# Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |
| **Building Floorspace (Square Feet)** | | | | | |
| 1,001 to 5,000 | Q | Q | Q | Q | Q |
| 5,001 to 10,000 | Q | Q | Q | Q | Q |
| 10,001 to 25,000 | 18 | 289 | 16 | Q | Q |
| 25,001 to 50,000 | 10 | 369 | 35 | Q | Q |
| 50,001 to 100,000 | 8 | 574 | 70 | Q | Q |
| 100,001 to 200,000 | 9 | 1,399 | 148 | 165 | Q |
| 200,001 to 500,000 | 4 | 1,018 | 286 | 123 | Q |
| Over 500,000 | 2 | 1,693 | 852 | 169 | 1,810 |
| **Principal Building Activity** | | | | | |
| Education | 26 | 1,145 | 45 | 134 | Q |
| Food Sales | N | N | N | N | N |
| Food Service | Q | Q | Q | Q | Q |
| Health Care | 2 | 493 | Q | Q | Q |
| Inpatient | 1 | 436 | 563 | Q | Q |
| Outpatient | Q | Q | Q | Q | Q |
| Lodging | 6 | 345 | Q | Q | Q |
| Retail (Other Than Mall) | Q | Q | Q | Q | Q |
| Office | 16 | 1,569 | 97 | 128 | 1,441 |
| Public Assembly | 6 | 547 | 89 | Q | Q |
| Public Order and Safety | Q | Q | Q | Q | Q |
| Religious Worship | Q | Q | Q | Q | Q |
| Service | Q | Q | Q | Q | Q |
| Warehouse and Storage | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | |
| Before 1920 | 6 | 294 | 46 | Q | Q |
| 1920 to 1945 | 12 | 1,207 | 99 | 129 | 1,423 |
| 1946 to 1959 | 15 | 705 | 49 | Q | Q |
| 1960 to 1969 | 13 | 853 | 64 | 117 | Q |
| 1970 to 1979 | 6 | 588 | 101 | 77 | Q |
| 1980 to 1989 | 5 | 888 | 192 | Q | Q |
| 1990 to 1999 | 8 | 705 | 87 | Q | Q |
| 2000 to 2003 | Q | Q | Q | Q | Q |
| **Census Region and Division** | | | | | |
| Northeast | 17 | 1,363 | 78 | 165 | 2,136 |
| New England | Q | Q | Q | Q | Q |
| Middle Atlantic | 12 | 1,082 | 90 | Q | Q |
| Midwest | 13 | 1,648 | 126 | 225 | 2,329 |
| East North Central | 8 | 1,420 | 189 | 192 | Q |
| West North Central | Q | Q | Q | Q | Q |
| South | 21 | 1,766 | 83 | 182 | Q |
| South Atlantic | 15 | 1,243 | 86 | 117 | Q |
| East South Central | Q | Q | Q | Q | Q |
| West South Central | Q | Q | Q | Q | Q |
| West | 15 | 667 | 44 | Q | Q |
| Mountain | 7 | 253 | 35 | Q | Q |
| Pacific | 8 | 413 | 53 | Q | Q |

# Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |
| **Climate Zone: 30-Year Average** | | | | | |
| Under 2,000 CDD and -- | | | | | |
| More than 7,000 HDD | 6 | 825 | 131 | 88 | Q |
| 5,500-7,000 HDD | 27 | 1,784 | 66 | 255 | Q |
| 4,000-5,499 HDD | 13 | 1,349 | 100 | 140 | Q |
| Fewer than 4,000 HDD | 13 | 1,025 | 78 | 101 | Q |
| 2,000 CDD or More and -- | | | | | |
| Fewer than 4,000 HDD | 7 | 460 | 65 | Q | Q |
| **Number of Floors** | | | | | |
| One | 14 | Q | 44 | Q | Q |
| Two | 19 | 515 | 27 | Q | Q |
| Three | 11 | 458 | 41 | Q | Q |
| Four to Nine | 20 | 2,473 | 125 | 308 | 3,462 |
| Ten or More | 3 | 1,366 | 496 | 123 | 1,454 |
| **Number of Workers (main shift)** | | | | | |
| Fewer than 5 | 20 | 853 | 42 | Q | Q |
| 5 to 9 | Q | Q | Q | Q | Q |
| 10 to 19 | Q | Q | Q | Q | Q |
| 20 to 49 | 16 | 667 | 41 | 96 | Q |
| 50 to 99 | 7 | 474 | 67 | Q | Q |
| 100 to 249 | 9 | 1,050 | 117 | 124 | Q |
| 250 or More | 5 | 2,191 | 406 | 232 | 2,502 |
| **Weekly Operating Hours** | | | | | |
| Fewer than 40 | Q | Q | Q | Q | Q |
| 40 to 48 | 12 | 493 | 41 | Q | Q |
| 49 to 60 | 18 | 1,590 | 87 | 176 | 2,041 |
| 61 to 84 | 11 | 785 | 69 | 73 | Q |
| 85 to 167 | 9 | 790 | 91 | 91 | Q |
| Open Continuously | 11 | 1,605 | 144 | 210 | 2,486 |
| **Ownership and Occupancy** | | | | | |
| Nongovernment Owned | 25 | 2,148 | 87 | 247 | 2,746 |
| Owner Occupied | 16 | 1,421 | 87 | 185 | 2,078 |
| Nonowner Occupied | 8 | 698 | 86 | Q | Q |
| Unoccupied | Q | Q | Q | Q | Q |
| Government Owned | 42 | 3,295 | 78 | 387 | 4,499 |
| Federal | 4 | Q | 219 | Q | Q |
| State | 27 | 1,694 | 63 | 188 | Q |
| Local | 11 | 653 | 59 | Q | Q |
| **Vacancy Status** | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q |
| Mostly Vacant | N | N | N | N | N |
| Partially Vacant | 12 | 1,483 | 119 | 164 | 1,708 |
| Not At All Vacant | 54 | 3,834 | 71 | 461 | 5,427 |
| **Number of Establishments** | | | | | |
| One | 45 | 3,063 | 68 | 384 | 4,361 |
| 2 to 5 | 15 | 1,301 | 85 | 156 | Q |
| 6 to 10 | Q | Q | Q | Q | Q |
| 11 to 20 | Q | Q | Q | Q | Q |
| More than 20 | 1 | 436 | 699 | Q | Q |
| Currently Unoccupied | Q | Q | Q | Q | Q |

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## Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |
| **Predominant Exterior Wall Material** | | | | | |
| Brick, Stone or Stucco | 53 | 3,380 | 64 | 408 | 4,728 |
| Concrete (Block or Poured) | 6 | 702 | 110 | Q | Q |
| Concrete Panels | 4 | 787 | 176 | Q | Q |
| Siding or Shingles | Q | Q | Q | Q | Q |
| Metal Panels | Q | Q | Q | Q | Q |
| Window Glass | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | |
| Built-Up | 23 | 2,607 | 112 | 263 | 3,144 |
| Shingles (Not Wood) | 14 | 215 | 16 | Q | Q |
| Metal Surfacing | Q | Q | Q | Q | Q |
| Synthetic or Rubber | 17 | 1,339 | 77 | 171 | Q |
| Slate or Tile | 4 | 270 | 72 | Q | Q |
| Wooden Materials | Q | Q | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | |
| Any Type of Renovation Since 1980 | 19 | 1,774 | 92 | 197 | 2,170 |
| Addition or Annex | 3 | 481 | 186 | Q | Q |
| Reduction In Floorspace | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 12 | 1,298 | 109 | 143 | 1,595 |
| Wall or Roof Replacement | 9 | 897 | 99 | 99 | Q |
| Interior Wall Re-Configuration | 7 | 1,088 | 158 | 124 | 1,315 |
| HVAC Equipment Upgrade | 10 | 1,381 | 137 | 128 | 1,520 |
| Lighting Upgrade | 16 | 1,413 | 88 | 157 | 1,706 |
| Window Replacement | 6 | 725 | Q | Q | Q |
| Plumbing System Upgrade | 8 | 963 | Q | 103 | 1,211 |
| Insulation Upgrade | 3 | 401 | 144 | Q | Q |
| Other Renovation | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 33 | 1,873 | 57 | 229 | Q |
| Building Newer than 1980 | 15 | 1,796 | 122 | 208 | Q |
| **Energy Sources (more than one may apply)** | | | | | |
| Electricity | 67 | 5,443 | 81 | 634 | 7,245 |
| Natural Gas | 25 | 2,444 | 100 | 305 | 3,578 |
| Fuel Oil | 4 | 1,731 | 393 | 177 | 1,960 |
| District Heat | 67 | 5,443 | 81 | 634 | 7,245 |
| District Chilled Water | 25 | 2,311 | 93 | 309 | Q |
| Propane | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q |

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## Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |
| **Space-Heating Energy Sources** | | | | | |
| District Heat | 65 | 5,198 | 80 | 633 | 7,238 |
| District Heat Main | 63 | 4,907 | 77 | 618 | 7,089 |
| District Heat Secondary | 2 | 340 | 167 | Q | Q |
| Other Excluding District Heat | Q | Q | Q | Q | Q |
| Buildings without Heating | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | |
| Electricity | Q | Q | Q | Q | Q |
| Natural Gas | Q | Q | Q | Q | Q |
| Fuel Oil | N | N | N | N | N |
| District Heat | 63 | 4,907 | 77 | 618 | 7,089 |
| Propane | N | N | N | N | N |
| Other | N | N | N | N | N |
| **Cooling Energy Sources** | | | | | |
| District Heat | Q | Q | Q | Q | Q |
| Other Excluding District Heat | 54 | 4,204 | 78 | 493 | 5,743 |
| Buildings without Cooling | Q | Q | Q | Q | Q |
| **Water-Heating Energy Sources** | | | | | |
| District Heat | 27 | 3,088 | 113 | 329 | 3,690 |
| Other Excluding District Heat | 34 | 1,543 | 46 | 194 | Q |
| Buildings without Water Heating | Q | Q | Q | Q | Q |
| **Cooking Energy Sources** | | | | | |
| District Heat | 2 | 588 | 361 | 77 | Q |
| Other Excluding District Heat | 7 | 1,338 | Q | 142 | 1,547 |
| Buildings without Cooking | 58 | 3,517 | 61 | 415 | 4,849 |
| **Energy End Uses (more than one may apply)** | | | | | |
| Buildings with Space Heating | 67 | 5,378 | 81 | 634 | 7,242 |
| Buildings with Cooling | 55 | 4,653 | 85 | 535 | 6,079 |
| Buildings with Water Heating | 61 | 4,631 | 76 | 523 | 5,984 |
| Buildings with Cooking | 9 | 1,926 | 214 | 219 | 2,396 |
| Buildings with Manufacturing | Q | Q | Q | Q | Q |
| Buildings with Electricity Generation | 7 | 2,121 | 309 | 237 | 2,772 |
| **Percent of Floorspace Heated** | | | | | |
| Not Heated | Q | Q | Q | Q | Q |
| 1 to 50 | Q | Q | Q | Q | Q |
| 51 to 99 | 5 | 636 | 116 | 57 | Q |
| 100 | 60 | 4,716 | 78 | 575 | 6,635 |

# Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |
| **Heating Equipment (more than one may apply)** | | | | | |
| Heat Pumps | 2 | 413 | 208 | Q | Q |
| Packaged Heat Pumps | Q | Q | Q | Q | Q |
| Split-System Heat Pumps | Q | Q | Q | Q | Q |
| Individual Room Heat Pumps | Q | Q | Q | Q | Q |
| Furnaces | Q | Q | Q | Q | Q |
| Individual Space Heaters | 5 | 605 | 124 | 50 | Q |
| District Heat | 65 | 5,166 | 80 | 628 | 7,177 |
| Boilers | Q | Q | Q | Q | Q |
| Packaged Heating Units | 3 | 589 | 191 | Q | Q |
| Other | Q | Q | Q | Q | Q |
| **Water Heating Equipment** | | | | | |
| Centralized System | 43 | 2,671 | 62 | 286 | 3,266 |
| Distributed System | 5 | 483 | 89 | Q | Q |
| Combination of Centralized and Distributed System | 12 | 1,477 | 119 | 170 | 1,811 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | |
| Commercial Food Preparation | 9 | 1,926 | 214 | 219 | 2,396 |
| Activities with Large Amounts of Hot Water | 19 | 2,259 | 121 | 273 | 3,003 |
| Separate Computer Area | 19 | 3,268 | 172 | 374 | 4,282 |
| **HVAC Conservation Features (more than one may apply)** | | | | | |
| Variable Air-Volume System | 26 | 3,017 | 117 | 368 | 4,184 |
| Economizer Cycle | 22 | 3,045 | 140 | 334 | 3,896 |
| HVAC Maintenance | 60 | 5,154 | 86 | 612 | 6,987 |
| Energy Management and Control System (EMCS) | 18 | 2,782 | 158 | 320 | 3,636 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | |
| Heating | 30 | 3,140 | 105 | 356 | 4,048 |
| Cooling | 29 | 3,378 | 117 | 390 | 4,461 |
| Lighting | 49 | 3,624 | 73 | 406 | 4,534 |
| Office Equipment | 23 | 1,325 | 58 | Q | Q |

## Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003

| | All Buildings* Using District Heat | | | District Heat Consumption | District Heat Expenditures |
|---|---|---|---|---|---|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | Total (million dollars) |
| **All Buildings*** | 67 | 5,443 | 81 | 634 | 7,245 |

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - http://www.eia.doe.gov/emeu/cbecs.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet. In the 1999 CBECS, there were no responding malls in the sample using district heat.

[a] The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample that use district heat.

Notes: ● Statistics for the "Energy End Uses" category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.

# Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings*** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| **Building Floorspace (Square Feet)** | | | | | | |
| 1,001 to 5,000 | Q | Q | Q | Q | Q | Q |
| 5,001 to 10,000 | Q | Q | Q | Q | Q | Q |
| 10,001 to 25,000 | Q | Q | Q | Q | Q | Q |
| 25,001 to 50,000 | Q | Q | Q | Q | Q | Q |
| 50,001 to 100,000 | Q | Q | Q | Q | Q | Q |
| 100,001 to 200,000 | 17,452 | 118.10 | Q | Q | Q | Q |
| 200,001 to 500,000 | 34,658 | 121.16 | 143.2 | Q | Q | Q |
| Over 500,000 | 85,182 | 99.92 | 52.4 | 911.2 | 1.07 | 10.70 |
| **Principal Building Activity** | | | | | | |
| Education | 5,223 | 116.63 | Q | Q | Q | Q |
| Food Sales | N | N | N | N | N | N |
| Food Service | Q | Q | Q | Q | Q | Q |
| Health Care | Q | Q | Q | Q | Q | Q |
| Inpatient | Q | Q | Q | Q | Q | Q |
| Outpatient | Q | Q | Q | Q | Q | Q |
| Lodging | Q | Q | Q | Q | Q | Q |
| Retail (Other Than Mall) | Q | Q | Q | Q | Q | Q |
| Office | 7,933 | 81.53 | 35.7 | 89.4 | 0.92 | 11.27 |
| Public Assembly | Q | Q | Q | Q | Q | Q |
| Public Order and Safety | Q | Q | Q | Q | Q | Q |
| Religious Worship | Q | Q | Q | Q | Q | Q |
| Service | Q | Q | Q | Q | Q | Q |
| Warehouse and Storage | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | | |
| Before 1920 | Q | Q | Q | Q | Q | Q |
| 1920 to 1945 | 10,610 | 107.03 | 130.0 | 116.9 | 1.18 | 11.02 |
| 1946 to 1959 | Q | Q | Q | Q | Q | Q |
| 1960 to 1969 | 8,787 | 137.56 | 108.5 | Q | Q | Q |
| 1970 to 1979 | 13,255 | 131.66 | 80.8 | Q | Q | Q |
| 1980 to 1989 | Q | Q | Q | Q | Q | Q |
| 1990 to 1999 | Q | Q | Q | Q | Q | Q |
| 2000 to 2003 | Q | Q | Q | Q | Q | Q |
| **Census Region and Division** | | | | | | |
| Northeast | 9,423 | 120.80 | 67.0 | Q | 1.57 | 12.97 |
| New England | Q | Q | Q | Q | Q | Q |
| Middle Atlantic | Q | Q | Q | Q | Q | Q |
| Midwest | 17,217 | 136.50 | 158.8 | Q | 1.41 | 10.35 |
| East North Central | 25,607 | 135.33 | 166.7 | Q | Q | Q |
| West North Central | Q | Q | Q | Q | Q | Q |
| South | 8,547 | 102.81 | 33.5 | Q | 1.17 | 11.36 |
| South Atlantic | 8,059 | 94.14 | Q | Q | Q | Q |
| East South Central | Q | Q | Q | Q | Q | Q |
| West South Central | Q | Q | Q | Q | Q | Q |
| West | Q | Q | Q | Q | Q | Q |
| Mountain | Q | Q | Q | Q | Q | Q |
| Pacific | Q | Q | Q | Q | Q | Q |

## Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings*** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| **Climate Zone: 30-Year Average** | | | | | | |
| Under 2,000 CDD and -- | | | | | | |
| More than 7,000 HDD | Q | 106.35 | 123.8 | Q | Q | Q |
| 5,500-7,000 HDD | 9,453 | 142.89 | 132.6 | Q | Q | Q |
| 4,000-5,499 HDD | 10,354 | 103.48 | 54.8 | 128.9 | 1.29 | 12.45 |
| Fewer than 4,000 HDD | 7,681 | 98.14 | 84.1 | Q | Q | Q |
| 2,000 CDD or More and -- | | | | | | |
| Fewer than 4,000 HDD | Q | Q | Q | Q | Q | Q |
| **Number of Floors** | | | | | | |
| One | Q | Q | Q | Q | Q | Q |
| Two | Q | Q | Q | Q | Q | Q |
| Three | Q | Q | Q | Q | Q | Q |
| Four to Nine | 15,573 | 124.37 | 50.3 | 175.3 | 1.40 | 11.26 |
| Ten or More | 44,811 | 90.27 | 43.9 | 528.5 | 1.06 | 11.79 |
| **Number of Workers (main shift)** | | | | | | |
| Fewer than 5 | Q | Q | Q | Q | Q | Q |
| 5 to 9 | Q | Q | Q | Q | Q | Q |
| 10 to 19 | Q | Q | Q | Q | Q | Q |
| 20 to 49 | 5,854 | 143.70 | 191.2 | Q | Q | Q |
| 50 to 99 | Q | Q | Q | Q | Q | Q |
| 100 to 249 | 13,794 | 118.34 | 91.9 | Q | Q | Q |
| 250 or More | 42,936 | 105.81 | 30.2 | 463.4 | 1.14 | 10.79 |
| **Weekly Operating Hours** | | | | | | |
| Fewer than 40 | Q | Q | Q | Q | Q | Q |
| 40 to 48 | Q | Q | Q | Q | Q | Q |
| 49 to 60 | 9,574 | 110.41 | 75.1 | 111.3 | 1.28 | 11.62 |
| 61 to 84 | 6,414 | 92.92 | 92.0 | Q | Q | Q |
| 85 to 167 | 10,530 | 115.52 | Q | Q | Q | Q |
| Open Continuously | 18,825 | 130.78 | 86.8 | Q | 1.55 | 11.84 |
| **Ownership and Occupancy** | | | | | | |
| Nongovernment Owned | 10,055 | 114.95 | 70.9 | 111.8 | 1.28 | 11.12 |
| Owner Occupied | 11,348 | 129.95 | 76.9 | 127.7 | 1.46 | 11.26 |
| Nonowner Occupied | Q | Q | Q | Q | Q | Q |
| Unoccupied | Q | Q | . | Q | Q | Q |
| Government Owned | 9,139 | 117.42 | 57.7 | 106.3 | 1.37 | 11.63 |
| Federal | Q | Q | Q | Q | Q | 11.62 |
| State | 6,986 | 110.99 | 36.7 | Q | Q | Q |
| Local | Q | Q | Q | Q | Q | Q |
| **Vacancy Status** | | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q | Q |
| Mostly Vacant | N | N | N | N | N | N |
| Partially Vacant | 13,117 | 110.42 | 53.8 | 136.8 | 1.15 | 10.43 |
| Not At All Vacant | 8,535 | 120.21 | 64.5 | 100.5 | 1.42 | 11.77 |
| **Number of Establishments** | | | | | | |
| One | 8,549 | 125.34 | 116.3 | 97.1 | 1.42 | 11.36 |
| 2 to 5 | 10,135 | 119.61 | 92.8 | Q | Q | Q |
| 6 to 10 | Q | Q | Q | Q | Q | Q |
| 11 to 20 | Q | Q | Q | Q | Q | Q |
| More than 20 | Q | Q | Q | Q | Q | Q |
| Currently Unoccupied | Q | Q | Q | Q | Q | Q |

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## Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings*** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| **Predominant Exterior Wall Material** | | | | | | |
| Brick, Stone or Stucco | 7,715 | 120.66 | 105.9 | 89.4 | 1.40 | 11.59 |
| Concrete (Block or Poured) | Q | Q | Q | Q | Q | Q |
| Concrete Panels | Q | Q | Q | Q | Q | Q |
| Siding or Shingles | Q | Q | Q | Q | Q | Q |
| Metal Panels | Q | Q | Q | Q | Q | Q |
| Window Glass | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | |
| Built-Up | 11,269 | 100.88 | 66.0 | 134.7 | 1.21 | 11.95 |
| Shingles (Not Wood) | Q | Q | Q | Q | Q | Q |
| Metal Surfacing | Q | Q | Q | Q | Q | Q |
| Synthetic or Rubber | 9,814 | 127.60 | Q | Q | Q | Q |
| Slate or Tile | Q | Q | Q | Q | Q | Q |
| Wooden Materials | Q | Q | Q | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | |
| Any Type of Renovation Since 1980 | 10,177 | 111.11 | 70.6 | 112.1 | 1.22 | 11.01 |
| Addition or Annex | Q | Q | Q | Q | Q | Q |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 12,076 | 110.29 | 66.5 | 134.5 | 1.23 | 11.14 |
| Wall or Roof Replacement | Q | 110.32 | 60.4 | Q | 1.27 | Q |
| Interior Wall Re-Configuration | 17,959 | 113.58 | 71.2 | 191.0 | 1.21 | 10.64 |
| HVAC Equipment Upgrade | 12,723 | 93.03 | 58.0 | 150.5 | 1.10 | 11.83 |
| Lighting Upgrade | 9,807 | 110.92 | 75.6 | 106.8 | 1.21 | 10.89 |
| Window Replacement | Q | Q | Q | Q | Q | Q |
| Plumbing System Upgrade | Q | 107.28 | 59.6 | Q | 1.26 | 11.72 |
| Insulation Upgrade | Q | Q | Q | Q | Q | Q |
| Other Renovation | Q | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 6,959 | 122.02 | 137.9 | Q | Q | 12.17 |
| Building Newer than 1980 | 14,178 | 115.89 | Q | Q | Q | Q |
| **Energy Sources (more than one may apply)** | | | | | | |
| Electricity | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| Natural Gas | Q | 124.63 | 43.8 | Q | 1.46 | 11.74 |
| Fuel Oil | 40,191 | 102.33 | 61.1 | 444.6 | 1.13 | 11.06 |
| District Heat | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| District Chilled Water | 12,509 | 133.95 | 47.5 | Q | Q | 12.03 |
| Propane | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q |

## Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings*** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| **Space-Heating Energy Sources** | | | | | | |
| District Heat | 9,709 | 121.82 | 63.7 | 111.0 | 1.39 | 11.43 |
| District Heat Main | 9,746 | 125.84 | 63.5 | 111.9 | 1.44 | 11.48 |
| District Heat Secondary | Q | Q | Q | Q | Q | Q |
| Other Excluding District Heat | Q | Q | Q | Q | Q | Q |
| Buildings without Heating | Q | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | |
| Electricity | Q | Q | Q | Q | Q | Q |
| Natural Gas | Q | Q | Q | Q | Q | Q |
| Fuel Oil | N | N | N | N | N | N |
| District Heat | 9,746 | 125.84 | 63.5 | 111.9 | 1.44 | 11.48 |
| Propane | N | N | N | N | N | N |
| Other | N | N | N | N | N | N |
| **Cooling Energy Sources** | | | | | | |
| District Heat | Q | Q | Q | Q | Q | Q |
| Other Excluding District Heat | 9,102 | 117.19 | 53.8 | 106.1 | 1.37 | 11.66 |
| Buildings without Cooling | Q | Q | Q | Q | Q | Q |
| **Water-Heating Energy Sources** | | | | | | |
| District Heat | 12,041 | 106.49 | 78.4 | 135.1 | 1.19 | 11.22 |
| Other Excluding District Heat | 5,786 | 125.93 | Q | Q | Q | 11.81 |
| Bldgs without Water Heating | Q | Q | Q | Q | Q | Q |
| **Cooking Energy Sources** | | | | | | |
| District Heat | 47,088 | 130.34 | 99.8 | Q | Q | Q |
| Other Excluding District Heat | Q | 106.36 | 55.2 | Q | 1.16 | 10.87 |
| Buildings without Cooking | 7,166 | 117.96 | 60.6 | 83.7 | 1.38 | 11.69 |
| **Energy End Uses (more than one may apply)** | | | | | | |
| Buildings with Space Heating | 9,502 | 117.81 | 62.3 | 108.6 | 1.35 | 11.43 |
| Buildings with Cooling | 9,726 | 114.90 | 52.8 | 110.6 | 1.31 | 11.37 |
| Buildings with Water Heating | 8,591 | 112.97 | 52.6 | 98.3 | 1.29 | 11.44 |
| Buildings with Cooking | Q | 113.68 | 65.4 | Q | 1.24 | 10.95 |
| Buildings with Manufacturing | Q | Q | Q | Q | Q | Q |
| Buildings with Electricity Generation | 34,643 | 111.97 | 63.7 | 404.4 | 1.31 | 11.67 |
| **Percent of Floorspace Heated** | | | | | | |
| Not Heated | Q | Q | Q | Q | Q | Q |
| 1 to 50 | Q | Q | Q | Q | Q | Q |
| 51 to 99 | Q | 90.46 | 57.2 | Q | Q | Q |
| 100 | 9,543 | 121.88 | 62.8 | 110.2 | 1.41 | 11.54 |

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## Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings* ..... ** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |
| **Heating Equipment (more than one may apply)** | | | | | | |
| Heat Pumps ..... | Q | Q | Q | Q | Q | Q |
| Packaged Heat Pumps ..... | Q | Q | Q | Q | Q | Q |
| Split-System Heat Pumps ..... | Q | Q | Q | Q | Q | Q |
| Individual Room Heat Pumps ..... | Q | Q | Q | Q | Q | Q |
| Furnaces ..... | Q | Q | Q | Q | Q | Q |
| Individual Space Heaters ..... | 10,195 | 82.45 | 58.3 | Q | Q | Q |
| District Heat ..... | 9,685 | 121.56 | 63.8 | 110.7 | 1.39 | 11.43 |
| Boilers ..... | Q | Q | Q | Q | Q | Q |
| Packaged Heating Units ..... | Q | Q | Q | Q | Q | Q |
| Other ..... | Q | Q | Q | Q | Q | Q |
| **Water Heating Equipment** | | | | | | |
| Centralized System ..... | 6,647 | 107.14 | 86.4 | 75.9 | 1.22 | 11.41 |
| Distributed System ..... | Q | Q | Q | Q | Q | Q |
| Combination of Centralized and Distributed System ..... | 13,682 | 115.22 | Q | 145.6 | 1.23 | 10.64 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | |
| Commercial Food Preparation ..... | Q | 113.68 | 65.4 | Q | 1.24 | 10.95 |
| Activities with Large Amounts of Hot Water ..... | 14,656 | 120.84 | 86.8 | 161.3 | 1.33 | 11.00 |
| Separate Computer Area ..... | 19,658 | 114.53 | 68.8 | 224.9 | 1.31 | 11.44 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | |
| Variable Air-Volume System ..... | 14,271 | 121.86 | 47.8 | 162.4 | 1.39 | 11.38 |
| Economizer Cycle ..... | 15,337 | 109.59 | 43.7 | 179.1 | 1.28 | 11.68 |
| HVAC Maintenance ..... | 10,171 | 118.71 | 60.9 | 116.2 | 1.36 | 11.42 |
| Energy Management and Control System (EMCS) ..... | 18,226 | 115.02 | 76.7 | 207.1 | 1.31 | 11.36 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | |
| Heating ..... | 11,880 | 113.38 | 72.8 | 135.1 | 1.29 | 11.37 |
| Cooling ..... | 13,500 | 115.39 | 46.4 | 154.5 | 1.32 | 11.44 |
| Lighting ..... | 8,207 | 111.90 | 52.5 | 91.8 | 1.25 | 11.18 |
| Office Equipment ..... | Q | Q | Q | Q | Q | Q |

## Table C38. District Heat Consumption and Expenditure Intensities for Non-Mall Buildings, 2003

| | District Heat Consumption | | | District Heat Expenditures | | |
|---|---|---|---|---|---|---|
| | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) | per Building (thousand dollars) | per Square Foot (dollars) | per Thousand Pounds (dollars) |
| **All Buildings* .....** | 9,475 | 116.44 | 62.2 | 108.3 | 1.33 | 11.43 |

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - http://www.eia.doe.gov/emeu/cbecs.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet. In the 1999 CBECS, In the 1999 CBECS, there were no responding malls in the sample using district heat.

[a] The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample that use district heat.

Notes: ● Statistics for the "Energy End Uses" category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.