

## EIA Statistics Detail How Energy Is Used in Homes

Virtually every home in the United States was using electricity in 1997—0.2% of the homes in the West were not—and natural gas also was employed in more than three out of five with a 46.6% presence in the South holding the average down, according to preliminary figures released by Energy Information Administration, an arm of Department of Energy (see top table at right).

Wood was used more in the West (19.4% of homes) and the South (15.9%) than in other regions while fuel oil's presence was strongest by far in the Northeast (37.0% of homes). Liquefied petroleum gas (LPG) was used much less, more in the Midwest and South than elsewhere. Kerosene was used only slightly and solar was used in about 1% of the homes in the South and West, EIA said.

### Daytime Winter Temps Kept at 70°F

A slight plurality of the country's households said they set their daytime winter thermostat setting when someone is at home at 70°F—25.2% in all compared to 23.0% at 67-69°F, 17.8% at 74°F or more, 14.5% at 71-73°F, 8.1% at 64-68°F and 3.8% at 63°F or less. Viewed by climate zone, the homes in the coldest areas (those with more than 7,000 heating degree-days, HDD) mostly had their thermostats set at 67-69°F (31.8%) and at 70°F (30.4%).

Those numbers trailed off as EIA's survey reviewed daytime winter at-home settings by ever-warmer climate zones until in regions with fewer than 4,000 HDD, the percentage of homes with settings of 70°F had dropped to 25.2% and the percentage of homes with settings of 67-69°F had dropped to 21.2%. Curiously, the percentages of homes with a relatively low daytime, at-home setting of 64-67°F were 8.7% for homes in regions with 5,500-7,000 HDD and dropped to 8.2% for homes in regions with 4,000-5,499 HDD and at 10.4% in climates with fewer than 4,000 HDD. The category of homes with thermostat settings of 63°F or less was at its largest (4.8%) with homes in a climate having fewer than 4,000 HDD and at its lowest (3.7%) with homes in a climate zone with 5,500-7,000 HDD.

### Vacancy v. Sleeping Temperatures

In the coldest climate category, the thermostat was set more often at the coldest survey category of 63°F or less when no one

Housing Unit Characteristics by Census Region  
Million U.S. Households (Percent), 1997—Preliminary

| Housing Characteristics       | Total         | Northeast    | Midwest      | South        | West        |
|-------------------------------|---------------|--------------|--------------|--------------|-------------|
| <b>Fuels Used for Any Use</b> |               |              |              |              |             |
| Electricity                   | 101.4 (100.0) | 19.7 (100.0) | 24.1 (100.0) | 35.9 (100.0) | 21.8 (99.8) |
| Natural gas                   | 62.0 (61.1)   | 11.9 (60.2)  | 18.4 (76.4)  | 16.7 (46.6)  | 15.0 (68.9) |
| Wood                          | 15.0 (14.8)   | 2.5 (12.6)   | 2.6 (10.9)   | 5.7 (15.9)   | 4.2 (19.4)  |
| Fuel oil                      | 9.8 (9.7)     | 7.3 (37.0)   | 1.1 (4.4)    | 1.2 (3.4)    | 0.3 (1.2)   |
| Lique. pet. gas (LPG)         | 7.7 (7.6)     | 1.5 (7.4)    | 2.2 (9.2)    | 3.1 (8.6)    | 0.9 (4.3)   |
| Kerosene                      | 3.5 (3.4)     | 0.9 (4.7)    | 0.5 (1.9)    | 1.8 (5.1)    | 0.2 (1.1)   |
| Solar                         | 0.7 (0.7)     | Q (Q)        | Q (Q)        | 0.3 (1.0)    | 0.2 (0.9)   |
| <b>Main Heating Fuel</b>      |               |              |              |              |             |
| Natural gas                   | 53.2 (52.4)   | 9.2 (46.7)   | 17.7 (73.4)  | 13.8 (38.4)  | 12.5 (57.5) |
| Electricity                   | 30.1 (29.6)   | 2.4 (12.2)   | 3.0 (12.4)   | 17.5 (48.7)  | 7.2 (33.0)  |
| Fuel oil                      | 9.3 (9.2)     | 6.9 (35.0)   | 1.0 (4.3)    | 1.2 (3.2)    | 0.2 (1.0)   |
| LPG                           | 4.5 (4.4)     | 0.2 (1.2)    | 1.7 (7.1)    | 2.0 (5.5)    | 0.6 (2.6)   |
| Wood                          | 2.3 (2.2)     | 0.4 (2.2)    | 0.5 (1.9)    | 0.7 (1.9)    | 0.7 (3.1)   |
| Kerosene                      | 1.0 (0.9)     | 0.4 (1.9)    | Q (Q)        | 0.4 (1.2)    | Q (Q)       |
| Solar                         | Q (Q)         | Q (Q)        | Q (Q)        | Q (Q)        | Q (Q)       |
| Other/none                    | 0.3 (0.3)     | 0.1 (0.7)    | Q (Q)        | Q (Q)        | Q (Q)       |

Space Heating by Census Region, Million U.S. Households (Percent), 1997—Preliminary

| Heat Characteristics                                | Total         | Northeast    | Midwest      | South        | West         |
|---|---------------|--------------|--------------|--------------|--------------|
| <b>Main Fuel and Equip.</b>                         |               |              |              |              |              |
| Total   | 101.5 (100.0) | 19.7 (100.0) | 24.1 (100.0) | 35.9 (100.0) | 21.8 (100.0) |
| Natural gas   | 53.2 (52.4)   | 9.2 (46.7)   | 17.7 (73.4)  | 13.8 (38.4)  | 12.5 (57.5)  |
| Central warm-air furn.                              | 37.9 (37.3)   | 5.1 (25.8)   | 14.8 (61.3)  | 9.5 (26.5)   | 8.5 (39.1)   |
| For 1 housing unit                                  | 36.6 (36.0)   | 4.8 (24.4)   | 14.0 (58.3)  | 9.4 (26.1)   | 8.4 (38.3)   |
| For 2/+ housing units                               | 1.3 (1.3)     | 0.3 (1.4)    | 0.7 (3.0)    | Q (Q)        | 0.2 (0.8)    |
| Steam or hot-water sys.                             | 7.2 (7.1)     | 3.7 (18.7)   | 2.3 (9.7)    | 0.5 (1.5)    | 0.7 (3.0)    |
| For 1 housing unit                                  | 5.0 (4.9)     | 2.6 (13.3)   | 1.5 (6.1)    | 0.5 (1.4)    | 0.4 (1.8)    |
| For 2/+ housing units                               | 2.2 (2.2)     | 1.1 (5.4)    | 0.9 (3.6)    | Q (Q)        | 0.3 (1.2)    |
| Floor, wall, pipeless                               | 4.1 (4.0)     | Q (Q)        | 0.2 (1.0)    | 1.3 (3.5)    | 2.5 (11.4)   |
| Room heater/other                                   | 4.0 (3.9)     | 0.3 (1.6)    | 0.3 (1.3)    | 2.5 (6.9)    | 0.9 (3.9)    |
| Electricity   | 30.1 (29.6)   | 2.4 (12.2)   | 3.0 (12.4)   | 17.5 (48.7)  | 7.2 (33.0)   |
| Built-in units                                      | 7.5 (7.4)     | 1.4 (7.0)    | 1.3 (5.4)    | 2.2 (6.0)    | 2.7 (12.3)   |
| Central warm-air furn.                              | 11.0 (10.9)   | 9.4 (2.0)    | 1.2 (5.1)    | 6.5 (18.2)   | 2.9 (13.2)   |
| For 1 housing unit                                  | 10.5 (10.3)   | 0.3 (1.5)    | 1.1 (4.7)    | 6.3 (17.5)   | 2.8 (12.8)   |
| For 2/+ housing units                               | 0.5 (0.5)     | Q (Q)        | Q (Q)        | 0.3 (0.7)    | Q (Q)        |
| Heat pump   | 9.7 (9.6)     | 0.4 (1.9)    | 0.3 (1.2)    | 8.0 (22.4)   | 1.0 (4.7)    |
| Other   | 1.8 (1.8)     | 0.2 (1.2)    | Q (Q)        | 0.8 (2.1)    | 0.6 (2.8)    |
| Fuel oil  | 9.3 (9.2)     | 6.9 (35.0)   | 1.0 (4.3)    | 1.2 (3.2)    | 0.2 (1.0)    |
| Steam or hot-water sys.                             | 5.1 (5.0)     | 4.7 (23.7)   | Q (Q)        | 0.3 (0.8)    | Q (Q)        |
| For 1 housing unit                                  | 3.4 (3.3)     | 3.0 (15.1)   | Q (Q)        | 0.3 (0.8)    | Q (Q)        |
| For 2/+ housing units                               | 1.7 (1.7)     | 1.7 (8.6)    | Q (Q)        | Q (Q)        | Q (Q)        |
| Central warm-air furn.                              | 3.8 (3.8)     | 2.1 (10.4)   | 0.9 (3.6)    | 0.8 (2.2)    | 0.1 (0.6)    |
| Other   | 0.4 (0.4)     | 0.2 (0.9)    | Q (Q)        | Q (Q)        | Q (Q)        |
| Wood  | 2.3 (2.2)     | 0.4 (2.2)    | 0.5 (1.9)    | 0.7 (1.9)    | 0.7 (3.1)    |
| Heating stove                                       | 1.5 (1.5)     | 0.3 (1.5)    | 0.2 (0.9)    | 0.5 (1.3)    | 0.6 (2.5)    |
| Other   | 0.7 (0.7)     | 0.1 (0.7)    | Q (Q)        | 0.2 (0.6)    | Q (Q)        |
| LPG   | 4.5 (4.4)     | 0.2 (1.2)    | 1.7 (7.1)    | 2.0 (5.5)    | 0.6 (2.6)    |
| Central warm-air furn.                              | 3.0 (3.0)     | 0.2 (0.8)    | 1.4 (6.0)    | 1.0 (2.7)    | 0.4 (2.0)    |
| Room heater   | 0.9 (0.9)     | Q (Q)        | Q (Q)        | 0.7 (2.1)    | Q (Q)        |
| Other   | 0.6 (0.6)     | Q (Q)        | 0.2 (0.9)    | 0.2 (0.7)    | Q (Q)        |
| Kerosene  | 1.0 (0.9)     | 0.4 (1.9)    | Q (Q)        | 0.4 (1.2)    | Q (Q)        |
| Other   | 0.4 (0.4)     | 0.1 (0.7)    | Q (Q)        | Q (Q)        | Q (Q)        |
| None  | 0.8 (0.8)     | Q (Q)        | Q (Q)        | 0.3 (0.8)    | 0.5 (2.1)    |
| <b>Amt. of Heat Provided by Main Heating Equip.</b> |               |              |              |              |              |
| All or almost all                                   | 93.2 (91.8)   | 18.4 (93.3)  | 22.9 (9.5)   | 22.9 (91.2)  | 19.2 (87.9)  |
| About three-fourths                                 | 4.3 (4.2)     | 0.8 (3.9)    | 0.8 (3.5)    | 0.8 (4.8)    | 1.0 (4.5)    |
| Closer to half                                      | 3.2 (3.2)     | 0.5 (2.7)    | 0.4 (1.5)    | 0.4 (3.2)    | 1.3 (5.5)    |
| No main equipment                                   | 0.8 (0.8)     | Q (Q)        | Qs (Q)       | Q (0.8)      | 0.5 (2.1)    |

was at home than during sleeping hours (24.1% versus 22.3%). The same pattern held up in the warmest winter climate zone of fewer than 4,000 HDD (22.0% of the homes set the no-one-home temperature at 63°F or less compared to 19.7% with the same setting during sleeping hours). However, in the coldest climate almost no one turned off the heat at either time compared to 21.1% of the homes in the fewer-than-4,000-HDD climate zone with the heat off in winter when no one was at home and 18.1% with the heat turned off at night.

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## Low Incomes Did Not Induce Turning Down Heat (Cont.)

Lack of income did not appear to spur very many people to turn the heat down, according to the EIA survey. For example, 7.0% of the households with 1997 income of less than \$10,000 per year set the daytime winter at-home temperature as low as 63°F or less, a proportion less than twice that of the 6.4% of such households with incomes of \$50,000 per year. Only 3.0% of households with incomes of \$10,000-24,999 had the thermostat set as low as 63°. The percentage for households with incomes below the poverty line was only 6.4%; for households eligible for federal assistance, the percentage was 4.5%, which could point to the value of Low-Income Home Energy Assistance Program although there was no mention of LIHEAP in the tables EIA released. The subagency has not released its own analysis.

### Heat Not Turned Off when Occupied

Few people turned the heat off in 1997 when they were at home in winter, EIA's figures show. Only 2.3% of the lowest-income category did so and only 0.8% of the richest households did. Similarly, only 3.0% of households below the poverty income and only 3.2% of the households eligible for federal assistance turned off the heat while someone was at home.

The highest temperature settings were used by 24.7% of households with less than \$10,000 annual income, 22.8% of the homes with incomes below the poverty line and 21.3% of households eligible for federal assistance.

Only 13.8% of homes with household incomes of \$50,000 had their thermostats set at 74°F or more. This statistic could reflect the insulation ratings of the respective income-category homes in that richer peoples' better-built homes might not need so high a setting to maintain a comfortable temperature. EIA's tables are silent on the matter.

### Income Matters Some if No One Home

Income seems to have made only a modest difference in heating thermostatic settings in winter when no one was at home, the EIA figures show. Homes with household incomes of less than \$10,000 had no-one-home, winter thermostatic settings of 63°F or less in 17.4% of the cases. This was the case in 17.9% of the homes with household incomes below the poverty level compared to 21.2% of the homes with incomes of more than \$50,000.

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| Space Cooling by Census Region, Million U.S. Households (Percent), 1997—Preliminary |              |              |              |              |             |
|---|--------------|--------------|--------------|--------------|-------------|
| AC Characteristics  | Total        | Northeast    | Midwest      | South        | West        |
| Total households AC   | 73.6 (100.0) | 12.5 (100.0) | 18.8 (100.0) | 33.4 (100.0) | 8.9 (100.0) |
| Type of Air Condit.   |              |              |              |              |             |
| Central AC  | 47.8 (65.0)  | 4.4 (35.2)   | 12.4 (65.7)  | 25.0 (75.0)  | 6.0 (67.6)  |
| Electric  | 47.1 (64.0)  | 4.4 (34.8)   | 12.2 (64.9)  | 24.8 (74.4)  | 5.7 (64.0)  |
| W/o heat pump   | 36.4 (49.5)  | 3.9 (30.9)   | 11.8 (62.6)  | 16.2 (48.7)  | 4.5 (50.9)  |
| With heat pump  | 10.7 (14.5)  | 0.5 (4.0)    | 0.4 (2.2)    | 8.6 (25.7)   | 1.2 (13.1)  |
| Other <sup>2</sup>  | 0.7 (1.0)    | Q            | Q            | 0.2 (0.6)    | 0.3 (3.6)   |
| Room AC   | 26.5 (36.0)  | 8.2 (65.3)   | 6.6 (35.0)   | 8.7 (26.1)   | 3.0 (33.9)  |
| 1 unit  | 15.9 (21.6)  | 4.3 (34.1)   | 4.6 (24.5)   | 4.5 (13.5)   | 2.5 (27.9)  |
| 2 units   | 7.5 (10.2)   | 2.8 (22.2)   | 1.6 (8.4)    | 2.7 (8.2)    | 0.4 (4.9)   |
| 3 or more units   | 3.1 (4.2)    | 1.1 (9.0)    | 0.4 (2.1)    | 1.5 (4.4)    | Q (Q)       |
| No. of Rooms AC in Summer 1997 <sup>1</sup>   |              |              |              |              |             |
| None  | 8.1 (11.1)   | 1.0 (8.2)    | 1.7 (9.2)    | 3.9 (11.6)   | 1.5 (16.9)  |
| One or two  | 11.0 (14.9)  | 4.4 (34.8)   | 2.6 (13.8)   | 2.5 (7.6)    | 1.5 (16.6)  |
| Three   | 7.5 (10.1)   | 1.3 (10.2)   | 1.7 (8.9)    | 3.5 (10.5)   | 1.0 (11.2)  |
| Four  | 10.1 (13.8)  | 1.7 (14.0)   | 2.8 (14.6)   | 4.5 (13.6)   | 1.1 (12.2)  |
| Five or more  | 36.9 (50.2)  | 4.1 (32.9)   | 10.1 (53.4)  | 18.9 (56.7)  | 3.8 (43.1)  |
| Percentage of rooms Air-conditioned   |              |              |              |              |             |
| 100%  | 45.0 (61.2)  | 5.5 (43.9)   | 11.7 (62.4)  | 22.5 (67.5)  | 5.3 (59.0)  |
| 50-99%  | 11.1 (15.1)  | 2.2 (17.6)   | 3.0 (16.0)   | 4.8 (14.4)   | 1.1 (12.3)  |
| 25-49%  | 5.6 (7.7)    | 1.9 (15.4)   | 1.4 (7.5)    | 1.6 (4.9)    | 0.7 (7.5)   |
| 1-24%   | 3.7 (5.0)    | 1.9 (15.0)   | 0.9 (4.9)    | 0.5 (1.5)    | 0.4 (4.3)   |
| Large trees that shade the home   | 8.1 (11.1)   | 1.0 (8.2)    | 1.7 (9.2)    | 3.9 (11.6)   | 1.5 (16.9)  |
| Yes   | 36.0 (48.9)  | 5.4 (43.1)   | 9.4 (50.0)   | 17.8 (53.5)  | 3.3 (37.5)  |
| No  | 37.6 (51.1)  | 7.1 (56.9)   | 9.4 (50.0)   | 15.5 (46.5)  | 5.6 (62.5)  |
| Central AC age (exclud. systems for more than one housing unit)                     |              |              |              |              |             |
| Less than 2 years   | 5.9 (8.0)    | 0.5 (4.3)    | 1.6 (8.3)    | 3.1 (9.2)    | 0.7 (7.8)   |
| 2-4 years   | 7.2 (9.7)    | 0.7 (5.7)    | 1.9 (10.3)   | 3.9 (11.7)   | 0.6 (7.0)   |
| 5-9 years   | 14.2 (19.3)  | 1.4 (11.2)   | 3.6 (19.0)   | 7.4 (22.1)   | 1.9 (21.1)  |
| 10-19 years   | 12.8 (17.5)  | 1.1 (9.1)    | 3.1 (16.3)   | 7.0 (21.0)   | 1.6 (18.2)  |
| 20 years or more  | 4.1 (5.6)    | 0.4 (3.4)    | 1.3 (7.0)    | 1.6 (4.7)    | 0.8 (9.4)   |
| Don't know  | 2.7 (3.7)    | Q            | Q            | 1.7 (5.1)    | 0.2 (2.2)   |
| Central AC use  |              |              |              |              |             |
| All summer  | 24.6 (33.5)  | 1.4 (11.0)   | 4.1 (22.0)   | 17.2 (51.5)  | 2.0 (21.9)  |
| Quite a bit   | 10.4 (14.2)  | 1.1 (8.6)    | 3.5 (18.9)   | 4.3 (13.0)   | 1.5 (16.4)  |
| Only a few times  | 12.4 (16.8)  | 1.9 (15.4)   | 4.6 (24.6)   | 3.4 (10.1)   | 2.5 (27.6)  |
| Not at all  | 0.3 (0.5)    | Q (Q)        | Q (Q)        | Q (Q)        | 0.2 (1.7)   |
| No central system   | 25.8 (35.0)  | 8.1 (64.8)   | 6.5 (34.3)   | 8.3 (25.0)   | 2.9 (32.4)  |
| Pays for electricity for central AC   |              |              |              |              |             |
| Yes   | 44.7 (60.8)  | 4.2 (33.4)   | 11.6 (61.4)  | 23.9 (71.5)  | 5.2 (57.8)  |
| No  | 2.3 (3.2)    | Q (Q)        | 0.6 (3.4)    | 1.0 (2.9)    | 0.6 (6.2)   |
| Appliances by Census Region, Million U.S. Households (Percent), 1997—Preliminary    |              |              |              |              |             |
| Appliance types and characteristics   |              |              |              |              |             |
| Clothes washer  | 78.5 (77.4)  | 15.0 (76.0)  | 19.0 (78.9)  | 29.4 (81.9)  | 15.2 (69.6) |
| Clothes dryer   | 72.2 (71.1)  | 13.2 (66.7)  | 18.2 (75.7)  | 26.6 (74.2)  | 14.2 (65.1) |
| Electric  | 55.9 (55.0)  | 9.5 (48.2)   | 12.1 (50.1)  | 23.8 (66.3)  | 10.5 (48.2) |
| Natural gas   | 15.6 (15.3)  | 3.5 (17.9)   | 5.8 (23.9)   | 2.6 (7.4)    | 3.6 (16.6)  |
| LPG   | 0.8 (0.8)    | 0.1 (0.6)    | 0.4 (1.7)    | 0.2 (0.5)    | Q (Q)       |
| Dishwasher  | 50.9 (50.2)  | 9.6 (48.5)   | 11.3 (46.9)  | 18.5 (51.5)  | 11.6 (53.1) |
| Ceiling fans  | 61.0 (60.1)  | 10.1 (51.3)  | 15.3 (63.6)  | 25.5 (71.2)  | 10.0 (46.0) |
| One   | 23.6 (23.3)  | 5.1 (26.0)   | 6.4 (26.6)   | 6.8 (18.9)   | 5.3 (24.4)  |
| Two   | 14.0 (13.8)  | 2.3 (11.9)   | 3.8 (15.9)   | 5.7 (16.0)   | 2.1 (9.6)   |
| Three or more   | 23.4 (23.0)  | 2.6 (13.3)   | 5.1 (21.1)   | 13.0 (36.3)  | 2.6 (12.0)  |
| Freezer   | 33.7 (33.2)  | 5.1 (25.7)   | 10.1 (41.8)  | 13.2 (36.9)  | 5.3 (24.2)  |
| One   | 30.7 (30.2)  | 4.8 (24.2)   | 9.2 (38.4)   | 11.9 (33.1)  | 4.8 (22.0)  |
| Two or more   | 3.0 (2.9)    | 0.3 (1.5)    | 0.8 (3.4)    | 1.4 (3.8)    | 0.5 (2.2)   |
| Most-used freez. defrost  |              |              |              |              |             |
| Frost-free  | 10.7 (10.5)  | 1.5 (7.5)    | 2.7 (11.0)   | 4.7 (13.1)   | 1.9 (8.5)   |
| Manual  | 23.0 (22.6)  | 3.6 (18.3)   | 7.4 (30.8)   | 8.5 (23.7)   | 3.4 (15.7)  |
| Type of freezer   |              |              |              |              |             |
| Upright   | 16.5 (16.3)  | 2.7 (13.9)   | 4.1 (17.0)   | 6.0 (16.8)   | 3.7 (16.8)  |
| Chest   | 17.1 (16.9)  | 2.3 (11.8)   | 6.0 (24.8)   | 7.2 (20.0)   | 1.6 (7.5)   |

<sup>1</sup> About 0.7 million households have both a central air conditioner and room air conditioners.  
<sup>2</sup> Other includes LPG, natural gas and district chilled water. <sup>3</sup> About 0.7 million homes have room AC in addition to central AC. <sup>4</sup> LPG, natural gas and district chilled water. Q data withheld because statistical relative standard error was greater than 50% or there were fewer than 10 households sampled. Source: statistical tables from Energy Information Administration's upcoming triennial *Housing Characteristics 1997* report. Tables arranged and assembled by E&HR.

## Most Homes Shun Highest Thermostat Settings (Cont.)

The thermostat was set at 74°F or more in 8.1% of households with incomes of less than \$10,000 and in 17.1% of the households with incomes below poverty level compared to only 6.0% of the households with incomes of \$50,000. However, when the household income category of \$25,000-\$49,999 was viewed, the percentage of homes with 74°-or-higher settings rose to 9.7%.

### Poor Turn Heat Off with No One Home

In a modest departure from this pattern, the heat was on when no one was at home in 69.1% of the homes with household incomes of less than \$10,000 and 69.3% of the homes with households eligible for federal assistance compared to 91.3% of the time for homes with household incomes of more than \$50,000 and 85.9% of the homes with household incomes of \$25,000-\$49,000.

The difference in temperature settings for rich and poor households was less diverse when considering winter settings at night, the EIA figures show. EIA reported that the heat was on at night in 74.3% of the homes with household incomes of less \$10,000 and 79.2% of homes with households eligible for federal assistance compared to 94.4% of the homes with household incomes of \$50,000 and 89.9% of the homes with household incomes of \$25,000-\$49,999.

Nighttime thermostat was set at 63°F or less in 15.0% of the homes with household incomes of less than \$10,000 and 15.1% of homes with persons eligible for federal assistance contrasted with 18.0% of the homes with household incomes of \$50,000 or more and only 15.2% of the homes with household incomes of \$25,000-49,000.

The highest nighttime thermostatic setting was found in 13.3% of homes with household incomes of less than \$10,000 and 14.9% of homes with persons eligible for federal assistance. This percentage was somewhat higher than the 8.4% of homes with household incomes of \$50,000 or more and higher than the 9.8% of homes with household incomes of \$25,000-49,999.

There was little difference in thermostat settings for heating by climate zone with someone home (see last table on page 113). That evenness among climate zones faded when EIA looked at times with no one home and at night.

### AC Avoided More than Heating

Even with more than 150 people dead so far in the Southwest from the heat this hot summer, low-income families tended to

(Continued on following page)

| Appliances by Census Region, Million U.S. Households (Percent), 1997—Preliminary |              |             |             |             |             |       |  |      |  |  |
|--|--------------|-------------|-------------|-------------|-------------|-------|--|------|--|--|
| Appliance types and character. (cont.)   | Total        | Northeast   |             | Midwest     |             | South |  | West |  |  |
| <b>Age of freezer</b>  |              |             |             |             |             |       |  |      |  |  |
| Less than 2 years  | 2.4 (2.4)    | 0.4 (2.2)   | 0.7 (2.9)   | 1.0 (2.8)   | 0.3 (1.2)   |       |  |      |  |  |
| 2-4 years  | 4.2 (4.1)    | 0.5 (2.6)   | 1.3 (5.3)   | 1.8 (5.1)   | 0.6 (2.7)   |       |  |      |  |  |
| 5-9 years  | 7.5 (7.4)    | 1.0 (5.3)   | 2.1 (8.6)   | 3.1 (8.5)   | 1.4 (6.3)   |       |  |      |  |  |
| 10-19 years  | 12.3 (12.2)  | 1.9 (9.9)   | 3.6 (15.0)  | 5.0 (14.0)  | 1.8 (8.2)   |       |  |      |  |  |
| 20 years or more   | 6.7 (6.6)    | 1.1 (5.4)   | 2.2 (9.2)   | 2.1 (5.9)   | 1.2 (5.7)   |       |  |      |  |  |
| Don't know   | 0.5 (0.5)    | Q (Q)       | 0.2 (0.9)   | 0.2 (0.5)   | Q (Q)       |       |  |      |  |  |
| <b>Freezer size</b>  |              |             |             |             |             |       |  |      |  |  |
| Very small (>11 cf)  | 2.7 (2.7)    | 0.6 (3.0)   | 0.8 (3.5)   | 0.8 (2.3)   | 0.5 (2.1)   |       |  |      |  |  |
| Small (11-14 cf)   | 6.7 (6.6)    | 1.1 (5.4)   | 2.4 (9.8)   | 2.5 (7.0)   | 0.8 (3.6)   |       |  |      |  |  |
| Medium (15-18 cf)  | 13.5 (13.3)  | 1.8 (9.0)   | 3.9 (16.1)  | 5.7 (15.9)  | 2.1 (9.6)   |       |  |      |  |  |
| Large (19-22 cf)   | 9.0 (8.9)    | 1.3 (6.7)   | 2.6 (10.6)  | 3.6 (10.2)  | 1.5 (6.9)   |       |  |      |  |  |
| Very large (23/+ cf)   | 1.7 (1.7)    | 0.3 (1.7)   | 0.4 (1.8)   | 0.5 (1.4)   | 0.4 (2.0)   |       |  |      |  |  |
| <b>Heaters (other)</b>   |              |             |             |             |             |       |  |      |  |  |
| Hot tub or spa   | 4.0 (3.9)    | 0.5 (2.8)   | 0.7 (3.1)   | 1.4 (4.0)   | 1.3 (5.8)   |       |  |      |  |  |
| Electric   | 2.7 (2.6)    | 0.5 (2.4)   | 0.5 (2.0)   | 0.9 (2.5)   | 0.8 (3.7)   |       |  |      |  |  |
| Natural gas  | 1.2 (1.2)    | Q (Q)       | Q (Q)       | Q (Q)       | 0.4 (1.9)   |       |  |      |  |  |
| LPG/other  | Q (Q)        | Q (Q)       | Q (Q)       | Q (Q)       | Q (Q)       |       |  |      |  |  |
| Portable space   | 14.1 (13.9)  | 2.5 (12.6)  | 3.4 (14.3)  | 5.7 (16.0)  | 2.5 (11.2)  |       |  |      |  |  |
| Electric   | 12.3 (12.1)  | 2.1 (10.7)  | 3.2 (13.1)  | 4.7 (13.0)  | 2.3 (10.7)  |       |  |      |  |  |
| Kerosene   | 2.1 (2.1)    | 0.4 (2.0)   | 0.4 (1.5)   | 1.2 (3.4)   | Q (Q)       |       |  |      |  |  |
| Swimming pool  | 1.1 (1.1)    | 0.2 (0.8)   | Q (Q)       | 0.5 (1.4)   | 0.3 (1.3)   |       |  |      |  |  |
| Natural gas  | 0.7 (0.7)    | Q (Q)       | Q (Q)       | 0.4 (1.0)   | 0.2 (0.9)   |       |  |      |  |  |
| Electric, LPG, other   | 0.4 (0.4)    | Q (Q)       | Q (Q)       | Q (Q)       | Q (Q)       |       |  |      |  |  |
| Waterbed heaters   | 8.4 (8.3)    | 1.2 (6.1)   | 2.7 (11.2)  | 2.9 (8.2)   | 1.5 (7.1)   |       |  |      |  |  |
| One  | 6.9 (6.8)    | 1.1 (5.4)   | 2.3 (9.4)   | 2.4 (6.7)   | 1.2 (5.5)   |       |  |      |  |  |
| Two or more  | 1.5 (1.4)    | Q (Q)       | 0.4 (1.8)   | 0.5 (1.5)   | 0.3 (1.5)   |       |  |      |  |  |
| Used all year  | 7.4 (7.3)    | 1.1 (5.5)   | 2.4 (10.1)  | 2.5 (6.9)   | 1.4 (6.5)   |       |  |      |  |  |
| One  | 6.4 (6.3)    | 1.0 (4.8)   | 2.1 (8.8)   | 2.2 (6.2)   | 1.1 (5.2)   |       |  |      |  |  |
| Two or more  | 1.0 (1.0)    | Q (Q)       | 0.3 (1.4)   | 0.2 (0.7)   | 0.3 (1.4)   |       |  |      |  |  |
| <b>Oven</b>  | 100.2 (98.8) | 19.6 (99.3) | 23.8 (99.1) | 35.4 (98.6) | 21.4 (98.2) |       |  |      |  |  |
| Electric   | 62.4 (61.5)  | 9.8 (49.7)  | 13.6 (56.6) | 25.8 (72.0) | 13.1 (60.1) |       |  |      |  |  |
| Natural gas  | 33.7 (33.2)  | 8.8 (44.8)  | 9.2 (38.1)  | 7.9 (22.1)  | 7.8 (35.7)  |       |  |      |  |  |
| LPG  | 4.1 (4.0)    | 0.9 (4.8)   | 1.0 (4.3)   | 1.6 (4.4)   | 0.5 (2.3)   |       |  |      |  |  |
| Other  | Q (Q)        | Q (Q)       | Q (Q)       | Q (Q)       | Q (Q)       |       |  |      |  |  |
| <b>Self-cleaning oven</b>  | 44.7 (44.0)  | 9.6 (48.5)  | 10.8 (45.0) | 15.0 (41.8) | 9.3 (42.7)  |       |  |      |  |  |
| Continuous   | 10.1 (9.9)   | 1.9 (9.6)   | 2.4 (10.1)  | 3.9 (11.0)  | 1.8 (8.3)   |       |  |      |  |  |
| Manual start   | 34.6 (34.1)  | 7.7 (38.9)  | 8.4 (34.9)  | 11.1 (30.8) | 7.5 (34.4)  |       |  |      |  |  |
| <b>Pumps (electric)</b>  | 20.1 (19.8)  | 5.1 (26.1)  | 5.0 (20.6)  | 6.9 (19.3)  | 3.1 (14.2)  |       |  |      |  |  |
| Hot tub or spa   | 4.0 (4.0)    | 0.6 (3.0)   | 0.8 (3.1)   | 1.4 (4.0)   | 1.3 (5.8)   |       |  |      |  |  |
| Swimming pool  | 5.5 (5.4)    | 1.5 (7.6)   | 0.7 (2.9)   | 2.4 (6.6)   | 0.9 (4.1)   |       |  |      |  |  |
| Well water   | 14.3 (14.1)  | 3.7 (18.9)  | 4.2 (17.7)  | 4.9 (13.7)  | 1.5 (6.7)   |       |  |      |  |  |
| <b>Range</b>   | 100.6 (99.2) | 19.7 (99.6) | 23.9 (99.4) | 35.5 (99.0) | 21.5 (98.8) |       |  |      |  |  |
| Electric   | 61.2 (60.3)  | 9.6 (48.8)  | 13.4 (55.6) | 25.4 (70.9) | 12.7 (58.4) |       |  |      |  |  |
| Natural gas  | 35.1 (34.6)  | 9.0 (45.5)  | 9.5 (39.4)  | 8.4 (23.5)  | 8.2 (37.7)  |       |  |      |  |  |
| LPG  | 4.3 (4.3)    | 1.0 (5.3)   | 1.0 (4.4)   | 1.6 (4.5)   | 0.6 (2.7)   |       |  |      |  |  |
| Other  | Q (Q)        | Q (Q)       | Q (Q)       | Q (Q)       | Q (Q)       |       |  |      |  |  |
| <b>Refrigerators</b>   | 101.3 (99.9) | 19.7 (99.9) | 24.0 (99.9) | 35.8 (99.9) | 21.7 (99.7) |       |  |      |  |  |
| One  | 85.9 (84.7)  | 16.7 (84.6) | 19.7 (81.8) | 31.1 (86.8) | 18.4 (84.6) |       |  |      |  |  |
| Two or more  | 15.4 (15.2)  | 3.0 (15.3)  | 4.4 (18.1)  | 4.7 (13.1)  | 3.3 (15.1)  |       |  |      |  |  |
| <b>Most-used refrig. defrost</b>   |              |             |             |             |             |       |  |      |  |  |
| Frost-free   | 88.1 (86.8)  | 16.8 (85.2) | 20.5 (85.1) | 32.3 (90.0) | 18.5 (84.7) |       |  |      |  |  |
| Manual   | 13.3 (13.1)  | 2.9 (14.7)  | 3.5 (14.7)  | 3.6 (9.9)   | 3.3 (15.0)  |       |  |      |  |  |
| <b>Type of refrigerator</b>  |              |             |             |             |             |       |  |      |  |  |
| 2-door (top and bottom)  | 69.0 (68.0)  | 14.6 (74.2) | 17.6 (73.1) | 23.5 (65.6) | 13.2 (60.6) |       |  |      |  |  |
| 2-door (side-by-side)  | 20.7 (20.4)  | 3.0 (15.2)  | 4.2 (17.6)  | 8.0 (22.2)  | 5.5 (25.2)  |       |  |      |  |  |
| Regular (single door)  | 10.8 (10.7)  | 1.9 (9.8)   | 2.0 (8.5)   | 4.1 (11.4)  | 2.8 (12.7)  |       |  |      |  |  |
| Half-size/other  | 0.8 (0.7)    | 0.1 (0.6)   | Q (Q)       | 0.2 (0.6)   | 0.2 (1.1)   |       |  |      |  |  |
| <b>Age of refrigerator</b>   |              |             |             |             |             |       |  |      |  |  |
| Less than 2 years  | 13.4 (13.2)  | 2.4 (12.4)  | 3.1 (13.0)  | 4.8 (13.3)  | 3.1 (14.2)  |       |  |      |  |  |
| 2-4 years  | 21.4 (21.1)  | 4.2 (21.1)  | 4.6 (19.1)  | 8.6 (24.0)  | 4.0 (18.3)  |       |  |      |  |  |
| 5-9 years  | 30.3 (29.8)  | 5.7 (28.9)  | 7.0 (29.1)  | 10.6 (29.0) | 7.0 (32.0)  |       |  |      |  |  |
| 10-19 years  | 24.2 (23.8)  | 4.8 (24.1)  | 5.9 (24.7)  | 8.1 (22.6)  | 5.4 (24.5)  |       |  |      |  |  |
| 20 years or more   | 7.1 (7.0)    | 1.5 (7.8)   | 1.9 (8.0)   | 2.2 (6.1)   | 1.4 (6.5)   |       |  |      |  |  |
| Don't know   | 5.0 (4.9)    | 1.1 (5.6)   | 1.4 (5.9)   | 1.6 (4.4)   | 0.9 (4.2)   |       |  |      |  |  |
| <b>Size of refrigerator</b>  |              |             |             |             |             |       |  |      |  |  |
| Very small (>11 cf)  | 0.9 (0.9)    | 0.3 (1.4)   | 0.2 (0.9)   | 0.2 (0.7)   | 0.2 (0.9)   |       |  |      |  |  |
| Small (11-14 cf)   | 7.7 (7.6)    | 1.7 (8.5)   | 1.6 (6.5)   | 2.5 (7.1)   | 1.9 (8.9)   |       |  |      |  |  |
| Medium (15-18 cf)  | 45.7 (45.0)  | 9.6 (48.8)  | 11.3 (47.0) | 16.2 (45.1) | 8.6 (39.3)  |       |  |      |  |  |
| Large (19-22 cf)   | 45.5 (44.8)  | 7.8 (39.6)  | 10.5 (43.8) | 16.5 (45.9) | 10.7 (48.9) |       |  |      |  |  |
| Very large (23/+ cf)   | 1.5 (1.5)    | 0.3 (1.6)   | 0.4 (1.7)   | 0.4 (1.2)   | 0.4 (1.7)   |       |  |      |  |  |
| <b>Through-the-door ice</b>  |              |             |             |             |             |       |  |      |  |  |
| Yes  | 13.1 (13.0)  | 1.6 (8.4)   | 2.5 (10.4)  | 5.9 (16.3)  | 3.1 (14.4)  |       |  |      |  |  |
| No   | 88.3 (87.0)  | 18.1 (91.6) | 21.6 (89.6) | 30.0 (83.7) | 18.7 (85.6) |       |  |      |  |  |
| <b>Color television sets</b>   | 100.2 (98.7) | 19.5 (98.8) | 23.8 (99.0) | 35.4 (98.7) | 21.4 (98.2) |       |  |      |  |  |
| 1  | 32.3 (31.9)  | 6.3 (31.8)  | 7.7 (32.1)  | 10.5 (29.1) | 7.9 (36.1)  |       |  |      |  |  |
| 2  | 37.9 (37.4)  | 7.1 (36.1)  | 8.7 (36.2)  | 14.0 (38.9) | 8.1 (37.2)  |       |  |      |  |  |
| 3  | 19.4 (19.1)  | 4.1 (20.8)  | 4.9 (20.4)  | 6.6 (18.4)  | 3.8 (17.3)  |       |  |      |  |  |
| 4  | 7.8 (7.6)    | 1.5 (7.5)   | 1.9 (7.8)   | 3.2 (8.9)   | 1.2 (5.5)   |       |  |      |  |  |
| 5 or more  | 2.8 (2.8)    | 0.5 (2.6)   | 0.6 (2.5)   | 1.2 (3.4)   | 0.5 (2.2)   |       |  |      |  |  |

### Air Conditioning Use Avoided More than Heating (Cont.)

avoid using air conditioning far more often than higher income families. Most utilities are forbidden from cutting off the heat in winter when bills are not paid and some power companies are similarly prohibited from doing so in summer. Texas Utilities is one such utility that will not cut off a customer's power in summer even if bills are in arrears. Most of the casualties from the heat are occurring in Texas.

Despite the dangers, a mere 1.7% of households with annual incomes below \$10,000 used their central air conditioner "all summer" compared to 9.1% for households with incomes of \$50,000 or more per year and 7.8% for households with incomes of \$25,000-49,999. EIA reported that 1.8% of sub-poverty-level households used a central air conditioner that much.

#### Assisted Households Use AC

With federal assistance available to help pay for utility bills, the number of households using air conditioning all summer rose to 5.4%. Conversely, the subagency reported that virtually no one in any of the surveyed income categories avoided using any air conditioning in summer. The number using central air conditioning "quite a bit" ranged from 0.8% of the homes in the under-\$10,000/yr. category to 4.2% for households with incomes of \$50,000 or more per year.

For use of window units, the ranges were flatter and use actually declined as a percentage of homes as income levels increased, perhaps indicating a preference among higher-income families for use of a central air conditioner. Such efficiency features as set-back thermostats were not found very often in low-income households.

All findings were for homes that had air conditioning. EIA noted slightly less than three in four homes nationwide had cooling. The income breakdown of homes with air conditioning compared to homes with heating is as follows: less than \$10,000/yr.—13.3 million heated homes and 8.2 million air-conditioned homes (61.7%); \$10,000-24,999/yr.—19.6 million with air conditioning out of 29.1 million with heat (67.4%); \$25,000-49,000/yr.—23.4 million with air conditioning out of 31.1 million with heat (75.2%); \$50,000/yr. or more, 22.4 million homes with air conditioning out of 27.9 million homes with heat (80%); below the poverty line—8.5 million homes with air conditioning out of 14.7 million homes with heat (57.8%); and homes eligible for federal assistance—21.3 million with air conditioning out of 34.7 million with heat (61.4%).

EIA plan...

| Appliances by Census Region, Million U.S. Households (Percent), 1997—Preliminary |               |              |              |              |              |  |
|--|---------------|--------------|--------------|--------------|--------------|--|
| Appliance types and character. (cont.)   | Total         | Northeast    | Midwest      | South        | West         |  |
| Video cassette recorders   | 88.9 (87.6)   | 17.0 (86.1)  | 21.6 (89.7)  | 30.9 (86.0)  | 19.4 (89.0)  |  |
| One  | 56.3 (55.5)   | 11.3 (57.5)  | 13.6 (56.4)  | 18.9 (52.8)  | 12.5 (57.3)  |  |
| Two  | 25.2 (24.9)   | 4.2 (21.5)   | 6.3 (26.0)   | 9.3 (25.8)   | 5.5 (25.1)   |  |
| Three  | 7.3 (7.2)     | 1.4 (7.1)    | 1.8 (7.3)    | 2.6 (7.4)    | 1.5 (6.7)    |  |
| Water heaters  | 101.5 (100.0) | 19.7 (100.0) | 24.1 (100.0) | 35.9 (100.0) | 21.8 (100.0) |  |
| Electric   | 40.0 (39.5)   | 5.2 (26.5)   | 6.6 (27.6)   | 20.9 (58.3)  | 7.3 (33.3)   |  |
| For one housing unit   | 37.9 (37.4)   | 4.8 (24.5)   | 6.0 (25.0)   | 20.2 (56.4)  | 6.8 (31.2)   |  |
| For two or more units  | 2.1 (2.1)     | 0.4 (2.0)    | 0.6 (2.5)    | 0.7 (1.9)    | 0.5 (2.1)    |  |
| Natural gas  | 52.4 (51.7)   | 9.2 (46.8)   | 16.0 (66.4)  | 13.4 (37.4)  | 13.8 (63.2)  |  |
| For one housing unit   | 46.4 (45.7)   | 7.6 (38.3)   | 14.0 (58.0)  | 12.9 (36.0)  | 12.0 (54.9)  |  |
| For two or more units  | 6.0 (5.9)     | 1.7 (8.4)    | 2.0 (8.4)    | 0.5 (1.4)    | 1.8 (8.3)    |  |
| Fuel oil   | 4.9 (4.9)     | 4.7 (23.8)   | Q (Q)        | Q (Q)        | Q (Q)        |  |
| For one housing unit   | 3.1 (3.1)     | 2.9 (14.6)   | Q (Q)        | Q (Q)        | Q (Q)        |  |
| For two or more units  | 1.8 (1.8)     | 1.8 (9.2)    | Q (Q)        | Q (Q)        | Q (Q)        |  |
| LPG  | 3.2 (3.1)     | 0.4 (1.9)    | 1.2 (4.9)    | 1.1 (3.0)    | 0.5 (2.4)    |  |
| Other  | 0.7 (0.7)     | 0.2 (0.9)    | Q (Q)        | Q (Q)        | 0.2 (0.7)    |  |
| No water heater  | 0.2 (0.2)     | Q (Q)        | Q (Q)        | Q (Q)        | Q (Q)        |  |
| Water heater for 1 unit  | 91.0 (89.7)   | 15.7 (79.7)  | 21.3 (88.4)  | 34.6 (96.4)  | 19.4 (89.0)  |  |
| Age  |               |              |              |              |              |  |
| Less than 2 years  | 11.2 (11.1)   | 2.0 (10.0)   | 2.7 (11.1)   | 4.2 (11.7)   | 2.4 (11.1)   |  |
| 2-4 years  | 17.0 (16.8)   | 3.0 (15.0)   | 3.9 (16.3)   | 6.9 (19.3)   | 3.2 (14.7)   |  |
| 5-9 years  | 25.3 (25.0)   | 4.1 (20.9)   | 5.6 (23.3)   | 10.3 (28.7)  | 5.3 (24.2)   |  |
| 10-19 years  | 20.2 (19.9)   | 2.8 (14.4)   | 5.4 (22.5)   | 7.5 (20.9)   | 4.5 (20.6)   |  |
| 20 years or more   | 7.1 (7.0)     | 1.2 (6.2)    | 1.6 (6.7)    | 2.4 (6.6)    | 1.9 (8.8)    |  |
| Don't know   | 7.1 (7.0)     | 0.9 (4.3)    | 1.8 (7.6)    | 3.0 (8.3)    | 1.5 (6.7)    |  |
| No separate heater   | 3.0 (2.9)     | 1.8 (8.9)    | Q (Q)        | 0.4 (1.1)    | 0.6 (2.8)    |  |
| No water heater  | 0.2 (0.2)     | Q (Q)        | Q (Q)        | Q (Q)        | Q (Q)        |  |
| Water heat. for 2/+ units  | 10.3 (10.1)   | 4.0 (20.1)   | 2.8 (11.5)   | 1.2 (3.3)    | 2.3 (10.6)   |  |
| Size   |               |              |              |              |              |  |
| Small  | 15.5 (15.3)   | 2.2 (11.1)   | 3.4 (14.3)   | 7.0 (19.6)   | 2.8 (13.0)   |  |
| Medium   | 47.1 (46.4)   | 8.0 (40.3)   | 12.2 (50.6)  | 18.0 (50.1)  | 9.0 (41.4)   |  |
| Large  | 21.7 (21.3)   | 3.1 (15.6)   | 4.5 (18.8)   | 7.9 (22.1)   | 6.1 (28.1)   |  |
| Don't know   | 3.7 (3.7)     | 0.7 (3.8)    | 0.9 (3.9)    | 1.3 (3.5)    | 0.8 (3.7)    |  |
| No separate heater   | 3.0 (2.9)     | 1.8 (8.9)    | Q (Q)        | 0.4 (1.1)    | 0.6 (2.8)    |  |
| No water heater  | 0.2 (0.2)     | Q (Q)        | Q (Q)        | Q (Q)        | Q (Q)        |  |
| Water heat. for 2/+ units  | 10.3 (10.1)   | 4.0 (20.1)   | 2.8 (11.5)   | 1.2 (3.3)    | 2.3 (10.6)   |  |
| Other appliances   |               |              |              |              |              |  |
| Aquarium   | 3.9 (3.8)     | 0.6 (3.3)    | 1.0 (4.0)    | 1.2 (3.4)    | 1.0 (4.7)    |  |
| Microwave oven   | 84.2 (83.0)   | 15.5 (78.7)  | 20.9 (86.9)  | 29.6 (82.4)  | 18.2 (83.3)  |  |
| Outdoor gas light  | 0.9 (0.9)     | Q (Q)        | 0.3 (1.2)    | 0.3 (1.0)    | Q (Q)        |  |
| Rechargeable tools/appl.   | 44.4 (43.7)   | 8.5 (43.2)   | 11.2 (46.5)  | 15.0 (41.7)  | 9.7 (44.4)   |  |
| Stereo equipment   | 69.8 (68.8)   | 13.2 (66.7)  | 16.1 (67.0)  | 24.3 (67.8)  | 16.2 (74.4)  |  |

#### Daytime Winter Temperatures when Someone is Home, by Climate Zone

|                   | Total       | Fewer than 2,000 Cooling Degree-Days and — |                 |                 |                     | More than 2,000 CDD |
|-------------------|-------------|--|-----------------|-----------------|---------------------|---------------------|
|                   |             | More than 7,000 HDD                        | 5,500-7,000 HDD | 4,000-5,500 HDD | Less than 4,000 HDD |                     |
| Heat is turned on | 93.9 (92.5) | 9.0 (97.7)                                 | 26.9 (96.0)     | 20.8 (92.5)     | 17.8 (91.0)         | 19.3 (87.2)         |
| 63°F or less      | 3.8 (3.8)   | 0.4 (4.1)                                  | 1.0 (3.7)       | 1.0 (4.3)       | 0.9 (4.8)           | 0.5 (2.2)           |
| 64-66°F           | 8.3 (8.1)   | 0.7 (8.1)                                  | 2.4 (8.7)       | 1.8 (8.2)       | 2.0 (10.4)          | 1.2 (5.4)           |
| 67-69°F           | 23.4 (23.0) | 2.9 (31.8)                                 | 7.9 (28.2)      | 5.3 (23.4)      | 4.1 (21.2)          | 3.1 (14.2)          |
| 70°F              | 25.6 (25.2) | 2.8 (30.4)                                 | 7.1 (25.2)      | 5.9 (26.2)      | 4.9 (25.2)          | 4.9 (22.3)          |
| 71°F              | 14.7 (14.5) | 1.2 (13.5)                                 | 5.0 (17.7)      | 3.0 (13.3)      | 2.3 (11.6)          | 3.3 (14.8)          |
| 74°F or more      | 18.1 (17.8) | 0.9 (9.9)                                  | 3.5 (12.6)      | 3.9 (17.1)      | 3.5 (17.8)          | 6.3 (28.4)          |
| Heat turned off   | 2.1 (2.1)   | Q (Q)                                      | Q (Q)           | Q (Q)           | 1.1 (5.6)           | 0.8 (3.8)           |
| Unknown/no ans.   | 5.5 (5.4)   | Q (Q)                                      | 1.0 (3.7)       | 1.6 (7.0)       | 0.7 (3.4)           | 2.0 (9.0)           |

### Carrier Combines Thermidstat, Puron In New, More Efficient Heat Pump Models

Carrier Corp., New York, N.Y., has begun marketing its Comfort Heat Pump System™ including the company's Thermidstat™ control component that maintains humidity levels much like a thermostat maintains temperature. Compared to conventional heat pumps, the new system offers 15-20° higher supply air temperatures, 100° minimum supply air temperatures and up to 30 times more humidity removal, the company said.

"This new system meets the needs of homeowners who want warmer air from their heating system and greater humidity control in summer," said Nathan Wright, marketing manager at Carrier for heat pumps.

Carrier heat pumps are available with seasonal energy-efficiency ratio (SEER) and heating seasonal performance factor (HSPF) ratings ranging from the industry standard 10.0 SEER/6.8 HSPF to 16.1 SEER/9.4 HSPF, the company said. The heat pump also is available with Carrier's new non-ozone-depleting Puron™ refrigerant (R-410A), which replaces R-22.

Contact Carrier at its Web site of [www.carrier.com](http://www.carrier.com) or write to ACLS, Dept. 840-025, 108 Metropolitan Dr., Liverpool, N.Y. 13088-5112