorspace and vacant buildings at 57.0 percent. The amount of floorspace that used natural gas was slightly less than two-thirds of total floorspace (64.9 percent) (Figure 37). None of the categories of principal build-

Figure 37. Percent of Floorspace That Used Major Energy Sources by Principal Building Activity, 1995



Q = Data withheld because relative standard error was greater than 50 percent, or fewer than 20 buildings were sampled.
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 38. Energy Intensities for Electricity and Natural Gas by Principal Building Activity, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

ing activity were significantly different from each other for natural gas, with the exception of vacant buildings at 27.6 percent—those buildings used natural gas significantly less than the average. The use of fuel oil and district heat by building activity is shown only for the five most common building types—the standard errors were too large or the number of cases were too few to report for the other building types.[4] The use of fuel oil (primarily for backup electricity generation) was especially high for health care buildings. More than two-thirds (67.6 percent) of those buildings used fuel oil. No other type exceeded 40 percent. The greatest use of district heat was for four building types: office, education, health care, and lodging—all exceeded 13 percent of floorspace.

The energy intensities for electricity and natural gas varied by building type (Figure 38). Electricity intensity (site electricity) was significantly higher for three building types—health care, food service, and food sales, all intensive users of electrical equipment (e.g., medical equipment, refrigerators). Three building types, warehouse, religious worship, and vacant, had lower than average intensities. Religious worship buildings were lower, in part, because of their fewer operating hours. That was reflected in their cooling, lighting, and office equipment intensities, all of which were much lower than average (Detailed Table EU-4).

Two building types had higher than average natural gas intensities, health care and food service, both more than twice the average for all buildings (146.7 thousand Btu per square foot for health care, 157.8 thousand for food service, and 51.0 thousand for all buildings). For health care buildings, space heating, cooking, and especially water heating intensities were much greater than average (Detailed Table EU-6). For food service buildings, cooking and water heating intensities were especially high. Two buildings types, warehouse and religious worship, had lower than average natural gas intensities.

There were no significant differences in either fuel oil or district heat energy intensities for the five major building activities (not shown).

Energy Sources and Size of Building, Year Constructed, and Location

Three important energy-related building characteristics are size of building, year constructed, and location (Census region and climate zone). The use of electricity was nearly universal across those four characteristics categories (Figure 39). Natural gas was used in fewer smaller buildings (53.6 percent of floorspace in the smallest size category, 67.7 percent and 70.4 percent in the two largest categories). The apparent differences in other categories were not statistically significant. There were several significant differences across categories for both fuel oil and district heat. Fuel oil and district heat were both more widely used in

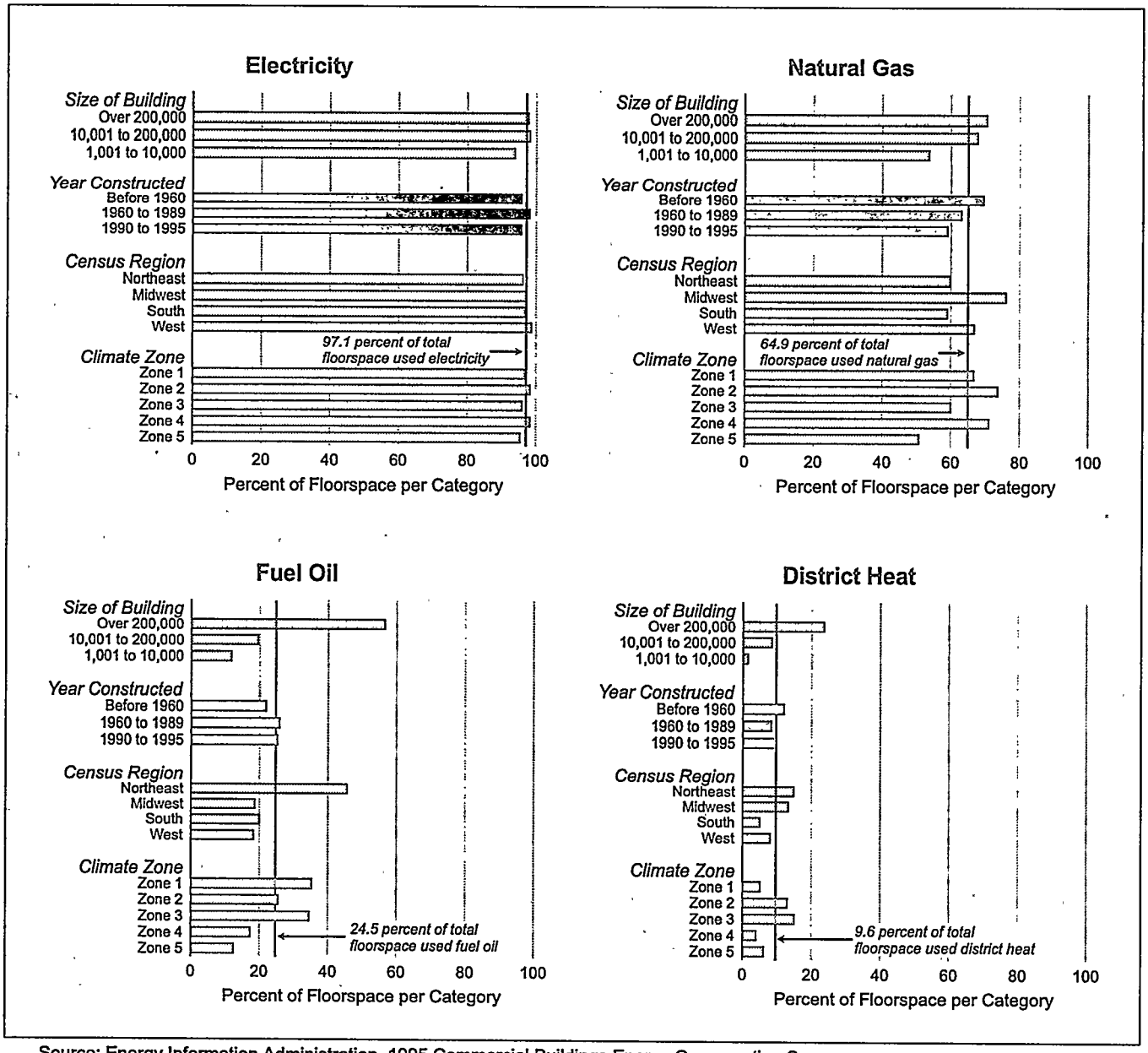
[4]Data were withheld if the relative standard error was greater than 50 percent, or fewer than 20 buildings were sampled.

larger commercial buildings. More than half (56.5 percent) of floorspace in buildings larger than 200,000 square feet used fuel oil and nearly one-fourth (23.6 percent) of floorspace of those buildings used district heat. The percent of floorspace that used fuel oil in the Northeast (45.6 percent) was more than twice that of any other Census region (each of those less than 20 percent of floorspace). The percent of floorspace that used fuel oil was lowest in climate zone 5, the warmest region. That was to be expected, since most fuel oil consumption was for space heating.

The only category that showed a significant difference in electricity intensity was year constructed—electricity intensity was greater for the most recently constructed buildings (1990 to 1995) (Figure 40). In those buildings, the electricity end uses that were more intensely used were cooling, lighting, water heating, and office equipment (Detailed Table EU-4).

Natural gas intensities were significantly greater for the smallest buildings, buildings in the Midwest, and buildings in the coldest climate zones. In smaller buildings, natural gas space heating intensity and cooking intensity were both higher than average (Detailed Ta-

Figure 39. Percent of Floorspace That Used Major Energy Sources by Size of Building, Year Constructed, Census Region, and Climate Zone, 1995

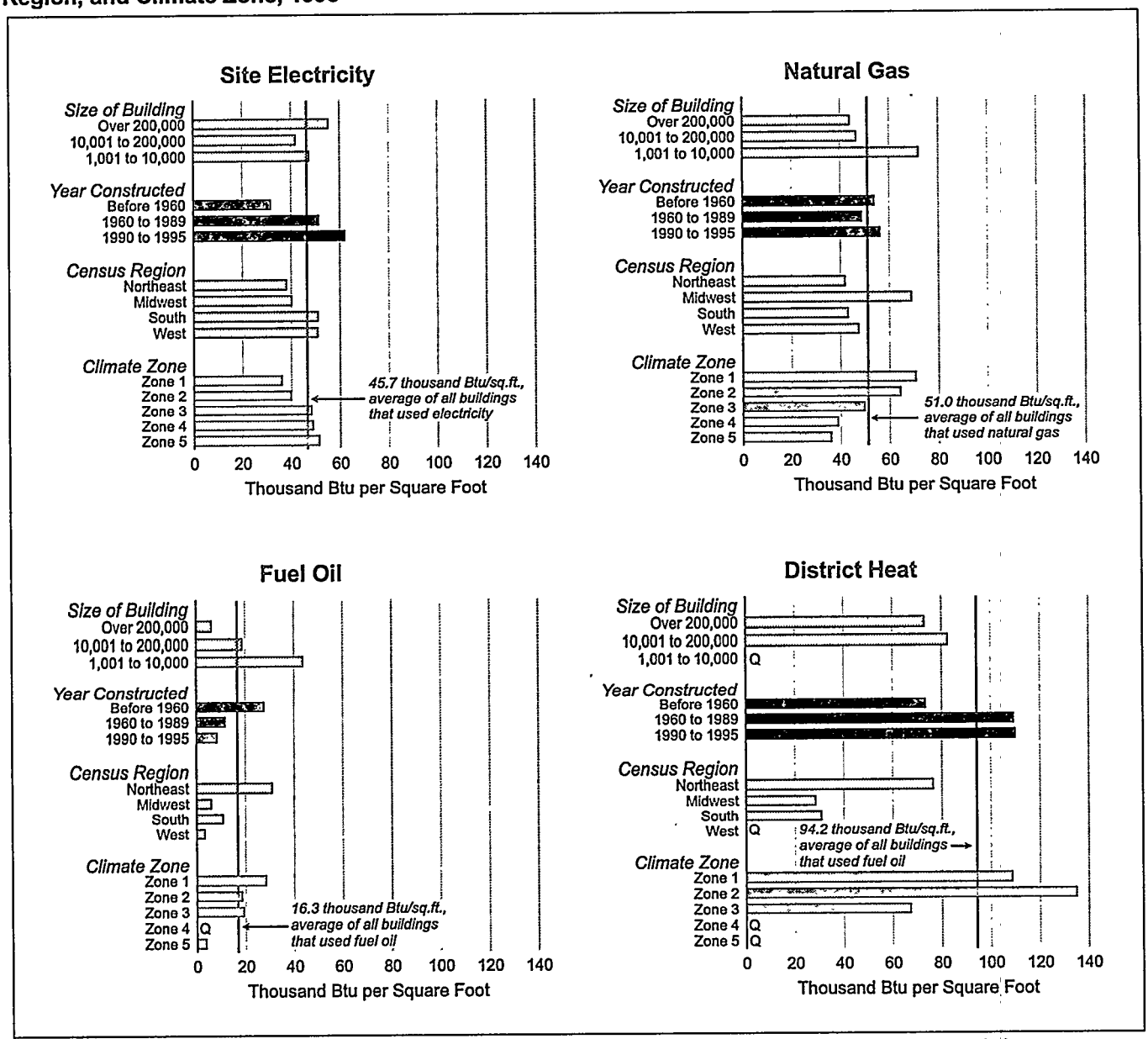


Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

ble EU-6). In the Midwest and in the colder zones, natural gas space heating intensity was much higher than average (Detailed Table EU-6).

There were significant differences for each of the four size categories for fuel oil. Fuel oil intensity was greater in smaller buildings and in older buildings in the Northeast and in colder climates. The greater intensity in the Northeast and in the cooler climate zones reflected the greater use of fuel oil for heating. There were no significant differences within any of the categories for district heat.

Figure 40. Energy Intensities for Major Energy Sources by Size of Building, Year Constructed, Census Region, and Climate Zone, 1995



Q = Data withheld because relative standard error was greater than 50 percent, or fewer than 20 buildings were sampled.
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

4. End-Use Equipment and Energy Conservation

Energy is used within buildings by end-use equipment. Commercial buildings use a variety of practices to conserve the use of energy by end-use equipment.

- End-use equipment refers to the specific type of equipment that is used to perform a given end use. Types of end-use equipment include: heat pumps, furnaces, packaged air-conditioning units, central chillers, fluorescent light fixtures, and compact fluorescent bulbs.

- Energy conservation features include those related to the building shell; the heating, ventilation, and air-conditioning systems (HVAC); and the lighting systems. Energy management practices are energy efficiency programs that are designed to reduce the energy used by specific end-use equipment.

End-Use Equipment

Space Heating Equipment

Four types of heating equipment were used extensively in commercial buildings—packaged heating units, boilers, individual space heaters, and furnaces (Figures 41 and 42; Tables 1a, 1b, and 1c; box on following page).[1] Of these four, boilers were most often the main equipment used by percentage of total heated floorspace, whereas furnaces were the main type in the largest percentage of heated buildings (compare Figures 41 and 42). All four types were used to heat about 30 percent of total heated floorspace (either main or other use), but their use as a percentage of heated buildings varied from as little as 15 percent for boilers to as much as 42 percent for furnaces. That difference reflected their use in buildings of different average sizes; that is, boilers were used in larger buildings, and furnaces were used in smaller buildings. There were no statistically significant changes in the use of the different types of heating equipment from the 1989 CBECS to the 1992 CBECS to the 1995 CBECS.

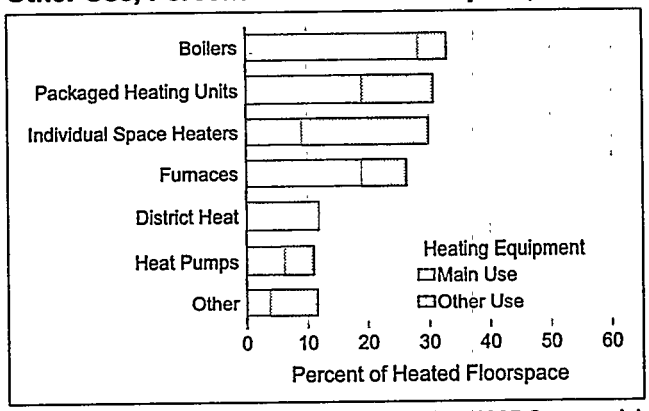
[1]Text Tables 1a through 6b are found at the end of this chapter.

- Boilers heated 45 percent of heated floorspace in the largest size category (buildings larger than 200,000 square feet) but were used for only 13 percent of heated floorspace in the smallest category (buildings 10,000 square feet or less) (Figure 43).

- District heat was used for 28 percent of heated floorspace in the largest buildings but for just 2 percent of floorspace in the smallest buildings.

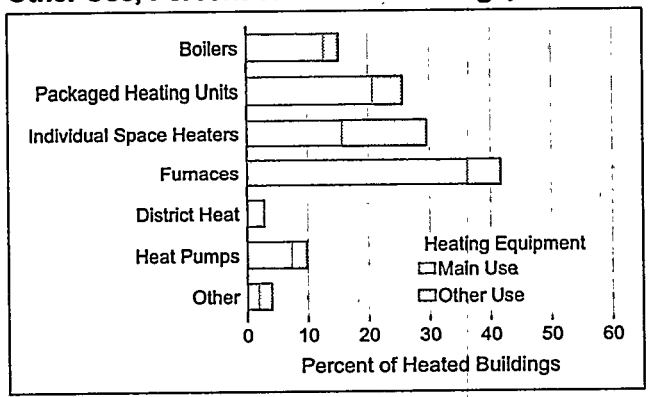
- Furnaces showed the opposite relationship—they served 47 percent of heated floorspace in the smallest buildings but only 12 percent in the largest buildings.

Figure 41. Heating Equipment Used for Main and Other Use, Percent of Heated Floorspace, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 42. Heating Equipment Used for Main and Other Use, Percent of Heated Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Space Heating and Cooling Equipment in the 1995 CBECS

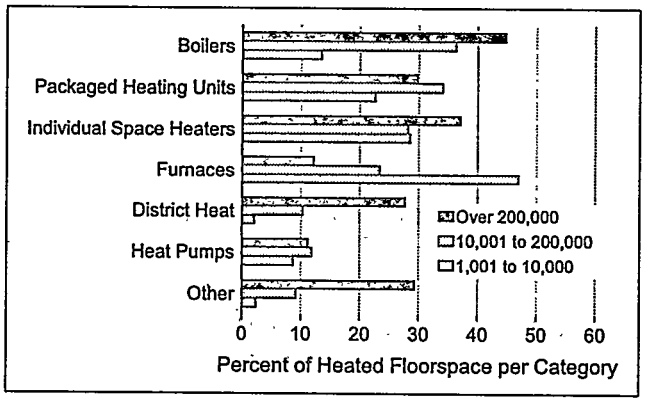
The following types of space heating equipment were included in the 1995 CBECS Building Questionnaire:

Boilers inside the building that produce steam or hot water
Packaged heating units
Individual space heaters, free-standing or mounted in walls, ceilings, or windows
Furnaces that heat air directly, without using steam or hot water
District steam or hot water piped in from outside the building
Heat pumps (other than packaged units)
Other heating equipment

The following types of cooling equipment were included in the Building Questionnaire:

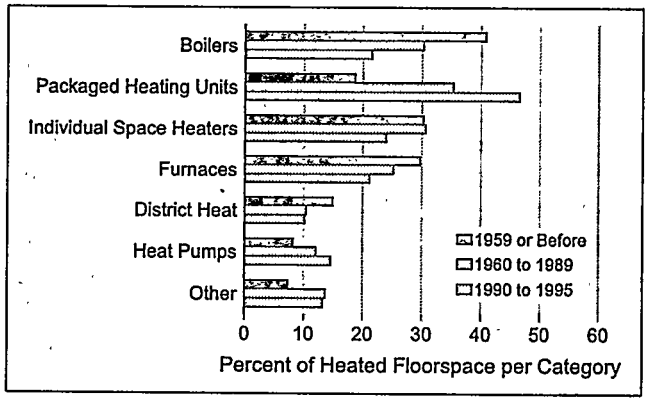
Packaged air conditioning units, often roof- or slab-mounted
Central chillers inside the building that chill water for air conditioning
Individual room air conditioners, window- or wall-mounted
Residential-type central air conditioners, other than heat pumps, that cool air directly and circulate it without chilled water
Heat pumps
District chilled water piped in from outside the building
Swamp or evaporative coolers
Other cooling equipment

Figure 43. Heating Equipment Used by Size of Building, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 44. Heating Equipment Used by Year Constructed, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Two types of heating equipment showed significant differences by the age of buildings that they were used in: boilers were used most widely in older buildings, and packaged heating units were used most widely in more recently constructed buildings (Figure 44).

- Boilers heated 41 percent of heated floorspace in older buildings (those constructed before 1960) and about half as much (22 percent) in buildings constructed in the 1990's.

- Packaged heating units were much more commonly used in the newer buildings: for 47 percent of heated floorspace in buildings constructed in the 1990's, but only 19 percent of heated floorspace in those constructed before 1960.

The four predominant types of heating equipment had the heat they produced distributed primarily via one of three types of heating distribution system (Tables 2a, 2b, and 2c). Warm air produced by packaged units and furnaces was distributed primarily by ducts or air-handling units; hot water or steam generated by boilers was transported to radiators or baseboards to heat air; and individual space heaters gave off heat directly to surrounding areas without a separate distribution system.

Cooling Equipment

Packaged air-conditioning units were by far the most widely used type of cooling equipment, both as the main equipment used and for total use (Figures 45 and 46; Tables 3a, 3b, and 3c). They cooled 55 percent of cooled floorspace and 42 percent of cooled buildings and were the main equipment for 37 percent of both cooled floorspace and buildings. Central chillers were used to cool more than a quarter of cooled floorspace (but only 3 percent of buildings), while individual (window or wall) air-conditioning units, residential-type central air-conditioning, and heat pumps were used slightly less (15 percent to 19 percent of cooled floorspace). There were no significant changes in the use of the different types of cooling equipment between the 1992 and 1995 CBECS (comparable data from 1989 are not available).

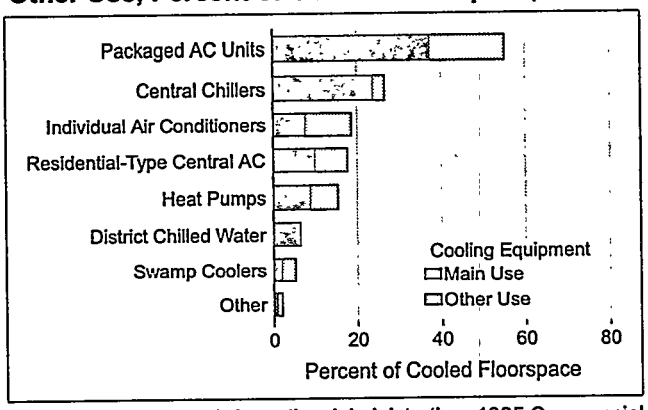
Particular types of cooling equipment showed significant differences in use by size of building (Figure 47).

- Residential-type central air-conditioning units showed relatively greater use in the smallest buildings.
- Central chillers were used primarily in the largest buildings. That equipment type cooled 65 percent of cooled floorspace in the largest buildings but cooled only one-third as much, 22 percent, in the middle category (buildings 10,001 to 200,000 square feet in size).

The age of the building was less of a factor for type of cooling equipment than for type of heating equipment. Only buildings that used individual (window or wall) air-conditioning units showed a significant relationship (Figure 48). Those units were much more common in buildings constructed before 1960 than in buildings constructed after 1989. They cooled about one-third of the cooled floorspace in older buildings but only 6 percent in buildings constructed in the 1990's.

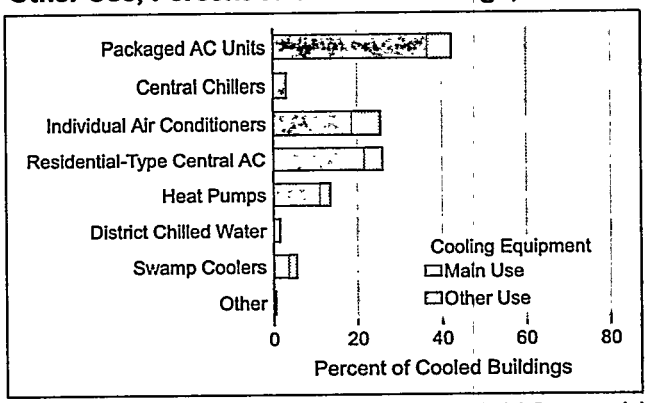
Packaged air-conditioning units, residential-type central air conditioners, and cold air produced by central chillers had the cool air distributed primarily by ducts or air-handling units (Tables 4a, 4b, and 4c). Central chillers that produced chilled water had cool air distributed via the use of fan-coil units. Individual air-conditioning units cooled air directly (without a separate system) in the room or area where they were located.

Figure 45. Cooling Equipment Used for Main and Other Use, Percent of Cooled Floorspace, 1995



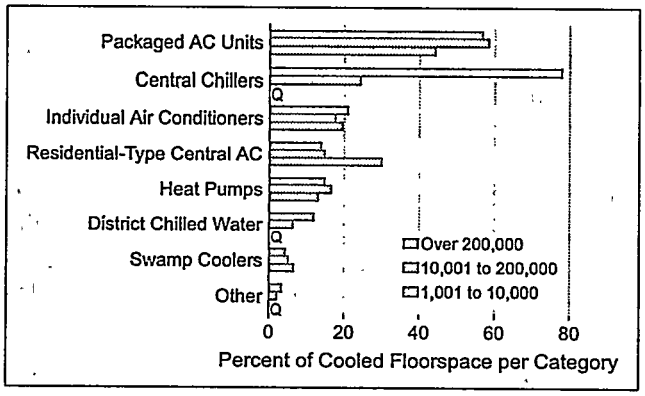
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 46. Cooling Equipment Used for Main and Other Use, Percent of Cooled Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

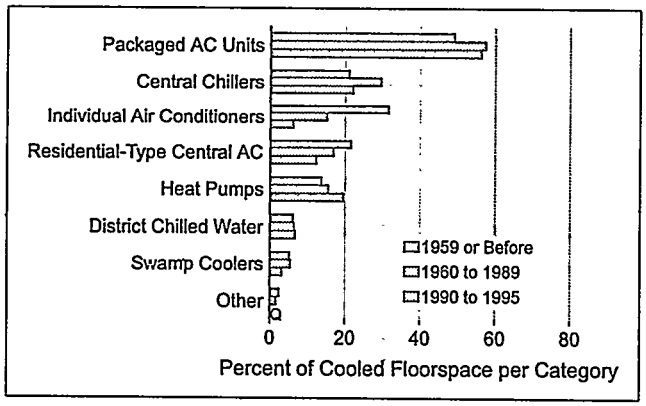
Figure 47. Cooling Equipment Used by Size of Building, 1995



Q=Data withheld because relative standard error was greater than 50 percent, or fewer than 20 buildings were sampled.

Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 48. Cooling Equipment Used by Year Constructed, 1995



Q=Data withheld because relative standard error was greater than 50 percent, or fewer than 20 buildings were sampled.

Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Lighting Equipment

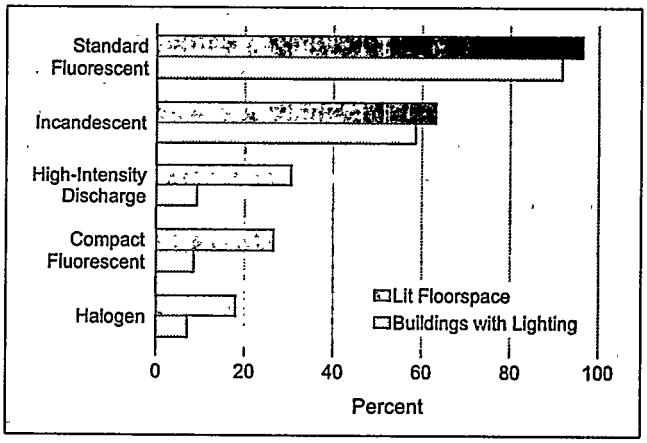
The CBECS collected information on five types of lighting systems: incandescent, standard fluorescent, compact fluorescent, high-intensity discharge, and halogen (Figure 49).

- Standard fluorescent lighting fixtures were found in nearly all buildings that had lighting equipment (more than 90 percent of lit buildings and floorspace). Incandescent light bulbs were also widely used (around 60 percent of lit buildings and floorspace).

- The three newer kinds of lighting technology—high-intensity discharge, compact fluorescent, and halogen lamps—were used in relatively few buildings (each less than ten percent of buildings). The size of commercial building that used any of the three types was much larger than average. The average size of buildings that used high-intensity discharge lamps was 41,500 square feet; the average for those that used compact fluorescent lamps was 39,400 square feet; and the average for those that used halogen lights was 32,200 square feet.

- The use of compact fluorescent lamps increased from 14 percent of lit floorspace in 1992 to 27 percent in 1995 (data were not collected in 1989).

Figure 49. Lighting Equipment Used in Commercial Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Energy Conservation Features and Practices

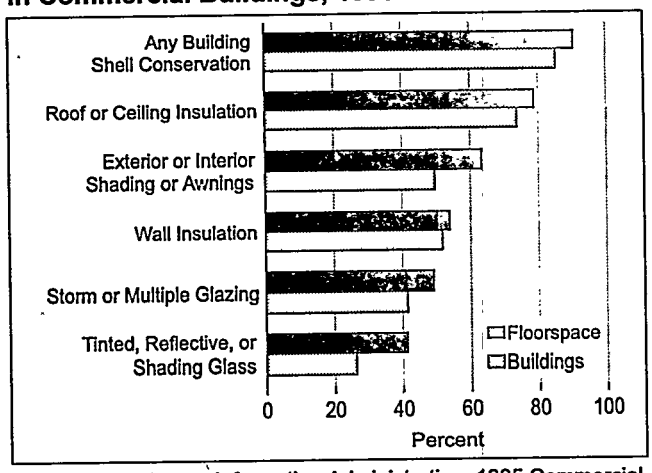
Information on specific conservation features or practices was collected for: building shells; heating, ventilation, and air-conditioning (HVAC) systems; and lighting systems. Energy conservation was widely practiced; a significant percentage had installed or employed some type of conservation feature or practice (89 percent of buildings, 94 percent of floorspace) (Tables 5a and 5b).

- Most commercial buildings had some type of building shell conservation feature (85 percent of buildings, 91 percent of floorspace) (Figure 50). The type most often found was roof or ceiling insulation (74 percent of buildings, 79 percent of floorspace). HVAC conservation features were, in general, less common than building shell features (Figure 51). HVAC maintenance, the most widely practiced of the HVAC categories, was performed in about half of buildings and three-fourths of floorspace.

- Some type of lighting conservation feature was found in 46 percent of buildings and 66 percent of floorspace. The most widely used lighting system conservation feature was the energy-efficient ballast, used in 30 percent of buildings and 48 percent of floorspace (Figure 52).

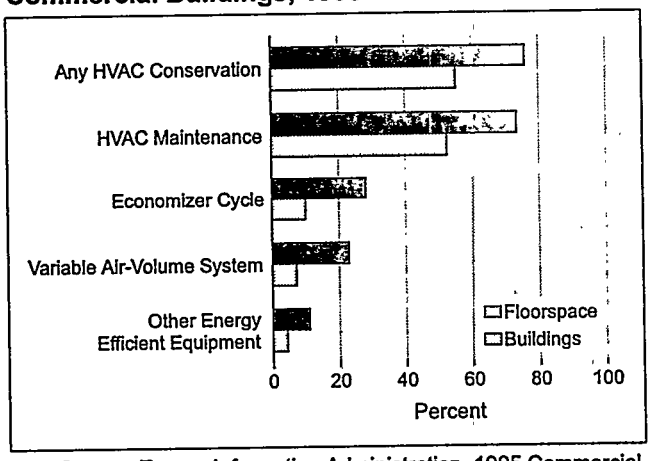
- Both HVAC and lighting system conservation features were more often found in larger than average commercial buildings. The average size for buildings with HVAC conservation features was 17,700 square feet, and it was 18,500 square feet for buildings with lighting conservation features (the average size of all commercial buildings was 12,800 square feet).

Figure 50. Building Shell Conservation Features in Commercial Buildings, 1995



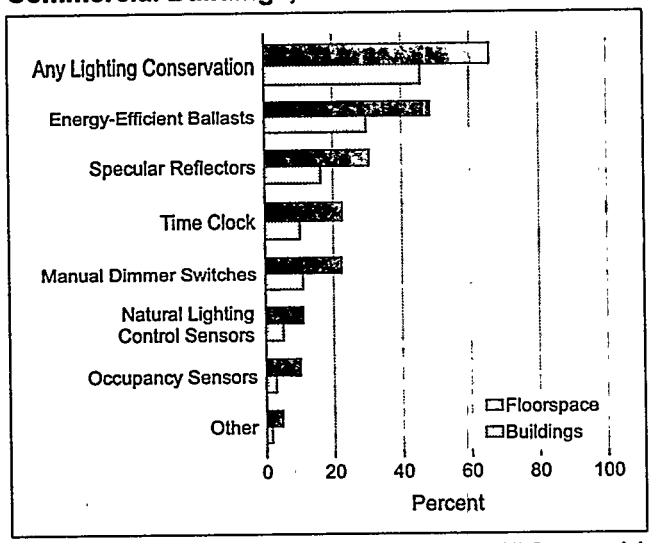
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 51. HVAC Conservation Features in Commercial Buildings, 1995



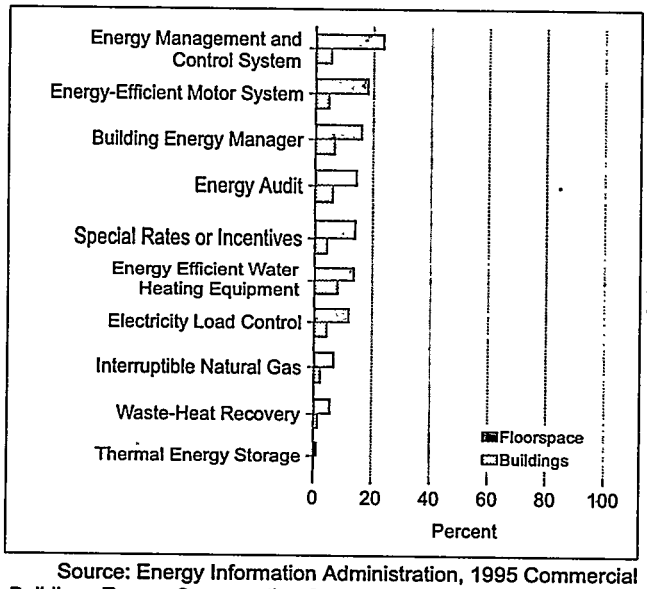
Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 52. Lighting Conservation Features in Commercial Buildings, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

Figure 53. Participation in Energy Conservation Programs, 1995



Source: Energy Information Administration, 1995 Commercial Buildings Energy Consumption Survey.

The CBECS collected information on buildings that participated in, or used, a variety of conservation programs and energy technologies (Figure 53; Tables 5a and 5b; Tables 6a and 6b). The level of participation was low for commercial buildings as a whole—the most widely used were energy management and control systems (5.4 percent of buildings and 23.5 percent of floorspace). The average size of those buildings (55,900 square feet per building) was much larger than the average of all buildings.

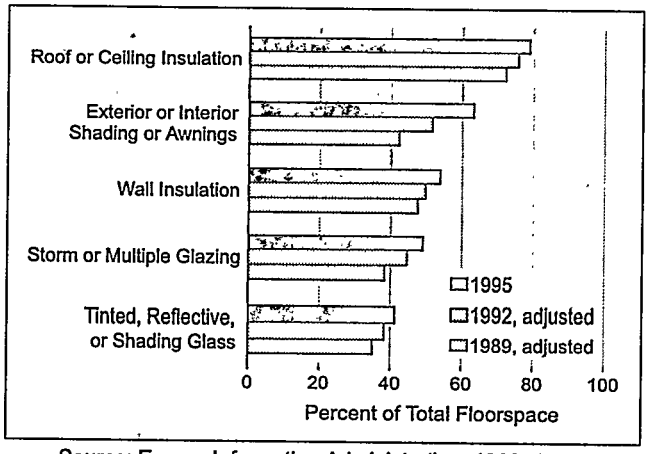
The CBECS also collected information on the use of renewable energy sources or features (besides wood). Those features were: passive solar features, photovoltaic arrays that convert sunlight directly to energy, geothermal or ground source heat pumps, wind generation, and well water used for cooling. Passive solar was the only type that was found in 20 or more buildings in the CBECS sample, the minimum number for which data can be reported. An estimated 66.9 thousand commercial buildings and 864 million square feet of floorspace used passive solar.

The use of certain energy conservation features and practices has become more common in commercial buildings in recent years (Figures 54 and 55). There were statistically significant changes in the percentage of floorspace that used several types of building shell and lighting system conservation features.

- Two building shell categories showed increases in usage—exterior or interior shading increased from 42 percent of floorspace in 1989 to 63 percent of floorspace in 1995, and use of storm or multiple glazing increased from 38 percent to 49 percent of floorspace.

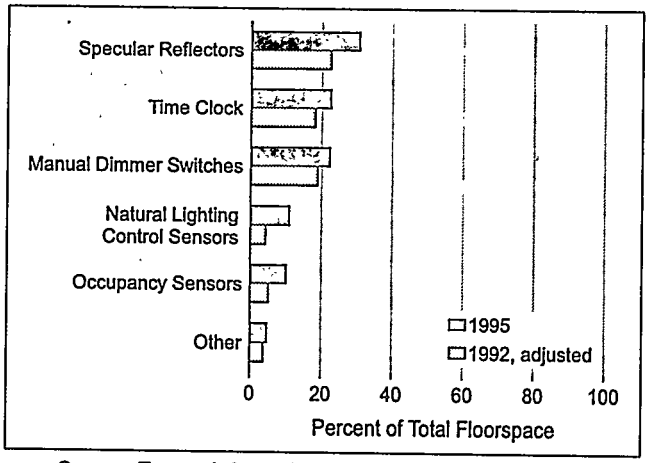
- Three categories of lighting conservation showed significant increases: specular reflectors were used for 23 percent of floorspace in 1992 and 31 percent in 1995, natural lighting control sensors increased their usage from just 4 percent to 11 percent, and occupancy sensors increased in use from 5 percent to 10 percent.

Figure 54. Changes in Building Shell Conservation Features, 1989, 1992, and 1995



Source: Energy Information Administration; 1989, 1992, and 1995 Commercial Buildings Energy Consumption Surveys.

Figure 55. Changes in Lighting Conservation Features, 1992 and 1995



Source: Energy Information Administration, 1992 and 1995 Commercial Buildings Energy Consumption Surveys.

Table 1a. Main Heating Equipment, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Space Heating	Main Heating Equipment (thousand buildings)							
		Boiler	Packaged Heating Unit	Furnace	District Heat	Individual Space Heater	Heat Pump	Other	No One Main
All Buildings	4,024	514	835	1,455	111	632	296	77	104
Primary Space-Heating Energy Source									
Electricity	1,007	11	302	123	Q	225	285	Q	26
Natural Gas	2,106	330	460	987	Q	257	Q	Q	55
Fuel Oil	439	150	Q	175	Q	Q	Q	Q	Q
District Heat	107	NC	Q	Q	105	Q	Q	NC	Q
Propane	260	Q	46	139	NC	56	Q	Q	Q
Other	61	Q	NC	Q	NC	Q	Q	Q	Q
Space-Heating Energy Sources (more than one may apply)									
Electricity	1,467	98	375	324	9	284	293	42	43
Natural Gas	2,211	335	478	1,012	6	293	14	Q	61
Fuel Oil	504	159	Q	181	Q	99	Q	Q	Q
District Heat		NC	Q	Q	106	Q	Q	Q	Q
Propane	301	26	53	152	Q	62	Q	Q	Q
Other	135	Q	Q	55	Q	Q	Q	Q	Q
	Relative Standard Errors (percent)								
All Buildings	4.0	8.9	7.3	7.1	18.3	8.5	12.5	32.2	16.3
Primary Space-Heating Energy Source									
Electricity	8.7	42.1	15.7	21.1	72.2	12.8	12.8	55.5	36.2
Natural Gas	4.7	11.2	9.8	7.8	38.8	14.1	51.1	58.6	26.9
Fuel Oil	14.1	15.8	65.0	23.3	100.0	26.1	74.2	67.9	74.8
District Heat	18.1	NC	100.6	100.0	18.7	100.6	100.0	NC	57.1
Propane	17.1	53.2	41.9	18.1	NC	34.7	100.0	69.6	64.4
Other	29.3	51.9	NC	65.5	NC	62.3	76.6	55.4	67.8
Space-Heating Energy Sources (more than one may apply)									
Electricity	6.9	18.4	12.7	13.7	21.9	11.8	12.7	47.3	25.9
Natural Gas	4.6	11.1	9.5	7.9	21.4	13.6	28.0	53.5	25.0
Fuel Oil	13.8	14.9	60.0	23.2	71.2	23.7	91.0	65.2	51.7
District Heat	17.8	NC	100.6	73.5	18.6	100.6	93.3	45.0	51.8
Propane	15.7	38.2	39.2	17.4	69.9	32.0	76.0	69.6	40.1
Other	23.9	53.2	55.6	35.0	61.7	43.4	53.1	54.8	56.3

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 1b. Main Heating Equipment, Floorspace in Heated Buildings and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Space Heating	Main Heating Equipment (million square feet)							
		Boiler	Packaged Heating Unit	Furnace	District Heat	Individual Space Heater	Heat Pump	Other	No One Main
All Buildings	54,347	14,256	10,838	10,913	5,677	5,608	3,301	2,118	1,636
Primary Space-Heating Energy Source									
Electricity	13,500	500	4,451	1,249	Q	1,985	3,134	1,650	478
Natural Gas	28,808	10,756	5,942	7,814	Q	3,013	126	195	795
Fuel Oil	4,207	2,666	Q	977	Q	Q	Q	Q	Q
District Heat	5,289	NC	Q	Q	5,145	Q	Q	NC	Q
Propane	1,545	Q	305	772	NC	278	Q	Q	Q
Other	514	Q	NC	Q	NC	Q	Q	Q	Q
Space-Heating Energy Sources (more than one may apply)									
Electricity	22,156	3,592	5,854	3,143	997	2,730	3,293	1,780	767
Natural Gas	31,535	11,021	6,542	8,188	600	3,451	472	308	954
Fuel Oil	6,606	4,014	Q	1,144	468	400	Q	Q	Q
District Heat	5,606	NC	Q	Q	5,394	Q	Q	Q	Q
Propane	2,025	355	352	832	Q	334	Q	Q	Q
Other	1,050	350	Q	223	Q	Q	Q	Q	Q

	Relative Standard Errors (percent)								
All Buildings	3.6	5.5	5.9	7.1	9.2	8.3	11.9	16.8	13.3
Primary Space-Heating Energy Source									
Electricity	7.1	22.7	11.4	19.6	57.5	11.3	11.9	19.0	23.1
Natural Gas	4.4	6.9	7.3	7.6	39.7	13.5	29.0	27.8	13.0
Fuel Oil	11.8	11.8	52.4	22.1	100.0	25.7	71.3	66.5	50.9
District Heat	8.9	NC	100.6	100.0	9.0	100.6	100.0	NC	64.9
Propane	18.5	26.5	39.9	20.6	NC	27.1	100.0	69.6	59.0
Other	23.6	41.3	NC	68.8	NC	62.4	80.5	59.8	73.0
Space-Heating Energy Sources (more than one may apply)									
Electricity	5.9	12.6	9.3	12.6	15.4	10.2	11.9	17.9	15.9
Natural Gas	4.4	6.9	7.6	7.5	19.8	12.1	20.6	20.9	14.8
Fuel Oil	10.2	10.6	38.4	19.0	31.2	25.7	77.3	56.5	43.0
District Heat	8.9	NC	100.6	85.7	9.0	100.6	71.0	30.5	60.8
Propane	16.7	21.9	36.2	19.9	60.3	24.1	49.4	69.6	44.8
Other	19.3	27.7	54.4	35.4	44.9	43.9	61.3	54.8	67.1

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 1c. Main Heating Equipment, Heated Floorspace and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Space Heating	Main Heating Equipment (million square feet)							
		Boiler	Packaged Heating Unit	Furnace	District Heat	Individual Space Heater	Heat Pump	Other	No One Main
All Buildings	48,065	13,613	9,186	9,131	5,510	4,386	2,994	1,843	1,403
Primary Space-Heating Energy Source									
Electricity	11,271	474	3,570	1,027	Q	1,400	2,847	1,480	422
Natural Gas	25,747	10,301	5,189	6,587	Q	2,539	105	170	637
Fuel Oil	3,751	2,520	Q	794	Q	Q	Q	Q	Q
District Heat	5,127	NC	Q	Q	4,988	Q	Q	NC	Q
Propane	1,366	Q	299	647	NC	233	Q	Q	Q
Other	345	Q	NC	Q	NC	Q	Q	Q	Q
Space-Heating Energy Sources (more than one may apply)									
Electricity	19,031	3,361	4,805	2,678	953	1,978	2,985	1,571	701
Natural Gas	28,177	10,611	5,742	6,924	585	2,855	398	277	783
Fuel Oil	6,047	3,853	Q	930	462	281	Q	Q	Q
District Heat	5,438	NC	Q	Q	5,236	Q	Q	Q	Q
Propane	1,812	347	341	704	Q	286	Q	Q	Q
Other	857	283	Q	202	Q	Q	Q	Q	Q
	Relative Standard Errors (percent)								
All Buildings	3.6	5.5	5.9	7.8	9.3	8.9	11.8	18.2	13.5
Primary Space-Heating Energy Source									
Electricity	6.9	23.7	10.9	19.6	56.6	13.0	11.7	20.4	22.5
Natural Gas	4.4	6.7	7.5	8.5	39.7	13.9	30.0	27.7	12.0
Fuel Oil	12.5	12.0	50.5	24.6	100.0	35.8	71.3	85.3	51.2
District Heat	9.1	NC	100.6	100.0	9.0	100.6	100.0	NC	66.6
Propane	19.6	26.5	40.6	20.2	NC	34.2	100.0	72.2	59.0
Other	30.8	45.2	NC	57.2	NC	49.8	80.5	72.0	80.5
Space-Heating Energy Sources (more than one may apply)									
Electricity	5.7	12.0	8.7	13.1	16.0	9.8	11.8	19.4	15.1
Natural Gas	4.3	6.7	7.8	8.3	20.3	12.0	20.4	20.8	13.7
Fuel Oil	10.6	10.9	35.6	21.0	31.2	30.0	77.3	69.8	44.4
District Heat	9.0	NC	100.6	83.2	9.1	100.6	71.0	29.3	62.3
Propane	17.7	21.9	37.2	19.5	60.3	29.3	49.4	72.2	42.9
Other	22.3	30.1	59.2	37.2	44.9	32.6	62.7	64.7	73.1

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 2a. Heating Distribution Equipment, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	All Heated Buildings	Type of Heating Distribution Equipment* (more than one may apply) (thousand buildings)									
		Ducts or Air Handling Units		Gives Off Heat Directly		Radiators or Baseboards		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	4,024	2,859	—	1,309	—	467	—	175	—	293	—
Heating Equipment (more than one may apply)											
Boilers	610	195	15	—	—	407	15	81	15	50	15
Packaged Heating Units	1,031	999	15	79	15	—	—	—	—	Q	15
Individual Space Heaters	1,188	—	—	1,188	—	—	—	—	—	—	—
Furnaces	1,676	1,508	18	—	—	—	—	—	—	205	18
District Heat	115	65	15	—	—	59	15	13	15	2	15
Heat Pumps	394	368	15	16	14	—	—	24	15	5	15
Other	161	14	Q	82	Q	Q	Q	62	Q	Q	Q
		Relative Standard Errors (percent)									
All Buildings	4.0	4.2	—	7.8	—	9.8	—	13.9	—	16.1	—
Heating Equipment (more than one may apply)											
Boilers	8.6	14.6	47.0	—	—	10.4	47.4	20.0	47.4	26.9	46.1
Packaged Heating Units	6.5	6.4	47.0	18.3	47.0	—	—	—	—	51.6	47.0
Individual Space Heaters	7.9	—	—	7.9	—	—	—	—	—	—	—
Furnaces	6.4	7.0	43.5	—	—	—	—	—	—	14.8	43.2
District Heat	17.5	20.3	47.5	—	—	20.3	47.5	20.4	47.5	29.8	47.5
Heat Pumps	9.1	8.4	47.2	26.4	48.8	—	—	39.6	47.2	33.8	47.2
Other	21.7	41.5	51.5	26.9	51.5	52.3	51.5	25.1	51.5	78.0	51.5

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 2b. Heating Distribution Equipment, Floorspace in Heated Buildings and Relative Standard Errors, 1995

Building Characteristics	All Heated Buildings	Type of Heating Distribution Equipment* (more than one may apply) (million square feet)									
		Ducts or Air Handling Units		Gives Off Heat Directly		Radiators or Baseboards		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	54,347	40,414	—	18,982	—	12,464	—	9,145	—	4,317	—
Heating Equipment (more than one may apply)											
Boilers	16,754	9,205	203	—	—	9,314	196	3,825	196	1,131	202
Packaged Heating Units	16,893	15,905	165	2,038	165	—	—	—	—	410	165
Individual Space Heaters	16,809	—	—	16,809	—	—	—	—	—	—	—
Furnaces	14,923	13,572	140	—	—	—	—	—	—	1,969	148
District Heat	5,911	4,303	162	—	—	3,142	158	1,358	158	240	158
Heat Pumps	5,843	5,005	137	555	133	—	—	887	146	248	137
Other	6,249	1,077	115	1,868	115	618	115	4,091	115	720	115
		Relative Standard Errors (percent)									
All Buildings	3.6	3.8	—	6.7	—	5.3	—	6.9	—	8.1	—
Heating Equipment (more than one may apply)											
Boilers	4.9	8.0	22.7	—	—	5.7	23.3	10.3	23.3	11.8	22.8
Packaged Heating Units	5.1	5.4	26.2	12.8	26.2	—	—	—	—	28.0	26.2
Individual Space Heaters	7.1	—	—	7.1	—	—	—	—	—	—	—
Furnaces	5.9	6.2	23.0	—	—	—	—	—	—	12.4	24.1
District Heat	9.1	10.7	23.0	—	—	12.6	23.2	13.9	23.2	23.4	23.2
Heat Pumps	6.8	7.4	23.8	16.7	24.4	—	—	17.6	20.8	28.4	23.8
Other	9.2	14.4	26.4	17.4	26.4	14.6	26.4	12.0	26.4	36.5	26.4

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 2c. Heating Distribution Equipment, Heated Floorspace and Relative Standard Errors, 1995

Building Characteristics	All Heated Buildings	Type of Heating Distribution Equipment* (more than one may apply) (million square feet)									
		Ducts or Air Handling Units		Gives Off Heat Directly		Radiators or Baseboards		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	48,065	35,942	—	16,351	—	11,995	—	8,584	—	3,790	—
Heating Equipment (more than one may apply)											
Boilers	15,854	8,728	190	—	—	8,957	183	3,630	183	1,050	188
Packaged Heating Units	14,793	13,910	153	1,770	153	—	—	—	—	321	153
Individual Space Heaters	14,407	—	—	14,407	—	—	—	—	—	—	—
Furnaces	12,656	11,519	126	—	—	—	—	—	—	1,724	132
District Heat	5,719	4,194	146	—	—	3,047	142	1,329	142	223	142
Heat Pumps	5,312	4,515	122	511	118	—	—	826	123	236	122
Other	5,575	1,005	104	1,637	104	594	104	3,722	104	620	104
		Relative Standard Errors (percent)									
All Buildings	3.6	4.0	—	6.9	—	5.3	—	7.0	—	8.2	—
Heating Equipment (more than one may apply)											
Boilers	4.8	7.9	23.8	—	—	5.8	24.4	10.3	24.4	12.1	23.9
Packaged Heating Units	5.1	5.4	27.8	12.3	27.8	—	—	—	—	24.9	27.8
Individual Space Heaters	7.3	—	—	7.3	—	—	—	—	—	—	—
Furnaces	6.3	6.7	24.0	—	—	—	—	—	—	12.0	24.8
District Heat	9.2	11.0	24.4	—	—	12.7	24.7	14.3	24.7	22.3	24.7
Heat Pumps	6.8	7.7	25.3	15.6	25.9	—	—	17.7	24.8	28.7	25.3
Other	9.0	15.0	27.9	16.7	27.9	14.9	27.9	12.0	27.9	35.1	27.9

— = Data not applicable.
* = Data elements were not statistically adjusted for nonresponse.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 3a. Main Cooling Equipment, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Cooling	Main Cooling Equipment (thousand buildings)								
		Packaged Air Conditioning Units	Central Chillers	Residential Type Central Air Conditioning	Heat Pumps	Individual Air Conditioners	District Chilled Water	Swamp Coolers	Other	No One Main
All Buildings	3,381	1,242	96	734	375	633	44	124	13	120
Cooling Energy Sources (more than one may apply)										
Electricity	3,293	1,207	93	718	375	633	13	124	13	120
Natural Gas	65	40	4	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	53	Q	Q	Q	Q	Q	44	NC	NC	Q
	Relative Standard Errors (percent)									
All Buildings	3.8	5.9	11.5	8.9	9.4	9.0	25.9	28.1	26.8	16.4
Cooling Energy Sources (more than one may apply)										
Electricity	3.8	6.0	11.8	8.8	9.4	9.0	24.6	28.1	27.1	16.4
Natural Gas	23.9	30.6	30.6	48.2	100.1	100.0	49.8	100.0	71.8	71.1
District Chilled Water	27.2	83.6	98.9	93.3	100.0	64.4	25.9	NC	NC	53.8

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 3b. Main Cooling Equipment, Floorspace in Cooled Buildings and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Cooling	Main Cooling Equipment (million square feet)								
		Packaged Air Conditioning Units	Central Chillers	Residential Type Central Air Conditioning	Heat Pumps	Individual Air Conditioners	District Chilled Water	Swamp Coolers	Other	No One Main
All Buildings	49,935	18,746	9,802	5,543	3,985	6,339	2,295	1,143	505	1,576
Cooling Energy Sources (more than one may apply)										
Electricity	47,761	18,287	9,476	5,447	3,973	6,317	1,060	1,136	489	1,576
Natural Gas	1,314	565	456	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	2,521	Q	Q	Q	Q	Q	2,295	NC	NC	Q
	Relative Standard Errors (percent)									
All Buildings	3.5	5.8	7.0	7.9	8.7	7.5	10.5	25.9	22.0	13.1
Cooling Energy Sources (more than one may apply)										
Electricity	3.5	5.8	7.3	8.0	8.7	7.6	11.1	26.1	22.3	13.1
Natural Gas	15.1	24.8	19.2	34.3	100.1	100.0	67.0	100.0	84.6	73.6
District Chilled Water	10.7	59.7	98.9	77.0	100.0	45.2	10.5	NC	NC	42.3

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 3c. Main Cooling Equipment, Cooled Floorspace and Relative Standard Errors, 1995

Building Characteristics	All Buildings with Cooling	Main Cooling Equipment (million square feet)								
		Packaged Air Conditioning Units	Central Chillers	Residential Type Central Air Conditioning	Heat Pumps	Individual Air Conditioners	District Chilled Water	Swamp Coolers	Other	No One Main
All Buildings	36,001	13,430	8,590	3,599	3,218	2,816	2,117	758	320	1,154
Cooling Energy Sources (more than one may apply)										
Electricity	34,194	13,134	8,285	3,567	3,207	2,813	981	751	303	1,153
Natural Gas	1,074	452	408	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	2,302	Q	Q	Q	Q	Q	2,117	NC	NC	Q
		Relative Standard Errors (percent)								
All Buildings	3.9	5.6	7.3	9.2	9.4	10.3	10.7	29.6	19.4	14.1
Cooling Energy Sources (more than one may apply)										
Electricity	4.0	5.6	7.5	9.2	9.4	10.3	11.3	29.8	19.3	14.1
Natural Gas	16.7	29.3	19.9	31.9	100.1	100.0	67.3	100.0	84.6	74.1
District Chilled Water	10.9	60.5	98.9	72.6	100.0	47.8	10.7	NC	NC	42.1

NC = No cases in sample.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 4a. Cooling Distribution Equipment, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	All Cooled Buildings	Type of Cooling Distribution Equipment* (more than one may apply) (thousand buildings)							
		Ducts or Air Handling Units		Cools Directly		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	3,381	2,653	—	943	—	68	—	95	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	1,431	1,381	Q	90	Q	—	—	20	Q
Central Chillers	109	94	Q	—	—	27	Q	5	Q
Individual Air Conditioners	862	—	—	862	—	—	—	—	—
Residential-Type Central Air Conditioners	878	860	Q	—	—	—	—	40	Q
Heat Pumps	457	432	Q	31	Q	—	—	4	Q
District Chilled Water	53	48	Q	—	—	7	Q	Q	Q
Swamp Coolers	186	108	Q	—	—	Q	Q	40	Q
Other	18	13	Q	4	Q	Q	Q	Q	Q
		Relative Standard Errors (percent)							
All Buildings	3.8	3.5	—	7.1	—	22.6	—	23.0	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	5.4	5.2	34.8	18.8	35.4	—	—	45.2	35.4
Central Chillers	10.7	11.4	41.5	—	—	21.2	41.5	22.5	41.5
Individual Air Conditioners	6.8	—	—	6.8	—	—	—	—	—
Residential-Type Central Air Conditioners	7.7	7.9	44.3	—	—	—	—	35.0	44.3
Heat Pumps	9.1	8.9	57.1	27.6	62.0	—	—	28.7	56.8
District Chilled Water	27.2	30.4	46.6	—	—	21.1	46.6	61.7	46.6
Swamp Coolers	21.3	24.0	66.7	—	—	53.3	66.6	41.5	66.7
Other	21.5	27.7	49.5	26.4	49.5	46.0	49.5	38.4	49.5

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 4b. Cooling Distribution Equipment, Floorspace in Cooled Buildings and Relative Standard Errors, 1995

Building Characteristics	All Cooled Buildings	Type of Cooling Distribution Equipment* (more than one may apply) (million square feet)							
		Ducts or Air Handling Units		Cools Directly		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	49,935	42,803	—	14,782	—	3,527	—	2,072	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	26,628	24,550	Q	3,080	Q	—	—	566	Q
Central Chillers	11,065	10,196	Q	—	—	2,515	Q	420	Q
Individual Air Conditioners	12,494	—	—	12,494	—	—	—	—	—
Residential-Type Central Air Conditioners	9,238	8,782	Q	—	—	—	—	786	Q
Heat Pumps	6,931	6,270	Q	815	Q	—	—	188	Q
District Chilled Water	2,521	2,321	Q	—	—	478	Q	Q	Q
Swamp Coolers	2,451	1,541	Q	—	—	552	Q	432	Q
Other	949	633	Q	205	Q	Q	Q	Q	Q
		Relative Standard Errors (percent)							
All Buildings	3.5	3.8	—	5.6	—	8.1	—	9.5	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	4.9	4.9	41.2	11.6	40.2	—	—	22.3	40.2
Central Chillers	6.6	7.1	35.5	—	—	10.2	35.5	19.8	35.5
Individual Air Conditioners	5.7	—	—	5.7	—	—	—	—	—
Residential-Type Central Air Conditioners	5.4	5.6	42.1	—	—	—	—	18.5	42.1
Heat Pumps	6.6	7.0	48.6	15.9	49.3	—	—	22.0	47.9
District Chilled Water	10.7	11.9	38.4	—	—	17.6	38.4	59.8	38.4
Swamp Coolers	16.0	15.7	48.4	—	—	36.2	44.1	27.8	48.4
Other	16.2	25.6	43.3	33.9	43.3	40.8	43.3	31.4	43.3

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 4c. Cooling Distribution Equipment, Cooled Floorspace and Relative Standard Errors, 1995

Building Characteristics	All Cooled Buildings	Type of Cooling Distribution Equipment* (more than one may apply) (million square feet)							
		Ducts or Air Handling Units		Cools Directly		Fan-Coil Units without Ducts		Other	
		Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
All Buildings	36,001	32,488	—	8,455	—	3,084	—	1,597	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	19,839	18,311	Q	2,158	Q	—	—	439	Q
Central Chillers	9,576	8,768	Q	—	—	2,242	Q	349	Q
Individual Air Conditioners	6,722	—	—	6,722	—	—	—	—	—
Residential-Type Central Air Conditioners	6,379	6,087	Q	—	—	—	—	554	Q
Heat Pumps	5,557	5,006	Q	651	Q	—	—	170	Q
District Chilled Water	2,302	2,117	Q	—	—	452	Q	Q	Q
Swamp Coolers	1,874	1,144	Q	—	—	402	Q	352	Q
Other	708	462	Q	156	Q	Q	Q	Q	Q
		Relative Standard Errors (percent)							
All Buildings	3.9	4.2	—	5.5	—	8.5	—	9.5	—
Cooling Equipment (more than one may apply)									
Packaged Air-Conditioning Units	4.8	5.0	43.2	10.8	42.1	—	—	18.0	42.1
Central Chillers	6.8	7.4	41.0	—	—	10.5	41.0	17.2	41.0
Individual Air Conditioners	5.8	—	—	5.8	—	—	—	—	—
Residential-Type Central Air Conditioners	5.9	5.9	49.2	—	—	—	—	22.6	49.2
Heat Pumps	7.2	7.7	50.5	16.7	50.6	—	—	23.3	50.5
District Chilled Water	10.9	12.1	45.5	—	—	18.0	45.5	59.5	45.5
Swamp Coolers	16.4	14.8	49.7	—	—	41.8	48.9	28.1	49.7
Other	14.8	26.4	51.0	40.5	51.0	44.0	51.0	36.4	51.0

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 5a. Participation in Energy Conservation Programs, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	Number of Buildings (thousand)					Relative Standard Errors (percent)				
		Conservation Features					Conservation Features			
	All Buildings	Any Features	Building Shell	HVAC	Lighting	All Buildings	Any Features	Building Shell	HVAC	Lighting
All Buildings	4,579	4,076	3,906	2,529	2,084	3.9	3.9	4.0	4.6	5.5
Participation in Energy Conservation Programs:										
Energy Management and Control Systems	247	247	244	233	182	10.4	10.4	10.5	10.9	9.4
Energy-Efficient Motor Systems*										
Yes	212	212	211	201	166	13.8	13.9	14.0	14.4	14.1
Don't Know	40	40	40	33	25	31.1	31.1	31.2	33.8	39.6
Building Energy Manager*										
Yes	305	295	289	257	184	10.5	11.4	11.2	11.4	10.9
Don't Know	Q	Q	Q	Q	Q	91.6	91.6	91.6	91.6	96.9
Energy Audit*										
Yes	278	278	269	254	224	11.1	11.2	12.3	12.4	10.9
Don't Know	159	153	148	112	88	14.6	14.5	15.4	20.2	17.8
Special Rates or Incentives*										
Yes	197	196	194	173	137	13.8	13.8	13.9	11.6	12.8
Don't Know	89	89	85	68	50	24.3	24.3	25.0	24.2	24.9
Energy-Efficient Water Heating Equipment Installation or Retrofit*										
Yes	366	363	356	293	274	11.5	11.6	11.2	11.4	10.2
Don't Know	52	52	51	43	25	29.0	29.0	28.9	30.9	37.3
Electricity Load Control*										
Yes	198	198	197	168	142	17.4	17.4	17.5	13.5	14.7
Don't Know	48	48	48	33	32	33.3	33.3	33.3	32.8	38.4
Interruptible Natural Gas*										
Yes	101	100	99	83	96	19.7	19.8	20.0	21.2	20.2
Don't Know	34	34	34	32	21	28.4	28.4	28.4	30.9	35.9
Waste-Heat Recovery*										
Yes	64	64	64	61	61	23.8	23.9	24.1	24.8	24.9
Don't Know	25	25	25	17	13	38.5	38.5	38.5	43.5	49.9
Thermal Energy Storage*										
Yes	7	7	6	6	6	24.9	24.9	25.2	25.4	24.9
Don't Know	23	23	23	16	Q	40.4	40.4	40.4	46.1	52.9

* = Data elements were not statistically adjusted for nonresponse.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 5b. Participation in Energy Conservation Programs, Floorspace and Relative Standard Errors, 1995

Building Characteristics	Total Floorspace (million square feet)					Relative Standard Errors (percent)				
		Conservation Features					Conservation Features			
	All Buildings	Any Features	Building Shell	HVAC	Lighting	All Buildings	Any Features	Building Shell	HVAC	Lighting
All Buildings	58,772	55,288	53,190	44,657	38,537	3.4	3.5	3.5	3.9	3.7
Participation in Energy Conservation Programs:										
Energy Management and Control Systems	13,796	13,792	13,657	13,632	12,374	5.3	5.3	5.3	5.4	5.5
Energy-Efficient Motor Systems*										
Yes	10,650	10,630	10,574	10,447	9,989	6.0	6.0	6.0	6.1	6.1
Don't Know	605	605	597	467	406	26.7	26.7	27.0	24.4	33.9
Building Energy Manager*										
Yes	9,445	9,349	9,216	9,038	8,016	6.3	6.4	6.5	6.6	6.9
Don't Know	Q	Q	Q	Q	Q	87.9	87.9	87.9	87.9	74.0
Energy Audit*										
Yes	8,440	8,435	8,290	8,182	7,658	6.9	6.9	7.0	7.3	7.1
Don't Know	2,713	2,685	2,628	2,270	1,892	11.2	11.2	11.5	11.6	12.8
Special Rates or Incentives*										
Yes	8,263	8,242	8,111	7,935		7.1	7.2	7.3	7.1	7.0
Don't Know	1,683	1,676	1,654	1,466	7,410	16.3	16.3	16.3	18.2	16.5
Energy-Efficient Water Heating Equipment Installation or Retrofit*					1,229					
Yes	8,041	8,025	7,964	7,514	7,216	6.1	6.1	6.1	6.5	6.4
Don't Know	872	872	870	754	567	19.8	19.8	19.8	18.4	24.5
Electricity Load Control*										
Yes	6,990	6,990	6,849	6,719	6,279	7.7	7.7	7.8	7.8	7.4
Don't Know	821	815	815	710	517	24.5	24.5	24.5	27.3	26.0
Interruptible Natural Gas*										
Yes	4,071	4,060	4,043	3,960	3,809	9.6	9.7	9.7	9.9	9.2
Don't Know	695	695	695	630	442	18.5	18.5	18.5	20.3	21.7
Waste-Heat Recovery*										
Yes	3,319	3,302	3,291	3,236	3,113	10.1	10.2	10.3	10.3	10.1
Don't Know	376	376	376	304	217	28.1	28.1	28.1	32.5	33.9
Thermal Energy Storage*										
Yes	601	601	593	596	577	16.8	16.8	16.9	16.8	16.7
Don't Know	342	342	342	274	Q	30.4	30.4	30.4	35.3	38.2

* = Data elements were not statistically adjusted for nonresponse.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 6a. Sponsorship of Conservation Features and Conservation Programs, Number of Buildings and Relative Standard Errors, 1995

Building Characteristics	All Buildings*		Sponsor (thousand buildings) (more than one may apply)									
			Utility*		Federal Government*		Self-Sponsored*		Third Party*		Other*	
	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
Building Shell Conservation Features	3,906	—	69	Q	54	Q	3,415	Q	499	Q	67	Q
HVAC Conservation Features	2,529	—	53	Q	19	Q	603	Q	89	Q	11	Q
Lighting Conservation Features	2,084	—	295	25	27	25	1,700	25	166	25	22	25
Participation in Energy Conservation Programs:												
Energy Management and Control Systems	247	—	25	Q	7	Q	194	Q	35	Q	2	Q
Energy-Efficient Motor Systems	212	40	11	Q	3	Q	178	Q	38	Q	Q	Q
Energy Audit	278	159	136	Q	14	Q	126	Q	45	Q	Q	Q
Special Rates or Incentives	197	89	158	Q	6	Q	42	Q	3	Q	Q	Q
Energy-Efficient Water Heating Equipment Installation	366	52	36	Q	Q	Q	307	Q	45	Q	Q	Q
Electricity Load Control	198	48	85	Q	1	Q	110	Q	19	Q	Q	Q
Interruptible Natural Gas	101	34	45	Q	Q	Q	61	Q	7	Q	Q	Q
Waste Heat Recovery	64	25	Q	Q	Q	Q	55	Q	4	Q	Q	Q
Thermal Energy Storage	7	23	Q	Q	Q	Q	4	Q	Q	Q	Q	Q
	Relative Standard Errors (percent)											
Building Shell Conservation Features	4.0	—	22.6	48.1	29.2	48.1	4.7	48.1	13.9	48.1	28.7	48.1
HVAC Conservation Features	4.6	—	18.2	64.1	43.2	64.1	8.9	64.1	24.6	64.1	14.6	64.1
Lighting Conservation Features	5.5	—	12.4	35.1	35.0	35.1	6.6	35.1	17.0	35.1	47.8	35.1
Participation in Energy Conservation Programs												
Energy Management and Control Systems	10.4	—	30.7	41.1	36.6	41.1	11.6	41.1	33.6	41.1	41.1	41.1
Energy-Efficient Motor Systems	13.8	31.1	20.3	81.8	30.0	81.8	15.2	81.8	38.2	81.8	86.6	81.8
Energy Audit	11.1	14.6	16.3	73.4	48.1	73.4	15.7	73.4	32.9	73.4	38.3	73.4
Special Rates or Incentives	13.8	24.3	17.0	70.0	44.1	70.0	22.5	70.0	21.2	70.0	42.6	70.0
Energy-Efficient Water Heating Equipment Installation	11.5	29.0	32.9	80.3	72.9	80.3	12.2	80.3	30.2	80.3	47.2	80.3
Electricity Load Control	17.4	33.3	33.0	50.3	39.6	50.3	15.9	50.3	47.9	50.3	61.4	50.3
Interruptible Natural Gas	19.7	28.4	27.8	100.0	41.4	100.0	26.1	100.0	47.1	100.0	61.2	100.0
Waste Heat Recovery	23.8	38.5	74.0	100.0	44.0	100.0	25.4	100.0	25.9	100.0	70.8	100.0
Thermal Energy Storage	24.9	40.4	38.8	92.2	77.6	92.2	28.1	92.2	63.1	92.2	100.0	92.2

— = Data not applicable.

* = Data elements were not statistically adjusted for nonresponse.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

Table 6b. Sponsorship of Conservation Features and Conservation Programs, Floorspace and Relative Standard Errors, 1995

Building Characteristics	All Buildings*		Sponsor (million square feet) (more than one may apply)									
			Utility*		Federal Government*		Self-Sponsored*		Third Party*		Other*	
	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know	Yes	Don't Know
Building Shell Conservation Features	53,190	—	1,102	Q	1,422	Q	47,334	Q	6,678	Q	711	Q
HVAC Conservation Features	44,657	—	1,829	Q	1,016	Q	19,479	Q	2,911	Q	302	Q
Lighting Conservation Features	38,537	—	6,586	238	1,305	238	31,926	238	3,721	238	307	238
Participation in Energy Conservation Programs:												
Energy Management and Control Systems	13,796	—	1,113	Q	924	Q	11,659	Q	1,784	Q	166	Q
Energy-Efficient Motor Systems	10,650	605	1,257	Q	578	Q	8,893	Q	1,241	Q	Q	Q
Energy Audit	8,440	2,713	3,202	Q	396	Q	4,522	Q	1,346	Q	Q	Q
Special Rates or Incentives	8,263	1,683	6,286	Q	Q	Q	2,369	Q	379	Q	Q	Q
Energy-Efficient Water Heating Equipment Installation	8,041	872	820	Q	326	Q	7,037	Q	1,153	Q	Q	Q
Electricity Load Control	6,990	747	1,982	Q	227	Q	4,822	Q	800	Q	Q	Q
Interruptible Natural Gas	4,071	695	1,951	Q	Q	Q	2,398	Q	269	Q	Q	Q
Waste Heat Recovery	3,319	376	301	Q	Q	Q	2,812	Q	459	Q	Q	Q
Thermal Energy Storage	601	342	Q	Q	Q	Q	446	Q	Q	Q	Q	Q

Relative Standard Errors (percent)

Building Shell Conservation Features	3.5	—	15.0	35.1	26.4	35.1	4.2	35.1	11.2	35.1	23.1	35.1
HVAC Conservation Features	3.9	—	11.3	55.1	26.6	55.1	5.6	55.1	11.9	55.1	29.3	55.1
Lighting Conservation Features	3.7	—	7.5	31.0	25.6	31.0	4.4	31.0	11.5	31.0	29.3	31.0
Participation in Energy Conservation Programs:												
Energy Management and Control Systems	5.3	—	21.3	47.4	29.6	47.4	6.1	47.4	15.2	47.4	38.7	47.4
Energy-Efficient Motor Systems	6.0	26.7	12.5	79.8	34.1	79.8	6.7	79.8	16.8	79.8	53.1	79.8
Energy Audit	6.9	11.2	12.4	39.7	23.4	39.7	9.5	39.7	16.4	39.7	44.4	39.7
Special Rates or Incentives	7.1	16.3	8.3	60.3	52.0	60.3	11.0	60.3	26.7	60.3	54.0	60.3
Energy-Efficient Water Heating Equipment Installation	6.1	19.8	16.6	57.5	43.7	57.5	6.8	57.5	16.4	57.5	47.0	57.5
Electricity Load Control	7.7	21.5	13.2	51.4	44.2	51.4	8.9	51.4	22.6	51.4	53.7	51.4
Interruptible Natural Gas	9.6	18.5	11.9	100.0	39.3	100.0	12.4	100.0	21.0	100.0	44.6	100.0
Waste Heat Recovery	10.1	28.1	32.7	100.0	50.1	100.0	11.1	100.0	24.7	100.0	70.8	100.0
Thermal Energy Storage	16.8	30.4	28.6	95.9	58.7	95.9	17.4	95.9	28.4	95.9	100.0	95.9

— = Data not applicable.
* = Data elements were not statistically adjusted for nonresponse.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • The Relative Standard Error (RSE) for each estimate is shown in shaded area. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, 1995 Commercial Buildings Energy Consumption Survey.

5. Detailed Tables

How to Read the Tables

This section introduces three sets of tables. The first set consists of building characteristics tables (BC-1 through BC-44), which contain the number of buildings and amount of floorspace for major building characteristics. Tables BC-1 and BC-2 of this set are summary tables. Tables BC-3 through BC-17 address location, building size, year constructed, number of workers, hours of operation, and types of occupancy. Tables BC-18 through BC-28 contain data about the energy sources used for all end uses and for specific major end uses. Tables BC-29 through BC-44 contain data about percent of floorspace heated, cooled, and lit, energy-using equipment types, and conservation measures used in the buildings.

The second set of tables consists of energy consumption and expenditures tables (CE-1 through CE-31), which present detailed energy consumption and expenditure data for buildings in the commercial sector. These tables are grouped into major fuel tables, Tables CE-1 through CE-8 and specific fuel tables. The specific fuel tables consist of Tables CE-9 through CE-19 for electricity, Tables CE-20 through CE-25 for natural gas, Tables CE-26 through CE-29 for fuel oil, and Tables CE-30 and CE-31 for district heat. The third set of tables consists of Tables EU-1 through EU-6, which contain estimates of the amount of natural gas and electricity that is consumed for nine specific end uses: space heating, cooling, ventilation, water heating, lighting, cooking, refrigeration, office equipment, and other.

This section provides assistance to those reading the tables by explaining some of the headings for categories of data. It also explains the use of the row and column factors to compute the confidence levels of the estimates given in the tables and the statistical significance of differences between the data in two or more categories. The section also includes "Quick-Reference Guides" to the statistics in the different tables.

Categories of Data in the Tables

Data in the tables are presented in column categories (at the top of each table) and row categories (in the far left column of each table).

Column Categories

The column categories most commonly classify data by building characteristics or by consumption and expenditures. The following data items, listed in alphabetical order, are explanations of some of the column categories found in the set of energy consumption and expenditures tables that may require clarification.

Conditional Energy Intensity—The amount of electricity, natural gas, fuel oil, or district heat used per square foot in buildings using the specified energy source. For example, in Table CE-11, data in the row labeled "Electricity" under "Energy Sources" and in the column labeled "Northeast" under "Electricity Energy Intensity" would read: "Buildings in the Northeast that used electricity as an energy source used 11.2 kilowatthours of electricity per square foot."

Demand-Metered Buildings—Buildings that have meters to measure peak demand (in addition to total consumption) during a billing period. Peak demand is usually metered only for electricity.

Distribution of Building-Level Intensities—The amount of energy used per square foot, divided into three percentiles: 25th, median, and 75th. In Table CE-10, for example, the row labeled "Education" under "Principal Building Activity" and in the column labeled "25th. Percentile" under "Distribution of Building-Level Intensities" would read: "In 1995, 25 percent of U.S. education buildings used 4.3 kilowatthours per square foot or less. (75 percent of the buildings used more than 4.3 kilowatthours of electricity per square foot.)"

Electricity—Site electricity. (See "site electricity" and "primary electricity" in this listing.)

Energy Intensity—Usually defined as "gross energy intensity" or "conditional energy intensity" in title of table. If table title does not specify, "energy intensity" is to be defined as "conditional energy intensity."

Floorspace—The enclosed area in a building; the sum of the floorspace in all buildings in a category.

Gross Energy Intensity—The ratio of the total amount of energy consumed by a group of buildings to the total floorspace of those buildings, including buildings and floorspace where the energy source is not used. For example, in Table CE-5, data in the row category "Education" under "Principal Building Activity" and in the column category of "Northeast" under "Energy Intensity for Sum of Major Fuels" would read: "Education buildings in the Northeast consumed 83.4 thousand Btu per square foot."

Major Fuel—Major energy sources: electricity, natural gas, fuel oil, and district heat (district steam or district hot water). Although electricity is technically not a fuel, "Major Fuel," rather than "Major Energy Source," was retained as the title of this category to facilitate comparison of previous CBECS data.

Primary Electricity—Site electricity plus the losses associated with the generation and transmission of the electricity. Most of the tables present statistics for site consumption alone, but Tables CE-1 and CE-9 also provide consumption statistics for primary electricity.

Site Electricity—The amount of electricity delivered to the commercial building. This amount excludes losses associated with the generation and transmission of the electricity. (See "primary electricity" in this listing.) Most of the tables in this section provide statistics for site electricity alone (not for primary electricity). When the term "electricity" is used, the reference is to site electricity.

Total of Major Fuels—The sum of site electricity, natural gas, fuel oil, and district heat. Statistics in this column exclude data from the column "Primary Electricity."

Row Categories

The row categories classify data by specific features, such as principal building activity or energy sources used. Data in the row categories relate to the buildings having such a feature, not to the feature. For example, in Table CE-1, the data in the "Major Fuels" column and the row category "Buildings with Cooling" is to be read as "Buildings with cooling consumed 4,923 trillion Btu of the major fuels." Tables CE-1 through CE-31 contain no data on the energy consumption for cooling specifically. Estimates of energy used for specific end uses are found in Tables EU-1 through EU-6.

The Glossary provides detailed definitions of the terms used in the tables. Below are explanations of some of the row categories found in the tables that may require clarification. These terms are listed in the order in which they occur in the tables.

All Buildings—Number of buildings, square footage, and consumption or expenditures for roofed and walled structures whose principal activities are nonresidential, nonagricultural, and nonindustrial and that are larger than 1,000 square feet (roughly twice the size of a two-car garage).

Principal Building Activity—Number of buildings, square footage, and consumption or expenditures for buildings grouped by the activity that occupies the most floorspace in the buildings. Some building types are combined in the tables. For example, inpatient and outpatient health care facilities were combined as "health care buildings," refrigerated and nonrefrigerated warehouses were combined as "warehouses," and skilled nursing care buildings were included in "lodging" See Appendix C, "Types of Buildings," for a full description of the principal building activity categories.

Climate Zone—Number of buildings, square footage, and consumption or expenditures for commercial buildings located in one of the five U.S. climate zones, based on the average number of cooling degree-days (CDD) and heating degree-days (HDD) in a 45-year period (1931-1975). See Appendix D, "U.S. Climate Zone and Census Regions and Divisions Maps," for a map showing the five U.S. climate zones.

Census Region and Division—Number of buildings, square footage, and consumption or expenditures for commercial buildings located in one of the nine divisions within the four regions as defined by the U.S. Bureau of Census. See Appendix D, "U.S. Climate Zones and Census Regions and Divisions Maps," for a map showing the four Census regions and nine Census divisions.

Energy Sources—Number of buildings, square footage, and consumption or expenditures for buildings using a specific type of energy (electricity, natural gas, fuel oil, district heat [district steam or district hot water], district chilled water, propane, and any other type of energy [wood, coal, active solar, and photovoltaic cells]). The energy consumption and expenditures tables contain consumption data based on billing information obtained from energy suppliers, for the first four sources only. Estimates of the amount of wood burned in buildings were obtained during the personal interviews with building respondents. No consumption data were collected for propane, coal, solar energy, or other renewable sources because such a collection effort would not be feasible.

Energy End Uses—Number of buildings, square footage, and consumption or expenditures in buildings that had specific end uses (heating, air-conditioning, water heating, cooking, and manufacturing), not the amount of energy consumption or expenditures for a particular end use (Tables CE-1 through CE-31). Tables EU-1 through EU-6 provide the amount of electricity or natural gas used for a particular end use.

Space-Heating Energy Sources—Number of buildings, square footage, and consumption or expenditures in buildings using at least one of the major fuels, propane, wood, or any other energy source for space heating. (In some tables, this category is subdivided into "Main and Secondary Energy Sources.") Tables CE-1 through CE-31 contain no data on the amount of energy consumption or expenditures for space heating specifically. Tables EU-1 through EU-6 provide the amount of electricity or natural gas used specifically for space heating.

Primary Space-Heating Energy Source—Number of buildings, square footage, and consumption or expenditures in buildings using a specific energy source to heat most of the square footage in the building most of the time. Tables CE-1 through CE-31 contain no specific data on the amount of energy consumption or expenditures for space heating. Tables EU-1 through EU-6 provide the amount of electricity or natural gas used specifically for space heating.

Cooling Energy Source—Number of buildings, square footage, and consumption or expenditures in buildings using electricity, natural gas, or district chilled water for cooling. Tables CE-1 through CE-31 contain no specific data on the amount of energy consumption or expenditures for cooling. Tables EU-1 through EU-6 provide the amount of electricity specifically used for cooling.

Water-Heating Energy Source—Number of buildings, square footage, and consumption or expenditures in buildings using one of the major fuels or propane for water heating. Tables CE-1 through CE-31 contain no specific data on the amount of energy consumption or expenditures for water heating. Tables EU-1 through EU-6 provide the amount of electricity or natural gas used specifically for water heating.

Cooking Energy Source—Number of buildings, square footage, and consumption or expenditures in buildings using electricity, natural gas, or propane for cooking. Tables CE-1 through CE-31 contain no data specific on the amount of energy consumption or expenditures for cooking. Tables EU-1 through EU-6 provide the amount of electricity or natural gas specifically used for cooking.

Heating Equipment—Number of buildings, square footage, and natural gas and electricity consumption (Tables EU-1 through EU-6) in buildings that had at least one type of heating equipment.

Cooling Equipment—Number of buildings, square footage, and natural gas and electricity consumption (Tables EU-1 through EU-6) in buildings that had at least one type of cooling equipment.

Lighting Equipment—Number of buildings, square footage, and natural gas and electricity consumption (Tables EU-1 through EU-6) in buildings that had at least one type of lighting equipment.

Water-Heating Equipment—Number of buildings, square footage, and natural gas and electricity consumption (Tables EU-1 through EU-6) in buildings that had at least one type of cooling equipment.

Statistical Significance of Data

Row and Column Factors

The tables provide row factors in the far right column and column factors on the top line of each table. Because the estimates in the detailed tables are based on the sample surveyed, they are subject to sampling error. The standard error is a measure of the reliability or precision of the survey statistic. The value for the stan-

dard error can be used to construct confidence intervals and to perform hypothesis tests by standard statistical methods. Relative Standard Error (RSE) is defined as the standard error (square root of the variance) of a survey estimate, divided by the survey estimate and multiplied by 100.

An approximate RSE can be computed for each estimate in these tables via the use of row and column factors. The RSE for a given estimate is found by multiplying the RSE Row Factor (located in the last column) for the estimate by its RSE Column Factor (at the top of the column). This value is the approximate RSE, in percent. The RSE (divided by 100 and multiplied by the estimate) is the approximate standard error. (Note: Tables that contain median statistics, Tables BC-2, CE-10, CE-19 and CE-21, or contain statistics based on a model, Tables EU-1 through EU-6, do not contain row and column factors.)

The 95-percent confidence range can be determined with the approximate RSE. To calculate the 95-percent confidence range for a given estimate:

- Multiply the RSE row factor by the RSE column factor to determine the approximate RSE.
- Multiply the approximate RSE (divided by 100) by the estimate in the table to determine the approximate standard error.
- Multiply the approximate standard error by 1.96 to determine the approximate confidence error.

The estimate plus or minus the confidence error is the 95-percent confidence range.

For example, the estimate for the amount of natural gas consumed in mercantile and service buildings is 395 trillion Btu (Figure 56), the estimate's RSE row factor is 12.33 and its RSE column factor is 1.0. The approximate RSE is (12.33)x(1.0), or 12.3 percent. The approximate standard error is (12.3/100)x(395 trillion Btu), or 48.7 trillion Btu. The 95-percent confidence error is (1.96)x(48.7 trillion Btu), or 95.5 trillion Btu. Therefore, with 95 percent confidence, the true amount of natural gas consumed in mercantile and service buildings in 1995, was 395 trillion Btu (±95.5 trillion), or the range 299 to 491 trillion Btu.

Statistical Significance Between Two Statistics

The difference between any two estimates given in the Detailed Tables may or may not be statistically significant. Statistical significance is computed as:

$$S_{x_1-x_2} = \sqrt{[s_{x_1}]^2 + [s_{x_2}]^2}$$

where S is the standard error, x_1 is the first estimate, and x_2 is the second estimate. The result of this computation is to be multiplied by 1.96 and, if this result is less than the difference between the two estimates, the difference is statistically significant.

For example, in 1995, mercantile and service buildings consumed an estimated 395 trillion Btu of natural gas, while health care buildings consumed an estimated 258 trillion Btu, for an estimated difference of 137 trillion Btu. The standard error for the 395 trillion Btu estimate (x_1) is 48.70, and the standard error for the 258 trillion Btu estimate (x_2) is 35.55 and

$$S_{x_1-x_2} = \sqrt{48.70^2 + 35.55^2}$$

$$S_{x_1-x_2} = 60.30.$$

Multiplying 60.30 by 1.96 yields 118.2. Since 118.2 is less than 137, the difference between the two estimates is statistically significant.

The Quick-Reference Guides on the following pages list general topics covered by the detailed tables and the table numbers for the different types of tables. To help the reader quickly locate a particular table, the general topic class is printed along the outside edge of each table page.

Figure 56. Use of RSE Row and Column Factors

Building Characteristics	All Buildings		Total Energy Consumption (trillion Btu)						RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity		Natural Gas	Fuel Oil	District Heat	
				Primary	Site				
RSE Column Factor	0.7	0.6	.08	.08	.08	1.0	1.9	2.5	
All Buildings	4,579	58,772	5,321	7,873	2,608	1,946	235	533	5.74
Building Floorspace (Square Feet)									
1,001 to 5,000	2,399	6,338	708	1,148	380	264	44	Q	9.50
5,001 to 10,000	1,035	7,530	624	718	238	272	26	Q	14.90
10,001 to 25,000	745	11,617	824	1,161	384	356	45	38	12.29
25,001 to 50,000	213	7,676	630	954	316	231	28	55	9.79
50,001 to 100,000	115	7,968	698	1,097	363	243	31	60	10.41
100,001 to 200,000	48	6,776	687	1,017	337	244	21	84	11.84
200,001 to 500,000	19	5,553	636	927	307	211	25	94	13.65
Over 500,000	6	5,313	514	852	282	125	14	93	14.56
Principal Building Activity									
Education	309	7,740	614	666	221	245	57	91	10.34
Food Sales	137	642	137	358	119	18	Q	Q	20.58
Food Service	285	1,353	332	502	166	158	Q	Q	20.94
Health Care	105	2,333	561	637	211	258	21	70	13.78
Lodging	158	3,618	461	565	187	213	Q	57	13.83
Mercantile and Service	1,289	12,728	973	1,533	508	395	49	Q	12.33
Office	705	10,478	1,019	2,039	676	239	28	75	11.11
Public Assembly	326	3,948	449	514	170	142	14	Q	17.28
Public Order and Safety	87	1,271	124	148	49	33	Q	Q	30.10
Religious Worship	269	2,792	104	99	33	57	13	Q	13.80
Warehouse and Storage	580	8,481	325	531	176	106	10	Q	16.23
Other	67	1,004	173	228	75	55	Q	Q	32.41
Vacant	261	2,384	51	54	18	26	5	Q	25.95

Building Characteristics Tables Quick Reference Guide

Data Item	Number of Buildings	Floorspace
Summary Tables	BC-1 (includes means)	BC-2 (includes medians)
Location		
Census Region	BC-3	BC-3
Census Division	BC-4	BC-5
Climate Zone	BC-6	BC-6
Metropolitan Status	BC-7	BC-7
Structure		
Building Size	BC-8	BC-9
Year Constructed	BC-10	BC-11
Building Use		
Employment Size	BC-12	BC-13
Weekly Operating Hours	BC-14	BC-15
Government and Nongovernment	BC-16	BC-17
Energy Sources and End Use		
Energy Sources	BC-18	BC-19
Energy End Uses	BC-20	BC-20
Space-Heating Energy Sources	BC-21	BC-22
Primary Space-Heating Fuel	BC-23	BC-24
Cooling Energy Sources	BC-25	BC-25
Water-Heating Energy Sources	BC-26	BC-27
Cooking Energy Sources	BC-28	BC-28
End-Use Percentage		
Percent of Floorspace Heated	BC-29	BC-29
Percent of Floorspace Cooled	BC-30	BC-30
Percent of Floorspace Lit	BC-31	BC-31
Floorspace Heated, Cooled, Lit	—	BC-32
End-Use Equipment		
Heating	BC-33	BC-34
Cooling	BC-35	BC-36
Refrigeration	BC-37	BC-37
Water-Heating	BC-38	BC-38
Lighting	BC-39	BC-40
Conservation		
Energy Conservation Features	BC-41	BC-41
Building Shell Conservation	BC-42	BC-43
Reduction in Equipment Use	BC-44	BC-44

Energy Consumption and Expenditures Tables Quick Reference Guide

Data Item	Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
Total Consumption	CE-1	CE-9	CE-20	CE-26	CE-30
Total Expenditures	CE-2	CE-9	CE-20	CE-26	CE-30
Consumption per Building, Square Foot, Energy Unit	CE-3	CE-10	CE-21	CE-27	CE-31
Expenditures per Building, Square Foot, Energy Unit	CE-4	CE-10	CE-21	CE-27	CE-31
Consumption and Intensity by:					
Census Region	CE-5	CE-11	CE-22	CE-28	—
Building Size	CE-7	CE-13	CE-24	—	—
Year Constructed	CE-8	CE-14	CE-25	—	—
Building Level Intensities (percentile)	—	CE-10	CE-21	—	—
Expenditures per Energy Unit and Intensity by Census Region	CE-6	CE-12	CE-23	CE-29	—
Electricity Peak Demand by:					
Demand Metering and Season of Peak Demand	—	CE-15,16	—	—	—
Peak Demand Category	—	CE-17,18	—	—	—
Peak Demand Intensity and Load (percentile)	—	CE-19	—	—	—
Total Energy Consumption by End Uses	EU-1	EU-3	EU-5	—	—
Energy Consumption per Square Foot by End Uses	EU-2	EU-4	EU-6	—	—

Building Characteristics Tables

(BC-1 through BC-44)

Table BC-1. Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1995

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Mean Square Feet per Building (thousand)	Mean Square Feet per Worker	Mean Hours per Week	RSE Row Factor
RSE Column Factor:	1.3	1.0	1.4	1.0	1.0	0.5	
All Buildings	4,579	58,772	76,767	12.8	766	62	3.2
Building Floorspace (Square Feet)							
1,001 to 5,000	2,399	6,338	10,585	2.6	599	59	4.7
5,001 to 10,000	1,035	7,530	7,584	7.3	993	58	5.4
10,001 to 25,000	745	11,617	12,961	15.6	896	67	6.3
25,001 to 50,000	213	7,676	10,206	36.1	752	72	4.0
50,001 to 100,000	115	7,968	9,733	69.3	819	80	4.4
100,001 to 200,000	48	6,776	8,493	140.9	798	87	5.0
200,001 to 500,000	19	5,553	7,599	294.9	731	102	5.2
Over 500,000	6	5,313	9,604	896.4	553	108	7.7
Principal Building Activity							
Education	309	7,740	10,096	25.1	767	51	7.1
Food Sales	137	642	652	4.7	984	112	10.7
Food Service	285	1,353	2,342	4.8	578	85	9.2
Health Care	105	2,333	4,483	22.2	520	79	9.7
Lodging	158	3,618	2,748	22.8	1,317	156	8.3
Mercantile and Service	1,289	12,728	13,464	9.9	945	61	5.9
Office	705	10,478	27,053	14.9	387	52	5.8
Public Assembly	326	3,948	2,997	12.1	1,317	53	10.1
Public Order and Safety	87	1,271	1,703	14.6	746	72	22.4
Religious Worship	269	2,792	3,844	10.4	Q	41	15.1
Warehouse and Storage	580	8,481	4,904	14.6	1,730	59	10.6
Other	67	1,004	1,844	14.9	544	79	23.4
Vacant	261	2,384	638	9.1	3,735	19	19.4
Year Constructed							
1919 or Before	353	3,673	3,658	10.4	1,004	56	10.1
1920 to 1945	562	6,710	7,352	11.9	913	55	9.7
1946 to 1959	867	9,298	10,220	10.7	910	54	7.0
1960 to 1969	718	10,858	14,389	15.1	755	62	6.6
1970 to 1979	813	11,333	15,039	13.9	754	68	5.7
1980 to 1989	846	12,252	20,200	14.5	607	67	7.0
1990 to 1992	218	2,590	3,900	11.9	664	61	10.9
1993 to 1995	202	2,059	2,008	10.2	1,025	71	13.2
Floors							
One	3,018	24,552	25,372	8.1	968	59	4.3
Two	1,002	14,122	17,979	14.1	785	66	6.5
Three	399	7,335	8,464	18.4	867	62	8.5
Four to Nine	148	8,789	14,576	59.4	603	84	8.3
Ten or More	12	3,975	10,376	328.9	383	96	9.3
Census Region							
Northeast	725	11,883	15,149	16.4	784	67	7.3
Midwest	1,139	14,322	16,976	12.6	844	59	6.6
South	1,750	20,830	26,500	11.9	786	60	5.3
West	964	11,736	18,142	12.2	647	63	7.0
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	493	5,098	5,965	10.3	855	60	11.7
5,500 to 7,000 HDD	975	14,597	16,896	15.0	864	64	6.4
4,000 to 5,499 HDD	1,070	15,155	21,064	14.2	719	64	8.9
Fewer than 4,000 HDD	1,103	13,491	20,560	12.2	656	61	9.5
More than 2,000 CDD and --							
Fewer than 4,000 HDD	937	10,430	12,281	11.1	849	59	7.1

See footnotes at end of table.

Table BC-1. Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Mean Square Feet per Building (thousand)	Mean Square Feet per Worker	Mean Hours per Week	RSE Row Factor
RSE Column Factor:	1.3	1.0	1.4	1.0	1.0	0.5	
Workers (main shift)							
Fewer than 5	2,505	13,885	4,641	5.5	2,992	58	4.9
5 to 9	798	6,291	5,157	7.9	1,220	61	5.9
10 to 19	625	7,102	7,827	11.4	907	63	6.4
20 to 49	400	9,132	11,533	22.8	792	72	5.9
50 to 99	138	6,931	8,924	50.3	777	72	7.0
100 to 249	71	5,988	9,843	84.4	608	85	6.0
250 or More	43	9,443	28,841	220.1	327	84	10.5
Weekly Operating Hours							
39 or Fewer	899	6,134	5,765	6.8	1,064	14	12.6
40 to 48	1,257	13,233	16,554	10.5	799	43	3.9
49 to 60	969	12,242	17,759	12.6	689	54	3.8
61 to 84	567	10,052	13,214	17.7	761	72	4.9
85 to 167	420	6,202	6,960	14.8	891	105	5.5
Open Continuously	466	10,908	16,514	23.4	661	168	2.0
Ownership and Occupancy							
Nongovernment Owned	4,025	46,696	60,482	11.6	772	62	3.6
Owner Occupied	3,158	35,573	46,882	11.3	759	63	4.0
Nonowner Occupied	698	9,697	13,379	13.9	725	65	6.7
Unoccupied	170	1,426	Q	8.4	6,481	Q	22.5
Government Owned	553	12,076	16,285	21.8	742	61	6.6
Predominant Exterior Wall Material							
Masonry	3,061	42,958	54,292	14.0	791	63	3.8
Siding or Shingles	639	3,243	3,840	5.1	844	58	9.9
Metal Panels	662	5,694	5,120	8.6	1,112	56	8.9
Concrete Panels	106	4,069	6,394	38.2	636	64	11.5
Window Glass	46	1,755	4,397	38.1	399	90	15.4
Other	50	660	2,107	13.2	313	90	24.6
No One Major Type	15	393	616	26.9	638	69	27.4
Predominant Roof Material							
Built-Up	1,369	24,481	33,783	17.9	725	65	4.9
Shingles (Not Wood)	1,486	11,093	13,722	7.5	808	61	7.3
Metal Surfacing	908	7,941	6,514	8.7	1,219	57	7.1
Synthetic or Rubber	351	10,235	16,788	29.1	610	68	7.2
Slate or Tile	202	1,920	2,121	9.5	905	63	11.6
Wooden Materials	152	1,130	1,087	7.5	1,039	60	18.8
Concrete	58	1,335	1,694	23.1	788	50	20.3
Other	36	332	508	9.2	655	35	30.4
No One Major Type	Q	305	549	18.6	Q	47	28.4
Energy Sources (more than one may apply)							
Electricity	4,343	57,076	76,513	13.1	746	63	3.1
Natural Gas	2,478	38,145	50,217	15.4	760	64	3.7
Fuel Oil	607	14,421	22,976	23.7	628	64	7.5
District Heat	110	5,658	10,413	51.5	543	91	11.2
District Chilled Water	53	2,521	4,441	47.7	568	88	12.9
Propane	589	5,344	7,709	9.1	693	66	12.5
Wood	126	699	547	5.6	1,278	53	18.9
Coal	Q	397	199	22.9	1,997	61	33.8
Solar	Q	Q	Q	Q	Q	Q	Q
Other	71	1,154	1,723	16.2	670	72	16.4
Space-Heating Energy Sources (more than one may apply)							
Electricity	1,467	22,156	34,032	15.1	651	66	5.7
Natural Gas	2,211	31,535	40,247	14.3	784	61	4.1
Fuel Oil	504	6,606	8,211	13.1	804	61	9.6
District Heat	109	5,606	10,374	51.4	540	91	11.2
Propane	301	2,025	3,898	6.7	Q	64	16.3
Wood	103	509	401	5.0	1,271	53	21.2
Coal	Q	Q	Q	Q	Q	Q	Q
Solar	Q	Q	Q	Q	Q	Q	Q
Other	25	318	432	12.9	735	57	20.5

See footnotes at end of table.

Table BC-1. Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Mean Square Feet per Building (thousand)	Mean Square Feet per Worker	Mean Hours per Week	RSE Row Factor
RSE Column Factor:	1.3	1.0	1.4	1.0	1.0	0.5	
Primary Space-Heating Energy Source							
Electricity	1,007	13,500	20,602	13.4	655	68	5.9
Natural Gas	2,106	28,808	36,411	13.7	791	61	4.1
Fuel Oil	439	4,207	4,056	9.6	1,037	59	10.0
District Heat	107	5,289	9,872	49.3	536	91	11.4
Propane	260	1,545	Q	5.9	Q	62	15.0
Wood	Q	Q	Q	Q	Q	Q	Q
Coal	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Sources (more than one may apply)							
Electricity	3,293	47,761	67,723	14.5	705	65	3.3
Natural Gas	65	1,314	2,061	20.1	638	67	15.0
District Chilled Water	53	2,521	4,441	47.7	568	88	12.9
Water-Heating Energy Sources (more than one may apply)							
Electricity	1,684	23,056	33,835	13.7	681	63	5.4
Natural Gas	1,577	24,859	32,519	15.8	764	68	4.8
Fuel Oil	120	2,151	2,309	17.9	931	59	17.5
District Heat	54	3,949	7,144	73.7	553	97	12.3
Propane	110	1,020	1,165	9.2	875	94	17.8
Cooking Energy Sources (more than one may apply)							
Electricity	487	12,249	18,935	25.2	647	82	6.5
Natural Gas	448	13,195	20,062	29.4	658	81	6.2
Propane	123	1,480	1,813	12.0	816	84	16.0
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,024	54,347	74,918	13.5	725	63	3.2
Buildings with Cooling	3,381	49,935	71,146	14.8	702	66	3.3
Buildings with Water Heating	3,486	51,560	72,679	14.8	709	66	3.4
Buildings with Cooking	828	20,713	31,865	25.0	650	79	4.6
Buildings with Manufacturing	204	3,893	4,949	19.1	787	53	12.4
Buildings with Electricity Generation	247	13,366	22,855	54.2	585	90	8.1
Percent of Floorspace Heated							
Not Heated	554	4,425	1,849	8.0	2,394	51	14.3
1 to 50	555	6,227	4,248	11.2	1,466	49	9.8
51 to 99	633	8,868	11,519	14.0	770	69	6.8
100	2,836	39,252	59,151	13.8	664	64	3.7
Percent of Floorspace Cooled							
Not Cooled	1,198	8,837	5,620	7.4	1,572	49	8.8
1 to 50	930	15,027	12,404	16.2	1,211	57	6.1
51 to 99	635	12,549	19,278	19.8	651	73	6.3
100	1,816	22,359	39,464	12.3	567	68	4.8
Percent Lit when Open							
Zero	36	189	Q	5.2	Q	57	26.4
1 to 50	666	6,008	2,670	9.0	2,250	62	6.8
51 to 99	745	9,692	12,055	13.0	804	61	6.7
100	2,814	40,514	61,743	14.4	656	65	3.8
Building Not in Use/ Electricity Not Used	318	2,369	253	7.5	9,344	33	21.0

See footnotes at end of table.

Table BC-1. Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Mean Square Feet per Building (thousand)	Mean Square Feet per Worker	Mean Hours per Week	RSE Row Factor
RSE Column Factor:	1.3	1.0	1.4	1.0	1.0	0.5	
Percent Lit when Closed							
Zero	1,644	13,101	12,689	8.0	1,033	42	6.0
1 to 50	2,109	30,711	44,878	14.6	684	59	4.1
51 to 100	87	1,914	2,574	22.0	744	74	14.2
Never Closed	421	10,677	16,372	25.4	652	168	(*)
Building Not in Use/ Electricity Not Used	318	2,369	253	7.5	9,344	33	21.0
Heating Equipment (more than one may apply)							
Heat Pumps	394	5,843	9,153	14.8	638	63	7.5
Furnaces	1,676	14,923	17,488	8.9	853	60	6.2
Individual Space Heaters	1,188	16,809	21,127	14.1	796	57	6.5
District Heat	115	5,911	10,690	51.5	553	91	11.0
Boilers	610	16,754	24,573	27.5	682	73	6.6
Packaged Heating Units	1,031	16,893	23,460	16.4	720	68	5.1
Other	161	6,249	11,092	38.8	563	61	10.8
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	878	9,238	13,813	10.5	669	65	7.7
Heat Pumps	457	6,931	10,724	15.2	646	65	7.3
Individual Air Conditioners	862	12,494	14,184	14.5	881	68	6.3
District Chilled Water	53	2,521	4,441	47.7	568	88	12.9
Central Chillers	109	11,065	21,055	101.4	526	87	7.6
Packaged Air Conditioning Units	1,431	26,628	38,210	18.6	697	69	4.2
Swamp Coolers	186	2,451	2,800	13.2	876	66	13.6
Other	18	949	1,579	51.9	601	74	15.1
Lighting Equipment Types (more than one may apply)							
Incandescent	2,479	35,715	49,241	14.4	725	65	4.0
Standard Fluorescent	3,885	53,984	74,912	13.9	721	65	3.1
Compact Fluorescent	364	14,273	25,623	39.2	557	85	6.4
High-Intensity Discharge	393	16,259	21,898	41.4	742	72	6.6
Halogen	302	9,665	16,479	32.0	587	78	9.8
Other	30	554	1,211	18.7	458	44	34.1
Water-Heating Equipment (more than one may apply)							
Centralized System	2,671	31,656	42,093	11.9	752	65	3.8
Distributed System	742	16,495	25,678	22.2	642	71	6.4
Combination of Centralized and Distributed System	73	3,409	4,909	46.4	694	73	12.8
Personal Computers and/or Computer Terminals							
None	2,039	12,571	8,017	6.2	1,568	54	6.3
1 to 4	1,408	11,401	11,593	8.1	983	68	7.4
5 to 9	437	5,372	6,528	12.3	823	66	7.4
10 to 19	344	5,947	7,456	17.3	798	61	8.5
20 to 49	198	7,048	8,647	35.6	815	69	7.5
50 to 99	81	4,938	7,442	61.2	663	71	8.3
100 to 249	46	5,189	8,426	112.9	616	84	7.4
250 or More	26	6,307	18,657	240.9	338	92	6.7
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	828	20,713	31,865	25.0	650	79	4.6
Computer Room	234	12,890	25,663	55.0	502	72	5.9
Activities with Large Amounts of Hot Water	243	6,753	9,804	27.8	689	99	12.2

See footnotes at end of table.

Table BC-1. Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Mean Square Feet per Building (thousand)	Mean Square Feet per Worker	Mean Hours per Week	RSE Row Factor
RSE Column Factor:	1.3	1.0	1.4	1.0	1.0	0.5	
Building Shell Conservation Features (more than one may apply)							
Roof or Ceiling Insulation	3,380	46,355	65,811	13.7	704	64	3.6
Wall Insulation	2,372	31,694	48,470	13.4	654	62	4.1
Storm or Multiple Glazing	1,897	28,876	42,927	15.2	673	66	4.6
Tinted, Reflective or Shading Glass	1,202	24,245	41,824	20.2	580	66	5.1
Exterior or Interior Shading or Awnings	2,271	37,208	55,742	16.4	668	65	3.7
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	327	13,473	24,381	41.2	553	76	6.7
Economizer Cycle	461	16,550	28,903	35.9	573	75	5.7
HVAC Maintenance	2,403	43,134	64,503	18.0	669	68	3.8
Other Energy Efficient Equipment	198	6,453	11,369	32.5	568	66	10.2
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	749	17,868	28,063	23.9	637	69	5.9
Energy-Efficient Ballasts	1,363	28,375	46,204	20.8	614	67	5.1
Natural Lighting Control Sensors	237	6,431	10,339	27.2	622	83	10.2
Occupancy Sensors	131	5,958	11,564	45.6	515	66	11.1
Time Clock	467	13,262	22,355	28.4	593	73	6.5
Manual Dimmer Switches	501	13,056	19,931	26.1	655	69	6.0
Other	79	2,836	4,501	35.8	630	71	13.2
Energy Conservation Features (more than one may apply)							
Any Conservation Features	4,075	55,288	75,532	13.6	732	63	3.2
Building Shell	3,906	53,190	74,162	13.6	717	63	3.3
HVAC	2,529	44,657	65,999	17.7	677	68	3.7
Lighting	2,084	38,537	58,423	18.5	660	67	4.2
Off-Hour Equipment Reduction (more than one may apply)							
Heating	3,211	38,326	51,920	11.9	738	52	3.5
Cooling	2,707	35,605	50,080	13.2	711	54	3.5
Lighting	3,753	44,937	59,715	12.0	753	52	3.4

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-2. Summary Table: Totals and Medians of Floorspace, Number of Workers, Hours of Operation, and Age of Building, 1995

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Median Square Feet per Building (thousand)	Median Square Feet per Worker	Median Hours per Week	Median Age of Buildings (years)
All Buildings	4,579	58,772	76,767	5.0	938	50	30.5
Building Floorspace (Square Feet)							
1,001 to 5,000	2,399	6,338	10,585	2.5	750	48	30.5
5,001 to 10,000	1,035	7,530	7,584	7.0	1,250	50	35.5
10,001 to 25,000	745	11,617	12,961	15.0	1,667	53	27.5
25,001 to 50,000	213	7,676	10,206	35.0	1,125	56	26.5
50,001 to 100,000	115	7,968	9,733	65.0	1,316	60	25.5
100,001 to 200,000	48	6,776	8,493	140.0	1,500	75	26.5
200,001 to 500,000	19	5,553	7,599	275.0	1,190	80	25.5
Over 500,000	6	5,313	9,604	700.0	813	84	24.5
Principal Building Activity							
Education	309	7,740	10,096	8.5	1,000	45	33.5
Food Sales	137	642	652	2.5	1,001	99	25.5
Food Service	285	1,353	2,342	3.0	667	81	22.5
Health Care	105	2,333	4,483	4.5	650	52	23.5
Lodging	158	3,618	2,748	9.0	2,267	168	30.5
Mercantile and Service	1,289	12,728	13,464	4.0	1,083	52	35.5
Office	705	10,478	27,053	4.0	464	45	23.5
Public Assembly	326	3,948	2,997	6.0	1,500	50	31.5
Public Order and Safety	87	1,271	1,703	5.0	875	20	32.5
Religious Worship	269	2,792	3,844	8.0	3,125	20	31.5
Warehouse and Storage	580	8,481	4,904	5.5	2,000	48	18.5
Other	67	1,004	1,844	5.0	1,000	50	26.5
Vacant	261	2,384	638	4.0	1,000	(*)	39.5
Year Constructed							
1919 or Before	353	3,673	3,658	5.5	1,250	48	93.5
1920 to 1945	562	6,710	7,352	4.8	1,000	48	62.5
1946 to 1959	867	9,298	10,220	4.3	1,000	48	42.5
1960 to 1969	718	10,858	14,389	5.5	893	50	31.5
1970 to 1979	813	11,333	15,039	5.0	875	51	20.5
1980 to 1989	846	12,252	20,200	5.0	882	50	10.5
1990 to 1992	218	2,590	3,900	3.5	667	50	4.5
1993 to 1995	202	2,059	2,008	3.5	1,250	50	1.5
Floors							
One	3,018	24,552	25,372	3.8	929	48	25.5
Two	1,002	14,122	17,979	7.0	882	50	35.5
Three	399	7,335	8,464	9.5	1,250	52	57.5
Four to Nine	148	8,789	14,576	25.0	1,000	60	42.5
Ten or More	12	3,975	10,376	200.0	429	68	28.5
Census Region							
Northeast	725	11,883	15,149	5.0	1,000	52	38.5
Midwest	1,139	14,322	16,976	4.5	1,250	48	36.5
South	1,750	20,830	26,500	4.8	893	50	23.5
West	964	11,736	18,142	5.5	833	50	28.5
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	493	5,098	5,965	4.0	938	50	29.5
5,500 to 7,000 HDD	975	14,597	16,896	5.0	1,100	50	39.5
4,000 to 5,499 HDD	1,070	15,155	21,064	5.5	1,000	50	32.5
Fewer than 4,000 HDD	1,103	13,491	20,560	5.0	800	50	25.5
More than 2,000 CDD and --							
Fewer than 4,000 HDD	937	10,430	12,281	4.8	950	48	25.5
Workers (main shift)							
Fewer than 5	2,505	13,885	4,641	3.0	1,583	48	31.5
5 to 9	798	6,291	5,157	4.8	688	50	35.5
10 to 19	625	7,102	7,827	7.5	600	50	25.5
20 to 49	400	9,132	11,533	16.3	542	56	26.5
50 to 99	138	6,931	8,924	37.5	563	55	24.5
100 to 249	71	5,988	9,843	55.0	400	65	23.5
250 or More	43	9,443	28,841	120.0	283	63	19.5

See footnotes at end of table.

Table BC-2. Summary Table: Totals and Medians of Floorspace, Number of Workers, Hours of Operation, and Age of Building, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Median Square Feet per Building (thousand)	Median Square Feet per Worker	Median Hours per Week	Median Age of Buildings (years)
Weekly Operating Hours							
39 or Fewer	899	6,134	5,765	4.0	1,500	8	32.5
40 to 48	1,257	13,233	16,554	4.8	833	44	32.5
49 to 60	969	12,242	17,759	5.5	833	53	29.5
61 to 84	567	10,052	13,214	6.0	1,000	72	31.5
85 to 167	420	6,202	6,960	4.3	833	102	24.5
Open Continuously	466	10,908	16,514	6.0	1,250	168	23.5
Ownership and Occupancy							
Nongovernment Owned	4,025	46,696	60,482	4.8	938	50	29.5
Owner Occupied	3,158	35,573	46,882	4.5	1,000	50	29.5
Nonowner Occupied	698	9,697	13,379	5.5	833	53	25.5
Unoccupied	170	1,426	Q	3.8	750	(*)	39.5
Government Owned	553	12,076	16,285	7.0	950	45	35.5
Predominant Exterior Wall Material							
Masonry	3,061	42,958	54,292	5.5	875	50	34.5
Siding or Shingles	639	3,243	3,840	2.8	800	49	32.5
Metal Panels	662	5,694	5,120	4.5	1,364	47	15.5
Concrete Panels	106	4,069	6,394	12.5	893	60	19.5
Window Glass	46	1,755	4,397	11.3	1,001	60	12.5
Other	50	660	2,107	2.5	625	81	35.5
No One Major Type	15	393	616	12.5	2,083	60	7.5
Predominant Roof Material							
Built-Up	1,369	24,481	33,783	6.0	875	51	34.5
Shingles (Not Wood)	1,486	11,093	13,722	3.5	917	48	31.5
Metal Surfacing	908	7,941	6,514	4.8	1,333	47	15.5
Synthetic or Rubber	351	10,235	16,788	8.5	750	50	32.5
Slate or Tile	202	1,920	2,121	4.8	917	45	39.5
Wooden Materials	152	1,130	1,087	6.0	1,250	50	40.5
Concrete	58	1,335	1,694	4.0	750	48	23.5
Other	36	332	508	2.0	1,200	5	36.5
No One Major Type	Q	305	549	2.0	750	48	68.5
Energy Sources (more than one may apply)							
Electricity	4,343	57,076	76,513	5.0	929	50	30.5
Natural Gas	2,478	38,145	50,217	6.0	917	50	35.5
Fuel Oil	607	14,421	22,976	4.8	1,000	50	35.5
District Heat	110	5,658	10,413	12.5	944	60	36.5
District Chilled Water	53	2,521	4,441	12.5	1,250	65	30.5
Propane	589	5,344	7,709	4.0	1,000	50	20.5
Wood	126	699	547	3.3	1,500	50	32.5
Coal	Q	397	199	7.0	7,000	53	20.5
Solar	Q	Q	Q	5.5	688	53	19.5
Other	71	1,154	1,723	4.0	750	60	38.5
Space-Heating Energy Sources (more than one may apply)							
Electricity	1,467	22,156	34,032	5.5	792	50	21.5
Natural Gas	2,211	31,535	40,247	5.5	917	50	35.5
Fuel Oil	504	6,606	8,211	4.0	1,000	50	38.5
District Heat	109	5,606	10,374	12.5	944	60	37.5
Propane	301	2,025	3,898	3.3	1,500	48	18.5
Wood	103	509	401	3.3	1,500	50	35.5
Coal	Q	Q	Q	3.5	500	45	20.5
Solar	Q	Q	Q	65.0	1,300	168	21.5
Other	25	318	432	3.0	750	48	36.5

See footnotes at end of table.

Table BC-2. Summary Table: Totals and Medians of Floorspace, Number of Workers, Hours of Operation, and Age of Building, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Median Square Feet per Building (thousand)	Median Square Feet per Worker	Median Hours per Week	Median Age of Buildings (years)
Primary Space-Heating Energy Source							
Electricity	1,007	13,500	20,602	5.0	750	50	20.5
Natural Gas	2,106	28,808	36,411	5.5	917	50	35.5
Fuel Oil	439	4,207	4,056	4.0	1,000	50	39.5
District Heat	107	5,289	9,872	12.5	944	60	36.5
Propane	260	1,545	Q	3.0	1,500	48	15.5
Wood	Q	Q	Q	4.0	1,563	46	36.5
Coal	Q	Q	Q	37.5	721	40	39.5
Other	Q	Q	Q	11.3	1,607	51	37.5
Cooling Energy Sources (more than one may apply)							
Electricity	3,293	47,761	67,723	5.0	833	50	28.5
Natural Gas	65	1,314	2,061	9.5	855	50	40.5
District Chilled Water	53	2,521	4,441	12.5	1,250	65	30.5
Water-Heating Energy Sources (more than one may apply)							
Electricity	1,684	23,056	33,835	5.0	800	50	22.5
Natural Gas	1,577	24,859	32,519	6.0	893	54	35.5
Fuel Oil	120	2,151	2,309	4.3	875	50	39.5
District Heat	54	3,949	7,144	27.5	1,300	82	30.5
Propane	110	1,020	1,165	3.5	1,167	88	27.5
Cooking Energy Sources (more than one may apply)							
Electricity	487	12,249	18,935	5.5	750	80	23.5
Natural Gas	448	13,195	20,062	8.5	800	75	33.5
Propane	123	1,480	1,813	3.3	500	84	19.5
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,024	54,347	74,918	5.0	893	50	30.5
Buildings with Cooling	3,381	49,935	71,146	5.0	833	50	28.5
Buildings with Water Heating	3,486	51,560	72,679	5.0	859	50	30.5
Buildings with Cooking	828	20,713	31,865	7.0	800	72	28.5
Buildings with Manufacturing	204	3,893	4,949	8.0	1,100	48	29.5
Buildings with Electricity Generation	247	13,366	22,855	12.5	833	67	30.5
Percent of Floorspace Heated							
Not Heated	554	4,425	1,849	3.8	1,250	36	25.5
1 to 50	555	6,227	4,248	5.5	1,625	45	30.5
51 to 99	633	8,868	11,519	6.0	875	55	35.5
100	2,836	39,252	59,151	5.0	833	50	28.5
Percent of Floorspace Cooled							
Not Cooled	1,198	8,837	5,620	3.8	1,500	41	34.5
1 to 50	930	15,027	12,404	7.0	1,250	50	35.5
51 to 99	635	12,549	19,278	5.5	750	56	35.5
100	1,816	22,359	39,464	4.8	750	50	23.5
Percent Lit when Open							
Zero	36	189	Q	1.8	938	50	16.5
1 to 50	666	6,008	2,670	4.8	2,000	50	35.5
51 to 99	745	9,692	12,055	5.0	917	49	34.5
100	2,814	40,514	61,743	5.0	833	50	26.5
Building Not in Use/ Electricity Not Used	318	2,369	253	4.0	4,250	(*)	35.5
Percent Lit when Closed							
Zero	1,644	13,101	12,689	4.0	1,188	44	30.5
1 to 50	2,109	30,711	44,878	5.5	761	50	30.5
51 to 100	87	1,914	2,574	6.0	818	60	30.5
Never Closed	421	10,677	16,372	6.0	1,250	168	25.5
Building Not in Use/ Electricity Not Used	318	2,369	253	4.0	4,250	(*)	35.5

See footnotes at end of table.

Table BC-2. Summary Table: Totals and Medians of Floorspace, Number of Workers, Hours of Operation, and Age of Building, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Median Square Feet per Building (thousand)	Median Square Feet per Worker	Median Hours per Week	Median Age of Buildings (years)
Heating Equipment (more than one may apply)							
Heat Pumps	394	5,843	9,153	5.0	667	48	19.5
Furnaces	1,676	14,923	17,488	4.8	938	50	34.5
Individual Space Heaters	1,188	16,809	21,127	5.0	1,125	49	30.5
District Heat	115	5,911	10,690	12.5	944	65	35.5
Boilers	610	16,754	24,573	9.0	909	53	39.5
Packaged Heating Units	1,031	16,893	23,460	5.5	750	50	21.5
Other	161	6,249	11,092	10.0	1,300	52	29.5
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	878	9,238	13,813	5.0	750	50	30.5
Heat Pumps	457	6,931	10,724	5.0	700	48	19.5
Individual Air Conditioners	862	12,494	14,184	4.5	1,125	50	40.5
District Chilled Water	53	2,521	4,441	12.5	1,250	65	30.5
Central Chillers	109	11,065	21,055	45.0	1,000	65	28.5
Packaged Air Conditioning Units	1,431	26,628	38,210	6.5	800	52	23.5
Swamp Coolers	186	2,451	2,800	4.8	792	56	30.5
Other	18	949	1,579	18.8	900	60	39.5
Lighting Equipment Types (more than one may apply)							
Incandescent	2,479	35,715	49,241	5.0	917	50	32.5
Standard Fluorescent	3,885	53,984	74,912	5.0	889	50	29.5
Compact Fluorescent	364	14,273	25,623	11.3	750	66	23.5
High-Intensity Discharge	393	16,259	21,898	12.5	1,067	53	27.5
Halogen	302	9,665	16,479	8.0	915	60	28.5
Other	30	554	1,211	2.0	1,500	45	32.5
Water-Heating Equipment (more than one may apply)							
Centralized System	2,671	31,656	42,093	4.8	833	50	31.5
Distributed System	742	16,495	25,678	9.5	875	55	25.5
Combination of Centralized and Distributed System	73	3,409	4,909	10.0	1,000	50	26.5
Personal Computers and/or Computer Terminals							
None	2,039	12,571	8,017	3.5	1,500	45	31.5
1 to 4	1,408	11,401	11,593	4.3	900	53	30.5
5 to 9	437	5,372	6,528	6.0	600	50	23.5
10 to 19	344	5,947	7,456	8.5	563	50	25.5
20 to 49	198	7,048	8,647	20.0	694	50	25.5
50 to 99	81	4,938	7,442	40.0	625	54	29.5
100 to 249	46	5,189	8,426	65.0	600	60	24.5
250 or More	26	6,307	18,657	140.0	360	70	18.5
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	828	20,713	31,865	7.0	800	72	28.5
Computer Room	234	12,890	25,663	16.3	654	50	19.5
Activities with Large Amounts of Hot Water	243	6,753	9,804	8.0	882	85	31.5
Building Shell Conservation Features (more than one may apply)							
Roof or Ceiling Insulation	3,380	46,355	65,811	5.0	875	50	26.5
Wall Insulation	2,372	31,694	48,470	5.0	833	50	21.5
Storm or Multiple Glazing	1,897	28,876	42,927	5.5	813	50	26.5
Tinted, Reflective or Shading Glass	1,202	24,245	41,824	6.0	750	50	21.5
Exterior or Interior Shading or Awnings	2,271	37,208	55,742	6.0	813	50	28.5

See footnotes at end of table.

Table BC-2. Summary Table: Totals and Medians of Floorspace, Number of Workers, Hours of Operation, and Age of Building, 1995 (Continued)

Building Characteristics	All Buildings (thousand)	Total Floorspace (million square feet)	Total Workers in All Buildings (thousand)	Median Square Feet per Building (thousand)	Median Square Feet per Worker	Median Hours per Week	Median Age of Buildings (years)
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	327	13,473	24,381	12.5	750	50	23.5
Economizer Cycle	461	16,550	28,903	10.0	800	57	21.5
HVAC Maintenance	2,403	43,134	64,503	6.0	833	51	28.5
Other Energy Efficient Equipment	198	6,453	11,369	7.0	688	55	23.5
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	749	17,868	28,063	6.0	1,000	50	28.5
Energy-Efficient Ballasts	1,363	28,375	46,204	6.0	750	50	25.5
Natural Lighting Control Sensors	237	6,431	10,339	8.0	885	63	28.5
Occupancy Sensors	131	5,958	11,564	12.5	1,111	50	38.5
Time Clock	467	13,262	22,355	8.0	724	55	27.5
Manual Dimmer Switches	501	13,056	19,931	9.5	1,100	55	26.5
Other	79	2,836	4,501	10.0	688	60	20.5
Energy Conservation Features (more than one may apply)							
Any Conservation Features	4,075	55,288	75,532	5.0	900	50	29.5
Building Shell	3,906	53,190	74,162	5.0	875	50	28.5
HVAC	2,529	44,657	65,999	6.0	850	50	28.5
Lighting	2,084	38,537	58,423	6.0	875	51	28.5
Off-Hour Equipment Reduction (more than one may apply)							
Heating	3,211	38,326	51,920	4.8	875	48	30.5
Cooling	2,707	35,605	50,080	5.0	833	50	28.5
Lighting	3,753	44,937	59,715	5.0	889	48	30.5

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Note: • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-3. Census Region, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Northeast	Midwest	South	West	All Buildings	Northeast	Midwest	South	West	
RSE Column Factor:	0.7	1.5	1.3	1.1	1.4	0.5	1.1	1.0	0.9	1.1	
All Buildings	4,579	725	1,139	1,750	964	58,772	11,883	14,322	20,830	11,736	6.5
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	351	638	953	457	6,338	995	1,772	2,428	1,144	10.0
5,001 to 10,000	1,035	162	224	380	269	7,530	1,223	1,678	2,786	1,842	12.3
10,001 to 25,000	745	139	181	276	149	11,617	2,118	2,701	4,481	2,317	12.1
25,001 to 50,000	213	38	48	74	53	7,676	1,380	1,726	2,664	1,905	9.6
50,001 to 100,000	115	20	28	42	24	7,968	1,371	1,920	2,980	1,697	10.1
100,001 to 200,000	48	10	14	17	8	6,776	1,377	1,896	2,428	1,075	12.9
200,001 to 500,000	19	5	5	6	3	5,553	1,389	1,520	1,679	965	12.7
Over 500,000	6	2	1	1	1	5,313	2,029	1,110	1,384	791	16.2
Principal Building Activity											
Education	309	39	42	111	117	7,740	1,930	1,997	2,315	1,498	13.8
Food Sales	137	Q	Q	73	32	642	Q	Q	287	209	21.6
Food Service	285	41	69	109	66	1,353	166	474	443	271	21.1
Health Care	105	14	19	51	21	2,333	408	466	916	543	22.2
Lodging	158	10	38	51	59	3,618	350	909	1,313	1,047	19.1
Mercantile and Service	1,289	241	390	457	201	12,728	2,838	3,203	4,864	1,822	11.6
Office	705	112	157	298	138	10,478	2,154	2,338	3,483	2,503	11.6
Public Assembly	326	46	89	134	57	3,948	694	957	1,367	930	19.9
Public Order and Safety	87	39	21	17	Q	1,271	548	300	308	Q	33.4
Religious Worship	269	41	57	97	74	2,792	442	633	1,006	711	20.5
Warehouse and Storage	580	88	163	223	105	8,481	1,480	2,044	3,436	1,522	18.1
Other	67	Q	Q	Q	Q	1,004	Q	402	289	Q	38.8
Vacant	261	Q	65	106	65	2,384	627	531	804	422	23.1
Year Constructed											
1919 or Before	353	115	147	50	41	3,673	1,226	1,529	514	404	21.8
1920 to 1945	562	75	221	176	90	6,710	1,794	2,314	1,709	893	16.4
1946 to 1959	867	187	215	285	180	9,298	1,944	2,268	3,192	1,894	11.9
1960 to 1969	718	98	150	267	204	10,858	2,344	2,356	3,856	2,302	11.9
1970 to 1979	813	69	141	391	211	11,333	1,658	2,435	4,344	2,895	11.0
1980 to 1989	846	148	156	389	153	12,252	2,128	2,324	5,371	2,429	12.2
1990 to 1992	218	13	38	114	54	2,590	443	545	1,094	509	22.1
1993 to 1995	202	21	70	78	33	2,059	347	552	750	410	25.8
Floors											
One	3,018	349	648	1,354	667	24,552	3,337	5,298	11,019	4,897	8.9
Two	1,002	202	284	305	212	14,122	2,738	3,537	4,788	3,059	10.3
Three	399	120	170	54	56	7,335	2,103	2,306	1,644	1,282	15.2
Four to Nine	148	51	36	33	27	8,789	2,347	2,461	2,165	1,816	16.1
Ten or More	12	4	2	5	2	3,975	1,359	720	1,214	682	18.5
Workers (main shift)											
Fewer than 5	2,505	363	678	987	477	13,885	2,430	3,584	5,345	2,526	10.8
5 to 9	798	100	218	297	182	6,291	1,057	1,764	2,082	1,387	15.1
10 to 19	625	145	102	223	155	7,102	1,317	1,511	2,701	1,572	13.7
20 to 49	400	76	91	152	81	9,132	1,807	2,390	3,212	1,723	11.6
50 to 99	138	19	24	54	41	6,931	1,264	1,504	2,733	1,430	12.1
100 to 249	71	16	17	20	18	5,988	1,429	1,579	1,755	1,224	12.9
250 or More	43	7	8	17	10	9,443	2,577	1,990	3,001	1,875	13.4
Weekly Operating Hours											
39 or Fewer	899	108	256	361	174	6,134	1,119	1,601	2,311	1,103	14.5
40 to 48	1,257	172	334	484	266	13,233	2,168	3,520	4,912	2,633	10.8
49 to 60	969	188	197	401	183	12,242	2,482	2,378	4,786	2,596	11.5
61 to 84	567	92	148	170	157	10,052	2,111	2,626	3,276	2,040	13.8
85 to 167	420	81	98	160	81	6,202	1,411	1,633	1,804	1,353	14.1
Open Continuously	466	83	106	172	105	10,908	2,592	2,564	3,740	2,012	12.6

See footnotes at end of table.

Table BC-3. Census Region, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Northeast	Midwest	South	West	All Buildings	Northeast	Midwest	South	West	
RSE Column Factor:	0.7	1.5	1.3	1.1	1.4	0.5	1.1	1.0	0.9	1.1	
Ownership and Occupancy											
Nongovernment Owned	4,025	629	1,043	1,556	798	46,696	8,946	11,414	17,056	9,280	7.0
Owner Occupied	3,158	542	843	1,224	548	35,573	6,972	9,403	12,664	6,533	7.6
Nonowner Occupied	698	79	146	260	213	9,697	1,622	1,644	3,841	2,590	14.3
Unoccupied	170	Q	54	72	36	1,426	Q	366	551	157	30.3
Government Owned	553	97	97	193	166	12,076	2,937	2,909	3,774	2,456	10.9
Space in Building Vacant for at Least Three Consecutive Months											
Yes	787	83	194	293	218	15,844	3,288	3,691	5,649	3,216	11.6
No	3,791	642	946	1,456	747	42,928	8,595	10,632	15,181	8,520	7.3
Number of Establishments											
One	3,712	603	905	1,463	741	41,057	8,064	10,489	14,323	8,181	7.2
2 to 5	530	87	159	154	130	7,325	1,401	1,855	2,314	1,755	14.9
6 to 10	91	10	13	41	26	2,672	514	466	1,218	474	19.1
11 to 20	28	6	5	10	7	2,228	446	423	885	474	15.4
More than 20	31	2	3	9	Q	3,943	1,020	724	1,526	673	20.6
Currently Unoccupied	187	Q	54	72	43	1,548	438	366	564	180	29.9
Predominant Exterior Wall Material											
Masonry	3,061	482	716	1,175	688	42,958	9,174	10,504	15,066	8,215	7.1
Siding or Shingles	639	142	179	169	149	3,243	711	940	732	860	21.0
Metal Panels	662	69	211	310	72	5,694	882	1,817	2,480	515	16.6
Concrete Panels	106	5	7	59	35	4,069	437	625	1,560	1,447	20.4
Window Glass	46	Q	3	15	Q	1,755	411	238	657	448	25.8
Other	50	Q	Q	Q	5	660	Q	161	201	189	28.1
No One Major Type	15	Q	Q	Q	Q	393	Q	Q	Q	Q	64.5
Predominant Roof Material											
Built-Up	1,369	177	302	476	414	24,481	4,275	4,925	9,096	6,185	10.1
Shingles (Not Wood)	1,486	295	348	567	276	11,093	2,631	2,829	3,482	2,150	11.7
Metal Surfacing	908	93	264	429	122	7,941	986	1,890	4,133	932	14.0
Synthetic or Rubber	351	87	127	97	41	10,235	2,859	3,575	2,448	1,354	12.6
Slate or Tile	202	36	30	80	56	1,920	406	361	566	587	22.5
Wooden Materials	152	Q	Q	44	39	1,130	Q	Q	301	273	38.7
Concrete	58	Q	Q	32	Q	1,335	Q	Q	553	197	36.7
Other	36	Q	Q	Q	Q	332	Q	Q	Q	Q	47.7
No One Major Type	Q	Q	Q	Q	Q	305	Q	Q	Q	Q	52.5
Energy Sources (more than one may apply)											
Electricity	4,343	697	1,074	1,648	925	57,076	11,444	13,887	20,158	11,587	6.4
Natural Gas	2,478	316	777	805	580	38,145	7,108	10,905	12,291	7,841	7.4
Fuel Oil	607	282	96	196	33	14,421	5,423	2,681	4,175	2,142	15.4
District Heat	110	24	35	32	18	5,658	1,768	1,902	1,038	949	20.9
District Chilled Water	53	3	Q	24	10	2,521	291	778	919	533	25.1
Propane	589	170	137	220	62	5,344	1,689	1,093	2,012	550	21.1
Other	213	60	52	60	41	2,336	728	613	656	339	26.1
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	657	1,006	1,547	815	54,347	11,180	13,511	18,900	10,756	6.8
Buildings with Cooling	3,381	451	811	1,433	687	49,935	9,523	12,033	18,606	9,772	6.6
Buildings with Water Heating	3,486	602	849	1,250	785	51,560	10,778	12,517	17,511	10,754	6.8
Buildings with Cooking	828	141	176	310	202	20,713	4,634	4,785	7,173	4,121	9.2
Buildings with Manufacturing	204	30	49	68	58	3,893	683	1,057	1,456	697	23.4
Buildings with Electricity Generation	247	87	45	66	49	13,366	3,877	2,738	4,360	2,391	13.9
Percent of Floorspace Heated											
Not Heated	554	69	134	203	149	4,425	703	811	1,930	981	18.8
1 to 50	555	77	148	197	133	6,227	1,018	1,171	2,379	1,658	17.4
51 to 99	633	129	155	207	142	8,868	2,501	1,480	2,856	2,032	14.9
100	2,836	451	702	1,143	540	39,252	7,661	10,860	13,666	7,066	7.1

See footnotes at end of table.

Table BC-3. Census Region, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Northeast	Midwest	South	West	All Buildings	Northeast	Midwest	South	West	
RSE Column Factor:	0.7	1.5	1.3	1.1	1.4	0.5	1.1	1.0	0.9	1.1	
Percent of Floorspace Cooled											
Not Cooled	1,198	275	329	317	278	8,837	2,360	2,289	2,224	1,964	15.0
1 to 50	930	164	283	316	166	15,027	3,784	4,414	4,311	2,517	11.9
51 to 99	635	102	181	233	120	12,549	3,063	3,040	4,262	2,184	11.3
100	1,816	185	346	884	401	22,359	2,677	4,578	10,033	5,071	8.3
Percent Lit when Open											
Zero	36	Q	Q	Q	Q	189	Q	Q	Q	Q	55.6
1 to 50	666	113	209	212	131	6,008	1,130	1,598	2,172	1,109	15.5
51 to 99	745	148	201	238	159	9,692	2,418	2,247	3,011	2,016	14.7
100	2,814	427	628	1,148	611	40,514	7,787	9,874	14,608	8,245	7.6
Building Not in Use/ Electricity Not Used	318	31	94	131	61	2,369	524	586	935	324	23.8
Heating Equipment (more than one may apply)											
Heat Pumps	394	14	31	284	65	5,843	657	779	3,189	1,218	14.1
Furnaces	1,676	284	626	471	295	14,923	2,732	4,984	4,497	2,710	11.1
Individual Space Heaters	1,188	140	255	500	293	16,809	3,393	4,395	5,783	3,237	12.2
District Heat	115	26	36	34	19	5,911	1,834	1,984	1,101	993	20.7
Boilers	610	240	161	111	97	16,754	5,210	4,480	3,952	3,112	11.0
Packaged Heating Units	1,031	91	109	526	305	16,893	2,578	2,868	7,439	4,009	10.7
Other	161	38	65	43	14	6,249	1,979	1,590	1,915	765	23.0
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	120	313	348	98	9,238	1,702	2,734	3,726	1,075	11.8
Heat Pumps	457	16	43	311	87	6,931	794	912	3,616	1,609	14.0
Individual Air Conditioners	862	166	274	311	110	12,494	3,725	3,551	3,698	1,520	11.6
District Chilled Water	53	3	Q	24	10	2,521	291	778	919	533	25.1
Central Chillers	109	16	26	37	31	11,065	2,502	2,553	3,736	2,273	12.7
Packaged Air Conditioning Units	1,431	196	267	599	369	26,628	5,368	5,917	9,737	5,606	8.9
Swamp Coolers	186	Q	Q	Q	144	2,451	Q	Q	517	1,743	25.8
Other	18	Q	4	7	4	949	Q	221	219	289	30.5
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	552	848	1,343	637	46,355	9,040	11,620	16,743	8,952	7.3
Wall Insulation	2,372	391	605	955	421	31,694	5,927	8,467	11,878	5,422	7.8
Storm or Multiple Glazing	1,897	407	675	541	273	28,876	6,442	9,464	8,475	4,495	8.7
Tinted, Reflective or Shading Glass	1,202	109	268	472	353	24,245	3,585	5,474	8,976	6,210	9.1
Exterior or Interior Shading or Awnings	2,271	331	499	890	551	37,208	7,033	8,698	13,138	8,339	7.7
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	53	90	103	80	13,473	2,849	3,578	3,935	3,111	12.6
Economizer Cycle	461	79	139	98	144	16,550	4,147	4,736	4,035	3,632	10.6
HVAC Maintenance	2,403	474	567	864	499	43,134	9,538	10,423	14,549	8,624	7.3
Other Energy Efficient Equipment	198	33	33	67	65	6,453	1,623	1,514	1,778	1,538	18.3
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	749	133	214	236	166	17,868	4,358	4,326	5,769	3,414	10.9
Energy-Efficient Ballasts	1,363	305	244	487	328	28,375	6,869	6,276	9,319	5,910	9.0
Natural Lighting Control Sensors	237	46	40	87	64	6,431	1,321	1,484	2,168	1,458	17.1
Occupancy Sensors	131	41	29	29	32	5,958	1,722	923	1,477	1,835	19.6
Time Clock	467	122	75	108	162	13,262	3,234	2,489	4,153	3,386	12.7
Manual Dimmer Switches	501	90	123	168	120	13,056	2,637	3,161	4,548	2,710	11.7
Other	79	Q	6	29	31	2,836	902	490	751	692	21.9

See footnotes at end of table.

Table BC-3. Census Region, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Northeast	Midwest	South	West	All Buildings	Northeast	Midwest	South	West	
RSE Column Factor:	0.7	1.5	1.3	1.1	1.4	0.5	1.1	1.0	0.9	1.1	
Energy Conservation Features (more than one may apply)											
Any Conservation Features	4,075	658	1,030	1,529	858	55,288	11,118	13,733	19,139	11,297	6.6
Building Shell	3,906	625	974	1,497	809	53,190	10,464	13,162	18,757	10,806	6.7
HVAC	2,529	493	605	895	536	44,657	9,854	10,764	14,904	9,135	7.2
Lighting	2,084	446	486	654	498	38,537	8,920	9,495	12,087	8,036	7.6

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-4. Census Region and Division, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.3	1.0	1.0	1.4	1.0	1.1	0.9	1.3	1.1	
All Buildings	4,579	204	521	739	401	676	477	597	319	646	10.5
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	111	240	409	230	340	279	333	166	292	14.4
5,001 to 10,000	1,035	35	127	148	76	165	84	131	70	198	19.7
10,001 to 25,000	745	34	105	115	65	103	80	94	51	98	18.3
25,001 to 50,000	213	12	26	34	14	34	20	21	18	35	14.4
50,001 to 100,000	115	9	11	17	11	22	10	11	10	14	15.1
100,001 to 200,000	48	3	7	10	3	9	3	4	3	5	19.7
200,001 to 500,000	19	1	4	4	2	3	1	2	1	3	20.4
Over 500,000	6	Q	2	1	(*)	1	Q	1	Q	1	23.4
Principal Building Activity											
Education	309	8	31	23	18	48	16	47	22	95	24.0
Food Sales	137	Q	Q	Q	Q	Q	Q	31	Q	Q	35.2
Food Service	285	Q	Q	59	Q	Q	Q	58	Q	50	26.6
Health Care	105	Q	Q	18	1	13	23	Q	Q	Q	36.9
Lodging	158	Q	8	17	21	22	17	13	18	41	32.9
Mercantile and Service	1,289	61	180	236	154	143	140	174	80	120	17.0
Office	705	44	68	117	40	149	79	71	40	98	18.9
Public Assembly	326	Q	37	47	42	69	31	34	Q	33	35.0
Public Order and Safety	87	Q	Q	Q	Q	Q	Q	Q	Q	Q	60.9
Religious Worship	269	Q	30	38	19	20	34	44	Q	37	32.9
Warehouse and Storage	580	35	53	117	47	105	69	48	Q	66	26.9
Other	67	Q	Q	Q	Q	Q	Q	Q	Q	Q	66.9
Vacant	261	Q	Q	47	Q	41	Q	42	Q	45	30.0
Year Constructed											
1919 or Before	353	13	102	114	33	31	Q	12	21	Q	29.4
1920 to 1945	562	38	37	173	48	65	44	67	34	55	28.2
1946 to 1959	867	26	160	144	71	115	40	129	72	108	18.7
1960 to 1969	718	31	67	85	65	107	98	61	62	142	20.6
1970 to 1979	813	27	42	97	44	125	110	155	43	168	18.7
1980 to 1989	846	60	88	68	89	126	123	139	59	93	17.8
1990 to 1992	218	Q	Q	23	Q	68	Q	Q	21	33	36.3
1993 to 1995	202	Q	Q	34	Q	38	Q	Q	Q	Q	38.9
Floors											
One	3,018	103	246	372	276	502	340	512	233	435	12.8
Two	1,002	64	138	196	87	128	115	61	53	159	16.9
Three	399	27	92	143	28	30	Q	Q	23	33	22.3
Four to Nine	148	10	41	26	10	14	Q	Q	10	18	28.3
Ten or More	12	Q	3	2	Q	3	Q	2	Q	2	29.8
Workers (main shift)											
Fewer than 5	2,505	95	268	434	244	324	267	396	180	297	14.4
5 to 9	798	26	74	155	63	141	80	77	51	131	24.3
10 to 19	625	56	89	65	37	95	71	57	55	99	20.7
20 to 49	400	14	61	52	40	74	33	44	15	66	17.6
50 to 99	138	7	12	15	9	25	14	15	8	33	18.3
100 to 249	71	4	12	12	5	11	4	4	7	12	22.2
250 or More	43	2	5	6	3	6	Q	3	2	7	20.7
Weekly Operating Hours											
39 or Fewer	899	Q	85	170	86	142	84	135	66	108	20.1
40 to 48	1,257	67	105	205	129	196	140	148	105	161	15.6
49 to 60	969	47	141	140	57	144	89	168	55	128	20.3
61 to 84	567	25	68	104	44	73	39	58	35	122	24.5
85 to 167	420	23	57	69	30	62	49	49	Q	65	21.9
Open Continuously	466	17	66	51	55	58	76	38	44	61	22.7

See footnotes at end of table.

Table BC-4. Census Region and Division, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.3	1.0	1.0	1.4	1.0	1.1	0.9	1.3	1.1	
Ownership and Occupancy											
Nongovernment Owned	4,025	180	449	699	343	602	436	518	285	513	11.1
Owner Occupied	3,158	157	385	561	281	467	387	371	219	330	12.6
Nonowner Occupied	698	21	58	97	48	111	Q	113	51	162	22.6
Unoccupied	170	Q	Q	Q	Q	Q	Q	Q	Q	Q	41.3
Government Owned	553	24	73	39	57	74	41	79	34	132	19.5
Space in Building Vacant for at Least Three Consecutive Months											
Yes	787	15	68	144	49	114	87	92	68	149	21.2
No	3,791	189	454	594	351	562	390	505	250	496	11.5
Number of Establishments											
One	3,712	162	441	555	350	555	405	503	259	482	11.5
2 to 5	530	33	54	131	28	65	41	48	34	96	26.0
6 to 10	91	Q	6	7	Q	18	16	7	Q	24	24.2
11 to 20	28	Q	3	3	Q	7	Q	Q	Q	6	22.8
More than 20	31	Q	2	2	Q	5	Q	2	Q	Q	32.4
Currently Unoccupied	187	Q	Q	Q	Q	Q	Q	Q	Q	Q	38.5
Predominant Exterior Wall Material											
Masonry	3,061	118	364	489	227	531	334	309	266	422	12.0
Siding or Shingles	639	59	83	119	60	57	34	78	Q	126	27.2
Metal Panels	662	23	46	112	99	67	86	158	24	48	25.5
Concrete Panels	106	Q	2	4	Q	Q	Q	35	Q	31	33.4
Window Glass	46	Q	Q	3	Q	2	Q	Q	Q	Q	39.7
Other	50	Q	Q	Q	Q	Q	Q	Q	Q	4	44.9
No One Major Type	15	Q	Q	Q	Q	Q	Q	Q	Q	Q	111.9
Predominant Roof Material											
Built-Up	1,369	49	127	222	80	178	116	182	130	284	18.8
Shingles (Not Wood)	1,486	84	210	235	114	262	173	133	105	171	17.6
Metal Surfacing	908	39	54	147	117	104	127	198	47	75	19.7
Synthetic or Rubber	351	19	68	70	57	54	21	22	14	27	26.2
Slate or Tile	202	10	26	Q	Q	36	Q	Q	Q	49	30.9
Wooden Materials	152	Q	Q	Q	Q	Q	Q	Q	Q	36	48.2
Concrete	58	Q	Q	Q	Q	15	Q	Q	Q	Q	55.2
Other	36	Q	Q	Q	Q	Q	Q	Q	Q	Q	91.4
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)											
Electricity	4,343	190	507	698	376	642	438	569	303	622	10.4
Natural Gas	2,478	34	282	549	228	210	248	347	219	361	13.0
Fuel Oil	607	106	176	60	36	126	Q	24	Q	23	29.8
District Heat	110	2	22	19	16	Q	1	Q	6	12	31.2
District Chilled Water	53	Q	3	2	Q	4	Q	Q	Q	6	37.2
Propane	589	72	97	78	59	108	73	40	Q	52	30.4
Other	213	Q	39	31	Q	22	Q	Q	Q	20	43.8
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	178	479	644	361	566	427	553	290	525	11.0
Buildings with Cooling	3,381	113	338	517	294	531	397	505	244	443	11.0
Buildings with Water Heating	3,486	159	443	575	274	493	359	398	279	506	11.3
Buildings with Cooking	828	42	98	131	44	140	68	103	51	151	17.3
Buildings with Manufacturing	204	5	Q	26	23	24	Q	24	Q	48	27.2
Buildings with Electricity Generation	247	17	70	33	12	36	Q	11	Q	30	24.6

See footnotes at end of table.

Table BC-4. Census Region and Division, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.3	1.0	1.0	1.4	1.0	1.1	0.9	1.3	1.1	
Percent of Floorspace Heated											
Not Heated	554	Q	43	94	39	110	50	43	29	120	28.2
1 to 50	555	21	56	92	56	72	36	89	Q	91	25.3
51 to 99	633	42	86	95	60	48	67	92	46	96	24.8
100	2,836	115	336	457	245	446	325	372	202	339	12.1
Percent of Floorspace Cooled											
Not Cooled	1,198	91	184	222	107	145	80	92	75	203	22.1
1 to 50	930	41	123	185	98	113	95	108	56	110	18.8
51 to 99	635	24	78	110	71	71	68	93	38	82	21.8
100	1,816	48	137	221	125	346	234	304	150	251	14.9
Percent Lit when Open											
Zero	36	Q	Q	Q	Q	Q	Q	Q	Q	Q	91.3
1 to 50	666	23	90	170	39	77	48	87	37	93	24.6
51 to 99	745	48	100	131	70	80	55	103	38	121	28.9
100	2,814	112	315	381	247	453	331	364	219	392	13.2
Building Not in Use/ Electricity Not Used	318	Q	Q	56	Q	53	Q	Q	Q	39	33.1
Heating Equipment (more than one may apply)											
Heat Pumps	394	2	12	12	20	152	103	29	Q	44	22.3
Furnaces	1,676	76	208	424	202	190	99	182	142	153	17.6
Individual Space Heaters	1,188	Q	102	162	93	170	164	166	83	210	17.7
District Heat	115	2	24	19	17	Q	2	Q	6	13	30.4
Boilers	610	85	156	103	58	64	24	23	40	57	22.4
Packaged Heating Units	1,031	23	69	73	35	150	160	216	75	230	18.9
Other	161	6	32	37	Q	8	Q	Q	3	Q	29.8
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	39	81	193	119	108	75	165	54	44	22.6
Heat Pumps	457	3	13	21	22	161	110	41	24	62	24.4
Individual Air Conditioners	862	36	130	181	93	126	78	108	Q	89	17.1
District Chilled Water	53	Q	3	2	Q	4	Q	Q	Q	6	37.2
Central Chillers	109	4	11	16	10	19	7	11	18	13	23.1
Packaged Air Conditioning Units	1,431	46	150	193	74	202	179	219	106	263	15.5
Swamp Coolers	186	Q	Q	Q	Q	Q	Q	Q	85	59	30.0
Other	18	Q	Q	Q	Q	Q	Q	Q	Q	Q	51.5
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	151	401	529	319	532	375	436	227	410	11.2
Wall Insulation	2,372	100	291	373	232	347	264	344	133	288	11.4
Storm or Multiple Glazing	1,897	108	299	436	240	272	161	109	119	154	14.8
Tinted, Reflective or Shading Glass	1,202	34	75	166	102	171	112	189	116	237	16.6
Exterior or Interior Shading or Awnings	2,271	86	244	323	177	387	262	241	163	389	13.2
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	9	45	59	31	56	14	33	19	61	23.7
Economizer Cycle	461	28	51	102	38	58	16	24	57	87	23.2
HVAC Maintenance	2,403	143	331	378	189	384	225	254	171	327	12.6
Other Energy Efficient Equipment	198	5	Q	Q	6	23	12	31	8	57	24.2

See footnotes at end of table.

Table BC-4. Census Region and Division, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.3	1.0	1.0	1.4	1.0	1.1	0.9	1.3	1.1	
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	749	25	108	145	69	90	63	83	36	130	20.8
Energy-Efficient Ballasts	1,363	81	223	166	78	228	120	139	91	237	17.6
Natural Lighting Control Sensors	237	3	43	18	22	38	Q	27	28	36	28.7
Occupancy Sensors	131	Q	27	19	10	16	Q	Q	5	27	32.8
Time Clock	467	19	103	57	18	58	9	42	38	124	27.4
Manual Dimmer Switches	501	22	67	89	34	80	35	53	31	89	20.4
Other	79	4	Q	4	2	7	Q	Q	Q	22	35.1
Energy Conservation Features (more than one may apply)											
Any Conservation Features	4,075	179	479	677	352	626	408	495	290	569	10.5
Building Shell	3,906	168	457	638	337	605	404	488	272	538	10.6
HVAC	2,529	143	350	411	194	407	230	258	185	352	12.2
Lighting	2,084	99	347	340	146	302	154	198	131	367	14.2

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-5. Census Region and Division, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.2	1.0	0.9	1.2	1.0	1.3	1.0	1.5	1.0	
All Buildings	58,772	3,140	8,743	9,655	4,668	9,475	4,917	6,438	3,855	7,881	8.6
Building Floorspace (Square Feet)											
1,001 to 5,000	6,338	306	689	1,151	620	880	712	835	399	746	14.9
5,001 to 10,000	7,530	260	963	1,098	580	1,244	635	907	525	1,317	19.9
10,001 to 25,000	11,617	520	1,598	1,718	983	1,676	1,287	1,518	829	1,488	17.6
25,001 to 50,000	7,676	430	950	1,232	495	1,208	710	746	613	1,292	14.7
50,001 to 100,000	7,968	600	771	1,171	749	1,513	670	797	703	994	14.7
100,001 to 200,000	6,776	444	933	1,466	430	1,358	468	602	384	691	19.8
200,001 to 500,000	5,553	280	1,109	1,076	443	907	248	524	184	781	20.6
Over 500,000	5,313	Q	1,730	742	367	689	Q	509	Q	572	25.5
Principal Building Activity											
Education	7,740	567	1,363	1,336	661	932	379	1,004	547	951	17.6
Food Sales	642	Q	Q	Q	Q	Q	Q	129	Q	Q	29.7
Food Service	1,353	Q	Q	417	Q	Q	Q	164	Q	213	28.9
Health Care	2,333	Q	313	310	156	372	203	341	Q	380	21.7
Lodging	3,618	Q	199	642	267	729	324	261	383	663	24.6
Mercantile and Service	12,728	820	2,019	1,994	1,209	2,103	1,325	1,436	456	1,366	15.4
Office	10,478	538	1,616	1,556	782	2,042	529	911	769	1,734	15.3
Public Assembly	3,948	Q	483	616	341	649	287	432	436	494	23.3
Public Order and Safety	1,271	Q	406	Q	Q	Q	Q	Q	Q	Q	41.0
Religious Worship	2,792	Q	363	411	222	257	384	365	271	440	28.6
Warehouse and Storage	8,481	308	1,172	1,624	420	1,543	1,031	861	Q	999	24.3
Other	1,004	Q	Q	Q	Q	Q	Q	Q	Q	Q	52.4
Vacant	2,384	Q	512	396	Q	271	Q	349	Q	323	31.9
Year Constructed											
1919 or Before	3,673	325	900	1,160	369	Q	Q	Q	175	229	25.0
1920 to 1945	6,710	425	1,369	1,826	488	533	438	738	407	486	23.8
1946 to 1959	9,298	372	1,571	1,479	790	1,338	491	1,362	854	1,041	18.2
1960 to 1969	10,858	723	1,621	1,526	830	1,761	1,117	979	651	1,650	16.2
1970 to 1979	11,333	497	1,161	1,600	836	2,015	1,009	1,320	597	2,298	14.3
1980 to 1989	12,252	593	1,535	1,356	967	2,550	1,390	1,431	879	1,550	17.3
1990 to 1992	2,590	Q	360	370	Q	642	233	Q	190	319	26.0
1993 to 1995	2,059	Q	Q	338	Q	298	208	244	Q	308	29.0
Floors											
One	24,552	801	2,536	3,250	2,048	4,517	2,621	3,881	1,671	3,226	13.0
Two	14,122	846	1,891	2,432	1,105	2,236	1,531	1,022	960	2,099	15.1
Three	7,335	606	1,497	1,719	587	820	333	491	503	779	19.9
Four to Nine	8,789	598	1,748	1,644	818	1,261	283	621	628	1,188	18.2
Ten or More	3,975	Q	1,070	610	Q	641	Q	424	Q	589	24.6
Workers (main shift)											
Fewer than 5	13,885	588	1,842	2,409	1,174	1,775	1,277	2,293	889	1,636	16.3
5 to 9	6,291	229	829	1,296	468	1,086	545	451	490	896	21.0
10 to 19	7,102	462	855	1,140	371	1,018	887	795	641	932	17.9
20 to 49	9,132	490	1,318	1,386	1,004	1,512	762	938	486	1,237	14.1
50 to 99	6,931	491	773	1,056	448	1,476	575	682	524	905	16.7
100 to 249	5,988	330	1,100	1,069	510	990	331	435	376	848	20.6
250 or More	9,443	550	2,027	1,298	691	1,618	540	843	449	1,426	15.2
Weekly Operating Hours											
39 or Fewer	6,134	171	948	1,106	495	850	472	989	425	678	20.8
40 to 48	13,233	542	1,626	2,314	1,206	2,197	1,247	1,468	1,070	1,563	15.5
49 to 60	12,242	706	1,776	1,632	746	2,128	1,021	1,637	789	1,806	15.9
61 to 84	10,052	787	1,324	1,857	769	1,827	663	787	466	1,574	17.6
85 to 167	6,202	402	1,009	1,127	507	721	522	562	427	926	17.8
Open Continuously	10,908	533	2,060	1,619	945	1,752	993	995	678	1,334	13.7

See footnotes at end of table.

Table BC-5. Census Region and Division, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.2	1.0	0.9	1.2	1.0	1.3	1.0	1.5	1.0	
Ownership and Occupancy											
Nongovernment Owned	46,696	2,354	6,592	8,088	3,326	7,731	4,300	5,025	2,899	6,381	9.6
Owner Occupied	35,573	1,909	5,064	6,653	2,750	5,549	3,601	3,514	2,249	4,284	10.2
Nonowner Occupied	9,697	415	1,207	1,139	505	2,005	584	1,251	608	1,982	20.9
Unoccupied	1,426	Q	Q	Q	Q	Q	Q	Q	Q	Q	56.1
Government Owned	12,076	786	2,151	1,567	1,342	1,744	617	1,413	956	1,500	13.9
Space in Building Vacant for at Least Three Consecutive Months											
Yes	15,844	905	2,383	2,734	957	2,650	1,323	1,676	759	2,457	14.3
No	42,928	2,235	6,360	6,921	3,711	6,825	3,594	4,762	3,097	5,424	10.1
Number of Establishments											
One	41,057	2,077	5,988	6,732	3,757	6,033	3,688	4,602	3,002	5,178	9.9
2 to 5	7,325	466	935	1,508	347	1,097	497	719	489	1,265	19.7
6 to 10	2,672	Q	359	304	161	637	320	262	Q	416	22.0
11 to 20	2,228	Q	304	283	Q	677	Q	Q	Q	336	21.6
More than 20	3,943	Q	754	531	Q	842	Q	463	Q	551	23.2
Currently Unoccupied	1,548	Q	Q	Q	Q	Q	Q	Q	Q	Q	53.4
Predominant Exterior Wall Material											
Masonry	42,958	2,273	6,900	7,174	3,330	7,546	3,463	4,056	3,266	4,949	9.6
Siding or Shingles	3,243	349	362	719	222	213	193	327	Q	779	27.8
Metal Panels	5,694	186	696	1,058	759	715	827	938	186	329	22.7
Concrete Panels	4,069	234	203	416	209	566	243	751	225	1,222	25.0
Window Glass	1,755	Q	330	183	Q	272	Q	254	Q	377	26.5
Other	660	Q	Q	Q	Q	Q	Q	Q	Q	162	28.7
No One Major Type	393	Q	Q	Q	Q	Q	Q	Q	Q	Q	76.9
Predominant Roof Material											
Built-Up	24,481	1,044	3,230	3,649	1,275	4,059	1,916	3,121	2,055	4,130	12.9
Shingles (Not Wood)	11,093	679	1,952	1,888	942	1,555	1,093	834	789	1,361	15.7
Metal Surfacing	7,941	327	660	1,160	731	1,283	1,277	1,572	357	575	16.9
Synthetic or Rubber	10,235	709	2,150	2,064	1,511	1,491	489	467	474	879	14.7
Slate or Tile	1,920	155	251	303	Q	348	Q	Q	Q	509	26.7
Wooden Materials	1,130	Q	Q	Q	Q	Q	Q	Q	Q	254	48.6
Concrete	1,335	Q	Q	Q	Q	430	Q	Q	Q	Q	45.2
Other	332	Q	Q	Q	Q	Q	Q	Q	Q	Q	51.4
No One Major Type	305	Q	Q	Q	Q	Q	Q	Q	Q	Q	67.6
Energy Sources (more than one may apply)											
Electricity	57,076	3,072	8,372	9,422	4,465	9,301	4,674	6,183	3,821	7,766	8.5
Natural Gas	38,145	1,433	5,674	7,553	3,352	4,802	3,163	4,326	2,624	5,217	10.9
Fuel Oil	14,421	2,002	3,421	1,701	980	2,742	724	709	419	1,722	15.3
District Heat	5,658	226	1,542	1,214	688	364	130	544	Q	631	22.4
District Chilled Water	2,521	Q	237	365	414	327	Q	495	118	414	26.0
Propane	5,344	834	855	688	405	1,157	586	270	Q	460	28.8
Other	2,336	Q	544	400	Q	231	Q	Q	Q	220	29.5
Energy End Uses (more than one may apply)											
Buildings with Space Heating	54,347	3,043	8,137	9,021	4,490	8,518	4,424	5,958	3,726	7,030	8.8
Buildings with Cooling	49,935	2,450	7,073	7,927	4,106	8,568	4,286	5,752	3,289	6,484	9.0
Buildings with Water Heating	51,560	2,884	7,894	8,520	3,997	8,230	4,142	5,139	3,689	7,065	8.8
Buildings with Cooking	20,713	1,263	3,371	3,534	1,250	3,923	1,138	2,112	1,126	2,995	11.9
Buildings with Manufacturing	3,893	213	470	625	432	705	338	414	Q	545	26.9
Buildings with Electricity Generation	13,366	1,032	2,845	1,828	910	2,665	669	1,025	559	1,832	13.9

See footnotes at end of table.

Table BC-5. Census Region and Division, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.2	1.0	0.9	1.2	1.0	1.3	1.0	1.5	1.0	
Percent of Floorspace Heated											
Not Heated	4,425	Q	605	633	178	957	493	480	Q	851	28.9
1 to 50	6,227	195	824	901	271	979	452	947	Q	1,173	24.8
51 to 99	8,868	817	1,684	820	660	1,027	707	1,121	421	1,611	19.2
100	39,252	2,031	5,630	7,301	3,559	6,512	3,265	3,889	2,819	4,246	8.9
Percent of Floorspace Cooled											
Not Cooled	8,837	690	1,669	1,728	562	907	631	686	566	1,397	20.7
1 to 50	15,027	1,025	2,759	3,178	1,236	1,883	1,243	1,186	766	1,751	15.0
51 to 99	12,549	837	2,226	1,821	1,219	2,093	786	1,382	589	1,595	15.2
100	22,359	588	2,088	2,927	1,651	4,592	2,257	3,184	1,934	3,137	11.4
Percent Lit when Open											
Zero	189	Q	Q	Q	Q	Q	Q	Q	Q	Q	69.9
1 to 50	6,008	224	906	1,304	294	726	500	946	266	843	22.5
51 to 99	9,692	749	1,669	1,525	722	1,198	659	1,154	683	1,333	19.3
100	40,514	2,060	5,727	6,491	3,383	7,170	3,488	3,950	2,805	5,440	9.6
Building Not in Use/ Electricity Not Used	2,369	Q	427	326	Q	324	Q	354	Q	258	34.8
Heating Equipment (more than one may apply)											
Heat Pumps	5,843	137	520	345	434	1,648	1,140	401	469	750	18.6
Furnaces	14,923	624	2,107	3,430	1,555	1,990	1,059	1,448	1,104	1,606	15.1
Individual Space Heaters	16,809	780	2,613	3,264	1,132	2,563	1,450	1,770	899	2,338	16.2
District Heat	5,911	235	1,598	1,239	745	396	140	565	Q	623	22.3
Boilers	16,754	1,853	3,357	3,096	1,384	2,091	747	1,114	1,128	1,984	12.3
Packaged Heating Units	16,893	634	1,944	1,768	1,100	3,109	1,657	2,672	1,085	2,924	14.5
Other	6,249	610	1,369	1,220	370	1,001	261	653	196	569	23.2
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	9,238	416	1,287	1,770	964	1,666	634	1,426	549	526	16.5
Heat Pumps	6,931	185	609	469	443	2,032	1,110	474	533	1,076	18.3
Individual Air Conditioners	12,494	1,086	2,639	2,578	973	1,900	730	1,068	443	1,077	15.1
District Chilled Water	2,521	Q	237	365	414	327	Q	495	118	414	26.0
Central Chillers	11,065	540	1,962	1,727	826	2,018	611	1,107	785	1,488	15.3
Packaged Air Conditioning Units	26,628	1,186	4,182	3,988	1,929	4,528	2,148	3,061	1,715	3,891	12.1
Swamp Coolers	2,451	Q	Q	Q	Q	Q	Q	378	928	815	28.0
Other	949	Q	Q	Q	Q	Q	Q	Q	Q	Q	40.5
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	46,355	2,593	6,447	7,488	4,132	7,701	4,026	5,016	3,011	5,941	9.7
Wall Insulation	31,694	1,516	4,411	5,266	3,201	5,389	2,997	3,492	1,807	3,615	10.2
Storm or Multiple Glazing	28,876	1,778	4,664	6,051	3,413	4,448	1,947	2,080	2,090	2,404	11.1
Tinted, Reflective or Shading Glass	24,245	760	2,825	3,579	1,895	4,400	1,750	2,825	1,939	4,271	10.9
Exterior or Interior Shading or Awnings	37,208	1,880	5,153	5,556	3,142	6,443	3,096	3,600	2,693	5,646	9.3
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	13,473	733	2,116	2,276	1,302	1,894	717	1,324	938	2,173	13.7
Economizer Cycle	16,550	1,070	3,077	3,119	1,617	2,157	683	1,196	1,265	2,367	13.0
HVAC Maintenance	43,134	2,719	6,819	6,896	3,527	7,224	3,140	4,185	3,044	5,580	9.7
Other Energy Efficient Equipment	6,453	387	1,236	1,118	396	784	275	720	391	1,147	18.7

See footnotes at end of table.

Table BC-5. Census Region and Division, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Census Region and Division									RSE Row Factor
		Northeast		Midwest		South			West		
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	
RSE Column Factor:	0.4	1.2	1.0	0.9	1.2	1.0	1.3	1.0	1.5	1.0	
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	17,868	991	3,367	2,945	1,380	2,836	1,047	1,887	835	2,580	13.5
Energy-Efficient Ballasts	28,375	2,000	4,869	4,258	2,018	4,852	1,835	2,632	1,604	4,306	10.3
Natural Lighting Control Sensors	6,431	252	1,069	951	532	1,306	342	520	457	1,001	19.0
Occupancy Sensors	5,958	568	1,155	679	244	866	209	402	370	1,465	21.8
Time Clock	13,262	752	2,482	1,802	687	2,456	594	1,103	710	2,676	13.4
Manual Dimmer Switches	13,056	723	1,914	2,379	783	2,391	831	1,326	784	1,926	14.5
Other	2,836	Q	621	316	174	334	Q	297	Q	560	25.9
Energy Conservation Features (more than one may apply)											
Any Conservation Features	55,288	3,028	8,090	9,229	4,504	9,066	4,413	5,660	3,751	7,547	8.7
Building Shell	53,190	2,860	7,605	8,730	4,432	8,875	4,300	5,582	3,544	7,263	8.9
HVAC	44,657	2,725	7,129	7,138	3,627	7,468	3,174	4,262	3,147	5,988	9.7
Lighting	38,537	2,284	6,636	6,516	2,978	6,276	2,276	3,535	2,393	5,643	9.2

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-6. Climate Zone, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Average Annual Heating and Cooling Degree-Days (HDD and CDD)						Average Annual Heating and Cooling Degree-Days (HDD and CDD)					
		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD	
	All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.6	1.7	1.0	1.4	1.2	1.3	0.4	1.3	0.8	0.9	1.0	1.0	
All Buildings	4,579	493	975	1,070	1,103	937	58,772	5,098	14,597	15,155	13,491	10,430	9.1
Building Floorspace (Square Feet)													
1,001 to 5,000	2,399	287	511	516	568	517	6,338	803	1,422	1,302	1,465	1,347	13.4
5,001 to 10,000	1,035	96	194	298	226	220	7,530	722	1,436	2,188	1,616	1,569	15.6
10,001 to 25,000	745	76	164	162	218	125	11,617	1,185	2,501	2,464	3,458	2,009	14.2
25,001 to 50,000	213	19	52	47	52	42	7,676	664	1,853	1,745	1,953	1,460	11.1
50,001 to 100,000	115	10	32	25	25	22	7,968	677	2,218	1,790	1,710	1,574	12.4
100,001 to 200,000	48	4	15	13	10	7	6,776	498	2,160	1,877	1,324	917	14.2
200,001 to 500,000	19	1	5	6	3	3	5,553	368	1,565	1,801	1,106	713	16.0
Over 500,000	6	Q	2	2	1	1	5,313	Q	1,444	1,988	860	841	17.5
Principal Building Activity													
Education	309	14	54	55	105	81	7,740	665	2,373	2,105	1,314	1,284	16.9
Food Sales	137	Q	Q	Q	38	47	642	Q	Q	Q	216	182	23.9
Food Service	285	Q	56	49	73	77	1,353	Q	378	259	316	272	23.5
Health Care	105	Q	23	25	24	29	2,333	Q	565	519	545	535	25.9
Lodging	158	14	26	28	53	37	3,618	268	1,004	465	1,240	641	23.3
Mercantile and Service	1,289	163	306	351	255	214	12,728	1,431	2,929	3,244	2,757	2,366	14.5
Office	705	69	143	144	223	125	10,478	666	2,497	3,331	2,545	1,440	14.5
Public Assembly	326	49	51	111	54	62	3,948	471	890	1,134	852	602	22.5
Public Order and Safety	87	Q	38	29	5	Q	1,271	Q	423	388	181	Q	36.8
Religious Worship	269	Q	51	61	61	62	2,792	Q	609	796	717	432	22.6
Warehouse and Storage	580	74	149	124	116	116	8,481	518	2,043	1,904	2,095	1,922	21.3
Other	67	Q	Q	Q	8	Q	1,004	Q	205	Q	198	Q	40.8
Vacant	261	Q	47	64	89	57	2,384	Q	542	774	516	482	26.7
Year Constructed													
1919 or Before	353	50	126	130	20	26	3,673	379	1,511	1,375	216	192	25.2
1920 to 1945	562	65	192	116	99	90	6,710	520	2,569	1,792	1,061	769	18.5
1946 to 1959	867	74	222	214	184	173	9,298	795	2,382	2,463	2,025	1,633	14.7
1960 to 1969	718	89	103	168	204	154	10,858	1,312	2,013	2,795	2,687	2,051	14.7
1970 to 1979	813	56	129	146	262	219	11,333	857	2,398	2,574	3,123	2,381	12.7
1980 to 1989	846	103	146	163	237	197	12,252	782	2,748	2,816	3,269	2,638	14.3
1990 to 1992	218	Q	35	52	71	41	2,590	Q	565	751	706	394	24.4
1993 to 1995	202	36	23	81	Q	36	2,059	279	411	590	406	373	27.1
Floors													
One	3,018	257	538	622	805	795	24,552	1,787	4,925	5,032	6,449	6,358	11.7
Two	1,002	146	226	277	240	113	14,122	1,618	3,068	3,666	3,595	2,175	13.3
Three	399	76	168	108	31	17	7,335	884	2,755	2,039	1,029	628	17.5
Four to Nine	148	14	41	58	24	11	8,789	729	2,820	2,843	1,519	878	19.4
Ten or More	12	Q	2	5	3	1	3,975	Q	1,029	1,575	900	391	19.4
Census Region													
Northeast	725	117	347	261	Q	Q	11,883	1,094	4,956	5,833	Q	Q	13.5
Midwest	1,139	335	513	291	Q	Q	14,322	3,598	7,615	3,109	Q	Q	14.6
South	1,750	Q	Q	347	603	799	20,830	Q	Q	4,342	7,778	8,711	13.7
West	964	41	114	170	501	138	11,736	406	2,026	1,872	5,713	1,719	17.2

See footnotes at end of table.

Table BC-6. Climate Zone, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Average Annual Heating and Cooling Degree-Days (HDD and CDD)						Average Annual Heating and Cooling Degree-Days (HDD and CDD)					
		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD	
	All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.6	1.7	1.0	1.4	1.2	1.3	0.4	1.3	0.8	0.9	1.0	1.0	
Workers (main shift)													
Fewer than 5	2,505	269	534	622	532	547	13,885	1,261	3,096	3,531	3,072	2,925	13.8
5 to 9	798	89	177	146	232	154	6,291	665	1,779	1,279	1,622	946	17.9
10 to 19	625	87	120	141	156	121	7,102	812	1,609	1,504	1,742	1,435	16.2
20 to 49	400	30	88	106	108	67	9,132	870	2,215	2,334	2,329	1,385	13.9
50 to 99	138	11	25	24	46	31	6,931	601	1,829	1,514	1,624	1,362	13.1
100 to 249	71	4	21	18	16	11	5,988	475	1,699	1,747	1,121	945	14.8
250 or More	43	2	9	12	14	6	9,443	413	2,370	3,246	1,981	1,433	16.8
Weekly Operating Hours													
39 or Fewer	899	109	164	227	194	205	6,134	612	1,158	1,736	1,215	1,413	17.9
40 to 48	1,257	125	275	259	327	271	13,233	947	3,327	3,293	2,987	2,679	14.4
49 to 60	969	106	223	193	259	188	12,242	968	2,943	2,999	3,207	2,125	13.9
61 to 84	567	63	112	142	131	119	10,052	1,145	2,610	2,483	2,165	1,650	15.1
85 to 167	420	44	90	128	94	65	6,202	611	1,848	1,582	1,334	827	15.4
Open Continuously	466	47	111	121	97	90	10,908	816	2,710	3,063	2,583	1,737	15.8
Ownership and Occupancy													
Nongovernment Owned	4,025	455	859	943	952	817	46,696	4,013	11,271	11,717	11,144	8,551	9.8
Owner Occupied	3,158	393	691	774	694	605	35,573	3,362	9,088	8,930	7,952	6,241	10.5
Nonowner Occupied	698	60	131	130	212	165	9,697	627	1,887	2,297	2,929	1,957	17.3
Unoccupied	170	Q	37	38	46	46	1,426	Q	296	490	263	354	34.1
Government Owned	553	39	116	127	151	121	12,076	1,084	3,326	3,439	2,347	1,879	13.7
Space in Building Vacant for at Least Three Consecutive Months													
Yes	787	62	137	200	231	159	15,844	1,179	3,653	4,324	3,834	2,854	14.0
No	3,791	432	838	870	872	779	42,928	3,919	10,944	10,831	9,658	7,576	9.8
Number of Establishments													
One	3,712	398	781	871	895	768	41,057	3,829	10,565	10,105	9,530	7,028	10.0
2 to 5	530	84	130	125	91	100	7,325	853	1,771	1,897	1,582	1,222	16.7
6 to 10	91	Q	10	14	46	13	2,672	206	462	743	798	464	21.4
11 to 20	28	Q	6	8	7	5	2,228	Q	440	725	495	463	17.7
More than 20	31	Q	Q	5	Q	5	3,943	Q	1,050	1,114	812	886	22.9
Currently Unoccupied	187	Q	38	48	53	47	1,548	Q	311	572	274	367	32.4
Predominant Exterior Wall Material													
Masonry	3,061	264	699	676	813	608	42,958	3,480	11,196	11,206	9,762	7,315	9.9
Siding or Shingles	639	133	95	222	101	87	3,243	556	700	1,098	525	365	24.6
Metal Panels	662	88	141	140	114	178	5,694	769	1,259	1,369	1,045	1,252	17.6
Concrete Panels	106	Q	9	6	48	40	4,069	144	882	597	1,399	1,047	21.8
Window Glass	46	Q	Q	Q	20	Q	1,755	Q	336	523	562	250	29.3
Other	50	Q	Q	Q	Q	Q	660	Q	136	141	166	156	33.1
No One Major Type	15	Q	Q	Q	Q	Q	393	Q	Q	Q	Q	Q	77.1
Predominant Roof Material													
Built-Up	1,369	86	304	297	369	313	24,481	1,353	5,672	6,064	6,214	5,177	12.6
Shingles (Not Wood)	1,486	194	296	407	351	238	11,093	1,057	2,806	3,353	2,337	1,541	15.0
Metal Surfacing	908	131	158	187	189	243	7,941	988	1,357	1,484	2,115	1,998	15.4
Synthetic or Rubber	351	51	119	83	49	49	10,235	1,517	3,423	2,942	1,548	806	15.4
Slate or Tile	202	Q	22	37	66	54	1,920	Q	410	465	580	340	24.6
Wooden Materials	152	Q	41	49	51	Q	1,130	Q	353	394	339	Q	37.4
Concrete	58	Q	Q	Q	Q	27	1,335	Q	431	Q	243	416	39.6
Other	36	Q	Q	Q	Q	Q	332	Q	Q	Q	Q	Q	57.0
No One Major Type	Q	Q	Q	Q	Q	Q	305	Q	Q	Q	Q	Q	62.8

See footnotes at end of table.

Table BC-6. Climate Zone, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Average Annual Heating and Cooling Degree-Days (HDD and CDD)						Average Annual Heating and Cooling Degree-Days (HDD and CDD)					
		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD	
	All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.6	1.7	1.0	1.4	1.2	1.3	0.4	1.3	0.8	0.9	1.0	1.0	
Energy Sources (more than one may apply)													
Electricity	4,343	466	936	1,006	1,051	885	57,076	4,934	14,356	14,559	13,268	9,960	8.8
Natural Gas	2,478	265	626	490	674	423	38,145	3,399	10,754	9,094	9,598	5,300	10.0
Fuel Oil	607	110	149	259	52	38	14,421	1,798	3,724	5,250	2,343	1,307	17.2
District Heat	110	3	30	44	10	Q	5,658	267	1,919	2,292	537	643	20.2
District Chilled Water	53	Q	8	16	6	Q	2,521	Q	624	632	432	726	27.9
Propane	589	117	140	141	117	75	5,344	1,092	1,220	1,325	978	730	24.1
Other	213	36	62	56	24	34	2,336	322	610	769	405	230	26.2
Energy End Uses (more than one may apply)													
Buildings with Space Heating	4,024	443	877	927	955	822	54,347	4,901	13,937	14,147	12,350	9,014	9.1
Buildings with Cooling	3,381	321	656	714	887	803	49,935	4,115	11,903	12,620	11,981	9,315	8.8
Buildings with Water Heating	3,486	384	771	822	864	645	51,560	4,499	13,291	13,546	11,982	8,241	8.9
Buildings with Cooking	828	96	157	203	208	164	20,713	1,511	5,610	5,758	4,570	3,263	11.2
Buildings with Manufacturing	204	28	27	53	45	51	3,893	476	701	1,024	807	884	25.6
Buildings with Electricity Generation	247	11	87	76	44	28	13,366	931	3,633	4,226	2,832	1,745	15.8
Percent of Floorspace Heated													
Not Heated	554	Q	98	142	148	116	4,425	Q	661	1,009	1,142	1,416	21.0
1 to 50	555	46	104	150	113	142	6,227	428	1,000	1,454	1,640	1,705	20.7
51 to 99	633	117	124	142	148	102	8,868	888	1,781	2,716	2,095	1,388	16.9
100	2,836	281	649	636	694	577	39,252	3,585	11,155	9,976	8,615	5,922	9.3
Percent of Floorspace Cooled													
Not Cooled	1,198	172	319	355	217	135	8,837	982	2,695	2,535	1,510	1,115	18.3
1 to 50	930	119	220	253	177	161	15,027	1,794	4,284	4,327	2,789	1,833	14.4
51 to 99	635	90	144	133	141	128	12,549	1,186	3,343	3,616	2,441	1,962	14.5
100	1,816	112	292	328	569	515	22,359	1,135	4,275	4,677	6,751	5,520	10.5
Percent Lit when Open													
Zero	36	Q	Q	Q	Q	Q	189	Q	Q	Q	Q	Q	66.4
1 to 50	666	82	168	183	109	124	6,008	440	1,610	1,499	1,324	1,135	17.9
51 to 99	745	115	158	149	186	136	9,692	1,063	2,652	2,339	2,153	1,485	18.1
100	2,814	261	586	640	725	603	40,514	3,379	9,960	10,519	9,453	7,202	9.7
Building Not in Use/ Electricity Not Used	318	Q	55	92	75	60	2,369	Q	343	788	474	551	28.4
Heating Equipment (more than one may apply)													
Heat Pumps	394	4	19	110	165	97	5,843	254	586	1,756	1,944	1,303	17.6
Furnaces	1,676	260	464	465	297	190	14,923	1,893	4,325	3,993	3,128	1,584	13.8
Individual Space Heaters	1,188	134	199	294	319	242	16,809	1,550	4,434	4,734	3,859	2,231	14.9
District Heat	115	3	31	45	11	Q	5,911	299	2,001	2,376	585	651	20.0
Boilers	610	110	235	165	67	33	16,754	2,125	5,565	4,833	2,985	1,247	13.2
Packaged Heating Units	1,031	40	116	138	387	350	16,893	917	3,010	3,395	5,412	4,159	12.6
Other	161	Q	49	27	8	35	6,249	702	1,850	1,886	725	1,087	22.5

See footnotes at end of table.

Table BC-6. Climate Zone, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Average Annual Heating and Cooling Degree-Days (HDD and CDD)						Average Annual Heating and Cooling Degree-Days (HDD and CDD)					
		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD	
	All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.6	1.7	1.0	1.4	1.2	1.3	0.4	1.3	0.8	0.9	1.0	1.0	
Cooling Equipment (more than one may apply)													
Residential-Type Central Air Conditioners	878	121	229	188	133	207	9,238	933	2,265	2,554	1,533	1,952	14.9
Heat Pumps	457	4	18	134	193	108	6,931	298	655	2,204	2,352	1,421	16.5
Individual Air Conditioners	862	105	183	238	152	183	12,494	1,361	3,585	3,844	2,029	1,675	14.1
District Chilled Water	53	Q	8	16	6	Q	2,521	Q	624	632	432	726	27.9
Central Chillers	109	8	24	24	25	28	11,065	643	2,922	3,181	2,581	1,737	15.7
Packaged Air Conditioning Units	1,431	112	276	239	452	353	26,628	2,117	6,153	6,616	6,939	4,804	10.6
Swamp Coolers	186	Q	Q	Q	79	61	2,451	Q	412	157	893	847	32.5
Other	18	Q	5	7	Q	Q	949	Q	360	283	Q	Q	34.9
Lighting Equipment Types (more than one may apply)													
Incandescent	2,479	294	535	584	538	529	35,715	2,910	9,694	9,851	7,105	6,155	9.8
Standard Fluorescent	3,885	422	846	881	970	766	53,984	4,688	13,689	13,858	12,579	9,170	8.8
Compact Fluorescent	364	62	72	108	68	54	14,273	1,195	3,796	4,527	2,709	2,046	15.1
High-Intensity Discharge	393	40	122	120	58	52	16,259	1,487	4,925	5,079	2,664	2,104	13.1
Halogen	302	15	94	81	70	42	9,665	569	2,986	2,686	2,046	1,379	16.9
Other	30	Q	Q	Q	Q	Q	554	Q	Q	Q	Q	Q	82.6
Building Shell Conservation Features (more than one may apply)													
Roof or Ceiling Insulation	3,380	399	694	820	766	701	46,355	4,561	11,267	11,885	10,339	8,302	9.7
Wall Insulation	2,372	335	453	565	563	456	31,694	3,621	7,580	8,159	7,300	5,035	10.3
Storm or Multiple Glazing	1,897	348	522	504	362	160	28,876	4,002	8,567	8,129	5,233	2,945	11.1
Tinted, Reflective or Shading Glass	1,202	99	203	217	404	279	24,245	1,637	5,382	5,853	6,459	4,915	11.3
Exterior or Interior Shading or Awnings	2,271	224	419	526	643	460	37,208	3,174	8,946	9,799	8,736	6,554	10.1
HVAC Conservation Features (more than one may apply)													
Variable Air-Volume System	327	21	88	65	103	49	13,473	964	4,053	3,398	3,282	1,777	15.2
Economizer Cycle	461	77	130	86	106	62	16,550	1,819	5,002	4,853	3,259	1,617	13.3
HVAC Maintenance	2,403	273	599	506	577	448	43,134	3,759	11,647	11,170	9,743	6,815	9.4
Other Energy Efficient Equipment	198	Q	41	37	72	29	6,453	460	1,843	1,764	1,518	868	21.2
Lighting Conservation Features (more than one may apply)													
Specular Reflectors	749	108	158	204	175	105	17,868	1,615	4,253	5,655	3,793	2,552	12.8
Energy-Efficient Ballasts	1,363	136	311	327	368	221	28,375	2,471	7,312	8,010	6,498	4,084	11.2
Natural Lighting Control Sensors	237	10	43	89	58	37	6,431	371	1,499	1,976	1,667	918	20.3
Occupancy Sensors	131	20	28	33	33	17	5,958	467	1,511	1,667	1,728	585	22.5
Time Clock	467	26	120	121	123	77	13,262	482	3,202	4,080	3,177	2,322	15.2
Manual Dimmer Switches	501	56	133	111	132	68	13,056	927	3,540	3,596	3,151	1,843	12.5
Other	79	3	21	9	30	15	2,836	317	872	586	757	304	28.1

See footnotes at end of table.

Table BC-6. Climate Zone, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Average Annual Heating and Cooling Degree-Days (HDD and CDD)						Average Annual Heating and Cooling Degree-Days (HDD and CDD)					
		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD		Fewer than 2,000 CDD and --				More than 2,000 CDD and Fewer than 4,000 HDD	
	All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		All Buildings	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD		
RSE Column Factor:	0.6	1.7	1.0	1.4	1.2	1.3	0.4	1.3	0.8	0.9	1.0	1.0	
Energy Conservation Features (more than one may apply)													
Any Conservation Features	4,075	456	885	954	971	809	55,288	4,965	13,943	14,379	12,491	9,510	9.1
Building Shell	3,906	442	815	915	945	788	53,190	4,816	13,137	13,825	12,165	9,247	9.2
HVAC	2,529	288	632	542	608	458	44,657	3,912	11,943	11,613	10,211	6,979	9.4
Lighting	2,084	229	511	507	521	316	38,537	3,303	10,471	10,712	8,471	5,580	9.7

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-7. Metropolitan Status, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)			Total Floorspace (million square feet)			RSE Row Factor
	All Buildings	Metropolitan	Nonmetropolitan	All Buildings	Metropolitan	Nonmetropolitan	
RSE Column Factor:	0.8	0.9	1.8	0.6	0.7	1.6	
All Buildings	4,579	3,082	1,497	58,772	47,383	11,389	5.0
Building Floorspace (Square Feet)							
1,001 to 5,000	2,399	1,457	942	6,338	3,948	2,390	7.2
5,001 to 10,000	1,035	711	324	7,530	5,167	2,363	9.5
10,001 to 25,000	745	578	167	11,617	8,997	2,620	9.0
25,001 to 50,000	213	178	35	7,676	6,428	1,248	8.3
50,001 to 100,000	115	92	23	7,968	6,436	1,531	8.2
100,001 to 200,000	48	43	6	6,776	6,001	776	10.7
200,001 to 500,000	19	17	1	5,553	5,162	391	12.9
Over 500,000	6	6	Q	5,313	5,243	Q	12.0
Principal Building Activity							
Education	309	256	53	7,740	6,140	1,601	11.2
Food Sales	137	92	45	642	470	172	17.3
Food Service	285	198	86	1,353	1,014	339	15.3
Health Care	105	79	26	2,333	1,887	446	15.2
Lodging	158	118	41	3,618	3,078	540	15.3
Mercantile and Service	1,289	852	437	12,728	9,919	2,808	9.1
Office	705	524	181	10,478	9,507	971	9.6
Public Assembly	326	189	137	3,948	3,045	903	14.3
Public Order and Safety	87	60	28	1,271	951	321	27.4
Religious Worship	269	147	122	2,792	1,989	803	14.7
Warehouse and Storage	580	349	231	8,481	6,598	1,883	13.7
Other	67	47	Q	1,004	830	Q	33.2
Vacant	261	171	90	2,384	1,955	429	19.1
Year Constructed							
1919 or Before	353	235	118	3,673	2,811	862	15.5
1920 to 1945	562	379	182	6,710	5,301	1,409	12.2
1946 to 1959	867	597	270	9,298	7,134	2,164	8.8
1960 to 1969	718	457	262	10,858	8,490	2,368	8.8
1970 to 1979	813	569	244	11,333	9,424	1,909	7.9
1980 to 1989	846	580	266	12,252	10,608	1,644	9.3
1990 to 1992	218	137	81	2,590	2,050	540	16.3
1993 to 1995	202	129	73	2,059	1,565	494	18.2
Floors							
One	3,018	1,955	1,063	24,552	18,287	6,265	6.7
Two	1,002	656	346	14,122	10,873	3,249	7.7
Three	399	328	71	7,335	6,249	1,085	12.5
Four to Nine	148	131	17	8,789	8,003	786	13.6
Ten or More	12	12	Q	3,975	3,972	Q	14.7
Census Region							
Northeast	725	563	163	11,883	10,413	1,470	11.3
Midwest	1,139	680	459	14,322	10,742	3,580	9.8
South	1,750	1,109	641	20,830	16,011	4,820	7.2
West	964	730	234	11,736	10,217	1,519	13.2
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	493	185	308	5,098	2,487	2,611	19.0
5,500 to 7,000 HDD	975	769	206	14,597	12,720	1,878	11.3
4,000 to 5,499 HDD	1,070	614	456	15,155	12,168	2,987	15.7
Fewer than 4,000 HDD	1,103	823	281	13,491	11,150	2,342	15.6
More than 2,000 CDD and --							
Fewer than 4,000 HDD	937	691	246	10,430	8,858	1,572	14.6
Workers (main shift)							
Fewer than 5	2,505	1,474	1,031	13,885	9,178	4,707	7.7
5 to 9	798	579	218	6,291	4,785	1,506	10.8
10 to 19	625	481	144	7,102	5,646	1,456	9.8
20 to 49	400	329	71	9,132	7,687	1,445	9.2
50 to 99	138	114	23	6,931	5,577	1,354	11.1
100 to 249	71	64	7	5,988	5,448	540	11.6
250 or More	43	41	2	9,443	9,062	381	14.2

See footnotes at end of table.

Table BC-7. Metropolitan Status, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)			Total Floorspace (million square feet)			RSE Row Factor
	All Buildings	Metropolitan	Nonmetropolitan	All Buildings	Metropolitan	Nonmetropolitan	
RSE Column Factor:	0.8	0.9	1.8	0.6	0.7	1.6	
Weekly Operating Hours							
39 or Fewer	899	501	398	6,134	3,983	2,151	10.2
40 to 48	1,257	858	399	13,233	10,172	3,061	8.2
49 to 60	969	667	303	12,242	9,804	2,438	9.2
61 to 84	567	432	135	10,052	8,742	1,310	10.7
85 to 167	420	302	118	6,202	5,290	911	10.6
Open Continuously	466	322	144	10,908	9,392	1,517	9.6
Ownership and Occupancy							
Nongovernment Owned	4,025	2,644	1,381	46,696	37,517	9,179	5.5
Owner Occupied	3,158	2,007	1,151	35,573	27,955	7,618	5.8
Nonowner Occupied	698	523	175	9,697	8,383	1,314	11.4
Unoccupied	170	114	56	1,426	1,179	248	25.0
Government Owned	553	438	116	12,076	9,866	2,210	8.6
Space in Building Vacant for at Least Three Consecutive Months							
Yes	787	574	214	15,844	13,881	1,963	9.3
No	3,791	2,508	1,283	42,928	33,502	9,426	5.5
Number of Establishments							
One	3,712	2,428	1,284	41,057	31,582	9,475	5.2
2 to 5	530	399	132	7,325	6,190	1,134	11.9
6 to 10	91	76	15	2,672	2,389	283	17.6
11 to 20	28	25	Q	2,228	2,081	Q	12.6
More than 20	31	23	Q	3,943	3,843	Q	21.6
Currently Unoccupied	187	131	56	1,548	1,298	250	23.9
Multibuilding Facility							
Part of Multibuilding Facility	1,480	1,073	407	24,352	19,942	4,409	6.6
Not on Multibuilding Facility	3,099	2,009	1,090	34,420	27,441	6,980	5.7
Predominant Exterior Wall Material							
Masonry	3,061	2,142	919	42,958	35,036	7,922	5.6
Siding or Shingles	639	374	265	3,243	2,182	1,061	15.8
Metal Panels	662	360	302	5,694	3,583	2,111	10.9
Concrete Panels	106	101	Q	4,069	3,903	Q	15.9
Window Glass	46	45	Q	1,755	1,688	Q	23.7
Other	50	47	Q	660	635	Q	27.2
No One Major Type	15	Q	Q	393	357	Q	50.1
Predominant Roof Material							
Built-Up	1,369	1,078	291	24,481	21,668	2,812	8.1
Shingles (Not Wood)	1,486	878	609	11,093	8,079	3,013	8.6
Metal Surfacing	908	494	415	7,941	4,839	3,102	9.6
Synthetic or Rubber	351	270	81	10,235	8,450	1,785	10.0
Slate or Tile	202	161	41	1,920	1,695	225	18.7
Wooden Materials	152	121	Q	1,130	927	Q	29.0
Concrete	58	48	Q	1,335	1,244	Q	31.1
Other	36	23	Q	332	228	Q	37.3
No One Major Type	Q	Q	Q	305	252	Q	42.8
Energy Sources (more than one may apply)							
Electricity	4,343	2,951	1,392	57,076	46,149	10,927	4.8
Natural Gas	2,478	1,807	671	38,145	32,053	6,092	6.0
Fuel Oil	607	378	230	14,421	12,181	2,240	11.6
District Heat	110	105	5	5,658	5,411	247	19.1
District Chilled Water	53	50	Q	2,521	2,387	Q	22.2
Propane	589	319	270	5,344	3,051	2,293	14.7
Other	213	125	88	2,336	1,632	704	19.1

See footnotes at end of table.

Table BC-7. Metropolitan Status, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)			Total Floorspace (million square feet)			RSE Row Factor
	All Buildings	Metropolitan	Nonmetropolitan	All Buildings	Metropolitan	Nonmetropolitan	
RSE Column Factor:	0.8	0.9	1.8	0.6	0.7	1.6	
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,024	2,767	1,258	54,347	44,269	10,078	5.2
Buildings with Cooling	3,381	2,384	996	49,935	41,361	8,573	5.1
Buildings with Water Heating	3,486	2,437	1,049	51,560	42,617	8,942	5.2
Buildings with Cooking	828	599	228	20,713	17,516	3,197	6.9
Buildings with Manufacturing	204	159	45	3,893	3,295	598	18.3
Buildings with Electricity Generation	247	187	59	13,366	11,880	1,485	12.0
Percent of Floorspace Heated							
Not Heated	554	315	239	4,425	3,114	1,311	13.8
1 to 50	555	402	153	6,227	5,015	1,212	12.6
51 to 99	633	426	207	8,868	7,282	1,586	12.1
100	2,836	1,939	897	39,252	31,973	7,280	5.5
Percent of Floorspace Cooled							
Not Cooled	1,198	697	501	8,837	6,022	2,816	11.1
1 to 50	930	647	283	15,027	11,664	3,362	9.1
51 to 99	635	476	159	12,549	10,952	1,597	10.2
100	1,816	1,262	554	22,359	18,745	3,614	6.6
Percent Lit when Open							
Zero	36	Q	Q	189	Q	Q	44.1
1 to 50	666	431	235	6,008	4,374	1,635	11.0
51 to 99	745	498	248	9,692	7,553	2,138	11.6
100	2,814	1,947	867	40,514	33,605	6,909	5.9
Building Not in Use/ Electricity Not Used	318	185	133	2,369	1,743	626	19.3
Heating Equipment (more than one may apply)							
Heat Pumps	394	259	135	5,843	4,657	1,187	9.6
Furnaces	1,676	1,073	604	14,923	11,188	3,735	8.1
Individual Space Heaters	1,188	762	426	16,809	13,540	3,269	9.8
District Heat	115	109	5	5,911	5,646	266	18.7
Boilers	610	453	157	16,754	14,022	2,731	8.8
Packaged Heating Units	1,031	810	221	16,893	14,858	2,035	8.2
Other	161	98	63	6,249	5,511	738	19.5
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	878	569	309	9,238	7,290	1,947	8.6
Heat Pumps	457	297	161	6,931	5,557	1,374	9.7
Individual Air Conditioners	862	568	294	12,494	9,620	2,874	8.5
District Chilled Water	53	50	Q	2,521	2,387	Q	22.2
Central Chillers	109	92	17	11,065	10,226	839	12.7
Packaged Air Conditioning Units	1,431	1,109	322	26,628	22,847	3,782	7.7
Swamp Coolers	186	139	46	2,451	2,139	312	24.3
Other	18	15	Q	949	852	Q	25.5
Lighting Equipment Types (more than one may apply)							
Incandescent	2,479	1,667	813	35,715	29,393	6,322	5.6
Standard Fluorescent	3,885	2,727	1,158	53,984	44,299	9,685	4.8
Compact Fluorescent	364	302	62	14,273	12,879	1,394	11.1
High-Intensity Discharge	393	295	98	16,259	14,305	1,953	10.3
Halogen	302	232	70	9,665	8,611	1,055	12.2
Other	30	Q	Q	554	497	Q	57.6

See footnotes at end of table.

Table BC-7. Metropolitan Status, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)			Total Floorspace (million square feet)			RSE Row Factor
	All Buildings	Metropolitan	Nonmetropolitan	All Buildings	Metropolitan	Nonmetropolitan	
RSE Column Factor:	0.8	0.9	1.8	0.6	0.7	1.6	
Personal Computers and/or Computer Terminals							
None	2,039	1,141	898	12,571	8,167	4,404	7.6
1 to 4	1,408	1,014	395	11,401	8,735	2,665	8.4
5 to 9	437	350	88	5,372	4,504	868	13.8
10 to 19	344	276	67	5,947	5,057	890	13.5
20 to 49	198	172	26	7,048	5,893	1,155	11.0
50 to 99	81	62	19	4,938	4,130	808	12.0
100 to 249	46	42	4	5,189	4,739	451	12.3
250 or More	26	25	Q	6,307	6,159	Q	10.4
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	828	599	228	20,713	17,516	3,197	6.9
Computer Room	234	208	27	12,890	11,674	1,216	9.9
Activities with Large Amounts of Hot Water	243	158	85	6,753	5,540	1,213	12.4
Building Shell Conservation Features (more than one may apply)							
Roof or Ceiling Insulation	3,380	2,281	1,099	46,355	37,667	8,688	5.5
Wall Insulation	2,372	1,567	805	31,694	25,191	6,503	6.0
Storm or Multiple Glazing	1,897	1,226	671	28,876	22,984	5,892	6.5
Tinted, Reflective or Shading Glass	1,202	859	343	24,245	20,978	3,267	6.9
Exterior or Interior Shading or Awnings	2,271	1,605	667	37,208	30,893	6,315	5.7
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	327	279	48	13,473	12,152	1,321	11.6
Economizer Cycle	461	386	75	16,550	14,783	1,767	10.0
HVAC Maintenance	2,403	1,783	620	43,134	36,455	6,679	5.9
Other Energy Efficient Equipment	198	165	33	6,453	5,835	618	12.7
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	749	583	167	17,868	15,818	2,050	9.4
Energy-Efficient Ballasts	1,363	1,016	347	28,375	24,271	4,103	7.5
Natural Lighting Control Sensors	237	207	29	6,431	5,861	570	14.3
Occupancy Sensors	131	96	35	5,958	5,237	721	17.1
Time Clock	467	411	56	13,262	12,364	898	11.0
Manual Dimmer Switches	501	380	121	13,056	11,424	1,631	8.8
Other	79	61	Q	2,836	2,252	584	21.2
Energy Conservation Features (more than one may apply)							
Any Conservation Features	4,075	2,771	1,304	55,288	45,021	10,267	5.0
Building Shell	3,906	2,659	1,247	53,190	43,296	9,894	5.2
HVAC	2,529	1,865	664	44,657	37,692	6,965	5.8
Lighting	2,084	1,585	498	38,537	33,068	5,469	6.3

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-8. Building Size, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	Buildings by Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.7	0.9	1.3	1.2	0.9	0.9	1.0	1.1	1.2	
All Buildings	4,579	2,399	1,035	745	213	115	48	19	6	6.4
Principal Building Activity										
Education	309	100	60	62	49	26	9	3	Q	15.1
Food Sales	137	108	Q	Q	Q	Q	Q	Q	Q	20.1
Food Service	285	210	52	Q	Q	Q	Q	Q	Q	17.2
Health Care	105	57	Q	16	5	Q	2	2	1	23.2
Lodging	158	46	40	43	14	9	4	2	Q	19.6
Mercantile and Service	1,289	736	295	195	33	18	8	2	2	13.4
Office	705	405	131	94	35	22	10	5	1	12.1
Public Assembly	326	128	110	64	13	7	2	1	Q	21.5
Public Order and Safety	87	Q	Q	23	Q	Q	Q	Q	Q	35.7
Religious Worship	269	92	84	78	11	Q	Q	Q	Q	20.4
Warehouse and Storage	580	286	135	95	34	17	9	3	1	18.2
Other	67	Q	Q	Q	Q	Q	Q	Q	Q	43.0
Vacant	261	149	68	34	4	3	Q	Q	Q	24.8
Year Constructed										
1919 or Before	353	175	92	65	11	6	2	Q	Q	21.0
1920 to 1945	562	309	145	70	17	11	6	2	1	17.6
1946 to 1959	867	461	222	123	34	19	5	3	(*)	14.4
1960 to 1969	718	343	159	135	45	21	12	3	1	14.1
1970 to 1979	813	428	174	137	38	20	9	4	1	12.5
1980 to 1989	846	422	151	186	46	26	9	4	1	12.4
1990 to 1992	218	132	50	16	11	6	3	1	(*)	20.8
1993 to 1995	202	129	43	13	9	6	Q	(*)	(*)	26.7
Floors										
One	3,018	1,894	618	358	90	37	16	4	1	9.8
Two	1,002	378	283	236	62	32	8	2	1	12.4
Three	399	123	97	115	37	18	7	2	(*)	17.3
Four to Nine	148	Q	37	35	24	26	14	7	1	16.2
Ten or More	12	Q	Q	Q	Q	Q	3	4	2	13.9
Census Region										
Northeast	725	351	162	139	38	20	10	5	2	13.7
Midwest	1,139	638	224	181	48	28	14	5	1	12.9
South	1,750	953	380	276	74	42	17	6	1	10.8
West	964	457	269	149	53	24	8	3	1	14.2
Workers (main shift)										
Fewer than 5	2,505	1,703	508	260	22	7	3	Q	Q	12.6
5 to 9	798	421	222	128	16	9	Q	Q	Q	14.3
10 to 19	625	198	222	159	32	9	3	Q	Q	15.1
20 to 49	400	62	79	150	71	31	5	1	Q	15.4
50 to 99	138	Q	Q	33	44	30	13	2	Q	14.5
100 to 249	71	Q	Q	8	24	20	12	5	1	15.0
250 or More	43	Q	Q	Q	Q	9	11	9	4	13.1
Weekly Operating Hours										
39 or Fewer	899	565	219	90	16	6	Q	Q	Q	14.6
40 to 48	1,257	665	282	214	55	26	10	2	Q	11.9
49 to 60	969	475	232	164	59	27	8	3	1	13.1
61 to 84	567	241	139	121	32	19	9	4	2	14.1
85 to 167	420	240	67	67	20	14	9	2	(*)	17.6
Open Continuously	466	212	95	88	30	21	10	7	3	12.4
Ownership and Occupancy										
Nongovernment Owned	4,025	2,176	909	646	158	83	35	13	4	7.3
Owner Occupied	3,158	1,746	704	503	109	58	24	10	4	7.8
Nonowner Occupied	698	325	163	126	47	24	10	3	(*)	15.9
Unoccupied	170	105	Q	Q	Q	Q	Q	Q	Q	24.1
Government Owned	553	223	125	98	55	32	13	6	1	12.1

See footnotes at end of table.

Table BC-8. Building Size, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.7	0.9	1.3	1.2	0.9	0.9	1.0	1.1	1.2	
Predominant Exterior Wall Material										
Masonry	3,061	1,454	749	545	170	91	35	14	4	7.4
Siding or Shingles	639	465	116	50	5	Q	Q	Q	Q	18.9
Metal Panels	662	390	146	97	18	7	2	Q	(*)	17.4
Concrete Panels	106	Q	10	30	14	12	6	2	(*)	18.7
Window Glass	46	Q	Q	Q	4	3	2	1	1	26.5
Other	50	Q	Q	Q	Q	Q	Q	(*)	Q	32.7
No One Major Type	15	Q	Q	Q	Q	Q	Q	Q	Q	71.8
Predominant Roof Material										
Built-Up	1,369	591	331	258	97	54	25	10	3	9.9
Shingles (Not Wood)	1,486	915	331	191	29	14	4	1	(*)	14.0
Metal Surfacing	908	512	192	158	29	13	3	1	Q	16.2
Synthetic or Rubber	351	133	62	71	40	25	13	5	2	13.9
Slate or Tile	202	105	60	21	10	4	Q	Q	Q	21.5
Wooden Materials	152	72	50	Q	Q	Q	Q	Q	Q	30.3
Concrete	58	Q	Q	Q	Q	Q	Q	Q	(*)	40.4
Other	36	Q	Q	Q	Q	Q	Q	Q	Q	58.7
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)										
Electricity	4,343	2,252	970	724	211	114	47	19	6	6.3
Natural Gas	2,478	1,112	614	474	146	82	33	13	4	7.4
Fuel Oil	607	333	96	92	31	28	14	10	4	14.0
District Heat	110	Q	Q	25	18	11	8	4	1	17.1
District Chilled Water	53	Q	Q	Q	7	5	5	2	1	23.7
Propane	589	354	117	89	16	9	3	1	Q	19.8
Other	213	117	57	25	6	6	Q	1	Q	25.0
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,024	2,060	899	685	198	111	46	18	6	6.5
Buildings with Cooling	3,381	1,650	754	619	187	103	44	18	6	6.6
Buildings with Water Heating	3,486	1,689	780	644	195	110	45	18	6	6.6
Buildings with Cooking	828	339	175	169	66	42	22	12	4	9.6
Buildings with Manufacturing	204	69	51	55	15	8	5	Q	1	23.9
Buildings with Electricity Generation	247	55	48	59	26	30	14	10	4	15.3
Percent of Floorspace Heated										
Not Heated	554	339	135	59	14	4	Q	Q	Q	21.7
1 to 50	555	261	161	97	18	10	5	1	1	20.4
51 to 99	633	286	161	136	27	12	6	4	1	15.2
100	2,836	1,513	576	452	153	89	35	13	4	7.1
Percent of Floorspace Cooled										
Not Cooled	1,198	749	280	125	26	12	4	1	Q	17.2
1 to 50	930	363	254	196	65	34	12	5	1	12.9
51 to 99	635	289	145	117	39	24	13	6	2	12.1
100	1,816	998	355	307	83	45	19	7	2	9.6
Percent Lit when Open										
Zero	36	Q	Q	Q	Q	Q	Q	Q	Q	58.6
1 to 50	666	363	150	120	18	11	2	Q	Q	15.1
51 to 99	745	363	166	157	27	19	9	3	1	14.8
100	2,814	1,446	632	435	163	83	35	15	4	7.3
Building Not in Use/ Electricity Not Used	318	194	85	31	Q	Q	Q	Q	Q	22.2

See footnotes at end of table.

Table BC-8. Building Size, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.7	0.9	1.3	1.2	0.9	0.9	1.0	1.1	1.2	
Heating Equipment (more than one may apply)										
Heat Pumps	394	213	59	80	20	16	4	3	1	15.9
Furnaces	1,676	898	441	257	49	20	8	2	1	11.9
Individual Space Heaters	1,188	616	268	191	57	33	14	6	2	11.8
District Heat	115	Q	Q	27	18	11	8	4	2	17.0
Boilers	610	199	135	128	70	46	20	9	2	12.3
Packaged Heating Units	1,031	483	193	216	75	41	15	6	2	10.9
Other	161	Q	22	50	14	11	6	4	2	21.3
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	878	453	236	133	35	14	5	3	1	13.6
Heat Pumps	457	235	77	96	23	17	5	3	1	15.0
Individual Air Conditioners	862	467	171	134	47	25	11	6	1	11.9
District Chilled Water	53	Q	Q	Q	7	5	5	2	1	23.7
Central Chillers	109	Q	Q	14	29	23	15	9	3	12.7
Packaged Air Conditioning Units	1,431	569	345	310	108	62	25	10	4	9.2
Swamp Coolers	186	97	41	34	6	4	2	1	Q	29.6
Other	18	Q	Q	Q	Q	Q	Q	Q	Q	33.1
Lighting Equipment Types (more than one may apply)										
Incandescent	2,479	1,205	613	431	115	69	29	14	5	7.7
Standard Fluorescent	3,885	1,952	868	684	200	111	45	18	6	6.3
Compact Fluorescent	364	101	75	89	41	30	15	10	3	13.2
High-Intensity Discharge	393	79	93	107	46	34	20	10	4	12.8
Halogen	302	100	85	58	23	17	11	6	3	15.0
Other	30	Q	Q	Q	Q	Q	Q	Q	Q	63.3
Personal Computers and/or Computer Terminals										
None	2,039	1,323	456	222	25	9	3	1	Q	15.0
1 to 4	1,408	782	336	236	32	18	3	Q	Q	12.1
5 to 9	437	174	112	107	30	10	3	Q	Q	17.1
10 to 19	344	109	87	92	36	12	6	1	Q	18.8
20 to 49	198	Q	32	74	44	27	8	2	1	16.6
50 to 99	81	Q	Q	12	31	20	6	3	(*)	15.4
100 to 249	46	Q	Q	Q	12	15	9	4	1	14.6
250 or More	26	Q	Q	Q	Q	6	8	6	3	13.0
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	828	339	175	169	66	42	22	12	4	9.6
Computer Room	234	Q	57	52	38	29	17	10	3	12.5
Activities with Large Amounts of Hot Water	243	97	42	57	20	13	8	4	1	17.9
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	3,380	1,718	751	595	166	92	39	16	5	7.1
Wall Insulation	2,372	1,238	480	447	108	59	26	10	4	8.0
Storm or Multiple Glazing	1,897	909	430	357	100	60	26	11	3	8.1
Tinted, Reflective or Shading Glass	1,202	514	262	246	92	47	24	12	4	9.1
Exterior or Interior Shading or Awnings	2,271	1,048	468	481	137	85	33	15	4	7.7

See footnotes at end of table.

Table BC-8. Building Size, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.7	0.9	1.3	1.2	0.9	0.9	1.0	1.1	1.2	
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	327	98	55	73	41	32	16	8	3	14.3
Economizer Cycle	461	154	90	89	57	36	20	9	4	12.3
HVAC Maintenance	2,403	1,031	543	501	167	97	41	17	5	7.4
Other Energy Efficient Equipment	198	73	41	32	26	14	7	4	1	18.7
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	749	329	146	149	54	40	18	9	4	11.1
Energy-Efficient Ballasts	1,363	592	282	280	100	62	28	14	5	9.2
Natural Lighting Control Sensors	237	70	72	53	20	11	5	3	2	18.7
Occupancy Sensors	131	Q	30	45	16	9	6	4	2	19.4
Time Clock	467	154	131	92	37	28	15	6	3	13.7
Manual Dimmer Switches	501	138	150	131	35	23	14	8	3	12.4
Other	79	Q	Q	Q	6	8	2	2	1	23.0
Energy Conservation Features (more than one may apply)										
Any Conservation Features	4,075	2,067	917	705	203	113	47	18	6	6.5
Building Shell	3,906	1,991	867	676	195	109	44	18	6	6.5
HVAC	2,529	1,086	575	527	175	100	41	17	6	7.3
Lighting	2,084	881	496	427	135	83	38	17	5	7.8

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-9. Building Size, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace (million square feet)	Floorspace by Building Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.5	1.0	1.3	1.2	0.9	0.9	1.1	1.1	1.3	
All Buildings	58,772	6,338	7,530	11,617	7,676	7,968	6,776	5,553	5,313	6.3
Principal Building Activity										
Education	7,740	250	404	1,045	1,825	1,752	1,235	981	Q	14.1
Food Sales	642	234	Q	Q	Q	Q	Q	Q	Q	21.3
Food Service	1,353	550	390	Q	Q	Q	Q	Q	Q	20.0
Health Care	2,333	152	Q	243	175	Q	340	625	518	20.4
Lodging	3,618	150	269	748	512	613	547	558	Q	19.6
Mercantile and Service	12,728	1,841	2,202	2,939	1,180	1,274	1,068	539	1,685	13.4
Office	10,478	1,084	915	1,580	1,293	1,542	1,378	1,525	1,161	11.7
Public Assembly	3,948	312	786	940	485	499	363	292	Q	21.1
Public Order and Safety	1,271	Q	Q	368	Q	Q	Q	Q	Q	34.6
Religious Worship	2,792	301	662	1,120	392	Q	Q	Q	Q	20.1
Warehouse and Storage	8,481	807	991	1,530	1,165	1,147	1,352	773	716	18.1
Other	1,004	Q	Q	Q	Q	Q	Q	Q	Q	41.8
Vacant	2,384	399	497	503	148	225	Q	Q	Q	25.9
Year Constructed										
1919 or Before	3,673	442	756	957	407	386	340	Q	Q	20.3
1920 to 1945	6,710	855	981	1,241	595	750	934	604	750	18.1
1946 to 1959	9,298	1,180	1,710	1,942	1,260	1,293	660	889	364	14.9
1960 to 1969	10,858	889	1,132	2,163	1,650	1,453	1,643	869	1,060	13.8
1970 to 1979	11,333	1,245	1,186	2,071	1,337	1,453	1,250	1,430	1,360	12.4
1980 to 1989	12,252	1,087	1,102	2,809	1,701	1,816	1,306	1,223	1,208	12.6
1990 to 1992	2,590	316	368	251	378	410	406	211	250	20.3
1993 to 1995	2,059	324	296	184	349	407	Q	137	127	24.7
Floors										
One	24,552	4,838	4,399	5,478	3,198	2,539	2,263	1,009	828	10.1
Two	14,122	1,152	2,093	3,635	2,215	2,159	1,157	694	1,018	12.2
Three	7,335	333	767	1,841	1,336	1,224	872	605	357	16.3
Four to Nine	8,789	Q	269	663	908	1,916	1,968	1,934	1,115	15.1
Ten or More	3,975	Q	Q	Q	Q	Q	516	1,312	1,995	14.6
Census Region										
Northeast	11,883	995	1,223	2,118	1,380	1,371	1,377	1,389	2,029	13.9
Midwest	14,322	1,772	1,678	2,701	1,726	1,920	1,896	1,520	1,110	12.3
South	20,830	2,428	2,786	4,481	2,664	2,980	2,428	1,679	1,384	10.8
West	11,736	1,144	1,842	2,317	1,905	1,697	1,075	965	791	13.6
Workers (main shift)										
Fewer than 5	13,885	4,184	3,636	3,806	770	518	415	Q	Q	13.4
5 to 9	6,291	1,202	1,608	2,090	529	567	Q	Q	Q	14.6
10 to 19	7,102	695	1,637	2,399	1,099	557	480	Q	Q	15.0
20 to 49	9,132	225	615	2,513	2,620	2,087	736	204	Q	15.2
50 to 99	6,931	Q	Q	567	1,644	2,108	1,738	587	Q	14.1
100 to 249	5,988	Q	Q	155	913	1,472	1,628	1,394	409	14.7
250 or More	9,443	Q	Q	Q	Q	658	1,644	2,858	4,096	11.4
Weekly Operating Hours										
39 or Fewer	6,134	1,544	1,619	1,354	576	426	Q	Q	Q	15.3
40 to 48	13,233	1,701	2,033	3,382	1,981	1,776	1,439	705	Q	12.4
49 to 60	12,242	1,264	1,707	2,562	2,103	1,897	1,181	905	623	12.8
61 to 84	10,052	653	1,020	1,873	1,182	1,354	1,325	1,011	1,634	13.3
85 to 167	6,202	618	503	1,024	749	988	1,183	743	393	17.1
Open Continuously	10,908	559	647	1,422	1,085	1,527	1,453	2,035	2,182	11.9
Ownership and Occupancy										
Nongovernment Owned	46,696	5,709	6,606	10,071	5,653	5,757	4,929	3,867	4,104	7.3
Owner Occupied	35,573	4,652	5,118	7,863	3,910	4,000	3,426	2,989	3,615	7.8
Nonowner Occupied	9,697	787	1,189	1,944	1,665	1,670	1,404	797	242	15.3
Unoccupied	1,426	270	Q	Q	Q	Q	Q	Q	Q	31.3
Government Owned	12,076	630	924	1,546	2,023	2,211	1,847	1,685	1,209	11.9

See footnotes at end of table.

Table BC-9. Building Size, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace (million square feet)	Floorspace by Building Size: 1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	RSE Row Factor
RSE Column Factor:	0.5	1.0	1.3	1.2	0.9	0.9	1.1	1.1	1.3	
Predominant Exterior Wall Material										
Masonry	42,958	3,970	5,445	8,694	6,146	6,237	4,868	3,985	3,613	7.4
Siding or Shingles	3,243	1,135	825	725	161	Q	Q	Q	Q	20.4
Metal Panels	5,694	1,038	1,077	1,426	643	479	374	Q	362	18.4
Concrete Panels	4,069	Q	78	465	502	896	901	738	422	17.4
Window Glass	1,755	Q	Q	Q	150	194	283	368	541	23.3
Other	660	Q	Q	Q	Q	Q	Q	105	Q	26.1
No One Major Type	393	Q	Q	Q	Q	Q	Q	Q	Q	61.3
Predominant Roof Material										
Built-Up	24,481	1,557	2,340	4,159	3,529	3,729	3,584	2,879	2,703	9.6
Shingles (Not Wood)	11,093	2,358	2,352	2,806	1,042	1,033	586	420	495	14.4
Metal Surfacing	7,941	1,409	1,467	2,479	1,012	861	411	242	Q	16.2
Synthetic or Rubber	10,235	398	492	1,105	1,494	1,716	1,859	1,649	1,523	13.7
Slate or Tile	1,920	288	419	347	344	262	Q	Q	Q	20.9
Wooden Materials	1,130	174	400	Q	Q	Q	Q	Q	Q	32.7
Concrete	1,335	Q	Q	Q	Q	Q	Q	Q	378	37.9
Other	332	Q	Q	Q	Q	Q	Q	Q	Q	41.0
No One Major Type	305	Q	Q	Q	Q	Q	Q	Q	Q	53.9
Energy Sources (more than one may apply)										
Electricity	57,076	5,953	7,061	11,303	7,635	7,902	6,599	5,550	5,074	6.2
Natural Gas	38,145	2,942	4,497	7,561	5,242	5,608	4,643	3,941	3,712	7.5
Fuel Oil	14,421	946	679	1,425	1,164	1,968	2,096	2,928	3,215	12.8
District Heat	5,658	Q	Q	370	651	744	1,119	1,211	1,351	15.5
District Chilled Water	2,521	Q	Q	239	275	348	587	557	432	22.2
Propane	5,344	997	881	1,342	562	637	482	290	Q	20.2
Other	2,336	278	414	413	223	419	Q	252	Q	25.3
Energy End Uses (more than one may apply)										
Buildings with Space Heating	54,347	5,506	6,546	10,706	7,157	7,699	6,456	5,371	4,906	6.3
Buildings with Cooling	49,935	4,376	5,531	9,712	6,760	7,178	6,175	5,235	4,968	6.5
Buildings with Water Heating	51,560	4,617	5,652	10,053	7,060	7,611	6,269	5,303	4,995	6.4
Buildings with Cooking	20,713	922	1,319	2,731	2,433	2,939	3,028	3,482	3,859	9.3
Buildings with Manufacturing	3,893	207	357	883	563	560	672	Q	480	22.9
Buildings with Electricity Generation	13,366	169	315	902	1,033	2,121	2,091	3,081	3,653	14.2
Percent of Floorspace Heated										
Not Heated	4,425	832	984	911	519	268	Q	Q	Q	23.8
1 to 50	6,227	732	1,103	1,565	618	644	806	340	418	20.0
51 to 99	8,868	778	1,194	2,005	1,007	835	797	1,098	1,154	15.3
100	39,252	3,996	4,248	7,136	5,531	6,221	4,853	3,932	3,334	7.0
Percent of Floorspace Cooled										
Not Cooled	8,837	1,962	1,999	1,905	916	790	601	318	Q	17.3
1 to 50	15,027	1,067	1,881	3,265	2,282	2,263	1,722	1,493	1,053	12.8
51 to 99	12,549	690	1,031	1,837	1,450	1,752	1,843	1,685	2,261	11.7
100	22,359	2,619	2,620	4,610	3,028	3,163	2,610	2,057	1,653	9.5
Percent Lit when Open										
Zero	189	Q	Q	Q	Q	Q	Q	Q	Q	55.8
1 to 50	6,008	967	1,086	1,852	658	696	310	Q	Q	15.6
51 to 99	9,692	948	1,163	2,388	984	1,290	1,245	903	771	13.9
100	40,514	3,839	4,650	6,890	5,877	5,823	5,002	4,358	4,075	7.1
Building Not in Use/ Electricity Not Used	2,369	518	625	454	Q	Q	Q	Q	Q	24.5

See footnotes at end of table.

Table BC-9. Building Size, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace (million square feet)	Floorspace by Building Size: 1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	RSE Row Factor
RSE Column Factor:	0.5	1.0	1.3	1.2	0.9	0.9	1.1	1.1	1.3	
Heating Equipment (more than one may apply)										
Heat Pumps	5,843	589	436	1,243	701	1,156	564	681	473	15.7
Furnaces	14,923	2,334	3,197	3,871	1,743	1,371	1,079	657	671	11.8
Individual Space Heaters	16,809	1,618	2,003	3,094	1,960	2,208	1,936	1,901	2,088	11.8
District Heat	5,911	Q	Q	407	657	792	1,162	1,283	1,390	15.6
Boilers	16,754	551	1,005	2,080	2,592	3,190	2,850	2,553	1,933	11.2
Packaged Heating Units	16,893	1,319	1,410	3,387	2,754	2,800	2,139	1,611	1,473	10.1
Other	6,249	Q	180	780	489	762	822	1,202	1,861	19.7
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	9,238	1,133	1,732	1,970	1,224	970	707	824	677	12.9
Heat Pumps	6,931	652	559	1,523	826	1,186	730	788	666	14.6
Individual Air Conditioners	12,494	1,209	1,277	2,194	1,664	1,690	1,617	1,639	1,205	11.7
District Chilled Water	2,521	Q	Q	239	275	348	587	557	432	22.2
Central Chillers	11,065	Q	Q	264	1,107	1,666	2,080	2,687	3,124	12.4
Packaged Air Conditioning Units	26,628	1,603	2,484	4,932	3,928	4,296	3,539	2,936	2,911	9.0
Swamp Coolers	2,451	269	322	491	220	317	312	290	Q	28.4
Other	949	Q	Q	Q	Q	Q	Q	Q	Q	32.3
Lighting Equipment Types (more than one may apply)										
Incandescent	35,715	3,168	4,523	6,648	4,177	4,718	4,169	4,135	4,177	7.5
Standard Fluorescent	53,984	5,184	6,317	10,699	7,237	7,700	6,383	5,432	5,031	6.2
Compact Fluorescent	14,273	324	552	1,359	1,522	2,155	2,196	2,962	3,203	12.6
High-Intensity Discharge	16,259	233	704	1,655	1,704	2,420	2,911	3,094	3,537	12.4
Halogen	9,665	268	611	872	844	1,239	1,553	1,875	2,403	14.2
Other	554	Q	Q	Q	Q	Q	Q	Q	Q	79.9
Personal Computers and/or Computer Terminals										
None	12,571	3,369	3,260	3,315	924	585	456	318	Q	15.5
1 to 4	11,401	2,052	2,545	3,709	1,148	1,153	490	Q	Q	12.5
5 to 9	5,372	517	798	1,652	1,062	661	410	Q	Q	16.8
10 to 19	5,947	366	625	1,450	1,261	845	919	304	Q	17.8
20 to 49	7,048	Q	227	1,242	1,562	1,822	1,122	636	405	15.9
50 to 99	4,938	Q	Q	212	1,164	1,362	884	885	374	15.4
100 to 249	5,189	Q	Q	Q	464	1,059	1,345	1,040	1,225	15.2
250 or More	6,307	Q	Q	Q	Q	482	1,151	1,990	2,590	12.7
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	20,713	922	1,319	2,731	2,433	2,939	3,028	3,482	3,859	9.3
Computer Room	12,890	Q	394	842	1,414	2,097	2,356	2,975	2,723	11.3
Activities with Large Amounts of Hot Water	6,753	253	322	936	728	942	1,174	1,327	1,072	16.5
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	46,355	4,631	5,487	9,236	5,961	6,400	5,529	4,684	4,425	7.0
Wall Insulation	31,694	3,384	3,503	6,846	3,906	4,090	3,633	3,120	3,211	8.1
Storm or Multiple Glazing	28,876	2,475	3,220	5,550	3,638	4,235	3,598	3,345	2,815	7.9
Tinted, Reflective or Shading Glass	24,245	1,353	1,869	3,836	3,365	3,366	3,372	3,486	3,598	8.5
Exterior or Interior Shading or Awnings	37,208	2,806	3,470	7,514	4,934	5,864	4,700	4,454	3,467	7.3

See footnotes at end of table.

Table BC-9. Building Size, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace (million square feet)	Floorspace by Building Size								RSE Row Factor
		1,001 to 5,000 Square Feet	5,001 to 10,000 Square Feet	10,001 to 25,000 Square Feet	25,001 to 50,000 Square Feet	50,001 to 100,000 Square Feet	100,001 to 200,000 Square Feet	200,001 to 500,000 Square Feet	Over 500,000 Square Feet	
RSE Column Factor:	0.5	1.0	1.3	1.2	0.9	0.9	1.1	1.1	1.3	
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	13,473	285	401	1,114	1,541	2,316	2,265	2,452	3,099	13.0
Economizer Cycle	16,550	461	722	1,403	2,111	2,606	2,862	2,887	3,498	11.6
HVAC Maintenance	43,134	2,828	4,048	7,795	6,094	6,722	5,718	5,123	4,805	7.2
Other Energy Efficient Equipment	6,453	220	284	506	943	1,010	988	1,320	1,181	17.0
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	17,868	978	1,074	2,266	1,968	2,839	2,589	2,733	3,422	10.5
Energy-Efficient Ballasts	28,375	1,639	2,040	4,474	3,665	4,390	3,977	4,021	4,167	8.8
Natural Lighting Control Sensors	6,431	187	527	772	749	804	654	1,030	1,709	17.9
Occupancy Sensors	5,958	Q	233	701	583	638	884	1,338	1,526	18.3
Time Clock	13,262	431	971	1,384	1,380	2,050	2,106	1,995	2,946	12.5
Manual Dimmer Switches	13,056	375	1,129	1,938	1,291	1,643	1,975	2,511	2,194	11.9
Other	2,836	Q	Q	Q	258	592	317	601	638	20.5
Energy Conservation Features (more than one may apply)										
Any Conservation Features	55,288	5,552	6,671	10,928	7,311	7,848	6,534	5,427	5,018	6.3
Building Shell	53,190	5,346	6,344	10,491	7,021	7,530	6,217	5,237	5,005	6.4
HVAC	44,657	2,978	4,292	8,139	6,370	6,957	5,787	5,161	4,973	7.1
Lighting	38,537	2,410	3,626	6,625	4,936	5,806	5,364	4,912	4,857	7.5

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-10. Year Constructed, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	Buildings by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.4	1.1	0.9	0.9	0.8	0.8	1.4	1.8	
All Buildings	4,579	353	562	867	718	813	846	218	202	8.9
Building Floorspace (Square Feet)										
1,001 to 5,000	2,399	175	309	461	343	428	422	132	129	13.1
5,001 to 10,000	1,035	92	145	222	159	174	151	50	43	17.8
10,001 to 25,000	745	65	70	123	135	137	186	16	13	17.4
25,001 to 50,000	213	11	17	34	45	38	46	11	9	12.4
50,001 to 100,000	115	6	11	19	21	20	26	6	6	14.9
100,001 to 200,000	48	2	6	5	12	9	9	3	Q	16.7
200,001 to 500,000	19	Q	2	3	3	4	4	1	(*)	19.8
Over 500,000	6	Q	1	(*)	1	1	1	(*)	(*)	19.8
Principal Building Activity										
Education	309	18	42	72	66	45	36	17	13	24.6
Food Sales	137	Q	Q	Q	Q	42	Q	Q	Q	36.6
Food Service	285	Q	Q	Q	25	66	74	Q	Q	30.5
Health Care	105	Q	Q	19	7	34	Q	Q	Q	45.4
Lodging	158	Q	7	33	53	24	25	Q	Q	32.5
Mercantile and Service	1,289	112	154	278	229	207	212	47	49	17.8
Office	705	57	74	128	75	158	151	38	23	20.6
Public Assembly	326	37	72	38	63	60	33	20	Q	32.0
Public Order and Safety	87	Q	Q	Q	Q	Q	Q	Q	Q	58.9
Religious Worship	269	20	Q	65	50	53	58	Q	Q	28.9
Warehouse and Storage	580	31	59	79	68	73	161	38	71	25.2
Other	67	Q	Q	Q	Q	Q	Q	Q	Q	64.8
Vacant	261	30	71	63	27	31	26	Q	Q	29.6
Floors										
One	3,018	80	281	567	500	626	628	170	165	11.5
Two	1,002	99	164	202	165	148	151	42	31	16.5
Three	399	137	80	87	28	26	36	3	Q	24.8
Four to Nine	148	35	35	10	23	10	27	4	3	23.7
Ten or More	12	Q	2	1	2	2	3	1	Q	25.1
Census Region										
Northeast	725	115	75	187	98	69	148	13	21	21.8
Midwest	1,139	147	221	215	150	141	156	38	70	19.2
South	1,750	50	176	285	267	391	389	114	78	14.4
West	964	41	90	180	204	211	153	54	33	20.2
Workers (main shift)										
Fewer than 5	2,505	217	336	475	390	390	430	123	144	11.9
5 to 9	798	64	119	176	111	176	104	31	Q	20.7
10 to 19	625	41	40	118	100	144	134	29	18	21.6
20 to 49	400	16	46	72	69	51	110	21	15	20.5
50 to 99	138	8	15	15	26	30	34	5	5	20.3
100 to 249	71	5	4	7	16	12	18	7	2	17.6
250 or More	43	1	3	4	7	9	17	2	1	23.8
Weekly Operating Hours										
39 or Fewer	899	82	125	194	147	109	155	Q	Q	19.5
40 to 48	1,257	110	184	256	165	194	239	63	46	15.8
49 to 60	969	75	100	185	149	214	173	42	32	18.3
61 to 84	567	40	65	126	115	99	74	24	24	22.2
85 to 167	420	15	49	42	63	116	85	31	19	25.7
Open Continuously	466	31	39	65	79	81	119	17	36	24.2
Ownership and Occupancy										
Nongovernment Owned	4,025	321	474	729	625	716	775	200	186	9.5
Owner Occupied	3,158	257	374	564	486	555	600	164	157	10.6
Nonowner Occupied	698	56	43	125	118	138	160	29	29	20.9
Unoccupied	170	Q	56	40	Q	23	Q	Q	Q	38.1
Government Owned	553	32	88	138	94	96	71	18	16	21.4

See footnotes at end of table.

Table BC-10. Year Constructed, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.4	1.1	0.9	0.9	0.8	0.8	1.4	1.8	
Space in Building Vacant for at Least Three Consecutive Months										
Yes	787	75	118	142	130	126	122	30	44	19.4
No	3,791	278	443	725	588	687	724	188	158	9.7
Predominant Exterior Wall Material										
Masonry	3,061	259	414	685	534	525	450	124	69	10.3
Siding or Shingles	639	86	98	99	84	74	126	Q	52	23.5
Metal Panels	662	Q	32	61	58	171	218	57	65	23.2
Concrete Panels	106	Q	Q	16	19	31	26	Q	2	35.3
Window Glass	46	Q	Q	Q	Q	Q	Q	Q	Q	67.2
Other	50	Q	Q	Q	Q	2	Q	Q	Q	55.0
No One Major Type	15	Q	Q	Q	Q	Q	Q	Q	Q	108.3
Predominant Roof Material										
Built-Up	1,369	79	190	315	267	259	188	44	26	15.7
Shingles (Not Wood)	1,486	145	203	285	226	248	265	60	55	14.7
Metal Surfacing	908	Q	56	87	97	193	271	82	103	20.1
Synthetic or Rubber	351	39	39	74	67	55	51	17	10	25.0
Slate or Tile	202	36	41	35	24	Q	34	Q	Q	36.0
Wooden Materials	152	Q	Q	Q	Q	Q	Q	Q	Q	50.8
Concrete	58	Q	Q	Q	Q	Q	Q	Q	Q	65.3
Other	36	Q	Q	Q	Q	Q	Q	Q	Q	88.5
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)										
Electricity	4,343	335	508	838	695	809	792	204	162	9.0
Natural Gas	2,478	256	353	528	403	444	357	92	46	11.3
Fuel Oil	607	70	81	142	120	60	98	13	Q	25.9
District Heat	110	22	20	13	23	Q	7	Q	Q	32.1
District Chilled Water	53	Q	Q	5	10	Q	7	Q	Q	48.2
Propane	589	Q	61	76	104	122	142	29	35	24.9
Other	213	Q	28	56	46	23	37	Q	Q	38.4
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,024	316	496	769	652	722	741	189	141	9.3
Buildings with Cooling	3,381	260	382	617	508	688	657	161	108	9.6
Buildings with Water Heating	3,486	287	429	656	562	632	667	145	108	10.1
Buildings with Cooking	828	77	100	129	147	142	168	42	23	17.2
Buildings with Manufacturing	204	Q	32	31	35	36	36	Q	Q	38.0
Buildings with Electricity Generation	247	8	21	75	37	34	53	10	9	26.4
Percent of Floorspace Heated										
Not Heated	554	Q	66	98	67	91	105	Q	Q	25.8
1 to 50	555	26	107	89	81	82	103	27	Q	25.0
51 to 99	633	59	98	137	123	81	96	27	12	22.8
100	2,836	231	291	543	448	559	542	135	88	10.5
Percent of Floorspace Cooled										
Not Cooled	1,198	93	180	250	210	125	189	57	94	18.5
1 to 50	930	106	136	191	158	163	135	22	20	19.1
51 to 99	635	64	86	133	101	92	129	18	12	21.7
100	1,816	90	161	293	250	434	394	121	75	12.8
Percent Lit when Open										
Zero	36	Q	Q	Q	Q	Q	Q	Q	Q	88.4
1 to 50	666	65	120	130	95	92	102	23	37	21.4
51 to 99	745	77	120	136	132	142	109	Q	Q	21.3
100	2,814	186	241	538	458	559	565	154	112	11.1
Building Not in Use/ Electricity Not Used	318	Q	74	55	32	Q	62	Q	Q	32.9

See footnotes at end of table.

Table BC-10. Year Constructed, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.4	1.1	0.9	0.9	0.8	0.8	1.4	1.8	
Heating Equipment (more than one may apply)										
Heat Pumps	394	Q	24	79	37	93	104	37	15	26.6
Furnaces	1,676	151	258	332	267	258	325	45	40	15.1
Individual Space Heaters	1,188	72	134	250	231	212	201	55	32	18.1
District Heat	115	22	21	14	25	Q	8	Q	Q	31.3
Boilers	610	92	98	164	118	59	66	6	7	18.8
Packaged Heating Units	1,031	26	81	121	149	296	230	68	59	17.2
Other	161	Q	23	25	16	19	49	3	3	37.4
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	878	74	95	182	110	154	225	19	19	19.6
Heat Pumps	457	Q	33	79	38	121	116	50	15	25.3
Individual Air Conditioners	862	135	148	220	145	110	70	Q	Q	18.1
District Chilled Water	53	Q	Q	5	10	Q	7	Q	Q	48.2
Central Chillers	109	4	7	15	34	18	23	4	4	19.7
Packaged Air Conditioning Units	1,431	67	140	191	224	376	294	80	59	14.3
Swamp Coolers	186	Q	11	48	32	27	51	Q	Q	38.9
Other	18	Q	Q	Q	Q	Q	2	Q	Q	47.9
Lighting Equipment Types (more than one may apply)										
Incandescent	2,479	250	319	503	394	439	392	110	74	11.0
Standard Fluorescent	3,885	304	454	726	610	739	734	184	134	9.4
Compact Fluorescent	364	29	28	57	54	72	91	19	14	23.2
High-Intensity Discharge	393	28	37	75	72	67	65	18	29	21.8
Halogen	302	35	31	60	38	47	67	14	9	26.7
Other	30	Q	Q	Q	Q	Q	Q	Q	Q	95.4
Personal Computers and/or Computer Terminals										
None	2,039	157	293	373	371	293	336	106	110	13.0
1 to 4	1,408	122	185	304	158	276	275	42	48	15.3
5 to 9	437	37	17	60	79	131	49	44	19	25.1
10 to 19	344	24	33	66	47	51	96	Q	Q	29.0
20 to 49	198	7	22	37	31	36	54	4	6	22.0
50 to 99	81	Q	7	15	19	13	16	4	3	20.0
100 to 249	46	Q	3	9	9	8	11	2	Q	19.9
250 or More	26	Q	2	3	4	5	10	2	1	22.8
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	828	77	100	129	147	142	168	42	23	17.2
Computer Room	234	15	19	25	36	47	70	6	16	25.4
Activities with Large Amounts of Hot Water	243	10	16	40	79	43	44	7	3	30.8
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	3,380	220	325	632	527	673	688	176	138	10.1
Wall Insulation	2,372	112	196	373	321	476	603	165	125	11.3
Storm or Multiple Glazing	1,897	190	202	368	191	297	420	126	104	12.7
Tinted, Reflective or Shading Glass	1,202	49	102	197	140	256	328	84	46	15.4
Exterior or Interior Shading or Awnings	2,271	202	242	441	333	418	440	109	85	11.5
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	327	26	17	49	57	62	61	15	41	24.9
Economizer Cycle	461	14	44	66	67	112	101	27	30	20.7
HVAC Maintenance	2,403	169	275	443	395	416	519	105	82	11.1
Other Energy Efficient Equipment	198	6	20	Q	31	43	35	14	Q	26.7

See footnotes at end of table.

Table BC-10. Year Constructed, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.4	1.1	0.9	0.9	0.8	0.8	1.4	1.8	
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	749	65	68	133	126	144	127	34	52	19.3
Energy-Efficient Ballasts	1,363	105	135	227	199	241	300	92	65	15.3
Natural Lighting Control Sensors	237	32	5	40	51	36	50	Q	12	28.8
Occupancy Sensors	131	Q	17	42	18	18	15	7	5	31.5
Time Clock	467	37	22	96	91	87	101	17	17	24.8
Manual Dimmer Switches	501	46	73	76	61	81	115	27	21	21.2
Other	79	Q	Q	Q	5	25	25	Q	Q	39.0
Energy Conservation Features (more than one may apply)										
Any Conservation Features	4,075	314	468	788	636	745	757	203	164	9.1
Building Shell	3,906	296	443	751	590	725	748	196	158	9.3
HVAC	2,529	172	296	458	418	446	537	107	95	10.8
Lighting	2,084	173	213	390	344	346	421	118	79	12.2

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-11. Year Constructed, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.5	1.2	1.1	0.9	0.8	0.8	1.3	1.5	
All Buildings	58,772	3,673	6,710	9,298	10,858	11,333	12,252	2,590	2,059	7.1
Building Floorspace (Square Feet)										
1,001 to 5,000	6,338	442	855	1,180	889	1,245	1,087	316	324	13.9
5,001 to 10,000	7,530	756	981	1,710	1,132	1,186	1,102	368	296	18.1
10,001 to 25,000	11,617	957	1,241	1,942	2,163	2,071	2,809	251	184	16.4
25,001 to 50,000	7,676	407	595	1,260	1,650	1,337	1,701	378	349	12.9
50,001 to 100,000	7,968	386	750	1,293	1,453	1,453	1,816	410	407	14.6
100,001 to 200,000	6,776	340	934	660	1,643	1,250	1,306	406	Q	16.7
200,001 to 500,000	5,553	Q	604	889	869	1,430	1,223	211	137	19.5
Over 500,000	5,313	Q	750	364	1,060	1,360	1,208	250	127	21.9
Principal Building Activity										
Education	7,740	521	1,080	1,921	1,841	1,232	614	238	293	16.5
Food Sales	642	Q	Q	Q	Q	165	Q	Q	Q	33.2
Food Service	1,353	Q	Q	Q	192	285	305	Q	Q	31.3
Health Care	2,333	Q	Q	356	428	748	425	Q	Q	20.7
Lodging	3,618	Q	170	607	972	576	829	Q	Q	21.4
Mercantile and Service	12,728	816	1,118	1,895	2,342	2,749	2,727	632	449	15.8
Office	10,478	599	1,155	1,262	1,206	2,095	3,377	568	217	14.2
Public Assembly	3,948	381	706	498	821	736	399	221	Q	22.5
Public Order and Safety	1,271	Q	Q	Q	Q	254	Q	Q	Q	45.0
Religious Worship	2,792	266	Q	637	535	510	598	Q	Q	24.6
Warehouse and Storage	8,481	192	1,076	1,236	1,530	1,616	2,104	318	409	19.9
Other	1,004	Q	Q	Q	Q	Q	176	Q	Q	41.4
Vacant	2,384	326	734	363	337	245	337	Q	Q	27.3
Floors										
One	24,552	356	1,974	4,107	4,843	5,278	5,792	1,204	998	11.7
Two	14,122	704	1,416	2,740	2,844	2,663	2,587	590	577	12.7
Three	7,335	1,264	1,317	1,249	1,046	1,089	1,022	184	Q	18.4
Four to Nine	8,789	1,187	1,370	903	1,518	1,434	1,690	391	296	15.0
Ten or More	3,975	Q	634	299	607	869	1,161	222	Q	22.0
Census Region										
Northeast	11,883	1,226	1,794	1,944	2,344	1,658	2,128	443	347	15.8
Midwest	14,322	1,529	2,314	2,268	2,356	2,435	2,324	545	552	13.8
South	20,830	514	1,709	3,192	3,856	4,344	5,371	1,094	750	13.1
West	11,736	404	893	1,894	2,302	2,895	2,429	509	410	16.6
Workers (main shift)										
Fewer than 5	13,885	1,295	2,266	2,533	2,400	2,047	2,227	509	609	13.3
5 to 9	6,291	608	949	1,277	1,095	1,209	912	142	Q	18.6
10 to 19	7,102	490	647	1,300	1,179	1,607	1,393	277	209	17.8
20 to 49	9,132	414	1,077	1,655	1,634	1,374	2,125	430	423	14.2
50 to 99	6,931	266	595	951	1,648	1,392	1,446	245	388	15.4
100 to 249	5,988	360	497	768	1,275	1,056	1,389	472	172	16.7
250 or More	9,443	239	679	814	1,627	2,649	2,760	515	160	16.4
Weekly Operating Hours										
39 or Fewer	6,134	711	979	1,271	1,000	798	978	Q	Q	18.7
40 to 48	13,233	864	2,300	2,730	1,859	2,047	2,484	512	439	14.9
49 to 60	12,242	843	1,093	2,034	2,196	2,393	2,693	663	326	14.4
61 to 84	10,052	445	824	1,327	2,273	2,271	2,218	339	356	15.1
85 to 167	6,202	360	486	719	1,170	1,628	1,272	311	256	18.2
Open Continuously	10,908	449	1,028	1,217	2,360	2,197	2,607	546	504	13.8
Ownership and Occupancy										
Nongovernment Owned	46,696	3,021	5,039	6,662	8,084	9,143	10,977	2,170	1,602	8.2
Owner Occupied	35,573	2,615	3,885	5,207	6,341	6,794	7,731	1,661	1,338	9.0
Nonowner Occupied	9,697	342	622	1,247	1,496	2,195	3,042	493	260	17.0
Unoccupied	1,426	Q	531	207	Q	154	Q	Q	Q	35.3
Government Owned	12,076	652	1,671	2,636	2,774	2,190	1,275	420	457	12.7

See footnotes at end of table.

Table BC-11. Year Constructed, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.5	1.2	1.1	0.9	0.8	0.8	1.3	1.5	
Space in Building Vacant for at Least Three Consecutive Months										
Yes	15,844	1,016	1,986	1,863	2,697	3,334	3,881	608	459	12.6
No	42,928	2,657	4,724	7,435	8,161	7,999	8,371	1,982	1,600	7.9
Predominant Exterior Wall Material										
Masonry	42,958	3,198	5,652	7,722	8,590	7,290	7,604	1,759	1,145	8.3
Siding or Shingles	3,243	413	597	409	339	544	637	Q	226	26.1
Metal Panels	5,694	Q	285	557	743	1,659	1,809	335	305	20.9
Concrete Panels	4,069	Q	Q	382	752	1,219	1,123	262	197	19.3
Window Glass	1,755	Q	Q	Q	309	330	690	Q	Q	27.6
Other	660	Q	Q	Q	Q	174	206	Q	Q	31.7
No One Major Type	393	Q	Q	Q	Q	Q	Q	Q	Q	68.7
Predominant Roof Material										
Built-Up	24,481	934	2,916	4,104	5,357	5,555	4,454	654	507	11.4
Shingles (Not Wood)	11,093	1,139	1,414	2,036	1,853	1,831	2,084	429	306	13.2
Metal Surfacing	7,941	Q	452	933	1,063	1,665	2,408	594	601	18.1
Synthetic or Rubber	10,235	637	1,106	1,335	1,985	1,572	2,299	776	524	12.6
Slate or Tile	1,920	484	358	291	197	Q	293	Q	Q	23.2
Wooden Materials	1,130	Q	Q	Q	Q	Q	Q	Q	Q	47.2
Concrete	1,335	Q	Q	Q	159	233	496	Q	Q	43.3
Other	332	Q	Q	Q	Q	Q	Q	Q	Q	46.0
No One Major Type	305	Q	Q	Q	Q	Q	Q	Q	Q	60.4
Energy Sources (more than one may apply)										
Electricity	57,076	3,527	6,175	9,123	10,649	11,245	11,909	2,544	1,905	7.2
Natural Gas	38,145	2,643	4,560	6,470	7,170	7,375	7,181	1,659	1,087	8.5
Fuel Oil	14,421	1,085	1,241	1,997	2,871	2,936	3,112	607	572	12.1
District Heat	5,658	556	864	939	1,408	965	508	258	Q	18.4
District Chilled Water	2,521	Q	187	322	527	674	400	Q	Q	23.6
Propane	5,344	Q	414	634	1,136	1,130	1,256	228	398	21.5
Other	2,336	Q	381	422	483	353	331	Q	Q	28.0
Energy End Uses (more than one may apply)										
Buildings with Space Heating	54,347	3,429	5,951	8,701	10,024	10,489	11,462	2,467	1,824	7.3
Buildings with Cooling	49,935	2,818	5,038	7,549	8,978	10,389	11,174	2,345	1,644	7.6
Buildings with Water Heating	51,560	3,206	5,349	8,136	9,722	10,117	11,105	2,263	1,661	7.3
Buildings with Cooking	20,713	1,272	1,555	3,177	4,207	4,344	4,301	1,082	774	10.6
Buildings with Manufacturing	3,893	Q	622	502	524	649	998	Q	Q	23.9
Buildings with Electricity Generation	13,366	468	691	1,561	2,619	3,262	3,437	780	548	12.9
Percent of Floorspace Heated										
Not Heated	4,425	Q	759	597	833	844	790	Q	Q	27.7
1 to 50	6,227	275	1,306	849	1,037	1,089	1,336	159	Q	21.7
51 to 99	8,868	618	867	1,563	1,581	1,660	1,885	376	319	17.3
100	39,252	2,536	3,777	6,289	7,406	7,740	8,241	1,933	1,330	8.2
Percent of Floorspace Cooled										
Not Cooled	8,837	854	1,672	1,749	1,880	944	1,078	245	415	17.6
1 to 50	15,027	1,228	2,456	2,757	2,988	2,549	2,342	398	309	13.4
51 to 99	12,549	747	1,212	1,788	2,316	2,688	2,826	537	434	14.0
100	22,359	842	1,370	3,004	3,673	5,152	6,006	1,410	901	10.2
Percent Lit when Open										
Zero	189	Q	Q	Q	Q	Q	Q	Q	Q	62.5
1 to 50	6,008	598	1,327	1,211	990	664	890	161	168	18.4
51 to 99	9,692	755	1,493	1,478	1,481	2,103	1,790	328	264	16.0
100	40,514	2,116	3,193	6,207	8,084	8,333	9,083	2,031	1,467	8.5
Building Not in Use/ Electricity Not Used	2,369	Q	680	357	294	182	449	Q	Q	32.0

See footnotes at end of table.

Table BC-11. Year Constructed, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.5	1.2	1.1	0.9	0.8	0.8	1.3	1.5	
Heating Equipment (more than one may apply)										
Heat Pumps	5,843	Q	319	1,023	761	1,035	1,962	383	231	17.5
Furnaces	14,923	1,256	1,818	2,531	2,563	2,545	3,261	492	458	12.6
Individual Space Heaters	16,809	853	1,829	3,029	2,926	3,517	3,589	648	417	12.8
District Heat	5,911	591	877	975	1,509	1,000	550	258	Q	18.2
Boilers	16,754	1,404	2,185	3,144	3,982	2,735	2,418	433	453	11.2
Packaged Heating Units	16,893	294	1,123	2,050	3,031	4,133	4,307	1,105	851	11.8
Other	6,249	Q	498	561	952	1,639	1,727	303	252	19.9
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	9,238	729	766	1,716	1,423	1,851	2,208	325	219	14.0
Heat Pumps	6,931	Q	512	1,085	798	1,521	2,131	506	241	16.6
Individual Air Conditioners	12,494	1,389	2,122	2,713	2,732	1,847	1,384	156	Q	13.0
District Chilled Water	2,521	Q	187	322	527	674	400	Q	Q	23.6
Central Chillers	11,065	292	740	1,433	2,603	2,846	2,343	467	342	15.4
Packaged Air Conditioning Units	26,628	1,026	2,408	3,509	5,202	6,087	6,104	1,335	957	10.1
Swamp Coolers	2,451	Q	196	413	423	432	689	Q	Q	31.2
Other	949	Q	Q	Q	Q	Q	178	Q	Q	45.3
Lighting Equipment Types (more than one may apply)										
Incandescent	35,715	2,807	4,191	5,880	6,604	6,739	7,077	1,339	1,079	8.3
Standard Fluorescent	53,984	3,278	5,786	8,502	9,846	10,870	11,481	2,432	1,789	7.3
Compact Fluorescent	14,273	540	1,437	1,571	2,505	3,403	3,403	777	637	13.2
High-Intensity Discharge	16,259	597	1,615	2,334	2,942	3,473	3,538	943	816	11.9
Halogen	9,665	434	727	1,267	1,521	2,362	2,475	479	401	15.7
Other	554	Q	Q	Q	Q	Q	Q	Q	Q	89.6
Personal Computers and/or Computer Terminals										
None	12,571	997	2,062	2,210	2,637	1,702	1,942	544	476	14.0
1 to 4	11,401	954	1,650	2,262	1,651	2,201	2,088	271	323	14.8
5 to 9	5,372	345	258	861	1,102	1,240	980	385	201	18.8
10 to 19	5,947	471	498	901	959	1,014	1,617	290	Q	18.7
20 to 49	7,048	275	976	1,019	1,236	1,435	1,603	226	279	16.6
50 to 99	4,938	Q	394	607	1,077	974	1,149	247	234	17.0
100 to 249	5,189	Q	382	606	1,185	1,297	1,097	254	Q	18.1
250 or More	6,307	Q	490	832	1,010	1,470	1,776	372	134	17.4
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	20,713	1,272	1,555	3,177	4,207	4,344	4,301	1,082	774	10.6
Computer Room	12,890	560	1,190	1,648	2,132	2,687	3,430	643	600	12.0
Activities with Large Amounts of Hot Water	6,753	332	346	864	1,618	1,514	1,626	261	192	16.5
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	46,355	2,435	3,801	7,382	8,387	9,678	10,589	2,339	1,745	7.8
Wall Insulation	31,694	1,326	1,944	4,133	4,829	6,740	9,116	2,098	1,508	9.3
Storm or Multiple Glazing	28,876	2,134	2,484	4,085	3,913	5,191	7,507	2,001	1,562	8.6
Tinted, Reflective or Shading Glass	24,245	806	1,513	2,922	3,757	5,540	6,964	1,651	1,093	9.6
Exterior or Interior Shading or Awnings	37,208	2,430	3,571	5,965	6,504	7,194	8,492	1,732	1,321	8.1
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	13,473	436	792	1,570	2,334	2,974	3,584	845	937	14.0
Economizer Cycle	16,550	371	1,391	1,932	3,214	3,812	4,014	1,024	792	11.1
HVAC Maintenance	43,134	2,242	4,034	6,678	8,368	8,232	9,901	2,105	1,574	8.0
Other Energy Efficient Equipment	6,453	236	574	819	1,011	1,518	1,523	321	450	15.5

See footnotes at end of table.

Table BC-11. Year Constructed, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Year Constructed								RSE Row Factor
		1919 or Before	1920 to 1945	1946 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995	
RSE Column Factor:	0.4	1.5	1.2	1.1	0.9	0.8	0.8	1.3	1.5	
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	17,868	952	1,602	2,156	3,213	4,009	4,031	922	984	11.5
Energy-Efficient Ballasts	28,375	1,363	2,667	4,106	5,151	5,849	6,334	1,590	1,315	9.7
Natural Lighting Control Sensors	6,431	251	305	788	1,040	1,671	1,584	373	420	17.6
Occupancy Sensors	5,958	Q	383	1,049	1,087	1,346	1,214	351	327	18.3
Time Clock	13,262	513	540	1,575	2,641	3,075	3,528	744	645	12.4
Manual Dimmer Switches	13,056	791	938	1,743	2,038	2,421	3,704	797	624	12.8
Other	2,836	Q	Q	638	428	601	752	Q	Q	24.9
Energy Conservation Features (more than one may apply)										
Any Conservation Features	55,288	3,470	5,582	8,806	10,188	10,978	11,791	2,533	1,939	7.1
Building Shell	53,190	3,275	5,232	8,561	9,591	10,572	11,607	2,483	1,868	7.1
HVAC	44,657	2,298	4,266	6,789	8,689	8,671	10,129	2,149	1,665	7.9
Lighting	38,537	2,328	3,495	5,683	7,246	7,639	8,564	2,023	1,558	8.2

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-12. Employment Size Category, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	Buildings by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.6	0.8	1.3	1.3	1.1	1.1	1.0	1.1	
All Buildings	4,579	2,505	798	625	400	138	71	43	7.6
Building Floorspace (Square Feet)									
1,001 to 5,000	2,399	1,703	421	198	62	Q	Q	Q	11.3
5,001 to 10,000	1,035	508	222	222	79	Q	Q	Q	13.7
10,001 to 25,000	745	260	128	159	150	33	8	Q	14.2
25,001 to 50,000	213	22	16	32	71	44	24	Q	11.2
50,001 to 100,000	115	7	9	9	31	30	20	9	13.4
100,001 to 200,000	48	3	Q	3	5	13	12	11	15.0
200,001 to 500,000	19	Q	Q	Q	1	2	5	9	15.6
Over 500,000	6	Q	Q	Q	Q	Q	1	4	16.9
Principal Building Activity									
Education	309	87	63	47	62	35	11	5	18.3
Food Sales	137	109	Q	Q	Q	Q	Q	Q	23.0
Food Service	285	131	59	61	32	Q	Q	Q	21.1
Health Care	105	Q	Q	Q	21	3	3	4	24.5
Lodging	158	98	17	12	19	8	3	2	22.8
Mercantile and Service	1,289	745	288	143	77	22	10	3	13.9
Office	705	193	168	162	103	33	28	18	14.0
Public Assembly	326	193	46	66	13	4	3	Q	22.7
Public Order and Safety	87	Q	Q	Q	14	Q	Q	Q	42.1
Religious Worship	269	204	28	14	Q	Q	Q	Q	24.7
Warehouse and Storage	580	410	62	56	31	15	5	1	21.7
Other	67	Q	Q	Q	Q	Q	2	Q	43.5
Vacant	261	241	Q	Q	Q	Q	Q	Q	20.1
Year Constructed									
1919 or Before	353	217	64	41	16	8	5	1	26.5
1920 to 1945	562	336	119	40	46	15	4	3	19.7
1946 to 1959	867	475	176	118	72	15	7	4	15.5
1960 to 1969	718	390	111	100	69	26	16	7	15.7
1970 to 1979	813	390	176	144	51	30	12	9	13.1
1980 to 1989	846	430	104	134	110	34	18	17	14.7
1990 to 1992	218	123	31	29	21	5	7	2	24.3
1993 to 1995	202	144	Q	18	15	5	2	1	32.1
Floors									
One	3,018	1,859	528	328	210	68	20	4	10.7
Two	1,002	432	152	238	114	38	17	Q	12.2
Three	399	176	102	49	38	18	12	5	17.7
Four to Nine	148	37	15	10	37	14	20	15	19.7
Ten or More	12	Q	Q	Q	Q	Q	2	8	20.4
Census Region									
Northeast	725	363	100	145	76	19	16	7	15.4
Midwest	1,139	678	218	102	91	24	17	8	14.0
South	1,750	987	297	223	152	54	20	17	12.6
West	964	477	182	155	81	41	18	10	16.8
Weekly Operating Hours									
39 or Fewer	899	729	69	64	17	Q	Q	Q	20.4
40 to 48	1,257	598	278	193	134	36	14	5	13.4
49 to 60	969	426	249	152	82	35	17	8	13.2
61 to 84	567	249	97	105	75	20	15	7	15.6
85 to 167	420	225	55	67	45	17	8	4	18.8
Open Continuously	466	278	50	44	47	19	16	11	14.2
Ownership and Occupancy									
Nongovernment Owned	4,025	2,317	692	509	324	96	53	34	8.6
Owner Occupied	3,158	1,801	598	410	220	66	37	27	10.1
Nonowner Occupied	698	348	93	99	104	30	17	7	15.0
Unoccupied	170	168	Q	Q	Q	Q	Q	Q	25.0
Government Owned	553	188	106	115	76	42	18	9	14.9

See footnotes at end of table.

Table BC-12. Employment Size Category, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.6	0.8	1.3	1.3	1.1	1.1	1.0	1.1	
Space in Building Vacant for at Least Three Consecutive Months									
Yes	787	516	72	87	50	27	22	14	13.4
No	3,791	1,988	726	538	350	111	49	29	8.8
Number of Establishments									
One	3,712	2,153	634	457	295	100	45	28	8.9
2 to 5	530	150	158	137	58	17	7	4	16.7
6 to 10	91	Q	Q	31	37	9	6	3	24.2
11 to 20	28	Q	Q	Q	6	10	7	3	17.6
More than 20	31	Q	Q	Q	Q	Q	6	6	23.2
Currently Unoccupied	187	183	Q	Q	Q	Q	Q	Q	23.2
Energy Sources (more than one may apply)									
Electricity	4,343	2,274	797	625	397	137	71	43	7.6
Natural Gas	2,478	1,155	538	358	261	90	50	25	8.6
Fuel Oil	607	324	79	94	52	21	19	18	15.8
District Heat	110	34	15	Q	16	17	8	9	25.3
District Chilled Water	53	Q	Q	Q	8	8	3	5	28.4
Propane	589	312	107	103	43	12	4	Q	21.6
Other	213	129	42	24	8	5	4	1	26.9
Energy End Uses (more than one may apply)									
Buildings with Space Heating	4,024	2,013	770	608	390	131	69	43	7.8
Buildings with Cooling	3,381	1,542	691	549	361	129	69	41	7.9
Buildings with Water Heating	3,486	1,587	705	580	377	127	69	42	8.1
Buildings with Cooking	828	283	150	163	135	52	24	20	11.2
Buildings with Manufacturing	204	100	27	21	41	8	5	2	25.2
Buildings with Electricity Generation	247	56	25	52	52	23	18	19	19.3
Percent of Floorspace Heated									
Not Heated	554	492	27	Q	Q	Q	Q	Q	19.2
1 to 50	555	376	88	57	27	5	Q	1	21.2
51 to 99	633	288	147	106	59	15	12	6	16.8
100	2,836	1,349	535	445	304	112	56	36	8.7
Percent of Floorspace Cooled									
Not Cooled	1,198	962	107	76	39	9	Q	Q	21.5
1 to 50	930	454	199	146	84	31	13	4	14.9
51 to 99	635	240	169	89	78	29	18	12	13.9
100	1,816	849	323	314	198	69	38	25	10.4
Percent Lit when Open									
Zero	36	36	Q	Q	Q	Q	Q	Q	55.2
1 to 50	666	513	110	26	12	4	Q	Q	17.3
51 to 99	745	370	178	89	66	25	12	6	17.2
100	2,814	1,273	509	510	319	108	58	37	8.8
Building Not in Use/ Electricity Not Used	318	313	Q	Q	Q	Q	Q	Q	21.4
Heating Equipment (more than one may apply)									
Heat Pumps	394	150	72	78	64	14	12	5	18.9
Furnaces	1,676	914	346	239	128	29	10	Q	12.4
Individual Space Heaters	1,188	668	222	122	106	45	17	9	13.8
District Heat	115	34	16	Q	18	18	8	9	24.7
Boilers	610	229	86	121	84	43	30	17	13.5
Packaged Heating Units	1,031	376	230	188	144	57	27	9	11.7
Other	161	75	19	30	14	8	6	9	24.3

See footnotes at end of table.

Table BC-12. Employment Size Category, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Buildings by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.6	0.8	1.3	1.3	1.1	1.1	1.0	1.1	
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	878	454	160	149	74	22	10	Q	15.5
Heat Pumps	457	187	81	82	71	17	14	5	18.3
Individual Air Conditioners	862	494	147	110	66	24	15	6	12.0
District Chilled Water	53	Q	Q	Q	8	8	3	5	28.4
Central Chillers	109	Q	Q	8	23	18	21	17	14.2
Packaged Air Conditioning Units	1,431	457	332	297	202	84	39	20	9.6
Swamp Coolers	186	95	25	37	19	4	4	2	32.7
Other	18	Q	Q	Q	Q	Q	Q	2	30.5
Lighting Equipment Types (more than one may apply)									
Incandescent	2,479	1,252	524	323	232	76	41	31	9.8
Standard Fluorescent	3,885	1,873	771	609	388	133	69	43	7.7
Compact Fluorescent	364	77	37	114	71	25	22	20	15.0
High-Intensity Discharge	393	115	57	83	76	28	21	14	13.9
Halogen	302	117	55	48	39	14	12	17	19.9
Other	30	Q	Q	Q	Q	Q	Q	Q	72.6
Personal Computers and/or Computer Terminals									
None	2,039	1,668	217	96	36	19	Q	Q	15.9
1 to 4	1,408	755	367	196	72	8	Q	Q	12.9
5 to 9	437	47	150	139	85	11	5	Q	21.2
10 to 19	344	Q	54	168	77	21	5	Q	19.2
20 to 49	198	Q	Q	24	103	36	11	3	15.9
50 to 99	81	Q	Q	Q	23	31	19	4	16.9
100 to 249	46	Q	Q	Q	4	9	21	8	14.2
250 or More	26	Q	Q	Q	Q	Q	5	19	15.6
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	749	328	112	124	103	38	26	18	12.4
Energy-Efficient Ballasts	1,363	508	274	241	191	68	46	34	11.3
Natural Lighting Control Sensors	237	91	46	46	30	10	8	5	21.0
Occupancy Sensors	131	40	19	28	19	9	9	8	22.8
Time Clock	467	153	78	96	71	33	20	16	17.0
Manual Dimmer Switches	501	219	83	77	62	26	18	16	15.4
Other	79	Q	Q	Q	9	8	5	3	25.2
Off-Hour Equipment Reduction (more than one may apply)									
Heating	3,211	1,590	640	527	279	98	47	29	9.1
Cooling	2,707	1,219	570	480	265	98	48	28	9.3
Lighting	3,753	1,890	735	573	351	118	55	32	8.6

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-13. Employment Size Category, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.5	1.1	1.4	1.2	1.0	1.1	1.1	1.0	
All Buildings	58,772	13,885	6,291	7,102	9,132	6,931	5,988	9,443	6.2
Building Floorspace (Square Feet)									
1,001 to 5,000	6,338	4,184	1,202	695	225	Q	Q	Q	11.4
5,001 to 10,000	7,530	3,636	1,608	1,637	615	Q	Q	Q	13.8
10,001 to 25,000	11,617	3,806	2,090	2,399	2,513	567	155	Q	13.3
25,001 to 50,000	7,676	770	529	1,099	2,620	1,644	913	Q	11.3
50,001 to 100,000	7,968	518	567	557	2,087	2,108	1,472	658	13.2
100,001 to 200,000	6,776	415	Q	480	736	1,738	1,628	1,644	15.6
200,001 to 500,000	5,553	Q	Q	Q	204	587	1,394	2,858	16.8
Over 500,000	5,313	Q	Q	Q	Q	Q	409	4,096	18.3
Principal Building Activity									
Education	7,740	432	660	760	2,132	1,753	1,344	661	15.5
Food Sales	642	300	Q	Q	Q	Q	Q	Q	20.0
Food Service	1,353	370	290	420	208	Q	Q	Q	23.3
Health Care	2,333	Q	Q	Q	311	132	253	1,326	20.1
Lodging	3,618	809	390	341	677	672	332	398	19.9
Mercantile and Service	12,728	3,197	1,936	1,595	1,774	1,318	1,046	1,862	13.3
Office	10,478	525	797	1,024	1,406	1,153	1,639	3,934	13.1
Public Assembly	3,948	1,303	394	740	520	436	311	Q	19.9
Public Order and Safety	1,271	Q	Q	Q	311	Q	Q	Q	36.9
Religious Worship	2,792	1,820	415	235	Q	Q	Q	Q	19.1
Warehouse and Storage	8,481	2,740	964	1,413	1,298	994	613	459	17.9
Other	1,004	Q	Q	Q	Q	Q	174	Q	39.1
Vacant	2,384	2,038	Q	Q	Q	Q	Q	Q	22.0
Year Constructed									
1919 or Before	3,673	1,295	608	490	414	266	360	239	22.9
1920 to 1945	6,710	2,266	949	647	1,077	595	497	679	18.0
1946 to 1959	9,298	2,533	1,277	1,300	1,655	951	768	814	15.2
1960 to 1969	10,858	2,400	1,095	1,179	1,634	1,648	1,275	1,627	12.7
1970 to 1979	11,333	2,047	1,209	1,607	1,374	1,392	1,056	2,649	11.0
1980 to 1989	12,252	2,227	912	1,393	2,125	1,446	1,389	2,760	12.0
1990 to 1992	2,590	509	142	277	430	245	472	515	19.2
1993 to 1995	2,059	609	Q	209	423	388	172	160	22.1
Floors									
One	24,552	8,500	3,429	3,466	4,080	2,643	1,572	863	9.5
Two	14,122	3,134	1,286	2,521	2,551	1,877	1,359	1,394	11.8
Three	7,335	1,450	1,109	783	1,314	1,072	873	735	15.3
Four to Nine	8,789	624	452	328	1,142	1,221	1,907	3,115	14.8
Ten or More	3,975	Q	Q	Q	Q	Q	278	3,336	18.0
Census Region									
Northeast	11,883	2,430	1,057	1,317	1,807	1,264	1,429	2,577	14.8
Midwest	14,322	3,584	1,764	1,511	2,390	1,504	1,579	1,990	11.2
South	20,830	5,345	2,082	2,701	3,212	2,733	1,755	3,001	9.9
West	11,736	2,526	1,387	1,572	1,723	1,430	1,224	1,875	13.8
Weekly Operating Hours									
39 or Fewer	6,134	4,539	357	513	360	Q	Q	Q	18.7
40 to 48	13,233	3,185	2,255	2,221	2,504	1,530	879	659	12.5
49 to 60	12,242	2,288	1,678	1,752	2,006	1,633	1,208	1,678	11.9
61 to 84	10,052	1,241	903	1,163	1,736	1,174	1,462	2,373	14.2
85 to 167	6,202	1,136	387	705	1,100	1,066	939	868	16.5
Open Continuously	10,908	1,496	711	748	1,426	1,352	1,438	3,738	11.5
Ownership and Occupancy									
Nongovernment Owned	46,696	12,588	5,466	5,932	6,735	4,604	4,208	7,164	7.1
Owner Occupied	35,573	9,406	4,739	4,545	4,667	3,145	2,945	6,126	7.9
Nonowner Occupied	9,697	1,807	722	1,383	2,068	1,459	1,263	996	14.5
Unoccupied	1,426	1,375	Q	Q	Q	Q	Q	Q	30.9
Government Owned	12,076	1,298	825	1,170	2,397	2,327	1,780	2,279	11.8

See footnotes at end of table.

Table BC-13. Employment Size Category, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.5	1.1	1.4	1.2	1.0	1.1	1.1	1.0	
Space In Building Vacant for at Least Three Consecutive Months									
Yes	15,844	3,872	824	1,316	1,635	1,433	1,977	4,787	12.6
No	42,928	10,013	5,467	5,785	7,497	5,498	4,011	4,657	6.8
Number of Establishments									
One	41,057	11,190	5,038	5,282	6,649	4,824	3,722	4,351	6.9
2 to 5	7,325	1,022	1,157	1,354	1,389	962	591	850	15.6
6 to 10	2,672	Q	Q	456	812	453	458	435	22.4
11 to 20	2,228	Q	Q	Q	214	544	652	735	18.1
More than 20	3,943	Q	Q	Q	Q	Q	565	3,030	16.7
Currently Unoccupied	1,548	1,473	Q	Q	Q	Q	Q	Q	29.5
Energy Sources (more than one may apply)									
Electricity	57,076	12,342	6,270	7,102	9,103	6,860	5,975	9,425	6.1
Natural Gas	38,145	6,581	4,482	4,696	6,627	4,762	4,286	6,712	7.3
Fuel Oil	14,421	1,674	791	872	1,436	1,652	2,210	5,787	12.9
District Heat	5,658	423	303	258	617	713	886	2,458	17.7
District Chilled Water	2,521	Q	Q	Q	250	366	356	1,172	20.0
Propane	5,344	1,510	702	877	780	654	435	387	20.8
Other	2,336	586	257	269	269	399	318	237	27.5
Energy End Uses (more than one may apply)									
Buildings with Space Heating	54,347	10,663	6,086	6,905	8,899	6,642	5,880	9,272	6.3
Buildings with Cooling	49,935	8,324	5,260	6,449	8,302	6,379	5,872	9,349	6.4
Buildings with Water Heating	51,560	8,772	5,610	6,566	8,763	6,622	5,903	9,324	6.4
Buildings with Cooking	20,713	1,609	1,272	1,686	3,515	3,362	2,825	6,444	10.0
Buildings with Manufacturing	3,893	608	288	457	884	528	515	612	22.2
Buildings with Electricity Generation	13,366	566	294	594	1,594	1,787	2,061	6,471	13.9
Percent of Floorspace Heated									
Not Heated	4,425	3,223	205	196	Q	Q	Q	Q	22.2
1 to 50	6,227	2,318	898	1,180	830	404	Q	405	19.5
51 to 99	8,868	1,647	1,212	1,065	1,236	728	995	1,985	15.2
100	39,252	6,697	3,976	4,660	6,833	5,510	4,694	6,882	6.7
Percent of Floorspace Cooled									
Not Cooled	8,837	5,562	1,031	652	830	552	Q	Q	17.1
1 to 50	15,027	3,149	2,136	2,596	2,727	1,752	1,672	994	12.4
51 to 99	12,549	1,106	1,110	965	1,939	1,852	1,453	4,125	12.0
100	22,359	4,069	2,014	2,889	3,636	2,775	2,746	4,230	8.5
Percent Lit when Open									
Zero	189	183	Q	Q	Q	Q	Q	Q	38.5
1 to 50	6,008	3,461	1,093	698	414	229	Q	Q	14.9
51 to 99	9,692	1,718	1,443	1,058	1,669	1,260	1,130	1,413	13.8
100	40,514	6,308	3,727	5,345	7,020	5,370	4,784	7,960	6.8
Building Not In Use/ Electricity Not Used	2,369	2,216	Q	Q	Q	Q	Q	Q	23.6
Heating Equipment (more than one may apply)									
Heat Pumps	5,843	807	381	831	1,108	689	969	1,058	14.9
Furnaces	14,923	4,496	2,397	2,557	2,280	1,504	778	911	11.9
Individual Space Heaters	16,809	3,629	2,072	1,666	2,463	2,209	1,583	3,186	12.0
District Heat	5,911	427	319	285	673	784	902	2,520	17.9
Boilers	16,754	1,692	1,044	1,560	2,856	2,733	2,866	4,003	10.2
Packaged Heating Units	16,893	1,988	1,733	2,185	3,529	2,695	2,219	2,545	9.9
Other	6,249	513	368	463	505	646	626	3,128	21.0

See footnotes at end of table.

Table BC-13. Employment Size Category, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Number of Workers							RSE Row Factor
		Fewer than 5 Workers	5 to 9 Workers	10 to 19 Workers	20 to 49 Workers	50 to 99 Workers	100 to 249 Workers	250 or More Workers	
RSE Column Factor:	0.5	1.1	1.4	1.2	1.0	1.1	1.1	1.0	
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	9,238	2,076	1,123	1,488	1,575	917	707	1,351	12.8
Heat Pumps	6,931	980	529	860	1,271	879	1,065	1,347	14.9
Individual Air Conditioners	12,494	2,628	1,109	1,580	1,988	1,643	1,535	2,011	11.4
District Chilled Water	2,521	Q	Q	Q	250	366	356	1,172	20.0
Central Chillers	11,065	280	Q	298	1,075	1,505	2,054	5,684	14.2
Packaged Air Conditioning Units	26,628	2,807	2,808	3,458	4,720	4,239	3,360	5,237	8.4
Swamp Coolers	2,451	523	161	394	352	248	424	350	28.7
Other	949	Q	Q	Q	Q	Q	Q	405	30.9
Lighting Equipment Types (more than one may apply)									
Incandescent	35,715	7,242	3,969	3,552	5,524	4,203	3,880	7,345	7.4
Standard Fluorescent	53,984	10,102	6,041	6,990	8,910	6,624	5,909	9,409	6.2
Compact Fluorescent	14,273	688	424	1,286	1,997	1,740	2,017	6,121	12.3
High-Intensity Discharge	16,259	1,155	762	1,464	2,648	2,516	2,735	4,980	11.8
Halogen	9,665	784	438	489	1,319	1,389	1,244	4,001	14.7
Other	554	Q	Q	Q	Q	Q	Q	Q	78.3
Personal Computers and/or Computer Terminals									
None	12,571	8,966	1,576	977	523	400	Q	Q	15.5
1 to 4	11,401	4,251	3,116	2,295	1,143	360	Q	Q	12.5
5 to 9	5,372	325	999	1,653	1,706	469	210	Q	18.2
10 to 19	5,947	Q	375	1,644	2,101	1,149	466	Q	15.3
20 to 49	7,048	Q	Q	415	2,661	2,085	1,083	523	13.6
50 to 99	4,938	Q	Q	Q	721	1,575	1,506	921	14.5
100 to 249	5,189	Q	Q	Q	266	704	1,964	2,189	15.0
250 or More	6,307	Q	Q	Q	Q	Q	598	5,458	13.3
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	17,868	1,958	940	1,870	2,563	2,559	2,469	5,509	10.2
Energy-Efficient Ballasts	28,375	2,759	2,360	2,810	4,564	3,898	4,172	7,812	8.1
Natural Lighting Control Sensors	6,431	683	441	583	768	791	778	2,388	17.3
Occupancy Sensors	5,958	429	273	366	600	816	826	2,647	20.4
Time Clock	13,262	1,075	644	1,015	1,679	1,978	1,820	5,053	12.1
Manual Dimmer Switches	13,056	1,699	830	890	1,708	1,621	1,688	4,620	11.9
Other	2,836	Q	Q	Q	441	453	568	975	19.9
Off-Hour Equipment Reduction (more than one may apply)									
Heating	38,326	8,134	4,759	5,562	6,343	4,582	3,893	5,054	7.5
Cooling	35,605	6,484	4,270	5,250	6,013	4,316	3,971	5,301	7.7
Lighting	44,937	9,874	5,472	6,277	7,631	5,493	4,499	5,690	7.1

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-14. Weekly Operating Hours, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings (thousand)	Buildings by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.3	0.9	1.0	1.2	1.3	1.1	
All Buildings	4,579	899	1,257	969	567	420	466	7.3
Building Floorspace (Square Feet)								
1,001 to 5,000	2,399	565	665	475	241	240	212	10.2
5,001 to 10,000	1,035	219	282	232	139	67	95	15.8
10,001 to 25,000	745	90	214	164	121	67	88	15.0
25,001 to 50,000	213	16	55	59	32	20	30	10.4
50,001 to 100,000	115	6	26	27	19	14	21	11.7
100,001 to 200,000	48	Q	10	8	9	9	10	13.2
200,001 to 500,000	19	Q	2	3	4	2	7	15.2
Over 500,000	6	Q	Q	1	2	(*)	3	17.8
Principal Building Activity								
Education	309	51	127	72	42	11	Q	17.4
Food Sales	137	Q	Q	Q	Q	76	Q	20.8
Food Service	285	Q	Q	Q	101	113	Q	17.8
Health Care	105	Q	42	20	Q	Q	25	32.7
Lodging	158	Q	Q	Q	Q	Q	138	16.9
Mercantile and Service	1,289	118	343	443	219	109	58	15.1
Office	705	64	404	165	32	7	34	18.3
Public Assembly	326	124	35	53	53	51	Q	25.3
Public Order and Safety	87	Q	5	Q	Q	Q	33	30.6
Religious Worship	269	157	36	30	12	Q	Q	24.6
Warehouse and Storage	580	128	177	134	32	37	71	22.6
Other	67	Q	Q	14	Q	Q	Q	51.5
Vacant	261	199	33	Q	Q	Q	Q	23.6
Year Constructed								
1919 or Before	353	82	110	75	40	15	31	26.6
1920 to 1945	562	125	184	100	65	49	39	20.1
1946 to 1959	867	194	256	185	126	42	65	16.4
1960 to 1969	718	147	165	149	115	63	79	16.0
1970 to 1979	813	109	194	214	99	116	81	15.2
1980 to 1989	846	155	239	173	74	85	119	15.1
1990 to 1992	218	Q	63	42	24	31	17	30.8
1993 to 1995	202	Q	46	32	24	19	36	34.6
Census Region								
Northeast	725	108	172	188	92	81	83	19.3
Midwest	1,139	256	334	197	148	98	106	15.8
South	1,750	361	484	401	170	160	172	10.7
West	964	174	266	183	157	81	105	17.1
Workers (main shift)								
Fewer than 5	2,505	729	598	426	249	225	278	10.5
5 to 9	798	69	278	249	97	55	50	16.9
10 to 19	625	64	193	152	105	67	44	18.6
20 to 49	400	17	134	82	75	45	47	17.9
50 to 99	138	Q	36	35	20	17	19	15.0
100 to 249	71	Q	14	17	15	8	16	14.7
250 or More	43	Q	5	8	7	4	11	16.5
Ownership and Occupancy								
Nongovernment Owned	4,025	784	1,051	888	515	397	390	7.7
Owner Occupied	3,158	576	844	713	382	298	345	8.8
Nonowner Occupied	698	54	205	175	128	99	38	19.3
Unoccupied	170	154	Q	Q	Q	Q	Q	21.6
Government Owned	553	116	205	81	52	23	76	17.7

See footnotes at end of table.

Table BC-14. Weekly Operating Hours, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings (thousand)	Buildings by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.3	0.9	1.0	1.2	1.3	1.1	
Energy Sources (more than one may apply)								
Electricity	4,343	746	1,254	950	566	407	421	7.2
Natural Gas	2,478	343	718	596	365	216	239	9.3
Fuel Oil	607	116	162	138	68	44	80	21.2
District Heat	110	Q	23	23	12	11	32	32.0
District Chilled Water	53	Q	Q	11	8	7	Q	40.2
Propane	589	121	157	89	73	75	73	21.6
Other	213	Q	47	78	19	21	16	34.7
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	620	1,207	907	541	366	385	7.4
Buildings with Cooling	3,381	399	1,047	795	446	344	350	7.7
Buildings with Water Heating	3,486	466	1,035	742	494	375	375	8.0
Buildings with Cooking	828	92	144	104	180	212	96	13.0
Buildings with Manufacturing	204	Q	97	49	21	9	8	31.4
Buildings with Electricity Generation	247	Q	60	31	29	14	84	22.6
Percent of Floorspace Heated								
Not Heated	554	280	50	63	26	54	81	24.2
1 to 50	555	127	193	151	43	22	20	22.0
51 to 99	633	50	171	167	110	64	71	19.1
100	2,836	444	843	588	388	279	294	8.7
Percent of Floorspace Cooled								
Not Cooled	1,198	501	210	175	121	76	116	18.0
1 to 50	930	128	300	292	106	43	60	16.4
51 to 99	635	61	142	186	86	79	80	16.6
100	1,816	209	604	316	254	222	210	10.2
Percent Lit when Open								
Zero	36	Q	Q	Q	Q	Q	Q	72.3
1 to 50	666	122	203	143	101	20	77	17.6
51 to 99	745	100	258	167	94	68	58	17.4
100	2,814	439	779	635	364	312	285	9.3
Building Not in Use/ Electricity Not Used	318	236	Q	Q	Q	Q	45	21.0
Heating Equipment (more than one may apply)								
Heat Pumps	394	42	162	78	44	24	44	22.0
Furnaces	1,676	283	488	360	267	165	113	12.4
Individual Space Heaters	1,188	235	349	303	135	70	96	14.5
District Heat	115	Q	24	23	13	12	33	30.6
Boilers	610	74	167	145	71	39	113	17.9
Packaged Heating Units	1,031	109	324	230	139	122	107	13.0
Other	161	Q	50	48	24	12	11	32.4
Cooling Equipment (more than one may apply)								
Residential-Type Central Air Conditioners	878	109	281	178	127	99	83	14.8
Heat Pumps	457	55	180	87	51	25	59	20.4
Individual Air Conditioners	862	111	224	238	102	72	115	15.5
District Chilled Water	53	Q	Q	11	8	7	Q	40.2
Central Chillers	109	Q	22	19	18	10	30	15.0
Packaged Air Conditioning Units	1,431	127	443	331	181	196	152	11.4
Swamp Coolers	186	Q	43	47	48	Q	14	35.0
Other	18	Q	Q	9	Q	Q	2	37.6

See footnotes at end of table.

Table BC-14. Weekly Operating Hours, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings (thousand)	Buildings by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.3	0.9	1.0	1.2	1.3	1.1	
Lighting Equipment Types (more than one may apply)								
Incandescent	2,479	424	699	523	333	214	287	9.0
Standard Fluorescent	3,885	506	1,188	890	533	392	376	7.6
Compact Fluorescent	364	10	72	84	71	63	64	20.5
High-Intensity Discharge	393	27	121	91	62	39	52	19.4
Halogen	302	25	78	61	45	39	54	24.4
Other	30	Q	Q	Q	Q	Q	Q	78.0
Off-Hour Equipment Reduction (more than one may apply)								
Heating	3,211	517	1,093	824	474	303	--	7.8
Cooling	2,707	345	954	725	396	286	--	8.1
Lighting	3,753	654	1,229	924	555	391	--	7.6

(*) = Value rounds to zero in the units displayed.
-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-15. Weekly Operating Hours, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.4	1.1	1.0	1.1	1.3	0.9	
All Buildings	58,772	6,134	13,233	12,242	10,052	6,202	10,908	6.1
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	1,544	1,701	1,264	653	618	559	10.5
5,001 to 10,000	7,530	1,619	2,033	1,707	1,020	503	647	15.8
10,001 to 25,000	11,617	1,354	3,382	2,562	1,873	1,024	1,422	14.2
25,001 to 50,000	7,676	576	1,981	2,103	1,182	749	1,085	10.7
50,001 to 100,000	7,968	426	1,776	1,897	1,354	988	1,527	11.5
100,001 to 200,000	6,776	Q	1,439	1,181	1,325	1,183	1,453	13.8
200,001 to 500,000	5,553	Q	705	905	1,011	743	2,035	15.7
Over 500,000	5,313	Q	Q	623	1,634	393	2,182	18.8
Principal Building Activity								
Education	7,740	589	2,337	1,862	1,678	994	280	13.8
Food Sales	642	Q	Q	Q	Q	370	Q	18.4
Food Service	1,353	Q	Q	Q	491	509	Q	21.4
Health Care	2,333	Q	266	198	Q	Q	1,731	17.7
Lodging	3,618	Q	Q	Q	Q	Q	3,339	13.7
Mercantile and Service	12,728	361	2,102	3,404	4,092	1,848	922	14.5
Office	10,478	226	3,536	3,309	1,481	423	1,502	12.5
Public Assembly	3,948	693	441	453	790	1,113	457	19.2
Public Order and Safety	1,271	Q	156	Q	Q	Q	643	26.1
Religious Worship	2,792	1,249	589	467	223	Q	Q	20.5
Warehouse and Storage	8,481	782	3,242	1,930	671	596	1,260	16.5
Other	1,004	Q	Q	250	Q	Q	229	36.2
Vacant	2,384	1,805	266	Q	Q	Q	Q	21.7
Year Constructed								
1919 or Before	3,673	711	864	843	445	360	449	21.7
1920 to 1945	6,710	979	2,300	1,093	824	486	1,028	18.3
1946 to 1959	9,298	1,271	2,730	2,034	1,327	719	1,217	13.9
1960 to 1969	10,858	1,000	1,859	2,196	2,273	1,170	2,360	12.7
1970 to 1979	11,333	798	2,047	2,393	2,271	1,628	2,197	11.5
1980 to 1989	12,252	978	2,484	2,693	2,218	1,272	2,607	11.4
1990 to 1992	2,590	Q	512	663	339	311	546	18.6
1993 to 1995	2,059	Q	439	326	356	256	504	21.0
Census Region								
Northeast	11,883	1,119	2,168	2,482	2,111	1,411	2,592	14.1
Midwest	14,322	1,601	3,520	2,378	2,626	1,633	2,564	10.9
South	20,830	2,311	4,912	4,786	3,276	1,804	3,740	9.0
West	11,736	1,103	2,633	2,596	2,040	1,353	2,012	13.1
Workers (main shift)								
Fewer than 5	13,885	4,539	3,185	2,288	1,241	1,136	1,496	12.3
5 to 9	6,291	357	2,255	1,678	903	387	711	16.0
10 to 19	7,102	513	2,221	1,752	1,163	705	748	15.2
20 to 49	9,132	360	2,504	2,006	1,736	1,100	1,426	13.3
50 to 99	6,931	Q	1,530	1,633	1,174	1,066	1,352	12.5
100 to 249	5,988	Q	879	1,208	1,462	939	1,438	13.6
250 or More	9,443	Q	659	1,678	2,373	868	3,738	14.0
Ownership and Occupancy								
Nongovernment Owned	46,696	5,051	10,034	10,106	8,116	4,925	8,465	6.5
Owner Occupied	35,573	3,373	7,677	7,388	6,087	3,508	7,539	7.2
Nonowner Occupied	9,697	359	2,331	2,695	2,019	1,416	877	13.8
Unoccupied	1,426	1,319	Q	Q	Q	Q	Q	26.7
Government Owned	12,076	1,084	3,199	2,136	1,937	1,277	2,443	11.6

See footnotes at end of table.

Table BC-15. Weekly Operating Hours, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.4	1.1	1.0	1.1	1.3	0.9	
Energy Sources (more than one may apply)								
Electricity	57,076	4,932	13,142	12,134	10,021	6,159	10,688	6.0
Natural Gas	38,145	2,657	8,541	8,002	7,048	3,966	7,931	7.4
Fuel Oil	14,421	710	1,953	2,790	2,785	1,502	4,682	11.8
District Heat	5,658	Q	762	970	628	840	2,320	17.5
District Chilled Water	2,521	Q	350	409	381	395	919	22.6
Propane	5,344	644	1,279	931	944	627	919	18.9
Other	2,336	Q	552	724	226	322	327	23.0
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	4,032	12,672	11,658	9,635	5,880	10,469	6.3
Buildings with Cooling	49,935	2,845	11,401	10,897	9,212	5,644	9,936	6.5
Buildings with Water Heating	51,560	3,290	11,585	10,765	9,535	5,928	10,457	6.5
Buildings with Cooking	20,713	872	2,806	3,379	5,017	3,064	5,575	8.7
Buildings with Manufacturing	3,893	Q	1,237	922	592	301	671	19.8
Buildings with Electricity Generation	13,366	271	1,578	2,041	2,764	1,374	5,338	12.8
Percent of Floorspace Heated								
Not Heated	4,425	2,102	561	584	417	322	439	24.6
1 to 50	6,227	683	2,452	1,454	692	389	558	18.6
51 to 99	8,868	351	1,714	2,163	1,822	888	1,931	15.3
100	39,252	2,999	8,506	8,041	7,122	4,604	7,980	6.8
Percent of Floorspace Cooled								
Not Cooled	8,837	3,289	1,832	1,345	840	558	973	15.8
1 to 50	15,027	990	4,714	3,925	2,143	1,298	1,958	12.3
51 to 99	12,549	421	1,931	2,775	2,812	1,363	3,246	12.1
100	22,359	1,434	4,756	4,197	4,258	2,983	4,732	8.6
Percent Lit when Open								
Zero	189	Q	Q	Q	Q	Q	Q	52.6
1 to 50	6,008	890	1,827	1,523	752	332	684	16.5
51 to 99	9,692	642	2,734	1,934	1,733	1,068	1,580	13.0
100	40,514	2,692	8,507	8,654	7,507	4,730	8,424	7.2
Building Not in Use/ Electricity Not Used	2,369	1,875	Q	Q	Q	Q	220	22.4
Heating Equipment (more than one may apply)								
Heat Pumps	5,843	201	1,568	1,121	1,161	322	1,470	14.3
Furnaces	14,923	1,776	3,844	3,381	2,359	1,409	2,155	10.9
Individual Space Heaters	16,809	1,357	4,025	3,622	2,975	1,522	3,307	11.2
District Heat	5,911	Q	792	996	676	908	2,399	17.5
Boilers	16,754	919	3,304	3,566	3,078	1,757	4,130	9.5
Packaged Heating Units	16,893	682	3,815	3,369	3,280	2,386	3,360	9.1
Other	6,249	Q	762	1,342	1,536	684	1,765	18.0
Cooling Equipment (more than one may apply)								
Residential-Type Central Air Conditioners	9,238	761	2,294	1,916	1,460	819	1,988	12.2
Heat Pumps	6,931	270	1,782	1,392	1,291	442	1,754	13.8
Individual Air Conditioners	12,494	683	2,578	2,781	1,868	1,157	3,427	11.7
District Chilled Water	2,521	Q	350	409	381	395	919	22.6
Central Chillers	11,065	276	1,349	1,969	2,399	1,199	3,873	12.9
Packaged Air Conditioning Units	26,628	1,000	5,760	5,679	5,127	3,644	5,418	8.4
Swamp Coolers	2,451	Q	501	488	374	259	655	27.6
Other	949	Q	Q	299	Q	Q	285	34.0

See footnotes at end of table.

Table BC-15. Weekly Operating Hours, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Floorspace by Weekly Operating Hours						RSE Row Factor
		39 or Fewer Hours	40 to 48 Hours	49 to 60 Hours	61 to 84 Hours	85 to 167 Hours	Open Continuously	
RSE Column Factor:	0.5	1.4	1.1	1.0	1.1	1.3	0.9	
Lighting Equipment Types (more than one may apply)								
Incandescent	35,715	2,795	7,377	7,053	6,664	3,776	8,049	7.2
Standard Fluorescent	53,984	3,358	12,651	11,712	9,851	6,081	10,332	6.3
Compact Fluorescent	14,273	171	1,650	2,764	3,516	1,709	4,464	12.3
High-Intensity Discharge	16,259	432	2,961	3,000	3,521	2,052	4,293	11.2
Halogen	9,665	280	1,216	1,597	2,546	1,200	2,827	14.7
Other	554	Q	Q	Q	Q	Q	Q	75.4
Off-Hour Equipment Reduction (more than one may apply)								
Heating	38,326	3,340	11,083	10,592	8,293	5,017	--	6.9
Cooling	35,605	2,448	10,156	10,068	8,063	4,871	--	7.0
Lighting	44,937	4,123	12,953	11,939	9,951	5,970	--	6.3

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-16. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	1.7	0.9	2.2	1.7	1.2	
All Buildings	4,579	4,025	3,158	698	170	553	76	99	379	9.2
Building Floorspace (Square Feet)										
1,001 to 5,000	2,399	2,176	1,746	325	105	223	Q	Q	152	12.2
5,001 to 10,000	1,035	909	704	163	Q	125	Q	22	81	17.6
10,001 to 25,000	745	646	503	126	Q	98	7	19	72	15.2
25,001 to 50,000	213	158	109	47	Q	55	Q	11	40	12.0
50,001 to 100,000	115	83	58	24	Q	32	3	7	22	12.0
100,001 to 200,000	48	35	24	10	Q	13	2	4	7	13.7
200,001 to 500,000	19	13	10	3	Q	6	1	2	3	16.3
Over 500,000	6	4	4	(*)	Q	1	1	(*)	Q	21.7
Principal Building Activity										
Education	309	127	119	Q	--	182	Q	43	135	20.2
Food Sales	137	137	113	Q	--	Q	Q	Q	Q	28.4
Food Service	285	279	231	48	--	Q	Q	Q	Q	23.9
Health Care	105	86	61	Q	--	19	1	Q	Q	36.3
Lodging	158	153	129	24	--	6	Q	4	Q	23.6
Mercantile and Service	1,289	1,234	942	292	--	55	Q	Q	42	18.5
Office	705	650	541	109	--	55	9	7	39	17.5
Public Assembly	326	247	220	27	--	79	Q	6	66	25.2
Public Order and Safety	87	Q	Q	Q	--	60	Q	4	50	35.4
Religious Worship	269	269	267	Q	--	Q	Q	Q	Q	24.0
Warehouse and Storage	580	533	414	119	--	47	Q	Q	30	25.9
Other	67	49	47	Q	--	18	Q	Q	Q	56.7
Vacant	261	234	51	14	170	27	Q	Q	Q	27.9
Year Constructed										
1919 or Before	353	321	257	56	Q	32	Q	Q	11	30.7
1920 to 1945	562	474	374	43	56	88	22	Q	48	21.8
1946 to 1959	867	729	564	125	40	138	Q	32	97	18.1
1960 to 1969	718	625	486	118	Q	94	8	18	68	16.7
1970 to 1979	813	716	555	138	23	96	Q	18	70	17.2
1980 to 1989	846	775	600	160	Q	71	4	9	58	16.5
1990 to 1992	218	200	164	29	Q	18	Q	Q	16	32.0
1993 to 1995	202	186	157	29	Q	16	Q	Q	10	37.9
Floors										
One	3,018	2,655	2,036	491	128	363	57	55	250	11.7
Two	1,002	888	729	135	24	114	Q	23	81	16.7
Three	399	353	289	51	Q	46	5	10	31	19.7
Four to Nine	148	119	96	19	Q	29	3	10	16	22.4
Ten or More	12	11	8	2	Q	1	Q	1	Q	24.0
Census Region										
Northeast	725	629	542	79	Q	97	Q	12	68	18.8
Midwest	1,139	1,043	843	146	54	97	19	13	65	19.3
South	1,750	1,556	1,224	260	72	193	21	42	131	14.2
West	964	798	548	213	36	166	19	33	115	18.6
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	493	455	393	60	Q	39	Q	Q	29	35.4
5,500 to 7,000 HDD	975	859	691	131	37	116	Q	10	95	16.4
4,000 to 5,499 HDD	1,070	943	774	130	38	127	Q	27	71	27.1
Fewer than 4,000 HDD	1,103	952	694	212	46	151	16	29	106	19.1
More than 2,000 CDD and --										
Fewer than 4,000 HDD	937	817	605	165	46	121	Q	28	77	20.9

See footnotes at end of table.

Table BC-16. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	1.7	0.9	2.2	1.7	1.2	
Workers (main shift)										
Fewer than 5	2,505	2,317	1,801	348	168	188	Q	37	118	13.4
5 to 9	798	692	598	93	Q	106	Q	15	76	19.1
10 to 19	625	509	410	99	Q	115	Q	14	93	20.8
20 to 49	400	324	220	104	Q	76	9	16	51	16.4
50 to 99	138	96	66	30	Q	42	Q	7	29	16.5
100 to 249	71	53	37	17	Q	18	3	7	8	15.7
250 or More	43	34	27	7	Q	9	2	3	4	22.6
Weekly Operating Hours										
39 or Fewer	899	784	576	54	154	116	Q	Q	95	20.2
40 to 48	1,257	1,051	844	205	Q	205	22	32	152	14.3
49 to 60	969	888	713	175	Q	81	11	12	58	17.8
61 to 84	567	515	382	128	Q	52	Q	14	34	21.0
85 to 167	420	397	298	99	Q	23	Q	5	17	21.1
Open Continuously	466	390	345	38	Q	76	31	22	23	21.2
Space in Building Vacant for at Least Three Consecutive Months										
Yes	787	712	349	206	157	75	Q	14	43	17.8
No	3,791	3,313	2,808	492	Q	478	57	85	336	9.9
Number of Establishments										
One	3,712	3,205	2,738	467	--	506	63	89	354	9.6
2 to 5	530	507	364	143	--	24	3	2	19	21.9
6 to 10	91	86	33	53	--	Q	Q	Q	Q	30.0
11 to 20	28	28	11	17	--	Q	Q	Q	Q	17.8
More than 20	31	31	12	18	--	Q	Q	Q	Q	46.9
Currently Unoccupied	187	170	--	--	170	Q	Q	Q	Q	22.6
Multibuilding Facility										
Part of Multibuilding Facility	1,480	1,090	842	201	47	390	63	93	234	13.4
Not on Multibuilding Facility	3,099	2,936	2,316	498	122	163	12	7	145	11.4
Predominant Exterior Wall Material										
Masonry	3,061	2,671	2,052	519	99	390	49	75	267	11.2
Siding or Shingles	639	571	489	56	Q	68	Q	Q	49	25.8
Metal Panels	662	591	487	81	Q	71	Q	Q	55	20.6
Concrete Panels	106	92	48	32	Q	14	Q	4	6	28.7
Window Glass	46	43	36	7	Q	3	Q	Q	Q	49.5
Other	50	43	34	Q	Q	Q	Q	Q	Q	64.5
No One Major Type	15	Q	Q	Q	Q	Q	Q	Q	Q	99.6
Predominant Roof Material										
Built-Up	1,369	1,177	838	273	66	192	26	46	120	13.9
Shingles (Not Wood)	1,486	1,381	1,188	170	Q	106	Q	Q	62	15.1
Metal Surfacing	908	821	667	106	48	87	Q	Q	68	17.7
Synthetic or Rubber	351	274	221	51	Q	77	3	12	62	20.9
Slate or Tile	202	158	116	41	Q	44	Q	Q	22	34.2
Wooden Materials	152	129	92	Q	Q	Q	Q	Q	Q	44.4
Concrete	58	42	18	Q	Q	Q	Q	Q	Q	59.9
Other	36	27	Q	Q	Q	Q	Q	Q	Q	85.1
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0

See footnotes at end of table.

Table BC-16. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	1.7	0.9	2.2	1.7	1.2	
Energy Sources (more than one may apply)										
Electricity	4,343	3,810	3,062	669	79	533	66	92	376	9.3
Natural Gas	2,478	2,190	1,750	413	Q	288	21	43	224	10.9
Fuel Oil	607	509	453	54	Q	98	Q	19	54	24.3
District Heat	110	50	44	Q	Q	60	Q	23	Q	30.9
District Chilled Water	53	19	14	Q	Q	34	Q	13	Q	43.7
Propane	589	510	434	75	Q	79	Q	Q	66	24.6
Other	213	186	161	26	Q	26	Q	Q	15	36.0
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,024	3,527	2,867	623	37	498	69	89	340	9.8
Buildings with Cooling	3,381	2,993	2,402	569	Q	388	67	74	247	9.3
Buildings with Water Heating	3,486	3,054	2,452	572	30	432	53	80	298	10.5
Buildings with Cooking	828	737	592	139	Q	91	4	14	73	13.2
Buildings with Manufacturing	204	188	149	32	Q	Q	Q	Q	Q	35.2
Buildings with Electricity Generation	247	167	149	18	Q	79	Q	16	47	27.9
Percent of Floorspace Heated										
Not Heated	554	498	291	75	132	56	Q	Q	38	22.7
1 to 50	555	528	397	122	Q	27	Q	Q	14	25.7
51 to 99	633	553	452	101	Q	80	Q	13	62	21.2
100	2,836	2,446	2,018	400	Q	391	57	68	265	9.8
Percent of Floorspace Cooled										
Not Cooled	1,198	1,033	755	129	148	165	Q	25	132	18.6
1 to 50	930	806	606	192	Q	124	33	21	70	16.0
51 to 99	635	556	474	81	Q	80	Q	17	52	20.4
100	1,816	1,631	1,322	295	Q	185	24	36	125	12.0
Percent Lit when Open										
Zero	36	36	28	Q	Q	Q	Q	Q	Q	78.0
1 to 50	666	608	523	85	Q	58	Q	Q	43	21.1
51 to 99	745	650	517	133	Q	95	Q	16	69	23.3
100	2,814	2,435	1,970	451	Q	379	45	70	263	10.5
Building Not in Use/ Electricity Not Used	318	296	120	30	146	Q	Q	Q	Q	28.3
Heating Equipment (more than one may apply)										
Heat Pumps	394	341	288	53	Q	53	Q	Q	28	23.0
Furnaces	1,676	1,555	1,280	260	Q	121	Q	Q	100	13.4
Individual Space Heaters	1,188	1,052	889	149	Q	136	19	16	101	17.4
District Heat	115	53	45	7	Q	62	19	23	Q	30.8
Boilers	610	452	402	48	Q	158	Q	29	111	19.2
Packaged Heating Units	1,031	910	672	224	Q	121	4	22	96	15.1
Other	161	144	125	19	Q	17	Q	4	13	38.3
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	878	820	680	139	Q	58	Q	Q	42	17.5
Heat Pumps	457	399	333	67	Q	58	Q	Q	33	22.0
Individual Air Conditioners	862	732	606	125	Q	129	Q	29	82	16.6
District Chilled Water	53	19	14	Q	Q	34	Q	13	Q	43.7
Central Chillers	109	72	61	11	Q	37	5	11	21	16.4
Packaged Air Conditioning Units	1,431	1,273	972	281	Q	159	22	22	115	13.4
Swamp Coolers	186	174	114	60	Q	11	Q	Q	9	39.5
Other	18	14	10	4	Q	4	Q	Q	Q	40.4

See footnotes at end of table.

Table BC-16. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	1.7	0.9	2.2	1.7	1.2	
Lighting Equipment Types (more than one may apply)										
Incandescent	2,479	2,210	1,857	340	Q	269	36	48	186	11.8
Standard Fluorescent	3,885	3,391	2,753	630	Q	494	65	84	344	8.9
Compact Fluorescent	364	309	256	53	Q	55	7	17	31	19.4
High-Intensity Discharge	393	318	275	42	Q	75	8	13	54	19.1
Halogen	302	272	214	59	Q	30	2	2	26	23.5
Other	30	22	21	Q	Q	Q	Q	Q	Q	88.1
Personal Computers and/or Computer Terminals										
None	2,039	1,872	1,431	273	168	167	Q	20	125	13.9
1 to 4	1,408	1,268	1,045	222	Q	140	Q	34	80	15.5
5 to 9	437	377	291	85	Q	61	Q	4	54	22.0
10 to 19	344	278	234	45	Q	65	Q	11	40	24.2
20 to 49	198	133	92	41	Q	65	4	13	48	20.6
50 to 99	81	53	32	21	Q	28	Q	7	18	18.7
100 to 249	46	25	18	7	Q	21	2	8	11	17.5
250 or More	26	19	15	5	Q	7	2	2	3	19.5
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	828	737	592	139	Q	91	4	14	73	13.2
Computer Room	234	180	136	44	Q	54	13	7	35	21.3
Activities with Large Amounts of Hot Water	243	227	199	28	Q	17	Q	5	10	22.3
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	3,380	2,975	2,434	494	47	406	59	65	281	10.4
Wall Insulation	2,372	2,123	1,785	304	34	249	31	36	182	12.2
Storm or Multiple Glazing	1,897	1,703	1,466	212	25	194	44	22	128	13.9
Tinted, Reflective or Shading Glass	1,202	1,070	856	208	6	132	19	26	87	14.5
Exterior or Interior Shading or Awnings	2,271	1,976	1,563	395	19	295	53	61	181	12.1
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	327	247	209	38	Q	80	Q	14	50	20.4
Economizer Cycle	461	379	319	53	Q	82	16	17	49	17.8
HVAC Maintenance	2,403	2,016	1,630	379	Q	386	49	72	265	10.7
Other Energy Efficient Equipment	198	134	115	19	Q	64	Q	5	53	28.2
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	749	634	509	125	Q	115	21	12	82	18.4
Energy-Efficient Ballasts	1,363	1,110	948	162	Q	253	41	57	155	13.7
Natural Lighting Control Sensors	237	202	165	37	Q	35	Q	4	24	27.3
Occupancy Sensors	131	109	95	14	Q	22	4	4	14	25.5
Time Clock	467	389	309	80	Q	79	Q	5	63	20.7
Manual Dimmer Switches	501	462	412	50	Q	39	Q	4	24	17.7
Other	79	65	53	Q	Q	14	Q	Q	Q	44.3
Energy Conservation Features (more than one may apply)										
Any Conservation Features	4,075	3,584	2,868	636	80	491	69	88	334	9.2
Building Shell	3,906	3,437	2,762	595	80	469	69	82	318	9.4
HVAC	2,529	2,133	1,735	390	Q	396	49	74	272	10.3
Lighting	2,084	1,768	1,481	287	Q	316	51	59	207	11.3

See footnotes at end of table.

Table BC-16. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	1.7	0.9	2.2	1.7	1.2	
Off-Hour Equipment Reduction (more than one may apply)										
Heating	3,211	2,846	2,292	539	Q	365	22	58	284	10.4
Cooling	2,707	2,438	1,932	498	Q	269	23	47	199	10.6
Lighting	3,753	3,307	2,669	630	Q	446	38	69	339	9.6

(*) = Value rounds to zero in the units displayed.
-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-17. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Floorspace, 1995

(Million Square Feet)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	2.1	0.8	2.4	1.4	1.2	
All Buildings	58,772	46,696	35,573	9,697	1,426	12,076	1,752	2,851	7,473	7.7
Building Floorspace (Square Feet)										
1,001 to 5,000	6,338	5,709	4,652	787	270	630	Q	Q	460	12.7
5,001 to 10,000	7,530	6,606	5,118	1,189	Q	924	Q	158	597	18.4
10,001 to 25,000	11,617	10,071	7,863	1,944	Q	1,546	111	309	1,126	14.7
25,001 to 50,000	7,676	5,653	3,910	1,665	Q	2,023	Q	388	1,499	12.8
50,001 to 100,000	7,968	5,757	4,000	1,670	Q	2,211	243	467	1,501	12.2
100,001 to 200,000	6,776	4,929	3,426	1,404	Q	1,847	263	598	986	14.4
200,001 to 500,000	5,553	3,867	2,989	797	Q	1,685	201	562	923	16.8
Over 500,000	5,313	4,104	3,615	242	Q	1,209	541	287	Q	22.5
Principal Building Activity										
Education	7,740	2,531	2,397	Q	--	5,210	Q	913	4,191	13.6
Food Sales	642	642	535	Q	--	Q	Q	Q	Q	24.2
Food Service	1,353	1,275	1,127	149	--	Q	Q	Q	Q	26.9
Health Care	2,333	1,815	1,606	Q	--	518	129	Q	249	17.3
Lodging	3,618	3,268	2,980	288	--	350	Q	196	Q	21.8
Mercantile and Service	12,728	11,858	8,213	3,646	--	869	413	Q	325	17.3
Office	10,478	9,183	6,908	2,275	--	1,295	473	414	409	13.3
Public Assembly	3,948	2,397	2,161	236	--	1,551	Q	501	954	21.0
Public Order and Safety	1,271	Q	Q	Q	--	1,054	Q	193	829	25.9
Religious Worship	2,792	2,792	2,769	Q	--	Q	Q	Q	Q	18.8
Warehouse and Storage	8,481	7,836	5,425	2,411	--	645	Q	Q	365	23.1
Other	1,004	731	674	Q	--	272	Q	Q	Q	44.5
Vacant	2,384	2,151	583	141	1,426	232	Q	Q	Q	28.1
Year Constructed										
1919 or Before	3,673	3,021	2,615	342	Q	652	Q	Q	379	22.2
1920 to 1945	6,710	5,039	3,885	622	531	1,671	360	507	804	18.7
1946 to 1959	9,298	6,662	5,207	1,247	207	2,636	401	497	1,738	15.0
1960 to 1969	10,858	8,084	6,341	1,496	Q	2,774	407	681	1,686	13.3
1970 to 1979	11,333	9,143	6,794	2,195	154	2,190	Q	582	1,450	12.3
1980 to 1989	12,252	10,977	7,731	3,042	Q	1,275	129	330	815	13.2
1990 to 1992	2,590	2,170	1,661	493	Q	420	Q	Q	258	20.1
1993 to 1995	2,059	1,602	1,338	260	Q	457	Q	Q	343	24.4
Floors										
One	24,552	20,615	14,220	5,565	830	3,937	505	482	2,950	11.1
Two	14,122	11,510	9,147	2,114	249	2,612	Q	595	1,884	12.5
Three	7,335	5,354	4,530	709	Q	1,981	246	486	1,249	15.2
Four to Nine	8,789	5,882	4,939	844	Q	2,907	626	1,139	1,142	13.8
Ten or More	3,975	3,336	2,736	465	Q	639	Q	148	Q	22.1
Census Region										
Northeast	11,883	8,946	6,972	1,622	Q	2,937	398	758	1,781	15.4
Midwest	14,322	11,414	9,403	1,644	366	2,909	406	834	1,669	13.9
South	20,830	17,056	12,664	3,841	551	3,774	451	741	2,582	12.1
West	11,736	9,280	6,533	2,590	157	2,456	Q	518	1,442	15.9
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	5,098	4,013	3,362	627	Q	1,084	Q	293	685	22.8
5,500 to 7,000 HDD	14,597	11,271	9,088	1,887	296	3,326	Q	692	2,242	15.5
4,000 to 5,499 HDD	15,155	11,717	8,930	2,297	490	3,439	776	977	1,686	15.6
Fewer than 4,000 HDD	13,491	11,144	7,952	2,929	263	2,347	227	512	1,608	16.7
More than 2,000 CDD and --										
Fewer than 4,000 HDD	10,430	8,551	6,241	1,957	354	1,879	251	376	1,252	18.4

See footnotes at end of table.

Table BC-17. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	2.1	0.8	2.4	1.4	1.2	
Workers (main shift)										
Fewer than 5	13,885	12,588	9,406	1,807	1,375	1,298	Q	237	914	15.1
5 to 9	6,291	5,466	4,739	722	Q	825	Q	164	587	18.2
10 to 19	7,102	5,932	4,545	1,383	Q	1,170	Q	291	774	16.1
20 to 49	9,132	6,735	4,667	2,068	Q	2,397	197	461	1,738	13.0
50 to 99	6,931	4,604	3,145	1,459	Q	2,327	Q	494	1,587	13.4
100 to 249	5,988	4,208	2,945	1,263	Q	1,780	214	588	979	14.1
250 or More	9,443	7,164	6,126	996	Q	2,279	770	615	894	15.1
Weekly Operating Hours										
39 or Fewer	6,134	5,051	3,373	359	1,319	1,084	Q	Q	850	18.4
40 to 48	13,233	10,034	7,677	2,331	Q	3,199	412	512	2,275	13.5
49 to 60	12,242	10,106	7,388	2,695	Q	2,136	373	413	1,349	13.3
61 to 84	10,052	8,116	6,087	2,019	Q	1,937	Q	466	1,388	13.6
85 to 167	6,202	4,925	3,508	1,416	Q	1,277	Q	534	562	16.0
Open Continuously	10,908	8,465	7,539	877	Q	2,443	618	776	1,049	12.9
Space in Building Vacant for at Least Three Consecutive Months										
Yes	15,844	13,779	8,468	3,909	1,402	2,065	373	474	1,219	12.5
No	42,928	32,917	27,105	5,788	Q	10,010	1,379	2,377	6,254	8.2
Number of Establishments										
One	41,057	30,544	26,405	4,139	--	10,513	1,375	2,349	6,789	8.3
2 to 5	7,325	6,443	4,171	2,271	--	882	219	208	456	16.9
6 to 10	2,672	2,521	1,088	1,433	--	Q	Q	Q	Q	20.6
11 to 20	2,228	2,160	996	1,164	--	Q	Q	Q	Q	17.2
More than 20	3,943	3,602	2,913	690	--	Q	Q	Q	Q	20.0
Currently Unoccupied	1,548	1,426	--	--	1,426	Q	Q	Q	Q	27.4
Multibuilding Facility										
Part of Multibuilding Facility	24,352	16,541	12,524	3,510	507	7,811	1,391	2,240	4,179	10.3
Not on Multibuilding Facility	34,420	30,155	23,048	6,187	919	4,265	360	611	3,294	9.5
Predominant Exterior Wall Material										
Masonry	42,958	33,050	24,858	7,128	1,064	9,908	1,312	2,339	6,257	9.1
Siding or Shingles	3,243	2,832	2,480	272	Q	411	Q	Q	250	25.9
Metal Panels	5,694	5,097	4,248	688	Q	597	Q	Q	465	17.4
Concrete Panels	4,069	3,239	2,088	1,077	Q	830	191	288	351	19.5
Window Glass	1,755	1,533	1,229	300	Q	222	Q	Q	Q	25.0
Other	660	602	474	Q	Q	Q	Q	Q	Q	29.7
No One Major Type	393	344	194	Q	Q	Q	Q	Q	Q	68.0
Predominant Roof Material										
Built-Up	24,481	18,795	13,202	4,960	634	5,686	891	1,643	3,151	10.3
Shingles (Not Wood)	11,093	9,866	8,332	1,245	Q	1,227	Q	Q	858	14.0
Metal Surfacing	7,941	6,951	5,392	1,276	282	991	Q	177	732	17.3
Synthetic or Rubber	10,235	7,211	5,771	1,399	Q	3,024	463	610	1,951	12.8
Slate or Tile	1,920	1,416	1,157	241	Q	504	Q	Q	250	24.1
Wooden Materials	1,130	998	752	Q	Q	Q	Q	Q	Q	46.0
Concrete	1,335	1,013	710	200	Q	322	Q	Q	Q	44.4
Other	332	196	Q	Q	Q	Q	Q	Q	Q	47.1
No One Major Type	305	250	Q	Q	Q	Q	Q	Q	Q	58.9

See footnotes at end of table.

Table BC-17. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	2.1	0.8	2.4	1.4	1.2	
Energy Sources (more than one may apply)										
Electricity	57,076	45,225	35,111	9,518	596	11,851	1,674	2,810	7,367	7.6
Natural Gas	38,145	30,256	23,956	6,077	Q	7,889	710	1,698	5,481	7.9
Fuel Oil	14,421	10,617	9,485	1,101	Q	3,805	607	860	2,338	11.6
District Heat	5,658	2,789	2,482	303	Q	2,869	913	1,266	690	19.1
District Chilled Water	2,521	1,200	1,063	Q	Q	1,321	263	575	482	22.2
Propane	5,344	4,239	3,452	760	Q	1,105	Q	Q	911	22.2
Other	2,336	1,620	1,285	335	Q	716	Q	Q	440	30.8
Energy End Uses (more than one may apply)										
Buildings with Space Heating	54,347	42,860	33,402	9,148	311	11,487	1,689	2,785	7,013	8.0
Buildings with Cooling	49,935	39,654	30,717	8,763	Q	10,280	1,609	2,473	6,198	7.6
Buildings with Water Heating	51,560	40,351	31,387	8,690	274	11,209	1,606	2,721	6,882	8.1
Buildings with Cooking	20,713	15,175	12,323	2,776	Q	5,537	589	946	4,002	9.9
Buildings with Manufacturing	3,893	3,205	2,318	859	Q	687	Q	Q	381	23.4
Buildings with Electricity Generation	13,366	9,643	8,675	947	Q	3,723	505	949	2,269	11.2
Percent of Floorspace Heated										
Not Heated	4,425	3,836	2,171	549	1,116	589	Q	Q	460	25.9
1 to 50	6,227	5,732	3,987	1,637	Q	495	Q	Q	250	24.7
51 to 99	8,868	7,220	5,736	1,466	Q	1,648	145	505	998	14.6
100	39,252	29,909	23,678	6,045	Q	9,344	1,468	2,111	5,765	7.9
Percent of Floorspace Cooled										
Not Cooled	8,837	7,042	4,856	934	1,252	1,795	Q	377	1,275	17.4
1 to 50	15,027	11,523	8,547	2,915	Q	3,504	396	687	2,421	12.7
51 to 99	12,549	9,652	8,020	1,632	Q	2,897	626	757	1,514	12.5
100	22,359	18,479	14,149	4,217	Q	3,880	587	1,030	2,263	10.5
Percent Lit when Open										
Zero	189	177	143	Q	Q	Q	Q	Q	Q	58.8
1 to 50	6,008	5,451	4,527	911	Q	557	Q	Q	411	21.1
51 to 99	9,692	7,441	5,838	1,603	Q	2,250	281	543	1,427	13.6
100	40,514	31,529	24,421	6,990	Q	8,985	1,304	2,166	5,516	8.0
Building Not in Use/ Electricity Not Used	2,369	2,098	643	193	1,262	271	Q	Q	Q	31.0
Heating Equipment (more than one may apply)										
Heat Pumps	5,843	4,833	3,857	976	Q	1,011	185	165	660	17.2
Furnaces	14,923	13,389	10,498	2,790	Q	1,534	Q	189	1,220	13.9
Individual Space Heaters	16,809	13,940	11,241	2,632	Q	2,868	320	582	1,966	13.7
District Heat	5,911	2,882	2,534	329	Q	3,029	981	1,308	740	18.8
Boilers	16,754	10,924	9,550	1,299	Q	5,830	493	1,104	4,233	9.9
Packaged Heating Units	16,893	14,417	9,947	4,369	Q	2,476	188	343	1,944	12.1
Other	6,249	5,071	4,247	824	Q	1,178	Q	326	608	20.4
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	9,238	7,832	6,245	1,582	Q	1,406	Q	225	1,038	14.0
Heat Pumps	6,931	5,695	4,462	1,234	Q	1,235	257	196	782	16.6
Individual Air Conditioners	12,494	8,957	7,401	1,532	Q	3,537	288	640	2,609	12.5
District Chilled Water	2,521	1,200	1,063	Q	Q	1,321	263	575	482	22.2
Central Chillers	11,065	7,443	6,508	893	Q	3,622	812	1,029	1,781	13.2
Packaged Air Conditioning Units	26,628	21,889	16,156	5,629	Q	4,740	740	888	3,111	10.1
Swamp Coolers	2,451	2,105	1,538	567	Q	346	Q	Q	245	34.2
Other	949	687	521	166	Q	262	Q	Q	Q	34.7

See footnotes at end of table.

Table BC-17. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	2.1	0.8	2.4	1.4	1.2	
Lighting Equipment Types (more than one may apply)										
Incandescent	35,715	28,409	23,855	4,500	Q	7,306	1,043	1,683	4,580	8.5
Standard Fluorescent	53,984	42,483	33,054	9,318	Q	11,501	1,662	2,737	7,103	7.5
Compact Fluorescent	14,273	10,671	9,214	1,457	Q	3,602	614	1,042	1,947	12.7
High-Intensity Discharge	16,259	11,583	9,777	1,800	Q	4,676	669	966	3,041	11.8
Halogen	9,665	7,937	6,709	1,225	Q	1,728	Q	251	1,216	15.6
Other	554	484	Q	Q	Q	Q	Q	Q	Q	86.9
Personal Computers and/or Computer Terminals										
None	12,571	11,035	8,146	1,510	1,379	1,536	Q	304	1,048	14.8
1 to 4	11,401	10,476	8,544	1,885	Q	925	Q	220	580	15.8
5 to 9	5,372	4,586	3,235	1,350	Q	786	Q	135	573	18.6
10 to 19	5,947	4,995	3,677	1,318	Q	952	Q	246	619	18.0
20 to 49	7,048	4,785	3,322	1,463	Q	2,264	194	482	1,588	15.3
50 to 99	4,938	3,211	2,208	1,003	Q	1,727	Q	508	1,107	16.1
100 to 249	5,189	3,110	2,601	510	Q	2,079	187	558	1,334	16.0
250 or More	6,307	4,499	3,841	659	Q	1,807	785	398	625	16.3
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	20,713	15,175	12,323	2,776	Q	5,537	589	946	4,002	9.9
Computer Room	12,890	9,307	7,647	1,652	Q	3,583	919	638	2,027	11.1
Activities with Large Amounts of Hot Water	6,753	5,234	4,623	611	Q	1,519	Q	361	938	16.1
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	46,355	36,498	28,681	7,379	439	9,856	1,492	2,239	6,126	8.5
Wall Insulation	31,694	26,016	20,899	4,823	293	5,678	956	1,307	3,415	10.0
Storm or Multiple Glazing	28,876	23,322	19,243	3,860	219	5,554	1,030	1,206	3,319	9.4
Tinted, Reflective or Shading Glass	24,245	19,496	15,089	4,271	137	4,749	758	1,248	2,742	9.7
Exterior or Interior Shading or Awnings	37,208	28,878	22,376	6,194	309	8,330	1,433	1,887	5,009	8.7
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	13,473	9,647	8,145	1,453	Q	3,826	800	950	2,076	12.2
Economizer Cycle	16,550	12,014	9,819	2,111	Q	4,536	874	1,237	2,426	11.3
HVAC Maintenance	43,134	32,837	25,719	7,014	Q	10,297	1,554	2,494	6,249	8.2
Other Energy Efficient Equipment	6,453	4,502	3,767	732	Q	1,950	173	389	1,389	14.0
Lighting Conservation Features (more than one may apply)										
Specular Reflectors	17,868	14,003	11,254	2,739	Q	3,865	712	785	2,368	11.5
Energy-Efficient Ballasts	28,375	21,334	17,779	3,521	Q	7,040	1,180	1,944	3,917	8.9
Natural Lighting Control Sensors	6,431	5,099	4,423	676	Q	1,333	199	293	841	16.8
Occupancy Sensors	5,958	4,265	3,873	392	Q	1,692	505	230	957	18.6
Time Clock	13,262	10,779	8,778	1,965	Q	2,484	366	550	1,568	11.7
Manual Dimmer Switches	13,056	10,823	9,440	1,383	Q	2,233	625	443	1,166	12.7
Other	2,836	1,960	1,639	316	Q	876	Q	Q	659	23.9
Energy Conservation Features (more than one may apply)										
Any Conservation Features	55,288	43,720	33,842	9,172	706	11,569	1,689	2,782	7,097	7.7
Building Shell	53,190	42,074	32,739	8,630	706	11,116	1,688	2,577	6,851	7.8
HVAC	44,657	34,095	26,731	7,253	Q	10,562	1,554	2,549	6,459	8.1
Lighting	38,537	29,737	24,062	5,625	Q	8,800	1,433	2,186	5,180	8.0

See footnotes at end of table.

Table BC-17. Occupancy of Nongovernment-Owned and Government-Owned Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	All Buildings	Nongovernment-Owned Buildings				Government-Owned Buildings				RSE Row Factor
		All Nongovernment-Owned Buildings	Owner Occupied	Nonowner Occupied	Unoccupied	All Government-Owned Buildings	Federal	State	Local	
RSE Column Factor:	0.5	0.5	0.6	1.0	2.1	0.8	2.4	1.4	1.2	
Off-Hour Equipment Reduction (more than one may apply)										
Heating	38,326	30,267	22,943	7,235	Q	8,059	801	1,690	5,569	8.7
Cooling	35,605	28,437	21,348	7,017	Q	7,168	770	1,577	4,821	8.6
Lighting	44,937	35,675	27,042	8,557	Q	9,262	1,058	2,002	6,201	8.2

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
-- = Data not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-18. Energy Sources, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Buildings Using Any Energy Source	Energy Sources Used (more than one may apply)							RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	District Chilled Water	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.5	0.6	1.2	1.6	1.9	1.4	2.3	
All Buildings	4,579	4,364	4,343	2,478	607	110	53	589	126	9.0
Building Floorspace (Square Feet)										
1,001 to 5,000	2,399	2,265	2,252	1,112	333	Q	Q	354	82	10.4
5,001 to 10,000	1,035	977	970	614	96	Q	Q	117	Q	15.6
10,001 to 25,000	745	724	724	474	92	25	Q	89	Q	15.5
25,001 to 50,000	213	212	211	146	31	18	7	16	Q	11.2
50,001 to 100,000	115	115	114	82	28	11	5	9	Q	11.4
100,001 to 200,000	48	47	47	33	14	8	5	3	Q	11.9
200,001 to 500,000	19	19	19	13	10	4	2	1	Q	13.0
Over 500,000	6	6	6	4	4	1	1	Q	Q	13.5
Principal Building Activity										
Education	309	309	309	204	37	36	26	35	Q	21.3
Food Sales	137	137	137	58	Q	Q	Q	Q	Q	30.2
Food Service	285	285	285	184	Q	Q	Q	82	Q	19.4
Health Care	105	105	105	51	18	4	2	Q	Q	26.8
Lodging	158	158	158	110	9	11	Q	27	Q	22.3
Mercantile and Service	1,289	1,288	1,274	792	223	Q	Q	170	78	14.7
Office	705	705	705	438	97	20	5	56	Q	16.4
Public Assembly	326	326	326	189	54	9	Q	54	Q	26.0
Public Order and Safety	87	87	87	37	Q	Q	Q	Q	Q	48.8
Religious Worship	269	269	269	159	42	Q	Q	64	Q	24.5
Warehouse and Storage	580	478	477	173	38	Q	Q	29	Q	25.2
Other	67	67	67	21	7	Q	Q	Q	Q	53.8
Vacant	261	150	144	61	23	Q	Q	Q	Q	33.5
Year Constructed										
1919 or Before	353	335	335	256	70	22	Q	Q	Q	25.9
1920 to 1945	562	519	508	353	81	20	Q	61	Q	19.3
1946 to 1959	867	845	838	528	142	13	5	76	Q	13.7
1960 to 1969	718	698	695	403	120	23	10	104	Q	16.4
1970 to 1979	813	809	809	444	60	Q	Q	122	Q	14.7
1980 to 1989	846	792	792	357	98	7	7	142	Q	17.6
1990 to 1992	218	204	204	92	13	Q	Q	29	Q	30.6
1993 to 1995	202	162	162	46	Q	Q	Q	35	Q	39.0
Census Region										
Northeast	725	707	697	316	282	24	3	170	Q	17.0
Midwest	1,139	1,074	1,074	777	96	35	Q	137	Q	18.7
South	1,750	1,657	1,648	805	196	32	24	220	Q	15.6
West	964	925	925	580	33	18	10	62	Q	19.4
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	493	466	466	265	110	3	Q	117	Q	24.5
5,500 to 7,000 HDD	975	943	936	626	149	30	8	140	Q	15.2
4,000 to 5,499 HDD	1,070	1,012	1,006	490	259	44	16	141	Q	26.1
Fewer than 4,000 HDD	1,103	1,052	1,051	674	52	10	6	117	Q	21.7
More than 2,000 CDD and --										
Fewer than 4,000 HDD	937	891	885	423	38	Q	Q	75	Q	23.4
Workers (main shift)										
Fewer than 5	2,505	2,290	2,274	1,155	324	34	Q	312	97	12.2
5 to 9	798	798	797	538	79	15	Q	107	Q	19.1
10 to 19	625	625	625	358	94	Q	Q	103	Q	17.0
20 to 49	400	400	397	261	52	16	8	43	Q	16.7
50 to 99	138	138	137	90	21	17	8	12	Q	15.2
100 to 249	71	71	71	50	19	8	3	4	Q	14.1
250 or More	43	43	43	25	18	9	5	Q	Q	16.1

See footnotes at end of table.

Table BC-18. Energy Sources, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Buildings Using Any Energy Source	Energy Sources Used (more than one may apply)							RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	District Chilled Water	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.5	0.6	1.2	1.6	1.9	1.4	2.3	
Weekly Operating Hours										
39 or Fewer	899	755	746	343	116	Q	Q	121	Q	19.9
40 to 48	1,257	1,255	1,254	718	162	23	Q	157	Q	14.0
49 to 60	969	956	950	596	138	23	11	89	Q	16.8
61 to 84	567	566	566	365	68	12	8	73	Q	18.9
85 to 167	420	407	407	216	44	11	7	75	Q	18.7
Open Continuously	466	424	421	239	80	32	Q	73	Q	17.7
Ownership and Occupancy										
Nongovernment Owned	4,025	3,827	3,810	2,190	509	50	19	510	125	9.9
Owner Occupied	3,158	3,076	3,062	1,750	453	44	14	434	115	10.7
Nonowner Occupied	698	672	669	413	54	Q	Q	75	Q	17.9
Unoccupied	170	79	79	Q	Q	Q	Q	Q	Q	42.0
Government Owned	553	537	533	288	98	60	34	79	Q	16.4
Energy Sources (more than one may apply)										
Electricity	4,343	4,343	4,343	2,476	595	110	53	589	119	9.0
Natural Gas	2,478	2,478	2,476	2,478	155	30	17	105	38	10.5
Fuel Oil	607	607	595	155	607	20	Q	144	Q	18.5
District Heat	110	110	110	30	20	110	47	Q	Q	26.9
District Chilled Water	53	53	53	17	Q	47	53	Q	Q	32.7
Propane	589	589	589	105	144	Q	Q	589	Q	19.7
Other	213	213	206	88	64	Q	Q	36	126	26.7
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,024	4,024	4,004	2,456	607	109	52	579	126	9.2
Buildings with Cooling	3,381	3,381	3,376	2,131	388	95	53	431	34	10.3
Buildings with Water Heating	3,486	3,486	3,472	2,201	504	96	49	477	78	9.9
Buildings with Cooking	828	828	827	549	122	17	10	172	Q	12.6
Buildings with Manufacturing	204	204	204	104	17	Q	Q	31	Q	32.6
Buildings with Electricity Generation	247	247	246	159	138	21	7	69	Q	18.8
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	828	828	827	549	122	17	10	172	Q	12.6
Computer Room	234	234	234	170	51	21	Q	23	Q	21.6
Activities with Large Amounts of Hot Water	243	243	243	153	50	10	2	34	Q	24.3

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-19. Energy Sources, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings Using Any Energy Source	Energy Sources Used (more than one may apply)							RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	District Chilled Water	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.5	0.6	0.9	1.3	1.6	1.6	3.3	
All Buildings	58,772	57,309	57,076	38,145	14,421	5,658	2,521	5,344	699	6.7
Building Floorspace (Square Feet)										
1,001 to 5,000	6,338	6,008	5,953	2,942	946	Q	Q	997	195	10.1
5,001 to 10,000	7,530	7,102	7,061	4,497	679	Q	Q	881	Q	15.7
10,001 to 25,000	11,617	11,310	11,303	7,561	1,425	370	239	1,342	Q	16.1
25,001 to 50,000	7,676	7,641	7,635	5,242	1,164	651	275	562	Q	12.0
50,001 to 100,000	7,968	7,925	7,902	5,608	1,968	744	348	637	Q	11.6
100,001 to 200,000	6,776	6,691	6,599	4,643	2,096	1,119	587	482	Q	12.6
200,001 to 500,000	5,553	5,550	5,550	3,941	2,928	1,211	557	290	Q	13.5
Over 500,000	5,313	5,082	5,074	3,712	3,215	1,351	432	Q	Q	15.0
Principal Building Activity										
Education	7,740	7,740	7,685	5,800	2,348	1,077	653	876	Q	13.7
Food Sales	642	642	642	401	Q	Q	Q	Q	Q	25.2
Food Service	1,353	1,353	1,353	1,001	Q	Q	Q	351	Q	22.4
Health Care	2,333	2,333	2,333	1,759	1,576	640	403	193	Q	13.0
Lodging	3,618	3,618	3,601	2,828	847	616	Q	347	Q	19.3
Mercantile and Service	12,728	12,718	12,630	8,520	2,550	Q	Q	1,512	397	13.6
Office	10,478	10,475	10,466	6,521	3,554	1,532	568	416	Q	11.6
Public Assembly	3,948	3,948	3,929	2,662	1,050	636	372	353	Q	17.1
Public Order and Safety	1,271	1,271	1,271	746	493	327	Q	Q	Q	30.9
Religious Worship	2,792	2,792	2,792	2,001	441	Q	Q	449	Q	20.6
Warehouse and Storage	8,481	8,037	8,016	4,595	810	Q	Q	465	Q	17.4
Other	1,004	1,000	1,000	654	375	170	Q	Q	Q	37.2
Vacant	2,384	1,382	1,358	658	244	Q	Q	Q	Q	26.2
Year Constructed										
1919 or Before	3,673	3,527	3,527	2,643	1,085	556	Q	Q	Q	19.2
1920 to 1945	6,710	6,284	6,175	4,560	1,241	864	187	414	Q	15.8
1946 to 1959	9,298	9,166	9,123	6,470	1,997	939	322	634	Q	14.5
1960 to 1969	10,858	10,665	10,649	7,170	2,871	1,408	527	1,136	Q	11.7
1970 to 1979	11,333	11,267	11,245	7,375	2,936	965	674	1,130	Q	10.5
1980 to 1989	12,252	11,930	11,909	7,181	3,112	508	400	1,256	Q	11.2
1990 to 1992	2,590	2,555	2,544	1,659	607	258	Q	228	Q	18.0
1993 to 1995	2,059	1,917	1,905	1,087	572	Q	Q	398	Q	21.0
Census Region										
Northeast	11,883	11,528	11,444	7,108	5,423	1,768	291	1,689	Q	12.6
Midwest	14,322	13,973	13,887	10,905	2,681	1,902	778	1,093	Q	12.6
South	20,830	20,206	20,158	12,291	4,175	1,038	919	2,012	Q	11.8
West	11,736	11,602	11,587	7,841	2,142	949	533	550	Q	15.5
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	5,098	5,002	4,934	3,399	1,798	267	Q	1,092	Q	18.7
5,500 to 7,000 HDD	14,597	14,402	14,356	10,754	3,724	1,919	624	1,220	Q	13.6
4,000 to 5,499 HDD	15,155	14,623	14,559	9,094	5,250	2,292	632	1,325	Q	14.3
Fewer than 4,000 HDD	13,491	13,285	13,268	9,598	2,343	537	432	978	Q	16.7
More than 2,000 CDD and --										
Fewer than 4,000 HDD	10,430	9,997	9,960	5,300	1,307	643	726	730	Q	18.3
Workers (main shift)										
Fewer than 5	13,885	12,426	12,342	6,581	1,674	423	Q	1,510	291	13.0
5 to 9	6,291	6,291	6,270	4,482	791	303	Q	702	Q	17.3
10 to 19	7,102	7,102	7,102	4,696	872	258	Q	877	Q	14.5
20 to 49	9,132	9,132	9,103	6,627	1,436	617	250	780	Q	12.3
50 to 99	6,931	6,931	6,860	4,762	1,652	713	366	654	Q	12.7
100 to 249	5,988	5,988	5,975	4,286	2,210	886	356	435	Q	13.1
250 or More	9,443	9,440	9,425	6,712	5,787	2,458	1,172	387	Q	11.3

See footnotes at end of table.

Table BC-19. Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings Using Any Energy Source	Energy Sources Used (more than one may apply)							RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	District Chilled Water	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.5	0.6	0.9	1.3	1.6	1.6	3.3	
Weekly Operating Hours										
39 or Fewer	6,134	4,979	4,932	2,657	710	Q	Q	644	Q	16.8
40 to 48	13,233	13,206	13,142	8,541	1,953	762	350	1,279	Q	14.3
49 to 60	12,242	12,191	12,134	8,002	2,790	970	409	931	Q	12.5
61 to 84	10,052	10,037	10,021	7,048	2,785	628	381	944	Q	12.6
85 to 167	6,202	6,175	6,159	3,966	1,502	840	395	627	Q	14.4
Open Continuously	10,908	10,721	10,688	7,931	4,682	2,320	919	919	Q	10.6
Ownership and Occupancy										
Nongovernment Owned	46,696	45,370	45,225	30,256	10,617	2,789	1,200	4,239	641	8.0
Owner Occupied	35,573	35,216	35,111	23,956	9,485	2,482	1,063	3,452	605	8.3
Nonowner Occupied	9,697	9,558	9,518	6,077	1,101	303	Q	760	Q	16.3
Unoccupied	1,426	596	596	Q	Q	Q	Q	Q	Q	39.6
Government Owned	12,076	11,940	11,851	7,889	3,805	2,869	1,321	1,105	Q	10.1
Energy Sources (more than one may apply)										
Electricity	57,076	57,076	57,076	38,009	14,345	5,646	2,517	5,340	605	6.8
Natural Gas	38,145	38,145	38,009	38,145	9,262	2,343	1,287	1,565	259	7.9
Fuel Oil	14,421	14,421	14,345	9,262	14,421	2,174	1,076	1,675	Q	9.8
District Heat	5,658	5,658	5,646	2,343	2,174	5,658	2,140	Q	Q	12.8
District Chilled Water	2,521	2,521	2,517	1,287	1,076	2,140	2,521	Q	Q	15.3
Propane	5,344	5,344	5,340	1,565	1,675	Q	Q	5,344	Q	17.8
Other	2,336	2,336	2,232	1,485	797	303	Q	210	699	21.0
Energy End Uses (more than one may apply)										
Buildings with Space Heating	54,347	54,344	54,110	37,950	14,236	5,642	2,479	5,281	699	6.9
Buildings with Cooling	49,935	49,931	49,785	35,100	12,904	5,128	2,521	4,520	370	7.2
Buildings with Water Heating	51,560	51,556	51,363	36,284	13,959	5,424	2,442	4,934	521	7.1
Buildings with Cooking	20,713	20,713	20,611	15,968	8,018	2,031	982	2,322	Q	8.4
Buildings with Manufacturing	3,893	3,893	3,885	2,542	718	Q	Q	521	Q	18.1
Buildings with Electricity Generation	13,366	13,366	13,347	10,331	9,576	2,434	1,171	1,466	Q	9.6
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	20,713	20,713	20,611	15,968	8,018	2,031	982	2,322	Q	8.4
Computer Room	12,890	12,887	12,821	9,426	5,978	2,507	1,226	796	Q	9.8
Activities with Large Amounts of Hot Water	6,753	6,753	6,750	5,202	2,945	898	344	629	Q	13.5

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-20. Energy End Uses, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
		Energy Used For: (more than one may apply)						Energy Used For: (more than one may apply)					
	All Buildings	Space Heating	Cooling	Water Heating	Cooking	Manufacturing	All Buildings	Space Heating	Cooling	Water Heating	Cooking	Manufacturing	
RSE Column Factor:	0.9	0.9	0.9	0.9	1.3	2.9	0.7	0.7	0.7	0.7	0.9	2.2	
All Buildings	4,579	4,024	3,381	3,486	828	204	58,772	54,347	49,935	51,560	20,713	3,893	4.8
Building Floorspace (Square Feet)													
1,001 to 5,000	2,399	2,060	1,650	1,689	339	69	6,338	5,506	4,376	4,617	922	207	7.7
5,001 to 10,000	1,035	899	754	780	175	51	7,530	6,546	5,531	5,652	1,319	357	11.3
10,001 to 25,000	745	685	619	644	169	55	11,617	10,706	9,712	10,053	2,731	883	9.8
25,001 to 50,000	213	198	187	195	66	15	7,676	7,157	6,760	7,060	2,433	563	7.8
50,001 to 100,000	115	111	103	110	42	8	7,968	7,699	7,178	7,611	2,939	560	7.9
100,001 to 200,000	48	46	44	45	22	5	6,776	6,456	6,175	6,269	3,028	672	8.9
200,001 to 500,000	19	18	18	18	12	Q	5,553	5,371	5,235	5,303	3,482	Q	9.3
Over 500,000	6	6	6	6	4	1	5,313	4,906	4,968	4,995	3,859	480	11.4
Principal Building Activity													
Education	309	309	249	258	113	Q	7,740	7,740	6,741	7,515	4,881	418	11.4
Food Sales	137	124	128	125	51	Q	642	609	612	599	351	Q	17.0
Food Service	285	274	272	279	241	Q	1,353	1,299	1,310	1,342	1,254	Q	14.2
Health Care	105	105	105	105	18	Q	2,333	2,333	2,323	2,327	1,631	Q	17.0
Lodging	158	158	126	158	51	Q	3,618	3,608	3,193	3,609	2,064	Q	14.0
Mercantile and Service	1,289	1,217	916	916	135	69	12,728	12,227	11,086	10,925	4,362	1,067	9.9
Office	705	704	690	678	19	10	10,478	10,458	10,360	10,278	2,750	457	8.4
Public Assembly	326	310	246	276	109	Q	3,948	3,836	3,394	3,632	1,610	Q	15.0
Public Order and Safety	87	81	38	69	4	Q	1,271	1,154	856	1,018	260	Q	27.7
Religious Worship	269	269	223	248	72	Q	2,792	2,791	2,414	2,685	957	Q	15.5
Warehouse and Storage	580	325	262	251	Q	41	8,481	6,419	5,991	5,845	311	1,047	16.3
Other	67	53	53	43	Q	30	1,004	907	921	893	Q	475	28.4
Vacant	261	95	73	81	Q	Q	2,384	966	732	892	Q	Q	21.3
Year Constructed													
1919 or Before	353	316	260	287	77	Q	3,673	3,429	2,818	3,206	1,272	Q	15.6
1920 to 1945	562	496	382	429	100	32	6,710	5,951	5,038	5,349	1,555	622	12.8
1946 to 1959	867	769	617	656	129	31	9,298	8,701	7,549	8,136	3,177	502	10.7
1960 to 1969	718	652	508	562	147	35	10,858	10,024	8,978	9,722	4,207	524	9.7
1970 to 1979	813	722	688	632	142	36	11,333	10,489	10,389	10,117	4,344	649	8.8
1980 to 1989	846	741	657	667	168	36	12,252	11,462	11,174	11,105	4,301	998	9.3
1990 to 1992	218	189	161	145	42	Q	2,590	2,467	2,345	2,263	1,082	Q	15.7
1993 to 1995	202	141	108	108	23	Q	2,059	1,824	1,644	1,661	774	Q	21.6
Census Region													
Northeast	725	657	451	602	141	30	11,883	11,180	9,523	10,778	4,634	683	11.6
Midwest	1,139	1,006	811	849	176	49	14,322	13,511	12,033	12,517	4,785	1,057	10.1
South	1,750	1,547	1,433	1,250	310	68	20,830	18,900	18,606	17,511	7,173	1,456	7.4
West	964	815	687	785	202	58	11,736	10,756	9,772	10,754	4,121	697	11.6
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and -- More than 7,000 HDD	493	443	321	384	96	28	5,098	4,901	4,115	4,499	1,511	476	17.2
5,500 to 7,000 HDD	975	877	656	771	157	27	14,597	13,937	11,903	13,291	5,610	701	9.6
4,000 to 5,499 HDD	1,070	927	714	822	203	53	15,155	14,147	12,620	13,546	5,758	1,024	13.8
Fewer than 4,000 HDD	1,103	955	887	864	208	45	13,491	12,350	11,981	11,982	4,570	807	13.6
More than 2,000 CDD and -- Fewer than 4,000 HDD	937	822	803	645	164	51	10,430	9,014	9,315	8,241	3,263	884	12.3
Workers (main shift)													
Fewer than 5	2,505	2,013	1,542	1,587	283	100	13,885	10,663	8,324	8,772	1,609	608	9.1
5 to 9	798	770	691	705	150	27	6,291	6,086	5,260	5,610	1,272	288	12.2
10 to 19	625	608	549	580	163	21	7,102	6,905	6,449	6,566	1,686	457	10.0
20 to 49	400	390	361	377	135	41	9,132	8,899	8,302	8,763	3,515	884	9.0
50 to 99	138	131	129	127	52	8	6,931	6,642	6,379	6,622	3,362	528	9.3
100 to 249	71	69	69	69	24	5	5,988	5,880	5,872	5,903	2,825	515	9.8
250 or More	43	43	41	42	20	2	9,443	9,272	9,349	9,324	6,444	612	12.0

See footnotes at end of table.

Table BC-20. Energy End Uses, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
	All Buildings	Energy Used For: (more than one may apply)					All Buildings	Energy Used For: (more than one may apply)					
		Space Heating	Cooling	Water Heating	Cooking	Manufacturing		Space Heating	Cooling	Water Heating	Cooking	Manufacturing	
RSE Column Factor:	0.9	0.9	0.9	0.9	1.3	2.9	0.7	0.7	0.7	0.7	0.9	2.2	
Weekly Operating Hours													
39 or Fewer	899	620	399	466	92	Q	6,134	4,032	2,845	3,290	872	Q	13.2
40 to 48	1,257	1,207	1,047	1,035	144	97	13,233	12,672	11,401	11,585	2,806	1,237	8.7
49 to 60	969	907	795	742	104	49	12,242	11,658	10,897	10,765	3,379	922	9.6
61 to 84	567	541	446	494	180	21	10,052	9,635	9,212	9,535	5,017	592	10.3
85 to 167	420	366	344	375	212	9	6,202	5,880	5,644	5,928	3,064	301	10.4
Open Continuously	466	385	350	375	96	8	10,908	10,469	9,936	10,457	5,575	671	10.0
Energy Sources (more than one may apply)													
Electricity	4,343	4,004	3,376	3,472	827	204	57,076	54,110	49,785	51,363	20,611	3,885	4.8
Natural Gas	2,478	2,456	2,131	2,201	549	104	38,145	37,950	35,100	36,284	15,968	2,542	5.6
Fuel Oil	607	607	388	504	122	17	14,421	14,236	12,904	13,959	8,018	718	11.2
District Heat	110	109	95	96	17	Q	5,658	5,642	5,128	5,424	2,031	Q	16.8
District Chilled Water	53	52	53	49	10	Q	2,521	2,479	2,521	2,442	982	Q	21.3
Propane	589	579	431	477	172	31	5,344	5,281	4,520	4,934	2,322	521	15.5
Other	213	210	107	158	30	Q	2,336	2,312	1,943	2,024	945	Q	20.8
Energy End Uses (more than one may apply)													
Buildings with Space Heating	4,024	4,024	3,326	3,418	804	181	54,347	54,347	49,090	50,796	20,338	3,689	4.9
Buildings with Cooling	3,381	3,326	3,381	2,968	724	165	49,935	49,090	49,935	47,249	19,465	3,587	4.8
Buildings with Water Heating	3,486	3,418	2,968	3,486	816	169	51,560	50,796	47,249	51,560	20,632	3,666	4.9
Buildings with Cooking	828	804	724	816	828	27	20,713	20,338	19,465	20,632	20,713	1,004	6.4
Buildings with Manufacturing	204	181	165	169	27	204	3,893	3,689	3,587	3,666	1,004	3,893	14.4
Buildings with Electricity Generation	247	246	206	238	65	8	13,366	13,165	12,986	13,239	8,345	594	9.9
Energy-Related Space Functions (more than one may apply)													
Commercial Food Preparation	828	804	724	816	828	27	20,713	20,338	19,465	20,632	20,713	1,004	6.4
Computer Room	234	231	234	230	55	25	12,890	12,731	12,890	12,726	6,634	1,130	9.4
Activities with Large Amounts of Hot Water	243	233	200	243	84	3	6,753	6,658	6,354	6,753	4,632	255	12.5

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-21. Space-Heating Energy Sources, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.8	0.6	1.4	1.4	1.7	2.4	
All Buildings	4,579	4,024	1,467	2,211	504	109	301	103	9.1
Building Floorspace									
(Square Feet)									
1,001 to 5,000	2,399	2,060	687	1,019	312	Q	205	Q	10.7
5,001 to 10,000	1,035	899	330	559	81	Q	53	Q	16.4
10,001 to 25,000	745	685	296	398	73	25	33	Q	16.7
25,001 to 50,000	213	198	82	125	17	17	6	Q	12.2
50,001 to 100,000	115	111	45	69	12	11	3	Q	12.0
100,001 to 200,000	48	46	16	28	6	8	Q	Q	12.4
200,001 to 500,000	19	18	8	10	3	4	Q	Q	13.6
Over 500,000	6	6	3	3	1	1	Q	Q	15.7
Principal Building Activity									
Education	309	309	96	180	26	36	11	Q	22.2
Food Sales	137	124	63	44	Q	Q	Q	Q	29.0
Food Service	285	274	115	140	Q	Q	Q	Q	22.4
Health Care	105	105	53	42	11	4	Q	Q	33.5
Lodging	158	158	93	66	Q	11	Q	Q	23.0
Mercantile and Service	1,289	1,217	355	732	210	Q	69	63	15.2
Office	705	704	285	412	72	20	Q	Q	17.2
Public Assembly	326	310	85	185	46	9	Q	Q	27.7
Public Order and Safety	87	81	21	29	Q	Q	Q	Q	50.8
Religious Worship	269	269	96	145	41	Q	Q	Q	25.2
Warehouse and Storage	580	325	136	168	29	Q	25	Q	28.5
Other	67	53	36	14	Q	Q	Q	Q	62.2
Vacant	261	95	34	54	16	Q	Q	Q	31.7
Year Constructed									
1919 or Before	353	316	53	230	62	22	Q	Q	28.0
1920 to 1945	562	496	112	335	70	20	Q	Q	21.0
1946 to 1959	867	769	244	473	133	13	29	Q	15.1
1960 to 1969	718	652	219	347	91	23	49	Q	17.1
1970 to 1979	813	722	296	395	45	Q	53	Q	15.8
1980 to 1989	846	741	385	306	73	7	100	Q	17.2
1990 to 1992	218	189	99	81	Q	Q	Q	Q	29.1
1993 to 1995	202	141	60	43	Q	Q	Q	Q	41.2
Census Region									
Northeast	725	657	150	250	267	24	60	Q	19.4
Midwest	1,139	1,006	220	747	67	35	84	Q	19.3
South	1,750	1,547	730	694	160	32	143	Q	15.1
West	964	815	367	521	Q	18	Q	Q	18.9
Climate Zone: 45-Year Average									
Fewer than 2,000 CDD and --									
More than 7,000 HDD	493	443	131	248	89	3	62	Q	23.5
5,500 to 7,000 HDD	975	877	172	601	131	30	55	Q	16.4
4,000 to 5,499 HDD	1,070	927	302	417	229	44	81	Q	25.7
Fewer than 4,000 HDD	1,103	955	427	594	29	10	68	Q	23.9
More than 2,000 CDD and --									
Fewer than 4,000 HDD	937	822	435	351	26	Q	Q	Q	24.1
Workers (main shift)									
Fewer than 5	2,505	2,013	621	1,046	305	34	192	76	13.1
5 to 9	798	770	270	494	62	15	43	Q	20.0
10 to 19	625	608	269	324	91	Q	37	Q	18.0
20 to 49	400	390	199	207	25	16	19	Q	16.9
50 to 99	138	131	54	78	10	17	Q	Q	16.2
100 to 249	71	69	33	41	7	8	Q	Q	14.7
250 or More	43	43	21	20	5	9	Q	Q	20.7

See footnotes at end of table.

Table BC-21. Space-Heating Energy Sources, Number of Buildings, 1995 (Continued)
(Thousand)

Building Characteristics	All Buildings	All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.8	0.6	1.4	1.4	1.7	2.4	
Weekly Operating Hours									
39 or Fewer	899	620	168	312	109	Q	84	Q	19.7
40 to 48	1,257	1,207	483	683	129	23	70	Q	15.3
49 to 60	969	907	324	525	124	23	44	Q	16.7
61 to 84	567	541	203	328	53	12	18	Q	19.5
85 to 167	420	366	122	188	32	11	51	Q	20.4
Open Continuously	466	385	168	175	58	32	34	Q	19.6
Predominant Exterior Wall Material									
Masonry	3,061	2,774	974	1,635	302	93	170	Q	10.2
Siding or Shingles	639	572	222	224	118	Q	76	Q	22.2
Metal Panels	662	480	190	253	66	Q	49	Q	20.7
Concrete Panels	106	98	49	48	Q	5	Q	Q	30.3
Window Glass	46	46	12	33	Q	2	Q	Q	48.9
Other	50	40	19	Q	Q	Q	Q	Q	56.9
No One Major Type	15	14	Q	Q	Q	Q	Q	Q	94.6
Predominant Roof Material									
Built-Up	1,369	1,257	444	803	89	61	36	Q	15.9
Shingles (Not Wood)	1,486	1,386	453	646	247	20	172	Q	14.9
Metal Surfacing	908	672	279	342	92	Q	61	Q	17.0
Synthetic or Rubber	351	334	122	194	43	16	16	Q	20.9
Slate or Tile	202	173	86	98	23	9	Q	Q	29.3
Wooden Materials	152	123	47	76	Q	Q	Q	Q	44.5
Concrete	58	40	28	Q	Q	Q	Q	Q	56.5
Other	36	23	Q	Q	Q	Q	Q	Q	85.1
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)									
Electricity	4,343	4,004	1,467	2,209	492	109	301	96	9.1
Natural Gas	2,478	2,456	559	2,211	81	29	Q	Q	10.2
Fuel Oil	607	607	172	96	504	20	23	Q	22.1
District Heat	110	109	9	7	Q	109	Q	Q	27.0
District Chilled Water	53	52	5	6	Q	46	Q	Q	40.8
Propane	589	579	191	91	133	Q	301	Q	20.2
Other	213	210	47	57	60	Q	Q	103	27.0
Primary Space-Heating Energy Source									
Electricity	1,007	1,007	1,007	82	Q	Q	Q	Q	18.6
Natural Gas	2,106	2,106	302	2,106	21	Q	Q	Q	11.9
Fuel Oil	439	439	91	9	439	Q	Q	Q	28.6
District Heat	107	107	9	5	Q	107	Q	Q	28.2
Propane	260	260	50	Q	Q	Q	260	Q	27.5
Other	61	61	Q	Q	Q	Q	Q	Q	58.6
Cooling Energy Sources (more than one may apply)									
Electricity	3,293	3,238	1,306	1,884	288	66	216	Q	9.6
Natural Gas	65	65	15	64	1	Q	Q	Q	43.2
District Chilled Water	53	52	5	6	Q	46	Q	Q	40.8
Water-Heating Energy Sources (more than one may apply)									
Electricity	1,684	1,643	878	604	219	26	149	Q	14.1
Natural Gas	1,577	1,555	366	1,386	57	19	Q	Q	14.3
Fuel Oil	120	120	31	4	117	Q	Q	Q	38.8
District Heat	54	53	5	2	Q	53	Q	Q	30.2
Propane	110	103	41	Q	Q	Q	62	Q	36.7

See footnotes at end of table.

Table BC-21. Space-Heating Energy Sources, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.8	0.6	1.4	1.4	1.7	2.4	
Cooking Energy Sources (more than one may apply)									
Electricity	487	473	232	217	59	6	50	Q	18.6
Natural Gas	448	438	121	350	26	10	Q	Q	18.5
Propane	123	117	62	Q	30	Q	62	Q	29.7
Energy End Uses (more than one may apply)									
Buildings with Space Heating	4,024	4,024	1,467	2,211	504	109	301	103	9.1
Buildings with Cooling	3,381	3,326	1,319	1,932	299	95	222	Q	9.6
Buildings with Water Heating	3,486	3,418	1,278	1,936	408	95	220	70	10.0
Buildings with Cooking	828	804	314	436	92	17	74	Q	13.8
Buildings with Manufacturing	204	181	96	79	Q	Q	Q	Q	33.2
Buildings with Electricity Generation	247	246	86	127	69	21	Q	Q	23.3
Percent of Floorspace Heated									
Not Heated	554	--	--	--	--	--	--	--	20.9
1 to 50	555	555	234	249	84	Q	30	Q	21.0
51 to 99	633	633	242	394	81	7	26	Q	18.7
100	2,836	2,836	991	1,567	340	101	245	51	10.2
Heating Equipment (more than one may apply)									
Heat Pumps	394	394	391	56	36	2	Q	Q	20.4
Furnaces	1,676	1,676	395	1,180	214	Q	168	Q	12.6
Individual Space Heaters	1,188	1,188	603	670	146	9	114	Q	14.4
District Heat	115	115	10	7	Q	109	Q	Q	26.4
Boilers	610	610	138	381	212	Q	27	Q	17.3
Packaged Heating Units	1,031	1,031	465	631	27	4	58	Q	17.1
Other	161	161	94	54	37	3	Q	Q	30.6

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-22. Space-Heating Energy Sources, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.7	0.6	1.3	1.1	1.9	3.4	
All Buildings	58,772	54,347	22,156	31,535	6,606	5,606	2,025	509	7.9
Building Floorspace (Square Feet)									
1,001 to 5,000	6,338	5,506	1,850	2,689	894	Q	537	Q	11.0
5,001 to 10,000	7,530	6,546	2,419	4,069	587	Q	415	Q	17.0
10,001 to 25,000	11,617	10,706	4,544	6,359	1,061	370	504	Q	16.5
25,001 to 50,000	7,676	7,157	2,925	4,460	614	635	202	Q	13.1
50,001 to 100,000	7,968	7,699	3,148	4,744	802	744	214	Q	12.3
100,001 to 200,000	6,776	6,456	2,349	3,883	808	1,083	Q	Q	13.7
200,001 to 500,000	5,553	5,371	2,414	2,968	1,008	1,211	Q	Q	15.0
Over 500,000	5,313	4,906	2,506	2,363	832	1,351	Q	Q	17.4
Principal Building Activity									
Education	7,740	7,740	2,106	4,650	1,612	1,077	169	Q	14.5
Food Sales	642	609	260	330	Q	Q	Q	Q	26.7
Food Service	1,353	1,299	482	765	Q	Q	Q	Q	27.2
Health Care	2,333	2,333	926	1,252	553	605	Q	Q	15.9
Lodging	3,618	3,608	2,054	1,791	Q	616	Q	Q	20.1
Mercantile and Service	12,728	12,227	5,636	7,064	1,383	Q	463	333	14.7
Office	10,478	10,458	5,049	5,386	970	1,532	Q	Q	12.7
Public Assembly	3,948	3,836	1,171	2,396	371	636	Q	Q	19.8
Public Order and Safety	1,271	1,154	244	620	304	327	Q	Q	33.1
Religious Worship	2,792	2,791	1,034	1,727	406	Q	Q	Q	21.8
Warehouse and Storage	8,481	6,419	2,586	4,421	474	Q	241	Q	19.7
Other	1,004	907	289	529	Q	170	Q	Q	40.0
Vacant	2,384	966	320	606	162	Q	Q	Q	30.0
Year Constructed									
1919 or Before	3,673	3,429	726	2,118	851	556	Q	Q	22.1
1920 to 1945	6,710	5,951	1,656	3,958	793	864	Q	Q	17.5
1946 to 1959	9,298	8,701	2,881	5,493	1,222	936	153	Q	15.3
1960 to 1969	10,858	10,024	3,392	5,953	1,558	1,386	402	Q	13.3
1970 to 1979	11,333	10,489	4,886	5,995	1,050	965	390	Q	11.6
1980 to 1989	12,252	11,462	6,457	5,766	806	492	641	Q	13.6
1990 to 1992	2,590	2,467	1,399	1,329	Q	258	Q	Q	19.9
1993 to 1995	2,059	1,824	759	923	Q	Q	Q	Q	23.9
Census Region									
Northeast	11,883	11,180	3,081	5,043	3,856	1,765	540	Q	14.6
Midwest	14,322	13,511	4,058	9,826	1,018	1,902	401	Q	13.5
South	20,830	18,900	9,971	9,805	1,540	1,006	959	Q	13.6
West	11,736	10,756	5,046	6,861	192	933	124	Q	20.2
Climate Zone: 45-Year Average									
Fewer than 2,000 CDD and --									
More than 7,000 HDD	5,098	4,901	1,471	3,219	1,288	267	393	Q	19.9
5,500 to 7,000 HDD	14,597	13,937	3,970	9,602	1,610	1,919	385	Q	15.6
4,000 to 5,499 HDD	15,155	14,147	5,350	6,812	3,148	2,267	550	Q	15.6
Fewer than 4,000 HDD	13,491	12,350	5,836	8,152	375	537	Q	Q	20.0
More than 2,000 CDD and --									
Fewer than 4,000 HDD	10,430	9,014	5,528	3,750	185	617	Q	Q	19.6
Workers (main shift)									
Fewer than 5	13,885	10,663	3,502	5,816	1,512	407	803	217	13.8
5 to 9	6,291	6,086	2,251	3,886	520	303	309	Q	18.7
10 to 19	7,102	6,905	2,862	4,163	750	258	268	Q	16.3
20 to 49	9,132	8,899	3,643	5,507	742	617	222	Q	13.1
50 to 99	6,931	6,642	2,533	4,086	662	704	Q	Q	13.8
100 to 249	5,988	5,880	2,861	3,361	910	864	Q	Q	14.2
250 or More	9,443	9,272	4,504	4,716	1,509	2,454	Q	Q	12.5

See footnotes at end of table.

Table BC-22. Space-Heating Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.7	0.6	1.3	1.1	1.9	3.4	
Weekly Operating Hours									
39 or Fewer	6,134	4,032	1,102	2,344	607	Q	442	Q	17.8
40 to 48	13,233	12,672	5,214	7,678	1,122	762	490	Q	15.1
49 to 60	12,242	11,658	4,550	6,729	1,465	970	357	Q	13.7
61 to 84	10,052	9,635	4,929	5,662	933	628	182	Q	13.6
85 to 167	6,202	5,880	1,904	3,418	651	840	245	Q	15.9
Open Continuously	10,908	10,469	4,457	5,705	1,827	2,285	309	Q	11.5
Predominant Exterior Wall Material									
Masonry	42,958	40,217	16,089	23,584	4,887	4,365	1,344	Q	8.7
Siding or Shingles	3,243	2,919	1,167	1,307	642	Q	284	Q	26.1
Metal Panels	5,694	4,559	1,830	2,958	622	Q	269	Q	17.2
Concrete Panels	4,069	3,932	1,939	2,308	189	550	Q	Q	18.5
Window Glass	1,755	1,754	700	923	Q	335	Q	Q	22.5
Other	660	603	322	261	Q	Q	Q	Q	30.3
No One Major Type	393	363	Q	Q	Q	Q	Q	Q	65.9
Predominant Roof Material									
Built-Up	24,481	23,087	9,351	13,589	2,442	2,956	333	Q	11.2
Shingles (Not Wood)	11,093	10,450	3,873	5,482	1,557	543	848	Q	13.8
Metal Surfacing	7,941	6,463	2,885	3,847	636	Q	448	Q	14.9
Synthetic or Rubber	10,235	10,099	4,075	6,233	1,592	1,434	315	Q	12.5
Slate or Tile	1,920	1,765	736	888	258	322	Q	Q	22.7
Wooden Materials	1,130	985	344	662	Q	Q	Q	Q	44.2
Concrete	1,335	903	641	491	Q	Q	Q	Q	36.7
Other	332	290	Q	Q	Q	Q	Q	Q	46.8
No One Major Type	305	305	Q	Q	Q	Q	Q	Q	55.8
Energy Sources (more than one may apply)									
Electricity	57,076	54,110	22,156	31,411	6,550	5,595	2,021	472	8.0
Natural Gas	38,145	37,950	12,499	31,535	3,320	2,308	257	Q	9.3
Fuel Oil	14,421	14,236	5,396	6,421	6,606	2,148	327	Q	11.9
District Heat	5,658	5,642	1,049	627	466	5,606	Q	Q	18.5
District Chilled Water	2,521	2,479	621	377	Q	2,110	Q	Q	22.2
Propane	5,344	5,281	2,027	1,417	1,323	Q	2,025	Q	18.9
Other	2,336	2,312	575	1,020	513	303	Q	509	23.5
Primary Space-Heating Energy Source									
Electricity	13,500	13,500	13,500	2,044	267	Q	Q	Q	15.3
Natural Gas	28,808	28,808	6,526	28,808	1,613	Q	214	Q	10.0
Fuel Oil	4,207	4,207	764	238	4,207	Q	Q	Q	24.7
District Heat	5,289	5,289	852	382	319	5,289	Q	Q	19.7
Propane	1,545	1,545	373	Q	Q	Q	1,545	Q	30.6
Other	514	514	Q	Q	Q	Q	Q	Q	48.9
Cooling Energy Sources (more than one may apply)									
Electricity	47,761	46,934	20,699	28,273	5,111	3,821	1,620	Q	8.1
Natural Gas	1,314	1,312	435	1,176	254	Q	Q	Q	29.8
District Chilled Water	2,521	2,479	621	377	Q	2,110	Q	Q	22.2
Water-Heating Energy Sources (more than one may apply)									
Electricity	23,056	22,445	13,334	10,129	2,303	1,182	1,189	Q	12.8
Natural Gas	24,859	24,684	7,931	21,367	2,159	729	Q	Q	10.2
Fuel Oil	2,151	2,150	409	332	2,035	Q	Q	Q	28.1
District Heat	3,949	3,933	648	348	Q	3,901	Q	Q	22.2
Propane	1,020	982	520	Q	Q	Q	479	Q	27.7

See footnotes at end of table.

Table BC-22. Space-Heating Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Space-Heating Energy Sources Used (more than one may apply)						RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	Wood	
RSE Column Factor:	0.5	0.5	0.7	0.6	1.3	1.1	1.9	3.4	
Cooking Energy Sources (more than one may apply)									
Electricity	12,249	11,951	6,397	6,512	1,738	1,254	413	Q	13.5
Natural Gas	13,195	13,080	5,244	9,395	1,856	1,254	Q	Q	11.1
Propane	1,480	1,451	682	Q	606	Q	475	Q	28.8
Energy End Uses (more than one may apply)									
Buildings with Space Heating	54,347	54,347	22,156	31,535	6,606	5,606	2,025	509	8.0
Buildings with Cooling	49,935	49,090	21,131	29,106	5,285	5,076	1,642	Q	8.1
Buildings with Water Heating	51,560	50,796	20,872	29,727	6,227	5,373	1,781	380	8.4
Buildings with Cooking	20,713	20,338	9,189	11,803	3,145	2,005	664	Q	9.8
Buildings with Manufacturing	3,893	3,689	1,718	2,009	401	Q	Q	Q	20.1
Buildings with Electricity Generation	13,366	13,165	5,565	7,433	2,718	2,412	362	Q	11.2
Percent of Floorspace Heated									
Not Heated	4,425	--	--	--	--	--	--	--	25.5
1 to 50	6,227	6,227	3,108	3,282	479	Q	247	Q	20.9
51 to 99	8,868	8,868	4,183	5,079	1,309	748	173	Q	15.8
100	39,252	39,252	14,864	23,175	4,817	4,793	1,606	228	8.8
Heating Equipment (more than one may apply)									
Heat Pumps	5,843	5,843	5,815	1,948	531	252	Q	Q	15.0
Furnaces	14,923	14,923	4,839	11,369	1,633	Q	964	Q	11.5
Individual Space Heaters	16,809	16,809	9,535	11,128	1,653	1,046	742	Q	12.9
District Heat	5,911	5,911	1,087	640	468	5,606	Q	Q	18.6
Boilers	16,754	16,754	4,855	12,801	4,629	Q	415	Q	10.1
Packaged Heating Units	16,893	16,893	8,898	11,200	827	378	515	Q	12.0
Other	6,249	6,249	4,152	2,824	1,074	873	Q	Q	18.5

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-23. Primary Space-Heating Energy Sources, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Buildings with Space Heating	Primary Space-Heating Energy Source Used					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	1.0	0.7	1.6	1.6	1.9	
All Buildings	4,579	4,024	1,007	2,106	439	107	260	8.3
Building Floorspace (Square Feet)								
1,001 to 5,000	2,399	2,060	522	982	285	Q	181	9.9
5,001 to 10,000	1,035	899	199	546	69	Q	42	15.6
10,001 to 25,000	745	685	193	367	59	25	31	15.3
25,001 to 50,000	213	198	49	113	14	16	4	11.3
50,001 to 100,000	115	111	28	61	8	10	Q	11.0
100,001 to 200,000	48	46	10	25	3	8	Q	12.5
200,001 to 500,000	19	18	4	9	Q	4	Q	12.8
Over 500,000	6	6	2	2	Q	1	Q	16.1
Principal Building Activity								
Education	309	309	67	173	22	35	Q	20.6
Food Sales	137	124	58	43	Q	Q	Q	26.1
Food Service	285	274	85	134	Q	Q	Q	20.5
Health Care	105	105	50	40	Q	4	Q	30.4
Lodging	158	158	77	59	Q	11	Q	21.1
Mercantile and Service	1,289	1,217	227	704	169	Q	61	14.3
Office	705	704	204	391	60	20	Q	16.1
Public Assembly	326	310	51	176	Q	9	Q	25.9
Public Order and Safety	87	81	Q	28	Q	Q	Q	46.5
Religious Worship	269	269	35	137	40	Q	Q	24.5
Warehouse and Storage	580	325	91	161	Q	Q	Q	25.0
Other	67	53	Q	13	Q	Q	Q	60.7
Vacant	261	95	Q	48	Q	Q	Q	33.2
Year Constructed								
1919 or Before	353	316	15	223	45	22	Q	26.0
1920 to 1945	562	496	54	324	68	20	Q	20.7
1946 to 1959	867	769	134	456	124	12	Q	13.2
1960 to 1969	718	652	146	334	81	23	48	15.9
1970 to 1979	813	722	241	378	24	Q	43	15.3
1980 to 1989	846	741	297	270	70	7	90	15.5
1990 to 1992	218	189	72	79	Q	Q	Q	26.6
1993 to 1995	202	141	48	42	Q	Q	Q	37.2
Census Region								
Northeast	725	657	57	236	247	24	52	17.3
Midwest	1,139	1,006	101	736	Q	35	73	18.0
South	1,750	1,547	574	648	141	31	122	14.4
West	964	815	275	487	Q	18	Q	17.2
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and --								
More than 7,000 HDD	493	443	Q	242	85	3	57	20.1
5,500 to 7,000 HDD	975	877	73	587	109	29	51	15.4
4,000 to 5,499 HDD	1,070	927	206	400	193	43	62	24.3
Fewer than 4,000 HDD	1,103	955	310	550	Q	10	Q	19.9
More than 2,000 CDD and --								
Fewer than 4,000 HDD	937	822	386	327	Q	Q	Q	20.4
Workers (main shift)								
Fewer than 5	2,505	2,013	459	994	276	34	174	12.5
5 to 9	798	770	168	482	54	15	Q	18.6
10 to 19	625	608	173	317	73	Q	Q	16.8
20 to 49	400	390	145	189	22	16	Q	14.4
50 to 99	138	131	33	70	8	16	Q	14.5
100 to 249	71	69	20	36	4	8	Q	14.4
250 or More	43	43	9	18	1	9	Q	18.0

See footnotes at end of table.

Table BC-23. Primary Space-Heating Energy Sources, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Buildings with Space Heating	Primary Space-Heating Energy Source Used					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	1.0	0.7	1.6	1.6	1.9	
Weekly Operating Hours								
39 or Fewer	899	620	114	287	102	Q	83	18.1
40 to 48	1,257	1,207	331	659	105	23	55	14.8
49 to 60	969	907	208	506	112	22	36	15.7
61 to 84	567	541	143	313	50	12	Q	17.6
85 to 167	420	366	89	178	30	10	Q	18.3
Open Continuously	466	385	121	163	40	31	Q	19.1
Predominant Exterior Wall Material								
Masonry	3,061	2,774	640	1,571	280	92	137	9.7
Siding or Shingles	639	572	162	207	102	Q	70	20.2
Metal Panels	662	480	134	236	47	Q	47	19.2
Concrete Panels	106	98	41	45	Q	4	Q	28.4
Window Glass	46	46	Q	32	Q	2	Q	42.9
Other	50	40	17	Q	Q	Q	Q	51.7
No One Major Type	15	14	Q	Q	Q	Q	Q	88.8
Predominant Roof Material								
Built-Up	1,369	1,257	294	772	76	59	Q	13.7
Shingles (Not Wood)	1,486	1,386	319	618	216	20	153	13.9
Metal Surfacing	908	672	191	324	80	Q	58	15.5
Synthetic or Rubber	351	334	82	185	Q	15	Q	17.3
Slate or Tile	202	173	61	80	22	9	Q	26.6
Wooden Materials	152	123	Q	75	Q	Q	Q	41.6
Concrete	58	40	20	Q	Q	Q	Q	50.5
Other	36	23	Q	Q	Q	Q	Q	79.8
No One Major Type	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)								
Electricity	4,343	4,004	1,007	2,105	427	107	259	8.3
Natural Gas	2,478	2,456	240	2,106	58	28	Q	10.3
Fuel Oil	607	607	38	83	439	19	Q	21.0
District Heat	110	109	Q	Q	Q	107	Q	23.4
District Chilled Water	53	52	Q	4	Q	45	Q	39.3
Propane	589	579	88	90	124	Q	260	19.0
Other	213	210	21	47	Q	Q	Q	35.9
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	4,024	1,007	2,106	439	107	260	8.3
Buildings with Cooling	3,381	3,326	913	1,836	255	93	183	9.2
Buildings with Water Heating	3,486	3,418	871	1,841	356	93	179	8.8
Buildings with Cooking	828	804	220	410	83	16	62	12.8
Buildings with Manufacturing	204	181	66	76	Q	Q	Q	30.4
Buildings with Electricity Generation	247	246	45	112	57	20	Q	22.4
Percent of Floorspace Heated								
Not Heated	554	--	--	--	--	--	--	19.6
1 to 50	555	555	179	230	76	Q	29	19.0
51 to 99	633	633	138	379	69	6	Q	16.2
100	2,836	2,836	689	1,497	294	100	212	9.0
Heating Equipment (more than one may apply)								
Heat Pumps	394	394	325	35	Q	2	Q	18.2
Furnaces	1,676	1,676	161	1,141	188	Q	147	12.2
Individual Space Heaters	1,188	1,188	328	613	122	8	99	13.7
District Heat	115	115	Q	2	Q	107	Q	30.0
Boilers	610	610	18	371	183	Q	Q	16.1
Packaged Heating Units	1,031	1,031	346	596	23	3	49	16.2
Other	161	161	52	51	29	3	Q	29.3

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-24. Primary Space-Heating Energy Sources, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Primary Space-Heating Energy Source Used					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	1.0	0.7	1.7	1.3	2.3	
All Buildings	58,772	54,347	13,500	28,808	4,207	5,289	1,545	6.9
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	5,506	1,399	2,602	808	Q	468	9.6
5,001 to 10,000	7,530	6,546	1,442	3,981	488	Q	332	15.3
10,001 to 25,000	11,617	10,706	2,973	5,865	874	370	475	14.4
25,001 to 50,000	7,676	7,157	1,775	4,054	508	594	142	11.5
50,001 to 100,000	7,968	7,699	1,976	4,202	566	737	Q	11.0
100,001 to 200,000	6,776	6,456	1,367	3,503	422	1,051	Q	13.1
200,001 to 500,000	5,553	5,371	1,161	2,601	Q	1,154	Q	13.9
Over 500,000	5,313	4,906	1,407	1,999	Q	1,171	Q	17.6
Principal Building Activity								
Education	7,740	7,740	886	4,323	1,190	1,034	Q	12.8
Food Sales	642	609	242	308	Q	Q	Q	23.4
Food Service	1,353	1,299	322	742	Q	Q	Q	24.9
Health Care	2,333	2,333	405	1,144	Q	571	Q	15.8
Lodging	3,618	3,608	1,456	1,442	Q	585	Q	17.8
Mercantile and Service	12,728	12,227	3,824	6,526	959	Q	386	13.1
Office	10,478	10,458	3,537	4,828	455	1,477	Q	11.1
Public Assembly	3,948	3,836	533	2,179	Q	574	Q	18.3
Public Order and Safety	1,271	1,154	Q	592	Q	246	Q	32.4
Religious Worship	2,792	2,791	391	1,582	396	Q	Q	21.1
Warehouse and Storage	8,481	6,419	1,422	4,173	308	Q	Q	19.8
Other	1,004	907	169	474	Q	159	Q	38.6
Vacant	2,384	966	Q	494	Q	Q	Q	28.0
Year Constructed								
1919 or Before	3,673	3,429	185	2,008	565	556	Q	20.7
1920 to 1945	6,710	5,951	667	3,626	640	825	Q	17.2
1946 to 1959	9,298	8,701	1,405	5,173	888	882	Q	14.4
1960 to 1969	10,858	10,024	1,704	5,445	1,018	1,303	368	12.3
1970 to 1979	11,333	10,489	3,286	5,396	434	919	286	11.3
1980 to 1989	12,252	11,462	4,903	5,093	451	443	509	12.2
1990 to 1992	2,590	2,467	884	1,226	Q	212	Q	17.9
1993 to 1995	2,059	1,824	467	842	Q	Q	Q	21.0
Census Region								
Northeast	11,883	11,180	1,099	4,696	3,020	1,600	435	12.4
Midwest	14,322	13,511	1,549	9,293	Q	1,839	313	12.0
South	20,830	18,900	7,403	8,728	802	945	713	13.1
West	11,736	10,756	3,449	6,091	Q	905	Q	15.0
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and -- More than 7,000 HDD	5,098	4,901	322	3,020	875	250	302	17.9
5,500 to 7,000 HDD	14,597	13,937	1,385	9,063	1,133	1,776	330	13.7
4,000 to 5,499 HDD	15,155	14,147	3,127	6,150	1,972	2,176	357	14.2
Fewer than 4,000 HDD	13,491	12,350	3,888	7,356	Q	524	Q	15.6
More than 2,000 CDD and -- Fewer than 4,000 HDD	10,430	9,014	4,778	3,218	Q	562	Q	18.8
Workers (main shift)								
Fewer than 5	13,885	10,663	2,417	5,445	1,398	407	718	13.0
5 to 9	6,291	6,086	1,257	3,699	430	303	Q	16.4
10 to 19	7,102	6,905	1,858	3,981	546	258	Q	15.1
20 to 49	9,132	8,899	2,380	5,064	578	617	147	11.8
50 to 99	6,931	6,642	1,601	3,543	522	644	Q	12.7
100 to 249	5,988	5,880	1,439	2,995	458	827	Q	13.9
250 or More	9,443	9,272	2,548	4,081	275	2,233	Q	13.1

See footnotes at end of table.

Table BC-24. Primary Space-Heating Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Primary Space-Heating Energy Source Used					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	1.0	0.7	1.7	1.3	2.3	
Weekly Operating Hours								
39 or Fewer	6,134	4,032	617	2,183	555	Q	424	15.6
40 to 48	13,233	12,672	3,332	7,149	831	726	361	14.1
49 to 60	12,242	11,658	2,923	6,235	1,106	945	279	12.6
61 to 84	10,052	9,635	3,066	5,110	650	579	Q	12.4
85 to 167	6,202	5,880	1,158	3,078	436	820	Q	14.1
Open Continuously	10,908	10,469	2,405	5,052	630	2,097	Q	11.6
Predominant Exterior Wall Material								
Masonry	42,958	40,217	9,536	21,672	3,207	4,179	988	8.1
Siding or Shingles	3,243	2,919	795	1,128	500	Q	241	22.2
Metal Panels	5,694	4,559	1,048	2,746	319	Q	243	16.2
Concrete Panels	4,069	3,932	1,267	2,040	Q	488	Q	16.7
Window Glass	1,755	1,754	531	852	Q	288	Q	19.3
Other	660	603	240	218	Q	Q	Q	27.0
No One Major Type	393	363	Q	Q	Q	Q	Q	60.5
Predominant Roof Material								
Built-Up	24,481	23,087	5,871	12,256	1,483	2,775	241	10.5
Shingles (Not Wood)	11,093	10,450	2,568	5,108	1,224	536	734	12.5
Metal Surfacing	7,941	6,463	1,715	3,579	558	Q	373	13.1
Synthetic or Rubber	10,235	10,099	2,135	5,655	649	1,311	Q	11.2
Slate or Tile	1,920	1,765	427	772	238	322	Q	19.7
Wooden Materials	1,130	985	Q	657	Q	Q	Q	40.7
Concrete	1,335	903	346	448	Q	Q	Q	32.8
Other	332	290	Q	Q	Q	Q	Q	43.0
No One Major Type	305	305	Q	Q	Q	Q	Q	51.2
Energy Sources (more than one may apply)								
Electricity	57,076	54,110	13,500	28,686	4,152	5,277	1,541	6.9
Natural Gas	38,145	37,950	5,427	28,808	1,358	2,037	Q	8.3
Fuel Oil	14,421	14,236	2,238	5,479	4,207	1,892	Q	10.5
District Heat	5,658	5,642	Q	Q	Q	5,289	Q	12.6
District Chilled Water	2,521	2,479	Q	261	Q	1,997	Q	20.2
Propane	5,344	5,281	968	1,366	1,142	Q	1,545	16.9
Other	2,336	2,312	188	922	Q	300	Q	28.1
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	54,347	13,500	28,808	4,207	5,289	1,545	7.0
Buildings with Cooling	49,935	49,090	12,959	26,440	3,076	4,759	1,184	7.4
Buildings with Water Heating	51,560	50,796	12,586	27,119	3,873	5,055	1,304	7.1
Buildings with Cooking	20,713	20,338	5,440	10,627	1,670	1,737	488	9.1
Buildings with Manufacturing	3,893	3,689	1,086	1,861	Q	Q	Q	18.9
Buildings with Electricity Generation	13,366	13,165	2,965	6,500	1,160	2,162	Q	10.7
Percent of Floorspace Heated								
Not Heated	4,425	--	--	--	--	--	--	23.4
1 to 50	6,227	6,227	2,282	3,002	428	Q	221	18.3
51 to 99	8,868	8,868	2,532	4,544	831	708	Q	14.7
100	39,252	39,252	8,687	21,262	2,948	4,515	1,229	7.5
Heating Equipment (more than one may apply)								
Heat Pumps	5,843	5,843	3,949	1,332	Q	229	Q	13.9
Furnaces	14,923	14,923	2,088	10,473	1,229	Q	847	10.5
Individual Space Heaters	16,809	16,809	4,452	9,777	925	973	520	11.8
District Heat	5,911	5,911	Q	252	Q	5,289	Q	18.0
Boilers	16,754	16,754	1,048	12,095	2,893	Q	Q	9.3
Packaged Heating Units	16,893	16,893	5,910	9,891	287	314	362	12.0
Other	6,249	6,249	2,299	2,470	395	730	Q	18.0

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of

Table BC-24. Primary Space-Heating Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Space Heating	Primary Space-Heating Energy Source Used					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	1.0	0.7	1.7	1.3	2.3	
Heating Equipment (more than one may apply)								
Heat Pumps	5,843	5,843	3,949	1,332	Q	229	Q	13.9
Furnaces	14,923	14,923	2,088	10,473	1,229	Q	847	10.5
Individual Space Heaters	16,809	16,809	4,452	9,777	925	973	520	11.8
District Heat	5,911	5,911	Q	252	Q	5,289	Q	18.0
Boilers	16,754	16,754	1,048	12,095	2,893	Q	Q	9.3
Packaged Heating Units	16,893	16,893	5,910	9,891	287	314	362	12.0
Other	6,249	6,249	2,299	2,470	395	730	Q	18.0

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-25. Cooling Energy Sources, Number of Buildings, and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Cooling Energy Sources Used (more than one may apply)					Cooling Energy Sources Used (more than one may apply)			
	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	
RSE Column Factor:	0.6	0.7	0.7	3.1	2.5	0.5	0.5	0.5	2.1	1.5	
All Buildings	4,579	3,381	3,293	65	53	58,772	49,935	47,761	1,314	2,521	6.9
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	1,650	1,614	Q	Q	6,338	4,376	4,294	Q	Q	8.2
5,001 to 10,000	1,035	754	740	Q	Q	7,530	5,531	5,413	Q	Q	14.1
10,001 to 25,000	745	619	597	19	Q	11,617	9,712	9,410	270	239	14.1
25,001 to 50,000	213	187	181	Q	7	7,676	6,760	6,528	Q	275	11.7
50,001 to 100,000	115	103	98	Q	5	7,968	7,178	6,761	Q	348	10.8
100,001 to 200,000	48	44	41	Q	5	6,776	6,175	5,743	Q	587	11.6
200,001 to 500,000	19	18	17	1	2	5,553	5,235	4,949	232	557	11.8
Over 500,000	6	6	5	Q	1	5,313	4,968	4,663	Q	432	14.8
Principal Building Activity											
Education	309	249	234	Q	26	7,740	6,741	6,263	Q	653	16.5
Food Sales	137	128	122	Q	Q	642	612	597	Q	Q	22.7
Food Service	285	272	265	Q	Q	1,353	1,310	1,288	Q	Q	19.9
Health Care	105	105	103	1	2	2,333	2,323	2,168	152	403	16.7
Lodging	158	126	124	Q	Q	3,618	3,193	3,021	Q	Q	19.2
Mercantile and Service	1,289	916	885	24	Q	12,728	11,086	10,781	351	Q	13.0
Office	705	690	677	21	5	10,478	10,360	9,822	325	568	11.9
Public Assembly	326	246	241	Q	Q	3,948	3,394	3,164	Q	372	19.0
Public Order and Safety	87	38	37	Q	Q	1,271	856	802	Q	Q	33.7
Religious Worship	269	223	223	Q	Q	2,792	2,414	2,414	Q	Q	21.4
Warehouse and Storage	580	262	260	Q	Q	8,481	5,991	5,920	Q	Q	21.7
Other	67	53	52	Q	Q	1,004	921	834	Q	Q	44.5
Vacant	261	73	69	Q	Q	2,384	732	687	Q	Q	29.3
Year Constructed											
1919 or Before	353	260	241	Q	Q	3,673	2,818	2,673	Q	Q	21.2
1920 to 1945	562	382	376	Q	Q	6,710	5,038	4,861	Q	187	16.8
1946 to 1959	867	617	601	22	5	9,298	7,549	7,318	248	322	14.1
1960 to 1969	718	508	501	4	10	10,858	8,978	8,538	159	527	13.3
1970 to 1979	813	688	665	Q	Q	11,333	10,389	9,753	412	674	11.2
1980 to 1989	846	657	649	4	7	12,252	11,174	10,860	192	400	12.2
1990 to 1992	218	161	159	Q	Q	2,590	2,345	2,229	Q	Q	20.6
1993 to 1995	202	108	100	Q	Q	2,059	1,644	1,530	Q	Q	26.9
Census Region											
Northeast	725	451	435	Q	3	11,883	9,523	8,986	387	291	14.6
Midwest	1,139	811	785	20	Q	14,322	12,033	11,424	354	778	13.7
South	1,750	1,433	1,413	3	24	20,830	18,606	18,133	247	919	10.9
West	964	687	660	25	10	11,736	9,772	9,219	326	533	13.8
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and –											
More than 7,000 HDD	493	321	312	Q	Q	5,098	4,115	3,994	Q	Q	24.1
5,500 to 7,000 HDD	975	656	633	19	8	14,597	11,903	11,259	487	624	13.4
4,000 to 5,499 HDD	1,070	714	691	22	16	15,155	12,620	11,943	520	632	17.3
Fewer than 4,000 HDD	1,103	887	867	15	6	13,491	11,981	11,692	198	432	16.3
More than 2,000 CDD and –											
Fewer than 4,000 HDD	937	803	789	Q	Q	10,430	9,315	8,873	Q	726	16.9
Workers (main shift)											
Fewer than 5	2,505	1,542	1,498	Q	Q	13,885	8,324	8,073	Q	Q	11.1
5 to 9	798	691	671	Q	Q	6,291	5,260	5,028	Q	Q	14.3
10 to 19	625	549	544	Q	Q	7,102	6,449	6,314	205	Q	13.6
20 to 49	400	361	352	Q	8	9,132	8,302	8,083	Q	250	13.2
50 to 99	138	129	124	Q	8	6,931	6,379	6,039	Q	366	13.3
100 to 249	71	69	66	2	3	5,988	5,872	5,617	230	356	11.9
250 or More	43	41	38	1	5	9,443	9,349	8,608	433	1,172	13.0

See footnotes at end of table.

Table BC-25. Cooling Energy Sources, Number of Buildings, and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Cooling Energy Sources Used (more than one may apply)					Cooling Energy Sources Used (more than one may apply)			
	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	
RSE Column Factor:	0.6	0.7	0.7	3.1	2.5	0.5	0.5	0.5	2.1	1.5	
Weekly Operating Hours											
39 or Fewer	899	399	398	Q	Q	6,134	2,845	2,814	Q	Q	17.5
40 to 48	1,257	1,047	1,018	26	Q	13,233	11,401	10,909	298	350	13.2
49 to 60	969	795	784	Q	11	12,242	10,897	10,597	164	409	12.7
61 to 84	567	446	428	17	8	10,052	9,212	8,843	292	381	13.9
85 to 167	420	344	335	Q	7	6,202	5,644	5,320	Q	395	14.2
Open Continuously	466	350	329	Q	Q	10,908	9,936	9,279	433	919	12.4
Predominant Exterior Wall Material											
Masonry	3,061	2,429	2,366	46	42	42,958	37,394	35,761	964	1,944	7.9
Siding or Shingles	639	448	438	Q	Q	3,243	2,369	2,309	Q	Q	22.8
Metal Panels	662	322	315	Q	Q	5,694	3,713	3,584	Q	Q	15.9
Concrete Panels	106	91	89	Q	3	4,069	3,790	3,633	Q	302	19.5
Window Glass	46	45	44	Q	Q	1,755	1,730	1,593	Q	Q	31.7
Other	50	32	26	Q	Q	660	578	527	Q	Q	40.8
No One Major Type	15	14	14	Q	Q	393	362	355	Q	Q	67.2
Predominant Roof Material											
Built-Up	1,369	1,113	1,075	28	25	24,481	21,744	20,642	596	1,320	10.2
Shingles (Not Wood)	1,486	1,149	1,123	17	Q	11,093	9,125	8,854	282	Q	12.5
Metal Surfacing	908	508	494	Q	Q	7,941	5,564	5,418	Q	Q	13.6
Synthetic or Rubber	351	296	288	6	9	10,235	9,662	9,166	295	682	12.6
Slate or Tile	202	143	141	Q	Q	1,920	1,499	1,386	Q	Q	23.6
Wooden Materials	152	106	105	Q	Q	1,130	730	715	Q	Q	38.3
Concrete	58	39	39	Q	Q	1,335	1,065	1,038	Q	Q	42.2
Other	36	Q	Q	Q	Q	332	272	272	Q	Q	52.5
No One Major Type	Q	Q	Q	Q	Q	305	273	272	Q	Q	54.8
Energy Sources (more than one may apply)											
Electricity	4,343	3,376	3,293	65	53	57,076	49,785	47,761	1,314	2,517	6.9
Natural Gas	2,478	2,131	2,078	65	17	38,145	35,100	33,812	1,314	1,287	7.5
Fuel Oil	607	388	374	3	Q	14,421	12,904	12,230	454	1,076	14.2
District Heat	110	95	66	Q	47	5,658	5,128	3,857	Q	2,140	19.0
District Chilled Water	53	53	21	Q	53	2,521	2,521	1,274	Q	2,521	21.8
Propane	589	431	410	Q	Q	5,344	4,520	4,290	Q	Q	22.6
Other	213	107	102	Q	Q	2,336	1,943	1,692	Q	Q	28.9
Primary Space-Heating Energy Source											
Electricity	1,007	913	913	Q	Q	13,500	12,959	12,903	Q	Q	13.5
Natural Gas	2,106	1,836	1,788	64	4	28,808	26,440	25,634	1,150	261	9.0
Fuel Oil	439	255	252	Q	Q	4,207	3,076	3,053	Q	Q	26.9
District Heat	107	93	64	Q	45	5,289	4,759	3,561	Q	1,997	19.2
Propane	260	183	177	Q	Q	1,545	1,184	1,162	Q	Q	31.8
Other	61	Q	Q	Q	Q	514	303	303	Q	Q	53.7
Water-Heating Energy Sources (more than one may apply)											
Electricity	1,684	1,474	1,446	22	Q	23,056	21,611	21,160	395	629	11.7
Natural Gas	1,577	1,383	1,355	41	11	24,859	22,887	22,293	903	498	9.1
Fuel Oil	120	57	57	Q	Q	2,151	1,675	1,659	Q	Q	32.8
District Heat	54	44	25	Q	27	3,949	3,665	2,719	Q	1,465	20.3
Propane	110	79	78	Q	Q	1,020	888	859	Q	Q	35.9
Cooking Energy Sources (more than one may apply)											
Electricity	487	423	421	Q	3	12,249	11,661	11,403	242	620	12.5
Natural Gas	448	401	394	10	7	13,195	12,433	12,031	414	638	11.9
Propane	123	109	109	Q	Q	1,480	1,352	1,338	Q	Q	34.9

See footnotes at end of table.

Table BC-25. Cooling Energy Sources, Number of Buildings, and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Cooling Energy Sources Used (more than one may apply)					Cooling Energy Sources Used (more than one may apply)			
	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	All Buildings	All Buildings with Cooling	Electricity	Natural Gas	District Chilled Water	
RSE Column Factor:	0.6	0.7	0.7	3.1	2.5	0.5	0.5	0.5	2.1	1.5	
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	3,326	3,238	65	52	54,347	49,090	46,934	1,312	2,479	7.1
Buildings with Cooling	3,381	3,381	3,293	65	53	49,935	49,935	47,761	1,314	2,521	6.9
Buildings with Water Heating	3,486	2,968	2,892	59	49	51,560	47,249	45,198	1,218	2,442	7.1
Buildings with Cooking	828	724	716	11	10	20,713	19,465	18,874	531	982	9.6
Buildings with Manufacturing	204	165	154	Q	Q	3,893	3,587	3,337	Q	Q	22.9
Buildings with Electricity Generation	247	206	199	Q	7	13,366	12,986	12,169	577	1,171	12.4
Percent of Floorspace Cooled											
Not Cooled	1,198	--	--	--	--	8,837	--	--	--	--	15.8
1 to 50	930	930	912	17	Q	15,027	15,027	14,632	244	Q	12.0
51 to 99	635	635	618	18	10	12,549	12,549	12,035	373	705	13.4
100	1,816	1,816	1,763	30	40	22,359	22,359	21,095	697	1,645	8.6
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	878	861	20	Q	9,238	9,238	9,036	232	169	12.2
Heat Pumps	457	457	457	Q	1	6,931	6,931	6,918	Q	175	13.9
Individual Air Conditioners	862	862	857	Q	Q	12,494	12,494	12,328	215	298	11.2
District Chilled Water	53	53	21	Q	53	2,521	2,521	1,274	Q	2,521	21.8
Central Chillers	109	109	106	5	Q	11,065	11,065	10,729	509	Q	12.6
Packaged Air Conditioning Units	1,431	1,431	1,396	42	5	26,628	26,628	25,949	892	649	9.4
Swamp Coolers	186	186	185	Q	Q	2,451	2,451	2,431	Q	Q	31.4
Other	18	18	18	Q	Q	949	949	919	Q	Q	31.7

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-26. Water-Heating Energy Sources, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Buildings with Water Heating	Water-Heating Energy Sources Used (more than one may apply)					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	0.8	0.7	2.1	1.4	2.0	
All Buildings	4,579	3,486	1,684	1,577	120	54	110	9.4
Building Floorspace (Square Feet)								
1,001 to 5,000	2,399	1,689	875	672	Q	Q	Q	10.6
5,001 to 10,000	1,035	780	356	396	17	Q	Q	15.7
10,001 to 25,000	745	644	301	312	26	20	12	17.7
25,001 to 50,000	213	195	83	102	8	10	5	11.3
50,001 to 100,000	115	110	43	60	4	8	Q	11.1
100,001 to 200,000	48	45	16	24	Q	5	Q	12.7
200,001 to 500,000	19	18	7	9	1	3	Q	13.2
Over 500,000	6	6	3	2	Q	1	Q	16.6
Principal Building Activity								
Education	309	258	84	143	15	20	5	19.5
Food Sales	137	125	72	50	Q	Q	Q	28.8
Food Service	285	279	90	161	Q	Q	Q	19.6
Health Care	105	105	56	43	Q	4	Q	30.2
Lodging	158	158	38	99	Q	10	Q	24.0
Mercantile and Service	1,289	916	461	399	28	Q	33	16.6
Office	705	678	397	262	Q	7	Q	14.5
Public Assembly	326	276	124	137	Q	7	Q	27.1
Public Order and Safety	87	69	22	20	Q	Q	Q	45.6
Religious Worship	269	248	116	128	Q	Q	Q	25.5
Warehouse and Storage	580	251	165	82	Q	Q	Q	27.9
Other	67	43	27	Q	Q	Q	Q	54.8
Vacant	261	81	32	42	Q	Q	Q	37.1
Year Constructed								
1919 or Before	353	287	80	189	Q	3	Q	25.0
1920 to 1945	562	429	166	215	22	4	Q	20.4
1946 to 1959	867	656	246	361	50	8	Q	15.5
1960 to 1969	718	562	233	269	Q	18	34	16.8
1970 to 1979	813	632	356	248	Q	Q	Q	14.9
1980 to 1989	846	667	429	217	Q	Q	26	16.8
1990 to 1992	218	145	94	50	Q	1	Q	27.9
1993 to 1995	202	108	80	27	Q	Q	Q	37.8
Census Region								
Northeast	725	602	283	183	93	11	30	17.9
Midwest	1,139	849	311	511	Q	15	32	18.4
South	1,750	1,250	764	452	Q	Q	19	13.1
West	964	785	325	431	Q	13	Q	17.7
Workers (main shift)								
Fewer than 5	2,505	1,587	732	722	35	Q	67	12.7
5 to 9	798	705	377	317	Q	Q	Q	16.4
10 to 19	625	580	305	233	45	Q	Q	16.9
20 to 49	400	377	170	183	9	12	Q	14.7
50 to 99	138	127	50	69	3	6	Q	13.8
100 to 249	71	69	28	36	3	5	Q	14.8
250 or More	43	42	21	16	1	6	Q	21.4
Weekly Operating Hours								
39 or Fewer	899	466	231	201	Q	Q	Q	20.1
40 to 48	1,257	1,035	567	427	14	Q	Q	13.9
49 to 60	969	742	360	332	38	6	Q	15.1
61 to 84	567	494	214	258	18	9	Q	19.6
85 to 167	420	375	171	174	Q	9	Q	18.5
Open Continuously	466	375	141	185	Q	16	29	17.8

See footnotes at end of table.

Table BC-26. Water-Heating Energy Sources, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Buildings with Water Heating	Water-Heating Energy Sources Used (more than one may apply)					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	0.8	0.7	2.1	1.4	2.0	
Energy Sources (more than one may apply)								
Electricity	4,343	3,472	1,684	1,575	120	54	110	9.3
Natural Gas	2,478	2,201	655	1,577	21	11	Q	8.2
Fuel Oil	607	504	251	115	120	9	Q	19.9
District Heat	110	96	26	19	Q	54	Q	32.5
District Chilled Water	53	49	Q	11	Q	27	Q	38.3
Propane	589	477	268	59	53	Q	110	21.7
Other	213	158	78	58	Q	Q	Q	36.1
Primary Space-Heating Energy Source								
Electricity	1,007	871	681	166	Q	Q	26	17.2
Natural Gas	2,106	1,841	563	1,333	2	Q	Q	10.5
Fuel Oil	439	356	201	36	103	Q	Q	25.5
District Heat	107	93	26	17	Q	52	Q	33.4
Propane	260	179	118	Q	Q	Q	61	27.4
Other	61	35	Q	Q	Q	Q	Q	69.8
Cooking Energy Sources (more than one may apply)								
Electricity	487	479	249	208	27	4	27	16.9
Natural Gas	448	447	88	370	Q	5	Q	15.3
Propane	123	123	79	Q	17	Q	45	27.5
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	3,418	1,643	1,555	120	53	103	9.5
Buildings with Cooling	3,381	2,968	1,474	1,383	57	44	79	9.8
Buildings with Water Heating	3,486	3,486	1,684	1,577	120	54	110	9.5
Buildings with Cooking	828	816	329	441	42	7	47	12.8
Buildings with Manufacturing	204	169	102	56	Q	Q	Q	30.8
Buildings with Electricity Generation	247	238	85	121	Q	10	5	19.2
Water-Heating Equipment (more than one may apply)								
Centralized System	2,671	2,671	1,195	1,245	98	47	89	10.8
Distributed System	742	742	469	285	Q	3	21	16.3
Combination of Centralized and Distributed System	73	73	19	47	Q	4	Q	33.6

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-27. Water-Heating Energy Sources, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Water Heating	Water-Heating Energy Sources Used (more than one may apply)					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	0.8	0.7	2.0	1.4	2.2	
All Buildings	58,772	51,560	23,056	24,859	2,151	3,949	1,020	7.1
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	4,617	2,408	1,781	Q	Q	Q	10.0
5,001 to 10,000	7,530	5,652	2,583	2,866	Q	Q	Q	14.5
10,001 to 25,000	11,617	10,053	4,755	4,835	412	294	191	16.7
25,001 to 50,000	7,676	7,060	2,986	3,697	279	364	184	11.7
50,001 to 100,000	7,968	7,611	3,002	4,106	283	562	Q	10.9
100,001 to 200,000	6,776	6,269	2,338	3,334	Q	676	Q	12.7
200,001 to 500,000	5,553	5,303	2,130	2,584	424	951	Q	13.8
Over 500,000	5,313	4,995	2,854	1,656	Q	1,064	Q	17.7
Principal Building Activity								
Education	7,740	7,515	1,917	4,484	968	773	220	12.5
Food Sales	642	599	249	337	Q	Q	Q	25.2
Food Service	1,353	1,342	326	904	Q	Q	Q	23.8
Health Care	2,333	2,327	438	1,332	Q	583	Q	15.9
Lodging	3,618	3,609	531	2,537	Q	591	103	18.1
Mercantile and Service	12,728	10,925	6,687	4,397	331	Q	319	15.0
Office	10,478	10,278	5,631	3,873	244	932	Q	11.8
Public Assembly	3,948	3,632	1,333	1,990	Q	413	Q	16.2
Public Order and Safety	1,271	1,018	254	400	Q	Q	Q	31.7
Religious Worship	2,792	2,685	1,199	1,587	Q	Q	Q	20.6
Warehouse and Storage	8,481	5,845	3,901	2,094	Q	Q	Q	19.7
Other	1,004	893	297	416	Q	129	Q	37.8
Vacant	2,384	892	292	509	Q	Q	Q	30.1
Year Constructed								
1919 or Before	3,673	3,206	980	1,858	Q	298	Q	20.5
1920 to 1945	6,710	5,349	1,860	2,745	288	567	Q	16.7
1946 to 1959	9,298	8,136	2,910	4,593	573	681	Q	15.1
1960 to 1969	10,858	9,722	3,320	5,237	493	1,089	259	12.5
1970 to 1979	11,333	10,117	5,138	4,393	358	821	Q	11.7
1980 to 1989	12,252	11,105	6,759	4,321	Q	259	303	12.6
1990 to 1992	2,590	2,263	1,184	996	Q	141	Q	17.6
1993 to 1995	2,059	1,661	905	716	Q	Q	Q	21.6
Census Region								
Northeast	11,883	10,778	4,689	3,848	1,668	1,260	325	12.4
Midwest	14,322	12,517	4,516	7,261	Q	1,271	224	11.6
South	20,830	17,511	9,757	7,767	309	646	279	13.5
West	11,736	10,754	4,094	5,983	Q	772	Q	15.3
Workers (main shift)								
Fewer than 5	13,885	8,772	3,867	4,290	224	Q	232	14.6
5 to 9	6,291	5,610	2,705	2,543	Q	Q	Q	15.8
10 to 19	7,102	6,566	3,220	3,000	320	Q	Q	14.5
20 to 49	9,132	8,763	3,897	4,589	330	420	Q	11.8
50 to 99	6,931	6,622	2,553	3,579	290	473	Q	13.6
100 to 249	5,988	5,903	2,257	3,145	346	668	Q	13.4
250 or More	9,443	9,324	4,558	3,713	337	1,829	Q	12.8
Weekly Operating Hours								
39 or Fewer	6,134	3,290	1,285	1,839	Q	Q	Q	17.7
40 to 48	13,233	11,585	6,028	5,150	342	314	Q	14.8
49 to 60	12,242	10,765	5,086	4,935	615	565	Q	12.6
61 to 84	10,052	9,535	5,110	4,458	310	435	Q	12.5
85 to 167	6,202	5,928	2,462	2,851	Q	684	Q	13.9
Open Continuously	10,908	10,457	3,086	5,626	420	1,883	239	11.7

See footnotes at end of table.

Table BC-27. Water-Heating Energy Sources, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Buildings with Water Heating	Water-Heating Energy Sources Used (more than one may apply)					RSE Row Factor
			Electricity	Natural Gas	Fuel Oil	District Heat	Propane	
RSE Column Factor:	0.5	0.5	0.8	0.7	2.0	1.4	2.2	
Energy Sources (more than one may apply)								
Electricity	57,076	51,363	23,056	24,756	2,151	3,937	1,020	7.1
Natural Gas	38,145	36,284	12,144	24,859	972	1,528	Q	8.4
Fuel Oil	14,421	13,959	5,452	6,028	2,151	1,506	267	11.3
District Heat	5,658	5,424	1,182	743	Q	3,949	Q	16.7
District Chilled Water	2,521	2,442	629	498	Q	1,465	Q	18.8
Propane	5,344	4,934	2,837	847	584	Q	1,020	17.0
Other	2,336	2,024	702	1,073	Q	215	Q	26.2
Primary Space-Heating Energy Source								
Electricity	13,500	12,586	9,502	3,338	Q	Q	323	14.3
Natural Gas	28,808	27,119	8,964	19,924	224	Q	Q	9.1
Fuel Oil	4,207	3,873	1,718	663	1,659	Q	Q	19.3
District Heat	5,289	5,055	1,073	623	Q	3,717	Q	17.3
Propane	1,545	1,304	896	Q	Q	Q	436	26.3
Other	514	392	Q	Q	Q	Q	Q	52.7
Cooking Energy Sources (more than one may apply)								
Electricity	12,249	12,179	6,281	5,991	619	973	291	12.1
Natural Gas	13,195	13,178	3,799	9,611	678	988	Q	10.4
Propane	1,480	1,480	943	Q	315	Q	517	22.3
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	50,796	22,445	24,684	2,150	3,933	982	7.3
Buildings with Cooling	49,935	47,249	21,611	22,887	1,675	3,665	888	7.3
Buildings with Water Heating	51,560	51,560	23,056	24,859	2,151	3,949	1,020	7.1
Buildings with Cooking	20,713	20,632	8,455	11,489	1,214	1,548	609	8.7
Buildings with Manufacturing	3,893	3,666	1,926	1,459	Q	Q	Q	19.1
Buildings with Electricity Generation	13,366	13,239	5,355	6,779	825	1,759	253	10.9
Water-Heating Equipment (more than one may apply)								
Centralized System	31,656	31,656	10,941	16,401	1,618	2,963	612	8.3
Distributed System	16,495	16,495	11,036	6,316	293	458	383	11.8
Combination of Centralized and Distributed System	3,409	3,409	1,079	2,143	Q	528	Q	16.4

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-28. Cooking Energy Sources, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Cooking Energy Sources (more than one may apply)					Cooking Energy Sources (more than one may apply)			
	All Buildings	All Buildings with Cooking	Electricity	Natural Gas	Propane	All Buildings	All Buildings with Cooking	Electricity	Natural Gas	Propane	
RSE Column Factor:	0.6	0.9	1.2	1.2	2.4	0.5	0.7	0.9	0.8	2.2	
All Buildings	4,579	828	487	448	123	58,772	20,713	12,249	13,195	1,480	7.0
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	339	230	152	74	6,338	922	609	441	188	12.7
5,001 to 10,000	1,035	175	89	109	Q	7,530	1,319	718	816	Q	18.6
10,001 to 25,000	745	169	88	95	Q	11,617	2,731	1,388	1,549	Q	16.2
25,001 to 50,000	213	66	35	41	5	7,676	2,433	1,275	1,526	171	11.5
50,001 to 100,000	115	42	22	26	4	7,968	2,939	1,561	1,742	303	11.7
100,001 to 200,000	48	22	12	14	Q	6,776	3,028	1,726	1,933	Q	12.0
200,001 to 500,000	19	12	7	8	Q	5,553	3,482	2,186	2,364	Q	11.5
Over 500,000	6	4	3	3	Q	5,313	3,859	2,786	2,824	Q	13.4
Principal Building Activity											
Education	309	113	53	67	9	7,740	4,881	2,715	3,021	447	14.5
Food Sales	137	51	41	17	Q	642	351	242	181	Q	23.7
Food Service	285	241	149	161	69	1,353	1,254	757	937	272	16.2
Health Care	105	18	Q	9	Q	2,333	1,631	946	1,259	Q	21.1
Lodging	158	51	17	40	Q	3,618	2,064	954	1,746	Q	19.0
Mercantile and Service	1,289	135	93	61	8	12,728	4,362	3,005	2,637	318	15.7
Office	705	19	12	10	Q	10,478	2,750	1,793	1,466	Q	12.7
Public Assembly	326	109	61	47	Q	3,948	1,610	749	1,055	Q	21.8
Public Order and Safety	87	4	Q	Q	Q	1,271	260	Q	Q	Q	39.6
Religious Worship	269	72	45	22	Q	2,792	957	598	327	Q	22.5
Warehouse and Storage	580	Q	Q	Q	Q	8,481	311	Q	Q	Q	27.3
Other	67	Q	Q	Q	Q	1,004	Q	Q	Q	Q	45.2
Vacant	261	Q	Q	Q	Q	2,384	Q	Q	Q	Q	27.1
Year Constructed											
1919 or Before	353	77	37	55	Q	3,673	1,272	637	932	Q	23.7
1920 to 1945	562	100	54	54	Q	6,710	1,555	658	1,172	Q	18.6
1946 to 1959	867	129	60	88	Q	9,298	3,177	1,695	2,048	Q	15.3
1960 to 1969	718	147	73	85	Q	10,858	4,207	2,263	2,833	398	14.5
1970 to 1979	813	142	91	68	27	11,333	4,344	2,965	2,604	307	13.8
1980 to 1989	846	168	122	67	50	12,252	4,301	2,852	2,501	454	13.8
1990 to 1992	218	42	32	25	Q	2,590	1,082	732	692	Q	22.1
1993 to 1995	202	23	Q	7	Q	2,059	774	446	415	Q	27.8
Census Region											
Northeast	725	141	84	59	49	11,883	4,634	2,437	2,914	621	14.7
Midwest	1,139	176	105	116	Q	14,322	4,785	3,015	3,506	Q	14.6
South	1,750	310	193	146	34	20,830	7,173	4,311	4,167	594	12.1
West	964	202	105	127	Q	11,736	4,121	2,485	2,609	Q	14.7
Workers (main shift)											
Fewer than 5	2,505	283	165	135	Q	13,885	1,609	834	819	Q	13.7
5 to 9	798	150	94	86	Q	6,291	1,272	665	710	Q	19.3
10 to 19	625	163	106	80	Q	7,102	1,686	1,037	969	Q	17.3
20 to 49	400	135	73	88	18	9,132	3,515	1,827	2,273	271	13.2
50 to 99	138	52	23	31	6	6,931	3,362	1,774	2,113	386	13.1
100 to 249	71	24	14	16	Q	5,988	2,825	1,694	1,897	Q	13.5
250 or More	43	20	12	12	Q	9,443	6,444	4,417	4,413	Q	12.7
Weekly Operating Hours											
39 or Fewer	899	92	41	54	Q	6,134	872	353	583	Q	19.3
40 to 48	1,257	144	92	61	Q	13,233	2,806	1,547	1,606	Q	13.9
49 to 60	969	104	48	56	28	12,242	3,379	1,817	1,916	362	15.9
61 to 84	567	180	97	115	19	10,052	5,017	3,291	3,187	349	15.0
85 to 167	420	212	161	100	48	6,202	3,064	2,102	1,660	344	13.9
Open Continuously	466	96	48	62	9	10,908	5,575	3,138	4,244	243	14.0

See footnotes at end of table.

Table BC-28. Cooking Energy Sources, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	All Buildings with Cooking	Cooking Energy Sources (more than one may apply)			All Buildings	All Buildings with Cooking	Cooking Energy Sources (more than one may apply)			
			Electricity	Natural Gas	Propane			Electricity	Natural Gas	Propane	
RSE Column Factor:	0.6	0.9	1.2	1.2	2.4	0.5	0.7	0.9	0.8	2.2	
Energy Sources (more than one may apply)											
Electricity	4,343	827	487	448	123	57,076	20,611	12,249	13,104	1,480	6.9
Natural Gas	2,478	549	263	448	Q	38,145	15,968	8,498	13,195	Q	7.7
Fuel Oil	607	122	77	49	31	14,421	8,018	4,916	5,327	676	14.3
District Heat	110	17	6	10	Q	5,658	2,031	1,279	1,276	Q	22.1
District Chilled Water	53	10	3	7	Q	2,521	982	620	638	Q	25.7
Propane	589	172	112	19	123	5,344	2,322	1,183	513	1,480	19.2
Other	213	30	20	8	Q	2,336	945	476	553	Q	25.2
Water-Heating Energy Sources (more than one may apply)											
Electricity	1,684	329	249	88	79	23,056	8,455	6,281	3,799	943	11.1
Natural Gas	1,577	441	208	370	Q	24,859	11,489	5,991	9,611	Q	8.4
Fuel Oil	120	42	27	Q	17	2,151	1,214	619	678	315	26.8
District Heat	54	7	4	5	Q	3,949	1,548	973	988	Q	21.3
Propane	110	47	27	Q	45	1,020	609	291	Q	517	27.0
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	804	473	438	117	54,347	20,338	11,951	13,080	1,451	7.2
Buildings with Cooling	3,381	724	423	401	109	49,935	19,465	11,661	12,433	1,352	7.2
Buildings with Water Heating	3,486	816	479	447	123	51,560	20,632	12,179	13,178	1,480	7.1
Buildings with Cooking	828	828	487	448	123	20,713	20,713	12,249	13,195	1,480	7.4
Buildings with Manufacturing	204	27	17	13	Q	3,893	1,004	661	575	Q	28.8
Buildings with Electricity Generation	247	65	34	43	6	13,366	8,345	5,285	5,953	414	12.4

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-29. Percent of Floorspace Heated, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	
RSE Column Factor:	0.6	1.8	1.5	1.3	0.7	0.5	1.8	1.4	1.1	0.5	
All Buildings	4,579	554	555	633	2,836	58,772	4,425	6,227	8,868	39,252	6.8
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	339	261	286	1,513	6,338	832	732	778	3,996	9.5
5,001 to 10,000	1,035	135	161	161	576	7,530	984	1,103	1,194	4,248	13.4
10,001 to 25,000	745	59	97	136	452	11,617	911	1,565	2,005	7,136	14.1
25,001 to 50,000	213	14	18	27	153	7,676	519	618	1,007	5,531	12.1
50,001 to 100,000	115	4	10	12	89	7,968	268	644	835	6,221	13.0
100,001 to 200,000	48	Q	5	6	35	6,776	Q	806	797	4,853	14.5
200,001 to 500,000	19	Q	1	4	13	5,553	Q	340	1,098	3,932	16.7
Over 500,000	6	Q	1	1	4	5,313	Q	418	1,154	3,334	18.6
Principal Building Activity											
Education	309	Q	Q	41	258	7,740	Q	Q	841	6,780	16.5
Food Sales	137	Q	Q	36	82	642	Q	Q	199	359	25.2
Food Service	285	Q	Q	40	218	1,353	Q	Q	220	981	23.2
Health Care	105	Q	Q	6	92	2,333	Q	Q	234	2,066	23.5
Lodging	158	Q	Q	15	137	3,618	Q	Q	502	3,067	20.8
Mercantile and Service	1,289	72	243	233	740	12,728	501	1,796	2,553	7,878	12.9
Office	705	Q	31	118	555	10,478	Q	375	2,148	7,935	13.7
Public Assembly	326	Q	24	51	236	3,948	Q	267	722	2,848	24.1
Public Order and Safety	87	Q	Q	Q	72	1,271	Q	Q	Q	954	39.9
Religious Worship	269	Q	Q	32	224	2,792	Q	Q	425	2,182	24.5
Warehouse and Storage	580	255	165	34	125	8,481	2,062	2,855	637	2,927	17.1
Other	67	Q	Q	Q	38	1,004	Q	Q	Q	710	50.2
Vacant	261	166	30	Q	60	2,384	1,417	321	Q	565	21.6
Year Constructed											
1919 or Before	353	Q	26	59	231	3,673	Q	275	618	2,536	20.5
1920 to 1945	562	66	107	98	291	6,710	759	1,306	867	3,777	17.0
1946 to 1959	867	98	89	137	543	9,298	597	849	1,563	6,289	14.5
1960 to 1969	718	67	81	123	448	10,858	833	1,037	1,581	7,406	14.3
1970 to 1979	813	91	82	81	559	11,333	844	1,089	1,660	7,740	12.4
1980 to 1989	846	105	103	96	542	12,252	790	1,336	1,885	8,241	13.3
1990 to 1992	218	Q	27	27	135	2,590	Q	159	376	1,933	23.8
1993 to 1995	202	Q	Q	12	88	2,059	Q	Q	319	1,330	30.5
Floors											
One	3,018	442	413	326	1,837	24,552	3,017	3,658	2,741	15,135	8.7
Two	1,002	74	89	209	629	14,122	733	1,348	2,449	9,592	11.8
Three	399	Q	42	72	265	7,335	Q	694	1,064	5,361	18.2
Four to Nine	148	Q	Q	23	96	8,789	Q	466	1,399	6,580	16.6
Ten or More	12	Q	Q	3	9	3,975	Q	Q	1,214	2,583	18.9
Census Region											
Northeast	725	69	77	129	451	11,883	703	1,018	2,501	7,661	16.1
Midwest	1,139	134	148	155	702	14,322	811	1,171	1,480	10,860	13.4
South	1,750	203	197	207	1,143	20,830	1,930	2,379	2,856	13,666	9.3
West	964	149	133	142	540	11,736	981	1,658	2,032	7,066	16.3
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	493	Q	46	117	281	5,098	Q	428	888	3,585	24.8
5,500 to 7,000 HDD	975	98	104	124	649	14,597	661	1,000	1,781	11,155	14.0
4,000 to 5,499 HDD	1,070	142	150	142	636	15,155	1,009	1,454	2,716	9,976	18.0
Fewer than 4,000 HDD	1,103	148	113	148	694	13,491	1,142	1,640	2,095	8,615	15.4
More than 2,000 CDD and --											
Fewer than 4,000 HDD	937	116	142	102	577	10,430	1,416	1,705	1,388	5,922	14.6

See footnotes at end of table.

Table BC-29. Percent of Floorspace Heated, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	
RSE Column Factor:	0.6	1.8	1.5	1.3	0.7	0.5	1.8	1.4	1.1	0.5	
Workers (main shift)											
Fewer than 5	2,505	492	376	288	1,349	13,885	3,223	2,318	1,647	6,697	9.7
5 to 9	798	27	88	147	535	6,291	205	898	1,212	3,976	17.3
10 to 19	625	Q	57	106	445	7,102	196	1,180	1,065	4,660	15.8
20 to 49	400	Q	27	59	304	9,132	Q	830	1,236	6,833	13.4
50 to 99	138	Q	5	15	112	6,931	Q	404	728	5,510	16.1
100 to 249	71	Q	Q	12	56	5,988	Q	Q	995	4,694	14.1
250 or More	43	Q	1	6	36	9,443	Q	405	1,985	6,882	16.7
Weekly Operating Hours											
39 or Fewer	899	280	127	50	444	6,134	2,102	683	351	2,999	15.5
40 to 48	1,257	50	193	171	843	13,233	561	2,452	1,714	8,506	13.4
49 to 60	969	63	151	167	588	12,242	584	1,454	2,163	8,041	13.4
61 to 84	567	26	43	110	388	10,052	417	692	1,822	7,122	16.3
85 to 167	420	54	22	64	279	6,202	322	389	888	4,604	17.4
Open Continuously	466	81	20	71	294	10,908	439	558	1,931	7,980	14.3
Space in Building Vacant for at Least Three Consecutive Months											
Yes	787	245	126	79	337	15,844	2,400	1,708	2,664	9,072	12.2
No	3,791	309	429	554	2,499	42,928	2,025	4,518	6,204	30,180	7.7
Predominant Exterior Wall Material											
Masonry	3,061	287	342	451	1,982	42,958	2,741	3,887	5,949	30,381	8.3
Siding or Shingles	639	67	54	109	409	3,243	325	326	798	1,795	20.5
Metal Panels	662	182	139	48	293	5,694	1,135	1,115	741	2,704	14.7
Concrete Panels	106	Q	17	13	67	4,069	Q	810	635	2,486	22.2
Window Glass	46	Q	Q	Q	36	1,755	Q	Q	464	1,247	31.6
Other	50	Q	Q	Q	35	660	Q	Q	Q	427	41.8
No One Major Type	15	Q	Q	Q	Q	393	Q	Q	Q	212	73.0
Predominant Roof Material											
Built-Up	1,369	112	188	200	869	24,481	1,393	2,889	3,447	16,752	10.8
Shingles (Not Wood)	1,486	100	156	185	1,045	11,093	643	1,237	1,690	7,523	13.1
Metal Surfacing	908	236	160	99	413	7,941	1,478	1,324	1,066	4,073	12.0
Synthetic or Rubber	351	Q	12	59	262	10,235	Q	525	1,552	8,021	14.4
Slate or Tile	202	Q	Q	38	118	1,920	Q	Q	356	1,321	22.7
Wooden Materials	152	Q	Q	Q	76	1,130	Q	Q	Q	653	42.7
Concrete	58	Q	Q	Q	28	1,335	432	Q	Q	540	41.1
Other	36	Q	Q	Q	16	332	Q	Q	Q	193	57.6
No One Major Type	Q	Q	Q	Q	Q	305	Q	Q	Q	176	50.5
Energy Sources (more than one may apply)											
Electricity	4,343	340	542	630	2,831	57,076	2,966	6,152	8,859	39,099	7.0
Natural Gas	2,478	22	267	437	1,752	38,145	196	3,715	6,214	28,020	9.9
Fuel Oil	607	Q	93	90	423	14,421	Q	1,003	2,857	10,376	16.4
District Heat	110	Q	Q	7	101	5,658	Q	Q	748	4,828	20.3
District Chilled Water	53	Q	Q	2	49	2,521	Q	Q	285	2,130	28.5
Propane	589	Q	74	77	428	5,344	Q	538	794	3,950	22.1
Other	213	Q	49	30	130	2,336	Q	420	314	1,579	28.5
Space-Heating Energy Sources (more than one may apply)											
Electricity	1,467	--	234	242	991	22,156	--	3,108	4,183	14,864	11.3
Natural Gas	2,211	--	249	394	1,567	31,535	--	3,282	5,079	23,175	8.5
Fuel Oil	504	--	84	81	340	6,606	--	479	1,309	4,817	20.9
District Heat	109	--	Q	7	101	5,606	--	Q	748	4,793	20.2
Propane	301	--	30	26	245	2,025	--	247	173	1,606	28.5
Other	135	--	Q	22	80	1,050	--	Q	218	606	40.8

See footnotes at end of table.

Table BC-29. Percent of Floorspace Heated, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	
RSE Column Factor:	0.6	1.8	1.5	1.3	0.7	0.5	1.8	1.4	1.1	0.5	
Primary Space-Heating Energy Source											
Electricity	1,007	--	179	138	689	13,500	--	2,282	2,532	8,687	13.2
Natural Gas	2,106	--	230	379	1,497	28,808	--	3,002	4,544	21,262	8.6
Fuel Oil	439	--	76	69	294	4,207	--	428	831	2,948	23.8
District Heat	107	--	Q	6	100	5,289	--	Q	708	4,515	20.2
Propane	260	--	29	Q	212	1,545	--	221	Q	1,229	31.5
Other	61	--	Q	Q	Q	514	--	Q	Q	Q	49.8
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	--	555	633	2,836	54,347	--	6,227	8,868	39,252	7.0
Buildings with Cooling	3,381	55	386	538	2,401	49,935	844	5,158	8,167	35,766	8.4
Buildings with Water Heating	3,486	69	387	544	2,486	51,560	764	4,976	8,302	37,518	8.3
Buildings with Cooking	828	24	58	128	618	20,713	375	900	3,376	16,062	12.4
Buildings with Manufacturing	204	Q	49	27	106	3,893	204	761	456	2,473	23.2
Buildings with Electricity Generation	247	Q	5	40	201	13,366	Q	479	2,652	10,034	16.0
Percent of Floorspace Cooled											
Not Cooled	1,198	499	169	95	435	8,837	3,581	1,069	702	3,486	14.6
1 to 50	930	24	322	114	470	15,027	Q	4,227	1,793	8,652	13.6
51 to 99	635	Q	Q	354	255	12,549	Q	155	5,548	6,718	13.1
100	1,816	23	47	70	1,676	22,359	362	776	825	20,395	13.1
Percent Lit when Open											
Zero	36	28	Q	Q	Q	189	145	Q	Q	Q	35.7
1 to 50	666	115	201	59	291	6,008	888	1,931	580	2,610	15.8
51 to 99	745	Q	59	258	417	9,692	Q	660	3,083	5,848	15.5
100	2,814	151	255	312	2,096	40,514	1,548	3,350	5,163	30,453	8.9
Building Not in Use/ Electricity Not Used	318	249	Q	Q	25	2,369	1,743	Q	Q	312	24.9
Heating Equipment (more than one may apply)											
Heat Pumps	394	--	41	53	301	5,843	--	464	1,083	4,296	18.2
Furnaces	1,676	--	216	298	1,163	14,923	--	2,375	2,535	10,013	11.1
Individual Space Heaters	1,188	--	225	209	754	16,809	--	2,381	3,013	11,415	12.4
District Heat	115	--	Q	7	106	5,911	--	Q	805	5,026	20.1
Boilers	610	--	49	87	473	16,754	--	694	2,603	13,456	13.8
Packaged Heating Units	1,031	--	131	159	741	16,893	--	2,191	2,823	11,879	11.0
Other	161	--	29	34	98	6,249	--	563	1,345	4,341	24.8
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	155	350	497	2,379	46,355	1,414	3,953	7,499	33,488	8.5
Wall Insulation	2,372	57	232	391	1,693	31,694	582	2,612	5,494	23,006	10.3
Storm or Multiple Glazing	1,897	44	168	318	1,367	28,876	422	2,048	4,642	21,765	10.0
Tinted, Reflective or Shading Glass	1,202	31	134	211	826	24,245	559	2,040	4,188	17,458	12.0
Exterior or Interior Shading or Awnings	2,271	37	266	392	1,576	37,208	541	3,348	6,279	27,040	9.7

See footnotes at end of table.

Table BC-29. Percent of Floorspace Heated, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	All Buildings	Not Heated	1 to 50 Percent Heated	51 to 99 Percent Heated	100 Percent Heated	
RSE Column Factor:	0.6	1.8	1.5	1.3	0.7	0.5	1.8	1.4	1.1	0.5	
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	Q	8	46	272	13,473	Q	474	2,578	10,197	14.6
Economizer Cycle	461	Q	31	60	365	16,550	Q	643	3,082	12,759	14.2
HVAC Maintenance	2,403	Q	252	357	1,784	43,134	Q	3,340	6,820	32,876	8.5
Other Energy Efficient Equipment	198	Q	21	28	149	6,453	Q	374	1,036	4,998	17.3
Off-Hour Equipment Reduction (more than one may apply)											
Heating	3,211	--	452	488	2,271	38,326	--	4,883	5,972	27,471	8.1
Cooling	2,707	53	334	414	1,907	35,605	716	4,186	5,640	25,064	9.5
Lighting	3,753	231	491	540	2,491	44,937	2,189	5,268	6,754	30,725	8.2

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-30. Percent of Floorspace Cooled, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	
RSE Column Factor:	0.7	1.5	1.3	1.4	0.9	0.5	1.4	1.0	0.9	0.7	
All Buildings	4,579	1,198	930	635	1,816	58,772	8,837	15,027	12,549	22,359	6.0
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	749	363	289	998	6,338	1,962	1,067	690	2,619	9.2
5,001 to 10,000	1,035	280	254	145	355	7,530	1,999	1,881	1,031	2,620	12.3
10,001 to 25,000	745	125	196	117	307	11,617	1,905	3,265	1,837	4,610	12.0
25,001 to 50,000	213	26	65	39	83	7,676	916	2,282	1,450	3,028	10.1
50,001 to 100,000	115	12	34	24	45	7,968	790	2,263	1,752	3,163	10.6
100,001 to 200,000	48	4	12	13	19	6,776	601	1,722	1,843	2,610	12.6
200,001 to 500,000	19	1	5	6	7	5,553	318	1,493	1,685	2,057	13.5
Over 500,000	6	Q	1	2	2	5,313	Q	1,053	2,261	1,653	16.2
Principal Building Activity											
Education	309	60	64	56	129	7,740	1,000	2,821	1,489	2,431	13.7
Food Sales	137	Q	Q	34	75	642	Q	Q	153	357	24.2
Food Service	285	Q	Q	57	189	1,353	Q	Q	336	835	17.7
Health Care	105	Q	Q	8	77	2,333	Q	Q	760	1,424	19.2
Lodging	158	32	12	22	92	3,618	425	401	811	1,982	20.9
Mercantile and Service	1,289	373	356	199	361	12,728	1,642	3,349	3,171	4,565	11.5
Office	705	Q	51	151	487	10,478	Q	690	3,657	6,014	11.9
Public Assembly	326	80	57	47	143	3,948	554	729	957	1,708	19.0
Public Order and Safety	87	Q	20	8	11	1,271	Q	263	220	373	30.1
Religious Worship	269	46	61	15	146	2,792	378	749	219	1,446	21.2
Warehouse and Storage	580	318	196	Q	49	8,481	2,490	5,082	252	658	17.5
Other	67	Q	9	20	Q	1,004	Q	186	455	281	35.9
Vacant	261	188	39	Q	33	2,384	1,651	376	Q	287	21.4
Year Constructed											
1919 or Before	353	93	106	64	90	3,673	854	1,228	747	842	18.2
1920 to 1945	562	180	136	86	161	6,710	1,672	2,456	1,212	1,370	15.0
1946 to 1959	867	250	191	133	293	9,298	1,749	2,757	1,788	3,004	12.6
1960 to 1969	718	210	158	101	250	10,858	1,880	2,988	2,316	3,673	11.8
1970 to 1979	813	125	163	92	434	11,333	944	2,549	2,688	5,152	11.3
1980 to 1989	846	189	135	129	394	12,252	1,078	2,342	2,826	6,006	11.7
1990 to 1992	218	57	22	18	121	2,590	245	398	537	1,410	19.7
1993 to 1995	202	94	20	12	75	2,059	415	309	434	901	24.2
Floors											
One	3,018	874	551	336	1,257	24,552	4,917	7,140	3,241	9,255	8.4
Two	1,002	211	210	175	406	14,122	1,813	3,743	2,977	5,588	10.4
Three	399	80	139	79	101	7,335	1,069	2,246	1,508	2,511	15.3
Four to Nine	148	32	30	39	46	8,789	869	1,677	2,697	3,547	15.4
Ten or More	12	Q	Q	6	5	3,975	Q	Q	2,126	1,458	16.2
Census Region											
Northeast	725	275	164	102	185	11,883	2,360	3,784	3,063	2,677	12.3
Midwest	1,139	329	283	181	346	14,322	2,289	4,414	3,040	4,578	12.0
South	1,750	317	316	233	884	20,830	2,224	4,311	4,262	10,033	9.4
West	964	278	166	120	401	11,736	1,964	2,517	2,184	5,071	13.2
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	493	172	119	90	112	5,098	982	1,794	1,186	1,135	21.4
5,500 to 7,000 HDD	975	319	220	144	292	14,597	2,695	4,284	3,343	4,275	10.9
4,000 to 5,499 HDD	1,070	355	253	133	328	15,155	2,535	4,327	3,616	4,677	15.5
Fewer than 4,000 HDD	1,103	217	177	141	569	13,491	1,510	2,789	2,441	6,751	15.4
More than 2,000 CDD and --											
Fewer than 4,000 HDD	937	135	161	128	515	10,430	1,115	1,833	1,962	5,520	14.3

See footnotes at end of table.

Table BC-30. Percent of Floorspace Cooled, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	
RSE Column Factor:	0.7	1.5	1.3	1.4	0.9	0.5	1.4	1.0	0.9	0.7	
Workers (main shift)											
Fewer than 5	2,505	962	454	240	849	13,885	5,562	3,149	1,106	4,069	9.4
5 to 9	798	107	199	169	323	6,291	1,031	2,136	1,110	2,014	14.4
10 to 19	625	76	146	89	314	7,102	652	2,596	965	2,889	14.0
20 to 49	400	39	84	78	198	9,132	830	2,727	1,939	3,636	12.6
50 to 99	138	9	31	29	69	6,931	552	1,752	1,852	2,775	13.7
100 to 249	71	Q	13	18	38	5,988	Q	1,672	1,453	2,746	12.4
250 or More	43	Q	4	12	25	9,443	Q	994	4,125	4,230	14.3
Weekly Operating Hours											
39 or Fewer	899	501	128	61	209	6,134	3,289	990	421	1,434	14.8
40 to 48	1,257	210	300	142	604	13,233	1,832	4,714	1,931	4,756	11.1
49 to 60	969	175	292	186	316	12,242	1,345	3,925	2,775	4,197	11.8
61 to 84	567	121	106	86	254	10,052	840	2,143	2,812	4,258	13.1
85 to 167	420	76	43	79	222	6,202	558	1,298	1,363	2,983	14.5
Open Continuously	466	116	60	80	210	10,908	973	1,958	3,246	4,732	12.9
Space in Building Vacant for at Least Three Consecutive Months											
Yes	787	310	186	90	202	15,844	2,908	3,024	4,339	5,572	11.6
No	3,791	888	744	546	1,614	42,928	5,929	12,002	8,209	16,787	6.6
Predominant Exterior Wall Material											
Masonry	3,061	632	612	457	1,359	42,958	5,565	10,531	9,276	17,586	6.8
Siding or Shingles	639	190	134	107	208	3,243	874	866	615	888	18.0
Metal Panels	662	340	146	44	132	5,694	1,981	2,047	680	987	14.8
Concrete Panels	106	Q	34	11	46	4,069	279	1,290	1,000	1,500	18.8
Window Glass	46	Q	Q	Q	33	1,755	Q	Q	686	873	25.8
Other	50	Q	Q	3	29	660	Q	Q	204	339	32.7
No One Major Type	15	Q	Q	Q	Q	393	Q	Q	Q	Q	62.2
Predominant Roof Material											
Built-Up	1,369	256	297	225	591	24,481	2,736	6,110	5,540	10,094	9.2
Shingles (Not Wood)	1,486	337	287	183	679	11,093	1,968	2,718	1,637	4,770	10.8
Metal Surfacing	908	401	193	81	233	7,941	2,377	2,438	996	2,130	12.5
Synthetic or Rubber	351	55	60	75	162	10,235	573	2,446	3,387	3,829	13.1
Slate or Tile	202	59	43	46	54	1,920	421	567	394	537	21.2
Wooden Materials	152	Q	Q	Q	57	1,130	Q	Q	Q	368	33.5
Concrete	58	Q	Q	Q	21	1,335	Q	315	360	391	40.2
Other	36	Q	Q	Q	Q	332	Q	Q	Q	Q	46.0
No One Major Type	Q	Q	Q	Q	Q	305	Q	Q	Q	Q	50.4
Energy Sources (more than one may apply)											
Electricity	4,343	967	926	635	1,816	57,076	7,291	14,917	12,536	22,331	6.0
Natural Gas	2,478	347	594	455	1,082	38,145	3,045	10,827	9,369	14,904	7.1
Fuel Oil	607	219	165	92	131	14,421	1,517	3,441	4,662	4,801	14.5
District Heat	110	14	17	24	55	5,658	530	1,019	1,742	2,366	20.4
District Chilled Water	53	Q	Q	10	40	2,521	Q	Q	705	1,645	25.1
Propane	589	158	126	47	258	5,344	824	1,391	842	2,288	18.3
Other	213	106	55	21	31	2,336	393	860	544	539	23.6
Cooling Energy Sources (more than one may apply)											
Electricity	3,293	--	912	618	1,763	47,761	--	14,632	12,035	21,095	6.0
Natural Gas	65	--	17	18	30	1,314	--	244	373	697	30.6
District Chilled Water	53	--	Q	10	40	2,521	--	Q	705	1,645	25.1

See footnotes at end of table.

Table BC-30. Percent of Floorspace Cooled, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	
RSE Column Factor:	0.7	1.5	1.3	1.4	0.9	0.5	1.4	1.0	0.9	0.7	
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	699	905	627	1,793	54,347	5,257	14,672	12,421	21,997	6.4
Buildings with Cooling	3,381	--	930	635	1,816	49,935	--	15,027	12,549	22,359	5.9
Buildings with Water Heating	3,486	518	803	540	1,626	51,560	4,311	13,902	11,975	21,372	6.6
Buildings with Cooking	828	104	141	147	436	20,713	1,248	3,884	6,210	9,371	9.4
Buildings with Manufacturing	204	40	60	38	66	3,893	306	1,550	926	1,112	22.3
Buildings with Electricity Generation	247	Q	54	56	96	13,366	380	2,189	5,144	5,653	14.2
Percent of Floorspace Heated											
Not Heated	554	499	24	Q	23	4,425	3,581	Q	Q	362	19.5
1 to 50	555	169	322	Q	47	6,227	1,069	4,227	155	776	18.3
51 to 99	633	95	114	354	70	8,868	702	1,793	5,548	825	15.5
100	2,836	435	470	255	1,676	39,252	3,486	8,652	6,718	20,395	6.9
Percent Lit when Open											
Zero	36	35	Q	Q	Q	189	160	Q	Q	Q	35.4
1 to 50	666	197	252	59	157	6,008	1,431	2,675	518	1,384	14.9
51 to 99	745	130	133	238	244	9,692	1,101	2,034	3,467	3,089	13.5
100	2,814	552	533	332	1,397	40,514	4,143	10,140	8,530	17,702	7.5
Building Not in Use/ Electricity Not Used	318	283	Q	Q	Q	2,369	2,003	Q	Q	Q	17.2
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	--	222	182	474	9,238	--	3,249	2,015	3,974	11.3
Heat Pumps	457	--	80	85	292	6,931	--	1,330	2,068	3,533	15.1
Individual Air Conditioners	862	--	394	182	286	12,494	--	6,395	2,965	3,133	10.0
District Chilled Water	53	--	Q	10	40	2,521	--	Q	705	1,645	25.1
Central Chillers	109	--	8	34	67	11,065	--	969	4,956	5,140	12.5
Packaged Air Conditioning Units	1,431	--	300	292	839	26,628	--	7,235	7,335	12,059	8.0
Swamp Coolers	186	--	37	37	112	2,451	--	597	595	1,260	24.8
Other	18	--	Q	7	7	949	--	Q	325	417	27.2
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	576	703	537	1,565	46,355	4,157	11,596	10,941	19,662	7.1
Wall Insulation	2,372	315	448	405	1,204	31,694	2,148	7,053	7,915	14,577	8.3
Storm or Multiple Glazing	1,897	278	418	362	839	28,876	2,175	6,949	7,579	12,173	8.4
Tinted, Reflective or Shading Glass	1,202	98	237	240	627	24,245	1,043	4,903	6,891	11,408	9.6
Exterior or Interior Shading or Awnings	2,271	223	521	436	1,092	37,208	2,567	9,387	9,573	15,681	7.8
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	12	41	74	200	13,473	324	2,021	4,656	6,473	14.6
Economizer Cycle	461	Q	81	108	272	16,550	Q	2,679	6,183	7,688	10.6
HVAC Maintenance	2,403	300	500	429	1,173	43,134	2,984	10,564	10,939	18,648	7.7
Other Energy Efficient Equipment	198	Q	29	37	97	6,453	361	1,160	2,020	2,911	17.1

See footnotes at end of table.

Table BC-30. Percent of Floorspace Cooled, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	All Buildings	Not Cooled	1 to 50 Percent Cooled	51 to 99 Percent Cooled	100 Percent Cooled	
RSE Column Factor:	0.7	1.5	1.3	1.4	0.9	0.5	1.4	1.0	0.9	0.7	
Off-Hour Equipment Reduction (more than one may apply)											
Heating	3,211	581	768	469	1,393	38,326	3,892	11,407	8,027	15,000	7.1
Cooling	2,707	--	804	471	1,433	35,605	--	11,744	8,321	15,540	6.6
Lighting	3,753	789	860	531	1,572	44,937	5,700	12,876	9,058	17,303	6.8

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-31. Percent of Floorspace Lit when Open, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	
RSE Column Factor:	0.6	2.2	1.4	1.4	0.7	0.5	2.0	1.2	1.0	0.5	
All Buildings	4,579	354	666	745	2,814	58,772	2,558	6,008	9,692	40,514	7.1
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	226	363	363	1,446	6,338	585	967	948	3,839	10.2
5,001 to 10,000	1,035	86	150	166	632	7,530	632	1,086	1,163	4,650	13.9
10,001 to 25,000	745	33	120	157	435	11,617	487	1,852	2,388	6,890	14.2
25,001 to 50,000	213	5	18	27	163	7,676	156	658	984	5,877	10.5
50,001 to 100,000	115	Q	11	19	83	7,968	Q	696	1,290	5,823	12.3
100,001 to 200,000	48	Q	2	9	35	6,776	Q	310	1,245	5,002	13.7
200,001 to 500,000	19	Q	Q	3	15	5,553	Q	Q	903	4,358	13.6
Over 500,000	6	Q	Q	1	4	5,313	Q	Q	771	4,075	15.9
Principal Building Activity											
Education	309	Q	31	54	223	7,740	Q	377	1,337	5,959	18.9
Food Sales	137	Q	Q	Q	99	642	Q	Q	Q	493	25.7
Food Service	285	Q	Q	51	189	1,353	Q	Q	335	810	21.7
Health Care	105	Q	Q	23	72	2,333	Q	Q	567	1,705	24.9
Lodging	158	Q	30	20	108	3,618	Q	365	495	2,741	21.0
Mercantile and Service	1,289	Q	170	223	876	12,728	Q	1,051	1,983	9,587	13.7
Office	705	Q	57	162	477	10,478	Q	404	2,354	7,694	13.7
Public Assembly	326	Q	53	72	201	3,948	Q	376	931	2,619	20.8
Public Order and Safety	87	Q	Q	8	67	1,271	Q	Q	235	948	38.2
Religious Worship	269	Q	54	51	164	2,792	Q	920	447	1,425	22.0
Warehouse and Storage	580	125	152	48	255	8,481	606	1,657	719	5,498	17.0
Other	67	Q	Q	Q	56	1,004	Q	Q	Q	782	44.1
Vacant	261	196	24	Q	28	2,384	1,690	352	Q	253	23.8
Year Constructed											
1919 or Before	353	Q	65	77	186	3,673	Q	598	755	2,116	21.0
1920 to 1945	562	81	120	120	241	6,710	696	1,327	1,493	3,193	15.8
1946 to 1959	867	63	130	136	538	9,298	401	1,211	1,478	6,207	14.4
1960 to 1969	718	33	95	132	458	10,858	303	990	1,481	8,084	14.0
1970 to 1979	813	20	92	142	559	11,333	234	664	2,103	8,333	13.2
1980 to 1989	846	69	102	109	565	12,252	489	890	1,790	9,083	13.1
1990 to 1992	218	Q	23	Q	154	2,590	Q	161	328	2,031	23.6
1993 to 1995	202	Q	37	Q	112	2,059	Q	168	264	1,467	29.3
Floors											
One	3,018	301	333	404	1,980	24,552	1,769	2,215	3,100	17,467	9.7
Two	1,002	33	199	212	557	14,122	314	1,801	2,713	9,293	12.1
Three	399	Q	104	100	181	7,335	Q	1,121	1,707	4,289	17.1
Four to Nine	148	Q	29	28	86	8,789	Q	720	1,606	6,353	17.1
Ten or More	12	Q	1	2	9	3,975	Q	150	566	3,112	19.6
Census Region											
Northeast	725	38	113	148	427	11,883	548	1,130	2,418	7,787	16.3
Midwest	1,139	101	209	201	628	14,322	604	1,598	2,247	9,874	13.5
South	1,750	152	212	238	1,148	20,830	1,040	2,172	3,011	14,608	11.9
West	964	63	131	159	611	11,736	367	1,109	2,016	8,245	14.4
Workers (main shift)											
Fewer than 5	2,505	349	513	370	1,273	13,885	2,399	3,461	1,718	6,308	10.6
5 to 9	798	Q	110	178	509	6,291	Q	1,093	1,443	3,727	15.6
10 to 19	625	Q	26	89	510	7,102	Q	698	1,058	5,345	14.8
20 to 49	400	Q	12	66	319	9,132	Q	414	1,669	7,020	13.0
50 to 99	138	Q	4	25	108	6,931	Q	229	1,260	5,370	16.0
100 to 249	71	Q	Q	12	58	5,988	Q	Q	1,130	4,784	13.0
250 or More	43	Q	Q	6	37	9,443	Q	Q	1,413	7,960	15.5

See footnotes at end of table.

Table BC-31. Percent of Floorspace Lit when Open, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	
RSE Column Factor:	0.6	2.2	1.4	1.4	0.7	0.5	2.0	1.2	1.0	0.5	
Weekly Operating Hours											
39 or Fewer	899	239	122	100	439	6,134	1,911	890	642	2,692	14.7
40 to 48	1,257	Q	203	258	779	13,233	165	1,827	2,734	8,507	12.8
49 to 60	969	Q	143	167	635	12,242	Q	1,523	1,934	8,654	13.1
61 to 84	567	Q	101	94	364	10,052	Q	752	1,733	7,507	14.5
85 to 167	420	Q	20	68	312	6,202	Q	332	1,068	4,730	17.8
Open Continuously	466	45	77	58	285	10,908	220	684	1,580	8,424	13.1
Space in Building Vacant for at Least Three Consecutive Months											
Yes	787	223	142	110	313	15,844	1,943	1,835	2,543	9,523	11.9
No	3,791	132	523	636	2,501	42,928	614	4,174	7,148	30,991	8.3
Energy Sources (more than one may apply)											
Electricity	4,343	119	666	745	2,814	57,076	862	6,008	9,692	40,514	7.5
Natural Gas	2,478	38	362	472	1,606	38,145	422	3,729	6,870	27,125	8.7
Fuel Oil	607	Q	101	106	379	14,421	Q	1,063	2,691	10,525	15.1
District Heat	110	Q	7	24	79	5,658	Q	209	1,047	4,382	23.1
District Chilled Water	53	Q	Q	Q	40	2,521	Q	Q	520	1,965	29.5
Propane	589	Q	88	110	386	5,344	Q	597	1,219	3,487	21.0
Other	213	Q	Q	Q	139	2,336	Q	Q	449	1,438	27.9
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	76	551	735	2,662	54,347	669	5,120	9,591	38,967	7.8
Buildings with Cooling	3,381	36	468	615	2,262	49,935	396	4,577	8,590	36,371	8.3
Buildings with Water Heating	3,486	55	491	654	2,286	51,560	544	4,595	9,167	37,254	8.0
Buildings with Cooking	828	Q	89	149	581	20,713	Q	1,164	3,712	15,674	10.4
Buildings with Manufacturing	204	Q	30	40	128	3,893	Q	485	628	2,744	25.4
Buildings with Electricity Generation	247	Q	26	40	180	13,366	Q	475	2,467	10,378	16.8
Percent of Floorspace Heated											
Not Heated	554	278	115	Q	151	4,425	1,888	888	Q	1,548	18.2
1 to 50	555	Q	201	59	255	6,227	Q	1,931	660	3,350	18.7
51 to 99	633	Q	59	258	312	8,868	Q	580	3,083	5,163	16.4
100	2,836	32	291	417	2,096	39,252	341	2,610	5,848	30,453	9.0
Percent of Floorspace Cooled											
Not Cooled	1,198	319	197	130	552	8,837	2,162	1,431	1,101	4,143	14.6
1 to 50	930	Q	252	133	533	15,027	Q	2,675	2,034	10,140	12.7
51 to 99	635	Q	59	238	332	12,549	Q	518	3,467	8,530	13.7
100	1,816	Q	157	244	1,397	22,359	Q	1,384	3,089	17,702	10.4
Percent Lit when Closed											
Zero	1,644	24	305	280	1,034	13,101	143	2,462	2,165	8,332	14.5
1 to 50	2,109	Q	270	389	1,438	30,711	Q	2,742	5,661	22,262	8.8
51 to 100	87	Q	Q	18	56	1,914	Q	Q	297	1,496	33.5
Never Closed	421	Q	77	58	285	10,677	Q	684	1,569	8,424	13.0
Building Not in Use/ Electricity Not Used	318	318	--	--	--	2,369	2,369	--	--	--	15.2
Lighting Equipment Types (more than one may apply)											
Incandescent	2,479	--	446	498	1,529	35,715	--	3,971	6,850	24,873	7.9
Standard Fluorescent	3,885	--	569	699	2,618	53,984	--	5,533	9,508	38,934	7.1
Compact Fluorescent	364	--	42	48	275	14,273	--	801	2,615	10,857	14.1
High-Intensity Discharge	393	--	36	91	266	16,259	--	763	2,796	12,700	13.9
Halogen	302	--	37	66	198	9,665	--	513	1,801	7,346	16.7
Other	30	--	Q	Q	Q	554	--	Q	Q	390	81.4

See footnotes at end of table.

Table BC-31. Percent of Floorspace Lit when Open, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	All Buildings	Not Lit[a]	1 to 50 Percent Lit	51 to 99 Percent Lit	100 Percent Lit	
RSE Column Factor:	0.6	2.2	1.4	1.4	0.7	0.5	2.0	1.2	1.0	0.5	
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	98	443	614	2,226	46,355	852	3,762	8,106	33,635	8.4
Wall Insulation	2,372	57	315	439	1,560	31,694	529	2,685	5,834	22,646	9.3
Storm or Multiple Glazing	1,897	44	287	329	1,236	28,876	431	2,553	5,066	20,827	9.9
Tinted, Reflective or Shading Glass	1,202	14	183	231	774	24,245	173	1,791	4,133	18,148	10.8
Exterior or Interior Shading or Awnings	2,271	39	330	457	1,445	37,208	502	3,303	7,081	26,322	8.9
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	749	--	91	148	510	17,868	--	1,176	3,165	13,527	11.6
Energy-Efficient Ballasts	1,363	--	132	223	1,008	28,375	--	1,677	5,025	21,673	10.9
Natural Lighting Control Sensors	237	--	29	32	177	6,431	--	404	941	5,087	20.7
Occupancy Sensors	131	--	19	34	77	5,958	--	242	1,095	4,621	23.2
Time Clock	467	--	63	100	304	13,262	--	730	2,307	10,226	15.4
Manual Dimmer Switches	501	--	88	122	291	13,056	--	1,222	2,729	9,105	13.1
Other	79	--	Q	20	50	2,836	--	Q	663	2,021	28.6
Off-Hour Equipment Reduction (more than one may apply)											
Heating	3,211	Q	458	614	2,121	38,326	Q	4,169	7,073	26,896	8.2
Cooling	2,707	Q	407	503	1,795	35,605	Q	3,850	6,339	25,291	8.1
Lighting	3,753	--	561	677	2,515	44,937	--	5,052	8,017	31,867	7.9

[a] Includes buildings that were zero percent lit when open, buildings that were not in use, and buildings that did not use any electricity.

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-32. Heated, Cooled, and Lit Buildings, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace in All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings		RSE Row Factor
		Total[a] Floorspace	Heated[b] Floorspace	Total[a] Floorspace	Cooled[b] Floorspace	Total[a] Floorspace	Lit[b] Floorspace	
RSE Column Factor:	1.0	1.0	1.0	1.0	1.1	1.0	1.0	
All Buildings	58,772	54,347	48,065	49,935	36,001	56,261	50,303	3.6
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	5,506	4,845	4,376	3,467	5,785	4,883	4.8
5,001 to 10,000	7,530	6,546	5,563	5,531	4,003	6,898	5,954	8.2
10,001 to 25,000	11,617	10,706	9,169	9,712	6,915	11,136	9,278	6.8
25,001 to 50,000	7,676	7,157	6,502	6,760	4,665	7,528	6,888	6.6
50,001 to 100,000	7,968	7,699	7,041	7,178	5,086	7,809	7,119	6.2
100,001 to 200,000	6,776	6,456	5,693	6,175	4,404	6,557	6,185	7.6
200,001 to 500,000	5,553	5,371	4,907	5,235	3,714	5,504	5,214	7.8
Over 500,000	5,313	4,906	4,345	4,968	3,748	5,043	4,782	8.9
Principal Building Activity								
Education	7,740	7,740	7,582	6,741	4,178	7,672	7,259	7.0
Food Sales	642	609	531	612	512	642	595	12.7
Food Service	1,353	1,299	1,197	1,310	1,135	1,353	1,158	12.9
Health Care	2,333	2,333	2,295	2,323	2,141	2,333	2,212	8.8
Lodging	3,618	3,608	3,490	3,193	2,737	3,601	3,272	9.8
Mercantile and Service	12,728	12,227	10,473	11,086	8,050	12,621	11,546	7.2
Office	10,478	10,458	9,829	10,360	9,287	10,451	9,774	6.2
Public Assembly	3,948	3,836	3,541	3,394	2,691	3,927	3,451	9.6
Public Order and Safety	1,271	1,154	1,094	856	622	1,271	1,167	18.0
Religious Worship	2,792	2,791	2,608	2,414	1,834	2,792	2,029	10.9
Warehouse and Storage	8,481	6,419	3,918	5,991	1,709	7,894	6,544	11.6
Other	1,004	907	841	921	707	988	904	22.0
Vacant	2,384	966	669	732	400	715	392	16.5
Year Constructed								
1919 or Before	3,673	3,429	3,137	2,818	1,718	3,469	2,887	10.4
1920 to 1945	6,710	5,951	4,747	5,038	2,865	6,024	4,786	9.2
1946 to 1959	9,298	8,701	7,810	7,549	5,029	8,897	7,836	7.9
1960 to 1969	10,858	10,024	9,051	8,978	6,299	10,555	9,661	6.3
1970 to 1979	11,333	10,489	9,364	10,389	7,941	11,120	10,225	5.3
1980 to 1989	12,252	11,462	10,033	11,174	8,850	11,769	10,805	6.6
1990 to 1992	2,590	2,467	2,303	2,345	1,966	2,529	2,371	10.1
1993 to 1995	2,059	1,824	1,621	1,644	1,334	1,898	1,733	12.5
Floors								
One	24,552	21,535	18,101	19,635	13,382	22,829	20,610	5.3
Two	14,122	13,389	12,022	12,308	8,931	13,808	12,160	5.4
Three	7,335	7,119	6,487	6,266	4,187	7,117	5,992	8.5
Four to Nine	8,789	8,446	7,894	7,920	6,205	8,679	7,917	6.5
Ten or More	3,975	3,859	3,562	3,805	3,297	3,829	3,624	10.3
Census Region								
Northeast	11,883	11,180	9,919	9,523	5,936	11,346	10,092	7.1
Midwest	14,322	13,511	12,382	12,033	7,998	13,719	12,230	6.4
South	20,830	18,900	16,667	18,606	14,716	19,827	17,726	5.9
West	11,736	10,756	9,097	9,772	7,352	11,370	10,256	8.0
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and --								
More than 7,000 HDD	5,098	4,901	4,476	4,115	2,521	4,882	4,374	11.8
5,500 to 7,000 HDD	14,597	13,937	12,735	11,903	7,816	14,233	12,600	7.5
4,000 to 5,499 HDD	15,155	14,147	12,607	12,620	8,591	14,357	12,870	8.2
Fewer than 4,000 HDD	13,491	12,350	10,753	11,981	9,473	12,957	11,662	10.7
More than 2,000 CDD and --								
Fewer than 4,000 HDD	10,430	9,014	7,494	9,315	7,599	9,831	8,797	9.5

See footnotes at end of table.

Table BC-32. Heated, Cooled, and Lit Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace in All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings		RSE Row Factor
		Total[a] Floorspace	Heated[b] Floorspace	Total[a] Floorspace	Cooled[b] Floorspace	Total[a] Floorspace	Lit[b] Floorspace	
RSE Column Factor:	1.0	1.0	1.0	1.0	1.1	1.0	1.0	
Workers (main shift)								
Fewer than 5	13,885	10,663	8,585	8,324	5,715	11,533	8,666	7.0
5 to 9	6,291	6,086	5,213	5,260	3,349	6,264	5,168	8.3
10 to 19	7,102	6,905	5,771	6,449	4,216	7,102	6,401	6.9
20 to 49	9,132	8,899	8,038	8,302	5,808	9,103	8,540	6.1
50 to 99	6,931	6,642	6,215	6,379	4,666	6,860	6,517	6.9
100 to 249	5,988	5,880	5,603	5,872	4,269	5,975	5,799	7.1
250 or More	9,443	9,272	8,642	9,349	7,979	9,425	9,213	6.3
Weekly Operating Hours								
39 or Fewer	6,134	4,032	3,422	2,845	2,003	4,224	3,499	10.0
40 to 48	13,233	12,672	10,425	11,401	7,254	13,079	11,216	6.9
49 to 60	12,242	11,658	10,203	10,897	7,385	12,134	10,738	6.6
61 to 84	10,052	9,635	8,819	9,212	7,055	9,992	9,206	6.7
85 to 167	6,202	5,880	5,463	5,644	4,398	6,145	5,716	7.1
Open Continuously	10,908	10,469	9,734	9,936	7,906	10,688	9,928	5.9
Space in Building Vacant for at Least Three Consecutive Months								
Yes	15,844	13,445	11,751	12,936	9,914	13,922	12,173	6.0
No	42,928	40,902	36,314	36,999	26,087	42,338	38,130	3.9
Predominant Exterior Wall Material								
Masonry	42,958	40,217	36,407	37,394	27,653	41,339	36,881	4.1
Siding or Shingles	3,243	2,919	2,514	2,369	1,569	3,102	2,582	14.0
Metal Panels	5,694	4,559	3,466	3,713	1,928	5,073	4,480	9.0
Concrete Panels	4,069	3,932	3,157	3,790	2,597	4,024	3,824	9.6
Window Glass	1,755	1,754	1,624	1,730	1,448	1,739	1,670	11.4
Other	660	603	564	578	519	618	585	15.6
No One Major Type	393	363	333	362	289	365	281	32.6
Predominant Roof Material								
Built-Up	24,481	23,087	20,386	21,744	16,085	23,610	21,399	5.2
Shingles (Not Wood)	11,093	10,450	9,237	9,125	6,761	10,660	9,347	6.3
Metal Surfacing	7,941	6,463	5,191	5,564	3,419	7,134	6,064	7.2
Synthetic or Rubber	10,235	10,099	9,445	9,662	7,145	10,125	9,364	5.4
Slate or Tile	1,920	1,765	1,666	1,499	999	1,813	1,505	10.9
Wooden Materials	1,130	985	862	730	510	1,100	896	22.6
Concrete	1,335	903	743	1,065	690	1,225	1,167	18.0
Other	332	290	268	272	189	305	277	24.9
No One Major Type	305	305	267	273	205	289	285	26.5
Energy Sources (more than one may apply)								
Electricity	57,076	54,110	47,879	49,785	35,946	56,261	50,303	3.5
Natural Gas	38,145	37,950	34,091	35,100	25,048	37,723	34,008	4.3
Fuel Oil	14,421	14,236	13,034	12,904	9,378	14,279	13,067	6.1
District Heat	5,658	5,642	5,473	5,128	4,081	5,638	5,339	9.1
District Chilled Water	2,521	2,479	2,395	2,521	2,302	2,517	2,412	10.7
Propane	5,344	5,281	4,747	4,520	3,253	5,304	4,589	12.6
Other	2,336	2,312	1,974	1,943	1,202	2,216	1,917	13.6
Space-Heating Energy Sources (more than one may apply)								
Electricity	22,156	22,156	19,031	21,131	16,066	21,981	20,138	5.8
Natural Gas	31,535	31,535	28,177	29,106	20,135	31,172	27,996	4.5
Fuel Oil	6,606	6,606	6,047	5,285	3,210	6,493	5,658	10.6
District Heat	5,606	5,606	5,438	5,076	4,044	5,587	5,304	9.0
Propane	2,025	2,025	1,812	1,642	1,206	2,017	1,710	17.7
Other	1,050	1,050	857	754	434	1,012	938	19.6

See footnotes at end of table.

Table BC-32. Heated, Cooled, and Lit Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace in All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings		RSE Row Factor
		Total[a] Floorspace	Heated[b] Floorspace	Total[a] Floorspace	Cooled[b] Floorspace	Total[a] Floorspace	Lit[b] Floorspace	
RSE Column Factor:	1.0	1.0	1.0	1.0	1.1	1.0	1.0	
Primary Space-Heating Energy Source								
Electricity	13,500	13,500	11,271	12,959	10,667	13,350	12,258	7.1
Natural Gas	28,808	28,808	25,747	26,440	18,095	28,526	25,629	4.6
Fuel Oil	4,207	4,207	3,751	3,076	1,565	4,105	3,412	12.7
District Heat	5,289	5,289	5,127	4,759	3,793	5,269	4,991	9.0
Propane	1,545	1,545	1,366	1,184	935	1,537	1,325	19.7
Other	514	514	345	303	128	477	426	29.4
Cooling Energy Sources (more than one may apply)								
Electricity	47,761	46,934	41,752	47,761	34,194	47,529	43,024	3.7
Natural Gas	1,314	1,312	1,198	1,314	1,074	1,305	1,238	15.5
District Chilled Water	2,521	2,479	2,395	2,521	2,302	2,517	2,412	10.7
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	54,347	48,065	49,090	35,481	53,686	48,436	3.7
Buildings with Cooling	49,935	49,090	43,781	49,935	36,001	49,547	44,908	3.7
Buildings with Water Heating	51,560	50,796	45,617	47,249	34,304	51,016	46,250	3.7
Buildings with Cooking	20,713	20,338	19,144	19,465	15,321	20,550	19,110	4.3
Buildings with Manufacturing	3,893	3,689	3,013	3,587	2,177	3,856	3,417	10.6
Buildings with Electricity Generation	13,366	13,165	12,349	12,986	10,490	13,319	12,606	5.7
Percent of Floorspace Heated								
Not Heated	4,425	--	--	844	520	2,574	1,867	18.9
1 to 50	6,227	6,227	1,567	5,158	1,824	5,941	4,510	12.0
51 to 99	8,868	8,868	7,246	8,167	5,758	8,826	7,886	8.1
100	39,252	39,252	39,252	35,766	27,899	38,919	36,041	3.7
Percent of Floorspace Cooled								
Not Cooled	8,837	5,257	4,285	--	--	6,713	5,395	10.6
1 to 50	15,027	14,672	11,217	15,027	3,302	14,857	12,651	6.6
51 to 99	12,549	12,421	11,332	12,549	10,340	12,515	11,619	5.9
100	22,359	21,997	21,231	22,359	22,359	22,175	20,638	4.7
Percent Lit when Open								
Zero	189	44	30	Q	Q	Q	Q	39.5
1 to 50	6,008	5,120	3,642	4,577	2,475	6,008	1,906	9.2
51 to 99	9,692	9,591	8,559	8,590	6,399	9,692	7,883	6.9
100	40,514	38,967	35,443	36,371	26,891	40,514	40,514	3.9
Building Not in Use/ Electricity Not Used	2,369	625	391	366	228	--	--	22.5
Percent Lit when Closed								
Zero	13,101	11,760	9,713	9,713	6,087	12,958	10,720	7.7
1 to 50	30,711	29,669	26,602	28,175	20,400	30,711	27,866	4.4
51 to 100	1,914	1,868	1,665	1,785	1,394	1,914	1,796	16.1
Never Closed	10,677	10,425	9,694	9,895	7,893	10,677	9,921	5.9
Building Not in Use/ Electricity Not Used	2,369	625	391	366	228	--	--	22.5
Heating Equipment (more than one may apply)								
Heat Pumps	5,843	5,843	5,312	5,813	4,764	5,831	5,376	6.9
Furnaces	14,923	14,923	12,656	12,967	8,544	14,742	12,887	6.2
Individual Space Heaters	16,809	16,809	14,407	14,831	9,165	16,488	14,810	7.3
District Heat	5,911	5,911	5,719	5,286	4,209	5,876	5,581	9.2
Boilers	16,754	16,754	15,854	15,050	10,331	16,549	14,990	5.1
Packaged Heating Units	16,893	16,893	14,793	16,643	13,015	16,774	15,447	5.2
Other	6,249	6,249	5,575	5,899	4,534	6,226	5,759	9.1

See footnotes at end of table.

Table BC-32. Heated, Cooled, and Lit Buildings, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace in All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings		RSE Row Factor
		Total[a] Floorspace	Heated[b] Floorspace	Total[a] Floorspace	Cooled[b] Floorspace	Total[a] Floorspace	Lit[b] Floorspace	
RSE Column Factor:	1.0	1.0	1.0	1.0	1.1	1.0	1.0	
Cooling Equipment (more than one may apply)								
Residential-Type Central Air Conditioners	9,238	8,975	7,795	9,238	6,379	9,193	8,236	5.6
Heat Pumps	6,931	6,888	6,224	6,931	5,557	6,910	6,306	6.7
Individual Air Conditioners	12,494	12,294	10,865	12,494	6,722	12,346	10,980	5.8
District Chilled Water	2,521	2,479	2,395	2,521	2,302	2,517	2,412	10.7
Central Chillers	11,065	10,857	10,343	11,065	9,576	11,017	10,478	6.6
Packaged Air Conditioning Units	26,628	26,297	23,652	26,628	19,839	26,431	24,336	4.9
Swamp Coolers	2,451	2,443	1,943	2,451	1,874	2,361	2,154	15.8
Other	949	949	871	949	708	949	888	15.9
Lighting Equipment Types (more than one may apply)								
Incandescent	35,715	34,309	30,955	32,066	23,757	35,715	31,750	3.6
Standard Fluorescent	53,984	52,204	46,306	48,495	34,881	53,984	48,438	3.5
Compact Fluorescent	14,273	13,979	13,037	13,653	10,979	14,273	13,329	6.6
High-Intensity Discharge	16,259	15,915	14,358	15,123	9,791	16,259	15,324	5.7
Halogen	9,665	9,518	8,737	9,316	7,111	9,665	9,055	6.9
Other	554	521	481	495	426	554	482	42.7
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling Insulation	46,355	44,941	40,694	42,198	31,362	45,509	41,462	4.1
Wall Insulation	31,694	31,112	28,311	29,545	22,843	31,171	28,283	4.7
Storm or Multiple Glazing	28,876	28,454	26,228	26,701	20,113	28,445	25,742	4.1
Tinted, Reflective or Shading Glass	24,245	23,686	21,431	23,202	18,274	24,080	22,101	4.4
Exterior or Interior Shading or Awnings	37,208	36,667	33,099	34,641	25,700	36,706	33,169	3.8
HVAC Conservation Features (more than one may apply)								
Variable Air-Volume System	13,473	13,250	12,443	13,150	10,783	13,434	12,754	5.8
Economizer Cycle	16,550	16,484	15,505	16,550	13,510	16,407	15,444	5.3
HVAC Maintenance	43,134	43,036	39,403	40,151	30,030	42,860	39,458	4.0
Other Energy Efficient Equipment	6,453	6,408	5,960	6,092	4,875	6,358	5,953	7.2
Lighting Conservation Features (more than one may apply)								
Specular Reflectors	17,868	17,351	15,616	16,398	11,810	17,868	16,512	5.2
Energy-Efficient Ballasts	28,375	27,736	25,447	26,158	19,688	28,375	26,349	4.5
Natural Lighting Control Sensors	6,431	6,217	5,704	6,220	4,725	6,431	5,975	8.0
Occupancy Sensors	5,958	5,785	5,367	5,630	4,351	5,958	5,577	9.3
Time Clock	13,262	12,896	11,728	12,694	10,335	13,262	12,398	5.8
Manual Dimmer Switches	13,056	12,985	12,090	12,584	10,324	13,056	11,712	5.4
Other	2,836	2,769	2,596	2,733	2,048	2,836	2,633	12.6
Off-Hour Equipment Reduction (more than one may apply)								
Heating	38,326	38,326	33,586	34,434	24,080	38,138	33,983	4.3
Cooling	35,605	34,890	30,744	35,605	24,948	35,481	31,755	4.2
Lighting	44,937	42,747	37,582	39,237	27,561	44,937	39,997	4.0

[a] Total Floorspace refers to all floorspace in heated, cooled, or lit buildings, including the floorspace that is not heated, cooled, or lit.
[b] Heated, Cooled, and Lit Floorspace refers only to the portion of floorspace in these buildings that is heated, cooled, or lit.
-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-33. Heating Equipment, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.5	0.6	1.3	0.9	1.0	1.7	1.1	0.9	1.8	
All Buildings	4,579	4,024	394	1,676	1,188	115	610	1,031	161	8.1
Building Floorspace (Square Feet)										
1,001 to 5,000	2,399	2,060	213	898	616	Q	199	483	Q	11.0
5,001 to 10,000	1,035	899	59	441	268	Q	135	193	22	15.3
10,001 to 25,000	745	685	80	257	191	27	128	216	50	14.1
25,001 to 50,000	213	198	20	49	57	18	70	75	14	10.6
50,001 to 100,000	115	111	16	20	33	11	46	41	11	10.5
100,001 to 200,000	48	46	4	8	14	8	20	15	6	11.9
200,001 to 500,000	19	18	3	2	6	4	9	6	4	12.8
Over 500,000	6	6	1	1	2	2	2	2	2	14.3
Principal Building Activity										
Education	309	309	20	66	80	37	108	92	6	19.4
Food Sales	137	124	Q	44	33	Q	Q	47	Q	30.6
Food Service	285	274	Q	146	Q	Q	Q	101	Q	18.5
Health Care	105	105	19	27	20	4	23	32	Q	33.4
Lodging	158	158	22	33	72	12	36	26	3	21.4
Mercantile and Service	1,289	1,217	69	602	415	Q	135	263	48	14.9
Office	705	704	136	245	148	21	118	229	20	16.1
Public Assembly	326	310	28	167	65	10	62	55	32	23.6
Public Order and Safety	87	81	Q	26	18	Q	Q	7	Q	40.9
Religious Worship	269	269	20	147	97	Q	39	66	Q	23.9
Warehouse and Storage	580	325	39	130	132	Q	Q	81	23	24.5
Other	67	53	Q	Q	Q	Q	7	Q	Q	51.5
Vacant	261	95	Q	33	52	Q	10	20	Q	28.0
Year Constructed										
1919 or Before	353	316	Q	151	72	22	92	26	Q	25.7
1920 to 1945	562	496	24	258	134	21	98	81	23	21.2
1946 to 1959	867	769	79	332	250	14	164	121	25	15.3
1960 to 1969	718	652	37	267	231	25	118	149	16	16.2
1970 to 1979	813	722	93	258	212	Q	59	296	19	14.8
1980 to 1989	846	741	104	325	201	8	66	230	49	16.8
1990 to 1992	218	189	37	45	55	Q	6	68	3	25.3
1993 to 1995	202	141	15	40	32	Q	7	59	3	31.7
Census Region										
Northeast	725	657	14	284	140	26	240	91	38	19.0
Midwest	1,139	1,006	31	626	255	36	161	109	65	17.2
South	1,750	1,547	284	471	500	34	111	526	43	12.9
West	964	815	65	295	293	19	97	305	14	17.2
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	493	443	4	260	134	3	110	40	Q	24.4
5,500 to 7,000 HDD	975	877	19	464	199	31	235	116	49	14.6
4,000 to 5,499 HDD	1,070	927	110	465	294	45	165	138	27	21.6
Fewer than 4,000 HDD	1,103	955	165	297	319	11	67	387	8	16.1
More than 2,000 CDD and --										
Fewer than 4,000 HDD	937	822	97	190	242	Q	33	350	35	20.5
Workers (main shift)										
Fewer than 5	2,505	2,013	150	914	668	34	229	376	75	13.3
5 to 9	798	770	72	346	222	16	86	230	19	19.0
10 to 19	625	608	78	239	122	Q	121	188	30	17.8
20 to 49	400	390	64	128	106	18	84	144	14	14.0
50 to 99	138	131	14	29	45	18	43	57	8	13.9
100 to 249	71	69	12	10	17	8	30	27	6	13.4
250 or More	43	43	5	Q	9	9	17	9	9	13.7

See footnotes at end of table.

Table BC-33. Heating Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.5	0.6	1.3	0.9	1.0	1.7	1.1	0.9	1.8	
Weekly Operating Hours										
39 or Fewer	899	620	42	283	235	Q	74	109	Q	18.5
40 to 48	1,257	1,207	162	488	349	24	167	324	50	14.1
49 to 60	969	907	78	360	303	23	145	230	48	15.6
61 to 84	567	541	44	267	135	13	71	139	24	18.1
85 to 167	420	366	24	165	70	12	39	122	12	19.7
Open Continuously	466	385	44	113	96	33	113	107	11	16.8
Multibuilding Facility										
Part of Multibuilding Facility	1,480	1,195	167	358	350	99	206	334	79	11.7
Not on Multibuilding Facility	3,099	2,829	227	1,318	838	16	404	697	82	10.9
Predominant Exterior Wall Material										
Masonry	3,061	2,774	295	1,079	765	98	502	772	77	8.9
Siding or Shingles	639	572	37	315	144	Q	70	83	Q	21.9
Metal Panels	662	480	41	220	235	Q	15	97	35	22.0
Concrete Panels	106	98	Q	30	23	5	11	37	5	24.2
Window Glass	46	46	2	Q	Q	2	5	36	2	28.2
Other	50	40	Q	Q	Q	Q	Q	Q	Q	59.0
No One Major Type	15	14	Q	Q	Q	Q	Q	Q	Q	86.1
Predominant Roof Material										
Built-Up	1,369	1,257	99	483	378	63	197	437	40	12.9
Shingles (Not Wood)	1,486	1,386	172	631	336	20	241	249	46	15.6
Metal Surfacing	908	672	65	273	279	3	25	173	51	17.7
Synthetic or Rubber	351	334	41	112	76	18	100	80	20	17.6
Slate or Tile	202	173	7	64	59	10	37	49	Q	25.5
Wooden Materials	152	123	Q	80	Q	Q	Q	Q	Q	38.0
Concrete	58	40	Q	Q	22	Q	3	Q	Q	43.4
Other	36	23	Q	Q	Q	Q	Q	Q	Q	77.4
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)										
Electricity	4,343	4,004	394	1,667	1,171	115	606	1,031	161	8.0
Natural Gas	2,478	2,456	98	1,221	726	32	420	708	68	9.5
Fuel Oil	607	607	53	249	190	20	242	47	52	20.9
District Heat	110	109	2	Q	9	109	Q	4	3	21.0
District Chilled Water	53	52	Q	Q	3	48	3	3	2	31.2
Propane	589	579	26	294	185	Q	96	96	23	21.4
Other	213	210	Q	82	69	Q	45	14	42	31.9
Space-Heating Energy Sources (more than one may apply)										
Electricity	1,467	1,467	391	395	603	10	138	465	94	12.0
Natural Gas	2,211	2,211	56	1,180	670	7	381	631	54	9.7
Fuel Oil	504	504	36	214	146	Q	212	27	37	25.6
District Heat	109	109	2	Q	9	109	Q	4	3	21.1
Propane	301	301	Q	168	114	Q	27	58	Q	28.1
Other	135	135	Q	64	44	Q	30	Q	34	37.7
Primary Space-Heating Energy Source										
Electricity	1,007	1,007	325	161	328	Q	18	346	52	16.5
Natural Gas	2,106	2,106	35	1,141	613	2	371	596	51	11.0
Fuel Oil	439	439	Q	188	122	Q	183	23	29	26.2
District Heat	107	107	2	Q	8	107	Q	3	3	21.5
Propane	260	260	Q	147	99	Q	Q	49	Q	29.7
Other	61	61	Q	Q	Q	Q	Q	Q	Q	53.3

See footnotes at end of table.

Table BC-33. Heating Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply): Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	RSE Row Factor
RSE Column Factor:	0.5	0.6	1.3	0.9	1.0	1.7	1.1	0.9	1.8	
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,024	4,024	394	1,676	1,188	115	610	1,031	161	8.1
Buildings with Cooling	3,381	3,326	393	1,330	882	99	470	1,015	119	8.2
Buildings with Water Heating	3,486	3,418	348	1,432	956	100	595	901	133	8.4
Buildings with Cooking	828	804	70	302	189	18	175	261	38	12.4
Buildings with Manufacturing	204	181	23	61	67	Q	26	39	23	29.7
Buildings with Electricity Generation	247	246	24	69	63	21	103	62	22	20.7
Percent of Floorspace Heated										
Not Heated	554	--	--	--	--	--	--	--	--	19.0
1 to 50	555	555	41	216	225	Q	49	131	29	20.7
51 to 99	633	633	53	298	209	7	87	159	34	17.7
100	2,836	2,836	301	1,163	754	106	473	741	98	8.9
Heating Equipment (more than one may apply)										
Heat Pumps	394	394	394	47	78	2	30	49	Q	20.9
Furnaces	1,676	1,676	47	1,676	355	Q	80	145	37	14.8
Individual Space Heaters	1,188	1,188	78	355	1,188	9	140	186	30	13.8
District Heat	115	115	2	Q	9	115	Q	4	3	20.6
Boilers	610	610	30	80	140	Q	610	50	30	17.7
Packaged Heating Units	1,031	1,031	49	145	186	4	50	1,031	21	14.6
Other	161	161	Q	37	30	3	30	21	161	27.9
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	878	862	30	640	170	8	116	114	25	18.0
Heat Pumps	457	457	384	75	96	3	31	96	18	20.4
Individual Air Conditioners	862	848	43	326	385	25	188	91	50	15.2
District Chilled Water	53	52	Q	Q	3	48	3	3	2	31.2
Central Chillers	109	108	8	9	28	15	77	18	18	15.1
Packaged Air Conditioning Units	1,431	1,404	44	432	351	28	174	877	48	12.3
Swamp Coolers	186	182	4	91	70	Q	9	57	4	27.8
Other	18	18	Q	4	9	Q	9	4	4	33.9
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	828	804	70	302	189	18	175	261	38	12.4
Computer Room	234	231	17	63	67	22	60	98	16	16.6
Activities with Large Amounts of Hot Water	243	233	25	99	67	11	64	52	8	20.7
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	3,380	3,226	361	1,350	887	98	510	867	141	8.5
Wall Insulation	2,372	2,315	301	979	640	57	311	676	122	9.8
Storm or Multiple Glazing	1,897	1,853	195	870	484	47	362	415	88	11.2
Tinted, Reflective or Shading Glass	1,202	1,171	130	469	269	42	164	442	52	12.2
Exterior or Interior Shading or Awnings	2,271	2,234	310	836	607	73	407	644	97	9.8
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	327	326	25	86	74	37	82	122	19	18.0
Economizer Cycle	461	457	42	143	120	25	98	202	21	13.7
HVAC Maintenance	2,403	2,393	285	933	574	95	500	705	101	9.4
Other Energy Efficient Equipment	198	198	24	57	56	9	50	54	10	22.3

See footnotes at end of table.

Table BC-33. Heating Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.5	0.6	1.3	0.9	1.0	1.7	1.1	0.9	1.8	
Off-Hour Equipment Reduction (more than one may apply)										
Heating	3,211	3,211	286	1,442	955	65	433	818	122	8.9
Cooling	2,707	2,654	286	1,121	711	61	333	807	92	9.2
Lighting	3,753	3,522	350	1,511	1,018	81	484	904	150	8.8

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-34. Heating Equipment, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.6	0.6	1.3	1.1	1.0	1.5	0.9	0.9	1.5	
All Buildings	58,772	54,347	5,843	14,923	16,809	5,911	16,754	16,893	6,249	5.8
Building Floorspace (Square Feet)										
1,001 to 5,000	6,338	5,506	589	2,334	1,618	Q	551	1,319	Q	10.5
5,001 to 10,000	7,530	6,546	436	3,197	2,003	Q	1,005	1,410	180	15.4
10,001 to 25,000	11,617	10,706	1,243	3,871	3,094	407	2,080	3,387	780	13.3
25,001 to 50,000	7,676	7,157	701	1,743	1,960	657	2,592	2,754	489	10.7
50,001 to 100,000	7,968	7,699	1,156	1,371	2,208	792	3,190	2,800	762	10.2
100,001 to 200,000	6,776	6,456	564	1,079	1,936	1,162	2,850	2,139	822	12.1
200,001 to 500,000	5,553	5,371	681	657	1,901	1,283	2,553	1,611	1,202	12.8
Over 500,000	5,313	4,906	473	671	2,088	1,390	1,933	1,473	1,861	14.4
Principal Building Activity										
Education	7,740	7,740	570	1,041	1,703	1,129	4,805	1,782	416	13.1
Food Sales	642	609	Q	255	198	Q	Q	246	Q	22.7
Food Service	1,353	1,299	Q	643	Q	Q	Q	539	Q	20.9
Health Care	2,333	2,333	296	144	469	644	1,171	625	512	15.1
Lodging	3,618	3,608	833	582	1,478	634	1,307	1,039	264	17.0
Mercantile and Service	12,728	12,227	942	4,303	4,187	Q	1,911	4,758	1,739	12.1
Office	10,478	10,458	1,744	1,891	2,702	1,587	3,426	3,184	1,812	10.0
Public Assembly	3,948	3,836	307	1,183	754	701	1,396	813	499	16.0
Public Order and Safety	1,271	1,154	Q	285	214	340	459	202	Q	29.4
Religious Worship	2,792	2,791	263	1,443	915	Q	717	718	Q	18.5
Warehouse and Storage	8,481	6,419	579	2,701	3,339	300	723	2,387	422	17.6
Other	1,004	907	Q	Q	263	170	373	379	Q	33.7
Vacant	2,384	966	Q	264	420	Q	334	221	Q	23.2
Year Constructed										
1919 or Before	3,673	3,429	Q	1,256	853	591	1,404	294	Q	17.6
1920 to 1945	6,710	5,951	319	1,818	1,829	877	2,185	1,123	498	16.2
1946 to 1959	9,298	8,701	1,023	2,531	3,029	975	3,144	2,050	561	12.8
1960 to 1969	10,858	10,024	761	2,563	2,926	1,509	3,982	3,031	952	11.3
1970 to 1979	11,333	10,489	1,035	2,545	3,517	1,000	2,735	4,133	1,639	9.3
1980 to 1989	12,252	11,462	1,962	3,261	3,589	550	2,418	4,307	1,727	10.3
1990 to 1992	2,590	2,467	383	492	648	258	433	1,105	303	16.5
1993 to 1995	2,059	1,824	231	458	417	Q	453	851	252	18.3
Census Region										
Northeast	11,883	11,180	657	2,732	3,393	1,834	5,210	2,578	1,979	11.3
Midwest	14,322	13,511	779	4,984	4,395	1,984	4,480	2,868	1,590	11.5
South	20,830	18,900	3,189	4,497	5,783	1,101	3,952	7,439	1,915	9.8
West	11,736	10,756	1,218	2,710	3,237	993	3,112	4,009	765	12.8
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	5,098	4,901	254	1,893	1,550	299	2,125	917	702	18.2
5,500 to 7,000 HDD	14,597	13,937	586	4,325	4,434	2,001	5,565	3,010	1,850	11.8
4,000 to 5,499 HDD	15,155	14,147	1,756	3,993	4,734	2,376	4,833	3,395	1,886	11.2
Fewer than 4,000 HDD	13,491	12,350	1,944	3,128	3,859	585	2,985	5,412	725	14.3
More than 2,000 CDD and --										
Fewer than 4,000 HDD	10,430	9,014	1,303	1,584	2,231	651	1,247	4,159	1,087	16.0
Workers (main shift)										
Fewer than 5	13,885	10,663	807	4,496	3,629	427	1,692	1,988	513	12.5
5 to 9	6,291	6,086	381	2,397	2,072	319	1,044	1,733	368	16.4
10 to 19	7,102	6,905	831	2,557	1,666	285	1,560	2,185	463	13.8
20 to 49	9,132	8,899	1,108	2,280	2,463	673	2,856	3,529	505	11.0
50 to 99	6,931	6,642	689	1,504	2,209	784	2,733	2,695	646	12.2
100 to 249	5,988	5,880	969	778	1,583	902	2,866	2,219	626	12.1
250 or More	9,443	9,272	1,058	911	3,186	2,520	4,003	2,545	3,128	10.3

See footnotes at end of table.

Table BC-34. Heating Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.6	0.6	1.3	1.1	1.0	1.5	0.9	0.9	1.5	
Weekly Operating Hours										
39 or Fewer	6,134	4,032	201	1,776	1,357	Q	919	682	Q	13.8
40 to 48	13,233	12,672	1,568	3,844	4,025	792	3,304	3,815	762	12.0
49 to 60	12,242	11,658	1,121	3,381	3,622	996	3,566	3,369	1,342	10.7
61 to 84	10,052	9,635	1,161	2,359	2,975	676	3,078	3,280	1,536	11.7
85 to 167	6,202	5,880	322	1,409	1,522	908	1,757	2,386	684	13.2
Open Continuously	10,908	10,469	1,470	2,155	3,307	2,399	4,130	3,360	1,765	9.6
Multibuilding Facility										
Part of Multibuilding Facility	24,352	21,968	2,669	4,723	6,218	4,560	6,602	6,203	2,922	7.6
Not on Multibuilding Facility	34,420	32,379	3,175	10,200	10,591	1,351	10,152	10,691	3,327	7.1
Predominant Exterior Wall Material										
Masonry	42,958	40,217	4,501	10,066	11,748	4,605	13,521	12,676	4,107	6.9
Siding or Shingles	3,243	2,919	219	1,571	699	Q	511	512	Q	23.0
Metal Panels	5,694	4,559	421	2,023	2,318	Q	670	1,245	549	15.6
Concrete Panels	4,069	3,932	346	912	1,259	580	997	1,765	642	14.6
Window Glass	1,755	1,754	265	161	516	343	673	474	494	19.1
Other	660	603	Q	Q	229	Q	232	169	146	24.9
No One Major Type	393	363	Q	Q	Q	Q	Q	Q	Q	53.4
Predominant Roof Material										
Built-Up	24,481	23,087	2,153	5,173	6,795	3,084	7,721	8,450	2,760	8.7
Shingles (Not Wood)	11,093	10,450	1,301	3,967	2,505	565	2,771	2,570	620	11.6
Metal Surfacing	7,941	6,463	832	2,533	2,723	183	595	2,081	614	13.3
Synthetic or Rubber	10,235	10,099	1,157	2,167	3,371	1,525	4,273	2,888	1,806	9.8
Slate or Tile	1,920	1,765	197	421	516	354	615	407	Q	18.6
Wooden Materials	1,130	985	Q	483	Q	Q	Q	Q	Q	32.7
Concrete	1,335	903	Q	Q	485	Q	420	Q	Q	32.5
Other	332	290	Q	Q	Q	Q	Q	Q	Q	38.0
No One Major Type	305	305	Q	Q	Q	Q	Q	Q	Q	45.3
Energy Sources (more than one may apply)										
Electricity	57,076	54,110	5,831	14,851	16,689	5,900	16,650	16,867	6,237	5.8
Natural Gas	38,145	37,950	2,988	11,907	12,747	2,431	14,242	12,946	4,070	6.6
Fuel Oil	14,421	14,236	1,648	2,454	4,504	2,219	8,208	2,817	3,184	9.4
District Heat	5,658	5,642	252	Q	1,046	5,628	Q	378	883	14.4
District Chilled Water	2,521	2,479	Q	Q	369	2,192	215	162	385	19.8
Propane	5,344	5,281	517	2,161	1,513	Q	1,545	1,363	409	17.6
Other	2,336	2,312	Q	562	471	303	930	375	589	22.6
Space-Heating Energy Sources (more than one may apply)										
Electricity	22,156	22,156	5,815	4,639	9,535	1,087	4,855	8,898	4,152	8.5
Natural Gas	31,535	31,535	1,948	11,369	11,128	640	12,801	11,200	2,824	7.6
Fuel Oil	6,606	6,606	531	1,633	1,653	468	4,629	827	1,074	16.2
District Heat	5,606	5,606	252	Q	1,046	5,606	Q	378	873	14.4
Propane	2,025	2,025	Q	964	742	Q	415	515	Q	23.3
Other	1,050	1,050	Q	298	272	Q	472	Q	383	28.9
Primary Space-Heating Energy Source										
Electricity	13,500	13,500	3,949	2,088	4,452	Q	1,048	5,910	2,299	10.5
Natural Gas	28,808	28,808	1,332	10,473	9,777	252	12,095	9,891	2,470	8.5
Fuel Oil	4,207	4,207	Q	1,229	925	Q	2,893	287	395	20.4
District Heat	5,289	5,289	229	Q	973	5,289	Q	314	730	14.8
Propane	1,545	1,545	Q	847	520	Q	Q	362	Q	27.0
Other	514	514	Q	Q	Q	Q	Q	Q	Q	39.6

See footnotes at end of table.

Table BC-34. Heating Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.6	0.6	1.3	1.1	1.0	1.5	0.9	0.9	1.5	
Energy End Uses (more than one may apply)										
Buildings with Space Heating	54,347	54,347	5,843	14,923	16,809	5,911	16,754	16,893	6,249	5.8
Buildings with Cooling	49,935	49,090	5,813	12,967	14,831	5,286	15,050	16,643	5,899	5.9
Buildings with Water Heating	51,560	50,796	5,639	13,445	15,547	5,662	16,617	16,027	5,952	5.8
Buildings with Cooking	20,713	20,338	2,290	3,651	6,013	2,124	9,429	7,204	3,526	7.3
Buildings with Manufacturing	3,893	3,689	446	999	1,385	Q	981	1,320	623	16.3
Buildings with Electricity Generation	13,366	13,165	1,580	1,894	4,296	2,489	6,503	4,021	3,388	8.7
Percent of Floorspace Heated										
Not Heated	4,425	--	--	--	--	--	--	--	--	20.7
1 to 50	6,227	6,227	464	2,375	2,381	Q	694	2,191	563	17.3
51 to 99	8,868	8,868	1,083	2,535	3,013	805	2,603	2,823	1,345	13.3
100	39,252	39,252	4,296	10,013	11,415	5,026	13,456	11,879	4,341	6.3
Heating Equipment (more than one may apply)										
Heat Pumps	5,843	5,843	5,843	950	1,812	275	1,386	1,557	680	11.8
Furnaces	14,923	14,923	950	14,923	4,856	Q	1,599	3,137	841	10.0
Individual Space Heaters	16,809	16,809	1,812	4,856	16,809	1,068	4,657	5,044	2,432	9.8
District Heat	5,911	5,911	275	Q	1,068	5,911	Q	434	881	14.3
Boilers	16,754	16,754	1,386	1,599	4,657	Q	16,754	3,242	2,394	8.6
Packaged Heating Units	16,893	16,893	1,557	3,137	5,044	434	3,242	16,893	1,466	8.8
Other	6,249	6,249	680	841	2,432	881	2,394	1,466	6,249	13.7
Cooling Equipment (more than one may apply)										
Residential-Type Central Air Conditioners	9,238	8,975	698	5,320	2,884	543	2,305	1,995	1,076	10.6
Heat Pumps	6,931	6,888	5,302	1,387	2,183	481	1,523	2,088	805	11.8
Individual Air Conditioners	12,494	12,294	1,320	3,400	5,440	1,161	5,612	2,731	1,533	9.2
District Chilled Water	2,521	2,479	Q	Q	369	2,192	215	162	385	19.8
Central Chillers	11,065	10,857	1,036	737	3,305	2,181	7,049	2,280	3,381	11.0
Packaged Air Conditioning Units	26,628	26,297	2,179	6,629	8,689	2,013	7,569	14,953	3,311	7.6
Swamp Coolers	2,451	2,443	379	720	897	Q	790	1,053	273	22.5
Other	949	949	Q	216	359	Q	552	274	234	29.2
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	20,713	20,338	2,290	3,651	6,013	2,124	9,429	7,204	3,526	7.3
Computer Room	12,890	12,731	1,552	1,881	4,347	2,558	5,711	4,105	2,836	8.2
Activities with Large Amounts of Hot Water	6,753	6,658	992	1,189	2,182	953	3,213	2,159	938	12.1
Building Shell Conservation Features (more than one may apply)										
Roof or Ceiling Insulation	46,355	44,941	5,090	11,807	13,663	5,046	14,018	14,952	5,595	6.3
Wall Insulation	31,694	31,112	4,112	8,793	9,652	3,054	8,874	10,663	4,081	7.2
Storm or Multiple Glazing	28,876	28,454	3,501	7,911	8,659	3,163	9,982	8,534	3,767	6.7
Tinted, Reflective or Shading Glass	24,245	23,686	3,009	5,046	6,684	2,988	7,646	8,722	3,788	6.9
Exterior or Interior Shading or Awnings	37,208	36,667	4,686	8,400	10,575	4,358	12,888	11,773	4,564	6.3
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	13,473	13,250	1,216	1,496	4,071	2,911	5,757	3,942	3,219	9.3
Economizer Cycle	16,550	16,484	1,753	2,539	5,276	2,971	7,153	5,910	3,460	8.1
HVAC Maintenance	43,134	43,036	5,074	10,051	12,392	5,581	15,279	14,195	5,615	6.3
Other Energy Efficient Equipment	6,453	6,408	818	1,128	2,161	1,127	2,689	2,001	1,375	10.5

See footnotes at end of table.

Table BC-34. Heating Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Heated Buildings	Heating Equipment (more than one may apply)							RSE Row Factor
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other	
RSE Column Factor:	0.6	0.6	1.3	1.1	1.0	1.5	0.9	0.9	1.5	
Off-Hour Equipment Reduction (more than one may apply)										
Heating	38,326	38,326	3,544	11,429	11,642	2,890	11,213	11,739	4,135	6.9
Cooling	35,605	34,890	3,608	9,871	10,422	2,684	10,137	11,643	3,906	7.0
Lighting	44,937	42,747	4,348	12,420	12,996	3,456	12,354	13,279	4,444	6.7

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-35. Cooling Equipment, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.1	0.9	1.9	0.9	0.7	1.9	2.0	
All Buildings	4,579	3,381	878	457	862	53	109	1,431	186	18	9.3
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	1,650	453	235	467	Q	Q	569	97	Q	12.2
5,001 to 10,000	1,035	754	236	77	171	Q	Q	345	41	Q	17.7
10,001 to 25,000	745	619	133	96	134	Q	14	310	34	Q	15.5
25,001 to 50,000	213	187	35	23	47	7	29	108	6	Q	13.1
50,001 to 100,000	115	103	14	17	25	5	23	62	4	Q	12.9
100,001 to 200,000	48	44	5	5	11	5	15	25	2	Q	14.2
200,001 to 500,000	19	18	3	3	6	2	9	10	1	Q	13.4
Over 500,000	6	6	1	1	1	1	3	4	Q	Q	17.0
Principal Building Activity											
Education	309	249	35	23	95	26	19	104	Q	Q	23.9
Food Sales	137	128	38	Q	Q	Q	Q	62	Q	Q	31.7
Food Service	285	272	80	Q	65	Q	Q	137	Q	Q	22.4
Health Care	105	105	32	19	38	2	9	36	Q	Q	30.4
Lodging	158	126	26	26	75	Q	12	25	7	Q	27.7
Mercantile and Service	1,289	916	238	79	230	Q	7	400	60	Q	16.8
Office	705	690	201	159	81	5	29	312	Q	3	15.8
Public Assembly	326	246	61	33	81	Q	16	97	Q	Q	29.0
Public Order and Safety	87	38	6	Q	20	Q	5	13	Q	Q	34.6
Religious Worship	269	223	82	31	44	Q	Q	83	Q	Q	30.2
Warehouse and Storage	580	262	73	39	83	Q	2	102	Q	Q	30.7
Other	67	53	Q	Q	Q	Q	2	26	Q	Q	56.9
Vacant	261	73	Q	Q	24	Q	Q	36	Q	Q	40.2
Year Constructed											
1919 or Before	353	260	74	Q	135	Q	4	67	Q	Q	28.3
1920 to 1945	562	382	95	33	148	Q	7	140	11	Q	23.1
1946 to 1959	867	617	182	79	220	5	15	191	48	Q	17.3
1960 to 1969	718	508	110	38	145	10	34	224	32	Q	19.6
1970 to 1979	813	688	154	121	110	Q	18	376	27	Q	14.6
1980 to 1989	846	657	225	116	70	7	23	294	51	2	19.7
1990 to 1992	218	161	19	50	Q	Q	4	80	Q	Q	31.6
1993 to 1995	202	108	19	15	Q	Q	4	59	Q	Q	39.7
Census Region											
Northeast	725	451	120	16	166	3	16	196	Q	Q	18.5
Midwest	1,139	811	313	43	274	Q	26	267	Q	4	18.4
South	1,750	1,433	348	311	311	24	37	599	Q	7	13.6
West	964	687	98	87	110	10	31	369	144	4	20.7
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	493	321	121	4	105	Q	8	112	Q	Q	33.7
5,500 to 7,000 HDD	975	656	229	18	183	8	24	276	Q	5	17.1
4,000 to 5,499 HDD	1,070	714	188	134	238	16	24	239	Q	7	23.0
Fewer than 4,000 HDD	1,103	887	133	193	152	6	25	452	79	Q	20.7
More than 2,000 CDD and --											
Fewer than 4,000 HDD	937	803	207	108	183	Q	28	353	61	Q	21.5
Workers (main shift)											
Fewer than 5	2,505	1,542	454	187	494	Q	Q	457	95	Q	13.0
5 to 9	798	691	160	81	147	Q	Q	332	25	Q	18.8
10 to 19	625	549	149	82	110	Q	8	297	37	Q	18.4
20 to 49	400	361	74	71	66	8	23	202	19	Q	18.3
50 to 99	138	129	22	17	24	8	18	84	4	Q	16.9
100 to 249	71	69	10	14	15	3	21	39	4	Q	14.9
250 or More	43	41	Q	5	6	5	17	20	2	2	16.7

See footnotes at end of table.

Table BC-35. Cooling Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.1	0.9	1.9	0.9	0.7	1.9	2.0	
Weekly Operating Hours											
39 or Fewer	899	399	109	55	111	Q	Q	127	Q	Q	22.2
40 to 48	1,257	1,047	281	180	224	Q	22	443	43	Q	15.3
49 to 60	969	795	178	87	238	11	19	331	47	9	17.1
61 to 84	567	446	127	51	102	8	18	181	48	Q	18.8
85 to 167	420	344	99	25	72	7	10	196	Q	Q	21.0
Open Continuously	466	350	83	59	115	Q	30	152	14	2	19.1
Multibuilding Facility											
Part of Multibuilding Facility	1,480	1,020	206	216	285	50	65	383	39	4	14.7
Not on Multibuilding Facility	3,099	2,361	672	241	576	3	44	1,049	146	14	10.9
Predominant Exterior Wall Material											
Masonry	3,061	2,429	609	328	579	42	89	1,108	136	15	10.1
Siding or Shingles	639	448	130	53	210	Q	Q	93	Q	Q	25.2
Metal Panels	662	322	98	53	49	Q	1	130	Q	Q	24.7
Concrete Panels	106	91	19	15	11	3	8	52	5	Q	30.1
Window Glass	46	45	3	2	2	Q	4	39	Q	Q	40.1
Other	50	32	Q	Q	Q	Q	Q	7	Q	Q	68.5
No One Major Type	15	14	Q	Q	Q	Q	Q	Q	Q	Q	97.9
Predominant Roof Material											
Built-Up	1,369	1,113	220	122	220	25	52	618	74	6	14.4
Shingles (Not Wood)	1,486	1,149	362	184	398	Q	14	311	52	Q	16.4
Metal Surfacing	908	508	152	84	86	Q	5	225	37	Q	21.3
Synthetic or Rubber	351	296	55	42	65	9	31	152	3	8	19.9
Slate or Tile	202	143	31	Q	48	Q	4	61	Q	Q	34.1
Wooden Materials	152	106	41	Q	Q	Q	Q	28	Q	Q	44.4
Concrete	58	39	Q	Q	12	Q	2	22	Q	Q	54.7
Other	36	Q	Q	Q	Q	Q	Q	Q	Q	Q	79.9
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	100.0
Energy Sources (more than one may apply)											
Electricity	4,343	3,376	877	457	857	53	109	1,430	185	18	9.3
Natural Gas	2,478	2,131	625	141	521	17	81	1,011	140	14	10.9
Fuel Oil	607	388	90	55	160	Q	38	120	6	4	21.5
District Heat	110	95	8	2	23	47	15	27	Q	Q	30.8
District Chilled Water	53	53	Q	1	Q	53	Q	5	Q	Q	35.2
Propane	589	431	142	30	132	Q	5	149	Q	Q	24.6
Other	213	107	36	Q	48	Q	5	27	Q	Q	38.5
Cooling Energy Sources (more than one may apply)											
Electricity	3,293	3,293	861	457	857	21	106	1,396	185	18	9.4
Natural Gas	65	65	20	Q	Q	Q	5	42	Q	Q	43.5
District Chilled Water	53	53	Q	1	Q	53	Q	5	Q	Q	35.2
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	3,326	862	457	848	52	108	1,404	182	18	9.5
Buildings with Cooling	3,381	3,381	878	457	862	53	109	1,431	186	18	9.3
Buildings with Water Heating	3,486	2,968	795	403	732	49	108	1,273	170	17	9.7
Buildings with Cooking	828	724	171	84	213	10	44	357	57	5	12.9
Buildings with Manufacturing	204	165	33	27	58	Q	3	49	Q	Q	31.3
Buildings with Electricity Generation	247	206	51	25	50	7	39	108	Q	3	18.8
Percent of Floorspace Cooled											
Not Cooled	1,198	--	--	--	--	--	--	--	--	--	19.8
1 to 50	930	930	222	80	394	Q	8	300	37	Q	17.2
51 to 99	635	635	182	85	182	10	34	292	37	7	17.3
100	1,816	1,816	474	292	286	40	67	839	112	7	11.6

See footnotes at end of table.

Table BC-35. Cooling Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.1	0.9	1.9	0.9	0.7	1.9	2.0	
Heating Equipment (more than one may apply)											
Heat Pumps	394	393	30	384	43	Q	8	44	4	Q	20.6
Furnaces	1,676	1,330	640	75	326	Q	9	432	91	4	15.8
Individual Space Heaters	1,188	882	170	96	385	3	28	351	70	9	17.5
District Heat	115	99	8	3	25	48	15	28	Q	Q	30.2
Boilers	610	470	116	31	188	3	77	174	9	9	17.9
Packaged Heating Units	1,031	1,015	114	96	91	3	18	877	57	4	16.5
Other	161	119	25	18	50	2	18	48	4	4	26.9
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	878	878	36	101	Q	11	111	25	Q	18.3
Heat Pumps	457	457	36	457	47	1	7	76	6	Q	20.7
Individual Air Conditioners	862	862	101	47	862	Q	21	118	19	3	16.1
District Chilled Water	53	53	Q	1	Q	53	Q	5	Q	Q	35.2
Central Chillers	109	109	11	7	21	Q	109	34	4	2	16.8
Packaged Air Conditioning Units	1,431	1,431	111	76	118	5	34	1,431	55	5	13.7
Swamp Coolers	186	186	25	6	19	Q	4	55	186	Q	33.4
Other	18	18	Q	Q	3	Q	2	5	Q	18	31.1
Energy-Related Space Functions (more than one may apply)											
Commercial Food Preparation	828	724	171	84	213	10	44	357	57	5	12.9
Computer Room	234	234	43	21	58	Q	37	139	Q	4	18.5
Activities with Large Amounts of Hot Water	243	200	50	30	77	2	13	72	24	Q	23.8
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	2,805	781	416	642	46	96	1,186	154	13	9.4
Wall Insulation	2,372	2,057	575	356	413	32	57	881	83	9	10.9
Storm or Multiple Glazing	1,897	1,619	510	230	387	24	62	666	58	11	12.4
Tinted, Reflective or Shading Glass	1,202	1,104	342	156	135	27	56	573	74	8	14.0
Exterior or Interior Shading or Awnings	2,271	2,049	517	348	506	32	89	863	106	14	11.5
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	315	57	30	43	30	42	177	18	4	20.8
Economizer Cycle	461	461	73	58	48	15	52	300	51	4	16.6
HVAC Maintenance	2,403	2,103	548	323	468	47	103	975	104	15	11.0
Other Energy Efficient Equipment	198	163	30	25	28	5	14	87	Q	2	24.6
Off-Hour Equipment Reduction (more than one may apply)											
Heating	3,211	2,630	708	330	648	38	66	1,122	153	13	10.8
Cooling	2,707	2,707	720	330	690	38	68	1,152	154	13	10.5
Lighting	3,753	2,964	790	392	726	41	79	1,244	165	12	9.8

– = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-36. Cooling Equipment, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.0	0.9	1.5	0.9	0.7	2.1	2.3	
All Buildings	58,772	49,935	9,238	6,931	12,494	2,521	11,065	26,628	2,451	949	6.8
Building Floorspace (Square Feet)											
1,001 to 5,000	6,338	4,376	1,133	652	1,209	Q	Q	1,603	269	Q	11.9
5,001 to 10,000	7,530	5,531	1,732	559	1,277	Q	Q	2,484	322	Q	17.9
10,001 to 25,000	11,617	9,712	1,970	1,523	2,194	239	264	4,932	491	Q	16.3
25,001 to 50,000	7,676	6,760	1,224	826	1,664	275	1,107	3,928	220	Q	13.4
50,001 to 100,000	7,968	7,178	970	1,186	1,690	348	1,666	4,296	317	Q	13.0
100,001 to 200,000	6,776	6,175	707	730	1,617	587	2,080	3,539	312	Q	14.7
200,001 to 500,000	5,553	5,235	824	788	1,639	557	2,687	2,936	290	Q	13.7
Over 500,000	5,313	4,968	677	666	1,205	432	3,124	2,911	Q	Q	17.3
Principal Building Activity											
Education	7,740	6,741	865	615	2,869	653	1,715	2,942	222	Q	16.2
Food Sales	642	612	173	Q	Q	Q	Q	362	Q	Q	29.0
Food Service	1,353	1,310	381	Q	247	Q	Q	815	Q	Q	24.4
Health Care	2,333	2,323	579	327	749	403	1,370	1,291	Q	Q	15.0
Lodging	3,618	3,193	473	827	1,629	Q	873	1,348	354	Q	20.3
Mercantile and Service	12,728	11,086	1,835	1,164	1,761	Q	1,389	6,762	523	Q	15.5
Office	10,478	10,360	1,663	2,229	1,179	568	3,683	5,847	257	301	12.3
Public Assembly	3,948	3,394	552	426	764	372	872	1,669	Q	Q	19.2
Public Order and Safety	1,271	856	193	Q	383	Q	287	420	Q	Q	34.6
Religious Worship	2,792	2,414	800	356	576	Q	Q	971	Q	Q	25.1
Warehouse and Storage	8,481	5,991	1,561	623	1,835	Q	247	3,445	Q	Q	21.6
Other	1,004	921	Q	Q	Q	Q	281	414	Q	Q	40.8
Vacant	2,384	732	Q	Q	192	Q	Q	342	Q	Q	30.2
Year Constructed											
1919 or Before	3,673	2,818	729	Q	1,389	Q	292	1,026	Q	Q	22.7
1920 to 1945	6,710	5,038	766	512	2,122	187	740	2,408	196	Q	18.9
1946 to 1959	9,298	7,549	1,716	1,085	2,713	322	1,433	3,509	413	Q	16.0
1960 to 1969	10,858	8,978	1,423	798	2,732	527	2,603	5,202	423	Q	12.8
1970 to 1979	11,333	10,389	1,851	1,521	1,847	674	2,846	6,087	432	Q	11.5
1980 to 1989	12,252	11,174	2,208	2,131	1,384	400	2,343	6,104	689	178	13.5
1990 to 1992	2,590	2,345	325	506	156	Q	467	1,335	Q	Q	22.4
1993 to 1995	2,059	1,644	219	241	Q	Q	342	957	Q	Q	22.7
Census Region											
Northeast	11,883	9,523	1,702	794	3,725	291	2,502	5,368	Q	Q	13.6
Midwest	14,322	12,033	2,734	912	3,551	778	2,553	5,917	Q	221	13.8
South	20,830	18,606	3,726	3,616	3,698	919	3,736	9,737	517	219	11.6
West	11,736	9,772	1,075	1,609	1,520	533	2,273	5,606	1,743	289	13.7
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	5,098	4,115	933	298	1,361	Q	643	2,117	Q	Q	24.0
5,500 to 7,000 HDD	14,597	11,903	2,265	655	3,585	624	2,922	6,153	412	360	12.9
4,000 to 5,499 HDD	15,155	12,620	2,554	2,204	3,844	632	3,181	6,616	157	283	14.1
Fewer than 4,000 HDD	13,491	11,981	1,533	2,352	2,029	432	2,581	6,939	893	Q	15.9
More than 2,000 CDD and --											
Fewer than 4,000 HDD	10,430	9,315	1,952	1,421	1,675	726	1,737	4,804	847	Q	16.7
Workers (main shift)											
Fewer than 5	13,885	8,324	2,076	980	2,628	Q	280	2,807	523	Q	15.5
5 to 9	6,291	5,260	1,123	529	1,109	Q	Q	2,808	161	Q	18.5
10 to 19	7,102	6,449	1,488	860	1,580	Q	298	3,458	394	Q	15.9
20 to 49	9,132	8,302	1,575	1,271	1,988	250	1,075	4,720	352	Q	14.2
50 to 99	6,931	6,379	917	879	1,643	366	1,505	4,239	248	Q	14.5
100 to 249	5,988	5,872	707	1,065	1,535	356	2,054	3,360	424	Q	13.4
250 or More	9,443	9,349	1,351	1,347	2,011	1,172	5,684	5,237	350	405	11.9

See footnotes at end of table.

Table BC-36. Cooling Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.0	0.9	1.5	0.9	0.7	2.1	2.3	
Weekly Operating Hours											
39 or Fewer	6,134	2,845	761	270	683	Q	276	1,000	Q	Q	21.2
40 to 48	13,233	11,401	2,294	1,782	2,578	350	1,349	5,760	501	Q	15.0
49 to 60	12,242	10,897	1,916	1,392	2,781	409	1,969	5,679	488	299	12.8
61 to 84	10,052	9,212	1,460	1,291	1,868	381	2,399	5,127	374	Q	14.4
85 to 167	6,202	5,644	819	442	1,157	395	1,199	3,644	259	Q	16.6
Open Continuously	10,908	9,936	1,988	1,754	3,427	919	3,873	5,418	655	285	11.3
Multibuilding Facility											
Part of Multibuilding Facility	24,352	20,116	3,398	3,352	5,190	2,202	5,717	9,482	831	381	8.3
Not on Multibuilding Facility	34,420	29,819	5,840	3,578	7,303	319	5,348	17,147	1,620	568	9.1
Predominant Exterior Wall Material											
Masonry	42,958	37,394	6,776	5,165	9,601	1,944	8,151	20,258	1,775	736	7.6
Siding or Shingles	3,243	2,369	665	406	1,022	Q	Q	661	Q	Q	27.6
Metal Panels	5,694	3,713	943	506	869	Q	345	1,814	Q	Q	19.3
Concrete Panels	4,069	3,790	542	412	576	302	1,201	2,438	269	Q	18.5
Window Glass	1,755	1,730	192	324	280	Q	887	998	Q	Q	25.3
Other	660	578	Q	Q	Q	Q	304	289	Q	Q	27.9
No One Major Type	393	362	Q	Q	Q	Q	Q	Q	Q	Q	63.8
Predominant Roof Material											
Built-Up	24,481	21,744	3,013	2,895	4,478	1,320	5,412	13,354	1,182	493	10.2
Shingles (Not Wood)	11,093	9,125	2,526	1,277	2,877	Q	966	3,499	420	Q	13.5
Metal Surfacing	7,941	5,564	1,318	1,044	1,236	Q	287	2,880	341	Q	16.7
Synthetic or Rubber	10,235	9,662	1,461	1,254	2,799	682	3,645	5,225	298	312	12.5
Slate or Tile	1,920	1,499	279	196	539	Q	166	727	Q	Q	22.9
Wooden Materials	1,130	730	349	Q	Q	Q	Q	264	Q	Q	45.8
Concrete	1,335	1,065	Q	Q	328	Q	440	355	Q	Q	38.4
Other	332	272	Q	Q	Q	Q	Q	Q	Q	Q	49.1
No One Major Type	305	273	Q	Q	Q	Q	Q	195	Q	Q	57.0
Energy Sources (more than one may apply)											
Electricity	57,076	49,785	9,209	6,918	12,390	2,517	11,057	26,534	2,440	949	6.8
Natural Gas	38,145	35,100	6,959	3,637	9,210	1,287	8,312	20,121	1,884	760	8.3
Fuel Oil	14,421	12,904	1,871	1,999	3,992	1,076	6,205	6,628	563	400	11.1
District Heat	5,658	5,128	543	448	1,144	2,140	2,137	1,906	Q	Q	16.7
District Chilled Water	2,521	2,521	169	175	298	2,521	Q	649	Q	Q	21.1
Propane	5,344	4,520	1,101	566	1,253	Q	448	2,378	Q	Q	22.0
Other	2,336	1,943	337	Q	758	Q	438	997	Q	Q	27.3
Cooling Energy Sources (more than one may apply)											
Electricity	47,761	47,761	9,036	6,918	12,328	1,274	10,729	25,949	2,431	919	6.9
Natural Gas	1,314	1,314	232	Q	215	Q	509	892	Q	Q	27.2
District Chilled Water	2,521	2,521	169	175	298	2,521	Q	649	Q	Q	21.1
Energy End Uses (more than one may apply)											
Buildings with Space Heating	54,347	49,090	8,975	6,888	12,294	2,479	10,857	26,297	2,443	949	6.9
Buildings with Cooling	49,935	49,935	9,238	6,931	12,494	2,521	11,065	26,628	2,451	949	6.8
Buildings with Water Heating	51,560	47,249	8,697	6,663	11,804	2,442	10,977	25,476	2,258	928	6.9
Buildings with Cooking	20,713	19,465	3,265	2,779	5,828	982	6,960	11,428	1,056	380	8.5
Buildings with Manufacturing	3,893	3,587	675	521	964	Q	568	1,749	Q	Q	22.4
Buildings with Electricity Generation	13,366	12,986	1,877	1,890	3,103	1,171	6,720	7,514	656	356	10.5
Percent of Floorspace Cooled											
Not Cooled	8,837	--	--	--	--	--	--	--	--	--	17.2
1 to 50	15,027	15,027	3,249	1,330	6,395	Q	969	7,235	597	Q	13.4
51 to 99	12,549	12,549	2,015	2,068	2,965	705	4,956	7,335	595	325	11.2
100	22,359	22,359	3,974	3,533	3,133	1,645	5,140	12,059	1,260	417	8.7

See footnotes at end of table.

Table BC-36. Cooling Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Cooled Buildings	Cooling Equipment (more than one may apply): Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other	RSE Row Factor
RSE Column Factor:	0.5	0.5	1.0	1.0	0.9	1.5	0.9	0.7	2.1	2.3	
Heating Equipment (more than one may apply)											
Heat Pumps	5,843	5,813	698	5,302	1,320	Q	1,036	2,179	379	Q	12.9
Furnaces	14,923	12,967	5,320	1,387	3,400	Q	737	6,629	720	216	13.2
Individual Space Heaters	16,809	14,831	2,884	2,183	5,440	369	3,305	8,689	897	359	12.9
District Heat	5,911	5,286	543	481	1,161	2,192	2,181	2,013	Q	Q	16.7
Boilers	16,754	15,050	2,305	1,523	5,612	215	7,049	7,569	790	552	10.9
Packaged Heating Units	16,893	16,643	1,995	2,088	2,731	162	2,280	14,953	1,053	274	12.0
Other	6,249	5,899	1,076	805	1,533	385	3,381	3,311	273	234	15.4
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	9,238	9,238	9,238	917	2,424	169	1,432	2,885	356	Q	12.2
Heat Pumps	6,931	6,931	917	6,931	1,519	175	1,179	2,857	508	Q	12.8
Individual Air Conditioners	12,494	12,494	2,424	1,519	12,494	298	2,398	4,976	417	188	11.3
District Chilled Water	2,521	2,521	169	175	298	2,521	Q	649	Q	Q	21.1
Central Chillers	11,065	11,065	1,432	1,179	2,398	Q	11,065	4,796	530	291	11.6
Packaged Air Conditioning Units	26,628	26,628	2,885	2,857	4,976	649	4,796	26,628	1,303	316	9.5
Swamp Coolers	2,451	2,451	356	508	417	Q	530	1,303	2,451	Q	24.8
Other	949	949	Q	Q	188	Q	291	316	Q	949	25.9
Energy-Related Space Functions (more than one may apply)											
Commercial Food Preparation	20,713	19,465	3,265	2,779	5,828	982	6,960	11,428	1,056	380	8.5
Computer Room	12,890	12,890	1,997	1,927	3,812	1,226	5,715	7,906	584	474	9.6
Activities with Large Amounts of Hot Water	6,753	6,354	1,008	1,050	2,746	344	2,193	3,146	623	Q	14.4
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	46,355	42,198	7,989	6,041	9,997	2,215	9,981	22,839	1,978	822	7.5
Wall Insulation	31,694	29,545	5,765	4,952	6,533	1,470	6,745	16,015	1,131	673	8.4
Storm or Multiple Glazing	28,876	26,701	5,591	4,104	6,304	1,560	6,805	14,393	1,129	596	8.8
Tinted, Reflective or Shading Glass	24,245	23,202	4,549	3,684	3,967	1,692	7,290	13,429	1,218	611	8.5
Exterior or Interior Shading or Awnings	37,208	34,641	6,119	5,417	8,289	1,991	8,899	18,634	1,742	819	7.5
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	13,473	13,150	1,832	1,485	2,309	1,534	6,502	7,143	602	535	10.3
Economizer Cycle	16,550	16,550	2,319	2,173	3,103	1,340	7,057	10,468	969	518	9.4
HVAC Maintenance	43,134	40,151	6,981	5,919	9,581	2,394	10,620	22,272	1,962	883	7.4
Other Energy Efficient Equipment	6,453	6,092	951	919	1,501	626	2,406	3,564	301	179	13.4
Off-Hour Equipment Reduction (more than one may apply)											
Heating	38,326	34,434	6,403	4,277	7,812	1,454	6,226	18,360	1,569	612	8.3
Cooling	35,605	35,605	6,598	4,372	8,204	1,482	6,477	18,870	1,599	602	8.2
Lighting	44,937	39,237	7,189	5,115	8,828	1,595	7,092	20,799	1,706	601	7.9

-- = Data not applicable.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-37. Refrigeration Equipment, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
	All Buildings	All Buildings with Refrigeration Equipment	Types of Equipment (more than one may apply)				All Buildings	All Buildings with Refrigeration Equipment	Types of Equipment (more than one may apply)				
			Walk-in	Open Cases or Cabinets	Closed Cases or Cabinets	Type Unspecified			Walk-in	Open Cases or Cabinets	Closed Cases or Cabinets	Type Unspecified	
RSE Column Factor:	0.5	0.8	1.0	1.4	0.9	5.0	0.4	0.6	0.7	1.0	0.7	3.5	
All Buildings	4,579	1,000	568	227	799	39	58,772	22,179	16,240	7,931	17,203	482	7.2
Building Floorspace (Square Feet)													
1,001 to 5,000	2,399	512	280	98	420	Q	6,338	1,319	752	249	1,050	Q	12.2
5,001 to 10,000	1,035	165	102	32	127	Q	7,530	1,249	776	255	937	Q	24.0
10,001 to 25,000	745	164	78	44	132	Q	11,617	2,617	1,226	752	2,133	Q	18.7
25,001 to 50,000	213	70	42	20	53	Q	7,676	2,606	1,570	767	1,990	Q	13.8
50,001 to 100,000	115	49	32	16	36	Q	7,968	3,417	2,291	1,150	2,499	Q	12.3
100,001 to 200,000	48	23	19	9	17	Q	6,776	3,265	2,696	1,194	2,402	Q	12.6
200,001 to 500,000	19	13	11	5	10	Q	5,553	3,686	3,219	1,641	2,931	Q	12.4
Over 500,000	6	4	4	2	3	Q	5,313	4,021	3,711	1,923	3,261	Q	15.3
Principal Building Activity													
Education	309	97	41	25	78	Q	7,740	4,861	3,357	1,649	3,591	Q	14.8
Food Sales	137	136	102	47	125	Q	642	635	508	354	521	Q	20.7
Food Service	285	272	194	64	212	Q	1,353	1,318	1,118	309	1,012	Q	18.2
Health Care	105	15	7	3	13	Q	2,333	1,653	1,461	661	1,368	Q	19.4
Lodging	158	36	21	12	30	Q	3,618	2,091	1,662	692	1,704	Q	22.1
Mercantile and Service	1,289	249	124	63	202	Q	12,728	5,230	4,024	2,696	4,431	Q	14.8
Office	705	26	11	5	23	Q	10,478	2,699	1,885	1,045	2,168	Q	16.2
Public Assembly	326	86	28	4	65	Q	3,948	1,646	894	285	1,390	Q	25.1
Public Order and Safety	87	4	3	Q	Q	Q	1,271	206	158	Q	Q	Q	42.7
Religious Worship	269	21	Q	Q	13	Q	2,792	288	Q	Q	257	Q	38.0
Warehouse and Storage	580	39	27	Q	24	Q	8,481	1,037	807	Q	285	Q	32.5
Other	67	7	3	Q	Q	Q	1,004	355	226	Q	239	Q	47.1
Vacant	261	Q	Q	Q	Q	Q	2,384	Q	Q	Q	Q	Q	30.3
Year Constructed													
1919 or Before	353	79	40	29	52	Q	3,673	1,210	695	485	779	Q	29.3
1920 to 1945	562	119	65	19	102	Q	6,710	1,961	1,264	331	1,669	Q	22.8
1946 to 1959	867	161	78	30	113	Q	9,298	3,270	2,079	1,166	2,530	Q	17.4
1960 to 1969	718	178	78	41	143	Q	10,858	4,463	3,144	1,262	3,459	Q	16.4
1970 to 1979	813	200	115	34	168	Q	11,333	4,728	3,786	1,695	3,705	Q	13.5
1980 to 1989	846	190	132	58	164	Q	12,252	4,676	3,801	2,209	3,594	Q	16.0
1990 to 1992	218	42	38	Q	33	Q	2,590	1,060	819	455	877	Q	25.7
1993 to 1995	202	30	21	4	23	Q	2,059	809	652	328	590	Q	28.6
Census Region													
Northeast	725	175	95	31	133	Q	11,883	4,984	3,661	1,856	3,804	Q	15.4
Midwest	1,139	242	134	44	187	Q	14,322	5,363	3,920	1,462	4,093	Q	16.1
South	1,750	383	216	98	321	Q	20,830	7,937	5,790	3,285	6,270	Q	12.8
West	964	200	122	54	159	Q	11,736	3,895	2,869	1,329	3,036	Q	16.6
Workers (main shift)													
Fewer than 5	2,505	455	198	80	367	Q	13,885	1,950	827	329	1,432	Q	17.4
5 to 9	798	145	108	17	122	Q	6,291	1,133	748	117	938	Q	20.4
10 to 19	625	167	109	56	131	Q	7,102	1,889	1,117	653	1,502	Q	20.7
20 to 49	400	137	79	35	106	Q	9,132	3,825	2,192	931	2,866	Q	14.3
50 to 99	138	51	40	22	39	Q	6,931	3,714	3,114	1,628	2,847	Q	13.5
100 to 249	71	25	19	10	19	Q	5,988	3,010	2,571	1,307	2,288	Q	14.6
250 or More	43	20	14	8	15	Q	9,443	6,657	5,671	2,968	5,329	Q	13.8
Weekly Operating Hours													
39 or Fewer	899	70	15	Q	48	Q	6,134	718	305	Q	477	Q	26.3
40 to 48	1,257	124	38	18	92	Q	13,233	2,596	1,523	594	1,995	Q	18.4
49 to 60	969	153	75	23	108	Q	12,242	3,533	2,300	1,064	2,715	Q	18.0
61 to 84	567	225	124	54	203	Q	10,052	5,434	4,008	2,429	4,488	Q	16.1
85 to 167	420	297	223	93	236	Q	6,202	3,642	2,864	1,496	2,655	Q	14.1
Open Continuously	466	130	92	36	110	Q	10,908	6,255	5,240	2,175	4,874	Q	14.6

See footnotes at end of table.

Table BC-37. Refrigeration Equipment, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)						Total Floorspace (million square feet)						RSE Row Factor
	All Buildings	All Buildings with Refrigeration Equipment	Types of Equipment (more than one may apply)				All Buildings	All Buildings with Refrigeration Equipment	Types of Equipment (more than one may apply)				
			Walk-in	Open Cases or Cabinets	Closed Cases or Cabinets	Type Unspecified			Walk-in	Open Cases or Cabinets	Closed Cases or Cabinets	Type Unspecified	
RSE Column Factor:	0.5	0.8	1.0	1.4	0.9	5.0	0.4	0.6	0.7	1.0	0.7	3.5	
Multibuilding Facility													
Part of Multibuilding Facility	1,480	214	113	46	175	Q	24,352	9,064	6,782	3,129	7,221	Q	11.8
Not on Multibuilding Facility	3,099	786	455	181	624	33	34,420	13,115	9,458	4,802	9,982	344	8.2
Energy Sources (more than one may apply)													
Electricity	4,343	996	567	227	795	39	57,076	22,071	16,151	7,918	17,095	482	7.1
Natural Gas	2,478	616	365	136	481	21	38,145	16,688	12,467	5,982	12,905	337	8.8
Fuel Oil	607	141	59	24	112	Q	14,421	8,420	6,539	3,155	6,408	Q	15.0
District Heat	110	23	9	5	20	Q	5,658	2,431	1,836	758	1,953	Q	26.2
District Chilled Water	53	Q	4	3	Q	Q	2,521	1,258	830	432	970	Q	27.4
Propane	589	175	97	27	144	Q	5,344	2,462	1,738	787	1,896	Q	24.3
Other	213	38	14	Q	27	Q	2,336	866	656	336	782	Q	30.5
Energy End Uses (more than one may apply)													
Buildings with Space Heating	4,024	961	540	215	768	35	54,347	21,716	15,838	7,799	16,864	446	7.4
Buildings with Cooling	3,381	921	540	220	736	31	49,935	21,094	15,651	7,796	16,384	421	7.5
Buildings with Water Heating	3,486	942	542	222	756	39	51,560	21,776	15,999	7,870	16,941	462	7.1
Buildings with Cooking	828	625	409	165	508	17	20,713	17,895	14,194	7,136	14,403	229	8.3
Buildings with Manufacturing	204	49	18	3	46	Q	3,893	1,408	923	360	1,118	Q	30.9
Buildings with Electricity Generation	247	73	46	28	56	Q	13,366	8,781	7,261	3,863	6,838	Q	12.3
Energy-Related Space Functions (more than one may apply)													
Commercial Food Preparation	828	625	409	165	508	17	20,713	17,895	14,194	7,136	14,403	229	8.3
Computer Room	234	68	38	27	56	Q	12,890	7,206	5,816	2,947	5,457	Q	11.8
Activities with Large Amounts of Hot Water	243	105	64	38	92	Q	6,753	4,961	4,145	2,085	4,012	Q	17.5

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-38. Water-Heating Equipment, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Water Heating Equipment					Water Heating Equipment			
	All Buildings	All Buildings with Water Heating	Centralized System	Distributed System	Combination of Centralized and Distributed Systems	All Buildings	All Buildings with Water Heating	Centralized System	Distributed System	Combination of Centralized and Distributed Systems	
RSE Column Factor:	0.8	0.8	0.9	1.4	2.7	0.6	0.6	0.7	1.0	1.6	
All Buildings	4,579	3,486	2,671	742	73	58,772	51,560	31,656	16,495	3,409	5.4
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	1,689	1,431	255	Q	6,338	4,617	3,889	718	Q	8.0
5,001 to 10,000	1,035	780	589	155	Q	7,530	5,652	4,221	1,160	Q	11.7
10,001 to 25,000	745	644	435	201	8	11,617	10,053	6,712	3,195	145	10.5
25,001 to 50,000	213	195	113	70	12	7,676	7,060	4,039	2,544	477	8.3
50,001 to 100,000	115	110	64	38	8	7,968	7,611	4,404	2,675	532	8.7
100,001 to 200,000	48	45	27	14	3	6,776	6,269	3,813	1,968	488	10.4
200,001 to 500,000	19	18	10	6	2	5,553	5,303	2,924	1,602	777	11.0
Over 500,000	6	6	2	3	1	5,313	4,995	1,652	2,633	710	12.5
Principal Building Activity											
Education	309	258	185	62	11	7,740	7,515	5,203	1,424	888	11.6
Food Sales	137	125	104	Q	Q	642	599	443	Q	Q	19.0
Food Service	285	279	232	43	Q	1,353	1,342	1,058	231	Q	17.1
Health Care	105	105	87	17	1	2,333	2,327	1,635	413	279	18.4
Lodging	158	158	98	55	5	3,618	3,609	2,497	811	301	15.6
Mercantile and Service	1,289	916	707	201	Q	12,728	10,925	5,248	5,411	266	11.4
Office	705	678	519	145	15	10,478	10,278	6,076	3,403	799	10.7
Public Assembly	326	276	217	50	Q	3,948	3,632	2,547	831	Q	17.0
Public Order and Safety	87	69	63	Q	Q	1,271	1,018	833	Q	Q	31.0
Religious Worship	269	248	172	66	Q	2,792	2,685	1,482	1,061	Q	17.8
Warehouse and Storage	580	251	185	65	Q	8,481	5,845	3,428	2,251	Q	17.7
Other	67	43	39	4	Q	1,004	893	625	222	Q	34.1
Vacant	261	81	63	11	Q	2,384	892	581	183	Q	24.8
Year Constructed											
1919 or Before	353	287	229	56	Q	3,673	3,206	2,418	623	Q	16.6
1920 to 1945	562	429	350	68	Q	6,710	5,349	3,836	1,225	288	14.8
1946 to 1959	867	656	534	109	Q	9,298	8,136	5,468	2,041	628	11.8
1960 to 1969	718	562	417	129	16	10,858	9,722	6,562	2,530	630	10.6
1970 to 1979	813	632	508	109	14	11,333	10,117	6,191	3,229	698	9.5
1980 to 1989	846	667	447	205	14	12,252	11,105	5,202	5,163	740	11.1
1990 to 1992	218	145	99	45	Q	2,590	2,263	1,200	941	Q	17.5
1993 to 1995	202	108	86	20	Q	2,059	1,661	780	744	Q	21.9
Census Region											
Northeast	725	602	498	90	13	11,883	10,778	6,906	3,056	815	12.5
Midwest	1,139	849	661	174	14	14,322	12,517	7,752	3,787	978	11.1
South	1,750	1,250	937	295	18	20,830	17,511	10,135	6,602	775	9.1
West	964	785	574	182	28	11,736	10,754	6,863	3,050	841	11.0
Workers (main shift)											
Fewer than 5	2,505	1,587	1,301	270	Q	13,885	8,772	6,640	1,900	Q	9.5
5 to 9	798	705	559	132	Q	6,291	5,610	4,337	1,137	Q	12.6
10 to 19	625	580	438	127	Q	7,102	6,566	4,583	1,802	Q	11.3
20 to 49	400	377	241	123	13	9,132	8,763	5,061	3,193	508	9.8
50 to 99	138	127	72	46	8	6,931	6,622	3,565	2,400	658	10.3
100 to 249	71	69	39	25	5	5,988	5,903	3,009	2,269	625	10.4
250 or More	43	42	21	18	3	9,443	9,324	4,460	3,795	1,069	12.8

See footnotes at end of table.

Table BC-38. Water-Heating Equipment, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Water Heating Equipment					Water Heating Equipment			
	All Buildings	All Buildings with Water Heating	Centralized System	Distributed System	Combination of Centralized and Distributed Systems	All Buildings	All Buildings with Water Heating	Centralized System	Distributed System	Combination of Centralized and Distributed Systems	
RSE Column Factor:	0.8	0.8	0.9	1.4	2.7	0.6	0.6	0.7	1.0	1.6	
Weekly Operating Hours											
39 or Fewer	899	466	404	58	Q	6,134	3,290	2,476	634	Q	14.7
40 to 48	1,257	1,035	759	243	32	13,233	11,585	7,429	3,552	604	10.7
49 to 60	969	742	568	165	9	12,242	10,765	6,809	3,408	548	10.1
61 to 84	567	494	387	100	7	10,052	9,535	4,980	4,113	442	11.2
85 to 167	420	375	287	74	14	6,202	5,928	3,314	1,990	624	13.0
Open Continuously	466	375	266	100	8	10,908	10,457	6,648	2,798	1,011	9.8
Multibuilding Facility											
Part of Multibuilding Facility	1,480	1,036	700	304	32	24,352	21,003	12,483	7,040	1,479	7.8
Not on Multibuilding Facility	3,099	2,450	1,971	438	41	34,420	30,557	19,172	9,455	1,929	6.5
Energy Sources (more than one may apply)											
Electricity	4,343	3,472	2,660	738	73	57,076	51,363	31,506	16,448	3,409	5.4
Natural Gas	2,478	2,201	1,712	434	55	38,145	36,284	22,624	11,064	2,596	6.2
Fuel Oil	607	504	408	74	22	14,421	13,959	8,566	3,923	1,471	12.2
District Heat	110	96	74	17	5	5,658	5,424	3,775	1,020	629	17.7
District Chilled Water	53	49	35	Q	2	2,521	2,442	1,690	540	212	22.1
Propane	589	477	354	121	Q	5,344	4,934	2,761	2,002	Q	17.0
Other	213	158	146	10	Q	2,336	2,024	1,502	283	Q	23.2
Water-Heating Energy Sources (more than one may apply)											
Electricity	1,684	1,684	1,195	469	19	23,056	23,056	10,941	11,036	1,079	8.8
Natural Gas	1,577	1,577	1,245	285	47	24,859	24,859	16,401	6,316	2,143	7.5
Fuel Oil	120	120	98	Q	Q	2,151	2,151	1,618	293	Q	27.1
District Heat	54	54	47	3	4	3,949	3,949	2,963	458	528	20.4
Propane	110	110	89	21	Q	1,020	1,020	612	383	Q	27.2
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	3,418	2,618	726	73	54,347	50,796	31,230	16,171	3,395	5.5
Buildings with Cooling	3,381	2,968	2,210	687	70	49,935	47,249	28,135	15,841	3,274	5.5
Buildings with Water Heating	3,486	3,486	2,671	742	73	51,560	51,560	31,656	16,495	3,409	5.5
Buildings with Cooking	828	816	581	201	34	20,713	20,632	10,898	7,484	2,251	6.7
Buildings with Manufacturing	204	169	116	51	Q	3,893	3,666	1,892	1,559	Q	17.9
Buildings with Electricity Generation	247	238	178	43	17	13,366	13,239	7,186	4,370	1,684	11.7
Energy-Related Space Functions (more than one may apply)											
Commercial Food Preparation	828	816	581	201	34	20,713	20,632	10,898	7,484	2,251	6.7
Computer Room	234	230	157	55	19	12,890	12,726	7,020	4,028	1,678	10.4
Activities with Large Amounts of Hot Water	243	243	156	78	9	6,753	6,753	4,014	1,843	896	14.0

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-39. Lighting Equipment, Number of Buildings, 1995

(Thousand)

Building Characteristics	All Buildings	All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.7	0.7	0.8	0.7	1.4	1.4	1.7	
All Buildings	4,579	4,237	2,479	3,885	364	393	302	5.9
Building Floorspace (Square Feet)								
1,001 to 5,000	2,399	2,185	1,205	1,952	101	79	100	9.4
5,001 to 10,000	1,035	948	613	868	75	93	85	12.2
10,001 to 25,000	745	712	431	684	89	107	58	11.5
25,001 to 50,000	213	208	115	200	41	46	23	7.8
50,001 to 100,000	115	113	69	111	30	34	17	8.3
100,001 to 200,000	48	46	29	45	15	20	11	8.7
200,001 to 500,000	19	19	14	18	10	10	6	9.2
Over 500,000	6	6	5	6	3	4	3	10.2
Principal Building Activity								
Education	309	308	149	294	33	42	23	14.6
Food Sales	137	137	50	137	Q	Q	Q	22.2
Food Service	285	285	210	260	50	Q	Q	14.7
Health Care	105	105	81	99	27	Q	Q	25.6
Lodging	158	158	147	134	32	11	28	16.0
Mercantile and Service	1,289	1,268	586	1,202	67	84	79	12.5
Office	705	696	416	695	79	73	41	13.1
Public Assembly	326	326	237	297	26	31	17	19.4
Public Order and Safety	87	87	37	80	4	3	Q	29.6
Religious Worship	269	269	247	193	Q	28	27	19.5
Warehouse and Storage	580	461	226	376	14	56	28	20.4
Other	67	66	35	66	Q	Q	Q	41.3
Vacant	261	71	58	52	Q	Q	Q	31.9
Year Constructed								
1919 or Before	353	328	250	304	29	28	35	18.1
1920 to 1945	562	487	319	454	28	37	31	15.6
1946 to 1959	867	804	503	726	57	75	60	12.7
1960 to 1969	718	686	394	610	54	72	38	12.5
1970 to 1979	813	799	439	739	72	67	47	11.7
1980 to 1989	846	777	392	734	91	65	67	12.5
1990 to 1992	218	197	110	184	19	18	14	20.1
1993 to 1995	202	159	74	134	14	29	9	28.5
Census Region								
Northeast	725	694	390	646	96	102	52	14.0
Midwest	1,139	1,038	661	941	94	116	69	13.3
South	1,750	1,604	857	1,468	82	101	104	9.4
West	964	901	572	831	92	74	76	13.7
Workers (main shift)								
Fewer than 5	2,505	2,168	1,252	1,873	77	115	117	10.2
5 to 9	798	797	524	771	37	57	55	14.5
10 to 19	625	625	323	609	114	83	48	13.2
20 to 49	400	397	232	388	71	76	39	11.0
50 to 99	138	137	76	133	25	28	14	9.9
100 to 249	71	71	41	69	22	21	12	10.2
250 or More	43	43	31	43	20	14	17	15.5
Weekly Operating Hours								
39 or Fewer	899	661	424	506	10	27	25	18.4
40 to 48	1,257	1,246	699	1,188	72	121	78	10.7
49 to 60	969	950	523	890	84	91	61	12.1
61 to 84	567	559	333	533	71	62	45	14.1
85 to 167	420	401	214	392	63	39	39	14.1
Open Continuously	466	421	287	376	64	52	54	13.0

See footnotes at end of table.

Table BC-39. Lighting Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.7	0.7	0.8	0.7	1.4	1.4	1.7	
Multibuilding Facility								
Part of Multibuilding Facility	1,480	1,315	736	1,194	126	107	79	8.8
Not on Multibuilding Facility	3,099	2,922	1,744	2,691	238	286	223	7.1
Energy Sources (more than one may apply)								
Electricity	4,343	4,237	2,479	3,885	364	393	302	5.8
Natural Gas	2,478	2,440	1,500	2,309	247	273	197	6.9
Fuel Oil	607	586	341	560	66	75	48	16.2
District Heat	110	110	71	109	26	12	7	18.0
District Chilled Water	53	53	32	53	12	5	4	26.8
Propane	589	584	317	519	58	69	39	18.0
Other	213	200	116	183	19	17	Q	27.7
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	3,948	2,329	3,699	357	378	293	6.1
Buildings with Cooling	3,381	3,346	2,056	3,158	339	335	277	6.0
Buildings with Water Heating	3,486	3,431	2,096	3,229	343	373	289	6.5
Buildings with Cooking	828	819	582	793	125	111	75	8.2
Buildings with Manufacturing	204	198	118	184	22	31	18	24.1
Buildings with Electricity Generation	247	246	150	243	54	61	35	15.4
Percent Lit when Open								
Zero	36	Q	Q	Q	Q	Q	Q	55.3
1 to 50	666	666	446	569	42	36	37	15.1
51 to 99	745	745	498	699	48	91	66	14.7
100	2,814	2,814	1,529	2,618	275	266	198	7.2
Building Not in Use/ Electricity Not Used	318	--	--	--	--	--	--	21.4
Percent Lit when Closed								
Zero	1,644	1,620	917	1,397	46	100	39	12.8
1 to 50	2,109	2,109	1,229	2,026	238	228	198	7.3
51 to 100	87	87	46	86	16	13	11	28.3
Never Closed	421	421	287	376	64	52	54	12.9
Building Not in Use/ Electricity Not Used	318	--	--	--	--	--	--	21.4
Lighting Equipment Types (more than one may apply)								
Incandescent	2,479	2,479	2,479	2,150	240	239	222	6.7
Standard Fluorescent	3,885	3,885	2,150	3,885	356	379	300	5.9
Compact Fluorescent	364	364	240	356	364	93	57	10.9
High-Intensity Discharge	393	393	239	379	93	393	98	11.6
Halogen	302	302	222	300	57	98	302	13.4
Other	30	30	Q	Q	3	3	2	34.4
Energy-Related Space Functions (more than one may apply)								
Commercial Food Preparation	828	819	582	793	125	111	75	8.2
Computer Room	234	234	153	233	50	67	38	13.1
Activities with Large Amounts of Hot Water	243	243	155	225	39	49	38	18.1
Lighting Conservation Features (more than one may apply)								
Specular Reflectors	749	749	409	714	111	173	90	11.3
Energy-Efficient Ballasts	1,363	1,363	706	1,336	212	219	116	8.9
Natural Lighting Control Sensors	237	237	158	229	45	74	59	17.3
Occupancy Sensors	131	131	73	119	38	56	11	19.2
Time Clock	467	467	308	445	78	107	76	14.2
Manual Dimmer Switches	501	501	438	468	96	92	88	10.7
Other	79	79	43	78	12	22	5	24.0

See footnotes at end of table.

Table BC-39. Lighting Equipment, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.7	0.7	0.8	0.7	1.4	1.4	1.7	
Off-Hour Equipment Reduction (more than one may apply)								
Heating	3,211	3,192	1,886	2,987	253	290	226	7.0
Cooling	2,707	2,706	1,674	2,546	248	254	217	7.0
Lighting	3,753	3,753	2,160	3,464	289	337	244	6.6

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-40. Lighting Equipment, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.8	0.8	0.9	0.8	1.4	1.2	1.5	
All Buildings	58,772	56,261	35,715	53,984	14,273	16,259	9,665	4.4
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	5,785	3,168	5,184	324	233	268	9.6
5,001 to 10,000	7,530	6,898	4,523	6,317	552	704	611	12.5
10,001 to 25,000	11,617	11,136	6,648	10,699	1,359	1,655	872	10.8
25,001 to 50,000	7,676	7,528	4,177	7,237	1,522	1,704	844	8.0
50,001 to 100,000	7,968	7,809	4,718	7,700	2,155	2,420	1,239	8.0
100,001 to 200,000	6,776	6,557	4,169	6,383	2,196	2,911	1,553	8.9
200,001 to 500,000	5,553	5,504	4,135	5,432	2,962	3,094	1,875	9.3
Over 500,000	5,313	5,043	4,177	5,031	3,203	3,537	2,403	10.5
Principal Building Activity								
Education	7,740	7,672	4,727	7,609	1,896	3,112	1,174	9.8
Food Sales	642	642	292	642	Q	Q	Q	17.4
Food Service	1,353	1,353	1,034	1,292	368	Q	Q	16.6
Health Care	2,333	2,333	1,852	2,317	1,387	756	791	10.5
Lodging	3,618	3,601	3,293	3,415	1,529	1,027	953	12.5
Mercantile and Service	12,728	12,621	6,693	12,384	2,500	2,955	2,037	10.5
Office	10,478	10,451	6,800	10,418	4,143	2,761	2,289	7.3
Public Assembly	3,948	3,927	3,071	3,694	1,009	1,339	701	12.1
Public Order and Safety	1,271	1,271	697	1,131	299	224	Q	24.6
Religious Worship	2,792	2,792	2,576	2,358	212	319	334	15.6
Warehouse and Storage	8,481	7,894	3,575	7,078	581	2,925	855	14.1
Other	1,004	988	654	982	175	455	Q	26.8
Vacant	2,384	715	452	665	Q	Q	Q	21.5
Year Constructed								
1919 or Before	3,673	3,469	2,807	3,278	540	597	434	14.2
1920 to 1945	6,710	6,024	4,191	5,786	1,437	1,615	727	12.1
1946 to 1959	9,298	8,897	5,880	8,502	1,571	2,334	1,267	11.0
1960 to 1969	10,858	10,555	6,604	9,846	2,505	2,942	1,521	8.8
1970 to 1979	11,333	11,120	6,739	10,870	3,403	3,473	2,362	7.2
1980 to 1989	12,252	11,769	7,077	11,481	3,403	3,538	2,475	8.3
1990 to 1992	2,590	2,529	1,339	2,432	777	943	479	11.2
1993 to 1995	2,059	1,898	1,079	1,789	637	816	401	14.9
Census Region								
Northeast	11,883	11,346	7,796	10,982	3,947	4,557	2,308	9.1
Midwest	14,322	13,719	9,376	13,116	3,273	4,717	2,098	8.0
South	20,830	19,827	11,678	18,969	4,189	4,654	3,405	8.1
West	11,736	11,370	6,865	10,916	2,864	2,331	1,854	9.5
Workers (main shift)								
Fewer than 5	13,885	11,533	7,242	10,102	688	1,155	784	11.1
5 to 9	6,291	6,264	3,969	6,041	424	762	438	13.3
10 to 19	7,102	7,102	3,552	6,990	1,286	1,464	489	10.5
20 to 49	9,132	9,103	5,524	8,910	1,997	2,648	1,319	8.1
50 to 99	6,931	6,860	4,203	6,624	1,740	2,516	1,389	8.7
100 to 249	5,988	5,975	3,880	5,909	2,017	2,735	1,244	9.3
250 or More	9,443	9,425	7,345	9,409	6,121	4,980	4,001	7.4
Weekly Operating Hours								
39 or Fewer	6,134	4,224	2,795	3,358	171	432	280	14.7
40 to 48	13,233	13,079	7,377	12,651	1,650	2,961	1,216	9.8
49 to 60	12,242	12,134	7,053	11,712	2,764	3,000	1,597	8.0
61 to 84	10,052	9,992	6,664	9,851	3,516	3,521	2,546	9.1
85 to 167	6,202	6,145	3,776	6,081	1,709	2,052	1,200	10.6
Open Continuously	10,908	10,688	8,049	10,332	4,464	4,293	2,827	7.2

See footnotes at end of table.

Table BC-40. Lighting Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.8	0.8	0.9	0.8	1.4	1.2	1.5	
Multibuilding Facility								
Part of Multibuilding Facility	24,352	23,179	14,466	22,084	6,388	6,570	3,682	5.5
Not on Multibuilding Facility	34,420	33,081	21,248	31,900	7,885	9,688	5,983	5.5
Energy Sources (more than one may apply)								
Electricity	57,076	56,261	35,715	53,984	14,273	16,259	9,665	4.3
Natural Gas	38,145	37,723	24,959	36,817	10,118	12,180	7,243	5.2
Fuel Oil	14,421	14,279	10,614	14,187	6,447	6,481	4,305	6.7
District Heat	5,658	5,638	4,052	5,553	2,674	2,141	1,248	11.5
District Chilled Water	2,521	2,517	1,690	2,517	1,135	834	554	13.4
Propane	5,344	5,304	3,008	5,017	1,114	1,610	751	15.1
Other	2,336	2,216	1,423	2,135	602	651	405	16.9
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	53,686	34,309	52,204	13,979	15,915	9,518	4.6
Buildings with Cooling	49,935	49,547	32,066	48,495	13,653	15,123	9,316	4.5
Buildings with Water Heating	51,560	51,016	33,008	49,850	13,897	15,775	9,436	4.5
Buildings with Cooking	20,713	20,550	15,406	20,404	8,274	8,618	5,648	5.4
Buildings with Manufacturing	3,893	3,856	2,146	3,763	837	1,517	605	14.0
Buildings with Electricity Generation	13,366	13,319	10,098	13,209	7,096	6,829	4,675	6.5
Percent Lit when Open								
Zero	189	Q	Q	Q	Q	Q	Q	36.9
1 to 50	6,008	6,008	3,971	5,533	801	763	513	12.2
51 to 99	9,692	9,692	6,850	9,508	2,615	2,796	1,801	8.7
100	40,514	40,514	24,873	38,934	10,857	12,700	7,346	4.8
Building Not in Use/ Electricity Not Used	2,369	--	--	--	--	--	--	22.3
Percent Lit when Closed								
Zero	13,101	12,958	7,146	11,619	1,142	2,190	742	11.2
1 to 50	30,711	30,711	19,338	30,162	7,819	8,908	5,527	5.4
51 to 100	1,914	1,914	1,193	1,883	860	868	580	22.0
Never Closed	10,677	10,677	8,037	10,320	4,452	4,293	2,815	7.2
Building Not in Use/ Electricity Not Used	2,369	--	--	--	--	--	--	22.3
Lighting Equipment Types (more than one may apply)								
Incandescent	35,715	35,715	35,715	33,733	10,835	11,370	8,029	4.4
Standard Fluorescent	53,984	53,984	33,733	53,984	14,142	15,898	9,574	4.4
Compact Fluorescent	14,273	14,273	10,835	14,142	14,273	7,216	5,564	6.9
High-Intensity Discharge	16,259	16,259	11,370	15,898	7,216	16,259	5,594	6.3
Halogen	9,665	9,665	8,029	9,574	5,564	5,594	9,665	7.2
Other	554	554	471	508	429	Q	Q	48.6
Energy-Related Space Functions (more than one may apply)								
Commercial Food Preparation	20,713	20,550	15,406	20,404	8,274	8,618	5,648	5.4
Computer Room	12,890	12,821	8,902	12,772	6,192	6,113	4,019	5.9
Activities with Large Amounts of Hot Water	6,753	6,737	5,404	6,621	2,824	3,171	2,164	8.3
Lighting Conservation Features (more than one may apply)								
Specular Reflectors	17,868	17,868	11,976	17,474	7,328	8,987	4,898	6.2
Energy-Efficient Ballasts	28,375	28,375	18,441	27,990	11,155	11,460	7,046	5.1
Natural Lighting Control Sensors	6,431	6,431	5,063	6,317	3,156	3,623	2,578	9.3
Occupancy Sensors	5,958	5,958	3,931	5,835	3,394	3,095	1,949	10.8
Time Clock	13,262	13,262	9,560	13,112	6,259	6,299	4,534	6.5
Manual Dimmer Switches	13,056	13,056	11,162	12,748	6,446	5,635	5,139	6.3
Other	2,836	2,836	1,881	2,828	1,526	1,460	879	14.1

See footnotes at end of table.

Table BC-40. Lighting Equipment, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Total Floorspace of All Buildings	Total Floorspace of All Lit Buildings	Lighting Equipment Types (more than one may apply)					RSE Row Factor
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen	
RSE Column Factor:	0.8	0.8	0.9	0.8	1.4	1.2	1.5	
Off-Hour Equipment Reduction (more than one may apply)								
Heating	38,326	38,138	23,405	37,086	8,648	10,305	6,062	5.6
Cooling	35,605	35,481	22,292	34,745	8,639	9,685	6,133	5.4
Lighting	44,937	44,937	27,345	43,074	9,705	11,851	6,767	5.1

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-41. Energy Conservation Features, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	
RSE Column Factor:	1.1	1.1	1.1	1.3	1.4	0.8	0.8	0.8	0.9	0.9	
All Buildings	4,579	4,075	3,906	2,529	2,084	58,772	55,288	53,190	44,657	38,537	4.0
Building Floorspace (Square Feet)											
1,001 to 5,000	2,399	2,067	1,991	1,086	881	6,338	5,552	5,346	2,978	2,410	6.1
5,001 to 10,000	1,035	917	867	575	496	7,530	6,671	6,344	4,292	3,626	8.4
10,001 to 25,000	745	705	676	527	427	11,617	10,928	10,491	8,139	6,625	7.6
25,001 to 50,000	213	203	195	175	135	7,676	7,311	7,021	6,370	4,936	6.2
50,001 to 100,000	115	113	109	100	83	7,968	7,848	7,530	6,957	5,806	6.4
100,001 to 200,000	48	47	44	41	38	6,776	6,534	6,217	5,787	5,364	7.6
200,001 to 500,000	19	18	18	17	17	5,553	5,427	5,237	5,161	4,912	7.5
Over 500,000	6	6	6	6	5	5,313	5,018	5,005	4,973	4,857	8.8
Principal Building Activity											
Education	309	308	297	241	196	7,740	7,726	7,519	6,918	5,639	9.1
Food Sales	137	130	129	60	57	642	628	609	354	374	15.8
Food Service	285	272	259	191	165	1,353	1,305	1,278	1,030	945	12.6
Health Care	105	102	102	79	45	2,333	2,328	2,328	2,250	1,980	13.1
Lodging	158	157	156	123	70	3,618	3,600	3,556	3,215	2,535	11.7
Mercantile and Service	1,289	1,123	1,055	638	521	12,728	11,888	11,369	9,109	7,962	8.4
Office	705	704	696	529	411	10,478	10,463	10,395	9,619	8,212	7.4
Public Assembly	326	317	294	222	181	3,948	3,908	3,682	3,357	3,009	12.3
Public Order and Safety	87	81	80	56	54	1,271	1,137	1,056	915	747	23.8
Religious Worship	269	265	263	145	134	2,792	2,752	2,720	1,877	1,709	12.3
Warehouse and Storage	580	408	367	174	191	8,481	7,079	6,261	4,677	4,356	13.3
Other	67	61	60	46	37	1,004	979	967	852	721	27.2
Vacant	261	149	148	25	22	2,384	1,494	1,450	485	349	19.5
Year Constructed											
1919 or Before	353	314	296	172	173	3,673	3,470	3,275	2,298	2,328	12.5
1920 to 1945	562	468	443	296	213	6,710	5,582	5,232	4,266	3,495	10.3
1946 to 1959	867	788	751	458	390	9,298	8,806	8,561	6,789	5,683	7.8
1960 to 1969	718	636	590	418	344	10,858	10,188	9,591	8,689	7,246	7.3
1970 to 1979	813	745	725	446	346	11,333	10,978	10,572	8,671	7,639	6.6
1980 to 1989	846	757	748	537	421	12,252	11,791	11,607	10,129	8,564	7.3
1990 to 1992	218	203	196	107	118	2,590	2,533	2,483	2,149	2,023	12.2
1993 to 1995	202	164	158	95	79	2,059	1,939	1,868	1,665	1,558	15.7
Floors											
One	3,018	2,600	2,475	1,490	1,220	24,552	22,001	20,888	15,942	12,843	5.4
Two	1,002	940	911	642	498	14,122	13,756	13,317	11,071	9,372	6.1
Three	399	392	378	271	250	7,335	7,204	6,930	5,908	5,257	10.2
Four to Nine	148	132	129	114	106	8,789	8,451	8,192	7,988	7,443	9.3
Ten or More	12	12	12	11	10	3,975	3,877	3,863	3,748	3,622	11.5
Census Region											
Northeast	725	658	625	493	446	11,883	11,118	10,464	9,854	8,920	9.4
Midwest	1,139	1,030	974	605	486	14,322	13,733	13,162	10,764	9,495	7.8
South	1,750	1,529	1,497	895	654	20,830	19,139	18,757	14,904	12,087	6.3
West	964	858	809	536	498	11,736	11,297	10,806	9,135	8,036	8.5
Workers (main shift)											
Fewer than 5	2,505	2,065	1,956	1,023	894	13,885	11,230	10,568	6,137	5,260	6.9
5 to 9	798	755	731	498	396	6,291	5,966	5,689	4,201	3,397	9.3
10 to 19	625	616	598	456	339	7,102	7,000	6,621	5,287	4,203	8.2
20 to 49	400	392	378	330	263	9,132	8,917	8,524	7,796	6,249	6.9
50 to 99	138	133	130	114	94	6,931	6,747	6,504	6,190	5,368	7.9
100 to 249	71	71	70	67	57	5,988	5,985	5,875	5,735	5,049	7.6
250 or More	43	43	43	42	40	9,443	9,443	9,409	9,312	9,012	10.0

See footnotes at end of table.

Table BC-41. Energy Conservation Features, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	
RSE Column Factor:	1.1	1.1	1.1	1.3	1.4	0.8	0.8	0.8	0.9	0.9	
Ownership and Occupancy											
Nongovernment Owned	4,025	3,584	3,437	2,133	1,768	46,696	43,720	42,074	34,095	29,737	4.4
Owner Occupied	3,158	2,868	2,762	1,735	1,481	35,573	33,842	32,739	26,731	24,062	4.7
Nonowner Occupied	698	636	595	390	287	9,697	9,172	8,630	7,253	5,625	8.8
Unoccupied	170	80	80	Q	Q	1,426	706	706	Q	Q	21.2
Government Owned	553	491	469	396	316	12,076	11,569	11,116	10,562	8,800	6.4
Energy Sources (more than one may apply)											
Electricity	4,343	4,002	3,833	2,521	2,084	57,076	54,617	52,520	44,490	38,537	3.9
Natural Gas	2,478	2,366	2,287	1,521	1,266	38,145	37,383	36,114	31,011	27,217	4.5
Fuel Oil	607	566	540	443	372	14,421	14,250	13,875	13,335	12,321	9.0
District Heat	110	109	107	91	68	5,658	5,638	5,502	5,398	4,583	13.2
District Chilled Water	53	53	53	48	25	2,521	2,521	2,501	2,446	1,943	17.3
Propane	589	578	561	398	289	5,344	5,281	5,122	4,397	3,736	12.9
Other	213	192	181	105	95	2,336	2,092	2,014	1,784	1,540	17.4
Energy End Uses (more than one may apply)											
Buildings with Space Heating	4,024	3,839	3,703	2,515	1,996	54,347	53,148	51,383	44,317	37,504	4.1
Buildings with Cooling	3,381	3,281	3,192	2,227	1,692	49,935	49,016	47,666	41,648	35,010	3.9
Buildings with Water Heating	3,486	3,381	3,273	2,294	1,816	51,560	50,745	49,132	42,925	36,656	4.1
Buildings with Cooking	828	805	783	584	472	20,713	20,570	20,126	18,590	16,728	5.1
Buildings with Manufacturing	204	195	186	120	108	3,893	3,812	3,695	2,901	2,688	13.8
Buildings with Electricity Generation	247	246	243	210	193	13,366	13,365	13,232	12,961	12,229	8.4
Percent of Floorspace Heated											
Not Heated	554	236	203	14	88	4,425	2,140	1,807	340	1,033	19.8
1 to 50	555	486	443	278	234	6,227	5,555	5,009	3,644	3,071	12.2
51 to 99	633	602	573	373	384	8,868	8,743	8,471	7,059	6,907	9.3
100	2,836	2,751	2,687	1,864	1,378	39,252	38,850	37,903	33,614	27,526	4.1
Percent of Floorspace Cooled											
Not Cooled	1,198	794	713	302	391	8,837	6,272	5,525	3,009	3,527	12.2
1 to 50	930	870	843	535	471	15,027	14,387	13,623	10,981	9,578	7.9
51 to 99	635	627	611	456	376	12,549	12,502	12,314	11,343	10,329	7.4
100	1,816	1,783	1,737	1,236	845	22,359	22,128	21,729	19,324	15,103	5.0
Percent Lit when Open											
Zero	36	Q	Q	Q	Q	189	Q	Q	Q	Q	35.1
1 to 50	666	582	548	325	278	6,008	5,254	4,875	3,222	3,076	10.1
51 to 99	745	718	697	486	390	9,692	9,526	9,178	7,976	6,935	9.1
100	2,814	2,630	2,516	1,684	1,416	40,514	39,251	37,879	33,095	28,527	4.6
Building Not in Use/ Electricity Not Used	318	136	136	32	Q	2,369	1,196	1,196	358	Q	20.0
Heating Equipment (more than one may apply)											
Heat Pumps	394	394	386	295	203	5,843	5,827	5,771	5,159	4,112	8.7
Furnaces	1,676	1,594	1,533	987	761	14,923	14,346	13,741	10,532	8,827	6.5
Individual Space Heaters	1,188	1,102	1,065	617	575	16,809	16,288	15,673	12,809	11,836	7.9
District Heat	115	114	112	97	73	5,911	5,892	5,752	5,637	4,796	13.2
Boilers	610	607	583	515	409	16,754	16,716	16,177	15,552	13,661	6.7
Packaged Heating Units	1,031	1,002	983	747	582	16,893	16,701	16,335	14,646	12,220	6.0
Other	161	160	159	103	111	6,249	6,220	6,181	5,695	5,573	14.2

See footnotes at end of table.

Table BC-41. Energy Conservation Features, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	
RSE Column Factor:	1.1	1.1	1.1	1.3	1.4	0.8	0.8	0.8	0.9	0.9	
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	878	866	853	569	424	9,238	9,154	8,885	7,205	6,175	6.8
Heat Pumps	457	456	449	340	240	6,931	6,902	6,832	6,077	4,843	8.4
Individual Air Conditioners	862	825	796	487	379	12,494	12,148	11,642	9,823	8,620	7.1
District Chilled Water	53	53	53	48	25	2,521	2,521	2,501	2,446	1,943	17.3
Central Chillers	109	109	108	105	89	11,065	11,061	10,973	10,879	10,160	8.4
Packaged Air Conditioning Units	1,431	1,381	1,346	1,040	804	26,628	26,208	25,606	23,086	19,779	5.3
Swamp Coolers	186	184	170	128	87	2,451	2,379	2,324	2,122	1,468	18.8
Other	18	18	17	15	13	949	948	945	902	846	19.9
Lighting Equipment Types (more than one may apply)											
Incandescent	2,479	2,306	2,234	1,516	1,225	35,715	34,451	33,382	29,008	25,823	4.2
Standard Fluorescent	3,885	3,665	3,521	2,380	1,991	53,984	52,412	50,521	43,403	37,682	4.0
Compact Fluorescent	364	363	359	295	270	14,273	14,145	13,934	13,499	12,965	7.9
High-Intensity Discharge	393	385	365	311	312	16,259	16,153	15,532	14,969	14,692	7.5
Halogen	302	301	298	224	199	9,665	9,654	9,544	8,903	8,813	9.2
Other	30	17	Q	Q	Q	554	517	512	515	499	46.9
Water-Heating Equipment (more than one may apply)											
Centralized System	2,671	2,575	2,489	1,696	1,339	31,656	31,012	29,845	25,459	21,456	4.7
Distributed System	742	733	711	538	420	16,495	16,324	15,902	14,261	12,124	6.3
Combination of Centralized and Distributed System	73	73	73	60	57	3,409	3,409	3,384	3,205	3,076	12.3
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	3,380	3,380	3,380	2,215	1,759	46,355	46,355	46,355	38,639	32,858	4.4
Wall Insulation	2,372	2,372	2,372	1,637	1,289	31,694	31,694	31,694	26,952	22,975	4.9
Storm or Multiple Glazing	1,897	1,897	1,897	1,323	1,043	28,876	28,876	28,876	25,087	21,493	5.0
Tinted, Reflective or Shading Glass	1,202	1,202	1,202	856	651	24,245	24,245	24,245	21,789	19,123	5.6
Exterior or Interior Shading or Awnings	2,271	2,271	2,271	1,543	1,226	37,208	37,208	37,208	31,845	27,125	4.5
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	327	327	324	327	256	13,473	13,473	13,373	13,473	12,220	8.1
Economizer Cycle	461	461	452	461	335	16,550	16,550	16,419	16,550	14,482	6.6
HVAC Maintenance	2,403	2,403	2,319	2,403	1,487	43,134	43,134	41,849	43,134	32,859	4.4
Other Energy Efficient Equipment	198	198	194	198	139	6,453	6,453	6,394	6,453	5,677	10.8
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	749	749	701	580	749	17,868	17,868	17,155	16,167	17,868	6.6
Energy-Efficient Ballasts	1,363	1,363	1,283	1,054	1,363	28,375	28,375	27,430	25,806	28,375	5.5
Natural Lighting Control Sensors	237	237	228	195	237	6,431	6,431	6,296	6,062	6,431	10.4
Occupancy Sensors	131	131	130	112	131	5,958	5,958	5,874	5,723	5,958	12.5
Time Clock	467	467	448	384	467	13,262	13,262	12,966	12,463	13,262	7.9
Manual Dimmer Switches	501	501	491	386	501	13,056	13,056	12,899	12,052	13,056	6.4
Other	79	79	73	67	79	2,836	2,836	2,755	2,708	2,836	16.2

See footnotes at end of table.

Table BC-41. Energy Conservation Features, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	All Buildings	Any Conservation Features	Building Shell	HVAC	Lighting	
RSE Column Factor:	1.1	1.1	1.1	1.3	1.4	0.8	0.8	0.8	0.9	0.9	
Energy Conservation Features (more than one may apply)											
Any Conservation Features	4,075	4,075	3,906	2,529	2,084	55,288	55,288	53,190	44,657	38,537	4.0
Building Shell	3,906	3,906	3,906	2,443	1,963	53,190	53,190	53,190	43,329	36,922	4.0
HVAC	2,529	2,529	2,443	2,529	1,555	44,657	44,657	43,329	44,657	33,875	4.3
Lighting	2,084	2,084	1,963	1,555	2,084	38,537	38,537	36,922	33,875	38,537	4.5

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-42. Building Shell Conservation Features, Number of Buildings, 1995

(Thousand)

Building Characteristics	Types of Building Shell Conservation Features (more than one may apply)							RSE Row Factor
	All Buildings	Any Building Shell Conser-Vation Features	Roof or Ceiling Insulation	Wall Insula-tion	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	
RSE Column Factor:	0.8	0.9	0.9	1.0	1.1	1.3	1.0	
All Buildings	4,579	3,906	3,380	2,372	1,897	1,202	2,271	4.8
Building Floorspace (Square Feet)								
1,001 to 5,000	2,399	1,991	1,718	1,238	909	514	1,048	6.6
5,001 to 10,000	1,035	867	751	480	430	262	468	9.2
10,001 to 25,000	745	676	595	447	357	246	481	9.2
25,001 to 50,000	213	195	166	108	100	92	137	6.5
50,001 to 100,000	115	109	92	59	60	47	85	7.0
100,001 to 200,000	48	44	39	26	26	24	33	7.9
200,001 to 500,000	19	18	16	10	11	12	15	8.3
Over 500,000	6	6	5	4	3	4	4	9.6
Principal Building Activity								
Education	309	297	236	145	96	99	219	12.0
Food Sales	137	129	128	77	44	54	52	20.1
Food Service	285	259	216	173	128	89	131	13.2
Health Care	105	102	91	65	54	31	80	20.1
Lodging	158	156	134	103	82	22	102	14.9
Mercantile and Service	1,289	1,055	910	607	483	285	529	10.3
Office	705	696	634	519	454	310	561	8.8
Public Assembly	326	294	275	180	142	73	164	16.6
Public Order and Safety	87	80	77	56	50	8	43	28.4
Religious Worship	269	263	229	163	160	111	136	15.3
Warehouse and Storage	580	367	306	191	121	90	160	17.9
Other	67	60	58	40	38	Q	28	36.8
Vacant	261	148	86	54	45	17	67	20.9
Year Constructed								
1919 or Before	353	296	220	112	190	49	202	15.7
1920 to 1945	562	443	325	196	202	102	242	14.5
1946 to 1959	867	751	632	373	368	197	441	9.0
1960 to 1969	718	590	527	321	191	140	333	9.9
1970 to 1979	813	725	673	476	297	256	418	8.5
1980 to 1989	846	748	688	603	420	328	440	8.9
1990 to 1992	218	196	176	165	126	84	109	16.3
1993 to 1995	202	158	138	125	104	46	85	22.0
Floors								
One	3,018	2,475	2,169	1,521	1,017	780	1,292	6.3
Two	1,002	911	801	583	512	278	575	7.7
Three	399	378	301	194	268	81	286	12.5
Four to Nine	148	129	101	67	93	55	107	14.3
Ten or More	12	12	9	7	7	8	10	12.5
Census Region								
Northeast	725	625	552	391	407	109	331	13.2
Midwest	1,139	974	848	605	675	268	499	10.3
South	1,750	1,497	1,343	955	541	472	890	6.9
West	964	809	637	421	273	353	551	11.2
Workers (main shift)								
Fewer than 5	2,505	1,956	1,642	1,120	863	493	962	7.3
5 to 9	798	731	642	469	380	228	423	10.7
10 to 19	625	598	550	378	312	184	410	10.1
20 to 49	400	378	331	258	212	153	292	8.9
50 to 99	138	130	112	76	60	69	95	9.2
100 to 249	71	70	64	43	41	43	57	9.4
250 or More	43	43	39	28	29	32	32	16.8

See footnotes at end of table.

Table BC-42. Building Shell Conservation Features, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	Types of Building Shell Conservation Features (more than one may apply)							RSE Row Factor
	All Buildings	Any Building Shell Conser-Vation Features	Roof or Ceiling Insulation	Wall Insula-tion	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	
RSE Column Factor:	0.8	0.9	0.9	1.0	1.1	1.3	1.0	
Weekly Operating Hours								
39 or Fewer	899	645	536	380	252	131	259	12.0
40 to 48	1,257	1,150	980	712	572	402	731	7.5
49 to 60	969	845	734	577	463	270	553	8.8
61 to 84	567	510	443	267	209	159	301	11.0
85 to 167	420	360	341	205	168	117	175	10.8
Open Continuously	466	394	347	231	231	123	252	11.1
Ownership and Occupancy								
Nongovernment Owned	4,025	3,437	2,975	2,123	1,703	1,070	1,976	5.1
Owner Occupied	3,158	2,762	2,434	1,785	1,466	856	1,563	5.7
Nonowner Occupied	698	595	494	304	212	208	395	10.9
Unoccupied	170	80	47	34	25	6	19	28.5
Government Owned	553	469	406	249	194	132	295	9.4
Energy Sources (more than one may apply)								
Electricity	4,343	3,833	3,333	2,355	1,869	1,200	2,265	4.7
Natural Gas	2,478	2,287	1,959	1,335	1,130	804	1,383	5.5
Fuel Oil	607	540	472	325	345	110	346	14.9
District Heat	110	107	93	57	45	40	69	19.8
District Chilled Water	53	53	46	32	24	27	32	29.3
Propane	589	561	496	386	324	132	297	14.4
Other	213	181	150	115	83	28	103	23.3
Primary Space-Heating Energy Source								
Electricity	1,007	941	845	672	406	305	651	10.0
Natural Gas	2,106	1,937	1,657	1,138	981	682	1,126	5.9
Fuel Oil	439	374	323	211	233	51	236	18.3
District Heat	107	105	91	56	44	38	68	20.2
Propane	260	254	230	177	156	77	115	18.8
Other	61	49	36	35	Q	Q	Q	40.5
Cooling Energy Sources (more than one may apply)								
Electricity	3,293	3,105	2,729	1,998	1,564	1,070	1,993	4.6
Natural Gas	65	64	49	41	38	16	47	27.8
District Chilled Water	53	53	46	32	24	27	32	29.3
Water-Heating Energy Sources (more than one may apply)								
Electricity	1,684	1,578	1,439	1,112	849	564	1,031	7.4
Natural Gas	1,577	1,482	1,242	814	717	501	899	7.5
Fuel Oil	120	118	105	74	84	17	62	30.5
District Heat	54	52	48	35	22	21	32	18.8
Propane	110	103	98	58	58	16	63	27.2
Cooking Energy Sources (more than one may apply)								
Electricity	487	464	414	317	248	172	285	10.9
Natural Gas	448	427	361	236	192	153	278	9.6
Propane	123	108	96	83	71	28	56	25.9
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	3,703	3,226	2,315	1,853	1,171	2,234	4.9
Buildings with Cooling	3,381	3,192	2,805	2,057	1,619	1,104	2,049	4.5
Buildings with Water Heating	3,486	3,273	2,881	2,043	1,688	1,086	2,037	5.1
Buildings with Cooking	828	783	671	483	390	276	499	7.1
Buildings with Manufacturing	204	186	157	126	80	42	108	19.7
Buildings with Electricity Generation	247	243	222	151	148	87	178	13.7

See footnotes at end of table.

Table BC-42. Building Shell Conservation Features, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	All Buildings	Any Building Shell Conservation Features	Roof or Ceiling Insulation	Wall Insulation	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	RSE Row Factor
	Types of Building Shell Conservation Features (more than one may apply)							
RSE Column Factor:	0.8	0.9	0.9	1.0	1.1	1.3	1.0	
Percent of Floorspace Heated								
Not Heated	554	203	155	57	44	31	37	23.1
1 to 50	555	443	350	232	168	134	266	14.9
51 to 99	633	573	497	391	318	211	392	10.8
100	2,836	2,687	2,379	1,693	1,367	826	1,576	5.0
Percent of Floorspace Cooled								
Not Cooled	1,198	713	576	315	278	98	223	16.1
1 to 50	930	843	703	448	418	237	521	10.3
51 to 99	635	611	537	405	362	240	436	10.1
100	1,816	1,737	1,565	1,204	839	627	1,092	5.5
Percent Lit when Open								
Zero	36	Q	Q	Q	Q	Q	Q	46.9
1 to 50	666	548	443	315	287	183	330	11.4
51 to 99	745	697	614	439	329	231	457	12.3
100	2,814	2,516	2,226	1,560	1,236	774	1,445	5.8
Building Not in Use/ Electricity Not Used	318	136	90	56	43	7	39	23.9
Percent Lit when Closed								
Zero	1,644	1,389	1,206	841	576	356	749	9.6
1 to 50	2,109	1,917	1,678	1,203	1,016	692	1,195	5.9
51 to 100	87	80	70	41	33	24	37	26.5
Never Closed	421	384	337	231	228	123	251	10.9
Building Not in Use/ Electricity Not Used	318	136	90	56	43	7	39	23.9
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling Insulation	3,380	3,380	3,380	2,232	1,688	1,048	1,913	5.0
Wall Insulation	2,372	2,372	2,232	2,372	1,398	775	1,393	5.3
Storm or Multiple Glazing	1,897	1,897	1,688	1,398	1,897	733	1,231	6.2
Tinted, Reflective or Shading Glass	1,202	1,202	1,048	775	733	1,202	859	6.7
Exterior or Interior Shading or Awnings	2,271	2,271	1,913	1,393	1,231	859	2,271	5.5
HVAC Conservation Features (more than one may apply)								
Variable Air-Volume System	327	324	295	241	239	179	223	12.5
Economizer Cycle	461	452	405	310	302	222	296	9.6
HVAC Maintenance	2,403	2,319	2,111	1,545	1,260	812	1,482	5.8
Other Energy Efficient Equipment	198	194	171	141	98	74	114	18.0

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-43. Building Shell Conservation Features, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Types of Building Shell Conservation Features (more than one may apply)							RSE Row Factor
	All Buildings	Any Building Shell Conservation Features	Roof or Ceiling Insulation	Wall Insulation	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	
RSE Column Factor:	0.9	0.9	1.0	1.1	1.1	1.1	1.0	
All Buildings	58,772	53,190	46,355	31,694	28,876	24,245	37,208	3.9
Building Floorspace (Square Feet)								
1,001 to 5,000	6,338	5,346	4,631	3,384	2,475	1,353	2,806	6.4
5,001 to 10,000	7,530	6,344	5,487	3,503	3,220	1,869	3,470	9.2
10,001 to 25,000	11,617	10,491	9,236	6,846	5,550	3,836	7,514	8.6
25,001 to 50,000	7,676	7,021	5,961	3,906	3,638	3,365	4,934	6.8
50,001 to 100,000	7,968	7,530	6,400	4,090	4,235	3,366	5,864	6.7
100,001 to 200,000	6,776	6,217	5,529	3,633	3,598	3,372	4,700	8.0
200,001 to 500,000	5,553	5,237	4,684	3,120	3,345	3,486	4,454	8.8
Over 500,000	5,313	5,005	4,425	3,211	2,815	3,598	3,467	9.5
Principal Building Activity								
Education	7,740	7,519	6,409	3,637	3,588	2,778	6,010	8.2
Food Sales	642	609	591	359	218	237	284	15.8
Food Service	1,353	1,278	1,004	842	733	501	784	14.3
Health Care	2,333	2,328	2,199	1,701	1,782	1,661	2,106	9.7
Lodging	3,618	3,556	3,010	2,444	2,433	1,253	2,520	11.2
Mercantile and Service	12,728	11,369	10,088	6,664	5,156	4,713	6,335	8.5
Office	10,478	10,395	9,182	7,021	6,867	6,831	9,229	6.5
Public Assembly	3,948	3,682	3,226	2,041	1,944	1,663	2,448	11.4
Public Order and Safety	1,271	1,056	1,021	602	653	371	650	20.7
Religious Worship	2,792	2,720	2,397	1,724	1,954	1,166	1,686	12.6
Warehouse and Storage	8,481	6,261	5,382	3,371	2,424	2,337	3,716	13.3
Other	1,004	967	895	656	606	424	675	24.5
Vacant	2,384	1,450	952	631	518	309	765	17.5
Year Constructed								
1919 or Before	3,673	3,275	2,435	1,326	2,134	806	2,430	11.8
1920 to 1945	6,710	5,232	3,801	1,944	2,484	1,513	3,571	11.2
1946 to 1959	9,298	8,561	7,382	4,133	4,085	2,922	5,965	8.8
1960 to 1969	10,858	9,591	8,387	4,829	3,913	3,757	6,504	6.9
1970 to 1979	11,333	10,572	9,678	6,740	5,191	5,540	7,194	6.0
1980 to 1989	12,252	11,607	10,589	9,116	7,507	6,964	8,492	6.9
1990 to 1992	2,590	2,483	2,339	2,098	2,001	1,651	1,732	10.2
1993 to 1995	2,059	1,868	1,745	1,508	1,562	1,093	1,321	12.6
Floors								
One	24,552	20,888	18,412	12,718	9,077	8,007	12,524	6.3
Two	14,122	13,317	11,936	8,067	6,920	5,768	8,975	6.1
Three	7,335	6,930	5,810	3,775	4,652	2,785	5,510	9.3
Four to Nine	8,789	8,192	7,002	4,780	5,840	4,996	6,976	6.8
Ten or More	3,975	3,863	3,195	2,353	2,387	2,689	3,223	9.9
Census Region								
Northeast	11,883	10,464	9,040	5,927	6,442	3,585	7,033	8.8
Midwest	14,322	13,162	11,620	8,467	9,464	5,474	8,698	7.1
South	20,830	18,757	16,743	11,878	8,475	8,976	13,138	6.5
West	11,736	10,806	8,952	5,422	4,495	6,210	8,339	8.6
Workers (main shift)								
Fewer than 5	13,885	10,568	8,643	5,737	5,013	2,932	5,326	8.4
5 to 9	6,291	5,689	4,861	3,423	2,873	1,739	3,420	10.9
10 to 19	7,102	6,621	5,899	3,939	3,180	2,237	4,582	7.9
20 to 49	9,132	8,524	7,531	5,414	4,557	3,369	6,605	6.5
50 to 99	6,931	6,504	5,603	3,688	3,819	3,307	5,025	7.6
100 to 249	5,988	5,875	5,362	3,485	3,428	3,694	4,779	7.9
250 or More	9,443	9,409	8,456	6,008	6,006	6,968	7,472	6.9

See footnotes at end of table.

Table BC-43. Building Shell Conservation Features, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Types of Building Shell Conservation Features (more than one may apply)							RSE Row Factor
	All Buildings	Any Building Shell Conservation Features	Roof or Ceiling Insulation	Wall Insulation	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	
RSE Column Factor:	0.9	0.9	1.0	1.1	1.1	1.1	1.0	
Weekly Operating Hours								
39 or Fewer	6,134	4,482	3,616	2,398	1,889	1,090	1,979	10.2
40 to 48	13,233	11,977	10,340	6,798	6,484	5,266	8,796	8.1
49 to 60	12,242	11,170	9,621	7,118	6,051	5,255	8,379	6.4
61 to 84	10,052	9,590	8,510	5,355	4,830	4,637	6,318	7.6
85 to 167	6,202	5,560	5,074	3,042	2,740	2,595	3,719	8.9
Open Continuously	10,908	10,411	9,194	6,982	6,883	5,402	8,016	6.2
Ownership and Occupancy								
Nongovernment Owned	46,696	42,074	36,498	26,016	23,322	19,496	28,878	4.4
Owner Occupied	35,573	32,739	28,681	20,899	19,243	15,089	22,376	4.6
Nonowner Occupied	9,697	8,630	7,379	4,823	3,860	4,271	6,194	8.9
Unoccupied	1,426	706	439	293	219	137	309	26.3
Government Owned	12,076	11,116	9,856	5,678	5,554	4,749	8,330	6.2
Energy Sources (more than one may apply)								
Electricity	57,076	52,520	45,886	31,505	28,606	24,184	37,011	3.9
Natural Gas	38,145	36,114	31,323	21,272	20,125	16,871	25,919	4.6
Fuel Oil	14,421	13,875	12,325	8,690	9,453	7,670	10,705	6.7
District Heat	5,658	5,502	4,820	2,972	3,016	2,876	4,144	9.5
District Chilled Water	2,521	2,501	2,215	1,470	1,560	1,692	1,991	11.5
Propane	5,344	5,122	4,474	3,648	3,252	1,835	3,378	13.4
Other	2,336	2,014	1,735	1,204	1,302	878	1,675	15.9
Primary Space-Heating Energy Source								
Electricity	13,500	12,858	11,636	8,959	6,688	7,118	9,796	7.3
Natural Gas	28,808	27,193	23,631	15,840	15,265	12,152	18,696	4.9
Fuel Oil	4,207	3,779	3,164	1,872	2,256	993	2,744	14.1
District Heat	5,289	5,132	4,484	2,763	2,755	2,651	3,882	9.4
Propane	1,545	1,497	1,272	1,086	941	468	813	21.8
Other	514	441	321	302	Q	Q	Q	32.5
Cooling Energy Sources (more than one may apply)								
Electricity	47,761	45,507	40,331	28,314	25,484	22,022	32,991	4.0
Natural Gas	1,314	1,301	1,088	831	836	681	1,112	17.3
District Chilled Water	2,521	2,501	2,215	1,470	1,560	1,692	1,991	11.5
Water-Heating Energy Sources (more than one may apply)								
Electricity	23,056	21,832	19,830	14,748	12,417	11,165	15,461	6.7
Natural Gas	24,859	23,753	20,307	13,431	13,186	10,986	17,382	5.0
Fuel Oil	2,151	2,089	1,845	1,016	1,177	548	1,638	16.1
District Heat	3,949	3,873	3,418	2,046	2,001	2,033	2,924	11.1
Propane	1,020	992	850	635	540	317	758	20.6
Cooking Energy Sources (more than one may apply)								
Electricity	12,249	12,003	10,824	7,758	6,895	6,899	8,719	6.9
Natural Gas	13,195	12,831	11,257	7,567	7,552	6,749	9,603	5.9
Propane	1,480	1,358	1,142	986	859	477	1,001	21.4
Energy End Uses (more than one may apply)								
Buildings with Space Heating	54,347	51,383	44,941	31,112	28,454	23,686	36,667	4.0
Buildings with Cooling	49,935	47,666	42,198	29,545	26,701	23,202	34,641	4.0
Buildings with Water Heating	51,560	49,132	43,107	29,797	27,490	23,268	35,510	4.0
Buildings with Cooking	20,713	20,126	17,680	12,352	11,768	10,663	15,086	4.8
Buildings with Manufacturing	3,893	3,695	3,321	2,272	1,596	1,557	2,726	11.7
Buildings with Electricity Generation	13,366	13,232	11,939	8,557	8,752	8,385	10,537	6.1

See footnotes at end of table.

Table BC-43. Building Shell Conservation Features, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Types of Building Shell Conservation Features (more than one may apply)							RSE Row Factor
	All Buildings	Any Building Shell Conservation Features	Roof or Ceiling Insulation	Wall Insulation	Storms or Multiple Glazing	Tinted, Reflective or Shading Glass	Exterior or Interior Shadings or Awnings	
RSE Column Factor:	0.9	0.9	1.0	1.1	1.1	1.1	1.0	
Percent of Floorspace Heated								
Not Heated	4,425	1,807	1,414	582	422	559	541	23.3
1 to 50	6,227	5,009	3,953	2,612	2,048	2,040	3,348	13.7
51 to 99	8,868	8,471	7,499	5,494	4,642	4,188	6,279	9.0
100	39,252	37,903	33,488	23,006	21,765	17,458	27,040	4.1
Percent of Floorspace Cooled								
Not Cooled	8,837	5,525	4,157	2,148	2,175	1,043	2,567	13.2
1 to 50	15,027	13,623	11,596	7,053	6,949	4,903	9,387	8.0
51 to 99	12,549	12,314	10,941	7,915	7,579	6,891	9,573	6.6
100	22,359	21,729	19,662	14,577	12,173	11,408	15,681	5.2
Percent Lit when Open								
Zero	189	Q	Q	Q	Q	Q	Q	32.2
1 to 50	6,008	4,875	3,762	2,685	2,553	1,791	3,303	9.8
51 to 99	9,692	9,178	8,106	5,834	5,066	4,133	7,081	8.1
100	40,514	37,879	33,635	22,646	20,827	18,148	26,322	4.3
Building Not in Use/ Electricity Not Used	2,369	1,196	801	508	419	144	496	19.5
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling Insulation	46,355	46,355	46,355	29,919	25,882	21,522	32,169	4.2
Wall Insulation	31,694	31,694	29,919	31,694	20,737	15,475	22,463	4.7
Storm or Multiple Glazing	28,876	28,876	25,882	20,737	28,876	16,231	22,098	4.4
Tinted, Reflective or Shading Glass	24,245	24,245	21,522	15,475	16,231	24,245	19,355	4.4
Exterior or Interior Shading or Awnings	37,208	37,208	32,169	22,463	22,098	19,355	37,208	4.0
HVAC Conservation Features (more than one may apply)								
Variable Air-Volume System	13,473	13,373	12,310	9,373	9,347	9,407	10,782	6.3
Economizer Cycle	16,550	16,419	14,913	10,897	11,264	10,566	12,904	5.6
HVAC Maintenance	43,134	41,849	37,489	26,005	24,403	21,177	31,019	4.3
Other Energy Efficient Equipment	6,453	6,394	5,692	4,156	4,150	4,194	5,059	7.8

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Table BC-44. Reduction in Equipment Use During Off Hours, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)				Total Floorspace (million square feet)				RSE Row Factor
		Off-Hour Equipment Reduction (more than one may apply)				Off-Hour Equipment Reduction (more than one may apply)			
	All Buildings	Heating	Cooling	Lighting	All Buildings	Heating	Cooling	Lighting	
RSE Column Factor:	1.0	1.2	1.2	1.1	0.8	1.0	1.0	0.9	
All Buildings	4,579	3,211	2,707	3,753	58,772	38,326	35,605	44,937	4.0
Building Floorspace (Square Feet)									
1,001 to 5,000	2,399	1,707	1,353	1,975	6,338	4,531	3,582	5,235	5.2
5,001 to 10,000	1,035	715	622	851	7,530	5,283	4,620	6,242	8.3
10,001 to 25,000	745	518	474	610	11,617	8,095	7,442	9,499	8.1
25,001 to 50,000	213	149	143	176	7,676	5,363	5,160	6,356	6.6
50,001 to 100,000	115	78	73	91	7,968	5,312	5,048	6,266	6.3
100,001 to 200,000	48	32	30	36	6,776	4,460	4,251	5,051	7.9
200,001 to 500,000	19	9	9	12	5,553	2,721	2,692	3,436	8.9
Over 500,000	6	3	3	3	5,313	2,561	2,809	2,851	12.1
Principal Building Activity									
Education	309	278	228	303	7,740	7,059	6,116	7,378	9.0
Food Sales	137	69	74	103	642	272	297	442	15.6
Food Service	285	246	240	272	1,353	1,055	1,057	1,225	12.0
Health Care	105	68	68	80	2,333	516	534	600	19.3
Lodging	158	20	14	15	3,618	225	209	234	27.5
Mercantile and Service	1,289	1,060	809	1,186	12,728	10,118	9,399	11,525	7.8
Office	705	580	574	662	10,478	7,758	7,881	8,945	7.2
Public Assembly	326	259	203	311	3,948	2,892	2,482	3,385	12.0
Public Order and Safety	87	44	7	54	1,271	463	247	628	27.7
Religious Worship	269	239	195	242	2,792	2,578	2,228	2,605	11.9
Warehouse and Storage	580	277	230	418	8,481	4,583	4,336	6,666	13.0
Other	67	19	25	51	1,004	384	410	757	27.5
Vacant	261	52	41	56	2,384	423	410	548	20.3
Year Constructed									
1919 or Before	353	256	222	297	3,673	2,497	2,187	2,991	13.2
1920 to 1945	562	371	278	439	6,710	4,158	3,547	4,898	9.8
1946 to 1959	867	652	527	729	9,298	6,632	5,759	7,599	8.3
1960 to 1969	718	513	397	591	10,858	6,680	6,105	8,052	8.2
1970 to 1979	813	572	552	700	11,333	7,537	7,542	8,760	6.7
1980 to 1989	846	606	536	674	12,252	7,954	7,819	9,248	8.0
1990 to 1992	218	149	120	180	2,590	1,749	1,621	1,984	12.8
1993 to 1995	202	92	76	143	2,059	1,119	1,024	1,404	18.6
Floors									
One	3,018	2,088	1,731	2,472	24,552	16,656	15,123	20,143	5.4
Two	1,002	745	625	826	14,122	9,902	9,198	11,389	6.2
Three	399	297	264	349	7,335	5,297	4,866	6,062	10.0
Four to Nine	148	74	80	99	8,789	4,478	4,402	5,273	11.5
Ten or More	12	7	7	7	3,975	1,992	2,015	2,070	14.9
Census Region									
Northeast	725	541	369	603	11,883	7,907	6,730	8,675	9.9
Midwest	1,139	769	629	938	14,322	9,066	8,142	11,152	8.2
South	1,750	1,230	1,142	1,424	20,830	13,370	13,423	15,899	5.9
West	964	671	567	788	11,736	7,983	7,310	9,211	9.8
Workers (main shift)									
Fewer than 5	2,505	1,590	1,219	1,890	13,885	8,134	6,484	9,874	7.0
5 to 9	798	640	570	735	6,291	4,759	4,270	5,472	9.2
10 to 19	625	527	480	573	7,102	5,562	5,250	6,277	8.1
20 to 49	400	279	265	351	9,132	6,343	6,013	7,631	7.7
50 to 99	138	98	98	118	6,931	4,582	4,316	5,493	8.5
100 to 249	71	47	48	55	5,988	3,893	3,971	4,499	8.2
250 or More	43	29	28	32	9,443	5,054	5,301	5,690	12.6

See footnotes at end of table.

Table BC-44. Reduction in Equipment Use During Off Hours, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)				Total Floorspace (million square feet)				RSE Row Factor
		Off-Hour Equipment Reduction (more than one may apply)				Off-Hour Equipment Reduction (more than one may apply)			
	All Buildings	Heating	Cooling	Lighting	All Buildings	Heating	Cooling	Lighting	
RSE Column Factor:	1.0	1.2	1.2	1.1	0.8	1.0	1.0	0.9	
Weekly Operating Hours									
39 or Fewer	899	517	345	654	6,134	3,340	2,448	4,123	10.3
40 to 48	1,257	1,093	954	1,229	13,233	11,083	10,156	12,953	6.6
49 to 60	969	824	725	924	12,242	10,592	10,068	11,939	7.2
61 to 84	567	474	396	555	10,052	8,293	8,063	9,951	8.0
85 to 167	420	303	286	391	6,202	5,017	4,871	5,970	7.9
Open Continuously	466	--	--	--	10,908	--	--	--	8.6
Ownership and Occupancy									
Nongovernment Owned	4,025	2,846	2,438	3,307	46,696	30,267	28,437	35,675	4.4
Owner Occupied	3,158	2,292	1,932	2,669	35,573	22,943	21,348	27,042	4.7
Nonowner Occupied	698	539	498	630	9,697	7,235	7,017	8,557	8.8
Unoccupied	170	Q	Q	Q	1,426	Q	Q	Q	22.4
Government Owned	553	365	269	446	12,076	8,059	7,168	9,262	7.2
Energy Sources (more than one may apply)									
Electricity	4,343	3,200	2,706	3,753	57,076	38,172	35,500	44,937	4.0
Natural Gas	2,478	1,973	1,729	2,165	38,145	26,496	24,583	29,458	4.7
Fuel Oil	607	467	280	508	14,421	8,558	7,639	9,550	9.8
District Heat	110	62	58	77	5,658	2,748	2,610	3,306	15.8
District Chilled Water	53	38	38	41	2,521	1,454	1,482	1,595	21.3
Propane	589	470	337	507	5,344	4,049	3,317	4,362	13.6
Other	213	160	88	184	2,336	1,752	1,485	1,870	17.6
Primary Space-Heating Energy Source									
Electricity	1,007	755	687	862	13,500	9,286	9,182	10,796	8.9
Natural Gas	2,106	1,732	1,530	1,884	28,808	21,051	19,368	23,170	5.0
Fuel Oil	439	355	201	381	4,207	3,292	2,405	3,484	14.1
District Heat	107	60	56	75	5,289	2,619	2,464	3,160	16.1
Propane	260	219	142	229	1,545	1,341	982	1,378	19.2
Other	61	54	Q	55	514	462	Q	474	30.2
Cooling Energy Sources (more than one may apply)									
Electricity	3,293	2,566	2,642	2,898	47,761	33,066	34,193	37,851	4.0
Natural Gas	65	57	58	59	1,314	763	794	865	21.5
District Chilled Water	53	38	38	41	2,521	1,454	1,482	1,595	21.3
Cooking Energy Sources (more than one may apply)									
Electricity	487	386	337	433	12,249	8,043	7,885	8,985	8.0
Natural Gas	448	333	309	375	13,195	8,048	7,515	8,731	7.8
Propane	123	101	90	114	1,480	1,177	1,020	1,232	20.5
Energy End Uses (more than one may apply)									
Buildings with Space Heating	4,024	3,211	2,654	3,522	54,347	38,326	34,890	42,747	4.2
Buildings with Cooling	3,381	2,630	2,707	2,964	49,935	34,434	35,605	39,237	4.0
Buildings with Water Heating	3,486	2,702	2,343	3,021	51,560	35,438	33,195	40,160	4.3
Buildings with Cooking	828	635	569	716	20,713	13,458	12,781	14,863	5.6
Buildings with Manufacturing	204	133	124	186	3,893	2,576	2,501	3,153	14.0
Buildings with Electricity Generation	247	136	106	160	13,366	6,910	6,969	7,919	10.8
Percent of Floorspace Heated									
Not Heated	554	--	53	231	4,425	--	716	2,189	18.7
1 to 50	555	452	334	491	6,227	4,883	4,186	5,268	11.7
51 to 99	633	488	414	540	8,868	5,972	5,640	6,754	9.9
100	2,836	2,271	1,907	2,491	39,252	27,471	25,064	30,725	4.3

See footnotes at end of table.

Table BC-44. Reduction in Equipment Use During Off Hours, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)				Total Floorspace (million square feet)				RSE Row Factor
		Off-Hour Equipment Reduction (more than one may apply)				Off-Hour Equipment Reduction (more than one may apply)			
	All Buildings	Heating	Cooling	Lighting	All Buildings	Heating	Cooling	Lighting	
RSE Column Factor:	1.0	1.2	1.2	1.1	0.8	1.0	1.0	0.9	
Percent of Floorspace Cooled									
Not Cooled	1,198	581	--	789	8,837	3,892	--	5,700	11.6
1 to 50	930	768	804	860	15,027	11,407	11,744	12,876	7.7
51 to 99	635	469	471	531	12,549	8,027	8,321	9,058	7.5
100	1,816	1,393	1,433	1,572	22,359	15,000	15,540	17,303	5.0
Percent Lit when Open									
Zero	36	Q	Q	--	189	Q	Q	--	37.2
1 to 50	666	458	407	561	6,008	4,169	3,850	5,052	9.6
51 to 99	745	614	503	677	9,692	7,073	6,339	8,017	9.7
100	2,814	2,121	1,795	2,515	40,514	26,896	25,291	31,867	4.7
Building Not in Use/ Electricity Not Used	318	Q	Q	--	2,369	Q	Q	--	18.0
Percent Lit when Closed									
Zero	1,644	1,330	1,005	1,620	13,101	10,600	8,918	12,947	7.8
1 to 50	2,109	1,806	1,640	2,083	30,711	26,033	25,054	30,513	4.7
51 to 100	87	64	61	50	1,914	1,534	1,524	1,477	19.7
Never Closed	421	--	--	--	10,677	--	--	--	8.3
Building Not in Use/ Electricity Not Used	318	Q	Q	--	2,369	Q	Q	--	18.0
Heating Equipment (more than one may apply)									
Heat Pumps	394	286	286	350	5,843	3,544	3,608	4,348	8.3
Furnaces	1,676	1,442	1,121	1,511	14,923	11,429	9,871	12,420	6.9
Individual Space Heaters	1,188	955	711	1,018	16,809	11,642	10,422	12,996	8.0
District Heat	115	65	61	81	5,911	2,890	2,684	3,456	15.5
Boilers	610	433	333	484	16,754	11,213	10,137	12,354	7.1
Packaged Heating Units	1,031	818	807	904	16,893	11,739	11,643	13,279	6.2
Other	161	122	92	150	6,249	4,135	3,906	4,444	16.1
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	878	708	720	790	9,238	6,403	6,598	7,189	7.2
Heat Pumps	457	330	330	392	6,931	4,277	4,372	5,115	7.9
Individual Air Conditioners	862	648	690	726	12,494	7,812	8,204	8,828	7.1
District Chilled Water	53	38	38	41	2,521	1,454	1,482	1,595	21.3
Central Chillers	109	66	68	79	11,065	6,226	6,477	7,092	9.5
Packaged Air Conditioning Units	1,431	1,122	1,152	1,244	26,628	18,360	18,870	20,799	5.6
Swamp Coolers	186	153	154	165	2,451	1,569	1,599	1,706	20.9
Other	18	13	13	12	949	612	602	601	19.6
Lighting Equipment Types (more than one may apply)									
Incandescent	2,479	1,886	1,674	2,160	35,715	23,405	22,292	27,345	4.5
Standard Fluorescent	3,885	2,987	2,546	3,464	53,984	37,086	34,745	43,074	4.0
Compact Fluorescent	364	253	248	289	14,273	8,648	8,639	9,705	9.2
High-Intensity Discharge	393	290	254	337	16,259	10,305	9,685	11,851	8.3
Halogen	302	226	217	244	9,665	6,062	6,133	6,767	10.0
Other	30	Q	Q	Q	554	Q	Q	Q	46.2
Energy Conservation Features (more than one may apply)									
Any Conservation Features	4,075	3,068	2,613	3,502	55,288	37,396	34,804	43,066	4.0
Building Shell	3,906	2,949	2,536	3,342	53,190	36,006	33,692	41,174	4.1
HVAC	2,529	1,978	1,736	2,186	44,657	30,509	28,838	34,326	4.8
Lighting	2,084	1,590	1,351	1,855	38,537	25,770	24,224	29,856	4.8

See footnotes at end of table.

Table BC-44. Reduction in Equipment Use During Off Hours, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)				Total Floorspace (million square feet)				RSE Row Factor
		Off-Hour Equipment Reduction (more than one may apply)				Off-Hour Equipment Reduction (more than one may apply)			
	All Buildings	Heating	Cooling	Lighting	All Buildings	Heating	Cooling	Lighting	
RSE Column Factor:	1.0	1.2	1.2	1.1	0.8	1.0	1.0	0.9	
Off-Hour Equipment Reduction (more than one may apply)									
Heating	3,211	3,211	2,597	3,168	38,326	38,326	33,968	37,919	4.3
Cooling	2,707	2,597	2,707	2,681	35,605	33,968	35,605	35,259	4.2
Lighting	3,753	3,168	2,681	3,753	44,937	37,919	35,259	44,937	4.2

-- = Data not applicable.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1995 Commercial Buildings Energy Consumption Survey.

Energy Consumption and Expenditures Tables

(CE-1 through CE-31)

Table CE-1. Total Energy Consumption by Major Fuel, 1995

Building Characteristics	All Buildings		Total Energy Consumption (trillion Btu)						RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)	
RSE Column Factor:	0.7	0.6	0.8	0.8	1.0	1.9	2.5	0.8	
All Buildings	4,579	58,772	5,321	2,608	1,946	235	533	7,873	5.74
Building Floorspace (square feet)									
1,001 to 5,000	2,399	6,338	708	380	264	44	Q	1,148	9.50
5,001 to 10,000	1,035	7,530	624	238	272	26	Q	718	14.90
10,001 to 25,000	745	11,617	824	384	356	45	38	1,161	12.29
25,001 to 50,000	213	7,676	630	316	231	28	55	954	9.79
50,001 to 100,000	115	7,968	698	363	243	31	60	1,097	10.41
100,001 to 200,000	48	6,776	687	337	244	21	84	1,017	11.84
200,001 to 500,000	19	5,553	636	307	211	25	94	927	13.65
Over 500,000	6	5,313	514	282	125	14	93	852	14.56
Principal Building Activity									
Education	309	7,740	614	221	245	57	91	666	10.34
Food Sales	137	642	137	119	18	Q	Q	358	20.58
Food Service	285	1,353	332	166	158	Q	Q	502	20.94
Health Care	105	2,333	561	211	258	21	70	637	13.78
Lodging	158	3,618	461	187	213	Q	57	565	13.83
Mercantile and Service	1,289	12,728	973	508	395	49	Q	1,533	12.33
Office	705	10,478	1,019	676	239	28	75	2,039	11.11
Public Assembly	326	3,948	449	170	142	14	Q	514	17.28
Public Order and Safety	87	1,271	124	49	33	Q	Q	148	30.10
Religious Worship	269	2,792	104	33	57	13	Q	99	13.80
Warehouse and Storage	580	8,481	325	176	106	10	Q	531	16.23
Other	67	1,004	173	75	55	Q	Q	228	32.41
Vacant	261	2,384	51	18	26	5	Q	54	25.95
Year Constructed									
1919 or Before	353	3,673	292	99	135	26	31	300	17.69
1920 to 1945	562	6,710	508	173	210	40	85	523	13.02
1946 to 1959	867	9,298	826	325	391	54	57	980	13.05
1960 to 1969	718	10,858	1,024	472	375	53	124	1,424	10.20
1970 to 1979	813	11,333	1,125	615	393	28	89	1,856	9.79
1980 to 1989	846	12,252	1,059	648	288	23	Q	1,955	10.82
1990 to 1992	218	2,590	297	163	100	2	Q	492	20.61
1993 to 1995	202	2,059	190	113	54	8	Q	343	21.77
Floors									
One	3,018	24,552	1,846	980	654	78	Q	2,958	8.58
Two	1,002	14,122	1,122	549	481	54	38	1,656	10.13
Three	399	7,335	675	283	284	43	65	853	12.15
Four to Nine	148	8,789	1,229	552	411	49	217	1,667	11.39
Ten or More	12	3,975	451	244	117	11	79	738	14.00
Census Region and Division									
Northeast	725	11,883	1,035	436	297	168	135	1,317	10.17
New England	204	3,140	274	99	74	79	23	297	16.09
Middle Atlantic	521	8,743	761	338	223	88	112	1,020	12.10
Midwest	1,139	14,322	1,497	558	750	16	173	1,684	11.18
East North Central	739	9,655	987	356	505	Q	114	1,074	11.65
West North Central	401	4,668	510	202	244	4	60	610	20.49
South	1,750	20,830	1,684	1,027	528	45	83	3,101	10.43
South Atlantic	676	9,475	772	487	197	37	Q	1,471	13.96
East South Central	477	4,917	417	238	164	Q	Q	718	18.42
West South Central	597	6,438	494	302	167	Q	Q	911	13.93
West	964	11,736	1,106	587	371	7	Q	1,772	13.72
Mountain	319	3,855	429	182	150	Q	Q	549	24.32
Pacific	646	7,881	677	405	221	Q	Q	1,223	13.82

See footnotes at end of table.

Table CE-1. Total Energy Consumption by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Consumption (trillion Btu)						RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)	
RSE Column Factor:	0.7	0.6	0.8	0.8	1.0	1.9	2.5	0.8	
Climate Zone: 45-Year Average									
Fewer than 2,000 CDD and --									
More than 7,000 HDD	493	5,098	499	178	240	51	29	539	17.43
5,500-7,000 HDD	975	14,597	1,591	571	692	69	259	1,725	11.14
4,000-5,499 HDD	1,070	15,155	1,407	700	452	101	154	2,112	13.53
Fewer than 4,000 HDD	1,103	13,491	1,078	648	372	Q	Q	1,955	14.28
More than 2,000 CDD and --									
Fewer than 4,000 HDD	937	10,430	746	511	191	5	Q	1,543	16.34
Workers (main shift)									
Fewer than 5	2,505	13,885	789	327	298	59	Q	988	10.50
5 to 9	798	6,291	509	224	244	22	Q	676	14.70
10 to 19	625	7,102	614	293	269	33	Q	884	14.71
20 to 49	400	9,132	868	422	343	38	66	1,273	9.77
50 to 99	138	6,931	630	310	218	28	74	935	10.74
100 to 249	71	5,988	649	333	222	28	66	1,007	12.50
250 or More	43	9,443	1,262	699	352	28	183	2,111	12.22
Weekly Operating Hours									
39 or Fewer	899	6,134	180	61	92	20	Q	185	15.33
40 to 48	1,257	13,233	879	403	365	42	69	1,217	11.51
49 to 60	969	12,242	937	497	301	58	81	1,501	12.12
61 to 84	567	10,052	796	435	279	37	44	1,313	10.99
85 to 167	420	6,202	831	435	243	24	Q	1,312	12.57
Open Continuously	466	10,908	1,698	777	665	53	203	2,345	10.17
Ownership and Occupancy									
Nongovernment Owned	4,025	46,696	3,950	2,018	1,472	166	295	6,091	6.95
Owner Occupied	3,158	35,573	3,287	1,609	1,245	150	283	4,858	7.38
Nonowner Occupied	698	9,697	647	403	218	15	Q	1,216	12.61
Unoccupied	170	1,426	16	6	Q	Q	Q	17	43.05
Government Owned	553	12,076	1,372	590	474	69	238	1,782	10.73
Federal	76	1,752	266	143	42	6	75	431	30.44
State	99	2,851	438	191	121	13	113	577	20.68
Local	379	7,473	668	256	311	51	Q	774	13.40
Space in Building Vacant for at Least Three Consecutive Months									
Yes	787	15,844	1,120	595	409	32	84	1,795	10.79
No	3,791	42,928	4,202	2,013	1,537	203	449	6,078	6.40
Energy Sources (more than one may apply)									
Electricity	4,343	57,076	5,312	2,608	1,938	234	532	7,873	5.91
Natural Gas	2,478	38,145	3,931	1,704	1,946	86	194	5,145	6.93
Fuel Oil	607	14,421	1,732	778	556	235	163	2,350	9.77
District Heat	110	5,658	1,051	364	146	9	533	1,100	20.78
District Chilled Water	53	2,521	542	188	101	2	250	567	21.78
Propane	589	5,344	392	224	90	65	Q	676	15.59
Other	213	2,336	259	83	64	13	Q	251	25.55
Energy End Uses (more than one may apply)									
Buildings with Space Heating	4,024	54,347	5,247	2,543	1,937	234	532	7,679	5.81
Buildings with Cooling	3,381	49,935	4,923	2,473	1,782	179	488	7,467	6.09
Buildings with Water Heating	3,486	51,560	5,090	2,495	1,878	222	496	7,533	5.86
Buildings with Cooking	828	20,713	2,506	1,244	975	105	181	3,757	7.13
Buildings with Manufacturing	204	3,893	307	157	111	15	Q	474	19.50
Buildings with Electricity Generation	247	13,366	1,705	859	577	81	188	2,593	9.06

See footnotes at end of table.

Table CE-1. Total Energy Consumption by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Consumption (trillion Btu)						RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)	
RSE Column Factor:	0.7	0.6	0.8	0.8	1.0	1.9	2.5	0.8	
Space-Heating Energy Sources (more than one may apply)									
Electricity	1,467	22,156	1,908	1,223	555	52	78	3,692	9.87
Natural Gas	2,211	31,535	3,095	1,334	1,685	30	47	4,026	7.45
Fuel Oil	504	6,606	722	263	205	220	Q	794	16.49
District Heat	109	5,606	1,036	361	136	9	530	1,090	15.45
Propane	301	2,025	129	92	23	Q	Q	279	26.51
Other	135	1,050	77	33	30	Q	Q	101	26.86
Primary Space-Heating Energy Source									
Electricity	1,007	13,500	1,006	810	176	10	Q	2,445	12.81
Natural Gas	2,106	28,808	2,839	1,196	1,614	15	Q	3,611	7.21
Fuel Oil	439	4,207	305	92	16	196	Q	279	17.76
District Heat	107	5,289	977	344	118	7	508	1,040	15.96
Propane	260	1,545	71	65	Q	Q	Q	197	31.76
Other	61	514	16	11	Q	Q	Q	34	40.97
Cooling Energy Sources (more than one may apply)									
Electricity	3,293	47,761	4,532	2,344	1,703	176	309	7,077	5.88
Natural Gas	65	1,314	220	82	116	5	Q	247	30.00
District Chilled Water	53	2,521	542	188	101	2	250	567	21.78
Water-Heating Energy Sources (more than one may apply)									
Electricity	1,684	23,056	1,657	1,138	359	77	83	3,434	9.33
Natural Gas	1,577	24,859	2,769	1,160	1,513	47	49	3,502	7.65
Fuel Oil	120	2,151	203	55	29	112	Q	167	20.90
District Heat	54	3,949	762	251	99	5	406	757	16.23
Propane	110	1,020	75	61	Q	Q	Q	184	32.96
Cooking Energy Sources (more than one may apply)									
Electricity	487	12,249	1,496	830	506	48	112	2,507	9.83
Natural Gas	448	13,195	1,698	742	801	51	103	2,241	8.92
Propane	123	1,480	125	92	Q	30	Q	278	27.56
Percent of Floorspace Heated									
Not Heated	554	4,425	74	64	Q	Q	Q	194	21.27
1 to 50	555	6,227	247	145	86	13	Q	437	15.45
51 to 99	633	8,868	805	440	281	43	41	1,329	14.41
100	2,836	39,252	4,195	1,959	1,570	178	488	5,913	6.03
Percent of Floorspace Cooled									
Not Cooled	1,198	8,837	399	135	163	56	45	406	15.17
1 to 50	930	15,027	1,044	358	515	90	80	1,082	11.31
51 to 99	635	12,549	1,360	727	463	45	125	2,194	9.72
100	1,816	22,359	2,519	1,388	804	44	282	4,191	8.97
Percent Lit when Open									
Zero	36	189	Q	Q	Q	Q	Q	Q	50.54
1 to 50	666	6,008	308	125	136	33	Q	376	13.59
51 to 99	745	9,692	884	412	345	47	80	1,243	11.17
100	2,814	40,514	4,103	2,066	1,448	152	437	6,236	6.87
Building Not In Use/ Electricity Not Used	318	2,369	26	Q	Q	Q	Q	Q	29.12

See footnotes at end of table.

Table CE-1. Total Energy Consumption by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Consumption (trillion Btu)						RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)	
RSE Column Factor:	0.7	0.6	0.8	0.8	1.0	1.9	2.5	0.8	
Percent Lit when Closed									
Zero	1,644	13,101	753	340	302	47	Q	1,025	11.77
1 to 50	2,109	30,711	2,639	1,346	909	127	257	4,063	8.02
51 to 100	87	1,914	208	141	56	Q	Q	425	29.20
Never Closed	421	10,677	1,696	776	663	53	203	2,344	10.86
Building Not In Use/ Electricity Not Used	318	2,369	26	Q	Q	Q	Q	Q	34.46
Energy Conservation Features (more than one may apply)									
Any Conservation Features	4,075	55,288	5,260	2,569	1,927	232	532	7,755	5.82
Building Shell	3,906	53,190	5,135	2,512	1,883	219	520	7,584	5.99
HVAC	2,529	44,657	4,621	2,273	1,629	212	508	6,861	6.18
Lighting	2,084	38,537	4,012	2,017	1,454	167	374	6,091	6.02

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the "Total of Major Fuels" category, is site electricity plus the conversion losses in the electric generation process at the utility plant. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-2. Total Energy Expenditures by Major Fuel, 1995

Building Characteristics	All Buildings		Total Energy Expenditures (million dollars)					RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
RSE Column Factor:	0.7	0.6	0.7	0.7	1.0	2.0	2.4	
All Buildings	4,579	58,772	69,918	56,621	9,018	1,175	3,103	5.62
Building Floorspace (square feet)								
1,001 to 5,000	2,399	6,338	11,577	9,696	1,483	275	Q	9.81
5,001 to 10,000	1,035	7,530	8,063	6,055	1,439	153	Q	13.81
10,001 to 25,000	745	11,617	11,099	8,911	1,775	239	174	12.24
25,001 to 50,000	213	7,676	8,676	7,005	1,159	129	383	10.13
50,001 to 100,000	115	7,968	8,824	7,194	1,091	140	400	10.58
100,001 to 200,000	48	6,776	7,859	6,283	958	88	530	11.93
200,001 to 500,000	19	5,553	7,291	5,908	729	97	557	13.13
Over 500,000	6	5,313	6,530	5,568	385	56	521	15.34
Principal Building Activity								
Education	309	7,740	7,129	5,168	1,117	249	595	11.60
Food Sales	137	642	2,634	2,532	97	Q	Q	22.57
Food Service	285	1,353	4,817	3,931	851	Q	Q	21.82
Health Care	105	2,333	5,261	3,901	838	94	428	14.73
Lodging	158	3,618	5,114	3,838	966	Q	291	14.89
Mercantile and Service	1,289	12,728	14,025	11,655	1,979	265	Q	12.05
Office	705	10,478	15,849	14,020	1,150	154	524	10.97
Public Assembly	326	3,948	4,988	3,604	675	75	Q	16.42
Public Order and Safety	87	1,271	1,551	1,131	167	Q	Q	31.80
Religious Worship	269	2,792	1,337	953	303	69	Q	14.80
Warehouse and Storage	580	8,481	4,709	3,934	559	56	Q	17.57
Other	67	1,004	1,865	1,473	197	Q	Q	34.95
Vacant	261	2,384	638	481	119	25	Q	24.91
Year Constructed								
1919 or Before	353	3,673	3,310	2,290	655	127	238	16.15
1920 to 1945	562	6,710	5,665	4,012	966	192	495	13.37
1946 to 1959	867	9,298	9,813	7,395	1,796	294	328	12.19
1960 to 1969	718	10,858	13,135	10,405	1,750	259	721	11.07
1970 to 1979	813	11,333	15,366	13,005	1,695	134	532	9.67
1980 to 1989	846	12,252	15,895	13,844	1,397	118	Q	10.71
1990 to 1992	218	2,590	4,011	3,318	510	11	Q	19.80
1993 to 1995	202	2,059	2,722	2,353	249	39	Q	24.21
Floors								
One	3,018	24,552	27,099	22,624	3,353	423	Q	8.16
Two	1,002	14,122	15,409	12,510	2,389	276	234	10.11
Three	399	7,335	8,027	6,133	1,324	212	359	13.62
Four to Nine	148	8,789	13,245	10,234	1,548	220	1,244	10.65
Ten or More	12	3,975	6,137	5,121	404	44	569	15.53
Census Region and Division								
Northeast	725	11,883	16,479	13,059	1,739	818	863	10.80
New England	204	3,140	4,019	3,082	432	374	131	16.78
Middle Atlantic	521	8,743	12,460	9,978	1,307	444	732	13.07
Midwest	1,139	14,322	15,076	10,946	2,947	84	1,100	11.36
East North Central	739	9,655	10,141	7,360	2,043	Q	677	11.85
West North Central	401	4,668	4,935	3,586	903	Q	423	19.37
South	1,750	20,830	22,211	19,009	2,560	240	402	10.44
South Atlantic	676	9,475	10,922	9,502	1,009	196	215	15.63
East South Central	477	4,917	4,854	3,979	792	Q	Q	17.64
West South Central	597	6,438	6,435	5,527	759	Q	Q	13.22
West	964	11,736	16,152	13,607	1,772	34	Q	13.28
Mountain	319	3,855	4,415	3,390	585	Q	Q	25.93
Pacific	646	7,881	11,737	10,217	1,188	Q	Q	14.21

See footnotes at end of table.

Table CE-2. Total Energy Expenditures by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Expenditures (million dollars)					RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
RSE Column Factor:	0.7	0.6	0.7	0.7	1.0	2.0	2.4	
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and --								
More than 7,000 HDD	493	5,098	4,975	3,600	952	241	183	18.43
5,500-7,000 HDD	975	14,597	17,822	13,123	2,907	349	1,443	10.43
4,000-5,499 HDD	1,070	15,155	18,783	15,057	2,214	511	1,001	13.65
Fewer than 4,000 HDD	1,103	13,491	16,823	14,479	2,012	Q	Q	14.73
More than 2,000 CDD and --								
Fewer than 4,000 HDD	937	10,430	11,515	10,363	933	Q	192	15.84
Workers (main shift)								
Fewer than 5	2,505	13,885	10,958	8,510	1,620	338	Q	10.06
5 to 9	798	6,291	6,939	5,478	1,198	129	Q	14.62
10 to 19	625	7,102	8,410	6,712	1,364	179	Q	14.40
20 to 49	400	9,132	11,781	9,480	1,729	181	391	10.15
50 to 99	138	6,931	8,140	6,595	985	114	445	10.88
100 to 249	71	5,988	8,107	6,668	930	117	391	11.98
250 or More	43	9,443	15,584	13,177	1,192	117	1,098	11.90
Weekly Operating Hours								
39 or Fewer	899	6,134	2,400	1,728	498	112	Q	15.72
40 to 48	1,257	13,233	11,831	9,435	1,790	226	380	10.76
49 to 60	969	12,242	13,167	10,912	1,466	300	489	11.46
61 to 84	567	10,052	11,698	9,807	1,410	184	296	11.68
85 to 167	420	6,202	11,593	9,608	1,215	107	Q	13.19
Open Continuously	466	10,908	19,230	15,131	2,638	245	1,215	10.18
Ownership and Occupancy								
Nongovernment Owned	4,025	46,696	54,483	44,825	7,065	863	1,730	6.86
Owner Occupied	3,158	35,573	43,122	34,878	5,825	781	1,638	7.22
Nonowner Occupied	698	9,697	11,131	9,768	1,201	78	Q	13.10
Unoccupied	170	1,426	230	179	Q	Q	Q	41.79
Government Owned	553	12,076	15,435	11,796	1,953	312	1,374	9.83
Federal	76	1,752	3,026	2,493	166	27	341	27.95
State	99	2,851	4,799	3,610	454	60	676	20.78
Local	379	7,473	7,609	5,694	1,334	225	Q	13.04
Space in Building Vacant for at Least Three Consecutive Months								
Yes	787	15,844	15,193	12,715	1,765	159	554	10.73
No	3,791	42,928	54,725	43,906	7,253	1,017	2,550	6.45
Energy Sources (more than one may apply)								
Electricity	4,343	57,076	69,876	56,621	8,987	1,167	3,100	5.74
Natural Gas	2,478	38,145	48,011	37,320	9,018	396	1,277	7.31
Fuel Oil	607	14,421	20,194	15,850	2,099	1,175	1,069	10.17
District Heat	110	5,658	10,584	6,957	486	38	3,103	20.92
District Chilled Water	53	2,521	5,074	3,344	327	11	1,393	21.58
Propane	589	5,344	6,153	5,323	425	323	Q	15.53
Other	213	2,336	2,710	1,878	272	70	Q	23.95
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	54,347	68,085	54,844	8,972	1,167	3,102	5.68
Buildings with Cooling	3,381	49,935	65,100	53,201	8,189	876	2,835	5.97
Buildings with Water Heating	3,486	51,560	66,466	53,846	8,650	1,096	2,874	5.77
Buildings with Cooking	828	20,713	31,611	25,825	4,216	481	1,088	7.19
Buildings with Manufacturing	204	3,893	4,028	3,252	528	65	Q	19.20
Buildings with Electricity Generation	247	13,366	20,828	16,911	2,246	369	1,302	9.70

See footnotes at end of table.

Table CE-2. Total Energy Expenditures by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Expenditures (million dollars)					RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
RSE Column Factor:	0.7	0.6	0.7	0.7	1.0	2.0	2.4	
Space-Heating Energy Sources (more than one may apply)								
Electricity	1,467	22,156	28,336	25,058	2,579	257	442	10.03
Natural Gas	2,211	31,535	37,864	29,646	7,770	137	Q	6.68
Fuel Oil	504	6,606	8,043	6,000	728	1,096	Q	16.27
District Heat	109	5,606	10,491	6,904	465	38	3,084	15.88
Propane	301	2,025	2,451	2,280	96	Q	Q	29.22
Other	135	1,050	960	768	121	Q	Q	29.94
Primary Space-Heating Energy Source								
Electricity	1,007	13,500	17,325	16,279	979	47	Q	13.58
Natural Gas	2,106	28,808	34,272	26,667	7,437	73	Q	7.17
Fuel Oil	439	4,207	3,922	2,827	111	983	Q	18.09
District Heat	107	5,289	9,987	6,573	400	30	2,984	16.38
Propane	260	1,545	1,766	1,738	Q	Q	Q	34.12
Other	61	514	278	248	Q	Q	Q	43.55
Cooling Energy Sources (more than one may apply)								
Electricity	3,293	47,761	61,379	50,797	7,868	863	1,850	5.77
Natural Gas	65	1,314	2,328	1,738	462	22	Q	26.81
District Chilled Water	53	2,521	5,074	3,344	327	11	1,393	21.58
Water-Heating Energy Sources (more than one may apply)								
Electricity	1,684	23,056	26,839	24,101	1,883	409	447	9.10
Natural Gas	1,577	24,859	32,683	25,261	6,849	210	364	8.33
Fuel Oil	120	2,151	2,329	1,622	139	534	Q	21.48
District Heat	54	3,949	7,545	4,913	329	23	2,279	17.45
Propane	110	1,020	1,584	1,519	Q	Q	Q	36.44
Cooking Energy Sources (more than one may apply)								
Electricity	487	12,249	19,314	16,338	2,105	208	664	9.87
Natural Gas	448	13,195	20,182	15,828	3,495	235	623	9.15
Propane	123	1,480	2,450	2,293	Q	142	Q	28.74
Percent of Floorspace Heated								
Not Heated	554	4,425	1,833	1,777	Q	Q	Q	20.88
1 to 50	555	6,227	4,024	3,456	469	79	Q	16.14
51 to 99	633	8,868	11,724	9,760	1,461	219	285	13.21
100	2,836	39,252	52,337	41,628	7,042	868	2,798	5.91
Percent of Floorspace Cooled								
Not Cooled	1,198	8,837	4,818	3,421	829	299	269	14.53
1 to 50	930	15,027	11,919	8,642	2,410	418	450	11.50
51 to 99	635	12,549	18,400	15,196	2,121	224	859	9.92
100	1,816	22,359	34,781	29,363	3,658	234	1,526	8.81
Percent Lit when Open								
Zero	36	189	Q	Q	Q	Q	Q	50.88
1 to 50	666	6,008	4,252	3,274	724	176	Q	15.06
51 to 99	745	9,692	11,682	9,346	1,597	234	505	12.03
100	2,814	40,514	53,711	43,826	6,627	745	2,513	6.75
Building Not in Use/ Electricity Not Used	318	2,369	246	149	Q	Q	Q	29.14

See footnotes at end of table.

Table CE-2. Total Energy Expenditures by Major Fuel, 1995 (Continued)

Building Characteristics	All Buildings		Total Energy Expenditures (million dollars)					RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
RSE Column Factor:	0.7	0.6	0.7	0.7	1.0	2.0	2.4	
Percent Lit when Closed								
Zero	1,644	13,101	10,364	8,176	1,546	247	Q	11.77
1 to 50	2,109	30,711	37,023	30,461	4,478	638	1,447	7.82
51 to 100	87	1,914	3,077	2,715	298	Q	Q	26.83
Never Closed	421	10,677	19,207	15,121	2,627	245	1,215	10.66
Building Not In Use/ Electricity Not Used	318	2,369	246	149	Q	Q	Q	32.30
Energy Conservation Features (more than one may apply)								
Any Conservation Features	4,075	55,288	68,728	55,553	8,918	1,159	3,097	5.70
Building Shell	3,906	53,190	66,909	54,093	8,689	1,088	3,039	5.85
HVAC	2,529	44,657	59,844	48,480	7,409	1,040	2,915	6.06
Lighting	2,084	38,537	52,428	42,834	6,565	799	2,231	5.86

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-3. Consumption for Sum of Major Fuels, 1995

Building Characteristics	All Buildings			Sum of Major Fuel Consumption				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	
RSE Column Factor:	1.0	0.8	0.7	1.1	1.2	1.0	1.2	
All Buildings	4,579	58,772	12.8	5,321	1,162	90.5	69.3	3.83
Building Floorspace (square feet)								
1,001 to 5,000	2,399	6,338	2.6	708	295	111.7	66.9	5.64
5,001 to 10,000	1,035	7,530	7.3	624	603	82.8	82.2	9.63
10,001 to 25,000	745	11,617	15.6	824	1,106	70.9	63.6	7.20
25,001 to 50,000	213	7,676	36.1	630	2,961	82.0	61.7	4.59
50,001 to 100,000	115	7,968	69.3	698	6,070	87.6	71.7	4.97
100,001 to 200,000	48	6,776	140.9	687	14,281	101.4	80.9	6.69
200,001 to 500,000	19	5,553	294.9	636	33,800	114.6	83.7	6.82
Over 500,000	6	5,313	896.4	514	86,763	96.8	53.5	9.30
Principal Building Activity								
Education	309	7,740	25.1	614	1,986	79.3	60.8	8.14
Food Sales	137	642	4.7	137	1,002	213.5	210.1	12.31
Food Service	285	1,353	4.8	332	1,167	245.5	141.8	12.14
Health Care	105	2,333	22.2	561	5,342	240.4	125.1	12.68
Lodging	158	3,618	22.8	461	2,908	127.3	167.7	10.65
Mercantile and Service	1,289	12,728	9.9	973	755	76.4	72.3	8.49
Office	705	10,478	14.9	1,019	1,445	97.2	37.7	7.56
Public Assembly	326	3,948	12.1	449	1,376	113.7	149.8	16.05
Public Order and Safety	87	1,271	14.6	124	1,416	97.2	72.5	21.19
Religious Worship	269	2,792	10.4	104	387	37.4	Q	11.35
Warehouse and Storage	580	8,481	14.6	325	560	38.3	66.2	11.36
Other	67	1,004	14.9	173	2,566	172.2	93.7	24.28
Vacant	261	2,384	9.1	51	196	21.5	80.1	21.29
Year Constructed								
1919 or Before	353	3,673	10.4	292	827	79.4	79.7	12.74
1920 to 1945	562	6,710	11.9	508	905	75.7	69.1	9.74
1946 to 1959	867	9,298	10.7	826	953	88.9	80.9	8.69
1960 to 1969	718	10,858	15.1	1,024	1,425	94.3	71.2	7.38
1970 to 1979	813	11,333	13.9	1,125	1,384	99.3	74.8	7.06
1980 to 1989	846	12,252	14.5	1,059	1,252	86.5	52.4	8.57
1990 to 1992	218	2,590	11.9	297	1,361	114.6	76.1	14.22
1993 to 1995	202	2,059	10.2	190	940	92.2	94.5	15.02
Floors								
One	3,018	24,552	8.1	1,846	612	75.2	72.7	6.11
Two	1,002	14,122	14.1	1,122	1,120	79.4	62.4	7.20
Three	399	7,335	18.4	675	1,689	92.0	79.7	8.50
Four to Nine	148	8,789	59.4	1,229	8,302	139.8	84.3	9.58
Ten or More	12	3,975	328.9	451	37,283	113.4	43.4	10.09
Census Region and Division								
Northeast	725	11,883	16.4	1,035	1,427	87.1	68.3	8.50
New England	204	3,140	15.4	274	1,343	87.3	80.8	13.02
Middle Atlantic	521	8,743	16.8	761	1,460	87.1	64.8	9.83
Midwest	1,139	14,322	12.6	1,497	1,314	104.5	88.2	7.52
East North Central	739	9,655	13.1	987	1,335	102.2	92.7	8.66
West North Central	401	4,668	11.6	510	1,273	109.3	80.5	14.56
South	1,750	20,830	11.9	1,684	962	80.8	63.5	6.42
South Atlantic	676	9,475	14.0	772	1,142	81.5	61.3	9.54
East South Central	477	4,917	10.3	417	875	84.8	57.4	14.62
West South Central	597	6,438	10.8	494	828	76.7	74.5	9.88
West	964	11,736	12.2	1,106	1,147	94.2	60.9	10.48
Mountain	319	3,855	12.1	429	1,346	111.3	94.8	15.94
Pacific	646	7,881	12.2	677	1,048	85.9	49.7	10.84

See footnotes at end of table.

Table CE-3. Consumption for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Consumption				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	
RSE Column Factor:	1.0	0.8	0.7	1.1	1.2	1.0	1.2	
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and --								
More than 7,000 HDD	493	5,098	10.3	499	1,011	97.8	83.6	12.54
5,500-7,000 HDD	975	14,597	15.0	1,591	1,633	109.0	94.2	7.40
4,000-5,499 HDD	1,070	15,155	14.2	1,407	1,315	92.8	66.8	11.07
Fewer than 4,000 HDD	1,103	13,491	12.2	1,078	977	79.9	52.4	9.91
More than 2,000 CDD and --								
Fewer than 4,000 HDD	937	10,430	11.1	746	796	71.6	60.8	10.01
Workers (main shift)								
Fewer than 5	2,505	13,885	5.5	789	315	56.8	170.1	8.93
5 to 9	798	6,291	7.9	509	638	80.8	98.6	9.79
10 to 19	625	7,102	11.4	614	983	86.5	78.4	9.64
20 to 49	400	9,132	22.8	868	2,172	95.1	75.3	6.69
50 to 99	138	6,931	50.3	630	4,571	90.9	70.6	7.81
100 to 249	71	5,988	84.4	649	9,148	108.3	65.9	7.05
250 or More	43	9,443	220.1	1,262	29,426	133.7	43.8	11.08
Weekly Operating Hours								
39 or Fewer	899	6,134	6.8	180	200	29.3	31.2	11.58
40 to 48	1,257	13,233	10.5	879	700	66.4	53.1	7.27
49 to 60	969	12,242	12.6	937	967	76.6	52.8	7.71
61 to 84	567	10,052	17.7	796	1,404	79.2	60.2	7.48
85 to 167	420	6,202	14.8	831	1,978	134.0	119.4	11.03
Open Continuously	466	10,908	23.4	1,698	3,644	155.7	102.8	7.64
Ownership and Occupancy								
Nongovernment Owned	4,025	46,696	11.6	3,950	981	84.6	65.3	4.11
Owner Occupied	3,158	35,573	11.3	3,287	1,041	92.4	70.1	4.58
Nonowner Occupied	698	9,697	13.9	647	927	66.7	48.4	7.57
Unoccupied	170	1,426	8.4	16	93	11.0	71.5	32.58
Government Owned	553	12,076	21.8	1,372	2,479	113.6	84.2	8.13
Federal	76	1,752	23.2	266	3,521	151.8	75.9	26.23
State	99	2,851	28.7	438	4,404	153.6	107.7	15.91
Local	379	7,473	19.7	668	1,765	89.4	76.7	10.46
Space In Building Vacant for at Least Three Consecutive Months								
Yes	787	15,844	20.1	1,120	1,422	70.7	51.2	8.09
No	3,791	42,928	11.3	4,202	1,108	97.9	76.6	4.36
Energy Sources (more than one may apply)								
Electricity	4,343	57,076	13.1	5,312	1,223	93.1	69.4	3.89
Natural Gas	2,478	38,145	15.4	3,931	1,586	103.0	78.3	4.29
Fuel Oil	607	14,421	23.7	1,732	2,852	120.1	75.4	8.26
District Heat	110	5,658	51.5	1,051	9,572	185.8	101.0	19.04
District Chilled Water	53	2,521	47.7	542	10,247	214.8	121.9	19.60
Propane	589	5,344	9.1	392	665	73.4	50.9	11.74
Other	213	2,336	11.0	259	1,215	110.7	98.5	25.85
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	54,347	13.5	5,247	1,304	96.5	70.0	3.92
Buildings with Cooling	3,381	49,935	14.8	4,923	1,456	98.6	69.2	4.01
Buildings with Water Heating	3,486	51,560	14.8	5,090	1,460	98.7	70.0	4.02
Buildings with Cooking	828	20,713	25.0	2,506	3,027	121.0	78.6	5.41
Buildings with Manufacturing	204	3,893	19.1	307	1,502	78.8	62.0	14.98
Buildings with Electricity Generation	247	13,366	54.2	1,705	6,916	127.6	74.6	7.91

See footnotes at end of table.

Table CE-3. Consumption for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Consumption				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	
RSE Column Factor:	1.0	0.8	0.7	1.1	1.2	1.0	1.2	
Space-Heating Energy Sources (more than one may apply)								
Electricity	1,467	22,156	15.1	1,908	1,300	86.1	56.1	6.12
Natural Gas	2,211	31,535	14.3	3,095	1,400	98.2	76.9	4.56
Fuel Oil	504	6,606	13.1	722	1,432	109.3	87.9	11.84
District Heat	109	5,606	51.4	1,036	9,490	184.8	99.9	13.78
Propane	301	2,025	6.7	129	429	63.8	Q	15.53
Other	135	1,050	7.8	77	568	72.9	74.0	16.07
Primary Space-Heating Energy Source								
Electricity	1,007	13,500	13.4	1,006	999	74.5	48.8	7.41
Natural Gas	2,106	28,808	13.7	2,839	1,348	98.5	78.0	4.83
Fuel Oil	439	4,207	9.6	305	695	72.6	75.3	9.65
District Heat	107	5,289	49.3	977	9,105	184.7	99.0	14.44
Propane	260	1,545	5.9	71	273	45.9	Q	20.19
Other	61	514	8.4	16	265	31.5	49.9	24.64
Cooling Energy Sources (more than one may apply)								
Electricity	3,293	47,761	14.5	4,532	1,376	94.9	66.9	3.91
Natural Gas	65	1,314	20.1	220	3,364	167.3	106.7	22.73
District Chilled Water	53	2,521	47.7	542	10,247	214.8	121.9	19.60
Water-Heating Energy Sources (more than one may apply)								
Electricity	1,684	23,056	13.7	1,657	984	71.9	49.0	5.87
Natural Gas	1,577	24,859	15.8	2,769	1,756	111.4	85.2	5.30
Fuel Oil	120	2,151	17.9	203	1,686	94.2	87.7	16.37
District Heat	54	3,949	73.7	762	14,224	192.9	106.6	15.72
Propane	110	1,020	9.2	75	680	73.6	64.4	20.35
Cooking Energy Sources (more than one may apply)								
Electricity	487	12,249	25.2	1,496	3,074	122.1	79.0	7.35
Natural Gas	448	13,195	29.4	1,698	3,787	128.7	84.7	6.95
Propane	123	1,480	12.0	125	1,010	84.3	68.8	18.10
Percent of Floorspace Heated								
Not Heated	554	4,425	8.0	74	134	16.8	40.1	15.92
1 to 50	555	6,227	11.2	247	446	39.7	58.3	10.94
51 to 99	633	8,868	14.0	805	1,271	90.7	69.9	10.24
100	2,836	39,252	13.8	4,195	1,479	106.9	70.9	4.14
Percent of Floorspace Cooled								
Not Cooled	1,198	8,837	7.4	399	333	45.1	71.0	9.47
1 to 50	930	15,027	16.2	1,044	1,122	69.5	84.1	8.36
51 to 99	635	12,549	19.8	1,360	2,142	108.4	70.6	7.08
100	1,816	22,359	12.3	2,519	1,387	112.6	63.8	5.71
Percent Lit when Open								
Zero	36	189	5.2	Q	Q	Q	Q	35.96
1 to 50	666	6,008	9.0	308	462	51.2	115.2	8.10
51 to 99	745	9,692	13.0	884	1,186	91.2	73.3	7.73
100	2,814	40,514	14.4	4,103	1,458	101.3	66.5	4.58
Building Not in Use/ Electricity Not Used	318	2,369	7.5	26	81	10.8	Q	23.41

See footnotes at end of table.

Table CE-3. Consumption for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Consumption				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	
RSE Column Factor:	1.0	0.8	0.7	1.1	1.2	1.0	1.2	
Percent Lit when Closed								
Zero	1,644	13,101	8.0	753	458	57.4	59.3	7.51
1 to 50	2,109	30,711	14.6	2,639	1,251	85.9	58.8	5.26
51 to 100	87	1,914	22.0	208	2,391	108.6	80.8	20.39
Never Closed	421	10,677	25.4	1,696	4,033	158.9	103.6	7.81
Building Not in Use/ Electricity Not Used	318	2,369	7.5	26	81	10.8	101.2	29.34
Energy Conservation Features (more than one may apply)								
Any Conservation Features	4,075	55,288	13.6	5,260	1,291	95.1	69.6	3.86
Building Shell	3,906	53,190	13.6	5,135	1,315	96.5	69.2	3.98
HVAC	2,529	44,657	17.7	4,621	1,827	103.5	70.0	4.17
Lighting	2,084	38,537	18.5	4,012	1,925	104.1	68.7	4.48

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-4. Expenditures for Sum of Major Fuels, 1995

Building Characteristics	All Buildings			Sum of Major Fuel Expenditures				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.2	1.2	0.9	0.7	
All Buildings	4,579	58,772	12.8	69,918	15.3	1.19	13.14	3.12
Building Floorspace (square feet)								
1,001 to 5,000	2,399	6,338	2.6	11,577	4.8	1.83	16.35	5.08
5,001 to 10,000	1,035	7,530	7.3	8,063	7.8	1.07	12.93	6.93
10,001 to 25,000	745	11,617	15.6	11,099	14.9	0.96	13.47	5.28
25,001 to 50,000	213	7,676	36.1	8,676	40.8	1.13	13.78	3.96
50,001 to 100,000	115	7,968	69.3	8,824	76.7	1.11	12.64	4.30
100,001 to 200,000	48	6,776	140.9	7,859	163.4	1.16	11.44	5.75
200,001 to 500,000	19	5,553	294.9	7,291	387.2	1.31	11.46	6.46
Over 500,000	6	5,313	896.4	6,530	1,101.6	1.23	12.70	8.31
Principal Building Activity								
Education	309	7,740	25.1	7,129	23.1	0.92	11.62	7.60
Food Sales	137	642	4.7	2,634	19.3	4.11	19.23	11.22
Food Service	285	1,353	4.8	4,817	16.9	3.56	14.50	12.51
Health Care	105	2,333	22.2	5,261	50.1	2.26	9.38	11.11
Lodging	158	3,618	22.8	5,114	32.3	1.41	11.10	9.59
Mercantile and Service	1,289	12,728	9.9	14,025	10.9	1.10	14.42	6.97
Office	705	10,478	14.9	15,849	22.5	1.51	15.56	6.37
Public Assembly	326	3,948	12.1	4,988	15.3	1.26	11.11	11.92
Public Order and Safety	87	1,271	14.6	1,551	17.8	1.22	12.55	21.73
Religious Worship	269	2,792	10.4	1,337	5.0	0.48	12.82	10.60
Warehouse and Storage	580	8,481	14.6	4,709	8.1	0.56	14.51	9.73
Other	67	1,004	14.9	1,865	27.7	1.86	10.79	18.87
Vacant	261	2,384	9.1	638	2.4	0.27	12.48	18.53
Year Constructed								
1919 or Before	353	3,673	10.4	3,310	9.4	0.90	11.35	11.52
1920 to 1945	562	6,710	11.9	5,665	10.1	0.84	11.15	8.98
1946 to 1959	867	9,298	10.7	9,813	11.3	1.06	11.87	7.10
1960 to 1969	718	10,858	15.1	13,135	18.3	1.21	12.83	6.66
1970 to 1979	813	11,333	13.9	15,366	18.9	1.36	13.66	5.97
1980 to 1989	846	12,252	14.5	15,895	18.8	1.30	15.01	6.63
1990 to 1992	218	2,590	11.9	4,011	18.4	1.55	13.51	11.61
1993 to 1995	202	2,059	10.2	2,722	13.5	1.32	14.34	14.89
Floors								
One	3,018	24,552	8.1	27,099	9.0	1.10	14.68	4.73
Two	1,002	14,122	14.1	15,409	15.4	1.09	13.74	5.40
Three	399	7,335	18.4	8,027	20.1	1.09	11.90	7.92
Four to Nine	148	8,789	59.4	13,245	89.5	1.51	10.78	8.67
Ten or More	12	3,975	328.9	6,137	507.7	1.54	13.62	9.42
Census Region and Division								
Northeast	725	11,883	16.4	16,479	22.7	1.39	15.92	7.00
New England	204	3,140	15.4	4,019	19.7	1.28	14.67	10.45
Middle Atlantic	521	8,743	16.8	12,460	23.9	1.43	16.37	8.37
Midwest	1,139	14,322	12.6	15,076	13.2	1.05	10.07	6.61
East North Central	739	9,655	13.1	10,141	13.7	1.05	10.28	7.73
West North Central	401	4,668	11.6	4,935	12.3	1.06	9.67	12.12
South	1,750	20,830	11.9	22,211	12.7	1.07	13.19	5.15
South Atlantic	676	9,475	14.0	10,922	16.2	1.15	14.14	8.29
East South Central	477	4,917	10.3	4,854	10.2	0.99	11.64	9.87
West South Central	597	6,438	10.8	6,435	10.8	1.00	13.03	8.86
West	964	11,736	12.2	16,152	16.8	1.38	14.61	8.37
Mountain	319	3,855	12.1	4,415	13.9	1.15	10.29	13.64
Pacific	646	7,881	12.2	11,737	18.2	1.49	17.35	9.33

See footnotes at end of table.

Table CE-4. Expenditures for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Expenditures				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.2	1.2	0.9	0.7	
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and --								
More than 7,000 HDD	493	5,098	10.3	4,975	10.1	0.98	9.97	10.98
5,500-7,000 HDD	975	14,597	15.0	17,822	18.3	1.22	11.20	5.60
4,000-5,499 HDD	1,070	15,155	14.2	18,783	17.6	1.24	13.35	9.24
Fewer than 4,000 HDD	1,103	13,491	12.2	16,823	15.2	1.25	15.61	7.85
More than 2,000 CDD and --								
Fewer than 4,000 HDD	937	10,430	11.1	11,515	12.3	1.10	15.43	8.19
Workers (main shift)								
Fewer than 5	2,505	13,885	5.5	10,958	4.4	0.79	13.88	6.77
5 to 9	798	6,291	7.9	6,939	8.7	1.10	13.65	8.11
10 to 19	625	7,102	11.4	8,410	13.5	1.18	13.70	7.84
20 to 49	400	9,132	22.8	11,781	29.5	1.29	13.57	6.26
50 to 99	138	6,931	50.3	8,140	59.1	1.17	12.92	6.75
100 to 249	71	5,988	84.4	8,107	114.3	1.35	12.50	6.21
250 or More	43	9,443	220.1	15,584	363.2	1.65	12.34	9.41
Weekly Operating Hours								
39 or Fewer	899	6,134	6.8	2,400	2.7	0.39	13.35	8.25
40 to 48	1,257	13,233	10.5	11,831	9.4	0.89	13.46	6.16
49 to 60	969	12,242	12.6	13,167	13.6	1.08	14.05	6.31
61 to 84	567	10,052	17.7	11,698	20.6	1.16	14.69	6.92
85 to 167	420	6,202	14.8	11,593	27.6	1.87	13.95	8.68
Open Continuously	466	10,908	23.4	19,230	41.3	1.76	11.32	6.53
Ownership and Occupancy								
Nongovernment Owned	4,025	46,696	11.6	54,483	13.5	1.17	13.79	3.31
Owner Occupied	3,158	35,573	11.3	43,122	13.7	1.21	13.12	3.57
Nonowner Occupied	698	9,697	13.9	11,131	15.9	1.15	17.20	6.87
Unoccupied	170	1,426	8.4	230	1.4	0.16	14.63	29.26
Government Owned	553	12,076	21.8	15,435	27.9	1.28	11.25	6.93
Federal	76	1,752	23.2	3,026	40.1	1.73	11.38	24.45
State	99	2,851	28.7	4,799	48.3	1.68	10.96	14.78
Local	379	7,473	19.7	7,609	20.1	1.02	11.39	8.35
Space in Building Vacant for at Least Three Consecutive Months								
Yes	787	15,844	20.1	15,193	19.3	0.96	13.57	6.77
No	3,791	42,928	11.3	54,725	14.4	1.27	13.02	3.53
Energy Sources (more than one may apply)								
Electricity	4,343	57,076	13.1	69,876	16.1	1.22	13.16	3.15
Natural Gas	2,478	38,145	15.4	48,011	19.4	1.26	12.21	3.83
Fuel Oil	607	14,421	23.7	20,194	33.2	1.40	11.66	7.34
District Heat	110	5,658	51.5	10,584	96.3	1.87	10.07	16.16
District Chilled Water	53	2,521	47.7	5,074	96.0	2.01	9.37	16.12
Propane	589	5,344	9.1	6,153	10.4	1.15	15.69	9.23
Other	213	2,336	11.0	2,710	12.7	1.16	10.48	19.27
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,024	54,347	13.5	68,085	16.9	1.25	12.98	3.15
Buildings with Cooling	3,381	49,935	14.8	65,100	19.3	1.30	13.22	3.25
Buildings with Water Heating	3,486	51,560	14.8	66,466	19.1	1.29	13.06	3.24
Buildings with Cooking	828	20,713	25.0	31,611	38.2	1.53	12.61	4.81
Buildings with Manufacturing	204	3,893	19.1	4,028	19.7	1.03	13.13	13.10
Buildings with Electricity Generation	247	13,366	54.2	20,828	84.5	1.56	12.22	7.14

See footnotes at end of table.

Table CE-4. Expenditures for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Expenditures				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.2	1.2	0.9	0.7	
Space-Heating Energy Sources (more than one may apply)								
Electricity	1,467	22,156	15.1	28,336	19.3	1.28	14.85	5.08
Natural Gas	2,211	31,535	14.3	37,864	17.1	1.20	12.23	3.86
Fuel Oil	504	6,606	13.1	8,043	15.9	1.22	11.14	9.55
District Heat	109	5,606	51.4	10,491	96.1	1.87	10.13	11.56
Propane	301	2,025	6.7	2,451	8.1	1.21	18.99	14.67
Other	135	1,050	7.8	960	7.1	0.91	12.53	15.56
Primary Space-Heating Energy Source								
Electricity	1,007	13,500	13.4	17,325	17.2	1.28	17.23	6.14
Natural Gas	2,106	28,808	13.7	34,272	16.3	1.19	12.07	4.06
Fuel Oil	439	4,207	9.6	3,922	8.9	0.93	12.85	9.60
District Heat	107	5,289	49.3	9,987	93.1	1.89	10.22	11.90
Propane	260	1,545	5.9	1,766	6.8	1.14	24.92	18.08
Other	61	514	8.4	278	4.5	0.54	17.14	22.81
Cooling Energy Sources (more than one may apply)								
Electricity	3,293	47,761	14.5	61,379	18.6	1.29	13.54	3.21
Natural Gas	65	1,314	20.1	2,328	35.6	1.77	10.59	19.69
District Chilled Water	53	2,521	47.7	5,074	96.0	2.01	9.37	16.12
Water-Heating Energy Sources (more than one may apply)								
Electricity	1,684	23,056	13.7	26,839	15.9	1.16	16.19	4.75
Natural Gas	1,577	24,859	15.8	32,683	20.7	1.31	11.80	4.53
Fuel Oil	120	2,151	17.9	2,329	19.4	1.08	11.50	14.57
District Heat	54	3,949	73.7	7,545	140.9	1.91	9.90	13.47
Propane	110	1,020	9.2	1,584	14.4	1.55	21.11	22.48
Cooking Energy Sources (more than one may apply)								
Electricity	487	12,249	25.2	19,314	39.7	1.58	12.91	6.66
Natural Gas	448	13,195	29.4	20,182	45.0	1.53	11.88	5.82
Propane	123	1,480	12.0	2,450	19.8	1.66	19.63	17.79
Percent of Floorspace Heated								
Not Heated	554	4,425	8.0	1,833	3.3	0.41	24.70	12.57
1 to 50	555	6,227	11.2	4,024	7.2	0.65	16.26	8.93
51 to 99	633	8,868	14.0	11,724	18.5	1.32	14.57	8.08
100	2,836	39,252	13.8	52,337	18.5	1.33	12.48	3.30
Percent of Floorspace Cooled								
Not Cooled	1,198	8,837	7.4	4,818	4.0	0.55	12.08	8.47
1 to 50	930	15,027	16.2	11,919	12.8	0.79	11.42	6.90
51 to 99	635	12,549	19.8	18,400	29.0	1.47	13.53	6.27
100	1,816	22,359	12.3	34,781	19.2	1.56	13.81	4.44
Percent Lit when Open								
Zero	36	189	5.2	Q	Q	Q	Q	30.63
1 to 50	666	6,008	9.0	4,252	6.4	0.71	13.82	10.05
51 to 99	745	9,692	13.0	11,682	15.7	1.21	13.22	7.15
100	2,814	40,514	14.4	53,711	19.1	1.33	13.09	3.77
Building Not in Use/ Electricity Not Used	318	2,369	7.5	246	0.8	0.10	9.59	19.14

See footnotes at end of table.

Table CE-4. Expenditures for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	All Buildings			Sum of Major Fuel Expenditures				RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.2	1.2	0.9	0.7	
Percent Lit when Closed								
Zero	1,644	13,101	8.0	10,364	6.3	0.79	13.77	6.54
1 to 50	2,109	30,711	14.6	37,023	17.6	1.21	14.03	4.20
51 to 100	87	1,914	22.0	3,077	35.4	1.61	14.80	17.30
Never Closed	421	10,677	25.4	19,207	45.7	1.80	11.32	6.48
Building Not in Use/ Electricity Not Used	318	2,369	7.5	246	0.8	0.10	9.59	23.06
Energy Conservation Features (more than one may apply)								
Any Conservation Features	4,075	55,288	13.6	68,728	16.9	1.24	13.07	3.13
Building Shell	3,906	53,190	13.6	66,909	17.1	1.26	13.03	3.24
HVAC	2,529	44,657	17.7	59,844	23.7	1.34	12.95	3.41
Lighting	2,084	38,537	18.5	52,428	25.2	1.36	13.07	3.80

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1995

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.1	1.1	1.0	1.4	1.0	0.8	0.8	1.0	1.0	0.9	0.8	1.2	
All Buildings	1,035	1,497	1,684	1,106	11,883	14,322	20,830	11,736	87.1	104.5	80.8	94.2	7.61
Building Floorspace (square feet)													
1,001 to 5,000	125	189	251	143	995	1,772	2,428	1,144	125.9	106.7	103.4	124.9	13.15
5,001 to 10,000	82	161	185	196	1,223	1,678	2,786	1,842	66.6	96.1	66.3	106.5	21.55
10,001 to 25,000	140	233	315	136	2,118	2,701	4,481	2,317	66.0	86.2	70.3	58.8	15.98
25,001 to 50,000	123	169	189	149	1,380	1,726	2,664	1,905	89.3	98.0	70.8	78.1	11.30
50,001 to 100,000	113	199	213	173	1,371	1,920	2,980	1,697	82.7	103.5	71.6	101.9	12.57
100,001 to 200,000	134	205	254	95	1,377	1,896	2,428	1,075	97.2	108.0	104.5	88.2	17.20
200,001 to 500,000	155	179	156	147	1,389	1,520	1,679	965	111.3	117.8	92.7	152.4	15.75
Over 500,000	164	162	122	67	2,029	1,110	1,384	791	80.7	145.9	88.0	84.4	20.94
Principal Building Activity													
Education	161	173	146	134	1,930	1,997	2,315	1,498	83.4	86.8	62.9	89.3	13.07
Food Sales	Q	Q	56	32	Q	Q	287	209	Q	Q	196.4	151.3	17.06
Food Service	Q	82	133	69	166	474	443	271	Q	172.9	299.9	253.5	26.57
Health Care	113	144	193	110	408	466	916	543	278.4	308.6	211.2	202.6	18.50
Lodging	62	136	147	115	350	909	1,313	1,047	178.0	150.0	111.8	110.2	16.79
Mercantile and Service	173	322	354	123	2,838	3,203	4,864	1,822	61.0	100.7	72.9	67.4	15.91
Office	188	261	304	265	2,154	2,338	3,483	2,503	87.4	111.7	87.4	105.9	12.63
Public Assembly	75	108	118	Q	694	957	1,367	930	108.2	113.3	86.3	Q	19.85
Public Order and Safety	51	30	25	Q	548	300	308	Q	92.6	99.5	81.8	Q	32.29
Religious Worship	19	33	24	28	442	633	1,006	711	42.7	52.1	24.0	39.8	21.56
Warehouse and Storage	68	105	113	38	1,480	2,044	3,436	1,522	46.0	51.3	33.0	25.2	19.81
Other	Q	Q	57	Q	Q	402	289	Q	Q	145.7	197.8	Q	35.58
Vacant	7	Q	12	11	627	531	804	422	Q	Q	15.1	25.9	32.87
Year Constructed													
1919 or Before	79	135	32	46	1,226	1,529	514	404	64.1	88.2	62.1	114.6	26.35
1920 to 1945	129	201	111	67	1,794	2,314	1,709	893	71.9	87.0	64.8	75.3	18.32
1946 to 1959	192	267	197	171	1,944	2,268	3,192	1,894	98.7	117.6	61.6	90.3	15.40
1960 to 1969	199	265	336	224	2,344	2,356	3,856	2,302	84.8	112.5	87.1	97.4	12.11
1970 to 1979	189	266	410	260	1,658	2,435	4,344	2,895	114.0	109.4	94.4	89.7	12.95
1980 to 1989	157	265	397	241	2,128	2,324	5,371	2,429	73.6	113.9	73.9	99.3	15.34
1990 to 1992	51	53	129	63	443	545	1,094	509	116.1	97.6	118.2	123.6	23.27
1993 to 1995	40	45	72	33	347	552	750	410	115.3	81.1	96.0	80.6	26.86
Floors													
One	224	461	756	405	3,337	5,298	11,019	4,897	67.1	86.9	68.7	82.7	12.68
Two	211	315	363	233	2,738	3,537	4,788	3,059	77.0	89.0	75.8	76.2	12.40
Three	168	241	134	132	2,103	2,306	1,644	1,282	80.0	104.3	81.4	103.0	14.77
Four to Nine	284	381	302	262	2,347	2,461	2,165	1,816	121.1	154.6	139.3	144.5	14.52
Ten or More	148	100	129	73	1,359	720	1,214	682	109.0	139.3	106.3	107.3	18.50
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and –													
More than 7,000 HDD	87	357	Q	54	1,094	3,598	Q	406	79.7	99.3	Q	Q	17.65
5,500-7,000 HDD	472	835	Q	284	4,956	7,615	Q	2,026	95.3	109.6	Q	140.3	15.37
4,000-5,499 HDD	476	304	435	192	5,833	3,109	4,342	1,872	81.6	97.9	100.1	102.4	16.88
Fewer than 4,000 HDD	Q	Q	635	443	Q	Q	7,778	5,713	Q	Q	81.6	77.6	10.66
More than 2,000 CDD and –													
Fewer than 4,000 HDD	Q	Q	614	132	Q	Q	8,711	1,719	Q	Q	70.5	76.8	17.05
Workers (main shift)													
Fewer than 5	128	204	248	209	2,430	3,584	5,345	2,526	52.7	56.9	46.4	82.8	15.34
5 to 9	61	207	138	102	1,057	1,764	2,082	1,387	57.9	117.5	66.1	73.7	18.15
10 to 19	109	148	252	105	1,317	1,511	2,701	1,572	82.8	97.9	93.4	66.7	18.26
20 to 49	181	247	286	154	1,807	2,390	3,212	1,723	100.4	103.3	88.9	89.7	12.62
50 to 99	101	176	209	144	1,264	1,504	2,733	1,430	80.0	116.7	76.4	101.0	13.12
100 to 249	138	193	182	136	1,429	1,579	1,755	1,224	96.9	121.9	103.5	111.0	14.30
250 or More	316	323	369	254	2,577	1,990	3,001	1,875	122.6	162.2	123.1	135.7	14.70

See footnotes at end of table.

Table CE-5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.1	1.1	1.0	1.4	1.0	0.8	0.8	1.0	1.0	0.9	0.8	1.2	
Weekly Operating Hours													
39 or Fewer	37	56	55	32	1,119	1,601	2,311	1,103	33.0	35.1	23.8	28.7	19.76
40 to 48	135	281	286	177	2,168	3,520	4,912	2,633	62.3	79.8	58.2	67.4	14.01
49 to 60	168	246	298	226	2,482	2,378	4,786	2,596	67.5	103.3	62.2	87.2	13.36
61 to 84	158	253	241	144	2,111	2,626	3,276	2,040	74.9	96.2	73.6	70.7	12.90
85 to 167	161	199	233	238	1,411	1,633	1,804	1,353	114.3	121.6	129.1	175.8	18.06
Open Continuously	376	463	571	288	2,592	2,564	3,740	2,012	145.1	180.6	152.7	143.3	11.57
Ownership and Occupancy													
Nongovernment Owned	741	1,104	1,308	797	8,946	11,414	17,056	9,280	82.9	96.7	76.7	85.8	8.00
Owner Occupied	623	946	1,096	622	6,972	9,403	12,664	6,533	89.3	100.6	86.5	95.2	9.03
Nonowner Occupied	116	148	209	173	1,622	1,644	3,841	2,590	71.7	90.0	54.5	66.9	14.21
Unoccupied	Q	Q	Q	Q	Q	366	551	157	Q	Q	Q	Q	36.22
Government Owned	294	393	376	309	2,937	2,909	3,774	2,456	100.2	135.0	99.6	125.8	13.78
Federal	39	Q	83	68	398	406	451	Q	Q	184.2	184.8	137.9	37.40
State	107	124	107	Q	758	834	741	518	141.4	148.3	144.3	193.3	23.84
Local	148	194	185	141	1,781	1,669	2,582	1,442	83.0	116.5	71.8	97.5	17.45
Space in Building Vacant for at Least Three Consecutive Months													
Yes	215	307	378	220	3,288	3,691	5,649	3,216	65.3	83.2	66.8	68.5	12.81
No	821	1,190	1,306	885	8,595	10,632	15,181	8,520	95.5	111.9	86.0	103.9	8.62
Energy Sources (more than one may apply)													
Electricity	1,031	1,492	1,683	1,105	11,444	13,887	20,158	11,587	90.1	107.4	83.5	95.4	7.38
Natural Gas	683	1,271	1,206	771	7,108	10,905	12,291	7,841	96.1	116.5	98.1	98.3	8.37
Fuel Oil	529	390	550	262	5,423	2,681	4,175	2,142	97.5	145.6	131.8	122.5	12.37
District Heat	280	320	219	Q	1,768	1,902	1,038	949	158.5	168.1	210.6	Q	21.21
District Chilled Water	73	164	160	Q	291	778	919	533	251.6	210.3	174.4	Q	22.82
Propane	129	84	142	38	1,689	1,093	2,012	550	76.3	76.7	70.4	68.8	21.69
Other	57	64	33	Q	728	613	656	339	77.9	105.0	50.0	Q	25.50
Energy End Uses (more than one may apply)													
Buildings with Space Heating	1,031	1,490	1,657	1,069	11,180	13,511	18,900	10,756	92.3	110.3	87.7	99.4	7.82
Buildings with Cooling	918	1,370	1,647	987	9,523	12,033	18,606	9,772	96.4	113.9	88.5	101.0	7.93
Buildings with Water Heating	1,008	1,439	1,577	1,067	10,778	12,517	17,511	10,754	93.5	115.0	90.0	99.2	7.70
Buildings with Cooking	512	676	804	515	4,634	4,785	7,173	4,121	110.5	141.2	112.0	124.9	9.26
Buildings with Manufacturing	59	130	92	26	683	1,057	1,456	697	86.0	123.1	62.9	37.9	23.71
Buildings with Electricity Generation	428	442	541	294	3,877	2,738	4,360	2,391	110.4	161.3	124.1	123.1	10.90
Space-Heating Energy Sources (more than one may apply)													
Electricity	275	418	817	398	3,081	4,058	9,971	5,046	89.3	102.9	82.0	78.9	11.24
Natural Gas	457	1,093	899	647	5,043	9,826	9,805	6,861	90.6	111.2	91.7	94.2	9.22
Fuel Oil	324	170	207	Q	3,856	1,018	1,540	192	84.0	167.0	134.7	107.6	21.44
District Heat	277	320	207	232	1,765	1,902	1,006	933	157.0	168.1	205.5	Q	19.37
Propane	50	17	55	Q	540	401	959	124	93.4	43.2	57.6	48.7	30.47
Other	Q	26	10	Q	Q	242	283	160	Q	107.0	35.9	Q	28.55
Primary Space-Heating Energy Source													
Electricity	89	126	554	237	1,099	1,549	7,403	3,449	80.9	81.4	74.8	68.7	15.09
Natural Gas	419	1,023	808	589	4,696	9,293	8,728	6,091	89.3	110.1	92.5	96.7	9.65
Fuel Oil	224	Q	60	Q	3,020	Q	802	Q	74.3	Q	74.5	Q	17.26
District Heat	250	308	192	226	1,600	1,839	945	905	156.5	167.4	203.7	Q	19.85
Propane	37	8	23	Q	435	313	713	Q	85.8	24.0	31.5	Q	34.12
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Sources (more than one may apply)													
Electricity	846	1,256	1,582	848	8,986	11,424	18,133	9,219	94.1	109.9	87.3	92.0	7.56
Natural Gas	72	Q	Q	44	387	354	247	326	187.2	209.4	Q	133.6	30.22
District Chilled Water	73	164	160	Q	291	778	919	533	251.6	210.3	174.4	Q	22.82

See footnotes at end of table.

Table CE-5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.1	1.1	1.0	1.4	1.0	0.8	0.8	1.0	1.0	0.9	0.8	1.2	
Water-Heating Energy Sources (more than one may apply)													
Electricity	318	392	660	287	4,689	4,516	9,757	4,094	67.9	86.9	67.6	70.0	10.90
Natural Gas	413	918	841	598	3,848	7,261	7,767	5,983	107.2	126.4	108.3	99.9	9.49
Fuel Oil	147	Q	35	Q	1,668	Q	309	Q	88.3	Q	113.9	Q	22.39
District Heat	206	211	141	203	1,260	1,271	646	772	163.6	166.3	219.0	Q	20.90
Propane	Q	Q	15	Q	325	224	279	Q	Q	77.6	54.9	49.4	31.11
Cooking Energy Sources (more than one may apply)													
Electricity	258	460	482	297	2,437	3,015	4,311	2,485	105.8	152.5	111.7	119.3	12.07
Natural Gas	330	478	544	346	2,914	3,506	4,167	2,609	113.2	136.4	130.6	132.7	11.37
Propane	56	Q	44	Q	621	Q	594	Q	89.6	Q	74.4	Q	29.58
Percent of Floorspace Heated													
Not Heated	Q	Q	27	37	703	811	1,930	981	Q	Q	13.8	37.3	25.89
1 to 50	46	57	90	55	1,018	1,171	2,379	1,658	45.0	48.3	37.7	33.4	20.13
51 to 99	204	128	292	180	2,501	1,480	2,856	2,032	81.6	86.8	102.4	88.5	16.78
100	782	1,305	1,275	834	7,661	10,860	13,666	7,066	102.0	120.1	93.3	118.0	8.13
Percent of Floorspace Cooled													
Not Cooled	117	127	36	118	2,360	2,289	2,224	1,964	49.8	55.3	16.4	60.2	18.74
1 to 50	278	375	240	151	3,784	4,414	4,311	2,517	73.4	85.0	55.7	60.0	14.97
51 to 99	337	375	418	230	3,063	3,040	4,262	2,184	109.9	123.4	98.1	105.4	11.57
100	304	620	989	606	2,677	4,578	10,033	5,071	113.4	135.4	98.6	119.5	10.24
Percent Lit when Open													
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	74	97	79	58	1,130	1,598	2,172	1,109	65.7	60.6	36.5	51.9	16.46
51 to 99	218	254	242	169	2,418	2,247	3,011	2,016	90.1	113.2	80.5	83.9	13.62
100	734	1,134	1,359	876	7,787	9,874	14,608	8,245	94.3	114.9	93.0	106.2	8.92
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	524	586	935	324	Q	Q	Q	Q	26.86
Percent Lit when Closed													
Zero	127	215	235	176	2,400	3,397	4,695	2,609	52.9	63.2	50.0	67.5	14.43
1 to 50	485	781	804	569	5,872	7,602	10,761	6,476	82.6	102.8	74.7	87.9	9.66
51 to 100	40	27	71	69	546	197	826	345	73.9	135.5	86.4	201.4	28.15
Never Closed	374	463	571	288	2,541	2,539	3,614	1,983	147.3	182.3	158.0	145.2	12.91
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	524	586	935	324	Q	Q	Q	Q	33.10
Energy Conservation Features (more than one may apply)													
Any Conservation Features	1,030	1,485	1,657	1,088	11,118	13,733	19,139	11,297	92.6	108.1	86.6	96.3	7.75
Building Shell	984	1,457	1,628	1,066	10,464	13,162	18,757	10,806	94.1	110.7	86.8	98.7	7.93
HVAC	951	1,322	1,394	954	9,854	10,764	14,904	9,135	96.5	122.8	93.5	104.5	8.06
Lighting	851	1,149	1,209	803	8,920	9,495	12,087	8,036	95.4	121.0	100.1	99.9	7.53

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-6. Expenditures by Census Region for Sum of Major Fuels, 1995

Building Characteristics	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.4	1.3	1.1	1.6	0.9	0.7	0.6	0.8	1.0	0.9	0.8	1.3	
All Buildings	16,479	15,076	22,211	16,152	15.92	10.07	13.19	14.61	1.39	1.05	1.07	1.38	6.09
Building Floorspace (square feet)													
1,001 to 5,000	2,574	2,339	4,004	2,660	20.55	12.38	15.95	18.62	2.59	1.32	1.65	2.33	10.49
5,001 to 10,000	1,489	1,422	2,487	2,664	18.27	8.82	13.47	Q	1.22	0.85	0.89	1.45	16.32
10,001 to 25,000	2,297	2,570	3,954	2,278	16.43	11.03	12.55	16.71	1.08	0.95	0.88	0.98	13.73
25,001 to 50,000	1,934	1,770	2,568	2,404	15.70	10.46	13.62	16.16	1.40	1.03	0.96	1.26	9.60
50,001 to 100,000	1,751	2,096	2,820	2,158	15.44	10.54	13.22	12.49	1.28	1.09	0.95	1.27	10.31
100,001 to 200,000	1,889	1,777	2,922	1,270	14.12	8.68	11.52	13.40	1.37	0.94	1.20	1.18	13.43
200,001 to 500,000	1,936	1,543	2,061	1,751	12.53	8.61	13.23	11.91	1.39	1.02	1.23	1.81	14.03
Over 500,000	2,609	1,559	1,395	966	15.92	9.63	11.46	14.48	1.29	1.41	1.01	1.22	19.16
Principal Building Activity													
Education	2,106	1,503	1,845	1,675	13.09	8.67	12.66	12.52	1.09	0.75	0.80	1.12	11.01
Food Sales	Q	Q	967	733	Q	Q	17.17	23.23	Q	Q	3.37	3.52	13.03
Food Service	Q	990	1,682	1,031	Q	12.08	12.67	14.98	Q	2.09	3.80	3.80	22.74
Health Care	1,061	1,010	1,916	1,274	9.35	7.03	9.90	11.57	2.60	2.17	2.09	2.34	13.72
Lodging	821	1,202	1,652	1,440	13.18	8.82	11.25	12.48	2.35	1.32	1.26	1.38	15.38
Mercantile and Service	3,206	3,458	4,847	2,513	18.52	10.72	13.68	20.45	1.13	1.08	1.00	1.38	12.73
Office	3,691	3,202	4,676	4,279	19.61	12.26	15.37	16.15	1.71	1.37	1.34	1.71	9.25
Public Assembly	1,084	1,068	1,625	1,211	14.43	9.85	13.78	Q	1.56	1.12	1.19	1.30	20.30
Public Order and Safety	670	272	298	Q	13.21	9.12	11.85	Q	1.22	0.91	0.97	Q	26.12
Religious Worship	303	268	387	379	16.07	8.11	16.03	13.40	0.69	0.42	0.39	0.53	17.64
Warehouse and Storage	1,289	1,054	1,492	874	18.93	10.06	13.17	22.79	0.87	0.52	0.43	0.57	15.15
Other	Q	575	620	Q	Q	9.81	10.84	Q	Q	1.43	2.14	Q	27.99
Vacant	87	Q	203	168	12.80	Q	16.77	15.39	Q	0.34	0.25	0.40	33.15
Year Constructed													
1919 or Before	1,090	1,351	454	415	13.87	10.02	14.22	8.97	0.89	0.88	0.88	1.03	20.38
1920 to 1945	1,620	1,932	1,351	762	12.56	9.60	12.19	11.34	0.90	0.83	0.79	0.85	16.63
1946 to 1959	2,928	2,279	2,482	2,124	15.25	8.54	12.63	12.42	1.51	1.00	0.78	1.12	13.32
1960 to 1969	3,157	2,388	4,002	3,588	15.88	9.01	11.91	16.00	1.35	1.01	1.04	1.56	10.70
1970 to 1979	2,870	2,775	5,300	4,421	15.18	10.41	12.93	17.03	1.73	1.14	1.22	1.53	9.84
1980 to 1989	3,339	3,214	5,949	3,393	21.32	12.15	14.99	14.07	1.57	1.38	1.11	1.40	12.50
1990 to 1992	721	679	1,695	916	14.04	12.78	13.10	14.55	1.63	1.25	1.55	1.80	19.62
1993 to 1995	753	458	978	533	18.83	10.23	13.58	16.13	2.17	0.83	1.30	1.30	21.63
Floors													
One	4,423	5,116	10,933	6,627	19.76	11.11	14.45	16.37	1.33	0.97	0.99	1.35	10.04
Two	3,665	3,312	4,560	3,873	17.38	10.52	12.57	16.61	1.34	0.94	0.95	1.27	9.65
Three	2,524	2,232	1,678	1,593	15.00	9.28	12.54	12.06	1.20	0.97	1.02	1.24	13.22
Four to Nine	3,499	3,378	3,292	3,076	12.31	8.87	10.92	11.72	1.49	1.37	1.52	1.69	12.42
Ten or More	2,367	1,038	1,749	984	15.98	10.35	13.55	13.44	1.74	1.44	1.44	1.44	15.16
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	1,431	3,147	Q	396	16.42	8.81	Q	7.31	1.31	0.87	Q	Q	11.91
5,500-7,000 HDD	7,234	8,418	Q	2,170	15.32	10.08	Q	7.63	1.46	1.11	Q	1.07	10.46
4,000-5,499 HDD	7,814	3,510	5,272	2,187	16.42	11.53	12.13	11.40	1.34	1.13	1.21	1.17	11.67
Fewer than 4,000 HDD	Q	Q	8,061	8,762	Q	Q	12.70	19.76	Q	Q	1.04	1.53	7.65
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	8,879	2,637	Q	Q	14.45	19.98	Q	Q	1.02	1.53	12.00
Workers (main shift)													
Fewer than 5	2,291	2,327	3,733	2,608	17.89	11.41	15.04	12.46	0.94	0.65	0.70	1.03	14.03
5 to 9	1,100	1,901	2,099	1,839	17.96	9.17	15.25	17.99	1.04	1.08	1.01	1.33	14.89
10 to 19	1,914	1,575	3,089	1,831	17.56	10.65	12.25	17.45	1.45	1.04	1.14	1.16	16.03
20 to 49	2,913	2,541	3,756	2,571	16.05	10.29	13.15	16.64	1.61	1.06	1.17	1.49	10.92
50 to 99	1,605	1,741	2,855	1,938	15.87	9.92	13.67	13.42	1.27	1.16	1.04	1.36	12.09
100 to 249	2,112	1,850	2,174	1,970	15.25	9.61	11.96	14.50	1.48	1.17	1.24	1.61	11.33
250 or More	4,543	3,141	4,504	3,395	14.38	9.74	12.19	13.34	1.76	1.58	1.50	1.81	12.09

See footnotes at end of table.

Table CE-6. Expenditures by Census Region for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot				RSE Row Factor
	Northeast	Midwest	South	West	Northeast	Midwest	South	West	Northeast	Midwest	South	West	
RSE Column Factor:	1.4	1.3	1.1	1.6	0.9	0.7	0.6	0.8	1.0	0.9	0.8	1.3	
Weekly Operating Hours													
39 or Fewer	547	538	822	493	14.81	9.59	14.92	15.56	0.49	0.34	0.36	0.45	17.38
40 to 48	2,292	2,683	4,028	2,828	16.96	9.56	14.10	15.94	1.06	0.76	0.82	1.07	11.19
49 to 60	2,868	2,418	4,153	3,727	17.11	9.85	13.95	16.48	1.16	1.02	0.87	1.44	11.03
61 to 84	2,600	2,797	3,700	2,601	16.44	11.07	15.34	18.04	1.23	1.07	1.13	1.28	10.52
85 to 167	2,984	2,385	3,316	2,908	18.49	12.00	14.24	12.22	2.11	1.46	1.84	2.15	16.90
Open Continuously	5,188	4,254	6,193	3,595	13.79	9.19	10.84	12.47	2.00	1.66	1.66	1.79	10.77
Ownership and Occupancy													
Nongovernment Owned	12,495	11,686	17,905	12,396	16.86	10.59	13.69	15.56	1.40	1.02	1.05	1.34	6.30
Owner Occupied	10,177	9,842	14,486	8,617	16.34	10.40	13.22	13.85	1.46	1.05	1.14	1.32	7.18
Nonowner Occupied	2,286	1,754	3,353	3,739	19.66	11.85	16.01	21.57	1.41	1.07	0.87	1.44	10.31
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	3,984	3,389	4,306	3,755	13.54	8.63	11.46	12.15	1.36	1.17	1.14	1.53	12.75
Federal	Q	Q	880	801	Q	10.16	10.54	11.69	1.47	1.87	1.95	Q	28.98
State	1,293	1,090	1,064	1,352	12.07	8.81	9.95	13.51	1.71	1.31	1.44	2.61	23.34
Local	2,104	1,540	2,362	1,603	14.24	7.92	12.74	11.41	1.18	0.92	0.91	1.11	13.52
Space in Building Vacant for at Least Three Consecutive Months													
Yes	3,586	3,109	4,999	3,499	16.71	10.12	13.24	15.89	1.09	0.84	0.88	1.09	10.52
No	12,893	11,967	17,212	12,653	15.71	10.06	13.18	14.29	1.50	1.13	1.13	1.49	6.94
Energy Sources (more than one may apply)													
Electricity	16,455	15,060	22,210	16,151	15.96	10.10	13.19	14.61	1.44	1.08	1.10	1.39	5.64
Natural Gas	10,166	12,267	14,349	11,229	14.89	9.65	11.89	14.57	1.43	1.12	1.17	1.43	6.77
Fuel Oil	7,006	3,547	6,281	3,360	13.24	9.09	11.41	12.81	1.29	1.32	1.50	1.57	8.91
District Heat	3,695	2,912	2,055	1,922	13.19	9.10	9.40	8.25	2.09	1.53	1.98	Q	23.13
District Chilled Water	755	1,436	1,714	1,169	10.32	8.78	10.69	Q	2.60	1.85	1.86	2.20	24.21
Propane	2,560	1,050	1,875	668	19.87	12.54	13.24	17.65	1.52	0.96	0.93	1.21	16.13
Other	844	666	453	Q	14.88	10.34	13.84	Q	1.16	1.09	0.69	Q	22.24
Energy End Uses (more than one may apply)													
Buildings with Space Heating	16,354	14,975	21,721	15,035	15.85	10.05	13.11	14.06	1.46	1.11	1.15	1.40	6.17
Buildings with Cooling	14,913	13,894	21,751	14,543	16.25	10.14	13.20	14.73	1.57	1.15	1.17	1.49	6.44
Buildings with Water Heating	16,033	14,450	20,598	15,385	15.91	10.04	13.06	14.42	1.49	1.15	1.18	1.43	6.20
Buildings with Cooking	7,787	6,553	10,417	6,854	15.21	9.70	12.96	13.32	1.68	1.37	1.45	1.66	8.14
Buildings with Manufacturing	924	1,365	1,279	461	15.74	10.48	13.96	17.44	1.35	1.29	0.88	0.66	19.61
Buildings with Electricity Generation	6,178	4,153	6,453	4,045	14.43	9.40	11.93	13.74	1.59	1.52	1.48	1.69	9.55
Space-Heating Energy Sources (more than one may apply)													
Electricity	5,195	4,746	11,733	6,662	18.89	11.36	14.35	16.74	1.69	1.17	1.18	1.32	7.99
Natural Gas	7,162	10,471	10,832	9,400	15.68	9.58	12.04	14.54	1.42	1.07	1.10	1.37	7.52
Fuel Oil	4,239	1,312	2,290	202	13.09	7.72	11.04	9.80	1.10	1.29	1.49	1.05	16.27
District Heat	3,683	2,912	1,984	1,912	13.30	9.10	9.59	8.22	2.09	1.53	1.97	2.05	18.47
Propane	1,323	265	749	Q	26.21	15.30	13.55	18.97	2.45	0.66	0.78	0.92	19.54
Other	Q	278	170	Q	Q	10.75	16.76	Q	Q	1.15	0.60	Q	25.53
Primary Space-Heating Energy Source													
Electricity	1,968	1,904	8,841	4,612	22.13	15.10	15.97	19.47	1.79	1.23	1.19	1.34	10.89
Natural Gas	6,632	9,792	9,511	8,336	15.82	9.57	11.78	14.16	1.41	1.05	1.09	1.37	7.88
Fuel Oil	2,995	Q	734	Q	13.35	Q	12.28	Q	0.99	Q	0.91	Q	14.53
District Heat	3,365	2,842	1,932	1,848	13.44	9.23	10.03	8.17	2.10	1.55	2.04	2.04	18.74
Propane	1,111	150	438	Q	29.78	19.97	19.48	Q	2.55	0.48	0.61	Q	18.54
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-6. Expenditures by Census Region for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.4	1.3	1.1	1.6	0.9	0.7	0.6	0.8	1.0	0.9	0.8	1.3	
Cooling Energy Sources (more than one may apply)													
Electricity	14,084	12,840	21,083	13,373	16.65	10.23	13.32	15.77	1.57	1.12	1.16	1.45	6.07
Natural Gas	734	Q	Q	594	10.15	9.14	Q	13.63	1.90	1.91	Q	1.82	25.21
District Chilled Water	755	1,436	1,714	1,169	10.32	8.78	10.69	Q	2.60	1.85	1.86	2.20	24.21
Water-Heating Energy Sources (more than one may apply)													
Electricity	6,138	4,831	10,229	5,641	19.28	12.31	15.50	19.68	1.31	1.07	1.05	1.38	7.95
Natural Gas	6,027	8,575	9,686	8,395	14.61	9.34	11.52	14.04	1.57	1.18	1.25	1.40	7.83
Fuel Oil	1,760	Q	394	Q	11.95	Q	11.21	Q	1.06	Q	1.28	Q	16.24
District Heat	2,708	1,883	1,344	1,609	13.14	8.91	9.50	7.93	2.15	1.48	2.08	2.08	21.59
Propane	Q	Q	263	233	Q	17.44	17.20	24.66	Q	1.35	0.94	1.22	24.61
Cooking Energy Sources (more than one may apply)													
Electricity	4,158	4,546	6,497	4,113	16.12	9.89	13.49	13.87	1.71	1.51	1.51	1.66	10.97
Natural Gas	4,876	4,480	6,401	4,424	14.78	9.37	11.76	12.78	1.67	1.28	1.54	1.70	8.94
Propane	1,266	Q	695	Q	22.76	Q	15.73	Q	2.04	Q	1.17	Q	21.93
Percent of Floorspace Heated													
Not Heated	Q	100	490	1,117	Q	Q	18.47	30.50	Q	0.12	0.25	1.14	22.82
1 to 50	849	584	1,421	1,170	18.53	10.32	15.84	21.14	0.83	0.50	0.60	0.71	14.88
51 to 99	3,656	1,356	3,812	2,900	17.91	10.56	13.04	16.13	1.46	0.92	1.33	1.43	12.27
100	11,849	13,035	16,488	10,965	15.16	9.99	12.93	13.15	1.55	1.20	1.21	1.55	6.66
Percent of Floorspace Cooled													
Not Cooled	1,566	1,182	461	1,609	13.33	9.33	12.64	13.61	0.66	0.52	0.21	0.82	15.45
1 to 50	3,981	3,166	2,746	2,026	14.34	8.44	11.45	13.42	1.05	0.72	0.64	0.80	12.26
51 to 99	5,310	3,918	5,772	3,401	15.77	10.44	13.81	14.77	1.73	1.29	1.35	1.56	9.10
100	5,623	6,810	13,233	9,116	18.52	10.99	13.37	15.04	2.10	1.49	1.32	1.80	8.61
Percent Lit when Open													
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	1,222	970	1,079	982	16.46	10.03	13.62	17.04	1.08	0.61	0.50	0.89	17.51
51 to 99	3,157	2,483	3,443	2,599	14.49	9.76	14.21	15.37	1.31	1.10	1.14	1.29	11.75
100	11,986	11,563	17,624	12,538	16.33	10.19	12.97	14.31	1.54	1.17	1.21	1.52	7.19
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed													
Zero	2,133	2,166	3,392	2,672	16.81	10.09	14.45	15.17	0.89	0.64	0.72	1.02	12.14
1 to 50	8,329	8,327	11,526	8,841	17.18	10.66	14.34	15.53	1.42	1.10	1.07	1.37	8.03
51 to 100	733	271	1,049	1,023	18.17	10.15	14.71	14.73	1.34	1.38	1.27	2.97	24.43
Never Closed	5,176	4,254	6,193	3,584	13.83	9.19	10.84	12.45	2.04	1.68	1.71	1.81	10.19
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Energy Conservation Features (more than one may apply)													
Any Conservation Features	16,354	14,926	21,770	15,677	15.88	10.05	13.14	14.41	1.47	1.09	1.14	1.39	6.17
Building Shell	15,686	14,617	21,345	15,261	15.94	10.03	13.11	14.31	1.50	1.11	1.14	1.41	6.26
HVAC	15,083	13,221	18,099	13,441	15.86	10.00	12.99	14.09	1.53	1.23	1.21	1.47	6.44
Lighting	13,784	11,424	15,221	11,999	16.20	9.95	12.59	14.94	1.55	1.20	1.26	1.49	6.20

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1995

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.0	0.8	0.8	1.2	0.8	1.0	
All Buildings	1,332	2,152	1,838	13,869	27,261	17,643	96.0	78.9	104.2	5.80
Principal Building Activity										
Education	71	352	191	654	4,623	2,464	108.1	76.1	77.7	11.73
Food Sales	78	59	Q	367	269	Q	212.6	217.2	Q	17.95
Food Service	265	66	Q	940	406	Q	281.5	161.9	Q	21.21
Health Care	36	82	443	294	556	1,483	122.4	148.2	298.3	16.60
Lodging	53	236	172	419	1,873	1,327	125.5	126.2	129.5	16.29
Mercantile and Service	363	396	214	4,043	5,393	3,292	89.7	73.4	65.1	14.78
Office	172	401	445	1,999	4,416	4,063	86.3	90.8	109.6	9.87
Public Assembly	Q	193	115	1,098	1,924	925	Q	100.0	124.0	16.99
Public Order and Safety	22	63	Q	233	755	283	92.8	83.3	Q	30.58
Religious Worship	41	62	Q	964	1,797	Q	42.3	34.8	Q	16.57
Warehouse and Storage	65	136	123	1,798	3,842	2,842	36.2	35.4	43.4	16.79
Other	Q	84	79	Q	531	308	Q	157.4	256.0	30.87
Vacant	Q	23	Q	896	876	611	Q	26.5	Q	34.34
Year Constructed										
1919 or Before	100	105	Q	1,198	1,750	724	83.2	60.0	120.0	18.55
1920 to 1945	142	209	157	1,836	2,586	2,288	77.2	80.8	68.8	13.78
1946 to 1959	263	352	212	2,890	4,495	1,914	91.0	78.3	110.6	13.47
1960 to 1969	198	447	380	2,021	5,265	3,572	97.8	84.8	106.3	10.80
1970 to 1979	218	402	505	2,432	4,861	4,040	89.5	82.8	125.0	11.31
1980 to 1989	273	448	339	2,189	6,326	3,737	124.6	70.8	90.6	12.07
1990 to 1992	101	91	105	684	1,038	868	147.6	87.8	120.6	18.23
1993 to 1995	39	98	53	620	940	499	62.1	104.2	107.1	22.33
Floors										
One	936	730	180	9,237	11,215	4,099	101.3	65.1	43.9	9.58
Two	263	665	193	3,244	8,009	2,869	81.2	83.1	67.3	10.35
Three	109	360	206	1,100	4,402	1,833	98.8	81.9	112.1	12.49
Four to Nine	23	378	828	284	3,488	5,017	82.8	108.2	165.0	14.56
Ten or More	Q	Q	431	Q	148	3,824	Q	Q	112.8	13.54
Census Region and Division										
Northeast	207	376	452	2,218	4,869	4,796	93.2	77.3	94.3	11.47
New England	48	119	108	566	1,550	1,024	84.0	76.7	105.0	16.86
Middle Atlantic	159	257	345	1,652	3,319	3,771	96.4	77.6	91.4	13.72
Midwest	350	601	546	3,450	6,347	4,525	101.5	94.7	120.6	10.47
East North Central	215	413	359	2,249	4,121	3,285	95.5	100.2	109.2	10.49
West North Central	135	188	187	1,201	2,227	1,241	112.7	84.4	150.7	21.47
South	436	717	531	5,214	10,126	5,491	83.6	70.8	96.7	9.03
South Atlantic	183	294	295	2,124	4,398	2,954	86.4	66.9	99.8	13.17
East South Central	119	211	87	1,348	2,667	902	88.2	79.2	96.4	17.78
West South Central	133	211	150	1,742	3,061	1,635	76.6	69.0	91.4	12.83
West	339	458	309	2,987	5,919	2,831	113.6	77.4	109.0	14.89
Mountain	Q	198	91	924	2,145	786	Q	92.4	115.9	18.80
Pacific	200	260	217	2,063	3,774	2,044	96.7	68.8	106.3	14.89
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	125	217	157	1,525	2,526	1,047	81.8	86.1	149.6	16.06
5,500-7,000 HDD	400	628	564	2,858	6,571	5,168	139.8	95.5	109.1	11.42
4,000-5,499 HDD	308	519	580	3,490	5,999	5,667	88.4	86.5	102.3	13.85
Fewer than 4,000 HDD	290	467	320	3,080	7,121	3,289	94.2	65.6	97.3	12.65
More than 2,000 CDD and --										
Fewer than 4,000 HDD	209	320	217	2,916	5,043	2,472	71.6	63.5	87.8	13.93

See footnotes at end of table.

Table CE-7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.0	0.8	0.8	1.2	0.8	1.0	
Workers (main shift)										
Fewer than 5	585	193	Q	7,820	5,094	971	74.8	37.9	Q	13.87
5 to 9	304	194	Q	2,810	3,187	294	108.1	60.8	Q	15.40
10 to 19	265	319	30	2,332	4,055	715	113.6	78.8	41.5	16.48
20 to 49	157	628	84	841	7,220	1,071	186.3	86.9	78.6	14.33
50 to 99	Q	401	209	Q	4,320	2,562	Q	92.8	81.8	11.24
100 to 249	Q	315	332	Q	2,540	3,432	Q	123.8	96.7	11.27
250 or More	Q	103	1,160	Q	846	8,598	Q	121.4	134.9	13.33
Weekly Operating Hours										
39 or Fewer	102	68	Q	3,163	2,356	615	32.2	28.9	Q	16.84
40 to 48	308	424	147	3,734	7,139	2,360	82.5	59.4	62.3	13.39
49 to 60	223	440	274	2,972	6,562	2,709	75.0	67.1	101.2	12.04
61 to 84	190	344	262	1,673	4,409	3,970	113.4	78.1	66.0	10.37
85 to 167	332	287	211	1,121	2,761	2,320	296.2	104.1	91.1	14.83
Open Continuously	177	588	933	1,206	4,034	5,669	147.0	145.8	164.6	10.46
Ownership and Occupancy										
Nongovernment Owned	1,137	1,591	1,221	12,315	21,480	12,901	92.4	74.1	94.7	6.27
Owner Occupied	930	1,284	1,073	9,770	15,773	10,030	95.2	81.4	107.0	7.03
Nonowner Occupied	200	302	144	1,976	5,278	2,443	101.4	57.3	59.1	12.22
Unoccupied	Q	Q	Q	569	429	Q	Q	Q	Q	31.89
Government Owned	194	561	616	1,553	5,781	4,742	125.1	97.1	130.0	12.76
Federal	Q	71	173	257	490	1,005	Q	145.5	172.4	32.20
State	36	177	226	239	1,164	1,447	149.2	151.8	155.8	19.96
Local	137	313	217	1,057	4,126	2,290	129.9	75.9	95.0	15.84
Space in Building Vacant for at Least Three Consecutive Months										
Yes	99	434	587	2,166	6,321	7,357	45.7	68.6	79.8	12.21
No	1,233	1,718	1,251	11,703	20,940	10,285	105.3	82.0	121.6	6.68
Energy Sources (more than one may apply)										
Electricity	1,330	2,149	1,833	13,014	26,840	17,222	102.2	80.1	106.4	5.68
Natural Gas	885	1,644	1,402	7,440	18,410	12,296	118.9	89.3	114.0	6.72
Fuel Oil	136	512	1,084	1,625	4,557	8,239	83.7	112.3	131.6	10.11
District Heat	Q	294	627	Q	1,766	3,680	Q	166.6	170.4	14.82
District Chilled Water	Q	120	338	Q	862	1,576	Q	139.1	214.7	18.83
Propane	144	170	79	1,878	2,541	925	76.5	66.9	84.9	16.53
Other	Q	81	66	692	1,055	588	Q	76.5	112.2	24.07
Energy End Uses (more than one may apply)										
Buildings with Space Heating	1,299	2,128	1,820	12,052	25,563	16,732	107.8	83.3	108.8	5.87
Buildings with Cooling	1,137	1,989	1,796	9,908	23,649	16,378	114.8	84.1	109.7	6.13
Buildings with Water Heating	1,177	2,099	1,814	10,269	24,724	16,567	114.6	84.9	109.5	5.97
Buildings with Cooking	414	795	1,297	2,241	8,104	10,368	184.7	98.2	125.1	7.71
Buildings with Manufacturing	32	146	128	564	2,006	1,323	57.6	72.8	97.0	22.07
Buildings with Electricity Generation	77	506	1,121	483	4,056	8,826	159.9	124.8	127.0	10.90
Space-Heating Energy Sources (more than one may apply)										
Electricity	412	793	703	4,269	10,618	7,269	96.6	74.7	96.7	8.63
Natural Gas	757	1,362	975	6,758	15,563	9,214	112.1	87.5	105.9	6.98
Fuel Oil	113	246	363	1,481	2,478	2,647	76.2	99.3	137.2	16.57
District Heat	Q	294	612	212	1,750	3,645	Q	167.9	167.9	15.22
Propane	72	41	Q	953	919	Q	75.9	45.1	Q	24.16
Other	19	29	Q	478	376	Q	40.7	76.7	Q	23.61

See footnotes at end of table.

Table CE-7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.0	0.8	0.8	1.2	0.8	1.0	
Primary Space-Heating Energy Source										
Electricity	275	420	310	2,841	6,724	3,935	96.9	62.5	78.7	11.15
Natural Gas	739	1,241	859	6,583	14,121	8,103	112.2	87.9	106.0	7.45
Fuel Oil	98	137	70	1,297	1,948	963	75.9	70.4	72.4	16.16
District Heat	Q	291	556	212	1,702	3,376	Q	170.7	164.8	15.51
Propane	45	22	Q	799	706	Q	56.9	31.4	Q	29.46
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Sources (more than one may apply)										
Electricity	1,034	1,873	1,625	9,707	22,699	15,355	106.5	82.5	105.8	5.77
Natural Gas	24	52	144	162	564	588	Q	93.0	244.2	29.68
District Chilled Water	Q	120	338	Q	862	1,576	Q	139.1	214.7	18.83
Water-Heating Energy Sources (more than one may apply)										
Electricity	425	676	556	4,991	10,744	7,322	85.2	63.0	75.9	8.85
Natural Gas	633	1,217	919	4,648	12,638	7,574	136.2	96.3	121.4	7.96
Fuel Oil	35	74	93	329	973	848	106.5	76.4	109.9	22.43
District Heat	Q	216	466	Q	1,220	2,691	Q	177.4	173.2	14.82
Propane	29	39	Q	308	561	Q	93.8	70.4	Q	31.69
Cooking Energy Sources (more than one may apply)										
Electricity	248	415	833	1,327	4,224	6,698	187.1	98.1	124.4	10.56
Natural Gas	281	525	892	1,257	4,817	7,121	223.8	109.0	125.3	9.61
Propane	43	59	23	299	796	385	142.6	74.7	59.1	28.83
Percent of Floorspace Heated										
Not Heated	33	23	18	1,817	1,698	910	18.0	13.8	19.7	30.06
1 to 50	98	89	60	1,835	2,828	1,564	53.5	31.6	38.3	15.68
51 to 99	195	316	294	1,972	3,847	3,049	98.7	82.2	96.4	15.09
100	1,006	1,723	1,466	8,245	18,888	12,120	122.0	91.2	121.0	6.04
Percent of Floorspace Cooled										
Not Cooled	195	162	42	3,961	3,612	1,265	49.2	45.0	32.9	16.59
1 to 50	239	538	267	2,949	7,810	4,268	80.9	68.9	62.5	12.35
51 to 99	200	458	703	1,720	5,039	5,789	116.0	90.8	121.4	9.34
100	699	994	826	5,239	10,800	6,320	133.4	92.0	130.7	8.56
Percent Lit when Open										
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	139	146	23	2,053	3,207	749	67.6	45.5	31.1	14.77
51 to 99	201	326	358	2,110	4,662	2,919	95.0	69.8	122.5	10.99
100	984	1,669	1,451	8,488	18,590	13,436	115.9	89.8	108.0	7.00
Building Not in Use/ Electricity Not Used	Q	11	Q	1,143	699	526	Q	Q	Q	34.28
Percent Lit when Closed										
Zero	323	345	85	5,087	6,706	1,308	63.4	51.4	64.9	13.80
1 to 50	786	1,146	707	6,335	15,230	9,147	124.1	75.3	77.3	7.25
51 to 100	37	63	107	282	625	1,007	132.9	101.3	106.4	25.01
Never Closed	177	586	933	1,021	4,001	5,654	173.6	146.5	164.9	11.70
Building Not in Use/ Electricity Not Used	Q	Q	Q	1,143	699	Q	Q	Q	Q	29.30

See footnotes at end of table.

Table CE-7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.0	0.8	0.8	1.2	0.8	1.0	
Energy Conservation Features (more than one may apply)										
Any Conservation Features	1,286	2,138	1,836	12,223	26,087	16,979	105.2	82.0	108.1	5.85
Building Shell	1,253	2,072	1,809	11,691	25,041	16,458	107.2	82.8	109.9	5.97
HVAC	962	1,874	1,784	7,270	21,466	15,921	132.4	87.3	112.1	6.32
Lighting	724	1,584	1,705	6,036	17,367	15,133	119.9	91.2	112.7	6.57

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	
All Buildings	1,626	3,208	487	19,680	34,443	4,649	82.6	93.2	104.7	6.88
Building Floorspace (square feet)										
1,001 to 5,000	270	347	91	2,477	3,221	640	109.2	107.8	141.4	13.78
5,001 to 10,000	234	341	Q	3,446	3,420	664	67.9	99.6	73.7	22.68
10,001 to 25,000	296	494	34	4,140	7,043	434	71.6	70.1	77.9	14.93
25,001 to 50,000	167	393	70	2,262	4,687	726	74.0	83.8	95.9	10.20
50,001 to 100,000	202	410	86	2,429	4,722	817	83.3	86.9	104.7	12.59
100,001 to 200,000	171	450	66	1,934	4,200	642	88.4	107.2	102.4	15.53
200,001 to 500,000	154	435	48	1,683	3,522	348	91.5	123.4	137.0	15.15
Over 500,000	131	339	45	1,309	3,628	377	100.0	93.3	118.7	19.85
Principal Building Activity										
Education	276	301	36	3,522	3,687	531	78.3	81.8	68.7	11.80
Food Sales	29	75	Q	145	379	Q	202.4	197.0	Q	27.05
Food Service	93	184	Q	460	782	Q	201.6	235.7	Q	25.24
Health Care	109	407	45	508	1,600	224	215.1	254.1	199.7	19.84
Lodging	124	308	28	986	2,377	255	126.2	129.6	110.4	16.34
Mercantile and Service	319	563	91	3,829	7,818	1,081	83.3	72.0	84.5	15.40
Office	287	665	66	3,015	6,678	785	95.3	99.6	84.5	11.06
Public Assembly	142	251	56	1,584	1,956	408	89.5	128.2	138.2	22.27
Public Order and Safety	50	60	Q	417	753	Q	119.5	79.3	Q	33.50
Religious Worship	43	56	Q	991	1,643	Q	43.8	34.2	Q	19.22
Warehouse and Storage	73	211	Q	2,504	5,250	727	29.0	40.3	55.8	18.80
Other	Q	108	Q	296	600	Q	Q	180.3	Q	35.79
Vacant	31	19	Q	1,423	919	Q	21.8	20.9	Q	33.69
Floors										
One	446	1,171	229	6,437	15,913	2,201	69.3	73.6	104.2	11.95
Two	367	658	96	4,860	8,094	1,168	75.5	81.3	82.4	11.19
Three	310	328	36	3,830	3,157	348	81.1	103.9	103.9	13.63
Four to Nine	385	754	90	3,460	4,643	686	111.2	162.3	131.4	12.60
Ten or More	118	298	35	1,094	2,636	245	107.9	113.0	142.0	17.23
Census Region and Division										
Northeast	399	544	91	4,963	6,130	789	80.5	88.8	115.7	13.96
New England	94	162	Q	1,123	1,813	205	83.7	89.4	Q	23.24
Middle Atlantic	305	382	73	3,841	4,317	585	79.5	88.6	125.7	17.32
Midwest	603	796	98	6,111	7,115	1,096	98.7	111.9	89.3	12.41
East North Central	395	515	76	4,465	4,482	708	88.4	115.0	107.9	14.45
West North Central	208	281	22	1,646	2,633	389	126.4	106.5	55.4	21.18
South	339	1,143	201	5,415	13,572	1,844	62.7	84.2	109.2	10.75
South Atlantic	146	525	101	2,209	6,326	940	66.2	83.0	107.8	15.51
East South Central	70	313	34	961	3,515	441	72.6	89.1	77.3	23.66
West South Central	123	305	66	2,245	3,730	463	54.9	81.7	142.5	16.12
West	285	725	96	3,191	7,626	919	89.2	95.1	104.4	14.81
Mountain	140	257	32	1,435	2,127	292	97.3	120.9	109.9	26.53
Pacific	145	468	64	1,756	5,499	627	82.5	85.1	101.9	15.49
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and –										
More than 7,000 HDD	148	303	48	1,693	2,951	453	87.2	102.5	106.9	18.76
5,500-7,000 HDD	624	850	117	6,461	7,159	977	96.6	118.7	120.3	13.61
4,000-5,499 HDD	475	802	130	5,630	8,185	1,341	84.3	98.0	97.1	15.10
Fewer than 4,000 HDD	239	732	107	3,302	9,078	1,111	72.3	80.7	96.3	13.05
More than 2,000 CDD and –										
Fewer than 4,000 HDD	141	522	83	2,594	7,070	766	54.3	73.9	108.8	15.80

See footnotes at end of table.

Table CE-8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	
Workers (main shift)										
Fewer than 5	308	418	64	6,094	6,674	1,118	50.5	62.6	56.9	16.73
5 to 9	232	254	23	2,834	3,216	240	81.9	78.8	94.4	17.32
10 to 19	163	386	65	2,437	4,179	486	66.9	92.4	133.8	15.95
20 to 49	320	445	103	3,146	5,133	853	101.9	86.6	120.9	12.09
50 to 99	167	401	62	1,812	4,486	633	91.9	89.4	98.5	12.05
100 to 249	173	402	74	1,625	3,720	644	106.4	108.1	114.7	13.68
250 or More	263	903	96	1,733	7,036	675	151.9	128.4	142.3	14.57
Weekly Operating Hours										
39 or Fewer	101	71	8	2,962	2,776	397	34.0	25.7	20.1	17.58
40 to 48	388	426	65	5,893	6,389	951	65.9	66.6	68.4	13.13
49 to 60	299	550	88	3,971	7,282	989	75.2	75.5	89.4	14.37
61 to 84	218	505	74	2,595	6,762	695	83.8	74.6	106.1	11.35
85 to 167	212	533	86	1,565	4,070	567	135.4	131.0	151.2	17.86
Open Continuously	409	1,124	166	2,695	7,163	1,051	151.8	156.9	157.8	11.79
Ownership and Occupancy										
Nongovernment Owned	1,050	2,505	395	14,721	28,204	3,772	71.3	88.8	104.6	7.48
Owner Occupied	907	2,030	349	11,708	20,866	2,999	77.5	97.3	116.4	8.18
Nonowner Occupied	136	466	45	2,211	6,733	753	61.3	69.2	60.4	12.57
Unoccupied	7	Q	Q	802	605	Q	Q	Q	Q	38.91
Government Owned	577	703	92	4,959	6,239	877	116.3	112.7	104.9	12.16
Federal	135	116	Q	955	695	Q	141.8	167.1	Q	38.71
State	155	254	29	1,083	1,593	174	142.9	159.4	167.7	19.52
Local	286	333	49	2,921	3,951	601	98.0	84.3	80.7	15.61
Space in Building Vacant for at Least Three Consecutive Months										
Yes	299	729	92	4,864	9,912	1,068	61.4	73.5	86.3	11.09
No	1,327	2,480	394	14,816	24,531	3,581	89.6	101.1	110.1	7.78
Energy Sources (more than one may apply)										
Electricity	1,621	3,205	486	18,824	33,802	4,449	86.1	94.8	109.2	7.05
Natural Gas	1,272	2,309	350	13,673	21,726	2,747	93.0	106.3	127.6	8.02
Fuel Oil	458	1,122	153	4,324	8,919	1,178	105.9	125.7	129.5	11.46
District Heat	362	603	86	2,359	2,881	418	153.6	209.4	205.7	21.81
District Chilled Water	142	357	43	661	1,602	258	215.4	222.6	165.4	24.42
Propane	81	271	40	1,195	3,523	626	68.0	76.8	64.2	18.76
Other	53	Q	Q	1,007	1,167	Q	52.7	Q	Q	26.04
Energy End Uses (more than one may apply)										
Buildings with Space Heating	1,614	3,149	484	18,081	31,975	4,291	89.2	98.5	112.8	7.00
Buildings with Cooling	1,417	3,037	468	15,405	30,540	3,989	92.0	99.5	117.4	7.28
Buildings with Water Heating	1,540	3,102	448	16,692	30,944	3,924	92.2	100.2	114.3	6.95
Buildings with Cooking	704	1,541	262	6,005	12,852	1,856	117.2	119.9	140.9	8.97
Buildings with Manufacturing	124	162	Q	1,406	2,172	315	88.2	74.7	Q	23.87
Buildings with Electricity Generation	369	1,163	173	2,720	9,318	1,328	135.6	124.8	130.6	11.05
Space-Heating Energy Sources (more than one may apply)										
Electricity	394	1,289	225	5,262	14,735	2,158	74.9	87.5	104.3	9.74
Natural Gas	1,012	1,818	266	11,569	17,715	2,252	87.4	102.6	118.1	8.25
Fuel Oil	280	413	29	2,866	3,415	325	97.6	121.0	89.7	18.28
District Heat	359	595	82	2,355	2,843	409	152.4	209.4	199.9	18.75
Propane	17	102	10	287	1,433	304	59.0	71.1	33.5	28.36
Other	16	52	Q	491	457	Q	31.9	113.1	Q	27.79

See footnotes at end of table.

Table CE-8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	
Primary Space-Heating Energy Source										
Electricity	126	733	146	2,257	9,892	1,351	56.0	74.1	107.9	12.84
Natural Gas	959	1,638	241	10,807	15,933	2,068	88.8	102.8	116.8	8.62
Fuel Oil	161	132	Q	2,093	1,903	Q	76.8	69.3	Q	17.12
District Heat	347	555	75	2,262	2,665	362	153.5	208.1	207.4	19.89
Propane	Q	59	Q	163	1,163	Q	Q	50.4	Q	36.22
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Sources (more than one may apply)										
Electricity	1,310	2,786	437	14,852	29,150	3,759	88.2	95.6	116.2	7.31
Natural Gas	Q	128	Q	438	762	Q	172.8	168.6	Q	34.25
District Chilled Water	142	357	43	661	1,602	258	215.4	222.6	165.4	24.42
Water-Heating Energy Sources (more than one may apply)										
Electricity	405	1,076	177	5,750	15,217	2,089	70.4	70.7	84.6	10.03
Natural Gas	914	1,608	248	9,196	13,951	1,712	99.4	115.3	144.6	8.86
Fuel Oil	89	108	Q	1,044	993	Q	84.8	108.4	Q	21.78
District Heat	226	487	49	1,546	2,169	234	146.3	224.5	208.0	18.42
Propane	Q	64	Q	Q	762	Q	Q	84.3	Q	30.95
Cooking Energy Sources (more than one may apply)										
Electricity	370	955	171	2,990	8,080	1,178	123.7	118.2	145.4	11.65
Natural Gas	467	1,046	186	4,151	7,938	1,106	112.5	131.7	168.0	10.63
Propane	Q	103	Q	186	1,159	Q	Q	89.0	Q	34.18
Percent of Floorspace Heated										
Not Heated	13	59	3	1,600	2,467	358	7.9	23.9	7.2	26.78
1 to 50	85	148	15	2,430	3,463	334	34.8	42.8	44.1	18.51
51 to 99	219	508	78	3,048	5,126	694	71.8	99.0	112.9	15.85
100	1,310	2,494	391	12,602	23,387	3,263	104.0	106.6	119.8	7.71
Percent of Floorspace Cooled										
Not Cooled	210	171	18	4,275	3,902	660	49.0	43.8	27.5	16.05
1 to 50	472	520	52	6,441	7,879	707	73.2	66.0	73.2	14.64
51 to 99	385	865	110	3,748	7,830	971	102.9	110.5	112.9	10.40
100	560	1,652	307	5,217	14,831	2,311	107.3	111.4	132.9	10.21
Percent Lit when Open										
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	163	124	Q	3,136	2,543	329	51.9	48.6	Q	14.79
51 to 99	316	508	59	3,726	5,374	592	84.8	94.6	100.4	12.56
100	1,131	2,567	405	11,516	25,500	3,498	98.2	100.7	115.7	8.01
Building Not in Use/ Electricity Not Used	16	9	Q	1,238	924	206	Q	9.8	Q	35.77
Percent Lit when Closed										
Zero	313	373	67	5,111	6,944	1,046	61.3	53.7	63.8	13.41
1 to 50	849	1,575	215	10,234	18,325	2,152	83.0	85.9	100.1	9.58
51 to 100	39	130	Q	418	1,230	266	93.5	105.8	Q	30.28
Never Closed	409	1,122	165	2,680	7,019	978	152.7	159.8	168.9	13.13
Building Not in Use/ Electricity Not Used	Q	Q	Q	1,238	924	Q	Q	Q	Q	31.68

See footnotes at end of table.

Table CE-8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	
Energy Conservation Features (more than one may apply)										
Any Conservation Features	1,603	3,173	484	17,858	32,958	4,472	89.7	96.3	108.3	6.88
Building Shell	1,547	3,111	478	17,068	31,771	4,351	90.6	97.9	109.8	6.99
HVAC	1,317	2,856	447	13,354	27,489	3,814	98.7	103.9	117.2	7.37
Lighting	1,143	2,452	418	11,507	23,449	3,581	99.3	104.6	116.6	7.31

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-9. Total Electricity Consumption and Expenditures, 1995

Building Characteristics	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures	RSE Row Factor
				Primary	Site			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)	
RSE Column Factor:	1.1	0.9	0.8	1.1	1.1	1.1	1.0	
All Buildings	4,343	57,076	13.1	7,873	2,608	764	56,621	3.71
Building Floorspace (square feet)								
1,001 to 5,000	2,252	5,953	2.6	1,148	380	111	9,696	5.97
5,001 to 10,000	970	7,061	7.3	718	238	70	6,055	7.00
10,001 to 25,000	724	11,303	15.6	1,161	384	113	8,911	5.82
25,001 to 50,000	211	7,635	36.1	954	316	93	7,005	6.05
50,001 to 100,000	114	7,902	69.2	1,097	363	107	7,194	5.81
100,001 to 200,000	47	6,599	141.2	1,017	337	99	6,283	7.14
200,001 to 500,000	19	5,550	294.8	927	307	90	5,908	9.45
Over 500,000	6	5,074	887.4	852	282	83	5,568	9.40
Principal Building Activity								
Education	309	7,685	24.9	666	221	65	5,168	7.79
Food Sales	137	642	4.7	358	119	35	2,532	13.61
Food Service	285	1,353	4.8	502	166	49	3,931	16.13
Health Care	105	2,333	22.2	637	211	62	3,901	11.36
Lodging	158	3,601	22.8	565	187	55	3,838	10.35
Mercantile and Service	1,274	12,630	9.9	1,533	508	149	11,655	7.84
Office	705	10,466	14.8	2,039	676	198	14,020	8.66
Public Assembly	326	3,929	12.1	514	170	50	3,604	12.53
Public Order and Safety	87	1,271	14.6	148	49	14	1,131	27.01
Religious Worship	269	2,792	10.4	99	33	10	953	10.15
Warehouse and Storage	477	8,016	16.8	531	176	52	3,934	12.26
Other	67	1,000	14.9	228	75	22	1,473	25.75
Vacant	144	1,358	9.4	54	18	5	481	21.74
Year Constructed								
1919 or Before	335	3,527	10.5	300	99	29	2,290	14.61
1920 to 1945	508	6,175	12.1	523	173	51	4,012	9.72
1946 to 1959	838	9,123	10.9	980	325	95	7,395	9.10
1960 to 1969	695	10,649	15.3	1,424	472	138	10,405	8.44
1970 to 1979	809	11,245	13.9	1,856	615	180	13,005	6.68
1980 to 1989	792	11,909	15.0	1,955	648	190	13,844	7.12
1990 to 1992	204	2,544	12.5	492	163	48	3,318	13.33
1993 to 1995	162	1,905	11.8	343	113	33	2,353	18.90
Census Region and Division								
Northeast	697	11,444	16.4	1,317	436	128	13,059	7.00
New England	190	3,072	16.2	297	99	29	3,082	10.91
Middle Atlantic	507	8,372	16.5	1,020	338	99	9,978	8.88
Midwest	1,074	13,887	12.9	1,684	558	163	10,946	7.83
East North Central	698	9,422	13.5	1,074	356	104	7,360	9.63
West North Central	376	4,465	11.9	610	202	59	3,586	13.58
South	1,648	20,158	12.2	3,101	1,027	301	19,009	5.93
South Atlantic	642	9,301	14.5	1,471	487	143	9,502	9.29
East South Central	438	4,674	10.7	718	238	70	3,979	10.61
West South Central	569	6,183	10.9	911	302	88	5,527	11.08
West	925	11,587	12.5	1,772	587	172	13,607	8.61
Mountain	303	3,821	12.6	549	182	53	3,390	17.40
Pacific	622	7,766	12.5	1,223	405	119	10,217	10.45
Climate Zone: 45-Year Average								
Fewer than 2,000 CDD and –								
More than 7,000 HDD	466	4,934	10.6	539	178	52	3,600	13.35
5,500-7,000 HDD	936	14,356	15.3	1,725	571	167	13,123	6.99
4,000-5,499 HDD	1,006	14,559	14.5	2,112	700	205	15,057	10.04
Fewer than 4,000 HDD	1,051	13,268	12.6	1,955	648	190	14,479	10.46
More than 2,000 CDD and –								
Fewer than 4,000 HDD	885	9,960	11.3	1,543	511	150	10,363	9.20

See footnotes at end of table.

Table CE-9. Total Electricity Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures	RSE Row Factor
				Primary	Site			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)	
RSE Column Factor:	1.1	0.9	0.8	1.1	1.1	1.1	1.0	
Workers (main shift)								
Fewer than 5	2,274	12,342	5.4	988	327	96	8,510	6.68
5 to 9	797	6,270	7.9	676	224	66	5,478	7.98
10 to 19	625	7,102	11.4	884	293	86	6,712	9.12
20 to 49	397	9,103	23.0	1,273	422	124	9,480	7.50
50 to 99	137	6,860	50.0	935	310	91	6,595	7.85
100 to 249	71	5,975	84.5	1,007	333	98	6,668	9.14
250 or More	43	9,425	220.0	2,111	699	205	13,177	12.06
Weekly Operating Hours								
39 or Fewer	746	4,932	6.6	185	61	18	1,728	10.61
40 to 48	1,254	13,142	10.5	1,217	403	118	9,435	6.51
49 to 60	950	12,134	12.8	1,501	497	146	10,912	8.64
61 to 84	566	10,021	17.7	1,313	435	127	9,807	7.77
85 to 167	407	6,159	15.1	1,312	435	127	9,608	8.42
Open Continuously	421	10,688	25.4	2,345	777	228	15,131	7.75
Ownership and Occupancy								
Nongovernment Owned	3,810	45,225	11.9	6,091	2,018	591	44,825	4.07
Owner Occupied	3,062	35,111	11.5	4,858	1,609	472	34,878	4.22
Nonowner Occupied	669	9,518	14.2	1,216	403	118	9,768	8.52
Unoccupied	79	596	7.6	17	6	2	179	35.71
Government Owned	533	11,851	22.2	1,782	590	173	11,796	9.14
Space In Building Vacant for at Least Three Consecutive Months								
Yes	646	14,630	22.6	1,795	595	174	12,715	8.33
No	3,697	42,446	11.5	6,078	2,013	590	43,906	4.17
Energy Sources (more than one may apply)								
Electricity	4,343	57,076	13.1	7,873	2,608	764	56,621	3.71
Natural Gas	2,476	38,009	15.4	5,145	1,704	500	37,320	4.62
Fuel Oil	595	14,345	24.1	2,350	778	228	15,850	8.92
District Heat	110	5,646	51.4	1,100	364	107	6,957	18.97
District Chilled Water	53	2,517	47.7	567	188	55	3,344	17.74
Propane	589	5,340	9.1	676	224	66	5,323	12.00
Other	206	2,232	10.8	251	83	24	1,878	18.00
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,004	54,110	13.5	7,679	2,543	745	54,844	3.86
Buildings with Cooling	3,376	49,785	14.7	7,467	2,473	725	53,201	3.95
Buildings with Water Heating	3,472	51,363	14.8	7,533	2,495	731	53,846	3.99
Buildings with Cooking	827	20,611	24.9	3,757	1,244	365	25,825	5.46
Buildings with Manufacturing	204	3,885	19.0	474	157	46	3,252	15.88
Buildings with Electricity Generation	246	13,347	54.2	2,593	859	252	16,911	8.07
Space-Heating Energy Source								
Electricity	1,467	22,156	15.1	3,692	1,223	358	25,058	6.19
Electricity Main	1,007	13,500	13.4	2,445	810	237	16,279	7.77
Electricity Secondary	461	8,655	18.8	1,246	413	121	8,779	8.99
Other Excluding Electricity	2,536	31,955	12.6	3,987	1,321	387	29,786	4.28
Buildings without Space Heating	340	2,966	8.7	194	64	19	1,777	16.94
Primary Space-Heating Energy Source								
Electricity	1,007	13,500	13.4	2,445	810	237	16,279	7.77
Natural Gas	2,105	28,686	13.6	3,611	1,196	351	26,667	4.95
Fuel Oil	427	4,152	9.7	279	92	27	2,827	12.77
District Heat	107	5,277	49.2	1,040	344	101	6,573	13.49
Propane	259	1,541	5.9	197	65	19	1,738	21.76
Other	55	477	8.7	34	11	3	248	31.58

See footnotes at end of table.

Table CE-9. Total Electricity Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures	RSE Row Factor
				Primary	Site			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)	
RSE Column Factor:	1.1	0.9	0.8	1.1	1.1	1.1	1.0	
Cooling Energy Source								
Electricity	3,293	47,761	14.5	7,077	2,344	687	50,797	3.98
Other Excluding Electricity	84	2,023	24.2	390	129	38	2,404	20.82
Buildings without Cooling	967	7,291	7.5	406	135	39	3,421	13.58
Water-Heating Energy Source								
Electricity	1,684	23,056	13.7	3,434	1,138	333	24,101	6.34
Other Excluding Electricity	1,788	28,307	15.8	4,098	1,358	398	29,745	4.72
Buildings without Water Heating	871	5,713	6.6	341	113	33	2,775	10.14
Cooking Energy Source								
Electricity	487	12,249	25.2	2,507	830	243	16,338	7.52
Other Excluding Electricity	340	8,362	24.6	1,250	414	121	9,487	8.68
Buildings without Cooking	3,517	36,465	10.4	4,116	1,363	400	30,797	4.49
Percent of Floorspace Heated								
Not Heated	340	2,966	8.7	194	64	19	1,777	16.94
1 to 50	542	6,152	11.3	437	145	42	3,456	11.69
51 to 99	630	8,859	14.1	1,329	440	129	9,760	9.14
100	2,831	39,099	13.8	5,913	1,959	574	41,628	3.70
Percent of Floorspace Cooled								
Not Cooled	967	7,291	7.5	406	135	39	3,421	13.58
1 to 50	926	14,917	16.1	1,082	358	105	8,642	7.35
51 to 99	635	12,536	19.7	2,194	727	213	15,196	7.48
100	1,816	22,331	12.3	4,191	1,388	407	29,363	5.11
Percent Lit when Open								
Zero	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	666	6,008	9.0	376	125	37	3,274	11.80
51 to 99	745	9,692	13.0	1,243	412	121	9,346	8.41
100	2,814	40,514	14.4	6,236	2,066	605	43,826	4.65
Building Not in Use/ Electricity Not Used	82	673	8.2	Q	Q	Q	149	29.01
Percent Lit when Closed								
Zero	1,644	13,101	8.0	1,025	340	100	8,176	8.44
1 to 50	2,109	30,711	14.6	4,063	1,346	394	30,461	4.80
51 to 100	87	1,914	22.0	425	141	41	2,715	22.37
Never Closed	421	10,677	25.4	2,344	776	228	15,121	7.76
Building Not in Use/ Electricity Not Used	82	673	8.2	Q	Q	Q	149	29.01
Annual Consumption (kilowatthours)								
10,000 or Less	827	3,059	3.7	42	14	4	475	8.62
10,001 to 50,000	1,629	9,697	6.0	432	143	42	4,263	6.71
50,001 to 100,000	742	6,876	9.3	541	179	53	4,957	8.97
100,001 to 500,000	904	14,815	16.4	1,996	661	194	15,890	5.70
500,001 to 1,000,000	125	5,702	45.5	903	299	88	6,405	8.79
1,000,001 to 5,000,000	98	10,178	103.8	2,054	680	199	13,237	7.04
Over 5,000,000	17	6,748	408.9	1,906	631	185	11,395	10.54

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the "Total of Major Fuels" category, is site electricity plus the conversion losses in the electric generation process at the utility plant. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-10. Electricity Consumption and Expenditure Intensities, 1995

Building Characteristics	Electricity Consumption						Electricity Expenditures			RSE Row Factor
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)	
				25th Percentile	Median	75th Percentile				
RSE Column Factor:	1.4	1.1	1.3				1.2	0.9	0.5	
All Buildings	176	13.4	10.0	3.2	7.2	16.2	13.0	0.99	0.074	3.41
Building Floorspace (square feet)										
1,001 to 5,000	49	18.7	10.6	3.9	8.5	20.6	4.3	1.63	0.087	6.46
5,001 to 10,000	72	9.9	9.2	2.2	6.2	12.8	6.2	0.86	0.087	6.49
10,001 to 25,000	156	10.0	8.7	3.0	5.6	12.7	12.3	0.79	0.079	6.91
25,001 to 50,000	438	12.1	9.1	3.6	7.3	15.5	33.1	0.92	0.076	5.30
50,001 to 100,000	933	13.5	11.0	3.9	8.9	17.6	63.0	0.91	0.068	5.79
100,001 to 200,000	2,112	15.0	11.7	4.4	12.4	23.3	134.4	0.95	0.064	6.30
200,001 to 500,000	4,779	16.2	11.9	4.6	10.5	20.7	313.9	1.06	0.066	10.78
Over 500,000	14,457	16.3	8.6	7.5	13.2	22.4	973.8	1.10	0.067	8.32
Principal Building Activity										
Education	210	8.4	6.4	4.3	6.1	14.3	16.7	0.67	0.080	6.23
Food Sales	254	54.1	53.3	37.1	55.6	81.3	18.5	3.95	0.073	10.17
Food Service	171	36.0	20.8	13.3	25.5	63.0	13.8	2.90	0.081	12.54
Health Care	589	26.5	13.8	7.4	15.7	23.3	37.2	1.67	0.063	8.55
Lodging	347	15.2	20.1	6.5	11.7	20.1	24.3	1.07	0.070	7.09
Mercantile and Service	117	11.8	11.1	3.0	6.9	12.8	9.1	0.92	0.078	6.58
Office	281	18.9	7.3	6.1	12.2	20.2	19.9	1.34	0.071	7.43
Public Assembly	153	12.7	16.7	2.7	5.8	10.0	11.1	0.92	0.072	10.50
Public Order and Safety	165	11.3	8.4	3.3	3.9	9.8	13.0	0.89	0.079	22.86
Religious Worship	36	3.4	Q	1.4	2.9	4.9	3.5	0.34	0.100	9.05
Warehouse and Storage	108	6.4	10.6	1.2	3.2	7.3	8.2	0.49	0.076	8.26
Other	330	22.1	12.0	6.3	11.3	21.8	22.0	1.47	0.067	15.31
Vacant	36	3.9	9.3	0.3	2.4	5.6	3.3	0.35	0.092	17.63
Year Constructed										
1919 or Before	87	8.3	8.0	2.0	4.8	10.3	6.8	0.65	0.079	16.67
1920 to 1945	100	8.2	7.0	2.2	5.1	11.8	7.9	0.65	0.079	8.07
1946 to 1959	113	10.4	9.3	2.8	6.5	12.2	8.8	0.81	0.078	6.76
1960 to 1969	199	13.0	9.6	2.8	7.2	15.8	15.0	0.98	0.075	6.48
1970 to 1979	223	16.0	12.0	4.2	8.8	21.0	16.1	1.16	0.072	7.18
1980 to 1989	240	15.9	9.4	4.2	10.0	22.0	17.5	1.16	0.073	6.19
1990 to 1992	234	18.8	12.3	4.1	9.4	23.2	16.2	1.30	0.069	8.84
1993 to 1995	205	17.5	16.8	2.9	8.4	16.7	14.5	1.23	0.071	15.67
Census Region and Division										
Northeast	184	11.2	8.5	2.5	5.2	12.1	18.7	1.14	0.102	5.69
New England	152	9.4	8.6	2.2	5.8	12.2	16.2	1.00	0.107	7.38
Middle Atlantic	195	11.8	8.5	2.9	5.2	12.1	19.7	1.19	0.101	7.14
Midwest	152	11.8	9.7	2.2	6.8	13.1	10.2	0.79	0.067	6.82
East North Central	149	11.1	9.8	2.0	5.6	12.7	10.5	0.78	0.071	8.77
West North Central	158	13.3	9.4	3.1	8.1	14.4	9.5	0.80	0.061	10.00
South	183	14.9	11.4	4.0	8.5	19.8	11.5	0.94	0.063	5.18
South Atlantic	223	15.4	11.3	3.9	8.5	17.5	14.8	1.02	0.067	6.07
East South Central	159	14.9	9.6	4.1	9.8	26.4	9.1	0.85	0.057	10.38
West South Central	155	14.3	13.4	3.4	7.8	16.7	9.7	0.89	0.062	10.14
West	186	14.8	9.5	3.3	7.3	18.2	14.7	1.17	0.079	8.34
Mountain	176	13.9	11.8	2.3	6.5	17.4	11.2	0.89	0.064	13.57
Pacific	191	15.3	8.7	3.9	8.8	20.1	16.4	1.32	0.086	11.24
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	112	10.6	8.8	2.1	5.2	12.9	7.7	0.73	0.069	11.08
5,500-7,000 HDD	179	11.7	9.9	2.5	5.6	13.7	14.0	0.91	0.078	5.85
4,000-5,499 HDD	204	14.1	9.8	2.9	6.2	14.1	15.0	1.03	0.073	8.55
Fewer than 4,000 HDD	181	14.3	9.2	4.2	9.3	21.6	13.8	1.09	0.076	7.11
More than 2,000 CDD and --										
Fewer than 4,000 HDD	169	15.0	12.2	4.7	8.7	18.2	11.7	1.04	0.069	6.78

See footnotes at end of table.

Table CE-10. Electricity Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Electricity Consumption						Electricity Expenditures			RSE Row Factor
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)	
RSE Column Factor:	1.4	1.1	1.3	25th Percentile	Median	75th Percentile	1.2	0.9	0.5	
Workers (main shift)										
Fewer than 5	42	7.8	20.9	2.1	5.3	12.2	3.7	0.69	0.089	5.83
5 to 9	82	10.5	12.7	4.9	8.5	17.2	6.9	0.87	0.083	7.44
10 to 19	137	12.1	11.0	3.9	9.5	20.0	10.7	0.95	0.078	8.65
20 to 49	312	13.6	10.8	5.8	12.9	22.2	23.9	1.04	0.077	6.10
50 to 99	662	13.2	10.2	4.6	10.6	19.9	48.1	0.96	0.073	7.45
100 to 249	1,382	16.4	10.0	6.8	15.1	24.6	94.3	1.12	0.068	5.69
250 or More	4,784	21.7	7.1	5.9	16.4	26.8	307.6	1.40	0.064	10.33
Weekly Operating Hours										
39 or Fewer	24	3.6	3.1	0.7	2.7	5.8	2.3	0.35	0.096	11.01
40 to 48	94	9.0	7.1	3.6	6.8	12.9	7.5	0.72	0.080	5.54
49 to 60	153	12.0	8.2	3.3	6.9	15.3	11.5	0.90	0.075	9.03
61 to 84	225	12.7	9.7	4.6	10.2	18.2	17.3	0.98	0.077	6.21
85 to 167	313	20.7	18.3	11.9	31.4	55.6	23.6	1.56	0.075	6.65
Open Continuously	541	21.3	13.9	5.0	12.7	31.5	36.0	1.42	0.066	5.93
Ownership and Occupancy										
Nongovernment Owned	155	13.1	9.8	3.1	7.2	16.2	11.8	0.99	0.076	3.41
Owner Occupied	154	13.4	10.1	3.0	6.9	15.9	11.4	0.99	0.074	3.79
Nonowner Occupied	176	12.4	8.8	4.1	9.8	18.2	14.6	1.03	0.083	6.63
Unoccupied	21	2.8	Q	0.2	0.6	7.7	2.3	0.30	0.106	29.15
Government Owned	325	14.6	10.7	3.9	7.7	17.2	22.1	1.00	0.068	10.24
Space in Building Vacant for at Least Three Consecutive Months										
Yes	270	11.9	8.0	1.9	5.1	10.8	19.7	0.87	0.073	5.94
No	160	13.9	10.8	3.4	7.6	17.1	11.9	1.03	0.074	3.78
Energy Sources (more than one may apply)										
Electricity	176	13.4	10.0	3.2	7.2	16.2	13.0	0.99	0.074	3.41
Natural Gas	202	13.1	10.0	3.5	7.4	16.0	15.1	0.98	0.075	3.91
Fuel Oil	384	15.9	10.0	2.9	5.0	11.4	26.6	1.10	0.069	6.31
District Heat	972	18.9	10.3	7.4	10.2	24.3	63.3	1.23	0.065	13.88
District Chilled Water	1,042	21.9	12.4	7.7	10.2	26.8	63.3	1.33	0.061	14.70
Propane	111	12.3	8.5	2.9	5.9	12.7	9.0	1.00	0.081	11.07
Other	118	10.9	9.4	1.8	5.1	10.5	9.1	0.84	0.077	14.47
Energy End Uses (more than one may apply)										
Buildings with Space Heating	186	13.8	10.0	3.6	7.7	16.4	13.7	1.01	0.074	3.50
Buildings with Cooling	215	14.6	10.2	4.4	9.0	18.9	15.8	1.07	0.073	3.70
Buildings with Water Heating	211	14.2	10.1	3.9	8.7	18.5	15.5	1.05	0.074	3.58
Buildings with Cooking	441	17.7	11.5	5.1	13.5	35.3	31.2	1.25	0.071	5.43
Buildings with Manufacturing	225	11.8	9.3	2.6	6.3	10.5	15.9	0.84	0.071	13.77
Buildings with Electricity Generation	1,022	18.9	11.0	4.3	12.2	23.1	68.7	1.27	0.067	6.00
Space-Heating Energy Source										
Electricity	244	16.2	10.5	5.0	10.9	21.7	17.1	1.13	0.070	5.05
Electricity Main	236	17.6	11.5	5.8	12.9	23.5	16.2	1.21	0.069	6.61
Electricity Secondary	263	14.0	9.0	3.6	7.0	16.2	19.1	1.01	0.073	8.17
Other Excluding Electricity	153	12.1	9.5	3.0	6.7	14.0	11.7	0.93	0.077	3.92
Buildings without Space Heating	56	6.4	10.4	0.5	1.8	6.9	5.2	0.60	0.094	15.09
Primary Space-Heating Energy Source										
Electricity	236	17.6	11.5	5.8	12.9	23.5	16.2	1.21	0.069	6.61
Natural Gas	167	12.2	9.6	3.4	7.3	15.7	12.7	0.93	0.076	3.79
Fuel Oil	63	6.5	6.8	2.2	4.1	6.8	6.6	0.68	0.104	7.60
District Heat	941	19.1	10.2	7.4	10.2	24.6	61.3	1.25	0.065	11.12
Propane	74	12.4	Q	2.2	5.7	15.1	6.7	1.13	0.091	23.46
Other	60	6.9	10.3	1.5	1.8	9.9	4.5	0.52	0.076	21.24

See footnotes at end of table.

Table CE-10. Electricity Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Electricity Consumption						Electricity Expenditures			RSE Row Factor
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)	
RSE Column Factor:	1.4	1.1	1.3	25th Percentile	Median	75th Percentile	1.2	0.9	0.5	
Cooling Energy Source										
Electricity	209	14.4	10.1	4.3	8.9	18.6	15.4	1.06	0.074	3.70
Other Excluding Electricity	452	18.7	11.7	7.0	12.3	43.1	28.7	1.19	0.064	17.15
Buildings without Cooling	41	5.4	7.1	1.2	2.7	5.6	3.5	0.47	0.087	10.75
Water-Heating Energy Source										
Electricity	198	14.5	9.9	4.1	9.3	19.9	14.3	1.05	0.072	5.62
Other Excluding Electricity	222	14.1	10.3	3.8	8.3	16.7	16.6	1.05	0.075	3.92
Buildings without Water Heating	38	5.8	8.2	1.4	3.4	8.1	3.2	0.49	0.084	8.73
Cooking Energy Source										
Electricity	500	19.9	12.9	5.6	15.7	43.7	33.6	1.33	0.067	6.67
Other Excluding Electricity	357	14.5	9.4	4.5	10.9	22.3	27.9	1.13	0.078	7.29
Buildings without Cooking	114	11.0	8.9	2.9	6.5	14.0	8.8	0.84	0.077	3.80
Percent of Floorspace Heated										
Not Heated	56	6.4	10.4	0.5	1.8	6.9	5.2	0.60	0.094	15.09
1 to 50	78	6.9	10.0	2.0	4.7	9.3	6.4	0.56	0.082	7.89
51 to 99	205	14.6	11.2	3.9	7.3	15.2	15.5	1.10	0.076	10.39
100	203	14.7	9.7	3.9	8.8	18.6	14.7	1.06	0.073	3.51
Percent of Floorspace Cooled										
Not Cooled	41	5.4	7.1	1.2	2.7	5.6	3.5	0.47	0.087	10.75
1 to 50	113	7.0	8.6	2.7	5.2	10.8	9.3	0.58	0.082	5.27
51 to 99	335	17.0	11.1	5.2	9.8	20.3	23.9	1.21	0.071	7.08
100	224	18.2	10.3	5.8	11.9	23.5	16.2	1.31	0.072	4.42
Percent Lit when Open										
Zero	Q	Q	Q	0.7	1.9	2.4	Q	Q	Q	99.99
1 to 50	55	6.1	13.7	1.8	4.9	9.5	4.9	0.54	0.090	10.28
51 to 99	162	12.4	10.0	4.0	7.5	16.2	12.5	0.96	0.077	6.31
100	215	14.9	9.8	3.8	8.5	18.5	15.6	1.08	0.072	4.13
Building Not in Use/ Electricity Not Used	Q	Q	Q	0.1	0.3	3.4	1.8	0.22	0.096	35.29
Percent Lit when Closed										
Zero	61	7.6	7.8	2.1	4.7	10.4	5.0	0.62	0.082	5.95
1 to 50	187	12.8	8.8	4.6	9.8	19.8	14.4	0.99	0.077	4.32
51 to 100	474	21.6	16.0	6.1	8.8	21.9	31.2	1.42	0.066	24.95
Never Closed	541	21.3	13.9	5.0	12.7	31.5	36.0	1.42	0.066	5.94
Building Not in Use/ Electricity Not Used	Q	Q	Q	0.1	0.3	3.4	1.8	0.22	0.096	35.29
Annual Consumption (kilowatthours)										
10,000 or Less	5	1.3	1.8	0.6	1.8	3.3	0.6	0.16	0.116	6.98
10,001 to 50,000	26	4.3	4.4	3.2	6.1	10.8	2.6	0.44	0.102	4.02
50,001 to 100,000	71	7.6	6.2	5.8	11.6	20.5	6.7	0.72	0.094	4.42
100,001 to 500,000	214	13.1	10.5	10.2	18.4	47.0	17.6	1.07	0.082	3.72
500,001 to 1,000,000	699	15.4	11.9	12.3	22.1	46.8	51.1	1.12	0.073	4.15
1,000,001 to 5,000,000	2,033	19.6	13.0	16.5	24.7	36.7	135.0	1.30	0.066	3.31
Over 5,000,000	11,212	27.4	12.3	20.3	30.2	48.4	690.4	1.69	0.062	6.91

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1995

Building Characteristics	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/sq. ft.)				RSE Row Factor
	Northeast	Midwest	South	West	Northeast	Midwest	South	West	Northeast	Midwest	South	West	
RSE Column Factor:	1.2	1.2	0.9	1.4	1.1	0.9	0.8	1.2	0.9	0.9	0.7	1.0	
All Buildings	128	163	301	172	11,444	13,887	20,158	11,587	11.2	11.8	14.9	14.8	7.15
Building Floorspace (square feet)													
1,001 to 5,000	20	21	49	22	926	1,636	2,291	1,101	21.2	12.8	21.2	20.2	13.31
5,001 to 10,000	9	11	29	21	1,130	1,624	2,526	1,781	8.0	6.8	11.4	11.7	16.08
10,001 to 25,000	16	27	48	22	2,098	2,637	4,274	2,294	7.5	10.1	11.3	9.6	14.99
25,001 to 50,000	13	19	35	25	1,377	1,720	2,643	1,896	9.6	10.9	13.3	13.4	13.23
50,001 to 100,000	13	24	41	27	1,360	1,893	2,952	1,697	9.9	12.9	14.0	16.1	13.59
100,001 to 200,000	17	21	45	16	1,304	1,822	2,409	1,063	12.8	11.3	18.8	15.2	16.77
200,001 to 500,000	16	19	30	25	1,389	1,516	1,679	965	11.7	12.7	17.8	25.5	16.65
Over 500,000	24	22	24	13	1,860	1,039	1,384	791	12.9	21.0	17.2	16.6	18.96
Principal Building Activity													
Education	13	13	23	16	1,930	1,941	2,315	1,498	6.7	6.8	9.9	10.4	12.33
Food Sales	Q	Q	15	8	Q	Q	287	209	Q	Q	53.7	39.7	16.38
Food Service	Q	Q	21	8	Q	474	443	271	Q	22.5	47.4	31.0	27.45
Health Care	9	13	27	13	408	466	916	543	21.2	28.1	29.8	23.5	15.20
Lodging	7	12	22	13	332	909	1,313	1,047	20.7	13.6	17.0	12.7	17.17
Mercantile and Service	23	35	65	25	2,802	3,198	4,823	1,807	8.3	11.1	13.5	13.9	14.46
Office	32	40	68	58	2,146	2,335	3,483	2,503	14.8	17.1	19.5	23.4	12.71
Public Assembly	8	11	20	10	688	944	1,367	930	12.3	11.4	14.9	11.2	18.70
Public Order and Safety	4	2	4	Q	548	300	308	Q	7.7	7.9	13.6	Q	33.47
Religious Worship	1	1	4	3	442	633	1,006	711	3.0	2.2	3.8	4.3	19.53
Warehouse and Storage	12	12	20	9	1,457	1,934	3,152	1,472	7.9	6.0	6.2	6.0	20.18
Other	Q	7	9	Q	Q	402	285	Q	Q	18.5	32.8	Q	31.32
Vacant	Q	1	2	1	Q	282	460	337	Q	4.6	4.5	4.0	37.05
Year Constructed													
1919 or Before	6	14	4	4	1,161	1,458	504	404	5.6	9.5	8.8	10.8	28.79
1920 to 1945	11	17	17	7	1,547	2,098	1,646	883	6.8	7.9	10.3	7.4	20.49
1946 to 1959	21	22	30	22	1,941	2,247	3,060	1,876	10.8	9.9	9.7	11.8	16.15
1960 to 1969	24	23	53	38	2,270	2,347	3,737	2,294	10.7	9.8	14.3	16.4	12.88
1970 to 1979	24	33	73	51	1,649	2,405	4,312	2,879	14.4	13.7	16.9	17.6	12.83
1980 to 1989	29	41	86	33	2,098	2,278	5,164	2,369	13.8	18.2	16.7	14.0	13.91
1990 to 1992	6	8	22	11	432	544	1,078	491	14.9	14.2	20.6	23.2	21.11
1993 to 1995	Q	6	15	6	347	509	658	391	18.5	10.8	23.0	15.8	26.66
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	11	37	Q	5	1,074	3,457	Q	403	10.3	10.6	Q	Q	17.66
5,500-7,000 HDD	55	83	Q	29	4,889	7,461	Q	2,005	11.3	11.1	Q	14.5	13.79
4,000-5,499 HDD	62	44	64	36	5,481	2,969	4,266	1,844	11.2	14.7	15.0	19.4	16.76
Fewer than 4,000 HDD	Q	Q	114	76	Q	Q	7,651	5,618	Q	Q	14.8	13.6	11.18
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	123	26	Q	Q	8,241	1,718	Q	Q	15.0	15.3	15.71
Workers (main shift)													
Fewer than 5	16	19	42	19	2,041	3,238	4,672	2,391	7.7	5.9	9.0	7.9	14.98
5 to 9	7	16	26	17	1,057	1,746	2,082	1,384	6.7	9.2	12.5	11.9	16.42
10 to 19	12	16	40	18	1,317	1,511	2,701	1,572	9.2	10.3	14.9	11.5	18.47
20 to 49	22	28	48	26	1,778	2,390	3,212	1,723	12.5	11.6	15.0	14.8	13.36
50 to 99	12	20	38	21	1,260	1,436	2,733	1,430	9.3	13.8	13.9	14.9	12.80
100 to 249	18	22	35	23	1,428	1,579	1,755	1,212	12.4	14.0	19.7	19.2	16.33
250 or More	41	43	72	48	2,562	1,986	3,001	1,875	16.1	21.7	24.0	25.9	14.43
Weekly Operating Hours													
39 or Fewer	3	4	8	4	783	1,311	1,820	1,018	4.0	2.8	4.2	3.5	19.71
40 to 48	15	25	50	28	2,165	3,464	4,888	2,626	7.1	7.3	10.2	10.5	12.53
49 to 60	21	23	53	48	2,442	2,330	4,766	2,596	8.8	9.9	11.1	18.6	15.27
61 to 84	19	29	54	26	2,106	2,622	3,276	2,016	9.0	10.9	16.3	13.1	11.92
85 to 167	24	28	47	28	1,408	1,621	1,793	1,337	17.0	17.5	26.2	21.0	15.03
Open Continuously	45	55	90	38	2,541	2,539	3,614	1,994	17.7	21.5	24.9	19.2	12.33

See footnotes at end of table.

Table CE-11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.2	1.2	0.9	1.4	1.1	0.9	0.8	1.2	0.9	0.9	0.7	1.0	
Ownership and Occupancy													
Nongovernment Owned	96	126	244	124	8,611	11,034	16,425	9,155	11.2	11.4	14.9	13.6	7.46
Owner Occupied	79	106	199	88	6,901	9,242	12,467	6,502	11.4	11.4	16.0	13.6	7.94
Nonowner Occupied	18	20	45	36	1,620	1,621	3,716	2,562	10.8	12.4	12.0	14.0	16.02
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	32	37	57	48	2,833	2,853	3,733	2,433	11.1	13.0	15.1	19.6	15.56
Space in Building Vacant for at Least Three Consecutive Months													
Yes	28	36	72	38	2,929	3,406	5,179	3,116	9.7	10.5	14.0	12.0	12.22
No	99	128	229	134	8,515	10,481	14,978	8,472	11.7	12.2	15.3	15.9	7.99
Energy Sources (more than one may apply)													
Electricity	128	163	301	172	11,444	13,887	20,158	11,587	11.2	11.8	14.9	14.8	7.15
Natural Gas	74	128	184	113	7,074	10,819	12,289	7,826	10.5	11.8	15.0	14.5	8.52
Fuel Oil	52	47	90	39	5,368	2,669	4,166	2,142	9.7	17.5	21.7	18.3	13.32
District Heat	29	30	28	20	1,756	1,902	1,038	949	16.5	16.0	26.5	20.9	27.27
District Chilled Water	6	17	24	8	287	778	919	533	19.7	21.5	26.5	15.6	21.75
Propane	20	13	25	8	1,685	1,093	2,012	550	12.1	11.9	12.3	13.7	23.04
Other	6	8	6	4	717	558	618	339	8.7	14.1	9.5	12.9	29.69
Energy End Uses (more than one may apply)													
Buildings with Space Heating	127	162	294	162	11,096	13,422	18,852	10,741	11.4	12.1	15.6	15.1	7.30
Buildings with Cooling	118	154	297	156	9,478	11,943	18,606	9,758	12.5	12.9	16.0	16.0	7.43
Buildings with Water Heating	125	159	281	166	10,694	12,428	17,502	10,739	11.7	12.8	16.0	15.5	7.19
Buildings with Cooking	62	77	147	78	4,611	4,717	7,173	4,110	13.5	16.4	20.6	19.0	10.44
Buildings with Manufacturing	7	19	16	5	674	1,057	1,456	697	10.5	17.6	10.7	6.8	24.27
Buildings with Electricity Generation	53	53	99	47	3,858	2,738	4,360	2,391	13.8	19.4	22.6	19.5	10.81
Space-Heating Energy Source													
Electricity	47	61	169	81	3,081	4,058	9,971	5,046	15.4	15.1	16.9	16.1	11.26
Electricity Main	21	28	131	57	1,099	1,549	7,403	3,449	18.8	18.3	17.7	16.6	15.61
Electricity Secondary	27	33	38	24	1,982	2,508	2,568	1,597	13.4	13.1	14.7	14.9	15.72
Other Excluding Electricity	79	101	125	81	8,015	9,364	8,881	5,695	9.9	10.8	14.1	14.3	7.92
Buildings without Space Heating	Q	Q	7	10	Q	465	1,306	846	Q	Q	5.4	11.5	30.54
Primary Space-Heating Energy Source													
Electricity	21	28	131	57	1,099	1,549	7,403	3,449	18.8	18.3	17.7	16.6	15.61
Natural Gas	49	99	119	83	4,674	9,207	8,726	6,079	10.5	10.8	13.7	13.7	9.13
Fuel Oil	18	Q	8	Q	2,974	Q	793	Q	6.0	Q	9.6	Q	18.24
District Heat	27	30	26	19	1,588	1,839	945	905	16.8	16.2	27.4	20.6	19.71
Propane	10	2	6	Q	432	313	713	Q	23.5	6.0	8.7	Q	33.23
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Electricity	113	142	285	147	8,986	11,424	18,133	9,219	12.5	12.4	15.7	16.0	7.47
Other Excluding Electricity	6	Q	12	8	492	520	473	539	12.0	22.8	24.6	15.7	27.81
Buildings without Cooling	9	10	4	16	1,967	1,944	1,551	1,830	4.8	5.0	2.7	8.8	21.46
Water-Heating Energy Source													
Electricity	54	63	148	68	4,689	4,516	9,757	4,094	11.6	14.0	15.2	16.5	11.86
Other Excluding Electricity	71	96	133	99	6,005	7,911	7,745	6,645	11.8	12.1	17.1	14.8	7.65
Buildings without Water Heating	3	4	20	6	751	1,459	2,655	848	3.6	3.0	7.6	6.9	21.28
Cooking Energy Source													
Electricity	36	58	97	53	2,437	3,015	4,311	2,485	14.6	19.1	22.4	21.5	14.01
Other Excluding Electricity	26	20	51	25	2,174	1,702	2,862	1,624	12.2	11.5	17.7	15.1	13.06
Buildings without Cooking	66	86	154	94	6,833	9,170	12,985	7,478	9.6	9.4	11.8	12.6	8.63

See footnotes at end of table.

Table CE-11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.2	1.2	0.9	1.4	1.1	0.9	0.8	1.2	0.9	0.9	0.7	1.0	
Percent of Floorspace Heated													
Not Heated	Q	Q	7	10	Q	465	1,306	846	Q	Q	5.4	11.5	30.54
1 to 50	7	5	19	11	987	1,171	2,339	1,655	6.7	4.3	8.2	6.9	19.77
51 to 99	28	14	50	36	2,501	1,480	2,847	2,032	11.3	9.6	17.6	17.9	16.13
100	92	143	224	114	7,609	10,770	13,666	7,054	12.1	13.3	16.4	16.2	6.99
Percent of Floorspace Cooled													
Not Cooled	9	10	4	16	1,967	1,944	1,551	1,830	4.8	5.0	2.7	8.8	21.46
1 to 50	27	26	31	20	3,751	4,341	4,311	2,514	7.3	6.1	7.3	7.8	11.91
51 to 99	43	47	78	44	3,063	3,028	4,262	2,184	14.1	15.6	18.4	20.3	11.90
100	48	80	187	92	2,664	4,575	10,033	5,059	18.0	17.5	18.6	18.2	8.81
Percent Lit when Open													
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	Q	8	12	8	1,130	1,598	2,172	1,109	7.6	5.0	5.7	6.8	18.90
51 to 99	24	27	43	26	2,418	2,247	3,011	2,016	9.8	12.0	14.4	13.1	13.87
100	95	128	245	138	7,787	9,874	14,608	8,245	12.2	13.0	16.7	16.7	8.34
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed													
Zero	14	20	40	26	2,400	3,397	4,695	2,609	5.7	5.8	8.6	10.0	14.52
1 to 50	62	86	154	92	5,872	7,602	10,761	6,476	10.6	11.3	14.3	14.1	8.45
51 to 100	6	Q	16	Q	546	Q	826	345	11.0	Q	19.5	Q	24.88
Never Closed	45	55	90	38	2,541	2,539	3,614	1,983	17.7	21.5	24.9	19.2	12.36
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Annual Consumption (kilowatthours)													
10,000 or Less	1	1	2	1	518	873	1,042	627	1.2	1.2	1.6	1.2	17.51
10,001 to 50,000	6	11	16	9	1,688	2,792	3,368	1,849	3.6	4.0	4.6	4.9	11.69
50,001 to 100,000	8	10	22	12	1,316	1,407	2,500	1,653	6.1	7.0	9.0	7.4	16.63
100,001 to 500,000	33	38	79	44	2,821	3,639	5,461	2,893	11.6	10.5	14.5	15.1	10.24
500,001 to 1,000,000	14	18	38	18	1,108	1,318	2,150	1,126	12.6	14.0	17.5	15.7	15.47
1,000,001 to 5,000,000	31	46	77	46	2,205	2,511	3,381	2,080	13.8	18.4	22.6	22.1	11.79
Over 5,000,000	36	38	68	43	1,787	1,346	2,256	1,359	20.2	28.5	30.2	31.3	16.67

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-12. Electricity Expenditures by Census Region, 1995

Building Characteristics	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.7	1.6	1.3	1.9	0.4	0.6	0.4	0.7	1.2	1.1	0.9	1.5	
All Buildings	13,059	10,946	19,009	13,607	0.10	0.07	0.06	0.08	1.14	0.79	0.94	1.17	5.10
Building Floorspace (square feet)													
1,001 to 5,000	2,206	1,758	3,514	2,218	0.11	0.08	0.07	0.10	2.38	1.07	1.53	2.01	9.66
5,001 to 10,000	1,102	877	2,038	2,038	0.12	0.08	0.07	0.10	0.98	0.54	0.81	1.14	11.23
10,001 to 25,000	1,789	1,931	3,233	1,959	0.11	0.07	0.07	0.09	0.85	0.73	0.76	0.85	10.23
25,001 to 50,000	1,434	1,265	2,208	2,098	0.11	0.07	0.06	0.08	1.04	0.74	0.84	1.11	8.95
50,001 to 100,000	1,354	1,564	2,446	1,830	0.10	0.06	0.06	0.07	1.00	0.83	0.83	1.08	8.87
100,001 to 200,000	1,521	1,214	2,485	1,064	0.09	0.06	0.05	0.07	1.17	0.67	1.03	1.00	10.81
200,001 to 500,000	1,473	1,102	1,831	1,502	0.09	0.06	0.06	0.06	1.06	0.73	1.09	1.56	14.24
Over 500,000	2,180	1,235	1,255	898	0.09	0.06	0.05	0.07	1.17	1.19	0.91	1.14	11.29
Principal Building Activity													
Education	1,453	944	1,524	1,247	0.11	0.07	0.07	0.08	0.75	0.49	0.66	0.83	8.49
Food Sales	Q	Q	943	713	Q	Q	0.06	0.09	Q	Q	3.29	3.42	11.41
Food Service	Q	784	1,365	797	Q	0.07	0.07	0.09	Q	1.66	3.08	2.94	16.79
Health Care	725	692	1,471	1,014	0.08	0.05	0.05	0.08	1.78	1.49	1.61	1.87	10.20
Lodging	625	775	1,322	1,116	0.09	0.06	0.06	0.08	1.88	0.85	1.01	1.07	11.48
Mercantile and Service	2,599	2,559	4,176	2,321	0.11	0.07	0.06	0.09	0.93	0.80	0.87	1.28	9.08
Office	3,150	2,621	4,286	3,962	0.10	0.07	0.06	0.07	1.47	1.12	1.23	1.58	8.19
Public Assembly	799	737	1,381	687	0.09	0.07	0.07	0.07	1.16	0.78	1.01	0.74	15.77
Public Order and Safety	456	160	241	Q	0.11	0.07	0.06	Q	0.83	0.53	0.78	Q	18.43
Religious Worship	212	133	326	283	0.16	0.10	0.09	0.09	0.48	0.21	0.32	0.40	12.56
Warehouse and Storage	1,109	749	1,248	828	0.10	0.06	0.06	0.09	0.76	0.39	0.40	0.56	12.35
Other	Q	421	552	Q	Q	0.06	0.06	Q	Q	1.05	1.94	Q	17.52
Vacant	Q	112	175	137	Q	0.09	0.08	0.10	Q	0.40	0.38	0.41	24.22
Year Constructed													
1919 or Before	734	936	348	271	0.11	0.07	0.08	0.06	0.63	0.64	0.69	0.67	18.14
1920 to 1945	1,120	1,290	1,082	520	0.11	0.08	0.06	0.08	0.72	0.61	0.66	0.59	12.64
1946 to 1959	2,216	1,494	2,000	1,685	0.11	0.07	0.07	0.08	1.14	0.67	0.65	0.90	11.11
1960 to 1969	2,477	1,510	3,320	3,098	0.10	0.07	0.06	0.08	1.09	0.64	0.89	1.35	9.10
1970 to 1979	2,318	2,116	4,590	3,981	0.10	0.06	0.06	0.08	1.41	0.88	1.06	1.38	8.44
1980 to 1989	2,977	2,702	5,377	2,788	0.10	0.07	0.06	0.08	1.42	1.19	1.04	1.18	9.12
1990 to 1992	554	549	1,422	793	0.09	0.07	0.06	0.07	1.28	1.01	1.32	1.62	14.18
1993 to 1995	Q	347	870	471	0.10	0.06	0.06	0.08	1.91	0.68	1.32	1.20	16.94
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	1,198	2,154	Q	248	0.11	0.06	Q	0.05	1.12	0.62	Q	Q	9.38
5,500-7,000 HDD	5,662	6,022	Q	1,439	0.10	0.07	Q	0.05	1.16	0.81	Q	0.72	8.84
4,000-5,499 HDD	6,199	2,771	4,247	1,840	0.10	0.06	0.07	0.05	1.13	0.93	1.00	1.00	9.82
Fewer than 4,000 HDD	Q	Q	6,802	7,677	Q	Q	0.06	0.10	Q	Q	0.89	1.37	6.92
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	7,960	2,403	Q	Q	0.06	0.09	Q	Q	0.97	1.40	9.42
Workers (main shift)													
Fewer than 5	1,834	1,644	3,147	1,885	0.12	0.09	0.07	0.10	0.90	0.51	0.67	0.79	10.33
5 to 9	861	1,221	1,820	1,576	0.12	0.08	0.07	0.10	0.81	0.70	0.87	1.14	11.12
10 to 19	1,448	1,115	2,558	1,590	0.12	0.07	0.06	0.09	1.10	0.74	0.95	1.01	12.02
20 to 49	2,294	1,871	3,093	2,222	0.10	0.07	0.06	0.09	1.29	0.78	0.96	1.29	9.46
50 to 99	1,258	1,276	2,487	1,574	0.11	0.06	0.07	0.07	1.00	0.89	0.91	1.10	10.38
100 to 249	1,699	1,362	1,890	1,717	0.10	0.06	0.05	0.07	1.19	0.86	1.08	1.42	10.80
250 or More	3,665	2,457	4,013	3,043	0.09	0.06	0.06	0.06	1.43	1.24	1.34	1.62	9.88

See footnotes at end of table.

Table CE-12. Electricity Expenditures by Census Region, 1995 (Continued)

Building Characteristics	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.7	1.6	1.3	1.9	0.4	0.6	0.4	0.7	1.2	1.1	0.9	1.5	
Weekly Operating Hours													
39 or Fewer	362	328	658	380	0.12	0.09	0.09	0.11	0.46	0.25	0.36	0.37	14.17
40 to 48	1,774	1,810	3,453	2,398	0.11	0.07	0.07	0.09	0.82	0.52	0.71	0.91	8.57
49 to 60	2,281	1,636	3,563	3,432	0.11	0.07	0.07	0.07	0.93	0.70	0.75	1.32	10.53
61 to 84	2,027	2,096	3,383	2,301	0.11	0.07	0.06	0.09	0.96	0.80	1.03	1.14	8.07
85 to 167	2,525	1,916	2,957	2,211	0.11	0.07	0.06	0.08	1.79	1.18	1.65	1.65	12.40
Open Continuously	4,091	3,160	4,994	2,886	0.09	0.06	0.06	0.08	1.61	1.24	1.38	1.45	8.35
Ownership and Occupancy													
Nongovernment Owned	10,073	8,729	15,489	10,535	0.10	0.07	0.06	0.08	1.17	0.79	0.94	1.15	5.23
Owner Occupied	8,135	7,305	12,382	7,055	0.10	0.07	0.06	0.08	1.18	0.79	0.99	1.09	5.64
Nonowner Occupied	1,919	1,364	3,045	3,440	0.11	0.07	0.07	0.10	1.18	0.84	0.82	1.34	9.32
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	2,987	2,217	3,520	3,072	0.09	0.06	0.06	0.06	1.05	0.78	0.94	1.26	11.76
Space in Building Vacant for at Least Three Consecutive Months													
Yes	2,912	2,349	4,393	3,061	0.10	0.07	0.06	0.08	0.99	0.69	0.85	0.98	7.85
No	10,147	8,597	14,615	10,546	0.10	0.07	0.06	0.08	1.19	0.82	0.98	1.24	5.72
Energy Sources (more than one may apply)													
Electricity	13,059	10,946	19,009	13,607	0.10	0.07	0.06	0.08	1.14	0.79	0.94	1.17	5.10
Natural Gas	7,660	8,726	11,559	9,376	0.10	0.07	0.06	0.08	1.08	0.81	0.94	1.20	6.29
Fuel Oil	5,206	2,639	5,204	2,801	0.10	0.06	0.06	0.07	0.97	0.99	1.25	1.31	8.15
District Heat	2,654	1,689	1,518	1,096	0.09	0.06	0.06	0.06	1.51	0.89	1.46	1.15	18.08
District Chilled Water	482	878	1,365	618	0.09	0.05	0.06	0.07	1.68	1.13	1.49	1.16	14.81
Propane	2,251	876	1,597	599	0.11	0.07	0.06	0.08	1.34	0.80	0.79	1.09	12.34
Other	662	491	382	343	0.11	0.06	0.06	0.08	0.92	0.88	0.62	1.01	17.38
Energy End Uses (more than one may apply)													
Buildings with Space Heating	12,934	10,861	18,533	12,516	0.10	0.07	0.06	0.08	1.17	0.81	0.98	1.17	5.22
Buildings with Cooling	11,968	10,238	18,669	12,325	0.10	0.07	0.06	0.08	1.26	0.86	1.00	1.26	5.41
Buildings with Water Heating	12,722	10,557	17,594	12,973	0.10	0.07	0.06	0.08	1.19	0.85	1.01	1.21	5.22
Buildings with Cooking	6,223	4,924	9,000	5,677	0.10	0.06	0.06	0.07	1.35	1.04	1.25	1.38	7.47
Buildings with Manufacturing	709	1,095	1,040	408	0.10	0.06	0.07	0.09	1.05	1.04	0.71	0.59	14.23
Buildings with Electricity Generation	4,859	3,049	5,534	3,470	0.09	0.06	0.06	0.07	1.26	1.11	1.27	1.45	7.44
Space-Heating Energy Source													
Electricity	4,558	3,900	10,538	6,061	0.10	0.06	0.06	0.07	1.48	0.96	1.06	1.20	7.52
Electricity Main	1,843	1,779	8,272	4,386	0.09	0.06	0.06	0.08	1.68	1.15	1.12	1.27	10.22
Electricity Secondary	2,715	2,121	2,267	1,675	0.10	0.06	0.06	0.07	1.37	0.85	0.88	1.05	10.05
Other Excluding Electricity	8,376	6,961	7,995	6,454	0.11	0.07	0.06	0.08	1.04	0.74	0.90	1.13	6.06
Buildings without Space Heating	Q	85	475	1,092	Q	0.08	0.07	0.11	Q	Q	0.36	1.29	21.68
Primary Space-Heating Energy Source													
Electricity	1,843	1,779	8,272	4,386	0.09	0.06	0.06	0.08	1.68	1.15	1.12	1.27	10.22
Natural Gas	5,122	7,066	7,595	6,885	0.10	0.07	0.06	0.08	1.10	0.77	0.87	1.13	6.48
Fuel Oil	2,160	Q	551	Q	0.12	Q	0.07	Q	0.73	Q	0.70	Q	10.83
District Heat	2,450	1,654	1,436	1,032	0.09	0.06	0.06	0.06	1.54	0.90	1.52	1.14	13.86
Propane	1,099	143	432	Q	0.11	0.08	0.07	Q	2.55	0.46	0.61	Q	18.65
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Electricity	11,426	9,569	18,112	11,690	0.10	0.07	0.06	0.08	1.27	0.84	1.00	1.27	5.42
Other Excluding Electricity	542	Q	558	635	0.09	0.06	0.05	0.07	1.10	1.29	1.18	1.18	17.05
Buildings without Cooling	1,091	708	339	1,282	0.12	0.07	0.08	0.08	0.55	0.36	0.22	0.70	13.82

See footnotes at end of table.

Table CE-12. Electricity Expenditures by Census Region, 1995 (Continued)

Building Characteristics	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.7	1.6	1.3	1.9	0.4	0.6	0.4	0.7	1.2	1.1	0.9	1.5	
Water-Heating Energy Source													
Electricity	5,348	3,998	9,434	5,321	0.10	0.06	0.06	0.08	1.14	0.89	0.97	1.30	7.61
Other Excluding Electricity	7,374	6,559	8,160	7,652	0.10	0.07	0.06	0.08	1.23	0.83	1.05	1.15	6.11
Buildings without Water Heating	337	389	1,415	635	0.12	0.09	0.07	0.11	0.45	0.27	0.53	0.75	12.45
Cooking Energy Source													
Electricity	3,473	3,528	5,754	3,584	0.10	0.06	0.06	0.07	1.43	1.17	1.33	1.44	9.40
Other Excluding Electricity	2,750	1,397	3,246	2,094	0.10	0.07	0.06	0.09	1.26	0.82	1.13	1.29	9.58
Buildings without Cooking	6,836	6,022	10,009	7,930	0.10	0.07	0.07	0.08	1.00	0.66	0.77	1.06	5.92
Percent of Floorspace Heated													
Not Heated	Q	85	475	1,092	Q	0.08	0.07	0.11	Q	Q	0.36	1.29	21.68
1 to 50	704	398	1,281	1,073	0.11	0.08	0.07	0.09	0.71	0.34	0.55	0.65	12.36
51 to 99	2,943	977	3,231	2,608	0.10	0.07	0.06	0.07	1.18	0.66	1.13	1.28	12.27
100	9,287	9,486	14,021	8,834	0.10	0.07	0.06	0.08	1.22	0.88	1.03	1.25	5.10
Percent of Floorspace Cooled													
Not Cooled	1,091	708	339	1,282	0.12	0.07	0.08	0.08	0.55	0.36	0.22	0.70	13.82
1 to 50	2,943	1,935	2,152	1,612	0.11	0.07	0.07	0.08	0.78	0.45	0.50	0.64	8.36
51 to 99	4,189	3,004	4,978	3,025	0.10	0.06	0.06	0.07	1.37	0.99	1.17	1.39	8.38
100	4,836	5,300	11,540	7,688	0.10	0.07	0.06	0.08	1.82	1.16	1.15	1.52	6.44
Percent Lit when Open													
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	Q	638	875	793	0.11	0.08	0.07	0.10	0.86	0.40	0.40	0.72	12.98
51 to 99	2,428	1,774	2,954	2,190	0.10	0.07	0.07	0.08	1.00	0.79	0.98	1.09	10.10
100	9,588	8,516	15,124	10,598	0.10	0.07	0.06	0.08	1.23	0.86	1.04	1.29	5.65
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed													
Zero	1,644	1,462	2,869	2,202	0.12	0.07	0.07	0.08	0.68	0.43	0.61	0.84	10.00
1 to 50	6,640	6,104	10,151	7,565	0.11	0.07	0.07	0.08	1.13	0.80	0.94	1.17	5.80
51 to 100	616	Q	954	941	0.10	Q	0.06	0.06	1.13	Q	1.15	2.73	21.26
Never Closed	4,091	3,160	4,994	2,875	0.09	0.06	0.06	0.08	1.61	1.24	1.38	1.45	8.36
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Annual Consumption (kilowatthours)													
10,000 or Less	97	123	172	82	0.15	0.11	0.11	0.11	0.19	0.14	0.17	0.13	12.12
10,001 to 50,000	861	1,042	1,367	993	0.14	0.09	0.09	0.11	0.51	0.37	0.41	0.54	8.20
50,001 to 100,000	1,063	855	1,813	1,226	0.13	0.09	0.08	0.10	0.81	0.61	0.73	0.74	10.41
100,001 to 500,000	3,702	2,837	5,234	4,116	0.11	0.07	0.07	0.09	1.31	0.78	0.96	1.42	7.07
500,001 to 1,000,000	1,413	1,210	2,400	1,382	0.10	0.07	0.06	0.08	1.27	0.92	1.12	1.23	10.45
1,000,001 to 5,000,000	2,802	2,818	4,329	3,288	0.09	0.06	0.06	0.07	1.27	1.12	1.28	1.58	7.78
Over 5,000,000	3,121	2,060	3,693	2,520	0.09	0.05	0.05	0.06	1.75	1.53	1.64	1.85	12.12

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-13. Electricity Consumption and Conditional Energy Intensity by Building Size, 1995

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.3	1.0	1.3	1.0	0.9	1.0	1.0	0.8	0.9	
All Buildings	181	312	271	13,014	26,840	17,222	13.9	11.6	15.8	5.42
Principal Building Activity										
Education	9	36	20	654	4,623	2,408	13.1	7.8	8.3	11.55
Food Sales	21	14	Q	367	269	Q	56.6	51.5	Q	16.33
Food Service	39	10	Q	940	406	Q	41.2	24.4	Q	25.47
Health Care	4	12	46	294	556	1,483	14.4	21.3	30.8	15.34
Lodging	8	28	19	419	1,858	1,324	18.1	15.1	14.6	15.22
Mercantile and Service	44	59	46	3,965	5,384	3,280	11.0	10.9	14.1	12.16
Office	30	76	92	1,999	4,416	4,052	15.1	17.1	22.7	10.92
Public Assembly	7	27	16	1,098	1,909	922	6.8	14.0	17.0	16.68
Public Order and Safety	1	9	Q	233	755	Q	6.2	12.2	Q	32.86
Religious Worship	4	6	Q	964	1,797	Q	3.7	3.2	Q	15.49
Warehouse and Storage	11	22	19	1,408	3,784	2,824	7.5	5.7	6.8	16.55
Other	Q	12	8	Q	531	308	Q	22.4	24.4	27.83
Vacant	Q	2	Q	512	552	Q	3.7	4.1	Q	32.36
Year Constructed										
1919 or Before	10	10	Q	1,118	1,684	724	8.7	5.8	Q	17.63
1920 to 1945	15	19	17	1,608	2,566	2,001	9.1	7.3	8.7	15.44
1946 to 1959	26	43	26	2,764	4,453	1,905	9.4	9.7	13.6	13.25
1960 to 1969	28	64	46	1,985	5,162	3,502	14.0	12.4	13.2	12.26
1970 to 1979	39	60	81	2,421	4,803	4,021	16.2	12.5	20.1	10.87
1980 to 1989	40	83	66	1,984	6,212	3,713	20.2	13.4	17.9	10.59
1990 to 1992	15	16	17	655	1,022	868	22.7	15.6	19.5	14.77
1993 to 1995	9	16	8	479	938	488	18.7	17.4	16.4	23.13
Census Region and Division										
Northeast	29	42	57	2,056	4,835	4,554	13.9	8.8	12.5	10.33
New England	7	11	11	511	1,537	1,024	14.5	6.9	10.6	16.10
Middle Atlantic	21	32	46	1,545	3,298	3,529	13.8	9.6	13.0	12.41
Midwest	32	70	62	3,259	6,250	4,378	9.8	11.2	14.1	10.87
East North Central	20	44	40	2,105	4,103	3,214	9.7	10.8	12.4	12.80
West North Central	12	26	22	1,154	2,147	1,163	10.1	11.9	18.9	18.55
South	77	125	99	4,817	9,869	5,472	16.1	12.6	18.1	8.19
South Atlantic	32	55	55	2,006	4,353	2,943	16.1	12.7	18.8	11.30
East South Central	22	33	15	1,210	2,570	894	17.9	12.8	17.0	16.21
West South Central	24	37	28	1,601	2,946	1,635	14.7	12.4	17.3	13.42
West	43	75	54	2,882	5,886	2,819	15.0	12.7	19.1	13.35
Mountain	10	29	14	898	2,136	786	10.8	13.8	18.0	19.98
Pacific	33	46	40	1,984	3,750	2,033	16.8	12.1	19.6	16.17
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	14	22	16	1,439	2,503	991	10.0	8.8	16.1	18.19
5,500-7,000 HDD	35	70	63	2,728	6,536	5,091	12.9	10.6	12.3	9.90
4,000-5,499 HDD	40	71	94	3,264	5,896	5,399	12.3	12.0	17.4	13.43
Fewer than 4,000 HDD	50	84	56	2,894	7,105	3,269	17.3	11.8	17.0	12.46
More than 2,000 CDD and --										
Fewer than 4,000 HDD	42	65	43	2,688	4,799	2,472	15.4	13.6	17.4	11.57
Workers (main shift)										
Fewer than 5	72	22	Q	6,980	4,708	654	10.4	4.6	Q	11.91
5 to 9	41	24	Q	2,810	3,183	Q	14.7	7.5	Q	12.23
10 to 19	40	43	2	2,332	4,055	715	17.2	10.7	3.5	17.11
20 to 49	26	89	9	826	7,206	1,071	31.4	12.3	8.4	13.46
50 to 99	Q	62	28	Q	4,304	2,506	Q	14.4	11.2	10.32
100 to 249	Q	52	45	Q	2,539	3,420	Q	20.5	13.2	11.40
250 or More	Q	21	184	Q	846	8,579	Q	24.3	21.5	14.16

See footnotes at end of table.

Table CE-13. Electricity Consumption and Conditional Energy Intensity by Building Size, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.3	1.0	1.3	1.0	0.9	1.0	1.0	0.8	0.9	
Weekly Operating Hours										
39 or Fewer	10	7	Q	2,608	2,026	Q	3.7	3.5	Q	15.31
40 to 48	38	61	19	3,725	7,113	2,304	10.3	8.6	8.2	11.34
49 to 60	33	61	51	2,889	6,562	2,683	11.5	9.4	19.1	13.51
61 to 84	26	51	51	1,671	4,395	3,955	15.4	11.6	12.8	10.38
85 to 167	45	51	32	1,100	2,744	2,316	41.0	18.5	13.6	12.30
Open Continuously	29	80	118	1,021	4,001	5,666	28.8	20.1	20.8	11.36
Ownership and Occupancy										
Nongovernment Owned	162	242	187	11,556	21,126	12,543	14.1	11.5	14.9	5.68
Owner Occupied	128	185	158	9,422	15,666	10,022	13.6	11.8	15.8	6.21
Nonowner Occupied	33	57	28	1,842	5,271	2,405	18.2	10.7	11.7	12.61
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	19	70	85	1,458	5,714	4,679	12.9	12.2	18.1	13.11
Space in Building Vacant for at Least Three Consecutive Months										
Yes	12	62	100	1,673	5,946	7,011	7.1	10.4	14.3	11.26
No	169	250	171	11,341	20,894	10,211	14.9	12.0	16.7	6.42
Energy Sources (more than one may apply)										
Electricity	181	312	271	13,014	26,840	17,222	13.9	11.6	15.8	5.42
Natural Gas	101	211	188	7,436	18,374	12,199	13.5	11.5	15.4	6.95
Fuel Oil	15	62	152	1,570	4,545	8,231	9.3	13.5	18.5	11.57
District Heat	Q	31	70	Q	1,766	3,669	Q	17.5	19.0	19.55
District Chilled Water	Q	12	41	Q	862	1,572	Q	14.2	25.9	17.80
Propane	24	30	11	1,874	2,541	925	12.8	11.9	12.4	16.96
Other	5	12	7	654	1,044	533	8.0	11.5	13.2	25.86
Energy End Uses (more than one may apply)										
Buildings with Space Heating	174	306	266	11,955	25,526	16,629	14.5	12.0	16.0	5.50
Buildings with Cooling	161	297	267	9,893	23,615	16,277	16.3	12.6	16.4	5.50
Buildings with Water Heating	161	303	268	10,210	24,690	16,463	15.8	12.3	16.3	5.58
Buildings with Cooking	62	112	191	2,241	8,077	10,293	27.5	13.9	18.6	8.58
Buildings with Manufacturing	5	21	20	564	2,006	1,315	9.7	10.3	15.1	23.13
Buildings with Electricity Generation	8	78	165	483	4,045	8,818	17.6	19.2	18.8	12.24
Space-Heating Energy Source										
Electricity	82	148	128	4,269	10,618	7,269	19.3	13.9	17.6	8.44
Electricity Main	63	99	76	2,841	6,724	3,935	22.0	14.7	19.2	11.28
Electricity Secondary	20	49	53	1,428	3,894	3,334	13.9	12.5	15.8	12.98
Other Excluding Electricity	91	158	138	7,686	14,909	9,360	11.9	10.6	14.7	6.39
Buildings without Space Heating	8	6	5	1,059	1,314	593	7.2	4.6	8.7	32.36
Primary Space-Heating Energy Source										
Electricity	63	99	76	2,841	6,724	3,935	22.0	14.7	19.2	11.28
Natural Gas	80	156	115	6,583	14,088	8,015	12.1	11.1	14.3	6.98
Fuel Oil	9	10	7	1,241	1,948	963	7.5	5.4	7.5	16.31
District Heat	Q	30	64	Q	1,702	3,364	Q	17.9	19.1	13.60
Propane	13	6	Q	796	706	Q	15.9	8.5	Q	31.47
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-13. Electricity Consumption and Conditional Energy Intensity by Building Size, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.3	1.0	1.3	1.0	0.9	1.0	1.0	0.8	0.9	
Cooling Energy Source										
Electricity	156	286	245	9,707	22,699	15,355	16.1	12.6	16.0	5.60
Other Excluding Electricity	5	11	22	185	915	923	Q	12.0	23.8	26.07
Buildings without Cooling	20	15	4	3,121	3,225	945	6.5	4.7	4.1	21.18
Water-Heating Energy Source										
Electricity	85	129	119	4,991	10,744	7,322	17.1	12.0	16.3	9.32
Other Excluding Electricity	76	174	148	5,219	13,946	9,141	14.5	12.5	16.2	6.80
Buildings without Water Heating	20	9	4	2,804	2,150	759	7.2	4.3	4.9	19.98
Cooking Energy Source										
Electricity	45	65	133	1,327	4,224	6,698	33.8	15.5	19.9	11.16
Other Excluding Electricity	17	47	58	913	3,853	3,595	18.3	12.1	16.1	12.50
Buildings without Cooking	120	200	80	10,773	18,763	6,929	11.1	10.6	11.6	6.59
Percent of Floorspace Heated										
Not Heated	8	6	5	1,059	1,314	593	7.2	4.6	8.7	32.36
1 to 50	13	15	14	1,766	2,823	1,564	7.6	5.3	9.0	16.66
51 to 99	29	46	54	1,963	3,847	3,049	14.9	11.9	17.7	14.87
100	131	245	198	8,226	18,856	12,016	15.9	13.0	16.5	5.38
Percent of Floorspace Cooled										
Not Cooled	20	15	4	3,121	3,225	945	6.5	4.7	4.1	21.18
1 to 50	25	51	29	2,934	7,789	4,195	8.4	6.6	7.0	9.75
51 to 99	31	72	110	1,720	5,027	5,789	18.1	14.4	18.9	10.83
100	105	173	129	5,239	10,799	6,293	20.1	16.0	20.4	6.90
Percent Lit when Open										
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	17	17	3	2,053	3,207	749	8.2	5.2	3.9	17.70
51 to 99	27	48	45	2,110	4,662	2,919	13.0	10.3	15.5	11.31
100	136	246	223	8,488	18,590	13,436	16.1	13.2	16.6	6.63
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed										
Zero	43	45	11	5,087	6,706	1,308	8.4	6.8	8.6	13.13
1 to 50	104	173	118	6,335	15,230	9,147	16.4	11.4	12.9	6.42
51 to 100	5	12	Q	282	625	1,007	17.1	19.3	24.2	27.38
Never Closed	29	80	118	1,021	4,001	5,654	28.8	20.1	20.8	11.38
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Annual Consumption (kilowatthours)										
10,000 or Less	4	(*)	Q	2,572	407	Q	1.5	0.3	Q	15.15
10,001 to 50,000	36	6	Q	5,641	3,900	Q	6.3	1.6	Q	8.59
50,001 to 100,000	36	17	Q	2,405	4,239	Q	14.9	3.9	Q	9.90
100,001 to 500,000	94	97	3	2,298	10,810	1,707	40.8	9.0	1.6	9.01
500,001 to 1,000,000	Q	72	7	Q	3,902	1,717	Q	18.3	4.3	8.96
1,000,001 to 5,000,000	Q	107	90	Q	3,427	6,735	Q	31.1	13.3	7.68
Over 5,000,000	Q	Q	171	Q	Q	6,594	Q	Q	26.0	9.78

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	
All Buildings	175	508	81	18,824	33,802	4,449	9.3	15.0	18.2	6.80
Building Floorspace (square feet)										
1,001 to 5,000	28	67	17	2,315	3,088	550	12.0	21.6	31.0	15.36
5,001 to 10,000	22	41	7	3,176	3,302	583	7.1	12.3	11.6	16.92
10,001 to 25,000	34	73	6	4,047	6,829	428	8.3	10.7	13.9	13.12
25,001 to 50,000	17	63	13	2,235	4,673	726	7.8	13.4	17.5	11.67
50,001 to 100,000	21	72	14	2,421	4,675	806	8.6	15.4	16.9	14.05
100,001 to 200,000	19	70	10	1,870	4,098	631	10.0	17.0	16.5	14.46
200,001 to 500,000	17	66	7	1,683	3,519	348	10.0	18.8	20.5	14.93
Over 500,000	17	58	7	1,078	3,620	377	16.2	16.0	19.6	18.67
Principal Building Activity										
Education	24	36	5	3,467	3,687	531	6.9	9.6	9.9	11.96
Food Sales	7	19	Q	145	379	Q	47.0	49.8	Q	24.77
Food Service	10	31	Q	460	782	Q	22.4	39.2	Q	27.59
Health Care	10	46	5	508	1,600	224	20.6	28.7	24.4	15.43
Lodging	11	41	3	986	2,371	244	11.1	17.2	12.7	15.42
Mercantile and Service	32	100	17	3,748	7,817	1,066	8.5	12.8	15.6	14.28
Office	41	142	15	3,015	6,666	785	13.7	21.3	18.8	11.60
Public Assembly	14	27	9	1,581	1,940	408	8.7	14.1	21.4	19.52
Public Order and Safety	4	9	Q	417	753	Q	9.6	11.7	Q	39.16
Religious Worship	3	6	Q	991	1,643	Q	2.9	3.7	Q	18.03
Warehouse and Storage	11	35	6	2,419	5,026	571	4.5	6.9	10.2	19.78
Other	Q	15	Q	Q	597	Q	Q	24.6	Q	34.23
Vacant	2	3	Q	791	542	Q	3.0	4.8	Q	33.26
Census Region and Division										
Northeast	38	77	13	4,649	6,017	779	8.2	12.8	16.5	15.43
New England	7	20	Q	1,085	1,782	Q	6.2	11.5	Q	17.78
Middle Atlantic	31	57	11	3,564	4,235	574	8.8	13.4	19.4	19.19
Midwest	53	98	13	5,804	7,030	1,053	9.1	13.9	12.6	13.07
East North Central	33	62	10	4,287	4,456	679	7.7	13.8	14.3	15.48
West North Central	20	36	4	1,516	2,575	374	13.0	14.0	9.4	20.54
South	51	212	37	5,209	13,213	1,736	9.8	16.1	21.5	10.13
South Atlantic	23	101	18	2,174	6,237	890	10.5	16.3	20.8	14.07
East South Central	10	52	0	951	3,339	383	10.6	15.5	21.0	21.95
West South Central	18	59	11	2,083	3,636	463	8.8	16.3	23.4	17.78
West	33	121	18	3,163	7,543	882	10.5	16.1	20.0	14.74
Mountain	16	31	Q	1,423	2,121	277	10.9	14.7	23.4	25.75
Pacific	18	90	11	1,740	5,422	605	10.1	16.6	18.4	17.69
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	11	35	6	1,621	2,901	412	6.9	12.1	14.5	20.14
5,500-7,000 HDD	52	98	17	6,271	7,125	960	8.4	13.7	18.1	14.04
4,000-5,499 HDD	55	129	21	5,265	7,988	1,305	10.5	16.1	15.9	14.16
Fewer than 4,000 HDD	33	136	21	3,247	8,942	1,079	10.1	15.2	19.8	13.71
More than 2,000 CDD and --										
Fewer than 4,000 HDD	23	111	15	2,420	6,847	693	9.6	16.2	22.3	14.28
Workers (main shift)										
Fewer than 5	31	53	12	5,314	6,087	941	5.9	8.7	12.9	14.13
5 to 9	22	40	4	2,831	3,198	240	7.6	12.5	16.5	15.43
10 to 19	17	58	11	2,437	4,179	486	7.0	13.8	22.7	16.05
20 to 49	33	74	17	3,128	5,133	842	10.4	14.4	20.1	12.49
50 to 99	18	64	9	1,756	4,470	633	10.2	14.2	14.8	12.47
100 to 249	19	68	11	1,625	3,718	632	11.9	18.2	17.0	13.85
250 or More	35	152	17	1,733	7,017	675	20.5	21.7	25.1	14.71

See footnotes at end of table.

Table CE-14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	
Weekly Operating Hours										
39 or Fewer	7	10	1	2,220	2,370	341	3.2	4.1	3.8	17.26
40 to 48	39	68	11	5,828	6,368	946	6.7	10.7	12.0	12.44
49 to 60	33	97	16	3,939	7,234	960	8.3	13.5	16.2	14.44
61 to 84	24	90	13	2,592	6,745	684	9.4	13.3	19.2	11.24
85 to 167	26	86	16	1,565	4,054	540	16.6	21.1	29.1	14.34
Open Continuously	46	158	24	2,680	7,031	978	17.1	22.4	24.6	12.90
Ownership and Occupancy										
Nongovernment Owned	119	404	67	14,039	27,599	3,586	8.5	14.7	18.8	7.43
Owner Occupied	102	311	58	11,549	20,655	2,907	8.8	15.1	20.1	7.88
Nonowner Occupied	17	92	9	2,147	6,695	677	8.0	13.7	13.6	13.10
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	56	104	14	4,785	6,203	863	11.6	16.8	15.7	13.10
Space in Building Vacant for at Least Three Consecutive Months										
Yes	29	129	16	4,231	9,433	965	6.9	13.7	16.2	9.77
No	146	379	65	14,593	24,369	3,484	10.0	15.5	18.8	7.53
Energy Sources (more than one may apply)										
Electricity	175	508	81	18,824	33,802	4,449	9.3	15.0	18.2	6.80
Natural Gas	125	323	51	13,605	21,679	2,724	9.2	14.9	18.9	8.21
Fuel Oil	46	161	21	4,277	8,890	1,178	10.6	18.1	18.1	11.95
District Heat	39	58	Q	2,359	2,869	Q	16.5	20.3	Q	20.75
District Chilled Water	16	34	4	661	1,598	258	24.8	21.4	17.3	22.54
Propane	11	48	7	1,192	3,523	626	9.0	13.7	10.6	19.45
Other	7	15	Q	914	1,167	Q	7.2	13.0	Q	26.42
Energy End Uses (more than one may apply)										
Buildings with Space Heating	173	492	80	17,929	31,913	4,269	9.6	15.4	18.8	6.90
Buildings with Cooling	161	485	79	15,328	30,490	3,967	10.5	15.9	19.9	7.17
Buildings with Water Heating	166	489	75	16,580	30,882	3,901	10.0	15.8	19.3	6.80
Buildings with Cooking	75	246	44	5,949	12,827	1,834	12.5	19.2	24.1	9.57
Buildings with Manufacturing	14	28	Q	1,406	2,163	Q	10.2	13.0	Q	28.08
Buildings with Electricity Generation	43	182	27	2,720	9,309	1,317	15.7	19.6	20.2	10.96
Space-Heating Energy Source										
Electricity	56	257	45	5,262	14,735	2,158	10.6	17.5	20.9	9.65
Electricity Main	26	178	34	2,257	9,892	1,351	11.4	18.0	24.8	13.07
Electricity Secondary	30	79	12	3,005	4,843	807	10.1	16.3	14.3	12.53
Other Excluding Electricity	117	235	35	12,667	17,177	2,110	9.2	13.7	16.7	8.27
Buildings without Space Heating	2	16	Q	895	1,890	Q	2.4	8.5	Q	30.01
Primary Space-Heating Energy Source										
Electricity	26	178	34	2,257	9,892	1,351	11.4	18.0	24.8	13.07
Natural Gas	93	223	35	10,746	15,895	2,046	8.6	14.0	17.0	8.35
Fuel Oil	11	14	Q	2,046	1,894	Q	5.5	7.6	Q	18.11
District Heat	38	55	8	2,262	2,653	362	16.8	20.6	23.2	19.83
Propane	Q	16	Q	160	1,163	Q	Q	13.7	Q	37.85
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	
Cooling Energy Source										
Electricity	148	464	75	14,852	29,150	3,759	9.9	15.9	20.1	7.00
Other Excluding Electricity	13	21	Q	476	1,340	Q	28.2	15.7	Q	28.92
Buildings without Cooling	14	23	2	3,496	3,313	483	4.0	7.0	4.7	19.15
Water-Heating Energy Source										
Electricity	61	235	38	5,750	15,217	2,089	10.5	15.4	18.1	10.82
Other Excluding Electricity	106	254	37	10,829	15,665	1,812	9.8	16.2	20.7	7.67
Buildings without Water Heating	8	19	6	2,245	2,921	548	3.8	6.5	10.4	21.50
Cooking Energy Source										
Electricity	43	170	30	2,990	8,080	1,178	14.3	21.0	25.9	12.44
Other Excluding Electricity	32	76	14	2,959	4,747	656	10.7	16.0	21.0	13.24
Buildings without Cooking	100	262	37	12,875	20,975	2,615	7.8	12.5	14.1	8.23
Percent of Floorspace Heated										
Not Heated	2	16	Q	895	1,890	Q	2.4	8.5	Q	30.01
1 to 50	11	29	3	2,356	3,463	334	4.5	8.3	8.9	18.97
51 to 99	27	88	13	3,048	5,117	694	9.0	17.2	19.4	16.06
100	135	375	64	12,525	23,333	3,241	10.8	16.1	19.7	7.19
Percent of Floorspace Cooled										
Not Cooled	14	23	2	3,496	3,313	483	4.0	7.0	4.7	19.15
1 to 50	37	62	6	6,364	7,857	696	5.9	7.9	8.3	11.71
51 to 99	46	148	18	3,748	7,818	971	12.4	19.0	18.9	10.73
100	77	275	55	5,217	14,815	2,300	14.8	18.5	23.8	9.48
Percent Lit when Open										
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	15	16	Q	3,136	2,543	329	4.9	6.4	Q	15.20
51 to 99	34	78	9	3,726	5,374	592	9.0	14.5	15.5	12.51
100	125	414	67	11,516	25,500	3,498	10.8	16.2	19.2	7.78
Building Not in Use/ Electricity Not Used	Q	Q	Q	382	Q	Q	Q	Q	Q	30.13
Percent Lit when Closed										
Zero	31	58	11	5,111	6,944	1,046	6.0	8.3	10.4	13.67
1 to 50	94	262	39	10,234	18,325	2,152	9.2	14.3	18.0	7.99
51 to 100	4	30	Q	418	1,230	Q	8.7	24.6	Q	35.68
Never Closed	46	158	24	2,680	7,019	978	17.1	22.5	24.6	12.92
Building Not in Use/ Electricity Not Used	Q	Q	Q	382	Q	Q	Q	Q	Q	30.13
Annual Consumption (kilowatthours)										
10,000 or Less	2	2	Q	1,544	1,319	Q	1.2	1.4	Q	14.99
10,001 to 50,000	17	21	4	4,315	4,684	699	4.0	4.4	5.4	12.26
50,001 to 100,000	17	32	3	2,721	3,918	237	6.4	8.3	11.6	15.31
100,001 to 500,000	55	117	22	5,464	8,303	1,049	10.1	14.1	20.9	11.17
500,001 to 1,000,000	16	60	12	1,355	3,726	621	11.5	16.2	18.9	15.00
1,000,001 to 5,000,000	35	139	25	2,261	6,843	1,074	15.4	20.3	23.7	9.94
Over 5,000,000	33	137	15	1,165	5,009	574	28.1	27.4	26.2	17.38

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-15. Season of Peak Electricity Demand, Number of Buildings and Floorspace, 1995

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	0.9	0.7	0.9	1.3	2.0	0.9	0.6	0.7	1.0	2.0	
All Buildings	2,121	2,223	1,361	671	191	18,371	38,705	24,462	11,872	2,371	8.41
Building Floorspace (square feet)											
1,001 to 5,000	1,296	957	584	276	97	3,334	2,619	1,633	756	230	13.36
5,001 to 10,000	466	504	313	144	47	3,407	3,654	2,283	1,022	349	15.56
10,001 to 25,000	256	468	281	156	31	3,815	7,488	4,538	2,378	573	15.29
25,001 to 50,000	60	151	88	53	10	2,180	5,455	3,143	1,942	370	12.92
50,001 to 100,000	26	88	59	26	Q	1,788	6,114	4,034	1,836	Q	12.30
100,001 to 200,000	10	36	23	11	Q	1,416	5,182	3,272	1,589	Q	17.23
200,001 to 500,000	4	14	10	4	Q	1,328	4,222	2,837	1,177	Q	17.08
Over 500,000	1	4	3	1	Q	1,103	3,971	2,723	1,172	Q	20.55
Principal Building Activity											
Education	110	198	124	67	8	2,237	5,448	3,159	1,901	388	16.07
Food Sales	38	99	54	Q	Q	155	486	338	Q	Q	28.22
Food Service	95	189	147	Q	Q	427	926	778	Q	Q	24.95
Health Care	33	72	35	37	Q	515	1,818	1,474	305	Q	25.73
Lodging	69	89	49	39	Q	974	2,626	1,490	1,089	Q	22.37
Mercantile and Service	630	644	327	218	100	4,344	8,286	4,580	2,832	874	14.25
Office	356	349	249	96	5	2,739	7,728	5,332	2,213	182	15.13
Public Assembly	181	145	103	29	Q	1,442	2,487	1,636	660	Q	24.28
Public Order and Safety	47	40	35	Q	Q	439	832	649	Q	Q	42.14
Religious Worship	168	102	67	28	Q	1,324	1,468	934	451	Q	29.03
Warehouse and Storage	290	187	100	55	32	2,806	5,209	3,156	1,618	435	21.72
Other	Q	49	38	Q	Q	295	705	610	Q	Q	47.65
Vacant	85	59	Q	18	Q	673	685	Q	296	Q	31.45
Year Constructed											
1919 or Before	172	163	85	57	Q	1,503	2,024	1,225	557	Q	23.98
1920 to 1945	274	234	146	64	24	2,076	4,099	2,346	1,322	431	21.48
1946 to 1959	427	411	262	115	34	3,106	6,017	3,869	1,839	309	17.24
1960 to 1969	358	337	219	83	35	3,190	7,459	4,922	2,026	511	16.54
1970 to 1979	342	466	277	152	37	3,499	7,746	4,896	2,456	395	14.81
1980 to 1989	328	464	285	142	38	3,528	8,381	5,368	2,686	328	15.60
1990 to 1992	121	83	52	30	Q	833	1,711	1,116	532	Q	23.34
1993 to 1995	98	64	36	26	Q	637	1,268	721	455	Q	31.75
Census Region and Division											
Northeast	242	455	274	146	34	2,845	8,599	5,511	2,667	421	18.19
New England	108	82	49	32	Q	1,497	1,575	949	580	Q	32.79
Middle Atlantic	134	373	226	114	Q	1,347	7,025	4,562	2,087	Q	21.51
Midwest	587	486	297	128	62	5,136	8,751	5,311	2,577	863	17.24
East North Central	385	313	183	83	47	3,554	5,868	3,236	1,940	692	21.63
West North Central	202	173	114	Q	Q	1,582	2,883	2,075	637	Q	26.48
South	793	855	529	256	70	5,792	14,365	9,250	4,319	796	12.40
South Atlantic	326	316	196	104	17	2,325	6,977	4,444	2,235	297	17.00
East South Central	279	159	92	59	Q	2,235	2,438	1,605	776	Q	30.78
West South Central	188	380	241	94	46	Q	4,950	3,201	1,308	442	16.16
West	499	426	261	140	Q	4,599	6,989	4,389	2,309	291	19.32
Mountain	154	149	83	46	Q	1,396	2,425	1,364	880	Q	32.77
Pacific	345	277	178	94	5	3,202	4,564	3,025	1,429	110	22.60
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	283	183	133	34	Q	1,951	2,983	2,001	706	Q	30.46
5,500-7,000 HDD	413	522	284	182	57	4,952	9,403	5,095	3,471	837	16.98
4,000-5,499 HDD	550	455	252	164	39	4,385	10,174	6,458	3,357	358	17.17
Fewer than 4,000 HDD	537	514	340	154	20	5,435	7,833	5,387	2,012	433	21.80
More than 2,000 CDD and --											
Fewer than 4,000 HDD	337	548	352	136	60	1,648	8,312	5,520	2,325	467	15.72

See footnotes at end of table.

Table CE-15. Season of Peak Electricity Demand, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	0.9	0.7	0.9	1.3	2.0	0.9	0.6	0.7	1.0	2.0	
Workers (main shift)											
Fewer than 5	1,290	984	550	313	121	6,022	6,320	3,361	2,165	794	12.58
5 to 9	344	453	298	120	Q	2,122	4,148	2,564	1,175	Q	17.64
10 to 19	300	325	213	98	Q	2,933	4,168	2,631	1,342	195	16.32
20 to 49	120	276	174	86	16	2,446	6,657	4,123	2,141	393	15.73
50 to 99	36	101	67	31	Q	1,448	5,412	3,434	1,815	Q	16.46
100 to 249	16	55	37	16	Q	1,464	4,511	2,995	1,357	Q	15.31
250 or More	Q	30	21	7	Q	1,936	7,488	5,353	1,877	Q	15.02
Weekly Operating Hours											
39 or Fewer	511	235	134	64	Q	2,795	2,137	1,370	567	Q	22.71
40 to 48	672	582	355	185	42	4,595	8,547	5,287	2,786	474	13.61
49 to 60	438	511	308	152	52	3,895	8,239	4,879	2,655	705	14.95
61 to 84	225	341	204	107	30	2,999	7,022	3,913	2,621	489	16.74
85 to 167	116	291	194	76	Q	1,732	4,427	3,126	1,001	Q	15.96
Open Continuously	159	262	166	86	10	2,356	8,332	5,887	2,242	203	15.84
Ownership and Occupancy											
Nongovernment Owned	1,898	1,913	1,166	583	164	15,339	29,885	18,785	9,321	1,779	9.28
Owner Occupied	1,559	1,504	912	460	132	11,957	23,153	14,510	7,333	1,311	10.01
Nonowner Occupied	295	374	238	110	26	3,062	6,457	4,117	1,893	446	18.15
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	223	310	195	87	27	3,032	8,819	5,677	2,551	592	15.13
Space in Building Vacant for at Least Three Consecutive Months											
Yes	358	288	178	83	27	4,918	9,712	6,270	2,872	570	16.55
No	1,762	1,935	1,183	588	164	13,453	28,993	18,192	9,000	1,801	8.83
Energy Sources (more than one may apply)											
Electricity	2,121	2,223	1,361	671	191	18,371	38,705	24,462	11,872	2,371	8.41
Natural Gas	1,075	1,401	948	331	122	11,339	26,670	17,982	6,992	1,696	10.43
Fuel Oil	331	264	156	82	Q	4,157	10,188	6,861	2,857	Q	18.51
District Heat	Q	84	60	22	Q	1,317	4,329	3,301	879	Q	36.45
District Chilled Water	10	43	Q	14	Q	582	1,935	1,300	536	Q	33.83
Propane	319	270	178	91	Q	1,955	3,386	2,216	1,105	Q	20.93
Other	116	90	47	Q	Q	709	1,522	813	516	Q	32.07
Energy End Uses (more than one may apply)											
Buildings with Space Heating	1,913	2,091	1,290	619	182	17,165	36,945	23,634	11,158	2,154	8.47
Buildings with Cooling	1,489	1,887	1,203	542	142	14,706	35,079	22,902	10,247	1,930	8.58
Buildings with Water Heating	1,593	1,879	1,176	552	151	15,637	35,726	22,988	10,771	1,967	8.92
Buildings with Cooking	304	523	381	122	20	5,734	14,876	9,912	4,323	642	11.68
Buildings with Manufacturing	83	121	75	38	Q	1,112	2,772	1,986	686	Q	23.46
Buildings with Electricity Generation	84	162	105	50	Q	2,877	10,470	7,367	2,888	Q	15.90
Space-Heating Energy Source											
Electricity	685	783	350	369	63	6,772	15,383	7,901	6,736	746	12.09
Electricity Main	461	546	227	269	50	4,054	9,447	4,451	4,598	397	13.14
Electricity Secondary	224	237	123	100	Q	2,719	5,937	3,450	2,138	Q	16.69
Other Excluding Electricity	1,228	1,308	939	250	118	10,393	21,562	15,732	4,422	1,408	10.32
Buildings without Space Heating	208	132	71	51	Q	1,207	1,759	828	714	Q	31.43

See footnotes at end of table.

Table CE-15. Season of Peak Electricity Demand, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	0.9	0.7	0.9	1.3	2.0	0.9	0.6	0.7	1.0	2.0	
Primary Space-Heating Energy Source											
Electricity	461	546	227	269	50	4,054	9,447	4,451	4,598	397	13.14
Natural Gas	937	1,168	804	251	113	8,934	19,752	13,705	4,589	1,458	11.33
Fuel Oil	269	158	102	51	Q	1,739	2,413	1,535	781	Q	26.32
District Heat	26	82	58	22	Q	1,286	3,992	3,054	793	Q	28.94
Propane	160	100	81	Q	Q	777	765	554	Q	Q	30.57
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source											
Electricity	1,469	1,824	1,167	515	141	14,229	33,533	21,877	9,748	1,908	8.72
Other Excluding Electricity	20	63	35	Q	Q	477	1,546	1,025	498	Q	34.05
Buildings without Cooling	631	336	158	128	49	3,666	3,626	1,560	1,625	441	20.14
Water-Heating Energy Source											
Electricity	838	846	453	329	64	7,074	15,982	9,394	5,870	717	12.36
Other Excluding Electricity	755	1,033	723	223	87	8,563	19,743	13,593	4,901	1,249	10.92
Buildings without Water Heating	528	344	185	119	40	2,734	2,979	1,474	1,100	404	19.31
Cooking Energy Source											
Electricity	188	299	214	78	Q	3,350	8,899	5,795	2,823	Q	14.61
Other Excluding Electricity	116	224	167	45	12	2,385	5,977	4,117	1,500	360	15.78
Buildings without Cooking	1,817	1,700	980	548	171	12,637	23,828	14,550	7,549	1,729	9.47
Percent of Floorspace Heated											
Not Heated	208	132	71	51	Q	1,207	1,759	828	714	Q	31.43
1 to 50	301	242	138	48	56	2,181	3,971	2,331	1,077	564	20.98
51 to 99	304	326	210	97	19	3,099	5,761	3,717	1,776	268	17.12
100	1,308	1,523	941	475	107	11,885	27,214	17,586	8,305	1,323	9.38
Percent of Floorspace Cooled											
Not Cooled	631	336	158	128	49	3,666	3,626	1,560	1,625	441	20.14
1 to 50	468	458	240	156	61	5,127	9,790	5,200	3,553	1,037	14.38
51 to 99	253	382	280	78	23	3,214	9,322	6,837	2,164	321	14.66
100	768	1,047	682	308	58	6,364	15,967	10,864	4,530	573	11.69
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	393	272	146	82	45	2,710	3,298	1,747	1,059	492	18.84
51 to 99	306	439	279	123	38	2,891	6,801	4,444	2,040	317	15.70
100	1,351	1,463	902	452	109	12,272	28,242	18,047	8,635	1,560	9.86
Building Not in Use/ Electricity Not Used	48	Q	Q	Q	Q	378	Q	Q	Q	Q	40.91
Percent Lit when Closed											
Zero	945	699	424	185	90	5,432	7,669	4,362	2,250	1,057	13.97
1 to 50	929	1,180	724	365	91	9,772	20,940	13,144	6,734	1,061	10.39
51 to 100	40	47	25	Q	Q	434	1,480	893	Q	Q	31.89
Never Closed	159	262	166	86	10	2,356	8,321	5,887	2,231	203	15.86
Building Not in Use/ Electricity Not Used	48	Q	Q	Q	Q	378	Q	Q	Q	Q	40.91
Annual Consumption (kilowatthours)											
10,000 or Less	668	160	108	Q	Q	2,480	579	340	Q	Q	22.44
10,001 to 50,000	924	705	399	216	90	5,335	4,362	2,305	1,501	556	15.94
50,001 to 100,000	258	484	294	155	36	2,223	4,653	2,733	1,505	414	18.59
100,001 to 500,000	222	682	422	225	36	3,587	11,229	6,577	3,962	689	12.64
500,001 to 1,000,000	26	100	72	25	Q	1,236	4,466	2,946	1,296	Q	16.84
1,000,001 to 5,000,000	19	79	57	20	Q	1,973	8,205	5,775	2,169	Q	14.72
Over 5,000,000	4	13	10	3	Q	1,537	5,211	3,785	1,315	Q	20.99

See footnotes at end of table.

Table CE-15. Season of Peak Electricity Demand, Number of Buildings and Floorspace, 1995 (Continued)

Building Characteristics	Number of Buildings (thousand)					Total Floorspace (million square feet)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	0.9	0.7	0.9	1.3	2.0	0.9	0.6	0.7	1.0	2.0	
Peak Electricity Demand (kilowatts)											
10 or Less	Q	284	164	59	61	Q	1,311	533	Q	351	20.40
11 to 25	Q	589	360	163	66	Q	3,621	1,935	1,320	366	19.13
26 to 50	Q	561	358	174	30	Q	5,062	3,255	1,359	448	17.31
51 to 100	Q	387	250	124	14	Q	5,699	3,582	1,826	291	16.13
101 to 250	Q	262	149	96	17	Q	7,670	4,726	2,476	468	13.57
251 to 1,000	Q	116	70	44	Q	Q	8,883	6,302	2,256	Q	13.05
Over 1,000	Q	23	11	11	Q	Q	6,458	4,129	2,207	Q	14.89

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-16. Electricity Consumption and Conditional Energy Intensity by Season of Peak Demand, 1995

Building Characteristics	Total Electricity Consumption (billion kWh)					Electricity Energy Intensity (kWh/sq. ft.)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	1.3	0.7	0.9	1.1	2.1	0.9	0.6	0.7	0.8	1.8	
All Buildings	186	579	403	156	20	10.10	14.95	16.46	13.11	8.64	8.51
Building Floorspace (square feet)											
1,001 to 5,000	37	74	46	24	4	11.23	28.26	28.33	31.86	15.91	15.82
5,001 to 10,000	22	48	31	13	4	6.42	13.10	13.78	12.35	10.89	17.40
10,001 to 25,000	29	83	55	26	2	7.70	11.13	12.05	11.05	4.15	15.08
25,001 to 50,000	19	73	48	23	2	8.79	13.46	15.38	11.75	6.15	12.53
50,001 to 100,000	20	87	66	20	Q	11.13	14.17	16.35	10.63	Q	15.09
100,001 to 200,000	24	74	52	18	Q	17.12	14.37	15.84	11.53	Q	15.30
200,001 to 500,000	15	74	56	16	Q	11.64	17.65	19.91	13.84	Q	21.79
Over 500,000	18	65	48	16	Q	16.38	16.27	17.54	13.38	Q	20.60
Principal Building Activity											
Education	17	48	29	17	2	7.53	8.78	9.22	8.84	4.93	10.55
Food Sales	7	27	16	Q	Q	47.85	56.16	47.70	Q	Q	18.81
Food Service	10	39	32	Q	Q	23.61	41.69	41.49	Q	Q	27.68
Health Care	13	49	40	7	Q	25.87	26.68	27.45	23.25	Q	14.30
Lodging	12	43	24	18	Q	12.06	16.41	16.25	16.95	Q	16.70
Mercantile and Service	38	111	72	32	6	8.75	13.37	15.75	11.43	7.16	14.82
Office	46	152	107	42	3	16.67	19.71	20.10	18.87	18.68	13.49
Public Assembly	13	37	28	7	Q	8.98	14.85	16.96	10.97	Q	18.69
Public Order and Safety	3	11	9	Q	Q	6.96	13.58	14.32	Q	Q	47.97
Religious Worship	4	6	4	2	Q	2.96	3.84	4.12	3.59	Q	20.20
Warehouse and Storage	14	37	26	9	Q	5.14	7.13	8.26	5.28	5.83	19.14
Other	Q	16	13	Q	Q	20.78	22.69	20.94	Q	Q	28.79
Vacant	2	3	Q	2	Q	2.86	4.84	Q	5.10	Q	33.41
Year Constructed											
1919 or Before	6	23	17	4	Q	4.16	11.29	13.69	8.03	Q	29.85
1920 to 1945	12	38	27	11	1	5.97	9.36	11.35	8.04	2.58	17.23
1946 to 1959	25	70	47	21	3	8.02	11.67	12.09	11.37	8.10	15.64
1960 to 1969	29	109	84	21	5	9.03	14.68	17.00	10.45	9.07	16.35
1970 to 1979	44	136	92	41	3	12.59	17.58	18.81	16.62	8.31	15.77
1980 to 1989	47	143	99	39	5	13.25	17.07	18.37	14.54	16.48	13.00
1990 to 1992	13	34	23	11	Q	16.04	20.12	20.50	19.91	Q	20.93
1993 to 1995	9	24	15	Q	Q	14.15	19.11	21.20	Q	Q	27.10
Census Region and Division											
Northeast	19	109	76	31	2	6.60	12.69	13.77	11.57	5.58	14.92
New England	10	19	13	5	Q	6.73	11.93	13.80	9.33	Q	18.12
Middle Atlantic	9	90	63	25	Q	6.45	12.86	13.76	12.19	Q	19.22
Midwest	39	125	87	33	Q	7.54	14.25	16.36	12.64	6.09	14.56
East North Central	27	77	50	23	Q	7.67	13.12	15.55	11.73	5.68	17.17
West North Central	11	48	37	10	Q	7.25	16.56	17.63	15.41	Q	25.03
South	73	228	157	61	10	12.65	15.85	16.97	14.08	12.52	11.90
South Atlantic	24	119	82	33	4	10.20	17.07	18.38	14.86	14.08	13.72
East South Central	32	38	26	11	Q	14.28	15.51	16.17	13.99	Q	32.73
West South Central	Q	71	49	17	5	14.33	14.30	15.40	12.78	10.81	16.25
West	55	117	83	31	3	11.91	16.78	18.91	13.58	10.02	17.73
Mountain	16	37	23	13	Q	11.31	15.46	17.11	14.30	Q	30.58
Pacific	39	80	60	19	1	12.17	17.47	19.71	13.14	12.21	21.69

See footnotes at end of table.

Table CE-16. Electricity Consumption and Conditional Energy Intensity by Season of Peak Demand, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)					Electricity Energy Intensity (kWh/sq. ft.)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	1.3	0.7	0.9	1.1	2.1	0.9	0.6	0.7	0.8	1.8	
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	12	40	31	8	Q	6.37	13.37	15.41	10.79	Q	21.62
5,500-7,000 HDD	45	123	75	42	Q	9.03	13.05	14.75	12.22	6.12	15.05
4,000-5,499 HDD	44	161	116	42	3	9.97	15.85	17.98	12.66	7.40	16.93
Fewer than 4,000 HDD	70	120	86	30	4	12.79	15.35	15.94	14.89	10.25	17.49
More than 2,000 CDD and --											
Fewer than 4,000 HDD	15	135	95	33	7	9.17	16.20	17.16	14.23	14.65	16.21
Workers (main shift)											
Fewer than 5	32	64	35	24	6	5.32	10.10	10.27	11.01	6.94	17.19
5 to 9	17	48	32	14	Q	8.08	11.68	12.66	11.75	Q	18.94
10 to 19	30	56	39	15	2	10.14	13.45	14.93	11.20	8.96	17.66
20 to 49	27	96	65	29	3	11.08	14.49	15.74	13.34	7.66	14.19
50 to 99	20	71	50	20	Q	13.48	13.17	14.66	10.86	Q	13.34
100 to 249	22	75	56	18	Q	15.23	16.72	18.55	13.34	Q	15.49
250 or More	38	167	126	37	Q	19.45	22.33	23.48	19.46	Q	15.18
Weekly Operating Hours											
39 or Fewer	6	12	7	3	Q	2.31	5.40	5.42	5.08	Q	21.62
40 to 48	35	83	54	25	4	7.61	9.73	10.29	9.00	7.81	13.83
49 to 60	36	109	76	29	5	9.30	13.29	15.50	10.85	7.17	17.72
61 to 84	36	92	55	32	4	11.89	13.07	14.15	12.33	8.40	12.27
85 to 167	33	94	72	20	Q	19.27	21.24	23.07	19.94	Q	14.71
Open Continuously	39	189	138	47	4	16.50	22.65	23.40	20.76	21.85	13.28
Ownership and Occupancy											
Nongovernment Owned	152	440	299	125	16	9.89	14.71	15.93	13.38	8.82	8.70
Owner Occupied	121	351	239	99	12	10.10	15.15	16.50	13.52	9.40	9.59
Nonowner Occupied	30	88	59	25	3	9.87	13.60	14.43	13.34	7.04	15.17
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	34	139	103	31	5	11.18	15.78	18.23	12.10	8.12	16.30
Space in Building Vacant for at Least Three Consecutive Months											
Yes	50	124	84	34	6	10.20	12.78	13.42	11.94	9.91	13.41
No	135	455	319	121	15	10.06	15.68	17.51	13.48	8.24	9.15
Energy Sources (more than one may apply)											
Electricity	186	579	403	156	20	10.10	14.95	16.46	13.11	8.64	8.51
Natural Gas	118	381	284	84	13	10.45	14.29	15.77	12.06	7.71	9.52
Fuel Oil	51	177	133	38	Q	12.27	17.39	19.44	13.33	Q	12.40
District Heat	25	82	67	14	Q	18.82	18.93	20.35	15.50	Q	24.03
District Chilled Water	12	43	33	8	Q	20.85	22.18	25.28	15.66	Q	23.45
Propane	13	52	40	12	Q	6.78	15.47	18.15	10.47	Q	21.13
Other	6	18	13	5	Q	8.85	11.86	15.44	9.42	Q	26.48
Energy End Uses (more than one may apply)											
Buildings with Space Heating	183	563	394	149	19	10.66	15.23	16.67	13.39	8.89	8.69
Buildings with Cooling	171	554	390	145	19	11.60	15.80	17.03	14.15	9.99	8.51
Buildings with Water Heating	174	557	391	148	19	11.13	15.60	16.99	13.70	9.64	8.56
Buildings with Cooking	81	283	210	66	7	14.19	19.05	21.21	15.19	11.58	11.29
Buildings with Manufacturing	9	37	30	6	Q	8.18	13.32	15.08	8.41	Q	25.35
Buildings with Electricity Generation	47	205	155	44	Q	16.34	19.55	21.03	15.38	Q	10.07

See footnotes at end of table.

Table CE-16. Electricity Consumption and Conditional Energy Intensity by Season of Peak Demand, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)					Electricity Energy Intensity (kWh/sq. ft.)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	1.3	0.7	0.9	1.1	2.1	0.9	0.6	0.7	0.8	1.8	
Space-Heating Energy Source											
Electricity	87	272	159	104	9	12.77	17.67	20.10	15.44	12.13	11.80
Electricity Main	53	184	98	79	7	13.12	19.50	21.97	17.29	17.38	14.45
Electricity Secondary	33	88	61	25	2	12.25	14.77	17.69	11.46	6.16	15.71
Other Excluding Electricity	96	291	235	45	10	9.28	13.48	14.94	10.28	7.18	9.67
Buildings without Space Heating	3	16	9	6	Q	2.16	9.25	10.62	8.60	Q	35.97
Primary Space-Heating Energy Source											
Electricity	53	184	98	79	7	13.12	19.50	21.97	17.29	17.38	14.45
Natural Gas	92	258	201	48	10	10.33	13.08	14.66	10.38	6.69	9.73
Fuel Oil	7	20	13	6	Q	4.26	8.15	8.68	7.52	Q	18.89
District Heat	24	77	64	12	Q	18.68	19.27	20.87	15.31	Q	19.35
Propane	4	15	12	Q	Q	5.21	19.72	22.31	Q	Q	41.55
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source											
Electricity	162	525	368	139	19	11.36	15.67	16.80	14.24	10.02	8.53
Other Excluding Electricity	9	29	23	6	Q	18.71	18.70	22.02	12.39	Q	31.66
Buildings without Cooling	15	24	13	11	1	4.09	6.74	8.09	6.54	2.73	23.75
Water-Heating Energy Source											
Electricity	77	256	161	86	9	10.95	16.01	17.13	14.65	12.54	12.67
Other Excluding Electricity	97	301	230	62	10	11.28	15.26	16.90	12.56	7.98	9.41
Buildings without Water Heating	11	22	12	8	2	4.19	7.25	8.18	7.29	3.76	24.77
Cooking Energy Source											
Electricity	59	184	135	45	Q	17.62	20.71	23.34	15.77	Q	13.41
Other Excluding Electricity	22	99	75	21	3	9.37	16.57	18.21	14.10	8.06	13.72
Buildings without Cooking	104	295	192	90	13	8.24	12.40	13.23	11.91	7.55	9.44
Percent of Floorspace Heated											
Not Heated	3	16	9	6	Q	2.16	9.25	10.62	8.60	Q	35.97
1 to 50	13	30	21	7	2	5.77	7.51	9.13	6.07	3.55	18.02
51 to 99	31	98	72	23	3	9.92	17.06	19.27	13.06	12.95	19.15
100	140	434	301	120	14	11.75	15.96	17.12	14.41	10.35	8.30
Percent of Floorspace Cooled											
Not Cooled	15	24	13	11	1	4.09	6.74	8.09	6.54	2.73	23.75
1 to 50	31	74	44	25	6	5.97	7.60	8.39	7.02	5.65	11.38
51 to 99	44	169	130	34	5	13.81	18.09	18.98	15.60	15.92	14.23
100	95	311	217	86	8	15.01	19.50	19.95	19.05	14.53	10.09
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	11	25	12	12	2	4.09	7.71	7.00	10.92	3.35	22.13
51 to 99	27	93	64	26	4	9.40	13.74	14.48	12.52	11.25	12.88
100	147	459	325	118	15	11.97	16.23	18.02	13.68	9.79	9.54
Building Not in Use/ Electricity Not Used	(*)	Q	Q	Q	Q	0.85	Q	Q	Q	Q	33.84
Percent Lit when Closed											
Zero	34	66	44	17	5	6.19	8.60	9.99	7.67	4.81	14.93
1 to 50	105	290	197	82	10	10.72	13.83	15.00	12.23	9.53	9.16
51 to 100	8	33	Q	Q	Q	18.32	22.50	26.06	Q	Q	42.56
Never Closed	39	189	138	46	4	16.50	22.67	23.40	20.81	21.85	13.29
Building Not in Use/ Electricity Not Used	(*)	Q	Q	Q	Q	0.85	Q	Q	Q	Q	33.84

See footnotes at end of table.

Table CE-16. Electricity Consumption and Conditional Energy Intensity by Season of Peak Demand, 1995 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)					Electricity Energy Intensity (kWh/sq. ft.)					RSE Row Factor
			Season of Peak Electricity Demand					Season of Peak Electricity Demand			
	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	Buildings Not Demand-Metered	Demand-Metered Buildings	Summer	Winter	Summer and Winter	
RSE Column Factor:	1.3	0.7	0.9	1.1	2.1	0.9	0.6	0.7	0.8	1.8	
Annual Consumption (kilowatthours)											
10,000 or Less	3	1	1	Q	Q	1.29	1.53	1.72	Q	Q	19.05
10,001 to 50,000	22	20	11	6	2	4.12	4.58	4.97	4.02	4.43	13.91
50,001 to 100,000	18	35	21	11	2	7.97	7.48	7.72	7.45	5.95	15.03
100,001 to 500,000	48	146	88	51	6	13.34	13.00	13.44	12.88	9.43	12.08
500,001 to 1,000,000	17	70	51	18	Q	13.92	15.77	17.30	13.60	Q	16.58
1,000,001 to 5,000,000	39	160	118	38	Q	19.92	19.51	20.39	17.64	Q	10.51
Over 5,000,000	38	147	112	31	Q	24.89	28.17	29.72	23.77	Q	18.47
Peak Electricity Demand (kilowatts)											
10 or Less	Q	4	2	1	1	Q	2.99	3.72	Q	2.87	21.24
11 to 25	Q	23	15	6	3	Q	6.45	7.54	4.72	6.98	17.53
26 to 50	Q	53	34	15	4	Q	10.43	10.41	11.24	8.18	18.02
51 to 100	Q	63	41	20	2	Q	11.14	11.55	11.10	6.28	15.39
101 to 250	Q	109	74	32	4	Q	14.24	15.58	12.93	7.67	13.65
251 to 1,000	Q	164	122	37	Q	Q	18.43	19.36	16.43	Q	10.58
Over 1,000	Q	162	115	44	Q	Q	25.11	27.91	19.84	Q	16.12

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-17. Peak Electricity Demand Category, Number of Buildings, 1995

(Thousand)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.6	1.3	1.2	1.1	1.2	0.9	0.9	1.0	
All Buildings	2,223	284	589	561	387	262	116	23	9.53
Building Floorspace (square feet)									
1,001 to 5,000	957	218	350	222	112	46	Q	Q	14.74
5,001 to 10,000	504	46	149	169	107	26	Q	Q	19.01
10,001 to 25,000	468	Q	82	147	121	88	13	Q	17.89
25,001 to 50,000	151	Q	5	17	32	62	29	Q	13.25
50,001 to 100,000	88	Q	Q	4	13	33	33	4	15.50
100,001 to 200,000	36	Q	Q	Q	2	6	22	5	17.18
200,001 to 500,000	14	Q	Q	Q	Q	2	6	6	16.79
Over 500,000	4	Q	Q	Q	Q	Q	1	4	16.79
Principal Building Activity									
Education	198	Q	Q	68	32	33	24	2	18.89
Food Sales	99	Q	Q	Q	Q	Q	Q	Q	27.72
Food Service	189	Q	Q	57	44	38	Q	Q	25.18
Health Care	72	Q	Q	Q	Q	Q	5	3	24.30
Lodging	89	Q	Q	20	16	24	12	2	27.63
Mercantile and Service	644	101	237	131	99	49	25	3	17.65
Office	349	Q	110	73	58	42	23	9	19.35
Public Assembly	145	Q	Q	32	46	12	9	1	26.67
Public Order and Safety	40	Q	Q	Q	Q	5	Q	Q	34.08
Religious Worship	102	Q	18	43	26	5	Q	Q	32.26
Warehouse and Storage	187	36	54	47	28	15	6	1	25.57
Other	49	Q	Q	Q	Q	Q	Q	Q	59.01
Vacant	59	Q	Q	Q	Q	Q	Q	Q	45.13
Year Constructed									
1919 or Before	163	Q	47	43	21	16	3	Q	32.97
1920 to 1945	234	42	73	57	35	22	5	1	23.29
1946 to 1959	411	67	134	87	56	48	16	2	20.19
1960 to 1969	337	53	66	71	72	49	23	4	20.03
1970 to 1979	466	50	124	150	69	46	22	5	15.61
1980 to 1989	464	Q	119	115	105	57	35	7	19.19
1990 to 1992	83	Q	Q	24	23	13	7	2	30.45
1993 to 1995	64	Q	Q	Q	Q	Q	6	1	32.79
Census Region and Division									
Northeast	455	65	150	99	77	47	13	4	16.49
New England	82	Q	Q	23	22	8	3	1	30.35
Middle Atlantic	373	Q	132	76	55	39	10	4	17.78
Midwest	486	86	107	101	94	62	30	7	19.70
East North Central	313	67	80	63	46	28	23	6	24.51
West North Central	173	Q	Q	38	48	33	7	1	27.41
South	855	86	241	219	152	106	45	6	13.74
South Atlantic	316	Q	54	94	55	52	23	4	18.51
East South Central	159	Q	63	21	Q	25	9	1	32.69
West South Central	380	Q	124	104	62	29	13	2	19.31
West	426	47	90	143	64	48	29	6	25.45
Mountain	149	Q	28	51	25	23	13	Q	41.00
Pacific	277	40	62	92	39	26	16	2	29.35
Climate Zone: 45-Year Average									
Fewer than 2,000 CDD and --									
More than 7,000 HDD	183	Q	43	52	45	21	7	1	27.51
5,500-7,000 HDD	522	82	120	130	79	71	31	10	20.35
4,000-5,499 HDD	455	75	126	84	80	58	26	6	19.87
Fewer than 4,000 HDD	514	55	140	139	105	51	21	3	24.54
More than 2,000 CDD and --									
Fewer than 4,000 HDD	548	58	161	157	77	61	31	3	17.19

See footnotes at end of table.

Table CE-17. Peak Electricity Demand Category, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.6	1.3	1.2	1.1	1.2	0.9	0.9	1.0	
Workers (main shift)									
Fewer than 5	984	232	356	246	99	39	Q	Q	15.33
5 to 9	453	Q	140	177	68	29	Q	Q	20.48
10 to 19	325	Q	63	87	114	37	7	Q	20.84
20 to 49	276	Q	26	34	85	103	24	Q	17.88
50 to 99	101	Q	Q	Q	16	35	27	4	16.37
100 to 249	55	Q	Q	Q	5	16	25	4	18.53
250 or More	30	Q	Q	Q	Q	3	13	12	17.25
Weekly Operating Hours									
39 or Fewer	235	62	80	47	30	12	3	Q	29.32
40 to 48	582	77	168	164	92	57	23	1	18.69
49 to 60	511	61	181	107	87	52	19	5	19.15
61 to 84	341	Q	74	93	61	42	20	5	19.26
85 to 167	291	Q	Q	81	80	50	17	2	20.25
Open Continuously	262	Q	41	68	37	50	35	9	19.93
Ownership and Occupancy									
Nongovernment Owned	1,913	251	524	490	341	206	84	16	10.74
Owner Occupied	1,504	189	402	404	267	165	64	14	11.88
Nonowner Occupied	374	38	114	85	74	40	20	3	20.33
Unoccupied	35	Q	Q	Q	Q	Q	Q	Q	49.96
Government Owned	310	Q	65	71	46	56	32	7	17.34
Space in Building Vacant for at Least Three Consecutive Months									
Yes	288	70	73	52	24	41	21	7	17.21
No	1,935	214	516	510	363	221	95	16	10.27
Energy Sources (more than one may apply)									
Electricity	2,223	284	589	561	387	262	116	23	10.36
Natural Gas	1,401	158	400	331	249	166	80	16	13.83
Fuel Oil	264	Q	60	75	24	27	26	10	19.12
District Heat	84	Q	Q	Q	13	13	10	5	30.93
District Chilled Water	43	Q	Q	Q	Q	5	5	2	25.99
Propane	270	Q	58	79	63	28	9	1	27.26
Other	90	Q	Q	Q	Q	4	5	Q	31.08
Energy End Uses (more than one may apply)									
Buildings with Space Heating	2,091	231	545	549	371	257	114	23	9.62
Buildings with Cooling	1,887	150	483	512	357	253	110	23	10.09
Buildings with Water Heating	1,879	167	453	495	372	256	114	22	9.97
Buildings with Cooking	523	Q	76	127	141	105	46	13	13.41
Buildings with Manufacturing	121	Q	Q	36	26	21	5	2	27.55
Buildings with Electricity Generation	162	Q	Q	33	20	33	34	12	17.37
Space-Heating Energy Source									
Electricity	783	32	158	237	164	123	58	11	14.62
Electricity Main	546	Q	110	161	114	90	42	6	15.91
Electricity Secondary	237	Q	48	77	50	32	16	5	22.11
Other Excluding Electricity	1,308	199	387	312	207	135	56	12	12.01
Buildings without Space Heating	132	53	44	Q	Q	5	Q	Q	31.57
Primary Space-Heating Energy Source									
Electricity	546	Q	110	161	114	90	42	6	15.91
Natural Gas	1,168	147	343	278	205	127	56	12	13.21
Fuel Oil	158	Q	50	48	17	10	4	Q	28.73
District Heat	82	Q	Q	Q	12	13	10	4	21.94
Propane	100	Q	Q	Q	Q	Q	Q	Q	27.60
Other	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-17. Peak Electricity Demand Category, Number of Buildings, 1995 (Continued)

(Thousand)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.6	1.3	1.2	1.1	1.2	0.9	0.9	1.0	
Cooling Energy Source									
Electricity	1,824	149	475	478	351	242	108	21	10.16
Other Excluding Electricity	63	Q	Q	Q	7	Q	3	1	32.56
Buildings without Cooling	336	134	106	50	30	10	Q	Q	21.17
Water-Heating Energy Source									
Electricity	846	73	179	252	177	108	49	8	14.40
Other Excluding Electricity	1,033	94	275	243	195	148	65	14	13.45
Buildings without Water Heating	344	117	135	67	15	6	Q	Q	21.63
Cooking Energy Source									
Electricity	299	Q	40	79	71	68	27	8	17.74
Other Excluding Electricity	224	Q	36	48	70	36	19	5	20.73
Buildings without Cooking	1,700	270	512	435	246	158	70	10	11.84
Percent of Floorspace Heated									
Not Heated	132	53	44	Q	Q	5	Q	Q	31.57
1 to 50	242	Q	81	59	33	15	4	1	28.21
51 to 99	326	Q	105	90	71	24	17	3	19.87
100	1,523	166	359	401	267	219	93	19	10.48
Percent of Floorspace Cooled									
Not Cooled	336	134	106	50	30	10	Q	Q	21.17
1 to 50	458	Q	137	122	88	55	14	3	18.62
51 to 99	382	Q	104	103	67	55	27	8	17.46
100	1,047	93	242	286	202	142	69	12	12.47
Percent Lit when Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	272	46	108	53	36	24	4	Q	26.26
51 to 99	439	Q	137	117	63	52	19	3	20.30
100	1,463	146	341	391	287	186	93	19	10.89
Building Not in Use/ Electricity Not Used	34	Q	Q	Q	Q	Q	Q	Q	64.29
Percent Lit when Closed									
Zero	699	127	219	176	129	35	11	Q	16.84
1 to 50	1,180	98	314	306	213	173	63	13	13.15
51 to 100	47	Q	Q	Q	Q	4	7	Q	29.78
Never Closed	262	Q	41	68	37	50	35	9	22.15
Building Not in Use/ Electricity Not Used	34	Q	Q	Q	Q	Q	Q	Q	64.29
Annual Consumption (kilowatthours)									
10,000 or Less	160	134	Q	Q	Q	Q	Q	Q	26.62
10,001 to 50,000	705	144	393	119	43	Q	Q	Q	17.44
50,001 to 100,000	484	Q	172	222	65	Q	Q	Q	17.58
100,001 to 500,000	682	Q	Q	214	278	161	21	Q	14.65
500,001 to 1,000,000	100	Q	Q	Q	Q	73	24	Q	16.62
1,000,001 to 5,000,000	79	Q	Q	Q	Q	7	65	7	16.64
Over 5,000,000	13	Q	Q	Q	Q	Q	Q	12	17.04

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-18. Peak Electricity Demand Category, Floorspace, 1995

(Million Square Feet)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.5	1.7	1.4	1.3	1.1	0.8	0.8	0.9	
All Buildings	38,705	1,311	3,621	5,062	5,699	7,670	8,883	6,458	8.77
Building Floorspace (square feet)									
1,001 to 5,000	2,619	569	889	645	366	135	Q	Q	15.97
5,001 to 10,000	3,654	332	1,085	1,111	841	230	Q	Q	19.07
10,001 to 25,000	7,488	Q	1,190	2,327	2,027	1,450	238	Q	18.02
25,001 to 50,000	5,455	Q	176	561	1,095	2,259	1,099	Q	13.86
50,001 to 100,000	6,114	Q	Q	308	858	2,169	2,376	310	16.63
100,001 to 200,000	5,182	Q	Q	Q	383	848	3,012	676	19.96
200,001 to 500,000	4,222	Q	Q	Q	Q	420	1,616	2,011	19.13
Over 500,000	3,971	Q	Q	Q	Q	Q	473	3,331	20.34
Principal Building Activity									
Education	5,448	Q	Q	682	804	1,574	1,797	428	18.34
Food Sales	486	Q	Q	Q	Q	Q	Q	Q	30.34
Food Service	926	Q	Q	208	173	339	Q	Q	27.11
Health Care	1,818	Q	Q	Q	Q	246	387	909	21.33
Lodging	2,626	Q	Q	245	254	746	856	431	24.55
Mercantile and Service	8,286	380	1,510	1,057	1,317	1,207	1,601	1,214	16.59
Office	7,728	Q	469	725	869	1,263	2,070	2,261	16.52
Public Assembly	2,487	Q	Q	280	566	478	560	364	25.56
Public Order and Safety	832	Q	Q	Q	Q	214	Q	Q	39.28
Religious Worship	1,468	Q	Q	530	435	183	Q	Q	32.55
Warehouse and Storage	5,209	392	601	802	948	1,064	900	503	22.94
Other	705	Q	Q	Q	Q	Q	Q	Q	46.06
Vacant	685	Q	Q	Q	Q	Q	Q	Q	33.49
Year Constructed									
1919 or Before	2,024	Q	334	414	420	372	210	Q	25.98
1920 to 1945	4,099	200	644	669	754	690	657	484	23.67
1946 to 1959	6,017	279	808	900	1,029	1,399	1,015	588	18.71
1960 to 1969	7,459	Q	459	709	977	1,806	2,111	1,114	16.78
1970 to 1979	7,746	304	498	1,120	840	1,315	1,906	1,763	14.46
1980 to 1989	8,381	Q	707	995	1,329	1,517	2,048	1,715	15.81
1990 to 1992	1,711	Q	Q	139	239	333	525	418	24.53
1993 to 1995	1,268	Q	Q	Q	Q	236	411	233	24.46
Census Region and Division									
Northeast	8,599	287	1,154	963	1,208	1,451	1,565	1,973	17.32
New England	1,575	Q	Q	227	288	376	328	193	27.31
Middle Atlantic	7,025	Q	1,029	736	919	1,075	1,237	1,780	19.78
Midwest	8,751	383	595	1,029	1,382	1,923	2,123	1,316	16.46
East North Central	5,868	336	523	735	832	1,111	1,462	868	19.80
West North Central	2,883	Q	Q	294	550	812	661	447	26.05
South	14,365	496	1,387	1,689	2,229	2,954	3,571	2,039	14.69
South Atlantic	6,977	Q	424	733	1,020	1,396	1,994	1,266	18.26
East South Central	2,438	Q	211	220	373	605	630	217	38.99
West South Central	4,950	Q	752	736	836	952	947	556	20.33
West	6,989	145	485	1,381	881	1,342	1,624	1,131	20.76
Mountain	2,425	Q	109	Q	328	532	567	Q	38.49
Pacific	4,564	126	376	820	553	810	1,057	821	23.65
Climate Zone: 45-Year Average									
Fewer than 2,000 CDD and --									
More than 7,000 HDD	2,983	Q	165	466	650	680	671	300	27.36
5,500-7,000 HDD	9,403	360	806	1,320	1,343	1,987	2,026	1,561	16.97
4,000-5,499 HDD	10,174	312	1,009	936	1,227	1,740	2,565	2,385	16.68
Fewer than 4,000 HDD	7,833	214	847	1,029	1,315	1,643	1,658	1,128	23.88
More than 2,000 CDD and --									
Fewer than 4,000 HDD	8,312	373	794	1,312	1,164	1,621	1,963	1,085	18.32

See footnotes at end of table.

Table CE-18. Peak Electricity Demand Category, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.5	1.7	1.4	1.3	1.1	0.8	0.8	0.9	
Workers (main shift)									
Fewer than 5	6,320	922	1,942	1,571	1,032	546	274	Q	16.90
5 to 9	4,148	Q	773	1,688	740	681	Q	Q	17.57
10 to 19	4,168	Q	455	931	1,504	900	271	Q	19.04
20 to 49	6,657	Q	329	522	1,612	2,627	1,417	Q	16.02
50 to 99	5,412	Q	Q	212	537	1,665	2,291	475	17.90
100 to 249	4,511	Q	Q	Q	207	936	2,544	679	18.77
250 or More	7,488	Q	Q	Q	Q	316	1,952	5,105	17.11
Weekly Operating Hours									
39 or Fewer	2,137	266	451	438	432	368	158	Q	23.36
40 to 48	8,547	300	1,119	1,780	1,694	1,843	1,431	379	17.25
49 to 60	8,239	382	1,107	1,021	1,422	1,565	1,646	1,095	16.24
61 to 84	7,022	Q	471	860	820	1,383	1,884	1,427	17.21
85 to 167	4,427	Q	Q	402	784	1,051	1,418	424	19.36
Open Continuously	8,332	Q	254	560	547	1,459	2,346	3,110	14.47
Ownership and Occupancy									
Nongovernment Owned	29,885	1,171	3,149	4,350	4,726	5,594	6,289	4,607	9.95
Owner Occupied	23,153	930	2,233	3,672	3,462	4,302	4,495	4,059	11.01
Nonowner Occupied	6,457	118	871	632	1,254	1,281	1,760	541	16.96
Unoccupied	275	Q	Q	Q	Q	Q	Q	Q	58.05
Government Owned	8,819	Q	472	712	973	2,077	2,595	1,851	14.95
Space in Building Vacant for at Least Three Consecutive Months									
Yes	9,712	305	659	921	796	1,601	2,494	2,936	14.89
No	28,993	1,006	2,962	4,141	4,903	6,069	6,389	3,523	9.80
Energy Sources (more than one may apply)									
Electricity	38,705	1,311	3,621	5,062	5,699	7,670	8,883	6,458	9.33
Natural Gas	26,670	580	2,465	3,398	3,972	5,248	6,305	4,703	10.77
Fuel Oil	10,188	Q	418	763	499	1,312	3,024	4,018	17.97
District Heat	4,329	Q	Q	Q	370	702	1,253	1,583	27.76
District Chilled Water	1,935	Q	Q	Q	Q	276	512	777	22.22
Propane	3,386	Q	384	565	688	671	764	210	25.07
Other	1,522	Q	Q	Q	Q	255	415	212	33.07
Energy End Uses (more than one may apply)									
Buildings with Space Heating	36,945	857	3,167	4,931	5,516	7,453	8,762	6,261	8.37
Buildings with Cooling	35,079	518	2,771	4,520	5,134	7,097	8,620	6,419	8.60
Buildings with Water Heating	35,726	714	2,531	4,554	5,466	7,321	8,764	6,375	8.54
Buildings with Cooking	14,876	Q	422	973	1,656	2,735	4,224	4,792	12.24
Buildings with Manufacturing	2,772	Q	128	389	479	651	547	507	25.40
Buildings with Electricity Generation	10,470	Q	Q	361	384	1,495	3,451	4,586	15.52
Space-Heating Energy Source									
Electricity	15,383	178	816	1,957	2,173	2,976	4,209	3,074	12.97
Electricity Main	9,447	Q	472	1,126	1,278	1,975	2,735	1,731	15.30
Electricity Secondary	5,937	Q	344	831	895	1,002	1,473	1,343	17.09
Other Excluding Electricity	21,562	678	2,351	2,974	3,343	4,476	4,553	3,187	10.26
Buildings without Space Heating	1,759	455	454	Q	Q	217	Q	Q	30.93
Primary Space-Heating Energy Source									
Electricity	9,447	Q	472	1,126	1,278	1,975	2,735	1,731	15.30
Natural Gas	19,752	521	2,122	2,862	3,292	3,950	4,141	2,862	10.85
Fuel Oil	2,413	Q	341	405	342	524	575	Q	26.09
District Heat	3,992	Q	Q	Q	342	696	1,131	1,417	19.16
Propane	765	Q	Q	Q	Q	Q	Q	Q	39.87
Other	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-18. Peak Electricity Demand Category, Floorspace, 1995 (Continued)

(Million Square Feet)

Building Characteristics	Demand-Metered Buildings	10 kW or Less	11 to 25 kW	26 to 50 kW	51 to 100 kW	101 to 250 kW	251 to 1,000 kW	Over 1,000 kW	RSE Row Factor
RSE Column Factor:	0.5	1.7	1.4	1.3	1.1	0.8	0.8	0.9	
Cooling Energy Source									
Electricity	33,533	514	2,689	4,177	5,037	6,877	8,293	5,946	8.65
Other Excluding Electricity	1,546	Q	Q	Q	98	220	328	472	27.41
Buildings without Cooling	3,626	793	850	542	565	573	263	Q	22.85
Water-Heating Energy Source									
Electricity	15,982	334	1,039	2,195	2,633	3,048	3,728	3,005	13.38
Other Excluding Electricity	19,743	380	1,492	2,359	2,833	4,273	5,035	3,370	9.86
Buildings without Water Heating	2,979	597	1,090	508	233	349	Q	Q	22.78
Cooking Energy Source									
Electricity	8,899	Q	144	598	835	1,474	2,580	3,235	16.31
Other Excluding Electricity	5,977	Q	278	375	821	1,261	1,645	1,557	17.27
Buildings without Cooking	23,828	1,238	3,199	4,088	4,044	4,935	4,659	1,666	10.91
Percent of Floorspace Heated									
Not Heated	1,759	455	454	Q	Q	217	Q	Q	30.93
1 to 50	3,971	Q	730	805	813	595	419	373	26.95
51 to 99	5,761	Q	636	817	840	782	1,465	1,159	18.71
100	27,214	558	1,801	3,309	3,863	6,076	6,877	4,729	9.00
Percent of Floorspace Cooled									
Not Cooled	3,626	793	850	542	565	573	263	Q	22.85
1 to 50	9,790	Q	1,141	1,798	1,842	2,302	1,597	911	15.16
51 to 99	9,322	Q	537	822	757	1,625	2,675	2,864	15.14
100	15,967	278	1,092	1,900	2,535	3,170	4,348	2,643	11.73
Percent Lit when Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	3,298	291	880	583	502	609	338	Q	20.60
51 to 99	6,801	Q	710	1,196	826	1,278	1,698	913	15.31
100	28,242	658	2,002	3,240	4,343	5,740	6,815	5,443	10.23
Building Not In Use/ Electricity Not Used	295	Q	Q	Q	Q	Q	Q	Q	56.67
Percent Lit when Closed									
Zero	7,669	570	1,565	1,793	1,708	1,261	624	Q	15.72
1 to 50	20,940	484	1,677	2,597	3,334	4,734	5,264	2,849	11.78
51 to 100	1,480	Q	Q	Q	Q	181	618	Q	29.73
Never Closed	8,321	Q	254	560	547	1,459	2,346	3,099	16.34
Building Not In Use/ Electricity Not Used	295	Q	Q	Q	Q	Q	Q	Q	56.67
Annual Consumption (kilowatthours)									
10,000 or Less	579	505	Q	Q	Q	Q	Q	Q	27.58
10,001 to 50,000	4,362	797	2,262	880	390	Q	Q	Q	18.38
50,001 to 100,000	4,653	Q	1,235	2,505	755	Q	Q	Q	18.77
100,001 to 500,000	11,229	Q	Q	1,667	4,526	4,463	431	Q	12.63
500,001 to 1,000,000	4,466	Q	Q	Q	Q	2,707	1,614	Q	13.58
1,000,001 to 5,000,000	8,205	Q	Q	Q	Q	397	6,612	1,195	17.61
Over 5,000,000	5,211	Q	Q	Q	Q	Q	Q	5,063	15.54

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-19. Distribution of Peak Watts per Square Foot and Load Factors, 1995

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			RSE Row Factor
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
RSE Column Factor:	1.1	0.9	1.0							
All Buildings	2,223	38,705	579	2.72	5.40	9.71	.164	.253	.357	5.54
Building Floorspace (square feet)										
1,001 to 5,000	957	2,619	74	4.67	8.00	15.11	.156	.239	.357	8.89
5,001 to 10,000	504	3,654	48	2.57	5.20	8.15	.155	.248	.325	10.48
10,001 to 25,000	468	7,488	83	1.92	3.26	5.31	.180	.246	.350	10.51
25,001 to 50,000	151	5,455	73	2.02	3.63	6.40	.220	.295	.404	8.84
50,001 to 100,000	88	6,114	87	1.85	3.20	5.37	.239	.337	.447	7.64
100,001 to 200,000	36	5,182	74	1.62	3.52	5.47	.291	.393	.515	9.00
200,001 to 500,000	14	4,222	74	1.63	3.10	5.57	.321	.458	.574	13.21
Over 500,000	4	3,971	65	1.81	3.16	4.48	.443	.521	.630	11.00
Principal Building Activity										
Education	198	5,448	48	2.33	4.29	9.33	.156	.210	.281	9.86
Food Sales	99	486	27	9.71	14.67	22.00	.373	.463	.590	17.06
Food Service	189	926	39	7.50	12.67	23.20	.241	.333	.406	18.37
Health Care	72	1,818	49	4.00	5.89	10.22	.187	.253	.408	13.21
Lodging	89	2,626	43	2.55	4.89	8.33	.270	.364	.440	13.40
Mercantile and Service	644	8,286	111	2.36	4.91	8.80	.159	.249	.327	9.94
Office	349	7,728	152	3.40	6.00	7.99	.187	.285	.357	11.52
Public Assembly	145	2,487	37	3.33	5.52	8.29	.129	.197	.274	14.59
Public Order and Safety	40	832	11	2.24	5.00	5.14	.198	.280	.404	28.88
Religious Worship	102	1,468	6	2.40	4.20	8.40	.079	.092	.179	18.90
Warehouse and Storage	187	5,209	37	1.23	2.22	3.40	.171	.265	.401	15.64
Other	49	705	16	7.00	7.33	17.47	.041	.227	.272	29.70
Vacant	59	685	3	.80	2.40	3.20	.135	.189	.312	25.21
Year Constructed										
1919 or Before	163	2,024	23	1.92	4.00	8.57	.152	.231	.331	19.45
1920 to 1945	234	4,099	38	2.00	4.67	7.57	.154	.240	.341	13.84
1946 to 1959	411	6,017	70	2.25	4.24	7.37	.184	.231	.316	11.97
1960 to 1969	337	7,459	109	2.64	5.85	10.29	.162	.266	.389	10.67
1970 to 1979	466	7,746	136	3.20	6.20	10.40	.179	.259	.374	8.96
1980 to 1989	464	8,381	143	3.12	6.00	12.67	.160	.269	.377	9.33
1990 to 1992	83	1,711	34	5.88	8.00	15.00	.178	.292	.409	14.37
1993 to 1995	64	1,268	24	2.22	4.91	10.50	.197	.295	.405	20.49
Census Region and Division										
Northeast	455	8,599	109	2.25	3.67	7.43	.195	.260	.384	10.47
New England	82	1,575	19	3.00	5.25	10.40	.189	.295	.406	15.92
Middle Atlantic	373	7,025	90	2.22	3.29	7.33	.195	.246	.356	12.57
Midwest	486	8,751	125	2.17	5.10	8.67	.164	.238	.331	11.04
East North Central	313	5,868	77	1.89	4.50	7.58	.159	.238	.336	13.69
West North Central	173	2,883	48	3.10	6.80	12.80	.175	.228	.319	18.19
South	855	14,365	228	3.20	5.80	10.00	.171	.261	.357	8.30
South Atlantic	316	6,977	119	3.28	6.67	8.65	.181	.294	.377	10.00
East South Central	159	2,438	38	4.25	6.56	11.56	.180	.253	.393	26.60
West South Central	380	4,950	71	3.00	5.20	10.00	.160	.249	.335	10.95
West	426	6,989	117	2.80	6.67	12.00	.136	.244	.373	14.73
Mountain	149	2,425	37	3.00	6.82	12.80	.102	.244	.373	30.10
Pacific	277	4,564	80	2.55	6.65	11.33	.145	.244	.374	17.59
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and –										
More than 7,000 HDD	183	2,983	40	3.10	5.78	9.67	.211	.263	.374	18.35
5,500-7,000 HDD	522	9,403	123	2.22	5.00	8.80	.171	.238	.336	10.93
4,000-5,499 HDD	455	10,174	161	2.13	4.00	8.60	.164	.251	.364	11.57
Fewer than 4,000 HDD	514	7,833	120	3.33	6.67	10.50	.132	.257	.373	16.18
More than 2,000 CDD and –										
Fewer than 4,000 HDD	548	8,312	135	3.20	5.41	10.47	.188	.253	.354	11.04

See footnotes at end of table.

Table CE-19. Distribution of Peak Watts per Square Foot and Load Factors, 1995 (Continued)

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			RSE Row Factor
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
RSE Column Factor:	1.1	0.9	1.0							
Workers (main shift)										
Fewer than 5	984	6,320	64	2.55	5.33	10.40	.142	.218	.316	10.04
5 to 9	453	4,148	48	2.72	5.27	9.33	.179	.268	.349	11.72
10 to 19	325	4,168	56	3.00	6.11	10.00	.197	.253	.364	11.60
20 to 49	276	6,657	96	2.98	5.50	10.29	.227	.314	.409	9.31
50 to 99	101	5,412	71	2.60	4.20	6.63	.215	.330	.449	9.17
100 to 249	55	4,511	75	2.59	4.94	7.84	.277	.366	.475	10.04
250 or More	30	7,488	167	3.30	5.07	7.16	.334	.454	.568	10.89
Weekly Operating Hours										
39 or Fewer	235	2,137	12	1.67	4.86	8.29	.084	.142	.222	16.50
40 to 48	582	8,547	83	2.72	4.47	8.80	.158	.217	.292	9.32
49 to 60	511	8,239	109	2.36	4.62	7.38	.160	.240	.315	11.51
61 to 84	341	7,022	92	2.40	5.10	9.33	.218	.276	.357	8.40
85 to 167	291	4,427	94	5.52	10.20	16.50	.270	.362	.461	9.69
Open Continuously	262	8,332	189	3.33	5.80	18.15	.253	.374	.526	9.17
Ownership and Occupancy										
Nongovernment Owned	1,913	29,885	440	2.74	5.60	9.71	.160	.255	.357	5.82
Owner Occupied	1,504	23,153	351	2.80	5.60	9.60	.158	.253	.355	6.09
Nonowner Occupied	374	6,457	88	2.80	5.80	10.47	.171	.267	.389	11.45
Unoccupied	Q	Q	Q	.67	1.56	2.86	.152	.184	.312	99.99
Government Owned	310	8,819	139	2.47	4.33	9.45	.197	.246	.354	10.58
Space in Building Vacant for at Least Three Consecutive Months										
Yes	288	9,712	124	1.60	3.20	5.45	.144	.246	.319	8.95
No	1,935	28,993	455	3.00	5.80	10.40	.171	.255	.362	5.85
Energy Sources (more than one may apply)										
Electricity	2,223	38,705	579	2.72	5.40	9.71	.164	.253	.357	5.54
Natural Gas	1,401	26,670	381	2.50	5.10	8.83	.166	.255	.350	6.81
Fuel Oil	264	10,188	177	2.46	4.33	7.43	.178	.268	.390	10.78
District Heat	84	4,329	82	3.17	5.00	7.74	.223	.314	.462	23.83
District Chilled Water	43	1,935	43	3.33	4.04	12.96	.228	.342	.418	24.53
Propane	270	3,386	52	3.26	5.78	12.40	.177	.247	.377	14.84
Other	90	1,522	18	1.82	4.33	6.70	.145	.223	.308	20.32
Energy End Uses (more than one may apply)										
Buildings with Space Heating	2,091	36,945	563	2.87	5.56	10.00	.169	.253	.356	5.42
Buildings with Cooling	1,887	35,079	554	3.17	5.78	10.25	.180	.256	.360	5.41
Buildings with Water Heating	1,879	35,726	557	3.00	5.85	10.40	.176	.257	.361	5.60
Buildings with Cooking	523	14,876	283	4.00	8.14	13.20	.200	.312	.429	6.90
Buildings with Manufacturing	121	2,772	37	3.08	3.84	8.80	.155	.228	.314	17.61
Buildings with Electricity Generation	162	10,470	205	3.26	5.00	8.50	.223	.368	.478	8.86
Space-Heating Energy Source										
Electricity	783	15,383	272	3.67	6.89	12.40	.179	.266	.388	7.97
Electricity Main	546	9,447	184	4.44	8.00	12.92	.162	.264	.374	9.67
Electricity Secondary	237	5,937	88	2.72	5.10	8.86	.205	.268	.407	10.16
Other Excluding Electricity	1,308	21,562	291	2.47	4.80	8.60	.162	.248	.340	6.08
Buildings without Space Heating	132	1,759	16	.72	2.22	6.40	.155	.230	.418	21.31
Primary Space-Heating Energy Source										
Electricity	546	9,447	184	4.44	8.00	12.92	.162	.264	.374	9.67
Natural Gas	1,168	19,752	258	2.42	4.90	8.74	.160	.251	.340	6.77
Fuel Oil	158	2,413	20	2.40	3.93	7.09	.173	.221	.324	18.82
District Heat	82	3,992	77	3.24	5.00	7.96	.223	.313	.460	16.81
Propane	100	765	15	3.33	6.67	15.11	.197	.357	.458	22.47
Other	Q	Q	Q	3.08	3.09	6.70	.248	.248	.390	99.99

See footnotes at end of table.

Table CE-19. Distribution of Peak Watts per Square Foot and Load Factors, 1995 (Continued)

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	RSE Row Factor
RSE Column Factor:	1.1	0.9	1.0							
Cooling Energy Source										
Electricity	1,824	33,533	525	3.20	5.78	10.00	.179	.256	.358	5.47
Other Excluding Electricity	63	1,546	29	2.72	4.91	20.00	.208	.289	.418	25.63
Buildings without Cooling	336	3,626	24	1.27	2.53	6.20	.145	.218	.303	16.03
Water-Heating Energy Source										
Electricity	846	15,982	256	3.08	5.85	10.50	.178	.267	.371	8.24
Other Excluding Electricity	1,033	19,743	301	2.93	5.80	9.71	.175	.253	.357	5.77
Buildings without Water Heating	344	2,979	22	1.47	3.29	5.55	.145	.218	.317	12.91
Cooking Energy Source										
Electricity	299	8,899	184	4.75	9.60	15.42	.211	.336	.461	8.57
Other Excluding Electricity	224	5,977	99	3.43	6.82	11.06	.178	.289	.365	11.60
Buildings without Cooking	1,700	23,828	295	2.43	4.91	8.31	.158	.240	.341	6.59
Percent of Floorspace Heated										
Not Heated	132	1,759	16	.72	2.22	6.40	.155	.230	.418	21.31
1 to 50	242	3,971	30	1.50	2.80	5.60	.142	.205	.297	15.29
51 to 99	326	5,761	98	2.71	5.33	8.91	.197	.269	.349	11.34
100	1,523	27,214	434	3.32	6.10	10.50	.171	.260	.358	5.09
Percent of Floorspace Cooled										
Not Cooled	336	3,626	24	1.27	2.53	6.20	.145	.218	.303	16.03
1 to 50	458	9,790	74	2.00	3.26	6.00	.162	.225	.294	10.00
51 to 99	382	9,322	169	3.64	5.98	9.33	.188	.272	.352	8.64
100	1,047	15,967	311	4.00	7.00	11.06	.187	.272	.382	6.89
Percent Lit when Open										
Zero	Q	Q	Q	1.33	1.33	2.40	.092	.158	.158	99.99
1 to 50	272	3,298	25	2.00	3.64	7.33	.132	.213	.276	16.72
51 to 99	439	6,801	93	2.95	5.78	9.39	.160	.263	.349	9.46
100	1,463	28,242	459	3.00	5.75	10.47	.187	.261	.374	6.00
Building Not in Use/ Electricity Not Used	Q	Q	Q	.40	.67	1.56	.142	.152	.249	99.99
Percent Lit when Closed										
Zero	699	7,669	66	2.00	4.20	8.50	.137	.217	.281	10.26
1 to 50	1,180	20,940	290	3.08	6.00	10.40	.187	.263	.358	6.58
51 to 100	47	1,480	33	3.17	4.00	7.75	.235	.260	.348	27.93
Never Closed	262	8,321	189	3.33	5.80	18.15	.253	.374	.526	9.20
Building Not in Use/ Electricity Not Used	Q	Q	Q	.40	.67	1.56	.142	.152	.249	99.99
Annual Consumption (kilowatthours)										
10,000 or Less	160	579	1	.91	1.60	4.67	.081	.128	.163	22.78
10,001 to 50,000	705	4,362	20	2.36	4.31	7.50	.132	.197	.248	11.82
50,001 to 100,000	484	4,653	35	2.64	4.67	10.00	.195	.266	.331	12.91
100,001 to 500,000	682	11,229	146	4.25	7.80	13.80	.247	.336	.432	7.16
500,001 to 1,000,000	100	4,466	70	4.09	6.68	11.82	.318	.386	.525	9.95
1,000,001 to 5,000,000	79	8,205	160	4.43	6.35	9.87	.365	.450	.568	8.31
Over 5,000,000	13	5,211	147	4.48	6.35	10.36	.468	.563	.651	14.02
Peak Electricity Demand (kilowatts)										
10 or Less	284	1,311	4	1.07	1.82	3.33	.142	.214	.281	15.37
11 to 25	589	3,621	23	2.36	4.36	7.43	.169	.235	.317	13.37
26 to 50	561	5,062	53	3.05	6.20	10.80	.179	.268	.374	10.74
51 to 100	387	5,699	63	4.16	7.25	13.75	.162	.255	.350	12.06
101 to 250	262	7,670	109	4.16	7.49	13.80	.188	.319	.438	7.86
251 to 1,000	116	8,883	164	4.87	7.34	14.00	.202	.352	.471	8.73
Over 1,000	23	6,458	162	5.39	10.00	46.53	.045	.389	.549	10.90

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-20. Total Natural Gas Consumption and Expenditures, 1995

Building Characteristics	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)	
RSE Column Factor:	1.1	0.8	0.7	1.1	1.1	1.2	
All Buildings	2,478	38,145	15.4	1,946	1,895	9,018	4.78
Building Floorspace (square feet)							
1,001 to 5,000	1,112	2,942	2.6	264	257	1,483	8.38
5,001 to 10,000	614	4,497	7.3	272	264	1,439	10.75
10,001 to 25,000	474	7,561	16.0	356	347	1,775	9.21
25,001 to 50,000	146	5,242	36.0	231	225	1,159	6.34
50,001 to 100,000	82	5,608	68.8	243	237	1,091	6.55
100,001 to 200,000	33	4,643	139.2	244	238	958	8.67
200,001 to 500,000	13	3,941	295.6	211	205	729	8.94
Over 500,000	4	3,712	882.3	125	122	385	10.80
Principal Building Activity							
Education	204	5,800	28.4	245	239	1,117	9.63
Food Sales	58	401	6.9	18	17	97	27.24
Food Service	184	1,001	5.4	158	154	851	17.10
Health Care	51	1,759	34.3	258	252	838	16.64
Lodging	110	2,828	25.7	213	207	966	13.02
Mercantile and Service	792	8,520	10.8	395	385	1,979	11.35
Office	438	6,521	14.9	239	233	1,150	10.44
Public Assembly	189	2,662	14.1	142	138	675	14.30
Public Order and Safety	37	746	20.4	33	32	167	21.31
Religious Worship	159	2,001	12.5	57	56	303	13.95
Warehouse and Storage	173	4,595	26.5	106	103	559	13.68
Other	21	654	30.8	55	54	197	32.20
Vacant	61	658	10.8	26	26	119	37.26
Year Constructed							
1919 or Before	256	2,643	10.3	135	132	655	12.92
1920 to 1945	353	4,560	12.9	210	205	966	12.07
1946 to 1959	528	6,470	12.3	391	381	1,796	13.08
1960 to 1969	403	7,170	17.8	375	365	1,750	9.98
1970 to 1979	444	7,375	16.6	393	382	1,695	11.08
1980 to 1989	357	7,181	20.1	288	280	1,397	8.79
1990 to 1992	92	1,659	18.0	100	98	510	21.15
1993 to 1995	46	1,087	23.5	54	52	249	23.73
Census Region and Division							
Northeast	316	7,108	22.5	297	289	1,739	13.14
New England	34	1,433	42.6	74	72	432	26.90
Middle Atlantic	282	5,674	20.1	223	217	1,307	13.85
Midwest	777	10,905	14.0	750	730	2,947	8.82
East North Central	549	7,553	13.8	505	492	2,043	9.25
West North Central	228	3,352	14.7	244	238	903	16.86
South	805	12,291	15.3	528	514	2,560	9.35
South Atlantic	210	4,802	22.9	197	192	1,009	15.33
East South Central	248	3,163	12.8	164	160	792	19.72
West South Central	347	4,326	12.5	167	163	759	11.13
West	580	7,841	13.5	371	361	1,772	10.17
Mountain	219	2,624	12.0	150	146	585	17.40
Pacific	361	5,217	14.4	221	216	1,188	12.92
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	265	3,399	12.8	240	233	952	13.66
5,500-7,000 HDD	626	10,754	17.2	692	674	2,907	9.40
4,000-5,499 HDD	490	9,094	18.6	452	440	2,214	15.15
Fewer than 4,000 HDD	674	9,598	14.2	372	362	2,012	11.55
More than 2,000 CDD and --							
Fewer than 4,000 HDD	423	5,300	12.5	191	186	933	15.26

See footnotes at end of table.

Table CE-20. Total Natural Gas Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures	
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)	RSE Row Factor
RSE Column Factor:	1.1	0.8	0.7	1.1	1.1	1.2	
Workers (main shift)							
Fewer than 5	1,155	6,581	5.7	298	290	1,620	7.65
5 to 9	538	4,482	8.3	244	237	1,198	13.81
10 to 19	358	4,696	13.1	269	262	1,364	13.33
20 to 49	261	6,627	25.4	343	334	1,729	9.05
50 to 99	90	4,762	52.6	218	212	985	10.21
100 to 249	50	4,286	85.1	222	216	930	10.32
250 or More	25	6,712	264.7	352	342	1,192	9.30
Weekly Operating Hours							
39 or Fewer	343	2,657	7.7	92	90	498	14.37
40 to 48	718	8,541	11.9	365	356	1,790	9.91
49 to 60	596	8,002	13.4	301	293	1,466	9.50
61 to 84	365	7,048	19.3	279	272	1,410	10.31
85 to 167	216	3,966	18.3	243	236	1,215	13.12
Open Continuously	239	7,931	33.2	665	648	2,638	9.57
Ownership and Occupancy							
Nongovernment Owned	2,190	30,256	13.8	1,472	1,433	7,065	5.19
Owner Occupied	1,750	23,956	13.7	1,245	1,212	5,825	5.99
Nonowner Occupied	413	6,077	14.7	218	213	1,201	10.93
Unoccupied	Q	Q	Q	Q	Q	Q	99.99
Government Owned	288	7,889	27.4	474	462	1,953	10.58
Space in Building Vacant for at Least Three Consecutive Months							
Yes	392	9,725	24.8	409	398	1,765	12.47
No	2,086	28,420	13.6	1,537	1,497	7,253	5.34
Energy Sources (more than one may apply)							
Electricity	2,476	38,009	15.4	1,938	1,887	8,987	4.96
Natural Gas	2,478	38,145	15.4	1,946	1,895	9,018	4.78
Fuel Oil	155	9,262	59.8	556	541	2,099	10.44
District Heat	30	2,343	78.8	146	142	486	23.98
District Chilled Water	17	1,287	77.0	101	99	327	19.16
Propane	105	1,565	14.8	90	87	425	18.05
Other	88	1,485	16.8	64	62	272	21.13
Energy End Uses (more than one may apply)							
Buildings with Space Heating	2,456	37,950	15.5	1,937	1,886	8,972	4.78
Buildings with Cooling	2,131	35,100	16.5	1,782	1,736	8,189	5.04
Buildings with Water Heating	2,201	36,284	16.5	1,878	1,828	8,650	5.20
Buildings with Cooking	549	15,968	29.1	975	950	4,216	6.22
Buildings with Manufacturing	104	2,542	24.5	111	108	528	15.36
Buildings with Electricity Generation	159	10,331	64.8	577	562	2,246	9.14
Space-Heating Energy Source							
Natural Gas	2,211	31,535	14.3	1,685	1,641	7,770	5.06
Natural Gas Main	2,106	28,808	13.7	1,614	1,571	7,437	5.24
Natural Gas Secondary	105	2,728	26.0	72	70	333	16.08
Other Excluding Natural Gas	245	6,414	26.2	252	245	1,202	11.54
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source							
Electricity	240	5,427	22.6	176	171	979	14.50
Natural Gas	2,106	28,808	13.7	1,614	1,571	7,437	5.24
Fuel Oil	58	1,358	23.6	16	16	111	28.44
District Heat	28	2,037	73.4	118	115	400	18.07
Propane	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-20. Total Natural Gas Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures	
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)	RSE Row Factor
RSE Column Factor:	1.1	0.8	0.7	1.1	1.1	1.2	
Cooling Energy Source							
Natural Gas	65	1,314	20.1	116	113	462	24.43
Other Excluding Natural Gas	2,066	33,786	16.4	1,666	1,623	7,727	5.26
Buildings without Cooling	347	3,045	8.8	163	159	829	12.51
Water-Heating Energy Source							
Natural Gas	1,577	24,859	15.8	1,513	1,474	6,849	6.08
Other Excluding Natural Gas	624	11,424	18.3	364	355	1,802	8.55
Buildings without Water Heating	277	1,862	6.7	68	66	368	18.76
Cooking Energy Source							
Natural Gas	448	13,195	29.4	801	780	3,495	6.78
Other Excluding Natural Gas	100	2,773	27.6	174	169	721	11.48
Buildings without Cooking	1,929	22,177	11.5	970	945	4,802	6.38
Percent of Floorspace Heated							
Not Heated	Q	Q	Q	Q	Q	Q	99.99
1 to 50	267	3,715	13.9	86	84	469	14.70
51 to 99	437	6,214	14.2	281	273	1,461	13.64
100	1,752	28,020	16.0	1,570	1,529	7,042	5.02
Annual Consumption (hundred cubic feet)							
1,000 or Less	647	3,871	6.0	35	34	272	10.39
1,001 to 5,000	1,194	10,767	9.0	291	284	1,676	6.58
5,001 to 10,000	275	4,876	17.8	207	201	1,072	8.55
10,001 to 25,000	230	7,045	30.6	346	337	1,841	9.08
25,001 to 50,000	74	4,053	54.5	256	250	1,284	9.62
50,001 to 100,000	37	2,998	80.8	254	247	1,062	22.01
Over 100,000	20	4,535	221.9	557	542	1,812	10.28
Gas Transported for the Account of Others							
Used in Building	32	2,123	66.8	305	297	956	19.33
Not Used in Building	2,446	36,022	14.7	1,640	1,597	8,063	5.08

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-21. Natural Gas Consumption and Expenditure Intensities, 1995

Building Characteristics	Natural Gas Consumption						Natural Gas Expenditures			RSE Row Factor
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)	
RSE Column Factor:	1.2	1.0	1.3	25th Percentile	Median	75th Percentile	1.1	1.0	0.6	
All Buildings	764	49.7	37.7	18.4	39.7	76.9	3.6	0.24	4.76	4.47
Building Floorspace (square feet)										
1,001 to 5,000	231	87.2	46.0	26.0	51.0	109.0	1.3	0.50	5.78	7.39
5,001 to 10,000	431	58.8	53.6	17.4	29.1	66.2	2.3	0.32	5.44	14.82
10,001 to 25,000	732	45.9	45.0	11.9	29.3	54.6	3.7	0.23	5.12	10.59
25,001 to 50,000	1,542	42.8	32.1	10.7	27.2	60.8	8.0	0.22	5.16	6.27
50,001 to 100,000	2,907	42.3	34.2	9.6	23.4	53.0	13.4	0.19	4.61	8.09
100,001 to 200,000	7,135	51.3	41.8	11.2	28.4	64.2	28.7	0.21	4.03	11.65
200,001 to 500,000	15,385	52.1	39.9	4.6	25.9	66.3	54.6	0.18	3.55	9.20
Over 500,000	29,006	32.9	16.8	1.6	8.8	33.4	91.4	0.10	3.15	16.78
Principal Building Activity										
Education	1,170	41.1	32.5	13.1	28.6	58.4	5.5	0.19	4.68	8.19
Food Sales	292	42.6	41.2	7.7	31.7	76.8	1.7	0.24	5.66	27.25
Food Service	835	153.5	93.9	52.0	135.2	250.8	4.6	0.85	5.54	10.86
Health Care	4,899	143.0	75.6	44.6	66.3	150.6	16.3	0.48	3.33	13.83
Lodging	1,883	73.2	103.1	41.0	57.6	100.0	8.8	0.34	4.67	11.30
Mercantile and Service	486	45.2	42.6	19.4	40.4	80.3	2.5	0.23	5.14	12.69
Office	532	35.7	13.5	18.0	33.2	62.6	2.6	0.18	4.94	8.49
Public Assembly	731	51.9	72.0	19.7	45.6	77.8	3.6	0.25	4.89	13.23
Public Order and Safety	887	43.6	36.8	22.1	43.6	95.0	4.6	0.22	5.15	15.60
Religious Worship	351	28.0	37.8	10.1	27.4	47.0	1.9	0.15	5.42	12.45
Warehouse and Storage	594	22.4	34.3	9.0	21.2	43.1	3.2	0.12	5.44	9.01
Other	2,535	82.4	37.0	35.1	35.4	44.5	9.3	0.30	3.66	25.21
Vacant	Q	38.8	57.0	13.4	21.0	51.0	2.0	0.18	4.67	33.59
Year Constructed										
1919 or Before	514	49.8	44.8	24.0	47.6	78.3	2.6	0.25	4.97	10.01
1920 to 1945	580	44.9	37.0	21.7	40.4	79.5	2.7	0.21	4.72	9.60
1946 to 1959	721	58.8	53.6	19.7	44.1	86.2	3.4	0.28	4.72	11.38
1960 to 1969	906	50.9	36.6	21.3	47.5	73.7	4.3	0.24	4.80	9.12
1970 to 1979	862	51.8	37.4	12.4	32.7	70.2	3.8	0.23	4.43	11.96
1980 to 1989	786	39.0	25.6	14.2	28.4	56.1	3.9	0.19	4.98	7.63
1990 to 1992	1,063	58.9	41.4	17.4	29.1	94.3	5.5	0.31	5.22	22.49
1993 to 1995	1,134	48.2	45.7	14.3	42.5	85.4	5.4	0.23	4.74	20.48
Census Region and Division										
Northeast	915	40.6	30.6	17.9	29.1	64.1	5.5	0.24	6.02	9.91
New England	2,129	50.0	47.8	11.1	40.8	83.3	12.8	0.30	6.04	20.53
Middle Atlantic	770	38.3	27.3	18.0	28.6	63.9	4.6	0.23	6.02	9.86
Midwest	939	66.9	54.6	31.9	59.8	97.9	3.8	0.27	4.04	7.19
East North Central	897	65.2	56.6	31.5	62.1	95.1	3.7	0.27	4.15	7.03
West North Central	1,042	71.0	50.9	34.8	54.3	123.2	4.0	0.27	3.80	14.55
South	639	41.9	35.0	15.5	29.3	60.1	3.2	0.21	4.98	8.97
South Atlantic	913	39.9	29.3	18.9	34.9	58.7	4.8	0.21	5.26	10.00
East South Central	645	50.5	45.2	16.9	38.3	68.1	3.2	0.25	4.96	22.43
West South Central	469	37.7	35.2	12.0	22.0	52.1	2.2	0.18	4.66	10.90
West	622	46.1	28.4	12.5	30.4	65.1	3.1	0.23	4.91	7.32
Mountain	664	55.5	48.9	24.5	42.2	68.9	2.7	0.22	4.01	11.25
Pacific	597	41.3	22.2	9.5	26.8	55.9	3.3	0.23	5.51	10.29
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	879	68.7	59.2	35.4	50.2	91.0	3.6	0.28	4.08	8.39
5,500-7,000 HDD	1,076	62.6	51.9	28.5	51.0	97.9	4.6	0.27	4.31	8.51
4,000-5,499 HDD	898	48.4	34.1	18.7	40.0	83.8	4.5	0.24	5.03	10.69
Fewer than 4,000 HDD	537	37.7	26.0	11.9	28.8	57.5	3.0	0.21	5.56	7.50
More than 2,000 CDD and --										
Fewer than 4,000 HDD	439	35.0	28.6	13.1	22.9	52.1	2.2	0.18	5.03	10.62

See footnotes at end of table.

Table CE-21. Natural Gas Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Natural Gas Consumption						Natural Gas Expenditures			RSE Row Factor
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)	
RSE Column Factor:	1.2	1.0	1.3	25th Percentile	Median	75th Percentile	1.1	1.0	0.6	
Workers (main shift)										
Fewer than 5	251	44.1	111.0	18.5	41.0	73.7	1.4	0.25	5.58	5.89
5 to 9	441	52.9	67.9	19.6	42.6	89.7	2.2	0.27	5.05	15.67
10 to 19	733	55.9	57.4	18.0	30.1	86.2	3.8	0.29	5.20	16.44
20 to 49	1,279	50.4	43.3	18.9	39.8	74.7	6.6	0.26	5.17	7.26
50 to 99	2,347	44.6	36.5	11.8	29.3	57.5	10.9	0.21	4.64	10.10
100 to 249	4,285	50.4	30.9	12.8	32.3	73.8	18.5	0.22	4.31	9.68
250 or More	13,501	51.0	18.0	9.0	27.2	67.3	47.0	0.18	3.48	9.93
Weekly Operating Hours										
39 or Fewer	262	33.8	38.2	10.9	29.1	55.6	1.5	0.19	5.54	10.33
40 to 48	495	41.6	33.9	19.6	33.9	68.1	2.5	0.21	5.03	9.92
49 to 60	491	36.6	24.7	12.5	30.9	64.0	2.5	0.18	5.01	7.46
61 to 84	744	38.6	31.4	24.0	45.7	87.8	3.9	0.20	5.18	8.39
85 to 167	1,092	59.6	54.5	27.5	72.6	198.8	5.6	0.31	5.14	10.15
Open Continuously	2,711	81.7	51.6	28.5	55.4	108.6	11.0	0.33	4.07	8.89
Ownership and Occupancy										
Nongovernment Owned	654	47.4	35.7	18.4	38.8	74.7	3.2	0.23	4.93	4.76
Owner Occupied	692	50.6	38.6	18.4	39.7	75.8	3.3	0.24	4.81	5.46
Nonowner Occupied	515	35.0	24.8	18.7	34.0	78.3	2.9	0.20	5.65	7.40
Unoccupied	Q	Q	Q	14.2	51.0	67.2	Q	Q	Q	99.99
Government Owned	1,603	58.5	45.7	22.0	46.0	90.3	6.8	0.25	4.23	10.01
Space in Building Vacant for at Least Three Consecutive Months										
Yes	1,015	40.9	26.5	15.4	32.4	67.2	4.5	0.18	4.44	11.75
No	717	52.7	42.5	19.1	40.0	78.3	3.5	0.26	4.85	4.46
Energy Sources (more than one may apply)										
Electricity	762	49.6	37.6	18.4	39.7	76.9	3.6	0.24	4.76	4.75
Natural Gas	764	49.7	37.7	18.4	39.7	76.9	3.6	0.24	4.76	4.47
Fuel Oil	3,497	58.4	35.3	6.5	28.6	79.5	13.6	0.23	3.88	10.04
District Heat	4,775	60.6	28.9	5.9	11.8	31.8	16.3	0.21	3.42	27.35
District Chilled Water	5,901	76.7	39.4	6.0	24.0	71.9	19.5	0.25	3.31	15.93
Propane	828	55.8	45.5	25.4	42.1	95.0	4.0	0.27	4.87	10.14
Other	704	42.0	39.9	14.7	36.8	64.0	3.1	0.18	4.37	16.86
Energy End Uses (more than one may apply)										
Buildings with Space Heating	768	49.7	37.7	18.5	39.8	76.9	3.7	0.24	4.76	4.50
Buildings with Cooling	814	49.4	36.4	18.0	38.3	76.9	3.8	0.23	4.72	4.90
Buildings with Water Heating	831	50.4	37.4	18.9	40.0	79.5	3.9	0.24	4.73	4.65
Buildings with Cooking	1,730	59.5	38.9	27.7	58.2	120.6	7.7	0.26	4.44	5.90
Buildings with Manufacturing	1,037	42.4	29.5	29.0	47.7	56.8	5.1	0.21	4.89	12.48
Buildings with Electricity Generation	3,525	54.4	33.1	13.5	40.8	86.1	14.1	0.22	4.00	8.86
Space-Heating Energy Source										
Natural Gas	742	52.0	40.8	19.2	39.9	77.4	3.5	0.25	4.74	4.81
Natural Gas Main	746	54.5	43.2	20.3	41.2	78.8	3.5	0.26	4.73	4.76
Natural Gas Secondary	666	25.6	18.2	6.2	12.5	27.3	3.2	0.12	4.77	19.25
Other Excluding Natural Gas	1,001	38.2	25.0	6.5	31.9	65.6	4.9	0.19	4.90	9.72
Buildings without Space Heating	Q	Q	Q	1.0	7.7	227.2	Q	Q	Q	99.99
Primary Space-Heating Energy Source										
Electricity	712	31.5	22.3	11.0	27.7	64.4	4.1	0.18	5.73	13.22
Natural Gas	746	54.5	43.2	20.3	41.2	78.8	3.5	0.26	4.73	4.76
Fuel Oil	278	11.8	13.4	2.3	6.5	28.6	1.9	0.08	6.95	31.97
District Heat	4,138	56.4	25.6	5.9	7.8	26.7	14.4	0.20	3.48	16.49
Propane	Q	Q	Q	40.4	40.4	40.4	Q	Q	Q	99.99
Other	Q	Q	Q	44.4	44.5	64.1	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-21. Natural Gas Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Natural Gas Consumption						Natural Gas Expenditures			RSE Row Factor
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)	
RSE Column Factor:	1.2	1.0	1.3	25th Percentile	Median	75th Percentile	1.1	1.0	0.6	
Cooling Energy Source										
Natural Gas	1,729	86.0	54.8	43.9	63.9	91.0	7.1	0.35	4.09	17.38
Other Excluding Natural Gas	785	48.0	35.6	17.7	36.5	75.7	3.7	0.23	4.76	5.05
Buildings without Cooling	458	52.2	63.2	22.1	47.8	81.3	2.4	0.27	5.22	10.16
Water-Heating Energy Source										
Natural Gas	935	59.3	45.3	22.0	45.4	88.0	4.3	0.28	4.65	5.35
Other Excluding Natural Gas	568	31.1	21.7	13.2	28.4	51.9	2.9	0.16	5.08	6.89
Buildings without Water Heating	239	35.5	49.2	13.0	24.5	58.4	1.3	0.20	5.57	13.19
Cooking Energy Source										
Natural Gas	1,740	59.1	38.9	28.0	66.2	135.4	7.8	0.26	4.48	6.09
Other Excluding Natural Gas	1,687	61.1	38.9	17.7	42.6	93.5	7.2	0.26	4.26	12.11
Buildings without Cooking	490	42.6	36.6	17.2	33.9	66.2	2.5	0.22	5.08	6.45
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	1.0	7.7	227.2	Q	Q	Q	99.99
1 to 50	314	22.6	33.7	10.5	25.0	55.6	1.8	0.13	5.59	11.39
51 to 99	626	44.0	36.3	15.2	38.3	65.6	3.3	0.24	5.34	14.98
100	873	54.6	38.2	19.9	42.2	82.9	4.0	0.25	4.61	4.54
Annual Consumption (hundred cubic feet)										
1,000 or Less	53	8.8	6.9	5.9	13.9	27.4	0.4	0.07	7.98	7.03
1,001 to 5,000	238	26.4	24.2	25.1	42.1	76.9	1.4	0.16	5.91	4.02
5,001 to 10,000	733	41.3	33.7	35.4	67.5	140.0	3.9	0.22	5.33	4.46
10,001 to 25,000	1,462	47.8	34.9	47.2	76.6	155.0	8.0	0.26	5.47	4.84
25,001 to 50,000	3,354	61.6	39.1	53.0	90.3	188.0	17.2	0.32	5.14	4.94
50,001 to 100,000	6,663	82.4	52.5	64.2	196.7	563.2	28.6	0.35	4.30	11.36
Over 100,000	26,536	119.6	78.9	83.1	130.6	196.9	88.7	0.40	3.34	8.20
Gas Transported for the Account of Others										
Used in Building	9,348	140.0	95.6	38.2	98.4	232.6	30.0	0.45	3.21	21.72
Not Used in Building	653	44.3	33.9	18.4	39.1	76.4	3.3	0.22	5.05	4.59

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-22. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1995

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.5	1.1	1.1	1.2	1.0	0.8	0.8	1.1	1.1	0.8	0.9	0.9	
All Buildings	289	730	514	361	7,108	10,905	12,291	7,841	40.6	66.9	41.9	46.1	9.51
Building Floorspace (square feet)													
1,001 to 5,000	26	106	73	52	253	1,026	947	717	102.6	103.2	77.2	72.1	18.63
5,001 to 10,000	33	118	65	49	722	1,416	1,330	1,029	45.0	83.6	48.6	47.5	21.56
10,001 to 25,000	42	119	130	56	1,218	1,988	2,735	1,620	34.8	59.6	47.4	34.7	20.51
25,001 to 50,000	36	82	55	52	951	1,402	1,533	1,355	38.0	58.3	35.8	38.3	14.87
50,001 to 100,000	26	87	59	65	754	1,700	1,946	1,207	34.3	51.4	30.1	54.0	17.09
100,001 to 200,000	49	90	76	23	845	1,371	1,706	721	58.3	65.7	44.4	31.7	22.07
200,001 to 500,000	46	69	36	53	935	1,155	1,100	752	49.5	59.8	33.1	71.1	19.07
Over 500,000	30	59	21	11	1,430	848	994	440	21.2	69.7	21.5	25.6	25.14
Principal Building Activity													
Education	49	93	43	53	1,534	1,580	1,543	1,144	32.0	59.2	27.9	46.3	16.33
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Food Service	Q	41	58	Q	Q	406	284	Q	Q	101.1	205.3	Q	31.95
Health Care	47	77	72	55	321	416	610	412	146.4	186.1	118.7	132.8	21.82
Lodging	Q	66	60	60	Q	699	1,081	841	Q	94.7	55.5	71.9	20.23
Mercantile and Service	42	185	123	34	1,535	2,904	2,993	1,087	27.5	63.7	41.3	31.3	21.95
Office	38	94	51	50	1,251	1,638	1,898	1,734	30.6	57.4	26.8	28.7	16.63
Public Assembly	Q	46	41	27	426	712	941	583	55.0	65.3	44.0	46.1	23.87
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Religious Worship	6	23	9	17	303	508	582	608	20.1	46.2	15.8	28.3	25.50
Warehouse and Storage	23	44	29	Q	1,064	1,164	1,712	656	21.2	37.5	17.0	Q	20.15
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Year Constructed													
1919 or Before	21	67	Q	29	655	1,216	441	332	32.0	54.8	34.4	87.3	25.24
1920 to 1945	37	98	42	27	893	1,750	1,179	738	41.9	56.1	35.6	36.6	24.45
1946 to 1959	64	167	75	74	1,277	1,832	2,034	1,327	50.3	91.0	37.1	55.9	19.06
1960 to 1969	43	134	108	81	1,251	1,905	2,430	1,585	34.0	70.2	44.3	51.1	17.38
1970 to 1979	62	115	133	72	1,121	1,912	2,565	1,777	55.4	59.9	51.9	40.8	17.33
1980 to 1989	38	106	88	48	1,424	1,559	2,751	1,447	27.0	68.0	31.8	33.3	15.37
1990 to 1992	Q	21	39	21	280	425	582	372	Q	49.7	66.3	57.6	29.61
1993 to 1995	Q	23	Q	Q	Q	308	309	Q	Q	75.1	48.4	Q	27.56
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	Q	195	Q	37	Q	2,999	Q	385	Q	65.1	Q	97.2	20.91
5,500-7,000 HDD	161	427	Q	86	3,225	5,992	Q	1,537	49.8	71.2	Q	56.1	18.71
4,000-5,499 HDD	127	108	157	48	3,867	1,915	2,428	884	32.9	56.4	64.5	54.2	19.90
Fewer than 4,000 HDD	Q	Q	204	158	Q	Q	5,422	4,176	Q	Q	37.6	37.8	11.93
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	154	32	Q	Q	4,441	859	Q	Q	34.6	37.2	22.69
Workers (main shift)													
Fewer than 5	29	121	73	68	906	2,093	2,182	1,400	31.6	57.7	33.3	48.7	15.89
5 to 9	17	135	42	43	623	1,520	1,284	1,055	26.5	89.0	32.9	41.1	26.02
10 to 19	35	80	107	41	808	1,337	1,584	966	42.8	59.8	67.5	42.3	23.18
20 to 49	63	112	104	56	1,119	1,860	2,376	1,272	56.0	60.1	43.8	43.7	16.85
50 to 99	26	85	61	40	846	1,248	1,721	948	30.4	68.4	35.6	42.2	17.75
100 to 249	36	78	53	49	958	1,250	1,096	982	37.8	62.1	48.0	50.4	20.78
250 or More	84	119	75	64	1,848	1,598	2,048	1,218	45.7	74.7	36.5	52.4	16.20
Weekly Operating Hours													
39 or Fewer	11	38	22	19	338	879	780	661	32.2	43.6	28.3	28.2	23.82
40 to 48	47	164	79	66	1,275	2,600	2,885	1,782	37.0	63.0	27.3	36.8	17.15
49 to 60	33	124	83	52	1,431	2,010	2,835	1,727	23.3	61.9	29.4	30.0	15.45
61 to 84	47	126	51	48	1,447	2,302	1,914	1,385	32.2	54.7	26.7	35.0	16.00
85 to 167	50	79	61	46	986	1,165	1,073	741	51.1	67.8	57.2	61.4	24.10
Open Continuously	100	199	218	131	1,631	1,950	2,805	1,545	61.5	101.9	77.6	84.9	15.82

See footnotes at end of table.

Table CE-22. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/sq. ft.)				RSE Row Factor
	Northeast	Midwest	South	West	Northeast	Midwest	South	West	Northeast	Midwest	South	West	
RSE Column Factor:	1.5	1.1	1.1	1.2	1.0	0.8	0.8	1.1	1.1	0.8	0.9	0.9	
Ownership and Occupancy													
Nongovernment Owned	221	549	397	265	5,440	8,665	9,973	6,178	40.7	63.4	39.8	42.9	9.79
Owner Occupied	179	470	347	216	4,285	7,126	7,857	4,687	41.7	66.0	44.1	46.2	11.19
Nonowner Occupied	42	72	50	49	1,128	1,425	2,041	1,483	37.3	50.4	24.5	32.8	17.78
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	67	181	117	96	1,668	2,240	2,319	1,663	40.5	80.7	50.6	57.7	15.76
Space in Building Vacant for at Least Three Consecutive Months													
Yes	56	149	113	80	2,003	2,664	3,073	1,984	27.9	55.9	36.8	40.3	17.34
No	233	581	401	281	5,104	8,241	9,218	5,857	45.6	70.5	43.5	48.0	10.16
Energy Sources (more than one may apply)													
Electricity	286	725	514	361	7,074	10,819	12,289	7,826	40.5	67.0	41.9	46.1	9.87
Natural Gas	289	730	514	361	7,108	10,905	12,291	7,841	40.6	66.9	41.9	46.1	9.51
Fuel Oil	118	163	163	97	3,002	2,133	2,517	1,610	39.2	76.5	64.8	60.4	16.94
District Heat	Q	41	Q	Q	Q	847	Q	Q	Q	48.2	Q	Q	39.34
District Chilled Water	Q	28	29	Q	Q	441	439	Q	Q	62.5	66.2	Q	33.20
Propane	8	33	36	9	245	610	489	221	33.6	54.6	74.2	42.8	27.40
Other	Q	24	9	Q	Q	472	381	Q	Q	50.2	23.4	Q	34.38
Energy End Uses (more than one may apply)													
Buildings with Space Heating	289	726	512	359	7,108	10,897	12,176	7,768	40.6	66.7	42.0	46.2	9.54
Buildings with Cooling	269	658	499	310	6,393	9,877	11,961	6,869	42.0	66.6	41.7	45.2	9.93
Buildings with Water Heating	284	697	491	357	6,969	10,197	11,485	7,633	40.7	68.3	42.8	46.7	9.63
Buildings with Cooking	172	334	237	206	3,589	4,241	4,876	3,262	47.9	78.8	48.6	63.3	10.75
Buildings with Manufacturing	16	54	30	9	355	911	920	356	44.0	59.4	32.1	24.0	23.94
Buildings with Electricity Generation	113	181	153	115	2,787	2,354	3,232	1,959	40.4	77.1	47.3	58.6	13.48
Space-Heating Energy Source													
Natural Gas	238	684	410	309	5,043	9,826	9,805	6,861	47.2	69.6	41.8	45.0	10.16
Natural Gas Main	230	661	385	296	4,696	9,293	8,728	6,091	48.9	71.1	44.1	48.6	10.45
Natural Gas Secondary	8	23	25	13	348	533	1,077	770	23.8	44.0	23.3	16.8	28.05
Other Excluding Natural Gas	51	42	102	50	2,064	1,071	2,371	908	24.6	39.4	43.1	55.2	22.44
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source													
Electricity	16	27	87	40	419	694	2,898	1,416	39.1	39.4	30.0	28.3	23.94
Natural Gas	230	661	385	296	4,696	9,293	8,728	6,091	48.9	71.1	44.1	48.6	10.45
Fuel Oil	13	Q	Q	Q	1,166	Q	Q	Q	11.0	Q	Q	Q	30.21
District Heat	28	35	30	Q	685	785	378	Q	41.4	44.6	79.6	Q	30.39
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Natural Gas	44	37	Q	19	387	354	Q	326	113.1	105.4	Q	56.9	28.49
Other Excluding Natural Gas	225	621	485	292	6,007	9,523	11,713	6,543	37.4	65.2	41.4	44.6	10.26
Buildings without Cooling	20	72	16	51	714	1,028	330	972	28.3	70.0	47.9	52.3	24.45
Water-Heating Energy Source													
Natural Gas	209	581	383	301	3,848	7,261	7,767	5,983	54.3	80.0	49.3	50.3	11.01
Other Excluding Natural Gas	75	116	109	55	3,120	2,936	3,718	1,650	24.0	39.4	29.2	33.6	15.35
Buildings without Water Heating	Q	33	23	Q	Q	709	806	Q	Q	47.2	28.7	Q	33.70
Cooking Energy Source													
Natural Gas	120	269	211	180	2,914	3,506	4,167	2,609	41.3	76.9	50.6	68.8	11.95
Other Excluding Natural Gas	52	65	26	27	675	735	710	653	76.5	88.0	36.8	41.3	23.45
Buildings without Cooking	117	396	277	155	3,519	6,664	7,415	4,579	33.2	59.4	37.4	33.8	12.27

See footnotes at end of table.

Table CE-22. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.5	1.1	1.1	1.2	1.0	0.8	0.8	1.1	1.1	0.8	0.9	0.9	
Percent of Floorspace Heated													
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	11	37	20	Q	616	958	1,221	920	18.3	38.6	16.5	Q	25.97
51 to 99	54	60	109	50	1,637	1,019	1,984	1,574	32.8	59.2	55.0	32.0	22.66
100	224	629	383	293	4,854	8,920	8,972	5,274	46.1	70.5	42.7	55.6	9.99
Annual Consumption (hundred cubic feet)													
1,000 or Less	4	5	15	11	847	343	1,392	1,289	4.9	13.5	10.5	8.2	22.31
1,001 to 5,000	35	112	82	54	1,651	3,116	3,725	2,275	21.4	35.8	22.1	23.9	13.09
5,001 to 10,000	25	80	60	36	1,003	1,340	1,673	861	25.3	59.5	35.8	42.0	15.87
10,001 to 25,000	45	124	87	80	1,052	1,995	2,509	1,489	43.1	62.1	34.9	53.6	15.83
25,001 to 50,000	42	93	77	37	786	1,511	1,162	595	54.0	61.8	66.4	61.6	15.87
50,001 to 100,000	29	111	79	28	756	986	813	444	38.9	112.4	97.0	63.3	28.08
Over 100,000	107	206	114	116	1,014	1,615	1,017	889	105.2	127.5	112.1	130.0	17.18
Gas Transported for the Account of Others													
Used in Building	Q	132	40	Q	Q	984	291	Q	Q	134.7	136.3	Q	23.09
Not Used in Building	235	598	475	290	6,676	9,922	12,000	7,424	35.2	60.2	39.6	39.0	9.94

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-23. Natural Gas Expenditures by Census Region, 1995

Building Characteristics	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	2.0	1.4	1.6	1.6	0.7	0.5	0.5	0.5	1.4	1.0	1.1	1.1	
All Buildings	1,739	2,947	2,560	1,772	6.02	4.04	4.98	4.91	0.24	0.27	0.21	0.23	7.39
Building Floorspace (square feet)													
1,001 to 5,000	198	525	420	340	7.61	4.96	5.74	6.59	0.78	0.51	0.44	0.47	10.42
5,001 to 10,000	269	530	356	285	8.27	4.47	5.50	5.83	0.37	0.37	0.27	0.28	15.69
10,001 to 25,000	280	538	660	297	6.60	4.54	5.09	5.28	0.23	0.27	0.24	0.18	13.49
25,001 to 50,000	257	355	291	256	7.10	4.34	5.31	4.94	0.27	0.25	0.19	0.19	11.60
50,001 to 100,000	186	352	287	266	7.18	4.03	4.91	4.08	0.25	0.21	0.15	0.22	12.59
100,001 to 200,000	235	292	329	102	Q	3.24	4.34	4.47	0.28	0.21	0.19	0.14	17.70
200,001 to 500,000	190	203	141	194	4.10	2.94	3.88	3.63	0.20	0.18	0.13	0.26	17.37
Over 500,000	125	Q	76	32	4.12	2.56	3.57	2.83	Q	0.18	0.08	0.07	24.04
Principal Building Activity													
Education	300	358	198	262	6.10	3.83	4.59	4.94	0.20	0.23	0.13	0.23	12.25
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Food Service	Q	195	308	Q	Q	4.74	5.28	Q	Q	0.48	1.08	Q	18.75
Health Care	174	201	268	194	3.69	2.60	3.71	3.55	0.54	0.48	0.44	0.47	20.98
Lodging	Q	247	314	295	Q	3.73	5.23	4.88	Q	0.35	0.29	0.35	17.90
Mercantile and Service	339	825	635	179	8.03	4.46	5.15	5.26	0.22	0.28	0.21	0.16	16.66
Office	244	383	287	237	6.39	4.07	5.64	4.75	0.20	0.23	0.15	0.14	12.04
Public Assembly	135	206	207	127	Q	4.44	5.00	4.74	0.32	0.29	0.22	0.22	18.06
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Religious Worship	47	108	52	96	7.69	4.62	5.67	5.56	0.15	0.21	0.09	0.16	14.77
Warehouse and Storage	151	197	168	Q	6.70	4.50	5.77	5.85	0.14	0.17	0.10	Q	12.22
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Year Constructed													
1919 or Before	142	291	95	128	6.76	4.36	6.24	4.42	0.22	0.24	0.21	0.39	15.70
1920 to 1945	214	408	217	128	5.71	4.15	5.18	4.72	0.24	0.23	0.18	0.17	17.13
1946 to 1959	393	663	385	355	6.12	3.98	5.10	4.79	0.31	0.36	0.19	0.27	14.34
1960 to 1969	293	530	496	431	6.88	3.97	4.61	5.31	0.23	0.28	0.20	0.27	14.41
1970 to 1979	304	442	602	347	4.89	3.86	4.52	4.79	0.27	0.23	0.23	0.20	14.54
1980 to 1989	262	422	474	239	6.81	3.98	5.41	4.95	0.18	0.27	0.17	0.16	12.26
1990 to 1992	Q	94	217	108	Q	4.47	5.63	5.05	Q	0.22	0.37	0.29	19.37
1993 to 1995	Q	96	Q	Q	Q	4.14	4.99	Q	Q	0.31	0.24	Q	24.87
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	Q	798	Q	148	Q	4.09	Q	3.96	Q	0.27	Q	0.39	14.92
5,500-7,000 HDD	932	1,676	Q	299	5.80	3.93	Q	3.47	0.29	0.28	Q	0.19	12.67
4,000-5,499 HDD	801	472	722	218	6.29	4.37	4.61	4.56	0.21	0.25	0.30	0.25	13.98
Fewer than 4,000 HDD	Q	Q	1,075	938	Q	Q	5.27	5.94	Q	Q	0.20	0.22	9.26
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	764	169	Q	Q	4.97	5.29	Q	Q	0.17	0.20	15.64
Workers (main shift)													
Fewer than 5	223	596	419	382	7.79	4.94	5.76	5.60	0.25	0.28	0.19	0.27	9.37
5 to 9	112	590	244	252	6.77	4.36	5.78	5.82	0.18	0.39	0.19	0.24	17.61
10 to 19	273	357	500	233	7.89	4.47	4.68	5.71	0.34	0.27	0.32	0.24	17.79
20 to 49	396	484	568	281	6.33	4.33	5.46	5.04	0.35	0.26	0.24	0.22	12.32
50 to 99	173	323	311	179	6.70	3.78	5.09	4.46	0.20	0.26	0.18	0.19	12.82
100 to 249	215	271	230	215	5.93	3.48	4.38	4.35	0.22	0.22	0.21	0.22	17.38
250 or More	347	327	287	230	4.11	2.74	3.85	3.61	0.19	0.20	0.14	0.19	16.25
Weekly Operating Hours													
39 or Fewer	79	183	127	110	7.26	4.77	5.76	5.87	0.23	0.21	0.16	0.17	14.31
40 to 48	325	703	441	321	6.89	4.29	5.59	4.89	0.26	0.27	0.15	0.18	11.70
49 to 60	235	535	438	258	7.04	4.30	5.25	4.99	0.16	0.27	0.15	0.15	12.58
61 to 84	323	537	279	271	6.93	4.27	5.46	5.59	0.22	0.23	0.15	0.20	12.73
85 to 167	315	349	309	241	6.25	4.42	5.04	5.30	0.32	0.30	0.29	0.33	18.96
Open Continuously	462	639	966	571	4.60	3.22	4.44	4.35	0.28	0.33	0.34	0.37	13.74

See footnotes at end of table.

Table CE-23. Natural Gas Expenditures by Census Region, 1995 (Continued)

Building Characteristics	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	2.0	1.4	1.6	1.6	0.7	0.5	0.5	0.5	1.4	1.0	1.1	1.1	
Ownership and Occupancy													
Nongovernment Owned	1,369	2,303	2,055	1,337	6.19	4.19	5.18	5.04	0.25	0.27	0.21	0.22	7.76
Owner Occupied	1,071	1,925	1,781	1,048	5.99	4.09	5.14	4.84	0.25	0.27	0.23	0.22	8.79
Nonowner Occupied	296	347	270	288	7.03	4.83	5.40	5.92	0.26	0.24	0.13	0.19	11.10
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	369	644	505	435	5.47	3.56	4.31	4.53	0.22	0.29	0.22	0.26	13.00
Space in Building Vacant for at Least Three Consecutive Months													
Yes	301	563	516	385	5.39	3.78	4.56	4.81	0.15	0.21	0.17	0.19	12.71
No	1,438	2,383	2,045	1,388	6.17	4.10	5.10	4.93	0.28	0.29	0.22	0.24	8.04
Energy Sources (more than one may apply)													
Electricity	1,724	2,931	2,560	1,771	6.02	4.04	4.98	4.90	0.24	0.27	0.21	0.23	7.93
Natural Gas	1,739	2,947	2,560	1,772	6.02	4.04	4.98	4.91	0.24	0.27	0.21	0.23	7.39
Fuel Oil	571	500	657	372	4.86	3.06	4.02	3.82	0.19	0.23	0.26	0.23	15.83
District Heat	Q	121	Q	Q	Q	2.96	Q	Q	Q	0.14	Q	Q	41.88
District Chilled Water	Q	Q	102	Q	Q	2.81	3.50	Q	Q	0.18	0.23	Q	25.01
Propane	62	148	161	53	7.59	4.45	4.45	5.63	0.25	0.24	0.33	0.24	16.84
Other	Q	91	45	Q	Q	3.85	5.03	Q	Q	0.19	0.12	Q	26.85
Energy End Uses (more than one may apply)													
Buildings with Space Heating	1,739	2,931	2,546	1,756	6.02	4.04	4.97	4.89	0.24	0.27	0.21	0.23	7.42
Buildings with Cooling	1,588	2,614	2,475	1,512	5.91	3.97	4.96	4.87	0.25	0.26	0.21	0.22	7.83
Buildings with Water Heating	1,703	2,775	2,428	1,744	6.00	3.98	4.94	4.89	0.24	0.27	0.21	0.23	7.53
Buildings with Cooking	910	1,218	1,123	965	5.29	3.65	4.74	4.68	0.25	0.29	0.23	0.30	8.91
Buildings with Manufacturing	110	203	169	45	7.08	3.75	5.74	5.23	0.31	0.22	0.18	0.13	18.50
Buildings with Electricity Generation	563	567	657	459	5.00	3.13	4.29	4.00	0.20	0.24	0.20	0.23	11.96
Space-Heating Energy Source													
Natural Gas	1,457	2,781	2,013	1,518	6.12	4.07	4.91	4.91	0.29	0.28	0.21	0.22	7.81
Natural Gas Main	1,407	2,694	1,889	1,447	6.13	4.08	4.91	4.89	0.30	0.29	0.22	0.24	7.89
Natural Gas Secondary	50	87	124	71	6.06	Q	4.94	5.52	0.14	0.16	0.12	0.09	20.70
Other Excluding Natural Gas	282	150	532	238	5.54	3.54	5.21	4.75	0.14	0.14	0.22	0.26	18.53
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source													
Electricity	118	116	519	225	7.18	Q	5.97	5.61	0.28	0.17	0.18	0.16	15.97
Natural Gas	1,407	2,694	1,889	1,447	6.13	4.08	4.91	4.89	0.30	0.29	0.22	0.24	7.89
Fuel Oil	95	Q	Q	Q	7.42	Q	Q	Q	0.08	Q	Q	Q	18.67
District Heat	108	106	107	Q	3.80	3.01	3.56	Q	0.16	0.13	0.28	Q	22.98
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Natural Gas	191	122	Q	93	4.37	3.26	Q	5.00	0.49	0.34	Q	0.28	17.87
Other Excluding Natural Gas	1,397	2,492	2,419	1,419	6.21	4.01	4.99	4.86	0.23	0.26	0.21	0.22	8.15
Buildings without Cooling	151	333	85	260	7.46	4.62	5.37	5.12	0.21	0.32	Q	0.27	14.64
Water-Heating Energy Source													
Natural Gas	1,253	2,278	1,844	1,473	6.00	3.92	4.82	4.89	0.33	0.31	0.24	0.25	8.71
Other Excluding Natural Gas	450	498	583	271	6.00	4.30	5.37	4.89	0.14	0.17	0.16	0.16	10.89
Buildings without Water Heating	Q	171	133	Q	Q	5.12	5.75	Q	Q	0.24	0.16	Q	16.87
Cooking Energy Source													
Natural Gas	674	996	994	830	5.60	3.70	4.72	4.62	0.23	0.28	0.24	0.32	9.83
Other Excluding Natural Gas	236	222	128	135	4.57	3.43	4.91	5.03	0.35	0.30	0.18	0.21	19.96
Buildings without Cooking	829	1,728	1,438	807	7.09	4.37	5.18	5.21	0.24	0.26	0.19	0.18	9.61

See footnotes at end of table.

Table CE-23. Natural Gas Expenditures by Census Region, 1995 (Continued)

Building Characteristics	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot				RSE Row Factor
	Northeast	Midwest	South	West	Northeast	Midwest	South	West	Northeast	Midwest	South	West	
RSE Column Factor:	2.0	1.4	1.6	1.6	0.7	0.5	0.5	0.5	1.4	1.0	1.1	1.1	
Percent of Floorspace Heated													
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	75	178	121	94	6.67	4.82	6.01	6.09	0.12	0.19	0.10	0.10	18.20
51 to 99	413	276	506	266	7.69	4.58	4.64	5.28	0.25	0.27	0.25	0.17	17.79
100	1,251	2,476	1,919	1,396	5.59	3.94	5.01	4.76	0.26	0.28	0.21	0.26	7.66
Annual Consumption (hundred cubic feet)													
1,000 or Less	43	29	106	93	10.27	6.32	7.26	8.81	0.05	0.09	0.08	0.07	14.55
1,001 to 5,000	270	576	486	344	7.65	5.16	5.89	6.33	0.16	0.18	0.13	0.15	8.17
5,001 to 10,000	174	369	320	209	6.86	4.63	5.33	5.77	0.17	0.28	0.19	0.24	9.98
10,001 to 25,000	352	565	488	436	7.75	4.56	5.59	5.47	0.33	0.28	0.19	0.29	11.60
25,001 to 50,000	292	409	411	172	6.87	4.38	5.33	4.68	0.37	0.27	0.35	0.29	10.80
50,001 to 100,000	190	419	334	119	6.48	3.78	4.23	4.24	0.25	0.42	0.41	0.27	19.12
Over 100,000	418	579	416	399	3.91	2.81	3.65	3.45	0.41	0.36	0.41	0.45	17.58
Gas Transported for the Account of Others													
Used in Building	Q	381	126	Q	Q	2.88	3.17	Q	Q	0.39	0.43	Q	32.77
Not Used in Building	1,552	2,565	2,435	1,510	6.60	4.29	5.13	5.21	0.23	0.26	0.20	0.20	7.32

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-24. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1995

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.1	0.8	0.8	1.1	0.8	0.9	
All Buildings	521	808	565	7,440	18,410	12,296	70.0	43.9	46.0	7.75
Principal Building Activity										
Education	26	143	70	411	3,424	1,965	62.1	41.9	35.5	15.87
Food Sales	6	Q	Q	188	Q	Q	33.0	Q	Q	19.85
Food Service	126	27	Q	698	296	Q	180.0	91.4	Q	24.00
Health Care	Q	26	207	Q	296	1,328	Q	86.7	156.1	19.49
Lodging	22	108	77	259	1,444	1,125	85.9	74.8	68.2	19.39
Mercantile and Service	182	170	33	2,559	3,696	2,265	71.1	45.9	14.6	20.82
Office	51	113	69	1,216	2,943	2,362	42.0	38.5	29.0	13.50
Public Assembly	37	67	34	699	1,325	638	53.6	50.4	53.2	22.21
Public Order and Safety	Q	21	Q	Q	522	Q	Q	40.7	Q	26.67
Religious Worship	24	31	Q	531	1,437	Q	45.7	21.9	Q	19.80
Warehouse and Storage	14	56	33	432	2,189	1,973	31.6	25.5	16.9	18.45
Other	Q	23	Q	Q	370	Q	Q	61.5	Q	47.74
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Year Constructed										
1919 or Before	56	50	Q	868	1,337	Q	64.9	37.3	Q	16.42
1920 to 1945	64	89	51	1,158	2,057	1,344	55.5	43.5	37.9	18.24
1946 to 1959	143	156	82	1,690	3,325	1,455	84.4	46.9	56.3	18.77
1960 to 1969	85	152	128	1,049	3,557	2,565	80.8	42.6	50.1	14.54
1970 to 1979	75	160	147	1,244	3,182	2,949	60.5	50.4	49.8	16.30
1980 to 1989	55	138	87	976	3,610	2,595	56.0	38.4	33.6	12.74
1990 to 1992	38	31	28	379	681	599	100.9	45.7	47.4	32.42
1993 to 1995	Q	32	16	Q	660	352	Q	47.9	46.0	24.44
Census Region and Division										
Northeast	58	104	126	975	2,923	3,210	60.0	35.7	39.2	15.25
New England	Q	32	35	Q	756	634	Q	42.1	55.7	32.25
Middle Atlantic	54	73	91	932	2,167	2,575	58.0	33.5	35.2	15.42
Midwest	224	288	218	2,442	5,089	3,374	91.8	56.5	64.7	11.58
East North Central	134	211	147	1,662	3,493	2,397	80.6	60.5	61.3	11.86
West North Central	Q	76	71	780	1,596	977	115.8	47.8	73.0	20.69
South	138	243	133	2,277	6,215	3,799	60.5	39.1	35.1	13.79
South Atlantic	47	78	67	628	2,227	1,947	75.5	34.9	34.2	19.43
East South Central	40	94	26	659	1,784	721	60.5	52.9	35.4	31.45
West South Central	51	71	41	990	2,204	1,132	51.0	32.3	36.5	17.25
West	101	173	88	1,746	4,183	1,913	57.6	41.4	45.8	14.20
Mountain	32	88	26	632	1,528	464	50.6	57.6	55.3	25.00
Pacific	69	85	62	1,114	2,654	1,449	61.5	32.1	42.7	17.82
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	60	108	66	759	1,917	723	78.8	56.1	91.3	20.59
5,500-7,000 HDD	171	280	223	1,853	5,076	3,826	92.3	55.2	58.2	13.21
4,000-5,499 HDD	128	179	133	1,729	3,586	3,779	74.0	49.9	35.3	16.11
Fewer than 4,000 HDD	100	160	102	1,823	5,280	2,495	54.6	30.3	40.9	14.92
More than 2,000 CDD and --										
Fewer than 4,000 HDD	63	82	41	1,276	2,551	1,472	49.1	32.1	28.0	19.50
Workers (main shift)										
Fewer than 5	208	82	Q	3,865	2,575	Q	53.7	31.7	Q	11.21
5 to 9	144	92	Q	1,821	2,489	Q	78.9	36.8	Q	20.20
10 to 19	104	147	11	1,178	2,981	537	88.7	49.2	20.8	25.10
20 to 49	62	235	38	532	5,223	872	116.2	44.9	43.3	18.75
50 to 99	Q	130	80	Q	2,797	1,933	Q	46.4	41.3	13.51
100 to 249	Q	108	107	Q	1,822	2,451	Q	59.1	43.8	16.91
250 or More	Q	16	326	Q	523	6,188	Q	31.0	52.7	14.61

See footnotes at end of table.

Table CE-24. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.1	0.8	0.8	1.1	0.8	0.9	
Weekly Operating Hours										
39 or Fewer	53	34	Q	1,251	1,261	Q	42.3	26.6	Q	17.25
40 to 48	138	179	39	2,130	4,814	1,598	64.6	37.2	24.2	16.44
49 to 60	83	149	62	1,737	4,439	1,826	47.6	33.5	33.7	13.37
61 to 84	88	120	64	1,192	3,037	2,818	74.0	39.6	22.6	13.72
85 to 167	98	91	47	590	1,904	1,472	166.3	47.8	32.1	19.88
Open Continuously	61	236	351	540	2,955	4,436	113.8	79.7	79.0	14.99
Ownership and Occupancy										
Nongovernment Owned	422	606	405	6,625	14,669	8,962	63.7	41.3	45.2	7.93
Owner Occupied	338	506	368	5,352	11,267	7,337	63.1	44.9	50.2	8.86
Nonowner Occupied	80	99	34	1,145	3,372	1,560	69.8	29.3	21.6	16.08
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	99	202	160	815	3,740	3,334	121.2	54.1	48.1	15.39
Space in Building Vacant for at Least Three Consecutive Months										
Yes	52	185	161	969	3,946	4,810	53.4	47.0	33.4	16.63
No	469	623	404	6,471	14,464	7,486	72.5	43.1	54.0	8.19
Energy Sources (more than one may apply)										
Electricity	521	805	561	7,436	18,374	12,199	70.0	43.8	46.0	8.20
Natural Gas	521	808	565	7,440	18,410	12,296	70.0	43.9	46.0	7.75
Fuel Oil	13	166	362	181	2,812	6,269	74.3	59.0	57.7	18.03
District Heat	Q	Q	109	Q	Q	1,698	Q	Q	64.5	29.69
District Chilled Water	Q	24	74	Q	395	879	Q	60.0	84.6	25.63
Propane	33	37	18	361	752	452	91.3	48.7	39.2	23.13
Other	13	25	25	210	856	419	59.8	29.3	58.9	32.36
Energy End Uses (more than one may apply)										
Buildings with Space Heating	516	806	565	7,359	18,353	12,238	70.0	43.9	46.2	7.79
Buildings with Cooling	435	745	556	6,253	16,907	11,940	69.5	44.1	46.6	8.32
Buildings with Water Heating	473	792	563	6,419	17,686	12,179	73.7	44.8	46.3	8.08
Buildings with Cooking	177	324	449	1,448	6,250	8,271	122.2	51.8	54.3	9.59
Buildings with Manufacturing	12	57	39	180	1,413	949	66.0	40.2	41.3	21.02
Buildings with Electricity Generation	30	166	366	268	3,027	7,037	110.8	54.9	52.0	14.33
Space-Heating Energy Source										
Natural Gas	458	715	468	6,758	15,563	9,214	67.8	46.0	50.7	8.38
Natural Gas Main	453	685	433	6,583	14,121	8,103	68.8	48.5	53.4	8.72
Natural Gas Secondary	5	30	34	175	1,442	1,111	29.2	21.0	31.0	24.66
Other Excluding Natural Gas	57	91	97	601	2,790	3,023	95.5	32.5	32.2	19.28
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source										
Electricity	56	78	37	594	2,775	2,059	94.5	28.0	18.1	21.86
Natural Gas	453	685	433	6,583	14,121	8,103	68.8	48.5	53.4	8.72
Fuel Oil	Q	Q	Q	Q	791	Q	Q	Q	Q	38.31
District Heat	Q	30	84	Q	543	1,433	Q	56.0	58.3	23.07
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source										
Natural Gas	Q	28	70	Q	564	588	Q	50.3	119.8	26.24
Other Excluding Natural Gas	420	716	486	6,090	16,344	11,352	69.0	43.8	42.8	8.61
Buildings without Cooling	86	64	Q	1,187	1,502	Q	72.7	42.3	Q	17.27

See footnotes at end of table.

Table CE-24. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	
RSE Column Factor:	1.4	1.0	1.2	1.1	0.8	0.8	1.1	0.8	0.9	
Water-Heating Energy Source										
Natural Gas	385	638	451	4,648	12,638	7,574	82.8	50.5	59.5	9.47
Other Excluding Natural Gas	88	154	113	1,772	5,047	4,605	49.8	30.5	24.5	12.38
Buildings without Water Heating	48	16	Q	1,021	724	Q	47.0	22.6	Q	25.84
Cooking Energy Source										
Natural Gas	162	262	355	1,257	4,817	7,121	129.2	54.5	49.9	10.48
Other Excluding Natural Gas	15	61	94	190	1,433	1,149	76.1	42.8	81.4	19.89
Buildings without Cooking	344	485	116	5,992	12,160	4,025	57.4	39.9	28.9	10.78
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	41	35	8	799	1,828	1,089	51.1	19.3	7.2	22.98
51 to 99	81	129	64	1,390	2,602	2,221	58.3	49.5	28.6	20.37
100	394	642	493	5,170	13,923	8,927	76.1	46.1	55.3	7.99
Annual Consumption (hundred cubic feet)										
1,000 or Less	30	4	(*)	1,952	1,614	305	15.4	2.4	0.2	18.77
1,001 to 5,000	206	76	1	4,132	5,513	1,122	49.9	13.8	1.3	10.99
5,001 to 10,000	96	103	2	732	3,313	832	131.1	31.1	2.9	13.99
10,001 to 25,000	105	218	13	474	4,556	2,015	222.0	47.9	6.6	12.15
25,001 to 50,000	Q	168	36	Q	2,156	1,810	Q	77.8	19.7	10.15
50,001 to 100,000	Q	146	66	Q	858	2,078	Q	170.4	31.6	15.51
Over 100,000	Q	93	447	Q	400	4,134	Q	233.7	108.1	15.42
Gas Transported for the Account of Others										
Used in Building	Q	74	213	Q	509	1,566	Q	145.0	136.0	24.01
Not Used in Building	511	735	352	7,392	17,901	10,729	69.1	41.0	32.8	8.20

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	
All Buildings	717	1,027	150	13,673	21,726	2,747	52.4	47.3	54.7	9.22
Building Floorspace (square feet)										
1,001 to 5,000	126	100	Q	1,476	1,318	149	85.2	75.8	208.0	18.70
5,001 to 10,000	138	115	12	2,241	1,951	305	61.4	58.9	38.9	22.19
10,001 to 25,000	130	205	11	3,135	4,158	267	41.5	49.4	42.5	20.10
25,001 to 50,000	72	131	22	1,698	3,076	467	42.4	42.5	46.6	13.24
50,001 to 100,000	93	114	30	1,886	3,115	606	49.5	36.6	48.7	16.37
100,001 to 200,000	72	144	Q	1,484	2,767	Q	48.7	52.2	Q	20.64
200,001 to 500,000	54	137	15	1,159	2,554	228	46.4	53.5	64.2	20.92
Over 500,000	32	81	9	593	2,787	332	54.5	29.1	25.8	23.09
Principal Building Activity										
Education	123	102	13	2,905	2,616	279	42.4	39.2	46.2	16.68
Food Sales	Q	Q	Q	Q	222	Q	Q	43.6	Q	59.89
Food Service	53	73	Q	412	497	Q	128.9	146.2	Q	27.19
Health Care	55	185	Q	339	1,300	Q	162.0	142.0	Q	23.24
Lodging	64	128	15	727	1,859	242	87.8	68.9	62.0	19.54
Mercantile and Service	168	187	29	2,777	5,043	700	60.6	37.1	41.8	23.18
Office	93	126	14	2,163	3,879	480	42.9	32.6	28.8	15.21
Public Assembly	61	61	16	1,199	1,200	263	51.3	50.9	59.4	22.76
Public Order and Safety	Q	18	Q	Q	457	Q	Q	38.5	Q	37.63
Religious Worship	26	28	Q	883	1,042	Q	29.1	26.7	Q	23.50
Warehouse and Storage	26	68	9	1,434	2,891	270	17.8	23.5	35.0	19.47
Other	Q	33	Q	Q	456	Q	Q	73.2	Q	50.38
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Census Region and Division										
Northeast	123	143	23	2,825	3,796	486	43.4	37.7	47.2	20.12
New England	28	41	Q	505	854	Q	55.3	47.9	Q	41.03
Middle Atlantic	95	102	Q	2,320	2,943	412	40.8	34.7	49.1	22.54
Midwest	332	354	44	4,798	5,375	733	69.1	65.9	60.3	13.83
East North Central	217	239	36	3,562	3,443	548	60.8	69.5	65.9	14.26
West North Central	115	115	Q	1,236	1,932	Q	93.1	59.4	Q	28.46
South	133	328	54	3,654	7,746	891	36.3	42.4	60.1	14.67
South Atlantic	53	119	Q	1,397	3,027	379	38.1	39.2	Q	20.69
East South Central	30	124	6	726	2,262	175	40.6	54.9	34.6	19.98
West South Central	50	86	28	1,531	2,457	337	32.5	34.8	81.6	13.77
West	130	202	29	2,396	4,809	636	54.3	41.9	46.3	16.80
Mountain	71	65	Q	1,139	1,267	Q	62.5	51.6	41.2	25.78
Pacific	59	136	20	1,257	3,541	419	46.8	38.5	48.9	19.22
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	78	136	Q	1,127	2,015	Q	68.7	67.5	Q	20.91
5,500-7,000 HDD	323	310	41	4,752	5,287	715	67.9	58.6	57.5	15.04
4,000-5,499 HDD	165	244	31	3,561	4,838	695	46.4	50.4	44.4	21.00
Fewer than 4,000 HDD	100	231	31	2,557	6,259	782	39.0	36.9	39.5	12.66
More than 2,000 CDD and --										
Fewer than 4,000 HDD	52	107	27	1,676	3,327	297	30.8	32.1	92.1	20.88
Workers (main shift)										
Fewer than 5	159	121	10	3,430	2,775	376	46.4	43.5	27.7	15.06
5 to 9	133	96	Q	2,231	2,123	129	59.6	45.2	64.0	23.77
10 to 19	66	174	22	1,644	2,760	292	40.2	63.0	77.1	21.19
20 to 49	149	147	39	2,416	3,641	570	61.5	40.3	68.0	15.47
50 to 99	58	134	20	1,399	2,899	464	41.2	46.3	43.8	15.54
100 to 249	69	120	28	1,361	2,483	442	50.4	48.2	62.8	20.75
250 or More	84	236	22	1,193	5,045	473	70.5	46.8	46.9	18.26

See footnotes at end of table.

Table CE-25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	
Weekly Operating Hours										
39 or Fewer	56	31	Q	1,438	1,108	Q	38.9	27.9	Q	22.21
40 to 48	200	136	20	4,237	3,839	465	47.1	35.3	43.3	15.81
49 to 60	115	158	19	2,902	4,465	636	39.8	35.5	30.4	15.10
61 to 84	102	147	22	2,068	4,566	414	49.6	32.3	53.4	15.95
85 to 167	86	121	Q	1,105	2,481	380	77.4	48.7	78.9	22.17
Open Continuously	158	434	56	1,922	5,267	742	82.2	82.4	74.8	16.35
Ownership and Occupancy										
Nongovernment Owned	477	831	125	10,278	17,773	2,205	46.4	46.7	56.6	9.82
Owner Occupied	409	690	113	8,586	13,576	1,794	47.7	50.8	62.8	10.69
Nonowner Occupied	64	137	12	1,567	4,099	411	40.6	33.4	29.8	16.82
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	240	196	25	3,395	3,953	541	70.6	49.7	46.8	15.22
Space in Building Vacant for at Least Three Consecutive Months										
Yes	138	239	21	2,859	6,241	624	48.3	38.3	33.4	15.58
No	579	788	129	10,813	15,485	2,123	53.5	50.9	60.9	9.69
Energy Sources (more than one may apply)										
Electricity	713	1,024	149	13,605	21,679	2,724	52.4	47.3	54.9	9.58
Natural Gas	717	1,027	150	13,673	21,726	2,747	52.4	47.3	54.7	9.22
Fuel Oil	133	362	Q	2,565	5,981	716	52.0	60.6	63.4	18.91
District Heat	Q	81	Q	Q	1,151	Q	Q	70.2	Q	44.78
District Chilled Water	40	53	Q	439	725	Q	91.6	73.7	Q	29.77
Propane	20	58	Q	423	985	Q	48.4	58.6	Q	27.78
Other	17	41	Q	583	804	Q	28.9	50.7	Q	34.20
Energy End Uses (more than one may apply)										
Buildings with Space Heating	712	1,024	150	13,601	21,612	2,736	52.3	47.4	54.9	9.26
Buildings with Cooling	616	973	147	11,824	20,602	2,674	52.1	47.2	55.1	9.82
Buildings with Water Heating	686	997	146	12,808	20,904	2,573	53.6	47.7	56.6	9.48
Buildings with Cooking	316	546	88	5,104	9,543	1,321	61.8	57.2	66.7	10.92
Buildings with Manufacturing	45	56	Q	973	1,388	Q	45.9	40.6	Q	23.69
Buildings with Electricity Generation	139	371	52	2,014	7,344	974	69.2	50.5	53.0	16.10
Space-Heating Energy Source										
Natural Gas	633	886	122	11,569	17,715	2,252	54.7	50.0	54.2	10.01
Natural Gas Main	618	838	116	10,807	15,933	2,068	57.2	52.6	56.0	10.35
Natural Gas Secondary	15	48	6	762	1,781	185	20.1	27.1	33.5	25.64
Other Excluding Natural Gas	79	138	28	2,033	3,898	484	38.8	35.5	58.1	19.98
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source										
Electricity	34	110	27	911	4,022	494	37.7	27.3	54.7	22.91
Natural Gas	618	838	116	10,807	15,933	2,068	57.2	52.6	56.0	10.35
Fuel Oil	12	Q	Q	817	Q	Q	Q	Q	Q	34.20
District Heat	45	64	Q	919	987	Q	49.1	64.7	Q	29.40
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source										
Natural Gas	34	72	Q	438	762	Q	76.9	93.9	Q	32.45
Other Excluding Natural Gas	582	901	139	11,386	19,840	2,560	51.1	45.4	54.5	10.13
Buildings without Cooling	101	55	Q	1,848	1,124	Q	54.8	48.6	Q	21.39

See footnotes at end of table.

Table CE-25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

Building Characteristics	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/sq. ft.)			RSE Row Factor
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	
Water-Heating Energy Source										
Natural Gas	561	797	115	9,196	13,951	1,712	61.0	57.2	67.1	10.94
Other Excluding Natural Gas	125	199	31	3,612	6,952	860	34.6	28.7	35.7	14.17
Buildings without Water Heating	31	31	Q	865	822	Q	35.6	37.2	Q	35.16
Cooking Energy Source										
Natural Gas	246	460	75	4,151	7,938	1,106	59.2	57.9	67.6	12.39
Other Excluding Natural Gas	70	86	Q	953	1,606	Q	73.2	53.7	Q	22.86
Buildings without Cooking	401	481	62	8,569	12,182	1,426	46.9	39.5	43.5	12.70
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	35	45	Q	1,601	1,973	Q	22.0	22.6	Q	26.73
51 to 99	86	160	28	2,206	3,529	479	39.0	45.2	58.0	22.09
100	591	820	118	9,795	16,111	2,115	60.3	50.9	56.0	9.78
Annual Consumption (hundred cubic feet)										
1,000 or Less	16	18	Q	1,595	2,179	Q	9.8	8.1	Q	19.84
1,001 to 5,000	144	127	13	4,776	5,320	671	30.1	23.8	20.1	11.87
5,001 to 10,000	76	116	9	1,699	2,919	258	44.7	39.8	35.2	16.67
10,001 to 25,000	144	156	37	2,374	4,050	622	60.5	38.6	59.0	14.35
25,001 to 50,000	68	152	29	1,120	2,555	377	60.9	59.5	77.4	15.36
50,001 to 100,000	97	129	21	920	1,771	307	105.9	72.7	68.4	27.40
Over 100,000	172	330	Q	1,188	2,932	415	145.1	112.5	Q	18.68
Gas Transported for the Account of Others										
Used in Building	105	159	Q	774	1,156	Q	135.4	137.9	Q	28.20
Not Used in Building	612	868	117	12,898	20,570	2,554	47.5	42.2	45.9	9.32

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-26. Total Fuel Oil Consumption and Expenditures, 1995

Building Characteristics	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)	
RSE Column Factor:	1.2	0.7	0.8	1.2	1.2	1.2	
All Buildings	607	14,421	24	235	1,686	1,175	10.60
Building Floorspace (square feet)							
1,001 to 5,000	333	946	3	44	320	275	15.80
5,001 to 10,000	96	679	7	26	191	153	24.28
10,001 to 25,000	92	1,425	15	45	323	239	23.48
25,001 to 50,000	31	1,164	38	28	201	129	11.61
50,001 to 100,000	28	1,968	71	31	223	140	12.93
100,001 to 200,000	14	2,096	145	21	153	88	12.79
200,001 to 500,000	10	2,928	298	25	176	97	16.28
Over 500,000	4	3,215	902	14	99	56	14.24
Principal Building Activity							
Education	37	2,348	63	57	408	249	23.54
Food Sales	Q	Q	Q	Q	Q	Q	99.99
Food Service	Q	Q	Q	Q	Q	Q	99.99
Health Care	18	1,576	87	21	152	94	23.87
Lodging	9	847	97	Q	Q	Q	25.63
Mercantile and Service	223	2,550	11	49	354	265	25.32
Office	97	3,554	37	28	204	154	21.43
Public Assembly	54	1,050	20	14	99	75	26.80
Public Order and Safety	Q	493	Q	Q	Q	Q	50.05
Religious Worship	42	441	11	13	90	69	20.67
Warehouse and Storage	Q	810	21	10	73	56	34.76
Other	7	375	53	Q	Q	Q	40.21
Vacant	Q	244	Q	5	38	25	27.37
Year Constructed							
1919 or Before	70	1,085	16	26	187	127	23.09
1920 to 1945	81	1,241	15	40	286	192	24.46
1946 to 1959	142	1,997	14	54	390	294	23.01
1960 to 1969	120	2,871	24	53	382	259	20.99
1970 to 1979	60	2,936	49	28	203	134	19.10
1980 to 1989	98	3,112	32	23	162	118	23.94
1990 to 1992	Q	607	Q	2	16	11	33.90
1993 to 1995	Q	572	24	8	59	39	35.48
Census Region and Division							
Northeast	282	5,423	19	168	1,200	818	11.83
New England	106	2,002	19	79	567	374	17.72
Middle Atlantic	176	3,421	19	88	633	444	14.34
Midwest	96	2,681	28	16	114	84	32.20
East North Central	Q	1,701	28	Q	Q	Q	44.70
West North Central	36	980	27	4	30	Q	38.35
South	196	4,175	21	45	324	240	25.61
South Atlantic	126	2,742	22	37	268	196	30.01
East South Central	Q	724	16	Q	Q	Q	40.10
West South Central	24	709	30	Q	Q	Q	20.14
West	33	2,142	64	7	47	34	32.53
Mountain	Q	419	39	Q	Q	Q	31.53
Pacific	23	1,722	76	Q	Q	Q	41.80
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	110	1,798	16	51	366	241	21.38
5,500-7,000 HDD	149	3,724	25	69	498	349	17.09
4,000-5,499 HDD	259	5,250	20	101	724	511	19.47
Fewer than 4,000 HDD	52	2,343	45	Q	Q	Q	34.59
More than 2,000 CDD and --							
Fewer than 4,000 HDD	38	1,307	35	5	35	Q	30.41

See footnotes at end of table.

Table CE-26. Total Fuel Oil Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)	
RSE Column Factor:	1.2	0.7	0.8	1.2	1.2	1.2	
Workers (main shift)							
Fewer than 5	324	1,674	5	59	425	338	18.79
5 to 9	79	791	10	22	157	129	33.63
10 to 19	94	872	9	33	236	179	26.77
20 to 49	52	1,436	28	38	270	181	17.92
50 to 99	21	1,652	77	28	201	114	14.97
100 to 249	19	2,210	114	28	197	117	18.69
250 or More	18	5,787	319	28	199	117	13.45
Weekly Operating Hours							
39 or Fewer	116	710	6	20	146	112	31.12
40 to 48	162	1,953	12	42	302	226	20.34
49 to 60	138	2,790	20	58	419	300	22.48
61 to 84	68	2,785	41	37	269	184	22.23
85 to 167	44	1,502	34	24	171	107	22.53
Open Continuously	80	4,682	58	53	379	245	17.42
Ownership and Occupancy							
Nongovernment Owned	509	10,617	21	166	1,189	863	12.97
Owner Occupied	453	9,485	21	150	1,072	781	12.83
Nonowner Occupied	54	1,101	20	15	111	78	32.30
Unoccupied	Q	Q	Q	Q	Q	Q	99.99
Government Owned	98	3,805	39	69	496	312	14.95
Space in Building Vacant for at Least Three Consecutive Months							
Yes	88	4,661	53	32	233	159	17.94
No	519	9,760	19	203	1,453	1,017	11.14
Energy Sources (more than one may apply)							
Electricity	595	14,345	24	234	1,677	1,167	11.35
Natural Gas	155	9,262	60	86	616	396	14.24
Fuel Oil	607	14,421	24	235	1,686	1,175	10.60
District Heat	20	2,174	110	9	62	38	28.76
District Chilled Water	Q	1,076	85	2	16	11	35.66
Propane	144	1,675	12	65	464	323	14.13
Other	64	797	13	13	95	70	32.06
Energy End Uses (more than one may apply)							
Buildings with Space Heating	607	14,236	23	234	1,677	1,167	10.66
Buildings with Cooling	388	12,904	33	179	1,283	876	13.49
Buildings with Water Heating	504	13,959	28	222	1,588	1,096	10.50
Buildings with Cooking	122	8,018	66	105	749	481	14.99
Buildings with Manufacturing	17	718	Q	15	106	65	33.92
Buildings with Electricity Generation	138	9,576	70	81	579	369	16.50
Space-Heating Energy Source							
Fuel Oil	504	6,606	13	220	1,576	1,096	12.11
Fuel Oil Main	439	4,207	10	196	1,408	983	12.72
Fuel Oil Secondary	65	2,398	37	23	168	113	26.41
Other Excluding Fuel Oil	103	7,630	74	14	101	71	16.25
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source							
Electricity	38	2,238	59	10	68	47	33.38
Natural Gas	83	5,479	66	15	108	73	17.87
Fuel Oil	439	4,207	10	196	1,408	983	12.72
District Heat	19	1,892	101	7	49	30	32.84
Propane	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-26. Total Fuel Oil Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)	
RSE Column Factor:	1.2	0.7	0.8	1.2	1.2	1.2	
Cooling Energy Source							
Fuel Oil	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	381	12,793	34	177	1,265	862	13.64
Buildings without Cooling	219	1,517	7	56	403	299	18.54
Water-Heating Energy Source							
Fuel Oil	120	2,151	18	112	802	534	17.75
Other Excluding Fuel Oil	384	11,809	31	109	785	562	11.95
Buildings without Water Heating	103	462	4	14	98	79	36.90
Cooking Energy Source							
Fuel Oil	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	121	7,935	65	103	734	473	14.90
Buildings without Cooking	486	6,403	13	130	937	694	13.49
Percent of Floorspace Heated							
Not Heated	Q	Q	Q	Q	Q	Q	99.99
1 to 50	93	1,003	11	13	97	79	27.79
51 to 99	90	2,857	32	43	307	219	27.32
100	423	10,376	25	178	1,274	868	13.15
Annual Consumption (gallons)							
1,000 or less	332	7,978	24	17	122	113	18.59
1,001 to 5,000	217	2,687	12	68	487	389	15.24
5,001 to 10,000	29	1,068	36	28	205	153	29.48
10,001 to 25,000	20	1,015	52	41	298	188	18.24
Over 25,000	9	1,674	178	81	574	331	14.88

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-27. Fuel Oil Consumption and Expenditure Intensities, 1995

Building Characteristics	Fuel Oil Consumption			Fuel Oil Expenditures			RSE Row Factor
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)	
RSE Column Factor:	1.2	1.2	1.5	1.1	1.2	0.3	
All Buildings	2,776	0.12	73.4	1.9	0.08	0.70	8.09
Building Floorspace (square feet)							
1,001 to 5,000	962	0.34	197.0	0.8	0.29	0.86	10.42
5,001 to 10,000	1,997	0.28	269.6	1.6	0.23	0.80	15.12
10,001 to 25,000	3,497	0.23	294.5	2.6	0.17	0.74	20.17
25,001 to 50,000	6,531	0.17	111.7	4.2	0.11	0.64	11.12
50,001 to 100,000	8,091	0.11	82.5	5.1	0.07	0.63	18.19
100,001 to 200,000	10,563	0.07	45.4	6.1	0.04	0.57	17.89
200,001 to 500,000	17,920	0.06	33.3	9.9	0.03	0.55	25.18
Over 500,000	27,650	0.03	15.4	15.7	0.02	0.57	19.85
Principal Building Activity							
Education	10,954	0.17	183.2	6.7	0.11	0.61	17.25
Food Sales	Q	Q	Q	Q	Q	Q	99.99
Food Service	Q	Q	Q	Q	Q	Q	99.99
Health Care	Q	0.10	50.2	Q	0.06	0.62	17.76
Lodging	Q	Q	Q	Q	Q	0.65	10.38
Mercantile and Service	1,583	0.14	122.5	1.2	0.10	0.75	16.65
Office	2,113	0.06	20.3	1.6	0.04	0.76	18.49
Public Assembly	1,844	0.09	114.7	1.4	0.07	0.76	20.69
Public Order and Safety	2,875	0.22	128.0	2.1	Q	0.74	14.87
Religious Worship	2,172	0.21	465.5	1.7	0.16	0.76	14.24
Warehouse and Storage	1,925	0.09	100.3	1.5	0.07	0.76	24.11
Other	Q	Q	Q	Q	Q	0.63	23.16
Vacant	Q	0.16	Q	Q	0.10	0.67	37.47
Year Constructed							
1919 or Before	2,690	0.17	168.2	1.8	0.12	0.68	20.33
1920 to 1945	3,536	0.23	219.8	2.4	0.15	0.67	15.85
1946 to 1959	2,739	0.20	142.1	2.1	0.15	0.75	12.68
1960 to 1969	3,192	0.13	82.4	2.2	0.09	0.68	17.06
1970 to 1979	3,372	0.07	39.0	2.2	0.05	0.66	16.67
1980 to 1989	1,665	0.05	24.7	1.2	0.04	0.72	23.32
1990 to 1992	Q	0.03	22.4	Q	0.02	0.70	33.69
1993 to 1995	2,445	0.10	86.6	1.6	0.07	0.67	23.28
Census Region and Division							
Northeast	4,259	0.22	180.1	2.9	0.15	0.68	8.04
New England	5,335	0.28	284.0	3.5	0.19	0.66	10.05
Middle Atlantic	3,608	0.19	135.7	2.5	0.13	0.70	10.81
Midwest	1,191	0.04	25.7	0.9	0.03	0.73	24.34
East North Central	1,406	0.05	Q	1.0	0.04	0.73	32.98
West North Central	837	0.03	Q	0.6	Q	0.73	28.36
South	1,652	0.08	44.4	1.2	0.06	0.74	17.55
South Atlantic	2,135	0.10	56.6	1.6	0.07	0.73	18.23
East South Central	869	0.06	Q	0.7	0.05	0.84	27.80
West South Central	Q	Q	Q	Q	Q	0.65	54.07
West	1,417	0.02	10.4	1.0	0.02	0.71	31.52
Mountain	813	Q	Q	0.7	Q	0.80	14.98
Pacific	Q	0.02	Q	Q	0.02	0.69	44.23
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	3,342	0.20	151.6	2.2	0.13	0.66	14.95
5,500-7,000 HDD	3,348	0.13	93.6	2.3	0.09	0.70	14.40
4,000-5,499 HDD	2,796	0.14	89.5	2.0	0.10	0.71	12.90
Fewer than 4,000 HDD	Q	Q	Q	Q	0.02	0.74	42.96
More than 2,000 CDD and --							
Fewer than 4,000 HDD	Q	Q	Q	Q	Q	0.78	68.84

See footnotes at end of table.

Table CE-27. Fuel Oil Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Fuel Oil Consumption			Fuel Oil Expenditures			RSE Row Factor
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)	
RSE Column Factor:	1.2	1.2	1.5	1.1	1.2	0.3	
Workers (main shift)							
Fewer than 5	1,312	0.25	643.4	1.0	0.20	0.80	11.25
5 to 9	1,991	0.20	327.1	1.6	0.16	0.82	27.22
10 to 19	2,506	0.27	199.0	1.9	0.20	0.76	12.85
20 to 49	5,230	0.19	175.5	3.5	0.13	0.67	15.21
50 to 99	9,398	0.12	141.3	5.3	0.07	0.57	18.39
100 to 249	10,114	0.09	73.0	6.0	0.05	0.60	17.16
250 or More	10,983	0.03	13.3	6.4	0.02	0.59	17.23
Weekly Operating Hours							
39 or Fewer	1,257	0.21	167.9	1.0	0.16	0.77	19.00
40 to 48	1,868	0.15	116.6	1.4	0.12	0.75	15.43
49 to 60	3,045	0.15	77.2	2.2	0.11	0.72	16.07
61 to 84	3,967	0.10	72.5	2.7	0.07	0.69	17.95
85 to 167	3,907	0.11	110.0	2.5	0.07	0.63	21.42
Open Continuously	4,723	0.08	42.9	3.1	0.05	0.65	15.43
Ownership and Occupancy							
Nongovernment Owned	2,337	0.11	67.5	1.7	0.08	0.73	9.35
Owner Occupied	2,367	0.11	69.8	1.7	0.08	0.73	9.52
Nonowner Occupied	2,052	0.10	49.2	1.4	0.07	0.70	21.52
Unoccupied	Q	Q	Q	Q	Q	Q	99.99
Government Owned	5,043	0.13	92.7	3.2	0.08	0.63	14.20
Space in Building Vacant for at Least Three Consecutive Months							
Yes	2,646	0.05	24.9	1.8	0.03	0.68	15.30
No	2,798	0.15	106.8	2.0	0.10	0.70	8.37
Energy Sources (more than one may apply)							
Electricity	2,818	0.12	73.3	2.0	0.08	0.70	8.63
Natural Gas	3,982	0.07	40.2	2.6	0.04	0.64	14.68
Fuel Oil	2,776	0.12	73.4	1.9	0.08	0.70	8.09
District Heat	Q	0.03	Q	1.9	0.02	0.61	39.02
District Chilled Water	1,300	0.02	7.6	0.8	0.01	0.65	34.33
Propane	3,232	0.28	242.3	2.2	0.19	0.70	10.04
Other	1,498	0.12	93.9	1.1	0.09	0.74	30.59
Energy End Uses (more than one may apply)							
Buildings with Space Heating	2,764	0.12	74.1	1.9	0.08	0.70	8.11
Buildings with Cooling	3,306	0.10	59.3	2.3	0.07	0.68	11.47
Buildings with Water Heating	3,150	0.11	71.1	2.2	0.08	0.69	8.42
Buildings with Cooking	6,160	0.09	53.7	4.0	0.06	0.64	13.15
Buildings with Manufacturing	Q	0.15	70.3	Q	0.09	0.62	26.85
Buildings with Electricity Generation	4,211	0.06	32.1	2.7	0.04	0.64	15.65
Space-Heating Energy Source							
Fuel Oil	3,126	0.24	192.0	2.2	0.17	0.70	7.53
Fuel Oil Main	3,207	0.33	347.3	2.2	0.23	0.70	7.28
Fuel Oil Secondary	2,579	0.07	40.4	1.7	0.05	0.67	18.94
Other Excluding Fuel Oil	987	0.01	7.0	0.7	0.01	0.70	18.25
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source							
Electricity	1,807	0.03	11.9	1.2	0.02	0.68	28.50
Natural Gas	1,306	0.02	12.0	0.9	0.01	0.67	16.06
Fuel Oil	3,207	0.33	347.3	2.2	0.23	0.70	7.28
District Heat	2,609	0.03	13.7	1.6	0.02	0.62	30.61
Propane	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-27. Fuel Oil Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	Fuel Oil Consumption			Fuel Oil Expenditures			RSE Row Factor
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)	
RSE Column Factor:	1.2	1.2	1.5	1.1	1.2	0.3	
Cooling Energy Source							
Fuel Oil	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	3,323	0.10	59.4	2.3	0.07	0.68	11.33
Buildings without Cooling	1,837	0.27	299.9	1.4	0.20	0.74	10.28
Water-Heating Energy Source							
Fuel Oil	6,676	0.37	347.5	4.4	0.25	0.67	11.48
Other Excluding Fuel Oil	2,046	0.07	39.2	1.5	0.05	0.72	9.60
Buildings without Water Heating	950	0.21	Q	0.8	0.17	0.81	22.65
Cooking Energy Source							
Fuel Oil	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	6,055	0.09	52.8	3.9	0.06	0.65	13.16
Buildings without Cooking	1,928	0.15	103.9	1.4	0.11	0.74	10.33
Percent of Floorspace Heated							
Not Heated	Q	Q	Q	Q	Q	Q	99.99
1 to 50	1,036	0.10	158.7	0.8	0.08	0.82	24.19
51 to 99	3,407	0.11	75.0	2.4	0.08	0.71	20.17
100	3,008	0.12	71.0	2.1	0.08	0.68	9.40
Annual Consumption (gallons)							
1,000 or less	366	0.02	8.9	0.3	0.01	0.93	15.83
1,001 to 5,000	2,240	0.18	106.2	1.8	0.14	0.80	8.61
5,001 to 10,000	6,988	0.19	166.1	5.2	0.14	0.75	7.42
10,001 to 25,000	15,225	0.29	289.3	9.6	0.19	0.63	6.38
Over 25,000	61,226	0.34	226.7	35.3	0.20	0.58	12.08

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-28. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1995

Building Characteristics	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	0.8	1.7	1.4	1.7	0.6	0.9	0.6	0.8	0.5	1.5	1.1	1.5	
All Buildings	1,200	114	324	47	5,423	2,681	4,175	2,142	0.22	0.04	0.08	0.02	20.48
Building Floorspace (square feet)													
1,001 to 10,000	317	Q	132	Q	789	Q	553	Q	0.40	Q	0.24	Q	32.59
10,001 to 100,000	570	Q	124	Q	1,997	816	1,171	573	0.29	Q	0.11	0.03	26.53
Over 100,000	313	29	69	Q	2,638	1,646	2,452	1,504	0.12	0.02	0.03	Q	24.20
Principal Building Activity													
Education	293	Q	82	Q	1,273	430	408	Q	0.23	Q	0.20	Q	34.84
Mercantile and Service	284	20	Q	Q	1,177	Q	553	Q	0.24	Q	Q	Q	40.63
Office	126	Q	Q	Q	983	614	1,271	686	0.13	Q	0.04	Q	34.17
Public Assembly	Q	Q	18	Q	Q	Q	332	Q	Q	Q	0.06	Q	36.92
Warehouse and Storage	32	Q	Q	Q	374	Q	Q	Q	0.09	Q	Q	Q	51.13
All Others	392	42	102	Q	1,248	795	1,345	722	0.31	0.05	0.08	Q	24.19
Year Constructed													
1919 or Before	173	Q	Q	Q	726	Q	Q	Q	0.24	Q	Q	Q	39.53
1920 to 1945	229	Q	Q	Q	706	324	Q	Q	0.33	Q	Q	Q	42.51
1946 to 1959	284	15	Q	Q	901	339	514	Q	0.32	Q	0.16	Q	36.87
1960 to 1969	258	Q	99	Q	1,105	482	938	346	0.23	Q	0.11	Q	35.01
1970 to 1979	126	Q	56	Q	731	600	885	719	0.17	0.03	0.06	Q	32.93
1980 to 1989	80	Q	Q	Q	858	457	1,317	480	0.09	Q	Q	Q	34.73
1990 to 1992	Q	Q	Q	Q	Q	Q	243	Q	Q	Q	Q	Q	57.78
1993 to 1995	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	315	Q	Q	Q	798	930	Q	Q	0.39	0.05	Q	Q	28.44
5,500-7,000 HDD	434	Q	Q	Q	2,055	1,366	Q	303	0.21	Q	Q	Q	27.45
4,000-5,499 HDD	452	6	239	Q	2,571	385	1,832	Q	0.18	Q	0.13	0.06	27.41
Fewer than 4,000 HDD	Q	Q	Q	Q	Q	Q	1,291	1,052	Q	Q	Q	Q	31.47
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	Q	Q	Q	Q	1,053	Q	Q	Q	Q	Q	40.82
Workers (main shift)													
Less than 10	379	Q	122	Q	1,305	Q	560	Q	0.29	0.15	0.22	Q	27.75
10 to 99	546	Q	115	Q	1,695	563	1,176	526	0.32	Q	0.10	0.06	26.74
100 or More	275	22	87	Q	2,423	1,610	2,440	1,523	0.11	0.01	0.04	Q	25.61
Weekly Operating Hours													
48 or Fewer	264	Q	137	Q	1,123	326	972	241	0.24	Q	0.14	Q	30.42
49 to 84	545	Q	90	Q	2,348	998	1,364	865	0.23	Q	0.07	Q	28.45
85 to 168	391	45	97	Q	1,952	1,358	1,839	1,035	0.20	0.03	0.05	Q	25.32
Ownership and Occupancy													
Nongovernment Owned	842	90	234	23	3,883	1,938	3,196	1,599	0.22	0.05	0.07	0.01	23.82
Owner Occupied	764	83	205	21	3,475	1,794	2,782	1,433	0.22	0.05	0.07	0.01	22.98
Nonowner Occupied	73	Q	Q	Q	383	Q	414	Q	0.19	Q	Q	Q	49.52
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	358	Q	90	Q	1,540	743	980	542	0.23	Q	0.09	Q	25.90
Space in Building Vacant for at Least Three Consecutive Months													
Yes	166	Q	30	Q	1,337	1,082	1,371	871	0.12	Q	0.02	Q	30.11
No	1,034	80	294	45	4,086	1,599	2,804	1,270	0.25	0.05	0.10	0.04	22.02
Energy Sources (more than one may apply)													
Electricity	1,192	114	323	47	5,368	2,669	4,166	2,142	0.22	0.04	0.08	0.02	21.42
Natural Gas	464	Q	96	Q	3,002	2,133	2,517	1,610	0.15	Q	0.04	Q	25.24
Fuel Oil	1,200	114	324	47	5,423	2,681	4,175	2,142	0.22	0.04	0.08	0.02	20.48
District Heat	51	Q	Q	Q	795	609	Q	Q	Q	Q	Q	Q	51.70
District Chilled Water	Q	Q	Q	Q	Q	Q	368	Q	Q	Q	Q	Q	45.19
Propane	325	Q	Q	Q	945	Q	467	Q	0.34	Q	0.21	Q	28.09
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-28. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1995 (Continued)

Building Characteristics	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/sq. ft.)				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	0.8	1.7	1.4	1.7	0.6	0.9	0.6	0.8	0.5	1.5	1.1	1.5	
Energy End Uses (more than one may apply)													
Buildings with Space Heating	1,200	114	324	Q	5,423	2,681	4,135	1,997	0.22	0.04	0.08	0.02	20.64
Buildings with Cooling	871	101	289	Q	4,415	2,517	3,978	1,993	0.20	0.04	0.07	Q	21.93
Buildings with Water Heating	1,129	106	309	43	5,238	2,599	3,996	2,127	0.22	0.04	0.08	0.02	20.80
Buildings with Cooking	529	31	161	Q	2,799	1,553	2,302	1,364	0.19	0.02	0.07	Q	23.31
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation	397	38	128	Q	2,758	1,835	3,094	1,889	0.14	0.02	0.04	Q	23.22
Space-Heating Energy Source													
Fuel Oil	1,172	97	272	Q	3,856	1,018	1,540	192	0.30	0.10	0.18	0.18	23.15
Fuel Oil Main	1,079	Q	223	Q	3,020	Q	802	Q	0.36	Q	0.28	Q	23.88
Fuel Oil Secondary	93	21	Q	Q	836	730	738	Q	0.11	0.03	0.07	Q	31.90
Other Excluding Fuel Oil	28	Q	52	Q	1,567	1,663	2,595	1,805	0.02	Q	0.02	Q	30.61
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source													
Electricity	Q	Q	Q	Q	Q	284	1,347	313	Q	0.03	0.04	Q	33.25
Natural Gas	42	25	36	Q	1,231	1,483	1,533	1,233	0.03	0.02	0.02	Q	28.15
Fuel Oil	1,079	Q	223	Q	3,020	Q	802	Q	0.36	Q	0.28	Q	23.88
District Heat	40	Q	Q	Q	633	556	362	342	0.06	Q	0.02	Q	50.71
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	860	101	286	Q	4,353	2,509	3,943	1,988	0.20	0.04	0.07	Q	22.07
Buildings without Cooling	329	Q	Q	Q	1,008	Q	Q	Q	0.33	Q	Q	Q	28.49
Water-Heating Energy Source													
Fuel Oil	648	Q	Q	Q	1,668	Q	Q	Q	0.39	Q	Q	Q	23.91
Other Excluding Fuel Oil	481	85	209	11	3,570	2,487	3,687	2,065	0.13	0.03	0.06	Q	20.92
Buildings without Water Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooking Energy Source													
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	523	31	161	Q	2,778	1,521	2,302	1,334	0.19	0.02	0.07	Q	23.15
Buildings without Cooking	672	Q	163	18	2,624	1,128	1,874	778	0.26	Q	0.09	0.02	23.29
Percent of Floorspace Heated													
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	63	Q	Q	Q	341	Q	Q	Q	0.18	Q	Q	Q	59.29
51 to 99	247	Q	Q	Q	1,246	261	883	467	0.20	Q	Q	Q	40.00
100	890	73	279	Q	3,837	2,202	2,943	1,395	0.23	0.03	0.09	0.02	23.18
Annual Consumption (gallons)													
1,000 or less	37	Q	Q	Q	1,525	1,934	2,770	1,748	0.02	Q	0.02	Q	31.06
1,001 to 5,000	348	Q	Q	Q	1,392	Q	678	Q	0.25	Q	0.13	Q	30.63
5,001 to 10,000	173	Q	Q	Q	731	Q	Q	Q	0.24	Q	Q	Q	39.64
10,001 to 25,000	219	Q	Q	Q	638	Q	Q	Q	0.34	Q	Q	Q	34.33
Over 25,000	424	Q	Q	Q	1,136	Q	Q	Q	0.37	Q	Q	Q	30.25

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-29. Fuel Oil Expenditures by Census Region, 1995

Building Characteristics	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars) per Gallon				Fuel Oil Expenditures (dollars) per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.2	2.3	2.0	2.0	0.3	0.4	0.3	0.5	0.8	2.1	1.7	2.1	
All Buildings	818	84	240	34	0.68	0.73	0.74	0.71	0.15	0.03	0.06	0.02	15.59
Building Floorspace (square feet)													
1,001 to 10,000	260	Q	Q	Q	0.82	Q	0.88	Q	0.33	Q	0.21	Q	15.00
10,001 to 100,000	386	Q	83	Q	0.68	0.72	0.67	0.68	0.19	Q	0.07	Q	18.47
Over 100,000	172	17	42	Q	0.55	0.60	0.60	0.58	0.07	0.01	0.02	Q	16.98
Principal Building Activity													
Education	180	Q	51	Q	0.61	0.63	0.62	Q	0.14	Q	0.13	Q	19.11
Mercantile and Service	204	16	Q	Q	0.72	0.79	0.87	Q	0.17	Q	Q	Q	19.79
Office	93	Q	Q	Q	0.74	0.82	0.74	1.03	0.10	Q	0.03	Q	21.35
Public Assembly	Q	Q	15	Q	Q	Q	0.83	Q	Q	Q	0.05	Q	20.11
Warehouse and Storage	21	Q	Q	Q	0.65	Q	Q	Q	0.06	Q	Q	Q	26.44
All Others	266	28	74	Q	0.68	0.66	0.72	0.75	0.21	0.04	0.05	Q	15.47
Year Constructed													
1919 or Before	118	Q	Q	Q	0.68	Q	Q	Q	0.16	Q	Q	Q	20.85
1920 to 1945	149	Q	Q	Q	0.65	0.82	Q	Q	0.21	Q	Q	Q	13.75
1946 to 1959	218	10	61	Q	0.77	0.66	0.74	Q	0.24	Q	0.12	Q	19.08
1960 to 1969	173	Q	70	Q	0.67	0.68	0.71	0.52	0.16	Q	0.07	Q	22.01
1970 to 1979	77	Q	42	Q	0.61	0.70	0.75	0.80	0.11	0.02	0.05	Q	21.36
1980 to 1989	51	Q	Q	Q	0.63	0.73	0.81	1.03	0.06	Q	Q	Q	32.97
1990 to 1992	Q	Q	Q	Q	Q	Q	0.93	Q	Q	Q	Q	Q	9.46
1993 to 1995	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Climate Zone: 45-Year Average													
Fewer than 2,000 CDD and --													
More than 7,000 HDD	202	Q	Q	Q	0.64	0.75	Q	Q	0.25	0.04	Q	Q	16.73
5,500-7,000 HDD	304	Q	Q	Q	0.70	0.70	Q	0.83	0.15	Q	Q	Q	10.97
4,000-5,499 HDD	312	5	178	Q	0.69	0.88	0.75	0.57	0.12	Q	0.10	0.03	21.98
Fewer than 4,000 HDD	Q	Q	Q	2	Q	Q	0.74	0.95	Q	Q	0.03	Q	27.81
More than 2,000 CDD and --													
Fewer than 4,000 HDD	Q	Q	18	Q	Q	Q	0.70	Q	Q	Q	Q	Q	34.72
Workers (main shift)													
Less than 10	298	Q	106	Q	0.79	0.77	0.87	Q	0.23	0.11	0.19	Q	12.65
10 to 99	361	Q	80	Q	0.66	0.66	0.70	0.70	0.21	Q	0.07	0.04	19.63
100 or More	158	14	53	Q	0.58	0.65	0.62	0.66	0.07	0.01	0.02	Q	19.17
Weekly Operating Hours													
48 or Fewer	194	Q	109	Q	0.73	0.75	0.80	0.73	0.17	Q	0.11	Q	23.03
49 to 84	381	Q	63	Q	0.70	0.76	0.70	0.72	0.16	Q	0.05	Q	20.56
85 to 168	243	32	67	Q	0.62	0.70	0.69	0.68	0.12	0.02	0.04	Q	22.57
Ownership and Occupancy													
Nongovernment Owned	596	Q	179	20	0.71	0.74	0.77	0.87	0.15	0.03	0.06	0.01	17.58
Owner Occupied	546	Q	154	19	0.71	0.75	0.75	0.89	0.16	0.03	0.06	0.01	16.85
Nonowner Occupied	46	Q	Q	Q	0.63	Q	0.88	Q	0.12	Q	Q	Q	19.56
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Government Owned	222	Q	60	Q	0.62	0.68	0.67	0.55	0.14	Q	0.06	Q	21.30
Space in Building Vacant for at Least Three Consecutive Months													
Yes	108	Q	24	Q	0.65	0.71	0.80	0.77	0.08	Q	0.02	Q	21.03
No	710	59	216	32	0.69	0.74	0.73	0.71	0.17	0.04	0.08	0.02	16.77
Energy Sources (more than one may apply)													
Electricity	812	84	239	34	0.68	0.73	0.74	0.71	0.15	0.03	0.06	0.02	15.98
Natural Gas	300	Q	61	Q	0.65	0.65	0.64	0.57	0.10	Q	0.02	Q	19.70
Fuel Oil	818	84	240	34	0.68	0.73	0.74	0.71	0.15	0.03	0.06	0.02	15.59
District Heat	31	Q	Q	Q	0.60	0.78	Q	Q	0.04	Q	Q	Q	51.98
District Chilled Water	Q	Q	3	Q	Q	Q	0.64	Q	Q	Q	0.01	Q	28.71
Propane	222	Q	Q	Q	0.68	Q	0.70	Q	0.23	Q	0.14	Q	14.77
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-29. Fuel Oil Expenditures by Census Region, 1995 (Continued)

Building Characteristics	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars) per Gallon				per Square Foot				RSE Row Factor
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West	
RSE Column Factor:	1.2	2.3	2.0	2.0	0.3	0.4	0.3	0.5	0.8	2.1	1.7	2.1	
Energy End Uses (more than one may apply)													
Buildings with Space Heating	818	84	240	Q	0.68	0.73	0.74	0.64	0.15	0.03	0.06	0.01	16.09
Buildings with Cooling	577	72	209	Q	0.66	0.71	0.72	0.86	0.13	0.03	0.05	Q	21.22
Buildings with Water Heating	764	76	226	30	0.68	0.71	0.73	0.69	0.15	0.03	0.06	0.01	16.93
Buildings with Cooking	336	20	108	Q	0.64	0.66	0.67	0.59	0.12	0.01	0.05	Q	21.01
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation	244	27	86	Q	0.61	0.71	0.68	0.70	0.09	0.01	0.03	Q	21.97
Space-Heating Energy Source													
Fuel Oil	801	71	202	Q	0.68	0.73	0.74	0.62	0.21	0.07	0.13	0.11	15.33
Fuel Oil Main	739	Q	169	Q	0.69	Q	0.76	Q	0.24	Q	0.21	Q	13.68
Fuel Oil Secondary	61	14	Q	Q	0.66	0.70	0.69	Q	0.07	0.02	0.05	Q	19.91
Other Excluding Fuel Oil	18	Q	37	4	0.63	0.71	0.72	0.82	0.01	Q	0.01	Q	24.54
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source													
Electricity	Q	Q	Q	Q	Q	0.72	0.68	0.81	Q	0.02	0.03	Q	20.10
Natural Gas	27	16	25	Q	0.64	0.66	0.70	0.78	0.02	0.01	0.02	Q	22.60
Fuel Oil	739	Q	169	Q	0.69	Q	0.76	Q	0.24	Q	0.21	Q	13.68
District Heat	24	Q	4	Q	0.60	0.91	0.62	0.83	0.04	Q	0.01	Q	22.80
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source													
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	567	72	207	Q	0.66	0.71	0.72	0.88	0.13	0.03	0.05	Q	21.11
Buildings without Cooling	241	Q	Q	Q	0.73	Q	Q	Q	0.24	Q	Q	Q	16.53
Water-Heating Energy Source													
Fuel Oil	428	Q	Q	Q	0.66	Q	Q	Q	0.26	Q	Q	Q	14.72
Other Excluding Fuel Oil	336	Q	156	8	0.70	0.73	0.75	0.76	0.09	0.02	0.04	(*)	18.14
Buildings without Water Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Cooking Energy Source													
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	333	20	108	Q	0.64	0.66	0.67	0.65	0.12	0.01	0.05	Q	21.28
Buildings without Cooking	482	Q	132	17	0.72	0.76	0.81	0.90	0.18	Q	0.07	0.02	16.14
Percent of Floorspace Heated													
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	53	Q	Q	Q	0.84	Q	Q	Q	0.15	Q	Q	Q	38.05
51 to 99	171	Q	Q	Q	0.69	0.77	0.91	0.60	0.14	Q	Q	Q	17.53
100	594	52	201	Q	0.67	0.71	0.72	0.65	0.15	0.02	0.07	0.01	17.07
Annual Consumption (gallons)													
1,000 or less	35	Q	Q	Q	0.95	0.90	0.93	0.91	0.02	Q	0.02	Q	17.04
1,001 to 5,000	276	Q	Q	Q	0.79	Q	0.84	Q	0.20	Q	0.11	Q	17.83
5,001 to 10,000	132	Q	Q	Q	0.77	Q	Q	Q	0.18	Q	Q	Q	18.55
10,001 to 25,000	139	Q	Q	Q	0.63	Q	Q	Q	0.22	Q	Q	Q	16.33
Over 25,000	236	Q	Q	Q	0.56	Q	Q	Q	0.21	Q	Q	Q	16.93

(*) = Value rounds to zero in the units displayed.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-30. Total District Heat Consumption and Expenditures, 1995

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.1	1.0	
All Buildings	110	5,658	52	533	3,103	18.79
Building Floorspace (square feet)						
1,001 to 5,000	Q	Q	Q	Q	Q	99.99
5,001 to 10,000	Q	Q	Q	Q	Q	99.99
10,001 to 25,000	25	370	15	38	174	27.62
25,001 to 50,000	18	651	37	55	383	15.28
50,001 to 100,000	11	744	71	60	400	18.60
100,001 to 200,000	8	1,119	140	84	530	14.40
200,001 to 500,000	4	1,211	305	94	557	17.24
Over 500,000	1	1,351	918	93	521	20.25
Principal Building Activity						
Education	36	1,077	30	91	595	25.20
Food Sales	Q	Q	Q	Q	Q	99.99
Food Service	Q	Q	Q	Q	Q	99.99
Health Care	4	640	143	70	428	25.20
Lodging	11	616	Q	57	291	32.57
Mercantile and Service	Q	Q	Q	Q	Q	99.99
Office	Q	1,532	77	75	524	25.08
Public Assembly	Q	636	Q	Q	Q	22.57
Public Order and Safety	Q	Q	Q	Q	Q	99.99
Religious Worship	Q	Q	Q	Q	Q	99.99
Warehouse and Storage	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	99.99
Vacant	Q	Q	Q	Q	Q	99.99
Year Constructed						
1919 or Before	Q	556	26	31	238	38.28
1920 to 1945	Q	864	43	85	495	31.53
1946 to 1959	13	939	70	57	328	26.90
1960 to 1969	23	1,408	60	124	721	24.64
1970 to 1979	15	965	64	89	532	23.05
1980 to 1989	Q	508	Q	Q	Q	22.49
1990 to 1992	Q	Q	Q	Q	Q	99.99
1993 to 1995	Q	Q	Q	Q	Q	99.99
Census Region and Division						
Northeast	Q	1,768	73	135	863	29.34
New England	2	226	104	23	131	35.27
Middle Atlantic	Q	1,542	70	112	732	35.38
Midwest	35	1,902	54	173	1,100	21.78
East North Central	19	1,214	66	114	677	30.37
West North Central	16	688	42	60	423	33.02
South	Q	1,038	32	83	402	34.06
South Atlantic	Q	364	39	Q	215	44.53
East South Central	Q	Q	Q	Q	Q	99.99
West South Central	Q	Q	Q	Q	Q	99.99
West	18	949	Q	Q	Q	30.30
Mountain	6	Q	Q	Q	Q	28.12
Pacific	12	631	52	Q	Q	39.74
Climate Zone: 45-Year Average						
Fewer than 2,000 CDD and --						
More than 7,000 HDD	3	267	90	29	183	27.96
5,500-7,000 HDD	30	1,919	65	259	1,443	28.66
4,000-5,499 HDD	44	2,292	52	154	1,001	27.72
Fewer than 4,000 HDD	10	537	56	Q	Q	26.85
More than 2,000 CDD and --						
Fewer than 4,000 HDD	24	643	27	Q	192	39.18

See footnotes at end of table.

Table CE-30. Total District Heat Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.1	1.0	
Workers (main shift)						
Fewer than 5	Q	Q	Q	Q	Q	99.99
5 to 9	Q	Q	Q	Q	Q	99.99
10 to 19	Q	Q	Q	Q	Q	99.99
20 to 49	16	617	38	66	391	23.58
50 to 99	17	713	43	74	445	25.44
100 to 249	8	886	109	66	391	20.87
250 or More	9	2,458	271	183	1,098	18.66
Weekly Operating Hours						
39 or Fewer	Q	Q	Q	Q	Q	99.99
40 to 48	23	762	33	69	380	35.68
49 to 60	Q	970	43	81	489	27.20
61 to 84	12	628	52	44	296	31.33
85 to 167	Q	840	Q	Q	Q	27.48
Open Continuously	32	2,320	72	203	1,215	25.60
Ownership and Occupancy						
Nongovernment Owned	50	2,789	56	295	1,730	30.48
Owner Occupied	44	2,482	57	283	1,638	31.39
Nonowner Occupied	Q	Q	Q	Q	Q	99.99
Unoccupied	Q	Q	Q	Q	Q	99.99
Government Owned	60	2,869	48	238	1,374	22.47
Space in Building Vacant for at Least Three Consecutive Months						
Yes	Q	1,572	86	84	554	23.38
No	92	4,086	45	449	2,550	21.05
Energy Sources (more than one may apply)						
Electricity	110	5,646	51	532	3,100	20.15
Natural Gas	30	2,343	79	194	1,277	22.46
Fuel Oil	20	2,174	110	163	1,069	19.84
District Heat	110	5,658	52	533	3,103	18.79
District Chilled Water	47	2,140	46	250	1,393	34.32
Propane	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	99.99
Energy End Uses (more than one may apply)						
Buildings with Space Heating	109	5,642	52	532	3,102	18.79
Buildings with Cooling	95	5,128	54	488	2,835	20.75
Buildings with Water Heating	96	5,424	57	496	2,874	18.92
Buildings with Cooking	17	2,031	117	181	1,088	17.66
Buildings with Manufacturing	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation	Q	2,434	115	188	1,302	21.48
Space-Heating Energy Source						
District Heat	109	5,606	51	530	3,084	18.84
District Heat Main	107	5,289	49	508	2,984	19.03
District Heat Secondary	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat	Q	Q	Q	Q	Q	99.99
Buildings without Space Heating	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-30. Total District Heat Consumption and Expenditures, 1995 (Continued)

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
RSE Column Factor:	1.2	0.9	0.9	1.1	1.0	
Primary Space-Heating Energy Source						
Electricity	Q	Q	Q	Q	Q	99.99
Natural Gas	Q	Q	Q	Q	Q	99.99
Fuel Oil	Q	Q	Q	Q	Q	99.99
District Heat	107	5,289	49	508	2,984	19.03
Propane	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	99.99
Cooling Energy Source						
District Heat	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat	93	4,549	49	447	2,561	21.26
Buildings without Cooling	14	530	37	45	269	31.92
Water-Heating Energy Source						
District Heat	54	3,949	74	406	2,279	19.57
Other Excluding District Heat	42	1,475	35	89	595	31.32
Buildings without Water Heating	Q	Q	Q	Q	Q	99.99
Cooking Energy Source						
District Heat	5	591	110	76	483	20.53
Other Excluding District Heat	12	1,439	120	105	605	23.54
Buildings without Cooking	92	3,627	39	351	2,015	23.21
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	99.99
1 to 50	Q	Q	Q	Q	Q	99.99
51 to 99	7	748	105	41	285	29.44
100	101	4,828	48	488	2,798	20.12

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table CE-31. District Heat Consumption and Expenditure Intensities, 1995

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
RSE Column Factor:	1.2	0.9	1.2	1.2	0.8	0.7	
All Buildings	4,849	94.14	51.2	28.3	0.55	5.83	18.60
Building Floorspace (square feet)							
1,001 to 5,000	Q	Q	Q	Q	Q	Q	99.99
5,001 to 10,000	Q	Q	Q	Q	Q	Q	99.99
10,001 to 25,000	1,559	103.56	68.1	7.1	0.47	4.55	34.66
25,001 to 50,000	3,145	84.62	58.9	21.8	0.59	6.94	24.02
50,001 to 100,000	5,731	81.02	41.0	38.0	0.54	6.63	26.40
100,001 to 200,000	10,585	75.38	43.3	66.5	0.47	6.29	16.48
200,001 to 500,000	23,667	77.72	53.4	140.1	0.46	5.92	16.47
Over 500,000	63,104	68.71	29.2	354.1	0.39	5.61	19.45
Principal Building Activity							
Education	2,545	84.51	42.6	16.6	0.55	6.54	29.39
Food Sales	Q	Q	Q	Q	Q	Q	99.99
Food Service	Q	Q	Q	Q	Q	Q	99.99
Health Care	15,690	109.51	65.0	95.8	0.67	6.11	23.17
Lodging	Q	92.63	82.0	Q	0.47	5.10	25.04
Mercantile and Service	Q	Q	Q	Q	Q	Q	99.99
Office	3,770	49.28	15.8	26.2	0.34	6.94	20.61
Public Assembly	13,121	Q	Q	67.6	Q	5.15	18.92
Public Order and Safety	Q	Q	Q	Q	Q	Q	99.99
Religious Worship	Q	Q	Q	Q	Q	Q	99.99
Warehouse and Storage	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99
Vacant	Q	Q	Q	Q	Q	Q	99.99
Year Constructed							
1919 or Before	1,432	55.73	32.3	11.0	0.43	7.69	32.26
1920 to 1945	4,191	98.36	39.5	24.4	0.57	5.82	31.58
1946 to 1959	4,231	60.24	40.0	24.5	0.35	5.79	18.84
1960 to 1969	5,308	88.27	45.2	30.8	0.51	5.81	27.02
1970 to 1979	5,917	92.42	53.4	35.3	0.55	5.96	15.51
1980 to 1989	Q	Q	Q	74.1	Q	Q	20.82
1990 to 1992	Q	Q	Q	Q	Q	Q	99.99
1993 to 1995	Q	Q	Q	Q	Q	Q	99.99
Census Region and Division							
Northeast	5,558	76.31	34.1	35.5	0.49	6.39	22.16
New England	10,507	100.91	40.7	60.4	0.58	5.74	22.00
Middle Atlantic	5,073	72.71	33.0	33.1	0.47	6.53	26.27
Midwest	4,960	91.17	64.9	31.4	0.58	6.34	18.06
East North Central	6,149	93.69	89.3	36.6	0.56	5.95	22.77
West North Central	3,624	86.73	42.6	25.7	0.61	7.09	22.09
South	2,588	80.25	48.0	12.5	0.39	4.83	21.77
South Atlantic	5,471	139.92	74.3	23.1	0.59	4.23	26.22
East South Central	Q	Q	Q	Q	Q	Q	99.99
West South Central	Q	Q	Q	Q	Q	Q	99.99
West	7,651	Q	Q	40.1	Q	5.24	35.12
Mountain	15,565	Q	Q	Q	Q	4.49	33.83
Pacific	3,646	70.65	29.2	Q	Q	6.86	99.99
Climate Zone: 45-Year Average							
Fewer than 2,000 CDD and --							
More than 7,000 HDD	9,925	110.09	47.6	61.6	0.68	6.21	23.32
5,500-7,000 HDD	8,724	134.98	112.6	48.6	0.75	5.57	26.62
4,000-5,499 HDD	3,511	67.32	30.4	22.8	0.44	6.48	24.63
Fewer than 4,000 HDD	5,241	93.65	36.4	29.7	0.53	5.67	31.23
More than 2,000 CDD and --							
Fewer than 4,000 HDD	1,676	Q	Q	8.1	0.30	Q	30.24

See footnotes at end of table.

Table CE-31. District Heat Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
RSE Column Factor:	1.2	0.9	1.2	1.2	0.8	0.7	
Workers (main shift)							
Fewer than 5	Q	Q	Q	Q	Q	Q	99.99
5 to 9	Q	Q	Q	Q	Q	Q	99.99
10 to 19	Q	Q	Q	Q	Q	Q	99.99
20 to 49	4,015	106.84	143.0	23.8	0.63	5.93	24.41
50 to 99	4,429	103.56	69.2	26.7	0.62	6.02	23.62
100 to 249	8,144	74.51	53.1	48.2	0.44	5.92	13.60
250 or More	20,234	74.62	25.1	121.1	0.45	5.98	16.59
Weekly Operating Hours							
39 or Fewer	Q	Q	Q	Q	Q	Q	99.99
40 to 48	2,942	Q	63.4	16.2	0.50	Q	35.94
49 to 60	3,565	83.27	32.5	21.6	0.50	6.05	22.67
61 to 84	3,692	70.74	38.4	24.7	0.47	6.68	23.59
85 to 167	12,091	Q	Q	61.9	Q	5.12	12.99
Open Continuously	6,357	87.69	47.8	38.0	0.52	5.97	17.47
Ownership and Occupancy							
Nongovernment Owned	5,936	105.65	55.0	34.9	0.62	5.87	26.66
Owner Occupied	6,475	114.17	65.0	37.4	0.66	5.78	27.58
Nonowner Occupied	Q	Q	Q	Q	Q	Q	99.99
Unoccupied	Q	Q	Q	Q	Q	Q	99.99
Government Owned	3,952	82.95	47.1	22.8	0.48	5.77	18.75
Space in Building Vacant for at Least Three Consecutive Months							
Yes	4,582	53.43	21.0	30.2	0.35	6.59	18.44
No	4,902	109.80	70.0	27.9	0.62	5.68	21.54
Energy Sources (more than one may apply)							
Electricity	4,844	94.22	51.2	28.2	0.55	5.83	15.80
Natural Gas	6,543	83.01	39.6	43.0	0.54	6.56	19.32
Fuel Oil	8,229	74.76	41.0	54.1	0.49	6.58	14.15
District Heat	4,849	94.14	51.2	28.3	0.55	5.83	19.72
District Chilled Water	5,366	116.82	68.0	29.9	0.65	5.57	26.77
Propane	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,865	94.38	51.1	28.3	0.55	5.83	18.60
Buildings with Cooling	5,111	95.11	49.9	29.7	0.55	5.81	19.87
Buildings with Water Heating	5,176	91.35	49.4	30.0	0.53	5.80	18.98
Buildings with Cooking	10,446	89.33	40.3	62.7	0.54	6.00	16.22
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation	8,902	77.10	43.8	61.8	0.54	6.94	16.33
Space-Heating Energy Source							
District Heat	4,855	94.55	51.1	28.2	0.55	5.82	18.73
District Heat Main	4,731	95.98	51.4	27.8	0.56	5.88	19.03
District Heat Secondary	Q	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat	Q	Q	Q	Q	Q	Q	99.99
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

Table CE-31. District Heat Consumption and Expenditure Intensities, 1995 (Continued)

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
RSE Column Factor:	1.2	0.9	1.2	1.2	0.8	0.7	
Primary Space-Heating Energy Source							
Electricity	Q	Q	Q	Q	Q	Q	99.99
Natural Gas	Q	Q	Q	Q	Q	Q	99.99
Fuel Oil	Q	Q	Q	Q	Q	Q	99.99
District Heat	4,731	95.98	51.4	27.8	0.56	5.88	19.03
Propane	Q	Q	Q	Q	Q	Q	99.99
Other	Q	Q	Q	Q	Q	Q	99.99
Cooling Energy Source							
District Heat	Q	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat	4,790	98.34	52.3	27.4	0.56	5.72	21.84
Buildings without Cooling	3,115	84.74	Q	18.6	0.51	5.99	29.59
Water-Heating Energy Source							
District Heat	7,586	102.89	56.9	42.6	0.58	5.61	20.12
Other Excluding District Heat	2,115	60.46	30.9	14.1	0.40	6.67	20.70
Buildings without Water Heating	Q	Q	Q	Q	Q	Q	99.99
Cooking Energy Source							
District Heat	14,172	128.80	66.3	90.0	0.82	6.35	23.42
Other Excluding District Heat	8,776	73.11	31.4	50.4	0.42	5.75	22.20
Buildings without Cooking	3,798	96.84	59.4	21.8	0.56	5.74	24.25
Percent of Floorspace Heated							
Not Heated	Q	Q	Q	Q	Q	Q	99.99
1 to 50	Q	Q	Q	Q	Q	Q	99.99
51 to 99	5,766	54.84	34.3	40.0	0.38	6.94	22.78
100	4,813	101.13	53.2	27.6	0.58	5.73	20.36

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Energy End Use Tables

(EU-1 through EU-6)

Table EU-1. Sum of Major Fuel Consumption by End Use, 1995

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
All Buildings	5,321	1,703	350	162	811	1,202	217	182	334	359	4.35
Building Floorspace (square feet)											
1,001 to 5,000	708	251	45	19	62	144	57	66	34	32	7.44
5,001 to 10,000	624	290	33	13	84	102	33	19	28	22	19.26
10,001 to 25,000	824	319	56	20	106	171	31	30	50	43	8.84
25,001 to 50,000	630	217	51	16	89	142	16	19	38	40	7.58
50,001 to 100,000	698	215	55	25	103	170	16	17	49	48	7.47
100,001 to 200,000	687	180	42	23	133	169	21	10	49	61	9.75
200,001 to 500,000	636	134	37	25	140	152	26	9	47	66	10.57
Over 500,000	514	98	32	21	95	152	19	12	37	48	12.32
Principal Building Activity											
Education	614	254	37	13	134	122	11	8	11	22	7.84
Food Sales	137	18	9	3	6	22	4	71	1	5	13.65
Food Service	332	42	26	7	37	50	105	43	3	18	17.57
Health Care	561	129	23	17	147	92	26	11	36	80	11.15
Lodging	461	82	29	6	186	84	24	8	14	27	11.28
Mercantile and Service	973	390	74	31	65	298	20	11	37	48	10.17
Office	1,019	255	95	54	91	294	11	5	159	55	8.80
Public Assembly	449	212	25	14	69	86	11	7	10	15	21.90
Public Order and Safety	124	35	8	3	30	21	Q	(*)	7	16	21.52
Religious Worship	104	66	5	3	9	14	1	2	1	3	12.40
Warehouse and Storage	325	133	8	3	17	83	(*)	14	37	28	12.71
Other	173	60	9	8	15	27	Q	1	15	36	25.71
Vacant	51	28	1	1	6	9	Q	1	1	5	26.18
Year Constructed											
1919 or Before	292	126	10	6	37	55	15	5	12	28	14.81
1920 to 1945	508	248	23	11	72	82	12	11	22	27	10.01
1946 to 1959	826	346	41	19	131	144	28	25	43	48	12.14
1960 to 1969	1,024	328	62	30	182	221	44	32	58	66	7.82
1970 to 1979	1,125	295	82	41	180	290	36	42	76	84	7.29
1980 to 1989	1,059	242	96	39	140	288	51	37	93	72	11.13
1990 to 1992	297	69	22	9	45	74	24	14	21	19	17.48
1993 to 1995	190	50	16	7	24	47	7	15	10	14	16.24
Floors											
One	1,846	637	138	51	195	418	105	112	100	91	7.96
Two	1,122	398	80	29	154	258	34	38	65	64	8.21
Three	675	256	37	17	110	136	21	10	38	49	7.54
Four to Nine	1,229	321	66	42	265	272	41	16	88	116	8.63
Ten or More	451	92	29	22	87	118	16	6	43	38	9.15
Census Region and Division											
Northeast	1,035	385	48	24	169	211	32	36	54	76	7.71
New England	274	118	10	5	48	50	6	6	13	17	14.24
Middle Atlantic	761	266	38	19	121	161	26	30	41	59	9.49
Midwest	1,497	668	62	35	224	270	51	34	73	80	8.22
East North Central	987	439	41	22	155	168	42	24	45	50	7.95
West North Central	510	229	20	14	69	102	8	10	29	30	19.78
South	1,684	376	176	66	219	444	84	72	122	126	6.88
South Atlantic	772	164	83	31	88	211	44	29	62	60	9.26
East South Central	417	120	37	13	57	104	11	18	26	30	16.49
West South Central	494	92	56	21	74	129	29	25	34	35	11.94
West	1,106	275	65	37	199	277	51	40	85	77	12.72
Mountain	429	157	23	13	83	84	11	12	26	21	28.29
Pacific	677	117	42	24	117	193	40	28	59	56	8.71

See footnotes at end of table.

Table EU-1. Sum of Major Fuel Consumption by End Use, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventil-ation	Water Heating	Lighting	Cooking	Refrig-eration	Office Equip-ment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	499	241	16	9	72	90	11	12	23	24	13.87
5,500-7,000 HDD	1,591	706	59	35	266	271	50	43	76	85	10.06
4,000-5,499 HDD	1,407	447	82	44	202	337	49	39	94	112	10.32
Fewer than 4,000 HDD	1,078	214	92	39	165	292	60	50	83	83	10.26
More than 2,000 CDD and --											
Fewer than 4,000 HDD	746	95	101	35	106	212	47	37	57	56	12.01
Workers (main shift)											
Fewer than 5	789	373	35	18	112	131	13	47	27	31	14.26
5 to 9	509	227	29	12	55	96	17	25	22	26	13.02
10 to 19	614	227	42	14	71	127	50	25	34	24	12.46
20 to 49	868	279	62	20	118	188	56	39	50	56	7.95
50 to 99	630	191	47	16	113	154	20	16	37	36	7.39
100 to 249	649	164	51	22	121	160	18	9	49	55	10.25
250 or More	1,262	243	84	60	222	345	43	20	116	129	10.08
Weekly Operating Hours											
39 or Fewer	180	103	10	4	19	22	3	3	6	9	13.05
40 to 48	879	418	57	25	71	164	14	11	81	38	9.02
49 to 60	937	360	63	36	82	224	10	14	92	56	9.98
61 to 84	796	248	63	27	86	219	42	26	41	44	7.22
85 to 167	831	211	55	22	127	198	73	73	29	42	14.55
Open Continuously	1,698	363	103	48	426	374	75	54	86	169	7.82
Ownership and Occupancy											
Nongovernment Owned	3,950	1,206	275	120	572	908	189	160	256	264	4.83
Owner Occupied	3,287	1,023	218	97	514	718	161	136	198	220	5.38
Nonowner Occupied	647	176	57	22	55	186	28	24	57	42	8.98
Unoccupied	16	7	Q	(*)	Q	Q	Q	(*)	(*)	2	44.78
Government Owned	1,372	498	75	42	239	294	28	22	78	94	9.53
Federal	266	77	13	12	34	72	3	3	26	25	26.79
State	438	135	24	14	93	96	9	6	25	35	17.00
Local	668	286	38	16	112	126	16	13	27	34	12.58
Space in Building Vacant for at Least Three Consecutive Months											
Yes	1,120	325	84	41	143	290	36	19	86	95	9.94
No	4,202	1,378	267	120	668	911	181	162	248	264	5.11
Energy Sources (more than one may apply)											
Electricity	5,312	1,696	350	162	809	1,202	217	182	334	358	4.37
Natural Gas	3,931	1,314	238	109	631	816	209	117	215	282	4.65
Fuel Oil	1,732	488	98	60	334	379	59	28	116	169	6.63
District Heat	1,051	364	28	31	235	189	21	12	62	108	17.05
District Chilled Water	542	172	4	20	119	102	12	6	33	73	21.54
Propane	392	107	30	13	58	94	10	25	20	36	12.76
Other	259	106	11	5	Q	42	7	4	10	Q	40.79
Space-Heating Energy Sources (more than one may apply)											
Electricity	1,908	431	177	68	260	518	94	78	147	135	5.99
Natural Gas	3,095	1,162	187	84	459	643	131	93	174	161	4.97
Fuel Oil	722	287	31	18	137	134	17	11	37	50	14.19
District Heat	1,036	364	28	31	231	187	20	12	61	101	12.91
Propane	129	20	11	5	17	37	3	16	8	13	18.99
Other	77	20	5	2	11	16	3	2	3	Q	16.02

See footnotes at end of table.

Table EU-1. Sum of Major Fuel Consumption by End Use, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Primary Space-Heating Energy Source											
Electricity	1,006	115	128	43	117	318	64	54	93	73	7.38
Natural Gas	2,839	1,094	165	76	411	584	122	87	156	145	5.55
Fuel Oil	305	151	12	5	55	46	5	5	11	15	11.86
District Heat	977	339	27	30	216	179	17	11	59	98	14.08
Propane	71	2	8	3	3	26	Q	13	5	9	27.39
Other	16	3	Q	1	2	5	(*)	Q	1	1	28.43
Cooling Energy Sources (more than one may apply)											
Electricity	4,532	1,345	345	144	673	1,059	207	164	295	297	4.22
Natural Gas	220	68	11	7	33	47	8	4	12	30	31.72
District Chilled Water	542	172	4	20	119	102	12	6	33	73	21.54
Water-Heating Energy Sources (more than one may apply)											
Electricity	1,657	483	158	66	73	500	54	70	144	109	6.42
Natural Gas	2,769	901	168	71	539	551	152	95	137	155	5.46
Fuel Oil	203	70	10	3	66	28	3	4	7	12	14.83
District Heat	762	232	21	22	204	130	17	9	42	83	14.12
Propane	75	12	9	3	5	24	Q	Q	3	8	22.04
Cooking Energy Sources (more than one may apply)											
Electricity	1,496	324	109	50	253	387	108	80	79	107	6.75
Natural Gas	1,698	375	107	46	351	348	206	73	68	124	6.11
Propane	125	25	14	5	14	35	4	15	4	10	22.10
Percent of Floorspace Heated											
Not Heated	74	0	7	2	5	31	Q	8	7	10	19.70
1 to 50	247	86	16	7	15	63	9	14	20	18	11.59
51 to 99	805	235	60	27	110	207	34	31	53	45	10.17
100	4,195	1,382	267	125	681	900	171	128	254	286	4.42
Percent of Floorspace Cooled											
Not Cooled	399	212	0	4	60	70	5	10	17	20	13.13
1 to 50	1,044	528	42	15	140	177	15	23	45	59	9.62
51 to 99	1,360	337	102	50	225	348	63	44	92	100	6.15
100	2,519	627	206	93	387	607	134	105	180	179	7.08
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	308	149	15	7	39	43	6	13	15	21	8.84
51 to 99	884	287	53	27	144	186	33	26	59	70	7.15
100	4,103	1,249	281	129	625	972	178	143	259	266	5.13
Building Not in Use/ Electricity Not Used	26	18	Q	(*)	3	(*)	Q	Q	1	2	34.18
Percent Lit when Closed											
Zero	753	366	41	21	59	140	10	19	50	46	9.36
1 to 50	2,639	924	186	84	298	611	122	96	186	131	6.42
51 to 100	208	33	19	9	26	76	10	13	Q	12	21.04
Never Closed	1,696	362	103	48	425	374	75	54	86	169	8.55
Building Not in Use/ Electricity Not Used	26	18	Q	(*)	Q	(*)	Q	Q	1	2	41.64
Heating Equipment (more than one may apply)											
Heat Pumps	500	87	53	17	93	135	18	14	43	40	7.83
Furnaces	1,151	480	68	30	110	242	47	64	56	53	7.41
Individual Space Heaters	1,469	521	91	42	199	339	37	49	96	95	8.21
District Heat	1,063	364	29	32	232	197	23	13	64	108	12.73
Boilers	1,891	673	108	51	370	376	60	26	107	119	5.84
Packaged Heating Units	1,464	341	136	47	184	392	103	74	100	86	5.44
Other	670	136	52	30	99	202	22	15	58	56	11.56

See footnotes at end of table.

Table EU-1. Sum of Major Fuel Consumption by End Use, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Cooling Equipment (more than one may apply)											
Residential-Type Central A/C	946	314	67	26	141	192	53	42	50	59	10.36
Heat Pumps	599	112	62	21	101	162	22	20	53	46	8.23
Individual A/C	1,200	450	68	21	244	206	49	30	49	82	8.01
District Chilled Water	542	172	4	20	119	102	12	6	33	73	21.54
Central Chillers	1,473	320	110	63	290	376	50	21	116	124	7.35
Packaged A/C Units	2,584	692	209	85	344	656	137	110	179	171	5.09
Swamp Coolers	252	53	16	8	53	56	21	13	16	17	15.64
Other	105	27	6	4	13	30	4	5	9	8	20.45
Lighting Equipment Types (more than one may apply)											
Incandescent	3,513	1,081	226	104	630	771	166	105	196	233	5.03
Standard Fluorescent	5,202	1,647	344	160	795	1,180	215	178	330	352	4.34
Compact Fluorescent	1,746	427	119	61	325	424	81	44	118	147	7.76
High-Intensity Discharge	1,673	502	105	52	284	412	58	40	102	119	6.73
Halogen	1,097	323	68	36	198	255	43	24	68	80	11.17
Other	48	7	5	3	6	17	1	Q	3	5	32.02
Water-Heating Equipment (more than one may apply)											
Centralized System	3,445	1,134	205	99	595	702	152	130	200	226	5.37
Distributed System	1,233	335	109	44	124	352	48	35	94	93	5.36
Combination of Centralized and Distributed System	412	112	23	13	92	95	17	9	24	27	12.04
Personal Computers and/or Computer Terminals											
None	666	300	33	15	92	107	32	34	17	37	11.25
1 to 4	922	342	56	22	107	181	69	66	32	48	5.55
5 to 9	522	195	37	11	64	111	27	24	26	27	14.30
10 to 19	560	194	37	12	100	123	15	14	36	28	17.56
20 to 49	646	201	50	17	107	152	18	15	42	43	8.50
50 to 99	486	138	38	14	79	122	13	7	36	40	9.74
100 to 249	585	145	42	23	109	151	16	12	43	45	9.14
250 or More	934	188	59	48	154	255	27	11	102	92	12.76
Commercial Refrigeration Equipment (more than one may apply)											
Any Equipment	2,706	604	191	85	473	642	210	155	132	214	4.44
Walk-In Units	2,172	427	156	69	387	526	187	138	106	176	5.25
Cases and Cabinets	2,372	526	170	75	417	563	191	136	109	184	4.99
None	2,615	1,099	160	76	338	560	8	26	202	144	6.80
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	4,578	1,416	307	141	720	1,040	189	160	295	309	4.94
Wall Insulation	3,085	852	221	98	510	719	138	112	215	218	5.63
Storm or Multiple Glazing	3,074	949	191	91	521	673	147	91	199	210	5.26
Tinted, Reflective or Shading Glass	2,590	658	188	98	409	642	123	76	201	195	7.07
Exterior or Interior Shading or Awnings	3,772	1,110	254	122	615	862	164	96	265	283	5.09
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	1,726	380	114	71	325	437	78	36	139	146	7.75
Economizer Cycle	2,110	549	140	75	381	494	98	52	155	167	7.24
HVAC Maintenance	4,512	1,367	303	141	734	1,033	188	130	297	319	4.53
Other Energy Efficient Equipment	776	191	52	29	139	186	32	20	58	68	8.64

See footnotes at end of table.

Table EU-1. Sum of Major Fuel Consumption by End Use, 1995 (Continued)

Building Characteristics	Sum of Major Fuel Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	1,934	566	127	63	310	467	82	53	127	140	8.31
Energy-Efficient Ballasts	3,120	871	213	106	507	754	125	97	221	226	5.06
Natural Lighting Control Sensors	753	223	53	22	130	180	28	22	40	55	14.14
Occupancy Sensors	722	175	44	26	131	169	34	19	58	65	9.29
Time Clock	1,366	296	113	54	219	386	55	41	105	97	7.61
Manual Dimmer Switches	1,642	431	110	60	290	383	94	33	115	125	7.63
Other	332	86	24	12	52	87	9	9	28	24	12.64
Off-Hour Equipment Reduction (more than one may apply)											
Heating	3,023	1,138	203	95	339	682	123	88	201	153	5.84
Cooling	2,851	1,007	212	95	314	666	122	87	200	147	6.36
Lighting	3,550	1,312	243	112	376	815	140	120	246	185	5.55

(*) = Value rounds to zero in the units displayed.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table EU-2. Energy End-Use Intensities for Sum of Major Fuels, 1995

Building Characteristics	Energy Intensity for Sum of Major Fuels (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
All Buildings	90.5	29.0	6.0	2.8	13.8	20.4	3.7	3.1	5.7	6.1	3.79
Building Floorspace (square feet)											
1,001 to 5,000	111.7	39.5	7.0	2.9	9.7	22.7	8.9	10.4	5.4	5.1	7.03
5,001 to 10,000	82.8	38.5	4.4	1.7	11.1	13.6	4.3	2.5	3.8	2.9	17.60
10,001 to 25,000	70.9	27.4	4.8	1.7	9.1	14.7	2.6	2.5	4.3	3.7	9.50
25,001 to 50,000	82.0	28.2	6.7	2.1	11.6	18.5	2.1	2.5	5.0	5.2	4.89
50,001 to 100,000	87.6	27.0	7.0	3.2	12.9	21.3	2.0	2.1	6.1	6.0	5.96
100,001 to 200,000	101.4	26.6	6.2	3.3	19.6	25.0	3.1	1.4	7.2	8.9	8.53
200,001 to 500,000	114.6	24.0	6.7	4.5	25.2	27.4	4.6	1.6	8.5	11.9	8.15
Over 500,000	96.8	18.5	6.0	3.9	18.0	28.6	3.5	2.2	7.0	9.1	12.38
Principal Building Activity											
Education	79.3	32.8	4.8	1.6	17.4	15.8	1.4	1.0	1.5	2.9	5.72
Food Sales	213.5	27.5	13.4	4.4	9.1	33.9	5.6	110.9	1.3	7.4	10.26
Food Service	245.5	30.9	19.5	5.3	27.5	37.0	77.5	31.6	2.6	13.7	13.47
Health Care	240.4	55.2	9.9	7.2	63.0	39.3	11.2	4.7	15.5	34.4	10.08
Lodging	127.3	22.7	8.1	1.7	51.4	23.2	6.6	2.3	3.8	7.5	7.33
Mercantile and Service	76.4	30.6	5.8	2.5	5.1	23.4	1.5	0.9	2.9	3.7	10.17
Office	97.2	24.3	9.1	5.2	8.7	28.1	1.1	0.4	15.1	5.2	6.03
Public Assembly	113.7	53.6	6.3	3.5	17.5	21.9	2.8	1.8	2.4	3.8	20.97
Public Order and Safety	97.2	27.8	6.1	2.3	23.4	16.4	Q	0.2	5.8	12.7	18.20
Religious Worship	37.4	23.7	1.9	0.9	3.2	5.0	0.5	0.6	0.4	1.1	12.45
Warehouse and Storage	38.3	15.7	0.9	0.3	2.0	9.8	(*)	1.7	4.4	3.4	8.57
Other	172.2	59.6	9.3	8.3	15.3	26.7	Q	0.7	15.2	35.9	15.83
Vacant	21.5	11.9	0.6	0.3	2.4	3.6	Q	0.2	0.5	1.9	28.33
Year Constructed											
1919 or Before	79.4	34.2	2.6	1.6	10.0	14.9	4.0	1.3	3.2	7.5	15.88
1920 to 1945	75.7	37.0	3.4	1.6	10.7	12.3	1.8	1.6	3.3	4.1	8.58
1946 to 1959	88.9	37.2	4.4	2.1	14.1	15.5	3.0	2.7	4.6	5.2	9.11
1960 to 1969	94.3	30.2	5.7	2.7	16.8	20.4	4.0	3.0	5.3	6.1	6.17
1970 to 1979	99.3	26.0	7.2	3.6	15.8	25.6	3.2	3.7	6.7	7.5	8.05
1980 to 1989	86.5	19.8	7.8	3.2	11.5	23.5	4.2	3.0	7.6	5.9	9.10
1990 to 1992	114.6	26.6	8.4	3.5	17.2	28.7	9.3	5.6	7.9	7.4	13.76
1993 to 1995	92.2	24.3	7.9	3.2	11.7	22.7	3.3	7.4	4.9	6.8	14.86
Floors											
One	75.2	26.0	5.6	2.1	7.9	17.0	4.3	4.6	4.1	3.7	7.30
Two	79.4	28.2	5.7	2.1	10.9	18.3	2.4	2.7	4.6	4.6	6.38
Three	92.0	34.8	5.1	2.3	15.0	18.6	2.8	1.4	5.2	6.7	6.72
Four to Nine	139.8	36.5	7.5	4.8	30.2	31.0	4.7	1.8	10.0	13.2	7.24
Ten or More	113.4	23.1	7.3	5.6	21.8	29.6	4.1	1.4	10.8	9.6	10.06
Census Region and Division											
Northeast	87.1	32.4	4.0	2.0	14.2	17.7	2.7	3.0	4.5	6.4	8.44
New England	87.3	37.7	3.3	1.6	15.2	16.0	1.9	1.9	4.1	5.5	10.89
Middle Atlantic	87.1	30.4	4.3	2.1	13.9	18.4	3.0	3.4	4.6	6.7	9.46
Midwest	104.5	46.7	4.3	2.5	15.6	18.8	3.5	2.4	5.1	5.6	7.54
East North Central	102.2	45.5	4.3	2.2	16.0	17.4	4.4	2.5	4.6	5.2	7.07
West North Central	109.3	49.1	4.3	3.0	14.8	21.8	1.8	2.1	6.1	6.3	17.03
South	80.8	18.0	8.4	3.2	10.5	21.3	4.0	3.4	5.9	6.0	5.47
South Atlantic	81.5	17.3	8.8	3.3	9.3	22.2	4.6	3.0	6.6	6.4	6.80
East South Central	84.8	24.4	7.5	2.7	11.7	21.2	2.2	3.7	5.3	6.2	15.33
West South Central	76.7	14.2	8.7	3.3	11.4	20.1	4.5	3.8	5.2	5.4	10.64
West	94.2	23.4	5.5	3.1	17.0	23.6	4.3	3.4	7.2	6.5	11.61
Mountain	111.3	40.8	5.9	3.3	21.4	21.7	2.8	3.2	6.8	5.4	21.62
Pacific	85.9	14.9	5.4	3.1	14.8	24.5	5.1	3.6	7.5	7.1	10.86

See footnotes at end of table.

Table EU-2. Energy End-Use Intensities for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Energy Intensity for Sum of Major Fuels (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	97.8	47.3	3.1	1.8	14.2	17.7	2.2	2.3	4.6	4.6	10.85
5,500-7,000 HDD	109.0	48.4	4.1	2.4	18.2	18.6	3.4	3.0	5.2	5.8	8.23
4,000-5,499 HDD	92.8	29.5	5.4	2.9	13.3	22.2	3.3	2.6	6.2	7.4	8.87
Fewer than 4,000 HDD	79.9	15.9	6.8	2.9	12.3	21.6	4.4	3.7	6.2	6.1	6.26
More than 2,000 CDD and --											
Fewer than 4,000 HDD	71.6	9.1	9.7	3.3	10.2	20.3	4.6	3.6	5.5	5.3	10.61
Workers (main shift)											
Fewer than 5	56.8	26.9	2.5	1.3	8.1	9.5	0.9	3.4	1.9	2.3	13.20
5 to 9	80.8	36.1	4.6	1.8	8.8	15.3	2.8	3.9	3.5	4.1	11.91
10 to 19	86.5	31.9	5.9	2.0	9.9	17.9	7.0	3.5	4.7	3.4	12.16
20 to 49	95.1	30.5	6.8	2.2	12.9	20.6	6.1	4.3	5.4	6.2	6.91
50 to 99	90.9	27.6	6.8	2.3	16.2	22.3	2.9	2.3	5.3	5.2	6.35
100 to 249	108.3	27.4	8.5	3.6	20.2	26.7	3.0	1.5	8.1	9.2	6.37
250 or More	133.7	25.7	8.9	6.3	23.5	36.5	4.6	2.2	12.3	13.7	8.52
Weekly Operating Hours											
39 or Fewer	29.3	16.8	1.6	0.7	3.0	3.6	0.4	0.5	0.9	1.5	12.10
40 to 48	66.4	31.6	4.3	1.9	5.3	12.4	1.1	0.9	6.1	2.9	8.20
49 to 60	76.6	29.4	5.1	2.9	6.7	18.3	0.8	1.1	7.5	4.6	7.91
61 to 84	79.2	24.7	6.3	2.7	8.6	21.8	4.1	2.6	4.1	4.3	5.45
85 to 167	134.0	34.0	8.9	3.6	20.5	32.0	11.8	11.8	4.6	6.8	15.03
Open Continuously	155.7	33.2	9.5	4.4	39.1	34.3	6.9	4.9	7.9	15.5	5.89
Ownership and Occupancy											
Nongovernment Owned	84.6	25.8	5.9	2.6	12.2	19.4	4.0	3.4	5.5	5.7	3.57
Owner Occupied	92.4	28.7	6.1	2.7	14.5	20.2	4.5	3.8	5.6	6.2	4.30
Nonowner Occupied	66.7	18.1	5.9	2.3	5.7	19.2	2.9	2.5	5.9	4.4	6.70
Unoccupied	11.0	5.2	Q	0.1	Q	Q	Q	0.1	0.2	1.1	48.88
Government Owned	113.6	41.2	6.2	3.5	19.8	24.3	2.3	1.8	6.5	7.8	10.17
Federal	151.8	43.9	7.4	6.9	19.5	41.2	1.7	1.7	14.9	14.5	23.55
State	153.6	47.3	8.5	4.9	32.6	33.7	3.3	2.0	8.6	12.2	12.54
Local	89.4	38.2	5.1	2.2	15.0	16.8	2.1	1.8	3.7	4.6	11.30
Space in Building Vacant for at Least Three Consecutive Months											
Yes	70.7	20.5	5.3	2.6	9.0	18.3	2.3	1.2	5.4	6.0	7.76
No	97.9	32.1	6.2	2.8	15.6	21.2	4.2	3.8	5.8	6.1	4.40
Energy Sources (more than one may apply)											
Electricity	93.1	29.7	6.1	2.8	14.2	21.1	3.8	3.2	5.8	6.3	3.81
Natural Gas	103.0	34.5	6.2	2.9	16.5	21.4	5.5	3.1	5.6	7.4	3.82
Fuel Oil	120.1	33.9	6.8	4.1	23.1	26.3	4.1	2.0	8.1	11.7	4.90
District Heat	185.8	64.4	5.0	5.6	41.6	33.4	3.6	2.1	10.9	19.1	18.90
District Chilled Water	214.8	68.0	1.6	7.9	47.4	40.3	4.8	2.5	13.3	29.1	18.65
Propane	73.4	20.0	5.7	2.4	10.9	17.5	1.9	4.6	3.8	6.7	9.70
Other	110.7	45.5	4.8	2.3	Q	18.0	2.9	1.6	4.2	Q	39.41
Space-Heating Energy Sources (more than one may apply)											
Electricity	86.1	19.5	8.0	3.1	11.7	23.4	4.3	3.5	6.6	6.1	5.43
Natural Gas	98.2	36.8	5.9	2.7	14.5	20.4	4.2	3.0	5.5	5.1	4.17
Fuel Oil	109.3	43.4	4.7	2.7	20.7	20.3	2.6	1.6	5.6	7.6	11.72
District Heat	184.8	64.9	5.0	5.6	41.1	33.4	3.5	2.1	10.9	18.1	13.55
Propane	63.8	9.7	5.6	2.3	8.6	18.2	1.5	7.7	3.8	6.5	17.87
Other	72.9	19.3	4.3	2.1	10.8	15.2	2.6	2.2	3.3	Q	11.81

See footnotes at end of table.

Table EU-2. Energy End-Use Intensities for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Energy Intensity for Sum of Major Fuels (thousand Btu per sq. ft.)										
	Total	Space Heating	Cooling	Ventil-ation	Water Heating	Lighting	Cooking	Refrig-eration	Office Equip-ment	Other	RSE Row Factor
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Primary Space-Heating Energy Source											
Electricity	74.5	8.5	9.5	3.2	8.7	23.5	4.8	4.0	6.9	5.4	7.54
Natural Gas	98.5	38.0	5.7	2.6	14.3	20.3	4.2	3.0	5.4	5.0	4.54
Fuel Oil	72.6	35.9	2.8	1.2	13.2	10.9	1.2	1.2	2.6	3.7	6.76
District Heat	184.7	64.1	5.0	5.6	40.8	33.8	3.3	2.1	11.1	18.5	14.79
Propane	45.9	Q	4.9	2.1	2.2	16.9	Q	8.6	3.2	5.6	27.72
Other	31.5	5.6	Q	1.3	4.0	10.3	0.8	1.8	1.4	2.5	23.14
Cooling Energy Sources (more than one may apply)											
Electricity	94.9	28.2	7.2	3.0	14.1	22.2	4.3	3.4	6.2	6.2	3.90
Natural Gas	167.3	51.4	8.1	5.3	25.1	36.1	6.3	2.7	9.2	23.0	23.49
District Chilled Water	214.8	68.0	1.6	7.9	47.4	40.3	4.8	2.5	13.3	29.1	18.65
Water-Heating Energy Sources (more than one may apply)											
Electricity	71.9	20.9	6.8	2.9	3.2	21.7	2.3	3.0	6.3	4.7	5.79
Natural Gas	111.4	36.2	6.7	2.9	21.7	22.2	6.1	3.8	5.5	6.2	4.05
Fuel Oil	94.2	32.6	4.5	1.3	30.9	12.9	1.5	1.7	3.0	5.7	10.19
District Heat	192.9	58.7	5.3	5.6	51.7	32.9	4.4	2.3	10.7	21.1	16.76
Propane	73.6	11.4	8.6	2.8	4.6	23.0	Q	Q	2.7	7.9	19.10
Cooking Energy Sources (more than one may apply)											
Electricity	122.1	26.4	8.9	4.1	20.7	31.6	8.8	6.5	6.4	8.7	7.05
Natural Gas	128.7	28.4	8.1	3.5	26.6	26.4	15.6	5.6	5.1	9.4	6.13
Propane	84.3	16.8	9.7	3.1	9.7	23.4	2.5	9.8	2.6	6.6	18.43
Percent of Floorspace Heated											
Not Heated	16.8	0.0	1.7	0.6	Q	7.0	Q	1.8	1.6	2.3	19.48
1 to 50	39.7	13.8	2.6	1.1	2.4	10.1	1.4	2.3	3.2	2.8	10.16
51 to 99	90.7	26.5	6.8	3.1	12.4	23.3	3.9	3.5	6.0	5.1	11.60
100	106.9	35.2	6.8	3.2	17.4	22.9	4.4	3.3	6.5	7.3	4.40
Percent of Floorspace Cooled											
Not Cooled	45.1	24.0	0.0	0.5	6.8	7.9	0.6	1.1	1.9	2.3	9.73
1 to 50	69.5	35.1	2.8	1.0	9.3	11.8	1.0	1.5	3.0	3.9	8.40
51 to 99	108.4	26.8	8.1	4.0	17.9	27.7	5.0	3.5	7.3	8.0	6.52
100	112.6	28.0	9.2	4.2	17.3	27.2	6.0	4.7	8.0	8.0	6.00
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	51.2	24.9	2.5	1.1	6.4	7.2	1.0	2.1	2.5	3.5	7.73
51 to 99	91.2	29.6	5.5	2.7	14.9	19.2	3.4	2.6	6.1	7.2	6.36
100	101.3	30.8	6.9	3.2	15.4	24.0	4.4	3.5	6.4	6.6	4.53
Building Not in Use/ Electricity Not Used	10.8	7.5	Q	0.1	1.3	0.2	Q	Q	0.3	0.6	37.57
Percent Lit when Closed											
Zero	57.4	27.9	3.2	1.6	4.5	10.7	0.8	1.4	3.9	3.5	7.43
1 to 50	85.9	30.1	6.1	2.7	9.7	19.9	4.0	3.1	6.1	4.3	5.12
51 to 100	108.6	17.5	10.1	4.5	13.5	39.9	5.0	6.5	Q	6.1	21.00
Never Closed	158.9	33.9	9.7	4.5	39.8	35.0	7.0	5.0	8.0	15.8	5.94
Building Not in Use/ Electricity Not Used	10.8	7.5	Q	0.1	Q	0.2	Q	Q	0.3	0.6	48.80
Heating Equipment (more than one may apply)											
Heat Pumps	85.6	14.9	9.0	2.9	15.9	23.1	3.1	2.4	7.3	6.9	5.76
Furnaces	77.1	32.2	4.6	2.0	7.4	16.2	3.2	4.3	3.7	3.5	7.00
Individual Space Heaters	87.4	31.0	5.4	2.5	11.8	20.2	2.2	2.9	5.7	5.6	7.28
District Heat	179.9	61.6	4.9	5.5	39.2	33.3	3.9	2.1	10.8	18.3	13.51
Boilers	112.9	40.2	6.4	3.1	22.1	22.4	3.6	1.6	6.4	7.1	5.14
Packaged Heating Units	86.7	20.2	8.1	2.8	10.9	23.2	6.1	4.4	5.9	5.1	4.82
Other	107.2	21.7	8.3	4.8	15.8	32.3	3.6	2.5	9.3	8.9	11.41

See footnotes at end of table.

Table EU-2. Energy End-Use Intensities for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Energy Intensity for Sum of Major Fuels (thousand Btu per sq. ft.)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	RSE Row Factor
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Cooling Equipment (more than one may apply)											
Residential-Type Central A/C	102.4	34.0	7.2	2.8	15.3	20.8	5.8	4.6	5.4	6.4	9.15
Heat Pumps	86.5	16.1	9.0	3.0	14.6	23.4	3.2	2.8	7.6	6.6	5.41
Individual A/C	96.1	36.0	5.5	1.7	19.5	16.5	3.9	2.4	3.9	6.6	6.24
District Chilled Water	214.8	68.0	1.6	7.9	47.4	40.3	4.8	2.5	13.3	29.1	18.65
Central Chillers	133.1	29.0	10.0	5.7	26.2	34.0	4.6	1.9	10.5	11.2	6.46
Packaged A/C Units	97.0	26.0	7.9	3.2	12.9	24.6	5.1	4.1	6.7	6.4	4.20
Swamp Coolers	102.8	21.6	6.5	3.4	21.4	22.7	8.6	5.2	6.4	6.9	14.28
Other	111.2	28.3	5.9	3.8	14.2	31.8	4.5	4.9	9.5	8.3	15.16
Lighting Equipment Types (more than one may apply)											
Incandescent	98.4	30.3	6.3	2.9	17.7	21.6	4.7	2.9	5.5	6.5	4.46
Standard Fluorescent	96.4	30.5	6.4	3.0	14.7	21.9	4.0	3.3	6.1	6.5	3.71
Compact Fluorescent	122.3	29.9	8.4	4.3	22.8	29.7	5.7	3.1	8.3	10.3	6.72
High-Intensity Discharge	102.9	30.9	6.5	3.2	17.5	25.3	3.6	2.4	6.3	7.3	6.94
Halogen	113.5	33.4	7.1	3.8	20.5	26.4	4.5	2.5	7.0	8.3	8.63
Other	86.6	12.4	8.9	4.7	11.1	31.2	2.6	Q	5.4	8.3	33.67
Water-Heating Equipment (more than one may apply)											
Centralized System	108.8	35.8	6.5	3.1	18.8	22.2	4.8	4.1	6.3	7.1	5.12
Distributed System	74.7	20.3	6.6	2.6	7.5	21.4	2.9	2.1	5.7	5.6	4.69
Combination of Centralized and Distributed System	120.8	32.9	6.8	3.8	27.0	27.8	4.9	2.7	7.0	7.9	10.34
Personal Computers and/or Computer Terminals											
None	53.0	23.9	2.6	1.2	7.3	8.5	2.5	2.7	1.3	3.0	10.20
1 to 4	80.9	30.0	4.9	1.9	9.4	15.9	6.1	5.8	2.8	4.2	6.57
5 to 9	97.2	36.3	6.8	2.1	11.8	20.7	5.1	4.4	4.9	5.1	12.27
10 to 19	94.1	32.7	6.3	2.0	16.9	20.7	2.5	2.4	6.0	4.7	17.57
20 to 49	91.6	28.5	7.1	2.5	15.2	21.6	2.6	2.1	5.9	6.0	7.47
50 to 99	98.4	28.0	7.6	2.9	15.9	24.6	2.6	1.4	7.2	8.0	7.47
100 to 249	112.7	27.9	8.0	4.4	20.9	29.2	3.1	2.3	8.3	8.6	8.58
250 or More	148.2	29.8	9.3	7.6	24.4	40.4	4.2	1.7	16.2	14.5	10.32
Commercial Refrigeration Equipment (more than one may apply)											
Any Equipment	122.0	27.2	8.6	3.9	21.3	28.9	9.5	7.0	6.0	9.7	4.78
Walk-in Units	133.7	26.3	9.6	4.3	23.8	32.4	11.5	8.5	6.5	10.8	5.29
Cases and Cabinets	124.0	27.5	8.9	3.9	21.8	29.5	10.0	7.1	5.7	9.6	5.31
None	71.5	30.0	4.4	2.1	9.2	15.3	0.2	0.7	5.5	3.9	5.56
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	98.8	30.5	6.6	3.0	15.5	22.4	4.1	3.5	6.4	6.7	4.37
Wall Insulation	97.3	26.9	7.0	3.1	16.1	22.7	4.4	3.5	6.8	6.9	4.88
Storm or Multiple Glazing	106.5	32.9	6.6	3.2	18.1	23.3	5.1	3.2	6.9	7.3	4.84
Tinted, Reflective or Shading Glass	106.8	27.1	7.8	4.0	16.9	26.5	5.1	3.1	8.3	8.0	5.49
Exterior or Interior Shading or Awnings	101.4	29.8	6.8	3.3	16.5	23.2	4.4	2.6	7.1	7.6	4.96
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	128.1	28.2	8.5	5.3	24.1	32.4	5.8	2.7	10.3	10.9	6.91
Economizer Cycle	127.5	33.2	8.5	4.6	23.0	29.8	5.9	3.1	9.4	10.1	5.71
HVAC Maintenance	104.6	31.7	7.0	3.3	17.0	23.9	4.4	3.0	6.9	7.4	4.04
Other Energy Efficient Equipment	120.2	29.6	8.1	4.5	21.6	28.9	4.9	3.1	9.0	10.5	8.33

See footnotes at end of table.

Table EU-2. Energy End-Use Intensities for Sum of Major Fuels, 1995 (Continued)

Building Characteristics	Energy Intensity for Sum of Major Fuels (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventil-ation	Water Heating	Lighting	Cooking	Refrig-eration	Office Equip-ment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	108.2	31.7	7.1	3.5	17.4	26.1	4.6	2.9	7.1	7.8	6.58
Energy-Efficient Ballasts	109.9	30.7	7.5	3.7	17.9	26.6	4.4	3.4	7.8	8.0	4.40
Natural Lighting Control Sensors	117.1	34.6	8.2	3.4	20.3	28.0	4.4	3.4	6.2	8.6	12.95
Occupancy Sensors	121.1	29.5	7.4	4.4	21.9	28.3	5.7	3.3	9.7	10.9	8.25
Time Clock	103.0	22.3	8.5	4.1	16.5	29.1	4.2	3.1	7.9	7.3	6.71
Manual Dimmer Switches	125.7	33.0	8.4	4.6	22.2	29.4	7.2	2.5	8.8	9.6	5.73
Other	116.9	30.4	8.4	4.3	18.3	30.6	3.3	3.1	10.0	8.4	8.97
Off-Hour Equipment Reduction (more than one may apply)											
Heating	78.9	29.7	5.3	2.5	8.8	17.8	3.2	2.3	5.2	4.0	5.33
Cooling	80.1	28.3	6.0	2.7	8.8	18.7	3.4	2.4	5.6	4.1	5.70
Lighting	79.0	29.2	5.4	2.5	8.4	18.1	3.1	2.7	5.5	4.1	4.75

(*) = Value rounds to zero in the units displayed.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table EU-3. Electricity Consumption by End Use, 1995

Building Characteristics	Electricity Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
All Buildings	2,608	111	340	162	47	1,202	19	182	334	210	4.35
Building Floorspace (square feet)											
1,001 to 5,000	380	30	44	19	13	144	6	66	34	24	7.73
5,001 to 10,000	238	18	32	13	7	102	2	19	28	16	10.20
10,001 to 25,000	384	21	56	20	7	171	2	30	50	28	7.59
25,001 to 50,000	316	16	51	16	6	142	1	19	38	25	8.80
50,001 to 100,000	363	8	55	25	5	170	2	17	49	34	8.85
100,001 to 200,000	337	9	41	23	3	169	2	10	49	32	10.14
200,001 to 500,000	307	6	34	25	3	152	2	9	47	28	14.62
Over 500,000	282	4	28	21	2	152	2	12	37	23	12.64
Principal Building Activity											
Education	221	14	36	13	6	122	2	8	11	8	7.42
Food Sales	119	Q	9	3	2	22	1	71	1	4	13.34
Food Service	166	5	26	7	5	50	8	43	3	18	19.56
Health Care	211	3	21	17	2	92	1	11	36	28	10.01
Lodging	187	11	29	6	12	84	2	8	14	20	9.81
Mercantile and Service	508	25	73	31	7	298	3	11	37	23	8.72
Office	676	21	92	54	6	294	1	5	159	44	9.81
Public Assembly	170	11	24	14	3	86	2	7	10	13	13.06
Public Order and Safety	49	(*)	8	3	Q	21	(*)	(*)	7	9	29.62
Religious Worship	33	4	5	3	1	14	(*)	2	1	3	9.65
Warehouse and Storage	176	7	8	3	1	83	(*)	14	37	22	13.00
Other	75	2	9	8	(*)	27	Q	1	15	13	23.83
Vacant	18	1	1	1	(*)	9	Q	1	1	4	22.84
Year Constructed											
1919 or Before	99	2	9	6	2	55	1	5	12	7	20.83
1920 to 1945	173	7	22	11	3	82	1	11	22	14	9.56
1946 to 1959	325	17	40	19	7	144	2	25	43	27	10.11
1960 to 1969	472	19	60	30	10	221	2	32	58	39	8.62
1970 to 1979	615	25	78	41	11	290	4	42	76	49	6.79
1980 to 1989	648	27	95	39	11	288	5	37	93	52	7.40
1990 to 1992	163	6	21	9	2	74	2	14	21	14	14.88
1993 to 1995	113	Q	15	7	2	47	1	15	10	8	18.67
Floors											
One	980	61	138	51	21	418	10	112	100	70	6.10
Two	549	23	79	29	12	258	3	38	65	41	6.67
Three	283	11	37	17	6	136	2	10	38	25	8.61
Four to Nine	552	10	61	42	6	272	3	16	88	53	12.04
Ten or More	244	7	25	22	1	118	1	6	43	22	9.91
Census Region and Division											
Northeast	436	18	44	24	9	211	3	36	54	37	6.59
New England	99	2	10	5	3	50	1	6	13	8	9.76
Middle Atlantic	338	16	34	19	6	161	Q	30	41	29	8.54
Midwest	558	23	60	35	10	270	4	34	73	48	8.97
East North Central	356	15	40	22	8	168	4	24	45	31	10.79
West North Central	202	8	20	14	3	102	Q	10	29	16	15.62
South	1,027	43	172	66	19	444	7	72	122	82	6.70
South Atlantic	487	21	80	31	10	211	3	29	62	40	9.29
East South Central	238	15	37	13	5	104	2	18	26	18	11.55
West South Central	302	7	56	21	4	129	2	25	34	24	15.05
West	587	28	64	37	8	277	4	40	85	44	8.63
Mountain	182	7	23	13	3	84	1	12	26	13	19.53
Pacific	405	20	42	24	5	193	3	28	59	31	9.97

See footnotes at end of table.

Table EU-3. Electricity Consumption by End Use, 1995 (Continued)

Building Characteristics	Electricity Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	178	9	16	9	3	90	1	12	23	15	14.01
5,500-7,000 HDD	571	26	56	35	8	271	5	43	76	50	8.34
4,000-5,499 HDD	700	33	77	44	14	337	5	39	94	56	9.38
Fewer than 4,000 HDD	648	25	91	39	11	292	5	50	83	52	11.34
More than 2,000 CDD and --											
Fewer than 4,000 HDD	511	18	101	35	11	212	3	37	57	38	10.74
Workers (main shift)											
Fewer than 5	327	30	35	18	11	131	1	47	27	25	8.06
5 to 9	224	16	28	12	7	96	2	25	22	16	8.52
10 to 19	293	17	42	14	8	127	4	25	34	22	11.24
20 to 49	422	19	62	20	8	188	4	39	50	32	8.54
50 to 99	310	9	47	16	3	154	2	16	37	25	7.45
100 to 249	333	8	49	22	5	160	1	9	49	30	11.40
250 or More	699	13	77	60	6	345	3	20	116	59	12.09
Weekly Operating Hours											
39 or Fewer	61	6	10	4	2	22	(*)	3	6	7	12.19
40 to 48	403	27	56	25	6	164	1	11	81	31	7.24
49 to 60	497	24	62	36	6	224	1	14	92	38	11.20
61 to 84	435	20	61	27	7	219	3	26	41	30	7.95
85 to 167	435	12	55	22	7	198	8	73	29	31	9.13
Open Continuously	777	22	97	48	18	374	5	54	86	73	8.05
Ownership and Occupancy											
Nongovernment Owned	2,018	92	268	120	38	908	15	160	256	162	4.74
Owner Occupied	1,609	72	212	97	31	718	13	136	198	131	4.95
Nonowner Occupied	403	20	55	22	7	186	2	24	57	30	8.79
Unoccupied	6	Q	Q	(*)	Q	Q	Q	(*)	(*)	2	41.76
Government Owned	590	20	73	42	9	294	4	22	78	48	12.16
Federal	143	2	13	12	Q	72	Q	3	26	13	27.25
State	191	Q	23	14	3	96	1	6	25	15	24.88
Local	256	10	37	16	5	126	2	13	27	20	9.52
Space in Building Vacant for at Least Three Consecutive Months											
Yes	595	19	79	41	7	290	2	19	86	51	9.25
No	2,013	92	262	120	40	911	16	162	248	160	4.76
Energy Sources (more than one may apply)											
Electricity	2,608	111	340	162	47	1,202	19	182	334	210	4.35
Natural Gas	1,704	43	229	109	21	816	11	117	215	143	5.09
Fuel Oil	778	15	92	60	10	379	4	28	116	74	8.00
District Heat	364	2	25	31	5	189	2	12	62	36	17.29
District Chilled Water	188	1	4	20	2	102	1	6	33	19	15.09
Propane	224	11	30	13	7	94	4	25	20	21	14.48
Other	83	2	11	5	2	42	1	4	10	7	19.91
Percent of Floorspace Heated											
Not Heated	64	0	7	2	1	31	(*)	8	7	7	18.87
1 to 50	145	10	16	7	2	63	1	14	20	13	12.55
51 to 99	440	22	59	27	8	207	2	31	53	30	10.42
100	1,959	80	259	125	36	900	15	128	254	160	4.00
Percent of Floorspace Cooled											
Not Cooled	135	14	0	4	5	70	1	10	17	13	18.42
1 to 50	358	20	41	15	5	177	2	23	45	29	7.31
51 to 99	727	22	98	50	10	348	5	44	92	60	7.78
100	1,388	56	201	93	26	607	12	105	180	107	5.82

See footnotes at end of table.

Table EU-3. Electricity Consumption by End Use, 1995 (Continued)

Building Characteristics	Electricity Consumption (trillion Btu)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	RSE Row Factor
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	125	13	15	7	3	43	1	13	15	16	15.29
51 to 99	412	17	53	27	7	186	2	26	59	36	8.19
100	2,066	81	272	129	36	972	16	143	259	157	5.06
Building Not in Use/ Electricity Not Used	Q	Q	Q	(*)	Q	(*)	Q	Q	1	1	99.99
Percent Lit when Closed											
Zero	340	30	40	21	7	140	2	19	50	30	9.79
1 to 50	1,346	55	183	84	20	611	11	96	186	99	5.26
51 to 100	141	4	19	9	1	76	1	13	Q	7	30.61
Never Closed	776	22	97	48	18	374	5	54	86	73	8.06
Building Not in Use/ Electricity Not Used	Q	Q	Q	(*)	Q	(*)	Q	Q	1	1	99.99
Heating Equipment (more than one may apply)											
Heat Pumps	320	23	52	17	8	135	2	14	43	26	9.37
Furnaces	540	23	68	30	10	242	6	64	56	41	7.69
Individual Space Heaters	739	48	88	42	14	339	5	49	96	58	7.75
District Heat	378	2	26	32	5	197	2	13	64	37	11.52
Boilers	761	17	102	51	9	376	4	26	107	69	6.35
Packaged Heating Units	878	42	135	47	15	392	7	74	100	65	6.38
Other	415	18	51	30	5	202	2	15	58	33	12.68
Cooling Equipment (more than one may apply)											
Residential-Type Central A/C	431	11	65	26	7	192	3	42	50	32	9.08
Heat Pumps	387	26	62	21	9	162	3	20	53	31	9.41
Individual A/C	450	21	66	21	12	206	4	30	49	40	7.61
District Chilled Water	188	1	4	20	2	102	1	6	33	19	15.09
Central Chillers	778	18	102	63	8	376	4	21	116	69	9.02
Packaged A/C Units	1,432	54	205	85	21	656	12	110	179	109	5.59
Swamp Coolers	126	4	16	8	1	56	1	13	16	11	17.32
Other	59	1	6	4	1	30	(*)	5	9	4	21.26
Lighting Equipment Types (more than one may apply)											
Incandescent	1,631	62	219	104	29	771	12	105	196	134	4.74
Standard Fluorescent	2,559	108	334	160	45	1,180	18	178	330	205	4.38
Compact Fluorescent	878	23	113	61	12	424	8	44	118	75	7.09
High-Intensity Discharge	813	24	100	52	9	412	5	40	102	69	6.24
Halogen	521	16	66	36	7	255	4	24	68	45	8.64
Other	32	1	5	3	Q	17	(*)	Q	3	2	29.11
Water-Heating Equipment (more than one may apply)											
Centralized System	1,564	64	198	99	26	702	13	130	200	130	4.96
Distributed System	743	35	107	44	18	352	4	35	94	55	6.20
Combination of Centralized and Distributed System	188	6	23	13	2	95	1	9	24	15	11.71
Personal Computers and/or Computer Terminals											
None	260	19	33	15	8	107	2	34	17	26	9.08
1 to 4	439	31	56	22	11	181	5	66	32	36	6.70
5 to 9	254	14	36	11	7	111	4	24	26	20	10.06
10 to 19	260	14	37	12	4	123	1	14	36	19	10.78
20 to 49	317	10	49	17	6	152	2	15	42	24	8.45
50 to 99	247	6	36	14	3	122	1	7	36	22	10.31
100 to 249	307	9	40	23	3	151	1	12	43	26	10.27
250 or More	523	10	54	48	4	255	3	11	102	37	14.91

See footnotes at end of table.

Table EU-3. Electricity Consumption by End Use, 1995 (Continued)

Building Characteristics	Electricity Consumption (trillion Btu)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Commercial Refrigeration Equipment (more than one may apply)											
Any Equipment	1,407	50	185	85	25	642	17	155	132	116	5.23
Walk-In Units	1,159	37	150	69	20	526	15	138	106	97	6.10
Cases and Cabinets	1,230	46	164	75	22	563	16	136	109	98	5.78
None	1,201	62	155	76	22	560	1	26	202	94	5.24
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	2,269	91	298	141	41	1,040	17	160	295	183	4.86
Wall Insulation	1,601	61	215	98	32	719	14	112	215	134	5.90
Storm or Multiple Glazing	1,464	58	185	91	29	673	12	91	199	124	5.17
Tinted, Reflective or Shading Glass	1,392	50	183	98	20	642	9	76	201	112	7.12
Exterior or Interior Shading or Awnings	1,858	73	245	122	32	862	12	96	265	150	4.97
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	912	25	109	71	10	437	5	36	139	78	9.54
Economizer Cycle	1,051	30	133	75	14	494	9	52	155	90	7.76
HVAC Maintenance	2,210	77	293	141	38	1,033	16	130	297	182	4.87
Other Energy Efficient Equipment	394	11	49	29	4	186	2	20	58	34	11.33
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	963	28	123	63	15	467	8	53	127	81	8.18
Energy-Efficient Ballasts	1,612	61	205	106	25	754	12	97	221	131	5.67
Natural Lighting Control Sensors	364	12	51	22	5	180	2	22	40	30	10.81
Occupancy Sensors	358	7	41	26	4	169	2	19	58	31	9.26
Time Clock	788	21	109	54	8	386	4	41	105	60	8.37
Manual Dimmer Switches	809	23	106	60	11	383	6	33	115	71	8.00
Other	183	5	24	12	2	87	1	9	28	15	11.59
Off-Hour Equipment Reduction (more than one may apply)											
Heating	1,483	73	200	95	24	682	12	88	201	107	4.77
Cooling	1,457	62	209	95	23	666	12	87	200	104	5.77
Lighting	1,797	88	240	112	28	815	14	120	246	134	4.84

(*) = Value rounds to zero in the units displayed.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table EU-4. Energy End-Use Intensities for Electricity, 1995

Building Characteristics	Energy Intensity for Electricity (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
All Buildings	45.7	2.0	6.0	2.8	0.8	21.1	0.3	3.2	5.8	3.7	3.82
Building Floorspace (square feet)											
1,001 to 5,000	63.9	5.0	7.4	3.1	2.1	24.2	1.1	11.1	5.7	4.1	7.20
5,001 to 10,000	33.7	2.6	4.6	1.8	1.0	14.5	0.2	2.7	4.0	2.2	6.73
10,001 to 25,000	34.0	1.9	4.9	1.8	0.6	15.1	0.2	2.6	4.5	2.4	7.29
25,001 to 50,000	41.4	2.0	6.6	2.1	0.8	18.6	0.2	2.6	5.0	3.3	5.86
50,001 to 100,000	46.0	1.0	6.9	3.2	0.6	21.5	0.2	2.1	6.2	4.2	7.07
100,001 to 200,000	51.0	1.3	6.2	3.4	0.4	25.6	0.2	1.5	7.4	4.9	7.56
200,001 to 500,000	55.3	1.1	6.1	4.5	0.5	27.4	0.3	1.6	8.5	5.1	13.10
Over 500,000	55.6	0.8	5.5	4.1	0.5	30.0	0.4	2.3	7.4	4.6	8.98
Principal Building Activity											
Education	28.7	1.8	4.7	1.6	0.8	15.9	0.2	1.0	1.5	1.0	5.34
Food Sales	184.7	Q	13.4	4.4	2.5	33.9	0.9	110.9	1.3	6.1	10.73
Food Service	122.8	3.6	19.4	5.3	3.6	37.0	6.2	31.6	2.6	13.5	14.45
Health Care	90.4	1.4	9.2	7.2	0.9	39.3	0.3	4.7	15.5	12.0	6.13
Lodging	52.0	3.2	8.0	1.7	3.4	23.3	0.5	2.3	3.8	5.7	6.32
Mercantile and Service	40.2	2.0	5.8	2.5	0.5	23.6	0.2	0.9	2.9	1.9	6.93
Office	64.5	2.0	8.8	5.2	0.6	28.1	0.1	0.4	15.2	4.2	7.53
Public Assembly	43.3	2.7	6.1	3.5	0.9	22.0	0.4	1.8	2.5	3.3	9.05
Public Order and Safety	38.5	0.2	6.1	2.3	Q	16.4	(*)	0.2	5.8	7.2	26.89
Religious Worship	11.7	1.3	1.9	0.9	0.4	5.0	0.2	0.6	0.4	1.0	7.83
Warehouse and Storage	22.0	0.8	1.0	0.3	0.2	10.4	(*)	1.8	4.7	2.7	7.29
Other	75.5	2.2	8.6	8.4	0.2	26.8	Q	0.7	15.3	13.3	12.00
Vacant	13.2	1.0	1.0	0.4	0.1	6.3	Q	0.4	0.9	3.0	19.42
Year Constructed											
1919 or Before	28.2	0.7	2.7	1.7	0.6	15.5	0.3	1.4	3.3	2.1	24.47
1920 to 1945	28.0	1.2	3.6	1.7	0.4	13.3	0.2	1.8	3.6	2.3	7.60
1946 to 1959	35.6	1.9	4.4	2.1	0.8	15.8	0.2	2.7	4.7	2.9	6.83
1960 to 1969	44.3	1.8	5.7	2.8	0.9	20.8	0.2	3.0	5.4	3.6	6.37
1970 to 1979	54.7	2.2	6.9	3.7	0.9	25.8	0.4	3.7	6.7	4.3	8.29
1980 to 1989	54.4	2.3	8.0	3.3	0.9	24.2	0.4	3.1	7.8	4.4	5.85
1990 to 1992	64.1	2.2	8.2	3.5	0.8	29.2	0.8	5.7	8.1	5.6	8.89
1993 to 1995	59.6	Q	8.1	3.4	1.0	24.5	0.6	8.0	5.3	4.1	16.34
Floors											
One	42.0	2.6	5.9	2.2	0.9	17.9	0.4	4.8	4.3	3.0	5.30
Two	39.4	1.7	5.7	2.1	0.9	18.5	0.2	2.7	4.6	2.9	3.93
Three	39.2	1.6	5.1	2.3	0.9	18.9	0.2	1.4	5.3	3.5	6.05
Four to Nine	63.3	1.1	7.0	4.9	0.7	31.2	0.3	1.8	10.1	6.1	10.62
Ten or More	63.0	1.7	6.5	5.7	0.4	30.3	0.3	1.5	11.1	5.6	4.73
Census Region and Division											
Northeast	38.1	1.6	3.8	2.1	0.7	18.4	0.3	3.2	4.7	3.2	7.28
New England	32.1	0.8	3.1	1.6	1.0	16.4	0.3	1.9	4.2	2.7	6.27
Middle Atlantic	40.3	1.9	4.1	2.2	0.7	19.2	Q	3.6	4.8	3.4	9.90
Midwest	40.2	1.6	4.3	2.6	0.8	19.4	0.3	2.4	5.3	3.4	6.67
East North Central	37.8	1.5	4.3	2.3	0.8	17.8	0.4	2.6	4.7	3.3	7.74
West North Central	45.2	1.8	4.5	3.1	0.7	22.8	0.2	2.2	6.4	3.6	11.34
South	50.9	2.1	8.5	3.3	1.0	22.0	0.3	3.5	6.1	4.1	4.99
South Atlantic	52.4	2.2	8.6	3.4	1.1	22.6	0.3	3.1	6.7	4.3	5.56
East South Central	50.9	3.2	7.8	2.8	1.0	22.4	0.4	3.9	5.6	3.8	9.93
West South Central	48.8	1.2	9.0	3.4	0.7	20.9	0.3	4.0	5.4	3.9	12.29
West	50.6	2.4	5.5	3.2	0.7	23.9	0.3	3.5	7.3	3.8	10.06
Mountain	47.6	1.9	5.9	3.3	0.7	21.9	0.3	3.2	6.8	3.5	14.91
Pacific	52.2	2.6	5.4	3.1	0.7	24.9	0.4	3.6	7.6	4.0	13.58

See footnotes at end of table.

Table EU-4. Energy End-Use Intensities for Electricity, 1995 (Continued)

Building Characteristics	Energy Intensity for Electricity (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Climate Zone: 45-Year Average											
Fewer than 2,000 CDD and --											
More than 7,000 HDD	36.2	1.8	3.2	1.9	0.7	18.3	0.2	2.4	4.7	3.0	11.93
5,500-7,000 HDD	39.8	1.8	3.9	2.5	0.6	18.9	0.3	3.0	5.3	3.5	6.62
4,000-5,499 HDD	48.1	2.3	5.3	3.0	0.9	23.1	0.3	2.7	6.4	3.8	9.52
Fewer than 4,000 HDD	48.8	1.9	6.8	2.9	0.8	22.0	0.4	3.8	6.3	3.9	5.89
More than 2,000 CDD and --											
Fewer than 4,000 HDD	51.3	1.8	10.1	3.5	1.1	21.3	0.3	3.8	5.8	3.8	7.98
Workers (main shift)											
Fewer than 5	26.5	2.4	2.8	1.5	0.9	10.6	0.1	3.8	2.2	2.0	7.71
5 to 9	35.7	2.5	4.5	1.8	1.1	15.3	0.4	3.9	3.5	2.6	8.68
10 to 19	41.2	2.4	5.9	2.0	1.1	17.9	0.6	3.5	4.7	3.0	9.79
20 to 49	46.3	2.1	6.8	2.2	0.8	20.6	0.4	4.3	5.5	3.6	7.75
50 to 99	45.2	1.4	6.8	2.4	0.5	22.5	0.3	2.3	5.4	3.7	5.67
100 to 249	55.8	1.4	8.2	3.6	0.8	26.8	0.2	1.5	8.1	5.1	7.26
250 or More	74.2	1.3	8.2	6.3	0.6	36.6	0.4	2.2	12.3	6.3	8.89
Weekly Operating Hours											
39 or Fewer	12.4	1.3	2.0	0.9	0.3	4.4	(*)	0.7	1.2	1.5	9.37
40 to 48	30.7	2.1	4.3	1.9	0.5	12.5	0.1	0.9	6.1	2.4	6.40
49 to 60	41.0	2.0	5.1	2.9	0.5	18.5	0.1	1.1	7.6	3.1	10.56
61 to 84	43.4	2.0	6.1	2.7	0.7	21.9	0.3	2.6	4.1	3.0	5.42
85 to 167	70.6	1.9	8.9	3.6	1.2	32.2	1.3	11.9	4.7	5.0	6.44
Open Continuously	72.7	2.0	9.1	4.5	1.7	35.0	0.4	5.0	8.0	6.8	5.76
Ownership and Occupancy											
Nongovernment Owned	44.6	2.0	5.9	2.6	0.8	20.1	0.3	3.5	5.7	3.6	3.48
Owner Occupied	45.8	2.0	6.0	2.8	0.9	20.5	0.4	3.9	5.6	3.7	3.96
Nonowner Occupied	42.3	2.1	5.8	2.3	0.7	19.6	0.2	2.5	6.0	3.1	7.18
Unoccupied	9.7	Q	0.9	0.3	Q	4.6	Q	0.3	0.5	2.5	33.46
Government Owned	49.8	1.7	6.1	3.6	0.8	24.8	0.3	1.8	6.6	4.1	12.55
Federal	85.3	1.2	7.5	7.2	0.7	43.1	Q	1.8	15.6	7.6	20.88
State	68.1	Q	8.1	5.0	1.0	34.2	0.3	2.0	8.8	5.4	21.16
Local	34.8	1.3	5.1	2.2	0.7	17.1	0.2	1.8	3.7	2.8	5.93
Space in Building Vacant for at Least Three Consecutive Months											
Yes	40.6	1.3	5.4	2.8	0.5	19.8	0.2	1.3	5.9	3.5	5.24
No	47.4	2.2	6.2	2.8	0.9	21.5	0.4	3.8	5.8	3.8	4.14
Energy Sources (more than one may apply)											
Electricity	45.7	2.0	6.0	2.8	0.8	21.1	0.3	3.2	5.8	3.7	3.82
Natural Gas	44.8	1.1	6.0	2.9	0.6	21.5	0.3	3.1	5.7	3.8	4.16
Fuel Oil	54.3	1.1	6.4	4.2	0.7	26.5	0.3	2.0	8.1	5.1	5.41
District Heat	64.5	0.3	4.5	5.6	0.9	33.5	0.3	2.1	10.9	6.3	11.84
District Chilled Water	74.6	0.3	1.5	7.9	0.8	40.3	0.4	2.5	13.3	7.6	12.62
Propane	41.9	2.1	5.7	2.4	1.2	17.5	0.8	4.6	3.8	3.8	10.61
Other	37.2	0.9	4.9	2.4	0.8	18.8	0.3	1.7	4.4	2.9	16.29
Percent of Floorspace Heated											
Not Heated	21.7	0.0	2.5	0.8	0.3	10.5	0.1	2.7	2.3	2.4	17.64
1 to 50	23.5	1.6	2.5	1.1	0.4	10.3	0.1	2.3	3.2	2.1	9.61
51 to 99	49.7	2.5	6.6	3.1	0.9	23.4	0.3	3.5	6.0	3.4	12.48
100	50.1	2.0	6.6	3.2	0.9	23.0	0.4	3.3	6.5	4.1	3.42
Percent of Floorspace Cooled											
Not Cooled	18.5	1.9	0.0	0.6	0.7	9.6	0.1	1.4	2.4	1.8	12.71
1 to 50	24.0	1.3	2.8	1.0	0.3	11.8	0.1	1.5	3.0	2.0	4.30
51 to 99	58.0	1.7	7.8	4.0	0.8	27.7	0.4	3.5	7.3	4.8	7.57
100	62.2	2.5	9.0	4.2	1.2	27.2	0.5	4.7	8.0	4.8	3.97

See footnotes at end of table.

Table EU-4. Energy End-Use Intensities for Electricity, 1995 (Continued)

Building Characteristics	Energy Intensity for Electricity (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventil-ation	Water Heating	Lighting	Cooking	Refrig-eration	Office Equip-ment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Percent Lit when Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	20.7	2.2	2.5	1.1	0.4	7.2	0.1	2.1	2.5	2.6	12.46
51 to 99	42.5	1.7	5.4	2.7	0.8	19.2	0.2	2.6	6.1	3.7	6.00
100	51.0	2.0	6.7	3.2	0.9	24.0	0.4	3.5	6.4	3.9	4.47
Building Not in Use/ Electricity Not Used	Q	Q	Q	0.2	Q	0.6	Q	Q	0.9	2.0	99.99
Percent Lit when Closed											
Zero	25.9	2.3	3.1	1.6	0.5	10.7	0.1	1.4	3.9	2.3	6.51
1 to 50	43.8	1.8	6.0	2.7	0.7	19.9	0.4	3.1	6.1	3.2	4.13
51 to 100	73.5	2.2	10.1	4.5	0.7	39.9	0.6	6.5	Q	3.5	29.35
Never Closed	72.7	2.1	9.1	4.5	1.7	35.0	0.4	5.0	8.0	6.9	5.76
Building Not in Use/ Electricity Not Used	Q	Q	Q	0.2	Q	0.6	Q	Q	0.9	2.0	99.99
Heating Equipment (more than one may apply)											
Heat Pumps	54.9	3.9	9.0	2.9	1.4	23.2	0.3	2.4	7.4	4.4	6.31
Furnaces	36.3	1.6	4.5	2.0	0.7	16.3	0.4	4.3	3.8	2.8	7.13
Individual Space Heaters	44.3	2.9	5.3	2.5	0.8	20.3	0.3	3.0	5.7	3.5	7.57
District Heat	64.1	0.3	4.4	5.5	0.8	33.4	0.3	2.1	10.8	6.2	9.02
Boilers	45.7	1.0	6.1	3.1	0.5	22.6	0.2	1.6	6.4	4.1	4.34
Packaged Heating Units	52.0	2.5	8.0	2.8	0.9	23.3	0.4	4.4	5.9	3.8	4.46
Other	66.5	2.9	8.1	4.8	0.8	32.3	0.3	2.5	9.4	5.3	11.38
Cooling Equipment (more than one may apply)											
Residential-Type Central A/C	46.8	1.2	7.1	2.8	0.8	20.9	0.4	4.6	5.4	3.4	7.58
Heat Pumps	56.0	3.8	9.0	3.0	1.3	23.4	0.5	2.8	7.6	4.4	5.96
Individual A/C	36.3	1.7	5.4	1.7	0.9	16.6	0.3	2.4	4.0	3.2	5.28
District Chilled Water	74.6	0.3	1.5	7.9	0.8	40.3	0.4	2.5	13.3	7.6	12.62
Central Chillers	70.4	1.6	9.2	5.7	0.8	34.0	0.3	1.9	10.5	6.3	7.79
Packaged A/C Units	54.0	2.0	7.7	3.2	0.8	24.7	0.4	4.1	6.7	4.1	3.99
Swamp Coolers	51.5	1.5	6.5	3.4	0.5	22.8	0.5	5.3	6.4	4.6	14.76
Other	62.0	1.0	5.9	3.8	0.6	31.8	0.5	4.9	9.5	4.1	16.95
Lighting Equipment Types (more than one may apply)											
Incandescent	45.7	1.7	6.1	2.9	0.8	21.6	0.3	2.9	5.5	3.7	3.86
Standard Fluorescent	47.4	2.0	6.2	3.0	0.8	21.9	0.3	3.3	6.1	3.8	3.82
Compact Fluorescent	61.5	1.6	7.9	4.3	0.8	29.7	0.5	3.1	8.3	5.3	5.23
High-Intensity Discharge	50.0	1.5	6.2	3.2	0.6	25.3	0.3	2.4	6.3	4.2	5.67
Halogen	54.0	1.7	6.8	3.8	0.7	26.4	0.4	2.5	7.0	4.7	4.40
Other	58.2	1.3	8.6	4.7	0.5	31.2	0.4	2.0	5.4	4.1	8.61
Water-Heating Equipment (more than one may apply)											
Centralized System	49.6	2.0	6.3	3.2	0.8	22.3	0.4	4.1	6.4	4.1	4.83
Distributed System	45.2	2.1	6.5	2.7	1.1	21.4	0.2	2.1	5.7	3.3	4.45
Combination of Centralized and Distributed System	55.2	1.8	6.6	3.8	0.6	27.8	0.4	2.7	7.0	4.4	8.17
Personal Computers and/or Computer Terminals											
None	23.6	1.7	3.0	1.4	0.7	9.7	0.2	3.1	1.5	2.4	7.46
1 to 4	38.5	2.7	4.9	1.9	1.0	15.9	0.4	5.8	2.8	3.1	7.26
5 to 9	47.5	2.6	6.7	2.1	1.3	20.8	0.7	4.4	4.9	3.8	7.08
10 to 19	43.9	2.3	6.3	2.0	0.7	20.8	0.2	2.4	6.1	3.2	6.59
20 to 49	45.4	1.4	7.1	2.5	0.8	21.8	0.2	2.1	6.0	3.5	5.43
50 to 99	50.2	1.3	7.3	2.9	0.7	24.7	0.2	1.4	7.3	4.5	7.35
100 to 249	59.2	1.7	7.6	4.4	0.6	29.2	0.2	2.3	8.3	4.9	6.18
250 or More	83.1	1.6	8.6	7.6	0.7	40.5	0.4	1.7	16.3	5.9	11.74

See footnotes at end of table.

Table EU-4. Energy End-Use Intensities for Electricity, 1995 (Continued)

Building Characteristics	Energy Intensity for Electricity (thousand Btu per sq. ft.)										RSE Row Factor
	Total	Space Heating	Cooling	Ventil-ation	Water Heating	Lighting	Cooking	Refrig-eration	Office Equip-ment	Other	
RSE Column Factor:	1.0	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Commercial Refrigeration Equipment (more than one may apply)											
Any Equipment	63.8	2.3	8.4	3.9	1.1	29.1	0.8	7.0	6.0	5.3	4.64
Walk-in Units	71.8	2.3	9.3	4.3	1.2	32.6	1.0	8.5	6.6	6.0	4.99
Cases and Cabinets	64.7	2.4	8.6	3.9	1.2	29.6	0.9	7.2	5.8	5.2	5.03
None	34.3	1.8	4.4	2.2	0.6	16.0	(*)	0.8	5.8	2.7	3.97
Building Shell Conservation Features (more than one may apply)											
Roof or Ceiling Insulation	49.4	2.0	6.5	3.1	0.9	22.7	0.4	3.5	6.4	4.0	4.12
Wall Insulation	50.8	1.9	6.8	3.1	1.0	22.8	0.4	3.6	6.8	4.3	3.96
Storm or Multiple Glazing	51.2	2.0	6.5	3.2	1.0	23.5	0.4	3.2	6.9	4.3	4.25
Tinted, Reflective or Shading Glass	57.6	2.1	7.6	4.0	0.8	26.6	0.4	3.1	8.3	4.6	5.83
Exterior or Interior Shading or Awnings	50.2	2.0	6.6	3.3	0.9	23.3	0.3	2.6	7.2	4.1	4.60
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	67.8	1.9	8.1	5.3	0.8	32.5	0.4	2.7	10.4	5.8	8.07
Economizer Cycle	63.8	1.8	8.1	4.6	0.8	30.0	0.5	3.2	9.4	5.4	6.48
HVAC Maintenance	51.4	1.8	6.8	3.3	0.9	24.0	0.4	3.0	6.9	4.2	4.39
Other Energy Efficient Equipment	61.1	1.8	7.6	4.5	0.7	28.9	0.3	3.1	9.0	5.3	12.12
Lighting Conservation Features (more than one may apply)											
Specular Reflectors	53.9	1.6	6.9	3.5	0.8	26.1	0.4	2.9	7.1	4.5	5.00
Energy-Efficient Ballasts	56.8	2.1	7.2	3.7	0.9	26.6	0.4	3.4	7.8	4.6	4.61
Natural Lighting Control Sensors	56.7	1.9	8.0	3.4	0.8	28.0	0.3	3.4	6.2	4.6	6.46
Occupancy Sensors	60.1	1.2	6.9	4.4	0.7	28.3	0.3	3.3	9.7	5.2	5.50
Time Clock	59.4	1.6	8.2	4.1	0.6	29.1	0.3	3.1	7.9	4.5	6.88
Manual Dimmer Switches	62.0	1.8	8.1	4.6	0.8	29.4	0.4	2.5	8.8	5.5	5.92
Other	64.4	1.7	8.3	4.3	0.6	30.6	0.4	3.1	10.0	5.3	8.68
Off-Hour Equipment Reduction (more than one may apply)											
Heating	38.8	1.9	5.2	2.5	0.6	17.9	0.3	2.3	5.3	2.8	4.81
Cooling	41.1	1.7	5.9	2.7	0.6	18.8	0.3	2.4	5.6	2.9	5.60
Lighting	40.0	2.0	5.3	2.5	0.6	18.1	0.3	2.7	5.5	3.0	4.50

(*) = Value rounds to zero in the units displayed.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table EU-5. Natural Gas Consumption by End Use, 1995

Building Characteristics	Natural Gas Consumption (trillion Btu)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
All Buildings	1,946	1,092	521	198	135	5.41
Building Floorspace (square feet)						
1,001 to 5,000	264	167	39	50	Q	11.73
5,001 to 10,000	272	193	44	31	Q	20.13
10,001 to 25,000	356	239	75	28	14	14.79
25,001 to 50,000	231	139	65	15	Q	9.61
50,001 to 100,000	243	146	70	14	13	9.89
100,001 to 200,000	244	107	94	19	24	14.55
200,001 to 500,000	211	65	85	24	36	11.57
Over 500,000	125	37	49	16	23	14.35
Principal Building Activity						
Education	245	148	73	9	16	10.38
Food Sales	18	10	4	3	1	37.47
Food Service	158	33	28	96	Q	20.37
Health Care	258	79	105	25	49	14.80
Lodging	213	38	145	22	7	12.94
Mercantile and Service	395	315	44	17	19	16.62
Office	239	160	59	10	10	10.23
Public Assembly	142	106	25	9	Q	15.78
Public Order and Safety	33	15	11	Q	Q	18.94
Religious Worship	57	50	7	1	Q	16.29
Warehouse and Storage	106	93	8	(*)	Q	12.92
Other	55	25	8	Q	22	29.01
Vacant	26	21	5	Q	Q	41.08
Year Constructed						
1919 or Before	135	82	22	14	Q	15.06
1920 to 1945	210	150	39	11	11	12.89
1946 to 1959	391	255	88	26	21	17.85
1960 to 1969	375	188	123	41	23	9.91
1970 to 1979	393	214	110	32	37	13.45
1980 to 1989	288	137	89	46	16	8.52
1990 to 1992	100	40	33	22	Q	28.03
1993 to 1995	54	27	17	6	4	20.41
Floors						
One	654	429	115	95	16	9.58
Two	481	305	125	31	20	12.79
Three	284	173	68	19	24	10.04
Four to Nine	411	147	164	38	60	8.83
Ten or More	117	38	48	15	16	14.84
Census Region and Division						
Northeast	297	163	73	29	32	14.36
New England	74	41	21	5	6	31.87
Middle Atlantic	223	122	51	24	26	14.01
Midwest	750	519	153	46	31	10.47
East North Central	505	340	109	39	18	8.45
West North Central	244	179	45	7	Q	25.91
South	528	250	163	77	39	11.96
South Atlantic	197	82	57	41	18	14.95
East South Central	164	95	49	9	12	30.06
West South Central	167	73	57	27	10	10.76
West	371	160	132	47	31	10.87
Mountain	150	93	40	10	8	18.72
Pacific	221	68	93	37	24	12.86

See footnotes at end of table.

Table EU-5. Natural Gas Consumption by End Use, 1995 (Continued)

Building Characteristics	Natural Gas Consumption (trillion Btu)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Climate Zone: 45-Year Average						
Fewer than 2,000 CDD and --						
More than 7,000 HDD	240	175	49	10	Q	17.21
5,500-7,000 HDD	692	464	148	44	35	11.47
4,000-5,499 HDD	452	247	110	44	50	18.53
Fewer than 4,000 HDD	372	150	137	55	29	10.98
More than 2,000 CDD and --						
Fewer than 4,000 HDD	191	56	76	45	14	18.42
Workers (main shift)						
Fewer than 5	298	221	60	11	Q	8.49
5 to 9	244	182	37	15	9	21.85
10 to 19	269	172	49	45	3	21.42
20 to 49	343	188	83	52	20	10.13
50 to 99	218	111	81	18	8	10.28
100 to 249	222	107	76	17	23	12.45
250 or More	352	110	135	39	67	8.87
Weekly Operating Hours						
39 or Fewer	92	78	11	3	Q	17.48
40 to 48	365	296	50	13	6	14.24
49 to 60	301	227	50	9	15	10.97
61 to 84	279	173	55	38	13	11.27
85 to 167	243	113	56	65	9	14.42
Open Continuously	665	206	300	70	90	10.58
Ownership and Occupancy						
Nongovernment Owned	1,472	810	396	174	92	5.79
Owner Occupied	1,245	663	353	148	81	6.90
Nonowner Occupied	218	141	40	26	Q	11.16
Unoccupied	Q	Q	Q	Q	Q	99.99
Government Owned	474	282	125	24	43	12.84
Federal	42	19	10	2	Q	31.53
State	121	52	40	8	20	20.76
Local	311	212	75	14	11	18.40
Space in Building Vacant for at Least Three Consecutive Months						
Yes	409	229	103	34	43	16.75
No	1,537	863	418	164	92	6.09
Energy Sources (more than one may apply)						
Electricity	1,938	1,087	519	198	135	5.74
Natural Gas	1,946	1,092	521	198	135	5.41
Fuel Oil	556	217	204	55	80	9.64
District Heat	146	Q	40	18	Q	25.92
District Chilled Water	101	15	24	11	52	19.60
Propane	90	49	25	6	10	18.74
Other	64	30	17	6	Q	23.09
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	99.99
1 to 50	86	64	11	8	Q	17.66
51 to 99	281	163	72	32	14	18.46
100	1,570	866	435	155	115	5.79
Percent of Floorspace Cooled						
Not Cooled	163	123	30	5	Q	13.84
1 to 50	515	400	81	13	21	14.16
51 to 99	463	210	155	59	39	9.27
100	804	360	254	121	69	6.78

See footnotes at end of table.

Table EU-5. Natural Gas Consumption by End Use, 1995 (Continued)

Building Characteristics	Natural Gas Consumption (trillion Btu)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Percent Lit when Open						
Zero	Q	Q	Q	Q	Q	99.99
1 to 50	136	100	26	5	Q	11.34
51 to 99	345	195	89	30	32	10.43
100	1,448	784	403	162	99	6.11
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed						
Zero	302	246	34	8	12	10.69
1 to 50	909	604	166	111	28	8.07
51 to 100	56	23	20	8	Q	21.77
Never Closed	663	205	299	70	90	11.36
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	99.99
Heating Equipment (more than one may apply)						
Heat Pumps	142	39	75	16	12	14.38
Furnaces	548	408	89	41	10	9.99
Individual Space Heaters	609	398	147	33	32	12.37
District Heat	146	19	37	21	68	17.39
Boilers	938	530	306	56	46	6.95
Packaged Heating Units	544	273	157	96	18	6.87
Other	166	69	60	20	18	13.91
Cooling Equipment (more than one may apply)						
Residential-Type Central A/C	417	243	101	49	23	15.95
Heat Pumps	161	52	78	19	12	13.68
Individual A/C	553	307	168	45	33	11.52
District Chilled Water	101	15	24	11	52	19.60
Central Chillers	502	198	203	46	54	8.60
Packaged A/C Units	929	492	256	125	57	6.16
Swamp Coolers	117	44	48	20	5	18.16
Other	31	17	7	Q	Q	28.00
Water-Heating Equipment (more than one may apply)						
Centralized System	1,353	746	378	138	90	7.01
Distributed System	379	217	85	44	32	8.24
Combination of Centralized and Distributed System	146	63	57	15	11	16.86
Building Shell Conservation Features (more than one may apply)						
Roof or Ceiling Insulation	1,660	918	458	171	113	6.23
Wall Insulation	1,055	532	324	124	75	5.68
Storm or Multiple Glazing	1,166	609	343	135	79	6.11
Tinted, Reflective or Shading Glass	840	384	265	113	77	6.31
Exterior or Interior Shading or Awnings	1,348	676	395	152	125	6.21
HVAC Conservation Features (more than one may apply)						
Variable Air-Volume System	564	220	208	72	63	6.75
Economizer Cycle	698	309	227	89	74	4.91
HVAC Maintenance	1,593	839	458	171	124	5.56
Other Energy Efficient Equipment	263	112	89	29	33	13.02

See footnotes at end of table.

Table EU-5. Natural Gas Consumption by End Use, 1995 (Continued)

Building Characteristics	Natural Gas Consumption (trillion Btu)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Off-Hour Equipment Reduction (more than one may apply)						
Heating	1,097	758	188	111	40	7.30
Cooling	1,009	682	180	110	37	8.17
Lighting	1,248	864	214	126	44	6.81

[a] Includes cooling.
(*) = Value rounds to zero in the units displayed.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Table EU-6. Energy End-Use Intensities for Natural Gas, 1995

Building Characteristics	Energy Intensity for Natural Gas (thousand Btu per sq. ft.)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
All Buildings	51.0	28.6	13.7	5.2	3.5	4.77
Building Floorspace (square feet)						
1,001 to 5,000	89.6	56.9	13.3	17.0	Q	8.73
5,001 to 10,000	60.4	42.9	9.8	6.9	Q	17.62
10,001 to 25,000	47.1	31.6	9.9	3.8	1.9	13.54
25,001 to 50,000	44.0	26.5	12.3	2.8	Q	6.04
50,001 to 100,000	43.4	26.0	12.5	2.5	2.4	7.70
100,001 to 200,000	52.6	23.0	20.2	4.2	5.3	11.96
200,001 to 500,000	53.5	16.5	21.6	6.1	9.2	8.88
Over 500,000	33.8	9.9	13.2	4.4	6.3	14.60
Principal Building Activity						
Education	42.3	25.5	12.5	1.6	2.7	7.05
Food Sales	43.7	24.3	9.9	7.5	1.9	28.48
Food Service	157.7	33.4	27.7	96.2	Q	13.57
Health Care	146.9	45.1	59.6	14.4	27.7	11.18
Lodging	75.2	13.5	51.4	7.9	2.4	9.64
Mercantile and Service	46.4	36.9	5.2	2.0	2.3	15.62
Office	36.7	24.5	9.0	1.6	1.6	8.39
Public Assembly	53.3	39.7	9.4	3.5	Q	11.71
Public Order and Safety	44.7	20.1	15.4	Q	Q	17.01
Religious Worship	28.7	24.8	3.4	0.5	Q	14.90
Warehouse and Storage	23.0	20.3	1.7	0.1	1.0	7.80
Other	84.6	37.7	11.7	Q	33.5	19.25
Vacant	39.8	31.9	7.0	Q	Q	38.45
Year Constructed						
1919 or Before	51.2	30.9	8.4	5.2	Q	11.93
1920 to 1945	46.1	32.8	8.5	2.5	2.4	9.16
1946 to 1959	60.4	39.4	13.6	4.0	3.3	13.48
1960 to 1969	52.2	26.2	17.2	5.8	3.2	9.06
1970 to 1979	53.2	29.0	14.9	4.3	5.0	14.06
1980 to 1989	40.1	19.1	12.4	6.4	2.2	6.58
1990 to 1992	60.5	24.0	20.1	13.3	Q	24.62
1993 to 1995	49.5	24.9	15.3	5.1	4.1	12.91
Floors						
One	46.5	30.4	8.2	6.7	1.1	7.69
Two	48.9	31.0	12.7	3.2	2.0	10.63
Three	51.2	31.3	12.3	3.4	4.2	7.33
Four to Nine	67.0	24.1	26.8	6.3	9.8	7.74
Ten or More	45.6	14.8	18.7	6.0	6.1	16.11
Census Region and Division						
Northeast	41.7	22.9	10.2	4.0	4.6	9.43
New England	51.3	28.7	14.8	3.5	4.3	19.47
Middle Atlantic	39.3	21.5	9.1	4.1	4.6	7.93
Midwest	68.8	47.6	14.1	4.2	2.9	8.52
East North Central	66.9	45.0	14.4	5.1	2.4	6.72
West North Central	72.9	53.4	13.4	2.2	Q	20.36
South	43.0	20.3	13.2	6.2	3.2	9.97
South Atlantic	41.0	17.0	11.8	8.5	3.7	9.44
East South Central	51.9	30.1	15.4	2.8	3.6	29.03
West South Central	38.7	16.8	13.2	6.3	2.3	8.72
West	47.3	20.5	16.9	6.0	4.0	7.15
Mountain	57.0	35.4	15.1	3.7	2.9	17.03
Pacific	42.4	12.9	17.8	7.1	4.6	9.84

See footnotes at end of table.

Table EU-6. Energy End-Use Intensities for Natural Gas, 1995 (Continued)

Building Characteristics	Energy Intensity for Natural Gas (thousand Btu per sq. ft.)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Climate Zone: 45-Year Average						
Fewer than 2,000 CDD and --						
More than 7,000 HDD	70.5	51.4	14.5	2.8	Q	10.25
5,500-7,000 HDD	64.3	43.1	13.8	4.1	3.2	10.23
4,000-5,499 HDD	49.7	27.2	12.1	4.9	5.5	11.48
Fewer than 4,000 HDD	38.7	15.7	14.3	5.7	3.1	5.37
More than 2,000 CDD and --						
Fewer than 4,000 HDD	36.0	10.5	14.4	8.5	2.6	9.81
Workers (main shift)						
Fewer than 5	45.3	33.6	9.1	1.7	Q	7.14
5 to 9	54.4	40.7	8.2	3.4	2.1	20.19
10 to 19	57.4	36.7	10.4	9.7	0.6	20.59
20 to 49	51.8	28.4	12.5	7.8	3.0	7.39
50 to 99	45.8	23.3	17.1	3.8	1.6	8.52
100 to 249	51.7	24.9	17.6	3.9	5.3	10.45
250 or More	52.4	16.4	20.1	5.9	10.0	8.42
Weekly Operating Hours						
39 or Fewer	34.7	29.2	4.2	1.0	Q	10.91
40 to 48	42.8	34.6	5.9	1.6	0.7	11.58
49 to 60	37.6	28.4	6.2	1.1	1.9	6.56
61 to 84	39.6	24.6	7.8	5.4	1.9	6.79
85 to 167	61.2	28.4	14.1	16.4	2.3	10.68
Open Continuously	83.9	26.0	37.8	8.8	11.3	9.44
Ownership and Occupancy						
Nongovernment Owned	48.6	26.8	13.1	5.7	3.0	4.86
Owner Occupied	52.0	27.7	14.7	6.2	3.4	5.71
Nonowner Occupied	35.9	23.3	6.6	4.3	Q	8.14
Unoccupied	Q	Q	Q	Q	Q	99.99
Government Owned	60.1	35.7	15.8	3.1	5.4	12.12
Federal	59.6	26.1	14.5	2.6	Q	22.45
State	71.1	30.6	23.6	4.9	12.0	16.57
Local	56.7	38.6	13.6	2.6	2.0	16.12
Space in Building Vacant for at Least Three Consecutive Months						
Yes	42.0	23.6	10.5	3.5	4.4	14.09
No	54.1	30.4	14.7	5.8	3.2	4.65
Energy Sources (more than one may apply)						
Electricity	51.0	28.6	13.6	5.2	3.5	5.09
Natural Gas	51.0	28.6	13.7	5.2	3.5	4.77
Fuel Oil	60.0	23.5	22.0	5.9	8.6	9.77
District Heat	62.2	Q	17.1	7.9	Q	26.34
District Chilled Water	78.8	11.6	18.5	8.6	40.1	14.56
Propane	57.3	31.1	16.2	3.7	6.3	8.68
Other	43.1	20.2	11.2	4.0	Q	17.38
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	99.99
1 to 50	23.2	17.1	2.9	2.3	Q	16.33
51 to 99	45.2	26.2	11.5	5.1	2.3	16.43
100	56.0	30.9	15.5	5.5	4.1	5.14
Percent of Floorspace Cooled						
Not Cooled	53.6	40.2	9.8	1.6	Q	10.87
1 to 50	47.6	36.9	7.5	1.2	1.9	12.43
51 to 99	49.4	22.4	16.6	6.3	4.2	7.25
100	54.0	24.2	17.1	8.1	4.6	5.43

See footnotes at end of table.

Table EU-6. Energy End-Use Intensities for Natural Gas, 1995 (Continued)

Building Characteristics	Energy Intensity for Natural Gas (thousand Btu per sq. ft.)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Percent Lit when Open						
Zero	Q	Q	Q	Q	Q	99.99
1 to 50	36.5	26.8	7.1	1.4	Q	9.15
51 to 99	50.3	28.3	12.9	4.4	4.6	8.71
100	53.4	28.9	14.9	6.0	3.6	5.97
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	99.99
Percent Lit when Closed						
Zero	41.1	33.6	4.7	1.1	1.7	7.49
1 to 50	43.1	28.6	7.9	5.3	1.3	6.68
51 to 100	40.8	16.8	14.3	6.2	Q	13.98
Never Closed	83.8	26.0	37.7	8.8	11.3	9.98
Building Not in Use/ Electricity Not Used	Q	Q	Q	Q	Q	99.99
Heating Equipment (more than one may apply)						
Heat Pumps	47.5	13.0	25.1	5.4	3.9	11.27
Furnaces	46.0	34.2	7.5	3.5	0.8	10.21
Individual Space Heaters	47.8	31.2	11.5	2.6	2.5	10.59
District Heat	60.0	7.8	15.4	8.6	28.2	14.75
Boilers	65.8	37.2	21.5	3.9	3.2	6.67
Packaged Heating Units	42.1	21.1	12.2	7.4	1.4	5.52
Other	40.8	16.9	14.7	4.9	4.3	13.81
Cooling Equipment (more than one may apply)						
Residential-Type Central A/C	60.0	34.9	14.6	7.1	3.3	12.65
Heat Pumps	44.3	14.2	21.5	5.2	3.4	9.76
Individual A/C	60.1	33.4	18.2	4.9	3.6	9.86
District Chilled Water	78.8	11.6	18.5	8.6	40.1	14.56
Central Chillers	60.4	23.8	24.5	5.6	6.5	6.77
Packaged A/C Units	46.2	24.4	12.7	6.2	2.8	5.54
Swamp Coolers	61.8	23.1	25.5	10.6	2.7	13.67
Other	40.5	22.1	9.3	Q	4.1	20.39
Water-Heating Equipment (more than one may apply)						
Centralized System	59.8	33.0	16.7	6.1	4.0	6.63
Distributed System	34.3	19.6	7.7	4.0	2.9	5.81
Combination of Centralized and Distributed System	56.2	24.3	22.0	5.8	4.1	14.10
Building Shell Conservation Features (more than one may apply)						
Roof or Ceiling Insulation	53.0	29.3	14.6	5.5	3.6	5.67
Wall Insulation	49.6	25.0	15.2	5.8	3.5	5.09
Storm or Multiple Glazing	57.9	30.3	17.1	6.7	3.9	6.29
Tinted, Reflective or Shading Glass	49.8	22.8	15.7	6.7	4.6	4.72
Exterior or Interior Shading or Awnings	52.0	26.1	15.2	5.9	4.8	5.27
HVAC Conservation Features (more than one may apply)						
Variable Air-Volume System	59.7	23.3	22.0	7.6	6.7	6.52
Economizer Cycle	56.9	25.1	18.5	7.2	6.0	5.77
HVAC Maintenance	53.1	28.0	15.3	5.7	4.1	4.93
Other Energy Efficient Equipment	54.6	23.2	18.5	6.1	6.8	8.52

See footnotes at end of table.

Table EU-6. Energy End-Use Intensities for Natural Gas, 1995 (Continued)

Building Characteristics	Energy Intensity for Natural Gas (thousand Btu per sq. ft.)					RSE Row Factor
	Total	Space Heating	Water Heating	Cooking	Other[a]	
RSE Column Factor:	1.0	NF	NF	NF	NF	
Off-Hour Equipment Reduction (more than one may apply)						
Heating	41.4	28.6	7.1	4.2	1.5	5.23
Cooling	41.0	27.7	7.3	4.5	1.5	6.27
Lighting	42.4	29.3	7.3	4.3	1.5	4.88

[a] Includes cooling.
NF = No applicable RSE column factor.
Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for types of equipment represent consumption in buildings which have the equipment, not the consumption by the specific piece of equipment. • Because of rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

Appendix A

How the Survey Was Conducted

Introduction

The Commercial Buildings Energy Consumption Survey (CBECS) is conducted by the Energy Information Administration (EIA) to provide basic statistical information on energy consumption and expenditures for U.S. commercial buildings and data on energy-related characteristics of these buildings. To obtain this information, a survey is conducted, which is based upon a sample of commercial buildings selected according to the sample design requirements described in this appendix. A "building" as opposed to an "establishment" is the basic unit for the CBECS because a building is the energy-consuming unit.

This is the sixth in a series of surveys covering the commercial sector. The first survey was conducted in 1979; surveys were then conducted on a triennial basis beginning in 1983 until 1995. Future CBECS will be conducted on a quadrennial basis, with the next CBECS scheduled for 1999.

The CBECS is conducted in two major data-collection stages: a Building Characteristics Survey and an Energy Suppliers Survey. The first stage is a Building Characteristics Survey that collects information about selected commercial buildings through voluntary personal interviews with the buildings' owners, managers, or tenants. In 1995, the data were collected by using Computer-Assisted Personal Interviewing (CAPI) techniques. An authorization form signed by the respondent is used to secure the release of the building's energy consumption and expenditures records from the energy supplier. These energy consumption and expenditures data are collected during the Energy Suppliers Survey, which is the second stage.

The Energy Suppliers Survey obtains data about the building's actual consumption of energy and associated expenditures for that energy from records maintained by energy suppliers. The information is obtained by means of a mail survey conducted under EIA's mandatory data collection authority. Additionally, the CBECS asked energy suppliers about any demand-side management programs they may have provided to the building. Under EIA's direction, a survey research firm conducted both the personal interviews for the Building Characteristics Survey and the mail survey for the Energy Suppliers Survey.

This appendix discusses in greater detail how the CBECS is conducted. It describes the sample design, the survey forms, response rates, data collection and data processing procedures, and the data preparation for the statistical reports based on the survey results.

Target Population

The target population for CBECS consisted of all commercial buildings in the United States larger than 1,000 square feet, with the exception of commercial buildings located on manufacturing sites. To be eligible for the survey, a building had to satisfy three criteria: (1) it had to meet the survey's definition of a building, (2) it had to be used primarily for some commercial purpose, and (3) it had to measure 1,001 square feet or more.

A building is defined by CBECS as a structure totally enclosed by walls that extend from the foundation to the roof and is intended for human access. To be used primarily for some commercial purpose, the building must have more than 50 percent of its floorspace devoted to activities that are neither residential, industrial, nor agricultural. The 1995 CBECS estimated that there were 4,579 thousand buildings in the target population.

Sample Design

The sample design for the CBECS is a multistage area probability cluster sample design supplemented by a list sample of "large" buildings, recently constructed buildings, and "special" buildings (Federal Government buildings and post offices, hospitals, colleges, and universities). The area sample portion of the de-

sign is a sample from the broad spectrum of commercial buildings. The supplemental list sample provides an oversample of "large" buildings and "special" buildings. Similarly, for recently constructed buildings, the area sample is used to provide a sample from the broad spectrum of new buildings and the supplemental list sample provides an oversample of "large" new buildings.

Multistage Area Probability Sample

The area component of the CBECS sample used a four-stage cluster sampling design that selected primary sampling units (PSU's), secondary sampling units (SSU's), segments, and, ultimately, buildings. The first three of these stages involved sampling progressively smaller geographic areas. For the 1995 CBECS, the same PSU's, SSU's, and segments that were selected for the 1986 CBECS were reused. For the fourth stage of sampling, the 1995 selection of buildings was executed by using procedures to update the 1986 CBECS building lists to include new construction in the sampled segments.

Supplementary List Sample from Lists of Large and Specialized Buildings

To ensure adequate coverage of buildings that were significant energy users, the multistage area probability sample was supplemented within each selected PSU by a sample from a list of "large" buildings (buildings over 250,000 square feet) or facilities. In addition, to improve the precision of energy consumption estimates for certain types of buildings, a supplementary sample was drawn from several lists of special buildings. These list frame files differ from the area segment listings in that the list files are primarily facility or construction-project based as opposed to building based.

Desired Sampling Results

The goal of the 1995 CBECS sampling procedures (both the area sample and the supplemental list sample) was to achieve completed interviews for 5,500 buildings — 4,450 buildings from the area sample and 1,050 buildings from the supplemental list sample.

Actual Sample Selected

In order to achieve the 1995 CBECS goal for number of respondents, a sample of 8,074 potential cases was selected, consisting of 6,633 buildings from the area sample frame and 1,441 buildings from the supplemental list sample frames consisting of large buildings and special buildings. Of these 8,074 buildings, 6,590 buildings were found eligible for interviewing. The three primary eligibility criteria, building definition, building use, and building size are described in the "Determining Building Eligibility" section below. Other reasons for sample building listings to be classified as ineligible included duplication of buildings, demolished buildings, buildings under construction, or commercial buildings on industrial facilities.

Response Rates

Of the 6,590 eligible buildings, interviews were completed for 87.5 percent, or 5,766 buildings (4,728 buildings from the area sample and 1,038 buildings from the supplemental list sample). Of the 5,766 CBECS respondents, 5,668 reported some energy use in the building. For 92.6 percent, or 5,250, of these buildings, an authorization form was obtained which allowed the survey contractor to contact the energy suppliers for release of the energy billing data for the building.

Building Characteristics Survey

This section describes how the building characteristics survey is conducted. It includes information about what constitutes a commercial building for the CBECS, how the questionnaire is designed, the type of interviewer training that occurs, how the data are collected (including procedures to minimize nonresponse), and what the data edit specifications are.

Determining Building Eligibility

Determining building eligibility was a three-step process. The first step occurred during the development of the area and supplemental sample listings. The second step occurred when the interviewer observed the building, and the third step occurred during the interview of the building owner or manager. While criterion one, the definition of a building, can be determined during the first and second steps, criteria two and three are based more on lister or interviewer judgment and could result in exclusion of eligible buildings or the inclusion of ineligible buildings during those steps. The third step is crucial in identifying ineligible buildings. Once the interviewer begins the interview, initial screening

questions instruct the interviewer to terminate the interview if criterion two or three is not met.

Criterion 1: Building Definition: The definition of a building was the same one used in previous CBECS: a structure totally enclosed by walls that extend from the foundation to the roof and intended for human access. Thus, structures such as water, radio, and television towers were excluded from the survey. Also excluded were (1) parking garages and partially open structures, such as lumber yards; (2) enclosed structures that people usually do not enter or are not buildings, such as pumping stations, cooling towers, oil tanks, statues, and monuments; and (3) dilapidated or incomplete buildings missing a roof or a wall. There is one exception to the building definition criterion: a structure built on pillars so that the first fully enclosed level is elevated. These were included because such buildings fall short of meeting the definition due only to the technical shortcoming of being raised from the foundation. They are totally enclosed, are used for common commercial purposes, and use energy in much the same way as buildings that sit directly on a foundation.

Criterion 2: Building Use: The second criterion was that a building had to be used primarily for some commercial purpose; that is, more than 50 percent of the building's floorspace must have been devoted to activities that were neither residential, industrial, nor agricultural. The primary use of the sampled building governed whether the building was included in the CBECS. In 1995, there was one exception to this criterion: commercial buildings on manufacturing sites were considered out of scope. (In previous CBECS, if a commercial building (e.g., an office building), was located on a manufacturing site, it would have been considered in scope).

Examples of nonresidential buildings that were not included in the CBECS samples are:

- Farm buildings, such as barns, unless space is used for retail sales to the general public
- Industrial or manufacturing buildings that involve the processing or procurement of goods, merchandise, or food
- Buildings on most military bases
- Buildings where access is restricted for national security reasons
- Single-family detached dwellings that are primarily residential, even if the occupants use part of the dwelling for business purposes
- Mobile homes that are not placed on a permanent foundation (even if the mobile home is used for nonresidential purposes).

During the interviewing stage, interviewers were instructed not to begin interviews at buildings where they observed that 75 percent or more of the floorspace was used for residential, industrial, or agricultural purposes. Once the interview began, screening questions instructed the interviewer to terminate the interview if the respondent indicated that 50 percent or more of the square footage was used for residential, industrial, or agricultural purposes.

Criterion 3: Building Size: The third criterion was that a commercial building had to measure more than 1,000 square feet (about twice the size of a two-car garage) to be considered in scope for the 1995 CBECS. This building size criterion was met in two successive size cutoffs, which were enacted during the listing and interviewing processes. During the listing stage, buildings judged to be less than 500 square feet were not listed. Interviewers did not begin interviews when they observed a building to be 500 square feet or less. Then during the interviewing stage, interviewers asked screening questions designed to terminate the interview when the square footage was reported to be 1,000 square feet or less.

Data Collection

Data collection encompasses several phases, including: (1) designing the questionnaire, (2) training supervisors and interviewers, (3) collecting data, (4) minimizing nonresponse, and (5) processing the data. A survey contractor performed the data collection under the direction of EIA.

Designing the Building Characteristics Survey Questionnaire

Questionnaire design work for the 1995 CBECS was conducted by EIA. Although a set of core questions remained the same or very similar to those used in previous surveys, the 1995 Building Questionnaire was redesigned to improve data quality and to allow the

data to be collected by use of Computer-Assisted Personal Interviewing (CAPI) techniques.

Use of CAPI: Increasingly, in an effort to provide more timely data and to enhance the quality of data, surveys are conducted by using Computer-Assisted Interviewing (CAI) systems. Because of the complexity of the CBECS, a personal interview with a building respondent is the most preferable method of collecting information about a particular building. Thus, using CAPI was the most logical CAI method for CBECS. Interviewers were provided laptop computers that had been preloaded with questionnaires for the buildings they were to interview.

The CBECS questionnaire requires the interviewer to ask specific follow-up questions based on the responses to previous questions. Therefore, a major benefit of converting to CAPI from a paper and pencil questionnaire was the ability to build edits into the questionnaire that would reduce the need for the interviewer to decide which of the follow-up questions to ask the respondents. This, in turn, reduced the number of skip pattern errors that needed correcting during the post-interview edit phase and the number of item nonresponses. Additionally, these built-in edits alerted the interviewer to data inconsistencies that might occur when the respondent selected an answer that was technically incorrect or incompatible with a previous answer. For example, if the respondent reported the presence of heating equipment types that were unlikely for a given energy source, CAPI alerted the interviewer to this inconsistency and provided directions, via data screen messages, on how to resolve the inconsistency. (See "CAPI Edits During Interviewing" in this appendix for other types of edits.)

CAPI also allows the interviewers to transmit data for completed cases electronically from the field to the home office so that data processing can start immediately. This capability allows processing to proceed more smoothly and ultimately results in faster dissemination of the data to CBECS customers.

Training Supervisors and Interviewers

The CBECS building questionnaire is a complex instrument designed to collect data during a personal interview at the building site. Well-trained interviewers are imperative to the collection of technical information. Training for the 1995 CBECS included three in-person training sessions: one session for the interviewer trainers, monitors, and regional supervisors and two sessions for the interviewers. Because the 1995 CBECS was collected for the first time by using CAPI, all interviewers were trained in the general use of the computer and in interviewing and administering the CAPI questionnaire. Training sessions included lectures, interviewers slide presentations, and small group sessions where the interviewers practiced administering the questionnaire by using laptop computers. EIA personnel participated in all training sessions, providing an overview of the CBECS and a presentation on the key 1995 CBECS energy concepts.

Prior to interviewer training, all prospective interviewers received the CBECS Training Video, a *CBECS Interviewer's Manual*, a *CBECS Computer Assisted Personal Interviewing (CAPI) Reference Guide*, a home-study exercise to be completed prior to training, and a training agenda. The CBECS Training Video included: (1) concepts of sampling, (2) the CBECS definition of a building and the eligibility criteria, (3) information on how to determine the boundaries of a building, and (4) the area sample listing materials. The video was used to familiarize the interviewer with these materials prior to the in-person interviewer training. The *CBECS Interviewer's Manual* included instructions for locating sampled buildings and conducting interviews, as well as describing administrative and reporting procedures. The *CBECS Computer Assisted Personal Interviewing (CAPI) Reference Guide* described the care and operation of the computer hardware for the 1995 CBECS and the Case Management and Interviewing System that was loaded onto the laptops. Home-study exercises were related directly to materials covered in the video.

Interviewers who had not previously worked for the survey contractor received the *General Interviewing Techniques Manual* and a home study guide with exercises to be completed prior to training. Interviewers with no prior experience with CAPI participated in a 3-4 hour hands-on, self-paced instruction program on how to use the laptop computer.

During the training, all interviewers received (1) question-by-question specifications that described the intent of each question, the definitions of terms used in the survey, and how to ask each question and (2) Hand Cards that were to be used during the interview. By the conclusion of the training session, all interviewers had completed four scripted practice interviews that covered various types of situations they might encounter in the field.

Because the feedback EIA received from energy suppliers indicated that the primary reason for delays in processing the Energy Suppliers Survey was missing account numbers, special emphasis was placed on obtaining account numbers. The importance of this was stressed, along with the importance of obtaining signed authorization forms from the respondent. These forms are used to secure the release of the buildings' energy consumption and expenditures records from the energy supplier. With the 1995 survey, account numbers were added as a data item collected during the interview rather than in conjunction with preparing the authorization form.

The 1995 CBECS interviewing training sessions included a formalized evaluation process. Based on the results of a key concepts quiz/test and an evaluation by trainers and/or supervisors, the interviewer trainees were considered either to have successfully completed training, were placed on probation, or were released from the study.

Collecting the Data

Initial contacts with the building representatives were made through an introductory letter mailed to them at each building or facility in the survey sample. The letter, signed by a representative of EIA, was addressed to the building owner or manager. The letter explained that the building had been selected for the survey, introduced the survey contractor, assured the building manager that the data would remain confidential, and discussed the uses and needs for the CBECS data in setting national energy policies. To protect confidentiality, the letter was addressed by the survey contractor after it was signed at EIA.

A worksheet was attached to the letter that listed several pieces of information that the respondent should have ready for the interviewer. This information included square footage of the building, year constructed, energy sources used, types of heating and cooling equipment, number of workers, energy billing account numbers, and names and addresses of the energy suppliers. The worksheet alerted the respondent to questions that might be difficult to answer "on-the-spot" and which, if gathered prior to data collection, could reduce the length of the interview or the need for callbacks. Additionally, 989 buildings selected in 1995 that were from the 1992 CBECS and 21 buildings from the 1993 Federal Buildings Supplemental Survey were sent information that they had previously reported during those two surveys.

Data collection began August 28, 1995, and ended December 8, 1995. The data were collected by the survey contractor's field staff. This staff consisted of 149 interviewers under the supervision of seven regional supervisors and their assistants and a central office staff consisting of a project manager, a field director, and a subsampling assistant.

Interviewers: Prior to beginning the interview, the interviewer observed the outside of the building to ascertain if the structure met the size and building-use eligibility requirements of the survey. If the building failed to meet any one of the definitional criteria, the building was classified as ineligible and no interview was conducted. (See "Determining Building Eligibility" section of this appendix for an explanation of these criteria.)

During the initial visit to the sampled buildings, the interviewers identified and attempted to schedule an interview with a knowledgeable respondent who met the survey criteria for a building representative. The respondent could be the owner of the building, a tenant, a hired building manager or engineer, or a spokesperson for a management company.

The Interview: Each interview began with a series of screening questions designed to verify the building's address and eligibility for the survey. Respondents were asked about the building as a whole rather than individual establishments located within the building. The completed building interview lasted an average of 40 minutes. This included the time for the interviewer to record the results of the screening, to ask all questions on the building characteristics questionnaire, and to obtain a signed authorization form from the respondent for the release of energy billing data from the energy supplier to the building. It did not include the observation time prior to the interview to determine if the building was eligible or the time needed to obtain a signed authorization form from someone other than the building respondent in those cases when the building respondent did not have the authority to sign the form.

The average time to obtain each completed interview, including interviewer preparation, travel, callbacks, interviewing, and transmitting the completed interviews to the home office, was 6 hours and 54 minutes. Each interviewer conducted an average of 53 interviews: 5 interviewers each completed 10 or fewer interviews, while 6 interviewer each completed more than 70.

Interviewer Supervision: Procedures were taken to ensure that the interviews were conducted as intended. Ten percent of each interviewer's cases were preselected for validation to verify that the interview had been conducted and that it had been conducted at the correct building according to specified procedures. This validation occurred by telephone at the survey contractor's home office. If a disproportionate percentage of an interviewer's validation cases were classified as ineligibles or nonrespondents, additional cases were selected as needed to ensure 10 percent coverage of responding cases for each interviewer. Interviewers were informed that a sample of their work would be validated, but they were not informed which completed interviews would be checked. If a field supervisor was concerned about a particular interviewer, he or she conducted discretionary validations.

Minimizing Nonresponse

Several approaches were employed in an effort to minimize nonresponse, including: advance mailings to building owners or managers (see 'Data Collection' in this appendix); in-person visits; telephone callbacks; establishment of a toll-free "hot-line" number to address respondents' concerns or questions; personalized letters to documented refusals; and provision of additional field staff in several Metropolitan Statistical Areas to help those who still had problem cases. These approaches dealt with the three categories of nonresponse for CBECS: (1) refusals, (2) cases where the knowledgeable respondent was located outside of the sample PSU's, and (3) cases where the respondent was unavailable during the field data collection period.

An additional type of nonresponse conversion dealt with respondents who declined to sign the authorization forms that would allow their energy suppliers to release the building's energy consumption records and information on demand-side management program participation. Personalized written requests for signed authorization forms were mailed for all buildings for which energy usage had been reported and a signed form had not been obtained by an interviewer. Such requests were mailed to 219 buildings interviewed by field staff. A total of 24 signed authorization forms were received by mail.

Processing the Data

The initial processing of the CBECS data occurred at the survey contractor's home office and included receipt of the CBECS questionnaires as they were transmitted from the field, editing the questionnaires, calculating the survey weights for each building, and masking the data for confidentiality before it was transmitted to EIA. Final data preparation occurred at EIA and consisted of checking the data for internal consistency, checking the data against data from previous surveys, conducting imputation procedures for missing data, and preparing cross-tabulations for release to the public.

Data Editing: Data editing for the 1995 CBECS Building Characteristics Survey occurred at several points during data collection and processing. Initial editing occurred during the Computer-Assisted Personal Interviewing (CAPI) interview. Additional editing occurred upon receipt of the questionnaire for data processing and during data entry. The final data editing occurred during review of data frequencies and cross-tabulations.

CAPI Edits During Interview: Data collection using CAPI techniques allows for some data editing to occur during the interview, thus ensuring a higher quality of data, as well as reducing the time required for post-interview editing. Higher quality of data was achieved through building procedures to control the skip patterns and to prohibit the entry of ineligible codes directly into the CAPI questionnaire. CAPI edits that occurred during the interview included:

- Arithmetic checks for items that were required to total 100 (or more), with corrections required before the interviewer could proceed;
- Double entry of square footage and energy account numbers, with reconciliation of inconsistencies before the interviewer could proceed;
- Verification of the response when an open-ended numeric response fell outside of a preset range;
- Inter-item consistency checks that prompted interviewers to confirm that the responses were being reported and recorded as intended.

Data Editing at Home Office: Completed questionnaires were transmitted electronically to the survey contractor's home office and the hard-copy materials were mailed. Clerks reviewed the hard-copy materials to locate a signed authorization form and any hard-copy listings of account numbers and supplier customer lists used to supplement CAPI. Linkage of the

building with the energy supplier was completed as part of the processing of building survey data.

Edits at this stage were of three types: (1) missing data checks, (2) automated logic checks that verified compliance with codes and skip patterns as specified in the codebook, and (3) inter-item consistency checks.

The survey contractor took several steps to resolve inconsistencies or ambiguities in the data. First, the contractor reviewed other parts of the questionnaire for explanations that might help solve the problem. Several open-ended questions were included in the questionnaire that allowed the respondent to either describe or include additional information about a particular item. Also, the interviewers had been asked to write comments in the "comment boxes" explaining unusual circumstances. These open-ended questions and notes were relied upon extensively in the resolution process and were very helpful in explaining some of the inconsistencies. Second, in some hard-to-resolve cases, EIA personnel provided technical guidance on how to reconcile some questionnaire responses. Finally, when these efforts failed to resolve a problem, especially when the energy sources or heating and cooling equipment were involved, the survey contractor contacted the respondent by telephone for clarification.

Overall, telephone contacts to clarify both questionable or missing information were completed for the respondents of 602 buildings, 10 percent of all completed cases. All changes made to any questionnaire response as a result of these reviews were carefully documented and explained on an error-resolution sheet attached to the questionnaire.

As the last step prior to the delivery of the draft data tape to EIA, the contractor produced data frequencies and cross-tabulations. These were reviewed to reveal any outlying values and inconsistencies that the edits may not have identified. Inconsistencies were corrected by the contractor before data tapes were transmitted to EIA.

Using EIA's review of the initial draft data tape, the survey contractor provided EIA with a second draft data tape that included the survey weights for each observation. These data were reviewed by EIA and provided the basis for the final masked data tape.

Energy Suppliers Survey

This section describes how the Energy Suppliers Survey portion of the CBECS is conducted. It contains information about the data collection instruments, how the data are collected, and procedures used to adjust for nonresponse and weather.

During the Building Characteristics Survey, each respondent was asked to provide the name, address, and account numbers for all suppliers of energy to the building. In addition, respondents were asked to sign an authorization form that gave permission to the suppliers to release the building's monthly billing data to EIA. EIA's survey contractor sent copies of this form to the suppliers to secure the release of the buildings' billing records, as well as the buildings' participation in any demand-side management programs, if programs were available from the energy supplier. Attempts were made to contact all suppliers of electricity, natural gas (including suppliers of natural gas transported for the account of others), fuel oil, district sources (steam, hot water, and chilled water) that were identified during the Building Characteristics Survey.

Data Collection Instruments

Consumption and Expenditures Forms: Each supplier of electricity, natural gas, fuel oil, or district sources to a sampled building was asked to provide consumption and expenditures data on a mailed survey form. Because there were minor differences in data items by energy source, there were corresponding variations in the reporting forms as well. For example, the electricity forms requested kilowatt (kW) demand; the natural gas forms included transportation gas, as well as provision for reporting variable units of measures (such as therms, cubic feet, or 1,000 cubic feet); the fuel oil forms requested information about the type of fuel oil used; and the district heating forms asked for information concerning the entire district or system.

Despite the above-mentioned differences, the forms for the different fuels were similar in terms of the data requested. In each case, the supplier was asked to report the following data: (1) quantity of specific energy source consumed or delivered; (2) total cost; (3) unit of measure; (4) dates of deliveries or consumption; and (5) number of customers included in both the consumption and cost data reported on the form.

Suppliers were not required to transcribe data onto the survey forms. Responses were accepted in any format

(including computer printouts), as long as the necessary information was provided. Additionally, electric, natural gas, and fuel oil suppliers could submit their data on a formatted computer diskette provided by EIA. Response to the forms was mandatory for the supplier.

The data were requested for a 14-month period between December 1, 1994, and January 31, 1996, in order to ensure that data would cover a full calendar year no matter what the actual billing period had been. For example, if the billing period began on the 10th of each month, the first bill would be from December 10 through January 9. The bills were then prorated (annualized) to obtain data for the calendar year. (See Appendix B, "Nonsampling and Sampling Errors," for details on the annualization procedures.)

Demand-Side Management (DSM) Forms: An additional form was inserted in the electricity and natural gas usage forms to collect data about the building's participation in utility-offered energy-savings programs. Both forms collected essentially the same type of information, although each was tailored to the particular energy source, either electricity or natural gas. For example, the electricity suppliers were asked about DSM programs, such as lighting, energy-efficient motors, metered peak demand, time-of-day pricing, and standby electricity generation. The natural gas form asked about DSM programs but did not include those measures that were not applicable to natural gas suppliers, such as peak demand or time-of-day pricing. (The energy supplier forms are available from EIA upon request.)

Data Collection

Advance Mailings: An initial letter from EIA was mailed in September 1995 to electricity and natural gas utility companies that served buildings surveyed in the 1992 CBECS, explaining the survey and requesting a contact person be designated for the 1995 survey. A second letter from EIA, which included a copy of the 1992 CBECS executive summary from the Commercial Buildings Energy Consumption and Expenditures 1992, was mailed in November 1995 to companies that had not responded to the earlier request for information.

Survey Mailings: For the 5,766 buildings for which responses had been obtained in the Building Characteristics Survey, a total of 11,091 energy suppliers forms were mailed to 1,218 suppliers of energy. Of these suppliers, 518 (43 percent) were electricity and natural gas suppliers (including suppliers of gas transported for the account of others), 415 (34 percent) were fuel oil suppliers, and the remaining 285 (23 percent) were district heating suppliers.

The initial mailing of the survey forms to the energy suppliers occurred in early February 1996, with a due date of March 1, 1996, for the forms. Reminder letters to suppliers who had not returned the forms were sent shortly after the due date, with a second written request to nonrespondents in May 1996. Survey closeout was September 5, 1996 (the closeout date was extended by 3 weeks to accommodate several late-responding suppliers.)

Minimizing Nonresponse

Extensive efforts were used to obtain usable energy supplier data. Letters and telephone prompts were made to the energy suppliers throughout the data collection period to remind the suppliers to provide the data within the required time period. In addition, a toll-free telephone hot-line number was provided to all suppliers, both in the cover letter accompanying the survey forms and on the face of each survey form. Suppliers were encouraged to call this number if they had any questions. Hot-line staff were knowledgeable regarding the most frequent technical problems encountered by suppliers and the instructions to be given to suppliers calling with these questions.

Electricity, Natural Gas, and Purchased District Heat Suppliers: The nonresponse effort for the suppliers of electricity, natural gas, and purchased district heat began with a personalized reminder letter to all companies that had not returned *any* survey forms as of the March 1, 1996, date. Another nonresponse conversion letter was mailed May 1, 1996, to companies that had returned *some* but not all of their forms, as well as to companies that had not responded at all. Beginning May 23, 1996, nonrespondents were then telephoned and asked for the expected forms' completion date. These calls resulted in 128 requests for more forms. The companies were called again if that date arrived and they still had not responded. The nonresponse procedure was followed both for complete nonresponse by an energy supplier and for incomplete or missing buildings within a supplier's response.

Fuel Oil and Nonpurchased District Heat Suppliers: On March 6, 1996, a reminder letter was sent to

each fuel oil supplier and each supplier of nonpurchased district heat that had not returned all forms. This was followed in April by a remailing of the entire packages of survey forms to those companies that had not yet responded. Telephone nonresponse conversion calls began on June 5, 1996, after a third letter was sent in May alerting the respondent to the telephone calls. The telephone calls resulted in numerous requests for additional survey forms, which were mailed in mid-June to 57 companies. When possible, the telephone interviewers attempted to obtain data over the telephone if a limited number of survey forms was missing.

Energy Suppliers Survey Response Rates: The overall response rate for the 1995 Energy Suppliers Survey was 84.9 percent (Table A1). The response rate is defined as:

$$\frac{\text{Usable Records}}{\text{All Records Minus Out-of-Scope Records}}$$

Each record corresponds to a single energy supplier for a particular energy source to a particular building. For example, a building with one electricity supplier, two fuel oil suppliers, and no other energy suppliers would have a total of three energy supplier records, one for electricity and two for fuel oil. Records were initially created on the basis of the Building Characteristics Survey respondents' reports of the names and addresses of their energy suppliers. A record was declared out-of-scope if it turned out to correspond to a supplier that did not actually serve the building during calendar year 1995.

Response rates for natural gas that was not identified as gas transported for the account of others and for electricity were 86.5 and 89.1 percent, respectively, which were similar to results obtained in previous CBECS. The response rate for the suppliers of gas transported for the account of others was 79.1 percent. The response rate for fuel oil was 77.7 percent and the rates for steam and hot water (district sources) were 62.3 percent and 25.7 percent, respectively.

Of the forms mailed, 1,516 (about 14 percent) were classified as nonresponse. This category included refusals, inability to respond within the data collection period, and inability to locate the correct account for the building.

Data Editing

As the suppliers' forms were received, they were screened for accuracy and completeness. The forms were then keyed and edited. (In 1995, for the first time, PC-based key entry was used for the suppliers survey forms.) The Energy Suppliers Survey used an extensive program of automated machine edits, including:

(1) Basic Energy Range and Skip Checks. The EIA specified ranges and values to be used for the technical edits. These values were based on previous CBECS responses and on knowledge of utility rates

Table A1. Response Rates for Energy Suppliers Survey by Energy Source, 1995

Survey Category	Electricity	Natural Gas	Transported Gas(a)	Fuel Oil	Steam	Hot Water	Total
Total Mailed Out	5486	3684	338	869	518	196	11091
Out of Scope	206	302	42	162	27	29	768
Nonresponse	545	448	56	158	185	124	1516
Complete: Usable Records	4705	2924	234	549	306	43	8761
Complete: Unusable Records(b)	30	10	6	0	0	0	46
Response Rate(c) (Percent)	89.1	86.5	79.1	77.7	62.3	25.7	84.9

[a] Transported gas is natural gas purchased from a source other than the local utility company but delivered to the building by the local utility. Transported gas is also called gas transported for the account of others.

[b] An unusable record contains all of the information requested on the survey form, but either does not cover all of the building's square footage or includes more square footage than is in the building, as defined by CBECS, and information is not available for calculating a disaggregation or aggregation factor.

[c] A response rate is calculated by dividing the complete usable record by the difference of total mailed out minus out of scope and multiplying the result by 100.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1995 Commercial Buildings Energy Consumption Survey.

and practices. The first edits were range and basic logic checks.

(2) Consistency Checks Among Data Items. Edit failures at these levels were most often due to coding or data entry error. If the causes of the error were not apparent to the technical reviewer, it was referred to supervisory staff for resolution.

(3) Technical Edits. EIA specified a series of sophisticated edit checks to ensure that, to the extent possible, errors of the following types were detected and corrected: a too-long or too-short billing period; a consumption ratio that indicated there was extreme variability across the periods; a failure to report expenditures despite the presence of consumption, and vice versa; reported expenditures that were out of range for the consumption amount, for the price per unit of consumption based on known market prices, or for the metered demand.

Data Adjustments: Adjustments for unit nonresponse were performed in conjunction with weighting of the sample, as described in the "Unit Nonresponse Adjustments" in Appendix B. Cases missing all or part of calendar year 1995 consumption or expenditures were considered as a particular kind of item nonresponse. Adjustments for these cases were made as described under "Annual Consumption and Expenditures" in Appendix B.

Weather Data: A file of heating and cooling degree-days for each of the billing periods reported by each building supplier was created in the following manner:

- A National Oceanic and Atmospheric Administration (NOAA) division code was assigned to each building in the CBECS sample. Working with NOAA division maps and building address information, EIA assigned one of 356 division codes to each building.

- A file of NOAA data covering the 27-month period from January 1994 to March 1996 (the most recent information available at the time) was used to compute the average daily temperature for each day in the 27-month period for each weather division.

- Daily heating and cooling degree-day averages were computed for each of 10 base temperatures (degrees Fahrenheit): 50, 55, 57, 60, 65, 68, 70, 73, 75, and 80. Only base temperature 65 degrees Fahrenheit is covered in this report.

- Degree-day totals were constructed for each billing period, or gap between billing periods, for each energy supplier for each building. In addition, degree-day totals were constructed for each of the 12 calendar months of 1995 for each sampled building, whether or not the building had any energy supplied in 1995.

- As part of the annualization and imputation procedures described in Appendix B, "Nonsampling and Sampling Errors," billing period dates were imputed. The edited dates were used for the final degree-day computations.

Data Preparation for Report

After receiving the CBECS data tapes from the survey contractor, EIA data analysts reviewed and processed the data to prepare them for the final data tape. Crosstabulations were run to check for internal consistency of the data, and the 1995 CBECS data were compared with data from previous CBECS. Commercial buildings' consumption and expenditure data are complex and interrelated. The EIA review was extensive and paid special attention to the issues of peak electricity demand, gas transported for the account of others, and incomplete data for buildings. Questions concerning data accuracy or outlier values were referred to the survey contractor for verification. EIA staff reviewed the data questionnaires at the survey contractor's site, and EIA's staff judgment was the final authority on some of the data items.

The sections above on data editing, data adjustments, and weather data provide details on the work undertaken to prepare the data for this report. In addition, if retrieval of missing data for one or more items failed, or if retrieval was not performed because the item was not a key item, data values were supplied by imputation. Additionally, the consumption and expenditures data were annualized; that is, they were adjusted by proration methods to estimates for calendar year 1995, when the reported data spanned a longer, shorter, or offset time period. When consumption or expenditures data were completely missing, the annual amounts were imputed by regression. (See Appendix B for a discussion of the separate imputation and annualization procedures used for the building characteristics and the energy consumption and expenditures.)

Once the annualized consumption and expenditures were computed or imputed for each building, statistical tables of aggregated data were then produced and analyzed. The report text was based on these tables, which are presented both in the text and in the "Detailed Tables" section of this report.

Public-use data are available in 21 micro data files in both ASCII and dBASE format. These micro data files contain the building characteristics data, energy consumption and expenditures data, and modeled energy end use data. They can be accessed from the World Wide Web at the URL http://www.eia.doe.gov/emeu/cbecs/contents.html (The files are listed under Data: Micro-Data Files.)

Confidentiality of Information

EIA does not receive or take possession of the names or addresses of individual respondents or any other individually identifiable energy data that could be specifically linked with an individual sample building or building respondent. All names and addresses are maintained by the survey contractor for survey verification purposes only. Geographic identifiers and NOAA Weather Division identifiers are not included on any data files delivered to EIA. Geographic location information is provided to EIA at the Census division level. In addition, building characteristics, such as number of floors, building square footage, and number of workers in the building, that could uniquely identify a particular responding building, are masked on data files provided to EIA, as well as on all public-use data files.

Appendix B

Nonsampling and Sampling Errors

Introduction

All of the statistics published in this report are estimates of population values, such as the total floorspace of commercial buildings in the United States. These estimates are based on reported data from representatives of a randomly chosen subset of the entire population of commercial buildings. As a result, the estimates always differ from the true population values.

The differences between the estimated values and the actual population values are due to two types of errors, sampling errors and nonsampling errors.

- *Sampling errors* are errors that are random differences between the survey estimate and the population value that occur because the survey estimate is calculated from a randomly chosen subset of the entire population. The sampling error, averaged over all possible samples, would be zero, but since there is only one sample for the 1995 CBECS, the sampling error is nonzero and unknown for the particular sample chosen. However, the sample design permits sampling errors to be estimated. "Estimation of Standard Errors" in this appendix describes how the sampling error is estimated and presented for statistics given in this report.

- *Nonsampling errors* are related to sources of variability that originate apart from the sampling process and are expected to occur in all possible samples or in the average of all estimates from all possible samples.

The first two sections, "Data Collection Problems" and "Nonresponse," following this introduction describe some of the sources of nonsampling error in the Building Characteristics Survey and how that portion of the CBECS is designed and conducted to minimize such errors. Nonsampling errors can result from (1) inaccuracy in data collection due to questionnaire design errors, interviewer error, respondent misunderstanding, and data processing errors; (2) nonresponse for an entire sampled building (unit nonresponse); and (3) nonresponse on a particular question from a responding building (item nonresponse). The section "Data Collection Problems" addresses some of the difficulties encountered in trying to obtain meaningful energy data on questionnaire items in the 1995 survey. The section "Nonresponse" presents survey design and data collection procedures used to minimize unit and item nonresponse in both the Building Characteristics Survey and the Energy Suppliers Survey.

The energy consumption and expenditures data that are featured in this report were based on monthly billing records submitted by the buildings' energy suppliers. The section "Annual Consumption and Expenditures" provides a detailed explanation of the procedures used to obtain annual consumption and expenditure estimates from the bills, as well as the procedures used to handle partial or completely missing data. The peak electricity demand estimates in this report were also based on the monthly billing data, as described in the section "Annual Peak Electricity Demand."

The section titled "Additional Data Notes" discusses reconciliation of building and supplier reports on the types of energy sources use, attempts to collect natural gas expenditures from both the local natural gas suppliers and non-local natural gas suppliers, and account classification issues that relate to the discrepancies between two sources of EIA estimates of the amount of energy used in the commercial building sector. The section "Energy End-Use Estimates" briefly discusses the estimation of energy end-use intensities. The final section in this appendix discusses the estimation of standard errors.

Data Collection Problems

Most unit nonresponse cases occurred because an appropriate respondent was unavailable or declined to participate in the survey. Item nonresponse resulted when the building respondent did not know, or, less

frequently, refused to give the answer to a particular question.

Even though the interviewer was instructed to conduct the interview with the person most knowledgeable about the building, there was a great deal of variation in how much CBECS respondents knew about their buildings. Some respondents did not know some of the information requested; some were able to provide certain information only if the questions were expressed in the particular terms they understood. This presented a special challenge to the CBECS questionnaire designers—with such a diverse population of respondents, it is difficult to construct standard wording for energy concepts that would be understood by all respondents. Thus, a certain amount of respondent error can be expected. Additionally, even when a question is worded clearly and the respondent understands the question and has the required knowledge, simple clerical errors (possibly the fault of the questionnaire layout) can sometimes lead to inaccuracies in the data. Unlike the sampling error, the magnitude of nonsampling error cannot easily be estimated from the sample data. For this reason, avoiding biases at the outset is a primary objective of all stages of survey design and field procedures. The wording and format of survey questionnaires; the procedures used to select and train interviewers; and the quality control built into the data collection, receipt, and processing operations were all designed to minimize these sources of error. For a discussion of the questionnaire design, interviewer training, and data control, see Appendix A, "How the Survey Was Conducted."

Following is a summary of some of the most significant difficulties that EIA staff has identified with the survey responses. The extent of these comments should not be viewed as a failure of the questionnaire or the interview process; the data collection process worked well. Rather, these comments indicate areas that require further refinements to improve overall data quality.

Principal Building Activity. The principal building activity refers to the primary function or activity that occupies the most floorspace in the building sampled. In some cases, particularly if the sampled building was one of a number of buildings on a facility, the respondent reported the overall function of the facility or establishment to which the building belonged. In CBECS, for instance, a library is classified as a public assembly building, but a library on a university campus may have been reported as an education building (academic or technical instruction). To help alleviate this confusion, the 1995 CBECS asked a separate question for the overall facility activity for those buildings identified as being part of a facility. The principal activities of respondent buildings were checked against other available information, including the facility activity, interviewer observations, the building's name, and recoded if an obvious assignment error was made.

Another difficulty with identifying principal building activities is that buildings with the same title may, in fact, have different primary functions. For example, space in a building referred to as a "courthouse" can be devoted primarily to office activities (office), to jail cells (public order and safety), or to hearing rooms (public assembly).

For some buildings, no one activity occupied 50 percent or more of the floorspace, but the activity occupying more space than any other was either industrial or residential. For example, it is possible for a building to have 30 percent of the floorspace devoted to assembly, 30 percent to food sales, and 40 percent to residential. Since more than 50 percent of the floorspace was occupied by commercial activity, these buildings were retained in the sample as commercial buildings but were included in the "Other" category.

Number of Workers. The CBECS collects data on the number of people who work in commercial buildings. Included in this number are volunteer workers, but not clients, students, or employees who work away from the building. In 1995, the number of people working during the main shift was requested. In the 1995 CBECS, if a building was not in use during the previous 12 months, it was still included in the "less-than-five" category of number of workers.

Heating and Cooling. The phrasing of questions on heating and cooling equipment has presented difficulties in every CBECS conducted thus far and, unfortunately, illustrates difficulties both in question wording and in respondent knowledge. Commercial buildings' heating and cooling systems vary greatly in design and complexity. The CBECS questionnaire designers try to formulate a few questions that could broadly characterize a building's heating and cooling system.

In previous CBECS, some building respondents (especially those from larger buildings) found the questions to be too general to adequately describe their buildings' systems. Other building respondents lacked even the rudimentary knowledge of their buildings' systems

required by the questionnaire. To alleviate some of the problems encountered in earlier CBECS in which inconsistencies appeared between types of equipment, fuel sources, and the distribution system, the 1995 CBECS questionnaire limited the respondents' choices in such a way that only answers to sensible combinations of heating or cooling equipment with distribution equipment could appear.

Additionally, a general question asked the respondent to describe the heating and cooling system. This verbatim description was not coded on the computer file but was of immeasurable value in deciphering the respondents' intentions. In particular, the question of whether the buildings uses "heat pumps" elicited some surprising responses at some of the interviewed buildings. Several respondents indicated that they used a heat pump for heating but not cooling, or vice versa. After review of the verbatim description and callbacks to the respondents, corrections were made in cases where this information was in error. However, there were 212 cases where the heat pumps did indeed have a single use.

Electricity Generation or Cogeneration. A series of questions was asked about the buildings' electricity generating systems and the sources of electricity. Respondents were asked whether the building could generate electric power and, if yes, what was the primary use of the generators. Of the 5,656 buildings that use electricity, approximately 1,257 reported that they had the capability to generate electric power. Of these, 87 percent use the generators for emergency backup use only.

Respondents reporting that their buildings could generate electricity but that the primary use was for something other than emergency backup were then asked whether the electric power generating system was also a cogeneration system. Because the number of sampled buildings that had a cogeneration system was less than 20, the data were not published.

Two new questions were asked in 1995 in an attempt to gather information about different purchasing arrangements of electricity. With the probability of deregulation in the electric utility sector, increasing numbers of consumers will be able to purchase their electricity from nonutility sources, similar to purchasing natural gas from independent suppliers. Respondents were asked if any of the electricity used in the building was obtained from a nonutility, non-in-house source, such as an independent power producer, and, if yes, how much of the electricity used was obtained from this source. While the vast majority of buildings purchased all of their electricity from a local utility, there were 26 sampled buildings that obtained some of the electricity used from a nonutility, non-in-house source. After these 26 buildings were examined, it was determined that most of these buildings were on facilities with central heating plants or had the capability of generating electricity themselves. It appears that the respondents might have confused nonutility source of electricity with the ability to generate electricity on the facility or in-house.

Gas Transported for the Account of Others. The respondents to the 1995 CBECS were asked whether the building bought or contracted for natural gas from someone other than the local distribution company and the name and address of the company or broker from whom the direct purchase gas was bought or contracted. This purchasing arrangement is known as "gas transported for the account of others." It is also known as "direct purchase gas" or "spot market gas."

This general question, plus several other specific, price-related questions were first asked during the building characteristics portion of the survey in the 1992 CBECS. (Prior to 1992, this information was asked only of the energy suppliers. Although suppliers could provide the volume of natural gas delivered, they could not, in many cases, report the expenditures since they did not know the purchase price of the transported gas.) It was believed that the building respondent would be better able to provide information about whether they purchased natural gas under this arrangement, who the suppliers were, and what were the wellhead costs, city gate price, local distribution company (LDC) charge, and other costs associated with gas transported for the account of others. This, however, proved to be another area where the building respondents had difficulty providing information. Therefore, based on the 1992 CBECS experience, where only 18 percent of the building respondents could report one or more of the costs associated with the purchase, the cost questions were eliminated in 1995 from the building characteristics questionnaire.

It appears that CBECS respondents, the people who are supposed to be most knowledgeable about the energy-using systems of the buildings, are not the most knowledgeable about billing arrangements. In future CBECS, it may be necessary to target the person most knowledgeable about billing with a separate data col-

lection effort in order to make reliable estimates about gas transported for the account of others.

Renewable Energy Source: The CBECS attempted to collect information on the use of renewable energy sources by including wood and solar thermal panels in the list of possible energy sources that were used to supply energy to the building. In 1995, wood was used in about 3 percent of the buildings as an energy source. Data on the use of solar panels could not be published because either the number of buildings reporting the use was too small or the relative standard error (RSE) was greater than 50 percent.

Additional questions were asked about the use of the renewable energy features and the sponsors to each one. The energy features included passive solar features, photovoltaic (PV) arrays, geothermal or ground source heat pumps, wind generation, and well water for cooling. The sponsors included utilities, the Federal Government, in-house or self-sponsored, third party, or other. With the exception of passive solar features (which included trees that could be used for shade), fewer than 20 buildings of the 5,766 sampled responded to each of the renewable energy features. Therefore, these data were not imputed or published.

Nonresponse

Unit Nonresponse

The response rate for the Building Characteristics Survey portion of the 1995 CBECS was 87.5 percent. That is, of the 6,590 buildings eligible for interview, 12.5 percent did not participate in the Building Characteristics Survey. The unit response rate for the Energy Suppliers Survey was 84.9 percent. This response rate for that portion of the CBECS varied by energy source. (See the section "Energy Suppliers Survey Response Rates" in Appendix A for more discussion on the nonresponse rate by energy source.)

Weight adjustment was the method used to reduce unit nonresponse bias in the survey statistics. The CBECS sample was designed so that survey responses could be used to estimate characteristics of the entire stock of commercial buildings in the United States. The method of estimation used was to calculate basic sampling weights (base weights) that related the sampled buildings to the entire stock of commercial buildings. In statistical terms, a base weight is the reciprocal of the probability of selecting a building into the sample. A base weight can be explained as the number of actual buildings represented by a sampled building: a sampled building that has a base weight of 1,000 represents itself and 999 similar (but unsampled) buildings in the total stock of buildings.

To reduce the bias from unit nonresponse in the survey statistics, the base weights of respondent buildings were adjusted upward, so that the respondent buildings would represent not only the unsampled buildings they were designed to represent, but also nonrespondent buildings and the unsampled buildings they were designed to represent. The base weights of respondent buildings were multiplied by an adjustment factor A, defined as the sum of the base weights over all buildings selected for the sample divided by the corresponding sum over all respondent buildings. Respondent weights remained nonzero after weight adjustment. Nonrespondent weights were set to zero because they were accounted for by the upward adjustment of respondent weights.

Unit nonrespondents tended to fall into certain categories. For example, nonresponse tended to be lower in the Northeast than in the Midwest (11.9 percent and 14.8 percent, respectively). To reduce nonresponse bias as much as possible, adjustment factors were computed independently within 38 subgroups according to characteristics known from the sampling stage for both responding and nonresponding buildings. These characteristics included the general building activity, the rough size of the building, Census region, and metropolitan versus nonmetropolitan location.

Item Nonresponse

Table B1 contains item nonresponse rates for some of the building characteristics presented in this report. "Eligible" in this context refers to interviewed buildings to which the question item applied; certain sequences of responses to previous questions would make some question items not applicable for some respondents.

Nonresponses to several items in otherwise completed the Building Characteristics Survey questionnaires were treated by a technique known as "hot-deck imputation." In hot-decking, when a certain response is missing for a given building, another building, called a "donor," is randomly chosen to furnish its reported value for that missing item. That value is then assigned to the building with item nonresponse (the nonrespondent, or "receiver").

Table B1. Item Nonresponse Percentages for Selected Building Characteristics, 1995

Building Characteristics	Eligible Buildings	Number Missing	Percent Nonresponse
Square footage	5766	722	12.52
Square footage category	5766	9	0.16
Year construction was completed	5766	777	13.48
Year of construction category	5766	1	0.02
Multibuilding facility or complex	5766	1	0.02
Number of businesses/organizations	5766	66	1.14
Number of businesses/organizations category	5766	8	0.14
Owned by government agency	5766	7	0.12
Occupant status	5653	29	0.51
Space vacant for at least 3 months	5766	13	0.23
Months in use out of past 12 months	5766	2	0.03
Total weekly hours open	5646	127	2.25
Total weekly hours open category	5646	6	0.11
Number of workers (main shift)	5646	667	11.81
Number of workers category (main shift)	5646	42	0.74
Wall construction material	5766	2	0.03
Roof construction material	5766	53	0.92
Exterior wall insulation	5766	252	4.37
Roof or ceiling insulation	5766	164	2.84
Storm windows or doors	5766	26	0.45
Tinted or reflective glass	5766	16	0.28
Shadings or awnings	5766	8	0.14
Energy management and control system	5766	56	0.97
Variable air volume (VAV) system	5463	149	2.73
Economizer cycle	5463	71	1.30
Regular preventive maintenance program	5463	32	0.59
PCS/computer terminals in building	5766	14	0.24
Commercial refrigerator/freezer equipment present	5766	10	0.17
Percent heated in 1995	5369	46	0.86
Energy used for main heating	5766	6	0.10
Main equipment for heating	5369	339	6.31
Percent cooled in 1995	4947	29	0.59
Main cooling equipment	4947	222	4.49
Type of water heating system	5108	48	0.94
Percent lit during operating hours	5593	34	0.61
Percent lit during off-hours	4506	17	0.38
Reduction in lighting during off-hours	4662	352	7.55
Building uses transportation gas	3689	108	2.93

Source: Energy Information Administration, Office of Energy Markets and End Use, 1995 Commercial Buildings Energy Consumption Survey.

To serve as a donor, a building had to be similar to the nonrespondent in characteristics correlated with the missing item. This procedure was used to reduce the bias caused by different nonresponse rates for a particular item among different types of buildings. Which characteristics were used to define "similar" depended on the nature of the item to be imputed. The most frequently used characteristics were principal building activity, floorspace category, year constructed category, and Census region. Other characteristics (such as type of heating fuel and type of heating and cooling equipment) were used for specific items. To hot-deck values for a particular item, all buildings were first grouped according to the values of the matching characteristics specified for that item. Within each group defined by the matching variables, donor buildings were assigned randomly to receiver buildings.

As was done in previous surveys, the 1995 CBECS used a vector hot-deck procedure. With this procedure, the building that donated a particular item to a receiver also donated certain related items if any of these were missing. Thus, a vector of values, rather than a single value, is copied from the donor to the receiver. This procedure helps to keep the hot-decked values internally consistent, avoiding the generation of implausible combinations of building characteristics.

Annual Consumption and Expenditures

The estimates of energy consumption and expenditures in commercial buildings are for calendar year 1995. These estimates were computed from the annual consumption and expenditures determined for each building in the CBECS sample. However, these "annual" values were not obtained directly from the suppliers for the buildings. Rather, energy suppliers provided monthly billing data that were used to calculate calendar year consumption and expenditures for each building, according to the procedures described in this section. Also described in this section are the imputation procedures used in cases where the energy supplier survey data were unavailable or inadequate.

To ensure that the energy consumption for calendar year 1995 would be completely accounted for, the data requested from suppliers were bills covering the period from December 1994 through January 1996. These bills formed the basis for the annual energy consumption and expenditures estimates.

Billing Data: Ideal and Reality

The basic consumption and expenditures data were reported for each building by billing period. Ideally, the data for each continuous-delivery energy source (electricity, natural gas, and district heating) used in each sampled building should have been in the form of complete records for every billing period that fell within calendar year 1995, providing complete coverage for 1995 and covering exactly the energy consumed within the sampled building. The data for the discrete-delivery energy source (fuel oil) should have been in the form of complete data records for all deliveries during 1995. For both continuous- and discrete-delivery energy sources, the delivered energy source should have been used entirely within the sampled building.

In practice, though, the billing data often covered more or less square footage than just the sampled building's square footage, or did not match the target time frame, calendar year 1995. There were several common types of discrepancies between the bill coverage and the ideal of a single building and fixed time frame.

- Bill coverage included days in 1994 and 1996, as well as in calendar year 1995. This was the typical situation for a complete billing record. Rarely would one billing period begin on January 1 and another end on December 31, 1995.

- Bill coverage spanned at least a 1-year period, but did not include all of 1995. In most such cases, the time frame covered by the bills extended from the middle of 1995 into the middle of 1996. Many energy suppliers maintain accessible billing records only for the most recent 13 months. Thus, at the time of reporting, the data available did not cover the beginning of 1995.

- Bill coverage spanned less than a 1-year period.

- Bill coverage was for several sampled buildings combined. This occurred when no authorization form was obtained to authorize the supplier to provide data for individual buildings. In such cases, the supplier reported only annual totals for a group of sampled buildings summed together.

- Bill coverage included nonsampled buildings or equipment outside the sampled buildings, as well as the one sampled building.

- Bill coverage excluded some of the building's occupants or tenants. This undercoverage occurred when the energy supplier had several customers in a sampled building and was unable to identify all of them on the basis of the information provided by the Building Characteristics Survey respondent. In a few cases, energy suppliers were unwilling to release information on all customers in a building, even in aggregate form, without having a separate authorization from each.

- The problem of determining bill coverage was compounded by incomplete dates. In the most common case, the billing period date included a month and year, but not the day of the month.

To reconcile the discrepancies between the ideal billing data and what could actually be obtained, the following six processing steps were taken:

1. Each set of bills from a particular energy supplier for a particular building was classified according to the extent of coverage in terms of both building and time frame.

2. Billing dates for all energy bills were completed.

3. Bills with full-year time-frame coverage were annualized.

4. Bills with part-year time-frame coverage were annualized.

5. Annualized bills were adjusted for building overcoverage and undercoverage.

6. Annual energy consumption and expenditures for buildings with completely missing data were imputed.

Each of these processing steps is explained below.

Step 1. Classifying Coverage of Building and Time Frame

This classification was performed by the CBECS contractor as part of the data collection record keeping. To track responses to the mailed Energy Suppliers Survey, a determination had to be made as to whether a response received represented complete data for a building. In many cases, follow-up letters converted initial responses from partial to complete, or more nearly complete. In other cases, the incomplete response was all that could be obtained.

Determining Time Frame. An important aspect of the time-frame classification was determining why data were missing for part of calendar year 1995. The main question was whether consumption had actually taken place during the entire year or was actually zero during the unreported time.

If consumption occurred through the entire year, data might be missing for several reasons. For example, the supplier's active records might not go back far enough or the data may simply have been lost from the supplier's record, even though in general these records did go back to the beginning of 1995.

A more complicated situation occurred when a new customer occupied a building in the middle of the target year. The data provided for this customer, for which the authorization form was signed, would be complete, but the data for the previous occupant, who consumed energy in the first part of the year, would be missing. In a case where part of the year's consumption data were missing, annual consumption would be understated if the reported 1995 data were treated as complete, rather than being inflated to account for the missing period.

The opposite situation could occur if a customer first occupied the building in the middle of the year, with no previous customer occupying the building. In this case, with no consumption during the first part of the year, annual consumption would be overstated if the reported data were annualized as if consumption occurred year round.

A special set of questions on the Energy Suppliers Survey forms was designed to determine if any change in customers had occurred during the target year and, if so, how these customers were covered in the reported data. However, most suppliers did not answer these questions. As a general rule, data were treated as complete if they covered a full year, whether calendar 1995 or not. Part-year data were treated as incomplete, unless the supplier specifically indicated otherwise.

Particularly complicated were some electricity and natural gas cases where individual records were provided for each customer in a building with several customers. In most such cases, bills for all the customers covered the same time frame. Sometimes, though, different customers' records covered different time

frames. In these cases, it was assumed that the data were complete for each customer, but the customers began or ended service at different times during the year. Aggregate consumption and expenditures were therefore computed for each time period by summing whichever customers had consumption during that period. If consumption was present for a particular customer in a particular period but expenditures were missing (or vice versa), aggregate expenditures (or consumption) were left as missing.

Determining Building Coverage. Building coverage was determined from information obtained from both the Building Characteristics Survey respondent and the energy suppliers. Two types of problems could arise: (1) the energy bills covered more buildings than just the sampled building or (2) the energy bills omitted some of the building's occupants. In the first case, if the Building Characteristics Survey respondent indicated that a particular supplier's bill covered several buildings, the total square footage of buildings on that bill was requested. Then a disaggregation factor was computed as the ratio of the sampled building's square footage to this total square footage. This factor allowed the total reported consumption to be adjusted downward to cover only the sampled building. In the second case, when the billing data omitted some customers in a building, an aggregation factor was computed. This factor was usually the ratio of the number of customers in the building to the number reported. Where more detailed information was available, the aggregation factor was the ratio of the total building floorspace to the floorspace occupied by the reported customers. For those cases, the reported consumption of only a portion of the building was adjusted upward to represent consumption in the building as a whole.

Step 2. Assigning Billing Dates

Virtually all missing billing dates were one of two types. The first type of dates that were incomplete had the month and year entered, but the day was missing for the beginning and ending dates of all billing periods on a record. These cases were imputed by assigning "16" to each beginning date and "15" to each ending date.

The second type of incomplete dates were missing the day of the month for some, but not all, billing periods. For each case of this second type, the billing periods affected were either bounded (surrounded by billing periods with known beginning and ending dates) or unbounded (either at the beginning or end of the set of billing periods). Any set of consecutive bounded billing periods with missing dates was assigned billing dates that would make all billing periods in the set have as close to the same number of days as possible. Unbounded billing periods were assigned beginning and/or ending dates as needed so that the number of days in each unbounded period was the same as the median number of days in billing periods of known length.

Step 3. Annualizing Full-Year Data

One of the main reasons that the CBECS requested energy supplier data from December 1994 through January 1996 was to assure that 1995 consumption would be completely accounted for in the case of a complete response. However, unless a billing period happened to end on December 31, 1994, or December 31, 1995, consumption as reported by the energy suppliers ran over from the target period of calendar 1995, forward into 1996 and backward into 1994. In general, then, procedures were required to trim away these excess data. For this trimming, different procedures were used for continuous- and discrete-delivery energy sources.

Continuous-Delivery Energy Sources (electricity, natural gas, and district sources). Consumption and expenditures for a billing period extending into 1996 were adjusted by splitting the overlapping period into two subperiods, one running from the beginning date through December 31, the other from January 1 through the billing or meter reading date. Consumption and expenditures were prorated according to the number of days in each subperiod, and the consumption and expenditures for the subperiod that fell in 1995 were included in the total expenditures and consumption for 1995. An analogous procedure was used for a billing period extending into 1994. The assumption that the use of continuous-delivery energy sources took place at a constant rate throughout the billing period may be incorrect for any particular building. However, the procedure should yield approximately unbiased overall estimates.

Discrete-Delivery Energy Source (fuel oil). Billing periods extending outside 1995 did not affect the discrete-delivery energy source (fuel oil) because, for this energy source, all deliveries during 1995 were accumulated. For fuel oil, the ending dates on the bills were used to determine which bills were for deliveries during 1995. No attempt was made to prorate bills, since there was no necessary connection between bill-

ing dates and consumption, as was the case for continuous-delivery energy sources.

For both continuous- and discrete-delivery cases where the billing time frame covered a full year but was shifted so that either the beginning or the end of 1995 was not included, a similar procedure was used. In these cases, the data were annualized to a 1-year period within the reported time frame, overlapping as much as possible with 1995.

Step 4. Annualizing Part-Year Data

The annualization procedures for cases that had partial billing data, but less than a full year's data, were also different for continuous- and discrete-delivery energy sources.

Continuous-Delivery Energy Sources. The number of reported days of consumption was at least as large as the number of reported days of expenditures for almost all sets of bills. Expenditures were annualized by using the partial expenditures data and the annualized consumption data.

The part-year annualization method for the consumption of continuous-delivery energy sources depended on the number of days of reported consumption. If at least 331 days were reported, then consumption for the missing portion of the year was imputed by computing the average consumption per day for the adjacent billing period(s), then multiplying by the number of days of missing data. In certain cases, at least 331 days of consumption were reported, but 365 days of expenditures were reported. In these cases, the missing consumption was computed by using the average price for billing periods in which both consumption and expenditures were reported. Summing all reported and imputed consumption then yielded the total annual consumption.

Expenditure imputations were performed after completion of all imputations for partially missing consumption since (1) consumption data were usually more complete than expenditures data, and (2) given a value for consumption, the expenditures could be estimated without a great deal of difficulty.

As was true for consumption, the imputation procedure for missing continuous-delivery expenditures was determined by the number of days of reported data. If 30 or fewer days of expenditures were reported, then the expenditures were treated as completely missing. Otherwise, expenditures were imputed that were based on average prices within the set of bills for a given building. Using bills where both consumption and expenditures were reported, the consumption and the expenditures were summed. The average price was then calculated as the sum of the expenditures divided by the sum of the consumption. This average price was multiplied by the reported (or imputed) consumption to obtain the estimated expenditures.

Discrete-Delivery Energy Source. The billing dates for fuel oil, a discrete-delivery energy source, are not linked to the time of consumption. Thus, the annualized data represent the total deliveries of fuel oil during the year. Furthermore, unlike continuous-delivery bills, discrete-delivery bills tend to be irregularly spaced. Gaps between bills could represent either missing data or periods during which no deliveries were required. The completeness of a set of bills was determined by relying on reports of suppliers. A set of bills was treated as complete if the supplier stated that the bills were complete for the year, and treated as missing otherwise, even if a partial set of bills was available.

Buildings rarely had more than one supplier for a continuous-delivery energy source, such as electricity, but multiple suppliers for fuel oil occurred frequently. If data for one or more of several suppliers were missing, even though responding suppliers had reported all their 1995 deliveries, these buildings were also treated as if no data were available.

Imputations for both deliveries and expenditures made use of the observed price(s). An average price, P_x, for each set of bills, was computed by using the data from billing periods in which both consumption and expenditures were reported. If expenditures were missing, the expenditures were imputed as P_x times the quantity delivered. For missing deliveries, the reported expenditures were divided by P_x to impute the amount delivered.

Step 5. Adjusting for Building Overcoverage and Undercoverage

The annualization procedures for full- and part-year data were adjusted for inconsistent time-frame coverage. After the nonmissing consumption and expenditures data were annualized, the annual values were adjusted for building coverage. Where data were requested from the supplier for a single sampled building, but were provided only for a group of buildings,

including the sampled one, or were provided only for a portion of the building, the coverage adjustment was a simple multiplication of the annualized consumption and expenditures by the disaggregation or aggregation factor. As described under Step 1 above, this factor was computed by the survey contractor directly on the basis of information received on the building or suppliers survey.

Step 6. Imputing for Completely Missing Consumption and Expenditures

In a significant fraction of cases, the energy supplier did not provide the consumption or expenditures data for some or all billing periods or deliveries in 1995. Reasons for missing data included energy supplier refusal; archived, lost, or destroyed billing records; and authorization form refusal on the part of the building respondent. In other cases, the energy supplier provided data, but either the building data were combined with those of nonsampled buildings and could not be disaggregated or the consumption or expenditures, or both, were incomplete enough to be treated as missing.

The general approach taken to the problem of imputing annual consumption or expenditures was to annualize the complete or partial sets of bills first, then to use these annualized bills in regression equations to develop imputed values for the data that were totally missing. The regression imputation approach was chosen because data from the Building Characteristics Survey were already available for all of the buildings lacking energy supplier data. The first step was the estimation of missing consumption that was based on characteristics of buildings. After the consumption had been imputed, missing expenditures were estimated that were based on the reported or imputed consumption.

Completely Missing Consumption. Each of the energy sources presented in this report was imputed separately, although the overall methodology was similar for all. The consumption imputation method is, therefore, described in general terms, referring to individual energy sources only where necessary. The regression equations were developed primarily to serve as adequate predictors of building consumption based on building characteristics.

The data used to specify regression equations and estimate the regression parameters used for consumption imputation had to meet several criteria. Only cases with essentially complete consumption data were used. For continuous-delivery energy sources, "essentially complete data" included buildings with 331 to 365 days of reported consumption; for discrete-delivery energy sources, only buildings with completely reported deliveries were included. In addition, cases were not used to estimate regression parameters if the information received from the energy supplier included too much data from unsampled buildings (before disaggregation) or the data reported from the building respondent were missing key regressor variables.

The development of regression equations began by an examination of the distributions of the dependent variable, consumption. Previous experience showed that the error term associated with the regression procedure is highly skewed in the positive direction. Consequently, the regression procedures used for the 1995 CBECS minimized the sum of squares of the difference between the log of the actual consumption and the log of the predicted consumption rather than the sum of squares of the difference between the actual consumption and the predicted consumption. Accordingly, the imputed consumption values were calculated by using parameter values estimated in two stages: the initial regression of consumption on building characteristics, and a bias correction. The bias correction coefficient was estimated by (1) summing the total actual consumption of cases used to estimate the regression parameters, (2) summing the total of the predicted values for these same cases, and (3) dividing the sum of the actual values (1) by the sum of the predicted values (2).

Completely Missing Expenditures. Similar to consumption imputations, expenditure imputations were performed separately for each of the four major fuels, although the overall methodologies for each fuel were similar. Again, the imputations are described in general terms, referring to individual energy sources only where necessary.

Energy supplier rate schedules are usually structured so that the price per unit of energy is lower as consumption increases. The rate schedule is usually a step function with the definition of steps and rates varying by energy supplier and by rate class. For the CBECS, rate schedules were not collected for the sampled buildings, but many suppliers did submit an overall rate schedule for their commercial customers. This was useful in estimating expenditures. In cases where rate schedules were not supplied, a statistical procedure

was needed to relate the expenditures to the consumption for imputation purposes.

As with the consumption imputations, the data used to specify the form and estimate the parameters of the expenditure imputation equations had to meet two criteria. First, only cases with essentially complete consumption and expenditures were used. For continuous-delivery energy sources, "essentially complete data" included buildings with 331 to 365 days of reported data for both consumption and expenditures; for discrete-delivery energy sources, only buildings with completely reported deliveries and expenditures were included. In addition, cases were not used to estimate regressor parameters if the information received from the supplier included too much data from unsampled buildings before disaggregation.

Once cases with complete expenditures data were chosen, they were used to develop an ordinary least squares regression equation to relate expenditures to consumption and to the fuel price for commercial customers. The independent variables were chosen to mimic a decreasing block rate structure. The resulting fitted equation was used to impute for cases where expenditures were missing.

Annual Peak Electricity Demand

Peak electricity demand data were requested for the same billing periods for which electricity consumption and expenditures were reported. Ideally, the metered demand represented the maximum consumption rate (in kilowatts) during the billing period. However, two special data problems affect the availability of peak electricity demand data.

First, although virtually all electricity consumption is metered, peak electricity demand is metered where it is economical to do so. In general, peak demand meters are installed only for larger consumers of electricity. Second, in multicustomer buildings, each customer with a demand meter has its own peak demand. Since these peaks would rarely be coincident, the building peak cannot be taken as the sum of individual peaks. However, the overall building peak must be greater than or equal to the maximum customer peak.

Following Step 2 described in the section "Annual Consumption and Expenditures," the peak electricity demand data was processed in three additional steps:

1. **Using the billing data, each building was classified as either demand-metered or not demand-metered:** For the 1995 CBECS, a building was considered to be demand-metered if the billing data for any account within the building showed metered peak demand. (The 1989 CBECS obtained demand-metered information from both the building respondent and the energy supplier. However, there was considerable discrepancy between the two sources of data. As a result of the building respondent to adequately provide demand-metered data, subsequent CBECS obtained this information only from the energy supplier.)

2. **The annual peak demand, the season of the peak, and the annual load factor were determined for each building:** For single-account buildings that were determined to be demand-metered, the annual peak demand was taken as the maximum of the billing period peaks. For the few buildings that had part-year electricity billing data, the annual peak was taken as the maximum of the peaks in the reported billing periods. This approach results in a slight understatement of the annual peak, because the actual peak may have occurred during one of the unreported periods. However, since the number of buildings involved was relatively small, the difference between the part-year and full-year maxima would be small in most cases.

In multicustomer buildings, the overall building peak demand was not available. However, the overall peak had to be at least as high as the highest peak reported for any single customer. In buildings where one customer's peak was substantially larger than that of any other customer, that customer's peak would have been close to the overall peak. Therefore, in processing bills from multicustomer buildings, the peak demand for any single customer was designated as a "partial peak" (associated with part of the building electricity consumption), although the overall building peak was still treated as missing.

Before assigning the peak to a season, the month of the peak was found. Since the exact time of the billing period peak was unknown, the peak was taken to have occurred in whichever month contained the most days in the billing period during which the peak occurred. Peaks occurring November through April were classified as winter peaks, while those occurring May through October were classified as summer peaks.

The annual load factor was then calculated, using previously calculated annual electricity consumption, as follows:

$$\text{annual load factor} = \frac{\text{annual consumption}}{365 \times 24 \times \text{peak annual demand}}.$$

As an edit, the annual load factor was calculated by using the partial peak, and the partial peak was set to missing if the load factor was less than .10 or greater than 1.

3. **Peak demand and season of peak were imputed for demand-metered buildings missing these data:** Although any electricity consumer has a peak demand, three types of buildings were missing peak demand: (1) buildings determined to be not demand-metered; (2) buildings with completely missing supplier data; (3) multicustomer buildings, and other buildings with partial peaks. No attempt was made to impute for the first type of missing demand, mainly because buildings without demand-metering tended to be smaller than the demand-metered buildings, so that imputation would involve extrapolation beyond the range of the reported data. Accordingly, tables dealing with peak electricity demand have been limited to buildings with (reported or imputed) demand-metering. Once the decision was made to exclude buildings that had not been demand-metered, imputation became a two-step process. First, it was necessary to impute whether the building with missing data was demand-metered. If the building was imputed to be a demand-metered building, then the peak and season of the peak were imputed.

Imputation of the demand-metering attribute made use of the relationship observed within suppliers between the presence of demand-metering and annual electricity consumption. For those buildings with reported data, the probability of being a demand-metered building was estimated as a logistic function of the annual consumption. The parameters estimated from the reported data regression were used to estimate probabilities for each unclassified building, and a uniform random number was generated. If the random number was less than or equal to the estimated probability, then the building was imputed to be demand-metered. For buildings imputed to be demand-metered, the season of peak demand was imputed by hot-decking, the same method used to impute missing items from the Building Characteristics Survey.

Finally, annual load factors were imputed for each building imputed to be demand-metered. Values were imputed by using parameters estimated from a linear regression of the logistic transformation of the annual load factor on various building characteristics (such as weekly operating hours, end uses of electricity, and percent of floorspace heated). Separate imputation equations were estimated for each of nine principal building activities. The imputed annual peak demand was then calculated by solving the load factor equation for the annual peak.

Load factors were imputed, and peak demand values calculated, for multiple-account buildings that had partial peaks. If the partial peak was less than the imputed peak, then the imputed peak was treated as the buildings' annual peak demand; otherwise, the partial peak was used.

Load factors and peak intensities were computed for each building reported or imputed to have metered demand. Also of interest are the analogous ratios over a utility service region, or other large area. The ratio of a region's consumption to the annual peak for the region as a whole would represent the average utilization of the region's generating capacity. The ratio of the region's annual peak to the total floorspace in the region would represent the average capacity requirement per square foot. However, the regional peak cannot be determined from the individual annual (or even monthly) peaks alone, since these peaks are not coincident. That is, the individual peaks occur at different times, so that the sum of the individual peaks can be considerably greater than the overall regional peak.

Additional Data Notes

Energy Sources Used—Building and Supplier Survey Estimates

As explained in Appendix A, "How the Survey Was Conducted," the CBECS was conducted in two stages. During the first stage, the building representative was asked which energy sources were used in the building during 1995. In the second stage, the energy suppliers, identified by the building representative during the first stage, were asked to provide consumption and expenditures data. In some cases, contacts with the energy suppliers revealed inaccuracies in the Building Characteristics Survey response as to which energy sources had been used in the building. All statistics in this report on energy sources used are based on the fi-

nal determination made during the Energy Suppliers Survey.

When a supplier reported that a particular building was not a customer during 1995, calls were made to the building respondent to determine the reason for the discrepancy. In some cases, a different supplier was identified for the same energy source. In others, it turned out that the energy source had not actually been used; in some of these cases, a different energy source was identified instead. For example, natural gas may have been reported originally, but the callback determined that natural gas was consumed only in a central plant outside the sampled building, while the building itself used district steam, which had not been reported originally. In this case, natural gas would be coded as "not used in the building," and district steam would be added as "used in the building." The net discrepancies between the Building Characteristics Survey and Energy Suppliers Survey estimates for the use of each energy source were small for both the building counts and the floorspace totals.

The Energy Suppliers Survey was able to correct the energy sources used only in cases where a supplier had been misreported as supplying a particular building with an energy source. If the Building Characteristics Survey respondent happened to omit an energy supplier, but reported all the other supplier data correctly, the omitted supplier would not have been discovered. However, the number of such cases was probably quite small.

In some cases, a supplier reported that a particular building had been a customer for a given energy source, but not during calendar year 1995. For continuous-delivery energy sources (electricity, natural gas, and district heating), the building was classified as not using the energy source. For the discrete-delivery energy source fuel oil, though, the building was classed as using the energy source, but with zero consumption and expenditures for 1995. Thus, for example, those buildings whose respondents reported that fuel oil was used during 1995, but which received no fuel oil deliveries in that year, were included in the count of buildings and floorspace using fuel oil, though they did not contribute to the fuel oil delivery total.

The revised information on the type of energy sources that were used in the building had an impact on the energy end-use data also. The Building Characteristics Survey data on the type of energy sources that were used for a particular end use were collected in concert with the data on energy sources used. Edit checks on the Building Characteristics Survey data assured consistency between energy sources reported for end uses and energy sources reported at all. However, when the information on energy sources used "at all" was revised during the Energy Suppliers Survey, no new information was obtained on energy sources used for particular end uses. As a result, some energy sources were dropped from a building's list of energy sources used, even though these energy sources had end uses reported. Conversely, no associated end uses were coded for energy sources that were added for a building. For any energy source whose use was changed from "yes" to "no" for a particular building, the use of that energy source for any given end use was also changed to "no." However, the end use was still treated as having been performed in the building. That is, it was assumed that the building respondent correctly reported which end uses were performed, even if the energy source used for the end use had been incorrectly reported. This approach left some buildings identified as having a particular end use, but with no energy source indicated for that use.

All building characteristics tables for the 1995 CBECS on the Internet, as well as the Public Use Micro-Data, have been updated to reflect the latest supplier information on the types of fuels used.

Gas Transported for the Account of Others

The 1995 CBECS collected data on natural gas transported for the account of others (also referred to as "direct purchase gas," "spot market gas," or "transportation gas") from both the building respondent and the natural gas suppliers—both utility suppliers and non-utility suppliers. Gas transported for the account of others is a type of purchasing arrangement where large natural gas users purchase their natural gas directly from a source other than the local distribution company (LDC) or utility. The LDC then delivers the gas to the building via the local pipelines.

The natural gas survey form requested (1) the volume of natural gas and expenditures for that gas purchased from the LDC; (2) the volume of natural gas purchased from a source other than the LDC; (3) delivery charges for gas purchased from other than the LDC; and (4) total charges for this gas.

Since local distribution companies know the total volume of natural gas delivered, the total consumption data seem complete. (If natural gas consumption was completely missing, then the volume was imputed as described in Step 6 of "Annual Consumption and Expenditures"). The allocation of consumption between transported gas and local utility-owned gas was then imputed by hot-decking the proportion of gas that was transported gas. This method allowed imputed buildings to have both transported and local utility gas, as might happen if (1) building demand exceeded the direct purchase contract amount or (2) the building switched to or from a direct purchase contract during the year.

Estimating consumption and expenditures could become complicated because frequently the LDC filled out the gas transported for the account of others portion of the supplier form since they knew that the gas being provided was transportation gas. Conversely, transportation gas companies, which provide only transported gas, did not always fill in the form correctly. They often filled in the first available space, which was intended for utility gas only. Similar confusion occurred when filling in transported gas expenditures: the LDC would be expected to fill out the transport charges column but, because this was the only expense collected by the LDC, they sometimes recorded it in the "total" column. Finally, since the same volume of gas was reported by the LDC and the transportation gas company, double reporting of volumes sometimes occurred. All these problems were identified by visual inspection of the appropriate records.

CBECS Coverage Related to EIA Supply Surveys

The primary purpose of the CBECS is to collect accurate statistics of energy consumption by individual buildings. The statistics are totaled and presented by building characteristic. The Energy Information Administration (EIA) also collects data on total energy supply (sales). For the information on sales totals, a different reporting system is used for each fuel and the boundaries between the different sectors (e.g., residential, commercial, industrial) are drawn differently for each fuel. This appendix provides (1) background on the issue of consumption versus supply coverage, and (2) an analysis of the account classification as reported in the 1995 CBECS Energy Suppliers Survey.

Background: EIA sales data on the different fuels are compiled in individual fuel reports. Annual electricity sales data are currently collected on Form EIA-861, "Annual Electric Utility Report," which is sent to all electric utilities in the United States. Supply data for natural gas are collected on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." This form must be submitted by all gas pipeline companies and other plant operators that deliver gas directly to consumers. Fuel oil and kerosene sales are collected on Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report." The supply data are compiled and summarized at the national level, as well as the State level, in several EIA reports, including the *State Energy Data Report* (SEDR) and the *Monthly Energy Review* (MER). When the CBECS totals are compared with the national commercial sales totals reported in the SEDR or MER, only electricity, natural gas, and fuel oil can be compared directly. CBECS does not collect data on coal consumption, and sales data for district heating are not collected by EIA.

Differences between CBECS totals and sales totals can result from either (a) consumption that is included in the CBECS but not in the sales totals and, conversely, (b) consumption that is included in commercial sales totals but is not considered commercial in CBECS and, therefore, is excluded from CBECS totals. A principal reason that a component of consumption may be in the CBECS totals but not in the sales totals, or vice versa, is the differences in how **buildings** are classified for CBECS and how customer **accounts** are classified in the sales reporting system. Each energy supplier has its own system of classifying accounts. When reporting sales totals to EIA by end-use sector, the supplier uses EIA guidelines, as well as the supplier's own account classification, to determine whether a particular account belongs in the residential, commercial, industrial, or transportation sector.

There are several general differences between the CBECS and the energy suppliers as to how each defines which buildings or accounts are commercial.

1. CBECS covers consumption only in buildings. Commercial accounts are not necessarily associated only with buildings, but may also be associated with unenclosed equipment or outdoor lighting. This outdoor lighting is included in commercial sales data reported in the SEDR but is not included in the commercial sales data reported in the MER.

2. CBECS covers consumption for the entire building whose principal activity is commercial, i.e.,

Table B2. Energy Suppliers' Account Classification of Commercial Buildings, 1995

Energy Suppliers' Accounnt Classification	Number of Buildings (thousand)	Percent	Square Feet (million)	Percent	Consumption (trillion Btu)	Percent
Electricity Suppliers						
All Commercial Buildings Using Electricity	4,343	100	57,076	100	2,608	100
Residential	64	1	336	1	5	0
Commercial	3,660	89	48,131	84	2,133	82
Industrial	63	1	2,238	4	115	4
Mixed	357	8	6,371	11	355	14
Natural Gas Suppliers						
All Commercial Buildings Using Natural Gas	2,478	100	38,145	100	1,946	100
Residential	81	3	273	1	19	1
Commercial	2,094	85	32,516	85	1,523	78
Industrial	22	1	530	1	28	1
Mixed	282	11	4,826	13	375	19
Fuel Oil Suppliers						
All Commercial Buildings Using Fuel Oil	607	100	14,421	100	235	100
Residential	25	4	265	2	11	5
Commercial	500	82	11,994	83	188	80
Industrial	5	1	565	4	8	3
Mixed	69	11	1,497	10	27	11
Not Classified	8	1	100	1	1	0

Note: Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, 1995 Commercial Buildings Energy Consumption Survey.

nonindustrial or nonresidential; CBECS covers no consumption in other buildings. As a result, consumption for commercial activity in noncommercial buildings is not included in CBECS, whereas consumption for noncommercial activity in a commercial building is included. For example, in the first case, if the building's principal activity is manufacturing but there is a small office in the building, the energy associated with the office space would not be included in the CBECS. In the second case, if the building's principal activity is retail but there is a small portion of the building devoted to manufacturing, the energy associated with the manufacturing would be included and reported as commercial in CBECS. While energy suppliers may have several accounts within a building and those accounts could be classified as commercial or noncommercial sales, energy consumed in the CBECS buildings is classified as commercial.

3. The activities included as commercial differ between the CBECS and the supply-side reporting systems. On the supply side, as noted, the definitions also differ among fuels.

To help understand the relationship between CBECS consumption totals and EIA's commercial sales totals, the CBECS Energy Suppliers Survey collected information from the suppliers on how they classified each of the accounts for the CBECS sample.

The 1995 CBECS energy suppliers' account classification information showed the amount of consumption in commercial buildings that is likely to be excluded from commercial sales totals. Accounts classified by the energy supplier as residential or industrial are ordinarily included in EIA's sales totals for those sectors, not in commercial sales, as reported in the CBECS. Accounts classified by the supplier as commercial, school, government, or institutional are ordinarily included in EIA's commercial sales total: accounts with hybrid or combination classifications, however, are probably included partly in commercial and partly in noncommercial totals.

Table B2 shows the number of buildings, total floorspace, and energy consumption by the CBECS suppliers' account classification for 1995 CBECS buildings. The shaded area indicates agreement between the CBECS definition of a building and the energy suppliers' classification of their accounts for the CBECS buildings, as reported in the Energy Suppliers Survey portion of the CBECS. Since the SEDR and MER are based on data from the energy suppliers, the unshaded

areas could potentially be classified by SEDR or MER as either residential, industrial, or other. However, they are included in the CBECS totals for commercial buildings.

Electricity: In 1995, about 82 percent of the 2.6 quadrillion Btu of electricity consumed in commercial buildings was classified by both CBECS and the electricity suppliers as commercial. This represented about 84 percent of total floorspace in buildings supplied with electricity. About 4 percent of the 1995 CBECS electricity consumption estimate and 5 percent of the floorspace were classified by the suppliers as either residential or industrial accounts. The remaining 14 percent of electricity consumption and 11 percent of floorspace were classified as mixed noncommercial/commercial by the supplier.

Natural gas: For buildings supplied with natural gas, about 78 percent of the 1.9 quadrillion Btu of natural gas consumed and about 85 percent of the floorspace was classified by both CBECS and the natural gas suppliers as commercial. About 1 percent of the natural gas consumed was consumed in buildings classified as industrial by the supplier. This represented about 1 percent of the floorspace in buildings that use natural gas. An additional 1 percent of the natural gas consumption and 1 percent of the floorspace were classified as residential accounts. The remaining 19 percent of consumption and 13 percent of floorspace were classified by the supplier as mixed noncommercial/commercial accounts.

Fuel oil: About 80 percent of the 0.2 quadrillion Btu of fuel oil consumed and 83 percent of the floorspace in buildings supplied with fuel oil in 1995 were classified by both the CBECS and the suppliers as commercial accounts. Energy suppliers classified about 8 percent of the consumption and 6 percent of the floorspace as either industrial or residential accounts. The remaining 11 percent of fuel oil consumed and 10 percent of floorspace were in buildings with mixed account classifications.

Therefore, about 18 percent of the CBECS electricity consumption, 22 percent of the CBECS natural gas consumption, and 20 percent of the CBECS fuel oil consumption are potentially excluded from the 1995 commercial sales because of differences in account classifications between the energy suppliers and the CBECS.

Energy End-Use Intensities

The 1995 energy end-use tables provide estimates of the amount of natural gas and electricity used specifically for nine end uses: space heating, cooling, ventilation, water heating, lighting, cooking, refrigeration, office equipment, and other.

The end-use estimates were calculated by using two main sources of data: (1) survey data collected by the CBECS and (2) building energy simulations provided by the Facility Energy Decision Screening (FEDS) system. The CBECS provided data on building characteristics and total energy consumption (i.e., for all end uses) for a national sample of commercial buildings. Using data collected by the CBECS, the FEDS engineering modules were used to produce estimates of energy consumption by end use. The FEDS engineering estimates were then statistically adjusted to match the CBECS total energy consumption.

This section briefly describes the FEDS load estimation methodology, the statistical adjustment procedure, and the remaining steps necessary to produce the final end-use estimates.

The Facility Energy Decision Screening Engineering Estimates: The energy consumption data provided by energy suppliers cover all end uses performed within commercial buildings. Total energy consumption can be disaggregated into end-use consumption by several approaches: engineering simulations, statistical modeling, or a hybrid approach known as a statistically adjusted engineering (SAE) approach. The CBECS end-use estimates were developed by using the SAE approach, with the FEDS system providing the initial engineering estimates.

The FEDS software was developed for the U.S. Department of Energy's Federal Energy Management Program and the U.S. Army Construction Engineering Research Laboratory as a tool for screening groups of buildings on Federal facilities (such as Army bases) for energy efficiency retrofits. The engineering modules, which estimate the energy load to be subjected to retrofit optimization, are one in a series of well-known building energy simulations which include DOE-2 and ASEAM. The FEDS uses high-level installation information (number, age, size, and types of buildings and energy systems), an internal data base of typical energy-system configurations and performance data, and sophisticated energy simulation and optimization

models to estimate the net present value of potential energy retrofits in Federal installations.

The FEDS engineering models are designed to produce estimates for five end uses: space heating, cooling, ventilation, lighting, and water heating. Two other end uses, cooking and refrigeration, are also calculated internally by the model, although they are not part of the normal FEDS output. These seven end uses, plus an "other" end use, represent the FEDS accounting for total building end use. Estimates for office equipment energy use were not provided by the FEDS model.

Estimates for the first five end uses are based on detailed building engineering simulations. Estimates for the latter two rely on parameters developed in the Regional End-Use Monitoring Program (REMP), formerly known as the End-Use Load and Consumer Assessment Program (ELCAP) study. REMP was a large end-use monitoring project sponsored by the Bonneville Power Administration. As it was designed to be used in facilities, only a general description of a building need be input for the building energy loads to be estimated interactively, relying on an extensive series of internal default values. Some of these defaults were based on data from prior CBECS, but many were based on the REMP study. For use with the CBECS, the FEDS interface was changed from interactive to batch, with the CBECS survey data supplying as many values as possible.

Besides values relating to the building characteristics, the engineering estimates also required hourly weather profiles. For each calendar month, the average temperature, humidity, and cloudiness during each hour of the day were calculated and input to the model.

Statistically Adjusted Engineering Estimates: The FEDS estimates were based on building characteristics and weather only. At the statistically adjusted engineering (SAE) stage, the engineering estimates were modified to match the observed CBECS consumption data. The basic idea behind the SAE method is simple. Let eui_{bfu} be the end-use consumption per square foot estimated by the FEDS model for building b, fuel f, and end use u, and let eui_{bf} be the total energy consumption (from the CBECS Energy Suppliers Survey) per square foot for building b and fuel f. Then a set of coefficients a_{fu} can be estimated statistically, i.e., by multiple regression, such that

$$\hat{eui}_{bf} = \sum_u a_{fu} eui_{bfu}.$$

The coefficients adjust the FEDS engineering estimates upward or downward to match the reported energy use. The $\hat{eui}_{bf}$ are referred to as SAE estimates. If each estimated value of a_{fu} is equal to one, the *eui*'s are the same as those calculated in the engineering model. A value other than one can reflect a variety of factors. The FEDS model assumed values for a number of engineering variables on the basis of a typical or average building. If the characteristics within the sample buildings differ on average from the assumed values, then the actual *eui*'s will diverge from the engineering *eui*'s.

The basic SAE equation stated above assumes that there is a constant bias in the engineering estimates. However, the assumption of constant bias may be inappropriate. The bias may vary along a number of dimensions. Building type, building age, occupant density, and the presence of energy-intensive activities within the building were some of the variables examined to explore the patterns of bias. A nonlinear SAE equation was developed to incorporate these items. The nonlinear framework allowed greater flexibility in the way that variables, such as building age and employment density, could interact with the engineering estimates of end-use consumption. The SAE equations were estimated separately for electricity, natural gas, fuel oil, and district heat.

The Final End-Use Estimates: Because the SAE procedure calibrated the engineering estimates to the reported data for aggregates of buildings, SAE estimates for individual buildings could still vary from the values on the CBECS Master File. For the final end-use estimates, the value on the CBECS Master File (whether reported or imputed) was prorated in proportion to the SAE estimates.

The office equipment estimate was also made after the SAE estimation by using both REMP estimates and estimates from Arthur D. Little Inc. (ADL). The REMP database contains estimates for subcomponents of "other" end-use consumption and was used to estimate the office equipment share of the "other" end-use energy consumption for the 1989 and 1992 CBECS. Included in office equipment were large computer equipment (if the CBECS data indicated the presence of a computer area with a separate air-conditioning system), personal computer equipment, and general office equipment (typewriters, copiers, cash registers, etc.). For the 1995 CBECS, the REMP computer energy consumption estimates were replaced with the more recent ADL estimates before calculating the office equipment share was calculated.

Estimation of Standard Errors

Sampling error, as described in the introduction to this appendix, is the difference between the survey estimate and the true population value due to the use of a random sample to estimate the population. This difference arises because a random subset, rather than the whole population, is observed. The typical magnitude of the sampling error is measured by the standard error of the estimate. The standard error is the root-mean-square difference between the estimate based on a particular sample and the value that would be obtained by averaging estimates over all possible samples.

If the estimates are unbiased, meaning there is no systematic error, this average over all possible samples is the true population value. In this case, the standard error is simply the root-mean-square difference between the survey estimate and the true population value. If systematic error is present, however, this bias is not included in the error measured by the standard error. Thus, the standard error tends to understate the total estimation error if there are non-negligible biases.

In principle, random errors can be attributed to the estimate by sources other than the sampling process. Such additional sources of random error include random errors by respondents and data entry staff and random unit nonresponse. To recognize these additional sources of variation, the definition of the sampling process can be expanded to include not just the selection of buildings but all steps required to obtain a set of responses. Under this expanded definition, all random errors can be regarded as sampling errors. The procedures designed to estimate the sampling error for CBECS incorporate all random components of the estimation process.

Jackknife Replication: Throughout this report, standard errors are given as percents of their estimated values, that is, as relative standard errors (RSE's). Computations of standard errors are more conveniently described, however, in terms of the estimation variance, which is the square of the standard error.

For some types of surveys, a convenient algebraic formula for computing variances can be obtained. The CBECS used a list-supplemented, multistage area sample design (See Appendix A, "How the Survey Was Conducted") of such complexity that it is virtually impossible to construct an exact algebraic expression for estimating variances. In particular, convenient formulas based on an assumption of simple random sampling, typical of most standard statistical packages, are entirely inappropriate for the CBECS estimates. Such formulas tend to give severely understated standard errors, making the estimates appear much more accurate than is the case.

The method used to estimate sampling variances for this survey was a jackknife replication method. The idea behind replication methods is to form several pseudoreplicates of the sample by selecting subsets of the full sample. The subsets are selected in such a way that the observed variance of estimates based on the different pseudoreplicates estimates the sampling variance in the overall estimate.

The k^{th} jackknife pseudoreplicate sample set is obtained by deleting all observations from one of the members in the k^{th} group and multiplying the weights on all cases in the other group members by 2 if there are 2 members in the group and by 1.5 if there are 3 members in the group. Observations in all other groups are unaffected. The k^{th} pseudoestimate is then obtained from this pseudoreplicate sample by following all the steps used to construct the full-sample estimate.

The variances are estimated from the pseudoestimates in the following way. Let X' be a survey estimate (based on the full sample) of characteristic X for a certain category of buildings. For example, X may be the total square footage of buildings using natural gas in the Midwest. Let X_k' be the pseudoestimate of X based on the k^{th} pseudoreplicate sample. The estimated variance of the full-sample estimate X' is then given by:

$$S_{X'}^2 = \sum_{k=1}^{44} (X_k' - X')^2.$$

The standard error of X' is given by:

$$S_{X'} = \sqrt{S_{X'}^2}$$

The relative standard error (percent) of X' is obtained from this standard error as:

$$RSE_{X'} = \left(\frac{S_{X'}}{X'}\right) \times 100$$

Generalized Variances: For every estimate in this report, the RSE was computed by the methods described above. This was the RSE used for any statistical tests or confidence intervals given in the text or to determine if the estimate had too much variation to publish (an RSE greater than 50 percent).

Space limitations prevent publishing the complete set of RSE's with this document. Instead, a generalized variance technique is provided by which the reader can compute an approximate RSE for each of the estimates in the main summary tables. For an estimate in the i^{th} row and j^{th} column of a particular table, the approximate RSE is given by the simple formula:

$$RSE_{i,j} = R_i C_j$$

where R_i is the RSE row factor given in the last column of row i, and C_j is the RSE column factor given at the top of column j.

The use of the row and column RSE factors is illustrated in the "Detailed Tables" section of this report..

Derivation of Row and Column Factors: The row and column factors are determined from a two-factor analysis of the table of RSEs on the basis of the model

$$\log(RSE_{i,j}) = m + a_i + b_j$$

Least-squares estimates for this model are given by:

$$m = \overline{\log(RSE)}$$

$$a_i = \overline{\log(RSE_i)} - \overline{\log(RSE)}$$

$$b_j = \overline{\log(RSE_j)} - \overline{\log(RSE)}$$

Where $\overline{\log(RSE)}$ is the mean of $\log(RSE_{i,j})$ over all rows i and columns j, $\overline{\log(RSE_i)}$ is the mean for a particular row i, and $\overline{\log(RSE_j)}$ is the mean for all rows i for a particular column j. The row and column RSE factors are then computed as

$$R_i = \log^{-1}(m + a_i) = \log^{-1}(\overline{\log(RSE_i)})$$

$$C_j = \log^{-1}(b_j) = \log^{-1}(\overline{\log(RSE_j)} - \overline{\log(RSE)})$$

The RSE row factor, R_i, is thus the geometric mean of the RSEs in row i, and the RSE column factor, C_j, is an adjustment factor with geometric mean equal to 1.0.

For a few table cells, there were no sample cases, hence, no estimate and no RSE. As a result, some of the arrays of direct estimates $RSE_{i,j}$ had a few missing values. In such cases, the formulas given above for row and column factors still apply, but only after appropriate estimates have been substituted for the missing values. In cases where a statistic was not publishable because of a large RSE or small cell sample size, the value of $RSE_{i,j}$ was set to missing and an appropriate estimate substituted so that the computed row and column factors are based only on statistics where the RSE is small enough to allow publication. Additionally, RSE column factors are not included for the median statistics found in Detailed Tables BC-2 and CE-19, or for all data in Detailed Tables EU-1 through EU-7.

Appendix C

Description of Building Types

In the Commercial Buildings Energy Consumption Survey (CBECS), buildings were classified according to principal activity, which was the primary business, commerce, or function carried on within each building. Buildings used for more than one of the activities described below were assigned to the activity occupying the most floorspace at the time of the interview. Thus, a building assigned to a particular principal activity category may have been used for other activities in a portion of its space or at some time during the year.

Each of the principal activity categories is listed alphabetically and described below. Lists of specific types of buildings included in each category are presented for clarification but are not intended to be exhaustive.

1. **Agricultural:** See **Other.**

2. **Education:** refers to buildings used for academic or technical classroom instruction. This category includes the following:

Schools:

Preschool
Elementary
Junior high
Senior high
College or university classrooms/Laboratories
Vocational school

Other activities that occur on school campuses are reported separately:

Administration (see Office/Professional)
Auditorium (see Public Assembly)
Dormitory (see Lodging)
Gymnasium (see Public Assembly)
Infirmary (see Health Care)
Library (see Public Assembly)
Museum (see Public Assembly)
School for the Mentally Retarded (see Health Care)
Stadium (see Public Assembly)
Student Union (see Public Assembly).

3. **Enclosed Shopping Center/Mall:** See **Mercantile and Service.**

4. **Food Sales:** refers to buildings used for retail or wholesale sale of food. This category includes the following:

Convenience store or market
Farmer's market, Fruit/Vegetable market
Grocery store/Supermarket
Meat/Seafood store
Retail bakery
Specialty food store.

5. **Food Service:** refers to buildings used for preparation and sale of food and beverages for consumption. This category includes the following:

Prepared-Meal Services:
Cafeteria

Carry-out Service:
Caterer
Fast-food establishment
Pizza parlor
Sandwich shop

Full-Service Restaurant:
Bar
Bar and grill
Coffee shop
Diner
Full-menu-service establishment.

6. **Health Care:** refers to buildings used as diagnostic and treatment facilities for both inpatient and outpatient care. In the tables of this report, inpatient and outpatient buildings are combined in the "Health Care" Principal Building Activity category. Excluded from this group are skilled nursing or other residential care facilities (nursing homes).

Inpatient facilities treat the mentally or physically ill. Buildings for overnight care are in this grouping. This category includes the following:

Medical Care Hospital:
- Chronic disease
- Ear, eye, nose, and throat
- General medical and surgical
- Maternity
- Medical infirmary (connected with an institution)
- Orthopedic
- Tuberculosis/other respiratory disease

Mental Facility:
- Mental retardation/schools for the mentally retarded
- Psychiatric

Rehabilitation Facility:
- Alcoholism
- Substance abuse/narcotics/drug addiction
- Physical therapy.

Outpatient care may be medical, dental, or psychiatric and involves diagnosis and treatment in which services are not required overnight. Buildings used for veterinary practices also fall into this category. This category includes the following:

Dental Clinic

Medical Clinic:
- Abortion/birth control
- Ear, eye, nose, and throat
- Emergency walk-in
- General

Mental health/psychiatric clinic

Veterinary Facilities.

7. **Hospital/Inpatient Health Services:** See **Health Care.**

8. **Hotel/Motel/Dorm, Etc.:** See Lodging.

9. **Industrial/Manufacturing:** See **Other.**

10. **Laboratory:** See **Other.**

11. **Lodging:** refers to buildings used to offer multiple accommodations for short-term or long-term residents, including nursing homes. In the tables of this report, skilled nursing and other residential care facilities are included in the "Lodging" Principal Building Activity category.

Hotel/Motel/Dorm, Etc.
Short-Term Residence:
- Convention hotel
- Hotel
- Inn
- Motel
- Shelter home
- Tourist home

Long-Term Residence:
- Boarding house
- Convent/monastery
- Extended Stay Hotels
- Dormitory/sorority/fraternity
- Orphanage

Assisted-living elder care facilities (limited medical facilities)

Skilled Nursing/Other Residential Care refers to buildings used as facilities which offer 24-hour nursing/medical care. This category includes the following:

- Homes for the aged
- Nursing homes.

12. **Mercantile and Service:** refers to buildings used for sales and displays of goods or services (excluding food). This category includes shopping malls and strip centers, as well as retail and service as outlined below.

Retail (other than shopping mall or strip center):
- Automobile dealers
- Building materials, garden supply stores, hardware
- Department stores
- Drugstores
- Furniture, home equipment stores and home furnishings
- Liquor stores
- Wholesale goods (except food)

Service (other than food service):
- Dry cleaner/car wash/laundry

Gasoline stations
Motor vehicle repair/service/maintenance
Multiservice establishments
Personal service
Post office.

13. **Nonrefrigerated Warehouse or Storage:** See **Warehouse and Storage.**

14. **Office:** refers to buildings used for general office space, professional offices, and administrative offices. This category includes the following:

Data Processing:
Computer center
Data entry/keypunch

Financial Office Building:
Bank
Brokerage firm
Insurance
Real estate
Securities

Professional Office Building:
Administration of an institution
Consulting
Corporate
Engineering
Law
Management
Medical
Mixed professional.

15. **Other:** refers to buildings used for activities that do not fit into any of the specifically named categories. In the tables of this report, this category includes laboratories and buildings identified as having several commercial activities that, together, represent 50 percent or more of the floorspace, but whose largest single activity is agricultural, industrial/manufacturing, or residential. This category includes the following:

Crematorium
Hangar
Public restrooms/showers
Telephone exchange
Greenhouse with retail sales of plants
Manufacturing with retail sales of products
Printing plant with retail sales.

Laboratory refers to buildings used for activities which utilize equipment for experimental testing or for analysis. This category includes the following:

Mechanical/electrical laboratory
Medical/dental laboratory
Agricultural laboratory.

16. **Outpatient Health Services/Clinic:** See **Health Care.**

17. **Public Assembly:** refers to buildings in which people gather for social or recreational activities whether in private or nonprivate meeting halls. This category includes the following:

Entertainment Building:
Archive/art gallery/exhibit hall/library/museum
Coliseum/arena (enclosed)
Concert hall
Observatory/planetarium
Night club
Radio/TV station or studio
Theater/movie house/cinema

Recreational Facility:
Amusement arcade
Bowling alley
Community centers
Gymnasium/YMCA or YWCA/indoor racket sports, recreation center/athletic facility
Indoor pool
Poolroom
Skating rink

Social/public/civic assembly:
Assembly hall
Auditorium
Convention hall
Funeral home
Lecture hall
Lodge hall
Meeting hall
Student union
Town hall

Other Enclosed Assembly Building:

Armory
Passenger terminal
Stadium.

18. **Public Order and Safety:** refers to buildings used for the preservation of law and order or public safety. This category includes the following:

Courthouse
Fire station

Jail
Penitentiary/Prison
Police station
Reformatory
Sheriff's office.

19. **Refrigerated Warehouse or Storage:** See **Warehouse and Storage.**

20. **Religious Worship:** refers to buildings in which people gather for religious activities. This category includes the following:

Chapel
Church
Mosque
Synagogue
Temple.

21. **Residential:** See **Other.**

22. **Retail (other than shopping mall or strip center):** See **Mercantile and Service.**

23. **Service (other than food service):** See **Mercantile and Service.**

24. **Skilled Nursing/Other Residential Care:** See **Lodging.**

25. **Strip Shopping Center:** See **Mercantile and Service.**

26. **Warehouse and Storage:** refers to buildings used to store goods, manufactured products, merchandise, or raw materials. In the tables of this report, both refrigerated and non-refrigerated warehouse and storage are included in the "Warehouse" Principal Building Activity category.

Refrigerated Storage refers to buildings specifically designed to store perishable goods or merchandise under refrigeration. Includes "cold storage" facilities, which store products at temperatures between 0 degrees Fahrenheit and 50 degrees Fahrenheit and "freezer" facilities, which store products at temperatures between 0 degrees Fahrenheit and 20 degrees Fahrenheit.

This category includes the following:

Cheese warehouse
Cold storage
Fur storage.

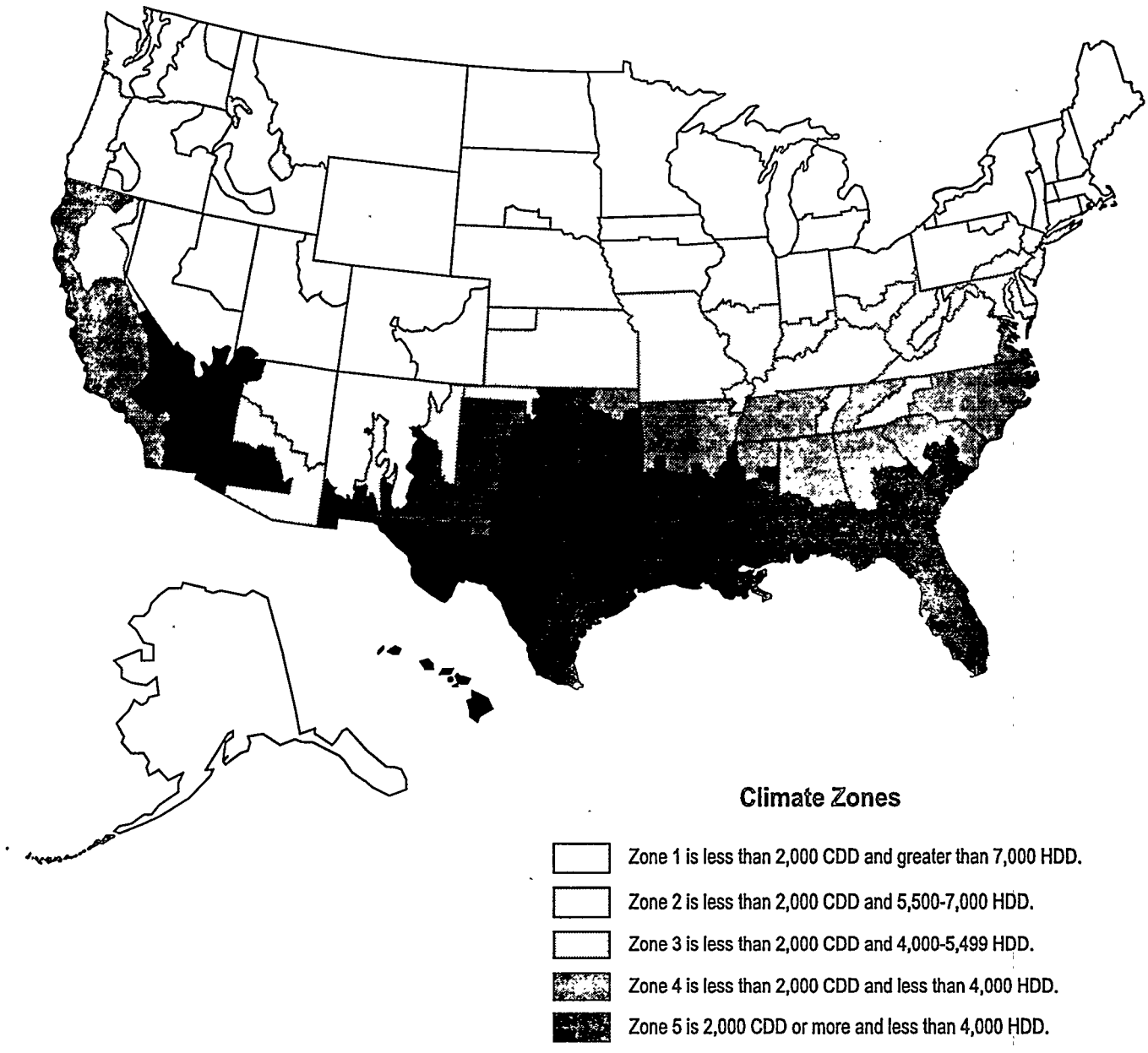
Nonrefrigerated Warehouse refers to buildings specifically designed to store perishable goods or merchandise without refrigeration.

27. **Vacant:** refers to commercial buildings in which more floorspace was vacant than was used for any single commercial activity (as defined above) at the time of interview. Thus a vacant building may have some occupied floorspace. Vacant space does not include space being maintained and ready for use.

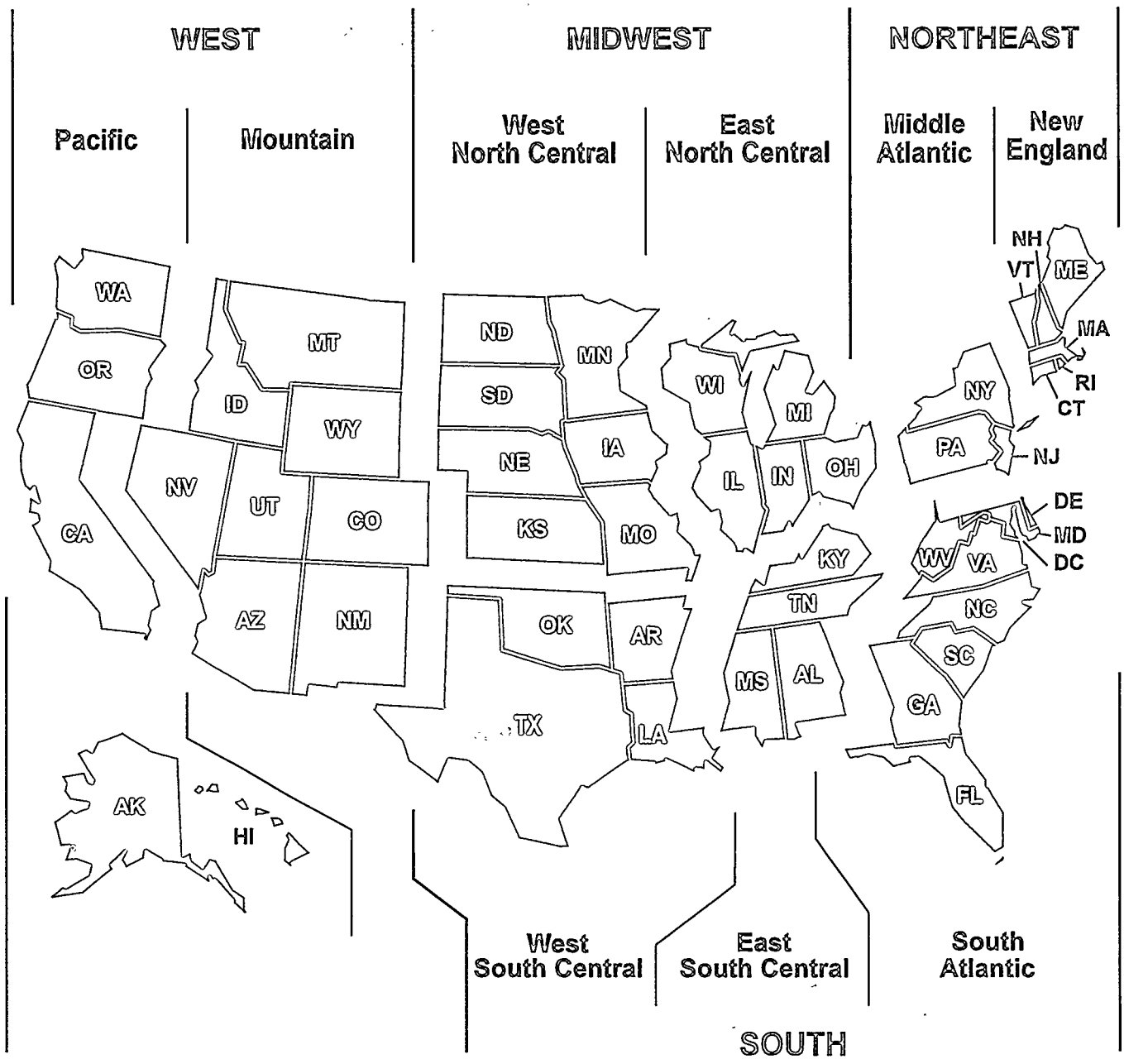
Appendix D

U.S. Climate Zones and Census Regions and Divisions Maps

U.S.Climate Zones



U.S. Census Regions and Divisions



Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1996* (Washington, D.C., October 1996), Figure 1.

Appendix E

Metric Conversion Factors

Data in the Energy Information Administration publications are expressed in units, such as British thermal units, barrels, cubic feet, and short tons, that historically have been used in the United States. However, because U.S. activities involve foreign nations, most of which use metric units of measure, the United States is committed to making the transition to the metric system. The metric conversion factors presented in Table E1 can be used to calculate the metric-unit equivalents of values expressed in U.S. units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short tons=453.6 metric tons).

Table E1. Metric Conversion Factors

Type of Unit	U.S. Unit	Conversion Factor	Metric Unit
Mass	Short Tons	X 0.907 184 7	= Metric Tons (t)
	Short Tons Uranium Oxide (U_3O_8)	X 0.769	= Metric Tons Uranium (U)
	Short Tons Uranium Fluoride (UF_6)	X 0.613	= Metric Tons Uranium (U)
	Long Tons	X 1.016	= Metric Tons(t)
	Pounds(lb)	X 0.453 592 37[a]	= Kilograms(kg)
	Pounds Uranium Oxide(lb U_3O_8)	X 0.384 645[b]	= Kilograms (Kg)
	Ounces, Avoirdupois(oz)	X 28.349 52	= Grams(g)
Volume	Barrels of Oil(bbl)	X 0.158 987 3	= Cubic Meters (m^3)
	Cubic Yards(yd^3)	X 0.765 555	= Cubic Meters (m^3)
	Cubic Feet(ft^3)	X 0.028 316 85	= Cubic Meters (m^3)
	U.S. Gallons(gal)	X 3.785 412	= Liter (L)
	Ounces, Fluid(fl oz)	X 29.573 53	= Milliliters (ml)
	Cubic Inches(in^3)	X 16.387 06	= Milliliters (ml)
Length	Miles (mi)	X 1,609,344[a]	= Kilometers (km)
	Yards (yd)	X 0.914 4[a]	= Meters (m)
	Feet (ft)	X 0.304 8[a]	= Meters (m)
	Inches (in)	X 2.54[a]	= Centimeters (cm)
Area	Acres	X 0.404 69	= Hectares (ha)
	Square Miles (mi^2)	X 2,589,988	= Square Kilometers (km^2)
	Square Yards (yd^2)	X 0.836 127 4	= Square Meters (m^2)
	Square Feet (ft^2)	X 0.092 903 04[a]	= Square Meters (m^2)
	Square Inches (in^2)	X 6.456 16[a]	= Square Centimeters (cm^2)
Temperature	Degrees Fahrenheit[c] (°F)	X 5/9 (after subtracting 32)[a]	= Degrees Celsius (°C)
Energy	British thermal units (Btu)	X 1,055.056	= Joules (J)
	Calories (cal)	X 4.186 8	= Joules (J)
	Kilowatthours (kWh)	X 3.6	= Megajoules (MJ)

[a]Exact Conversion.
[b]Calculated by the Energy Information Administration.
[c]To convert degrees Celsius (°C) to degrees Fahrenheit (°F), multiply by 9/5, then add 32.

Sources: General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9-11, 13, and 16. National Institute of Standards and Technology, *Special Publications* 330, 811, and 814. American National Standards Institute/Institute of Electrical and Electronic Engineers, ANS/EEE Std.268-1982, pp. 28 and 29. Energy Information Administration, *Monthly Energy Review August 1993*, Appendix B, p. 161.

Appendix F

Related EIA Publications on Energy Consumption

For information on how to obtain the current publications, see the inside cover of this report. For information on later publications, contact the National Energy Information Center on (202) 586-8800. You can also go to our web site at http://www.eia.doe.gov/emeu/consumption to access reports on the commercial, manufacturing, residential, and residential transportation sectors.

In addition to the reports listed below, public-use data for the last two survey cycles for each sector can also be accessed via our Web page. To obtain public-use data for earlier years, contact the survey manager for that sector at http://www.eia.doe.gov/emeu/consumption/contacts.html.

Commercial Sector

Note: The name of the Nonresidential Buildings Energy Consumption Survey was changed to the Commercial Buildings Energy Consumption Survey, beginning with the 1989 survey. The survey name was also dropped from the report title at that time and subsequently.

Characteristics of Buildings

Commercial Buildings Characteristics 1995; August 1997, DOE/EIA-E-0109, **Electronic Only**. This report can be accessed at www.eia.doe.gov/emeu/cbecs/cb951a.html.

Commercial Buildings Characteristics 1992; April 1994, DOE/EIA-0246(92).

"Commercial Buildings Characteristics 1992," *Monthly Energy Review*, January 1994, DOE/EIA-0035(94/01).

Commercial Buildings Characteristics 1989; June 1991, DOE/EIA-0246(89).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1986; September 1988, DOE/EIA-0246(86).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1983; July 1985, DOE/EIA-0246(83).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1983; A Supplemental Reference, DOE/EIA-M008.

Nonresidential Buildings Energy Consumption Survey: Fuel Characteristics and Conservation Practices; June 1981, DOE/EIA-0278.

Nonresidential Buildings Energy Consumption Survey: Building Characteristics; March 1981, DOE/EIA-0246.

Consumption and Expenditures

Commercial Buildings Consumption and Expenditures 1995; February 1998, DOE/EIA-E0318(95) **Electronic Only**. This report can be accessed at www.eia.doe.gov/emeu/cbecs/toc_ce.html. *Commercial Buildings Consumption and Expenditures 1992*; April 1995, DOE/EIA-0318(92).

Commercial Buildings Consumption and Expenditures 1992; April 1995, DOE/EIA-0318(92).

Commercial Buildings Consumption and Expenditures 1989; April 1992, DOE/EIA-0318(89).

Nonresidential Buildings Energy Consumption Survey: Commercial Buildings Consumption and Expenditures 1986; May 1989, DOE/EIA-0318(86).

Nonresidential Buildings Energy Consumption Survey: Commercial Buildings, Consumption and Expenditures 1983; September 1986, DOE/EIA-0318(83).

Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 1: Natural Gas and Electricity; March 1983, DOE/EIA-0318/1.

Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 2: Steam, Coal, Fuel Oil, LPG, and Total Fuels; December 1983, DOE/EIA-0318(79)/2.

Other Publications on the Commercial Sector

Energy End-Use Intensities in Commercial Buildings (1995 data), February 1995, DOE/EIA-E0555(95) tables only in **electronic form**. This product can be accessed at www.eia.doe.gov/emeu/cbecs/cbec-eu3.html

Energy End-Use Intensities in Commercial Buildings (1992 data), February 1995, DOE/EIA-E0555(92) tables only in **electronic form**. This product can be accessed at www.eia.doe.gov/emeu/cbecs/cbecs1d.html.

Service Report: Federal Buildings Supplemental Survey 1993, November 1995, SR/EMEU/95-02.

Energy Consumption Series— Energy End-Use Intensities in Commercial Buildings, September 1994, DOE/EIA-0555(94)/2.

"Assessment of Energy Use in Multibuilding Facilities," *Monthly Energy Review,* December 1993, DOE/EIA-0035(93/12).

Energy Consumption Series—Assessment of Energy Use in Multibuilding Facilities, August 1993, DOE/EIA-0555(93)/1.

Energy Consumption Series—User-Needs Study for the 1992 Commercial Buildings Energy Consumption Survey, September 1992, DOE/EIA-0555(92)/4.

Energy Consumption Series—Lighting in Commercial Buildings; March 1992, DOE/EIA-0555(92)/1.

Industrial Sector

Manufacturing Consumption of Energy 1994, December 1997, DOE/EIA-0512(91).

Changes in Energy Intensity in the Manufacturing Sector 1985-1991, September 1995, DOE/EIA-0552 (85-91).

Manufacturing Consumption of Energy 1991, December 1994, DOE/EIA-0512(91).

"Energy Preview: Manufacturing Energy Consumption Survey Preliminary Estimates, 1991," *Monthly Energy Review,* September 1993, DOE/EIA-0035 (93/01).

"Energy Efficiency in the Manufacturing Sector," *Monthly Energy Review*, December 1992.

Manufacturing Energy Consumption Survey: Changes in Energy Intensity in the Manufacturing Sector 1980-1988, December 1991, DOE/EIA-0552 (80-88).

Manufacturing Energy Consumption Survey: Manufacturing Fuel-Switching Capability 1988, September 1991, DOE/EIA-0515(88).

Manufacturing Energy Consumption Survey: Consumption of Energy, 1988, May 1991, DOE/EIA-0512(88).

Manufacturing Energy Consumption Survey: Energy Efficiency in Manufacturing, 1985; January 1990, DOE/EIA-0516(85).

Manufacturing Energy Consumption Survey: Fuel-Switching Capability, 1985, December 1988, DOE/EIA-0515(85).

Manufacturing Energy Consumption Survey: Methodological Report, 1985, November 1988, DOE/EIA0514(85).

Manufacturing Energy Consumption Survey: Consumption of Energy, 1985, November 1988, DOE/EIA-0512(85).

"Manufacturing Sector Energy Consumption 1985 Provisional Estimates," *Monthly Energy Review*,January 1987, DOE/EIA-0035 (87/01).

Report on the 1980 Manufacturing Industries' Energy Consumption Study and Survey of Large Combustors, February 1983, DOE/EIA-0358.

Industrial Energy Consumption, Survey of Large Combustors: Report on Alternate Fuel-Burning Capabilities of Large Boilers in 1979, February 1982, DOE/EIA-0304, GP.

Methodological Report of the 1980 Manufacturing Industries Survey of Large Combustors (EIA-463), March 1982, DOE/EIA-0306.

Other Publications on the Industry Sector

Energy Consumption Series—*Derived Annual Estimates of Manufacturing Energy Consumption 1974-1988*, August 1992, DOE/EIA-0555(92)/3.

Energy Consumption Series—*Development of the 1991 Manufacturing Energy Consumption Survey*, May 1992, DOE/EIA-0555(92)/2.

Residential Sector

Housing Characteristics

Note: The survey name was dropped from the beginning of the report title starting with the 1987 data reports.

Housing Characteristics, 1997, May 1998, DOE/EIA-E0314(97)—coming in electronic form the end of August 1998.Presently, the tables only are available and can be accessed **electronically** at http://www.eia.doe.gov/emeu/recs/ 97tblhp.html.

Housing Characteristics, 1993, June 1995, DOE/EIA-0314(93).

Housing Characteristics 1990; May 1992, DOE/EIA-0314(90), *Housing Characteristics 1987*; May 1989, DOE/EIA-0314(87).

Residential Energy Consumption Survey: Housing Characteristics 1984, October 1986, DOE/EIA-0314 (84).

Residential Energy Consumption Survey: Housing Characteristics, 1982, August 1984, DOE/EIA-0314 (82).

Residential Energy Consumption Survey Housing Characteristics, 1981, August 1983, DOE/EIA-0314 (81).

Residential Energy Consumption Survey: Housing Characteristics, 1980, June 1982, DOE/EIA-0314.

Residential Energy Consumption Survey: Characteristics of the Housing Stock and Households, 1978, February 1980, DOE/EIA-0207/2.

Residential Energy Consumption Survey: Conservation, February 1980, DOE/EIA-0207/3.

Preliminary Conservation Tables from the National Interim Energy Consumption Survey, August 1979,DOE/EIA-0193/P.

Characteristics of the Housing Stock and Households: Preliminary Findings from the National Interim Energy Consumption Survey, October 1979, DOE/EIA-0199/P.

Consumption and Expenditures

Note: The survey name was dropped from the beginning of the report title starting with the 1987 data reports. The titles were changed to *Household Energy Consumption and Expenditures 1987, Part 1: National* and *Part 2: Regional.*

Household Energy Consumption and Expenditures 1993, October 1995, DOE/EIA-0321(93).

"Household Energy Consumption and Expenditures 1990," *Monthly Energy Review*, August 1993, DOE/EIA-0035(93/08).

Household Energy Consumption and Expenditures 1990, February 1993, DOE/EIA-0321/1(90).

Household Energy Consumption and Expenditures 1990\S, DOE/EIA-0321/2(90).

Household Energy Consumption and Expenditures 1987, Part 1: National Data, October 1989, DOE/EIA-0321/1(87). Note: Energy end-use data are included in this report.

Household Energy Consumption and Expenditures 1987, Part 2: Regional Data, DOE/EIA-0321/2(87).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data, March 1987, DOE/EIA-0321/1(84).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data, May 1987, DOE/EIA-0321/2 (84). Note: Energy end-use data are included in this report.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 1: National Data, November 1984, DOE/EIA-0321/1(82).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 2: Regional Data, December 1984, DOE/EIA-0321/2(82).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 1: National Data, September 1983, DOE/EIA-0321/1(81). *Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 2: Regional Data,* October 1983, DOE/EIA-0321/2(81).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 1: National Data, September 1982, DOE/EIA-0321/1(80).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 2: Regional Data, June 1983, DOE/EIA-0321/2(80).

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part 1: National Data (Including Conservation), April 1981, DOE/EIA-0262/1.

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part II: Regional Data, May 1981, DOE/EIA-0262/2.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1978 Through March 1979, July 1980, DOE/EIA-0207/5.

Single-Family Households: Fuel Oil Inventories and Expenditures: National Interim Energy Consumption Survey, December 1979, DOE/EIA-0207/1.

Other Publications on the Residential Sector

Energy Consumption Series—*Residential Energy Consumption Survey Quality Profile,* March 1996, DOE/EIA-0555(96)/1.

Energy Consumption Series—*Sample Design for the Residential Energy Consumption Survey,* August 1994, DOE/EIA-0555(94)/1.

Energy Consumption Series—*User-Needs Study of the 1993 Residential Energy Consumption Survey,* September 1993, DOE/EIA-0555(93)/2.

"End-Use Consumption of Residential Energy" *Monthly Energy Review,* July 1987, DOE/EIA-0035(87/07).

Residential Energy Consumption Survey: Trends in Consumption and Expenditures 1978-1984, June 1987, DOE/EIA-0482.

Residential Conservation Measures, July 1986, SR/EEUD/86/01.

An Economic Evaluation of Energy Conservation and Renewable Energy Tax Credits, October 1985, Service Report.

Residential Energy Consumption and Expenditures by End Use for 1978, 1980, and 1981; December 1984, DOE/EIA-0458.

Weatherization Program Evaluation, SR-EEUD-84-1, August 1984 (available from the Office of the Assistant Secretary for Conservation and Renewable Energy, Department of Energy).

Residential Energy Consumption Survey: Regression Analysis of Energy Consumption by End Use, October 1983, DOE/EIA-0431.

National Interim Energy Consumption Survey: Exploring the Variability In Energy Consumption, July 1981, DOE/EIA-0272.

National Interim Energy Consumption Survey: Exploring the Variability in Energy Consumption—A Supplement, October 1981, DOE/EIA-0272/S.

Residential Transportation Sector

Note: The survey name was dropped from the beginning of the report title starting with the 1988 data report, and the report title changed to *Household Vehicles Energy Consumption 1988.*

Household Vehicles Energy Consumption 1994, August 1997, DOE/EIA-0464(94).

Household Vehicles Energy Consumption 1991, December 1993, DOE/EIA-0464(91).

"Energy Preview: Residential Transportation Energy Consumption Survey Preliminary Estimates, 1991," *Monthly Energy Review*, January 1993, DOE/EIA-0035(93/01).

Household Vehicles Energy Consumption 1988, February 1990, DOE/EIA-0464(88).

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles 1985, April 1987, DOE/EIA-0464(85).

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles, 1983, January 1985, DOE/EIA-0464(83).

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, Supplement: January 1981 to September 1981, February 1983, DOE/EIA-0328.

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, June 1979 to December 1980, April 1982, DOE/EIA-0319.

Cross-Sector

Energy Consumption Measuring Energy Efficiency in the United States' Economy: A Beginning, October 1995, DOE/EIA-0555(95)/2.

Energy Consumption Series-Buildings and Energy in the 1980's, June 1995, DOE/EIA-0555(95)/1.

Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys; April 6, 1990, DOE/EIA-0533.

Natural Gas: Use and Expenditures; April 1983, DOE/EIA-0382.

Public-Use Data

Note: Microdata involving the last two survey cycles for the various sector can be found on the **Consumption Homepage** at www.eia.doe.gov/emeu/page1.html. Call the National Energy Information Center on (202) 586-8800 regarding public-use data for the later survey years, such as those below.

Residential and Residential Transportation Sectors

Residential Transportation Energy Consumption Survey, 1988, Order No. PB90-501461.

Residential Energy Consumption Survey: 1987 and Residential Transportation Energy Consumption Survey, 1988, Order No. PB90-501461.

Residential Energy Consumption Survey: 1984 and Residential Transportation Energy Consumption Survey, 1985, Order No. PB87-186540.

Residential Energy Consumption Survey: 1982 and Residential Transportation Energy Consumption Survey, 1983, Order No. PB85-221760.

Residential Energy Consumption Survey: Consumption and Expenditures, 1980-1981; Monthly Billing Data, Order No. PB84-166230.

Residential Energy Consumption Survey: Housing Characteristics, 1981; Consumption and Expenditures, 1981-1982, Monthly Billing Data; Order No. PB84-120476.

Residential Energy Consumption Survey: Housing Characteristics, Annualized Consumption and Expenditures, 1980-1981, Order No. PB83-199554.

Residential Energy Consumption Survey: Household Transportation Panel Monthly Gas Purchases and Vehicle and Household Characteristics, 6/79-9/81, Order No. PB84-162452.

Residential Energy Consumption Survey: Household Screener Survey, 1979-1980, Order No. PB82-114877.

Residential Energy Consumption Survey: Household Monthly Energy Consumption and Expenditures, 1978-1979, Order No. PB82-114901.

National Interim Energy Consumption Survey (Residential), 1978, Order No. PB81-108714.

Commercial Sector

Nonresidential Buildings Energy Consumption Survey: 1986 Data, Order No. PB90-500034.

Nonresidential Buildings Energy Consumption Survey: 1979 and 1983 Data, Order No. PB88-245162.

Note: The Energy Information Administration also publishes annually the *State Energy Data Report, Consumption Estimates*, DOE/EIA-0214; the *State Energy Price and Expenditures Report*, DOE/EIA-0376; and the *Monthly Energy Review*, DOE/EIA-0035. These reports contain annual and monthly consumption information derived from EIA supply surveys.

Glossary

Account Classification: The method in which suppliers of electricity, natural gas, or fuel oil classify and bill their customers. Commonly used account classifications are "Commercial," "Industrial," and "Residential." Suppliers' definitions of these terms vary from supplier to supplier and from the definitions used in CBECS. In addition, the same customer may be classified differently by each of its energy suppliers.

Activities with Large Amounts of Hot Water: An energy-related space function within a building that requires large amounts of hot water for other than space heating. Examples of these activities are commercial laundry rooms, heated swimming pools, spas, saunas and steam rooms.

Agricultural: Activities involving the production, processing, sale, storage, or housing of agricultural products, including livestock. Buildings that contained commercial activities but had 50 percent or more of the floorspace devoted to agricultural activities were considered out of scope, as were farms and farm buildings, which are overwhelmingly residential and agricultural. (See **Commercial Building** and **Principal Building Activity**.)

Air-Handling Unit: A type of heating and/or cooling distribution equipment that channels warm or cool air to different parts of a building. This process of channeling the conditioned air often involves drawing air over heating or cooling coils and forcing it from a central location through ducts or air-handling units. Air-handling units are hidden in the walls or ceilings, where they use steam or hot water to heat or chill water to cool the air inside the duct work.

Authorization Form: A form signed by the building respondent, authorizing energy suppliers that serve the building to release information on the amounts and costs of energy consumed in the building and the participation by the building in Demand-Side Management programs during a specified period. (See **Energy Supplier**.)

Barrel: A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.

Baseboard: A type of heating distribution equipment in which either electric resistance coils or finned tubes carrying steam or hot water are mounted behind shallow panels along the bottom of a wall. Baseboard heating distribution equipment relies on passive convection to distribute heated air in the space. Electric baseboards are an example of an Individual Space Heater. (See **Electric Baseboard** and **Individual Space Heater**.)

Boiler: A type of space-heating equipment consisting of a vessel or tank where heat produced from the combustion of such fuels as natural gas, fuel oil, or coal is used to generate hot water or steam. Many buildings have their own boilers, while other buildings have steam or hot water piped in from a central plant. For this survey, only boilers inside the building (or serving only that particular building) are counted as part of the building's heating system. Steam or hot water piped into a building from a central plant is considered district heat.

Btu (British Thermal Unit): A unit of energy consumed by or delivered to a building. A Btu is defined as the amount of energy required to increase the temperature of 1 pound of water by 1 degree Fahrenheit, at normal atmospheric pressure. Energy consumption is expressed in Btu to allow for consumption comparisons among fuels that are measured in different units. (See **Btu Conversion Factors** and **Metric Conversion Factors**.)

Energy Source	Btu Equivalent	Unit
Electricity	3,412	kilowatthour
Natural Gas	1,027	cubic foot
Distillate Fuel Oils (Nos. 1, 2, and 4)	138,690	gallon
Residual Fuel Oils (Nos. 5 and 6)	149,690	gallon

Note: A Btu of district hot water has been converted into equivalent pounds of steam by use of the conversion 1,000 Btu hot water≡1 pound steam.

Sources: Energy Information Administration, *Natural Gas Annual* (1992), p. 238, nor natural gas; *Monthly Energy Review* (October 1997), pp.145-149, for electricity, distillate, residual, and kerosene; and *Methodological Issues In the Nonresidential Buildings Energy Consumption Survey* (September 1983), pp. 173-175, nor district steam.

Btu Conversion Factors: The Btu conversion factors used for this survey are shown in the above table.

Building: A structure totally enclosed by walls extending from the foundation to the roof, containing over 1,000 square feet of floorspace and intended for human occupancy. Included in the survey as a specific exception were structures erected on pillars to elevate the first fully enclosed level but leaving the sides at ground level open. Excluded from the survey as nonbuildings were the following: structures (other than the exception just noted) that were not totally enclosed by walls and a roof (such as oil refineries, steel mills, and water towers), street lights, pumps, billboards, bridges, swimming pools, oil storage tanks, construction sites, and mobile homes and trailers, even if they housed commercial activity. The 1995 CBECS excluded parking garages and commercial buildings on manufacturing sites. These buildings were included in previous CBECS. (See **Commercial Building.**)

Building Floorspace: See **Floorspace.**

Building Shell (Envelope): The thermal envelope of the building, that is, the roof, exterior walls, and bottom floors that enclose conditioned space through which thermal energy may be transferred to or from the exterior.

Building Shell Conservation Features: Features designed to reduce the energy loss or gain through the shell or envelope of the building. (See **Insulation, Storms or Multiple Glazing, Tinted or Reflective Glass or Shading Film**, and **Exterior or Interior Shadings or Awnings.**)

Built-Up Roof: A roof covering consisting of several successive layers (each of which is called a "ply"), usually of roofing felt, with mopping of hot asphalt between layers and topped by a mineral-surfaced layer or by gravel embedded in a heavy coat of asphalt.

Cases or Cabinets: Refrigeration in open or closed units for the purpose of selling, displaying, or storing perishable materials. "Open" refers to cases or cabinets with no covers or with flexible covers made of plastic or some other material, hung in strips or curtains to stop the flow of warm air into the refrigerated space. "Closed" refers to units with doors that shut.

CDD: See **Cooling Degree-Days (CDD).**

Census Region and Division: A geographic area consisting of several States defined by the U.S. Department of Commerce, Bureau of the Census. See table on next page.

Central Chiller: A type of cooling equipment that is centrally located and that produces chilled water in order to cool air. The chilled water or cold air is then distributed throughout the building by use of pipes or air ducts, or both. These systems are also commonly known as "chillers," "centrifugal chillers," "reciprocating chillers" or "absorption chillers." Chillers are generally located in, or just outside, the building they serve. Chillers located at central plants are included under **District Chilled Water.**

Central Physical Plant: A plant that is owned by, and on the grounds of, a multibuilding facility that provides district heating, district cooling, or electricity to one or more buildings on the same facility. The central physical plant may be by itself in a separate building or may be located in a building where other activities occur. (See **Multibuilding Facility, District Heat,** or **District Chilled Water.**)

Region	Division	States
Northeast	New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
	Middle Atlantic	New Jersey, New York, and Pennsylvania
Midwest	East North Central	Illinois, Indiana, Michigan, Ohio, and Wisconsin
	West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
South	South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia
	East South Central	Alabama, Kentucky, Mississippi, and Tennessee
	West South Central	Arkansas, Louisiana, Oklahoma, and Texas
West	Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
	Pacific	Alaska, California, Hawaii, Oregon, and Washington

Centralized Water-Heating System: A type of water-heating equipment that heats and stores water for purposes other than space heating which provides hot water from a single location for distribution throughout a building. A residential-type tank water heater is a good example of a centralized water heater.

Climate Zone: One of five climatically distinct areas, defined by long-term weather conditions affecting the heating and cooling loads in buildings. The zones were determined according to the 45-year average (1931-1975) of the annual heating and cooling degree-days (base 65 degrees Fahrenheit). An individual building was assigned to a climate zone according to the 45-year average annual degree-days for its National Oceanic and Atmospheric Administration (NOAA) Division. The climate zones are defined below. (See **Heating Degree-Days (HDD)** and **Cooling Degree-Days (CDD).**)

Coal: A black or brownish-black solid, combustible substance formed by the partial decomposition of vegetable matter without access to air. The term includes anthracite, bituminous, and subbituminous coal, as well as the derivative of coal (formed by destructive distillation or imperfect combustion) known as coke. Data on the use of coal were collected but no consumption and expenditure data were collected. Coal is included in the "Other" category for the energy sources, main space-heating energy sources, and space-heating energy sources categories. (See **Energy Source.**)

Cogeneration: The sequential or simultaneous process in which useful heat/steam is generated, used in a variety of process applications, and then directed into a

Climate Zone	Average Annual Cooling Degree-Days	Average Annual Heating Degree-Days
1	Fewer than 2,000	More than 7,000
2	Fewer than 2,000	5,500 to 7,000
3	Fewer than 2,000	4,000 to 5,499
4	Fewer than 2,000	Fewer than 4,000
5	2,000 or More	Fewer than 4,000

turbine to generate electricity and/or mechanical work from the useful thermal energy still available for use. This process of electric generation may be electrically interconnected with an electric utility and grid, to deliver electricity to the grid as well as receive it from the grid. Neither generation of electricity without use of the byproduct heat, nor waste-heat recovery from processes other than electricity generation is included in the definition of cogeneration. (See **Electricity Generation.**)

Commercial: Neither residential, manufacturing/industrial, nor agricultural. (See **Residential, Manufacturing/ Industrial, Agricultural,** and **Commercial Building.**)

Commercial Building: A building with more than 50 percent of its floorspace used for commercial activities. Commercial buildings include, but are not limited to, the following: stores, offices, schools, churches, gymnasiums, libraries, museums, hospitals, clinics, warehouses, and jails. Government buildings were included except for buildings on sites with restricted access, such as some military bases. Agricultural buildings, parking garages, residences, and manufacturing/industrial buildings were excluded from the survey. In 1995, commercial buildings on manufacturing sites were also excluded. For a list of building types, see Appendix C, "Description of Building Types." (See **Building, Commercial, Residential, Manufacturing/Industrial, Agricultural,** and **Principal Building Activity.**)

Commercial Food Preparation: An energy-related function that has space specifically designed and equipped to meet the needs for preparing and serving food commercially. This includes kitchens in restaurants, diners, and other commercial institutions, such as schools. The term "commercial" also includes what is sometimes classified as "institutional"—that is, food preparation and serving areas in schools, hospitals, prisons, shelters, churches, and nursing homes. This category includes cafeterias where food is brought in and kept warm with steam tables or other warming devices until it is served. It does *not* include employee or student "lounge" areas with microwaves or other food preparation equipment and/or vending machines.

Commercial Refrigeration/Freezer Equipment: Refrigeration equipment is designed to maintain the stored items below room temperature but above the freezing point of water. Freezer equipment is designed to keep its contents below the freezing point of water (32 degrees Fahrenheit). This category includes: commercial refrigeration/freezer units for the sale or storage of perishable materials; residential-type refrigerators/freezers that are a necessary part of the building's principal activity; or any other commercial refrigeration equipment, excluding air conditioning. Data are collected on refrigeration/freezer equipment inside and/or adjacent to a building. (See **Cases or Cabinets** and **Walk-in Refrigeration Units.**)

Compact Fluorescent Light Bulb: A light bulb designed to replace screw-in incandescent light bulbs; they are often found in table lamps, wall sconces, and hall and ceiling fixtures of commercial buildings with residential type lights. They combine the efficiency of fluorescent lighting with the convenience of standard incandescent bulbs. Light is produced the same way as with other fluorescent lamps. Compact fluorescent bulbs have either electronic or magnetic ballasts.

Computer Room with Separate Air-Conditioning System: An energy-related function that has space specifically designed and equipped to meet the needs of computer equipment. The air-conditioning system for this area controls the temperature and/or humidity and is separate from that used to control the environment in other parts of the building. The space is usually separated by walls and doors. Sometimes such rooms have raised floors with ventilation equipment located under the floor.

Computer Terminal: Electronic equipment which consists of a computer screen (monitor) or terminal and a data entry device, such as a keyboard. Terminals used in offices usually look like personal computers (PC's) without the box or central processing unit (CPU) case. The "CPU" for the terminal is the mainframe computer located in a central place. (See **Personal Computer.**)

Concrete Panels: A wall construction panel made of concrete which is either prefabricated in a factory or poured at the site and then hoisted onto the structure. (See **Precast Concrete Panel.**)

Concrete Roof: A poured concrete roof, often intended to bear the load of a parking garage that occupies the roof area of a building.

Conditional Energy Intensity: Total consumption of a particular energy source(s) or fuel(s) divided by the total floorspace of buildings that use the energy source(s) or fuel(s), i.e., the ratio of consumption to en-

ergy source-specific floorspace. This measure is used in the fuel-specific detailed tables.

Consumption: The amount of energy used in, or delivered to, a building during a given period of time. Unless otherwise noted, all consumption statistics are site energy consumption, which includes electric utility sales to commercial buildings but excludes electrical system and district heat energy losses. Statistics presented are on an annual basis for the 365-day period of calendar year 1995. Site consumption is the amount of energy delivered to the site (building); no adjustment is made for the fuels consumed to produce electricity or district sources. Site consumption is also referred to as net energy. Primary consumption is the amount of site consumption plus losses that occur in the electricity generation process.

Data on energy consumption were not collected by end uses separately. For example, although it might be known that electricity was used in some buildings for heating, the consumption of electricity reported for those buildings would typically include other uses of electricity as well (such as lighting and water heating). Total consumption is reported as well as "Consumption per Square Foot"—the aggregate ratio of total consumption for a particular set of buildings to the total floorspace of those buildings; and "Consumption per Worker"—the aggregate ratio of total consumption to total number of workers (main shift). (See **Btu, Conversion Losses, Energy Supplier, Expenditures, Floorspace,** and **Workers(Main Shift).**)

Conversion Factors: See **Btu Conversion Factors** and **Metric Conversion Factors.**

Conversion Losses: The amount of energy lost during generation, transmission, and distribution of energy sources, particularly electricity, including plant and unaccounted-for uses. (See **Site Electricity** and **Primary Electricity.**)

Cooking: As an energy end use, the use of energy for commercial or institutional food preparation. Specifically, cooking that took place in a kitchen facility that was not part of a residence. It does not include employee lounge areas that are equipped with microwaves, other food preparation equipment, and/or vending machines. (See **Energy End Use.**)

Cooling: As an energy end use, the conditioning of air in a room for human comfort by a refrigeration unit (such as an air conditioner or heat pump) or by a central cooling or district cooling system that circulates chilled water. Excluded is the use of fans or blowers by themselves, without chilled air or water. (See **Energy End Use.**)

Cooling Degree-Days (CDD): A measure of how hot a location was over a period of time, relative to a base temperature. In this report, the base temperature is 65 degrees Fahrenheit, and the period of time is one year. The cooling degree-day is the difference between that day's average temperature and 65 degrees if the daily average is greater than 65; it is zero if the daily average temperature is less than or equal to 65. Cooling degree-days for a year are the sum of the daily cooling degree-days for that year.

Cooling Distribution Equipment: The part of a cooling system that distributes conditioned water and/or air throughout a building by means of pipes, ducts, or fans. Often the distribution serves both heating and cooling. (See **Duct, Individual Air Conditioner**, and **Fan-Coil Unit.**)

Cooling Equipment: The equipment used for cooling room air in a building for human comfort. (See **Residential- Type Central Air Conditioner, Heat Pump, Individual Air Conditioner, Central Chiller, District Chilled Water, Packaged Unit,** and **Evaporative Cooler [Swamp Cooler].**)

Cubic Foot (cf): As a natural gas measure, the volume of gas contained in a cube with an edge that is 1 foot long at standard temperature and pressure (60 degrees Fahrenheit and 14.73 pounds standard per square inch.) The thermal content varies by the composition of the gas. (See **Natural Gas** and **Btu Conversion Factors.**)

Degree-Days 45-Year Average: The average of the total annual heating and cooling degree-days (base, 65 Degrees Fahrenheit) in each NOAA Division, for the 45 years, 1931 through 1975. Computed from the Division's daily temperature averages for each year in question and used to assign individual buildings to climate zones. (See **NOAA Division** and **Climate Zone.**)

Demand: The rate of energy consumption per unit of time. The term is most commonly applied to electricity, for which demand is typically measured in watts (W) or kilowatts (kW). (See **Peak Demand.**)

Demand-Metered: Having a meter to measure peak demand (in addition to total consumption) during a

billing period. The 1995 CBECS collected data on metered demand only for electricity. Demand is not usually metered for other energy sources. (See **Peak Demand.**)

Distributed Water-Heating System: A type of system for heating water for purposes other than space-heating which is located at more than one place within a building. Often called a "point-of-use" water heating system, the water heater is located at the faucet and heats water only as required for immediate use. Because water is not heated until it is required, this equipment is more energy efficient.

District Chilled Water: Water chilled outside of a building in a central plant and piped into the building as an energy source for cooling. Chilled water may be purchased from a utility or provided by a central physical plant in a separate building that is part of the same multibuilding facility (for example, a hospital complex or university). (See **Energy Source.**)

District Heat: Steam or hot water produced outside of a building in a central plant and piped into the building as an energy source for space heating or another end use. The district heat may be purchased from a utility or provided by a central physical plant in a separate building that is part of the same multibuilding facility (for example, a hospital complex or university.) District heat includes district steam and/or district hot water. (See **Energy Source.**)

District Hot Water: District heat in the form of hot water. (See **District Heat.**)

District Steam: District heat in the form of steam. (See **District Heat.**)

Duct: A type of heating and/or cooling distribution equipment that is a passageway made of sheet metal or other suitable material to convey air from the heating, ventilating, and cooling systems to and from the point of use. (See **Air-Handling Unit.**)

Economizer Cycle: A heating, ventilation, and air-conditioning (HVAC) conservation feature consisting of indoor and outdoor temperature and humidity sensors, dampers, motors, and motor controls for the ventilation system to reduce the air-conditioning load. Wherever the temperature and humidity of the outdoor air are more favorable (lower heat content) than the temperature and humidity of the return air, more outdoor air is brought into the building.

Electric Baseboard: An individual space heater with electric resistance coils mounted behind shallow panels along the bottom of a wall. Electric baseboards rely on passive convection to distribute heated air to the space. (See **Individual Space Heater** and **Baseboard.**)

Electricity: Electric energy supplied to a building by a central utility via power lines or from a central physical plant in a separate building that is part of the same multibuilding facility. Electric power generated within a building for exclusive use in that building is specifically excluded from the definition of electricity as an energy source. (See **Energy Source.**)

Electricity Generation: As an energy end use, the *on-site* production of electricity by means of electricity generators on either a regular or emergency basis. (See **Energy End Use** and **Electricity.**)

EMCS: See **Energy Management and Control System (EMCS).**

Energy Audit: An energy management practice consisting of an evaluation to provide information on the physical and operating characteristics of a building and its energy uses and processes. The energy audit is conducted at the premise or facility by trained auditors. Audit services vary from simple walk-throughs to building management training programs and site-specific process and efficiency evaluations. Audits can be initiated or sponsored and performed by a local utility; a Federal, State or local government; a building owner; or an energy service contractor.

Energy Conservation Features: This category includes building shell conservation features, HVAC conservation features, and lighting conservation features incorporated by a building. (See **Building Shell Conservation Features, HVAC Conservation Features,** and **Lighting Conservation Features.**)

Energy-Efficient Ballasts: A lighting conservation feature consisting of an energy-efficient version of a conventional electromagnetic ballast. The ballast is the transformer for fluorescent and high-intensity discharge (HID) lamps and provides the necessary current, voltage, and wave-form conditions to operate the lamp. An energy-efficient ballast requires lower power input than a conventional ballast to operate HID and fluorescent lamps.

Energy End Use: A use for which energy is consumed in a building. Information on six specific end uses was collected in this survey (cooking, cooling, electricity generation, manufacturing, space heating, and water heating). End-use estimates for eight end uses and an "other" category are provided in this report (cooking, cooling, lighting, office equipment, refrigeration, space heating, ventilation, and water heating). (See **Cooking, Cooling, Electricity Generation, Lighting, Manufacturing, Office Equipment, Refrigeration, Space Heating,** and **Water Heating.**)

Energy Intensity: The ratio of consumption to unit of measurement (floorspace, number of workers, etc.) Energy intensity is usually given on an aggregate basis, as the ratio of the total consumption for a set of buildings to the total floorspace in those buildings. Conditional energy intensity and gross energy intensity are presented. The energy intensity can also be computed for individual buildings. (See **Conditional Energy Intensity** and **Gross Energy Intensity.**)

Energy Management and Control System (EMCS): An energy management feature that uses mini/microcomputers, instrumentation, control equipment, and software to manage a building's use of energy for heating, ventilation, air conditioning, lighting, and/or business-related processes. These systems can also manage fire control, safety, and security. Not included as an EMCS are time-clock thermostats.

Energy-Related Space Functions: The use of space in the building for one or more of three specific functions: commercial food preparation, computer rooms with separate air conditioning systems, and activities requiring large amounts of hot water. (See **Commercial Food Preparation, Computer Room with Separate Air-Conditioning System,** and **Activities with Large Amounts of Hot Water.**)

Energy Source: A type of energy or fuel consumed in a building. In this survey, information about the use of electricity, natural gas, fuel oil, district heat, district chilled water, propane, wood, coal, and solar thermal panels in commercial buildings was obtained from the building respondent. In most tables, wood, coal, and solar thermal panels are included in "Other" in the Energy Sources category. (See **Electricity, Natural Gas, Fuel Oil, District Heat, District Chilled Water, Liquefied Petroleum Gas [LPG], Propane, Wood, Coal** and **Solar Thermal Panels.**)

Energy Source-Specific Floorspace: Total floorspace of those buildings that use a particular fuel. (See **Conditional Energy Intensity.**)

Energy Supplier: Fuel companies supplying electricity, natural gas, fuel oil, or other sources of energy to a building. In the 1995 CBECS, only suppliers of electricity, natural gas, fuel oil, and district heat were sent the Energy Supplier Survey forms. (See **Energy Source.**)

Establishment: As defined by the Standard Industrial Classification Manual developed by the U.S. Office of Management and Budget, "an economic unit, generally at a single physical location where business is conducted or where services or industrial operations are performed." However, "establishment" is not synonymous with "building." In this survey, respondents were asked how many establishments or organizations occupy the building — i.e., hold or lease space in it on a full-time basis.

Evaporative Cooler (Swamp Cooler): A type of cooling equipment that turns air into moist, cool air by saturating the air with water vapor. It does not cool air by use of a refrigeration unit. This type of equipment is commonly used in warm, dry climates.

Expenditures: Funds spent for the energy consumed in, or delivered to, a building during a given period of time. All expenditure statistics are presented on an annual basis for calendar year 1995. The total dollar amount includes State and local taxes, fuel adjustment charges, system charges, and demand charges. The total dollar amount excludes merchandise, repair charges, and service charges. Data on energy expenditures were not collected by end uses separately. For example, although it might be known that electricity was used in some buildings for heating, the expenditures for electricity reported for those buildings would typically include other uses of electricity as well (such as lighting and water heating). Total expenditures were reported as well as "Expenditures per Million Btu"—the aggregate ratio of a group of buildings' total expenditures for a given fuel to the total consumption of that fuel and "Expenditures per Square Foot"—the aggregate ratio of a group of buildings' total expenditures for a given fuel to the total floorspace in those buildings. (See **Consumption.**)

Exterior or Interior Shadings or Awnings: A building shell conservation feature designed to reduce the transmission of light into a building. Exterior shadings

or awnings include any type of shading (including architectural) or awning on the outside of the building designed to limit solar penetration. Interior shadings are drapes, horizontal or vertical shades, mini blinds, or any other means of covering a window from the inside to limit the amount of solar or thermal penetration.

Fan-Coil Unit: A type of heating and/or cooling distribution equipment that circulates hot or chilled water with fans but without ducts. Fan-coil units have thermostatically controlled built-in fans that draw air from a room and then carry the air across finned tubes containing hot water, steam, or chilled water. The hot water, steam, or chilled water can be produced by equipment within the building or can be piped into the building as part of a district heating or cooling system. (See **Space Heating** and **Cooling**.)

Floors: The number of levels in the tallest section of a building that are actually considered a part of the building, including parking areas, basements, or other floors below ground level.

Floorspace: All the area enclosed by the exterior walls of a building, including indoor parking facilities, basements, hallways, lobbies, stairways, and elevator shafts. For aggregate floorspace statistics, floorspace was summed or aggregated over all buildings in a category (such as all office buildings in the United States). (See **Square Footage**.)

Fluorescent Light Bulb: Usually a long, narrow, white tube made of glass, coated on the inside with fluorescent material that is connected to an electric fixture at both ends of the light bulb; the may also be circular or U-shaped. The light bulb produces light by passing electricity through mercury vapor, causing the fluorescent coating to glow, or fluoresce. Excluded are compact fluorescent light bulbs, which are listed in a separate category. Fluorescent light bulbs are included in **Standard Fluorescent** in the **Lighting Equipment** category.

Forced Air through Vents: See **Air-Handling Unit**.

Fuel Oil: A liquid petroleum product used as an energy source that is less volatile than gasoline. Fuel oil includes distillate fuel oil (Nos. 1, 2, and 4), residual fuel oil (Nos. 5 and 6), and kerosene. (See **Energy Source**.)

Furnace: A type of space-heating equipment with an enclosed chamber where fuel is burned or electrical resistance is used to heat air directly without steam or hot water. The heated air is then distributed throughout a building, typically by air ducts.

Gallon: A volumetric measure equal to 4 quarts (231 cubic inches) used to measure fuel oil. One barrel equals 42 gallons.

Gas Transported for the Account of Others: Natural gas physically delivered to a building by a local utility, but not purchased from that utility. A separate transaction is made to purchase the volume of gas and the utility is paid for the use of its pipeline to deliver the gas. Included are quantities covered by long-term contracts and quantities involved in short-term or spot-market sales. Also called "Direct-Purchase Gas," "Spot-Market Gas," "Spot Gas," "Transported Gas," and "Self-Help Gas."

Geothermal Heat Pump: A renewable energy feature that uses the natural heat storage ability of the earth and/or the groundwater to heat and/or cool a building. The earth has the ability to absorb and store heat energy from the sun. To use that stored energy, heat is extracted from the earth through a liquid medium (groundwater or an anti-freeze solution) and is pumped to the heat pump or heat exchanger. There, the heat is used to heat the building. In the summer, the process is reversed and indoor heat is extracted from the building and transferred to the earth through the liquid. The geothermal heat pump is more efficient than an air-source heat pump.

Government Owned: A building owned by a Federal, State, or local government agency. The building may be occupied by agencies of more than one government and may also be shared with nongovernment establishments.

Gross Energy Intensity: Total consumption of a particular energy source(s) or fuel(s) by a group of buildings, divided by the total floorspace of those buildings, including buildings and floorspace where the energy source or fuel is not used, i.e., the ratio of consumption to gross floorspace. (See **Conditional Energy Intensity**.)

Gross Floorspace: Total floorspace of a group of buildings, regardless of which end uses are present or which energy sources or fuels are used within the buildings. (See **Energy Source-Specific Floorspace** and **Gross Energy Intensity**.)

Ground Source Heat Pump: See **Geothermal Heat Pump.**

Halogen Light Bulb: A type of incandescent light bulb that lasts much longer and is more efficient than a standard incandescent light bulb. The light bulb uses a halogen gas, usually iodine or bromine, that causes the evaporating tungsten to be redeposited on the filament, thus prolonging its life.

Heating Degree-Days (HDD): A measure of how cold a location was over a period of time, relative to a base temperature. In this report, the base temperature used is 65 degrees Fahrenheit, and the period of time is one year. The heating degree-day is the difference between that day's average temperature and 65 degrees if the daily average is less than 65; it is zero if the daily average temperature is greater than or equal to 65. Heating degree-days for a year are the sum of the daily heating degree-days for days that year.

Heating Distribution Equipment: The part of a heating system that distributes conditioned water and/or air throughout a building by means of pipes, ducts, or fans. Often the distribution equipment serves both heating and cooling. (See **Radiator, Baseboard, Duct, Individual Space Heater,** and **Fan-Coil Unit.**)

Heating Equipment: The equipment used for heating ambient air in a building, such as a heat pump, furnace, boiler, packaged-heating unit, individual space heater, and district steam or hot water piped in from outside the building. (See **Boiler, Furnace, Heat Pump, Individual Space Heater,** and **Packaged Unit.**)

Heating, Ventilation, and Air Conditioning (HVAC): The system or systems that condition air in a building.

Heat Pump: A type of heating and/or cooling equipment that draws heat into a building from outside and, during the cooling season, ejects heat from the building to the outside. Heat pumps are vapor-compression refrigeration systems whose indoor/outdoor coils are used reversibly as condensers or evaporators, depending on the need for heating or cooling.

High-Intensity Discharge (HID) Light Bulb: A lamp bulb that produces light by passing electricity through gas, which causes the gas to glow. Examples of HID lamps are mercury vapor lamps, metal halide lamps, and high- and low-pressure sodium lamps. HID lamps have an extremely long life and emit many more lumens per fixture than do fluorescent lights.

HVAC: See **Heating, Ventilation, and Air Conditioning (HVAC).**

HVAC Conservation Features: A building feature designed to reduce the amount of energy consumed by the heating, cooling, and ventilating equipment. This category includes the presence of a variable air-volume (VAV) system, an economizer cycle, and HVAC maintenance programs. (See **Variable Air-Volume (VAV) System, Economizer Cycle,** and **HVAC Maintenance.**)

HVAC Maintenance: An HVAC conservation feature consisting of a program of routine inspection and service for heating and/or cooling equipment. The inspection is performed on a regular basis, even if there are no apparent problems.

Imputation: A statistical method used to generate values for missing items, designed to minimize the bias of estimates based on the resulting data set. In this survey, missing responses were generated by using a Hot-Deck imputation procedure which used a random resampling from nonmissing cases to generate values for missing cases.

Incandescent Light Bulb: A light bulb that produces a soft warm light by electrically heating a tungsten filament so that it glows. Because so much of the energy is lost as heat, these are highly inefficient sources of light. Included in this category are the familiar type of light bulbs which screw into sockets, as well as energy-efficient incandescent bulbs, such as Reflector or R-Lamps (accent and task lighting), Parabolic Aluminized Reflector (PAR) lamps (flood and spot lighting), and Ellipsoidal Reflector (ER) lamps (recessed lighting).

Individual Air Conditioner: A type of cooling equipment installed in either walls or windows (with heat-radiating condensers exposed to the outdoor air). These self-contained units are characterized by a lack of pipes or duct work for distributing the cool air; the units condition only air in the room or areas where they are located.

Individual Space Heater: A type of space heating equipment that is a free-standing or a self-contained unit that generates and delivers heat to a local zone within the building. The heater may be permanently

mounted in a wall or floor or may be portable. Examples of individual space heaters include electric baseboards, electric radiant or quartz heaters, heating panels, gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters. These heaters are characterized by a lack of pipes or duct work for distributing hot water, steam, or warm air through a building.

Insulation: A building shell conservation feature consisting of material placed between the interior of a building (in the roof below the waterproofing layer or in the ceiling of the top floor in the building or between the exterior and interior walls of a building) and the outdoor environment to reduce the rate of heat loss to the environment or heat gain from the environment. Examples include glass-wool fill and foam board.

Intensity: The amount of a quantity per unit of measurement (floorspace, number of workers, etc.) This is a method of adjusting either the amount of energy consumed or expenditures spent, for the effects of various building characteristics, such as size of the building, number of workers, or number of operating hours, to facilitate comparisons of energy across time, fuels, and buildings. (See **Conditional Energy Intensity, Energy Intensity, Expenditures, Gross Energy Intensity**, and **Peak Intensity**.)

Kerosene: A petroleum distillate with properties similar to those of No. 1 fuel oil; used primarily in space heaters, cooking stoves, and water heaters. In this report, no distinction is made between kerosene and fuel oil. (See **Fuel Oil.**)

Kilowatthour (kWh): A unit of work or energy, measured as 1 kilowatt (1,000 watts) of power expended for 1 hour. One kWh is equivalent to 3,412 Btu. (See **Btu.**)

Lighting: The illumination of the interior of a building by use of artificial sources of light. End-use estimates are provided for lighting and eight other end-uses. (See **Energy End Use.**)

Lighting Conservation Features: A building feature or practice designed to reduce the amount of energy consumed by the lighting system. Lighting Conservation Features include natural lighting control sensors, manual dimmer switches, occupancy sensors, specular reflectors, time clocks or timed switches, and energy-efficient ballasts. (See **Natural Lighting Control Sensors, Manual Dimmer Switches, Occupancy Sensors, Specular Reflectors, Time Clocks or Timed Switches,** and **Energy-Efficient Ballasts.**)

Lighting Equipment: Light bulbs used to light a building's interior. (See **Incandescent Light Bulb, Standard Fluorescent Light Bulb, Compact Fluorescent Light Bulb, High-Intensity Discharge (HID) Light Bulb,** and **Halogen Light Bulb.**)

Liquefied Petroleum Gas (LPG): Any fuel gas supplied to a building in liquid form. Propane is the usual LPG, but gases such as butane, propylene, butylene, and ethane are also LPG. For this report, any LPG reported was assumed to be propane. (See **Energy Source, Propane,** and **Natural Gas.**)

Load Factor: The ratio of average demand to peak demand, usually computed only for electricity demand. In this report, load factors were determined on an annual basis, for calendar year 1995, as

$$\text{Load Factor} = \frac{\text{Annual Consumption (kWh)}/(366 \times 24 \text{ Hours})}{\text{Annual Peak Demand (kW)}}$$

Load Factors were computed only for individual buildings, not for aggregates, since aggregate peak demand could not be meaningfully determined. (See **Peak Demand.**)

LPG: See **Liquefied Petroleum Gas (LPG).**

Major Fuels: The energy sources or fuels for which consumption and expenditures data were collected in the 1995 CBECS. These fuels or energy sources are: electricity, fuel oil, natural gas, district steam, district hot water, and district chilled water. District chilled water is not included in any totals for the sum of major energy sources or fuels. (See **Energy Source.**)

Manual Dimmer Switches: A lighting conservation feature that changes the level of light in a building. These are like residential-style dimmer switches, which are not commonly used with fluorescent or HID lamps.

Manufacturing: As an energy end use, any of the energy-using operations required for manufacturing/industrial processes. (See **Energy End Use** and **Manufacturing/Industrial.**)

Manufacturing/Industrial: Activities involving the processing or procurement of goods, merchandise, raw materials, or food. Manufacturing/industrial buildings

were out of scope for the CBECS and were not listed. Unlike previous CBECS, the 1995 CBECS excluded commercial buildings that were located on manufacturing sites (such as offices on manufacturing sites). (See **Principal Building Activity**.)

Masonry: A general term covering wall construction and the use of masonry materials, such as brick, concrete block, stone, and tile that are set in mortar; also included is stucco. This category does not include concrete panels since concrete panels represent a different method of constructing buildings. Concrete panels are reported separately.

Mean: The simple average for a population characteristic is the sum of all the values in a population divided by the size of the population. For this report, population means are estimated by computing the weighted sum of the sample values, then dividing by the sum of the sample weights. For example, "Mean Hours per Week" is the weighted sum of the number of operating hours divided by the weighted sum of the number of buildings; "Mean Square Feet per Building" is the weighted sum of the total square feet divided by the weighted sum of the number of buildings; and "Mean Square Feet per Worker" is the weighted sum of the total square feet divided by the weighted sum of the total number of main shift workers. (See **Weight**.)

Median: The middle value of the population characteristic. Half the population has a value above the median and half has a value below. The median is different from the mean in that the median is not influenced much by extremes in the sample. An estimate of the mean square feet per building would be affected by the inclusion of some very large buildings and would not express square footage for a "typical" building. In contrast, the median square feet would not be so affected. For example, "Median Age of the Building" is the middle age of all CBECS buildings; "Median Hours per Week" is the middle number of operating hours of all CBECS buildings; "Median Square Feet per Building" is the middle size (in square feet) of all CBECS buildings; and "Median Square Feet per Worker" is the middle amount of the floorspace per worker of all CBECS buildings.

Metal Panels: An exterior wall construction material made of aluminum or galvanized steel panels fabricated in factories and fastened to the frame of the building to form outside walls. Pre-engineered metal buildings are also included in this category.

Metal Surfacing: Light-gauge metal sheets used for roofing.

Metric Conversion Factors: Estimates are presented in customary U.S. units. Floorspace estimates may be converted to metric units by using the relationship: 1 square foot is approximately equal to 0.0929 square meters. Energy estimates may be converted to metric units by using the relationship: 1 Btu is approximately equal to 1,055 joules; one kilowatthour is exactly equal to 3,600,000 joules; and one gigajoule (10^9 joules) is approximately 278 kilowatthours (kWh).

Metropolitan: Buildings located within an MSA, as defined by the U.S. Office of Management and Budget. (See **Metropolitan Statistical Area (MSA).**)

Metropolitan Statistical Area (MSA): As defined by the U.S. Office of Management and Budget: "a county or group of contiguous counties that contain (1) at least one city of 50,000 inhabitants or more (or "twin cities" with a combined population of at least 50,000), or (2) an urbanized area of at least 50,000 inhabitants and a total MSA population of at least 100,000 (75,000 in New England)." The contiguous counties are included in an MSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, MSA's consist of towns and cities, rather than counties.

More than One May Apply: A row stub accompanied by this phrase indicates overlapping categories, so that a particular building may be represented in more than one line under this stub. In general, row stubs without this designation are exclusive—that is, they divide the population of buildings into distinct groups, so that a particular building is represented in no more than one line under this stub.

Multibuilding Facility: A group of two or more buildings on the same site owned or operated by a single organization, business, or individual. Examples include university campuses and hospital complexes.

Multistage Area Probability Sample: A sample design executed in stages with geographic "clusters" of sampling units selected at each stage.

Natural Gas: Hydrocarbon gas (mostly methane) supplied as an energy source to individual buildings by pipelines from a central utility company. Natural gas does not refer to liquefied petroleum gas (LPG) or to

privately owned gas wells operated by a building owner. (See **Energy Source, Liquefied Petroleum Gas (LPG),** and **Propane.**)

Natural Lighting Control Sensors: A lighting conservation feature that takes advantage of sunlight to cut the amount of electric lighting used in a building by varying output of the lighting system in response to variations in available daylight. They are sometimes referred to as "daylighting controls" or "photocells."

NOAA Division: One of the 356 weather divisions designated by the National Oceanic and Atmospheric Administration (NOAA), encompassing the 50 contiguous United States and the District of Columbia. These divisions usually follow county borders to encompass counties with similar weather conditions. However, the NOAA division does not follow county borders when weather conditions vary considerably within a county, as is likely to be the case when a county borders the ocean or contains high mountains. A State contains an average of seven NOAA divisions; a NOAA division contains an average of nine counties. (See **Climate Zone.**)

Nongovernment Owned: Owned by an individual or a group, such as a private business, a nonprofit organization, a privately-owned utility company; or a church, synagogue, or other religious organization. The building may be occupied by more than one agency and may be owner occupied, nonowner occupied or unoccupied.

Nonmetropolitan: Buildings not located within an MSA as defined by the U.S. Office of Management and Budget. (See **Metropolitan Statistical Area (MSA).**)

Nonowner Occupied: Refers to a building that actually "does not have the owner or the owners' business located at the site." (If both the owner and other tenants are in a building, the building would be classified as owner occupied. Just because someone else is there, in and of itself, does not mean the building is nonowner occupied.)

Occupancy Sensors: A lighting conservation feature that uses motion or sound to switch lights on or off; also known as "ultrasonic switching." When movement is detected, the lights turn on and remain on as long as there is movement in the room. Occupancy sensors that detect sound work like ultrasonic switching; when sound is detected, the lights turn on. In this report, occupancy sensors refer to detecting movement, not sound.

Off-Hours Equipment Reduction: A method of conserving energy by changing the temperature setting or reducing the use of heating, cooling, or lighting equipment either manually or automatically when the building is closed.

Office Equipment: A class of energy-using equipment including typewriters, copiers, cash registers, computer terminals, personal computers, printers, mainframe computer systems, and other miscellaneous office equipment. End-use estimates are provided for office equipment and eight other end-uses. (See **Energy End Use.**)

Owner Occupied: Refers to a building that has the owner or the owner's business represented at the site.

Ownership and Occupancy: Ownership refers to the individual, agency, or organization that owns the building. Building ownership is grouped into Government ownership (Federal, State, or local) and Nongovernment ownership (a private business or nonprofit organization owned by a group or an individual). Occupancy refers to the individual, agency, or organization that leases or holds the space on a full-time basis. (See **Owner Occupied** and **Nonowner Occupied.**)

Packaged Air-Conditioning Unit: See **Packaged Unit.**

Packaged-Heating Unit: See **Packaged Unit.**

Packaged Unit: A type of heating and/or cooling equipment that is assembled at a factory and installed as a self-contained unit. Packaged units are in contrast to engineer-specified units built up from individual components for use in a given building. Some types of electric packaged units are also called "Direct Expansion," or DX, units.

Passive Solar Features: A renewable energy feature with a deliberate approach to designing buildings to make use of natural ways to heat buildings in the winter and keep them cool in the summer. No external mechanical power is used to move the collected solar heat. Passive solar design features include structuring the building on the lot so that large window areas face south to capture sunlight during the winter months; building "overhangs" on the south-facing windows to keep the sun from over heating the building during the

summer; using certain types of building material to absorb heat during the day and release heat at night; and planting trees and vegetation to minimize heat gain in the building in the summer.

Peak Demand: The maximum rate of energy consumption per unit of time over a period of measurement (also called "peak load"). Peak demand (presented only for electricity) was determined on an annual basis for calendar year 1995 and was computed only for individual buildings, not for aggregates, since aggregate peak demand could not be meaningfully determined. (See **Demand.**)

Peak Intensity: The ratio of peak demand to floorspace, usually determined only for electricity. Peak intensity was computed only for individual buildings, not for aggregates, since aggregate peak demand could not be meaningfully determined. (See **Peak Demand.**)

Peak Load: See **Peak Demand.**

Percent Lit When Closed: The percentage of a building's square footage that is lit electrically during all hours other than the usual operating hours.

Percent Lit When Open: The percentage of a building's square footage that is lit electrically during usual operating hours.

Percent of Floorspace Cooled: The percentage of a building's square footage that is cooled to meet the comfort requirements of the occupants.

Percent of Floorspace Heated: The percentage of a building's square footage designed to be heated to at least 50 degrees Fahrenheit.

Personal Computer (PC): A self-contained electronic system with all the components necessary to perform computerized functions including a screen (monitor), keyboard and/or mouse, and a central processing unit. (See **Computer Terminal.**)

Photovoltaic (PV) Arrays: A renewable energy feature that is a device that produces electrical current by converting light or similar radiation.

Precast Concrete Panel: A wall construction material usually made in factories and delivered to the construction site, where they are hoisted onto the structure. Sometimes concrete panels are poured at the site and then hoisted on the structure. The panels are either solid or insulated. They can have plain, colored, or textured finishing. Pre-cast concrete panels are included in **Concrete Panels** in the **Predominant Exterior Wall Material** category.

Predominant Exterior Wall Material: The major type of exterior wall construction material used in a building. (See **Masonry, Siding, Shingles, Metal Panels, Concrete Panels,** and **Window or Vision Glass.**)

Predominant Roof Material: The material used the most for the roof of a building. See **Built-Up Roof, Shakes, Shingles, Metal Surfacing, Synthetic or Rubber Roofing, Wooden Materials, Slate or Tile Shingles,** and **Concrete Roof.**

Primary Electricity: The amount of electricity delivered to commercial buildings adjusted to account for the fuels used to produce the electricity. That is, site electricity plus the conversion losses in the generation process at the utility plant. (See **Conversion Losses, Electricity** and **Site Electricity.**)

Primary Sampling Unit (PSU): A sampling unit selected at the first stage in a multistage area probability sample. A PSU typically consists of one to several contiguous counties—for example, an MSA with surrounding suburban counties.

Primary Space-Heating Energy Source: The energy source used to heat most of the heated floorspace in a building most of the time.

Principal Building Activity: The activity or function occupying the most floorspace in a building. The categories were designed to group buildings that have similar patterns of energy consumption. Examples of various types of principal activity include office, health care, lodging, and mercantile and service. (See the section on Description of Building Types.)

Propane: A gaseous petroleum product that liquefies under pressure. Propane is the major component of liquefied petroleum gas, or LPG. Any LPG reported in the CBECS was assumed to be propane. (See **Liquefied Petroleum Gas (LPG).**)

Radiator: A type of heating distribution equipment that is usually visibly exposed within the room or space to be heated. It transfers heat from steam or hot water by radiation to objects within visible range and by conduction to the surrounding air, which, in turn, is circu-

lated by natural convection. Typically, a radiator is a freestanding, cast-iron fixture.

Refrigeration Equipment: See **Commercial Refrigeration/Freezer Equipment.**

Reheating Coils: A part of some air-conditioning systems, they are electric coils in air ducts used primarily to raise the temperature of circulated air after it was over cooled to remove moisture. Some buildings report reheating coils as their sole heating source. (See **Air-Handling Unit, Cooling,** and **Space Heating.**)

Residential: Activities related to use as a dwelling for one or more households. Buildings that contained commercial activities but had 50 percent or more of their floorspace devoted to residential activities were considered out-of- scope. (See **Principal Building Activity** and **Commercial Building.**)

Residential-Type Central Air Conditioner: A type of cooling equipment in which there are four basic parts: (1) a condensing unit, (2) a cooling coil, (3) ductwork, and (4) a control mechanism, such as a thermostat. There are two basic configurations of residential central systems: (1) a "split system," where the condensing unit is located outside and the other components are inside, and (2) a packaged-terminal air-conditioning (PTAC) unit that both heats and cools or cools only. This system contains all four components encased in one unit and is usually found in a "utility closet." If the residential type is a "PTAC," it is considered a "Packaged air-conditioning unit."

Roof or Ceiling Insulation: See **Insulation.**

RSE Column Factor: An adjustment factor that appears above each column of the detailed tables and is used to compute RSE's. The column factor is equal to the geometric mean of the RSE's in a particular column of the main tables. (See **RSE or Relative Standard Error** and **RSE Row Factor.**)

RSE or Relative Standard Error: A measure of the reliability or precision of a survey statistic. Variability occurs in survey statistics because the different samples that could be drawn would each produce different values for the survey statistics. The RSE is defined as the standard error (the square root of the variance) of a survey estimate, divided by the survey estimate and multiplied by 100. For example, an RSE of 10 percent means that the standard error is one-tenth as large as the survey estimate. For a survey estimate in a particular row and column of a table (that is, a particular "cell"), the approximate RSE is obtained by multiplying the RSE row factor by the RSE column factor for that cell.

RSE Row Factor: An adjustment factor that appears to the right of each row of the detailed tables and is used to compute RSE's. The row factor is equal to the geometric mean of the RSE's in a particular row of the main tables. (See **RSE or Relative Standard Error** and **RSE Column Factor.**)

Secondary Heating Fuel: Fuels used in secondary space-heating equipment. When the building does not use a secondary space-heating equipment, the secondary space-heating fuel that is used in the main space-heating equipment is not included in the tabulations. This occurs when, for example, wood and coal are both used in a furnace but wood is named the main space-heating fuel. Coal, in this case, is not tabulated.

Shakes: Flat pieces of weatherproof material laid with others in a series of overlapping rows as covering for roofs and sometimes the sides of buildings. Shakes are similar to wood shingles, but, instead of having a cut and smoothly planed surface, shakes have textured grooves and a rough or "split" rustic appearance.

Shingles: Flat pieces of weatherproof material laid with others in a series of overlapping rows as covering for roofs and sometimes the walls of buildings. Shingles are manufactured in a variety of materials, including fiberglass, plastic, baked clay, tile, asbestos, asphalt, aluminum, and wood. Wood Shingles are included in "Wooden" in the **Predominant Roof Material** category.

Siding: An exterior wall covering material made of wood, plastic (including vinyl), or metal. The structural walls may be masonry or wood. Siding is generally produced in the shape of boards and applied to the outside of a building in overlapping rows.

Site Electricity: The amount of electricity delivered to commercial buildings. (See **Conversion Losses, Electricity** and **Primary Electricity.**)

Slate or Tile Shingles: A type of roofing material. Tile refers to any thin, square, or rectangular piece of baked clay, stone, or concrete used as a roofing material. Slate refers to a particular stone used for roofing.

Solar Thermal Panels: A system that actively concentrates thermal energy from the sun by means of solar collector panels. The panels typically consist of flat, sun-oriented boxes with transparent covers, containing water tubes or air baffles under a blackened heat absorbent panel. The energy is usually used for space heating, water heating, and for heating swimming pools. Passive collection of solar thermal energy is not included in this definition. (See **Energy Source.**)

Space Heating: As an energy end use, the use of mechanical equipment (including wood stoves and active solar heating devices) to heat all, or part, of a building to at least 50 degrees Fahrenheit. (See **Energy End Use.**)

Space in Building Vacant for at Least Three Consecutive Months: See **Vacant.**

Specular Reflectors: A lighting conservation feature that is the mirror-like backing of a fluorescent lighting fixture designed specifically to reflect light into the room. The materials and shape of the reflector are designed to reduce absorption of light within the fixture, while delivering light in the desired angular pattern. The most common materials used are silver (highest reflectivity) and aluminum (lowest cost).

Square Footage: Floorspace, in units of square feet. One square foot is approximately equal to 0.0929 square meters. (See **Floorspace.**)

Standard Error: A measure of the precision of an estimate, equal to the square root of the variance. (See **Variance** and **RSE or Relative Standard Error.**)

Standard Fluorescent Light Bulb: See **Fluorescent Light Bulb.**

Storms or Multiple Glazing: A building shell conservation feature consisting of storm windows, storm doors, or double- or triple-pane glass that are placed on the exterior of the building to reduce the rate of heat loss. For **Storm Doors,** the feature consists of a second door installed outside or inside a prime door creating an insulating air space. Included are sliding glass doors made of double glass or of insulating glass, such as thermopane, double- or triple-pane glass as well as sliding glass doors with glass or plexiglas installed outside or inside of the door. For **Storm Windows,** the feature consists of a window or glazing material placed outside or inside a window creating an insulating air space. Windows with double glass or thermopanes are considered storm windows as well as windows with glass or plexiglas placed on the outside or inside of the window. Plastic material(s) over windows or doors are counted only if they can be used year after year.

Summer and Winter Peaking: Having the annual peak demand reached both during the summer months (May through October) and during the winter months (November through April). (See **Peak Demand.**)

Summer Peaking: Having the annual peak demand during the summer—May through October. (See **Peak Demand.**)

Swamp Cooler: See **Evaporative Cooler (Swamp Cooler).**

Synthetic or Rubber Roofing: A layer of heavy gauge plastic or rubber used for roofing.

Time Clocks or Timed Switches: A lighting conservation feature which has automatic controls that turn lights off and on at predetermined times.

Tinted or Reflective Glass, or Shading Film: A building shell conservation feature consisting of tinted or reflective glass or shading films installed on the exterior glazing of a building to reduce the rate of solar penetration into the building.

Trillion Btu: Equivalent to 1,000,000,000,000 (or 10^{12}) Btu. (See **Btu.**)

Vacant: A building was considered vacant if 50 percent or more of the floorspace was not occupied by any tenant or establishment at the time of the interview. A vacant building may contain occupants who are using up to 50 percent of the floorspace. For all buildings, data were collected on whether the building had any floorspace that was vacant for three or more consecutive months and on the number of months the building was in use. (See **Principal Building Activity.**)

Variable Air-Volume (VAV) System: An HVAC conservation feature usually referred to as "VAV" that supplies varying quantities of conditioned (heated or cooled) air to different parts of a building according to the heating and cooling needs of those specific areas.

Variance: A measure of the variability of a set of observations that are subject to some chance variation, equal to the expected squared difference between a single observation and the average of all possible observa-

tions obtained in the same manner. The variance is the square of the standard error of estimates. The variance indicates the likely difference between the value computed from the CBECS sample and the average of the values that could have been computed from all possible samples that might have been obtained by the same sample selection process. (See **Standard Error**.)

Ventilation: The circulation of air through a building to provide fresh air to the occupants and to deliver heating and cooling to the occupied spaces. End-use estimates are provided for ventilation and eight other end uses. (See **Energy End Use**.)

Walk-In Refrigeration Units: Refrigeration/freezer units (within a building) that are large enough to walk into. They may be portable or permanent, such as a meat storage locker in a butcher store. Walk-in units may or may not have a door, plastic strips, or other flexible covers.

Wall Insulation: See **Insulation**.

Water Heating: As an energy end use, the use of energy to heat water for purposes other than space heating. (See **Energy End Use**.)

Water-Heating Equipment: Automatically controlled, thermally insulated equipment designed for heating water at temperatures less than 180 degrees Fahrenheit for other than space heating purposes. This survey collected data to distinguish between two types of water heating equipment: centralized and distributed. (See **Centralized Water-Heating System** and **Distributed Water-Heating System**.)

Weekly Operating Hours: The number of hours per week that a building is used, excluding hours when the building is occupied only by maintenance, security, or other support personnel. For buildings with a schedule that varied during the year, "Weekly Operating Hours" refer to the total weekly hours for the schedule most often followed. If operating hours varied throughout a building, the usual operating hours of the largest business in the building (based on floorspace) determined the operating hours for the building.

Weight: The number of buildings in the United States that a particular sample building represents. To estimate the total value of an attribute (such as square footage) in the U.S. commercial buildings population as a whole, each sample building's value is multiplied by the building's weight. Summing (aggregating) the weighted sample values provides an estimate of the national total.

Well Water for Cooling: A renewable energy feature for cooling that uses water from a well drilled specifically for that purpose. The temperature of the ground water remains relatively constant and provides a means of obtaining 55-degree Fahrenheit water with no mechanical cooling. Usually it is used for heat rejections in a water source heat pump.

Wind Generation: A renewable energy feature that converts wind energy into mechanical energy. The mechanical energy is then used to generate electricity. Wind energy generators are distinguished by a propeller which rotates with the wind and a tall tower on which the propeller and generator are mounted.

Window or Vision Glass: An exterior wall construction material made of glass that can be seen through from the inside of the building, like the glass found in windows. Walls that are glass-covered or constructed of non-transparent material are excluded from this category.

Winter Peaking: Having the annual peak demand during the winter—November through April. (See **Peak Demand**.)

Wood: As an energy source, wood logs, chips, or wood products that are used as fuel. (See **Energy Source**.)

Wooden Materials: Wood shingles, wood shakes, or other wooden materials used as roofing materials or exterior wall materials. Wooden materials are included in **Siding or Shingles** in the **Predominant Exterior Wall Material** category.

Workers (Main Shift): The number of people working in a building during the main shift on a typical workday during the year. The main shift is the time when most people are in the building. Included in this definition are self-employed workers and volunteers. Excluded are customers, patients, and students, unless they are working for establishments in the building. Also excluded are employees who work out of the office, such as salespeople who report into the office, delivery people with routes, and messengers.

Year Constructed: The year in which the major part or the largest portion of a building was constructed.

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