

Residential Energy  
Consumption Survey:

# Housing Characteristics, 1980

Energy Information Administration  
Office of Energy Markets and End Use  
U.S. Department of Energy



June 1982

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Consumption Survey:

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Energy Information Administration  
Office of Energy Markets and End Use  
End Use Energy Division  
**U.S. Department of Energy**  
Washington, D.C. 20585

DOE/EIA-0314

June 1982



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## SUMMARY OF FINDINGS

### Introduction

The results of the 1980 Residential Energy Consumption Survey cover consumption for the period April 1980 through March 1981. It is the third in a series of surveys of residential energy use. By comparing the findings from this survey with those from the surveys of 1978 and 1979, a three-year record of residential energy use patterns can be established. In each of the three years, different samples of households were surveyed.

This report provides data on energy-related characteristics of U.S. housing as of November 1980. It gives information on housing characteristics, fuel use, appliance use, thermal characteristics, conservation activities, heating equipment, and wood fuel consumption. This is the first survey to include data on direct measurements of the area of the housing units. These square footage data are also included in the report. Data on consumption and expenditures for specific fuels will be given in a subsequent report.

### Fuel Use

This survey found several changes in the usage pattern for main heating fuels. Electricity was estimated to be the second most-used main heating fuel, replacing fuel oil and kerosene, while wood was estimated to be the fourth most-used main heating fuel, replacing liquid petroleum gas. When main heating use and secondary heating uses were combined, wood was the third most-used fuel, exceeding the number of users of fuel oil and kerosene. Natural gas remains the dominant fuel used for main heating fuel, however.

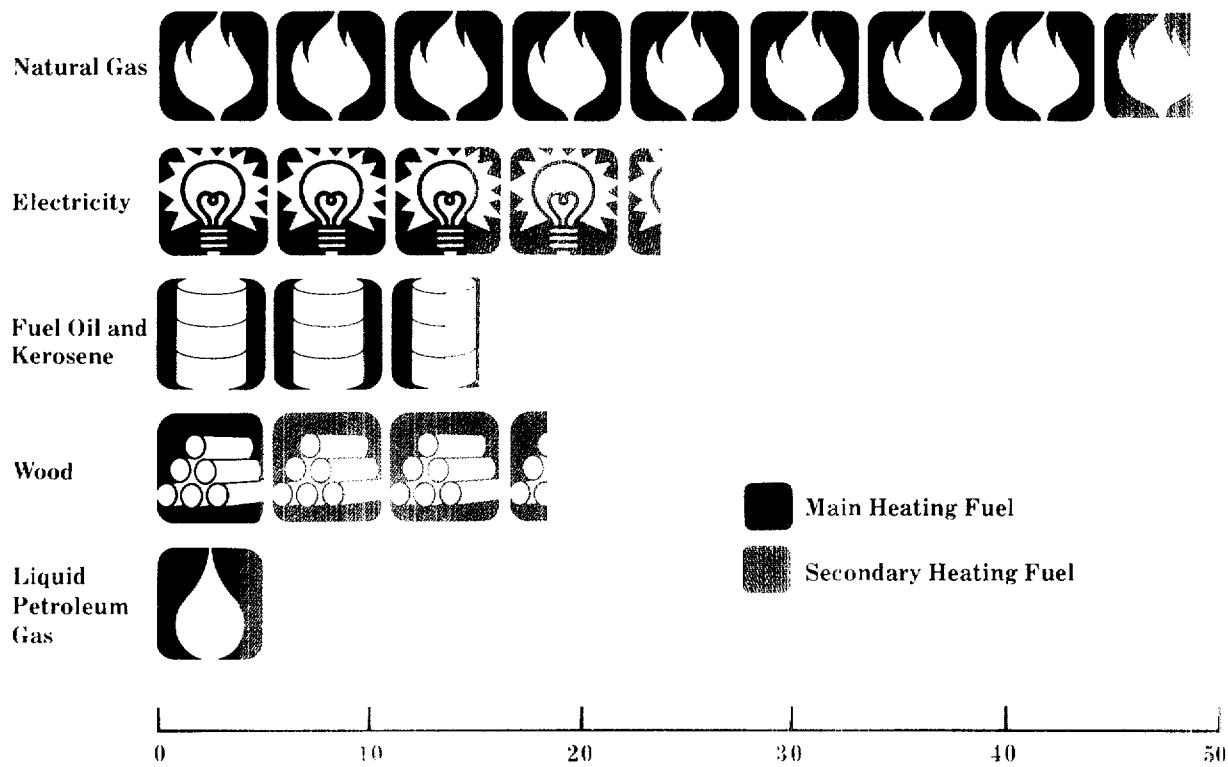
Data on the total numbers of users of different fuels for main heating fuel and secondary heating fuel are shown in Figure 1. Natural gas was used as the main heating fuel by an estimated 44.6 ( $\pm 2.4$ ) million households or by 54.6 percent of all households.<sup>1</sup> An additional 3.3 ( $\pm 0.7$ ) million households

---

<sup>1</sup>The  $\pm$  values in parentheses after a statistic quoted in the text represent two standard errors of the statistic. The standard error is a measure of the variability of an estimate that is based on a sample survey. For further explanation of standard errors, see Appendix C, "Limitations of the Data". The percentages in the text are also subject to sampling errors. Standard errors for the percentages can be calculated by following the method given in Appendix C.

used it as a secondary heating source. Electricity was estimated to be the second most-used fuel for space-heating; it was the main heating fuel for 14.3 ( $\pm 1.5$ ) million households. An estimated 13.4 ( $\pm 1.4$ ) million households used fuel oil and kerosene. Wood was estimated to be the main heating fuel for 4.7 ( $\pm 0.8$ ) million households, and the total number of households using wood as a main or secondary heating fuel was 18.1 ( $\pm 1.7$ ) million.

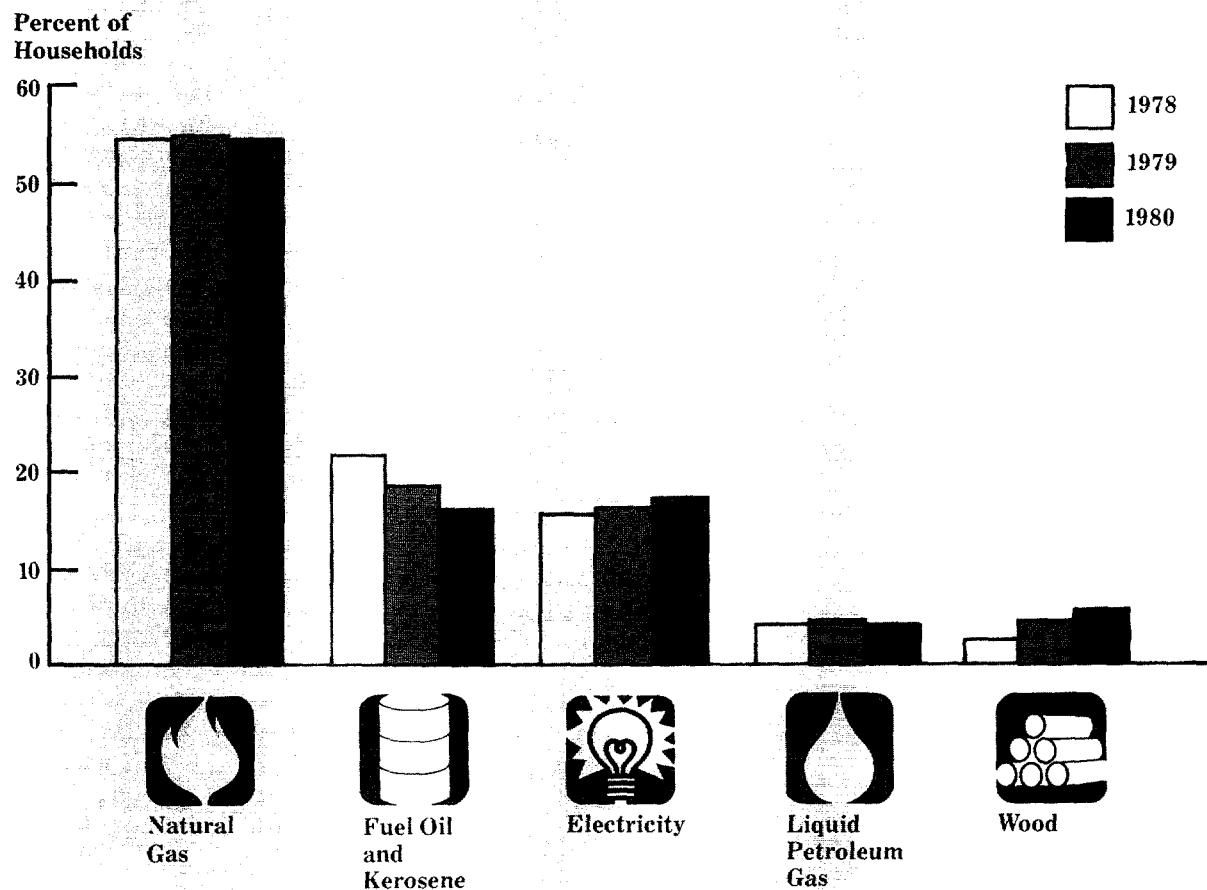
Figure 1. Numbers of Households Using Different Fuels as Main and Secondary Heating Fuels (Millions)



Source: Table 15.

The usage pattern of different fuels as the main heating fuel is the result of trends observed during the history of the RECS, as shown in Figure 2. The percentages of households using natural gas and liquid petroleum gas remained essentially constant during the past three years. There were persistent increases in the percentages of households using electricity and wood, while the estimated number of fuel oil and kerosene users consistently declined.

**Figure 2. Percent Distribution of Households by Main Heating Fuel by Year**



Source: 1978 National Interim Energy Consumption Survey, 1979 Household Screener Survey, 1980 Residential Energy Consumption Survey. For 1980 data, see Table 16.

Statistically, the difference of 0.9 (+2.1) million between the estimated number of households using electricity for the main heating fuel and the number estimated to use fuel oil is not significantly different from zero. However, the trends in the use of each fuel between 1978 and 1980 are statistically significant, so the survey results do represent a major change in fuel use patterns. The number of households using electricity as the main heating fuel increased 2.2 (+ 2.0) million from 1978 to 1980, while the number using wood more than doubled from 1.9 (+ 0.6) to 4.7 (+ 0.8) million.

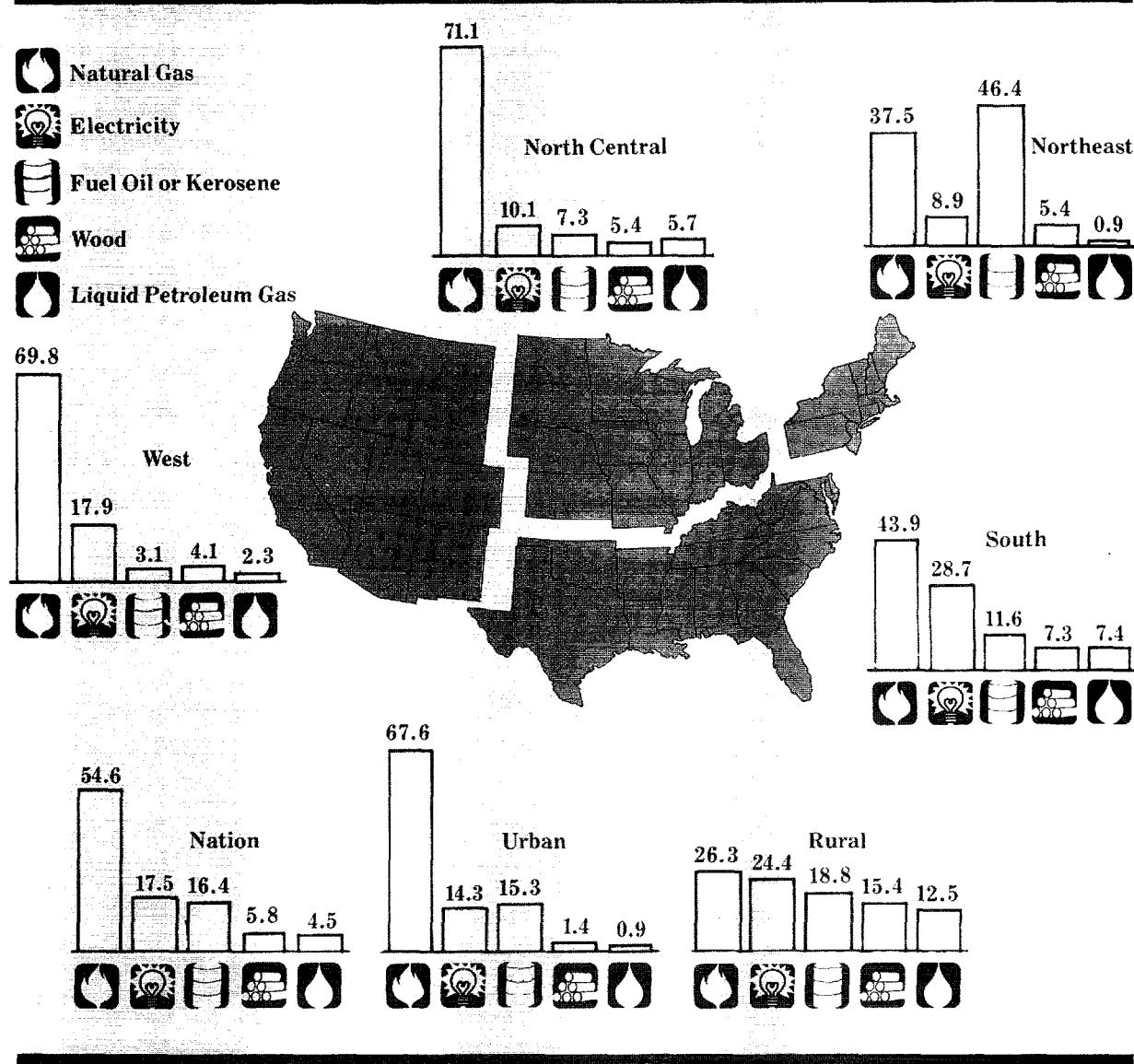
Additional data on the decline in fuel oil and kerosene use comes from the statistics for households who changed their main heating fuel in the previous year. A total of 2.0 (+ 0.5) million households changed their main heating fuels, and a majority of these, 1.2 (+ 0.4) million, were households that had been heating with fuel oil. Other households that changed were evenly distributed among the other fuels. Households that changed fuels most frequently chose natural gas as their new fuel, followed closely by wood.

An important factor in the increased use of electricity as the main heating fuel was its use in newer housing units. Electricity was the main heating fuel for 11 percent of the homes built from 1960 to 1964; 21 percent for the period 1965 to 1969; 36 percent for the period 1970 to 1974; and 50 percent for the period 1975 and later. An important reason for choosing electricity was probably the unavailability of natural gas, the preferred fuel when available. Natural gas was not available to 53 percent of the single-family and mobile homes built after 1975 and to 43 percent of homes built from 1970 to 1974. Natural gas availability is not the only reason, however. Natural gas was not used by 26 percent of the single-family and mobile homes built after 1975 where it was available. However, among all single-family and mobile homes with natural gas available, only 13 percent did not use it. So newer homes were less likely to use natural gas than older homes even where it was available.

This survey also collected data on the amount of wood burned by those households that use it. More households indicated they burned wood, than those that used it as the main or secondary heating source. Among all households burning wood, 14.2 (+ 1.4) million burned one-third of a cord or more. These households burned a total of 41.9 (+ 15.2) million cords, most of which was hardwood. Those households that used wood for the main heating fuel burned an average of 4.9 (+ 1.4) cords, for a total of 22 (+ 12) million cords. Other users of wood, who used one-third of a cord or more, burned an average of 2.0 (+ 0.4) cords, for a total of 20 (+ 5) million cords.

There were major regional variations in the distribution of main heating fuels. Figure 3 gives the proportion of households that used various fuels for the 4 Census regions and for households living in rural and urban areas. The Northeast region used fuel oil and kerosene intensively, with almost 50 percent of the households using it as their main heating fuel. In all other regions, natural gas was the most-used fuel. In the South, and to a lesser extent in the West, electricity was used by a significant minority of households.

**Figure 3. Percentages of Households Using Different Main Heating Fuels by Region and Urban/Rural**



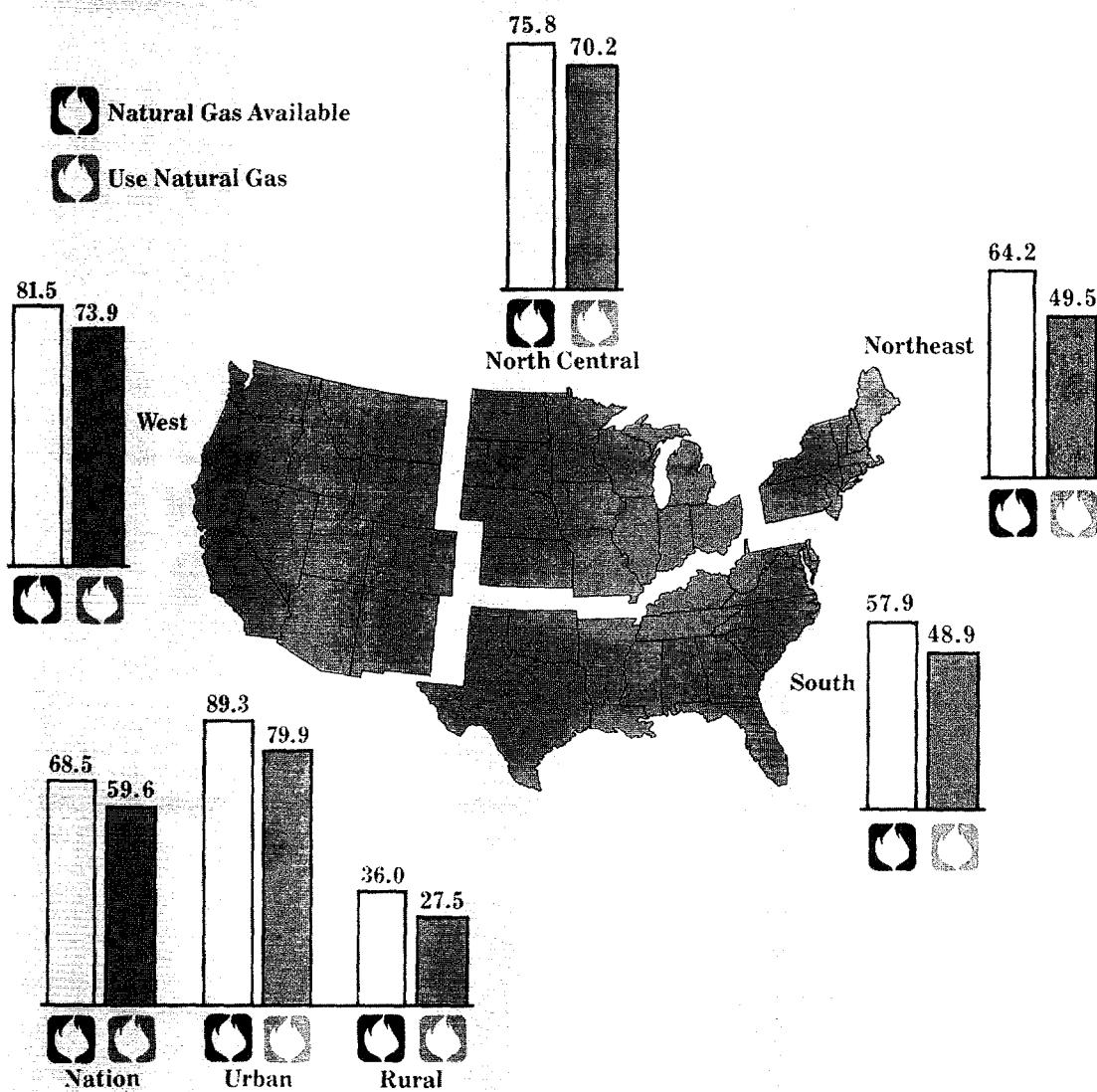
Source: Table 16.

There were differences between urban and rural households regarding main heating fuels. Both groups used natural gas more than other fuels, but 68 percent of urban households used it, while only 26 percent of rural households did. Most of the remaining urban households used electricity or fuel oil. Rural households were more uniformly distributed in their use of fuels and had substantial numbers of users of wood and liquid petroleum gas. A majority of the users of wood and liquid petroleum gas were in rural areas. Of the 4.7 ( $\pm 0.8$ ) million households using wood as the main heating fuel, 3.9 ( $\pm 0.6$ ) million were in rural areas, and 3.2 ( $\pm 0.7$ ) million of the 3.7 ( $\pm 0.7$ ) million liquid petroleum gas users were in rural areas.

One important reason for the regional variations in fuel use was the availability of natural gas. Natural gas was available to 41.7 ( $\pm 2.6$ ) million single-family and mobile homes in the Nation; it was not available to 19.2 ( $\pm 1.7$ ) million homes. Where natural gas was available, only 5.4 ( $\pm 1.0$ ) million, or 13 percent, of the households did not use it. Figure 4 gives the regional variation in natural gas availability. Close to 60 percent of the single-family and mobile homes in the South had natural gas available, while more than 80 percent did in the West. Almost 90 percent of the urban households had natural gas available, while only 36 percent of rural homes did.

There was less regional variation in the use of natural gas among households that had it available, as shown in Figure 4. The percentage of households that did not use it when it was available ranges from 16 percent in the South to 23 percent in the Northeast region. About one-eighth of the urban homes that have natural gas available did not use it, while almost one-fourth of the rural homes did not.

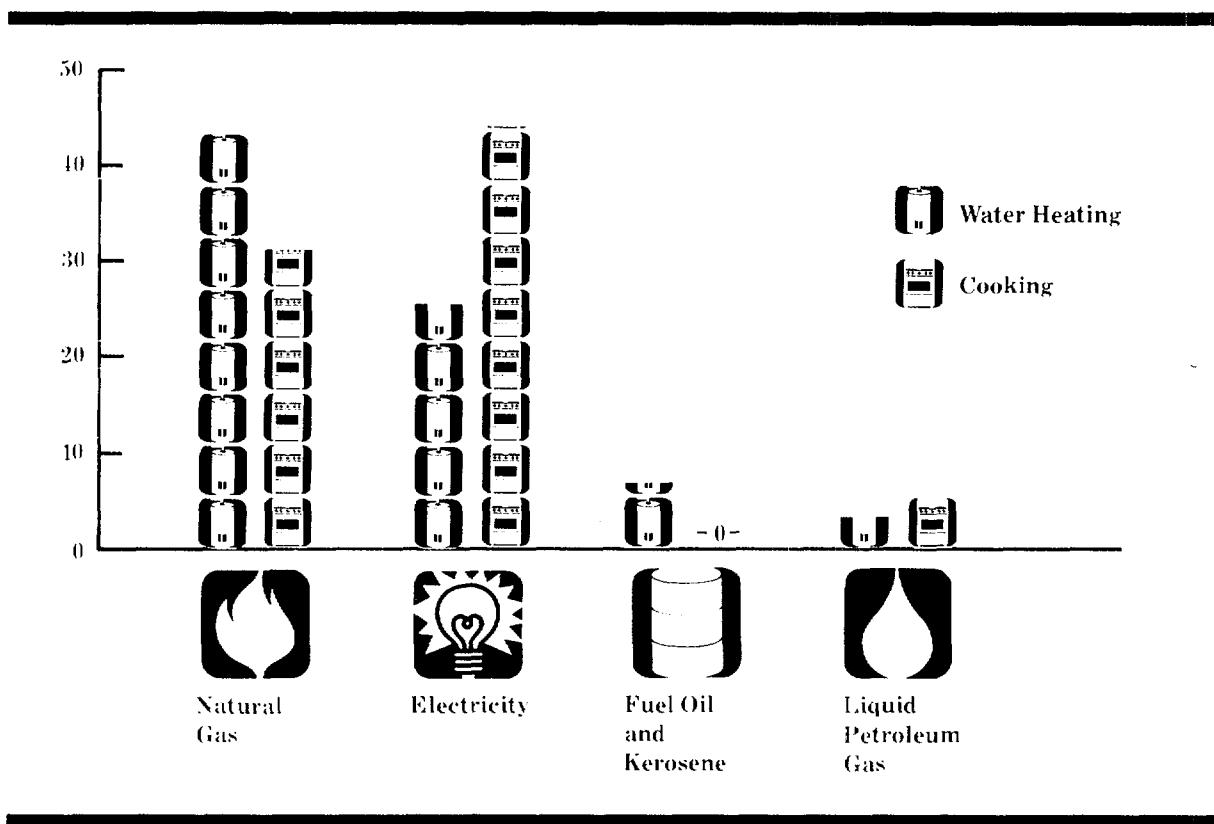
**Figure 4. Percentages of Single-Family and Mobile Homes with Natural Gas Available and That Use Natural Gas by Region and by Rural/Urban**



Source: Percentages calculated from data in Table 15.

Two other important residential uses for energy are water-heating and cooking. The numbers of households using the various fuels for these uses are shown in Figure 5. Natural gas was used by 54.1 percent of the households for water-heating, and electricity was used by 31.9 percent. Other fuels were used by less than 15 percent of all households. These percentages are similar to the findings in the surveys for previous years. For cooking, electricity was the dominant fuel, being used by 54.4 percent of the households. Natural gas was used by most of the remaining households, apart from a small number of users of liquid petroleum gas, primarily in rural areas.

**Figure 5. Number of Households Using Various Fuels for Water-Heating and Cooking. (Millions)**



Source: Table 15.

One item of note is that some of the households in this survey used solar energy for hot water-heating. This use did not show up in the 1978 survey. The renewable resources of wood and solar collectors together accounted for 0.5 (+ 0.2) million households. In some cases, a solar hot water-heating system was considered a secondary heating source and was not measured in this survey. The 1981 survey will have more complete information on the use of renewable resources.

Regional variations in fuel used for water-heating paralleled those for space-heating. Most households that heated with natural gas also used it to heat water. Most other households heated water with electricity. More than 90 percent of the households used electricity and natural gas for water-heating in all regions except for the Northeast, where about one-third of the households used fuel oil or kerosene.

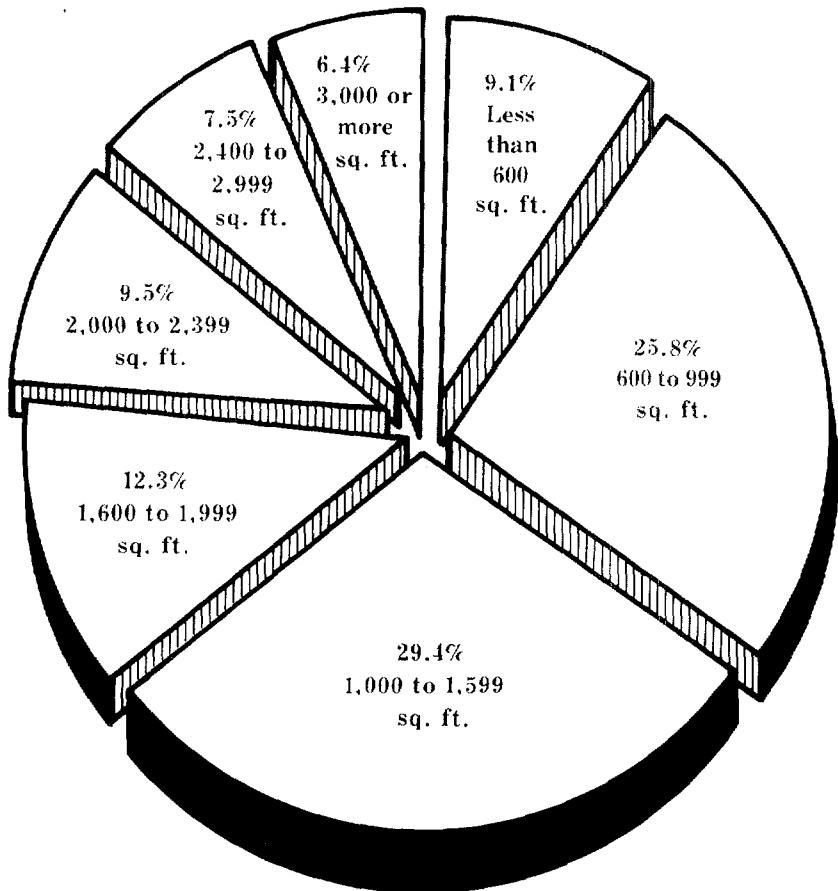
There were some differences among the different income groups in the fuels used for different end uses. High-income families were more likely to use natural gas and electricity for space-heating, while a higher proportion of low-income families used fuel oil, wood, and liquid petroleum gas. The distribution of fuels used for water-heating were very similar for different income groups, but there were differences in cooking fuels. Among households with incomes larger than \$35,000, 68 percent cooked with electricity and 27 percent cooked with natural gas. For poor households (125 percent level), 42 percent cooked with electricity and 48 percent cooked with natural gas. Most of the remaining households in both groups cooked with liquid petroleum gas.

## Housing Characteristics

This survey includes data for the first time on the area (measured in square feet) of the housing unit obtained by direct measurement by the interviewer. For all housing units in the Nation, the average square footage for heated and unheated space was 1,745 (+ 47), and for heated space, the average was 1,499 (+ 36). Most households, about 65 percent of them, lived in housing units that ranged in size of heated area from 600 to 2,000 square feet. The total size of the residential stock was 142.5 (+ 3.8) billion square feet, of which 122.4 (+ 3.0) was heated. (The distribution of households by heated square footage is shown in Figure 6.)

**Figure 6. Percentage Distribution of Households by Measured Heated Square Footage of Residence**

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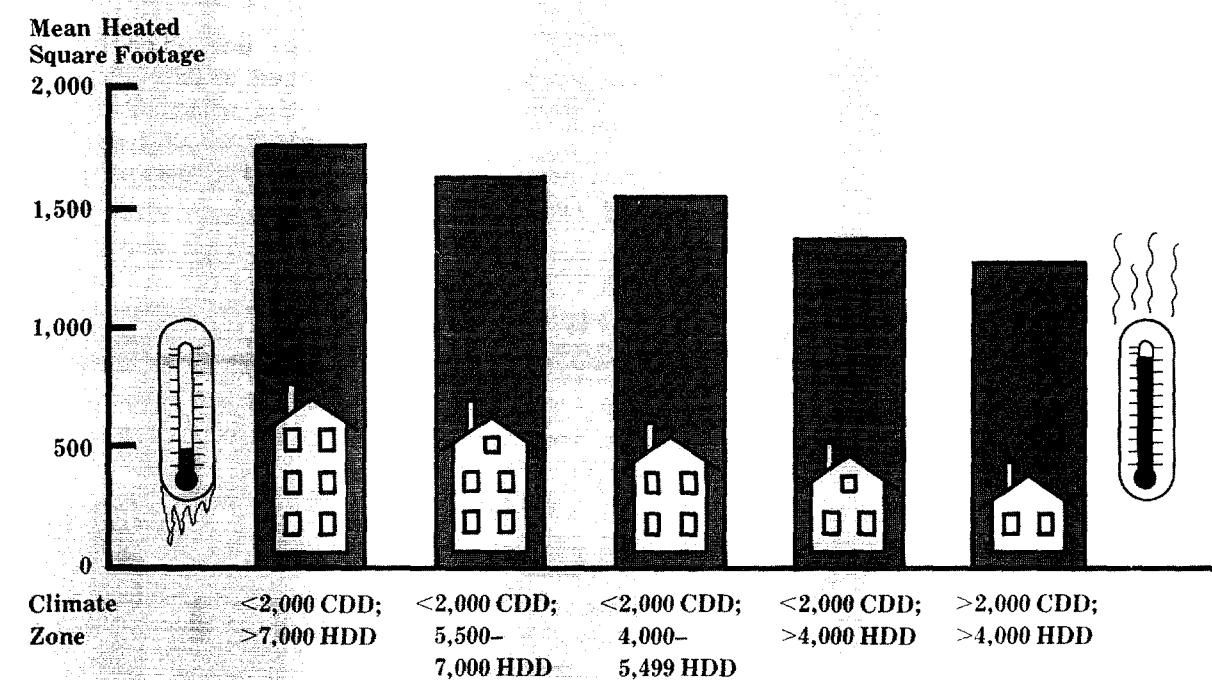


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Source: Table 2.

Interestingly, the larger housing units were in the colder parts of the country. Figure 7 shows the average heated area for housing units in different climatic zones as measured by the number of heating degree-days and cooling degree-days. There was a steady decrease in heated square footage from 1,749 ( $\pm$  169) in the coldest zone to 1,266 ( $\pm$  90) in the warmest.

**Figure 7. Mean Heated Square Footage by Annual Heating Degree-Days (HDD) and Cooling Degree-Days (CDD).**

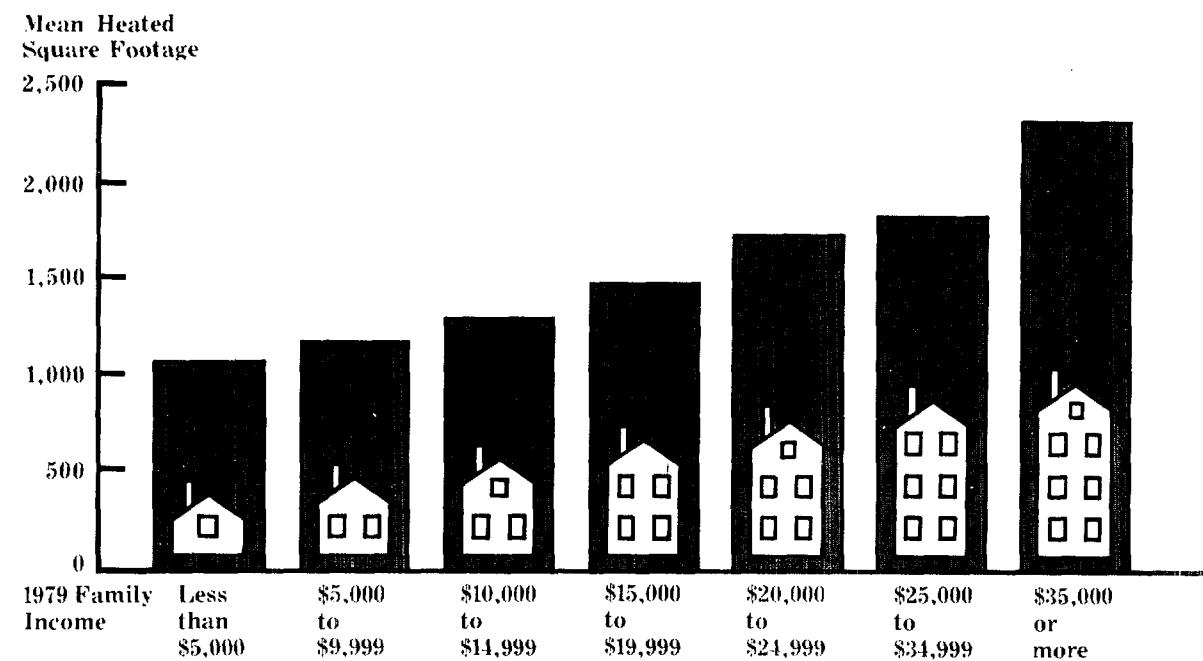


Source: Table 9.

This relationship between climatic zone and size of housing unit primarily reflects differences in the types of houses that are built in different parts of the country. On average, the largest housing units were two-story, single-family detached houses with basements. One-story units with basements came next, followed by two-story and then one-story units without basements. Other types of units, primarily multiple household units, were the smallest. The coldest parts of the country had the largest proportion of two-story houses and houses with basements. Warmer parts of the country were characterized by more one-story units and houses without basements. In the warmest section of the country, almost 70 percent of the housing units were single-family, one-story units without basements; almost all the rest were multi-family units or mobile homes. On average, multi-family units were also larger in size in the colder sections of the country than in the warmer.

There were large differences in the size of housing units occupied by families with different incomes. Figure 8 shows the average heated square footage by 1979 family income. There was a steady increase in the size of a family's housing unit with its income. Families with incomes below \$5,000 averaged homes with 1,041 (+ 62) heated square feet, while families with incomes above \$35,000 averaged 2,296 (+ 116) heated square feet.

**Figure 8. Mean Heated Square Footage by 1979 Family Income**



Source: Table 9.

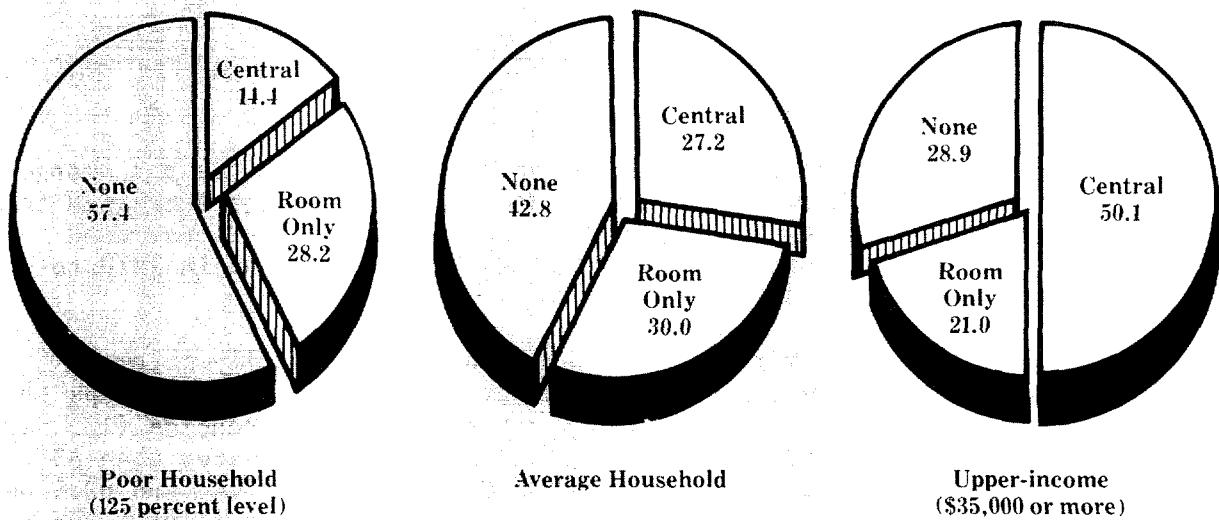
Heated square footage also increased with the number of household members, from 1,052 (+ 51) for 1 member and 1,476 (+ 40) for 2 members up to 1,855 (+ 161) for 6 or more members. Housing unit size also increased with the age of the head of the household. The estimated heated square footage was 953 (+ 49) for heads of households under 25 years of age and 1,773 (+ 66) for heads of households aged 45 to 59. For elderly households, the average dropped to 1,428 (+ 66), slightly below the mean for all households.

#### Appliance Use

Air-conditioners were present in a larger percentage of households in 1980 than in 1978. In 1980, 46.7 (+ 2.3) million households, or 57.2 percent of the total had air-conditioners. In the 1978 survey, 55.6 percent of the households had air-conditioning. There was also an increase in the number of households with central air-conditioning, in contrast with window units only, among those who had air-conditioning. In 1980, 27.2 percent of all households had central units, while only 22.6 percent did in 1978. There was a corresponding increase in the proportion of households with all rooms air-conditioned from 29.2 percent to 36.5 percent.

Figure 9 shows the percentage distribution of air-conditioning for households in different income categories. Twice as many households with income above \$35,000 had air-conditioning than did poor families (125 percent level), and those that had air-conditioning were much more likely to have central units. Similar differences are found in the percentages of households that air-conditioned all their rooms: 24.6, 36.5, and 54.6 percent, respectively, for the poor, average, and upper-income households.

**Figure 9. Percentage Distribution of Households by Type of Air Conditioning for Selected Income Groups**



Source: Table 26.

Households used a wide variety of appliances to provide services in the home. Table A gives the number of households in the Nation using some of the more common appliances. Refrigerators were used by almost all households; only 0.2 (+ 0.1) million did not use one. In addition, 11.5 (+ 1.2) million households used more than one refrigerator. Color television sets were the next most frequently used appliance. Black and white television sets, automatic clothes washers and dryers were also used by a majority of households.

Table A. Appliances Used by Households in Selected Income Groups

Appliance	Total Number of Households Using Appliance (Millions)	Percentage of Households Using Appliance		
		Poor (125 Per- cent Level) (Percent)	Average (Percent)	Income >\$35,000 (Percent)
Refrigerator.....	81.5	99	100	100
2 or More Refrigerators.....	11.5	7	14	29
Regrigerator Most Used is Frost-Free.....	49.2	41	60	79
Color TV.....	67.0	62	82	94
Black/White TV.....	41.9	56	51	53
Automatic Clothes Washer.....	58.4	55	72	90
Clothes Dryer (electric and gas)...	50.1	36	61	88
Dishwasher.....	30.4	11	37	75
Freezer.....	31.1	29	38	48
Two or More Ovens....	21.0	8	26	53
Microwave Oven is 1st or 2nd Most- Used.....	11.7	3	14	32

Source: Tables 39 and 40.

The proportion of households using the various appliances has not changed much since 1978, with two exceptions. Microwave oven usage increased from 8 percent in 1978 to 14 percent in 1980. The proportion of most-used refrigerators that are frost-free increased from 53 percent in 1978 to 60 percent in 1980.

There were substantial variations in appliance use by family income. Table A gives the percentages of households in selected income groups that used particular appliances. Ownership rates for poor households (125 percent level), average households and households with incomes greater than \$35,000 are compared. Almost all poor households used refrigerators, and 62.4 percent used a color television, but other appliances were used by a small minority of the poor. Most upper income families, on the other hand, used all major appliances. These were also the families most likely to use multiple appliances, such as two or more refrigerators or ovens.

### Thermal Characteristics

A majority of households have housing units with major energy conservation measures incorporated to improve the thermal characteristics of the unit. More than three-fourths of all single-family houses had roof or ceiling insulation. Slightly more than one-half of all housing units in the Nation had storm windows. The numbers of homes that had improved thermal characteristics varied, as would be expected, by the climate zone in which the houses were located, as shown in Table B.

**Table B. Percentages of Single-Family Units with Roof or Ceiling Insulation and of Households with All and No Windows with Storm Windows by Annual Heating Degree-Days (HDD) and Cooling Degree-Days (CDD)**

	Climate Zone				
	5,500-	4,000-	>7,000 HDD; <2,000 CDD	7,000 HDD; <2,000 CDD	5,499 HDD; <2,000 CDD
<b>Thermal Characteristics</b>					
<b>Single-Family Units with Roof or Ceiling Insulation.....</b>					
Households with all Windows Covered by Storm Windows.....	88	80	77	71	72
Households with no Windows Covered by Storm Windows.....	66	58	44	18	8
	9	14	31	74	88

Source: Table 52.

Households in the colder parts of the country were the most likely to have undertaken conservation measures. In the coldest section, 88 percent of the single-family houses had roof or ceiling insulation. This percentage did not fall below 70 percent in the warmer parts of the country, so roof or attic insulation was a common feature in houses in most parts of the country. There was more variation in the percentages of housing units of all types that had storm windows. In the coldest section, 66 percent of the households had all their windows covered by storm windows or had other types of thermally efficient window units, while only 9 percent had no storm windows at all. In the warmest section, on the other hand, only 8 percent of the units had all windows protected and 88 percent did not have any at all.

There are considerable variations in the degree to which households with different incomes had houses with improved thermal characteristics. Table C gives the percentages of poor households (125 percent level) and upper-income households (family income greater than \$35,000) that had roof or ceiling insulation (single-family units only) and that had storm windows (all types of units). Almost 90 percent of the upper-income households had roof or ceiling insulation, while only slightly more than one-half of the poor did. Forty percent of the upper-income households had all their windows covered by storm windows, while only 27 percent of the poor did.

Table C. Presence of Roof or Ceiling Insulation and Storm Windows by Selected Income Groups

Thermal Characteristics	Total Number of Households with Thermal Characteristic (Millions)	Percent of Units with Thermal Characteristics		
		Poor (125 Percent Level)	Average (Percent)	Income >\$35,000 (Percent)
<b>Single-Family Units with Roof or Ceiling</b>				
Insulation.....	43.2	54	77	89
Households with All Windows Covered by Storm Windows.....	31.4	27	38	40
Households with No Windows Covered by Storm Windows.....	34.9	56	43	39

Source: Tables 47 and 48.

#### Conservation Activities

A number of households in 1978 and 1979 took steps to improve the thermal integrity of their houses, as shown in Table D. Storm windows were added by 5.7 (+ 0.7) million households, while storm doors were added by 6.7 (+ 0.7) million. A larger number of households added less expensive conservation measures: 18.4 (+ 1.2) million added caulking; 15.1 (+ 1.1) million added weather-stripping; and 11.3 (+ 1.0) million added closeable shutters, plastic sheets, or insulation drapes to their windows or doors. Roof or ceiling insulation was added to 6.5 (+ 0.7) million single-family units.

Table D. Conservation Activities Undertaken in 1978 and 1979 by Households in Selected Income Groups

Conservation Activity	Total Number of Households Under-Taking Conservation Activity (Million)	Income Group			
		Poor (125 Percent Level)	Average (Percent)	>\$35,000 (Percent)	
<b>Household Units</b>					
Adding:					
Storm Windows.....	5.7	4	7	9	
Storm Doors.....	6.7	5	8	12	
Caulking.....	18.4	13	23	29	
Weather-stripping....	15.1	10	19	24	
Closeable Shutters, Plastic Sheets, Insulating Drapes....	11.3	14	14	13	
<b>Single-Family Units</b>					
Adding:					
Roof or Ceiling Insulation.....	6.5	9	12	13	

Source: Tables 59 and 60.

Table D also shows the percentages of households adding various conservation items for poor households (125 percent level), average households and upper-income households (1979 income greater than \$35,000). For most items, the upper-income family was more than twice as likely to add the item. The one exception is the category "closeable shutters, plastic sheets, or insulating drapes" for which similar percentages in each income group made these additions.

There is a sizeable regional variation in these activities, corresponding to the differences in climates in the regions. In the colder parts of the country, a higher percentage of households undertook conservation activities in 1978 and 1979, even though these housing units already had a higher proportion of conservation measures incorporated into the stock. The percentage of households that added conservation items in 1978 or 1979 are shown in Table E. Seven to eight percent of households added storm doors or windows in the colder Northeast and North Central regions, while only 4 percent did so in the West. There are similar differences in the percentages of households that added less expensive conservation items.

Table E. Conservation Activities Undertaken in 1978 and 1979 by Census Region  
(Percent)

Conservation Activities	Northeast	North Central	South	West
<b>Household Units</b>				
Adding:				
Storm Windows.....	8	9	6	4
Storm Doors.....	9	10	9	4
Caulking.....	27	31	20	11
Weather-stripping.....	24	24	14	12
Closeable Shutters, Plastic Sheets, Insulation Drapes.....	17	17	13	9
<b>Single-Family Units</b>				
Adding:				
Roof or Ceiling Insulation.....	13	13	10	10

Source: Table 58.

## TABLES

TABLE 1. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/MON-SMSA	
		NORTH CENTRAL		SOUTH	WEST	PURAL	SMSA	NONSMSA
		NORTHEAST	CENTRAL					
TOTAL HOUSEHOLDS.....	81.6	17.7	21.1	27.0	16.0	56.0	25.6	55.6
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS								
<2,000 CDD AND >7,000 HDD.....	8.5	1.7	5.3	-	1.4	4.4	4.0	2.6
<2,000 CDD AND 5,500 TO 7,000 HDD.....	20.9	7.8	11.7	-	1.4	15.3	5.6	17.0
<2,000 CDD AND 4,000 TO 5,499 HDD.....	21.1	8.1	9.1	5.9	3.0	14.3	6.8	13.7
<2,000 CDD AND <4,000 HDD.....	19.0	-	-	16.0	9.0	13.4	5.6	13.4
>2,000 CDD AND <4,000 HDD.....	12.1	-	-	11.0	1.1	8.6	8.9	3.2
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)								
LESS THAN 600.....	7.5	2.1	1.1	2.2	2.1	5.8	1.7	5.4
600 TO 999.....	21.1	3.8	5.2	7.8	4.3	15.1	6.0	14.3
1,000 TO 1,599.....	24.0	4.5	5.4	5.2	4.9	16.2	7.8	16.1
1,600 TO 1,999.....	10.0	2.1	3.0	3.1	1.7	6.5	3.5	6.6
2,000 TO 2,399.....	7.8	1.9	2.7	1.9	1.2	5.1	2.7	5.4
2,400 TO 2,999.....	6.1	1.5	2.0	1.7	.9	4.0	2.2	4.1
3,000 OR MORE.....	5.2	1.7	1.7	1.1	.8	3.4	1.8	3.6
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)								
LESS THAN 600.....	6.2	1.9	.9	1.8	1.7	5.2	1.1	4.8
600 TO 999.....	18.0	2.9	4.3	7.0	3.8	13.0	5.0	12.5
1,000 TO 1,599.....	19.8	3.2	4.0	8.2	4.5	13.6	6.2	13.2
1,600 TO 1,999.....	9.7	1.9	2.5	3.3	2.0	6.4	3.3	6.5
2,000 TO 2,399.....	9.0	2.1	3.0	2.4	1.5	6.0	3.0	6.2
2,400 TO 2,999.....	9.5	2.4	3.5	2.3	1.3	3.4	6.1	3.5
3,000 OR MORE.....	9.4	3.3	2.9	2.1	1.2	5.8	3.6	6.4
UTILITIES PAID BY HOUSEHOLD								
ALL PAID BY HOUSEHOLD.....	69.4	13.2	18.3	24.3	13.7	44.9	24.5	45.4
SOME PAID, SOME INCLUDED IN RENT.....	6.6	2.7	1.9	1.0	1.0	6.2	-4	6.0
ALL INCLUDED IN RENT.....	4.2	1.4	.7	1.2	.9	3.7	-5	3.2
OTHER.....	1.5	.4	.3	.5	.3	1.2	.3	1.1

SEE NOTES AT END OF TABLE

TABLE 1. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION				AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL						
OWN/RENT								19.3	16.7
OWN	54.3	11.1	16.4	10.1	34.0	20.3	35.1		
RENT	27.3	6.6	6.6	8.3	22.0	5.3	20.6		
TYPE OF HOUSING STRUCTURE								20.0	16.8
SINGLE-FAMILY DETACHED	53.0	8.8	15.2	9.9	33.1	19.9	33.0		
OWN	45.5	8.0	13.3	15.9	28.3	17.2	28.7		
RENT	7.5	.7	1.8	3.3	1.7	4.8	2.7	3.2	
SINGLE-FAMILY ATTACHED	3.3	1.6	.3	.9	.9	2.9	.4		
OWN	2.2	1.2	.1	.4	.6	2.0	.2		
RENT	1.1	.4	.2	.2	.3	.9	.2		
BUILDING WITH 2 TO 4 UNITS	9.9	3.3	2.9	2.0	1.7	8.7	1.2		
OWN	2.0	1.0	.5	.5	.2	1.7	.3		
RENT	7.9	2.3	2.4	1.7	1.5	7.0	.9		
BUILDING WITH 5 OR MORE UNITS	10.8	3.5	2.1	2.8	2.3	10.0	.8		
OWN	1.0	.4	.1	.2	.2	1.0	-.		
RENT	9.8	3.1	2.0	2.6	2.1	9.0	.8		
MOBILE HOME								3.3	2.8
OWN	4.6	.5	.6	2.4	1.1	1.4	1.9		
RENT	3.6	.4	.4	1.8	.9	1.0	1.4		
YEAR HOUSE BUILT								2.6	2.2
1939 OR EARLIER	23.3	8.1	7.5	4.9	2.8	17.1	6.2		
1940 TO 1949	7.5	1.5	1.7	2.6	1.6	5.7	1.7		
1950 TO 1959	13.7	2.3	3.5	5.0	2.9	11.0	2.7		
1960 TO 1964	7.2	1.4	2.0	2.1	1.7	5.4	1.8		
1965 TO 1969	8.1	1.1	1.7	3.3	2.0	5.3	2.8		
1970 TO 1974	10.5	1.6	2.4	4.2	2.1	5.9	4.6		
1975 OR LATER	11.3	1.4	2.3	4.8	2.9	5.6	5.7		
NUMBER OF ROOMS									
1		.7	.4	-.3	-.1	.7	-.1		
2		2.0	.5	.4	-.8	1.6	.4		
3		7.9	1.9	1.9	2.4	6.4	1.5		
4		16.3	3.1	3.8	5.8	11.1	5.2		
5		18.8	3.3	5.4	6.5	12.1	6.7		
6		17.6	3.5	4.8	6.0	12.1	5.4		
7		9.5	2.6	2.4	2.9	6.1	3.3		
8 OR MORE		8.9	2.4	2.5	2.6	5.7	3.2		

SEE NOTES AT END OF TABLE

TABLE 1. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTH		WEST	URBAN		RURAL	SMSA	NONSMSA
		NORTH EAST	CENTRAL		SOUTH	URBAN			
<b>MAIN OUTSIDE WALL MATERIAL</b>									
WOOD.....	22.5	4.4	7.0	6.7	4.5	13.5	9.1	12.3	10.2
BRICK.....	21.9	5.6	5.3	9.7	1.2	17.4	4.5	17.0	4.9
ALUMINUM SIDING	11.2	2.5	4.0	3.6	1.2	5.8	5.4	6.5	4.8
STUCCO.....	9.2	.5	.5	1.1	7.0	8.3	.9	8.4	.8
COMPOSITION.....	6.8	2.7	1.8	2.0	.4	4.2	2.6	4.2	2.7
CONCRETE.....	1.7	.1	.1	1.3	.3	1.3	.4	1.4	.4
STONE.....	.7	.3	.2	.1	.1	.5	.2	.5	.2
COMBINATIONS/OTHER.....	7.5	1.6	2.1	2.4	1.3	5.0	2.4	5.3	2.1
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>									
1 COMPLETE.....	46.3	11.1	12.6	14.3	8.4	33.3	13.1	31.1	15.2
1 COMPLETE AND 1 HALF.....	12.9	3.5	4.0	3.2	2.2	8.9	4.0	9.0	3.9
2 COMPLETE AND 1 HALF.....	14.8	1.7	2.6	6.6	3.9	5.5	1.4	10.3	4.5
3 COMPLETE.....	3.8	.8	1.0	1.3	.7	2.4	1.4	3.0	.8
4 COMPLETE.....	1.4	.1	.2	.6	.5	1.0	.4	1.0	.4
OTHER COMBINATIONS.....	2.4	.5	.6	1.0	.3	1.1	1.3	1.3	1.1
<b>1979 FAMILY INCOME</b>									
LESS THAN \$5,000.....	10.4	1.8	2.4	4.5	1.8	7.3	3.1	6.2	4.1
\$5,000 TO \$9,999.....	13.9	3.0	3.7	4.5	2.6	9.7	4.2	9.2	4.7
\$10,000 TO \$14,999.....	13.8	3.2	3.7	4.5	2.4	9.4	4.4	9.1	4.8
\$15,000 TO \$19,999.....	11.9	2.8	3.1	2.6	2.4	7.9	4.0	8.1	3.7
\$20,000 TO \$24,999.....	9.9	2.4	2.8	2.7	2.1	7.0	2.9	7.1	2.8
\$25,000 TO \$34,999.....	12.4	2.7	3.2	4.0	2.4	8.1	4.3	8.5	3.8
\$35,000 OR MORE.....	9.4	1.9	2.2	3.1	2.3	6.7	2.8	7.4	2.1
TOTAL POOR (100 PERCENT LEVEL) .....	10.9	1.7	2.6	4.9	1.8	7.5	3.4	6.5	4.4
TOTAL POOR (125 PERCENT LEVEL) .....	14.8	2.7	3.6	6.1	2.4	10.2	4.5	9.0	5.7
<b>AGE OF HOUSEHOLD HEAD</b>									
UNDER 25 YEARS.....	6.6	.9	1.9	2.5	1.3	4.8	1.9	4.7	2.0
25 TO 34 YEARS.....	20.2	4.4	5.0	4.5	13.8	6.4	6.1	14.1	6.1
35 TO 44 YEARS.....	14.1	3.2	3.4	4.8	2.6	9.2	4.9	9.8	4.2
45 TO 54 YEARS.....	18.9	4.4	4.9	5.9	3.7	13.2	5.8	13.2	5.7
60 YEARS AND OVER.....	21.8	4.7	5.9	7.3	3.9	15.1	6.7	13.8	8.0

SEE NOTES AT END OF TABLE

TABLE 1. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTHEAST	NORTH CENTRAL	WEST	URBAN	RURAL	
					SMSA	NONSMSA	
ORIGIN							
WHITE.....	71.0	15.6	19.2	22.2	14.1	47.1	23.8
BLACK.....	9.2	2.1	1.8	4.5	.9	7.8	1.4
OTHER.....	1.4	-	.1	.2	1.0	1.1	.4
HOUSEHOLD MEMBERS							
1.....	15.7	3.5	5.3	3.4	12.1	3.6	11.0
2.....	26.8	5.5	7.2	5.4	16.8	8.0	18.3
3.....	14.9	3.1	3.7	5.4	2.8	9.7	5.2
4.....	13.4	3.1	3.5	4.3	2.4	8.6	4.7
5.....	6.8	1.6	1.9	2.2	1.2	4.4	2.4
6 OR MORE....	4.0	.8	1.3	1.2	.8	2.4	1.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDOFF. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 2. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST	NORTH	SOUTH	URBAN	RURAL	SMSA	NONSMSA
		CENTRAL						
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS								
<2,000 CDD AND >7,000 HDD.....	10.4	9.8	25.1	-	9.1	7.9	15.8	4.7
<2,000 CDD AND 5,500 TO 7,000 HDD.....	25.7	44.4	55.4	-	8.9	27.3	22.0	30.5
<2,000 CDD AND 4,000 TO 5,499 HDD.....	25.9	45.8	19.5	22.0	18.9	25.5	26.6	24.6
<2,000 CDD AND <4,000 HDD.....	23.3	-	-	37.2	56.3	23.9	21.9	24.2
>2,000 CDD AND <4,000 HDD.....	14.8	-	-	40.9	6.8	15.3	13.7	15.9
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)								
LESS THAN 600.....	9.1	12.0	5.0	8.2	13.0	10.3	6.5	9.7
600 TO 999.....	25.8	21.3	24.8	28.8	27.2	26.9	23.5	25.8
1,000 TO 1,599.....	29.4	25.6	25.4	34.1	30.7	28.9	30.3	28.9
1,600 TO 1,999.....	12.3	12.0	14.3	11.7	10.8	11.5	13.8	11.9
2,000 TO 2,399.....	9.5	10.9	12.8	7.1	7.8	9.1	10.5	9.7
2,400 TO 2,999.....	7.5	8.7	5.6	6.2	5.6	7.1	8.4	7.4
3,000 OR MORE.....	6.4	9.5	8.0	4.1	4.8	6.1	7.0	6.5
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)								
LESS THAN 600.....	7.6	10.8	4.2	6.5	10.6	9.2	4.2	8.7
600 TO 999.....	22.1	16.5	20.4	25.9	24.0	23.2	19.5	22.4
1,000 TO 1,599.....	24.2	18.0	18.8	30.3	28.0	24.2	24.2	23.7
1,600 TO 1,999.....	11.8	10.9	11.8	12.2	12.2	11.4	12.9	12.7
2,000 TO 2,399.....	11.0	12.0	14.1	8.8	9.6	10.7	11.7	11.2
2,400 TO 2,999.....	11.7	13.4	16.8	8.6	8.1	10.9	13.3	10.9
3,000 OR MORE.....	11.6	18.4	13.9	7.7	7.4	10.3	14.2	11.5
UTILITIES PAID BY HOUSEHOLD								
ALL PAID BY HOUSEHOLD.....	85.0	74.6	86.6	90.2	85.7	80.1	95.8	81.6
SOME PAID, SOME INCLUDED IN RENT.....	8.1	15.5	8.8	3.6	6.5	11.2	1.4	10.7
ALL INCLUDED IN RENT.....	5.1	7.7	3.4	4.5	5.7	6.6	1.9	5.8
OTHFR.....	1.8	2.2	1.2	1.8	2.1	2.1	1.1	1.5

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TABLE 2. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST	NORTH	SOUTH	URBAN	RURAL	SMSA	NONSMSA
		CENTRAL						
OWN/RENT								
OWN	66.5	62.9	68.6	62.3	63.3	60.7	79.4	74.1
RENT	33.5	37.1	31.4	30.7	36.7	39.3	20.6	25.9
TYPE OF HOUSING STRUCTURE								
SINGLE-FAMILY DETACHED	64.9	49.5	72.0	71.1	62.2	59.0	77.8	59.3
OWN	55.7	45.4	63.3	59.0	51.5	50.4	67.2	51.6
PENT	9.2	4.1	6.7	12.1	10.7	8.6	10.6	7.7
SINGLE-FAMILY ATTACHED	4.0	9.0	1.3	2.0	5.6	5.2	1.6	5.5
OWN	2.7	7.0	3	1.4	3.6	3.6	1.0	3.8
RENT	1.3	2.0	1.0	1.7	2.0	1.6	.6	1.7
BUILDING WITH 2 TO 4 UNITS								
OWN	12.2	18.6	13.9	7.4	10.8	15.6	4.7	14.1
RENT	2.4	5.7	2.3	1.2	1.1	3.0	1.2	3.2
BUILDING WITH 5 OR MORE UNITS								
OWN	9.7	12.8	11.6	6.2	9.7	12.5	3.5	10.9
RENT	13.2	20.0	9.9	10.4	14.6	17.8	3.1	17.6
MOBILE HOME								
OWN	1.2	2.3	.6	.9	1.3	1.8	-	1.8
RENT	12.0	17.7	9.3	9.5	13.3	16.0	3.1	15.8
NUMBER OF ROOMS								
1	28.6	45.7	35.8	18.3	17.3	30.6	24.2	27.7
2	9.1	8.8	8.2	9.5	10.1	10.2	6.8	9.3
3	16.8	13.2	16.4	16.5	18.2	19.7	10.4	18.7
4	8.8	8.0	9.3	7.9	10.7	9.6	7.1	9.5
5	6.4	6.4	8.1	12.3	12.3	9.4	11.1	11.7
6	12.9	10.1	11.4	15.7	13.3	10.6	18.0	12.2
7	13.9	7.8	10.8	17.8	18.1	10.0	22.4	13.4
YEAR HOUSE BUILT								
1939 OR EARLIER								
1940 TO 1949								
1950 TO 1959								
1960 TO 1964								
1965 TO 1969								
1970 TO 1974								
1975 OR LATER								
NUMBER OF ROOMS								
1	.9	2.1	-	1.0	.7	1.3	.1	1.2
2	2.4	2.6	1.2	1.6	5.3	2.9	1.4	2.8
3	9.7	10.8	9.0	8.9	10.6	11.5	5.7	10.5
4	19.9	17.7	16.1	21.6	21.8	19.8	20.1	19.2
5	23.1	18.7	25.6	24.2	22.5	21.7	26.1	21.8
6	21.5	19.6	22.6	22.3	20.8	21.6	22.0	20.4
7	11.6	14.7	11.5	10.7	9.7	10.9	11.6	11.4
8 OR MORE	10.9	13.7	11.9	9.7	8.6	10.3	12.4	11.0

SEE NOTES AT END OF TABLE

TABLE 2. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTH		SOUTH	URBAN	RURAL	SMSA	NONSMSA
		NEAST	NCENTRAL					
<b>MAIN OUTSIDE WALL MATERIAL</b>								
WOOD.....	27.6	24.9	33.0	24.8	26.3	24.0	35.4	22.1
BRICK.....	26.8	31.9	25.2	36.0	7.8	31.0	17.7	39.3
ALUMINUM SIZING.....	13.8	14.0	15.2	12.2	7.2	10.4	21.1	10.6
STUCCO.....	11.3	3.0	2.5	4.2	44.2	14.8	3.6	11.6
COMPOSITION.....	8.4	15.1	8.6	7.4	2.2	7.6	10.1	3.2
CONCRETE.....	2.1	4.4	6.6	4.6	1.6	2.3	1.7	7.5
STONE.....	.9	1.8	1.0	.5	.3	.9	1.0	1.4
COMBINATIONS/OTHER.....	9.1	9.0	10.0	9.1	8.3	9.0	9.6	.6
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>								
1 COMPLETE.....	56.7	62.6	60.0	53.0	52.4	59.3	51.0	55.9
1 COMPLETE AND 1 HALF.....	15.8	19.6	19.0	11.9	13.8	15.9	15.5	16.1
2 COMPLETE.....	18.1	9.7	12.4	24.3	24.7	16.6	21.6	18.5
2 COMPLETE AND 1 HALF.....	4.7	4.8	4.7	4.8	4.2	4.3	5.4	5.4
3 COMPLETE.....	1.7	4.4	1.0	2.4	3.2	1.9	1.5	1.8
OTHER COMBINATIONS.....	2.9	3.0	3.0	3.6	1.7	2.0	5.0	2.3
<b>1979 FAMILY INCOME</b>								
LESS THAN \$5,000.....	12.7	9.9	11.2	16.7	11.0	13.0	12.0	11.2
\$5,000 TO \$9,999.....	17.0	17.0	17.5	16.8	16.5	17.2	16.4	16.5
\$10,000 TO \$14,999.....	16.9	18.2	17.4	16.7	15.3	16.9	17.1	17.3
\$15,000 TO \$19,999.....	14.5	15.6	14.8	13.4	14.8	14.0	15.6	14.6
\$20,000 TO \$24,999.....	12.2	13.5	13.4	9.9	12.9	12.6	11.3	12.8
\$25,000 TO \$34,999.....	15.1	15.3	15.3	14.8	15.3	14.4	16.7	15.3
\$35,000 OR MORE.....	11.6	10.5	10.4	11.5	14.2	11.9	10.9	13.3
TOTAL POOR (100 PERCENT LEVEL) ..	13.3	9.6	12.1	18.0	11.2	13.3	13.4	11.7
TOTAL POOR (125 PERCENT LEVEL) ..	18.1	15.4	17.1	22.5	14.9	18.3	17.7	16.2
<b>AGE OF HOUSEHOLD HEAD</b>								
UNDER 25 YEARS.....	8.1	5.2	9.0	9.4	8.2	8.5	7.2	8.4
25 TO 34 YEARS.....	24.7	24.6	23.5	23.6	28.3	24.7	24.9	25.3
35 TO 44 YEARS.....	17.2	18.2	16.4	17.8	16.4	16.3	19.2	17.7
45 TO 59 YEARS.....	23.2	25.1	23.4	21.9	22.9	23.5	22.5	23.8
60 YEARS AND OVER.....	26.7	26.8	27.8	27.3	24.2	26.9	26.2	24.8

SEE NOTES AT END OF TABLE

TABLE 2. HOUSING CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA
		NORTHEAST	MIDWEST	SOUTH	WEST	URBAN	PURAL	
		CENTRAL						
ORIGIN								
WHITE...	86.9	88.0	90.9	82.4	88.1	84.1	93.1	84.9
BLACK...	11.3	11.7	8.4	16.7	5.5	14.0	5.4	13.3
OTHER...	1.8	.3	.7	.9	6.4	1.9	1.5	1.8
HOUSEHOLD MEMBERS								
1...	19.3	20.1	16.6	19.5	21.5	21.6	14.2	19.9
2...	32.8	31.0	34.2	32.3	33.7	33.5	31.2	32.9
3...	18.2	17.4	17.5	19.9	17.3	17.3	20.3	17.9
4...	16.4	17.8	16.6	16.1	15.1	15.4	18.5	16.3
5...	8.4	9.3	9.0	8.0	7.3	7.9	9.4	8.5
6 OR MORE...	5.0	4.4	6.1	4.3	5.2	4.3	6.4	4.6
								5.8

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FLOORING. A CASE "n" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNCHUNED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 3. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES									
		SINGLE-FAMILY DETACHED					OTHER/NCT REPORTED				
		TOTAL	1-STORY		2-STORY		OTHER/NCT REPORTED				
			WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT
TOTAL HOUSEHOLDS.....	81.6	53.0	10.4	23.9	10.6	3.7	4.5	28.7			
CENSUS REGION											
NORTH EAST.....	17.7	8.8	2.3	5	3.8	.7	1.4	8.9			
21.1	15.2	4.9	3.1	4.7	4.7	.8	1.7	5.9			
27.6	19.1	2.1	13.7	1.3	1.3	1.3	.8	7.8			
16.0	9.9	1.1	6.6	.8	.9	.9	.6	6.0			
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS											
<2,000 CDD AND >7,000 HDD.....	F.E.	6.2	2.1	6	2.7	.2	.6	2.2			
>2,000 CDD AND 5,500 TO 7,000 HDD.....		20.9	13.4	3.9	2.4	4.4	.8	1.9	7.6		
<2,000 CDE AND 4,000 TO 5,499 HDD.....		21.1	12.1	3.0	3.4	3.0	1.3	1.4	9.0		
<2,000 CDD AND <4,000 HDD.....		19.0	12.7	1.3	9.4	4	1.1	.5	6.3		
>2,000 CDD AND <4,000 HDD.....		12.1	8.6	.1	8.1	.1	.3	.2	3.5		
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)											
LESS THAN 600.....		7.6	1.8	.2	1.3	.1	.1	.1	5.7		
600 TO 999.....		21.1	7.8	1.3	5.5	.5	.3	.2	13.3		
1,000 TO 1,599.....		24.0	17.1	3.1	10.2	2.2	1.0	.7	6.8		
1,600 TO 1,999.....		10.0	8.8	1.7	3.6	2.0	.8	.8	1.2		
2,000 TO 2,399.....		7.6	7.0	1.6	1.9	1.9	1.0	1.0	.8		
2,400 TO 2,999.....		6.1	5.5	1.4	1.0	1.8	.5	.9	.6		
3,000 OR MORE.....		5.2	4.9	1.0	.5	2.1	.5	.8	.3		
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)											
LESS THAN 600.....		6.2	.8	.7	4.7	-	-	-	5.4		
600 TO 999.....		18.0	5.2	.2	9.9	.6	.1	.1	12.8		
1,000 TO 1,599.....		19.8	13.1	1.4	9.9	.9	.9	.3	6.6		
1,600 TO 1,999.....		5.7	8.2	1.9	3.7	1.1	.8	.6	1.5		
2,000 TO 2,399.....		9.0	8.1	2.1	2.6	1.9	.6	.9	.9		
2,400 TO 2,999.....		5.5	8.7	2.4	1.5	3.3	.5	1.0	.8		
3,000 OR MORE.....		5.4	8.9	2.4	.7	3.7	.7	1.5	.5		

SEE NOTES AT END OF TABLE

TABLE 3. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES						OTHER HOUSING STRUCTURES
		SINGLE-FAMILY DETACHMENT			OTHER/NCT			
		TOTAL	1-STORY	2-STORY	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	REPORTED
<b>UTILITIES PAID BY HOUSEHOLD</b>								
ALL PAID BY HOUSEHOLD.....	69.4	52.4	10.3	23.6	10.5	3.7	4.4	17.0
SOME PAID, SOME INCLUDED IN RENT.....	6.6	1	-	1	-	-	-	6.5
ALL INCLUDED IN RENT.....	4.2	2	-	1	-	-	-	4.0
OTHER.....	1.5	3	1	1	1	1	1	1.2
<b>OWN/RENT</b>								
OWN.....	54.3	45.5	9.4	19.6	9.3	3.0	4.1	8.9
RENT.....	27.3	7.5	1.0	4.3	1.3	.6	.4	19.8
<b>YEAR HOUSE BUILT</b>								
1939 OR EARLIER.....	23.3	14.8	2.5	4.2	5.2	1.4	1.5	8.5
1940 TO 1949.....	7.5	5.4	1.1	2.5	1.1	.3	.4	2.0
1950 TO 1959.....	13.7	11.3	2.4	6.2	1.6	.4	.7	2.4
1960 TO 1964.....	7.2	4.9	1.1	2.4	1.1	.2	.4	2.2
1965 TO 1969.....	8.1	4.9	1.0	2.6	.5	.3	.4	3.2
1970 TO 1974.....	10.5	5.1	1.4	2.5	.5	.4	.4	5.4
1975 OR LATER.....	11.3	6.5	3.4	3.4	.9	.6	.7	4.8
<b>NUMBER OF ROOMS</b>								
1.....	7	-	-	-	-	-	-	-
2.....	2.0	1.2	-	1	-	-	-	1.8
3.....	7.5	1.3	2	1.7	2	-	-	6.6
4.....	16.3	6.6	1.3	4.1	.6	-3	-2	9.7
5.....	18.8	13.6	3.6	7.6	1.4	.5	.5	5.2
6.....	17.6	14.4	2.8	7.2	2.7	.8	1.0	3.1
7.....	9.5	8.5	1.5	2.7	2.3	.9	1.1	1.0
8 OR MORE.....	8.9	8.4	1.0	1.4	3.2	1.2	1.5	.5

SEE NOTES AT END OF TABLE

TABLE 3. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACHED			OTHER HOUSING STRUCTURES		
		TOTAL	1-STORY	2-STORY	OTHER/NCT REPORTED	WITHOUT BASEMENT	WITH BASEMENT
<b>HAND OUTSIDE WALL MATERIAL</b>							
WOOD.....	22.5	17.9	3.4	7.5	4.1	1.5	1.4
BRICK.....	21.9	11.5	2.3	6.2	1.4	.4	1.2
ALUMINUM STING.....	11.2	6.2	1.6	2.0	.5	.6	10.4
STUCCO.....	9.2	5.0	.5	3.5	.5	.2	5.1
COMPOSITION.....	6.8	5.5	1.2	2.0	1.1	.6	4.2
CONCRETE.....	1.7	1.0	—	.9	.1	.6	1.4
STONE.....	.7	.6	.2	.1	.2	.7	.1
COMBINATIONS/OTHER.....	7.5	5.4	1.1	2.2	1.3	.3	2.1
<b>NUMBER OF COMPLETE AND HALF</b>							
1 COMPLETE.....	46.3	24.2	5.2	12.1	4.2	1.3	1.3
1 COMPLETE AND 1 HALF.....	12.9	9.7	2.5	3.2	2.5	.4	1.1
2 COMPLETE.....	14.8	12.1	1.8	6.7	1.9	.8	1.0
2 COMPLETE AND 1 HALF.....	3.8	3.5	.6	.7	1.1	.5	.6
3 COMPLETE.....	1.4	1.4	.2	.4	.2	.2	.3
OTHER COMBINATIONS.....	2.4	2.2	.1	.8	.6	.4	.2
<b>1979 FAMILY INCOME</b>							
LESS THAN \$5,000.....	10.4	5.1	.7	3.1	.6	.3	.3
\$5,000 TO \$9,999.....	13.5	7.2	1.5	3.5	1.4	.3	6.7
\$10,000 TO \$14,999.....	13.8	7.9	1.6	4.1	1.3	.5	5.9
\$15,000 TO \$19,999.....	11.9	7.7	1.7	3.4	1.4	.8	4.2
\$20,000 TO \$24,999.....	9.9	7.5	1.5	3.2	1.7	.7	2.4
\$25,000 TO \$34,999.....	12.4	9.6	2.1	3.8	2.1	.7	2.8
\$35,000 OR MORE.....	9.4	8.0	1.4	2.8	1.9	.9	1.5
TOTAL POOR (100 PERCENT LEVEL) ..	10.9	5.6	.6	3.4	.8	.5	5.3
TOTAL POOR (125 PERCENT LEVEL) ..	14.8	7.9	1.1	4.6	1.2	.5	6.9

SEE NOTES AT END OF TABLE

TABLE 3. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY NUMBER OF STORIES					
	SINGLE-FAMILY DETACHED			CTHPR HOUSING STRUCTURES		
	TOTAL	1-STORY WITH BASEMENT	2-STORY WITHOUT BASEMENT	OTHER/NCT REPORTED	WITHOUT BASEMENT	WITH BASEMENT
AGE OF HOUSEHOLD HEAD						
UNDER 25 YEARS.....	6.6	2.0	0.2	0.2	0.1	0.1
25 TO 34 YEARS.....	20.2	11.8	1.9	5.6	2.3	.8
35 TO 44 YEARS.....	14.1	10.2	2.0	4.0	2.0	.9
45 TO 59 YEARS.....	18.9	13.9	3.0	5.8	3.1	.9
60 YEARS AND OVER....	21.8	15.2	3.3	7.1	3.0	.9
ORIGIN						
WHITE.....	71.0	47.6	9.8	20.1	10.0	3.5
BLACK.....	9.2	4.6	.5	3.2	.5	.2
OTHER.....	1.4	.8	.1	.5	.1	.1
HOUSEHOLD MEMBERS						
1.....	15.7	6.8	1.5	3.7	1.1	.3
2.....	26.6	17.2	3.7	8.1	.9	1.4
3.....	14.9	10.1	1.8	4.8	2.0	.7
4.....	13.4	10.3	1.9	4.1	2.3	.9
5.....	6.6	5.5	.9	2.2	1.2	.5
6 OR MORE.....	4.0	3.1	.6	1.1	.8	.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO 2 FRC. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 4. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)

		HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACHED					
HOUSEHOLD CHARACTERISTICS	TOTAL	1-STORY			2-STORY		
		TOTAL	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	
							OTHER/NCI REPORTED
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CENSUS REGION							
NORTHEAST.....	21.6	16.5	21.8	2.3	35.8	20.0	31.7
NORTH CENTRAL.....	25.6	28.6	47.1	12.8	44.8	21.2	38.0
SOUTH.....	33.0	36.1	20.6	57.2	12.2	35.6	17.0
WEST.....	19.6	18.7	10.6	27.7	7.3	23.2	13.3
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS							
<2,000 CDD AND >7,000 HDD.....	10.4	11.8	20.5	2.3	25.9	6.7	12.5
<2,000 CDD AND 5,500 TO 7,000 HDD.....	25.7	25.3	37.6	10.1	41.7	20.9	41.8
<2,000 CDD AND 4,000 TO 5,499 HDD.....	25.5	22.9	29.3	14.3	28.1	35.1	31.1
<2,000 CDD AND <4,000 HDD.....	23.2	23.9	12.1	39.5	3.7	30.1	11.2
>2,000 CDD AND <4,000 HDD.....	14.8	16.2	.5	33.8	.5	7.2	3.4
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)							
LESS THAN 600.....	9.1	3.4	2.2	5.4	.9	1.4	2.7
600 TO 999.....	25.6	14.7	12.9	22.9	4.8	9.4	4.1
1,000 TO 1,599.....	29.4	32.3	29.7	42.8	20.6	26.3	15.4
1,600 TO 1,999.....	12.3	16.7	16.2	14.9	18.8	21.0	16.7
2,000 TO 2,399.....	9.5	13.2	15.9	8.0	18.3	14.6	21.6
2,400 TO 2,999.....	7.5	10.5	13.7	4.0	16.6	13.7	20.3
3,000 OR MORE.....	6.4	9.3	10.0	2.0	20.0	13.6	17.2

SEE NOTES AT END OF TABLE

TABLE 4. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SINGLE-FAMILY DETACH.						OTHER/ NCT REPORTED	
		1-STORY			2-STORY				
		WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT		
<b>TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)</b>									
LESS THAN 600.....	7.6	1.6	0.1	3.1	-	0.1	2.3	18.8	
600 TO 999.....	22.1	9.8	2.2	19.7	0.3	3.8	1.3	44.8	
1,000 TC 1,599.....	24.2	24.7	13.1	41.7	5.8	23.5	7.5	23.2	
1,600 TC 1,999.....	11.8	15.4	18.1	15.6	10.7	22.2	13.8	5.2	
2,000 TO 2,399.....	11.0	15.2	20.1	11.0	17.7	16.5	19.3	3.3	
2,400 TO 2,999.....	11.7	16.4	23.4	6.1	30.8	14.9	22.8	2.8	
3,000 OR MORE.....	11.6	16.8	23.0	2.8	34.6	18.9	33.0	1.9	
<b>UTILITIES PAID BY HOUSEHOLD</b>									
ALL PAID BY HOUSEHOLD.....	85.0	98.9	99.2	98.9	99.1	99.5	97.7	59.3	
SOME PAID, SOME INCLUDED IN RENT.....	8.1	.2	-	.3	.2	-	-	22.7	
ALL INCLUDED IN RENT.....	5.1	.4	.3	.6	.1	.1	.7	13.9	
OTHER.....	1.8	.6	.3	.6	.6	.4	.9	4.0	
<b>OWN/RENT</b>									
OWN.....	66.6	85.8	90.8	82.1	88.0	82.5	91.6	30.9	
RENT.....	33.5	14.2	9.2	17.9	12.0	17.5	8.4	69.1	
<b>YEAR HOUSE BUILT</b>									
1939 OR EARLIER.....	28.6	28.0	24.2	17.7	49.5	36.8	32.9	29.7	
1940 TC 1949.....	9.1	10.3	10.5	10.7	10.1	8.8	8.9	7.1	
1950 TC 1959.....	16.8	21.3	23.4	26.1	14.9	11.4	14.8	8.4	
1960 TC 1964.....	8.8	9.3	10.4	10.2	7.4	6.5	9.3	7.8	
1965 TC 1969.....	9.9	9.2	9.8	10.8	4.7	9.3	9.4	11.3	
1970 TC 1974.....	12.9	9.7	13.1	10.4	4.6	9.6	9.5	18.9	
1975 OR LATER.....	13.5	12.3	8.7	14.1	8.7	17.6	15.3	16.8	

SEE NOTES AT END OF TABLE

TABLE 4. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS) -continued

HOUSEHOLD CHARACTERISTICS		TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
			SINGLE-FAMILY DETACHED			2-STORY		
			TOTAL	1-STORY	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT
<b>NUMBER OF ROOMS</b>								
1.....	C.9	0.1	0.1	0.1	-	-	0.2	2.5
2.....	2.4	4	0.4	0.1	0.6	0.1	0.8	6.3
3.....	5.7	2.5	2.2	3.1	2.3	1.2	1.2	23.0
4.....	19.9	12.4	12.3	17.3	6.1	9.4	6.1	33.8
5.....	23.1	25.7	34.3	31.8	13.7	12.5	12.0	18.2
6.....	21.5	27.2	27.0	30.1	25.5	21.2	21.5	10.9
7.....	11.6	16.0	14.0	11.3	22.2	23.2	24.6	3.4
R. CP. MCREF.....	10.9	15.8	9.8	5.8	30.2	32.1	35.6	1.9
<b>MAIN OUTSIDE WALL MATERIAL</b>								
WOOD.....	27.6	33.7	33.0	31.6	38.8	39.8	30.3	16.3
BRICK.....	26.6	21.6	22.6	25.9	13.6	10.1	26.0	36.3
ALUMINUM SIDING.....	13.6	11.7	15.7	6.3	18.7	13.1	13.1	17.6
STUCCO.....	11.3	9.5	4.4	14.6	4.3	11.0	5.1	14.6
COMPOSITION.....	8.4	10.3	11.7	8.4	10.3	15.2	13.1	4.8
CONCRETE.....	2.1	1.9	1.2	3.7	2	2.0	.6	2.5
STONE.....	1.7	1.1	2.2	3	1.5	1.1	1.3	.5
COMBINATIONS/OTHER.....	9.1	10.1	10.3	9.2	12.7	7.7	10.5	7.4
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>								
1 COMPLETE.....	56.7	45.7	50.3	50.8	40.1	35.9	29.6	77.1
1 COMPLETE AND 1 HALF.....	15.6	18.2	23.8	13.4	23.6	11.7	23.9	11.2
2 COMPLETE.....	18.1	22.8	17.5	27.9	18.0	20.4	21.2	9.5
2 COMPLETE AND 1 HALF.....	4.7	6.5	5.6	3.0	10.0	13.3	13.6	1.2
3 COMPLETE.....	1.7	2.6	1.7	1.6	2.3	10.7	3.8	2
OTHER COMBINATIONS.....	2.9	4.1	1.2	3.2	6.0	7.9	7.9	.8

SEE NOTES AT END OF TABLE

TABLE 4. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACHED			OTHER HOUSING STRUCTURES		
		1-STORY		2-STORY	OTHER/NCT REPORTED		
		TOTAL	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	
1979 FAMILY INCOME							
LESS THAN \$5,000	12.7	9.6	6.5	13.0	6.1	8.8	7.4
\$5,000 TO \$9,999	17.0	13.6	14.1	14.6	13.3	14.2	7.3
\$10,000 TO \$14,999	16.9	15.0	15.0	17.3	12.5	12.5	23.2
\$15,000 TO \$19,999	14.5	14.5	16.2	14.2	13.4	12.1	10.1
\$20,000 TO \$24,999	12.2	14.2	14.7	13.2	16.5	10.7	20.6
\$25,000 TO \$34,999	15.1	18.1	19.9	15.9	20.3	18.0	8.4
\$35,000 OR MORE	11.6	15.0	13.5	11.8	18.1	23.7	9.7
TOTAL POOR (100 PERCENT LEVEL) ..	13.2	10.6	5.9	14.1	7.3	12.5	5.2
TOTAL POOR (125 PERCENT LEVEL) ..	18.1	14.9	10.6	19.4	10.9	14.8	10.7
AGE OF HOUSEHOLD HEAD							
UNDER 25 YEARS	8.1	3.7	2.3	5.2	2.3	3.7	3.1
25 TO 34 YEARS	24.7	22.2	18.4	23.6	21.3	22.3	29.4
35 TO 44 YEARS	17.2	19.2	18.9	16.8	19.2	25.0	13.7
45 TO 59 YEARS	23.2	26.3	28.7	24.5	29.0	24.5	25.5
60 YEARS AND OVER	26.7	28.6	31.6	30.0	28.2	24.5	19.0
ORIGIN							
WHITE	86.9	89.9	94.6	84.5	95.0	94.2	92.1
BLACK	11.3	8.6	4.4	13.2	4.4	5.1	6.7
OTHER	1.8	1.5	1.0	2.3	.6	.7	1.2
HOUSEHOLD MEMBERS							
1	19.3	12.8	14.5	15.3	10.1	9.2	5.1
2	32.8	32.4	35.4	33.9	29.5	24.6	30.5
3	18.2	19.1	17.3	20.0	19.4	18.2	16.6
4	16.4	19.4	18.2	17.1	21.5	25.6	24.1
5	8.4	10.4	8.7	9.2	11.5	14.4	10.8
6 CR MCRF	5.0	5.0	4.5	4.5	8.0	7.9	4.6
	5.0						3.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 5. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS)

HOUSING STRUCTURE BY OWNERSHIP																		
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			MOBILE HOME UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT
	81.6	53.0	45.5	7.5	3.3	2.2	1.1	9.9	2.0	7.9	10.8	1.0	9.8	4.6	3.6	1.0	1.0	1.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS																		
<2,000 CDD AND >7, CCO HDD.....	8.5	6.2	5.6	.6	.1	—	—	—	—	.8	.7	—	.6	.5	.4	.1	.1	
<2,000 CDE AND 5,500 TO 7,000 HED.....	20.9	13.4	11.7	1.7	.3	.2	—	3.6	.8	2.7	2.9	.3	2.6	.8	.6	.2	.2	
<7,000 CDD AND 4,000 TO 5,499 HED.....	21.1	12.1	10.6	1.5	1.9	1.4	.5	2.6	.6	2.0	3.5	.3	3.2	1.0	.8	.2	.2	
<2,000 CDE AND <4,000 HDD.....	19.0	12.7	10.4	2.3	.8	.6	.3	1.9	.2	1.7	2.3	.2	2.1	1.3	1.0	.3	.3	
>2,000 CDD AND <4, CCO HDD.....	12.1	8.6	7.1	1.4	.1	—	—	1.0	.2	.8	1.4	.1	1.2	1.1	.8	.3	.3	
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)																		
LESS THAN 600.....	7.5	1.8	.9	.9	.2	—	—	1	1.7	—	1.6	2.8	—	1	2.7	1.0	.7	.3
600 TO 999.....	21.1	7.8	5.5	2.3	.6	.2	.4	4.3	.4	3.9	5.6	.3	5.4	2.7	2.1	.6	.6	
1,000 TO 1,599.....	24.0	17.1	14.7	2.4	1.1	.8	.3	3.0	.9	2.1	1.9	.4	1.5	.8	.7	.2	.2	
1,600 TO 1,999.....	10.0	8.8	7.9	.9	.5	.4	—	—	—	—	—	—	—	—	—	—	—	—
2,000 TO 2,399.....	7.8	7.0	6.6	.3	.4	.3	.1	—	—	—	—	—	—	—	—	—	—	—
2,400 TO 2,999.....	6.1	5.5	5.2	.4	.4	.3	.2	—	—	—	—	—	—	—	—	—	—	—
3,000 OR MORE.....	5.2	4.9	4.6	.3	.1	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)																		
LESS THAN 600.....	6.2	.8	.4	.5	.1	—	—	—	—	1.6	—	1	1.5	2.8	—	1	2.6	.9
600 TO 999.....	18.0	5.2	3.4	1.8	.4	.1	.3	4.1	.6	3.7	5.6	.3	5.3	2.7	2.1	.6	.6	
1,000 TO 1,599.....	19.8	13.1	10.9	2.2	.7	.5	.2	3.0	.9	2.1	2.1	.4	1.7	.9	.7	.1	.1	
1,600 TO 1,999.....	9.7	6.2	7.1	1.0	.8	.6	.2	—	—	—	—	—	—	—	—	—	—	—
2,000 TO 2,399.....	9.0	8.1	7.3	.7	.6	.4	.1	—	—	—	—	—	—	—	—	—	—	—
2,400 TO 2,999.....	9.5	8.7	8.0	.8	.5	.4	.1	—	—	—	—	—	—	—	—	—	—	—
3,000 OR MORE.....	9.4	8.9	8.4	.5	.2	—	—	—	—	—	—	—	—	—	—	—	—	—

SEE NOTES AT END OF TABLE

TABLE 5. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP												
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	SINGLE-FAMILY TOTAL	OWN RENT	TOTAL	CWN	RENT	TOTAL	OWN RENT	CWN	RENT	TOTAL	OWN RENT
	12.0	5.2	4.5	7.0	3.1	2.2	0.9	6.2	2.0	4.2	3.7	0.5
<b>UTILITIES PAID BY HOUSEHOLD</b>												
ALL PAID BY HOUSEHOLD.....	69.4	52.4	45.4	7.0	3.1	2.2	0.9	6.2	2.0	4.2	3.7	0.5
SOME PAID, SOME INCLUDED IN RENT.....	6.6	1.1	1	1	1	1	1	2.3	1.3	2.3	2.3	1
ALL INCLUDED IN RENT.....	4.2	.2	.2	1.2	.1	1	1	1.3	1.3	1.3	2.3	.1
OTHER.....	1.5	.3	.1	.2	—	—	—	.2	.2	.2	.2	—
<b>YEAR HOUSE BUILT</b>												
1939 OR EARLIER.....	23.3	14.8	11.8	3.0	1.5	1.1	1	4.8	1.1	3.6	2.1	1
1940 TO 1949.....	7.5	5.4	4.3	1.1	.3	.2	1	1.1	.2	.9	.7	—
1950 TO 1959.....	13.7	11.3	9.8	1.5	.3	.2	1	1.1	.2	.9	.7	1
1960 TO 1964.....	7.2	4.9	4.4	.6	.1	.1	1	.7	.1	.6	1.0	.4
1965 TO 1969.....	8.1	4.9	4.5	.4	.1	.1	1	.8	.1	.7	1.5	.1
1970 TO 1974.....	10.5	5.1	4.8	.3	.5	.3	1	.5	.1	.5	2.6	.3
1975 OR LATER.....	6.5	6.0	6.6	.4	.3	.1	1	1.0	.2	.8	2.1	1.8
<b>NUMBER OF ROOMS</b>												
1.....	.7	—	—	—	—	—	—	—	—	—	—	—
2.....	2.0	2	1	1	1	1	1	1.5	1.5	1.0	1.0	1
3.....	7.9	1.3	.8	.5	.1	.1	1	.9	.1	3.6	3.6	.2
4.....	16.3	6.6	4.2	1.9	.5	.2	1	3.2	.4	2.8	4.1	.5
5.....	18.8	13.6	11.5	2.1	.7	.4	1	3	.2	2.2	1.6	.9
6.....	17.6	14.4	13.0	1.4	1.1	.9	1	2.1	.5	.9	1.1	.2
7.....	9.5	6.5	7.7	.8	.5	.5	1	1.4	.2	.2	.2	.1
8 OR MORE.....	8.9	6.4	7.7	.7	.3	.2	1	.2	.1	.1	.1	—
<b>MAIN OUTSIDE WALL MATERIAL</b>												
WOOD.....	22.5	17.9	16.3	3.6	.4	.2	2	.9	.6	2.4	1.1	.1
PLATE.....	21.9	11.5	10.6	—	—	—	—	—	—	—	—	—
ALUMINUM SIDING.....	11.2	6.2	5.5	.7	.3	.2	1	.4	.1	.4	.2	.9
STUCCO.....	9.2	5.0	4.3	.7	.5	.2	1	.4	.2	2.0	3	—
COMPOSITE.....	6.8	5.5	4.5	1.0	.3	.2	1	.4	.2	.5	2	—
CONCRETE.....	1.7	1.0	.8	.2	—	—	—	—	—	.4	.1	—
STONE.....	.7	.6	.5	—	—	—	—	—	—	—	—	—
COMBINATIONS/OTHER.....	7.5	5.4	4.9	.4	.3	.2	1	.8	.3	.8	.7	.1

SEP NOTES AT END OF TABLE

TABLE 5. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS		MOBILE HOME	
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN
<b>NUMBER OF COMPLETE AND HALFWAY COMBINATIONS</b>												
1 COMPLETE.....	46.3	24.2	18.9	5.3	2.0	1.3	0.7	8.4	1.2	7.2	8.5	0.3
1 COMPLETE AND 1 HALF.....	12.9	9.7	9.0	-7	-5	-2	-6	-4	-3	-2	1.0	.6
2 COMPLETE.....	14.8	12.1	11.3	-8	-4	-3	-7	-4	-3	-5	-7	-.6
2 COMPLETE AND 1 HALF.....	3.8	3.5	3.3	-1	-1	-1	-1	-1	-1	-1	-1	-.1
3 COMPLETE.....	1.4	1.4	1.3	-1	-1	-1	-1	-1	-1	-1	-1	-.1
OTHER COMBINATIONS.....	2.4	2.2	1.7	-5	-1	-1	-1	-1	-1	-1	-1	-.1
<b>1979 FAMILY INCOME</b>												
LESS THAN \$5,000.....	10.4	5.1	3.7	1.4	-4	-1	-3	-2.1	-2	1.9	2.0	-.1
\$5,000 TO \$5,999.....	13.9	7.2	5.8	1.4	-5	-2	-2.7	-3	-2.3	2.4	2.4	1.1
\$10,000 TO \$14,999.....	13.8	7.9	6.2	1.7	-7	-5	-2.2	-2.0	-1.6	2.3	2.1	.2
\$15,000 TO \$19,999.....	11.9	7.7	6.8	-9	-5	-3	-2.2	-1.3	-4	1.6	1.2	-.1
\$20,000 TO \$24,999.....	9.9	7.5	6.8	-7	-5	-4	-1.1	-8	-3	1.4	1.4	.4
\$25,000 TO \$34,999.....	12.4	5.6	8.6	1.0	-5	-4	-1	-7	-2	1.7	1.7	-.1
\$35,000 OR MORE.....	9.4	8.0	7.6	-4	-3	-2	-1	-3	-1	2.5	2.5	.4
<b>TOTAL POOR (100 PERCENT LEVEL) ..</b>	10.9	5.6	3.7	1.9	-5	-1	-4	-2.3	-1	2.2	1.8	-.1
<b>TOTAL POOR (125 PERCENT LEVEL) ..</b>	14.8	7.9	5.6	2.3	-6	-2	-4	-2.9	-2	2.7	2.4	-.1
<b>AGE OF HOUSEHOLD HEAD</b>												
UNDER 25 YEARS.....	6.6	2.0	1.9	1.1	-2	-1	-1	1.7	-1	1.7	2.0	-.5
25 TO 34 YEARS.....	20.2	11.8	9.0	2.3	-8	-5	-3	2.7	-4	2.4	3.7	-.3
35 TO 44 YEARS.....	14.1	16.2	8.9	1.3	-7	-6	-1	1.3	-3	1.0	1.1	.8
45 TO 59 YEARS.....	18.9	13.9	12.7	1.2	-8	-6	-2	2.0	-6	1.4	1.4	.2
60 YEARS AND OVER.....	21.8	15.2	14.0	1.2	-7	-5	-3	2.2	-7	1.5	2.6	.4
<b>ORIGIN</b>												
WHITE.....	71.0	47.6	41.5	6.1	2.6	1.7	1.9	7.5	1.7	5.8	8.7	-.9
BLACK.....	9.2	4.6	3.4	1.2	-6	-4	-2	2.2	-3	2.0	1.8	-.1
OTHER.....	1.4	.8	.5	.3	.1	.1	.1	-.2	-.2	.3	.1	-.1

SEE NOTES AT END OF TABLE

TABLE 5. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP									
HOUSEHOLD CHARACTERISTICS	TOTAL		SINGLE-FAMILY DETACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS		MOBILE HOME
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	
1.....	15.7	6.8	5.6	1.1	0.5	0.3	0.2	2.8	0.5
2.....	26.8	17.2	14.9	2.2	1.0	.6	.3	3.0	.6
3.....	14.9	10.1	8.6	1.5	.6	.5	.2	1.9	.4
4.....	13.4	10.3	9.0	1.2	.6	.4	.3	1.2	.5
5.....	6.8	5.5	4.8	.8	.3	.2	.7	.2	.1
6 OR MORE.....	4.0	3.1	2.5	.6	.3	.2	.1	.3	.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 6. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 CR MCDF UNITS		PORTFOLIO HCMF	
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS												
<2,000 CED AND >7,000 HDD.....	10.4	11.8	12.3	8.3	3.9	2.1	7.5	4.4	8.3	9.6	6.1	5.0
<2,000 CED AND 5,500 TO 7,000 HDD.....	25.7	25.3	25.8	22.2	9.3	7.0	14.1	36.0	42.3	34.6	27.2	30.1
<2,000 CTT AND 4,000 TO 5,499 HED.....	25.9	22.9	23.4	19.6	58.8	64.4	47.2	25.8	29.7	24.8	32.6	34.4
<2,000 CED AND <4,000 HDD.....	23.3	23.9	22.8	30.7	25.4	24.6	27.1	18.8	7.8	21.5	21.5	18.0
>2,000 CTT AND <4,000 HDD.....	14.8	16.2	15.7	19.3	2.6	1.9	4.1	10.0	11.8	9.6	12.7	12.4
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)												
LESS THAN 600.....	9.1	3.4	2.0	11.6	4.9	2.2	10.6	17.0	6.9	19.6	26.4	13.0
600 TO 999.....	25.8	14.7	12.0	31.0	19.6	9.5	40.7	43.2	20.2	49.0	52.3	25.9
1,000 TO 1,599.....	29.4	32.3	32.4	31.5	32.7	36.1	25.5	30.1	43.7	26.7	18.0	40.4
1,600 TO 1,999.....	12.3	16.7	17.5	11.9	16.2	18.5	11.5	3.4	6.1	2.7	2.2	11.8
2,000 TO 2,399.....	9.5	13.2	14.6	4.5	12.2	15.6	5.1	2.6	9.2	.9	.6	6.6
2,400 TO 2,999.....	7.5	10.5	11.3	5.2	11.6	14.6	5.3	1.8	7.4	.4	.2	1.2
3,000 OR MORE.....	6.4	9.3	10.1	4.2	2.8	3.5	1.3	1.9	6.5	.8	.2	2.1
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)												
LESS THAN 600.....	7.6	1.6	.9	6.0	3.3	.6	9.0	15.9	4.8	18.7	25.7	13.0
600 TO 999.....	22.1	5.8	7.5	23.4	13.1	5.4	29.5	41.5	19.1	47.1	51.7	25.9
1,000 TO 1,599.....	24.2	24.7	23.9	29.8	21.6	22.3	20.1	30.2	43.0	19.3	40.4	17.1
1,600 TO 1,999.....	11.8	15.4	15.7	13.8	23.5	26.1	18.0	3.9	6.8	3.1	2.2	11.8
2,000 TO 2,399.....	11.0	15.2	16.1	10.0	17.5	19.9	12.5	2.8	5.8	2.0	.6	6.6
2,400 TO 2,999.....	11.7	16.4	17.5	10.1	13.7	15.8	9.5	10.5	1.0	-2	.3	.7
3,000 OR MORE.....	11.6	16.8	18.4	7.0	7.2	10.0	1.3	2.8	9.9	1.0	.2	2.1

SEE NOTES AT END OF TABLE

TABLE 6. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP												
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
	48.9	99.8	93.4	94.1	98.2	85.6	62.3	99.1	53.0	34.4	46.2	33.2
UTILITIES PAID BY HOUSEHOLD	85.0	58.9	58.9	85.0	58.9	58.9	85.0	53.0	34.4	46.2	33.2	85.9
ALL PAID BY HOUSEHOLD.....												88.0
SOME PAID, SOME INCLUDED IN RENT.....	8.1	.2	-	1.1	.8	-	2.5	23.4	-	40.7	4.2	2.9
ALL INCLUDED IN RENT.....	5.1	.4	-	2.7	3.7	-	11.5	12.6	-	24.0	5.7	4.1
OTHER.....	1.8	.6	.2	3.1	1.4	1.8	.4	1.7	.9	1.9	53.8	2.1
YEAR HOUSE BUILT												
1939 OR EARLIER.....	28.6	26.0	39.9	46.9	51.2	37.9	48.1	56.6	46.0	19.7	11.8	20.6
1940 TO 1949.....	9.1	10.3	9.4	15.1	9.2	9.7	8.1	10.7	9.8	10.9	6.1	6.5
1950 TO 1959.....	16.8	21.3	21.5	20.2	9.3	8.3	11.4	10.3	11.6	6.4	5.5	5.9
1960 TO 1964.....	8.8	9.3	9.6	7.8	4.1	2.6	7.2	7.0	4.1	7.8	9.7	6.4
1965 TO 1969.....	9.9	9.2	9.8	5.2	4.2	5.1	2.9	7.6	4.9	8.3	13.6	14.3
1970 TO 1974.....	12.9	9.7	10.5	4.4	15.3	11.7	22.9	5.3	3.2	5.8	23.7	43.6
1975 OR LATER.....	13.9	12.3	13.1	7.4	10.9	11.4	10.0	9.9	11.1	9.6	20.8	22.5
NUMBER OF ROOMS												
1.....	.9	.1	-	.3	-	-	.3	4.5	4.9	.8	5.9	9.0
2.....	2.4	.4	.2	1.8	1.7	.3	11.8	19.3	6.2	22.6	33.8	15.1
3.....	9.7	2.5	1.7	6.9	3.8	-	32.1	32.9	19.8	35.7	52.3	36.7
4.....	19.9	12.4	10.3	25.0	14.7	8.0	28.9	32.4	38.2	20.2	10.5	40.9
5.....	23.1	25.7	25.3	28.0	20.7	18.5	25.4	22.4	31.2	10.5	21.9	40.3
6.....	21.5	27.2	26.6	18.9	33.7	41.0	18.3	14.0	24.2	11.5	3.1	25.5
7.....	11.6	16.0	17.0	10.0	15.3	21.2	2.8	3.6	10.6	1.8	.4	1.5
8 OR MORE.....	10.9	15.8	16.9	9.1	10.0	10.9	8.2	2.0	7.0	.8	.3	.4
MAIN OUTSIDE WALL MATERIAL												
WOOD.....	27.6	33.7	31.5	47.4	13.4	9.9	20.8	29.6	28.2	30.0	10.6	6.9
BRICK.....	26.8	21.7	23.2	12.4	35.6	40.3	25.6	32.8	34.7	55.5	40.2	57.1
ALUMINUM SIDING.....	13.8	11.7	12.1	8.7	7.6	7.8	4.5	4.5	4.6	1.8	1.8	89.6
STUCCO.....	11.3	9.5	9.4	9.9	22.5	23.1	21.2	14.3	11.7	15.0	18.7	17.8
COMPOSITION.....	8.4	10.3	9.9	12.8	10.2	6.7	17.6	8.0	13.8	6.6	2.0	.5
CONCRETE.....	2.1	1.9	1.9	2.5	-9	-6	1.6	2.7	-8	3.2	10.6	3.1
STONE.....	.9	1.1	1.2	4	1.8	2.7	-	4	-	.5	4	-
COMBINATIONS/OTHER.....	9.1	10.1	10.8	5.8	7.9	8.8	5.9	7.7	15.9	5.6	7.3	12.7

SEE NOTES AT END OF TABLE

TABLE 6. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP												
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>												
1 COMPLETE AND 1 HALF.....	56.7	45.7	41.6	70.6	60.5	56.2	69.8	84.7	62.3	90.4	78.6	33.9
1 COMPLETE AND 1 HALF.....	15.8	16.2	15.8	9.0	21.0	22.2	18.6	6.1	10.7	4.9	11.9	24.7
2 COMPLETE AND 1 HALF.....	18.1	22.8	24.8	10.7	12.3	14.4	7.9	7.4	20.6	4.1	7.7	32.2
2 COMPLETE AND 1 HALF.....	4.7	6.5	7.3	1.8	2.3	2.8	1.2	1.0	3.6	.3	1.6	5.1
3 COMPLETE.....	1.7	2.6	2.8	1.1	1.1	1.1	1.6	-	-	-	.8	-.8
OTHER COMBINATIONS.....	1.7	2.6	2.8	1.1	1.1	1.1	1.6	-	-	-	-	-.8
2.9	4.1	3.6	6.8	2.8	2.9	2.5	.8	2.9	.3	.2	.2	-.8
1979 FAMILY INCOME LESS THAN \$5,000.....	12.7	9.6	8.1	18.7	12.8	4.2	31.0	21.2	8.3	24.4	18.7	13.2
\$5,000 TO \$5,999.....	17.0	13.6	12.8	18.2	14.1	13.8	14.9	27.0	16.7	29.6	22.2	20.4
\$10,000 TO \$14,999.....	16.9	15.0	13.7	22.5	20.8	22.7	16.8	20.3	20.6	20.2	21.2	22.7
\$15,000 TO \$19,999.....	14.5	14.5	14.9	12.6	16.0	15.6	16.9	13.5	19.7	11.9	14.8	14.5
\$20,000 TO \$24,999.....	12.2	14.2	14.9	9.9	14.0	15.9	9.9	7.7	15.3	5.8	6.9	5.4
\$25,000 TO \$34,999.....	15.1	18.1	19.0	12.7	14.0	18.2	5.2	7.4	12.2	6.2	9.7	7.0
\$35,000 OR MORE.....	11.6	15.0	16.6	5.4	8.2	9.6	5.4	3.1	7.2	2.0	6.6	18.8
TOTAL POOR (100 PERCENT LEVEL) .....	13.3	10.6	8.2	24.9	14.4	5.6	33.2	23.1	7.3	27.1	16.7	5.0
TOTAL POOR (125 PERCENT LEVEL) .....	18.1	14.9	12.2	31.2	18.7	10.1	36.7	29.7	11.6	34.3	22.1	13.2
AGE OF HOUSEHOLD HEAD												
UNDER 25 YEARS.....	8.1	3.7	2.0	14.0	7.1	3.8	13.9	17.3	1.8	21.2	18.4	-.2
25 TO 34 YEARS.....	24.7	22.2	19.8	36.8	25.3	23.6	29.1	27.6	18.9	29.8	34.2	20.2
35 TO 44 YEARS.....	17.2	19.2	19.5	17.1	21.9	25.9	13.5	13.1	13.3	10.5	10.1	10.6
45 TO 59 YEARS.....	23.2	26.3	27.9	16.4	23.5	25.3	19.7	19.8	29.3	17.4	13.1	28.6
60 YEARS AND OVER.....	26.7	28.6	30.8	15.7	22.2	21.4	23.8	22.1	36.6	18.4	23.8	41.1
ORIGIN												
WHITE.....	86.9	89.9	91.3	81.0	78.3	77.0	81.0	76.0	87.3	73.1	81.0	93.8
BLACK.....	11.3	8.6	7.5	15.5	17.8	19.3	14.7	22.3	12.7	16.3	17.9	9.9
OTHER.....	1.8	1.5	1.2	3.6	3.9	3.7	4.3	1.7	-.2	2.1	2.8	5.3

SPE. NOTES AT END OF TABLE

TABLE 6. HOUSING CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP														
	TOTAL			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
1.....	19.3	12.8	12.4	15.3	15.8	13.0	21.8	27.8	25.2	28.5	43.5	43.5	22.0	20.7	26.6
2.....	32.8	32.4	32.9	29.6	29.3	28.7	30.7	30.6	27.8	31.3	37.1	51.0	35.6	34.3	33.4
3.....	18.2	19.1	19.0	19.8	18.7	20.7	14.5	19.3	21.7	18.6	10.7	3.2	11.5	23.2	23.6
4.....	16.4	15.4	19.8	16.6	18.9	16.4	24.2	12.4	14.7	11.8	5.7	4.2	5.8	13.7	13.9
5.....	8.4	10.4	10.5	10.1	8.6	10.9	3.7	6.9	9.0	6.4	1.6	3.4	1.4	3.6	4.3
6 OR MORE.....	5.0	5.9	5.4	8.5	8.6	10.2	5.1	3.1	1.6	3.5	1.9	-	2.1	3.1	4.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH “-” REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNPONLE NUMBER. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 7. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
		81.6	7.5	21.1	24.0	10.0	7.8
<b>ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS</b>							
<2,000 CDD AND >7,000 HDD.....	8.5	.3	2.0	1.9	1.3	1.0	.8
<2,000 CDD AND 5,500 TO 7,000 HDD.....	26.9	1.5	5.0	6.1	2.5	1.8	1.8
<2,000 CDD AND 4,000 TO 5,499 HDD.....	21.1	2.3	5.4	5.4	2.5	2.0	1.5
<2,000 CDD AND <4,000 HDD.....	19.0	2.0	5.2	6.5	1.4	.9	.8
>2,000 CDD AND <4,000 HDD.....	12.1	1.4	3.7	4.1	.7	.6	.3
<b>UTILITIES PAID BY HOUSEHOLD</b>							
ALL PAID BY HOUSEHOLD.....	69.4	4.0	15.1	21.7	9.7	7.7	6.1
SOME PAID, SOME INCLUDED IN RENT.....	6.6	1.5	3.6	1.3	-1	-	5.1
ALL INCLUDED IN RENT.....	4.2	1.7	1.8	.6	-1	-	-
OTHER.....	1.6	.3	.6	.4	-	-	.1
<b>OWN/RENT</b>							
OWN.....	54.3	1.9	8.5	17.5	8.6	7.3	5.6
RENT.....	27.3	5.5	12.6	6.5	1.4	.5	.4
<b>YEAR HOUSE BUILT</b>							
1939 OR EARLIER.....	23.7	2.5	5.5	7.0	2.8	2.1	1.6
1940 TO 1949.....	7.6	.9	2.2	2.2	.9	.5	.4
1950 TO 1959.....	13.7	.9	3.4	4.6	2.0	1.2	.7
1960 TO 1964.....	7.2	.7	1.6	1.9	.9	1.0	.3
1965 TO 1969.....	8.1	.9	2.2	2.0	.8	.7	.5
1970 TO 1974.....	10.5	.9	3.4	2.8	1.2	.9	.7
1975 OR LATER.....	11.3	.7	2.7	3.5	1.4	1.1	1.0
<b>NUMBER OF ROOMS</b>							
1.....	.7	.7	.1	-	-	-	-
2.....	2.0	1.4	.5	.1	-	-	-
3.....	7.5	2.8	4.1	.7	.1	-	-
4.....	16.3	1.5	9.7	3.8	.7	.3	.1
5.....	18.8	.7	4.7	8.7	2.2	1.2	.4
6.....	17.6	.3	1.6	7.7	3.1	2.4	.8
7.....	9.5	.1	.3	2.0	2.4	2.0	1.2
8 OR MORE.....	8.9	-	-	.8	1.4	1.9	2.8

TABLE 7. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>MAIN OUTSIDE WALL MATERIAL</b>							
WOOD.....	22.5	2.0	5.3	6.9	2.6	2.3	1.8
BRICK.....	21.9	2.3	5.6	6.2	2.8	1.9	1.6
ALUMINUM SIDING.....	11.2	1.1	3.8	3.0	1.2	1.0	1.5
STUCCO.....	9.2	.9	2.4	3.2	1.2	.7	.8
COMPOSITION.....	6.6	.3	1.8	2.2	.9	.6	.5
CONCRETE.....	1.7	.3	.6	.5	.2	.1	.1
STONE.....	.7	.1	-.1	.1	.1	.1	.2
COMBINATIONS/OTHER.....	7.6	.4	1.7	1.9	1.0	.7	.7
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>							
1 COMPLETE.....	46.3	6.7	18.0	13.8	3.6	2.1	1.6
1 COMPLETE AND 1 HALF.....	12.6	.3	1.6	4.6	2.3	1.8	1.5
2 COMPLETE.....	14.6	.2	1.1	4.9	3.3	2.6	1.6
2 COMPLETE AND 1 HALF.....	3.8	-.1	-.1	-.3	-.6	-.8	1.2
3 COMPLETE.....	1.4	-.1	-.1	-.1	-.1	-.7	1.3
OTHER COMBINATIONS.....	2.4	.3	.4	.1	.3	.4	.6
<b>1979 FAMILY INCOME</b>							
LESS THAN \$5,000.....	10.4	2.3	4.0	2.7	.7	.2	.2
\$5,000 TO \$9,999.....	13.5	2.0	4.9	4.2	1.1	.7	.5
\$10,000 TO \$14,999.....	13.8	1.4	4.8	4.1	1.6	.9	.4
\$15,000 TO \$19,999.....	11.9	.9	3.0	3.9	1.6	1.1	.4
\$20,000 TO \$24,999.....	9.5	.3	1.8	3.4	1.7	1.4	.7
\$25,000 TO \$34,999.....	12.4	-.3	1.6	4.0	2.0	1.7	1.1
\$35,000 OR MORE.....	9.4	.2	.9	1.7	1.3	1.8	2.0
TOTAL POOR (100 PERCENT LEVEL) ..	10.9	2.1	3.9	3.1	.8	.4	.2
TOTAL POOR (125 PERCENT LEVEL) ..	14.6	2.7	5.4	4.1	1.2	.5	.3

SEE NOTES AT END OF TABLE

TABLE 7. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE				
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399
		2,400 TO 2,999	3,000 OR MORE			
<b>AGE OF HOUSEHOLD HEAD</b>						
UNDER 25 YEARS.....	6.6	1.2	3.4	1.4	0.4	0.2
25 TO 34 YEARS.....	26.2	1.9	6.2	6.4	2.4	1.5
35 TO 44 YEARS.....	14.1	.9	2.7	4.1	1.6	1.3
45 TO 59 YEARS.....	18.9	1.1	3.3	5.7	2.8	2.0
60 YEARS AND OVER.....	21.8	2.5	5.5	6.4	2.8	2.2
<b>ORIGIN</b>						
WHITE.....	71.0	5.9	17.4	20.8	9.3	7.3
BLACK.....	5.2	1.2	3.4	2.8	.6	.5
OTHER.....	1.4	.4	.3	.3	.2	.1
<b>HOUSEHOLD MEMBERS</b>						
1.....	15.7	3.5	5.9	3.8	1.0	.7
2.....	26.6	2.1	7.7	7.9	3.4	2.3
3.....	14.9	1.0	3.6	5.1	1.8	1.6
4.....	13.4	.4	2.4	3.9	2.1	1.6
5.....	6.8	.2	1.0	2.0	1.1	1.0
6 OR MORE.....	4.0	.2	.5	1.3	.6	.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: PRESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 8. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)

		MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE						
HOUSEHOLD CHARACTERISTICS		TOTAL	LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 2,399	2,400 TO 2,999	3,000 CR MORE
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS								
<2,000 CDD AND >7,000 HDD.....	10.4	3.7	9.3	7.8	13.4	16.2	15.7	15.6
<2,000 CDD AND 5,500 TC 7,000 HED.....	25.7	19.7	23.5	25.3	24.8	30.4	29.0	34.9
<2,000 CDD AND 4,000 TC 5,499 HDD.....	25.6	31.5	25.4	22.6	25.3	25.5	32.1	29.2
<2,000 CDD AND <4,000 HDD.....	23.3	26.6	24.4	27.2	23.0	18.5	14.1	14.4
>2,000 CDD AND <4,000 HDD.....	14.8	18.5	17.4	17.1	13.6	9.3	9.1	5.9
UTILITIES PAID BY HOUSEHOLD								
ALL PAID BY HOUSEHOLD.....	85.6	53.6	71.8	90.6	96.9	99.5	99.2	96.9
SOME PAID, SOME INCLUDED IN RENT.....	8.1	20.0	17.2	5.3	1.3	-	.7	.8
ALL INCLUDED IN RENT.....	5.1	22.7	8.4	2.5	1.6	.3	-	.8
OTHER.....	1.8	3.9	2.6	1.6	1.2	.2	-	1.6
OWN/RENT								
OWN....	66.5	26.0	40.2	73.1	86.5	94.0	91.8	92.5
RENT....	33.5	74.0	59.8	26.9	13.5	6.0	8.2	7.5
YEAR HOUSE BUILT								
1939 OR EARLIER.....	28.6	33.7	26.2	29.1	27.7	27.6	29.6	30.1
1940 TO 1949.....	9.1	12.0	10.6	9.1	8.3	6.5	6.2	6.3
1950 TO 1959.....	16.8	11.5	16.0	19.1	20.1	15.4	16.2	13.7
1960 TO 1964.....	8.8	8.9	7.7	8.0	9.4	12.9	11.7	6.3
1965 TO 1969.....	9.9	11.7	10.4	8.5	8.2	12.8	10.9	9.6
1970 TO 1974.....	12.9	12.7	16.3	11.7	11.9	11.0	10.7	12.8
1975 OR LATER.....	12.8	9.5	12.9	14.3	14.5	13.8	14.7	19.3
NUMBER OF ROOMS								
1.....	9	8.8	4	-	-	-	-	-
2.....	2.4	18.6	2.3	.4	.3	-	-	-
3.....	2.7	38.2	19.7	2.9	1.1	.4	.7	.1
4.....	19.9	19.8	46.1	16.0	7.2	4.3	2.3	.4
5.....	23.1	9.0	22.1	36.5	22.4	14.8	15.6	7.7
6.....	21.5	4.5	7.8	32.2	31.3	30.9	25.5	14.5
7.....	11.6	1.8	1.2	8.6	23.8	25.4	24.4	23.9
8 OR MORE.....	16.9	4	.5	3.3	13.9	24.2	31.4	53.5

TABLE 8. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
		3,000 CR NONE					
<b>MAIN OUTSIDE WALL MATERIAL</b>							
WOOD.....	27.6	26.9	24.9	29.0	26.2	29.7	29.0
BRICK.....	26.8	30.8	26.4	25.8	28.2	24.2	26.5
ALUMINUM SIDING.....	13.8	15.0	18.0	12.3	11.6	12.2	12.9
STUCCO.....	11.3	12.4	11.1	13.3	11.5	8.8	8.8
COMPOSITION.....	8.4	4.6	8.5	9.1	9.1	9.2	6.8
CONCRETE.....	2.1	3.7	2.9	2.0	2.0	1.2	1.1
STONE.....	.5	.8	.1	.5	1.0	1.1	.2
COMBINATIONS/OTHER.....	9.1	5.7	8.0	8.0	10.4	12.9	14.0
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>							
1 COMPLETE.....	56.7	89.2	85.5	57.6	35.9	26.8	26.1
1 COMPLETE AND 1 HALF.....	15.6	3.6	7.4	19.2	22.6	22.5	25.2
2 COMPLETE.....	18.1	2.1	5.1	20.4	32.6	33.9	25.8
2 COMPLETE AND 1 HALF.....	4.7	.2	.3	1.4	6.5	10.4	10.7
3 COMPLETE.....	1.7	.2	-	.2	1.4	4.0	5.9
OTHER COMBINATIONS.....	2.9	4.5	1.7	1.3	1.0	2.3	6.3
<b>1979 FAMILY INCOME</b>							
LESS THAN \$5,000.....	12.7	30.3	19.0	11.1	6.8	3.1	5.1
\$5,000 TO \$9,999.....	17.0	27.4	23.3	17.7	11.0	9.2	8.7
\$10,000 TO \$14,999.....	16.9	18.6	22.8	17.0	16.1	12.1	10.2
\$15,000 TO \$19,999.....	14.5	12.3	14.4	16.3	15.6	14.0	15.1
\$20,000 TO \$24,999.....	12.2	4.1	8.6	14.0	16.6	17.8	11.4
\$25,000 TO \$34,999.....	15.1	4.7	7.7	16.6	20.5	21.2	25.5
\$35,000 OR MORE.....	11.6	2.7	4.2	7.3	13.4	22.5	24.0
TOTAL POOR (100 PERCENT LEVEL) ..	13.3	28.1	18.7	12.8	8.5	3.8	7.0
TOTAL POOR (125 PERCENT LEVEL) ..	18.1	36.1	25.6	17.3	12.1	6.1	9.0

SEE NOTES AT END OF TABLE

TABLE 8. HOUSING CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
	TOTAL		LESS THAN 600		600 TO 1,599	
			1,000	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>AGE OF HOUSEHOLD HEAD</b>						
UNDER 25 YEARS.....	8.1	15.5	16.1	6.0	4.3	2.0
25 TO 34 YEARS.....	24.3	25.0	29.4	26.6	23.8	19.2
35 TO 44 YEARS.....	17.2	11.7	12.9	17.0	15.7	25.2
45 TO 59 YEARS.....	23.2	14.4	15.8	23.6	27.8	24.7
60 YEARS AND OVER.....	26.7	33.3	25.9	26.8	28.5	31.7
						27.8
<b>ORIGIN</b>						
WHITE.....	86.6	78.9	82.3	86.8	92.7	93.3
BLACK.....	11.3	16.1	16.3	11.7	5.6	6.0
OTHER.....	1.8	5.1	1.4	1.4	.7	2.3
						1.0
<b>HOUSEHOLD MEMBERS</b>						
1.....	19.1	47.3	28.0	15.9	10.4	9.3
2.....	32.8	28.1	36.3	33.1	33.7	29.1
3.....	18.5	12.9	17.1	21.3	16.3	20.1
4.....	16.4	5.9	11.4	16.2	21.3	23.2
5.....	8.4	3.0	4.7	8.2	10.7	11.5
6 OR MORE.....	5.6	2.8	2.5	5.2	5.6	6.8
						6.6
						10.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNRounded NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 9. HOUSING CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HEATED HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER		
		MEDIAN			SINGLE- FAMILY UNIT			MULTI- FAMILY UNIT		
		HEATED AND UNHEATED	HEATED HEATED AND UNHEATED	HEATED	HEATED	HEATED	UNHEATED	MOBILE HOME	MOBILE HOME	HOUSEHOLD MEMBER
TOTAL HOUSEHOLDS.....	1.6	1,745	1,499	1,488	1,260	1,771	914	809	534	
CENSUS REGION										
NCF THEAST.....	17.7	1,972	1,623	1,782	1,374	2,091	963	913	572	
NORTH CENTRAL.....	21.1	1,936	1,648	1,840	1,668	1,899	982	794	572	
SOUTH.....	27.0	1,565	1,379	1,296	1,200	1,583	843	787	496	
WEST.....	16.0	1,546	1,368	1,293	1,160	1,624	834	818	502	
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS										
<2,000 CDD AND >7,000 HDD.....	8.5	2,131	1,749	2,026	1,644	1,996	1,052	870	615	
<2,000 CDD AND 5,500 TO 7,000 HDD.....	20.9	1,910	1,612	1,752	1,378	1,954	980	854	558	
<2,000 CDD AND 4,000 TO 5,495 HDD.....	21.1	1,815	1,545	1,594	1,258	1,877	888	868	550	
<2,000 CDD AND <4,000 HDD.....	15.0	1,538	1,359	1,288	1,200	1,571	863	761	497	
>2,000 CDD AND <4,000 HDD.....	12.1	1,394	1,266	1,206	1,134	1,456	800	748	459	
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)										
LESS THAN 600.....	7.5	585	429	516	482	369	456	423	211	
600 TO 999.....	21.1	930	803	840	805	833	787	769	336	
1,000 TO 1,595.....	24.0	1,557	1,273	1,404	1,252	1,289	1,219	1,229	443	
1,600 TO 1,995.....	10.0	2,117	1,783	1,920	1,772	1,785	1,754	1,768	578	
2,000 TO 2,395.....	7.8	2,481	2,189	2,321	2,193	2,190	2,178	2,220	681	
2,400 TO 2,995.....	6.1	2,956	2,650	2,803	2,630	2,649	2,681	NA	789	
3,000 OR MORE.....	5.2	4,329	3,950	3,940	3,619	3,960	3,702	NA	1,126	
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)										
LESS THAN 600.....	6.2	464	451	496	489	453	458	419	234	
600 TO 999.....	16.0	795	778	801	782	784	778	764	327	
1,000 TO 1,595.....	19.8	1,275	1,179	1,258	1,184	1,175	1,187	1,206	418	
1,600 TO 1,999.....	9.7	1,794	1,569	1,800	1,680	1,562	1,652	1,713	535	
2,000 TO 2,399.....	9.0	2,189	1,848	2,193	2,016	1,843	1,952	2,072	594	
2,400 TO 2,995.....	9.5	2,672	2,149	2,663	2,268	2,148	2,166	0	680	
3,000 OR MORE.....	9.4	3,976	3,178	3,629	3,072	3,174	3,286	NA	934	

SEE NOTES AT END OF TABLE

TABLE 9. HOUSING CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD—Continued

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLD SIZES (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER				
		MEAN			MEDIAN			SINGLE- FAMILY UNIT			MULTI- FAMILY UNIT	
		HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED	HOME OWNER	MOBILE HOME OWNER	HOME OWNER	MOBILE HOME OWNER	
<b>UTILITIES PAID BY HOUSEHOLD</b>												
ALL PAID BY HOUSEHOLD.....	69.4	1,898	1,614	1,700	1,410	1,776	1,018	839	839	839	552	
SOME PAID, SOME INCLUDED IN RENT.....	6.6	865	844	813	803	0	844	631	631	631	398	
ALL INCLUDED IN RENT.....	4.2	763	742	662	660	983	734	540	540	540	338	
OTHER.....	1.5	1,283	1,141	979	933	1,792	982	727	727	727	511	
<b>OWN/RENT</b>												
OWN.....	54.3	2,075	1,762	1,901	1,570	1,855	1,397	830	830	830	593	
RENT.....	27.3	1,090	976	872	843	1,300	833	735	735	735	393	
<b>TYPE OF HOUSING STRUCTURE</b>												
SINGLE-FAMILY DETACHED.....	53.0	2,131	1,784	1,951	1,592	1,784	—	—	—	—	587	
OWN.....	45.5	2,214	1,862	2,026	1,680	1,862	—	—	—	—	615	
RENT.....	7.5	1,634	1,316	1,375	1,133	1,316	—	—	—	—	424	
SINGLE-FAMILY ATTACHED.....	3.3	1,840	1,555	1,817	1,508	1,555	—	—	—	—	500	
OWN.....	2.2	2,038	1,730	1,920	1,668	1,730	—	—	—	—	532	
RENT.....	1.1	1,422	1,187	1,316	953	1,187	—	—	—	—	420	
BUILDING WITH 2 TO 4 UNITS.....	9.9	1,086	1,025	903	889	1,025	—	—	—	—	404	
OWN.....	2.0	1,624	1,489	1,316	1,232	1,489	—	—	—	—	575	
RENT.....	7.9	951	908	853	840	908	—	—	—	—	360	
BUILDING WITH 5 OR MORE UNITS.....	10.8	826	812	773	749	812	—	—	—	—	418	
OWN.....	1.0	1,217	1,213	1,155	1,155	1,213	—	—	—	—	661	
RENT.....	5.8	785	771	744	733	771	—	—	—	—	394	
MOBILE HOME.....	4.6	819	809	799	732	—	—	809	809	809	317	
OWN.....	3.6	839	830	773	773	—	—	830	830	830	314	
RENT.....	1.0	746	735	720	720	—	—	735	735	735	327	

SPE NCFS AT END OF TABLE

TABLE 9. HOUSING CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD—Continued

HOUSING CHARACTERISTICS	HOUSE- HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER		
		MEAN		HEATED AND HEATED UNHEATED	HEATED AND UNHEATED	MEDIAN		SINGLE- FAMILY UNIT	MULTI- FAMILY UNIT	MOBILE HOME
		HEATED	HEATED			HEATED	HEATED			
<b>YEAR HOUSE BUILT</b>										
1939 OR EARLIER.....	23.3	1,856	1,591	1,584	1,344	1,594	1,280	1,743	967	571
1940 TO 1949....	7.5	1,729	1,507	1,508	1,295	1,731	1,564	786	NA	513
1950 TO 1959.....	13.7	1,774	1,537	1,647	1,350	1,631	859	859	566	538
1960 TO 1964.....	7.2	1,659	1,485	1,356	1,248	1,790	985	635	NA	517
1965 TO 1969....	8.1	1,627	1,438	1,316	1,152	1,892	902	650	650	510
1970 TO 1974....	10.5	1,791	1,582	1,496	1,320	2,004	916	979	979	557
1975 OR LATER....	11.3									
<b>NUMBER OF ROOMS</b>										
1.....	7	379	374	379	379	379	379	379	371	395
2.....	2.0	581	546	529	509	577	586	586	315	340
3.....	7.9	802	717	663	644	800	713	608	NA	421
4.....	16.3	1,083	962	900	858	1,094	879	789	NA	411
5.....	18.8	1,596	1,352	1,392	1,202	1,433	1,138	978	NA	484
6.....	17.6	1,996	1,677	1,872	1,532	1,721	1,360	1,206	NA	530
7.....	9.5	2,539	2,165	2,392	1,999	2,194	1,646	1,325	NA	642
8 OR MORE.....	8.9	3,143	2,730	2,880	2,486	2,725	3,042	3,042	NA	722
<b>MAIN OUTSIDE WALL MATERIAL</b>										
WCCE.....	22.5	1,854	1,542	1,590	1,288	1,571	990	990	805	525
BRICK.....	21.9	1,695	1,499	1,426	1,265	1,962	864	864	NA	560
ALUMINUM SIDING.....	11.2	1,575	1,350	1,278	1,120	1,731	1,033	1,033	810	480
STUCCO.....	9.2	1,546	1,412	1,316	1,230	1,730	879	879	NA	522
COMPOSITION.....	6.8	1,831	1,473	1,692	1,245	1,554	1,021	1,021	NA	522
CONCRETE.....	1.7	1,230	1,169	1,077	975	1,422	772	772	NA	432
STONE.....	0.7	3,015	2,512	2,805	2,268	2,759	615	615	NA	501
COMBINATIONS/OTHER.....	7.5	1,969	1,701	1,824	1,519	1,930	1,057	1,057	729	582

SEE NOTES AT END OF TABLE

TABLE 9. HOUSING CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD--Continued

HOUSING CHARACTERISTICS	HOUSE- HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER		
		MEDIAN			SINGLE- FAMILY UNIT			MULTI- FAMILY UNIT		
		HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED ONLY	HEATED ONLY	HEATED ONLY	HEATED ONLY	HEATED ONLY	HEATED ONLY	HOUSEHOLD MEMBER
<b>NUMBER OF COMPLETE AND HALF</b>										
BATHROOMS										
1 COMPLETE.....	46.3	1,305	1,113	1,056	960	1,355	918	691	440	
1 COMPLETE AND 1 HALF.....	12.9	2,073	1,754	1,934	1,600	1,908	1,181	930	577	
2 COMPLETE.....	14.8	2,161	1,882	2,000	1,750	1,980	1,409	1,240	596	
2 COMPLETE AND 1 HALF.....	3.8	3,121	2,718	2,952	2,412	2,770	2,070	0	779	
3 COMPLETE.....	1.4	3,239	2,927	3,025	2,700	2,960	0	NA	834	
OTHER COMBINATIONS.....	2.4	2,846	2,427	2,592	2,296	2,504	1,593	311	739	
<b>1979 FAMILY INCOME</b>										
LESS THAN \$5,000.....	10.4	1,207	1,041	933	853	1,271	809	632	507	
\$5,000 TO \$9,999.....	13.9	1,345	1,161	1,087	994	1,452	817	721	476	
\$10,000 TO \$14,999.....	13.8	1,503	1,271	1,200	1,064	1,504	890	873	477	
\$15,000 TO \$19,999.....	11.9	1,690	1,444	1,488	1,260	1,667	941	919	478	
\$20,000 TO \$24,999.....	9.9	1,997	1,690	1,806	1,520	1,808	1,089	865	524	
\$25,000 TO \$34,999.....	12.4	2,091	1,806	1,966	1,644	1,969	1,149	904	574	
\$35,000 OR MORE.....	9.4	2,625	2,296	2,400	2,120	2,465	1,184	899	710	
TOTAL POOR (100 PERCENT LEVEL)...	10.9	1,266	1,095	1,001	912	1,321	834	676	371	
TOTAL POOR (125 PERCENT LEVEL)...	14.8	1,289	1,111	1,024	936	1,320	852	677	399	
<b>AGE OF HOUSEHOLD HEAD</b>										
UNDER 25 YEARS.....	6.6	1,053	953	840	826	1,268	797	790	392	
25 TO 34 YEARS.....	20.2	1,556	1,345	1,300	1,147	1,623	854	833	441	
35 TO 44 YEARS.....	14.1	1,981	1,719	1,813	1,520	1,955	936	847	444	
45 TO 59 YEARS.....	18.9	2,056	1,773	1,820	1,536	1,973	1,118	905	603	
60 YEARS AND OVER.....	21.8	1,708	1,428	1,461	1,230	1,644	878	699	752	
<b>ORIGIN</b>										
WHITE.....	71.0	1,806	1,542	1,575	1,321	1,807	927	806	562	
BLACK.....	5.2	1,318	1,217	1,050	997	1,488	877	732	383	
OTHER.....	1.4	1,498	1,177	1,200	1,049	1,360	810	1,212	318	

SFF NOTES AT END OF TABLE

TABLE 9. HOUSING CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD--Continued

HOUSEHOLD CHARACTERISTICS	HOUSING UNITS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER				
		MEAN			MEDIAN			SINGLE- FAMILY UNIT			MULTI- FAMILY UNIT	
		HEATED	HEATED AND HEATED	UNHEATED	HEATED	HEATED	UNHEATED	FAMILY	MOBILE HOME	UNIT	FAMILY	MOBILE HOME
<b>HOUSEHOLD MEMBERS</b>												
1.....	15.7	1,231	1,052	243	854	1,413	756	616	756	1,052	1,052	1,052
2.....	26.8	1,724	1,476	1,477	1,232	1,745	936	788	936	788	738	738
3.....	14.9	1,767	1,508	1,409	1,300	1,717	1,009	847	1,009	847	503	503
4.....	13.4	2,033	1,762	1,872	1,594	1,918	1,116	950	1,116	950	440	440
5.....	6.8	2,147	1,870	1,991	1,669	1,997	1,189	969	1,189	969	374	374
6 OR MORE.....	4.0	2,175	1,855	1,956	1,632	1,985	1,155	1,309	1,155	1,309	272	272

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS CP TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

C = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 10. HOUSING CHARACTERISTICS BY TOTAL SQUARE FEET

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED		TOTAL HEATED (BILLIONS) ((PERCENT))
			(BILLIONS)	(PERCENT)	
<b>TOTAL HOUSEHOLDS.....</b>	81.6	100.0	142.5	100.0	122.4 100.0
CENSUS REGION					
NORTHEAST.....	17.7	21.6	34.8	24.5	28.7 23.4
NORTH CENTRAL.....	21.1	25.8	40.8	28.6	34.7 28.4
SOUTH.....	27.0	33.0	42.2	29.6	37.2 30.4
WEST.....	16.0	19.5	26.7	17.3	21.8 17.8
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS					
<2,000 CDD AND >7,000 HDD.....	8.5	10.4	18.1	12.7	14.8 12.1
<2,000 CDD AND 5,500 TO 7,000 HDD.....	20.9	25.7	40.0	28.1	33.8 27.6
<2,000 CDD AND 4,000 TO 5,499 HDD.....	21.1	25.9	38.4	26.9	32.7 26.7
<2,000 CDD AND <4,000 HDD.....	19.0	23.3	29.2	20.5	25.8 21.1
>2,000 CDD AND <4,000 HDD.....	12.1	14.8	16.9	11.8	15.3 12.5
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)					
LESS THAN 600.....	7.5	9.1	4.4	3.1	3.2 2.6
600 TO 999.....	21.1	25.8	19.6	13.8	16.9 13.8
1,000 TO 1,599.....	24.0	29.4	37.3	26.2	30.5 24.9
1,600 TO 1,999.....	10.0	12.3	21.2	14.9	17.8 14.6
2,000 TO 2,399.....	7.8	9.5	19.3	13.5	17.0 13.9
2,400 TO 2,999.....	6.1	7.5	18.1	12.7	16.3 13.3
3,000 OR MORE.....	5.2	6.4	22.6	15.9	20.6 16.8
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)					
LESS THAN 600.....	6.2	7.6	2.9	2.0	2.8 2.3
600 TO 999.....	18.0	22.1	14.4	10.1	14.0 11.5
1,000 TO 1,599.....	19.8	24.2	25.2	17.7	23.3 19.0
1,600 TO 1,999.....	9.7	11.8	17.3	12.2	15.2 12.4
2,000 TO 2,399.....	9.0	11.0	19.7	13.8	16.5 13.6
2,400 TO 2,999.....	9.5	11.7	25.4	17.8	20.4 16.7
3,000 OR MORE.....	9.4	11.6	37.5	26.3	30.0 24.5

SEE NOTES AT END OF TABLE

TABLE 10. HOUSING CHARACTERISTICS BY TOTAL SQUARE FEET—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE			
	(MILLIONS) (PERCENT)		TOTAL, HEATED AND UNHEATED		TOTAL, HEATED	
	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)
<b>UTILITIES PAID BY HOUSEHOLD</b>						
ALL PAID BY HOUSEHOLD.....	69.4	85.0	131.7	92.4	112.0	91.6
SCMF PAID, SOME INCLUDED IN RENT.....	6.6	8.1	5.7	4.0	5.6	4.6
RENT.....	4.2	5.1	3.2	2.2	3.1	2.5
ALL INCLUDED IN RENT.....	1.5	1.8	1.9	1.3	1.7	1.4
OTHER.....						
<b>OWN/RENT</b>						
OWN.....	54.3	66.5	112.7	79.1	95.7	78.2
RENT.....	27.3	33.5	29.8	20.9	26.6	21.8
<b>TYPE OF HOUSING STRUCTURE</b>						
SINGLE-FAMILY DETACHEE.....	53.0	64.9	112.9	79.3	94.5	77.3
CFN.....	45.5	55.7	100.7	70.6	84.6	69.2
RENT.....	7.5	9.2	12.3	8.6	9.9	8.1
SINGLE-FAMILY ATTACHEE.....	3.3	4.0	6.1	4.3	5.1	4.2
CFN.....	2.2	2.7	4.6	3.2	3.9	3.2
RENT.....	1.1	1.3	1.5	1.1	1.3	1.0
BUILDING WITH 2 TO 4 UNITS.....	9.9	12.2	10.8	7.6	10.2	8.3
OWN.....	2.0	2.4	3.2	2.3	3.0	2.4
RENT.....	7.9	9.7	7.5	5.3	7.2	5.9
BUILDING WITH 5 OR MORE UNITS.....	10.8	13.2	8.9	6.2	8.8	7.2
OWN.....	1.0	1.2	1.2	.9	1.2	1.0
RENT.....	9.8	12.0	7.7	5.4	7.5	6.2
MOBILE HOME.....	4.6	5.7	3.8	2.7	3.8	3.1
OWN.....	3.6	4.4	3.0	2.1	3.0	2.5
RENT.....	1.0	1.8	.8	.5	.8	.6
<b>YEAR HOUSE BUILT</b>						
1939 OR EARLIER.....	23.3	28.6	43.3	30.4	35.2	28.8
1940 TO 1949.....	7.5	9.1	11.9	8.3	10.3	8.4
1950 TO 1959.....	13.7	16.8	23.7	16.6	20.7	16.9
1960 TO 1964.....	7.2	8.8	12.8	9.0	11.1	9.0
1965 TO 1969.....	8.1	9.9	13.4	9.4	12.0	9.8
1970 TO 1974.....	10.5	12.9	17.2	12.0	15.2	12.4
1975 OR LATER.....	11.3	13.9	20.3	14.2	17.9	14.6

SEE NOTES AT END OF TABLE

TABLE 10. HOUSING CHARACTERISTICS BY TOTAL SQUARE FEET—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS)	(PERCENT)	(BILLIONS)	(PERCENT)
<b>NUMBER OF ROOMS</b>				
1.....	0.7	0.9	0.3	0.2
2.....	2.0	2.4	1.2	0.8
3.....	7.9	9.7	6.3	4.4
4.....	16.3	19.9	17.6	12.9
5.....	18.8	23.1	30.0	21.1
6.....	17.6	21.5	35.0	24.6
7.....	9.5	11.6	24.0	16.7
8 OR MORE.....	8.9	10.9	28.0	19.7
<b>MAIN OUTSIDE WALL MATERIAL</b>				
WOOD.....	22.5	27.6	41.8	29.3
BRICK.....	21.9	26.8	37.2	26.1
ALUMINUM SIDING.....	11.2	13.8	17.7	12.4
STUCCO.....	9.2	11.3	14.3	10.0
COMPOSITE.....	6.8	8.4	12.5	8.8
STONE.....	1.7	2.1	2.1	1.5
COMBINATIONS/OTHER.....	7.5	9.1	14.7	10.3
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>				
1 COMPLETE.....	46.3	56.7	60.5	42.4
1 COMPLETE AND 1 HALF.....	12.9	15.8	26.7	18.7
2 COMPLETE.....	14.8	18.1	32.0	22.5
2 COMPLETE AND 1 HALF.....	3.2	4.7	11.9	8.4
3 COMPLETE.....	1.4	1.7	4.6	3.2
OTHER COMBINATIONS.....	2.4	2.9	6.8	4.8
<b>1979 FAMILY INCOME</b>				
LESS THAN \$5,000.....	10.4	12.7	12.5	8.8
\$5,000 TO \$9,999.....	13.9	17.0	18.7	13.1
\$10,000 TO \$14,999.....	13.8	16.9	20.8	14.6
\$15,000 TO \$19,999.....	11.9	14.5	20.0	14.1
\$20,000 TO \$24,999.....	9.9	12.2	19.8	13.9
\$25,000 TO \$34,999.....	12.4	15.1	25.8	18.1
\$35,000 OR MORE.....	9.4	11.6	24.8	17.4

SEE NOTES AT END OF TABLE

TABLE 10. HOUSING CHARACTERISTICS BY TOTAL SQUARE FEET--Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		
	(MILLIONS) (PERCENT)		TOTAL HEATED AND UNHEATED		TOTAL HEATED
	(BILLIONS)	(PERCENT)	(BILLIONS)	(PERCENT)	(BILLIONS)
TOTAL POOR (100 PERCENT LEVEL) ..	10.9	13.3	13.9	9.7	11.9
TOTAL POOR (125 PERCENT LEVEL) ..	14.8	18.1	19.0	11.4	16.4
AGE OF HOUSEHOLD HEAD					
UNDER 25 YEARS.....	6.6	8.1	7.0	4.9	6.3
25 TO 34 YEARS.....	20.2	24.7	31.4	22.0	27.2
35 TO 44 YEARS.....	14.1	17.2	27.9	19.6	24.2
45 TO 59 YEARS.....	18.9	23.2	39.0	27.3	33.6
60 YEARS AND OVER.....	21.8	26.7	37.2	26.1	31.1
ORIGIN					
WHITE.....	71.0	86.9	128.2	90.0	109.4
BLACK.....	9.2	11.3	12.2	8.5	11.2
OTHER.....	1.4	1.8	2.2	1.5	1.7
HOUSEHOLD MEMBERS					
1.....	15.7	19.3	19.4	13.6	16.6
2.....	26.8	32.8	46.1	32.4	39.5
3.....	14.9	18.2	26.3	18.5	22.5
4.....	13.4	16.4	27.2	19.1	23.6
5.....	6.8	8.4	14.7	10.3	12.8
6 OR MORE.....	4.0	5.0	8.8	6.2	7.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS CROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 11. HOUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS)

		1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)		POOR (125 PERCENT LEVEL)	
HOUSEHOLD CHARACTERISTICS	TOTAL	\$5,000 TO THAN	\$10,000 TO	\$15,000 TO	\$20,000 TO	\$25,000 TO	\$35,000 CR MORE				
	\$15,000 \$39,999	\$14,999	\$19,999	\$24,999	\$34,999						
TOTAL HOUSEHOLDS.....	81.6	10.4	13.9	13.8	9.9	12.4	9.4	10.9	10.8		
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS											
<2,000 CDD AND >7,000 HDD.....	8.5	.7	1.5	1.9	1.2	.9	1.3	1.0	.7	1.1	
<2,000 CDD AND 5,500 TO 7,000 HDD.....	20.9	2.4	3.4	2.9	3.4	3.3	3.2	2.2	2.4	3.5	
<2,000 CDD AND 4,000 TO 5,499 HDD.....	21.1	2.7	3.5	4.1	3.0	2.3	3.3	2.2	2.9	3.9	
<2,000 CDD AND <4,000 HDD.....	19.0	2.8	3.5	2.9	2.5	2.2	2.6	2.4	3.1	3.6	
>2,000 CDD AND <4,000 HDD.....	12.1	1.7	2.0	2.1	1.6	1.3	1.9	1.5	1.8	2.4	
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)											
LESS THAN 600.....	6.2	1.9	1.8	1.2	2.5	2.5	2	2	1	1.7	
600 TO 999.....	18.0	3.7	4.1	4.1	2.6	1.4	1.4	1.4	.8	3.7	
1,000 TO 1,599.....	19.8	2.5	4.0	3.5	3.3	2.6	2.7	1.3	2.9	4.9	
1,600 TO 1,999.....	9.7	*8	1.3	1.5	1.7	1.4	2.0	1.9	1.8	3.8	
2,000 TO 2,399.....	9.0	*9	1.0	1.3	1.3	1.5	2.0	1.6	1.6	1.2	
2,400 TO 2,999.....	9.5	.7	1.0	1.4	1.2	1.4	2.1	1.7	.8	.8	
3,000 OR MORE.....	9.4	.5	.6	.9	1.1	1.3	1.9	3.0	.5	1.1	
UTILITIES PAID BY HOUSEHOLD											
ALL PAID BY HOUSEHOLD.....	69.4	7.6	10.5	11.2	10.5	9.4	11.4	8.9	8.2	11.2	
SOME PAID, SCMFI INCLUDED IN RENT.....	6.6	1.2	1.7	1.4	.8	.4	.7	.4	1.3	1.6	
ALL INCLUDED IN RENT.....	4.2	1.2	1.3	.9	.4	.1	.2	.1	1.2	1.6	
OTHER.....	1.5	.4	.3	.2	.1	.1	.2	.1	.3	.4	
OWN/RENT											
OWN.....	54.3	4.5	7.5	8.0	8.3	7.9	9.9	8.2	4.5	6.8	
RENT.....	27.3	5.8	6.3	5.9	3.6	2.1	2.4	1.2	6.4	8.0	
YEAR HOUSE BUILT											
1939 OR EARLIER.....	23.3	4.1	5.3	4.4	3.2	2.5	2.5	1.4	4.2	5.9	
1940 TO 1949.....	7.5	1.1	1.5	1.4	1.1	.9	.9	.6	1.1	1.5	
1950 TO 1959.....	13.7	1.6	2.1	2.3	1.7	2.1	2.3	1.6	1.7	2.3	
1960 TO 1964.....	7.2	.8	.8	1.3	1.0	.8	1.4	1.2	.8	1.0	
1965 TO 1969.....	8.1	.9	1.3	1.1	1.5	.9	1.3	1.1	1.1	1.3	
1970 TO 1974.....	10.5	1.1	1.2	1.7	1.8	1.4	1.9	1.4	1.2	1.5	
1975 OR LATER.....	11.3	.9	1.5	1.6	1.6	1.4	2.1	2.1	1.0	1.2	

SEE NOTES AT END OF TABLE

TABLE 11. HOUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)		
	TOTAL	\$5,000 LESS THAN \$15,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 TO \$49,999	CR MOE	POOR (100 PERCENT LEVEL)
<b>NUMBER OF ROOMS</b>									
1.....	0.7	0.2	0.2	0.2	0.2	0.1	-	0.1	0.1
2.....	2.0	.7	.5	.3	.2	0.1	-	.1	.6
3.....	7.9	2.1	2.0	1.7	.9	0.4	0.5	.2	.8
4.....	16.3	2.8	3.8	3.7	2.3	1.5	1.5	.6	2.3
5.....	18.8	2.3	3.8	3.1	3.0	2.3	2.6	1.6	3.7
6.....	17.6	1.4	2.1	2.9	3.1	2.8	3.2	2.1	3.8
7.....	9.5	.4	.6	1.2	1.3	1.6	2.4	1.8	2.3
8 OR MORE.....	8.9	.5	.6	.7	1.0	1.2	2.1	2.9	.7
<b>MAIN OUTSIDE WALL MATERIAL</b>									
WOOD.....	22.5	3.3	3.6	3.9	3.3	2.8	3.4	2.2	3.6
BRICK.....	21.9	2.8	3.6	3.7	3.1	2.5	3.5	2.8	3.1
ALUMINUM SIDING.....	11.2	1.3	2.1	2.0	1.8	1.5	1.8	.7	1.8
STUCCO.....	9.2	.9	1.5	1.2	1.3	1.2	1.3	1.8	1.3
COMPOSITION.....	6.8	.8	1.3	1.4	1.1	.8	.8	.6	1.3
CONCRETE.....	1.7	.3	.5	.3	.3	.1	.1	.2	.5
STONE.....	.7	.1	.1	.1	.1	.1	.1	.1	.1
COMBINATIONS/OTHER.....	7.5	.9	1.1	1.1	.9	1.0	1.3	1.1	.9
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>									
1 COMPLETE.....	46.3	8.1	10.6	9.8	6.6	4.5	4.8	2.0	8.3
1 COMPLETE AND 1 HALF.....	12.9	.8	1.6	1.7	2.2	2.5	2.7	1.4	1.3
2 COMPLETE.....	14.8	.7	1.1	1.9	2.6	2.1	3.4	3.0	1.2
2 COMPLETE AND 1 HALF.....	3.8	.1	.1	.1	.3	.6	.9	1.7	.1
3 COMPLETE.....	1.4	.1	.1	.1	.1	.2	.3	.7	.1
OTHER COMBINATIONS.....	2.4	.6	.3	.2	.1	.2	.3	.7	.6
<b>AGE OF HOUSEHOLD HEAD</b>									
UNDER 25 YEARS.....	6.6	1.3	1.9	1.5	1.0	.5	.3	.1	1.3
25 TO 34 YEARS.....	20.2	1.1	2.4	4.0	4.0	3.3	3.9	1.5	2.3
35 TO 44 YEARS.....	14.1	.8	1.4	1.9	2.2	2.3	3.1	2.5	1.4
45 TO 59 YEARS.....	18.9	1.9	1.9	2.9	2.4	2.5	3.7	3.8	1.8
60 YEARS AND OVER.....	21.8	5.4	6.3	3.6	2.3	1.4	1.4	4.4	2.7

SEE NOTES AT END OF TABLE

TABLE 11. HOUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	
ORIGIN								
WHITE	71.0	7.6	11.5	12.0	10.3	9.3	11.5	8.9
BLACK	9.2	2.7	2.1	1.6	1.4	.5	.5	.4
OTHER	1.4	.1	.3	.2	.2	.2	.3	.2
HOUSEHOLD MEMBERS								
1	15.7	4.7	3.9	3.1	1.9	.7	.8	.7
2	26.8	2.9	5.4	5.2	3.2	3.3	2.9	2.1
3	19.9	1.4	2.0	2.1	2.6	1.8	3.1	1.9
4	13.4	.8	1.2	1.7	2.5	2.2	2.6	1.6
5	6.8	.3	.6	1.1	1.1	1.4	1.2	1.3
6 OR MORE	4.0	.3	.7	.6	.6	.6	.6	.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 12. HUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LFSS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS									
<2,000 CDD AND >7,000 HDD.....	10.4	7.2	10.8	13.4	10.3	8.7	10.4	10.6	6.7
<2,000 CEE AND >7,000 HDE.....	25.7	22.9	24.6	21.2	29.0	33.2	26.2	23.8	22.3
5,500 TO 7,000 CDD AND <2,000 CCE AND 4,000 TO 5,499 HDD.....	25.9	25.6	25.0	29.5	25.7	23.5	26.9	23.6	23.9
<2,000 CDD AND <4,000 HDE.....	23.3	27.5	25.2	20.9	21.4	21.9	21.3	25.8	26.4
>2,000 CDD AND <4,000 HDD.....	14.8	16.8	14.3	15.0	13.7	12.7	15.2	16.2	16.5
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)									
LESS THAN 600.....	7.6	18.7	13.2	8.5	6.5	2.0	1.6	1.4	15.4
600 TO 999.....	22.1	35.5	29.7	29.8	20.9	14.6	11.2	8.4	33.8
1,000 TO 1,599.....	24.2	23.8	28.8	25.3	27.5	25.8	21.9	13.4	26.3
1,600 TO 1,999.....	11.8	7.8	9.4	10.8	14.3	14.3	16.5	9.9	7.5
2,000 TO 2,999.....	11.0	3.5	6.9	9.2	11.3	15.1	16.2	16.4	5.4
3,000 OR MORE.....	11.7	6.3	7.4	9.8	10.3	14.6	17.1	18.1	6.9
11.6	4.4	4.6	6.6	9.5	13.5	15.5	32.3	4.2	7.4
UTILITIES PAID BY HOUSEHOLD									
ALL PAID BY HOUSEHOLD.....	85.0	72.8	76.1	81.3	88.3	94.2	91.9	94.3	75.1
SCMF PAID, SOME INCLUDED IN RENT.....	8.1	12.0	12.3	10.2	7.0	3.6	5.3	4.1	11.5
ALL INCLUDED IN RENT.....	5.1	11.8	9.3	6.7	3.8	1.1	1.3	2.2	11.0
OTHER.....	1.8	3.4	2.4	1.8	1.0	1.0	1.4	1.4	2.4
OWN/RENT									
OWN.....	66.5	43.7	54.4	57.5	69.8	79.2	80.2	87.3	41.3
RENT.....	33.5	56.3	45.6	42.5	30.2	20.8	19.8	12.7	58.7

SEE NOTES AT END OF TABLE

TABLE 12. HOUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENT OF HOUSEHOLDS)-Continued

		1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)		POOR (125 PERCENT LEVEL)	
HOUSEHOLD CHARACTERISTICS		TOTAL	\$5,000 LESS THAN \$5,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 OR MORE			
YEAR HOUSE BUILT											
1939 OR EARLIER.....	28.6	39.2	38.0	32.1	27.1	24.9	20.0	14.5	38.3	40.0	
1940 TO 1949.....	9.1	10.3	11.0	10.1	9.5	8.6	7.3	6.1	10.4	10.5	
1950 TO 1959.....	16.8	15.0	15.5	16.5	14.4	20.9	19.0	17.0	15.6	15.3	
1960 TO 1964.....	8.8	7.3	5.8	9.3	8.1	8.1	11.2	12.8	7.5	7.0	
1965 TO 1969.....	9.9	9.0	9.2	8.3	12.4	9.0	10.2	11.9	8.7	8.6	
1970 TO 1974.....	12.9	10.5	9.6	12.2	14.8	14.1	15.1	14.9	10.7	10.3	
1975 OR LATER.....	13.9	8.7	10.8	11.5	13.8	14.3	17.3	22.7	8.9	8.3	
NUMBER OF ROOMS											
1.....	.9	1.7	1.7	1.6	1.6	1.6	1.6	1.9	1.1	1.3	
2.....	2.4	6.8	3.9	1.9	1.5	1.5	1.5	1.1	5.8	5.1	
3.....	9.7	20.3	14.7	12.6	8.0	4.3	3.8	1.9	16.3	15.8	
4.....	19.9	26.9	27.2	26.6	19.5	15.4	12.3	6.9	24.0	24.9	
5.....	23.1	22.1	27.6	22.6	25.7	23.3	21.4	16.8	25.6	25.9	
6.....	21.5	13.6	15.2	20.6	25.7	28.3	25.6	22.7	15.9	15.8	
7.....	11.6	4.1	5.5	8.7	11.0	16.0	19.1	19.1	5.2	5.1	
8 OR MORE.....	10.9	4.4	4.2	5.4	8.3	12.0	16.6	30.6	6.4	6.1	
MAIN OUTSIDE WALL MATERIAL											
WOOD.....	27.6	32.2	25.9	28.5	28.2	27.9	27.1	23.4	33.1	31.3	
BRICK.....	26.8	27.4	26.3	26.4	25.8	24.7	28.4	29.1	28.2	26.5	
ALUMINUM SIDING.....	13.8	12.1	15.4	14.5	15.2	15.2	14.6	7.7	11.0	12.3	
STUCCO.....	11.3	8.7	10.9	8.9	11.0	11.7	10.7	19.0	8.4	8.7	
COMPOSITION.....	8.4	7.7	9.7	10.2	9.1	8.2	6.7	5.8	7.1	8.9	
CONCRETE.....	2.1	2.7	3.3	2.3	2.4	1.9	1.1	1.8	3.2	3.3	
STONE.....	.9	3	6	1.1	.5	1.4	1.7	1.6	.5	.5	
COMBINATIONS/OTHER.....	9.1	8.9	7.9	8.2	7.9	10.0	10.7	11.5	8.5	8.5	
NUMBER OF COMPLETE AND HALF BATHROOMS											
1 COMPLETE.....	56.7	78.4	76.6	70.7	55.5	44.9	39.0	20.7	76.4	76.6	
1 COMPLETE AND 1 HALF.....	15.8	8.0	11.8	12.4	18.3	24.7	22.0	14.4	9.0	9.0	
2 COMPLETE.....	18.1	6.6	8.1	14.1	21.8	21.0	27.5	31.7	7.6	7.9	
2 COMPLETE AND 1 HALF.....	4.7	-8	-8	-9	2.7	5.6	7.0	18.4	9.9	8.6	
3 COMPLETE.....	1.7	.6	.4	.5	.6	2.0	2.3	7.3	.6	.5	
OTHER COMBINATIONS.....	2.9	5.5	2.3	1.3	1.2	1.9	2.3	7.5	5.5	5.1	

SEE NOTES AT END OF TABLE

TABLE 12. HOUSING CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 (125 PERCENT LEVEL)	
	TOTAL			POOR (100 LIVE LEVEL)				
	LFS\$	\$5,000 THAN \$5,000	\$10,000 TO \$9,999	\$15,000 TO \$14,999	\$20,000 TO \$19,999	\$25,000 TO \$24,999	\$35,000 CR MORE	
AGE OF HOUSEHOLD HEAD								
UNDER 25 YEARS.....	8.1	12.1	13.6	11.1	8.5	5.0	2.7	1.5
25 TO 34 YEARS.....	24.7	10.9	17.1	28.9	33.3	32.9	31.7	16.3
35 TO 44 YEARS.....	17.2	7.4	10.0	13.4	18.9	23.0	24.7	26.3
45 TO 59 YEARS.....	23.2	18.0	13.5	20.6	20.2	25.4	29.6	39.9
60 YEARS AND OVER.....	26.7	51.6	45.7	26.0	19.0	13.7	11.2	16.0
ORIGIN								
WHITE.....	86.9	72.9	82.8	87.0	86.6	93.2	92.8	94.4
BLACK.....	11.3	26.3	15.4	11.4	11.8	4.8	4.4	3.9
OTHER.....	1.8	.8	1.8	1.6	1.6	2.0	2.8	1.6
HOUSEHOLD MEMBERS								
1.....	19.3	45.7	28.0	22.1	15.7	7.3	6.5	7.0
2.....	32.8	27.5	39.1	37.3	27.1	33.2	31.7	25.6
3.....	18.2	13.1	14.3	15.5	21.7	17.9	25.4	20.4
4.....	16.4	8.1	8.7	12.5	21.1	21.8	21.4	24.2
5.....	8.4	3.0	4.5	8.2	9.2	13.6	9.9	11.7
6 CR MORE.....	5.0	2.7	5.4	4.5	5.2	6.1	5.2	5.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FLOORING. A DASH "--" REPRESENTS OR REFERS TO ZEROS. PERCENTAGES ARE CALCULATED ON UNDUCED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND FUEL USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 13. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	
						OTHER/ NONE	
TOTAL HOUSEHOLDS.....	81.6	44.6	13.4	14.3	3.7	4.7	1.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS							
<2,000 CDD AND >7,000 HDD.....	8.5	4.3	.6	.5	1.3	-1	-2
<2,000 CDD AND 5,500 TO 7,000 HDD.....	20.9	13.5	3.6	2.5	.6	.5	.2
<2,000 CDD AND 4,000 TO 5,499 HDD.....	21.1	9.0	6.4	3.6	.6	1.3	-2
<2,000 CDD AND <4,000 HDD.....	19.0	12.1	1.2	3.1	.9	1.4	.2
>2,000 CDD AND <4,000 HDD.....	12.1	5.7	.4	4.5	1.0	.2	.4
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)							
LESS THAN 600.....	6.2	3.0	1.5	1.1	.3	-1	-1
600 TO 999.....	18.0	9.4	2.4	4.2	1.2	.6	.2
1,000 TO 1,599.....	19.8	11.0	2.6	3.7	1.1	1.1	-3
1,600 TO 1,999.....	9.7	6.0	1.0	1.5	*3	.8	-1
2,000 TO 2,399.....	9.0	5.3	1.5	1.2	*3	.6	-1
2,400 TO 2,999.....	9.5	4.9	2.0	1.4	.3	.9	-1
3,000 OR MORE.....	9.4	5.0	2.4	1.2	.2	.6	-1
UTILITIES PAID BY HOUSEHOLD							
ALL PAID BY HOUSEHOLD.....	69.4	37.7	10.2	12.4	3.5	4.7	.8
SOME PAID, SOME INCLUDED IN RENT.....	6.6	4.1	1.8	.8	-	-	-
ALL INCLUDED IN RENT.....	4.2	2.1	1.1	.8	.1	-	.1
OTHER.....	1.5	.7	.3	.3	-1	-	.1
OWN/RENT							
OWN.....	54.3	29.9	8.7	8.5	2.9	3.8	-5
RENT.....	27.3	14.7	4.7	5.8	.8	.9	.5
YEAR HOUSE BUILT							
1939 OR EARLIER.....	23.3	13.3	6.1	.8	-9	1.8	-5
1940 TO 1949.....	7.5	4.6	1.6	.5	.2	-4	-1
1950 TO 1959.....	13.7	9.1	2.5	1.1	-4	-5	-7
1960 TO 1964.....	7.2	4.6	1.1	-8	-3	-4	-1
1965 TO 1969.....	8.1	4.8	.7	1.7	-5	-3	-1
1970 TO 1974.....	10.5	4.6	.8	3.7	-8	-4	-1
1975 OR LATER.....	11.3	3.6	.6	5.7	.5	-9	-1

SEE NOTES AT END OF TABLE

TABLE 13. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LICED PETROLEUM GAS	WOOD
		OTHER/ NONE				
NUMBER OF ROOMS						
1.....	6.7	0.3	0.1	-	-	-
2.....	2.0	.9	.6	0.1	0.1	-
3.....	7.9	3.7	1.3	2.3	.2	0.1
4.....	16.3	8.7	2.5	3.2	.4	-2
5.....	18.8	10.8	2.6	3.0	1.1	-6
6.....	17.6	10.4	2.8	2.8	1.0	1.3
7.....	9.5	5.2	1.9	1.3	.6	-2
8 OR MORE.....	8.9	4.6	1.9	1.4	.2	-3
MAIN OUTSIDE WALL MATERIAL						
WOOD.....	22.5	11.7	3.7	1.2	2.3	-6
BRICK.....	21.9	12.5	4.0	4.6	.3	-4
ALUMINUM SIDING.....	11.2	5.2	2.0	1.9	1.3	-7
STUCCO.....	9.2	7.0	1.5	1.6	-.1	-1
COMPOSITION.....	6.8	3.6	1.6	1.6	-.4	-1
CONCRETE.....	11.7	5.5	1.2	1.6	-.6	-1
STONE.....	7.7	3.3	1.3	1.2	-.1	-1
COMBINATIONS/OTHER.....	7.5	3.7	1.2	1.6	.4	.5
NUMBER OF COMPLETE AND HALF BATHROOMS						
1 COMPLETE.....	46.3	25.3	8.8	6.7	2.6	-6
1 COMPLETE AND 1 HALF.....	12.9	7.2	1.8	2.6	.7	-1
2 COMPLETE.....	14.8	8.2	1.7	3.5	-.8	-1
2 COMPLETE AND 1 HALF.....	3.6	2.0	1.5	1.0	-.2	-1
3 COMPLETE.....	1.4	.9	1.2	1.3	-.2	-1
OTHER COMBINATIONS.....	2.4	.9	.5	.2	.1	.2
AGE OF HOUSEHOLD HEAD						
UNDER 25 YEARS.....	6.6	3.5	.6	1.9	.4	-3
25 TO 34 YEARS.....	26.2	10.9	2.6	4.3	1.3	-2
35 TO 44 YEARS.....	14.1	7.7	2.2	2.3	-.6	-2
45 TO 59 YEARS.....	18.9	10.8	3.5	2.5	.8	-2
60 YEARS AND OVER.....	21.8	11.7	4.5	3.3	1.1	.2

SEE NOTES AT END OF TABLE

TABLE 13. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS) -Continued

		MAIN HEATING FUEL						
HOUSEHOLD CHARACTERISTICS		TOTAL	NATURAL GAS	FUFL OIL OR KEROSENE	ELECTRICITY	LICUID PETROLEUM GAS	WOOD	OTHPR/ NONE
ORIGIN								
WHITE		71.0	38.2	11.4	13.0	3.4	4.3	0.7
BLACK		9.2	5.7	1.9	.9	.3	.4	-.1
OTHER		1.4	1.7	-1	-3	-	-	.2
HOUSEHOLD MEMBERS								
1.....		15.7	8.2	2.7	3.6	.6	.4	.1
2.....		26.6	14.4	4.8	4.8	1.2	1.2	.3
3.....		14.9	8.3	2.3	2.3	.8	1.0	.1
4.....		13.4	7.7	2.0	1.8	.6	1.2	.1
5.....		6.6	3.6	1.0	1.1	.2	.6	.2
6 OR MORE.....		4.6	2.1	.7	.6	.2	.3	.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND RND USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 14. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS		FUEL OIL OR KEROSENE	ELECTRICITY	LIQUEFIED PETROLEUM GAS	WOOD
		100.0	100.0	100.0	100.0	100.0	100.0
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS							
<2,000 CDE AND >7,000 HDD....	10.4	9.5	13.4	4.2	13.2	27.7	1.8
<2,000 CDE AND 5,500 TO 7,000 HDD.....	25.7	30.3	26.8	17.3	17.4	11.6	18.0
<2,000 CDE AND 4,000 TO 4,999 HDD....	25.5	20.2	47.9	25.0	17.5	27.2	23.3
<2,000 CDE AND <4,000 HDD....	23.3	27.2	9.1	22.0	25.2	29.9	18.8
>2,000 CDE AND <4,000 HDD....	14.8	12.8	2.8	31.5	26.7	3.5	38.1
TOTAL MEASURED SPACE CF RESIDENCE (IN SQ. FT.)							
LESS THAN 600.....	7.6	6.7	11.2	8.0	9.1	3.0	14.5
600 TO 999.....	22.1	21.1	17.6	29.4	33.0	12.4	20.5
1,000 TO 1,599.....	24.2	24.6	19.7	25.9	30.1	22.8	26.8
1,600 TO 1,999.....	11.8	13.4	7.5	10.5	7.7	16.4	14.2
2,000 TO 2,399.....	11.0	12.0	11.1	8.4	7.4	13.7	5.9
2,400 TO 2,999.....	11.7	11.0	15.0	9.7	8.0	18.2	6.0
3,000 OR MORE.....	11.6	11.2	17.8	8.1	4.7	13.5	12.0
UTILITIES PAID BY HOUSEHOLD							
ALL PAID BY HOUSEHOLD.....	85.0	84.6	76.5	87.0	95.1	98.9	86.6
SOME PAID, SOME INCLUDED IN PENT.....	8.1	9.1	13.2	5.4	5.5	-	-
ALL INCLUDED IN RENT.....	5.1	4.7	8.0	5.7	2.5	1.7	8.1
OTHER.....	1.8	1.5	2.3	2.0	1.9	1.1	5.3
OWN/RENT							
OWN.....	66.5	67.0	65.1	59.5	78.9	80.5	53.7
PENT.....	33.5	33.0	34.9	40.5	21.1	19.5	46.3
YEAR HOUSE BUILT							
1939 OR EARLIER.....	28.6	29.8	45.3	5.4	24.9	38.0	51.7
1940 TO 1949.....	9.1	10.3	12.2	3.1	5.9	9.2	12.3
1950 TO 1959.....	16.8	20.4	18.6	8.0	11.4	10.4	7.5
1960 TO 1964.....	8.8	10.3	8.0	5.7	8.6	7.8	5.2
1965 TO 1969.....	9.9	10.8	5.2	11.8	13.9	6.6	6.9
1970 TO 1974.....	12.9	10.4	6.3	26.2	22.9	9.5	4.2
1975 OR LATER.....	13.5	8.0	4.6	39.8	12.5	18.5	12.2

SEE NOTES AT END OF TABLE

TABLE 14. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				
		NATURAL GAS	FUEL OIL OR KEROSENE	LIQUID PETROLEUM GAS		
				WOOD	LIQUID PETROLEUM	OTHER/ NONE
<b>NUMBER OF ROOMS</b>						
1.....	0.7	0.8	0.8	0.2	1.9	3.2
2.....	2.0	2.0	4.5	2.7	1.1	1.1
3.....	6.7	8.2	16.0	10.7	4.0	8.0
4.....	19.9	19.4	22.4	30.7	13.0	15.6
5.....	23.1	24.3	19.2	20.7	26.7	21.4
6.....	21.5	23.3	21.1	16.7	14.9	26.5
7.....	11.6	11.7	13.3	9.4	7.6	13.5
8 OR MORE.....	10.4	14.1	9.6	5.9	15.0	9.9
<b>MAIN OUTSIDE WALL MATERIAL</b>						
WOOD.....	27.6	26.2	27.6	21.5	32.9	48.6
BRICK.....	26.6	28.1	30.0	32.0	7.3	9.4
ALUMINUM SIDING.....	13.5	11.7	14.7	13.5	35.9	15.1
STUCCO.....	11.3	15.7	3.6	10.9	.8	2.4
COMPOSITION.....	8.4	8.0	12.1	4.4	9.8	11.8
CONCRETE.....	2.1	1.1	1.2	6.2	2.3	1.9
STONE.....	9.9	8.8	2.1	1.2	1.4	1.0
COMBINATIONS/OTHER.....	9.1	8.4	8.6	11.3	10.6	9.8
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>						
1 COMPLETE.....	56.7	56.8	65.5	46.6	69.2	52.1
1 COMPLETE AND 1 HALF.....	15.8	16.2	13.5	18.3	10.9	14.9
2 COMPLETE.....	18.1	18.3	12.4	24.5	15.2	17.8
2 COMPLETE AND 1 HALF.....	4.7	4.6	3.8	7.2	.4	4.5
3 COMPLETE.....	1.7	2.1	1.3	2.0	.7	1.7
OTHER COMBINATIONS.....	2.9	2.1	3.6	1.5	3.6	10.2
<b>AGE OF HOUSEHOLD HEAD</b>						
UNDER 25 YEARS.....	8.1	7.8	4.5	13.2	9.8	6.0
25 TO 34 YEARS.....	24.7	24.5	19.1	30.3	23.5	27.3
35 TO 44 YEARS.....	17.2	17.3	16.8	15.9	15.7	21.7
45 TO 54 YEARS.....	23.2	24.2	26.1	17.3	20.8	25.0
60 YEARS AND OVER.....	26.7	26.2	33.5	23.3	30.2	23.7

SPE NOTES AT END OF TABLE

TABLE 14. HOUSING CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	Liquid Propane/Gas	WOOD
<b>ORIGIN</b>						
WHITE.....	86.5	85.7	85.3	91.2	91.1	90.7
BLACK.....	11.3	12.7	14.3	6.4	8.3	8.3
OTHER.....	1.8	1.6	.4	2.4	.6	1.0
<b>HOUSEHOLD MEMBERS</b>						
1.....	19.3	18.4	20.4	25.5	17.1	8.2
2.....	32.6	32.4	35.6	33.7	33.5	26.4
3.....	18.2	18.6	17.2	16.3	22.5	20.7
4.....	16.4	17.3	14.7	12.7	15.0	26.1
5.....	8.4	8.5	7.1	7.8	5.7	11.3
6 OR MORE.....	5.0	4.6	3.9	6.2	5.5	17.3

NOTE: DATA MAY NOT SUM TO TOTAL DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 15. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS. EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTH EAST		CENTRAL	WEST	URBAN	RURAL	SMSA	NONSMSA
TOTAL HOUSEHOLDS.....	81.6	17.7	21.1	27.0	16.0	56.0	25.6	55.6	26.0
MAIN HEATING EQUIPMENT									
CENTRAL BURN-AIR FURNACE.....	41.2	6.0	14.0	13.1	8.1	29.7	11.6	29.3	11.9
FORCED AIR.....	40.1	5.7	13.4	13.0	7.9	28.8	11.4	28.4	11.7
GRAVITY.....	1.1	.3	.5	.1	.2	.9	.2	.9	.2
STEAM OR HOT WATER SYSTEM.....	13.5	8.8	2.9	1.3	.5	11.1	2.3	11.3	2.2
HEAT PUMP.....	2.1	.2	.2	.4	.3	1.0	1.1	1.6	.5
FLOOR, WALL OR PIPELESS FURNACE.....	6.7	.1	.7	2.4	3.6	5.6	1.1	4.9	1.8
OIL OR GAS ROOM HEATER.....	6.1	.4	1.1	3.8	.7	3.6	2.5	3.1	3.0
BUILT-IN ELECTRIC UNITS.....	5.3	1.1	1.2	1.6	1.3	2.7	2.7	3.0	2.4
WOOD OR COAL HEATING STOVE.....	4.0	.8	.8	1.9	.5	.7	3.3	.9	3.1
PORTABLE HEATER.....	1.0	—	—	.8	.2	.8	.2	.8	.2
FIREPLACE.....	.3	—	—	.2	.1	.1	.3	.1	.2
OTHER.....	.9	.2	.2	.1	.2	.6	.3	.6	.3
NONE.....	.5	—	—	.1	.4	.2	.3	.2	.3
MAIN HEATING FUEL									
NATURAL GAS.....	44.6	6.6	15.0	11.8	11.1	37.9	6.7	34.1	10.5
ELECTRICITY.....	14.3	1.6	2.1	7.7	2.9	8.0	6.3	9.6	4.7
FUEL OIL OR KEROSENE.....	13.4	8.2	1.5	3.1	.5	8.6	4.8	9.3	4.1
WOOD.....	4.7	1.0	1.1	2.0	.7	.8	3.9	1.0	3.7
LIQUID PETROLEUM GAS.....	3.7	.2	1.2	2.0	.4	.5	3.2	1.1	2.5
COAL.....	.3	.1	—	.1	—	.1	.2	—	.2
OTHER/NONE.....	.7	—	—	.2	.4	.2	.4	—	.4
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)									
YES.....	9.0	4.7	2.5	1.1	.7	8.6	4	8.0	2.1
NO.....	11.6	2.2	—	3.7	3.3	10.0	1.6	9.6	—
NO MAIN HEATING SYSTEM.....	1.1	—	—	.1	—	.1	—	.1	—
SECONDARY HEATING FUEL									
WOOD.....	13.4	2.6	3.1	4.0	3.7	7.8	5.6	9.1	4.3
ELECTRICITY.....	9.2	1.7	1.8	3.6	2.2	6.3	3.0	6.3	3.0
NATURAL GAS.....	3.3	.5	.8	1.3	.8	2.8	.5	2.5	.8
FUEL OIL OR KEROSENE.....	1.9	1.0	.5	.4	.1	.7	1.2	.8	1.1
LIQUID PETROLEUM GAS.....	.9	—	.3	.4	.1	.1	.8	.2	.7
COAL.....	.2	—	—	—	—	—	—	—	.1
OTHER.....	.2	—	—	—	.1	.1	—	.1	.1
NONE.....	52.6	11.8	14.7	17.1	9.0	38.2	14.4	36.6	16.0

SPEC NOTES AT END OF TABLE

TABLE 15. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS. EXCEPT WHERE PERCENTS ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTH EAST		SOUTH CENTRAL	URBAN	RURAL	SMSA	NONSMSA	
<b>WATER-HEATING FUEL</b>									
NATURAL GAS.....	44.1	7.2	14.4	11.3	37.9	6.2	34.8	9.4	
ELECTRICITY.....	26.1	3.9	6.2	13.2	3.8	12.0	14.1	13.9	12.2
FUEL OIL/CEROSENE.....	7.1	6.1	.2	.8	-	5.5	1.5	5.8	1.3
LIQUID PETROLEUM GAS.....	3.6	-.3	1.2	1.3	.7	.4	3.2	1.0	2.6
WOOD.....	.4	-.1	-	-.2	-	.1	-.3	-.1	.3
SOLAR.....	.1	-.1	-	-.1	-	-.1	-.1	-.1	-.1
OTHER.....	.1	-.1	-	-.1	-	-.1	-.1	-.1	-.1
NONE.....	.3	-.1	-.2	-.2	-.2	-.2	-.2	-.2	-.2
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	11.2	5.1	2.7	1.5	1.9	10.7	6	10.2	1.1
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	1.7	2.3	3.3	2.2	8.0	1.4	7.5	1.9
<b>MAIN COOKING FUEL</b>									
ELECTRICITY.....	44.4	7.9	11.1	16.6	8.9	27.1	17.3	28.0	16.4
NATURAL GAS.....	31.6	8.7	8.6	7.9	6.4	27.9	3.7	25.8	5.8
LIQUID PETROLEUM GAS.....	5.2	1.0	1.3	2.3	.6	.8	4.4	1.7	3.5
WOOD.....	.3	-.1	-	-.2	-.1	-.2	-.2	-.2	-.2
NCNE/OTHER.....	.2	-.1	-.1	-.1	-.1	-.2	-.1	-.1	-.1
<b>AIR CONDITIONING (A/C)</b>									
CENTRAL A/C CCNDITCNING ONLY.....	21.9	1.8	5.5	11.0	3.6	15.5	6.4	16.4	5.5
INDIVIDUAL ROOM UNITS ONLY.....	24.5	6.8	6.8	6.8	2.1	17.9	6.5	17.1	7.4
CENTRAL A/C AND RCCM UNITS.....	.3	-.1	-	-.2	-.1	-.3	-.1	-.2	-.1
RC AIR CCNDITCNING.....	34.9	9.0	8.8	7.0	10.2	22.3	12.6	21.9	13.0
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	1.2	.2	.2	.5	.3	1.2	-	1.2	.1
NO.....	3.8	.4	.8	2.1	.6	3.3	1.5	3.4	.4
NO AIR CCNDITCNING SYSTEM.....	15.7	6.3	4.0	2.2	3.2	14.2	1.5	13.1	2.5

SEE NOTES AT END OF TABLE

TABLE 15. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION				AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>									
ALL.....	29.8	2.9	7.6	15.3	4.0	20.9	8.9	21.3	8.5
SOME.....	16.9	5.8	4.7	9.7	1.8	12.8	4.1	12.5	4.4
NONE.....	34.9	9.0	8.8	7.0	10.2	22.3	12.6	21.9	13.0
<b>WOOD BURNED</b>									
YES (1/3 CCED OR MORE).....	14.2	3.2	3.5	4.8	2.7	5.5	8.8	7.0	7.2
NO.....	67.4	14.5	17.6	22.1	13.2	50.6	16.8	48.6	18.8
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>									
USE ANY NATURAL GAS.....	36.3	5.4	11.3	16.8	8.8	29.8	6.5	26.9	9.4
DO NOT USE ANY NATURAL GAS.....	24.6	5.4	4.7	11.3	3.1	7.5	17.1	11.1	13.6
GAS IS AVAILABLE.....	5.4	1.6	.9	2.0	.9	3.5	2.0	3.2	2.3
PERCENT.....	22.1	30.1	16.4	17.6	28.8	46.0	11.6	28.5	16.9
GAS IS NOT AVAILABLE.....	19.2	3.8	3.8	9.3	2.2	4.1	15.1	7.9	11.3
PERCENT.....	77.9	69.9	80.6	82.4	71.2	54.0	68.4	71.5	83.1
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>									
SAME FUEL WINTER 1980									
TO WINTER 1981.....	78.1	16.7	20.4	25.8	15.2	54.3	23.8	53.6	24.5
DIFFERENT FUEL.....	2.0	.8	.5	.2	.2	1.2	.8	1.2	.8
FUEL OIL OR KEROSENE.....	1.2	.6	.4	.2	-.8	-.4	-.8	-.8	-.4
NATURAL GAS.....	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
LIQUID PETROLEUM GAS.....	.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
ELECTRICITY.....	.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
OTHER/MC FUEL USED.....	.3	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
NOT HEATED IN WINTER 1980									
TO WINTER 1981.....	.5	-.1	-.1	.1	.4	.2	.3	.2	.3
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	.1	.2	-.6	.2	.4	.6	.7	.3

SEE NOTES AT END OF TABLE

TABLE 15. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		CENTRAL	WEST	URBAN	RURAL	SMSA
		SCUTH	CENTRAL					
<b>FUEL COMBINATIONS</b>								
USE NATURAL GAS FOR MAIN HEATING.....	44.6	6.6	15.0	11.8	11.1	37.9	6.7	39.1
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	4.5	6.1	6.5	6.0	22.0	3.1	20.2
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	1.7	5.8	3.7	4.5	12.9	2.8	11.7
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	.9	.1	.3	.4	.1	.6	.3	.4
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	.2	.8	1.1	.5	2.1	.5	1.5
OTHER.....	.3	.2	—	.1	—	.2	.1	.1
USE ELECTRICITY FOR MAIN HEATING.....	14.3	1.6	2.1	7.7	2.9	8.0	6.3	9.6
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	1.5	1.8	6.7	2.3	6.2	6.0	7.9
OTHER.....	2.0	.1	.3	1.0	.6	1.8	.2	1.7
USE FUEL OIL FOR MAIN HEATING. WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	12.6	8.0	1.5	2.5	.5	8.4	4.2	8.9
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	2.9	2.3	.2	.3	—	1.8	1.1	2.0
WATER HEAT AND COOK WITH ELECTRICITY.....	3.3	3.1	—	.2	—	3.2	—	3.1
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	.8	.1	.2	—	1.1	—	1.1
OTHER.....	1.6	.9	.3	.4	—	.5	.1	.5
NON/OTHER FUEL.....	10.2	1.4	2.4	4.9	1.5	1.8	8.5	3.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 16. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTHEAST	CENTRAL	SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAIN HEATING EQUIPMENT									
CENTRAL VAEM-AIR FURNACE.....	50.5	34.1	66.3	48.8	50.8	52.9	45.2	52.7	45.8
FORCED AIR.....	49.1	32.2	63.8	48.4	49.8	51.3	44.3	51.1	45.9
GRAVITY.....	1.4	1.9	2.5	4.4	1.0	1.6	8	1.6	9
STEAM OR HCT WATER SYSTEM.....	16.5	9.9	13.7	4.8	3.0	19.9	9.2	20.2	8.5
HEAT PUMP.....	2.6	1.2	1.1	5.1	1.8	1.8	4.3	2.6	2.1
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	.5	3.1	9.0	22.3	10.1	4.2	8.8	7.1
OIL OR GAS ROOM HEATER.....	7.4	2.5	5.4	14.2	4.3	6.4	9.8	5.6	11.5
BUILT-IN ELECTRIC UNITS.....	6.5	6.4	5.8	6.0	8.3	4.7	10.4	5.3	9.0
WOOD OR COAL HEATING STOVE.....	4.8	4.3	3.6	7.0	3.4	1.2	12.9	1.5	11.9
PORTABLE HEATER.....	1.2	1	-	2.8	1.4	1.4	9	1.4	9
FIREPLACE.....	.4	.1	.1	.7	.8	.7	1.1	.3	.8
COTHER.....	1.1	1.0	.9	1.2	1.4	1.1	1.1	1.1	1.1
NONE.....	.6	-	-	.4	2.5	.4	1.1	.3	1.2
MAIN HEATING FUEL									
NATURAL GAS.....	54.6	37.5	71.1	43.9	69.8	67.6	26.3	61.3	40.2
ELECTRICITY.....	17.5	8.9	10.1	26.7	17.9	14.3	24.4	17.3	17.9
FUEL OIL OR KEROSENE.....	16.4	46.4	7.3	11.6	3.1	15.3	18.8	16.7	15.6
WOOD.....	5.8	5.4	5.4	7.3	4.1	1.4	15.4	1.9	14.2
LIQUID PETROLEUM GAS.....	4.5	.9	5.7	7.4	2.3	9	12.5	2.1	9.8
COAL.....	.4	.8	.2	.3	.2	.2	9	.3	.6
OTHER/NONE.....	.8	.1	.8	2.6	.4	.4	1.7	.4	1.7
SECONDARY HEATING FUEL									
WOOD.....	16.4	14.5	14.8	14.7	23.4	13.9	21.9	16.4	16.4
ELECTRICITY.....	11.3	9.7	8.3	13.3	13.6	11.2	11.6	11.3	11.4
NATURAL GAS.....	4.0	2.8	3.6	4.7	4.9	5.0	2.0	4.5	3.0
FUEL OIL OR KEROSENE.....	2.3	5.4	2.2	1.6	4	1.3	4.7	1.4	4.2
LIQUID PETROLEUM GAS.....	1.1	.2	1.4	1.7	.6	.2	3.0	.3	2.7
COAL.....	.2	.3	-	.4	.1	.1	5	.1	.5
OTHER.....	.2	.3	.1	.1	.7	.2	3	.2	2
NONE.....	64.4	66.9	65.6	63.5	56.3	68.2	56.1	65.8	61.5

SEE NOTES AT END OF TABLE

TABLE 16. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	
<b>WATER-HEATING FUEL</b>							
NATURAL GAS.....	54.1	40.8	66.2	41.9	70.7	67.7	24.2
ELECTRICITY.....	31.9	21.8	24.8	46.9	23.9	21.4	55.0
FUEL OIL OR KEROSENE.....	8.7	34.5	9	2.8	2.2	9.9	6.0
LIQUID PETROLEUM GAS.....	4.4	1.9	5.9	4.9	4.2	.7	12.3
WOOD.....	4	.7	.1	.6	.2	.1	1.1
SOLAR.....	1	.1	—	.5	—	.3	.1
OTHER.....	1	.1	—	.2	—	.1	.2
NONE.....	3	.3	.2	.7	.1	.8	.9
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	13.8	29.0	12.9	5.5	11.9	19.0	2.2
NC/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	9.5	10.9	12.3	13.6	14.3	5.6
<b>MAIN COOKING FUEL</b>							
ELECTRICITY.....	54.4	44.5	52.7	61.5	55.5	48.4	67.6
NATURAL GAS.....	38.7	49.4	46.7	29.1	40.3	49.8	14.3
LIQUID PETROLEUM GAS.....	6.4	5.9	6.3	8.5	3.8	1.5	17.0
WOOD.....	3	4	—	.6	.1	.1	9
NC/N/OTHER.....	2	.3	.1	.3	.7	.3	.2
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING ONLY.....	26.8	10.2	26.0	40.8	22.5	27.6	25.0
INDIVIDUAL ROOM UNITS ONLY.....	30.0	38.6	32.1	32.7	13.2	32.0	25.6
CENTRAL A/C AND ROOM UNITS.....	4	5	1	.6	.4	.3	.4
NO AIR CONDITIONING.....	42.8	50.8	41.7	26.0	63.9	39.9	49.2

SEE NOTES AT END OF TABLE

TABLE 16. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		KCETH/FAST	NORTH CENTRAL	SOUTH	WEST	URBAN	
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>							
ALL.....	36.5	16.3	36.1	56.8	25.0	37.3	38.2
SOME.....	20.7	33.0	22.1	17.3	11.2	22.8	32.8
NONE.....	42.8	50.8	41.7	26.0	63.9	39.9	17.1
<b>WOOD BURNED</b>							
YES (1/3 CCRD OR MORE).....	17.4	18.1	16.5	18.0	17.0	9.8	34.2
NO.....	82.6	81.9	83.5	82.0	83.0	90.2	65.8
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>							
SAME FUEL WINTER 1980	95.7	94.7	96.6	95.7	95.4	96.8	93.1
TO WINTER 1981.....	2.5	4.7	2.5	1.8	1.1	2.1	3.3
DIFFERENT FUEL.....	1.5	3.6	1.7	.6	.3	1.5	1.4
FUEL OIL OR KEROSENE.....	.1	.1	.1	-.2	-.2	.1	.2
NATURAL GAS.....	.3	.2	-.4	-.3	-.2	-.5	-.2
LIQUID PROPANE GAS.....	.2	-.2	-.2	-.5	-.1	-.1	.4
ELFCTRICITY.....	.3	-.2	-.2	-.3	-.1	-.5	.5
OTHER/MC FUEL USED.....	.3	.8	.2	.2	.1	.7	.2
NCT HEATED IN WINTER 1980	.6	-.6	-.4	2.5	-.4	1.1	.3
TO WINTER 1981.....	1.3	.6	.9	2.2	1.0	.7	2.5
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.3	1.3	1.3	1.3	1.3	1.3	1.3

SEE NOTES AT END OF TABLE

TABLE 16. FUEL USE CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTH CENTRAL	NORTH WEST	SOUTH WEST	URBAN	RURAL	
					SMSA	NONSMSA	
<b>FUEL COMBINATIONS</b>							
USE NATURAL GAS FOR HEATING.....	54.6	37.5	71.1	43.9	69.8	67.6	26.3
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	25.3	38.3	24.2	37.8	39.3	12.0
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	9.6	27.5	13.8	28.4	23.0	11.0
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	1.1	.8	1.3	1.6	.4	1.1	.9
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	*.9	4.0	4.2	3.0	3.8	1.9
OTHER.....	*.4	1.0	*.1	*.2	*.3	*.4	*.2
USE ELECTRICITY FOR PAIN HEATING.....	17.5	8.9	10.1	28.7	17.9	14.3	26.4
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	8.4	8.5	24.8	14.3	11.1	23.5
OTHER.....	2.5	*.5	1.6	3.8	3.6	3.2	1.0
USE FUEL OIL FOR MAIN HEATING.	15.4	45.4	7.3	9.3	3.1	15.0	16.3
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	13.2	*.8	1.3	*.1	3.2	4.3
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	17.3	—	*.7	—	5.8	—
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	5.5	4.5	4.9	2.7	3.1	7.6
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	4.5	*.4	*.8	*.2	2.0	*.1
OTHER.....	2.0	4.9	1.6	1.6	*.1	1.0	*.2
NCNE/OTHER FUEL.....	12.5	8.1	11.5	18.1	9.2	3.1	33.0
							5.4

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A BASE "—" REPRESENTS OR RUNES TO ZERO. PERCENTAGES ARE CALCULATED ON UNDUCED NUMBERS. SFF GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND FUELS USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, TIF 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 17. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACH.			COTHER HOUSING STRUCTURES		
		1-STORY		2-STORY	WITHOUT BASEMENT		WITH BASEMENT
	TOTAL	WITH BASEMENT	WITHOUT BASEMENT		WITHOUT BASEMENT	WITH BASEMENT	
<b>TOTAL HOUSEHOLDS</b>	81.6	53.0	10.4	23.9	10.6	3.7	4.5
MAIN HEATING EQUIPMENT							28.7
CENTRAL WARM-AIR FURNACE.....	41.2	28.5	6.7	11.1	6.3	1.6	2.8
FORCED AIR.....	44.1	27.6	6.4	11.0	6.0	1.6	2.6
GRAVITY.....	1.1	.8	.3	.1	.3	-.1	-.3
STEAM OR HOT WATER SYSTEM.....	13.5	5.7	1.4	4.5	2.4	-.4	-.9
HEAT PUMP.....	2.1	1.7	.2	1.0	.2	-.1	-.4
FLOOR, WALL OR PIPELESS FURNACE.....	6.7	4.6	.5	3.5	.3	-.2	-.1
OIL, CRG, GAS, ECON. HEATER.....	6.1	4.4	.2	3.6	.2	-.4	-.1
BUILT-IN ELECTRIC UNITS.....	5.3	2.8	.6	1.4	.3	-.2	1.6
WOOD OR COAL HEATING STOVE.....	4.6	3.6	.6	1.4	.7	-.6	2.5
PORTABLE HEATER.....	1.0	.6	-.6	.5	-.5	-.1	-.4
FIREPLACE.....	.3	.3	-.1	.2	-.1	-.1	-.1
OTHER.....	.9	.5	.1	.3	-.3	-.1	-.4
NONE.....	.6	.4	-.1	-.3	-.3	-.1	-.1
MAIN HEATING FUEL							
NATURAL GAS.....	44.6	30.1	6.3	14.0	5.3	1.8	2.7
ELECTRICITY.....	14.2	7.7	1.1	4.7	.8	-.6	-.5
FUEL OIL OR KEROSENE.....	13.4	7.9	1.8	1.7	3.0	.5	5.5
WOOD.....	4.7	4.3	.8	1.5	1.1	-.6	-.4
LICUID PETROLEUM GAS.....	3.7	2.3	.3	1.4	-.3	-.2	1.4
COAL.....	.2	.3	-.1	.1	-.1	-.1	-.1
OTHER/NONE.....	.7	.5	-.1	.4	-.1	-.1	-.1
SECONDARY HEATING FUEL							
WOOD.....	12.4	12.3	2.6	4.6	2.6	1.1	1.3
ELECTRICITY.....	5.2	6.8	1.1	3.2	1.3	-.6	-.5
NATURAL GAS.....	3.5	2.5	.4	1.3	.4	-.2	-.8
FUEL OIL OR KEROSENE.....	1.9	1.4	.4	.2	.5	-.2	-.5
LICUID PETROLEUM GAS.....	.9	.8	-.1	.4	-.1	-.1	-.1
COAL.....	.2	.2	-.1	-.1	-.1	-.1	-.1
OTHER.....	.2	.1	-.1	-.1	-.1	-.1	-.1
NCNF.....	52.6	29.0	5.6	14.1	5.5	1.5	2.2

SEE NOTES AT END OF TABLE

TABLE 17. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES						OTHER/NCT REPORTED	
		SINGLE-FAMILY DETACHED			2-STORY				
		TOTAL	1-STORY	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT		
<b>WATER-HEATING FUEL</b>									
NATURAL GAS.....	44.1	28.9	5.8	13.2	5.4	1.7	2.7	15.3	
ELECTRICITY.....	26.1	17.7	3.2	8.5	3.3	1.5	1.1	8.3	
FUEL OIL OR KEROSENE.....	7.1	3.2	.8	.3	1.4	.1	.4	3.9	
LIQUID PETROLEUM GAS.....	5.6	2.5	.4	1.3	.4	.2	.2	1.1	
WOOD.....	5.4	.3	-	.1	.1	-	-	-	
SOLAR.....	1.1	.1	-	.1	.1	-	-	-	
OTHR.....	1.1	.1	-	.1	.1	-	-	-	
NONE.....	3.3	.2	-	.2	.2	-	-	-	
<b>MAIN COOKING FUEL</b>									
ELECTRICITY.....	44.4	32.0	6.6	14.0	6.2	2.3	2.8	12.4	
NATURAL GAS.....	31.6	17.6	3.3	8.2	3.5	1.0	1.5	14.0	
LIQUID PETROLEUM GAS.....	5.2	3.1	.5	1.5	.7	.2	.1	2.1	
WOOD.....	5.3	.3	-	.1	.1	.1	-	-	
NCNE/OTHR.....	2.2	-	-	-	-	-	-	-	
<b>AIR CONDITIONING (A/C)</b>									
CENTRAL AIR CONDITIONING ONLY.....	21.5	14.8	3.0	7.4	2.0	1.0	1.3	7.1	
INDIVIDUAL ECOM UNITS ONLY.....	24.6	15.5	3.0	7.1	3.5	.8	1.1	9.0	
CENTRAL A/C AND ROCF UNITS.....	1.3	-	-	.2	-	.1	-	-	
NC AIR CCNDITONING.....	34.9	22.4	4.4	9.1	5.1	1.8	2.0	12.5	
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>									
ALL.....	25.6	19.2	3.7	10.6	2.3	1.1	1.5	10.6	
SCME.....	16.9	11.4	2.3	4.1	3.2	.7	1.0	5.6	
NONE.....	34.9	22.4	4.4	9.1	5.1	1.8	2.0	12.5	

SEE NOTES AT END OF TABLE

TABLE 17. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSING STRUCTURE BY NUMBER OF STORIES							
HOUSEHOLD CHARACTERISTICS	TOTAL		SINGLE-FAMILY DETACH.		OTHER/NCT STRUCTURES		
	1-STORY		2-STORY		WITHOUT BASEMENT		REPORTER
	TOTAL	WITH BASEMENT	WITHOUT BASEMENT	BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	BASEMENT
WOOD BURNED							
YES (1/3 CCRD OF MCRE).....	14.2	13.2	2.6	4.7	3.3	1.3	1.0
NO.....	67.4	39.8	7.7	19.2	7.3	3.2	27.6
AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD							
(SINGLE FAMILY OR MOBILE HOME)							
USE ANY NATURAL GAS.....	36.3	32.3	6.7	14.7	6.1	1.9	4.0
DO NOT USE ANY NATURAL GAS.....	24.6	20.7	3.7	9.2	4.5	1.8	3.9
GAS IS AVAILABLE.....	5.4	4.6	1.0	1.8	1.1	.2	.5
PERCENT							
GAS IS NOT AVAILABLE.....	22.1	22.4	27.5	20.0	23.9	11.2	20.5
PERCENT							
GAS IS NOT AVAILABLE.....	19.2	16.1	22.7	7.3	3.4	1.6	3.1
PERCENT							
GAS IS NOT AVAILABLE.....	77.9	77.6	72.5	80.0	76.1	88.8	66.6
PERCENT							
TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980							
SAME FUEL WINTER 1980							
TO WINTER 1981.....	78.1	50.6	10.1	22.7	10.1	3.5	4.2
DIFFERENT FUEL.....	21.9	1.6	.3	.6	.5	.1	.2
FUEL CIL OR KEROSENE.....	1.2	.9	.2	.2	.3	.1	.3
NATURAL GAS.....	.1	.1	.1	.1	.1	-.1	-.1
LIQUID PETROLEUM GAS.....	.2	.2	.1	.1	.1	-.1	-.1
ELECTRICITY.....	.2	.2	.1	.1	.1	-.1	-.1
OTHER/NCT FUEL USED.....	.3	.2	.1	.1	.1	-.1	-.1
NOT HEATED IN WINTER 1980	.5	.4	-.1	.3	-.1	-.1	-.1
TO WINTER 1981.....	.5	.4	-.1	.2	-.1	-.1	-.1
UNIT NCT BUILT IN WINTER 1979 TO 1980.....	1.0	.4	-.1	.2	-.1	-.1	.6

SFF NOTES AT END OF TABLE

TABLE 17. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACHED			OTHER HOUSING STRUCTURES		
		TOTAL	1-STORY	2-STORY	WITHOUT BASEMENT	WITH BASEMENT	OTHER/NCI REPORTER
<b>FUEL COMBINATIONS</b>							
USE NATUREAL GAS FOR MAIN HEATING.....	44.6	30.1	6.3	14.0	5.3	1.8	2.7
WATER HEAT AND COOK WITH NATUREAL GAS.....	25.1	15.4	2.9	7.6	2.8	.9	1.3
WATER HEAT WITH NATUREAL GAS AND COOK WITH ELECTRICITY.....	15.7	12.0	2.8	5.1	2.1	.7	1.3
WATER HEAT WITH ELECTRICITY AND COOK WITH NATUREAL GAS...	.9	.5	.2	.2	.1	—	.4
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	2.1	.5	1.1	.3	.1	.5
OTHER.....	.3	.1	—	.1	—	—	.2
USE ELECTRICITY FOR MAIN HEATING.....	14.3	7.7	1.1	4.7	.8	.6	.5
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	7.0	1.1	4.3	.7	.5	5.2
OTHER.....	2.6	1.8	—	.5	.1	—	1.4
USE FUEL OIL FOR MAIN HEATING.	12.6	7.5	1.8	1.4	3.0	.4	8
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	2.1	.5	.2	1.0	.1	.3
WATER HEAT WITH FUEL OIL AND COOK WITH NATUREAL GAS.....	3.3	.4	.1	—	.2	—	.1
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	3.2	.8	.9	1.0	.3	.2
WATER HEAT AND COOK WITH NATUREAL GAS.....	1.1	.5	.1	—	.3	—	.6
OTHER.....	1.6	1.2	.3	.2	.5	.1	.5
NONE/OTHER FUEL.....	10.2	7.8	1.2	3.7	1.5	.9	2.4

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THIS 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 18. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES						OTHER STRUCTURES	
		SINGLE-FAMILY DETACH.			2-STORY				
		TOTAL	1-STORY	2-STORY	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT		
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
MAIN HEATING EQUIPMENT									
CENTRAL WARM-AIR FURNACE.....	50.5	53.7	64.5	46.5	59.8	43.2	60.9	44.6	
FORCED AIR.....	49.1	52.1	62.1	46.0	56.7	42.8	58.6	43.6	
GRAVITY.....	1.4	1.6	2.4	.5	3.2	.4	2.3	1.0	
STEAM OR HOT WATER SYSTEM.....	16.5	10.7	14.0	2.1	22.4	11.1	20.6	27.2	
HEAT PUMP.....	2.6	3.2	2.3	4.0	2.3	3.9	1.9	1.5	
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	8.7	4.6	14.6	3.2	5.9	2.8	7.3	
OIL OR GAS ROOM HEATER.....	7.4	8.4	1.5	15.0	1.8	11.9	1.7	5.7	
BUILT-IN ELECTRIC UNITS.....	6.5	5.2	5.6	6.0	2.9	6.4	5.1	8.8	
WOOD OR COAL HEATING STOVE.....	4.8	6.8	5.9	6.0	6.8	16.2	5.0	1.3	
PORTABLE HEATER.....	1.2	1.1	.2	2.1	.3	.3	.4	1.5	
FIREPLACE.....	.4	.6	.2	1.0	.3	.2	.1	.2	
OTHER.....	1.1	.9	1.3	1.2	-	-	1.2	1.4	
NONE.....	.6	.7	-	1.4	-	.7	.3	.4	
MAIN HEATING FUEL									
NATURAL GAS.....	54.6	56.7	60.5	58.7	50.4	47.9	59.5	50.7	
ELECTRICITY.....	17.5	14.4	10.5	19.9	7.4	15.4	10.5	23.2	
FUEL OIL OR KEROSENE.....	16.4	14.9	17.7	7.2	28.5	13.0	18.9	19.1	
WOOD.....	5.8	8.1	7.9	6.4	10.0	16.2	6.9	1.4	
LIQUEFIED PETROLEUM GAS.....	4.5	4.3	2.8	5.7	2.6	6.4	2.1	5.0	
COAL.....	.4	.5	.4	.4	.7	.4	1.2	.1	
OTHER/NONE.....	.8	1.0	.3	1.6	.3	.7	.5	.8	
SECONDARY HEATING FUEL									
WOOD.....	16.4	23.2	25.5	19.3	25.0	29.8	28.1	3.9	
ELECTRICITY.....	11.3	12.8	10.2	13.6	12.2	17.0	11.9	8.7	
NATURAL GAS.....	9.0	4.7	3.8	5.3	3.4	6.3	5.1	2.9	
FUEL OIL OR KEROSENE.....	2.1	2.7	4.2	.8	5.0	2.4	4.6	1.6	
LIQUEFIED PETROLEUM GAS.....	1.1	1.5	.8	1.7	1.3	3.8	.9	.3	
COAL.....	.2	.1	.6	.1	.5	.3	-	.1	
OTHER.....	.2	.4	.1	.1	.3	-	1.0	.2	
NONE.....	64.4	54.7	54.5	59.2	52.2	40.5	48.4	82.4	

SEE NOTES AT END OF TABLE

TABLE 18. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)—continued

HOUSEHOLD CHARACTERISTICS		TOTAL	SINGLE-FAMILY DETACHED				HOUSING STRUCTURE BY NUMBER OF STORIES			
			1-STORY		2-STORY		OTHER/NCT REPORTED		OTHER/NCT REPORTED	
			WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	OTHER/NCT REPORTED	OTHER/NCT REPORTED	OTHER/NCT REPORTED	OTHER/NCT REPORTED
<b>WATER—HEATING FUEL</b>										
NATURAL GAS.....	54.1	54.5	56.2	55.5	50.7	46.9	60.1	53.3	53.3	53.3
ELECTRICITY.....	31.5	33.5	31.2	35.7	31.3	42.1	25.1	29.1	29.1	29.1
FUEL OIL OR KEROSENE.....	5.7	6.0	8.2	1.4	13.3	4.0	9.8	13.6	13.6	13.6
LIQUID PETROLEUM GAS.....	4.4	4.6	4.1	5.4	3.5	5.5	3.9	3.9	3.9	3.9
WOOD.....	*4	*7	*3	*6	1.0	1.2	*4	-	-	-
SOLAP.....	*1	*2	*1	*3	-	-	-	-	-	-
OTHER.....	*1	*1	-	*2	-	-	*4	*1	*1	*1
NCNF.....	*3	*5	-	*9	-2	-3	*1	*1	*1	*1
<b>MAIN COOKING FUEL</b>										
ELECTRICITY.....	54.4	60.4	63.5	58.8	58.8	63.6	62.3	43.4	43.4	43.4
NATURAL GAS.....	38.7	33.2	31.6	34.5	33.3	28.4	34.1	48.7	48.7	48.7
LIQUID PETROLEUM GAS.....	6.4	5.9	4.9	6.2	7.0	6.6	3.2	7.3	7.3	7.3
WOOD.....	*2	*5	-	*4	*9	1.4	*4	-	-	-
NCNE/OTHER.....	*2	-	-	-	-	-	-	*6	*6	*6
<b>AIR CONDITIONING (A/C)</b>										
CENTRAL AIR CONDITIONING ONLY.....	26.6	27.9	28.5	31.2	19.0	28.1	29.5	24.6	24.6	24.6
INDIVIDUAL FROM UNITS ONLY.....	30.0	29.3	29.2	29.9	32.7	21.3	24.5	31.3	31.3	31.3
CENTRAL A/C AND LOCAL UNITS.....	*4	*6	*1	*7	*1	1.4	1.1	*1	*1	*1
NO AIR CONDITIONING.....	42.6	42.3	42.2	38.2	48.1	49.1	45.0	45.0	45.0	45.0

SEE NOTES AT END OF TABLE

TABLE 18. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS) -continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY, DETACHED			OTHER HOUSING STRUCTURES		
		1-STORY		2-STORY		OTHER/NCT REPORTED	
	TOTAL	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT	WITH BASEMENT	WITHOUT BASEMENT
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED							
ALL.....	36.5	36.3	35.6	44.5	21.4	30.7	33.6
SOME.....	20.7	21.4	22.2	17.3	30.4	20.2	21.4
NONE.....	42.8	42.3	42.2	38.2	48.1	49.1	45.0
WOOD BURNER YES (1/3 COFF OR MCPE) NO.....	17.4 82.6	25.0 75.0	25.3 74.7	19.6 80.4	31.4 68.6	36.2 63.8	28.6 71.4
TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980							
SAMP FUEL WINTER 1980 TO WINTER 1981.....	95.7	95.5	97.1	95.3	95.1	95.8	94.0
DIFFERENT FUEL.....	2.8	2.9	2.5	2.3	4.5	3.0	3.4
FUEL OIL OR KEROSENE.....	1.1	1.6	2.1	.8	2.4	2.5	2.3
NATURAL GAS.....	.1	.2	.1	.3	-	-	.4
LIQUID PETROLEUM GAS.....	.3	.3	.1	.5	.2	-	.2
ELECTRICITY.....	.2	.3	.1	.5	.4	-	.1
OTHER/AO FUEL USED.....	.2	.4	.1	.1	1.4	.2	.1
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	.6	.7	-	1.4	-	.7	.3
UNIT NCT BUILT IN WINTER 1979 TO 1980.....	1.3	.8	.4	1.0	.4	.5	2.3
							2.1

SEE NOTES AT END OF TABLE

TABLE 18. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND NUMBER OF STORIES  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE BY NUMBER OF STORIES					
		SINGLE-FAMILY DETACHED			OTHER HOUSING STRUCTURES		
		TOTAL	1-STORY	2-STORY	WITHOUT BASEMENT	WITH BASEMENT	OTHER/NCT REPORTED
<b>FUEL COMBINATIONS</b>							
USE NATURAL GAS FOR MAIN HEATING.....	54.6	56.7	60.5	58.7	50.4	47.9	59.5
WATER HEAT AND COOK WITH NATURAL GAS.....	36.7	29.1	27.6	31.7	26.7	24.9	28.0
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	22.6	26.8	21.5	19.8	19.4	27.8
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	1.1	1.0	1.6	.9	.6	.9	1.0
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	3.9	4.5	4.4	3.1	2.6	2.8
OTHER.....	.4	.2	—	.2	.2	.1	—
USE ELECTRICITY FOR MAIN HEATING.....	17.5	14.4	10.5	19.9	7.4	15.4	10.5
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	13.2	10.4	18.0	7.0	12.6	9.8
OTHER.....	2.5	1.2	1.1	1.9	.4	2.8	.8
USE FUEL OIL FOR MAIN HEATING.	15.4	14.1	17.7	5.8	29.3	12.0	18.3
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	4.0	5.2	.9	9.3	2.2	7.4
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	.8	1.2	.1	2.0	.5	1.4
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	6.0	7.8	3.9	9.5	7.0	4.3
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	1.0	1.0	—	2.9	—	2.0
OTHER.....	2.0	2.2	2.5	.9	4.6	2.3	3.1
NCNE/OTHER FUEL.....	12.5	14.7	11.3	15.6	13.9	24.7	11.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNDUCED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SPAN, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 19. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSING STRUCTURE BY OWNERSHIP																
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			
	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	
	81.6	53.0	45.5	7.5	3.3	2.2	1.1	9.9	2.0	7.9	10.8	1.0	9.8	4.6	3.6	1.0
<b>TOTAL HOUSEHOLDS</b>	81.6	53.0	45.5	7.5	3.3	2.2	1.1	9.9	2.0	7.9	10.8	1.0	9.8	4.6	3.6	1.0
<b>MAIN HEATING EQUIPMENT</b>																
CENTRAL WARM-AIR FURNACE.....	41.2	28.5	25.7	2.8	1.9	1.2	.7	3.4	.7	2.7	4.0	.4	3.6	2.7	.8	
FORCED AIR.....	40.1	27.6	24.9	2.7	1.8	1.1	.7	3.4	.7	2.7	3.9	.4	3.5	2.7	.7	
GRAVITY.....	1.1	.8	.7	.1	.1	.1	-	.1	-	.1	.1	-	-	-	-	-
STEAM OR HOT WATER SYSTEM.....	13.5	5.7	5.2	.5	.8	.7	.1	3.1	.9	2.3	3.9	.4	3.5	-	-	-
HEAT PUMP.....	2.1	1.7	1.6	.1	-	-	-	.2	.1	.2	.1	.1	.1	.1	.1	-
FLOOR, WALL OR PIPELESS FURNACE.....	6.7	4.6	3.6	1.0	.2	.2	-	1.0	.1	1.0	.6	-	.6	.2	.1	.1
OIL OR GAS FCOM HEATER.....	6.1	4.4	3.1	1.4	.2	.1	-	1.1	.2	1.0	.2	-	.2	.2	.1	.1
BUILT-IN ELECTRIC UNITS.....	5.3	2.8	2.4	.4	.2	.1	-	.6	-	.6	1.6	.1	1.6	.1	.1	.1
WOOD OR COAL HEATING STOVE.....	4.0	3.6	2.8	.8	.2	.1	-	.1	-	.1	.1	-	.1	.3	.2	.1
PORTABLE HEATER.....	1.0	.6	.3	.2	.1	.1	-	.1	-	.1	.1	-	.1	.2	.1	.1
FIREPLACE.....	.3	.3	.3	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER.....	.9	.5	.4	.1	-	-	-	.2	-	.2	.2	-	.1	.1	.1	-
NONE....	.5	.4	.1	.3	-	-	-	.1	-	-	-	-	-	-	-	-
<b>MAIN HEATING FUEL</b>																
NATURAL GAS.....	44.6	30.1	26.0	4.1	1.9	1.3	.6	6.6	1.1	5.5	6.6	.4	4.1	1.4	1.0	.3
ELECTRICITY.....	14.3	7.7	6.9	.8	.5	.2	.3	1.3	.2	1.1	3.7	.3	3.4	1.1	.9	.2
FUEL OIL OR KEROSENE.....	13.4	7.9	6.8	1.1	.7	.7	.1	1.6	.5	1.1	2.4	.3	2.1	.7	.5	.2
WOOD.....	4.7	4.3	3.5	.8	-	-	-	.1	-	.1	-	-	.1	.3	.3	.1
LIQUID PETROLEUM GAS.....	3.7	2.3	1.9	.4	.1	-	-	.1	-	.1	-	-	.1	1.2	.9	.2
COAL.....	.3	.3	.2	.1	-	-	-	.1	-	.1	-	-	-	-	-	-
OTHER/NONE.....	.7	.5	.2	.3	-	-	-	.1	-	-	-	-	-	-	-	-
<b>CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)</b>																
YES.....	9.0	-	-	-	-	-	-	-	-	3.6	1.0	2.6	5.4	.5	4.9	-
NO.....	11.6	-	-	-	-	-	-	-	-	6.3	1.0	5.3	.5	.5	4.9	-
NO MAIN HEATING SYSTEM.....	.1	-	-	-	-	-	-	-	-	.1	-	-	-	-	-	-

SEE NOTES AT END OF TABLE

TABLE 19. PUPL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
<b>SECONDARY HEATING FUEL</b>												
WOOD.....	13.4	12.3	11.3	0.9	0.4	0.3	0.1	0.4	0.2	0.2	0.2	0.2
ELECTRICITY.....	9.2	6.8	5.9	.9	.4	.3	.1	.7	.2	.5	1.0	0.1
NATURAL GAS.....	3.3	2.5	2.2	.2	-	-	-	.4	.3	.4	.2	.4
FUEL OIL OR KEROSENE.....	1.9	1.4	1.3	.1	-	-	-	.1	-	.2	-	-
LIQUID PETROLEUM GAS.....	.9	.8	.7	.1	-	-	-	-	-	-	.1	.1
COAL.....	.2	.2	.1	-	-	-	-	-	-	-	-	-
OTHER.....	52.6	29.0	23.8	5.2	2.5	1.7	.8	8.4	1.5	6.9	9.0	.8
NONE.....	44.1	28.9	24.9	3.9	2.2	1.6	.6	6.8	1.2	5.6	5.1	5
NATURAL GAS.....	26.1	17.7	15.3	2.5	1.7	1.3	.4	1.8	.4	1.4	3.2	2.6
ELECTRICITY.....	7.1	3.2	2.9	.3	.3	.3	-	1.2	.4	.8	2.4	2.1
FUEL OIL OR KEROSENE.....	3.6	2.5	2.0	.5	.1	-	-	.1	-	.1	.3	.1
LIQUID PETROLEUM GAS.....	.4	.3	.2	.1	-	-	-	-	-	-	.9	.7
WOOD.....	.1	.1	.1	-	-	-	-	-	-	-	-	-
SOLAR.....	.1	.1	.1	-	-	-	-	-	-	-	-	-
OTHER.....	.3	.2	.1	.1	-	-	-	-	-	-	-	-
NONE.....	44.4	32.0	28.1	3.9	1.4	.8	.6	3.7	.7	3.0	5.9	.5
WATER-HEATING FUEL	11.2	-	-	-	-	-	-	4.3	1.0	3.3	7.0	.5
YFS.....	9.5	-	-	-	-	-	-	5.7	1.0	4.6	7.8	.5
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	-	-	-	-	-	-	-	-	-	7.3	-
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>												
YFS.....	11.2	-	-	-	-	-	-	4.3	1.0	3.3	7.0	.5
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	-	-	-	-	-	-	5.7	1.0	4.6	7.8	.5
<b>MAIN COOKING FUEL</b>												
ELECTRICITY.....	44.4	32.0	28.1	3.9	1.4	.8	.6	3.7	.7	3.0	5.9	.5
NATURAL GAS.....	31.6	17.6	14.7	2.9	1.9	1.4	.5	6.0	1.2	4.8	4.3	.5
LIQUID PETROLEUM GAS.....	5.2	3.1	2.5	.6	-	-	-	.2	.1	-	-	-
WOOD.....	.3	.3	.2	.1	-	-	-	-	-	-	-	-
NONE/OTHER.....	.2	-	-	-	-	-	-	-	-	-	-	.1

SEE NOTES AT END OF TABLE

TABLE 19. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS. EXCEPT WHERE PERCENTS ARE INDICATED)-Continued

HOUSING STRUCTURE BY OWNERSHIP												
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
	1	2	3	4	5	6	7	8	9	10	11	12
AIR CONDITIONING (A/C)												
CENTRAL AIR CONDITIONING												
ONLY.....	21.9	14.8	13.8	1.0	0.9	0.6	0.3	1.2	0.3	3.9	0.7	3.2
INDIVIDUAL ROOM UNITS ONLY.....	24.5	15.5	13.4	2.1	1.1	1.0	0.2	3.2	1.0	2.2	0.3	3.1
CENTRAL A/C AND ROOM UNITS.....	3.3	2.3	2.3	-	-	-	-	-	-	-	-	-
NO AIR CONDITIONING.....	34.9	22.4	18.0	4.4	1.3	.7	.6	5.6	.7	4.9	3.5	3.5
CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)												
YES.....	1.2	-	-	-	-	-	-	1.1	-	1.2	-	-
NC.....	3.8	-	-	-	-	-	-	8.8	1.7	2.7	.5	2.2
NO AIR CONDITIONING SYSTEM.....	15.7	-	-	-	-	-	-	8.4	7.1	6.9	.3	6.6
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED												
ALL.....	29.8	19.2	17.5	1.7	1.0	.6	.4	2.2	.4	1.7	5.5	.9
SOME.....	16.9	11.4	9.9	1.4	1.0	.9	.1	2.2	.6	1.3	1.8	.1
NONE.....	34.9	22.4	18.0	4.4	1.3	.7	.6	5.6	.7	4.9	3.5	.6
WOOD BURNER YES (1/3 COFF OR MORE).....	14.2	13.2	11.9	1.3	1.2	.2	.3	1.8	.2	1.0	.1	.4
NO.....	67.4	35.8	33.6	6.2	3.1	2.0	1.0	9.6	1.8	7.8	10.7	9.7
AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)												
USE ANY NATURAL GAS.....	36.3	32.3	27.8	4.4	2.6	1.9	.7	-	-	-	-	1.4
DO NOT USE ANY NATURAL GAS.....	24.6	20.7	17.6	3.1	.7	.4	.3	-	-	-	-	3.2
GAS IS AVAILABLE.....	5.4	4.6	4.1	.5	.2	.1	.1	-	-	-	-	.6
PERCENT.....	22.1	22.4	23.3	17.3	35.3	42.1	27.6	-	-	-	-	17.3
GAS IS NOT AVAILABLE.....	19.2	16.1	13.5	2.5	.4	.2	.2	-	-	-	-	2.7
PERCENT.....	77.9	77.6	76.7	82.7	64.7	57.9	72.4	-	-	-	-	82.7
												78.2

SPP NOTES AT END OF TABLE

TABLE 19. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSING STRUCTURE BY OWNERSHIP												
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>												
SAME FUEL WINTER 1980	78.1	*0.6	43.5	7.1	3.7	2.2	1.0	9.4	1.9	7.7	10.4	9.4
DIFFERENT FUEL	2.0	1.6	.4	.2	-	-	.2	.1	.1	.1	-	.1
PUL CH CR KEROSENE	1.2	.9	.8	.1	-	-	.2	.1	.1	.1	-	.1
NATURAL GAS	.1	.1	.1	.1	-	-	-	-	-	-	-	-
LIQUEFIED PETROLEUM GAS	.2	.2	.1	.1	-	-	-	-	-	-	-	.1
ELECTRICITY	.2	.2	.2	.1	-	-	-	-	-	-	-	-
OTHER/NO FUEL USED	.3	.2	.2	.1	-	-	-	-	-	-	-	-
NOT HEATED IN WINTER 1980	-	-	-	-	-	-	-	-	-	-	-	-
TO WINTER 1981	.5	.4	.1	.3	-	-	.1	-	-	-	-	-
UNIT NOT BUILT IN WINTER 1979 TO 1980	1.0	.4	.4	.1	-	-	.2	.1	.1	.2	-.2	.1

SEE NOTES AT END OF TABLE

TABLE 19. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSING STRUCTURE BY OWNERSHIP																
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			
	TOTAL		OWN	TOTAL		CWN	RENT	TOTAL		OWN	RENT	TOTAL		CWN	RENT	
	TOTAL	RENT	TOTAL	TOTAL	RENT	TOTAL	RENT	TOTAL	RENT	TOTAL	RENT	TOTAL	RENT	TOTAL	RENT	
<b>FUEL COMBINATIONS</b>																
USE NATURAL GAS FOR MAIN HEATING.....	44.6	30.1	26.0	4.1	1.9	1.3	0.6	6.6	1.1	5.5	4.6	0.4	4.1	1.4	1.0	0.3
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	15.4	13.0	2.4	1.3	.9	.4	4.9	.9	3.9	2.6	.2	2.4	.9	.7	.2
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	12.0	10.8	1.2	.5	.4	.2	1.5	.2	1.3	1.7	.2	1.5	.1	.1	-
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	.9	.5	.4	.2	-	-	-	.1	-	.1	-	-	-	.3	.2	.1
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	2.1	1.8	.3	.2	.1	.1	.2	-	.2	.2	-	.1	-	-	-
OTHER.....	.3	.1	.1	-	-	-	-	.1	-	.1	-	.1	.1	.1	.1	-
USE ELECTRICITY FOR MAIN HEATING.....	14.3	7.7	6.9	.8	.5	.2	.3	1.3	.2	1.1	3.7	.3	3.4	1.1	.9	.2
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	7.0	6.4	.6	.4	.2	.2	1.2	.2	.9	2.9	.2	2.7	.8	.7	.1
OTHER.....	2.0	.6	.5	.2	.1	.1	.1	.2	.1	.2	.9	.1	.8	.2	.2	.1
USE FUEL OIL FOR MAIN HEATING.	12.6	7.5	6.5	.9	.7	.7	.1	1.6	.5	1.1	2.4	.3	2.1	.4	.2	.1
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	2.1	2.0	.2	.1	.1	-	.4	.1	.3	.2	-	.2	-	-	-
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	.4	.4	-	.2	.2	-	.7	.2	.5	1.9	.3	1.7	-	-	-
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	3.2	2.7	.4	.1	.1	-	.1	.1	.1	.1	-	.1	.2	.1	.1
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	.5	.4	.1	.3	.3	-	.2	.1	.2	.1	-	.1	-	.1	.1
OTHER.....	1.6	1.2	1.0	.2	.1	.1	-	.2	.1	.1	.1	-	.1	.2	.1	.1
NONE/OTHER FUEL.....	10.2	7.8	6.1	1.7	.1	.1	-	.4	.1	.3	.1	-	.1	1.8	1.5	.4

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 20. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)

HOUSING STRUCTURE BY OWNERSHIP													
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			MOBILE HOME
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>TOTAL HOUSEHOLDS.....</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>MAIN HEATING EQUIPMENT</b>													
CENTRAL WARM-AIR FURNACE.....	50.5	53.7	56.4	37.2	56.3	52.2	65.0	34.5	35.7	34.2	37.2	44.6	36.4
FORCED AIR.....	49.1	52.1	54.9	35.6	53.4	48.4	63.9	33.9	34.9	33.4	36.3	44.6	35.5
GRAVITY.....	1.4	1.6	1.6	1.5	3.0	3.9	1.1	.8	.8	.7	.9	1.0	.5
STEAM OR HOT WATER SYSTEM.....	16.5	10.7	11.3	6.8	23.6	30.1	9.8	31.7	43.3	28.7	36.0	36.9	35.9
HEAT PUMP.....	2.6	3.2	3.5	1.0	.4	.6	1.6	5.7	.6	1.6	6.5	1.1	2.2
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	8.7	7.9	13.6	7.4	7.1	8.2	10.4	3.3	12.1	6.0	.9	6.5
OIL, CR GAS FROM HEATER.....	7.4	8.4	6.7	18.3	4.8	3.9	6.8	11.6	8.2	12.4	1.5	1.6	3.7
BUILT-IN ELECTRIC UNITS.....	6.5	5.2	5.3	4.8	5.2	4.5	6.8	6.2	2.0	7.3	15.2	6.7	16.1
WOOD OR COAL HEATING STOVE.....	4.8	6.8	6.2	10.2	.9	1.3	—	.8	.5	.8	—	—	5.7
PORTABLE HEATER.....	1.2	1.1	.8	3.0	1.1	—	3.3	1.1	—	1.4	.6	—	.7
PIREPLACE.....	.4	.6	.6	.5	—	—	—	—	—	—	—	—	4.5
OTHER.....	1.1	.9	.9	1.2	—	—	1.5	—	1.9	1.8	4.5	1.5	3.4
NONE.....	.6	.7	.3	3.3	.2	.4	—	.7	1.4	.6	.2	.2	.9
<b>SECONDARY HEATING FUEL</b>													
WOOD.....	54.6	56.7	57.2	54.1	58.8	58.1	60.2	66.9	56.8	69.4	42.5	44.0	42.3
ELECTRICITY.....	17.5	14.4	15.1	10.7	15.3	9.0	28.4	13.4	11.7	13.9	34.5	30.8	34.9
FUEL OIL OR KEROSENE.....	16.4	14.9	14.9	14.8	22.4	29.4	7.6	16.5	26.5	13.9	22.1	25.2	21.7
WOOD.....	5.8	8.1	7.7	10.9	.9	1.3	—	.9	1.2	.8	—	—	6.3
LIQUID PETROLEUM GAS.....	4.5	4.3	4.2	4.7	1.9	1.0	3.7	1.4	2.4	1.2	.7	—	25.0
COAL.....	.4	.5	.5	.9	.5	.8	—	.2	.2	.2	—	—	26.0
OTHER/NONE.....	.8	1.0	.5	4.0	.2	.4	—	.7	1.4	.6	.2	.2	1.0

SEE NOTES AT END OF TABLE

TABLE 20. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSING STRUCTURE BY OWNERSHIP												MOBILE HOME	
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			MOBILE HOME
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	
WATER-HEATING FUEL													
NATURAL GAS.....	54.1	54.9	52.3	68.0	72.5	58.6	68.8	61.5	70.7	47.6	51.0	47.3	22.7
ELECTRICITY.....	31.9	33.5	33.6	21.6	14.6	36.3	17.8	18.6	17.6	29.9	23.8	30.5	56.8
FUEL OIL OR KEROSENE.....	8.7	6.0	6.3	4.2	8.5	11.9	1.4	11.9	10.4	22.2	21.9	1.1	1.4
LIQUID PETROLEUM GAS.....	4.4	4.6	4.3	6.5	1.8	.9	3.7	1.4	2.1	1.3	.3	.3	16.7
WOOD.....	.4	.7	.5	1.6	-	-	.1	-	.1	-	-	-	-
SOLAR.....	.1	.2	.1	-	-	-	-	-	-	-	-	-	-
OTHER.....	.1	.1	.1	.6	-	-	-	-	-	-	-	.4	.5
NONE.....	.3	.5	.2	1.7	-	-	-	-	-	-	-	.3	1.5
CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)													
YES.....	13.8	-	-	-	-	-	-	-	-	43.0	48.4	41.7	64.6
PG/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	-	-	-	-	-	-	-	-	57.0	51.6	58.3	34.0
MAIN COOKING FUEL													
ELECTRICITY.....	54.4	60.4	61.7	52.0	41.5	35.5	54.3	37.4	36.1	37.7	54.7	47.0	55.5
NATURAL GAS.....	38.7	33.2	32.4	38.6	56.8	63.4	42.8	60.5	61.1	60.3	44.7	53.0	43.9
LIQUID PETROLEUM GAS.....	6.4	5.9	5.4	8.5	1.2	1.1	1.4	1.6	2.8	1.3	.3	.3	40.2
WOOD.....	.3	.5	.5	.7	-	-	-	-	.1	-	-	-	-
NONE/OTHER.....	.2	-	.2	.5	-	1.6	.5	-	.6	.3	-	.4	1.6
AIR CONDITIONING (A/C)													
CENTRAL AIR CONDITIONING ONLY.....	26.8	27.9	30.2	13.5	26.3	24.9	29.1	11.7	15.7	10.9	36.1	73.1	32.3
INDIVIDUAL ROOM UNITS ONLY.....	30.9	29.3	29.5	28.1	34.5	42.8	17.0	32.1	48.8	27.8	31.4	25.4	32.1
CENTRAL A/C AND FOCP UNITS.....	.4	.6	.7	-	-	-	-	-	-	.1	.9	.7	.6
NO AIR CONDITIONING.....	42.8	42.3	39.6	58.3	39.2	32.3	53.9	56.3	36.4	61.2	32.4	.5	35.7

SEE NOTES AT END OF TABLE

TABLE 20. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSING STRUCTURE BY OWNERSHIP										
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED					BUILDING WITH 2 TO 4 UNITS				
	TOTAL		OWN		RENT	TOTAL	CWN	RENT	BUILDING WITH 5 OR MORE UNITS	
	1	2	3	4	5	6	7	8	9	
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED										
ALL.....	36.5	36.3	38.5	22.9	29.6	26.6	35.8	22.1	22.4	
SCMF.....	20.7	21.4	21.9	18.8	31.2	41.1	10.4	21.7	41.1	
NONFMF.....	42.8	42.3	39.6	58.3	39.2	32.3	53.9	56.3	36.4	
WOOD BURNED										
YES (1/3 CCRD OF MCRE).....	17.4	25.0	26.2	17.8	6.5	8.8	1.6	3.1	7.6	
NO.....	82.6	75.0	73.8	82.2	93.5	91.2	98.4	95.9	92.4	
TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980										
SAME FUEL WINTER 1980	95.7	95.5	95.7	94.5	97.2	97.7	96.1	95.1	89.5	
TO WINTER 1981	2.5	2.9	3.1	2.2	-	-	1.9	3.7	1.5	
DIFFERENT FUEL	1.6	1.6	1.7	1.0	-	-	1.9	3.7	1.5	
FUEL OIL OR KEROSENE	-1	-2	-1	-8	-	-	-	-	-	
NATURAL GAS.....	-3	-3	-3	-2	-	-	-	-	-	
LIQUID PETROLEUM GAS.....	-2	-3	-4	-	-	-	-	-	-	
ELECTRICITY.....	-3	-4	-5	-1	-	-	-	-	-	
OTHER/NO FUEL USED.....	-	-	-	-	-	-	-	-	-	
NOT HEATED IN WINTER 1980	.6	.7	.3	3.3	.2	-4	-	.7	1.4	
TO WINTER 1981.....	1.3	.8	1.0	-	2.6	1.9	3.9	2.2	5.4	
UNIT NOT BUILT IN WINTER 1979 TO 1980.....										

SEE NOTES AT END OF TABLE

TABLE 20. FUEL USE CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS*	HOUSING STRUCTURE BY OWNERSHIP															
	SINGLE-FAMILY DETACHED				SINGLE-FAMILY ATTACHED				BUILDING WITH 2 TO 4 UNITS				BUILDING WITH 5 OR MORE UNITS			
	TOTAL		OWN	RENT	TOTAL		CWN	RENT	TOTAL		OWN	RENT	TOTAL		CWN	RENT
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN
<b>FUEL COMBINATIONS</b>													FUEL USE FOR MAIN HEATING.....			
WATER HEAT AND COOK WITH NATURAL GAS.....	54.6	56.7	57.2	54.1	58.8	58.1	60.2	66.9	56.8	69.4	42.5	44.0	42.3	29.4	28.1	33.7
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	30.7	29.1	28.5	32.4	38.3	39.3	36.4	48.9	45.8	49.6	24.1	24.6	19.2	18.9	20.5	
WATER HEAT WITH ELECTRICITY....	19.2	22.6	23.7	15.6	15.6	16.1	14.7	14.8	9.4	16.1	15.4	17.5	15.2	2.2	2.1	2.5
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	1.1	1.0	.8	2.1	—	—	—	.8	.8	.2	1.0	.1	5.9	5.0	9.2	
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	3.9	3.9	4.1	4.8	2.7	9.2	1.8	—	2.3	1.5	1.6	1.5	.8	1.0	—
OTHER.....	.4	.2	.2	—	—	—	—	.6	.7	.6	.8	.9	1.2	1.1	1.5	
USE ELECTRICITY FOR MAIN HEATING.....	17.5	14.4	15.1	10.7	15.3	9.0	28.4	13.4	11.7	13.9	34.5	30.8	34.9	23.1	24.8	17.2
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	13.2	14.1	8.2	11.8	7.1	21.9	11.7	11.0	11.9	26.6	21.3	27.2	17.9	20.1	9.9
OTHER.....	2.5	1.2	1.0	2.5	3.4	2.0	6.5	1.8	.7	2.0	7.9	9.5	7.8	5.3	4.7	7.3
USE FUEL OIL FOR MAIN HEATING.	15.4	14.1	14.4	12.4	22.4	29.4	7.6	16.1	26.5	13.5	21.9	25.2	21.6	6.4	6.8	13.8
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	4.0	4.3	2.5	2.4	3.5	—	4.1	5.3	3.8	2.2	—	2.5	—	—	—
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	.8	.9	.5	6.1	8.4	1.4	6.6	8.6	6.1	18.1	25.2	17.4	—	—	—
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	6.0	6.0	6.0	3.1	3.0	3.3	1.5	3.3	1.1	.6	—	.6	3.6	3.1	5.3
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	1.0	.9	1.0	10.2	14.3	1.6	2.4	3.8	2.0	.5	—	.5	—	—	—
OTHER.....	2.0	2.2	2.2	2.4	2.6	.2	1.4	1.6	5.5	.6	.5	—	.6	4.8	3.7	8.6
NONE/OTHER FUEL.....	12.5	14.7	13.4	22.8	3.6	3.5	3.7	3.6	5.0	3.2	1.1	—	1.2	39.1	40.2	35.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A CASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 21. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
TOTAL HOUSEHOLDS.....	81.6	7.5	21.1	24.0	10.0	7.8	6.1
<b>MAIN HEATING EQUIPMENT</b>							
CENTRAL WARM-AIR FURNACE.....	41.2	1.8	9.0	12.4	6.0	5.0	3.9
FORCED AIR.....	40.1	1.7	8.8	12.1	5.9	4.8	3.9
GRAVITY.....	1.1	.1	.2	.3	.2	.1	.1
STEAM OR HOT WATER SYSTEM.....	13.5	1.8	3.5	3.3	1.4	1.2	1.3
HEAT PUMP.....	2.1	—	.3	.7	.4	.3	.3
FLOOR, WALL OR PIPELESS FURNACE.....	6.7	1.8	2.4	2.4	.6	.2	.1
OIL OR GAS ROOM HEATER.....	6.1	1.2	2.4	1.8	.3	.1	.1
BUILT-IN ELECTRIC UNITS.....	5.3	.6	1.9	1.6	.4	.5	.2
WOOD OR COAL HEATING STOVE.....	4.0	.2	.7	1.3	.7	.4	.3
PORTABLE HEATER.....	1.0	.3	.3	.2	.1	.1	.1
FIREPLACE.....	.3	—	.1	.1	—	—	—
OTHER.....	.5	.2	.3	.2	.1	.1	.1
NONE.....	.5	.5	—	—	—	—	—
<b>MAIN HEATING FUEL</b>							
NATURAL GAS.....	44.6	3.5	11.2	13.5	5.9	4.3	3.4
ELECTRICITY.....	14.5	1.2	4.6	4.2	1.6	1.3	2.8
FUEL OIL OR KEROSENE.....	13.4	1.6	3.1	3.5	1.4	1.2	1.1
WOOD.....	4.7	.2	.8	1.4	.8	.5	.4
LIQUID PETROLEUM GAS.....	3.1	.5	1.3	1.1	.3	.2	.1
COAL.....	.3	—	.1	.1	—	.1	—
OTHER/None.....	.7	.5	—	—	—	—	—
<b>CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	9.6	2.2	4.3	1.9	.2	.1	.1
NO.....	11.6	2.2	5.6	3.1	.4	.2	.1
NO MAIN HEATING SYSTEM.....	.1	.1	—	—	—	—	—

SEE NOTES AT END OF TABLE

TABLE 21. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE, (MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
		3,000 CR MORE					
<b>SECONDARY HEATING FUEL</b>							
WOOD.....	13.4	0.1	1.0	3.5	2.4	2.1	2.0
ELECTRICITY.....	9.2	.5	1.9	3.0	1.2	.7	.9
NATURAL GAS.....	5.3	.2	.7	.9	.4	.2	.2
FUEL OIL OR KEROSENE.....	1.9	.1	.3	.7	.2	.1	.1
LIQUID PETROLEUM GAS.....	.9	-	.1	.2	.1	-	-
COAL.....	.2	-	-	.1	-	-	-
OTHER.....	.2	-	-	-	-	-	.1
NONE.....	52.6	6.4	17.1	15.7	5.5	3.5	2.6
<b>WATER-HEATING FUEL</b>							
NATURAL GAS.....	44.1	3.3	11.1	13.4	5.7	4.4	3.4
ELECTRICITY.....	26.1	2.0	7.1	8.0	3.2	2.5	1.5
FUEL OIL OR KEROSENE.....	7.1	1.3	1.7	1.7	.7	.5	.6
LIQUID PETROLEUM GAS.....	3.6	.6	1.1	.7	.3	.3	.2
WOOD.....	.9	.1	-	.1	-	-	-
SOLAR.....	.1	-	-	-	-	-	-
OTHER.....	.1	-	-	-	-	-	-
NONE.....	.3	.1	.1	.1	-	-	-
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	11.2	3.0	5.3	2.3	.3	.1	.1
NO/MO WATER-HEATING FUEL/ NO HOT PUNTING WATER.....	9.6	1.6	4.7	2.7	.3	.2	.1
<b>MAIN COOKING FUEL</b>							
ELECTRICITY.....	44.4	2.7	9.8	13.2	6.1	5.2	3.6
NATURAL GAS.....	31.6	3.7	9.4	9.4	3.5	2.2	1.4
LIQUID PETROLEUM GAS.....	5.2	.8	1.9	1.3	.5	.4	.2
WOOD.....	.3	.1	.1	.1	-	-	-
NONE/OTHER.....	.2	.2	-	-	-	-	-

SEE NOTES AT END OF TABLE

TABLE 21. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE			
		LESS THAN 600	600 TO 699	1,000 TO 1,599	1,600 TO 1,999
<b>AIR CONDITIONING (A/C)</b>					
CENTRAL AIR CONDITIONING ONLY.....	21.9	0.8	4.5	6.4	3.4
INDIVIDUAL FROM UNITS ONLY....	24.5	2.4	7.0	7.4	2.6
CENTRAL A/C AND ROOM UNITS....	2.3	-	1	-	1
NO AIR CONDITIONING.....	34.9	4.3	9.6	10.1	3.9
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>					
YES.....	1.2	*4	*6	-	-
NO.....	3.5	*2	2.0	.2	.1
NO AIR CONDITIONING SYSTEM....	15.7	4.0	7.3	.4	.2
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>					
ALL.....	29.6	2.2	7.6	8.5	3.9
SOME.....	16.5	*9	3.9	5.4	2.2
NONE.....	34.5	4.3	9.6	10.1	3.9
<b>WOOD BURNER</b>					
YES (1/3 CCRD OR MORE).....	14.2	*3	1.4	3.6	2.5
NO.....	67.4	7.2	19.7	20.4	7.5
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD</b>					
USE ANY NATURAL GAS.....	36.2	1.2	6.3	11.5	6.0
DO NOT USE ANY NATURAL GAS....	24.6	1.7	4.9	7.5	3.4
GAS IS AVAILABLE.....	5.4	*4	*9	1.8	.7
PERCENT.....	22.1	22.2	18.8	23.8	20.0
GAS IS NOT AVAILABLE PERCENT.....	19.2	1.3	3.9	5.7	2.8
	77.5	77.8	81.2	76.2	80.0
					77.9
					76.3
					76.6
					76.3

SEE NOTES AT END OF TABLE

TABLE 21. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>TYPE OF MAIN HEATING FUEL USED</b>							
LAST WINTER 1979 TO 1980							
SAME FUEL WINTER 1980 TO WINTER 1981.....	78.1	6.7	20.4	23.0	9.6	7.5	5.9
DIFFERENT FUEL.....	2.0	.1	.4	.6	.3	.2	.2
FUEL OIL OR KEROSENE.....	1.2	.1	.2	.4	.2	.1	.1
NATURAL GAS.....	.1	-	-	-	-	-	-
LIQUEFIED PETROLEUM GAS.....	.2	.1	.1	.1	-	-	-
ELectRICITY.....	.2	-	-	.1	-	-	-
OTHER/NO FUEL USED.....	.3	-	-	-	.1	.1	-
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	.5	-	-	-	-	-	-
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	.1	.3	.3	.1	-	.1

SEE NOTES AT END OF TABLE

TABLE 21. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
							3,000 OR MORE
<b>FUEL COMBINATIONS</b>							
USE NATURAL GAS FOR MAIN HEATING.....	44.6	3.5	11.2	13.5	5.9	4.3	3.4
WATER PEAT AND COOK WITH NATURAL GAS.....	25.1	2.3	7.2	8.2	2.9	1.8	1.5
WATER PEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	.7	2.9	4.4	2.5	2.2	1.6
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	.5	.1	.4	.2	.1	—	—
WATER PEAT AND COOK WITH ELECTRICITY.....	2.6	.2	.6	.7	.4	.3	.2
OTHER.....	.3	.2	.1	—	—	—	—
USE ELECTRICITY FOR MAIN HEATING.....	14.3	1.2	4.6	4.2	1.6	1.3	.7
WATER PEAT AND COOK WITH ELECTRICITY.....	12.3	.9	3.7	3.7	1.5	1.2	.6
OTHER.....	2.0	.3	.9	.5	.1	.1	.1
USE FUEL OIL FOR MAIN HEATING.	12.6	1.5	2.7	3.3	1.4	1.2	1.3
WATER PEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	.1	.3	1.0	.2	.4	.5
WATER PEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	1.0	1.3	.4	.2	.1	.1
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	.2	.5	1.2	.6	.4	.5
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	.1	.2	.3	.1	.2	.1
OTHER.....	1.6	.1	.4	.4	.3	.2	.1
NCNP/OTHER FUEL.....	10.2	1.3	2.6	2.9	1.2	1.0	.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SFF GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 22. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>TOTAL HOUSEHOLDS.....</b>							
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>MAIN HEATING EQUIPMENT</b>							
CENTRAL VARM-AIR FURNACE.....	50.5	24.3	42.9	51.8	60.5	64.1	57.4
FORCED AIR.....	49.1	23.3	41.9	50.6	58.5	61.3	56.3
GRAVITY.....	1.4	.9	1.0	1.2	1.9	2.7	1.0
STEAM OR HOT WATER SYSTEM.....	16.5	24.0	16.6	13.6	13.8	14.9	24.3
HEAT PUMP.....	2.6	-	1.5	2.8	4.3	3.8	4.8
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	11.3	11.5	10.1	5.8	2.1	2.9
OIL OR GAS BOILER HEATER.....	7.4	15.5	11.6	7.6	3.1	1.7	2.7
BUILT-IN ELECTRIC UNITS.....	6.5	7.5	9.0	6.5	4.4	5.8	3.0
WOOD OR COAL HEATING STOVE.....	4.8	2.8	3.4	5.6	7.3	5.7	4.4
PORTABLE HEATER.....	1.2	4.6	1.5	1.0	-	.7	.4
FIREPLACE.....	4	.3	.6	.4	.2	.5	.6
OTHER.....	1.1	3.1	1.5	.7	.4	.8	1.0
NONE.....	.6	6.6	-	-	-	-	.5
<b>MAIN HEATING FUEL</b>							
NATURAL GAS.....	54.6	46.6	53.1	56.4	58.6	55.0	54.5
ELECTRICITY.....	17.5	16.0	21.7	17.6	15.6	17.4	13.6
FUEL OIL OR KEROSENE.....	16.4	21.1	14.9	14.8	14.5	15.5	21.7
WOOD.....	5.5	2.8	3.7	6.0	8.0	8.7	6.8
LIQUID PETROLEUM GAS.....	4.5	6.6	6.3	4.5	2.6	2.8	2.6
COAL.....	4	.2	.1	.4	.5	.4	.3
OTHER/NONE.....	.8	6.7	-	.2	.3	.3	.5
<b>SECONDARY HEATING FUEL</b>							
WOOD.....	16.4	1.1	4.5	14.5	23.8	31.3	37.4
ELECTRICITY.....	11.3	7.3	8.9	12.5	12.0	12.7	11.6
NATURAL GAS.....	4.0	2.1	3.2	3.6	4.8	5.7	4.5
FUEL OIL OR KEROSENE.....	2.5	1.9	1.3	2.8	2.2	2.6	3.8
LIQUID PETROLEUM GAS.....	1.1	.5	.6	.8	2.0	1.7	1.3
COAL.....	.2	.5	.1	.3	.1	.3	-
OTHER.....	.2	85.6	.5	.2	-	.6	.2
NONE.....	64.4	85.6	81.2	65.4	55.1	45.1	41.9

SEE NOTES AT END OF TABLE

TABLE 22. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600	1,000	1,600	2,000	2,400
		TC	TO	TC	TC	TO	3,000 CR MORE
<b>WATER-HEATING FUEL</b>							
NATURAL GAS.....	54.1	46.5	52.4	55.9	57.3	56.2	56.1
ELECTRICITY.....	31.6	27.3	33.6	33.2	32.3	32.5	28.8
FUEL OIL OR KEROSENE.....	5.7	17.1	8.0	6.9	6.7	6.9	11.9
LIQUID PETROLEUM GAS.....	4.4	7.7	5.3	3.0	3.3	4.1	4.5
WOOD.....	.4	1.0	.2	.5	.2	.8	.6
SOLAR.....	.1	.6	.1	.1	—	.1	—
OTHER.....	.1	.4	.1	.2	—	—	—
NONE.....	.5	1.4	.4	.2	.1	.2	—
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	12.6	40.0	24.9	9.5	3.1	1.6	2.4
NO/NO WATER-HEATING FUEL/	—	—	—	—	—	—	2.8
NO HOT RUNNING WATER.....	11.6	20.9	22.1	11.1	2.7	2.6	1.0
<b>MAIN COOKING FUEL</b>							
ELECTRICITY.....	54.4	35.6	46.3	54.9	60.9	66.9	64.2
"NATURAL GAS.....	38.7	50.1	44.4	39.4	34.6	28.6	31.4
LIQUID PETROLEUM GAS.....	6.4	11.1	8.8	5.3	4.5	4.5	3.1
HOOD.....	.3	.7	.5	.3	—	—	.6
NCNF/OTHER.....	.2	2.4	—	.1	—	—	—
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING	—	—	—	—	—	—	—
ONLY.....	26.8	10.5	21.2	26.7	33.7	34.5	34.1
INDIVIDUAL FROM UNITS ONLY.....	30.6	32.0	33.0	30.9	26.3	29.8	26.7
CENTRAL A/C AND ROOF UNITS.....	.4	—	.3	.2	1.1	.1	.5
NO AIR CONDITIONING.....	42.6	57.5	45.5	42.2	39.0	35.6	38.8

SEE NOTES AT END OF TABLE

TABLE 22. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE			
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>					
ALL.....	36.2	30.0	35.9	35.3	38.8
SOME.....	26.7	12.5	18.7	22.5	22.3
None.....	42.8	57.5	45.5	42.2	39.0
WOOD BURNER YES (1/3 CORE OR MORE).....	17.4	4.0	6.7	14.9	24.6
NO.....	82.6	96.0	93.3	85.1	75.4
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>					
SAME FUEL WINTER 1980 TO WINTER 1981.....	95.7	89.9	96.8	96.1	95.9
DIFFERENT FUEL.....	2.6	2.0	1.8	2.5	3.0
FUEL OIL OR KEROSENE.....	1.5	1.8	1.1	1.6	1.9
NATURAL GAS.....	1.1	1.1	1.1	1.2	1.1
LIQUID PETROLEUM GAS.....	1.3	1.9	1.3	1.2	1.1
ELECTRICITY.....	1.2	1.2	1.1	1.4	1.1
OTHER/NO FUEL USED.....	1.3	1.2	1.1	1.1	1.1
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	.6	6.6	—	—	—
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.3	1.5	1.4	1.4	1.0
					.5
					.3
					2.5

SEE NOTES AT END OF TABLE

TABLE 22. FUEL USE CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>FUEL COMBINATIONS</b>							
USE NATURAL GAS FOR MAIN HEATING.....	54.6	46.6	53.1	56.4	58.6	55.0	55.8
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	30.9	33.9	34.2	29.4	22.9	24.6
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	9.0	13.8	18.2	24.8	28.0	26.6
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	1.1	1.3	2.0	1.0	.7	.2	.6
WATER HEAT AND COOK WITH ELECTRICITY.....	3.5	2.6	3.0	3.0	3.7	3.9	4.0
OTHER.....	.4	2.8	.3	—	—	—	—
USE ELECTRICITY FOR MAIN HEATING.....	17.5	16.0	21.7	17.6	15.6	17.4	11.1
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	11.9	17.4	15.6	14.6	16.0	9.6
OTHER.....	2.5	4.2	4.4	2.0	1.0	1.4	1.5
USE FUEL OIL FOR MAIN HEATING.....	15.4	19.5	12.7	14.0	14.3	15.2	21.5
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	1.3	1.3	4.1	2.4	5.2	6.5
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	13.5	6.0	1.8	2.5	1.0	1.8
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	2.1	2.6	5.0	5.6	4.8	7.5
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	.9	.9	1.3	1.3	2.1	1.6
OTHER.....	2.0	1.7	2.0	1.8	2.5	2.1	2.1
NONE/OTHER FUEL.....	12.5	17.9	12.4	12.0	11.6	12.4	11.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 23. FUEL USE CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD

HOUSEHOLD CHARACTERISTICS	HOUSING EDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER			
		MEAN			MEDIAN			FAMILY UNIT			MOBILE HOME
		HEATED AND UNHEATED	HEATED AND HEATED	UNHEATED	HEATED	HEATED	UNHEATED	SINGLE-FAMILY UNIT	FAMILY UNIT	MOBILE HOME	HOUSEHOLD MEMBER
TOTAL HOUSEHOLDS.....	11.6	1,745	1,499	1,488	1,260	1,771	914	914	809	809	534
MAIN HEATING EQUIPMENT											
CENTRAL WARM-AIR FURNACE.....	91.2	1,907	1,653	1,750	1,471	1,910	923	828	577	577	
CENTRAL AIR.....	4C-1	1,903	1,653	1,744	1,468	1,912	927	830	576	576	
CENTRAL AIR.....	1-1	2,042	1,669	2,048	1,536	1,853	820	610	617	617	
GRAVITY.....	13.5	1,861	1,552	1,548	1,224	2,186	971	Q	582	582	
STEAM OR HOT WATER SYSTEM.....	2.1	2,121	1,856	1,821	1,716	2,046	1,161	952	652	652	
HEAT PUMP.....											
FLCCR, WALL OR PIPELESS FURNACE.....	6-7	1,271	1,134	1,152	1,010	1,300	691	742	417	417	
CIL CR GAS BOILER HEATER.....	6-1	1,176	1,038	987	912	1,128	779	572	389	389	
BUILT-IN ELECTRIC UNITS.....	5-3	1,467	1,261	1,082	1,024	1,635	787	875	482	482	
WCOU OR COAL HEATING STOVE.....	4-0	1,861	1,572	1,762	1,438	1,613	1,079	1,158	471	471	
PORTABLE HEATERS.....	1-0	1,083	935	844	817	1,193	598	447	428	428	
PIREPLACE.....	3	1,744	1,399	1,404	1,040	1,516	NA	0	421	421	
CTHFR.....	9	1,350	1,200	880	812	1,712	641	246	435	435	
NCNE.....	5	1,076	-	960	-	-	-	-	-	-	
NATURAL GAS.....											
NATURAL GAS.....	64-6	1,755	1,533	1,537	1,312	1,775	929	803	541	541	
ELECTRICITY.....	14-3	1,545	1,366	1,236	1,132	1,751	858	832	530	530	
FUEL OIL OR KEROSENE.....	13-4	1,937	1,571	1,651	1,291	1,921	967	729	574	574	
WCCG.....	4-7	2,003	1,686	1,904	1,560	1,733	1,258	1,115	510	510	
LIQUID PETROLEUM GAS.....	3-7	1,394	1,234	1,080	1,008	1,510	733	774	440	440	
CCAL.....	3	2,261	1,918	1,966	1,728	1,958	Q	NA	536	536	
CTHFR/NCNE.....	7	1,424	571	1,120	NA	678	NA	Q	152	152	
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)											
YES.....	9-0	940	914	816	800	-	914	-	435	435	
NO.....	11-6	962	922	840	840	-	922	-	396	396	
NC.....	1-1	C	-	Q	-	-	-	-	-	-	

SFF NCNE AT END OF TABLE

TABLE 23. FUEL USE CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD—Continued

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLDS (BILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD		HEATED SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF SQUARE FEET PER HEATED HOUSEHOLD		AVG. NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
		MEAN		MEDIAN		MULTI- FAMILY UNIT			
		HEATED AND UNHEATED	HEATED ONLY	HEATED AND UNHEATED	HEATED ONLY	SINGLE- FAMILY UNIT	MOBILE HOME		
<b>SECONDARY HEATING FUEL</b>									
WCCL.....	13.4	2,482	2,113	2,352	1,947	2,161	1,392	1,014	669
ELECTRICITY.....	9.2	1,944	1,678	1,632	1,399	1,873	1,038	948	595
NATURAL GAS.....	3.3	1,995	1,762	1,824	1,553	1,988	1,062	690	625
FUEL OIL OR KEROSENE.....	1.9	2,047	1,660	1,809	1,437	1,867	911	1,028	510
LIQUID PETROLEUM GAS.....	.9	1,892	1,683	1,812	1,689	1,767	Q	Q	531
CCAI.....	.2	2,452	1,401	2,484	1,415	1,439	NA	Q	561
OTHER.....	.2	2,173	1,962	2,164	2,149	2,607	Q	Q	601
NCNF.....	52.6	1,488	1,284	1,200	1,072	1,568	880	780	477
<b>WATER-HEATING FUEL</b>									
NATURAL GAS.....	64.1	1,762	1,538	1,548	1,320	1,793	937	817	542
ELECTRICITY.....	26.1	1,725	1,470	1,440	1,247	1,728	867	799	530
FUEL OIL OR KEROSENE.....	7.1	1,818	1,481	1,437	1,175	2,090	902	860	563
LIQUID PETROLEUM GAS.....	3.6	1,574	1,345	1,280	1,042	1,555	990	807	451
WCCL.....	.4	2,104	1,545	1,408	1,190	1,556	0	NA	468
SOLAR.....	.1	1,757	0	1,472	0	0	NA	NA	Q
OTHFR.....	.1	1,236	781	1,070	1,070	0	NA	Q	0
NCNF.....	.3	1,086	841	900	672	884	NA	Q	317
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	11.2	918	888	800	778	-	888	-	424
NC/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	988	946	859	844	-	946	-	397
<b>MAIN COOKING FUEL</b>									
ELECTRICITY.....	44.4	1,921	1,639	1,693	1,440	1,876	933	869	593
NATURAL GAS.....	31.6	1,559	1,362	1,278	1,144	1,653	902	813	477
LIQUID PETROLEUM GAS.....	5.2	1,409	1,191	1,120	960	1,456	950	768	407
WCCL.....	.3	1,895	1,109	1,350	908	1,111	0	NA	351
NCNF/OTHER.....	.2	646	407	480	480	Q	303	579	276

SPE/NCFES AT END OF TABLE

TABLE 23. FUEL USE CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD-Continued

HOUSING CHARACTERISTICS	HOUSING EDGES (BILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		
		MEAN			MEDIAN			FAMILY UNIT		
		HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED AND UNHEATED	SINGLE FAMILY UNIT	MULTI- FAMILY UNIT	MOBILE HOME UNIT
<b>AIR CONDITIONING (A/C)</b>										
CENTRAL AIR CONDITIONING ONLY.....	21.9	1,960	1,728	1,776	1,536	2,026	984	969	626	626
INDIVIDUAL FORCE UNITS ONLY....	24.5	1,655	1,419	1,388	1,197	1,670	912	737	527	527
CENTRAL A/C AND ROOM UNITS....	3	2,440	2,325	1,920	1,708	2,500	0	0	750	750
NC AIR CONDITIONING.....	34.9	1,668	1,404	1,360	1,152	1,664	877	762	481	481
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>										
YES.....	1.2	813	806	728	728	-	806	-	498	498
NO.....	3.8	1,061	1,042	919	918	-	1,042	-	520	520
NC AIR CONDITIONING SYSTEM....	15.7	934	892	819	805	-	892	-	183	183
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>										
ALL.....	29.8	1,762	1,565	1,500	1,333	1,887	892	855	589	589
SOME.....	16.9	1,876	1,579	1,674	1,378	1,786	1,042	831	554	554
NCNE.....	34.9	1,668	1,404	1,360	1,152	1,664	877	762	481	481
<b>WOOD FURNED</b>										
YES (1/3 CCRD OR MORE).....	14.2	2,406	2,045	2,288	1,872	2,088	1,525	1,109	619	619
NC.....	67.4	1,606	1,383	1,324	1,160	1,671	903	780	512	512
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>										
USE ANY NATURAL GAS.....	36.3	2,038	1,740	1,878	1,550	1,779	-	809	580	580
DC NOT USE ANY NATURAL GAS....	24.6	1,982	1,634	1,758	1,440	1,757	-	808	542	542
GAS IS AVAILABLE.....	5.4	2,100	1,739	1,934	1,485	1,866	-	623	605	605
GAS IS NOT AVAILABLE.....	19.2	1,945	1,604	1,722	1,430	1,725	-	847	526	526

SEE NOTES AT END OF TABLE

TABLE 23. FUEL USE CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD-Continued

HOUSEHOLD CHARACTERISTICS	FUEL USE- CIDS (BILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
		MEAN		MEDIAN	HEATED SQUARE FEET PER HOUSEHOLD				
		HEATED AND UNHEATED	HEATED AND UNHEATED		HEATED AND UNHEATED	MULTI- FAMILY UNIT	MOBILE HOME		
<b>FUEL COMBINATIONS</b>									
USE NATURAL GAS FOR MAIN HEATING.....	44.6	1,755	1,533	1,537	1,312	1,775	929	803	
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	1,600	1,404	1,332	1,200	1,647	934	829	
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	2,035	1,773	1,865	1,591	1,984	959	939	
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	.9	1,325	1,128	1,008	945	1,377	811	764	
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	1,820	1,571	1,609	1,343	1,705	786	688	
OTHER.....	.3	681	528	490	480	693	490	0	
USE ELECTRICITY FOR MAIN HEATING.....	14.3	1,545	1,366	1,236	1,132	1,751	858	832	
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	1,614	1,418	1,290	1,200	1,781	854	923	
OTHER.....	2.0	1,131	1,052	862	862	1,464	873	523	
USE FUEL OIL FOR MAIN HEATING.	12.6	1,998	1,611	1,787	1,344	1,964	968	707	
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	2,587	2,022	2,464	1,680	2,264	1,192	NA	
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	1,155	1,021	817	800	1,739	842	NA	
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	2,195	1,773	2,093	1,544	1,850	1,476	624	
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	2,212	1,778	2,178	1,600	2,059	951	NA	
OTHER.....	1.6	2,045	1,584	1,800	1,295	1,776	1,357	770	
NCNE/OTHER FUEL.....	10.2	1,673	1,399	1,400	1,189	1,572	720	821	

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

C = DATA WITHHELD BECAUSE THE EFFLIENTIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 23. FUEL USE CHARACTERISTICS BY AVERAGE SQUARE FEET PER HOUSEHOLD-Continued

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLDS (BILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		
		MEAN			MEDIAN			FAMILY UNIT		
		HEATED AND UNHEATED	HEATED ONLY	HEATER ONLY	HEATED AND UNHEATED	RENTED	UNHEATED	FAMILY UNIT	MOBILE HOME	HOME OWNER
<b>TYPE OF MAIN HEATING FUEL USED</b>										
LAST WINTER 1979 TO 1980										
SAME FUEL WINTER 1980 TO WINTER 1981.....	78.1	1,746	1,505	1,489	1,264	1,778	915	822	538	523
DIFFERENT FUEL.....	2.0	1,967	1,662	1,729	1,470	1,852	1,239	528		
FUEL CII OR KEROSENE.....	1.2	2,014	1,738	1,847	1,531	1,959	1,320	669	549	
NATURAL GAS.....	1	1,947	1,728	Q	1,288	1,728	NA	NA	436	
LICID PETROLEUM GAS.....	2	1,194	1,139	965	925	1,456	NA	0	375	
ELECTRICITY.....	2	1,915	1,569	1,499	1,397	1,665	Q	Q	514	
OTHER/NO FUEL USED.....	3	2,497	1,816	2,560	1,800	1,934	Q	NA	589	
NCT HEATED IN WINTER 1980 TO WINTER 1981.....	.5	1,076	-	960	-	-	-	-	-	
UNIT NCT BUILT IN WINTER 1979 TO 1980.....	1.0	1,616	1,443	1,092	1,092	2,041	848	798	590	

SEE NCFS AT END OF TABLE

TABLE 24. FUEL USE CHARACTERISTICS BY TOTAL SQUARE FOOTAGE

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED	
			(BILLIONS)	(PERCENT)
TOTAL HOUSEHOLDS.....	81.6	100.0	142.5	100.0
<b>MAIN HEATING EQUIPMENT</b>				
CENTRAL WARM-AIR FURNACE.....	41.2	50.5	78.6	55.2
FORCED AIR.....	40.1	49.1	76.0	53.6
GEAVITY.....	1.1	1.4	2.3	1.6
STEAM OR HOT WATER SYSTEM.....	13.5	16.5	25.1	17.6
HEAT PUMP.....	2.1	2.6	4.5	3.2
FLOCE, WALL OR FIPPLESS FURNACE.....	6.7	8.2	8.5	6.0
CIL OR GAS ROOM HEATER.....	6.1	7.4	7.2	5.0
BUILT-IN ELECTRIC UNITS.....	5.3	6.5	7.8	5.5
WCOL OR COAL HEATING STICVE.....	4.0	4.8	7.4	5.2
FCTRABLE HEATER.....	1.0	1.2	1.1	.8
FIREPLACE.....	3.3	4	6	4
CTHFF.....	9	1.1	1.2	.8
NCNF.....	5	.6	.5	.4
MAIN HEATING FUEL				
NATURAL GAS.....	44.6	54.6	78.2	54.9
ELECTRICITY.....	14.3	17.5	22.1	15.5
FUEL OIL OR KEROSENE.....	13.4	16.4	25.9	18.2
WCOL.....	4.7	5.8	9.5	6.6
LICUID PETROLEUM GAS.....	3.7	4.5	5.2	3.6
CCAI.....	3	4	7	5
CTHFF/NONE.....	7	.8	.9	.7
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)				
YES.....	9.0	11.0	8.5	5.9
NC.....	11.6	14.2	11.2	7.8
NO MAIN HEATING SYSTEM.....	1	.1	—	—

SEE NOTES AT END OF TABLE

TABLE 24. FUEL USE CHARACTERISTICS BY TOTAL SQUARE FOOTAGE-Continued

HOUSEHOLD CHARACTERISTICS	(MILLIONS) (PERCENT)	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
		(BILLIONS) (PERCENT)	TOTAL HEATED AND UNHEATED	(BILLIONS) (PERCENT)	TOTAL HEATED
<b>SECONDARY HEATING FUEL</b>					
WOOL.....	13.4	16.4	33.3	23.4	28.3
ELECTRICITY.....	9.2	11.3	18.0	12.6	15.5
NATURAL GAS.....	3.1	4.0	6.6	4.6	5.8
FUEL OIL OR KEROSENE.....	1.9	2.3	3.9	2.7	3.2
LIQUID PETROLEUM GAS.....	.9	1.1	1.7	1.2	1.5
CCAI.....	.2	.2	.4	.3	.3
CTHEF.....	.2	.2	.4	.3	.4
NCNF.....	52.6	64.4	78.3	54.9	67.5
<b>WATER-HEATING FUEL</b>					
NATURAL GAS.....	44.1	54.1	77.8	54.6	67.9
ELECTRICITY.....	26.1	31.9	45.0	31.6	38.3
FUEL OIL OR KEROSENE.....	7.1	8.7	12.9	9.0	10.5
LIQUID PETROLEUM GAS.....	3.6	4.4	5.6	3.9	4.6
WOOL.....	.4	.4	.7	.5	.5
SCALAR.....	.1	.1	.2	.1	.1
OTHER.....	.1	.1	.1	.1	.1
NCNF.....	.3	.3	.3	.2	.2
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>					
YFS.....	11.2	13.8	10.3	7.2	10.0
NC/NG WATER-HEATING FUEL / NC HOT RUNNING WATER.....	9.5	11.6	9.4	6.6	9.0
<b>MAIN COOKING FUEL</b>					
ELECTRICITY.....	44.4	54.4	85.3	59.9	72.8
NATURAL GAS.....	31.6	38.7	49.2	34.5	43.0
LIQUID PETROLEUM GAS.....	5.2	6.4	7.3	5.1	6.2
WOOD.....	.3	.3	.5	.4	.3
NCNF/OTHER.....	.2	.2	.1	.1	.1

SEE NOTES AT END OF TABLE

TABLE 24. FUEL USE CHARACTERISTICS BY TOTAL SQUARE FOOTAGE—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED		(BILLIONS) (PERCENT) (BILLIONS) (PERCENT)
			(BILLIONS)	(PERCENT)	
<b>AIR CONDITIONING (A/C)</b>					
CENTRAL AIR CONDITIONING ONLY.....	21.9	26.8	42.7	30.1	37.8 30.9
INDIVIDUAL ROOM UNITS ONLY.....	24.5	30.0	40.5	28.4	28.4 28.4
CENTRAL A/C AND ROOM UNITS.....	3.3	4	8	6	6 6
NO AIR CONDITIONING.....	34.9	42.8	58.3	40.9	49.0 40.1
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>					
YES.....	1.2	1.5	1.0	.7	1.0 .8
NC.....	3.8	4.7	6.0	2.8	4.0 3.2
NO AIR CONDITIONING SYSTEM.....	15.7	19.2	14.6	10.3	14.0 11.4
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>					
ALL.....	29.8	36.5	52.5	36.8	46.6 38.1
SCMF.....	16.9	20.7	31.7	22.3	26.7 21.8
NCNF.....	34.9	42.8	58.3	40.9	49.0 40.1
<b>WOOD FURNED</b>					
YFS (1/3 CORD OF MCRE).....	14.2	17.4	34.3	24.0	29.1 23.8
NC.....	67.4	82.6	108.2	76.0	93.2 76.2
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>					
USE ANY NATURAL GAS.....	36.1	44.5	74.0	51.9	63.2 51.7
DO NOT USE ANY NATURAL GAS.....	24.6	30.2	48.8	34.2	40.2 32.9
GAS IS AVAILABLE.....	5.4	6.7	11.4	8.0	9.5 7.7
GAS IS NOT AVAILABLE.....	19.2	23.5	37.4	26.2	30.8 25.1

SEE NOTES AT END OF TABLE

TABLE 24. FUEL USE CHARACTERISTICS BY TOTAL SQUARE FOOTAGE—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	TOTAL (MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED (BILLIONS)	(PERCENT)
<b>TYPE OF MAIN HEATING FUEL USED</b>				
LAST WINTER 1979 TO 1980				
SAME FUEL WINTER 1980				
TC WINTER 1981.....	78.1	95.7	136.3	95.7
DIFFERENT FUEL.....	2.0	2.5	3.9	2.8
FUEL OIL OR KEROSENE.....	1.2	1.5	2.4	1.7
NATURAL GAS.....	.1	.1	.3	.2
LIQUID PETROLEUM GAS.....	.2	.2	.3	.2
ELECTRICITY.....	.2	.2	.4	.3
OTHER/NO FUEL USED.....	.3	.3	.6	.4
NOT HEATED IN WINTER 1980				
TC WINTER 1981.....	.5	.6	.5	.4
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	1.3	1.7	1.2
				1.2

SEE NOTES AT END OF TABLE

TABLE 24. FUEL USE CHARACTERISTICS BY TOTAL SQUARE FOOTAGE--Continued

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED	TOTAL (BILLIONS)	(PERCENT) (BILLIONS) (PERCENT)
<b>FUEL COMBINATIONS</b>					
USE NATURAL GAS FOR MAIN HEATING.....	44.6	54.6	78.7	54.9	68.3
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	30.7	40.1	28.2	35.2
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	19.2	32.0	22.4	27.8
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	.9	1.1	1.2	.8	1.0
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	3.2	4.8	3.3	4.1
OTHER.....	.3	.4	.2	.1	.2
USE ELECTRICITY FOR MAIN HEATING.....	14.3	17.5	22.1	15.5	19.5
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	15.0	19.8	13.9	17.4
OTHER.....	2.0	2.5	2.3	1.6	2.1
USE FUEL OIL FOR MAIN HEATING.	12.6	15.4	25.1	17.6	20.2
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	3.5	7.4	5.2	5.8
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	4.0	3.8	2.6	3.3
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	4.5	8.1	5.7	6.5
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	1.4	2.5	1.8	2.0
OTHER.....	1.6	2.0	3.4	2.4	2.6
NONFUEL OTHER FUEL.....	10.2	12.5	17.1	12.0	14.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS CR ROUND TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND FUEL USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 25. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)			POOR (125 PERCENT LEVEL)			
	TOTAL	LESS THAN \$15,000	\$5,000 TO \$19,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 OR MORE					
TOTAL HOUSEHOLDS.....	81.6	10.4	13.9	13.8	11.9	9.9	12.4	9.4	10.9	14.8			
MAIN HEATING EQUIPMENT													
CENTRAL WARM-AIR FURNACE.....	41.2	3.6	5.7	6.1	6.4	5.9	7.4	6.1	6.0	5.4			
FORCED AIR.....	40.1	3.6	5.4	5.9	6.2	5.7	7.3	6.0	3.9	5.3			
GRAVITY.....	1.1	.1	.1	.2	.2	.2	.1	.1	.1	.1			
STEAM OR HOT WATER SYSTEM.....	13.5	1.7	2.7	2.6	1.7	1.5	1.9	1.5	1.6	2.4			
HEAT PUMP.....	2.1	-1	-2	-3	-2	-3	-5	-6	-1	-2			
FLOOR, WALL, OR PIPELINE FURNACE.....	6.7	1.0	1.5	1.3	1.0	.8	.7	.5	1.0	1.4			
OIL OR GAS ROOM HEATER.....	6.1	2.1	1.4	1.2	.7	.3	.3	.1	2.1	2.7			
BUILT-IN ELECTRIC UNITS.....	5.3	.7	.8	1.1	.9	.6	.7	.4	.7	.9			
WOOD OR COAL HEATING STOVE.....	4.0	.5	.8	.9	.7	.4	.6	.2	.7	.9			
PORTABLE HEATER.....	1.0	.3	.3	.1	.1	.1	.1	.1	.1	.4			
PIREPLACE.....	.3	.1	.2	.1	.1	.1	.1	.1	.1	.1			
OTHER.....	.9	.2	.2	.1	.1	.1	.1	.1	.1	.2			
NONE.....	.5	.1	.1	.1	.1	.1	.1	.1	.1	.2			
MAIN HEATING FUEL													
NATURAL GAS.....	44.6	5.5	7.3	6.9	6.6	6.0	6.7	5.6	5.9	7.8			
ELECTRICITY.....	14.3	1.8	2.1	2.5	2.0	1.7	2.4	1.8	1.8	2.3			
FUEL OIL OR KEROSENE.....	13.4	2.0	2.5	2.4	1.8	1.4	2.0	1.4	1.7	2.6			
WOOD.....	4.7	.5	.9	1.0	.9	.4	.6	.3	.8	1.0			
LIQUID PETROLEUM GAS.....	3.7	.5	.9	.9	.4	.3	.5	.3	.6	.8			
COAL.....	.3	-	.1	.1	.1	.1	.1	.1	.1	.1			
OTHER/NCNE.....	.7	.1	.1	.1	.1	.1	.1	.1	.1	.2			
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)													
YES.....	9.0	1.9	2.6	2.0	1.0	.3	.7	.5	1.7	2.5			
NO.....	11.6	2.2	2.4	2.3	1.9	1.2	1.1	.6	2.4	2.8			
NO MAIN HEATING SYSTEM.....	.1	-	-	-	-	-	-	-	-	-			

SEE NOTES AT END OF TABLE

TABLE 25. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
	TOTAL	LFSS THAN \$5,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>SECONDARY HEATING FUEL</b>								
WOOD.....	13.4	0.7	0.9	1.5	1.6	1.8	3.4	0.7
ELECTRICITY.....	9.2	.9	1.6	1.4	1.4	1.2	1.3	1.0
NATURAL GAS.....	3.3	.2	.6	.5	.4	.6	.5	.5
FUEL OIL, CFC KEROSENE.....	1.9	.1	.3	.4	.2	.4	.2	.2
LIQUID PETROLEUM GAS.....	.9	.2	.2	.2	.2	.1	.1	.1
COAL.....	.2	—	—	—	—	—	—	—
OTHER.....	.2	.1	—	.1	.1	—	.1	.1
NCNF/OTHER.....	52.6	8.2	10.3	9.8	7.6	6.1	6.7	4.0
<b>WATER-HEATING FUEL</b>								
NATURAL GAS.....	44.1	5.4	7.1	7.0	6.6	5.9	5.3	5.8
ELECTRICITY.....	26.1	3.1	4.5	4.6	3.8	3.1	4.1	4.5
FUEL OIL, CFC KEROSENE.....	7.1	1.0	1.4	1.3	.9	.6	1.0	1.4
LIQUID PETROLEUM GAS.....	3.6	.5	.7	.9	.5	.2	.5	.7
WOOD.....	.4	.2	.1	—	—	—	.2	.2
SOLAR.....	.1	—	—	—	—	—	—	—
OTHER.....	.1	—	—	—	—	—	—	—
NONE.....	.3	.2	.1	—	—	—	.2	.2
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>								
YES.....	11.2	2.2	2.8	2.6	1.6	.5	1.0	.5
NC/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	1.9	2.2	1.7	1.3	1.0	.8	.5
<b>MAIN COOKING FUEL</b>								
ELECTRICITY.....	44.4	4.4	6.3	7.1	6.5	6.0	7.7	4.5
NATURAL GAS.....	31.6	4.8	6.3	5.7	4.6	3.6	4.0	5.2
LIQUID PETROLEUM GAS.....	5.2	.9	1.1	1.0	.7	.4	.6	.9
WOOD.....	.3	.2	.1	—	—	—	—	.2
NCNF/OTHER.....	.2	.1	.1	—	—	—	—	.1

SEE NOTES AT END OF TABLE

TABLE 25. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME				POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999		
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING ONLY.....	21.9	1.6	2.1	3.0	3.1	4.4	4.7
INDIVIDUAL ROOM UNITS ONLY.....	24.5	3.0	4.6	3.9	3.4	3.0	2.0
CENTRAL A/C AND ROOM UNITS.....	3	-	-	-	-	-	-
NO AIR CONDITIONING.....	34.9	5.7	7.2	6.1	4.9	4.9	6.4
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	1.2	.3	.4	.2	.2	.1	.2
NO.....	3.8	.5	.5	.8	.6	.5	.5
NO AIR CONDITIONING SYSTEM.....	15.7	3.4	4.2	3.3	2.1	1.0	1.2
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>							
ALL.....	29.8	2.9	3.9	4.5	4.2	4.1	5.2
SOME.....	16.9	1.7	2.8	3.2	2.8	2.5	1.6
NONE.....	34.9	5.7	7.2	6.1	4.9	3.3	2.7
<b>WOOD BURNED YES (1/3 CCRD OR MORE)</b>							
NO.....	14.2	1.0	1.6	1.8	2.0	1.7	2.9
67.4	9.3	12.3	12.0	9.8	8.2	9.2	6.6
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>							
USE ANY NATURAL GAS.....	36.3	3.4	4.9	5.3	5.4	5.5	5.3
DO NOT USE ANY NATURAL GAS.....	24.6	2.9	3.9	4.2	3.5	2.9	4.2
GAS IS AVAILABLE.....	5.4	.5	.7	.8	1.0	.8	.7
GAS PERCENT.....	22.1	17.1	18.6	19.9	27.7	26.6	22.5
GAS IS NOT AVAILABLE PERCENT.....	19.2	2.4	3.1	3.4	2.5	2.1	2.4
77.9	82.9	81.4	80.1	72.3	73.4	77.5	83.6

SEE NOTES AT END OF TABLE

TABLE 25. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 OR MORE		
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>									
SAME FUEL WINTER 1980 TO WINTER 1981.....	78.1	10.0	13.3	13.0	11.5	9.5	11.8	9.0	10.5
DIFFERENT FUEL.....	2.0	.2	.3	.5	.2	.3	.4	.2	.2
FUEL OIL OR KEROSENE.....	1.2	.1	.7	.3	.1	.2	.2	.1	.2
NATURAL GAS.....	.1	-	-	-	-	-	-	-	-
LIQUID PETROLEUM GAS.....	.2	-	.1	.1	-	-	-	-	-
ELECTRICITY.....	.2	-	-	-	-	-	-	-	-
OTHER/INC FUEL USED.....	.3	-	-	-	-	.1	.1	.1	-
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	.5	.1	.1	.1	-	.1	-	-	.1
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	-	.1	.2	.1	.1	.2	.2	.1

SEE NOTES AT END OF TABLE

TABLE 25. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (\$100 PERCENT LEVEL)
		LESS THAN \$15,000	\$15,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 MORE	
<b>FUEL COMBINATIONS</b>								
USE NATURAL GAS FOR MAIN HEATING.....	44.6	5.5	7.3	6.9	6.6	6.0	6.7	5.6
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	3.6	4.6	4.3	3.7	3.1	3.4	2.2
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	1.3	1.7	2.0	2.3	2.5	2.9	2.9
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	.9	.1	.2	.2	.2	.1	.1	.1
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	.3	.6	.3	.4	.2	.4	.4
OTHER.....	.3	.2	.1	-.1	-.1	-.1	-.1	-.2
USE ELECTRICITY FOR MAIN HEATING.....	14.3	1.8	2.1	2.5	2.0	1.7	2.4	1.8
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	1.3	1.7	2.1	1.8	1.6	2.0	1.6
OTHER.....	2.0	.5	.4	.3	.3	.1	.3	.1
USE FUEL OIL FOR MAIN HEATING	12.6	1.7	2.3	2.3	1.7	1.3	2.0	1.4
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	.2	.4	.5	.4	.4	.5	.6
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	.7	.9	.6	.4	.1	.4	.2
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	.5	.4	.6	.5	.5	.6	.4
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	.1	.3	.2	.2	.2	.1	.1
OTHER.....	1.6	.2	.3	.3	.3	.2	.3	.2
NCNE/OTHER FUEL.....	10.2	1.4	2.1	2.2	1.5	.9	1.3	.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUND TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 26. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOF (125 PERCENT LEVEL)
	TOTAL			\$15,000 TO \$19,999		\$20,000 TO \$24,999		
	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$25,000 TO \$34,999	\$35,000 MORE			
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAIN HEATING EQUIPMENT								
CENTRAL WARM-AIR FURNACE.....	50.5	34.9	41.0	44.3	54.0	59.6	60.1	64.2
FORCED AIR.....	49.1	34.4	38.5	42.9	52.1	57.6	59.2	63.6
GRAVITY.....	1.4	6	2.1	1.4	1.9	1.9	1.9	1.5
STEAM OR HOT WATER SYSTEM.....	16.5	16.2	19.5	18.7	14.1	14.7	15.6	15.4
HEAT PUMP.....	2.6	1.2	1.4	2.1	1.6	3.2	3.7	5.9
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	9.6	10.5	9.7	8.4	7.6	5.6	5.1
OIL, CR. GAS, R.C.M. HEATER.....	7.4	20.0	10.4	8.3	5.9	3.0	2.1	1.5
BUILT-IN ELECTRIC UNITS.....	6.5	7.0	6.0	7.7	7.9	6.2	5.9	4.3
WOOD OR COAL HEATING STOVE.....	4.8	5.0	5.6	6.3	5.8	3.9	4.5	1.6
PORTABLE HEATER.....	1.2	3.1	2.4	1.8	1.7	4	4	7
FIREPLACE.....	1.4	1.6	1.0	1.2	1.4	1.3	1.4	1.1
OTHER.....	1.1	1.5	1.4	1.1	1.9	1.9	1.0	1.8
NONE.....	.6	.9	.6	.8	.2	.4	.6	.5
MAIN HEATING FUEL								
NATURAL GAS.....	54.6	52.7	49.9	55.9	60.2	54.2	59.5	54.0
ELECTRICITY.....	17.5	17.2	15.2	17.9	17.1	17.5	19.1	16.9
FUPL. CTR. CF. KEROSENE.....	16.4	18.9	17.9	17.5	15.0	13.7	16.2	14.6
WOOD.....	5.8	5.3	6.6	7.0	7.8	4.5	5.1	3.1
LIQUID PETROLEUM GAS.....	4.5	4.7	6.2	6.2	3.2	3.3	4.2	2.9
COAL.....	.4	1.2	.6	.6	.2	.5	.5	1.1
OTHER/NONE.....	.8	1.0	.9	.9	.8	.4	.7	1.0
SECONDARY HEATING FUEL								
WOOD.....	16.4	6.6	6.6	10.6	15.4	17.7	27.6	15.3
ELECTRICITY.....	11.3	8.8	11.5	10.5	11.3	14.1	9.7	13.9
NATURAL GAS.....	4.0	2.4	4.1	3.8	4.0	4.0	4.6	5.3
FUEL CELL OF KEROSENE.....	2.3	1.0	1.9	2.5	3.3	2.2	3.0	2.2
LIQUID PETROLEUM GAS.....	1.1	1.1	1.1	1.2	1.5	.3	.8	1.3
COAL.....	.2	.4	.2	.3	—	—	.5	.1
OTHER.....	.2	.5	—	.4	.1	—	—	.2
NONE.....	64.4	78.8	74.4	70.8	64.3	61.0	53.8	42.1

SEE NOTES AT END OF TABLE

TABLE 26. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)
		LESS THAN \$15,000	\$15,000 TO \$14,999	\$15,000 TO \$14,999	\$20,000 TO \$19,999	\$20,000 TO \$19,999	\$35,000 CR MORE	
<b>WATER-HEATING FUEL</b>								
NATURAL GAS.....	54.1	52.3	51.5	50.9	55.4	59.7	54.3	53.4
ELECTRICITY.....	31.9	29.9	32.2	33.3	32.4	31.4	33.3	30.3
FUFL CII CE KEROSENE...	8.7	10.0	10.3	9.1	7.4	6.1	7.9	9.3
LIQUID PETROLEUM GAS...	4.4	4.6	4.8	6.3	4.5	2.3	3.8	3.4
WOOD...	.4	1.5	1.5	.2	.2	.2	.1	4.2
SOLAR...	.1	—	.1	—	.3	.2	.3	1.6
OTHER...	.1	1.2	.1	—	—	.3	—	—
NONF...	.3	1.5	.5	.3	—	—	—	1.8
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>								
YES....	13.8	21.1	20.5	18.6	13.4	5.5	7.8	5.7
NC/NO RATE-F-HEATING FUEL/								18.1
NO HOT RUNNING WATER...	11.6	18.6	16.1	12.5	11.3	9.6	6.5	5.0
<b>MAIN COOKING FUEL</b>								
ELECTRICITY....	54.4	42.5	45.2	51.3	54.4	60.3	62.7	68.4
NATURAL GAS....	38.7	46.0	45.8	41.1	39.1	36.0	32.2	27.4
LIQUID PETROLEUM GAS	6.4	8.7	8.2	7.5	6.2	3.6	5.0	4.2
WOOD...	.3	1.7	.4	.2	.1	—	—	8.6
NCNE/OTHER....	.2	1.0	.5	—	.1	—	.1	1.7
<b>AIR CONDITIONING (A/C)</b>								
CENTRAL AIR CCNDITICKNG ONLY.....	26.8	15.3	15.1	21.6	25.7	31.4	35.4	49.4
INDIVIDUAL ROOM UNITS ONLY....	30.0	29.2	32.9	33.5	32.8	34.7	24.0	21.0
CENTRAL A/C AND RGCN UNITS....	.4	.2	.3	.5	.2	.2	.6	.7
NO AIR CCNLITICKNG.....	42.8	55.3	51.7	49.4	41.2	33.7	40.0	28.9

SEE NOTES AT END OF TABLE

TABLE 26. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENT OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						FCOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LFS5 THAN \$5,000	TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>									
ALL.....	36.5	27.9	28.1	32.7	35.5	41.1	40.7	54.6	24.6
SOME.....	20.7	16.8	20.2	22.9	23.3	19.4	19.4	16.6	16.6
NONE.....	42.8	55.3	51.7	44.4	41.2	33.7	40.0	28.9	58.8
<b>WOOD BURNED</b>									
YES (1/3 CCFD OR MORE).....	17.4	10.0	11.3	13.3	17.2	17.2	25.8	30.2	11.5
NO.....	82.6	90.0	88.7	86.7	82.8	82.8	74.2	69.8	88.5
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>									
SAME FUEL WINTER 1980	95.7	96.2	96.0	94.1	97.0	95.7	95.2	95.6	96.4
TO WINTER 1981.....	2.5	2.4	2.4	3.4	1.7	2.8	2.5	1.8	2.3
DIFFERENT FUEL.....	1.5	1.1	1.3	2.3	1.1	1.8	1.4	1.2	1.4
FUEL OIL OR KEROSENE.....	.1	-.2	-.1	-.2	-.1	-.1	-.4	-.1	-.2
NATURAL GAS.....	.3	-.3	-.5	-.6	-.2	-.2	-.2	-.1	-.3
LIQUID PETROLEUM GAS.....	.2	-.3	-.3	-.3	-.4	-.2	-.2	-.1	-.4
ELECTRICITY.....	.3	-.5	-.2	-.1	-.6	-.4	-.2	-.2	-.3
OTHER/NO FUEL USED.....	.3	-.6	-.8	-.8	-.1	-.6	-.4	-.6	-.2
NOT HEATED IN WINTER 1980	.6	-.9	-.8	-.8	-.2	-.4	-.6	-.5	1.1
TO WINTER 1981.....	1.3	.5	.8	1.7	1.0	1.2	1.7	2.2	.3
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.3	.5	.8	1.7	1.0	1.2	1.7	2.2	.4

SEE NOTES AT END OF TABLE

TABLE 26. FUEL USE CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
	TOTAL			\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999		
	LESS THAN \$5,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 MORE		
<b>FUEL COMBINATIONS</b>								
USE NATURAL GAS FOR MAIN HEATING.....	54.6	52.7	49.9	55.9	60.2	54.2	59.5	54.0
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	34.8	34.3	31.2	31.1	27.3	23.5	36.6
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	12.9	12.4	14.7	19.6	25.6	23.2	12.3
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	1.1	.9	1.1	1.4	1.7	1.4	.5	.7
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	2.6	4.4	2.3	3.1	2.1	3.2	4.7
OTHER.....	.4	1.6	1.4	.2	.1	-.1	.1	1.5
USE ELECTRICITY FOR MAIN HEATING.....	17.5	17.2	15.2	17.9	17.1	17.5	19.1	16.2
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	12.9	12.5	15.4	14.8	16.3	16.6	17.3
OTHER.....	2.5	4.4	2.7	2.5	2.3	1.2	2.5	1.6
USE FUEL OIL FOR MAIN HEATING.	15.4	16.5	16.6	16.3	16.1	13.0	15.9	14.3
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	2.0	2.6	3.3	3.2	3.6	4.0	6.5
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	6.5	6.8	4.7	3.2	1.0	2.9	1.8
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	4.8	3.2	4.7	4.1	4.8	6.1	4.0
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	1.0	1.9	1.8	1.5	1.6	.7	.9
OTHER.....	2.0	2.2	2.2	1.9	2.2	2.0	2.3	1.1
HCNE/OTHEF FUEL.....	12.5	13.6	15.4	15.9	12.9	9.3	10.7	7.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR INDICATES THAT TOTALS OR PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U. S. DEPARTMENT OF ENERGY, TEP 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 27. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				OTHER/ NONF	
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS		
TOTAL HOUSEHOLDS.....	81.6	44.6	13.4	14.3	3.7	4.7	1.0
MAIN HEATING EQUIPMENT							
CENTRAL WARM-AIR FURNACE.....	41.2	28.1	4.9	5.6	2.0	.4	.2
FORCED AIR.....	40.1	27.2	4.6	5.5	2.0	.4	.1
GRAVITY.....	1.1	*.8	*.1	*.1	-.1	-.1	-.1
STEAM OR HOT WATER SYSTEM.....	13.5	5.8	7.1	*.2	-.2	-.1	-.1
HEAT PUMP.....	2.1	-	2.1	-	-	-	-
FLOOR, WALL, OR PIPELESS FURNACE.....	6.7	6.0	*.3	-.1	*.3	-.1	-.1
CIL OR GAS ROOM HEATER.....	6.1	4.0	*.9	-.1	1.1	-.1	-.1
BUILT-IN ELECTRIC UNITS.....	5.2	-	-	5.3	-.1	-.1	-.1
WOOD OR CCAI HEATING STOVE.....	4.0	-	-	-.1	-.1	-.1	-.1
PORTABLE HEATER.....	1.0	*.1	-.1	-.9	-.1	-.1	-.2
PIREPLACE.....	*.3	-	-	-	-	-.3	-.1
OTHER.....	*.5	*.1	*.1	*.2	*.1	*.1	*.5
NONE.....	*.5	-	-	-	-	-	-
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)							
YES.....	9.0	4.8	3.4	*.7	-.1	-.1	-.1
NO.....	11.6	6.4	*.6	4.3	*.2	-.1	-.1
NO MAIN HEATING SYSTEM.....	*.1	-	-	-	-	-	-
SECONDARY HEATING FUEL							
WOOD.....	13.4	7.0	2.7	3.1	*.4	*.2	-.1
ELECTRICITY.....	*.2	4.6	1.0	1.2	.5	1.2	-.1
NATURAL GAS.....	3.3	2.4	-.2	-.3	-.1	-.4	-.1
FUEL OIL OR KEROSENE.....	1.9	*.3	*.2	*.2	-.1	1.0	-.1
LIQUID PETROLEUM GAS.....	*.9	-	*.1	*.1	-.1	*.6	-.1
COAL.....	*.2	*.1	-.1	-.1	-.1	-.1	-.1
OTHER.....	*.2	*.1	-.1	-.1	-.1	-.1	-.1
NONE.....	52.6	30.2	8.2	9.4	2.7	1.4	.8

SEE NOTES AT END OF TABLE

TABLE 27. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) - continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	OTHER/ NONE
<b>WATER-HEATING FUEL</b>							
NATURAL GAS.....	64.1	40.9	1.3	1.4	-	0.4	0.1
ELECTRICITY.....	26.1	3.6	5.0	12.5	1.5	3.1	.4
FUEL OIL OR KEROSENE.....	7.1	.1	6.6	.1	-	.2	.1
LIQUID PETROLEUM GAS.....	3.6	-	.4	.2	2.1	.7	.2
WOOD.....	.4	-	-	-	-	.3	-
SOLAR.....	.1	-	-	-	-	-	-
OTHER.....	.1	-	-	-	-	-	.1
NONE.....	.3	-	-	-	-	.1	-
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	11.2	6.3	3.3	1.6	-	-	-
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	5.5	4.9	.8	3.4	.2	.1	.1
<b>MAIN COOKING FUEL</b>							
ELECTRICITY.....	44.4	18.4	7.3	13.5	1.3	3.3	.6
NATURAL GAS.....	31.6	26.1	4.5	4.5	-	.3	.1
LIQUID PETROLEUM GAS.....	5.2	-	1.5	.3	2.4	.9	.2
WOOD.....	.3	-	.1	-	-	.2	-
NONE/OTHER.....	.2	.1	-	-	-	.1	-
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING ONLY.....	21.9	12.2	1.2	7.4	.6	.4	-
INDIVIDUAL ROOM UNITS ONLY.....	24.5	13.6	5.3	3.3	1.3	1.0	.1
CENTRAL A/C AND ROOM UNITS.....	.3	.3	-	-	-	-	-
NO AIR CONDITIONING.....	34.5	18.5	6.6	3.6	1.9	3.3	.8
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	1.2	1.5	.2	.6	-	-	-
NO.....	3.6	1.6	.1	2.1	-	-	-
NO AIR CONDITIONING SYSTEM.....	15.7	9.2	3.7	2.3	.2	.1	.1

SEE NOTES AT END OF TABLE

TABLE 27. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	OTHER/ NONE
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>							
ALL.....	29.8	16.6	2.2	9.0	1.2	0.7	-
SOME.....	16.5	9.4	4.3	1.7	.7	0.1	
NONE.....	34.9	18.5	6.8	3.6	1.9	3.3	.8
<b>WOOD BURNER YPS (1/3 CCF OF WOOD)</b>							
NO.....	14.2	4.4	2.2	2.3	.5	.6	.3
YPS (1/3 CCF OF WOOD)	67.4	40.1	11.2	12.0	3.2	.2	.7
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>							
USE ANY NATURAL GAS.....	36.3	33.4	1.7	7	-.1	-.4	-
DO NOT USE ANY NATURAL GAS.....	24.6	-	7.6	8.5	3.5	4.2	.8
GAS IS AVAILABLE.....	5.4	-	2.5	2.2	.3	.4	.1
PERCENT.....	22.1	NA	32.5	25.8	7.8	10.2	7.7
GAS IS NOT AVAILABLE.....	19.2	-	5.2	6.3	3.2	3.8	.7
PERCENT.....	77.5	NA	67.5	74.8	92.2	89.8	92.3
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>							
SAME FUEL WINTER 1980							
TO WINTER 1981.....	76.1	43.4	13.2	13.5	3.5	4.0	.4
DIFFERENT FUEL.....	2.0	.8	.2	.3	.1	.7	-
FUEL OIL OR KEROSENE.....	1.2	.7	-	.1	.1	.3	-
NATURAL GAS.....	.1	-	-	-	-	.1	-
LIQUID PETROLEUM GAS.....	.4	-	-	.1	.1	.1	-
ELECTRICITY.....	.2	-	-	.1	.1	.1	-
OTH/FNC FUEL USE.....	.2	-	.1	.1	.1	.1	-
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	.5	-	-	-	-	-	.5
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	.4	-	.6	.1	.1	-

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 28. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	OTHER/ NONE
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAIN HEATING EQUIPMENT							
CENTRAL WARM-AIR FURNACE.....	50.5	63.0	37.0	39.1	55.3	9.0	16.3
FORCED AIR.....	49.1	61.1	36.1	38.7	55.3	7.4	12.6
GRAVITY.....	1.4	1.5	.9	.4	—	1.6	3.7
STEAM OR HOT WATER SYSTEM.....	16.5	13.1	53.5	1.3	4.4	2.4	3.6
HEAT PUMP.....	2.6	.1	—	14.6	—	—	—
FLOOR, WALL OR PIPEFSS							
FURNACE.....	8.2	13.5	2.4	.2	6.9	1.3	2.8
CYL OR GAS ROOM HEATER.....	7.4	9.1	6.7	—	30.9	—	—
BUILT-IN ELECTRIC UNITS.....	6.5	—	—	37.2	—	—	—
WOOD OR CICAL HEATING STOVE.....	4.8	—	—	—	—	79.2	21.7
PORTABLE HEATEP.....	1.2	.2	—	6.2	.9	—	—
FIREPLACE.....	.4	—	—	—	—	6.5	—
OTHER.....	1.1	1.1	.4	1.3	1.6	1.7	4.8
NONE.....	.6	—	—	—	—	50.7	—
SECONDARY HEATING FUEL							
WOOD.....	16.4	15.6	20.0	21.4	11.9	4.2	5.1
ELECTRICITY.....	11.3	10.2	13.6	8.2	12.7	24.6	6.2
NATURAL GAS.....	4.0	5.4	1.7	2.2	—	7.5	.6
FUEL CYL OR KEROSENE.....	2.3	.7	2.0	1.3	1.1	22.1	3.4
LIQUID PETROLEUM GAS.....	1.1	—	1.1	—6	2.3	11.8	—
COAL.....	.2	.2	.3	.2	.1	—5	.5
OTHER.....	.2	.3	.3	—	.1	—2	.3
NONE.....	64.4	67.6	61.0	66.0	71.7	29.0	84.1
WATER-HEATING FUEL							
NATURAL GAS.....	54.1	91.6	9.9	9.9	—	8.4	14.8
ELECTRICITY.....	31.9	8.0	37.2	87.5	41.5	65.1	45.1
FUEL CYL OR KEROSENE.....	6.7	.2	49.6	—6	—	4.0	5.3
LIQUID PETROLEUM GAS.....	4.4	—	2.8	1.7	56.7	14.0	16.0
WOOD.....	.4	—	—	—1	—	6.4	2.7
SOLAR.....	.1	—	—	.2	—	—	4.8
OTHER.....	.1	—	—	—	—	—	7.5
NONE.....	.3	—	.1	.3	—	2.1	1.8

SFF NOTES AT END OF TABLE

TABLE 28. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL			
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUEFIED PETROLEUM GAS
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>					
YES.....	13.6	14.1	24.4	11.4	0.2
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	11.0	5.7	24.0	5.6
<b>MAIN COOKING FUEL</b>					
ELECTRICITY.....	54.4	41.2	54.6	44.2	35.1
NATURAL GAS.....	38.7	58.6	33.6	3.7	-
LIQUID PETROLEUM GAS.....	6.4	-	11.0	1.8	64.6
WOOD.....	2	-	-	-4	4.0
NCNE/CTHEF.....	2	.2	.1	.3	-
<b>AIR CONDITIONING (A/C)</b>					
CENTRAL AIR CONDITIONING ONLY.....	26.6	27.4	9.3	51.8	15.1
INDIVIDUAL ROOM UNITS ONLY.....	30.0	30.5	39.5	22.9	34.1
CENTRAL A/C AND ROOM UNITS.....	4	.6	.4	.1	.3
NO AIR CONDITIONING.....	42.6	41.5	50.9	25.2	50.4
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>					
ALL.....	36.5	37.3	16.6	62.6	31.9
SOME.....	20.7	21.1	32.5	12.2	17.7
NONE.....	42.6	41.5	50.6	25.2	50.4
<b>WOOD BURNED</b>					
YES (1/3 CCFD OR MORE).....	17.4	10.0	16.3	16.0	13.2
NO.....	82.6	90.0	83.7	84.0	86.8
					96.5
					3.5
					71.9

SEE NOTES AT END OF TABLE

TABLE 28. FUEL USE CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)—continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>						
SAME FUEL WINTER 1980	95.7	97.4	94.2	95.5	44.8	44.8
TO WINTER 1981.....	2.5	1.8	1.1	1.8	3.8	3.8
DIFFERENT FUEL.....	1.5	.1	.1	.7	6.2	3.8
FUEL OIL OR KEROSENE.....	1.5	—	—	.3	1.7	—
NATURAL GAS.....	.1	—	—	.4	2.9	—
LIQUID PETROLEUM GAS.....	.2	.1	—	—	3.0	—
ELECTRICITY.....	.2	.1	—	—	.1	—
OTHER/NC FUEL USE.....	.3	.1	.5	.4	.7	—
NOT HEATED IN WINTER 1980	—	—	—	—	—	—
TO WINTER 1981.....	.6	—	—	—	—	50.7
UNIT NOT FILLED IN WINTER 1979 TO 1980.....	1.3	.9	—	4.0	1.6	.7
						.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 29. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS. EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
		<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 15,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<2,000 CDD AND <4,000 HDD	<2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD
TOTAL HOUSEHOLDS.....	61.6	8.5	20.9	21.1	19.0	12.1	
MAIN HEATING EQUIPMENT							
CENTRAL WARM-AIR FURNACE.....	41.2	4.7	12.3	9.3	9.0	6.1	
FORCED AIR.....	40.1	4.5	11.8	9.0	8.8	6.0	
GRAVITY.....	1.1	.2	.5	.3	.2	—	
STEAM OR HOT WATER SYSTEM.....	12.5	1.7	4.8	6.5	.3	—	
HEAT PUMP.....	2.1	—	.3	.4	.6	.8	
FLOOR, WALL OR PIPELESS							
FURNACE.....	6.7	.3	.3	.9	4.1	1.1	
CIL. OR GAS FROM HEATER.....	6.1	.3	1.0	.8	1.9	2.1	
BUILT-IN ELECTRIC UNITS.....	5.3	.4	1.5	1.9	1.0	—	
WOOD OR COAL HEATING STOVE.....	4.0	.9	.5	1.2	1.3	—	
PORTABLE HEATER.....	1.0	—	—	.1	.3	—	
FIREPLACE.....	.3	—	—	.1	.2	—	
OTHER.....	.9	.1	.2	.1	.3	.2	
NCNE.....	.5	—	—	—	.1	.4	
MAIN HEATING FUEL							
NATURAL GAS.....	44.6	4.3	13.5	9.0	12.1	5.7	
ELECTRICITY.....	14.3	.6	2.5	3.6	3.1	4.5	
FUEL OIL OR KEROSENE.....	12.4	1.8	3.6	6.4	1.2	—	
WOOD.....	4.7	1.3	.5	1.3	1.4	.2	
LIQUID PROPYLENE GAS.....	3.7	.5	.6	.6	.9	1.0	
CCAL. / NONE.....	.3	—	.1	.1	—	—	
OTHER / NONE.....	.7	—	—	.1	.2	.4	
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)							
YES.....	5.6	.9	3.0	4.0	.6	4	
NO.....	11.6	.7	3.5	2.0	3.5	1.9	
NO MAIN HEATING SYSTEM.....	.1	—	—	—	—	—	

SEE NOTES AT END OF TABLE

TABLE 29. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
	TOTAL	<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD
				>2,000 CDD AND <4,000 HDD
<b>SECONDARY HEATING FUEL</b>				
WOOD.....	11.4	1.8	3.2	3.5
ELECTRICITY.....	5.2	.9	1.9	2.9
NATURAL GAS.....	3.3	.2	.6	1.0
FUEL OIL OR KEROSENE.....	1.9	.7	.4	.1
LIQUID PETROLEUM GAS.....	.9	.1	.3	.4
COAL.....	.2	-	-	.1
COTHER.....	.2	-	-	.1
NONE.....	52.6	4.8	14.8	11.0
<b>WATER-HEATING FUEL</b>				
NATURAL GAS.....	44.1	3.9	13.6	9.0
ELECTRICITY.....	26.1	3.2	4.6	7.0
FUEL OIL OR KEROSENE.....	7.1	.7	1.9	4.2
LIQUID PETROLEUM GAS.....	3.6	.6	.7	.7
WOOD.....	.4	.1	.1	.1
SOLAR.....	.1	-	-	.1
OTHER.....	.1	-	-	.1
NONE.....	.2	-	-	.2
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-HOME UNIT BUILDINGS)</b>				
YES.....	31.2	.9	3.5	4.5
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	.7	3.0	1.6
<b>MAIN COOKING FUEL</b>				
ELECTRICITY.....	44.4	5.9	10.5	10.2
NATURAL GAS.....	31.6	1.5	9.4	7.6
LIQUID PETROLEUM GAS.....	5.2	1.0	1.0	1.1
WOOD.....	.3	.1	-	.1
NCNE/OTHER.....	.2	-	.1	.1

SEE NOTES AT END OF TABLE

TABLE 29. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	15,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<2,000 CDD AND <4,000 HDD
<b>AIR CONDITIONING (A/C)</b>					
CENTRAL AIR CONDITIONING					
ONLY.....	21.9	1.1	4.1	4.8	5.8
INDIVIDUAL FLOOR UNITS ONLY....	24.5	1.7	6.9	7.3	4.9
CENTRAL A/C AND FLOOR UNITS....	*3	-	-	*1	*1
NO AIR CONDITIONING.....	34.6	5.7	9.9	9.0	8.2
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>					
YES.....	1.2	*1	*3	*2	*3
NO.....	3.8	*1	*9	1.0	1.3
NC AIR CONDITIONING SYSTEM....	15.7	1.4	5.3	2.9	.6
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>					
ALL.....	29.6	1.7	5.6	6.5	7.7
SCMP.....	16.9	1.1	5.4	5.7	3.1
NONE.....	34.5	5.7	9.9	9.0	8.2
<b>WOOD BURNER</b>					
YES (1/3 COFC OR MORE).....	14.2	2.7	3.0	4.2	3.4
NO.....	67.4	5.8	18.0	17.0	15.6
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>					
USE ANY NATURAL GAS.....	36.3	3.4	9.9	7.9	9.7
DO NOT USE ANY NATURAL GAS....	24.6	3.5	4.6	7.1	5.1
GAS IS AVAILABLE.....	*4	*6	1.1	1.9	1.2
PERCENT.....	22.1	18.4	24.1	26.9	24.0
GAS IS NOT AVAILABLE.....	15.2	2.9	3.5	5.2	3.9
PERCENT.....	77.9	81.6	75.9	73.1	87.0

SEE NOTES AT END OF TABLE

TABLE 29. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND 14,000 TO 5,499 HDD	<2,000 CDD AND <4,000 HDD
<b>TYPE OF MAIN HEATING FUEL USED</b>					
LAST WINTER 1979 TO 1980					
SAME FUEL WINTER 1980	76.1	8.0	20.4	20.2	18.4
TO WINTER 1981.....	2.0	.4	.5	.7	.3
DIFFERENT FUEL.....	1.2	.3	.4	.4	.1
FUEL OIL OR KEROSENE.....	1.2	—	—	—	—
NATURAL GAS.....	.1	—	—	—	—
LIQUID PETROLEUM GAS.....	.2	—	—	—	—
ELECTRICITY.....	.2	—	—	—	—
OTHER/NO FUEL USED.....	.3	.1	.1	.1	—
NOT HEATED IN WINTER 1980	—	—	—	—	—
TO WINTER 1981.....	.5	—	—	—	.1
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	.1	.1	.3	.2

SEP NOTES AT END OF TABLE

TABLE 29. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 15,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	>2,000 CDD AND <4,000 HDD
<b>FUEL COMBINATIONS</b>					
USE NATURAL GAS FOR MAIN HEATING.....	44.6	4.3	13.5	9.0	12.1
WATER HEAT AND CCCC WITH NATURAL GAS.....	2E.1	1.3	8.1	5.3	7.0
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	2.5	4.5	2.9	4.2
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	.5	.1	.2	.1	.2
WATER HEAT AND CCCC WITH ELECTRICITY.....	2-E	.4	.6	.6	.8
OTHER.....	.3	-	.1	.1	-
USE ELECTRICITY FOR MAIN HEATING.....	14.3	.6	2.5	3.6	3.1
WATER HEAT AND CCCC WITH ELECTRICITY.....	12.3	.5	2.1	3.4	2.6
OTHER.....	2.C	.1	.4	.2	.6
USE FUEL OIL FOR MAIN HEATING.	12.E	1.8	3.5	6.2	.8
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.E	.5	1.1	1.1	.1
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.E	-	.5	2.7	-
WATER HEAT AND CCCC WITH ELECTRICITY.....	3.7	.8	.8	1.3	.5
WATER HEAT AND CCCC WITH NATURAL GAS.....	1.1	-	.4	.6	-
OTHER.....	1.E	.4	.6	.4	.1
NONE/OTHER FUEL.....	1.C.2	1.9	1.5	2.3	2.9

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 30. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
		<2,000 CDD AND >7,000 HDD		<2,000 CDD AND 5,500 TO 7,000 HDD		<2,000 CDD AND 4,000 TO 5,499 HDD	
		<2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<2,000 CDD AND <4,000 HDD	<2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>MAIN HEATING EQUIPMENT</b>							
CENTRAL FARM-HOUSE FURNACE.....	50.5	55.2	58.6	43.8	47.3	47.3	50.0
FORCED AIR.....	49.1	53.1	56.4	42.5	46.3	46.3	49.6
GRAVITY.....	1.4	2.1	2.2	1.3	.9	.9	1.3
STEAM OR HOT WATER SYSTEM.....	16.5	20.6	23.1	30.7	1.4	1.4	1.2
HEAT PUMP.....	2.6	.6	1.3	1.7	3.4	3.4	6.6
FLOOR, WALL OR PIPELESS FURNACE.....	8.2	3.0	1.5	4.2	21.6	21.6	9.5
CYL OR GAS ROOM HEATER.....	7.4	3.5	4.8	3.7	9.8	9.8	17.7
BUILT-IN ELECTRIC UNITS.....	8.8	4.9	7.7	8.8	5.0	5.0	3.8
WOOD OR COAL HEATING STOVE.....	4.8	10.4	2.3	5.7	6.8	6.8	4.8
PORTABLE HEATER.....	1.2	.3	—	—	1.7	1.7	4.9
FIREPLACE.....	.4	.3	—	—	.8	.8	.8
OTHER.....	1.1	1.3	.7	.6	1.6	1.6	1.7
NONE.....	.6	—	—	—	.6	.6	3.1
<b>MAIN HEATING FUEL</b>							
NATURAL GAS.....	54.6	50.2	64.6	42.5	63.8	63.8	47.1
ELECTRICITY.....	17.5	7.2	11.6	16.9	16.5	16.5	37.2
FUEL OIL OR KEROSENE.....	16.4	21.2	17.1	30.3	6.4	6.4	3.1
WOOD.....	5.6	15.5	2.6	6.1	7.4	7.4	1.4
LIQUID PETROLEUM GAS.....	4.5	5.8	3.1	3.1	4.9	4.9	8.2
COAL.....	.4	.1	.7	.7	.1	.1	—
OTHER/NONE.....	.6	.2	.2	.4	.8	.8	3.1
<b>SECONDARY HEATING FUEL</b>							
WOOD.....	16.4	20.7	15.1	18.5	18.2	18.2	9.0
ELECTRICITY.....	11.3	11.0	8.9	9.5	15.3	15.3	12.5
NATURAL GAS.....	9.0	2.0	2.7	3.7	5.3	5.3	6.4
FUEL OIL OR KEROSENE.....	2.3	7.7	2.1	3.3	.6	.6	—
LIQUID PETROLEUM GAS.....	1.1	1.3	.4	1.2	2.0	2.0	.5
COAL.....	.2	.3	.1	.2	.4	.4	—
OTHER.....	.2	.5	.1	.3	.3	.3	—
NCNF.....	64.4	56.5	70.5	63.3	57.8	57.8	71.6

SEE NOTES AT END OF TABLE

TABLE 30. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TC1AI	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		< 2,000 CDD AND > 7,000 HDD	< 2,000 CDD AND 5,500 TO 7,000 HDD	< 2,000 CDD AND 4,000 TO 4,999 HDD	> 2,000 CDD AND < 4,000 HDD
<b>WATER-HEATING FUEL</b>					
NATURAL GAS.....	54.1	64.8	42.7	63.1	46.9
ELECTRICITY.....	31.5	37.5	22.0	33.1	44.9
FUEL OIL OR KEROSENE.....	6.7	8.1	9.3	19.9	.3
LIQUID PETROLEUM GAS.....	4.4	7.5	3.4	3.5	6.6
WOOD.....	.4	1.0	.2	.6	.3
SOLAR.....	.1	-	-	-	.6
OTHER.....	.1	-	.1	-	.2
NONE.....	.3	.2	.2	.1	.9
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>					
YES.....	12.8	10.7	16.8	21.3	8.7
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	8.1	16.2	7.5	13.3
<b>MAIN COOKING FUEL</b>					
ELECTRICITY.....	54.4	69.2	50.0	51.1	58.4
NATURAL GAS.....	38.7	17.9	45.0	42.9	32.5
LIQUID PETROLEUM GAS.....	6.4	12.1	4.5	5.2	8.6
WOOD.....	.3	.7	.2	.6	.1
NONE/OTHER.....	.2	.1	.3	.2	.3
<b>AIR CONDITIONING (A/C)</b>					
CENTRAL AIR CONDITIONING ONLY.....	26.6	12.7	19.5	22.6	30.5
INDIVIDUAL FROM UNITS ONLY.....	30.0	20.1	33.0	34.3	25.8
CENTRAL A/C AND FOAM UNITS.....	.4	-	.1	.6	.4
NO AIR CONDITIONING.....	42.8	67.2	47.4	42.6	17.4

SEE NOTES AT END OF TABLE

TABLE 30. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
	<2,000 CDD AND >7,000 HDD		<2,000 CDD AND 15,500 TO 7,000 HDD		<2,000 CDD AND 4,000 TO 5,499 HDD	
	ALL	ANE	AND	TO 5,499	AND	<4,000 HDD
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED						
ALL.....	36.5	19.7	26.8	30.6	40.5	69.0
SOME.....	20.7	13.1	25.8	26.9	16.2	13.6
NONE.....	42.8	67.2	47.4	42.6	43.3	17.4
WOOD BURNED YFS (1/3 CCRE OR MCRE) .....	17.4	31.7	14.1	19.7	17.8	8.8
NC.....	62.6	68.3	85.9	80.3	82.2	91.2
TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980						
SAME FUEL WINTER 1980	95.7	94.0	97.2	95.4	96.7	93.0
TO WINTER 1981.....	2.5	4.7	2.5	3.1	1.8	.6
DIFFERENT FUEL.....	1.8	3.4	1.8	2.1	-5	-
FUEL OIL OR KEROSENE.....	1.5	1.1	1.1	1.1	-4	-
NATURAL GAS.....	.1	.1	.2	.3	.5	.1
LIQUEFIED PETROLEUM GAS.....	.3	.2	.1	.4	.5	-
ELECTRICITY.....	.2	.1	.4	.3	.1	-
OTHER/NO FUEL USED.....	.3	1.0	.4	.3	.1	-
NOT HEATED IN WINTER 1980	-	-	-	-	.6	3.1
TO WINTER 1981.....	.6	-	-	-	-	-
UNIT NOT BUILT IN WINTER.....	-	-	-	-	-	-
1979 TO 1980.....	1.3	1.3	.3	1.5	.9	3.3

SEE NOTES AT END OF TABLE

TABLE 30. FUEL USE CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	2,000 CDD AND 5,500 TO 7,000 HDD	2,000 TO 5,499 AND 4,000 TO 5,499 HDD	>2,000 CDD AND <4,000 HDD
<b>FUEL COMBINATIONS</b>					
USE NATURAL GAS FOR MAIN HEATING.....	54.6	50.2	64.6	42.5	63.8
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	14.8	38.7	25.3	36.7
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	29.0	21.6	13.5	22.0
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	1.1	1.8	1.1	.6	.8
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	4.4	2.8	2.6	4.1
OTHER.....	.4	.2	.5	.5	.2
USE ELECTRICITY FOR MAIN HEATING.....	17.5	7.2	11.8	16.9	16.5
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	6.4	10.1	16.0	13.6
OTHER.....	2.5	2.7	1.7	.9	3.0
USE FUEL OIL FOR MAIN HEATING.	15.4	20.8	16.6	29.6	4.2
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	5.7	5.5	5.4	.6
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	.2	2.3	12.9	.1
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	9.6	3.8	6.1	2.7
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	4.4	2.0	3.1	.2
OTHER.....	2.0	4.9	3.1	2.1	.5
NCNE/OTHER FUEL.....	12.5	21.9	7.0	11.0	15.5
					13.4

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: COMMERCIAL AND COMMERCIAL ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 31. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT						
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER
TOTAL HOUSEHOLDS.....	81.6	11.3	10.5	8.1	7.2	13.7	7.5	23.3
MAIN HEATING EQUIPMENT								
CENTRAL WARM-AIR FURNACE.....	41.2	6.6	6.7	4.7	4.1	7.5	2.9	8.9
FORCED AIR.....	40.1	6.5	6.6	4.6	4.1	7.4	2.7	8.2
GRAVITY.....	1.1	.1	.1	.1	-	.1	.2	.6
STEAM OR HOT WATER SYSTEM.....	13.5	.6	.9	.8	1.3	1.8	1.4	6.7
HEAT PUMP.....	2.1	1.3	.3	.2	.1	.1	-	.1
FLOOR, WALL OR PIPELESS FURNACE.....	6.7	.2	.3	.7	.5	1.9	1.3	1.8
OIL OR GAS ROOM HEATER.....	6.1	.1	.2	.3	.3	1.0	.9	3.3
BUILT-IN ELECTRIC UNITS.....	5.3	1.4	1.6	1.0	.4	.4	.3	.3
WOOD OR COAL HEATING STOVE.....	4.0	.7	.4	.3	.2	.4	.1	.3
FORTABLE HEATER.....	1.0	.1	-	.1	.1	.1	.1	.1
FIREPLACE.....	.3	.1	-	-	.1	.1	.1	.3
OTHER.....	.9	.1	.1	.1	.1	.1	.1	.1
NONE.....	.5	.1	.1	-	-	.1	.1	.2
MAIN HEATING FUEL								
NATURAL GAS.....	44.6	3.6	4.6	4.8	4.6	9.1	8.6	13.3
ELECTRICITY.....	14.3	5.7	3.7	1.7	.8	1.1	.5	.8
FUEL OIL OR KEROSENE.....	13.4	.6	.8	.7	1.1	2.5	1.6	6.1
WOOD.....	4.7	.9	.4	.3	.4	.5	.4	1.8
LIQUID PETROLEUM GAS.....	3.7	.5	.8	.5	.3	.4	.2	.9
COAL.....	.3	-	-	-	-	-	-	.2
OTHER/NONE.....	.7	.1	-	-	-	.1	.1	.3
CENTRAL MAIN HEATING SYSTEM FOR BUILDING								
(2-OR-MORE UNIT BUILDINGS)								
YES.....	9.0	.6	1.3	.7	.7	.9	.9	3.9
NO.....	11.6	2.6	1.8	1.5	1.0	.9	.8	2.9
NO MAIN HEATING SYSTEM.....	.1	-	-	-	-	-	-	.1

SEE NOTES AT END OF TABLE

TABLE 31. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT							
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER	
<b>SECONDARY HEATING FUEL</b>									
WOOD.....	13.4	2.7	2.0	1.7	1.4	2.0	0.8	2.8	
ELECTRICITY.....	9.2	1.3	1.1	.7	1.0	1.5	.9	2.8	
NATURAL GAS.....	3.3	.3	.2	.3	.2	.9	.4	1.0	
FUEL OIL OR KEROSENE.....	1.9	.2	.1	.2	.2	.3	.1	.7	
LIQUID PETROLEUM GAS.....	.9	.2	.1	.1	-	.2	.1	.3	
COAL.....	.2	-	-	-	-	-	-	.1	
OTHER.....	.2	-	-	-	-	-	-	.1	
NONE.....	52.6	6.6	7.0	5.1	4.3	8.8	5.1	15.6	
<b>WATER-HEATING FUEL</b>									
NATURAL GAS.....	44.1	3.5	4.7	4.7	4.4	8.8	4.4	13.7	
ELECTRICITY.....	26.1	6.8	4.8	2.5	1.7	3.3	1.9	5.1	
FUEL OIL OR KEROSENE.....	7.1	.4	.5	.4	.8	1.2	.9	3.0	
LIQUID PETROLEUM GAS.....	3.6	.5	.5	.4	.3	.4	.3	1.1	
WOOD.....	.4	-	-	-	-	-	-	.2	
SOLAR.....	.1	-	-	-	-	-	-	-	
OTHER.....	.1	-	-	-	-	-	-	.1	
NONE.....	.3	-	-	-	-	-	-	.2	
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	11.2	1.0	1.7	1.1	.9	1.0	1.2	4.3	
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	2.2	1.3	1.1	.8	.9	.5	2.6	
<b>MAIN COOKING FUEL</b>									
ELECTRICITY.....	44.4	9.0	7.3	4.5	4.2	6.8	3.3	9.2	
NATURAL GAS.....	31.6	1.6	2.3	2.9	2.6	6.2	3.7	12.3	
LIQUID PETROLEUM GAS.....	5.2	.8	.9	.7	.3	.6	.4	1.5	
WOOD.....	.3	-	-	-	-	-	-	.2	
NONE/OTHER.....	.2	.1	-	-	-	-	-	.1	

SEE NOTES AT END OF TABLE

TABLE 31. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
 (MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT							
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER	
<b>AIR CONDITIONING (A/C)</b>									
CENTRAL AIR CONDITIONING									
ONLY.....	21.9	6.6	4.9	2.6	2.1	3.5	0.8	1.4	
INDIVIDUAL ROOM UNITS ONLY.....	24.5	1.7	2.2	2.4	2.1	4.8	2.8	8.5	
CENTRAL A/C AND ROOM UNITS.....	.3	-	-	-	-	.1	-	.1	
NO AIR CONDITIONING.....	34.9	3.0	3.4	3.0	3.0	5.3	3.8	13.3	
CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)									
YES.....	1.2	.3	.6	.2	.1	-	-	-	
NO.....	3.8	1.7	1.0	.4	.3	.2	-	.1	
NO AIR CONDITIONING SYSTEM.....	15.7	1.2	1.5	1.6	1.4	1.6	1.6	6.7	
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED									
ALL.....	29.8	7.3	5.8	3.5	2.7	5.1	1.8	3.5	
SOME.....	16.9	1.0	1.3	1.5	1.5	3.3	1.8	6.5	
NONE.....	34.9	3.0	3.4	3.0	3.0	5.3	3.8	13.3	
WOOD BURNED									
YES (1/3 CORD OR MORE).....	14.2	3.0	1.8	1.3	1.4	1.8	1.0	4.0	
NO.....	67.4	8.4	8.8	6.8	5.8	11.9	6.5	19.3	
AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)									
USE ANY NATURAL GAS.....	36.3	2.8	3.5	3.5	3.5	8.6	3.9	10.5	
DO NOT USE ANY NATURAL GAS.....	24.6	5.3	4.0	2.4	1.9	3.3	1.8	5.9	
GAS IS AVAILABLE.....	5.4	1.0	.7	.6	.4	1.1	.5	1.2	
PERCENT.....	22.1	18.4	18.4	23.8	18.9	32.0	27.8	21.1	
GAS IS NOT AVAILABLE.....	19.2	4.3	3.2	1.8	1.6	2.3	1.3	4.7	
PERCENT.....	77.9	81.6	81.6	76.2	81.1	68.0	72.2	78.9	

SEE NOTES AT END OF TABLE

TABLE 31. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
 (MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT								
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER		
<b>TYPE OF MAIN HEATING FUEL USED</b>										
LAST WINTER 1979 TO 1980										
SAME FUEL WINTER 1980										
TO WINTER 1981.....	78.1	10.1	10.3	7.9	6.9	13.4	7.2	22.3		
DIFFERENT FUEL.....	2.0	.1	.2	.1	.3	.3	.2	.8		
FUEL CELL KEROSENE.....	1.2	-	.1	.1	.1	.2	.1	.6		
NATURAL GAS.....	.1	-	-	-	-	-	-	-		
LIQUEFIED PETROLEUM GAS.....	.2	-	.1	-	-	-	-	-		
ELECTRICITY.....	.2	.1	-	-	-	-	-	-		
OTHER/NO FUEL USED.....	.3	-	-	-	.1	-	-	.1		
NOT HEATED IN WINTER 1980										
TO WINTER 1981.....	.5	.1	-	-	-	.1	.1	.2		
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.0	1.0	-	-	-	-	-	-		

SEE NOTES AT END OF TABLE

TABLE 31. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT							
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER	
<b>FUEL COMBINATIONS</b>									
USE NATURAL GAS FOR MAIN HEATING.....	44.6	3.6	4.6	4.8	4.6	9.1	4.6	13.3	
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	1.3	1.9	2.6	2.2	5.2	2.8	9.0	
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	1.8	2.2	1.9	2.1	3.1	1.3	3.2	
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS...	.9	.1	.1	.1	.1	.2	.1	.2	
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	.3	.3	.2	.2	.5	.4	.8	
OTHER.....	.3	-	.1	-	-	-	-	.1	
USE ELECTRICITY FOR MAIN HEATING.....	14.3	5.7	3.7	1.7	.8	1.1	.5	.8	
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	5.1	3.2	1.5	.7	.9	.3	.6	
OTHER.....	2.0	.6	.6	.2	.1	.3	.1	.2	
USE FUEL OIL FOR MAIN HEATING.	12.6	.6	.7	.6	1.0	2.4	1.5	5.8	
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	.2	.2	.2	.4	.6	.3	1.0	
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	-	.2	.1	.3	.5	.5	1.7	
WATER HEAT AND COOK WITH ELECTRICITY.....	2.7	.2	.2	.2	.3	.9	.4	1.3	
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	-	-	-	-	.1	.1	1.0	
OTHER.....	1.6	.1	.1	.1	.1	.3	.2	.8	
NONE/OTHER FUEL.....	10.2	1.5	1.5	1.0	.8	1.1	.9	3.5	

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 32. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT							
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER	
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAIN HEATING EQUIPMENT									
CENTRAL WARM-AIR FURNACE.....	50.5	58.3	63.1	58.1	57.5	54.7	38.5	37.6	
FORCED AIR.....	49.1	57.8	62.2	57.3	57.4	53.7	36.3	35.1	
GRAVITY.....	1.4	.5	.9	.8	.1	1.0	2.2	2.6	
STEAM OR HOT WATER SYSTEM.....	16.5	5.2	8.8	9.7	18.2	13.1	18.5	28.6	
HEAT PUMP.....	2.6	11.8	2.8	2.3	1.4	.6	.4	.4	
FLOOR, WALL OR PIPELESS FURNACE.....	6.2	1.9	2.6	8.7	6.3	14.1	17.8	7.7	
OIL OR GAS ROOM HEATER.....	7.4	1.1	2.1	3.3	4.4	7.2	12.1	14.0	
BUILT-IN ELECTRIC UNITS.....	6.5	12.5	15.0	12.0	5.1	2.8	3.4	1.4	
WOOD OR COAL HEATING STOVE.....	4.8	6.1	4.0	3.9	3.1	3.0	5.0	6.5	
PORTABLE HEATER.....	1.2	.8	.4	.7	1.0	2.7	1.3	1.2	
FIREPLACE.....	.4	.7	-	.1	1.0	.4	.7	.3	
OTHER.....	1.1	1.1	.9	.8	1.4	.9	1.5	1.2	
NONE.....	.6	.6	.3	.3	.5	.4	.8	.9	
MAIN HEATING FUEL									
NATURAL GAS.....	54.6	31.6	43.9	59.6	63.6	66.4	61.8	56.9	
ELECTRICITY.....	17.5	50.1	35.5	20.9	11.3	8.3	6.0	3.3	
FUEL OIL OR KEROSENE.....	16.4	5.4	8.0	8.5	14.9	18.1	21.8	26.0	
WOOD.....	5.8	7.7	4.3	3.9	5.1	3.6	5.9	7.7	
LIQUID PETROLEUM GAS.....	4.5	4.1	8.0	6.3	4.4	3.1	2.9	3.9	
COAL.....	.4	-	.1	.5	.2	.2	.6	.8	
OTHER/NONE.....	.8	1.0	.3	.3	.5	.4	1.0	1.4	
SECONDARY HEATING FUEL									
WOOD.....	16.4	24.0	18.8	21.2	19.1	14.8	10.7	11.8	
ELECTRICITY.....	11.3	11.3	10.3	9.1	13.3	11.3	11.5	12.0	
NATURAL GAS.....	4.0	2.4	2.1	3.7	2.7	6.4	5.9	4.2	
FUEL OIL OR KEROSENE.....	2.3	2.1	1.0	2.2	3.4	2.1	2.0	3.1	
LIQUID PETROLEUM GAS.....	1.1	1.6	.8	.9	.7	1.3	.8	1.1	
COAL.....	.2	.1	.3	-	.2	-	.1	.5	
OTHER.....	.2	.1	-	.5	.2	-	.2	.4	
NONE.....	64.4	58.5	66.8	62.5	60.4	64.1	68.8	66.9	

SEE NOTES AT END OF TABLE

TABLE 32. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949
<b>WATER-HEATING FUEL</b>							
NATURAL GAS.....	54.1	31.2	44.5	58.4	60.6	64.2	58.4
ELECTRICITY.....	31.5	60.2	45.5	31.4	23.0	24.2	25.1
FUEL OIL OR KEROSENE.....	8.7	3.2	4.4	4.9	10.6	8.4	21.8
LIQUID PETROLEUM GAS.....	4.4	4.8	4.9	5.4	4.6	2.8	12.9
WOOD.....	.4	.2	.2	-.5	.5	.3	.6
SOLAR.....	.1	.3	-.3	-.1	-.1	-.1	-.9
OTHER.....	.1	.1	-.1	-.1	-.1	-.1	-.3
NONE.....	.3	-.2	-.2	-.5	.1	-.1	.8
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	13.8	9.2	16.4	13.5	13.0	7.0	16.4
NC/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	19.2	12.8	14.0	11.3	6.3	11.3
<b>MAIN COOKING FUEL</b>							
ELECTRICITY.....	54.4	79.0	69.5	55.9	58.7	49.9	44.8
NATURAL GAS.....	38.7	13.7	22.3	35.6	36.5	45.4	49.2
LIQUID PETROLEUM GAS.....	6.4	6.8	8.1	8.5	4.7	4.4	5.5
WOOD.....	.3	-.2	-.5	-.1	-.1	.2	.4
NONE/OTHER.....	.2	-.1	-.1	-.1	-.1	-.1	.5
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING ONLY.....	26.8	58.0	46.8	32.6	28.6	25.4	10.8
INDIVIDUAL ROOM UNITS ONLY.....	30.0	15.1	20.6	29.6	29.5	34.9	37.5
CENTRAL A/C AND ROOM UNITS.....	4.4	-.1	-.5	.2	.2	1.0	.6
NO AIR CONDITIONING.....	42.6	26.8	32.1	37.6	41.6	38.8	51.1

SPE NOTES AT END OF TABLE

TABLE 32. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR LATER	TO 1974	TO 1969	TO 1964	TO 1959	TO 1949
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>							
ALL.....	36.5	64.0	55.2	43.7	37.9	37.2	24.7
SOME.....	26.7	9.2	12.7	18.7	20.5	24.0	24.2
None.....	42.8	26.8	32.1	37.6	41.6	38.8	51.1
<b>WOOD BURNED YES (1/3 CORD OF WOOD) .....</b>							
Yes.....	17.4	26.1	16.7	16.6	19.4	13.2	12.8
No.....	82.6	73.9	83.3	83.4	80.6	86.8	87.2
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>							
SAMP FUEL WINTER 1980	95.7	89.1	97.6	98.0	95.4	97.6	96.6
TO WINTER 1981.....	2.6	1.2	2.0	1.6	4.1	2.0	2.6
DIFFERENT FUEL.....	1.6	.1	.9	.8	1.9	1.3	3.3
FUEL OIL OR KEROSENE.....	1.1	.1	.2	—	.3	.1	1.8
NATURAL GAS.....	.1	.1	.2	—	.3	.1	2.5
LICUID PETROLEUM GAS.....	.1	.2	.5	.5	.5	.3	.2
ELECTRICITY.....	.2	.5	.3	.1	.5	.1	.1
OTHER/NO FUEL USED.....	.3	.3	—	.2	1.0	.2	.4
NOT HEATED IN WINTER 1980	.6	.6	.3	.3	.5	.4	.8
TO WINTER 1981.....	.6	.6	.3	—	—	—	.9
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	1.3	9.1	.2	—	—	—	—

SEE NOTES AT END OF TABLE

TABLE 32. FUEL USE CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR LATER	TO 1974	TO 1969	TO 1964	TO 1959	TO 1949
<b>FUEL COMBINATIONS</b>							
USE NATURAL GAS FOR MAIN HEATING.....	54.6	31.6	43.9	59.6	63.6	66.4	61.8
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	11.4	18.4	32.4	30.1	38.3	37.9
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY.....	19.2	15.8	21.3	23.8	29.4	22.8	17.4
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS.....	1.1	1.1	1.1	1.4	.9	1.3	1.6
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	3.0	2.5	2.1	2.7	3.7	4.9
OTHER.....	.4	.3	.6	—	.5	.2	—
USE ELECTRICITY FOR MAIN HEATING.....	17.5	50.1	35.5	20.9	11.3	8.3	6.0
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	45.2	30.2	18.6	9.3	6.5	4.5
OTHER.....	2.5	5.0	5.3	2.3	2.0	1.9	1.6
USE FUEL OIL FOR MAIN HEATING.	15.4	4.9	6.7	7.0	14.5	17.4	20.2
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	1.9	2.3	2.3	5.4	4.2	3.5
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	—	1.6	.7	4.2	3.4	7.3
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	2.2	2.1	2.7	4.2	6.8	6.0
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	—	—	—	—	.8	.7
OTHER.....	2.0	—	—	—	1.2	2.1	2.6
NONE/OTHER FUEL.....	12.5	13.4	13.9	12.5	10.6	8.0	12.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 33. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS						NUMBER OF HOUSEHOLD MEMBERS	
		AGE OF HOUSEHOLD HEAD			ORIGIN		5 OR MORE		
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK			
<b>TOTAL HOUSEHOLDS</b>	81.6	28.4	31.5	21.8	72.4	9.2	15.7	26.8	
<b>MAIN HEATING EQUIPMENT</b>									
CENTRAL WARM-AIR FURNACE.....	41.2	14.1	17.0	10.2	37.9	3.3	6.6	13.7	
FORCED AIR.....	40.1	13.7	16.7	9.7	36.9	3.2	6.4	13.3	
GRAVITY.....	1.1	.3	.3	.5	1.1	.1	.2	.4	
STEAM OR HOT WATER SYSTEM.....	13.5	4.1	5.2	4.1	11.2	2.3	3.2	4.7	
HEAT PINE.....	2.1	.7	.9	.5	2.0	.1	.3	.7	
FLOOR, WALL, OR PIPELESS FURNACE.....	6.7	2.7	2.3	1.8	5.7	1.0	1.4	2.4	
OIL OR GAS BOILER HEATER.....	6.1	1.8	1.9	2.4	4.6	1.5	1.7	1.9	
BUILT-IN ELECTRIC UNITS.....	5.3	2.6	1.6	1.1	4.9	.4	1.4	1.6	
WOOD OR COAL HEATING STOVE.....	4.0	.9	1.7	.8	3.6	.4	.3	1.0	
PORTABLE HEATER.....	1.0	.4	.2	.4	.9	.1	.4	.3	
FIREPLACE.....	.3	.1	.1	.1	.3	-.1	.1	.1	
OTHER.....	.9	.3	.3	.3	.8	-.1	.3	.2	
NONE.....	.5	.2	.2	.1	.5	-.1	.1	.1	
<b>MAIN HEATING FUEL</b>									
NATURAL GAS.....	44.6	15.2	17.7	11.7	38.9	5.7	8.2	16.4	
ELECTRICITY.....	14.3	6.5	4.5	3.3	13.4	.9	3.6	4.8	
FUEL OIL OR KEROSENE.....	13.4	3.4	5.5	4.5	11.4	1.9	2.7	4.8	
WOOD.....	4.7	1.7	2.1	.9	4.3	-.4	1.2	1.0	
LIQUID PETROLEUM GAS.....	3.7	1.3	1.2	1.1	3.4	.3	.6	1.2	
COAL.....	.3	-.1	-.2	.1	-.3	-.1	-.1	-.1	
OTHER/NONE.....	.7	.2	.1	.2	-.1	-.1	.1	.1	
<b>CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	9.0	3.6	2.5	2.8	7.0	2.0	3.7	2.9	
NO.....	11.6	6.7	3.0	1.9	9.7	1.9	3.6	4.1	
NO MAIN HEATING SYSTEM.....	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	

SEE NOTES AT END OF TABLE

TABLE 33. FUEL USE CHARACTERISTICS BY SPLICED DEMOGRAPHIC CHARACTERISTICS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS						NUMBER OF HOUSEHOLD MEMBERS			
		AGE OF HOUSEHOLD HEAD			ORIGIN		1	2	3	4	5 OR MORE
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK					
<b>SECONDARY HEATING FUEL</b>											
WOOD.....	13.4	4.0	6.5	2.8	13.1	0.3	1.2	4.1	2.7	2.3	
ELECTRICITY.....	9.2	3.1	3.6	2.6	8.5	.8	1.9	2.8	1.6	1.3	
NATURAL GAS.....	3.3	.9	1.4	1.0	2.8	.5	.6	1.2	.5	.5	
FUEL OIL OR KEROSENE.....	1.9	.7	.8	*4	1.8	.1	.2	.6	.4	.4	
LIQUID PETROLEUM GAS.....	.9	.2	.4	*3	.8	-	.1	.3	.2	.1	
COAL.....	.2	-	-1	-1	.2	-	.1	-	-	-	
OTHER.....	52.6	19.5	18.5	14.6	45.1	7.5	11.7	17.6	9.5	7.4	
NONE.....	-	-	-	-	-	-	-	-	-	-	
<b>WATER-HEATING FUEL</b>											
NATURAL GAS.....	44.1	15.2	17.5	11.4	38.3	5.9	8.2	14.1	8.0	7.8	
ELECTRICITY.....	26.1	9.9	9.4	6.6	24.5	1.6	5.1	8.6	5.0	4.0	
FUEL OIL OR KEROSENE.....	7.1	1.9	2.8	2.3	5.7	1.4	1.7	2.6	1.0	.9	
LIQUID PETROLEUM GAS.....	3.6	1.3	1.4	.9	3.4	*2	.5	1.1	.8	.6	
WOOD.....	.4	*1	*1	*1	.1	*3	.1	.1	.1	.1	
SOLAR.....	.1	-	-1	-1	.1	-	-	-	-	-	
OTHER.....	.1	-	-	-	.2	-1	.1	.1	-	-	
NONE.....	.3	-	-	-	-	-	-	-	-	.1	
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>											
YES.....	11.2	4.9	3.3	3.0	9.0	2.2	4.6	3.7	1.5	.8	
NO/NO WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	9.5	5.4	2.3	1.7	7.7	1.7	2.8	3.3	1.6	.7	
<b>MAIN COOKING FUEL</b>											
ELECTRICITY.....	44.4	16.2	16.9	11.2	41.8	2.6	8.2	15.1	8.2	7.6	
NATURAL GAS.....	31.6	10.4	12.4	8.8	25.4	6.2	6.5	9.9	5.5	4.7	
LIQUID PETROLEUM GAS.....	5.2	1.8	1.9	1.5	4.8	*4	.8	1.7	1.2	.7	
WOOD.....	.3	-	-	.1	.2	-	.1	.1	.1	.1	
NCNE/OTHER.....	.2	-	-	.1	.1	.2	-	.1	-	-	

SEE NOTES AT END OF TABLE

TABLE 33. FUEL USE CHARACTERISTICS BY SELICTED DEMOGRAPHIC CHARACTERISTICS  
(MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -C-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS					
		AGE OF HOUSEHOLD HEAD			ORIGIN		
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	NUMBER OF HOUSEHOLD MEMBERS
<b>AIR CONDITIONING (A/C)</b>							
CENTRAL AIR CONDITIONING ONLY.....	21.9	7.3	9.6	5.0	20.5	1.4	3.7
INDIVIDUAL RCCM UNITS ONLY.....	24.5	8.0	9.0	7.5	21.7	2.8	8.7
CENTRAL A/C AND RCCM UNITS.....	3.3	-	1.1	1.1	3	-	-
NO AIR CONDITIONING.....	34.9	13.0	12.8	9.2	29.9	5.1	6.9
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>							
YES.....	1.2	-.4	2	.6	1.1	.1	.4
NO.....	3.8	2.1	1.2	.6	3.5	.3	.7
NO AIR CONDITIONING SYSTEM.....	15.7	7.8	4.3	3.6	12.1	3.6	5.4
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>							
ALL.....	29.8	10.3	11.9	7.6	27.4	2.4	6.0
SCMF.....	16.9	5.1	6.8	5.1	15.1	1.8	2.9
NONE.....	34.9	13.0	12.8	9.2	29.9	5.1	6.9
<b>WOOD BURNED</b>							
YES (1/3 CCRD OR MORE).....	14.2	4.4	7.1	2.7	13.7	.6	1.0
NO.....	67.4	24.0	24.3	19.1	58.8	8.6	14.7
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)</b>							
USE ANY NATURAL GAS.....	36.3	10.3	15.7	10.3	32.4	3.9	5.0
DO NOT USE ANY NATURAL GAS.....	24.6	7.8	10.1	6.7	23.3	1.4	3.3
GAS IS AVAILABLE.....	5.4	1.5	2.4	1.5	5.1	.3	.8
PERCENT.....	22.1	19.8	23.9	22.1	22.1	22.8	24.8
GAS IS NOT AVAILABLE.....	19.2	6.2	7.7	5.2	18.1	1.0	2.5
PERCENT.....	77.9	60.2	76.1	77.9	77.9	75.2	75.7

SEE NOTES AT END OF TABLE

TABLE 33. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS. EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

		SELECTED DEMOGRAPHIC CHARACTERISTICS									
HOUSEHOLD CHARACTERISTICS	TOTAL	AGE OF HOUSEHOLD HFAD		ORIGIN		NUMBER OF HOUSEHOLD MEMBERS					
		35 OR IFSS	36 TO IFSS	60 AND CVER	WHITE, OTHER, BLACK	1	2	3	4	5 OR MORE	
<b>TYPE OF MAIN HEATING FUEL USED          LAST WINTER 1979 TO 1980</b>											
SAME FUEL WINTER 1980	78.1	26.9	30.1	21.0	69.1	9.0	15.2	25.7	14.2	12.8	10.3
TO WINTER 1981.....	2.0	.7	.8	.5	1.9	.1	.3	.5	.4	.4	.4
DIFFERENT FUEL.....	1.2	.4	.5	.3	1.1	.1	.2	.3	.2	.2	.3
FUEL OIL OR KEROSENE.....	.1	—	.1	—	.1	—	—	—	—	—	—
NATURAL GAS.....	.2	.1	.1	.1	—	—	—	.1	.1	.1	—
LIQUID PETROLEUM GAS.....	.2	.1	.1	—	—	—	—	.1	.1	.1	—
ELECTRICITY.....	.2	.1	.1	—	—	—	—	.1	.1	.1	—
OTHER/NO FUEL USED.....	.3	.1	.1	.1	.2	—	.1	.1	.1	.1	—
NOT HEATED IN WINTER 1980	.5	.2	.2	.1	.5	—	.1	.1	.1	.1	.1
TO WINTER 1981.....	1.0	.5	.3	.2	1.0	.1	.2	.5	.2	.1	.1
UNIT NOT BUILT IN WINTER 1979 TO 1980.....											

SEE NOTES AT END OF TABLE

TABLE 33. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS, EXCEPT WHERE PERCENTS ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS					
		AGE OF HOUSEHOLD HEAD			ORIGIN		
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1 2 3 4 5 OR MORE
<b>FUEL COMBINATIONS</b>							
USP NATURAL GAS FOR MAIN HEATING.....	44.6	15.2	17.7	11.7	38.9	5.7	8.2
WATER HEAT AND COOK WITH NATURAL GAS.....	25.1	8.4	9.9	6.7	20.7	4.4	4.7
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	15.7	5.5	6.5	3.7	14.8	.9	2.6
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	.9	.4	.3	.2	.8	-1	.2
WATER HEAT AND COOK WITH ELECTRICITY.....	2.6	.8	.9	.9	2.4	.2	.6
OTHER.....	.3	-	.1	.2	.3	-.2	-.2
USE ELECTRICITY FOR MAIN HEATING.....	14.3	6.5	4.5	3.3	13.4	.9	3.6
WATER HEAT AND COOK WITH ELECTRICITY.....	12.3	5.5	4.0	2.8	11.5	.7	2.8
OTHER.....	2.0	1.0	.5	.6	1.8	.2	.8
USF FUEL OIL FOR MAIN HEATING.	12.6	3.1	5.2	4.3	10.7	1.8	2.6
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	2.9	.7	1.3	.9	2.7	.2	.4
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	3.3	.9	1.2	1.2	2.1	1.2	1.2
WATER HEAT AND COOK WITH ELECTRICITY.....	3.7	.8	1.5	1.3	3.6	.1	.7
WATER HEAT AND COOK WITH NATURAL GAS.....	1.1	.3	.4	.4	.8	.3	.3
OTHER.....	1.6	.4	.8	.5	1.6	.1	.6
NCNE/OTHER FUEL.....	10.2	3.6	4.1	2.5	9.4	.8	1.3

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 34. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS									
		AGE OF HOUSEHOLD HEAD			ORIGIN				NUMBER OF HOUSEHOLD MEMBERS		
		35 CR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1	2	3	4	5 OR MORE
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAIN HEATING EQUIPMENT											
CENTRAL WARM-AIR FURNACE.....	50.5	49.6	54.0	46.7	52.4	35.8	42.0	51.1	54.6	54.8	50.5
FORCE AIR.....	49.1	48.4	53.0	44.6	50.9	35.2	40.6	49.6	52.7	54.5	48.7
GRAVITY.....	1.4	1.2	1.0	2.1	1.5	.6	1.4	1.4	1.8	.4	1.8
STEAM OR HOT WATER SYSTEM.....	16.5	14.6	16.5	19.0	15.4	24.9	20.6	17.6	13.4	13.9	15.3
HEAT PUMP.....	2.6	2.5	2.8	2.4	2.8	.9	2.1	2.7	2.7	2.8	2.6
PLOCH, WALL OR PIPELESS FURNACE.....	8.2	9.4	7.3	8.0	7.9	10.6	8.6	9.0	7.9	8.3	6.3
OIL OR GAS ROOM HEATER.....	7.4	6.2	6.1	11.0	6.3	16.4	10.7	7.0	6.4	5.7	7.5
BUILT-IN ELECTRIC UNITS.....	6.5	9.1	5.2	5.0	6.8	4.5	9.1	6.0	6.6	4.4	6.6
WOOD OR COAL HEATING STOVE.....	4.8	5.1	5.5	3.6	4.9	4.2	2.0	3.9	5.4	7.8	6.9
PORTABLE HEATER.....	1.2	1.4	.7	1.7	1.3	.8	2.4	1.3	.8	.8	.6
FIREPLACE.....	.4	.4	.3	.6	.5	.1	.3	.4	.5	.2	1.0
OTHER.....	1.1	1.0	1.0	1.3	1.0	1.5	1.7	.8	1.1	.7	1.6
NONE.....	.6	.7	.6	.7	.7	.1	.6	.4	.5	.5	.5
MAIN HEATING FUEL											
NATURAL GAS.....	54.6	53.5	56.3	53.7	53.8	61.3	52.3	54.0	55.8	57.5	54.4
ELECTRICITY.....	17.5	22.9	14.2	15.3	18.5	10.0	23.1	18.0	15.7	13.6	15.4
FUEL OIL OR KEROSENE.....	16.4	12.0	17.5	20.5	15.8	20.8	17.3	17.8	15.5	14.7	14.8
WOOD.....	5.8	5.9	6.7	4.3	6.0	4.2	2.5	4.7	6.6	9.2	8.0
LIQUID PETROLEUM GAS.....	4.5	4.7	3.9	5.1	4.7	3.3	4.0	4.6	5.5	4.1	4.0
COAL.....	.4	.3	.5	.3	.4	.2	.2	.4	.2	.3	.9
OTHER/NONE.....	.8	.7	.9	.7	.9	.6	.7	.7	.5	.5	2.3
SECONDARY HEATING FUEL											
WOOD.....	16.4	14.2	20.7	13.1	18.0	3.6	7.6	15.4	18.4	22.8	20.9
ELFCTRICITY.....	11.3	10.7	11.3	12.1	11.7	8.3	12.3	10.5	10.6	12.4	11.6
NATURAL GAS.....	4.0	3.0	4.5	4.6	3.9	5.0	3.7	4.5	3.3	4.1	4.5
FUEL OIL OR KEROSENE	2.3	2.5	2.6	1.7	2.5	.9	1.1	2.1	2.4	3.1	3.6
LIQUID PETROLEUM GAS.....	1.1	.6	1.4	1.2	1.2	.5	.4	1.1	1.3	1.5	1.2
COAL.....	.2	—	.3	.4	.2	.3	.4	.2	.2	.1	.3
OTHFR.....	.2	.2	.4	.1	.2	.2	—	.3	—	.6	.2
NONE.....	64.4	68.7	58.8	66.9	62.3	81.2	74.6	65.9	63.7	55.5	57.8

SEE NOTES AT END OF TABLE

TABLE 34. FUEL USE CHARACTERISTICS BY SUGGESTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS) -Continued

		SELECTED DEMOGRAPHIC CHARACTERISTICS								
HOUSEHOLD CHARACTERISTICS	TOTAL	AGE OF HOUSEHOLD HEAD			ORIGIN				NUMBER OF HOUSEHOLD MEMBERS	
		35 OR LESS	36 TO 50	60 AND OVER	WHITE OTHER	BLACK	1	2	3	4
<b>WATER-HEATING FUEL</b>										
NATURAL GAS.....	54.1	53.4	55.7	52.5	52.8	63.7	52.2	52.8	53.6	58.4
ELECTRICITY.....	31.9	34.8	29.9	31.2	33.8	17.1	32.2	32.2	33.6	30.2
FUJI OIL CE KEROSENE.....	8.7	6.7	9.0	10.7	7.9	14.7	11.0	9.8	6.8	6.4
LIQUID PETROLEUM GAS.....	4.4	4.5	4.4	4.0	4.6	2.2	3.3	4.2	5.1	4.5
WOOD.....	.4	.3	.5	.5	.4	-8	.2	.4	.7	.3
SCLAR.....	.1	.1	.2	.1	.1	-	.2	.1	.1	.1
OTHER.....	.1	.1	.1	.1	.1	.1	.2	.1	.2	.1
NONE.....	.3	.1	.2	.8	.2	1.3	.7	.3	.1	.5
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>										
YES.....	13.8	17.4	10.4	13.9	12.4	24.2	29.1	13.8	10.0	6.3
NO/WATER-HEATING FUEL/ NO HOT RUNNING WATER.....	11.6	19.0	7.4	8.0	10.7	18.9	17.9	12.4	10.6	7.4
<b>MAIN COOKING FUEL</b>										
ELECTRICITY.....	54.4	57.1	53.9	51.6	57.8	27.9	52.0	56.3	55.0	56.8
NATURAL GAS.....	38.7	36.5	39.5	40.3	35.0	67.4	41.3	37.0	36.7	37.7
LIQUID PETROLEUM GAS.....	6.4	6.2	6.1	6.9	6.6	4.3	5.4	6.2	7.8	5.4
WOOD.....	.3	-.3	-.3	-.8	-.3	.2	.3	.3	.5	.1
NONE/OTHER.....	.2	.1	.3	.4	.3	.2	.9	.1	-.1	.1
<b>AIR CONDITIONING (A/C)</b>										
CENTRAL AIR CONDITIONING ONLY.....	26.8	25.7	30.4	23.0	28.3	14.8	23.8	28.7	28.1	22.8
INDIVIDUAL ROOM UNITS ONLY.....	30.0	28.3	28.6	14.3	30.0	30.3	32.2	32.6	29.4	25.2
CENTRAL A/C AND ROOM UNITS.....	.4	.2	.5	.6	.4	.2	.3	.4	.2	.7
NO AIR CONDITIONING.....	42.8	45.8	40.6	42.1	41.3	54.7	43.7	38.6	41.7	45.9

SEE NOTES AT END OF TABLE

TABLE 34. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS								
		AGE OF HOUSEHOLD HEAD			NUMBER OF HOUSEHOLD MEMBERS					
		35 OR LESS	36 TO 49	60 AND OVER	WHITE, OTHER	BLACK	1	2	3	4
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>										
ALL...*	36.5	37.9	34.7	37.8	25.9	38.1	39.2	36.7	35.9	27.9
SOME...*	20.7	17.9	21.5	23.2	20.9	19.4	18.2	22.2	18.2	22.5
NONE...*	42.8	45.8	40.6	42.1	41.3	54.7	43.7	38.6	41.7	49.5
<b>WOOD BURNED</b>										
YES (1/3 CCED OR MCRT)	17.4	15.6	22.6	12.4	18.9	6.3	6.6	19.4	27.8	24.0
NO...*	82.6	84.4	77.4	87.6	81.1	93.7	93.4	80.6	72.2	76.0
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>										
SAME FUEL WINTER 1980 TO WINTER 1981...*	95.7	94.8	95.8	96.5	97.6	96.7	95.9	95.3	94.5	94.5
DIFFERENT FUEL FUEL OIL OR KEROSENE...*	2.5	2.6	2.6	2.1	1.5	1.7	1.8	2.8	3.2	3.7
NATURAL GAS...*	1.5	1.5	1.6	1.3	1.6	.8	1.0	1.1	1.6	2.7
LIQUID PETROLEUM GAS...*	.1	.1	.2	.1	.1	-.1	-.1	-.1	.4	.3
ELECTRICITY...*	.3	.5	.1	.2	-.3	-.1	.2	.2	.5	.3
OTHER/NC FUEL USED...*	.2	.2	.3	.2	-.2	-.4	-.2	.2	.6	-.6
NOT HEATED IN WINTER 1980 TO WINTER 1981...*	.3	.3	.3	.3	-.3	-.1	-.4	-.2	-.3	.4
UNIT NOT BUILT IN WINTER 1979 TO 1980...*	.6	.7	.6	.6	-.7	-.1	-.6	.4	.6	.5
	1.3	1.9	1.0	.8	1.3	.8	1.0	1.9	1.2	.9

SEE NOTES AT END OF TABLE

TABLE 34. FUEL USE CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS						NUMBER OF HOUSEHOLD MEMBERS	
		AGE OF HOUSEHOLD HEAD			ORIGIN				
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1 2 3 4 5 OR MORE		
<b>FUEL COMBINATIONS</b>									
USE NATURAL GAS FOR MAIN HEATING.....	54.6	53.5	56.3	53.7	53.8	61.3	52.3	54.0	
WATER HEAT AND COOK WITH NATURAL GAS.....	30.7	29.7	31.6	30.8	28.6	47.5	29.6	30.5	
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	19.2	19.3	20.6	17.2	20.4	9.8	16.6	20.1	
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	1.1	1.4	1.0	.8	1.1	1.4	1.0	1.1	
WATER HEAT AND COOK WITH ELECTRICITY.....	3.2	3.0	2.8	4.0	3.3	2.4	3.7	4.2	
OTHER.....	.4	.1	.2	.9	.4	.3	1.4	.1	
USE ELECTRICITY FOR MAIN HEATING.....	17.5	22.9	14.2	15.3	18.5	10.0	23.1	18.0	
WATER HEAT AND COOK WITH ELECTRICITY.....	15.0	19.4	12.6	12.7	15.9	7.9	17.9	15.7	
OTHER.....	2.5	3.5	1.6	2.6	2.5	2.1	5.2	2.3	
USE FUEL OIL FOR MAIN HEATING.	15.4	10.9	16.5	19.5	14.8	19.6	16.6	16.4	
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	3.5	2.6	4.1	3.9	3.8	1.6	2.8	3.9	
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	4.0	3.0	3.9	5.4	2.9	12.7	7.0	4.3	
WATER HEAT AND COOK WITH ELECTRICITY.....	4.5	2.9	4.8	6.1	4.9	1.0	4.4	4.7	
WATER HEAT AND COOK WITH NATURAL GAS.....	1.4	1.1	1.3	1.8	1.1	3.6	1.0	1.2	
OTHER.....	2.0	1.3	2.4	2.3	2.2	.6	1.4	2.3	
NCNE/OTHER FUEL.....	12.5	12.7	13.0	11.5	12.9	9.1	8.0	11.6	

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR BECOMES ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SURVEY, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 35. APPLIANCE USE BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA / NON-SMSA
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	RURAL	
TOTAL HOUSEHOLDS.....	81.6	17.7	21.1	27.0	16.0	56.0	25.6
TYPE APPLIANCES USED							55.6
ELECTRIC APPLIANCES USED							26.0
TELEVISION SET, (COLOR) .....	67.0	14.4	17.7	21.5	13.4	46.3	20.7
TELEVISION SET (E/W) .....	41.9	10.3	11.4	13.3	6.9	29.6	12.5
CLOTHES WASHER (AUTOMATIC) .....	58.4	12.6	15.3	19.6	10.9	38.1	19.9
CLOTHES WASHER (WRINGER) .....	2.9	.7	1.2	.8	.2	1.5	1.5
RANGE (STOVE-TOP OF BURNERS) .....	43.8	7.7	11.0	16.3	8.8	26.6	17.2
CLOTHES DRYER .....	38.3	7.3	10.2	14.0	6.9	22.3	16.0
DISHWASHER .....	30.4	6.2	6.8	10.0	7.4	20.6	9.9
HUMIDIFIER .....	11.0	2.1	6.8	1.4	.7	6.8	4.3
DEHUMIDIFIER .....	7.3	2.2	2.8	1.2	.1	4.6	2.8
EVAPORATIVE COOLER .....	3.2	-	.1	.7	2.3	2.7	.5
GAS APPLIANCES USED							
RANGE (STOVE-TOP OF BURNERS) .....	37.5	9.7	10.2	10.4	7.1	29.3	8.2
CLOTHES DRYER .....	11.8	2.6	4.7	2.0	2.4	9.6	2.2
OUTDOOR GAS GRILL .....	7.1	2.3	1.9	1.8	1.0	4.8	2.2
OUTDOOR GAS LIGHT .....	1.6	.1	.7	.6	.2	1.3	1.3
SWIMMING POOL HEATER .....	.4	-	.1	.1	.2	.3	.3
NUMBER OF REFRIGERATORS USED							
1.....	70.0	15.3	16.6	24.1	14.0	48.7	21.3
2 OR MORE.....	11.5	2.4	4.4	2.7	1.9	7.3	4.2
NONE .....	.2	-	-	.1	-	.1	.1
HOST USED REFRIGERATOR							
ELECTRIC .....	81.2	17.5	21.0	26.8	15.9	55.7	25.5
FROST-FREE .....	49.2	9.8	12.4	17.2	9.7	32.4	16.8
NOT FROST-FREE .....	32.0	7.7	8.6	9.5	6.2	23.3	8.7
GAS .....	.3	.1	-	.1	.1	-	.2
NONE .....	.2	-	-	.1	-	.1	.1

SEP NOTES AT END OF TABLE

TABLE 35. APPLIANCE USE BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTHEAST		SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL						
SECOND REFRIGERATOR USED									
ELECTRIC.....	11.4	2.4	4.4	2.7	1.9	7.2	4.2	7.7	3.7
FROST-FREE.....	3.4	.5	1.0	1.2	.6	2.2	1.1	2.1	1.2
NOT FROST-FREE.....	8.0	1.8	3.4	1.5	1.3	5.0	3.1	5.6	2.4
GAS.....	1	-	-	-	-	-	-	1	-
NONE.....	70.2	15.3	16.7	24.2	14.0	48.8	21.4	47.8	22.3
NUMBER OF SEPARATE FREEZERS USED									
1.....	28.5	4.6	8.6	10.7	6.5	15.5	13.0	15.8	12.7
2 OR MORE.....	2.6	.3	1.0	1.0	.3	.9	1.7	.9	1.7
NONE.....	50.5	12.7	11.5	15.2	11.1	39.6	10.9	38.9	11.6
MOST USED FREEZER									
ELECTRIC.....	31.1	5.0	9.6	11.7	4.8	16.4	14.7	16.7	14.4
FROST-FREE.....	8.3	1.2	2.2	3.4	1.5	4.8	3.5	4.8	3.5
NOT FROST-FREE.....	22.8	3.8	7.4	8.3	3.4	11.6	11.2	11.9	11.0
NONE.....	50.5	12.7	11.5	15.2	11.1	39.6	10.9	38.9	11.6
NUMBER OF OVENS USED									
1.....	57.2	13.4	14.1	19.5	10.2	39.2	17.9	38.2	18.9
2.....	18.8	2.8	5.6	6.1	4.4	12.6	6.2	13.4	5.5
3 OR MORE.....	2.2	.2	.6	.6	.8	1.5	.7	1.6	.6
NONE.....	3.5	1.3	.8	.8	.6	2.7	.8	2.5	1.0
MOST USED OVEN									
ELECTRIC.....	45.0	7.7	11.3	16.8	9.1	27.6	17.4	28.6	16.3
MICROWAVE.....	3.5	.4	1.2	1.0	.9	2.2	1.3	2.4	1.1
OTHER ELECTRIC.....	41.5	7.3	10.1	15.8	8.3	25.4	16.1	26.2	15.2
GAS.....	33.0	8.6	9.0	9.2	6.2	25.8	7.3	24.5	8.5
COTHER/NONE.....	3.7	1.3	.8	.9	.6	2.7	1.0	2.5	1.2
SECOND OVEN USED									
ELECTRIC.....	17.6	2.5	4.7	5.9	4.5	11.5	6.1	12.1	5.4
MICROWAVE.....	8.2	.9	2.4	2.3	2.1	5.1	3.1	5.4	2.7
OTHER ELECTRIC.....	9.4	1.6	2.3	3.1	2.5	6.4	3.0	6.7	2.7
GAS.....	3.2	.4	1.4	.8	.7	2.6	.6	2.8	.5
COTHER/NONE.....	60.9	14.8	15.0	20.3	10.7	41.9	18.9	40.7	20.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR REFERS TO ZEROES OR RECORDS TO ZFRC. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND FUEL USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 36. APPLIANCE USE BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTH CENTRAL		WEST	URBAN	RURAL	SMSA		
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>TOTAL HOUSEHOLDS.....</b>									
TYPE APPLIANCES USED									
ELECTRIC APPLIANCES USED									
TELEVISION SET (COLOR) .....	82.0	81.4	83.8	79.9	84.0	82.7	83.1	79.7	79.7
TELEVISION SFT (P/W) .....	51.3	58.4	54.1	49.3	43.1	52.8	52.6	48.0	48.0
CLOTHES WASHER (AUTOMATIC) .....	71.6	71.3	72.6	72.8	68.5	68.0	79.4	69.3	76.6
CLOTHES WASHER (WRINGER) .....	3.5	3.7	5.7	2.9	1.4	2.4	6.0	2.5	5.7
RANGE (STOVE-TOP OR BURNERS) .....	53.7	43.7	52.1	60.6	55.0	47.5	67.1	49.5	62.6
CLOTHES DRYER.....	46.9	41.2	48.5	51.9	42.9	39.9	62.4	41.9	57.8
DISHWASHER.....	37.2	35.2	32.2	37.0	46.5	36.7	38.5	39.8	31.7
HUMIDIFIER.....	13.5	12.1	12.1	5.3	4.5	12.1	16.6	12.3	16.1
DEHUMIDIFIER.....	9.0	12.7	16.0	4.5	5	8.1	19.8	8.6	9.8
EVAPORATIVE COOLER.....	3.9	.3	.4	2.8	14.3	4.8	1.9	4.3	2.9
GAS APPLIANCES USED									
RANGE (STOVE-TOP OR BURNERS) .....	45.9	55.2	48.3	38.6	44.8	52.2	32.1	50.3	36.6
CLOTHES DRYER.....	44.4	14.7	22.4	17.6	15.1	17.1	8.5	17.0	8.9
OUTDOOR GAS GRILL.....	8.6	12.8	9.1	6.8	6.6	8.6	8.8	9.2	7.4
OUTDOOR GAS LIGHT.....	1.9	3	3.3	2.1	1.5	2.3	1.0	2.3	1.0
SWIMMING POOL HEATER.....	.4	.1	.5	.1	1.3	.6	.1	.6	.1
NUMBER OF REFRIGERATORS USED									
1.....	85.7	86.3	78.9	89.5	87.6	86.9	83.2	85.8	85.5
2 OR MORE.....	14.0	13.4	26.9	10.2	12.2	12.9	16.4	14.0	14.1
None.....	.2	.3	.2	.3	.2	.2	.4	.2	.3
MOST USED REFRIGERATOR									
ELECTRIC.....	99.4	99.2	99.7	99.4	99.4	99.4	99.4	99.4	99.4
FROST-FREE.....	60.2	55.4	59.1	64.0	60.7	57.8	65.5	59.4	62.0
NOT FROST-FREE.....	39.2	43.8	40.6	35.4	38.7	41.6	33.9	40.0	37.5
GAS.....	.4	.6	.2	.3	.4	.4	.2	.4	.2
NCNF.....	.2	.3	.2	.3	.2	.2	.4	.2	.3

SEE NOTES AT END OF TABLE

TABLE 36. APPLIANCE USE BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTH		SOUTH	URBAN		RURAL	SMSA	NONSMSA
		NORTHEAST	CENTRAL						
<b>SECOND REFRIGERATOR USED</b>									
ELECTRIC.....	14.0	13.4	26.8	10.1	12.1	12.8	16.4	13.9	14.1
FROST-FREE.....	4.1	3.0	9.9	4.4	3.8	4.0	4.4	3.8	4.7
NCT FRCST-FREE.....	9.8	10.4	15.9	5.7	8.2	8.9	12.0	10.1	9.3
GAS.....	.1	—	—	.1	.1	.1	—	.1	.1
NONE.....	86.0	86.6	76.1	85.8	87.8	87.1	83.6	86.0	85.9
<b>NUMBER OF SEPARATE FREEZERS USED</b>									
1.....	34.9	26.3	40.9	36.9	28.1	27.6	50.8	28.4	48.8
2 OR MORE.....	3.2	1.8	4.6	3.7	2.2	1.6	6.6	1.6	6.6
NONE.....	61.9	71.9	54.5	56.5	69.7	70.7	42.6	70.0	44.6
<b>HOT USED FREEZER</b>									
ELECTRIC.....	38.1	28.1	45.5	43.5	30.3	29.3	57.4	30.0	55.4
FROST-FREE.....	10.1	6.6	10.6	12.7	9.2	8.5	13.7	8.7	13.3
NCT FROST-FREE.....	28.0	21.4	35.0	30.8	21.2	20.8	43.7	21.3	42.1
NONE.....	61.9	71.9	54.5	56.5	69.7	70.7	42.6	70.0	44.6
<b>NUMBER OF OVENS USED</b>									
1.....	70.0	76.0	66.9	72.2	63.7	70.0	70.0	68.7	72.8
2.....	23.0	15.6	26.4	22.6	27.6	22.5	24.2	24.0	21.0
3 OR MORE.....	2.6	1.0	2.8	2.1	5.1	2.7	2.6	2.8	2.3
NONE.....	4.3	7.4	3.8	3.1	3.6	4.8	3.2	4.5	3.9
<b>MOST USE OVEN</b>									
ELECTRIC.....	55.1	43.7	53.6	62.3	57.3	49.2	67.8	51.5	62.7
MICROWAVE.....	4.3	2.2	5.5	3.9	5.6	3.9	5.0	4.3	4.2
OTHER ELECTRIC.....	50.8	41.5	48.0	58.5	51.6	45.3	62.8	47.2	58.5
GAS.....	40.5	48.8	42.5	34.3	39.0	46.0	28.4	44.0	32.8
OTHFR/NCNF.....	4.5	7.5	3.9	3.4	3.7	4.8	3.8	4.5	4.5
<b>SECOND OVEN USED</b>									
ELFTRIC.....	21.5	13.9	22.3	21.7	28.4	20.5	23.7	21.8	20.8
MICRWAVE.....	10.0	5.0	11.6	10.4	13.0	9.1	12.1	9.8	10.6
OTHER ELCTRIC.....	11.5	8.9	10.7	11.4	15.5	11.4	11.6	12.1	10.3
GAS.....	4.0	2.2	6.7	2.8	4.2	4.7	2.4	5.0	1.8
OTHER/NONE.....	74.5	83.9	71.0	75.4	67.4	74.8	73.9	73.2	77.4

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 37. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS)

HOUSING STRUCTURE BY OWNERSHIP																
TYPE APPLIANCES USED	HOUSEHOLD CHARACTERISTICS		SINGLE-FAMILY DETACHED				SINGLE-FAMILY ATTACHED				BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS		MOBILE HOME	
	TOTAL	SINGLE-FAMILY	TOTAL	RENT	TOTAL	CHN	TOTAL	RENT	TOTAL	CHN	TOTAL	RENT	TOTAL	CHN	TOTAL	OWN
	TOTAL	OWN	TOTAL	RENT	TOTAL	CHN	TOTAL	RENT	TOTAL	CHN	TOTAL	RENT	TOTAL	CHN	TOTAL	PFNT
<b>TOTAL HOUSEHOLDS</b>	81.6	53.0	45.5	7.5	3.3	2.2	1.1	0.9	2.0	0.9	7.9	10.8	1.0	9.8	4.6	3.6
ELECTRIC APPLIANCES USED																1.0
TELEVISION SET (COLOR) .....	67.0	46.5	40.8	5.7	2.9	2.0	.8	6.9	1.9	5.0	7.4	1.0	6.5	3.4	2.8	.6
TELEVISION SET (E/W) .....	41.9	26.6	22.9	3.7	1.8	1.3	.5	5.7	1.0	4.6	5.5	.5	5.0	2.3	1.8	.5
CLOTHES WASHER (AUTOMATIC) .....	58.4	45.6	40.6	5.0	2.6	2.0	.6	4.6	1.4	3.1	2.4	.6	3.3	2.7	.6	
CLOTHES WASHER (WRINGER) .....	2.9	2.3	1.9	.4	.1	-.1	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-
RANGE (STOVE-TOP CR BURNERS) .....	43.8	31.8	28.0	3.8	1.3	.8	.5	3.6	.7	2.9	5.7	.4	5.3	1.3	1.1	.2
CLOTHES DRYER .....	38.3	31.4	28.1	3.2	1.2	.9	.3	2.3	.6	1.7	1.2	.4	.9	2.2	1.8	.4
DISHWASHER .....	30.4	23.1	21.9	1.2	1.2	.9	.2	1.4	.6	.8	3.9	.7	3.2	.8	.7	.1
HUMIDIFIER .....	11.0	9.0	8.3	.7	.2	.1	.1	.9	.2	.6	.1	.5	.9	.3	.3	.1
DEHUMIDIFIER .....	7.3	6.8	6.3	.4	.1	-.1	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-
EVAPORATIVE COOLER .....	3.2	2.2	1.7	.5	.2	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.1
GAS APPLIANCES USED																.5
RANGE (STOVE-TOP CR BURNERS) .....	37.5	21.2	17.6	3.6	1.9	1.4	.5	6.3	1.3	4.9	4.8	.6	4.3	3.2	2.5	.8
CLOTHES DRYER .....	11.8	9.7	8.9	.8	.7	.1	.7	.5	.2	.4	.2	.2	.2	.3	.3	-
CUTDOOR GAS GRILL .....	7.1	6.2	5.9	.3	.2	-.2	-.3	.2	-.1	-.2	-.1	-.1	-.1	-.1	-.1	-
CUTDOOR GAS LIGHT .....	1.6	1.4	1.3	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-
SWIMMING POOL HEATER .....	.4	.4	.4	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-
NUMBER OF REFRIGERATORS USED																
1 .....	70.0	42.6	36.2	6.5	2.9	1.9	1.0	9.5	1.8	7.7	10.5	1.0	9.5	4.4	3.4	1.0
2 CR. MORE .....	11.5	10.2	9.2	1.0	.3	-.3	-.4	.2	-.2	-.2	-.2	-.2	-.2	.2	.2	-
NONE .....	.2	.1	.1	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-

SEE NOTES AT END OF TABLE

TABLE 37. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP									
	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS	
	TOTAL	OWN	TOTAL	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT
<b>MOST USED REFRIGERATOR</b>										
ELECTRIC.....	81.2	52.7	45.2	7.5	3.3	2.2	1.0	9.9	2.0	7.9
FROST-FREE.....	49.2	38.1	33.9	4.2	2.1	1.6	.5	3.8	1.2	2.6
NOT FRCST-FREE.....	32.0	14.6	11.3	3.3	1.1	.6	.5	6.1	.8	5.3
GAS.....	.3	.2	.2	-	-	-	-	-	-	-
NCNF.....	.2	.1	.1	-	-	-	-	-	-	-
<b>SECOND REFRIGERATOR USED</b>										
ELECTRIC.....	11.4	10.1	9.2	1.0	.3	-	.4	.2	.2	.2
FROST-FREE.....	3.4	3.1	2.8	.3	.1	-	.1	.1	-	-
NOT FRCST-FREE.....	8.0	7.0	6.3	.7	.2	-	.3	.1	.2	.2
GAS.....	.1	.1	.1	-	-	-	-	-	-	-
NONE.....	70.2	42.8	36.2	6.5	3.0	1.9	1.0	9.5	1.8	7.7
<b>NUMBER OF SEPARATE FREEZERS USED</b>										
1.....	28.5	24.3	22.1	2.3	.9	.7	.2	1.4	.5	.8
2 CP. MORE.....	2.6	2.5	2.4	.2	-	-	.9	8.5	1.5	.5
NONE.....	50.5	26.1	21.0	5.1	2.4	1.5	.9	8.5	1.5	7.1
<b>MOST USED FREEZER</b>										
ELECTRIC.....	31.1	26.8	24.4	2.4	.9	.7	.2	1.4	.5	.8
FROST-FREE.....	8.3	7.0	6.3	.6	.3	.2	.1	.5	.1	.3
NOT FRCST-FREE.....	22.8	19.9	18.1	1.8	.6	.5	.1	.9	.4	.5
NONE.....	50.5	26.1	21.0	5.1	2.4	1.5	.9	8.5	1.5	7.1
<b>NUMBER OF CLONS USED</b>										
1.....	57.2	33.9	28.1	5.8	2.6	1.7	.9	8.3	1.4	6.9
2.....	18.8	15.4	14.1	1.4	.6	.5	.1	1.1	.4	.6
3 CP. MORE.....	2.2	1.8	1.8	.1	-	-	.1	.1	.1	.1
NONE.....	3.5	1.8	1.5	.3	.1	.1	-	.5	.1	.8

SEE NOTES AT END OF TABLE

TABLE 37. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS)-Continued

HOUSING STRUCTURE BY OWNERSHIP													
HOUSEHOLD CHARACTERISTICS		SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
HOST USED OVEN													
ELECTRIC.....	45.0	32.4	28.4	4.0	1.4	0.8	0.6	3.8	0.8	3.1	5.8	0.5	5.3
MICROWAVE.....	3.5	2.9	2.7	.3	.1	-	.2	.1	.1	.1	.1	.1	.1
OTHER ELECTRIC.....	41.5	29.5	25.8	3.7	1.3	.8	.5	3.6	.7	2.9	5.6	.4	5.2
GAS.....	33.0	18.6	15.4	3.2	1.8	1.3	.5	5.6	1.2	4.5	4.2	.5	3.6
OTHER/NONE.....	3.7	2.0	1.6	.4	.1	.1	-	.5	.1	.4	.8	.3	.2
SECOND OVEN USED													
ELECTRIC.....	17.6	14.6	13.5	1.2	.5	.3	.1	.9	.4	.5	.9	.2	.7
MICROWAVE.....	8.2	7.0	6.5	.5	.3	.2	.1	.2	.1	.1	.4	.1	.3
OTHER ELECTRIC.....	9.4	7.6	6.9	.7	.2	.1	.1	.3	.1	.3	.6	.1	.3
GAS.....	3.2	2.5	2.3	.2	.1	.1	.1	.3	.1	.1	.3	.1	.1
OTHER/NONE.....	60.9	35.9	29.7	6.1	2.7	1.8	1.0	8.7	1.4	7.3	9.6	.7	8.9
												4.0	3.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 38. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	SINGLE-FAMILY DETACHED				BUILDING WITH 2 TO 4 UNITS				BUILDING WITH 5 OR MORE UNITS			
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TYPE APPLIANCES USED												
ELECTRIC APPLIANCES USED												
TELEVISION SET (COLOR) .....	92.0	87.7	89.8	75.5	86.5	90.7	77.5	69.2	93.8	62.9	68.8	94.7
TELEVISION SET (B/W) .....	51.3	50.3	49.6	54.1	58.6	44.7	57.0	52.1	58.2	50.9	46.0	51.4
CLOTHES WASHER (AUTOMATIC) ..	71.6	66.1	89.2	67.0	78.8	90.2	54.8	45.9	72.2	39.2	22.4	60.3
CLOTHES WASHER (WRINGER) .....	3.5	4.4	4.3	5.2	2.8	3.2	1.8	2.3	4.9	1.7	.6	-.7
RANGE (STOVE-TOP CR BURNERS) .....	53.7	60.0	61.6	50.7	40.6	35.4	51.6	36.1	35.6	36.2	53.2	44.5
CLOTHES DRYER.....	46.9	59.2	61.9	42.9	36.5	39.3	30.6	23.4	30.4	21.7	11.5	38.1
DISHWASHER.....	37.2	43.6	48.1	16.3	35.8	41.7	23.1	14.3	28.7	10.7	36.6	71.8
HUMIDIFIER.....	13.5	17.0	18.2	9.3	6.2	5.6	7.5	8.6	12.5	7.7	5.5	8.4
DEHUMIDIFIER.....	9.0	12.8	13.9	5.7	3.5	4.3	1.9	2.4	6.1	1.5	1.2	1.0
EVAPORATIVE COOLER.....	3.9	4.2	3.7	6.7	4.8	6.4	1.5	1.4	-.4	1.7	-.8	-.9
GAS APPLIANCES USED												
RANGE (STOVE-TOP CR BURNERS) .....	45.9	40.0	38.8	47.7	58.0	64.6	44.1	63.0	65.9	62.2	45.0	55.5
CLOTHES DRYER.....	14.4	16.3	19.7	10.0	22.9	30.1	7.9	7.0	25.4	2.4	3.4	16.9
CUTDOOR GAS GRILL.....	8.6	11.8	13.0	4.3	6.5	8.2	3.0	3.1	7.9	1.9	1.6	1.4
CUTDOOR GAS LIGHT.....	1.9	2.6	2.8	1.3	3.8	3.8	3.8	-.2	-.2	-.5	-.5	-.6
SWIMMING ECOL HEATER.....	-.4	-.7	-.8	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4
NUMBER OF REFRIGERATORS USED												
1.....	85.7	80.5	79.6	85.9	89.4	85.6	97.4	95.4	90.5	96.7	97.4	93.9
2 OR MORE.....	14.0	19.3	20.3	13.2	10.2	14.4	1.2	4.4	9.5	3.1	2.3	3.9
"NONE".....	.2	.2	.1	.9	.4	-.1	1.4	-.2	-.2	-.3	-.3	-.3

SEE NOTES AT END OF TABLE

TABLE 38. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP												BUILDING WITH 5 OR MORE UNITS			MOBILE HOME UNITS		
HOUSEHOLD CHARACTERISTICS			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			MOBILE HOME UNITS		
	TOTAL	CWN	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT
<b>MOST USED REFRIGERATOR</b>																	
ELECTRIC.....	99.4	99.4	99.5	99.1	99.4	98.6	99.4	99.2	99.5	99.4	100.0	99.3	99.6	99.8	99.0		
FROST-FREE.....	60.2	71.9	74.6	55.4	64.7	71.0	51.5	38.0	59.7	32.6	31.4	80.8	26.4	38.3	41.5	27.0	
NOT FRCST-FREE.....	39.2	27.5	24.9	43.7	34.4	28.4	47.1	61.4	39.5	66.9	67.9	19.2	73.0	61.3	58.3	72.0	
GAS.....	.4	.3	.4	-	.4	-	.6	.4	.8	.3	.3	-	.3	.4	.2	1.0	
NONE.....	.2	.2	.1	.9	.4	-	1.4	.2	-	.2	.3	-	.3	-	-	-	
<b>SECOND REFRIGERATOR USED</b>																	
ELECTRIC.....	14.0	19.2	20.1	13.2	10.2	14.4	1.2	4.4	9.5	3.1	2.3	3.9	2.1	4.8	4.8	4.6	
FROST-FREE.....	4.1	5.9	6.2	3.9	2.8	4.1	-	1.1	3.1	.6	.2	2.1	-	.2	.3	-	
NOT FRCST-FREE.....	9.8	13.3	13.9	9.3	7.4	10.3	1.2	3.3	6.4	2.4	2.1	1.9	2.1	4.6	4.5	4.6	
GAS.....	.1	.1	.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NONE.....	86.0	80.7	79.7	86.8	89.8	85.6	98.8	95.6	90.5	96.9	97.7	96.1	97.9	95.2	95.2	95.4	
<b>NUMBER OF SEPARATE FREEZERS USED</b>																	
1.....	34.9	45.9	48.5	30.0	26.4	31.4	15.8	14.0	27.1	10.7	4.8	7.3	4.5	30.2	35.9	10.2	
2 OR MORE.....	3.2	4.8	5.2	2.1	1.1	2.1	2.2	2	-	-	-	-	-	1.9	2.4	-	
NONE.....	61.9	49.3	46.3	67.9	73.5	68.4	84.2	86.0	72.9	89.3	95.2	92.7	95.5	67.9	61.7	89.8	
<b>MOST USED FREEZER</b>																	
ELECTRIC.....	38.1	50.7	53.7	32.1	26.5	31.6	15.8	14.0	27.1	10.7	4.8	7.3	4.5	32.1	38.3	10.2	
FROST-FREE.....	10.1	13.1	13.9	8.5	9.6	11.0	6.7	4.6	6.6	4.0	1.6	6.3	1.1	8.3	10.1	2.0	
NOT FRCST-FREE.....	28.0	37.5	39.8	23.6	17.0	20.6	9.2	9.4	20.5	6.6	3.2	1.0	3.4	23.8	28.2	8.2	
NONE.....	61.9	45.3	46.3	67.9	73.5	68.4	84.2	86.0	72.9	89.3	95.2	92.7	95.5	67.9	61.7	89.8	
<b>NUMBER OF OVENS USED</b>																	
1.....	70.0	63.9	61.8	76.7	78.4	74.7	86.2	83.2	68.1	81.3	68.9	82.6	79.1	75.7	91.0		
2.....	23.0	25.2	31.0	18.0	17.5	20.9	10.4	11.0	22.4	8.1	9.8	21.7	8.5	13.7	16.7	3.2	
3 OR MORE.....	2.6	3.5	3.9	.9	.3	.5	-	1.1	5.1	1.2	9.3	.3	1.5	1.9	-		
NONE.....	4.3	3.4	3.2	4.5	3.7	3.9	4.7	4.5	4.7	4.8	7.8	-	8.6	5.8	5.8	5.8	

SEE NOTES AT END OF TABLE

TABLE 38. APPLIANCE USE BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
	1	1	1	1	1	1	1	1	1	1	1	1
<b>HOT WATER OVEN</b>												
ELECTRIC.....	55.1	61.1	62.5	52.7	41.5	36.3	52.5	38.5	37.8	38.6	53.4	47.0
MICROWAVE.....	4.3	5.5	5.9	3.7	1.7	0.9	3.5	2.1	4.1	1.5	1.8	8.5
OTHER ELECTRIC.....	50.8	55.6	56.7	49.1	39.8	35.5	49.0	36.4	33.7	37.1	51.7	38.5
GAS.....	40.5	35.2	34.0	42.4	54.7	59.7	44.1	56.7	57.7	56.5	38.8	53.0
OTHER/NONE.....	4.5	3.7	3.5	4.9	3.7	3.9	3.4	4.8	4.5	4.9	7.8	-
<b>SECOND OVEN USED</b>												
ELECTRIC.....	21.5	27.6	29.6	15.8	13.8	15.4	10.4	9.2	20.8	6.3	8.4	20.5
MICROWAVE.....	10.0	13.2	14.4	6.3	8.2	10.0	4.2	2.0	5.6	1.1	3.3	7.3
OTHER ELECTRIC.....	11.5	14.4	15.2	9.5	5.7	5.4	6.3	7.2	15.2	5.2	13.2	4.3
GAS.....	4.0	4.7	5.1	2.5	4.0	5.9	-	2.8	6.7	1.8	10.6	1.7
OTHER/NONE.....	74.5	67.7	65.3	81.7	82.1	78.6	89.6	88.0	72.5	91.9	89.1	68.9

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 39. APPLIANCE USE BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS)

		1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	
HOUSEHOLD CHARACTERISTICS		TOTAL	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 OR MORE
TOTAL HOUSEHOLDS.....		81.6	10.4	13.6	13.8	11.9	9.9	12.4	9.4
TYPE APPLIANCES USED									10.9
ELECTRIC APPLIANCES USED									14.8
TELEVISION SET (COLOR) .....		67.0	6.3	9.7	11.1	10.2	9.2	11.6	8.9
TELEVISION SET (E/W) .....		41.9	5.6	7.4	6.7	5.7	5.1	6.4	5.0
CLOTHES WASHER (AUTOMATIC) .....		58.4	5.0	7.9	8.8	8.9	8.6	10.7	8.5
CLOTHES WASHER (WRINGER) .....		2.9	.7	.6	.5	.3	.2	.2	.1
PANGE (STOVE-TOF OF BURNERS) .....		43.8	4.2	6.1	7.0	6.4	5.8	7.7	6.5
CLOTHES DRYER.....		38.3	2.7	4.4	5.5	5.9	6.2	7.5	6.2
DISHWASHER.....		30.4	1.1	2.1	3.8	4.6	4.9	6.9	7.1
HUMIDIFIER.....		11.0	.4	1.4	1.6	1.7	1.6	2.2	2.1
DEHUMIDIFIER.....		7.3	.2	.7	.8	1.0	1.2	1.8	1.6
EVAPORATIVE COOLER.....		3.2	.4	.7	.6	.4	.5	.4	.3
GAS APPLIANCES USED									.5
PANGE (STOVE-TOF BURNFRS) .....		37.5	5.9	7.6	6.8	5.4	4.1	4.7	3.0
CLOTHES DRYER.....		11.8	.5	1.3	1.6	1.9	1.8	2.5	2.1
OUTDOOR GAS GRILL.....		7.1	.2	.3	.5	1.1	1.2	1.7	2.1
OUTDOOR GAS LIGHT.....		1.6	.1	.2	.2	.2	.2	.3	.4
SWIMMING POOL HEATER.....		.4	-	-	-	-	.1	.1	.2
NUMBER OF REFRIGERATORS USED									
1.....		70.0	9.7	12.4	12.7	10.1	8.2	10.2	6.8
2 OR MORE.....		11.5	.6	1.4	1.1	1.7	1.7	2.2	2.7
NONE.....		.2	.1	.1	.1	-	-	-	.1
MOST USED REFRIGERATOR									
ELECTRIC.....		81.2	10.3	13.7	13.8	11.8	9.9	12.3	9.4
FROST-FREE.....		49.2	4.0	6.6	7.7	7.7	6.8	8.9	7.4
NO FROST-FREE.....		32.0	6.3	7.1	6.0	4.1	3.1	3.4	2.0
GAS.....		.3	-	.1	-	-	-	-	-
NONE.....		.2	.1	.1	.1	-	-	-	.1

SEE NOTES AT END OF TABLE

TABLE 39. APPLIANCE USE BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME				POOR (125 PERCENT LEVEL)			
	TOTAL		\$5,000 TO \$9,995	\$10,000 TO \$14,995	\$15,000 TO \$19,995	\$20,000 TO \$24,995	\$25,000 TO \$34,995	\$35,000 OR MORE
	\$5,000 THAN \$15,000	\$9,995	\$14,995	\$19,995	\$24,995	\$34,995	\$35,000 OR MORE	\$35,000 OR MORE
<b>SECOND REFRIGERATOR USED</b>								
ELECTRIC.....	11.4	0.6	1.4	1.1	1.7	1.7	2.2	2.7
FROST-FREE.....	3.4	.1	.4	.3	.5	.5	1.0	.1
NOT FROST-FREE.....	8.0	.5	1.0	.8	1.3	1.2	1.5	.6
GAS.....	.1	-	-	-	-	-	1.7	.9
NONE.....	70.2	9.8	12.4	12.7	10.1	8.2	10.2	-
<b>NUMBER OF SEPARATE FREEZERS USED</b>								
1.....	28.5	2.5	3.6	4.2	4.2	4.3	5.4	4.2
2 OR MORE.....	2.6	.2	.4	.4	.4	.3	.5	.4
NONE.....	50.5	7.7	9.7	9.3	7.2	5.3	6.5	4.9
<b>MOST USED FREEZER</b>								
ELECTRIC.....	31.1	2.7	4.2	4.5	4.6	4.7	5.9	4.6
FROST-FREE.....	8.3	.5	.9	1.3	1.3	1.2	1.8	1.3
NOT FROST-FREE.....	22.8	2.1	3.3	3.2	3.3	3.5	4.1	3.3
NONE.....	50.5	7.7	9.7	9.3	7.2	5.3	6.5	4.9
<b>NUMBER OF OVENS USED</b>								
1.....	57.2	8.6	11.2	10.7	8.6	6.4	7.5	4.2
2.....	18.8	.8	1.7	2.3	2.7	2.9	4.1	4.2
3 OR MORE.....	2.2	.1	.1	.2	.2	.3	.4	.8
NONE.....	3.5	.9	.8	.6	.3	.3	.3	.2
<b>MOST USED OVEN</b>								
ELECTRIC.....	45.0	4.3	6.2	7.1	6.6	6.0	7.9	6.7
MICROWAVE.....	3.5	.1	.3	.3	.6	.5	.8	.9
OTHER ELECTRIC.....	41.5	4.2	6.0	6.8	6.0	5.5	7.1	5.8
GAS.....	33.0	5.1	6.7	6.1	4.9	3.6	4.1	2.5
OTHER/NONE.....	3.7	1.0	.9	.6	.3	.3	.3	.2
<b>SECOND OVEN USED</b>								
ELECTRIC.....	17.6	.7	1.4	2.2	2.4	2.7	3.8	4.4
MICROWAVE.....	8.2	.2	.4	.8	1.0	1.4	2.2	2.1
OTHER ELECTRIC.....	9.4	.5	1.0	1.3	1.4	1.3	1.6	2.3
GAS.....	3.2	.2	.4	.3	.5	.5	.8	.5
OTHER/NONE.....	60.9	9.6	12.0	11.3	9.0	6.7	7.8	4.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 40. APPLIANCE USE BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME					POOR (100 PERCENT LEVEL)	
	TOTAL		POOR (125 PERCENT LEVEL)		POOR (100 PERCENT LEVEL)		
	LESS THAN \$5,000	TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 OR MORE
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TYPE APPLIANCES USED							
ELECTRIC APPLIANCES USED							
TELEVISION SET (COLOR).....	82.0	60.7	70.2	80.3	86.3	92.2	93.6
TELEVISION SET (B/W).....	51.3	53.7	53.4	48.2	48.1	51.1	52.1
CLOTHES WASHER (AUTOMATIC) .....	71.6	48.1	57.4	63.7	75.3	86.7	86.2
CLOTHES WASHER (WRINGER) .....	3.5	6.8	6.1	3.7	2.6	1.6	1.8
PANGER (STICK-E-TEE OF BURNERS).....	53.7	40.8	43.6	50.6	54.2	58.9	62.6
CLOTHES DRYER.....	46.9	25.8	32.0	39.7	49.7	62.2	60.5
DISHWASHER.....	37.2	10.4	15.3	27.7	38.8	49.0	55.5
HUMIDIFIER.....	13.5	4.3	10.1	11.6	14.0	16.0	17.9
DEHUMIDIFIER.....	9.0	2.4	5.3	5.7	8.3	12.5	14.3
EVAPORATIVE COOLER.....	3.9	3.4	5.3	4.4	3.7	4.8	3.2
GAS APPLIANCES USED							
RANGE (STOVE-TOP OF BURNERS).....	45.9	56.4	54.6	49.1	45.9	41.7	37.7
CLOTHES DRYER.....	14.4	5.1	9.7	11.5	16.3	18.2	19.9
OUTDOOR GAS GRILL.....	8.6	1.5	1.9	3.9	9.5	11.7	13.5
OUTDOOR GAS LIGHT.....	1.9	1.1	1.2	1.5	1.8	2.1	2.4
SWIMMING POOL HEATER.....	.4	-	-	.1	.4	.1	.8
NUMBER OF REFRIGERATORS USED							
1.....	85.7	93.6	89.3	91.9	85.1	82.7	82.2
2 OR MORE.....	14.0	5.7	10.3	7.9	14.7	17.3	17.7
NONE.....	.2	.7	.4	.2	.2	.2	.2
MOST USED REFRIGERATOR							
ELECTRIC.....	99.4	99.2	98.7	99.6	99.4	99.7	99.8
PROST-FREE.....	60.2	38.1	47.5	55.9	65.0	68.6	72.3
NOT FROST-FREE.....	39.2	61.1	51.2	43.7	34.5	31.1	27.4
GAS.....	.4	.1	.9	.2	.4	.1	.4
NONE.....	.2	.7	.4	.2	.2	.2	.7

SEE NOTES AT END OF TABLE

TABLE 40. APPLIANCE USE BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	
	TOTAL			FOOD (\$15,000 TO \$34,999)				
	LESS THAN \$5,000	\$10,000	\$15,000	\$20,000	\$25,000	\$35,000		
SECOND REFRIGERATOR USED								
ELECTRIC	14.0	5.7	10.1	7.9	14.6	17.2	28.4	
FROST-FREE	4.1	3.9	3.0	2.0	3.7	5.5	10.4	
NOT FROST-FREE	9.8	4.8	7.1	5.9	10.8	12.1	18.0	
GAS	-	-	-	-	-	-	-	
NONE	86.0	94.3	89.7	92.1	85.3	82.7	71.5	
NUMBER OF SEPARATE FREEZERS USED								
1	34.9	23.6	27.3	30.1	35.7	43.5	43.6	
2 OR MORE	3.2	2.1	2.8	2.8	3.3	3.5	4.1	
NONE	61.9	74.3	69.9	67.2	61.0	53.0	52.3	
MOST USED FREEZER								
REFCTPIC	38.1	25.7	30.1	32.8	39.0	47.0	47.7	
FROST-FREE	10.1	5.1	6.2	9.6	11.1	11.8	14.6	
NOT FROST-FREE	28.0	20.7	23.8	23.3	27.9	35.2	33.1	
NONE	61.9	74.3	69.9	67.2	61.0	53.0	52.3	
NUMBER OF OVENS USED								
1	70.0	83.1	80.5	77.2	72.6	64.7	60.4	
2	23.0	7.6	12.5	17.0	22.7	29.3	33.5	
3 OR MORE	2.6	1.9	1.0	1.3	2.0	3.4	3.3	
NONE	4.3	8.5	6.0	4.5	2.8	2.6	2.8	
MOST USED OVEN								
ELECTRIC	55.1	41.6	45.0	51.5	55.7	60.9	64.0	
MICROWAVE	4.3	6.6	1.9	2.3	5.0	5.4	6.7	
OTHER ELECTRIC	50.8	41.0	43.1	49.2	50.7	55.5	57.3	
GAS	40.5	49.0	48.7	44.0	41.5	36.5	33.2	
OTHER/NONE	4.5	9.4	6.3	4.5	2.8	2.6	2.8	

SF6 NOTES AT END OF TABLE

TABLE 40. APPLIANCE USE BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME				POOR (125 PERCENT LEVEL)
		\$5,000 THAN \$15,000	\$10,000 TO \$19,999	\$15,000 TO \$19,999	\$20,000 TO \$34,999	
SECOND OWN USE						
ELECTRIC.....	21.5	10.2	15.7	20.0	27.5	30.5
MICROWAVE.....	10.0	1.7	3.1	6.0	8.4	16.5
OTHER ELECTRIC.....	11.5	4.6	7.1	9.7	11.6	13.0
GAS.....	4.0	1.5	3.0	2.4	4.4	4.9
COTHER/NCNF.....	74.5	92.1	86.6	81.9	75.6	67.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.
SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 41. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		WEST	URBAN		SMSA	NONSMSA
		NORTH	CENTRAL		RURAL			
TOTAL HOUSEHOLDS.....	81.6	17.7	21.1	27.0	16.0	56.0	25.6	55.6
NUMBER OF WINDOWS								26.0
1 TO 6.....	13.7	3.5	2.5	3.9	3.8	11.5	2.3	11.1
7 TO 12.....	33.6	5.4	7.9	12.9	7.4	21.9	11.7	21.6
13 TO 18.....	21.9	4.7	6.7	7.4	3.0	13.9	5.0	14.4
19 OR MORE.....	12.2	4.0	3.8	2.9	1.5	8.5	3.7	7.5
NONE.....	2.2	-	1	-	1	-	0.2	0.0
AVERAGE NUMBER OF WINDOWS....	12.4	13.7	13.4	11.8	10.6	12.2	12.9	12.2
SIZE AND NUMBER OF WINDOWS LARGE (24 SQ. FT. OR LARGER)								
1.....	19.1	3.9	7.0	4.6	3.5	13.1	6.0	13.1
2.....	10.6	2.1	2.7	2.6	3.1	7.4	3.2	7.5
3 CR MCRF.....	16.7	3.7	3.3	4.0	5.7	12.2	4.5	12.6
NONE/NO WINDOWS.....	35.3	7.9	8.1	15.6	3.7	23.3	12.0	22.4
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.8	1.5	1.3	2.6	1.9	1.4	1.4
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)								
1 TO 4.....	17.3	2.7	3.6	5.1	5.8	12.8	4.5	12.6
5 TO 8.....	23.8	4.1	6.6	8.4	4.7	16.0	7.8	15.6
9 TO 12.....	16.6	3.7	4.8	6.6	1.7	10.8	6.1	11.1
13 OR MCFF.....	16.0	5.1	4.6	5.1	1.3	10.4	5.6	10.4
NONE/NC WINDOWS.....	7.6	2.0	1.4	1.7	2.5	6.0	1.7	5.9
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	8.0	9.4	8.7	8.3	5.2	7.7	8.7	7.8
SMALL (6 SQ. FT. OR SMALLER)								
1.....	15.1	3.9	2.6	5.1	3.5	11.0	4.2	10.7
2.....	14.9	2.5	2.7	5.9	3.8	10.1	4.8	10.2
3.....	7.0	1.4	2.0	2.9	1.5	5.1	2.7	5.1
4 CR MCRF.....	21.4	4.5	7.9	5.1	4.0	13.9	7.5	13.4
NONE/NC WINDOWS.....	22.4	5.4	5.8	7.9	3.2	15.9	6.5	16.2
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	2.5	3.2	2.2	2.8	2.5	2.9	2.5

SEE NOTES AT END OF TABLE

TABLE 41. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTHEAST		SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL						
<b>NUMBER OF STORM WINDOWS</b>									
1 TO 6.....	8.9	2.8	3.0	1.8	1.3	6.2	2.7	6.1	2.9
7 TO 12.....	18.6	4.3	7.7	4.7	7.3	10.5	7.5	7.3	4.9
13 TO 18.....	12.4	4.0	5.2	2.8	4.4	7.6	5.0	7.5	4.9
19 OR MORE.....	7.4	3.0	3.0	1.2	2.2	5.1	2.3	4.9	2.5
NONE/NO WINDOWS.....	34.9	3.5	2.1	16.5	12.8	26.8	8.1	26.5	8.4
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	10.7	11.2	4.5	7.7	6.4	8.3	6.4	8.3
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	• 8	1.2	1.3	.4	.4	.8	.0	-.8	-.9
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.9	7.9	7.5	3.3	.8	4.5	5.9	4.5	5.6
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	1.6	2.4	.7	.5	1.2	1.6	1.1	1.7
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>									
100 PERCENT.....	31.4	9.4	13.1	7.2	1.6	19.0	12.4	19.1	12.3
76 TO 99 PERCENT.....	7.3	2.5	2.8	1.6	.3	4.9	2.4	4.7	2.6
51 TO 75 PERCENT.....	3.6	1.0	1.8	.6	.4	2.3	1.5	2.5	1.3
1 TO 50 PERCENT.....	4.3	1.2	1.2	1.1	.8	3.0	1.3	2.9	1.5
NONE/NO WINDOWS.....	34.9	3.5	2.1	16.5	12.8	26.8	8.1	26.5	8.4

SEE NOTES AT END OF TABLE

TABLE 91. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTHEAST		SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL						
<b>NUMBER OF OUTSIDE DOORS</b>									
1.....	7.8	2.5	1.8	1.6	6.9	0.9	6.5	1.3	
2.....	36.5	7.2	9.8	12.8	24.9	11.6	23.8	12.7	
3.....	22.5	4.3	6.0	7.9	14.2	8.3	14.7	7.8	
4 OR MORE.....	12.2	1.9	2.8	4.3	3.2	7.6	4.6	8.1	4.0
NONE.....	2.6	1.7	.6	.2	.1	2.5	.1	2.4	.1
AVERAGE NUMBER OF DOORS.....	2.5	2.2	2.5	2.6	2.7	2.8	2.4	2.4	
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>									
STANDARD DOORS									
1.....	12.6	3.1	2.2	3.4	3.7	10.4	2.1	10.5	2.0
2.....	41.7	7.7	11.5	14.2	8.3	27.4	14.3	27.2	14.5
3.....	17.4	3.6	4.6	6.4	2.7	11.1	6.3	16.7	6.6
4 OR MORE.....	6.5	1.3	1.8	2.4	1.0	3.8	2.6	3.9	2.6
NONE/NO DOORS.....	3.5	2.0	.9	.4	.2	3.3	.2	3.3	.3
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.0	2.2	2.3	2.1	2.1	2.4	2.1	2.4
SLIDING GLASS DOORS									
1.....	15.6	2.5	3.7	5.0	4.6	10.1	5.7	11.6	4.2
2 OR MORE.....	4.9	.4	.7	1.5	2.3	3.4	1.5	3.9	1.0
NONE/NO DOORS.....	61.0	14.8	16.7	20.4	9.1	42.6	18.4	40.1	20.9
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.3	.2	.2	.3	.6	.3	.4	.4	.3

SEE NOTES AT END OF TABLE

TABLE 41. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA NON-SMSA
		NORTHEAST		SOUTH	WEST	URBAN	
		NORTH	CENTRAL				
<b>NUMBER OF STORM DOORS</b>							
1.....	13.0	2.9	3.9	4.7	1.5	8.2	5.0
2.....	22.6	6.0	9.5	5.1	1.4	14.3	8.2
3.....	8.5	2.5	3.4	2.6	.4	4.9	3.9
4 OR MORE.....	2.9	.7	1.2	.8	.1	1.4	1.1
NONE/NC DOORS.....	34.9	5.5	3.1	13.8	12.5	27.2	7.6
AVERAGE NUMBER OF STORM DOORS.....	1.2	1.5	1.8	1.0	.4	1.0	1.5
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	1.3	1.6	.8	.3	.9	1.3
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	.2	.2	.1	.1	.2	.1
<b>PERCENT OF OUTSIDE DOORS WITH STORM DOORS</b>							
100 PERCENT.....	26.3	7.6	11.4	6.1	1.3	16.7	9.6
51 TO 99 PERCENT.....	7.6	2.0	3.0	1.9	.6	4.5	3.1
1 TO 50 PERCENT.....	12.9	2.5	3.6	5.2	1.6	7.7	5.2
NONE/NC DOORS.....	34.9	5.5	3.1	13.8	12.5	27.2	7.6

SEE NOTES AT END OF TABLE

TABLE 41. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	
TOTAL SINGLE-FAMILY UNITS.....	56.3	10.3	15.4	19.7	10.8	36.0	20.3	36.1
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)								
YES.....	43.2	6.1	12.7	14.6	7.8	27.1	16.1	27.9
ALL INSULATED.....	38.6	7.1	11.3	13.3	6.9	23.9	14.7	24.6
PART INSULATED.....	4.1	1.0	1.1	1.1	.8	2.8	1.3	2.8
DN'T KNW AMOUNT / NOT REPORTED.....								
NO.....	5	-	.2	.1	.1	.4	.1	.5
DN'T KNW/NOT REPORTED.....	8.1	1.4	1.5	3.3	2.0	5.2	3.0	4.7
4.9	.8	1.3	1.8	1.0	1.0	3.6	1.3	3.5
TYPE OF INSULATION								
PATTS ONLY.....	21.5	5.5	5.5	7.2	3.3	13.4	8.1	13.8
AVERAGE NUMBER OF INCHES.....	5.3	5.6	5.6	5.0	4.9	5.1	5.6	5.1
LOOSE FILL ONLY.....	11.7	1.0	3.9	4.1	2.7	7.3	4.4	7.5
AVERAGE NUMBER OF INCHES.....	6.5	5.9	7.5	6.0	6.0	7.2	6.2	7.1
PATTS AND LOOSE FILL ONLY.....	4.7	.8	2.0	1.2	.7	2.9	1.8	2.9
AVERAGE NUMBER OF INCHES.....	10.3	9.9	10.8	10.2	9.7	10.1	10.6	10.4
OTHER/COMBINATIONS.....	3.2	.6	.9	1.3	.5	2.0	1.3	2.1
DN'T KNW TYPE / NOT REPORTED.....								
NO INSULATION/DON'T KNOW / NOT REPORTED.....	2.1	.3	.4	.8	.7	1.6	.5	1.5
13.1	2.2	2.8	5.1	3.0	8.8	4.3	8.2	4.9

SEE NOTES AT END OF TABLE

TABLE 41. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HCUSHPOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA		
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>									
YES.....	36.2	7.5	11.5	12.0	5.3	21.2	15.0	21.9	14.3
ALL WALLS.....	29.6	6.0	9.6	9.7	4.3	16.9	12.7	17.9	11.7
SOME WALLS.....	6.6	1.4	1.9	2.3	1.0	4.3	2.3	4.0	2.6
NO.....	11.5	1.6	2.1	4.4	3.4	6.3	3.3	7.7	3.8
DON'T KNOW/NOT REPORTED.....	8.5	1.3	1.8	3.4	2.1	6.5	2.0	6.4	2.1
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>									
HAVE BASEMENT/CRAWL SPACE.....	44.0	9.3	13.8	13.7	7.2	27.3	16.7	27.0	17.0
HEATED.....	13.0	3.9	6.6	1.4	1.1	9.0	4.0	6.8	4.1
NOT HEATED.....	31.0	5.4	7.3	12.3	6.1	18.3	12.8	18.2	12.8
HAVE FLOOR INSULATION.....	4.9	1.0	1.2	2.1	.5	2.1	2.8	2.4	2.5
ALL PARTS INSULATED.....	3.9	.7	.9	1.8	.4	1.6	2.3	1.8	2.1
SOME PARTS INSULATED.....	1.0	.3	.3	.3	.1	.5	.5	.6	.4
NO FLOOR INSULATION.....	21.8	3.8	4.9	8.3	4.8	13.2	8.6	13.1	8.7
DON'T KNOW/NOT REPORTED.....	4.4	.6	1.2	1.9	.7	3.0	1.4	2.8	1.6
NO BASEMENT/CRAWL SPACE.....	12.3	1.1	1.6	6.0	3.6	8.7	3.6	9.0	3.3
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>									
UNITS WITH SOME OF ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND RFOF OR CEILING INSULATION.....	27.4	7.4	11.8	6.7	1.6	16.0	11.5	16.2	11.2
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	50.6	10.2	15.3	16.8	8.2	32.0	18.5	32.5	18.1
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	.1	-1	2.9	2.6	3.9	1.8	3.6	2.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FONDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND FNT USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 42. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		SOUTH	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL	URBAN	RURAL	SMSA	NONSMSA	
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS								
1 TO 6.....	16.8	19.8	11.9	14.4	24.1	20.5	8.9	20.0
7 TO 12.....	41.1	30.5	37.6	47.7	46.5	39.1	45.5	38.9
13 TO 18.....	26.8	26.7	32.0	27.3	19.1	24.8	31.2	25.9
19 OR MORE.....	15.0	22.8	18.0	10.6	9.6	15.2	14.4	15.3
NONE.....	.3	.1	.5	-	.7	.4	.4	-
SIZE AND NUMBER OF WINDOWS								
LARGE (24 SQ. FT. OR LARGER)								
1.....	23.4	22.2	33.4	17.3	21.8	23.4	23.3	23.6
2.....	12.9	12.0	12.7	9.8	19.5	13.2	12.3	13.5
3 OR MORE.....	20.5	21.2	15.5	14.9	35.6	21.8	17.4	22.6
NCNF/NC WINDOWS.....	43.2	44.6	38.4	58.0	23.1	41.5	47.0	40.3
MEDIUM (MCEF THAN 6, LESS THAN 24 SQ. FT.)								
1 TO 4.....	21.2	15.5	17.2	19.1	36.4	22.9	17.6	22.6
5 TO 8.....	29.2	23.5	31.3	31.3	29.2	28.6	30.5	28.0
9 TO 12.....	20.6	20.9	23.0	24.4	10.8	19.2	23.6	20.0
13 OR MORE.....	19.6	28.8	21.8	18.8	7.9	18.6	21.8	18.8
NCNF/NC WINDOWS.....	9.4	11.3	6.6	6.5	15.7	10.7	6.5	10.6
SMALL (6 SQ. FT. OR SMALLER)								
1.....	18.5	22.2	12.5	19.0	21.7	19.6	16.2	19.3
2.....	18.2	14.0	12.9	21.8	23.7	18.0	18.6	18.4
3.....	9.6	7.8	9.7	10.7	9.4	9.1	10.6	9.1
4 OR MORE.....	26.3	25.2	37.4	19.0	24.9	24.8	29.3	24.0
NCNF/NC WINDOWS.....	27.4	30.7	27.5	29.5	20.2	28.4	25.2	29.2

STUFF NOTES AT END OF TABLE

TABLE 42. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		SOUTH	WEST	URBAN	RURAL	SMSA
		NORTH	CENTRAL					NONSMSA
<b>NUMBER OF STORM WINDOWS</b>								
1 TO 6.....	11.0	16.0	14.4	6.8	7.9	11.1	10.6	10.9
7 TO 12.....	22.1	24.2	36.7	8.4	16.8	29.2	19.2	28.1
13 TO 18.....	15.2	22.5	24.8	10.3	2.6	13.2	19.6	13.5
19 OR MORE.....	9.1	17.2	14.1	4.5	1.1	9.1	9.1	18.7
NONE/NO WINDOWS.....	42.7	20.0	10.1	61.1	90.0	47.9	31.5	8.7
								9.8
								32.4
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>								
100 PERCENT.....	38.4	53.3	62.4	26.6	10.3	33.9	48.4	34.4
76 TO 99 PERCENT.....	8.9	14.4	13.3	5.9	2.1	8.7	9.3	8.5
51 TO 75 PERCENT.....	4.6	5.6	8.6	2.1	2.5	4.2	5.7	4.5
1 TO 50 PERCENT.....	5.3	6.7	5.6	4.2	5.1	5.4	5.0	5.2
NONE/NO WINDOWS.....	42.7	20.0	10.1	61.1	80.0	47.9	31.5	47.6
								5.6
								32.4
<b>NUMBER OF OUTSIDE DOORS</b>								
1.....	9.6	14.4	8.6	6.8	10.1	12.2	3.7	11.7
2.....	44.8	40.8	46.7	47.6	41.9	44.5	45.4	42.8
3.....	27.6	24.5	28.5	29.1	27.3	25.3	32.6	26.5
4 OR MORE.....	14.9	10.7	13.4	15.8	20.1	13.5	18.0	14.6
NONE.....	3.2	9.6	2.8	.7	.6	4.5	.3	4.4
								5.0
								46.9
								30.0
								15.5
								1.1
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>								
STANDARD DOORS								
1.....	15.4	17.8	10.6	12.8	23.4	18.6	8.3	18.9
2.....	51.1	43.4	54.4	52.8	52.3	48.9	55.9	48.9
3.....	21.3	20.5	22.0	23.8	17.0	19.8	24.6	19.3
4 OR MORE.....	7.9	7.2	6.5	9.0	6.1	6.8	10.3	7.0
NONE/NC DOORS.....	4.3	11.2	4.5	1.6	1.2	5.9	.9	5.9
								9.8
								1.1
SLIDING GLASS DOORS								
1.....	19.3	14.2	17.3	18.7	28.7	18.0	22.1	20.9
2 OR MORE.....	6.0	2.2	3.2	5.6	14.5	6.0	7.1	3.7
NONE/NC DOORS.....	74.7	83.6	79.4	75.7	56.8	76.0	71.9	80.3

SEE NOTES AT END OF TABLE

TABLE 42. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTHEAST	CENTRAL	SOUTH	URBAN	RURAL	
NUMBER OF STORM DOORS							
1.....	15.9	16.6	18.6	17.4	9.1	14.6	14.3
2.....	26.9	33.8	44.9	18.8	9.1	25.6	24.7
3.....	10.9	14.4	15.9	5.6	2.8	8.7	9.1
4 OR MORE.....	3.5	4.0	5.8	3.0	.9	2.5	5.6
NONE/NC DOORS.....	42.7	31.2	14.8	51.2	78.2	48.6	48.6
PERCENT OF OUTSIDE DOORS WITH							
STORM DOORS							
100 PERCENT.....	32.2	42.9	54.0	22.6	7.9	29.8	37.7
51 TO 99 PERCENT.....	9.3	11.6	14.4	6.9	3.9	8.0	8.5
1 TO 50 PERCENT.....	15.8	14.4	16.9	19.3	10.1	13.7	13.7
NONE/NC DOORS.....	42.7	31.2	14.8	51.2	78.2	48.6	48.6
TOTAL SINGLE-FAMILY UNITS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)							
YES.....	76.8	78.5	82.1	74.1	72.3	75.4	79.1
ALL INSULATED-PART INSULATED.....	68.5	68.3	73.3	67.6	63.5	66.4	72.2
DON'T KNOW AMOUNT/NOT REPORTED.....	7.3	9.9	7.4	5.7	7.4	7.8	6.3
NO.....	14.5	13.3	9.5	1.4	.7	1.4	1.2
DON'T KNOW/NOT REPORTED.....	8.8	8.2	8.5	9.1	9.3	18.3	14.4
TYPE OF INSULATION							
PATTS ONLY.....	38.2	53.0	35.9	36.5	30.3	37.1	40.1
LOCSE FILL ONLY.....	20.7	9.8	25.0	20.7	25.0	20.3	21.4
BATTS AND LOCSE FILL ONLY.....	8.3	7.5	13.2	6.1	6.2	8.1	8.7
OTHER/COMBINATIONS.....	5.8	5.7	5.6	6.4	4.8	5.5	6.2
DON'T KNOW TYPE/NOT REPORTED.....	3.8	2.5	2.4	4.3	6.0	4.4	2.7
NO INSULATION/DCN'T KNOW/NOT REPORTED.....	23.2	21.5	17.9	25.9	27.7	24.6	20.9

SEE NOTES AT END OF TABLE

TABLE 42. THERMAL CHARACTERISTICS BY CENSUS REGION, AREA TYPE AND SNSA/NON-SNSA  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SNSA/NON-SNSA	
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	SNSA
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>								
YES.....	64.4	72.2	74.2	60.9	49.2	59.0	70.0	60.8
ALL WALLS.....	52.6	58.2	62.1	49.3	39.5	47.0	62.5	49.7
SOME WALLS.....	11.8	14.0	12.1	11.6	9.7	12.0	11.4	11.1
NO.....	20.5	15.5	13.8	22.1	31.8	23.0	16.1	21.4
DN/T KNKN/NOT REFFCTD.....	15.1	12.2	11.9	17.1	19.0	16.1	9.9	17.8
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>								
HAVE BASEMENT/CRAWL SPACE.....	78.2	89.5	85.7	69.4	66.8	75.9	82.3	75.0
HEATED.....	23.0	37.5	42.5	7.0	10.5	25.0	19.5	24.4
NOT HEATED.....	55.1	52.0	47.3	62.4	56.3	50.9	62.8	50.5
HAVE FLOOR INSULATION.....	8.7	10.0	7.9	10.6	5.0	5.9	13.7	6.6
ALL FARTS INSULATED.....	6.9	6.8	6.0	9.2	3.8	4.4	11.2	5.0
SOME PARTS INSULATED.....	1.8	3.2	1.9	1.4	1.2	1.5	2.4	1.7
NO FLOOR INSULATION.....	38.7	36.4	31.7	42.2	44.4	36.7	42.1	36.2
DON'T KNOW/NOT REPORTED.....	7.8	5.6	7.7	5.5	6.8	8.3	7.0	43.1
NO BASEMENT/CRAWL SPACE.....	21.8	10.5	10.3	30.6	33.2	24.2	17.7	8.0
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>								
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	48.8	71.3	76.8	33.8	14.4	44.4	56.4	45.0
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	89.8	98.6	99.1	85.4	76.3	89.1	91.2	90.0
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	1.4	.9	14.6	23.7	10.9	8.8	10.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS		
	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT
TOTAL HOUSEHOLDS.....	81.6	53.0	45.5	7.5	3.3	2.2	1.1	9.9	2.0	7.9	10.8	1.0
NUMBER OF WINDOWS												
1 TO 6.....	13.7	2.1	1.5	.6	.3	.3	3.0	.2	2.8	7.7	7.1	-.3
7 TO 12.....	33.6	22.4	18.9	3.5	1.2	.7	4.9	1.0	3.9	2.5	.2	.2
13 TO 18.....	21.9	17.2	15.0	2.2	1.1	.9	2.2	1.6	1.5	1.1	.3	.6
19 OR MORE.....	12.2	11.3	10.0	1.3	.3	.3	1	.5	.3	1.2	.2	-.4
NONE.....	.2	—	—	—	—	—	—	—	—	—	—	—
AVERAGE NUMBER OF WINDOWS....	12.4	14.5	14.8	13.0	11.7	12.7	9.7	9.5	12.9	8.7	5.1	6.3
SIZE AND NUMBER OF WINDOWS LARGE (24 SQ. FT. OR LARGER)												
1.....	19.1	14.3	12.8	1.5	.6	.5	1	1.6	4	1.1	2.2	-.2
2.....	10.6	7.0	6.4	.7	.4	.2	.9	.1	.7	1.5	1.3	.6
3 OR MORE.....	16.7	11.3	10.0	1.3	.8	.6	1.7	.4	1.3	2.0	.3	.1
NONE/NC WINDOWS.....	35.3	20.4	16.3	4.1	1.2	.8	.4	5.8	1.0	4.7	5.1	.4
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.9	1.9	1.6	2.2	2.1	2.2	1.4	1.8	1.3	2.0	1.2
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)												
1 TO 6.....	17.3	7.9	6.7	1.2	.7	.6	2	2.5	4	2.1	5.1	-.4
5 TO 8.....	23.8	15.9	13.6	2.3	.7	.4	3	3.5	6	2.9	2.1	-.3
9 TO 12.....	16.8	12.8	10.9	1.9	.8	.6	2	1.8	.5	1.3	.4	-.4
13 OR MORE.....	16.0	13.7	11.9	1.7	.6	.5	1	.9	.3	.6	.2	.2
NONE/NC WINDOWS.....	7.6	2.7	2.3	.4	.4	.1	.3	1.2	.2	1.0	3.0	.3
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	8.0	9.5	9.6	8.9	7.7	8.5	6.1	6.4	8.6	5.9	3.1	3.5
SMALL (6 SQ. FT. OR SMALLER)												
1.....	15.1	8.0	6.6	1.5	.6	.5	1	2.8	5	2.2	2.8	-.2
2.....	14.9	10.2	8.9	1.4	.7	.6	2	1.9	5	1.5	1.0	—
3.....	7.8	5.2	5.2	.7	.4	.3	.1	.6	.1	.5	.4	-.3
4 OR MORE.....	21.4	17.5	15.8	1.7	.5	.4	2	1.2	.4	.8	.1	.5
NONE/NC WINDOWS.....	22.4	11.3	9.1	2.2	1.0	.5	.5	3.3	.5	2.9	6.2	.7
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	3.2	3.3	2.5	1.8	2.1	1.3	1.7	2.6	1.5	.8	.8

SEE NOTES AT END OF TABLE

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP											
	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS			
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT
<b>NUMBER OF STORM WINDOWS</b>												
1 TO 6.....	8.9	3.5	2.7	0.3	0.2	0.1	1.8	0.3	1.5	3.3	0.4	2.9
7 TO 12.....	18.0	13.1	11.8	1.3	.8	.6	2.4	.7	1.7	-	.6	1.1
13 TO 18.....	12.4	10.1	9.2	.9	.7	.6	1.1	.7	.3	-	.1	.7
19 OR MORE.....	7.4	6.9	6.3	.6	.2	.1	.3	.2	.1	-	.1	.1
NONE/NO WINDOWS.....	34.9	19.5	15.4	4.1	1.4	.8	.6	4.8	.5	4.3	6.7	.6
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	8.7	9.2	5.4	6.8	8.0	4.2	4.8	8.9	3.8	1.7	2.0
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	.8	1.0	1.0	.4	.8	.9	.5	.6	.9	.5	.4	.6
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.9	6.1	6.4	4.1	5.3	6.2	3.3	3.5	6.6	2.8	1.1	1.2
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	1.7	1.8	1.0	.7	.9	.4	.7	1.4	.5	.2	.2
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>												
100 PERCENT.....	31.4	22.1	20.2	1.9	1.2	.9	.4	3.1	.9	2.2	3.4	.3
76 TO 99 PERCENT.....	7.3	5.4	4.9	.5	.4	.4	-	.9	.7	.1	-	.1
51 TO 75 PERCENT.....	3.8	3.1	2.6	.5	.1	-	-	.4	.1	.2	-	.1
1 TO 50 PERCENT.....	4.3	2.9	2.4	.5	.2	.2	-	.7	.2	.4	.1	.2
NONE/NO WINDOWS.....	14.9	19.5	15.4	4.1	1.4	.8	.6	4.8	.5	4.3	6.7	.6

SEE NOTES AT END OF TABLE

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP									
	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS	
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN
<b>NUMBER OF OUTSIDE DOORS</b>										
1.....	7.8	.6	0.4	0.2	0.3	0.2	0.1	2.2	0.3	4.4
2.....	36.5	22.2	17.9	4.2	1.7	1.0	.7	5.3	1.0	4.3
3.....	22.5	19.2	17.1	2.1	.8	.7	.2	1.3	.5	.8
4 CR MCREF.....	12.2	11.0	10.1	.9	.5	.3	.1	.5	.2	.6
NCNE.....	2.6	-	-	-	-	-	-	.2	-	.4
AVERAGE NUMBER OF DOORS.....	2.5	2.9	3.0	2.6	2.5	2.6	2.4	2.1	1.9	2.1
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>										
STANDARD DOORS										
1.....	12.6	2.4	2.1	.3	.8	.4	.3	2.7	.3	2.4
2.....	41.7	29.3	24.7	4.7	1.7	1.1	.5	5.1	1.1	4.0
3.....	17.4	15.2	13.4	1.8	.7	.6	.1	1.0	.3	.7
4 CR MCREF.....	6.5	6.0	5.3	.7	.2	.1	.1	.3	.1	.2
NONE/NC DOORS.....	3.5	.1	.1	-	-	-	.8	.2	.2	.2
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.5	2.5	2.4	2.1	2.0	1.7	2.0	1.0	1.0
SLIDING GLASS DOORS										
1.....	15.8	11.1	10.5	.6	.6	.3	.3	1.0	.2	.8
2 OR MCREF.....	4.9	3.7	3.5	.2	.3	.3	.1	.1	.7	.1
NONE/NC DOORS.....	61.0	36.2	31.5	6.7	2.4	1.6	.7	8.8	1.7	7.1
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.3	.4	.4	.1	.4	.4	.1	.2	.1	.4

SEE NOTES AT END OF TABLE

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE BY OWNERSHIP												
	TOTAL			SINGLE-FAMILY DETACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	
<b>NUMBER OF STORM DOORS</b>													
1.....	13.0	7.8	6.6	1.2	0.5	0.4	0.1	1.9	0.4	1.4	1.4	1.1	0.3
2.....	22.0	17.6	15.7	1.9	1.1	0.8	-3	1.8	.6	1.2	.2	.7	.6
3.....	8.9	8.3	7.9	.4	.3	.2	-	.2	.1	.1	.1	.1	-
4 CR MCFF.....	2.9	2.7	2.6	.1	.1	.1	-	.1	.1	-	-	-	-
NONE/NC DOORS.....	34.9	16.7	12.8	3.9	1.4	.7	.6	6.0	.8	5.2	8.4	.7	7.7
AVERAGE NUMBER OF STORM DOORS.....	1.2	1.5	1.6	.9	1.2	1.4	.7	.6	1.1	.5	.3	.7	.7
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	1.3	1.4	.9	1.0	1.2	.7	.6	1.1	.5	.1	.1	.6
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	.2	.2	-	.1	.2	.1	-	.1	.2	.5	.1	-
<b>PERCENT OF OUTSIDE DCORS WITH STORM DOORS</b>													
100 PERCENT.....	26.3	20.2	18.5	1.7	1.3	1.1	-3	2.5	.8	1.7	1.5	.3	1.2
51 TO 99 PERCENT.....	7.6	6.7	6.0	.7	.2	.1	-1	2.3	.1	.2	.3	-	.2
1 TO 50 PERCENT.....	12.9	9.4	8.1	1.2	.4	.3	-1	1.2	.3	.8	.6	-	.6
NONE/NC DOORS.....	34.9	16.7	12.8	3.9	1.4	.7	.6	6.0	.8	5.2	8.4	.7	7.7

SEE NOTES AT END OF TABLE

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSING STRUCTURE BY OWNERSHIP																		
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS			BUILDING WITH 5 OR MORE UNITS			MOBILE HOME		
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>TOTAL SINGLE-FAMILY UNITS.....</b>	56.3	53.0	45.5	7.5	3.3	2.2	1.1	-	-	-	-	-	-	-	-	-	-	-
<b>HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)</b>																		
YES.....	43.2	41.4	38.1	3.3	1.8	1.4	.4	-	-	-	-	-	-	-	-	-	-	-
ALL INSULATED.....	38.6	37.1	34.4	2.7	1.5	1.1	.4	-	-	-	-	-	-	-	-	-	-	-
PART INSULATED.....	4.1	3.8	3.2	.6	.2	.2	.2	-	-	-	-	-	-	-	-	-	-	-
DON'T KNOW AMOUNT/																		
NOT REPORTED.....	*.5	*.5	*.5	*.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO.....	8.1	7.3	5.3	2.0	.8	.6	.2	-	-	-	-	-	-	-	-	-	-	-
DON'T KNOW/NOT REPORTED.....	4.9	4.2	2.0	2.2	.7	.3	.4	-	-	-	-	-	-	-	-	-	-	-
<b>TYPE OF INSULATION</b>																		
BATTS ONLY.....	21.5	20.5	18.8	1.7	1.0	.7	.3	-	-	-	-	-	-	-	-	-	-	-
AVERAGE NUMBER OF INCHES.....	5.3	5.3	5.4	4.3	4.7	4.8	4.5	-	-	-	-	-	-	-	-	-	-	-
LOOSE FILL ONLY.....	11.7	11.4	10.4	.9	.3	.3	.3	-	-	-	-	-	-	-	-	-	-	-
AVERAGE NUMBER OF INCHES.....	6.5	6.5	6.6	5.3	4.3	4.3	3.0	-	-	-	-	-	-	-	-	-	-	-
BATTS AND LOOSE FILL ONLY.....	4.7	4.6	4.4	.2	.1	.1	.1	-	-	-	-	-	-	-	-	-	-	-
AVERAGE NUMBER OF INCHES.....	10.3	10.3	10.3	9.4	14.5	NA	-	-	-	-	-	-	-	-	-	-	-	-
OTHER COMBINATIONS.....	3.2	3.1	2.9	.2	.2	.2	.2	-	-	-	-	-	-	-	-	-	-	-
DON'T KNOW TYPE/																		
NOT REPORTED.....	2.1	1.9	1.5	.4	.2	.2	.1	-	-	-	-	-	-	-	-	-	-	-
NO INSULATION/DO NOT KNOW/																		
NOT REPORTED.....	13.1	11.6	7.4	4.2	1.5	.9	.7	-	-	-	-	-	-	-	-	-	-	-

SEE NOTES AT END OF TABLE

TABLE 43. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSING STRUCTURE BY OWNERSHIP															
HOUSEHOLD CHARACTERISTICS	TOTAL			SINGLE-FAMILY DETACHED			SINGLE-FAMILY ATTACHED			BUILDING WITH 2 TO 4 UNITS OR MORE UNITS		BUILDING WITH 5 UNITS OR MORE		POPULATION HOME	
	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT
	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT	TOTAL	OWN	RENT
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>															
YES.....	36.2	34.7	2.8	1.5	1.2	0.4	-	-	-	-	-	-	-	-	-
ALL WALLS.....	29.6	28.4	2.1	1.1	.8	.4	-	-	-	-	-	-	-	-	-
SOME WALLS.....	6.6	6.3	5.5	.7	.4	.4	-	-	-	-	-	-	-	-	-
NO.....	11.5	10.8	8.4	2.4	.8	.2	-	-	-	-	-	-	-	-	-
DON'T KNOW/NOT REPORTED.....	8.5	7.5	5.2	2.3	1.0	.5	-	-	-	-	-	-	-	-	-
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>															
HAVE BASEMENT/CRAWL SPACE.....	44.0	41.6	35.8	5.8	2.4	1.8	4.6	-	-	-	-	-	-	-	-
HEATED.....	13.0	12.0	11.0	1.0	.8	.2	-	-	-	-	-	-	-	-	-
NOT HEATED.....	31.0	29.6	24.8	4.9	1.4	1.0	-	-	-	-	-	-	-	-	-
HAVE FLOOR INSULATION.....	4.9	4.8	4.5	.3	.1	.1	-	-	-	-	-	-	-	-	-
ALL PARTS INSULATED.....	3.9	3.8	3.4	.3	.1	.1	-	-	-	-	-	-	-	-	-
SOME PARTS INSULATED.....	1.0	1.0	1.0	-	-	-	-	-	-	-	-	-	-	-	-
NO FLOOR INSULATION.....	21.8	20.8	17.5	3.3	1.0	.7	-	-	-	-	-	-	-	-	-
DCN'T KNOW/NOT REPORTED.....	4.4	4.1	2.8	1.2	.3	.2	-	-	-	-	-	-	-	-	-
NO BASEMENT/CRAWL SPACE.....	12.3	11.4	9.7	1.7	.9	.5	.4	-	-	-	-	-	-	-	-
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>															
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CRAWLING INSULATION....	27.4	26.4	24.8	1.6	1.0	.9	.2	-	-	-	-	-	-	-	-
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION..	50.6	47.8	42.5	5.3	2.7	2.0	.7	-	-	-	-	-	-	-	-
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	5.2	3.0	2.2	.6	.2	.3	-	-	-	-	-	-	-	-

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZFRC. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 44. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)

HOUSING STRUCTURE BY OWNERSHIP														
HOUSEHOLD CHARACTERISTICS	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS		MOBILE HOME			
	TOTAL	OWN	TOTAL	CWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT	TOTAL	CWN	RENT
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS														
1 TO 6.....	16.8	4.0	3.3	8.0	18.6	13.7	28.8	30.1	10.9	14.9	71.9	68.6	72.3	5.5
7 TO 12.....	41.1	42.3	41.5	46.7	36.9	33.3	44.6	49.0	49.9	48.8	23.0	22.3	23.1	56.5
13 TO 18.....	26.8	32.4	33.1	28.7	34.3	40.0	20.8	16.3	25.0	14.1	2.6	7.0	2.1	35.6
19 OR MORE.....	15.0	21.3	22.0	16.7	10.2	12.3	5.8	4.5	14.2	2.1	4.4	2.1	2.1	34.1
NONE.....	.3	-	-	-	-	-	-	-	-	-	-	-	-	2.4
SIZE AND NUMBER OF WINDOWS LARGE (124 SQ. FT. OR LARGER)														
1.....	23.4	27.0	28.2	19.4	18.9	22.0	12.5	15.6	20.8	14.3	20.0	17.8	20.3	9.8
2.....	12.9	13.3	14.0	8.9	18.5	17.2	21.2	8.6	6.9	9.0	13.9	20.3	13.2	12.1
3 CR/MCRF.....	20.5	41.2	22.0	16.8	25.6	24.9	27.2	17.6	20.0	17.0	18.4	25.1	17.8	16.5
NONE/NC WINDOWS.....	43.2	38.5	35.8	55.0	36.9	35.9	39.1	58.2	52.3	59.7	47.6	36.8	48.7	58.9
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)														
1 TO 4.....	21.2	15.0	14.8	16.4	22.3	24.6	17.4	24.8	17.8	26.6	47.6	35.1	48.9	22.4
5 TO 8.....	29.2	30.0	29.9	30.8	21.4	19.4	25.6	35.6	30.3	36.9	19.1	28.9	18.1	35.4
9 TO 12.....	20.6	24.1	24.1	24.7	25.3	28.8	17.9	18.1	26.9	15.9	4.0	2.1	4.3	26.9
13 OR MORE.....	19.6	25.8	26.2	23.1	19.7	22.8	13.2	9.3	16.4	7.5	1.8	4.3	1.5	12.6
NONE/NC WINDOWS.....	9.4	5.1	5.1	11.3	4.4	25.9	12.2	8.6	13.1	27.4	29.7	27.7	27.7	8.8
SMALL (6 SQ. FT. OR SMALLER)														
1.....	18.5	15.2	14.4	19.5	19.0	22.1	12.2	28.1	27.0	28.3	25.6	15.4	26.6	16.9
2.....	18.2	19.3	19.5	18.0	22.6	25.6	16.3	19.5	22.5	18.8	9.2	2.8	9.9	21.1
3.....	9.6	11.2	11.4	9.9	11.2	14.0	5.4	6.3	5.8	6.4	3.4	4.2	3.3	11.7
4 CR/MCRF.....	26.3	33.0	34.7	23.1	16.0	16.5	14.8	12.4	21.2	10.2	4.1	7.6	3.7	37.4
NONE/NC WINDOWS.....	27.4	21.4	20.0	29.5	31.3	21.8	51.3	33.7	23.4	36.3	57.8	70.1	56.5	9.8
SEPARATE NOTES AT END OF TABLE														

TABLE 44. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSING STRUCTURE BY OWNERSHIP													
HOUSEHOLD CHARACTERISTICS	TOTAL		SINGLE-FAMILY DETACHED		SINGLE-FAMILY ATTACHED		BUILDING WITH 2 TO 4 UNITS		BUILDING WITH 5 OR MORE UNITS		MOBILE HOME		
	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	TOTAL	OWN	RENT	TOTAL	CWN	RENT	
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	CWN	RENT	
NUMBER OF STORE WINDOWS													
1 TO 6	11.0	6.5	6.0	9.5	8.4	7.3	10.6	17.8	18.8	30.4	29.9	3.5	5.2
7 TO 12	22.1	24.7	25.9	16.9	25.2	27.3	20.9	23.9	34.5	21.2	5.8	6.0	26.2
13 TO 18	15.2	19.0	20.3	11.4	20.7	25.7	10.2	7.1	13.5	5.5	1.5	4.5	16.1
19 OR MORE	9.1	13.0	13.8	7.9	4.5	6.1	1.2	3.0	11.7	1.8	1.1	1.3	1.7
NONE/NC WINDOWS	42.7	36.8	33.9	54.3	41.1	33.6	57.1	48.1	26.4	53.6	62.3	60.3	54.5
PERCENT OF WINDOWS WITH STORM WINDOWS													
100 PERCENT....	38.4	41.7	44.4	25.4	37.6	39.4	33.7	31.1	43.9	27.8	31.9	34.4	31.6
76 TO 99 PERCENT....	8.9	10.2	10.8	7.1	12.8	16.7	4.6	9.6	14.1	8.4	1.0	—	1.1
51 TO 75 PERCENT....	4.6	5.8	5.7	6.3	2.1	1.4	3.6	4.4	5.6	4.1	1.5	—	1.6
1 TO 50 PERCENT....	5.3	5.4	5.2	6.9	6.4	9.0	6.9	10.1	6.1	3.3	5.3	3.1	3.9
NONE/NC WINDOWS....	42.7	36.8	33.9	54.3	41.1	33.6	57.1	48.1	26.4	53.6	62.3	60.3	54.5
NUMBER OF OUTSIDE DOORS													
1....	9.6	1.1	.8	3.1	7.7	8.2	6.6	22.2	12.7	24.6	16.5	44.7	4.6
2....	44.8	41.8	39.4	56.3	52.7	46.4	65.8	53.3	48.2	54.6	32.3	39.2	83.2
3....	27.6	36.2	37.5	28.2	25.7	30.8	15.1	12.7	22.9	10.2	6.9	17.8	5.8
4 OR MORE	14.9	20.8	22.2	12.4	13.9	14.6	12.5	4.6	8.8	3.5	1.5	2.0	1.4
NONE....	3.2	—	—	—	—	—	—	—	7.4	7.1	17.3	24.5	16.6
TYPE AND NUMBER OF OUTSIDE DOORS													
STANDARD DOORS													
1....	15.4	4.6	4.6	4.6	23.7	19.8	32.0	27.5	14.5	30.8	56.5	39.2	58.2
2....	51.1	55.4	54.3	62.0	50.5	51.2	49.1	51.2	55.6	50.0	17.2	15.5	12.2
3....	21.3	28.6	29.4	23.8	20.8	25.4	11.0	10.1	15.6	8.7	1.5	—	86.8
4 CR MCRC	7.9	11.3	11.6	9.5	5.0	3.6	7.9	3.1	5.6	2.5	—	—	7.4
NONE/NC DOORS	4.3	.1	.1	—	—	—	—	8.1	8.6	8.0	24.8	45.3	22.7
SLIDING GLASS DOORS													
1....	19.3	20.9	23.1	7.6	18.8	13.5	30.0	10.0	11.8	9.5	24.3	55.6	21.1
2 CR MCRC....	6.0	7.0	7.7	2.7	9.9	12.9	3.8	1.3	2.8	.9	6.3	12.5	5.7
NONE/NC DGORS....	74.7	72.1	69.2	89.7	71.3	73.7	66.3	88.7	85.4	89.6	69.4	31.9	87.4

SEE NOTES AT END OF TABLE

TABLE 44. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSING STRUCTURE BY OWNERSHIP											
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED					BUILDING WITH 2 TO 4 UNITS					MOBILE HOME UNITS
	TOTAL	SINGLE-FAMILY DETACHED	SINGLE-FAMILY ATTACHED	TOTAL	CWN	TOTAL	OWN	TOTAL	CWN	RENT	
	TOTAL	OWN	RENT	TOTAL	CWN	TOTAL	OWN	TOTAL	CWN	RENT	
NUMBER OF STORE DOORS											
1	15.9	14.7	14.5	16.3	14.2	16.8	8.6	18.7	21.5	14.0	30.1
2	26.9	33.1	34.5	24.9	33.2	35.5	28.3	17.9	28.9	15.7	31.5
3	16.9	15.6	17.3	5.5	8.2	10.7	3.0	1.8	4.4	1.1	16.2
4 OR MORE	3.5	5.1	5.6	1.7	2.7	4.0	-	.9	4.5	-	8.6
NONE/NC DOORS	42.7	31.5	28.1	51.5	41.7	33.0	60.1	60.7	40.6	65.7	2.5
PERCENT OF OUTSIDE DOORS WITH											
STORM DOORS											
100 PERCENT	32.2	38.2	40.7	23.0	40.8	47.6	26.4	24.9	40.4	21.0	1.7
51 TO 99 PERCENT	9.3	12.7	13.3	9.0	5.9	6.3	4.9	2.8	3.7	2.6	3.0
1 TO 50 PERCENT	15.8	17.6	17.8	16.5	11.6	13.0	8.6	11.6	15.4	10.7	5.9
NONE/NC DOORS	42.7	31.5	28.1	51.5	41.7	33.0	60.1	60.7	40.6	65.7	7.7
TOTAL SINGLE-FAMILY UNITS	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-	-	24.6
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)											
YES	76.8	78.2	83.8	44.5	53.5	60.9	37.9	-	-	-	1.0
ALL INSULATED	68.5	70.0	75.7	35.5	45.4	50.1	35.6	-	-	-	1.0
PART INSULATED	7.3	7.3	7.1	8.1	7.3	10.8	-	-	-	-	-
DON'T KNOW AMOUNT											-
NOT REPORTED	1.0	1.0	1.0	.9	.7	-	2.2	-	-	-	-
NO	14.5	13.9	11.7	26.8	24.0	24.6	22.8	-	-	-	-
DCN'T KNW/NOT REPORTED	8.8	7.9	4.5	28.7	22.5	14.5	39.4	-	-	-	-
TYPE OF INSULATION											
PATTS ONLY	38.2	38.7	41.3	22.5	30.4	31.6	27.9	-	-	-	-
LOOSE FILL ONLY	20.7	21.5	23.0	12.3	8.5	11.8	1.5	-	-	-	-
PATTS AND LOOSE FILL ONLY	8.3	8.7	9.8	2.1	2.4	2.6	2.0	-	-	-	-
OTHER/COMBINATIONS	5.8	5.8	6.3	2.4	5.3	7.4	1.0	-	-	-	-
DON'T KNW TYPE / NOT REPORTED	3.8	3.6	3.4	5.0	6.8	7.4	5.5	-	-	-	-
NO INSULATION/DON'T KNOW / NOT REPORTED	23.2	21.8	16.2	55.5	46.5	39.1	62.1	-	-	-	-

SEE NOTES AT END OF TABLE

TABLE 44. THERMAL CHARACTERISTICS BY HOUSING STRUCTURE AND OWNERSHIP  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSING STRUCTURE BY OWNERSHIP																	
HOUSEHOLD CHARACTERISTICS	SINGLE-FAMILY DETACHED				SINGLE-FAMILY ATTACHED				BUILDING WITH 2 TO 4 UNITS				BUILDING WITH 5 OR MORE UNITS				MOBILE HOME UNITS
	TOTAL	SINGLE-FAMILY DETACHED	TOTAL	SINGLE-FAMILY ATTACHED	TOTAL	OWN	RENT	CWN	TOTAL	OWN	RENT	CWN	TOTAL	OWN	RENT		
	TOTAL	RENT	TOTAL	RENT	TOTAL	OWN	RENT	CWN	TOTAL	OWN	RENT	CWN	TOTAL	OWN	RENT		
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>																	
YFS.....	64.4	65.5	70.1	37.7	46.9	52.6	34.8	34.8	73.1	79.4	59.6	59.6	-	-	-	-	
ALL WALLS.....	52.6	53.7	57.9	27.8	35.2	33.9	-	-	29.6	35.4	17.5	-	-	-	-	-	
SOME WALLS.....	11.8	11.8	12.1	9.9	12.1	17.4	9.9	9.9	-	-	-	-	-	-	-	-	
NO.....	20.5	20.3	18.4	31.8	23.2	26.1	17.0	17.0	-	-	-	-	-	-	-	-	
DON'T KNOW/NOT REPORTED.....	15.1	14.2	11.5	30.5	29.9	21.3	48.2	48.2	-	-	-	-	-	-	-	-	
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>																	
HAVE BASEMENT/CRAWL SPACE.....	78.2	78.5	78.7	77.4	73.1	79.4	-	-	-	-	-	-	-	-	-	-	
HEATED.....	23.0	22.6	24.3	12.6	29.6	35.4	17.5	17.5	-	-	-	-	-	-	-	-	
NOT HEATED.....	55.1	55.9	54.4	64.7	43.1	43.6	42.1	42.1	-	-	-	-	-	-	-	-	
HAVE FLOOR INSULATION.....	8.7	9.0	9.8	4.3	3.3	3.6	2.6	2.6	-	-	-	-	-	-	-	-	
ALL PARTS INSULATED.....	6.9	7.1	7.6	4.2	2.8	2.9	-	-	-	-	-	-	-	-	-	-	
SOME PARTS INSULATED.....	1.8	1.9	2.2	2.2	2.4	2.7	-	-	-	-	-	-	-	-	-	-	
NO FLOOR INSULATION.....	38.7	39.2	38.4	44.0	30.5	32.7	25.8	25.8	-	-	-	-	-	-	-	-	
DON'T KNOW/NOT REPORTED.....	7.8	7.7	6.3	16.4	9.3	7.3	13.7	13.7	-	-	-	-	-	-	-	-	
NO BASEMENT/CRAWL SPACE.....	21.8	21.5	21.3	22.6	27.2	21.0	40.4	40.4	-	-	-	-	-	-	-	-	
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>																	
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	48.8	49.8	54.6	21.3	31.4	39.5	14.3	-	-	-	-	-	-	-	-	-	
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	89.8	90.3	93.5	70.6	83.2	89.3	70.2	-	-	-	-	-	-	-	-	-	
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	9.7	6.5	29.4	16.8	10.7	29.8	-	-	-	-	-	-	-	-	-	

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL FRANCHISE, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600		1,000 TO 999		1,600 TO 1,999	
		600	TO 999	1,000	TO 1,999	1,600	TO 2,399
TOTAL HOUSEHOLDS.....	81.6	7.5	21.1	24.0	10.0	7.8	6.1
NUMBER OF WINDOWS							.2
1 TO 6.....	13.7	3.9	6.6	2.7	.3	.1	
7 TO 12.....	32.6	2.7	10.5	12.2	3.6	1.4	
13 TO 18.....	21.9	.7	3.3	6.6	4.3	3.3	.9
19 OR MORE.....	12.2	.1	.5	2.5	1.7	2.1	1.5
NONE.....	12.2	-	.2	-	-	-	2.8
AVERAGE NUMBER OF WINDOWS....	12.4	6.9	8.6	11.9	14.3	15.7	17.8
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. CF LARGER)							
1.....	19.1	.9	4.5	5.8	2.6	2.1	1.2
2.....	10.6	.7	2.3	3.2	1.3	1.2	.9
3 CF MORE.....	16.7	1.4	3.2	4.7	2.3	1.8	1.8
NONE/NC WINDOWS.....	35.2	4.5	11.1	10.3	3.8	2.6	1.3
AVERAGE NUMBER CF LARGE							
SIZE WINDOWS.....	1.7	1.3	1.2	1.6	1.8	2.0	2.3
MEDIUM (MORE THAN 6, LESS THAN							
24 SQ. FT.)							
1 TO 4.....	17.3	2.8	6.0	4.8	1.6	1.0	.6
5 TO 8.....	23.8	2.0	7.3	7.6	2.8	2.0	.9
9 TO 12.....	16.8	.6	3.6	5.8	2.8	1.9	.9
13 OR MORE.....	16.0	.3	1.6	4.0	2.5	2.6	2.6
NONE/NC WINDOWS.....	7.6	1.8	2.7	1.8	.3	.4	.3
AVERAGE NUMBER CF MEDIUM							
SIZE WINDOWS.....	8.0	4.1	5.8	7.9	9.4	10.0	11.3
SMALL (6 SQ. FT. CF SMALLER)							
1.....	15.1	2.1	5.4	4.3	1.2	1.1	.6
2.....	14.5	1.1	3.6	5.0	2.1	1.4	.7
3.....	7.8	.4	1.4	3.0	1.1	.7	.6
4 CF MORE.....	21.4	1.0	3.0	5.4	3.3	3.2	2.5
NONE/NC WINDOWS.....	22.4	2.9	7.7	6.3	2.2	1.3	1.0
AVERAGE NUMBER CF SMALL							
SIZE WINDOWS.....	2.6	1.6	1.7	2.5	3.2	3.6	4.2

SEE NOTES AT END OF TABLE

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6.....	8.9	1.5	3.7	2.2	0.6	0.5	0.3
7 TO 12.....	18.0	.7	6.5	6.1	2.8	1.7	1.2
13 TO 18.....	12.4	.2	1.4	3.5	2.4	2.4	1.0
19 OR MORE.....	7.4	-	1.2	1.1	1.1	1.3	1.0
NONE/NO WINDOWS.....	34.9	5.1	11.3	11.1	3.1	1.9	2.1
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	1.9	3.8	6.0	9.1	10.9	1.5
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	8	.2	.5	.6	.9	1.2	1.4
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	9	1.3	2.7	4.3	6.4	7.6	8.5
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	3	.4	.6	1.1	1.8	2.2	2.7
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT.....	31.4	1.7	6.8	9.0	4.5	4.0	2.6
76 TO 99 PERCENT.....	7.3	.3	1.3	1.9	1.2	.9	.9
51 TO 75 PERCENT.....	3.8	.1	.7	.8	.6	.5	.5
1 TO 50 PERCENT.....	4.3	.3	.9	1.2	.6	.4	.4
NONE/NO WINDOWS.....	34.9	5.1	11.3	11.1	3.1	1.9	1.5

SEE NOTES AT END OF TABLE

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

		MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE			
HOUSEHOLD CHARACTERISTICS		TOTAL	UPSS THAN 600	TO 999	TO 1,599
			600	1,000	1,600
NUMBER OF OUTSIDE DOORS					
1.....	7.8	2.5	4.0	1.0	0.1
2.....	36.5	3.4	12.0	12.0	3.9
3.....	22.5	.4	3.0	7.8	3.8
4 OR MORE.....	12.2	.2	1.0	2.7	2.1
NONE.....	2.6	.9	1.1	.4	.1
AVERAGE NUMBER OF DOORS.....	2.5	1.6	2.0	2.5	2.9
TYPE AND NUMBER OF OUTSIDE DOORS					
STANDARD DOORS					
1.....	12.6	2.8	5.3	2.8	1.7
2.....	41.7	3.0	11.3	13.2	5.4
3.....	17.4	.4	2.3	5.7	2.8
4 OR MORE.....	6.5	.1	.6	1.5	.9
NONE/NC DOORS	2.5	1.0	1.6	.7	.2
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	1.4	1.8	2.2	2.4
SLIDING GLASS DOORS					
1.....	15.8	.7	2.8	4.7	2.7
2 OR MORE.....	4.9	-	.5	1.1	.8
NONE/NC DOORS	61.0	6.7	17.9	18.2	6.5
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	-3	.1	.2	.3	.5

SEE NOTES AT END OF TABLE

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
	TOTAL	LESS THAN 600		TO 999		3,000 OR MORE
		600	TC 999	1,000 TO 1,599	1,600 TO 1,999	
<b>NUMBER OF STORM DOORS</b>						
1.....	13.0	1.1	4.1	3.9	1.5	1.0
2.....	22.0	.6	4.0	7.4	3.9	2.7
3.....	8.9	-	.6	2.2	1.6	1.7
4 OR MORE NONE/NC DOORS.....	2.5	-	1	4	6	5
AVERAGE NUMBER OF STORM DOORS.....	34.9	5.7	12.3	10.1	2.7	1.8
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	.3	.7	1.1	1.6	1.6
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	-	.1	.1	.2	.3
<b>PERCENT OF OUTSIDE DOORS WITH STORM DOORS</b>						
100 PERCENT.....	26.3	1.0	4.8	7.9	4.3	3.5
51 TO 99 PERCENT.....	7.6	.1	.8	2.1	1.3	1.1
1 TO 50 PERCENT.....	12.9	.7	3.2	3.9	1.7	1.2
NONE/NC DOORS.....	34.9	5.7	12.3	10.1	2.7	1.8

SEE NOTES AT END OF TABLE

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE							
	TOTAL	LESS THAN 600		600 TO 999		1,000 TO 1,599		
		600	TO 999	1,000	TC	2,000		
TOTAL SINGLE-FAMILY UNITS.....	56.3	1.9	8.4	18.2	9.4	7.4	5.9	5.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)								
YES.....	43.2	.7	5.0	13.8	7.8	6.4	5.0	4.4
ALL INSULATED.....	38.6	.6	4.3	12.2	6.9	6.0	4.5	4.1
PART INSULATED.....	6.1	.1	.6	1.3	.8	.4	.5	.3
DON'T KNOW AMOUNT/								
NOT REPORTED.....								
NO.....	8.1	.9	1.1	.2	.1	.1	.1	.1
DON'T KNOW/NOT REPORTED.....	4.9	.3	1.5	1.5	.6	.4	.5	.2
TYPE OF INSULATION								
BATTS ONLY.....	21.5	.3	2.5	6.7	4.1	3.2	2.5	2.2
AVERAGE NUMBER OF INCHES.....	5.3	8.7	4.9	5.1	5.2	5.5	5.3	5.6
LOOSE FILL ONLY.....	11.7	.2	1.3	4.1	2.0	1.7	1.3	1.0
AVERAGE NUMBER OF INCHES.....	6.5	5.9	5.6	6.0	6.2	7.3	7.4	7.3
BATTS AND LOOSE FILL ONLY.....	4.7	.1	.4	1.2	.8	.9	.6	.7
AVERAGE NUMBER OF INCHES.....	10.3	9.9	9.8	10.9	10.9	10.1	9.5	10.2
OTHER/COMBINATIONS.....	3.2	.1	.5	1.1	.4	.4	.3	.4
DON'T KNOW TYPE/								
NOT REPORTED.....	2.1	.1	.3	.7	.5	.2	.2	.2
NO INSULATION/DON'T KNOW/								
NOT REPORTED.....	13.1	1.2	3.4	4.4	1.5	1.0	.9	.6

SEE NOTES AT END OF TABLE

TABLE 45. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

		MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE							
HOUSEHOLD CHARACTERISTICS		TOTAL	LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999	3,000 OR MORE
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>									
YES.....	36.2	0.6	4.3	11.1	6.2	5.9	4.2	3.9	3.4
ALL WALLS.....	29.6	.4	3.3	8.8	5.1	4.9	3.7	3.7	3.5
SOME WALLS.....	6.6	.2	1.0	2.2	1.1	1.0	.6	.6	.6
NO.....	11.5	1.0	2.4	4.2	1.7	.8	.8	.8	.5
DON'T KNOW/NOT REPORTED.....	1.5	.3	1.7	3.0	.7	.7	.7	.7	.5
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>									
HAVE BASEMENT/CRAWL SPACE.....	44.0	1.3	6.3	13.7	7.1	6.2	5.1	4.4	4.4
HEATED.....	13.6	.1	.3	1.3	2.3	3.0	2.9	3.0	3.0
NOT HEATED.....	31.4	1.2	6.0	12.3	4.8	3.2	2.2	1.3	1.3
HAVE FLOOR INSULATION.....	4.9	.1	.6	1.7	.8	.5	.4	.4	.4
ALL PARTS INSULATED.....	3.9	—	.6	1.3	.7	.6	.4	.3	.3
SOME PARTS INSULATED.....	1.0	—	.1	.4	.2	.2	.1	.1	.1
NO FLOOR INSULATION.....	2.1	1.1	4.4	9.0	3.1	2.1	1.4	1.4	1.4
DON'T KNOW/NOT REPORTED.....	4.4	.1	1.0	1.6	.9	1.3	1.3	1.3	1.3
NO BASEMENT/CRAWL SPACE.....	12.3	.6	2.2	4.5	2.2	1.2	.7	.7	.7
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>									
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	27.4	.4	2.6	7.3	5.2	4.7	3.7	3.5	3.5
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	50.6	1.1	6.6	16.2	9.0	7.2	5.6	4.8	4.8
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	.8	1.8	2.0	.4	.2	.3	.2	.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 46. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600		1,000 TO 999		1,600 TO 1,599	
		100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS							
1 TO 6.....	16.6	52.8	31.1	11.1	3.5	1.5	1.8
7 TO 12.....	41.1	36.7	49.9	50.9	36.4	29.0	22.6
13 TO 18.....	26.8	8.8	15.7	27.6	43.0	42.3	35.5
19 OR MORE.....	15.0	1.3	2.3	10.5	17.1	27.2	40.2
NONE.....	0.3	0.5	1.0	-	-	-	-
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SC. FT. CR LARGER)							
1.....	23.4	11.5	21.4	26.1	25.6	27.2	33.2
2.....	12.9	9.6	10.9	13.4	13.3	15.3	15.1
3 CR MCRF.....	20.5	18.8	15.0	19.4	23.2	23.7	23.8
NONE/NC WINDOWS.....	43.2	60.1	52.6	43.1	37.8	33.9	27.9
MEDIUM (MCRF THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	21.2	37.1	28.3	20.0	16.5	12.2	10.5
5 TO 8.....	29.2	27.3	34.4	31.6	28.1	25.6	20.8
9 TO 12.....	26.6	7.9	17.0	24.2	27.6	24.1	21.8
13 OR MORE.....	19.6	4.2	7.4	16.7	24.8	32.8	40.5
NONE/NC WINDOWS.....	9.4	23.5	12.8	7.6	3.1	5.3	6.3
SMALL (6 SC. FT. OR SMALLER)							
1.....	16.5	28.3	25.4	17.8	12.4	14.4	10.4
2.....	18.2	15.1	16.9	21.0	20.8	17.9	15.9
3.....	5.6	5.1	6.8	12.4	11.5	8.7	9.9
4 CR MCRF.....	26.3	13.0	14.4	22.6	33.0	41.7	47.5
NONE/NC WINDOWS.....	27.4	38.4	36.5	26.2	22.2	17.2	16.3

SEE NOTES AT END OF TABLE

TABLE 46. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LESS THAN 600	600	TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6	11.0	19.5	17.3	9.1	6.2	5.9	5.3
7 TO 12	22.1	9.3	21.5	25.5	27.5	22.0	20.1
13 TO 18	15.2	2.7	6.5	14.7	24.2	31.3	24.1
19 OR MORE	9.1	-	.9	4.4	11.2	16.7	18.7
NONE/NC WINDOWS	42.7	68.6	53.8	46.3	30.9	24.1	40.4
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT	38.4	22.7	32.3	37.5	44.6	50.8	46.4
76 TO 99 PERCENT	8.5	3.5	6.1	7.8	12.2	11.2	14.4
51 TO 75 PERCENT	4.6	1.8	3.3	3.2	6.3	7.5	8.2
1 TO 50 PERCENT	5.3	3.5	4.5	5.2	6.0	6.4	6.8
NONE/NO WINDOWS	42.7	68.6	53.8	46.3	30.9	24.1	24.1
<b>NUMBER OF OUTSIDE DOORS</b>							
1	5.6	34.0	19.0	4.3	.9	.3	1.0
2	44.6	45.7	56.9	50.2	38.7	31.8	1.1
3	27.6	6	5.9	14.0	32.6	38.5	27.1
4 OR MORE	14.9	2.7	4.8	11.3	20.5	42.1	21.2
NONE	3.2	11.7	5.3	1.7	1.4	1.4	34.1
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>							
STANDARD DOORS							
1	15.4	38.0	25.1	11.6	7.0	3.7	5.2
2	51.1	40.7	53.5	55.2	54.3	55.7	40.4
3	21.3	5.4	10.7	23.9	27.6	29.0	38.4
4 OR MORE	7.6	2.0	3.0	6.5	9.5	11.4	16.0
NONP/NC DOORS	4.2	13.9	7.7	2.8	1.6	1.1	-
SLIDING GLASS DOORS							
1	19.3	9.1	13.1	19.8	26.9	25.9	22.8
2 OR MORE	6.0	.6	2.3	4.4	8.0	12.7	11.6
NONE/NC DOORS	74.7	90.3	84.7	75.8	65.1	61.4	56.5

SEE NOTES AT END OF TABLE

TABLE 46.- THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS)--Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
		LFSS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999
<b>NUMBER OF STORM DOORS</b>							
1.....	15.9	14.1	19.4	16.2	15.0	12.3	14.8
2.....	26.5	28.7	19.0	30.9	38.7	35.2	32.3
3.....	16.9	13.3	2.9	9.2	15.6	21.9	22.7
4 CP MORE.....	3.5	2.4	1.4	1.7	4.2	7.6	7.9
NONE/NC DOORS.....	42.7	76.8	58.4	42.0	26.6	23.1	22.3
<b>PERCENT OF OUTSIDE DCORS WITH STORM DOORS</b>							
100 PERCENT.....	32.2	13.2	22.7	33.0	42.6	44.8	40.9
51 TO 99 PERCENT.....	9.3	1.0	3.6	8.6	13.4	16.0	18.0
1 TO 50 PERCENT.....	15.8	9.0	15.3	16.5	17.4	16.1	18.9
NONE/NC DOORS.....	42.7	76.8	58.4	42.0	26.6	23.1	22.3
<b>TOTAL SINGLE-FAMILY UNITS.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	76.8	36.2	59.8	75.9	83.5	86.7	84.1
ALL INSULATED.....	68.5	31.1	51.0	67.2	73.5	81.2	75.4
PART INSULATED.....	7.3	5.1	7.5	7.4	8.8	5.2	9.0
DON'T KNOW AMOUNT / NOT REPORTED.....	1.0	—	1.2	1.3	1.2	—	—
NO.....	14.5	48.6	23.0	15.7	9.7	8.4	7.3
DCN'T KNW/NOT REPORTED.....	8.8	15.3	17.3	8.4	6.7	5.0	4.5
<b>TYPE OF INSULATION</b>							
BATTS ONLY.....	38.2	16.1	29.7	36.7	43.8	43.0	42.5
LOOSE FILL ONLY.....	20.7	8.4	15.8	22.7	21.0	23.3	22.8
BATTS AND LOOSE FILL ONLY.....	8.3	3.3	5.1	6.4	9.1	12.1	10.7
OTHER/COMBINATIONS.....	5.6	4.2	5.6	6.1	4.5	5.7	5.5
DON'T KNW TYPE / NOT REPORTED.....	3.8	4.2	3.6	4.0	5.2	2.6	2.6
NO INSULATION/DCN'T KNOW / NOT REPORTED.....	25.2	63.8	40.2	24.1	16.5	13.3	15.9

SEE NOTES AT END OF TABLE

TABLE 46. THERMAL CHARACTERISTICS BY SIZE OF RESIDENCE  
(PERCENTAGE OF HOUSEHOLDS) - Continued

HOUSEHOLD CHARACTERISTICS		MEASURED HEATED SQUARE FOOTAGE OF RESIDENCE					
TOTAL	LESS THAN 600	600 TO 999	1,000 TO 1,599	1,600 TO 1,999	2,000 TO 2,399	2,400 TO 2,999	3,000 OR MORE
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	64.4	30.7	50.5	60.9	79.7	71.5	78.3
ALL WALLS.....	52.6	19.1	38.7	48.6	59.8	61.8	68.0
SOME WALLS.....	11.6	11.6	11.9	12.3	11.8	13.3	10.2
NO.....	20.5	52.4	28.8	22.9	17.9	11.2	12.3
DON'T KNW/NOT REPFCTD.....	15.1	16.9	20.7	16.2	15.5	14.9	9.4
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CRAWL SPACE.....	78.2	69.0	74.2	75.1	76.1	83.8	85.2
HEATED.....	23.6	4.6	3.2	7.4	24.8	40.6	48.8
NOT HEATED.....	55.1	63.9	70.9	67.7	51.3	43.2	36.5
HAVE FLOOR INSULATION.....	8.7	2.6	7.7	9.4	8.7	11.2	7.9
ALL PARTS INSULATED.....	6.5	1.4	6.6	7.2	7.0	8.5	6.3
SCPE PARTS INSULATED.....	1.6	1.2	1.1	2.2	1.7	2.7	1.6
NO FLOOR INSULATION.....	38.7	55.5	51.8	49.6	33.3	28.4	23.1
DON'T KNW/NOT REPORTED.....	7.8	5.8	11.4	8.8	9.3	3.6	5.5
NO BASEMENT/CRAWL SPACE.....	21.6	31.5	25.8	24.9	23.9	16.2	13.0
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	48.6	18.4	31.3	40.3	55.4	64.0	61.6
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	85.6	57.9	78.3	89.2	95.6	96.8	95.2
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	42.1	21.7	10.8	4.4	3.2	4.8

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNPONDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME									
	TOTAL	\$LESS THAN \$5,000			\$10,000 TO \$9,999			\$15,000 TO \$14,999		
		\$5,000	\$9,999	\$14,999	\$15,000	\$20,000	\$25,000	\$35,000 TO MORE		
TOTAL HOUSEHOLDS.....	81.6	10.4	13.9	13.8	11.9	9.9	12.4	9.4	10.9	14.8
NUMBER OF WINDOWS										
1 TO 6.....	13.7	3.0	3.0	2.9	1.8	1.0	1.3	.8	2.7	3.5
7 TO 12.....	33.6	4.5	6.4	5.8	5.2	3.9	4.7	3.0	5.1	6.9
13 TO 18.....	21.9	1.9	3.1	3.8	3.2	3.1	4.0	2.8	2.2	3.0
19 OR MORE.....	12.2	.9	1.2	1.4	1.6	1.9	2.4	2.8	.9	1.3
NONE.....	.2	—	.1	—	—	—	—	.1	—	.1
AVERAGE NUMBER OF WINDOWS....	12.4	10.1	10.8	11.4	12.2	13.8	13.6	16.1	10.4	10.5
SIZE AND NUMBER OF WINDOWS										
LARGE (24 SQ. FT. OR LARGER)										
1.....	19.1	1.7	2.8	3.3	2.8	2.8	3.7	1.9	1.9	2.7
2.....	10.6	1.2	1.4	1.5	1.7	1.5	1.7	1.6	1.3	1.7
3 CR MCFF.....	16.7	1.6	2.6	2.4	2.3	2.1	2.8	2.9	1.8	2.3
NCNE/NC WINDOWS.....	35.3	5.9	7.0	6.6	5.1	3.5	4.1	3.0	6.0	8.0
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.3	1.6	1.4	1.7	2.0	1.8	2.7	1.4	1.3
MEDIUM (MCFF THAN 6, LESS THAN 24 SQ. FT.)										
1 TO 4.....	17.3	2.3	3.3	3.1	2.5	2.1	2.5	1.5	2.4	3.3
5 TO 8.....	23.8	3.4	4.4	4.1	3.5	2.6	3.3	2.6	3.6	5.0
9 TO 12.....	16.8	1.7	3.0	3.0	2.7	2.2	2.5	1.7	2.1	2.7
13 OR MORE.....	16.0	1.5	1.8	2.4	2.1	2.3	3.1	2.7	1.5	2.1
NONE/NO WINDOWS.....	7.6	1.4	1.3	1.3	1.0	.7	.9	1.0	1.3	1.7
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	8.0	6.9	7.1	7.7	7.8	8.8	8.7	9.7	7.1	7.1
SMALL (6 SQ. FT. OR SMALLER)										
1.....	15.1	2.4	3.2	2.8	2.1	1.6	1.9	1.1	2.5	3.6
2.....	14.9	1.8	2.4	2.1	2.5	1.9	2.1	2.1	2.0	2.5
3.....	7.8	.8	1.2	1.5	1.0	.9	1.5	1.0	.9	1.1
4 CR MCFF.....	21.4	1.8	2.7	3.3	3.2	3.3	3.8	3.3	1.9	2.7
NCN/NC WINDOWS.....	22.4	3.6	4.5	4.2	3.1	2.2	3.0	1.9	3.7	4.9
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	1.9	2.1	2.3	2.7	3.0	3.1	3.7	2.0	2.0

SEE NOTES AT END OF TABLE

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)
	TOTAL			\$10,000 TO \$9,999	\$15,000 TO \$14,999	\$20,000 TO \$19,999	
	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$25,000 TO \$24,999	\$35,000 OR MORE		
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6.....	8.9	1.4	1.6	1.9	1.2	1.0	0.7
7 TO 12.....	18.0	1.8	3.1	2.9	2.5	3.2	2.7
13 TO 18.....	12.4	.9	1.5	2.0	2.0	2.3	1.3
19 OR MORE.....	7.4	.3	.6	.9	1.1	1.5	.5
NONE/NO WINDOWS.....	34.9	6.0	6.8	6.0	4.7	3.4	8.3
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	4.1	5.1	6.3	7.3	8.7	10.0
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	-8	-4	-5	-7	-8	1.1	.9
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.9	3.1	3.7	4.5	5.1	6.0	5.9
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	.6	.9	1.0	1.3	1.6	1.7
<b>PERCENT OF WINDOWS WITH STORE WINDOWS</b>							
100 PERCENT.....	31.4	2.8	4.6	5.0	4.8	4.5	5.6
76 TO 99 PERCENT.....	7.3	.6	1.0	1.1	1.3	1.0	1.1
51 TO 75 PERCENT.....	3.8	.5	.4	.7	.5	.5	.5
1 TO 50 PERCENT.....	4.3	.5	.8	1.0	.5	.5	.4
NONE/NO WINDWS.....	34.9	6.0	6.8	6.0	4.7	3.4	3.7

SEE NOTES AT END OF TABLE

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)
	TOTAL	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	
<b>NUMBER OF OUTSIDE DOORS</b>							
1.....	7.8	1.7	1.6	1.8	1.3	0.5	0.6
2.....	36.5	5.5	7.5	6.9	5.3	4.2	4.7
3.....	22.5	1.9	2.7	3.1	3.6	3.5	3.3
4 OR MORE.....	12.2	.8	1.1	1.4	1.4	1.7	2.5
NONE.....	2.6	.6	.8	.6	.3	.1	.9
AVERAGE NUMBER OF DOORS.....	2.5	2.1	2.3	2.4	2.7	2.8	2.1
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>							
STANDARD DOORS							
1.....	12.6	2.3	2.4	2.3	2.1	1.0	1.4
2.....	41.7	5.2	7.4	7.3	5.9	5.4	4.4
3.....	17.4	1.6	2.2	2.4	2.6	2.7	3.4
4 OR MORE.....	6.5	.6	.8	.9	.7	1.2	1.5
NONE/NC DOORS.....	3.5	.6	.9	.9	.5	.1	.7
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.0	2.0	2.1	2.1	2.3	2.3
SLIDING GLASS DOORS							
1.....	15.8	1.0	1.5	2.0	2.6	2.6	3.0
2 OR MORE.....	4.9	.2	.3	.4	.7	.6	1.1
NONE/NC DOORS.....	61.0	9.2	12.1	11.4	8.5	6.7	8.2
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.3	.1	.1	.2	.3	.4	.5

SEE NOTES AT END OF TABLE

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>NUMBER OF STORM DOORS</b>									
1.....	13.0	1.5	2.2	2.5	2.1	1.8	2.0	1.1	1.7
2.....	22.0	2.1	3.5	3.8	3.5	3.0	3.6	2.4	2.1
3.....	8.9	.6	.8	.9	1.4	1.3	2.2	1.7	1.6
4 OR MORE .....	2.9	.1	.3	.3	.2	.5	.6	.1	.3
NONE/NC DOORS .....	34.9	6.1	7.1	6.3	4.6	3.3	4.0	3.4	6.4
AVERAGE NUMBER OF STORM DOORS.....	1.2	.8	.9	1.0	1.2	1.4	1.5	1.6	.8
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	.7	.8	.9	1.0	1.2	1.3	.7	.8
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	.1	.1	.1	.2	.2	.3	.3	.1
<b>PERCENT OF OUTSIDE DOORS WITH STORM DOORS</b>									
100 PERCENT.....	26.3	2.6	4.0	4.4	4.1	3.6	4.4	3.1	3.7
51 TO 99 PERCENT.....	7.6	.5	.7	.9	1.0	1.2	1.7	1.5	.8
1 TO 50 PERCENT.....	12.9	1.2	2.1	2.2	2.0	1.7	2.2	1.4	2.0
NONE/NC DOORS .....	34.9	6.1	7.1	6.3	4.6	3.3	4.0	3.4	6.4

SEE NOTES AT END OF TABLE

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

		1979 FAMILY INCOME								
HOUSEHOLD CHARACTERISTICS		TOTAL	\$5,000 LESS THAN \$5,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 OR MORE	POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
TOTAL SINGLE-FAMILY UNITS.....	56.3	5.5	7.7	8.6	8.2	8.0	10.1	8.2	6.4	8.5
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)										
YES.....	43.2	2.8	4.9	6.1	6.4	6.8	8.8	7.3	3.1	4.6
ALL INSULATED	38.6	2.6	4.4	5.4	5.7	6.0	7.8	6.7	2.9	4.2
PART INSULATED.....	4.1	.1	.5	.6	.7	.8	.9	.5	.2	.3
DCN'T KNOW AMOUNT /										
NOT REPORTED.....	.5	—	.1	.1	.1	—	.2	.1	—	—
NO.....	8.1	1.9	1.8	1.4	1.2	.7	.7	.5	2.1	2.7
DCN'T KNOW/NOT REPORTED.....	4.9	.8	.9	1.1	.6	.5	.6	.4	.9	1.3
TYPE OF INSULATION										
RATTLES ONLY.....	21.5	1.3	2.4	3.1	3.3	3.6	4.4	3.6	1.7	2.2
AVERAGE NUMBER OF INCHES.....	5.3	4.8	5.2	5.2	5.6	5.2	5.3	5.4	4.6	4.8
LOOSE FILL ONLY.....	11.7	.8	1.4	1.5	1.7	1.9	2.3	2.0	.7	1.2
AVERAGE NUMBER OF INCHES.....	6.5	5.1	6.6	6.5	6.6	6.4	6.3	7.0	5.3	5.5
PAITS AND LOOSE FILL ONLY.....	4.7	.3	.5	.5	.6	.7	1.2	1.0	.3	.5
AVERAGE NUMBER OF INCHES.....	10.3	10.0	9.8	10.5	9.9	10.6	11.2	9.5	11.0	11.3
OTHER/COMBINATIONS.....	3.2	.3	.3	.5	.5	.4	.7	.5	.2	.3
DCN'T KNOW TYPE /										
NOT REPORTED.....	2.1	.2	.3	.5	.3	.3	.3	.3	.2	.3
NO INSULATION/DCN'T KNOW /	13.1	2.7	2.7	2.5	1.8	1.2	1.2	.9	3.0	3.9
NOT REPORTED.....										

SEE NOTES AT END OF TABLE

TABLE 47. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -continued

		1979 FAMILY INCOME					POOR (125 PERCENT LEVEL)		POOR (100 PERCENT LEVEL)	
HOUSEHOLD CHARACTERISTICS		TOTAL	LESS THAN \$15,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 TO \$49,999	CR HOFF	CR HOFF
<b>HAVE GUT INSULATION</b>										
YFS.....	2.5	4.1	5.3	5.5	5.5	7.2	6.3	2.7	4.0	4.0
ALL WALLS.....	2.0	3.1	4.1	4.4	4.4	6.0	5.5	2.3	3.2	3.2
SOME WALLS.....	2.5	1.0	1.1	1.1	1.0	1.2	1.2	.8	.5	.8
NO.....	11.5	2.1	2.2	1.9	1.5	1.5	1.4	.9	2.2	3.0
DON'T KNW/NOT REPORTED.....	8.5	.9	1.4	1.5	1.2	1.0	1.4	1.1	1.1	1.6
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>										
HAVE BASEMENT/CRAWL SPACE.....	44.0	4.4	6.2	6.8	6.5	6.2	7.8	6.1	4.6	6.5
HEATED.....	13.0	.7	1.4	1.6	2.0	2.1	2.7	2.4	.7	1.1
NCT HEATED.....	31.0	3.6	4.8	5.2	4.4	4.1	5.2	3.7	3.9	5.4
HAVE FLOOR INSULATION.....	4.9	.3	.4	.7	.8	.9	1.0	.7	.3	.4
ALL PARTS INSULATED.....	3.9	.3	.3	.5	.6	.7	.8	.7	.2	.4
SOME PARTS INSULATED.....	1.0	.1	.1	.2	.2	.2	.3	.2	.1	.1
NO FLOOR INSULATION.....	21.8	2.6	3.8	3.6	3.0	2.8	3.3	2.5	3.1	4.2
DON'T KNW/NOT REPORTED.....	4.4	.6	.6	.9	.6	.4	.8	.5	.6	.9
NO BASEMENT/CRAWL SPACE.....	12.3	1.1	1.4	1.8	1.7	1.8	2.2	2.1	1.5	2.0
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>										
UNITS WITH SOME OF ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND RCOF OR CEILING INSULATION....	27.4	1.5	3.1	3.9	4.1	4.5	5.7	4.6	1.5	2.4
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION..	50.6	4.1	6.3	7.6	7.6	7.5	9.5	7.9	4.5	6.5
UNITS WITH NCNF OF THESE TYPES OF INSULATION.....	5.7	1.4	1.4	1.0	.6	.5	.5	.4	1.6	2.0

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDED FIGURES OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 48. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)	
		\$15,000 TO \$19,999			\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 MORE			
		TLESS THAN \$5,000	\$5,000C TO \$9,999	\$10,000C TO \$14,999	\$15,000C TO \$19,999	\$20,000C TO \$24,999	\$25,000C TO \$34,999			
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS										
1 TO 5.....	16.8	29.2	21.6	20.6	15.0	10.0	10.2	8.5	24.8	23.9
7 TO 12.....	41.1	43.8	46.4	41.6	43.9	39.8	38.4	31.5	46.4	46.9
13 TO 18.....	26.8	18.1	22.5	27.4	27.1	31.3	32.4	29.2	20.2	20.4
19 OR MORE.....	15.0	8.5	8.8	10.3	13.6	19.0	19.1	10.0	8.5	8.5
NCNF.....	.3	.4	.6	-.4	-.4	-.4	-.4	-.4	.2	.2
SIZE AND NUMBER OF WINDOWS										
LARGE (24 SQ. FT. OR LARGER)										
1.....	23.4	16.5	20.1	24.0	23.9	28.1	30.0	20.6	17.0	18.5
2.....	12.9	11.2	10.4	10.6	14.1	15.4	14.1	16.5	11.6	11.7
3 OR MORE.....	20.5	15.0	18.8	17.6	19.1	21.4	22.9	30.6	16.2	15.9
NONE/NO WINDOWS.....	43.2	57.2	50.8	47.8	42.9	35.1	33.1	32.3	55.2	54.0
MEDIUM (MCFF THAN 6, LESS THAN 24 SQ. FT.)										
1 TO 4.....	21.2	22.5	23.6	22.4	21.1	20.9	20.5	15.8	21.6	22.2
5 TO 8.....	29.2	32.6	32.0	29.7	29.5	26.0	26.6	27.0	33.1	33.7
9 TO 12.....	20.6	16.3	16.8	21.4	22.9	22.1	20.5	18.2	19.1	18.4
13 OR MCFF.....	19.6	14.8	13.2	17.3	18.0	23.5	25.1	28.6	14.1	14.4
NONE/NO WINDOWS.....	9.4	13.7	9.4	9.2	8.5	7.5	7.4	10.3	12.1	11.3
SMALL (6 SQ. FT. OR SMALLER)										
1.....	18.5	23.6	23.1	20.0	17.4	16.5	15.6	11.6	23.1	24.2
2.....	18.2	16.9	17.1	15.1	21.1	19.5	17.1	22.1	18.3	16.9
3.....	9.6	7.5	8.4	10.7	8.7	8.9	11.9	10.7	7.9	7.2
4 OR MORE.....	26.3	17.7	19.3	23.9	26.8	32.9	31.1	35.2	17.1	18.6
NONE/NO WINDOWS.....	27.4	34.3	32.1	30.3	25.9	22.1	24.3	20.3	33.6	33.2

SEE NOTES AT END OF TABLE

TABLE 48. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
	TOTAL	LESS THAN \$15,000	\$15,000 TO \$19,999	\$10,000 TO \$14,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>NUMBER OF STORM WINDOWS</b>								
1 TO 6.....	11.0	13.5	12.9	13.7	10.5	9.7	8.1	7.0
7 TO 12.....	22.1	17.2	22.6	22.2	24.8	24.7	25.8	15.3
13 TO 18.....	15.2	8.3	10.9	14.5	16.3	20.5	18.8	16.9
19 OR MORE.....	9.1	2.8	4.3	6.5	8.9	11.2	12.0	7.0
NONE/NO WINDOWS.	42.7	58.2	49.2	43.2	39.5	33.9	35.3	38.7
<b>PERCENT OF WINDOWS WITH STORM</b>								
WINDOWS	38.4	26.6	34.6	36.3	40.9	45.5	40.2	24.7
100 PERCENT.....	8.9	5.9	7.4	8.2	10.7	9.9	11.8	6.4
76 TO 99 PERCENT.....	4.6	4.4	3.2	5.3	4.4	5.2	4.8	4.5
51 TO 75 PERCENT.....	5.3	4.9	5.7	7.0	4.5	5.5	4.6	4.6
1 TO 50 PERCENT.....	42.7	58.2	49.2	43.2	39.5	33.9	35.3	38.7
NONE/NO WINDOWS.....								61.0
<b>NUMBER OF OUTSIDE DOORS</b>								
1.....	9.6	16.8	12.7	12.7	10.8	4.7	4.6	2.5
2.....	44.8	52.6	54.0	50.2	44.4	42.2	37.7	27.1
3.....	27.6	17.9	19.5	22.5	30.2	35.4	36.1	35.0
4 OR MORE.....	14.9	7.3	7.9	9.9	12.2	17.2	20.6	34.7
NONE.....	3.2	5.5	5.5	4.7	2.4	5.5	1.2	.7
<b>TYPE AND NUMBER OF OUTSIDE</b>								
DOORS								
STANDARD DOORS								
1.....	15.4	22.3	17.5	16.9	18.0	10.5	11.1	9.9
2.....	51.1	50.5	53.7	52.5	49.9	56.1	49.5	46.1
3.....	21.3	15.0	16.2	17.7	21.8	27.2	27.8	25.6
4 OR MORE.....	7.9	6.2	6.0	6.7	6.0	7.1	9.6	17.1
NONE/NC DOORS.....	4.3	6.0	6.7	6.2	4.4	1.2	2.0	2.5
SLIDING GLASS DOORS								
1.....	19.3	9.7	11.0	14.5	22.3	25.9	24.2	32.1
2 OR MCFF.....	6.0	1.5	1.9	2.9	5.7	6.4	9.2	17.2
NCNE/NC DOORS.....	74.7	88.8	87.1	82.7	71.9	67.7	66.6	50.7

SEE NOTES AT END OF TABLE

TABLE 48. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS THAN \$15,000	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999	\$35,000 AND MORE			
		14.1	15.7	18.0	17.6	15.8	11.2		
NUMBER OF STORM DOORS	15.9	14.1	15.7	17.8	18.0	17.6	15.8	15.5	14.9
1.....	26.9	20.2	25.6	27.8	29.3	30.7	28.8	25.4	21.3
2.....	10.9	5.6	5.7	6.6	12.1	13.5	17.7	17.5	5.5
3.....	3.5	1.4	1.9	1.9	4.6	5.1	9.9	1.3	1.9
4. CR MORE/NC FCCPS/NC NCNF/NC NCRF/NC	42.7	58.5	51.1	45.8	39.1	33.6	32.6	35.9	56.4
PERCENT OF OUTSIDE DOORS WITH STORM DOORS	32.2	25.0	28.7	31.8	35.0	36.5	35.9	33.2	22.5
100 PERCENT.....	9.3	5.0	5.3	6.5	8.7	12.4	13.4	15.8	4.9
51 TO 99 PERCENT.....	15.8	11.5	14.9	15.9	17.2	17.6	18.1	15.1	13.6
1 TO 50 PERCENT.....	42.7	58.5	51.1	45.8	39.1	33.6	32.6	35.9	56.4
TOTAL SINGLE-FAMILY UNITS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)	76.8	50.5	64.3	71.1	77.8	85.5	87.8	88.8	50.9
ALL INSULATED.....	68.5	48.2	56.8	62.8	68.9	75.0	77.5	81.5	46.9
PART INSULATED.....	7.3	2.3	6.4	7.2	8.2	10.2	8.6	6.0	4.0
DN'T KNW AMOUNT/ NOT EFFECTED.....	1.0	-	1.2	1.1	1.7	3	1.7	1.3	-
NO.....	14.5	34.8	23.6	16.3	14.6	8.2	6.7	5.9	34.4
DN'T KNW/NCT REFERRED.....	8.8	14.7	12.1	12.6	7.6	6.3	5.5	5.3	14.7
TYPE OF INSULATION	38.2	23.1	31.2	35.5	39.9	44.6	43.4	43.4	27.4
RATTS ONLY.....	20.7	14.8	18.4	17.9	20.5	23.3	23.1	24.5	12.0
LOOSE FILM ONLY.....	8.3	4.9	6.1	5.8	7.5	8.8	11.6	11.7	5.2
PATTS AND FCGSF FILM ONLY.....	5.8	4.8	4.0	6.0	6.6	5.6	6.8	5.7	3.7
OTHER/COMBINATIONS.....	3.8	2.9	4.6	5.9	3.3	3.2	2.9	3.5	2.7
DN'T KNW TYPE/ NOT EFFECTED.....	23.2	49.5	35.7	28.9	22.2	14.5	12.2	11.2	49.1
NC INSULATION/ECN'T KNOW/ NOT EFFECTED.....									46.3

SPP NOTES AT END OF TABLE

TABLE 48. THERMAL CHARACTERISTICS BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOE (125 PERCENT LEVEL)
	TOTAL	LESS THAN \$5,000	\$10,000	\$15,000	\$20,000	\$25,000	
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES....	64.4	52.9	61.1	66.4	68.7	71.9	76.1
ALL WALLS.....	52.6	40.4	48.2	53.2	55.6	59.9	66.8
SOME WALLS.....	11.8	8.6	12.5	12.9	13.2	13.1	12.0
NO....	20.5	37.7	29.3	22.0	18.6	14.3	11.0
DON'T KNOW/NOT REPORTED.....	15.1	17.3	17.8	17.0	15.0	13.1	13.0
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CRAWL SPACE.....	78.2	79.1	81.2	79.0	78.9	77.7	77.9
HEATED.....	23.0	12.8	18.2	18.4	24.9	26.8	26.6
NOT HEATED.....	55.1	66.3	63.1	60.6	54.1	50.8	51.2
HAVE FLOOR INSULATION.....	8.7	5.1	5.7	8.7	9.9	10.7	10.4
ALL PARTS INSULATED.....	6.9	4.6	4.6	6.0	7.4	8.4	8.4
SOME PARTS INSULATED.....	1.8	.5	1.2	2.7	2.5	2.2	2.6
NO FLOOR INSULATION.....	38.7	50.6	49.0	41.3	36.9	34.8	33.2
DON'T KNOW/NOT REPORTED.....	7.8	10.6	8.4	10.6	7.2	5.4	7.7
NO BASEMENT/CRAWL SPACE.....	21.8	20.9	18.8	21.0	21.1	22.3	22.2
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OF ALL STORM WINDOWS AND SCPE OR ALL STORM DOORS AND ROOF OR CEILING INSULATION....	48.8	26.5	41.1	44.7	50.4	56.8	55.6
UNITS WITH ONE OF POOF OF THESE TYPES OF INSULATION..	89.8	74.6	82.3	88.7	92.6	93.5	94.9
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	25.4	17.7	11.3	7.4	6.5	5.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FOUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNCHARTED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUEFIED PETROLEUM GAS	WOOD	OTHER/ NONE
TOTAL HOUSEHOLDS.....	81.6	44.6	13.4	14.3	3.7	4.7	1.0
NUMBER OF WINDOWS							
1 TO 6.....	13.7	6.2	1.9	4.9	.3	.3	.1
7 TO 12.....	33.6	19.4	4.2	5.8	2.0	1.9	.4
13 TO 18.....	21.9	12.1	4.1	2.6	1.2	1.6	.3
19 OR MORE.....	12.2	6.8	3.2	.8	.3	.4	.2
NONE.....	-2	-	-	-2	-	.9	.2
AVERAGE NUMBER OF WINDOWS....	12.4	12.7	14.6	9.1	11.9	14.3	14.1
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. OR LARGER)							
1.....	19.1	11.1	3.1	3.0	.7	1.1	.2
2.....	10.6	6.2	1.4	2.0	.3	.5	.1
3 OR MORE.....	16.7	9.6	2.7	2.9	.5	.8	.2
NONE/NO WINDOWS.....	35.3	17.7	6.2	6.5	2.2	2.3	.5
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.8	1.8	1.6	1.1	1.4	2.3
MEDIUM (MCRF THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	17.3	9.6	1.6	4.7	.7	1.6	.2
5 TO 8.....	23.6	13.9	3.1	4.1	1.2	1.5	.2
9 TO 12.....	16.6	9.3	3.1	2.1	1.0	1.1	.2
13 OR MORE.....	16.0	8.4	4.1	1.4	.5	1.3	.3
NONE/NO WINDOWS.....	7.6	3.5	1.6	2.0	.3	.2	.1
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	8.0	9.9	5.8	7.9	9.5	9.2	
SMALL (6 SQ. FT. OR SMALLER)							
1.....	15.1	8.2	2.8	2.7	.5	.7	.2
2.....	14.9	8.8	1.9	2.7	.6	.7	.2
3.....	7.6	4.5	1.4	1.2	.3	.4	.1
4 OR MORE.....	21.4	12.6	3.6	2.0	1.2	1.8	.2
NONE/NO WINDOWS.....	22.4	10.5	3.6	5.7	1.1	1.1	.4
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	2.8	2.7	1.7	3.0	3.5	2.6

SEE NOTES AT END OF TABLE

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUEFIED PETROLEUM GAS	WOOD	OTHER/ NONE
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6.....	8.9	4.2	1.4	2.5	0.3	0.4	0.1
7 TO 12.....	16.0	9.8	2.9	3.1	.9	1.2	-1
13 TO 18.....	12.4	6.3	3.0	1.3	.6	1.1	-1
19 OR MORE.....	7.4	3.9	2.2	.5	.2	.5	.1
NONE/NO WINDOWS.....	34.9	20.3	3.8	6.9	1.7	1.5	.7
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	6.7	10.2	4.8	6.5	8.7	4.8
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	-8	-8	1.0	.8	.7	.8	.9
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.9	4.6	7.7	3.3	4.1	6.1	3.1
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	1.3	1.5	.8	1.7	1.8	.8
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT.....	31.4	15.6	6.1	5.8	1.5	2.1	-2
76 TO 99 PERCENT.....	7.3	4.2	1.8	.6	.3	.4	-1
51 TO 75 PERCENT.....	3.8	2.1	.7	.5	.2	.3	-1
1 TO 50 PERCENT.....	4.3	2.3	.9	.5	.1	.4	-1
NONE/NO WINDOWS.....	34.9	20.3	3.8	6.9	1.7	1.5	.7

SEE NOTES AT END OF TABLE

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL				
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD
		OTHER/ NONE				
NUMBER OF OUTSIDE DOORS						
1.....	7.6	3.5	1.6	2.4	0.1	0.1
2.....	36.5	20.5	5.6	5.8	2.2	1.9
3.....	22.5	13.0	3.2	3.5	1.0	1.7
4 OR MORE.....	12.2	6.4	1.8	2.5	.3	1.1
NONE.....	2.6	1.2	1.2	1.1	-	.1
AVERAGE NUMBER OF DOORS.....	2.5	2.5	2.5	2.5	-	-
TYPE AND NUMBER OF OUTSIDE DOORS						
STANDARD DOORS						
1.....	12.6	6.0	1.6	4.4	.3	.3
2.....	41.7	24.1	6.1	6.2	2.3	2.4
3.....	17.4	9.8	2.9	2.2	.8	1.4
4 OR MORE.....	6.5	3.3	1.3	.9	.3	.6
NONE/NC DOORS.....	3.5	1.4	1.4	.7	-	.1
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.2	2.1	1.9	2.3	2.6
SLIDING GLASS DOORS						
1.....	15.8	8.3	1.3	4.8	.3	1.0
2 OR MORE.....	4.5	2.5	.3	1.7	.1	.1
NONE/NC DOORS.....	61.0	33.8	11.8	7.9	3.3	.3
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.3	.3	.2	.6	.1	.4

SEE NOTES AT END OF TABLE

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) - Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					OTHFR/ NONE
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUEFIED PETROLEUM GAS	WOOD	
<b>NUMBER OF STORM DOORS</b>							
1	13. C	7.0	2.2	2.4	0.7	0.7	-
2	22. C	12.7	4.0	2.9	.9	1.4	0.1
3	6. S	4.3	1.9	1.3	.4	.9	.1
4 OR MORE	2. S	1.2	.7	.6	.1	.2	-
None/No DCORS	34. S	19.4	4.6	7.1	1.5	1.6	.7
AVERAGE NUMBER OF STORM DCORS	1.2	1.1	1.4	1.0	1.2	1.5	.7
AVERAGE NUMBER OF STANDARD STORM DCORS	1.0	1.0	1.3	.7	1.1	1.2	.6
AVERAGE NUMBER OF SLIDING GLASS STORM DCORS	.2	.1	.1	.3	.1	.2	.1
<b>PERCENT OF OUTSIDE DOORS WITH STORM DOORS</b>							
100 PERCENT	26. S	14.3	5.3	3.8	1.1	1.7	.2
51 TO 99 PERCENT	7. C	4.0	1.3	1.2	.4	.6	.1
1 TO 50 PERCENT	12. S	6.9	2.2	2.2	.7	.9	.1
None/No DCORS	34. S	19.4	4.6	7.1	1.5	1.6	.7

SEE NOTES AT END OF TABLE

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					C. P.
		NATURAL GAS	PURE OIL OR KEROSENE	ELECTRICITY	LIGHT PETROLEUM GAS	WOOD	
TOTAL SINGLE-FAMILY UNITS.....	56.3	32.0	8.6	8.2	2.3	4.3	
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)							
YES.....	43.2	24.1	6.6	7.3	1.7	3.3	.2
ALL INSULATED.....	38.6	21.6	5.5	6.9	1.5	2.9	.2
PART INSULATED.....	4.1	2.2	1.0	.3	.2	.4	-.1
DON'T KNOW AMOUNT / NOT REPORTED.....							
NO.....	5	4	1	1	-.1	-.1	-.5
DON'T KNOW/NOT REPORTED.....	4.9	3.1	.7	.4	.4	.8	.1
TYPE OF INSULATION							
BATTS ONLY.....	21.6	11.4	4.0	3.2	.9	1.9	.1
AVERAGE NUMBER CF INCHES.....	5.3	5.0	5.2	6.0	4.7	6.0	6.6
LOOSE FILL ONLY.....	11.7	6.9	1.2	2.2	.5	.7	.1
AVERAGE NUMBER CF INCHES.....	6.8	6.0	5.6	7.5	8.4	7.2	.2
BATTS AND LOOSE FILL ONLY.....	4.7	2.7	.7	.7	.1	.5	-.1
AVERAGE NUMBER CF INCHES.....	10.3	10.0	9.6	12.3	10.6	10.2	7.8
OTHER/COMBINATIONS.....	3.2	1.8	.5	.6	.1	.2	-.1
DON'T KNOW TYPE / NOT REPORTED.....	2.1	1.3	.2	.6	.1	-.1	-.1
NO INSULATION/DO NOT KNOW / NOT REPORTED.....	13.1	7.9	2.1	.9	.6	1.1	.6

SEE NOTES AT END OF TABLE

TABLE 49. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	OTHFR/ NONE
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	36.2	18.9	5.8	6.5	1.6	3.1	0.3
ALL WALLS.....	29.6	15.3	4.5	6.0	1.3	2.3	.1
SOME WALLS.....	6.6	3.6	1.3	.5	.3	.8	.1
NO.....	11.5	7.4	1.6	.7	.5	.9	.4
DCN'T KNOW/NOT REPORTED.....	8.5	5.7	1.2	1.0	.2	.3	.1
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CEILIN SPACE.....	44.0	24.8	8.1	4.9	1.9	3.8	.6
HEATED.....	13.0	8.2	2.3	1.0	.3	1.0	.1
NOT HEATED.....	31.0	16.6	5.8	3.9	1.5	2.8	.4
HAVE FLOOR INSULATION.....	4.5	1.7	.7	1.8	.2	.5	-
ALL PARTS INSULATED.....	3.9	1.2	.5	1.6	.1	.4	-
SOME PARTS INSULATED.....	1.0	.5	.2	.2	.1	.1	-
NC FLOR INSULATION.....	21.8	12.2	4.4	1.5	1.2	2.1	.4
DON'T KNOW/NOT REPORTED.....	4.4	2.7	.7	.6	.2	.2	.3
NO BASEMENT/CEILIN SPACE.....	12.3	7.2	.6	3.3	.4	.5	.3
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OF ALL STORM WINDOWS, AND SOME OR ALL STEM DOORS, AND ROOF OR CEILING INSULATION.....	27.4	14.2	5.5	4.2	1.1	2.3	.2
UNITS WITH ONE OF MORE OF THESE TYPES OF INSULATION--	50.6	28.5	8.3	7.7	2.0	3.9	.3
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	3.5	.3	.5	.4	.6	.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO 7 FERC. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 50. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS		FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD
		100.0	100.0	100.0	100.0	100.0	100.0
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS							
1 TO 6.....	16.6	14.0	14.5	34.1	8.2	5.8	9.4
7 TO 12.....	41.1	43.5	31.1	40.3	53.2	39.9	42.6
13 TO 18.....	26.6	27.2	30.4	18.2	31.7	34.2	29.8
19 OR MORE.....	15.0	15.3	24.0	5.8	6.8	19.8	18.2
NONE.....	.3	-	1.6	-	.2	-	-
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. OR LARGER)							
1.....	23.4	24.9	23.0	20.7	18.6	23.5	15.9
2.....	12.6	13.9	10.6	14.0	8.8	11.1	9.5
3 OR MORE.....	20.6	21.6	20.1	20.1	14.1	16.0	24.7
NONE/NO WINDOWS.....	42.2	39.6	46.3	45.2	58.4	49.4	49.8
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	21.2	21.1	12.1	33.1	19.5	13.7	18.8
5 TO 8.....	29.1	31.1	23.1	28.4	31.4	31.1	20.3
9 TO 12.....	20.6	20.9	22.9	14.8	27.0	23.1	23.1
13 OR MORE.....	15.6	18.9	30.7	9.7	14.1	27.3	27.7
NONE/NO WINDOWS.....	5.4	7.9	11.2	13.9	8.1	4.8	10.0
SMALL (6 SQ. FT. OR SMALLER)							
1.....	16.2	18.5	21.3	18.6	13.5	15.3	17.6
2.....	18.2	19.7	14.4	18.9	15.4	15.3	16.3
3.....	5.6	10.1	10.3	8.4	8.4	8.0	4.4
4 OR MORE.....	26.2	28.2	26.9	14.2	33.2	37.6	25.5
NONE/NO WINDOWS.....	27.4	23.5	27.1	39.9	29.5	23.9	36.2

SEE NOTES AT END OF TABLE

TABLE 50. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LIQUID PETROLEUM GAS	WOOD	OTHER/ NONE
		9.5	10.4	17.4	9.0	9.2	7.7
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6	11.6	17.0	21.5	25.3	25.1	12.0	.6
7 TO 12	22.1	22.0	22.8	15.7	23.8	5.1	1.2
13 TO 18	15.2	14.1	9.1	15.7	10.0	7.8	7.8
19 OR MORE	6.1	8.8	16.6	4.9	32.0	67.3	67.3
NC/NF/NO WINDWS.	42.7	45.6	28.7	44.7	-	-	-
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT	38.4	35.0	45.7	40.8	40.1	45.2	19.0
76 TO 99 PERCENT	6.9	9.5	13.4	3.9	7.4	8.6	.6
51 TO 75 PERCENT	4.6	4.7	5.4	3.5	4.7	6.5	1.2
1 TO 50 PERCENT	5.3	5.2	6.8	3.5	3.1	7.6	11.9
NONE/NO WINDOWS	42.7	45.6	28.7	44.7	32.0	67.3	-
<b>NUMBER OF OUTSIDE DOORS</b>							
1	5.6	8.0	11.8	16.7	4.0	2.3	3.7
2	4.8	4.6	42.0	40.7	60.4	39.4	52.5
3	27.6	29.0	23.8	24.1	26.2	35.7	30.5
4 OR MORE	14.5	14.3	13.3	17.4	9.4	22.6	13.3
NONE	3.2	2.7	9.2	1.0	-	-	-
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>							
STANDARD DOORS							
1	15.4	12.1	30.5	7.2	5.7	3.7	3.7
2	51.1	54.0	43.9	63.2	50.7	60.4	60.4
3	21.3	21.9	15.2	22.1	30.0	28.2	28.2
4 OR MORE	7.5	7.4	9.5	7.5	13.6	6.8	6.8
NONE/NC DOORS	0.3	3.2	10.6	4.8	-	-	.8
<b>SLIDING GLASS DOORS</b>							
1	19.3	18.6	9.8	33.5	8.3	20.1	13.4
2 OR MORE	6.0	5.6	2.0	11.5	2.4	7.1	2.8
NONE/NC DOORS	74.7	75.6	88.1	55.0	89.3	72.8	83.8

SFF NOTES AT END OF TABLE

TABLE 50. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	MAIN HEATING FUEL					
		NATURAL GAS		FUEL OIL OR KEROSENE	ELECTRICITY	LICUID PETROLEUM GAS	WOOD
NUMBER OF STORM DOORS							
1.....	15.5	15.6	16.7	16.6	18.7	14.7	4.1
2.....	26.9	28.6	29.6	20.3	25.6	28.8	6.2
3.....	10.9	9.6	14.2	9.1	10.8	19.5	12.7
4 OR MORE	3.6	2.7	5.4	4.4	3.1	3.6	3.5
NONE/NO DCORS.	42.7	43.5	34.1	49.6	41.9	33.3	73.5
PERCENT OF OUTSIDE DOORS WITH STORM DOORS							
100 PERCENT.....	32.2	32.1	39.6	26.7	29.4	35.4	15.9
51 TO 99 PERCENT.....	9.3	9.1	9.8	8.2	10.2	12.5	6.5
1 TO 50 PERCENT.....	15.8	15.4	16.5	15.5	18.5	18.8	9.1
NONE/NC DCORS.....	42.7	43.5	34.1	49.6	41.9	33.3	73.5
TOTAL SINGLE-FAMILY UNITS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)							
YES.....	76.8	75.4	76.2	89.4	73.3	75.2	27.6
ALL INSULATED.....	68.5	67.5	63.9	84.2	65.3	65.6	26.9
PART INSULATED.....	7.3	6.8	11.4	4.2	8.0	9.4	.7
DON'T KNOW AMOUNT/ NOT REPORTED.....	1.0	1.2	.9	1.0	-	2	-
NO.....	14.5	14.8	14.8	4.3	18.7	18.8	64.8
DCN'T KNW/NOT REPORTED.....	8.8	9.8	9.0	6.3	8.0	6.0	7.6
TYPE OF INSULATION							
BATTS ONLY.....	38.2	35.5	46.5	39.5	39.6	42.6	13.1
LOOSE FIL ONLY.....	20.7	21.7	14.3	26.9	21.6	16.3	7.9
BATTS AND LOOSE FIL ONLY.....	6.2	8.3	7.7	8.9	3.8	12.2	2.3
OTHER/COMBINATIONS.....	5.6	5.6	5.6	7.2	5.9	3.7	3.6
DCN'T KNOW TYPE/ NOT REPORTED.....	3.8	4.2	1.7	6.9	2.4	.4	.7
NO INSULATION/DCN'T KNOW/ NOT REPORTED.....	23.2	24.6	23.8	10.6	26.7	24.8	72.4

SEE NOTES AT END OF TABLE

TABLE 50. THERMAL CHARACTERISTICS BY MAIN HEATING FUEL  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSEHOLD CHARACTERISTICS	MAIN HEATING FUEL						
	TOTAL	NATURAL GAS	FUEL OIL OR KEROSENE	ELECTRICITY	LICHEE PETROLUM GAS	WOOD	OTHER/ NONE
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	59.0	67.7	80.0	69.3	71.4	54.0	16.9
ALL WALLS.....	47.8	52.6	73.7	50.3	54.0	17.1	17.1
SOME WALLS.....	11.8	15.2	6.3	14.9	17.4	17.8	17.8
NO.....	20.5	23.1	18.3	23.6	21.8	50.8	50.8
DON'T KNOW/NOT REPORTED.....	15.1	17.9	14.0	12.1	7.2	6.9	14.3
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CRAWL SPACE.....	76.2	77.5	93.5	59.7	81.1	88.3	67.9
HEATED.....	23.0	25.6	26.4	12.1	15.0	24.1	14.7
NOT HEATED.....	55.1	51.9	67.1	47.5	66.1	64.2	53.2
HAVE FLOOR INSULATION.....	6.7	5.2	8.0	21.8	7.7	12.3	4.0
ALL PARTS INSULATED.....	6.9	3.8	5.5	19.5	6.1	9.8	2.1
SCMF PARTS INSULATED.....	1.8	1.4	2.5	2.3	1.7	2.5	1.9
NO FLOOR INSULATION.....	36.7	38.2	51.4	18.6	49.6	47.7	45.7
DON'T KNOW/NOT REPORTED.....	7.6	8.5	7.7	7.1	8.8	8.3	3.3
NO BASEMENT/CRAWL SPACE.....	21.8	22.5	6.5	40.4	18.9	11.7	32.1
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OF ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	48.6	44.2	63.2	51.5	49.2	53.5	20.6
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	85.6	89.1	96.2	94.0	94.5	86.8	41.9
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	10.9	3.8	6.0	15.5	13.2	58.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR FOUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION

ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 51. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD		<2,000 CDD AND 5,500 TO 7,000 HDD	
		<2,000 CDD AND 5,500 TO 7,000 HDD	<4,000 CDD AND 4,000 TO 5,499 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<4,000 HDD
TOTAL HOUSEHOLDS . . . . .	81.6	8.5	20.9	21.1	19.0
NUMBER OF WINDOWS					
1 TO 6 . . . . .	13.7	.8	2.9	4.4	3.3
7 TO 12 . . . . .	33.6	2.6	8.0	7.9	9.2
13 TO 18 . . . . .	21.9	3.0	5.9	5.6	4.5
19 OR MORE . . . . .	12.2	2.1	4.0	3.2	1.9
NONE . . . . .	12.2	—	—	—	1.0
AVERAGE NUMBER OF WINDOWS . . . . .	12.4	14.7	13.3	12.4	11.2
SIZE AND NUMBER OF WINDOWS					
LARGE (24 SQ. FT. OR LARGER)					
1 . . . . .	19.1	2.6	6.2	4.8	3.6
2 . . . . .	10.6	.9	2.9	2.8	2.7
3 OR MORE . . . . .	16.7	1.3	3.7	6.6	4.7
NONE/INC WINDOWS . . . . .	35.3	3.7	8.2	8.9	8.0
AVERAGE NUMBER OF LARGE SIZE WINDOWS . . . . .	1.7	1.4	1.6	1.8	2.0
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)					
1 TO 4 . . . . .	17.3	1.3	3.8	4.4	4.6
5 TO 8 . . . . .	23.8	2.2	6.0	5.9	5.7
9 TO 12 . . . . .	16.8	1.9	4.5	4.4	3.8
13 OR MORE . . . . .	16.0	2.4	4.9	4.2	2.6
NONE/INC WINDOWS . . . . .	7.6	.6	1.6	2.3	2.3
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS . . . . .	6.0	9.6	8.7	8.2	6.9
SMALL (6 SQ. FT. OR SMALLER)					
1 . . . . .	15.1	.9	3.3	4.1	4.0
2 . . . . .	14.5	1.0	3.0	3.5	4.2
3 . . . . .	7.8	.9	2.0	1.7	2.2
4 OR MORE . . . . .	21.4	3.6	6.7	5.4	3.7
NONE/INC WINDOWS . . . . .	22.4	2.1	5.9	6.5	5.0
AVERAGE NUMBER OF SMALL SIZE WINDOWS . . . . .	2.6	3.7	3.0	2.4	2.3

SEP NOTES AT END OF TABLE

TABLE 51. THERMAL CHARACTERISTICS BY BREATHING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	2,000 TO 7,000 HDD	<2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND <4,000 HDD
<b>NUMBER OF STORM WINDOWS</b>					
1 TO 6.....	8.9	1.0	3.5	3.0	0.9
7 TO 12.....	16.0	2.6	7.0	5.6	2.3
13 TO 18.....	12.4	2.5	4.5	3.9	1.3
19 OR MORE.....	7.4	1.7	3.1	2.0	.4
NONE/NC WINDOWS.....	34.9	.7	2.9	6.6	14.1
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	12.6	10.6	8.4	2.9
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	.6	1.1	1.2	1.1	.3
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.5	8.6	7.3	6.0	2.1
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	2.8	2.1	1.3	.5
<b>PERCENT OF WINDOWS WITH STORE WINDOWS</b>					
100 PERCENT.....	31.4	5.6	12.2	9.3	.9
76 TO 99 PERCENT.....	7.3	1.0	3.0	2.5	.2
51 TO 75 PERCENT.....	3.6	.8	1.5	1.2	.1
1 TO 50 PERCENT.....	4.3	.4	1.4	1.6	.7
NONE/NC WINDOWS.....	34.9	.7	2.9	6.6	14.1
					10.6

SFF NOTES AT END OF TABLE

TABLE 51. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)				
		<2,000 CDD AND >7,000 HDD		<2,000 CDD AND >5,500 TO 7,000 HDD		<2,000 CDD AND <4,000 HDD
		<2,000 CDD AND >7,000 HDD	>2,000 CDD AND <4,000 HDD	<2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD
<b>NUMBER OF OUTSIDE DOORS</b>						
1.....	7.8	0.7	2.0	2.6	1.5	1.0
2.....	36.5	4.0	9.6	8.6	5.7	5.7
3.....	22.5	2.3	6.0	5.7	5.1	3.4
4 OR MORE.....	12.2	1.2	2.6	2.8	3.7	1.9
NONE.....	5.6	2.2	.8	1.5	.1	.1
AVERAGE NUMBER OF DOORS.....	2.8	2.5	2.4	2.3	2.7	2.6
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>						
STANDARD DOORS						
1.....	12.6	.8	2.7	3.7	3.2	2.1
2.....	41.7	4.8	10.7	9.7	10.1	6.4
3.....	17.4	1.9	4.7	4.2	3.8	2.8
4 OR MORE.....	6.5	.6	1.6	1.8	1.7	.7
NONE/NC DCORS.....	3.5	.3	1.2	1.8	.1	.1
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.2	2.0	2.3	2.3	2.2
SLIDING GLASS DCORS						
1.....	15.6	1.5	3.7	3.8	4.1	2.7
2 OR MORE.....	4.5	.3	.7	1.1	1.9	.8
NONE/NC DCORS.....	61.0	6.7	16.5	16.3	12.9	8.6
AVERAGE NUMBER OF SLIDING GLASS DCORS.....	2.2	.3	.3	.3	.5	.4

SEE NOTES AT END OF TABLE

TABLE 51. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

		ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
HOUSEHOLD CHARACTERISTICS	TOTAL	<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 5,000 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	>2,000 CDD AND <4,000 HDD
NUMBER OF STORM DOORS					
1.....	12.0	1.6	4.0	3.7	2.1
2.....	22.0	3.8	8.1	6.6	2.5
3.....	2.9	1.3	3.2	3.0	1.1
4 CR MCRC.....	2.9	.5	1.0	.9	.3
NONE/NC LOOPS.....	34.9	1.2	4.6	6.8	12.9
AVERAGE NUMBER OF STORM DOORS.....	1.2	1.8	1.6	1.4	.6
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	1.6	1.4	1.2	.5
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	.2	.2	.2	.1
PERCENT OF OUTSIDE DCORS WITH STORM DOORS					
'100 PERCENT.....	26.3	4.7	9.9	8.2	2.8
51 TO 99 PERCENT.....	17.6	1.1	2.9	2.4	.3
1 TO 50 PERCENT.....	12.9	1.5	3.6	3.7	1.7
NONE/NO DOORS.....	34.9	1.2	4.6	6.8	12.9

SEE NOTES AT END OF TABLE

TABLE 51. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
		<2,000 CDD AND >7,000 HDD	2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	>2,000 CDD AND <4,000 HDD
TOTAL SINGLE-FAMILY UNITS.....	56.3	6.4	13.7	14.1	13.5
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)					
YES.....	42.2	5.6	11.0	10.8	9.5
ALL INSULATED.....	38.6	5.1	9.6	9.7	8.6
PART INSULATED.....	4.1	.5	1.1	1.1	.9
DON'T KNOW AMOUNT/					.5
NOT REPORTED.....					1
NO.....	5	-	.2	.1	1
DCN'T KNEW/NOT REPORTED.....	8.1	.4	1.5	1.8	2.7
	4.9	.4	1.2	1.4	1.3
DCN'T KNEW/NOT REPORTED.....	4.9	.4	1.2	1.4	1.3
TYPE OF INSULATION					
BATTS ONLY.....	21.5	2.3	6.1	5.8	4.4
AVERAGE NUMBER CF INCHES.....	5.3	6.0	5.5	5.2	4.9
LOOSE FILL ONLY.....	11.7	1.7	2.6	2.8	2.7
AVERAGE NUMBER CF INCHES.....	6.5	8.0	7.0	6.2	5.5
BATTS AND LOOSE FILL ONLY....	4.7	1.2	1.2	1.0	.7
AVERAGE NUMBER CF INCHES.....	10.3	10.9	10.2	10.3	9.2
OTHER/COMBINATIONS.....	3.2	.3	.8	.8	.9
DON'T KNEW TYPE/					.5
NOT REPORTED.....	2.1	.1	.3	.5	.8
NO INSULATION/DON'T KNOW/					.3
NOT REPORTED.....	12.1	.7	2.7	3.2	4.0
					2.5

SEE NOTES AT END OF TABLE

TABLE 51. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

		ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
HOUSEHOLD CHARACTERISTICS	TOTAL	<2,000 CDD AND >7,000 HDD	<2,000 CDD AND 5,500 TO 7,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	36.2	9.9	7.1	4.6	4.6	3.8	3.8
ALL WALLS.....	29.6	8.2	7.7	5.8	5.8	4.8	4.8
SOME WALLS.....	6.6	1.7	1.9	1.3	1.3	1.1	1.1
NO.....	11.5	.7	2.4	4.0	2.4	2.4	2.4
DON'T KNOW/NOT ENOUGH INFORMATION.....	1.5	.7	2.1	2.4	2.1	1.7	1.7
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CRANI SPACE.....	94.0	12.1	12.4	10.0	3.4	-	-
HEATED.....	13.0	3.0	5.4	4.2	.3	-	-
NOT HEATED.....	31.0	3.1	6.7	8.2	9.7	3.3	3.3
HAVE FLOOR INSULATION.....	4.5	.6	1.0	1.7	1.3	*2	*2
ALL PARTS INSULATED.....	3.9	.5	.7	1.4	1.1	*1	*1
SCF PARTS INSULATED.....	1.0	.2	.3	.3	.1	.1	.1
NC FLOOR INSULATION.....	2.1	.2	.8	5.2	6.9	2.8	2.8
DCN*T KNOWN/NOT REPORTED.....	4.4	.4	.8	1.3	1.5	.3	.3
NO BASEMENT/CRANI SPACE.....	12.3	.3	1.6	3.5	3.5	5.3	5.3
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION....	27.4	5.0	9.8	8.7	3.2	*8	*8
UNITS WITH CNE OR MORE OF THESE TYPES OF INSULATION..	50.6	6.3	13.5	13.5	10.7	6.6	6.6
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	-	.2	.6	2.9	2.1	2.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A dash "-" represents or rounds to zero. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 52. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
		< 2,000 CDD AND > 7,000 HDD		< 2,000 CDD AND 15,500 TO 7,000 HDD		< 2,000 CDD AND 4,000 TO 5,499 HDD	
		< 2,000 CDD AND 15,500 TO 7,000 HDD	< 2,000 CDD AND 4,000 TO 5,499 HDD	< 2,000 CDD AND 4,000 TO 5,499 HDD	> 2,000 CDD AND < 4,000 HDD	> 2,000 CDD AND < 4,000 HDD	> 2,000 CDD AND < 4,000 HDD
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS							
1 TO 6.....	16.8	9.0	13.8	21.0	17.6	18.9	18.9
7 TO 12.....	41.1	30.5	38.1	37.5	48.5	48.8	48.8
13 TO 18.....	26.8	35.5	28.3	26.5	23.5	23.9	23.9
19 OR MORE.....	15.0	24.7	19.1	15.1	10.1	8.4	8.4
NONE.....	-2	.3	.7	-	.4	-	-
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. OR LARGER)							
1.....	23.4	30.8	29.4	22.6	19.1	15.8	15.8
2.....	12.9	10.2	13.7	13.1	14.1	11.4	11.4
3 OR MORE.....	20.5	15.7	17.7	21.9	24.8	19.1	19.1
NONE/NC WINDOWS.....	43.2	43.3	39.2	42.3	41.9	53.8	53.8
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	21.2	15.8	18.3	20.6	24.3	26.1	26.1
5 TO 8.....	29.2	25.9	28.8	27.8	29.9	33.4	33.4
9 TO 12.....	20.6	22.4	21.6	20.8	19.9	18.4	18.4
13 OR MORE.....	15.6	20.7	23.5	20.1	13.7	15.1	15.1
NONE/NC WINDOWS.....	5.4	7.2	7.8	10.7	12.1	7.0	7.0
SMALL (6 SQ. FT. OR SMALLER)							
1.....	18.5	11.0	16.0	19.5	20.9	22.8	22.8
2.....	18.2	11.3	14.5	16.4	22.1	26.5	26.5
3.....	5.6	10.6	9.5	7.8	11.5	9.1	9.1
4 OR MORE.....	26.3	42.9	32.0	25.5	19.2	16.9	16.9
NONE/NC WINDOWS.....	27.4	24.3	28.0	30.7	26.3	24.7	24.7

SEE NOTES AT END OF TABLE

TABLE 52. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)				
		<2,000 CDD AND >7,000 HDD	5,500 TO 7,000 HDD	4,000 TO 5,499 HDD	<2,000 CDD AND >4,000 HDD	>2,000 CDD AND <4,000 HDD
<b>NUMBER OF STORM WINDOWS</b>						
1 TO 6.....	11.0	11.4	16.9	16.4	4.7	4.1
7 TO 12.....	22.1	30.6	33.9	26.5	11.9	4.8
13 TO 18.....	15.2	29.1	21.4	18.3	6.8	2.2
19 OR MORE.....	5.1	20.3	14.6	9.7	2.3	1.1
NONE/NC WINDOWS.....	42.7	8.6	13.7	31.2	74.2	87.7
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>						
100 PERCENT.....	38.4	66.2	58.0	44.1	17.7	7.6
76 TO 99 PERCENT.....	8.9	11.8	14.4	11.7	3.2	1.5
51 TO 75 PERCENT.....	4.6	8.9	7.1	5.7	1.3	.8
1 TO 50 PERCENT.....	5.3	4.4	6.8	7.4	3.5	2.4
NONE/NC WINDOWS.....	42.7	8.6	13.7	31.2	74.2	87.7
<b>NUMBER OF OUTSIDE DOORS</b>						
1.....	5.6	8.0	9.5	12.3	8.0	8.4
2.....	44.8	47.7	46.0	40.5	45.1	47.5
3.....	27.6	27.6	28.6	26.9	27.1	27.8
4 OR MORE.....	14.9	14.2	12.2	13.3	19.5	15.8
NONE.....	5.2	2.5	3.7	6.9	.4	.5
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>						
STANDARD DOORS						
1.....	15.4	9.7	12.9	17.4	17.0	17.5
2.....	51.1	56.6	51.1	45.9	53.2	52.7
3.....	21.3	22.3	22.4	19.8	20.1	23.1
4 OR MORE.....	7.9	7.7	8.3	9.0	6.1	6.1
NONE/NC DOORS.....	4.3	3.7	5.8	8.6	.7	.6
SLIDING GLASS DOORS						
1.....	19.3	17.1	17.5	18.0	21.7	22.4
2 OR MORE.....	6.0	3.8	3.5	5.1	10.2	6.8
NONE/NC DOORS.....	74.7	79.0	79.0	76.9	68.0	70.8

SEE NOTES AT END OF TABLE

TABLE 52. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)					
		<2,000 CDD AND >7,000 HDD		<2,000 CDD AND 5,500 TO 7,000 HDD		<2,000 CDD AND 4,000 TO 5,499 HDD	
		<2,000 CDD AND 5,500 TO 7,000 HDD	<4,000 HDD	<2,000 CDD AND 4,000 TO 5,499 HDD	<4,000 HDD	>2,000 CDD AND <4,000 HDD	>2,000 CDD AND <4,000 HDD
NUMBER OF STORM DOORS							
1	15.5	18.8	19.2	17.6	11.2	12.6	
2	26.5	45.4	38.5	31.4	13.3	7.7	
3	10.9	15.8	15.3	14.3	6.0	1.9	
4 CR MCFF	3.5	5.6	4.9	4.4	1.5	1.1	
NCNE/NC DOORS	42.7	14.5	22.1	32.3	68.0	76.8	
PERCENT OF OUTSIDE DOORS WITH STORM DOORS							
100 PERCENT	32.2	55.0	47.1	38.8	15.0	6.3	
51 TO 99 PERCENT	5.3	13.3	13.6	11.5	4.3	2.8	
1 TO 50 PERCENT	15.6	17.2	17.2	17.5	12.7	14.2	
NONE/NC DOORS	42.7	14.5	22.1	32.3	68.0	76.8	
TOTAL SINGLE-FAMILY UNITS	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)							
YES	76.8	88.3	80.3	77.1	70.6	71.7	
ALL INSULATED	68.5	80.5	70.4	69.0	63.3	64.1	
PART INSULATED	7.3	7.5	8.4	7.5	6.4	6.2	
DON'T KNOW AMOUNT /							
NOT REPORTED	1.0	3	1.5	1.6	.9	1.3	
NO	14.5	5.8	11.0	13.0	20.1	19.8	
DCN'T KNW/NOT REPORTED	8.8	5.9	8.7	9.9	9.3	8.5	
TYPE OF INSULATION							
BATTS ONLY	38.2	35.6	44.7	41.3	32.9	32.9	
LOOSE FILL ONLY	26.7	27.0	18.8	19.9	20.0	21.6	
BATTS AND LOOSE FILL ONLY	8.3	18.7	8.8	6.9	4.9	7.6	
OTHER/COMBINATIONS	5.6	4.7	5.9	5.4	6.5	5.6	
DON'T KNOW TYPE /	3.8	2.3	2.1	3.6	6.3	4.0	
NOT REPORTED	25.2	11.7	19.7	22.9	29.4	28.3	

SPE NOTES AT END OF TABLE

TABLE 52. THERMAL CHARACTERISTICS BY HEATING AND COOLING DEGREE-DAYS  
(PERCENTAGE OF HOUSEHOLDS)-Continued

		ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)			
HOUSEHOLD CHARACTERISTICS		<2,000 CDD AND ANT		<2,000 CDD AND HDD	
	TOTAL	>7,000 HDD	5,500 TO 7,000 HDD	4,000 TO 5,499 HDD	<4,000 HDD
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>					
YES.....	66.4	79.4	72.3	52.8	52.5
ALL WALLS.....	52.6	65.1	59.6	43.2	43.4
SOME WALLS.....	31.8	14.3	12.8	9.5	9.1
NO.....	20.5	10.3	15.7	29.5	27.5
DON'T KNOW/NOT REPORTED.....	15.1	10.3	11.9	17.7	20.0
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>					
HAVE BASEMENT/CRAWL SPACE.....	76.2	95.9	88.3	74.3	76.7
HEATED.....	22.6	46.8	39.5	29.5	2.6
NOT HEATED.....	55.1	49.1	48.8	58.6	71.7
HAVE FLOOR INSULATION.....	6.7	10.2	7.6	12.4	9.5
ALL PARTS INSULATED.....	6.5	7.4	5.1	10.2	8.5
SOME PARTS INSULATED.....	1.8	2.7	2.5	2.2	1.0
NO FLOOR INSULATION.....	38.7	33.3	35.0	36.8	32.4
DON'T KNOW/NOT REPORTED.....	7.8	5.6	6.1	9.4	4.0
NO BASEMENT/CRAWL SPACE.....	21.6	4.1	11.5	25.7	61.4
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>					
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	46.6	78.9	71.8	61.6	23.4
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	85.8	99.3	98.6	96.0	78.9
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	.7	1.4	4.0	21.1
					23.9

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: FEDERAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 53. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR TATEF	TO 1974	TO 1969	TO 1964	TO 1959	TO 1949
TOTAL HOUSEHOLDS.....	81.6	11.3	10.5	8.1	7.2	13.7	7.5
NUMBER OF WINDOWS							23.3
1 TO 6.....	13.7	3.2	2.8	1.7	1.4	1.1	.9
7 TO 12.....	33.6	5.0	4.3	3.5	3.0	6.1	3.0
13 TO 18.....	21.9	2.2	2.5	1.9	2.0	4.5	2.1
19 OR MORE.....	12.2	.9	.7	.9	.8	2.0	1.4
MONE.....	12.2	-	-	-	-	-	-
AVERAGE NUMBER OF WINDOWS....	12.4	10.1	9.9	11.5	11.7	13.2	14.5
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. OR LARGER)							
1.....	19.1	2.3	2.3	2.3	2.4	4.3	1.6
2.....	10.6	1.7	1.7	1.1	1.3	1.9	.7
3 OR MORE.....	16.7	2.6	2.3	1.7	1.4	2.7	1.6
NONE/NC WINDOWS.....	35.3	4.7	4.3	3.0	2.0	4.8	3.5
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.7	1.6	1.8	1.8	1.6	1.8
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	17.5	3.9	3.1	2.2	1.8	2.1	1.3
5 TO 8.....	23.5	3.2	3.0	2.6	2.4	4.7	2.1
9 TO 12.....	16.8	1.5	1.6	1.4	1.4	3.5	1.9
13 OR MORE.....	16.0	1.4	1.2	1.2	.9	2.3	1.7
NONE/NC WINDOWS.....	7.6	1.4	1.6	.7	.7	1.0	.5
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	6.6	6.2	6.1	7.0	7.0	8.3	8.8
SMALL (6 SQ. FT. OR SMALLER)							
1.....	15.1	2.1	1.9	1.6	1.1	2.0	1.6
2.....	14.5	2.4	1.9	1.5	1.2	2.7	1.5
3.....	7.5	1.0	.9	.8	.8	1.6	.7
4 OR MORE.....	21.4	2.2	2.3	2.2	2.1	4.5	1.9
NONE/NC WINDOWS.....	22.4	3.7	3.6	2.1	2.0	2.9	1.7
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	2.2	2.2	2.7	3.0	3.3	2.7
							2.6

SEE NOTES AT END OF TABLE

TABLE 53. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949
		1939 OR EARLIER					
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6.....	8.5	2.0	1.5	0.7	0.8	1.0	0.5
7 TO 12.....	18.0	2.7	2.3	1.7	1.5	2.9	1.6
13 TO 18.....	12.4	1.3	1.4	1.0	1.1	2.5	1.0
19 OR MORE.....	7.4	.7	.4	.6	.5	1.2	.5
NONE/NO WINDOWS.....	34.9	4.6	4.9	4.1	3.4	6.1	3.7
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	6.0	5.5	6.0	6.4	7.3	6.3
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	8	.9	.7	.8	.7	.6	.9
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.5	4.0	3.7	3.9	4.1	4.9	4.7
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.1	1.1	1.1	1.3	1.5	1.7	1.0
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT.....	31.4	5.6	4.3	2.9	2.8	4.9	2.0
76 TO 99 PERCENT.....	7.3	4	6	5	4	9	3.0
51 TO 75 PERCENT.....	3.8	-3	4	2	2	5	1.6
1 TO 50 PERCENT.....	4.2	-3	3	4	3	8	1.8
NONE/NO WINDOWS.....	34.9	4.6	4.9	4.1	3.4	6.1	3.7

SEE NOTES AT END OF TABLE

TABLE 53. THERMAL CHARACTERISTICS BY IFIN HOUSE BUILT  
(MILLION HOUSEHOLDS. EXCEPT WHITE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR LATER	TO 1974	TO 1969	TO 1964	TO 1959	TO 1949
<b>NUMBER OF OUTSIDE DOORS</b>							
1.....	7.6	1.5	1.3	0.7	0.8	0.7	0.6
2.....	36.5	4.0	4.6	3.5	2.7	6.8	4.1
3.....	22.5	3.5	2.7	2.2	2.2	4.3	11.0
4 OF MCF.....	12.2	2.3	1.7	1.5	1.2	1.7	6.1
NCNE.....	2.6	.1	.3	.3	.3	.9	2.9
AVERAGE NUMBER OF DOORS.....	2.6	2.7	2.5	2.6	2.5	2.6	2.4
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>							
STANDARD DOORS							
1.....	12.6	3.0	2.8	1.4	1.2	1.0	.8
2.....	41.7	5.3	5.1	4.3	3.4	8.0	4.3
3.....	17.4	1.9	1.6	1.6	1.6	3.5	11.3
4 OR MCF.....	6.5	.6	.5	.4	.6	1.1	5.8
NONE/NC DOORS.....	3.5	.5	.6	.4	.4	.7	2.6
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	1.9	1.9	2.0	2.1	.2	1.3
SLIDING GLASS DOORS							
1.....	15.8	4.3	3.9	2.3	1.8	.7	1.0
2 OF MCF.....	4.5	1.8	1.2	.9	.8	.8	.2
NONE/NC DOORS.....	61.0	5.2	5.5	4.9	5.0	11.5	22.1
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.2	.8	.6	.6	.4	.2	.1

SEE NOTES AT END OF TABLE

TABLE 53. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970 OR LATER	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949
NUMBER OF STORM DOORS							
1.....	13.6	2.1	2.0	1.4	1.0	1.5	1.0
2.....	22.6	2.0	2.4	1.7	2.2	4.8	2.2
3.....	8.5	1.3	1.0	.8	.9	1.6	2.6
4 CP MCPE.....	2.9	.5	.4	.3	.2	.4	.8
NONE/NC DOORS.....	34.9	5.3	4.7	3.9	2.9	5.3	9.5
AVERAGE NUMBER OF STORM DOORS.....	1.2	1.1	1.1	1.1	1.3	1.3	1.2
AVERAGE NUMBER OF STANDARD STORM DOORS.....	1.0	.7	.8	.8	1.1	1.2	1.1
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....	.2	.4	.3	.2	.2	.1	.1
PERCENT OF OUTSIDE DOORS WITH STORM DOORS							
100 PERCENT.....	26.3	2.8	2.8	2.0	2.3	5.5	2.5
51 TO 99 PERCENT.....	7.6	1.1	1.2	.8	1.0	1.3	1.5
1 TO 50 PERCENT.....	12.9	2.1	1.9	1.4	1.0	1.7	1.2
NONE/NC DOORS.....	34.9	5.3	4.7	3.9	2.9	5.3	9.5

SEE NOTES AT END OF TABLE

TABLE 53. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR	TO	TO	TO	TO	1939 OR EARLIER
		LATER	1974	1969	1964	1959	1949
TOTAL SINGLE-FAMILY UNITS.....	56.3	6.9	5.6	5.0	5.1	11.6	5.7
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)							
YES.....	43.2	6.4	5.0	4.5	4.4	9.3	4.1
ALL INSULATED.....	38.6	6.0	4.8	4.2	4.0	8.2	3.5
PART INSULATED.....	4.1	.4	.1	.2	.3	.9	.5
DON'T KNOW AMOUNT / NOT REPORTED.....	5	-	-	-1	-	-2	-1
NO.....	5.1	.2	.2	.2	.4	1.2	1
DON'T KNW/NCT REPORTED.....	4.9	.2	.4	.3	.3	1.2	.6
TYPE OF INSULATION							
BATTS ONLY.....	21.5	3.2	2.7	2.4	2.4	4.5	2.1
AVERAGE NUMBER OF INCHES.....	5.7	6.2	5.9	5.6	4.8	4.9	4.2
LOOSE FILL ONLY.....	11.7	1.9	1.1	1.2	1.1	2.5	2.9
AVERAGE NUMBER OF INCHES.....	6.5	8.1	6.8	6.3	7.1	5.5	6.0
BATTS AND LOOSE FILL ONLY.....	4.7	.5	.5	.5	.4	1.1	1.1
AVERAGE NUMBER OF INCHES.....	10.3	14.0	10.0	10.7	10.1	9.7	9.4
OTHER/COMBINATIONS.....	3.2	.4	.3	.2	.3	.7	.4
DON'T KNOW TYPE / NOT REPORTED.....	2.1	.5	.3	.2	.1	.4	.2
NO INSULATION/EGN'T KNOW / NOT REPORTED.....	13.1	.4	.6	.5	.7	2.3	1.7

SEE NOTES AT END OF TABLE

TABLE 53. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT			
		1975	1970	1965	1950
		OR LATER	TO 1974	TO 1969	TO 1964
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>					
YES.....	36.2	6.0	4.5	3.7	3.2
ALL WALLS.....	29.6	5.7	4.3	3.4	3.0
SOME WALLS.....	6.6	1.3	1.2	1.3	1.5
NO.....	11.5	2.2	1.3	1.7	2.4
DON'T KNOW/NOT REPORTED.....	6.5	.6	.8	.7	1.0
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>					
HAVE BASEMENT/CRAWL SPACE.....	44.0	4.0	3.5	3.3	3.8
HEATED.....	13.0	1.4	1.2	1.2	1.3
NOT HEATED.....	31.0	2.6	2.3	2.2	2.6
HAVE FLOOR INSULATION.....	4.5	.9	.8	.7	.5
ALL PARTS INSULATED.....	3.9	.8	.7	.6	.4
SOME PARTS INSULATED.....	1.6	.1	.1	.1	.2
NO FLOOR INSULATION.....	21.5	1.3	1.1	1.2	1.6
DON'T KNOW/NOT REPORTED.....	4.4	.3	.4	.3	.4
NO BASEMENT/CRAWL SPACE.....	12.3	2.9	2.1	1.7	2.7

**INSULATION CHARACTERISTICS  
(SINGLE-FAMILY UNITS)**

UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION....	27.4	3.7	3.1	2.6	2.7	5.7	2.6	7.1
UNITS WITH ONE OF MORE OF THESE TYPES OF INSULATION....	50.6	6.6	5.4	4.8	4.7	10.5	4.8	13.8
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	.3	.3	.2	.4	1.1	.9	2.6

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNING. A dash "--" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 54. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR LATER	TO 1974	TO 1969	TO 1964	TO 1959	TO 1949
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS							
1 TO 6.....	16.6	28.5	27.0	21.2	19.5	8.3	12.5
7 TO 12.....	41.1	44.0	40.6	43.4	42.2	44.8	40.5
13 TO 18.....	26.8	19.6	23.8	23.7	27.2	32.7	28.0
19 OR MORE.....	15.0	7.7	6.7	11.7	11.1	14.3	19.0
NONE.....	3.3	2	1.9	-	-	-	-
SIZE AND NUMBER OF WINDOWS							
LARGE (24 SQ. FT. OR LARGER)							
1.....	23.4	20.3	21.9	27.8	33.0	31.5	21.3
2.....	12.5	15.0	16.0	13.6	18.7	14.2	10.0
3 OR MORE.....	20.5	23.1	21.7	21.4	20.1	19.5	21.1
NONE/NC WINDOWS.....	43.2	41.6	40.4	37.2	28.1	34.8	47.6
MEDIUM (MORE THAN 6, LESS THAN 24 SQ. FT.)							
1 TO 4.....	21.2	34.5	29.2	27.4	24.4	15.3	17.1
5 TO 8.....	29.2	27.9	28.7	31.8	33.6	34.2	27.6
9 TO 12.....	20.6	13.3	15.4	16.7	19.1	25.7	26.1
13 OR MORE.....	15.6	12.2	11.8	15.3	12.8	17.1	23.1
NONE/NC WINDOWS.....	5.4	12.1	14.9	8.9	10.1	7.6	6.2
SMALL (6 SQ. FT. OR SMALLER)							
1.....	16.5	18.3	17.8	19.1	15.2	14.9	20.9
2.....	18.2	20.9	17.7	19.0	16.8	20.0	20.4
3.....	5.6	9.2	8.8	9.9	11.0	11.6	9.6
4 OR MORE.....	26.3	19.2	21.4	26.5	29.6	32.5	25.7
NONE/NC WINDOWS.....	27.4	32.3	34.3	25.5	27.4	21.1	23.4

SEE NOTES AT END OF TABLE

TABLE 54. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949
		1939 OR EARLIER					
<b>NUMBER OF STORM WINDOWS</b>							
1 TO 6	11.6	17.3	13.9	10.5	7.1	6.4	11.3
7 TO 12	22.1	24.9	21.2	20.8	21.3	21.6	22.4
13 TO 18	15.2	11.5	13.6	14.8	18.5	13.9	17.0
19 OR MORE	5.1	6.0	3.9	7.1	8.9	6.5	14.4
NONE/NC WINDOWS	42.7	41.0	46.7	46.7	44.2	49.6	35.0
<b>PERCENT OF WINDOWS WITH STORM WINDOWS</b>							
100 PERCENT	38.4	49.7	41.2	35.4	39.2	35.7	26.8
76 TO 99 PERCENT	6.5	3.7	5.5	6.8	6.6	9.9	12.3
51 TO 75 PERCENT	4.6	2.8	3.4	2.9	3.4	4.6	6.7
1 TO 50 PERCENT	5.3	2.8	3.2	4.9	4.1	5.6	7.8
NONE/NC WINDOWS	42.7	41.0	46.7	50.1	46.7	49.6	35.0
<b>NUMBER OF OUTSIDE DOORS</b>							
1	9.6	12.9	11.9	8.6	10.9	5.4	8.6
2	44.6	35.0	43.4	42.9	36.9	49.9	54.7
3	27.6	30.7	26.0	27.2	30.4	31.4	20.8
4 OR MORE	14.9	20.3	15.9	18.1	17.4	12.5	12.4
NONE	3.2	1.0	2.9	3.3	4.3	3.6	5.1
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>							
<b>STANDARD DOORS</b>							
1	15.4	26.6	26.3	17.6	16.6	7.3	10.5
2	51.1	46.6	48.6	53.4	47.5	58.1	57.5
1	21.5	17.1	15.0	19.8	22.0	25.8	18.3
4 OR MORE	7.5	5.4	4.4	4.6	8.7	7.7	24.7
NONE/NC DOORS	4.3	4.4	5.6	4.6	5.2	1.2	11.2
<b>SLIDING GLASS DOORS</b>							
1	19.3	38.1	36.6	28.4	24.9	13.2	8.9
2 OR MORE	6.0	15.6	11.3	10.6	5.1	3.1	1.2
NONE/NC DOORS	74.7	46.0	52.1	61.0	70.0	83.8	89.9

SEE NOTES AT END OF TABLE

TABLE 54. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975 OR LATER			1965 TO 1969		
		1970	1974	1969	1960 TO 1964	1959	1940 TO 1949
<b>NUMBER OF STORM DOORS</b>							
1.....	15.9	18.8	19.3	16.9	13.6	11.1	13.8
2.....	26.5	18.0	22.8	20.7	31.2	35.3	30.1
3.....	10.9	11.9	9.2	10.1	12.3	11.8	8.8
4 CR MCRE.....	3.5	4.4	4.1	3.7	2.9	3.2	2.7
NONE/NC DOORS.....	42.7	46.9	44.5	48.4	40.0	38.5	44.6
<b>PERCENT OF OUTSIDE DOORS WITH STORM DOORS</b>							
100 PERCENT.....	32.2	25.1	26.1	24.6	32.0	40.2	33.2
51 TO 99 PERCENT.....	5.3	9.3	11.5	9.5	14.2	9.2	6.5
1 TO 50 PERCENT.....	15.6	18.7	17.8	17.4	13.8	12.0	15.8
NONE/NC DOORS.....	42.7	46.9	44.5	48.4	40.0	38.5	44.6
<b>TOTAL SINGLE-FAMILY UNITS.....</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	76.8	93.8	89.1	90.1	86.1	79.8	71.1
ALL INSULATED.....	68.5	87.9	86.1	83.6	79.0	70.4	61.6
PART INSULATED.....	7.3	5.2	2.2	4.4	6.2	8.0	8.7
DON'T KNOW AMOUNT / NOT REPORTED.....	14.6	6	8	2.1	9	1.4	8
NO.....	14.6	3.1	3.7	4.5	7.1	10.2	18.9
DON'T KNOW/NOT REPORTED.....	8.8	3.1	7.2	5.4	6.8	10.0	9.9
<b>TYPE OF INSULATION</b>							
BATTS ONLY.....	38.2	46.9	47.4	48.0	47.3	38.4	36.7
LOOSE FILL ONLY.....	20.7	27.4	20.0	24.3	21.7	21.8	14.9
BATTS AND LOOSE FILL ONLY....	8.3	7.2	9.6	9.2	8.8	9.7	9.4
COTHER/COMBINATIONS.....	5.6	5.5	6.0	4.9	5.6	6.4	6.5
DON'T KNOW TYPE / NOT REPORTED.....	3.6	6.7	6.0	3.7	2.7	3.5	3.6
NO INSULATION/DON'T KNOW / NOT REPORTED.....	23.2	6.2	10.9	9.9	13.9	20.2	26.9

SEE NOTES AT END OF TABLE

TABLE 54. THERMAL CHARACTERISTICS BY YEAR HOUSE BUILT  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	YEAR HOUSE BUILT					
		1975	1970	1965	1960	1950	1940
		OR LATER	TO 1974	TO 1969	TO 1964	TO 1959	TO 1950
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>							
YES.....	64.4	87.5	80.4	74.5	67.7	61.0	55.7
ALL WALLS.....	52.6	83.6	76.1	67.8	58.7	48.3	50.5
SOME WALLS.....	11.8	3.9	4.3	6.8	9.0	12.7	31.9
NO.....	20.5	3.6	5.6	12.0	13.4	20.9	16.6
DON'T KNOW/NOT REPORTED.....	15.1	8.9	13.9	13.5	18.9	18.0	34.9
						17.4	14.6
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>							
HAVE BASEMENT/CRAWL SPACE.....	78.2	58.5	62.1	66.7	75.5	77.0	98.1
HEATED.....	23.0	21.0	20.7	23.2	24.9	21.2	23.2
NOT HEATED.....	55.1	37.3	41.5	43.5	50.6	55.8	68.4
HAVE FLOOR INSULATION.....	6.7	13.4	14.1	13.7	9.0	5.3	6.3
ALL PARTS INSULATED.....	6.9	11.4	11.8	11.7	7.9	3.9	4.1
SOME PARTS INSULATED.....	1.6	2.0	2.2	2.0	1.1	1.4	2.1
NO FLOOR INSULATION.....	36.7	19.4	20.2	23.0	30.8	41.4	53.4
DON'T KNOW/NOT REPORTED.....	7.8	4.5	7.2	6.7	10.7	9.1	8.7
NO BASEMENT/CRAWL SPACE.....	21.8	41.6	37.9	33.3	24.5	23.0	6.3
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>							
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OF CEILING INSULATION....	48.8	54.3	54.3	51.4	53.3	49.2	40.6
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION..	89.6	95.8	95.0	95.1	93.0	90.7	84.3
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	4.2	5.0	4.9	7.0	9.3	15.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A dash "-" represents zero. Percentages are calculated on unrounded numbers. See glossary for definitions of terms used in this table.  
 SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS									
		AGE OF HOUSEHOLD HEAD			ORIGIN			NUMBER OF HOUSEHOLD MEMBERS			
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1	2	3	4	5 OR MORE
TOTAL HOUSEHOLDS.....	81.6	28.4	31.5	21.8	72.4	9.2	15.7	26.8	14.9	13.4	10.9
NUMBER OF WINDOWS											
1 TO 6.....	13.7	7.3	3.4	3.0	11.6	2.2	5.6	4.7	1.8	.9	.7
7 TO 12.....	33.6	12.0	12.5	9.1	29.2	4.4	5.9	11.4	6.6	5.1	4.6
13 TO 18.....	21.9	6.5	9.3	6.0	19.9	2.0	2.9	6.8	4.0	4.7	3.5
19 OR MORE.....	12.2	2.5	6.2	3.5	11.5	.7	1.1	3.8	2.4	2.6	2.2
NONE.....	1.2	—	—	.2	—	.2	.7	—	—	—	—
AVERAGE NUMBER OF WINDOWS.....	12.4	10.6	13.8	12.7	12.6	10.8	9.4	12.1	13.0	14.2	14.3
SIZE AND NUMBER OF WINDOWS LARGE (24 SQ. FT. OR LARGER)											
1.....	19.1	6.4	7.8	4.9	17.5	1.6	2.7	6.4	3.7	3.6	2.7
2.....	10.6	4.1	4.2	2.3	9.8	.8	1.9	3.3	2.0	1.8	1.7
3 OR MORE.....	16.7	4.9	7.3	4.5	14.6	2.1	3.0	5.6	3.0	2.7	2.3
NONE/INC WINDOWS.....	35.3	13.0	12.2	10.1	30.6	4.7	8.1	11.5	6.2	5.2	4.2
AVERAGE NUMBER OF LARGE SIZE WINDOWS.....	1.7	1.4	2.0	1.7	1.7	1.8	1.4	1.8	1.7	1.9	1.9
MEDIUM (*MCFE THAN 6, LESS THAN 24 SQ. FT.)											
1 TO 4.....	17.3	7.9	5.9	3.5	15.3	2.0	4.7	6.0	2.5	2.4	1.8
5 TO 8.....	23.8	8.3	9.2	6.4	20.7	3.2	4.4	7.8	4.5	3.7	3.5
9 TO 12.....	16.8	5.3	6.3	5.2	14.8	2.0	2.2	5.8	3.5	3.1	2.3
13 OR MORE.....	16.0	4.1	7.4	4.5	14.9	1.1	1.9	4.6	3.3	3.3	2.9
NONE/INC WINDOWS.....	7.6	2.9	2.6	2.2	6.7	1.0	2.5	2.6	1.2	.9	.4
AVERAGE NUMBER OF MEDIUM SIZE WINDOWS.....	8.0	7.0	8.7	8.4	8.1	7.2	6.1	7.7	8.7	9.0	9.5
SMALL (6 SQ. FT. OR SMALLER)											
1.....	15.1	5.5	5.3	4.3	12.7	2.4	3.7	5.1	2.7	2.1	1.6
2.....	14.9	5.5	5.5	3.9	13.2	1.6	2.4	4.9	3.1	2.4	2.1
3.....	7.8	2.4	3.4	2.0	7.0	.8	1.2	2.6	1.3	1.4	1.4
4 OR MORE.....	21.4	5.8	9.7	5.9	20.1	1.4	2.9	7.0	3.8	4.5	3.3
NONE/INC WINDOWS.....	22.4	9.1	7.6	5.7	19.4	3.0	5.7	7.2	4.1	2.9	2.5
AVERAGE NUMBER OF SMALL SIZE WINDOWS.....	2.6	2.2	3.1	2.6	2.8	1.8	1.9	2.6	2.5	3.4	2.9

SPE NOTES AT END OF TABLE

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS						NUMBER OF HOUSEHOLD MEMBERS	
		AGE OF HOUSEHOLD HEAD			ORIGIN				
		35 OR IFSS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1 2 3 4 5 OR MORE		
NUMBER OF STORM WINDOWS									
1 TO 6.....	8.9	4.3	2.5	2.2	8.1	6.9	2.7	3.2	
7 TO 12.....	18.0	6.0	7.1	5.0	16.6	1.4	2.9	3.7	
13 TO 18.....	12.4	3.6	5.3	3.5	11.8	.5	1.5	4.2	
19 OR MORE.....	7.4	1.3	4.2	1.9	7.1	.3	.6	2.3	
NCNF/HO WINDOWS.....	34.9	13.2	12.4	9.3	28.8	6.1	8.2	11.0	
AVERAGE NUMBER OF STORM WINDOWS.....	7.0	5.5	8.3	7.1	7.5	3.4	4.6	7.0	
AVERAGE NUMBER OF LARGE SIZE STORM WINDOWS.....	.8	.6	1.0	.8	.8	.6	.6	.8	
AVERAGE NUMBER OF MEDIUM SIZE STORM WINDOWS.....	4.9	3.9	5.7	5.1	5.2	2.4	3.3	4.8	
AVERAGE NUMBER OF SMALL SIZE STORM WINDOWS.....	1.3	1.0	1.6	1.2	1.4	.5	.8	1.3	
PERCENT OF WINDOWS WITH STORM WINDOWS									
100 PERCENT.....	31.4	10.4	12.6	8.4	29.8	1.6	5.1	11.0	
76 TO 99 PERCENT.....	7.3	2.1	3.1	2.1	6.6	.6	1.2	2.1	
51 TO 75 PERCENT.....	3.8	1.3	1.6	.9	3.5	.3	.6	1.2	
1 TO 50 PERCENT.....	4.3	1.5	1.7	1.1	3.8	.5	.7	1.5	
NCNF/NC WINDOWS.....	34.9	13.2	12.4	9.3	28.8	6.1	8.2	11.0	

SFF NOTES AT END OF TABLE

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS									
		AGE OF HOUSEHOLD HEAD			ORIGIN			NUMBER OF HOUSEHOLD MEMBERS			
		35 OR IIFSS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1	2	3	4	5 OR MORE
<b>NUMBER OF OUTSIDE DOORS</b>											
1.....	7.8	4.0	2.0	1.8	6.3	1.5	3.2	2.6	1.0	0.6	0.4
2.....	36.5	13.7	12.8	10.1	32.1	4.5	7.3	12.4	6.7	5.6	4.5
3.....	22.5	6.6	10.2	5.8	20.5	2.0	2.9	6.8	4.7	4.5	3.7
4 OR MORE.....	12.2	3.1	5.9	3.2	11.6	.6	1.3	4.0	2.1	2.6	2.1
NONE.....	2.6	1.1	.6	.9	1.9	.7	1.0	.9	.4	.1	.2
AVERAGE NUMBER OF DOORS.....	2.5	2.3	2.7	2.5	2.6	2.1	2.1	2.5	2.6	2.8	2.8
<b>TYPE AND NUMBER OF OUTSIDE DOORS</b>											
STANDARD DOORS											
1.....	12.6	6.3	3.5	2.8	10.8	1.8	4.3	4.2	1.9	1.3	.9
2.....	41.7	14.5	16.1	11.1	37.0	4.7	14.0	7.9	7.2	5.7	
3.....	17.4	4.7	7.8	4.9	15.9	1.5	2.2	5.1	3.5	3.4	3.1
4 CR MCFF.....	6.5	1.4	3.0	2.0	6.0	.5	.8	2.3	1.1	1.3	1.0
NONE/NC DOORS.....	3.5	1.6	1.0	1.0	2.8	.7	1.5	1.2	.5	.2	.2
AVERAGE NUMBER OF STANDARD DOORS.....	2.2	2.0	2.3	2.2	2.2	1.9	1.8	2.2	2.2	2.4	2.4
<b>SLIDING GLASS DOORS</b>											
1.....	15.8	6.2	6.9	2.6	14.9	.9	2.3	5.0	3.1	3.1	2.2
2 CR MCFF.....	4.9	1.3	2.5	1.1	4.7	.2	.8	1.5	.7	1.1	.8
NONE/NC DOORS.....	61.0	20.9	22.1	18.0	52.8	8.2	12.7	20.2	11.0	9.1	7.9
AVERAGE NUMBER OF SLIDING GLASS DOORS.....	.3	.3	.4	.3	.4	.1	.3	.3	.3	.4	.4

SEF NOTES AT END OF TABLE

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	AGE OF HOUSEHOLD HEAD						ORIGIN						NUMBER OF HOUSEHOLD MEMBERS																	
		35 OR IRES			36 TO IRES			60 AND OVER			WHITE, OTHER			BLACK			1			2			3			4			5 OR MORE		
		13.0	5.3	4.8	3.0	6.7	20.1	1.0	2.5	4.2	2.6	4.2	2.0	2.8	4.1	4.3	4.1	3.3	7.5	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3		
NUMBER OF STORM DOORS																															
1.....	22.0	6.1	9.1	6.7	20.1	1.9	3.3	7.5	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3	4.1	4.3			
2.....																															
3.....																															
4 OR MORE.....																															
NONE/NO DOORS.....																															
AVERAGE NUMBER OF STORM DOORS.....	34.9	14.4	11.6	8.9	29.1	5.8	8.9	11.3	5.9	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
AVERAGE NUMBER OF STANDARD STORM DOORS.....																															
AVERAGE NUMBER OF SLIDING GLASS STORM DOORS.....																															
PERCENT OF OUTSIDE DOORS WITH STORM DOORS																															
100 PERCENT.....	26.3	7.1	10.8	8.4	24.1	2.2	4.2	9.0	4.5	4.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		
51 TO 99 PERCENT.....	7.6	2.1	3.9	1.6	7.2	.3	.7	2.2	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
1 TO 50 PERCENT.....	12.9	4.8	5.2	2.9	12.0	.9	1.9	4.3	2.7	2.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
NONE/NC DOORS.....	34.9	14.4	11.6	8.9	29.1	.8	8.9	11.3	5.9	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		

SEE NOTES AT END OF TABLE

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
 (MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS									
		AGE OF HOUSEHOLD HEAD			ORIGIN			NUMBER OF HOUSEHOLD MEMBERS			
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, CWHITE	BLACK	1	2	3	4	5 OR MORE
TOTAL SINGLE-FAMILY UNITS.....	56.3	16.1	24.3	15.9	51.1	5.2	7.3	18.1	10.7	10.9	9.2
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)											
YES.....	43.2	11.8	19.8	11.6	40.7	2.5	4.7	14.2	8.5	8.8	7.0
ALL INSULATED.....	38.6	10.3	17.6	10.6	36.4	2.1	4.4	12.6	7.6	7.9	6.1
PART INSULATED.....	4.1	1.4	1.9	.8	3.7	.4	.3	1.3	.7	.9	.9
DON'T KNOW AMOUNT/ NOT REPORTED.....	5	*1	*3	*2	*5	-	*1	*2	-	-	1
NO.....	8.1	2.0	2.7	3.4	6.3	1.9	1.6	2.6	1.3	1.1	1.5
DCN'T KNOW/NOT REPORTED.....	4.9	2.2	1.8	1.0	4.2	.8	1.0	1.3	1.0	1.0	.8
TYPE OF INSULATION											
BATTS ONLY.....	21.5	5.6	10.4	5.6	20.0	1.5	2.0	6.7	4.4	4.8	3.6
AVERAGE NUMBER OF INCHES.....	5.3	5.6	5.3	5.0	5.3	5.9	5.3	5.0	5.2	5.5	5.6
LOOSE FILL ONLY.....	11.7	3.5	5.0	3.1	11.1	.6	1.5	3.9	2.3	2.2	1.8
AVERAGE NUMBER OF INCHES.....	6.5	6.8	6.2	6.6	6.6	4.4	5.9	6.6	6.5	6.3	6.8
BATTS AND LOOSE FILL ONLY.....	4.7	1.3	2.2	1.2	4.6	*1	*4	1.6	*8	1.1	.9
AVERAGE NUMBER OF INCHES.....	10.3	11.5	10.3	9.0	10.3	7.2	9.2	10.1	11.1	10.4	10.4
OTHER/COMBINATIONS.....	3.2	.8	1.4	1.0	3.1	.2	.5	1.3	.7	.4	.4
DCN'T KNOW TYPE/ NOT REPORTED.....	2.1	.7	.7	.7	1.9	.2	.4	.8	.3	.4	.3
NO INSULATION/DON'T KNOW/ NOT REPORTED.....	13.1	4.2	4.5	4.3	10.4	2.6	2.6	4.0	2.3	2.1	2.2

SEE NOTES AT END OF TABLE

TABLE 55. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -C-continued

HOUSEHOLD CHARACTERISTICS		SELECTED DEMOGRAPHIC CHARACTERISTICS									
		TOTAL		AGE OF HOUSEHOLD HEAD		ORIGIN		NUMBER OF HOUSEHOLD MEMBERS			
				35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1	2	3
<b>HAVE WALL INSULATION (SINGLE-FAMILY UNITS)</b>											
YES.....	36.2	10.0	16.7	9.5	34.2	2.0	3.8	11.6	6.9	7.7	6.2
ALL WALLS.....	29.6	8.0	13.7	7.9	28.0	1.6	3.1	9.6	5.6	6.3	5.0
SOME WALLS.....	6.6	2.0	3.0	1.6	6.2	.4	.7	2.0	1.3	1.4	1.2
NO.....	11.5	3.0	4.2	4.3	9.6	2.0	2.2	4.0	2.2	1.5	1.6
DON'T KNOW/NOT REPORTED.....	8.5	3.0	3.4	2.1	7.3	1.2	1.3	2.5	1.6	1.7	1.4
<b>FLOOR INSULATION (SINGLE-FAMILY UNITS)</b>											
HAVE BASEMENT/CRAWL SPACE.....	44.0	11.9	18.9	13.1	40.3	3.7	5.9	14.4	8.3	8.2	7.2
HEATED.....	13.0	3.0	6.3	3.6	12.0	1.0	1.3	4.1	2.2	3.0	2.4
NOT HEATED.....	31.0	8.9	12.6	9.5	28.3	2.7	4.6	10.3	6.1	5.3	4.9
HAVE FLOOR INSULATION.....	4.9	1.5	2.4	1.1	4.7	.1	.4	1.6	1.1	1.0	.8
ALL PARTS INSULATED.....	3.9	1.2	1.8	.9	3.7	.1	.3	1.2	.9	.8	.6
SOME PARTS INSULATED.....	1.0	.3	.6	.2	1.0	—	—	.3	.2	.3	.2
NO FLOOR INSULATION.....	21.8	5.9	8.5	7.4	19.8	2.0	3.5	7.5	4.2	3.4	3.1
DON'T KNOW/NOT REPORTED....	4.4	1.5	1.7	1.1	3.7	.6	.7	1.2	.8	.9	.9
NO BASEMENT/CRAWL SPACE.....	12.3	4.1	5.4	2.8	10.9	1.4	1.4	3.8	2.5	2.7	2.0
<b>INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)</b>											
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND RFOOR OR CEILING INSULATION.....	27.4	6.9	12.9	7.6	26.3	1.1	2.7	9.2	5.3	5.6	4.6
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION.....	50.6	14.3	22.3	14.0	46.9	3.6	6.3	16.4	9.8	10.0	8.1
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	5.7	1.7	2.0	1.9	4.2	1.5	1.1	1.7	.9	.9	1.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FOUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 56. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS								
		AGE OF HOUSEHOLD HEAD		ORIGIN		NUMBER OF HOUSEHOLD MEMBERS				
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, BLACK	1	2	3	4	5 OR MORE
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER OF WINDOWS										
1 TO 6.....	16.8	25.8	10.7	13.9	16.0	23.3	35.7	17.6	12.0	7.1
7 TO 12.....	41.1	42.3	39.6	41.7	40.3	47.5	37.4	42.6	44.6	38.2
13 TO 18.....	26.8	23.0	29.7	27.6	27.5	21.7	18.6	25.4	27.0	34.9
19 OR MORE.....	15.0	8.7	19.8	16.1	15.9	7.6	7.2	14.2	16.4	19.8
NONE.....	.3	.2	.1	.7	.3	—	1.1	.2	.1	—
SIZE AND NUMBER OF WINDOWS										
LARGE (24 SQ. FT. OR LARGER)	23.4	22.6	24.9	22.3	24.1	17.8	17.1	24.0	24.6	26.9
1.....	12.9	14.3	13.2	10.7	13.5	8.2	11.9	12.2	13.2	13.5
2.....	20.5	17.4	23.2	20.5	20.2	22.8	19.2	21.0	20.2	20.4
3 OR MCFF/MC WINCHES.....	43.2	45.7	38.7	46.5	42.2	51.2	51.7	42.8	42.0	39.2
MEDIUM (MCFF THAN 6, LESS THAN 24 SQ. FT.)										
1 TO 4.....	21.2	27.7	18.8	16.2	21.2	21.5	29.9	22.4	16.7	17.6
5 TO 8.....	29.2	29.1	29.3	29.1	28.6	34.2	27.7	29.1	29.9	32.2
9 TO 12.....	20.6	18.8	20.0	23.9	20.5	21.8	14.1	21.7	23.2	22.9
13 OR MCFF.....	19.6	14.3	23.6	20.8	20.6	11.9	12.3	17.1	22.2	24.6
NONE/MC WINCHES.....	9.4	10.1	8.3	9.9	9.2	10.5	16.0	9.7	7.9	7.0
SMALL (6 SQ. FT. OR SMALLER)										
1.....	18.5	19.5	16.9	19.6	17.6	26.2	23.3	18.9	18.0	16.0
2.....	18.2	19.5	17.4	17.7	19.3	17.5	15.1	18.2	20.8	17.8
3.....	9.6	8.5	10.8	9.1	9.7	8.9	7.4	9.6	8.7	10.7
4 OR MORE.....	26.3	20.6	30.7	27.2	27.7	14.8	18.8	26.3	25.3	33.4
NONE/MC WINCHES.....	27.4	31.9	24.1	26.4	26.8	32.5	35.9	27.0	27.2	23.0

SEE NOTES AT END OF TABLE

TABLE 56. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS						NUMBER OF HOUSEHOLD MEMBERS	
		AGE OF HOUSEHOLD HEAD			ORIGIN				
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1 2 3 4 5 OR MORE		
NUMBER OF STORE WINDOWS									
1 TO 6...	11.0	15.1	7.9	9.9	11.2	9.4	16.9	9.4	7.1
7 TO 12...	22.1	21.1	22.5	22.7	22.9	15.4	18.2	23.3	20.1
13 TO 18...	15.2	12.7	16.7	16.2	16.4	5.9	9.4	15.6	20.8
19 OR MORE...	9.1	4.5	13.4	8.7	9.8	3.1	3.6	8.1	12.9
NONE/NO WINDOWS...	42.7	46.5	39.5	42.5	39.7	6.2	51.8	41.3	39.1
PERCENT OF WINDOWS WITH STORM WINDOWS									
100 PERCENT...	38.4	36.5	40.1	38.6	41.1	17.4	32.3	41.1	37.2
76 TO 99 PERCENT...	8.9	7.3	9.9	9.7	9.2	7.0	7.5	7.8	11.1
51 TO 75 PERCENT...	4.6	4.4	5.1	4.3	4.8	3.7	3.8	4.4	5.2
31 TO 50 PERCENT...	5.3	5.4	5.4	5.0	5.2	5.7	4.5	5.4	4.5
NONE/NO WINDOWS...	42.7	46.5	39.5	42.5	39.7	66.2	51.8	41.3	39.1
NUMBER OF OUTSIDE DOORS									
1...	9.6	14.1	6.4	8.2	8.7	15.9	20.4	9.8	6.4
2...	44.8	48.1	40.7	46.3	44.3	49.4	46.6	46.4	45.2
3...	27.6	23.1	32.3	26.7	28.4	21.6	18.3	25.4	31.7
4 OR MORE...	14.9	10.9	18.7	14.7	16.0	6.5	8.2	15.0	14.2
NONE...	3.2	3.8	1.9	4.1	2.6	7.5	6.5	3.4	2.5
TYPE AND NUMBER OF OUTSIDE DOORS									
STANDARD DOORS									
1...	15.4	22.0	11.2	12.7	14.9	19.4	27.4	15.6	12.6
2...	51.1	50.9	51.2	51.1	51.1	16.2	94.2	52.2	52.9
3...	21.3	16.5	24.8	22.5	21.9	13.8	19.2	23.7	25.6
4 OR MORE...	7.9	5.1	9.6	9.2	8.3	5.2	8.4	7.6	9.5
NONE/NC DOORS...	4.3	5.5	3.2	4.4	3.9	8.1	9.5	4.6	3.1
SLIDING GLASS DOORS									
1...	19.3	21.9	21.9	12.1	20.5	9.7	14.4	18.8	21.0
2 OR MORE...	6.0	4.6	7.8	5.2	6.5	1.9	4.9	5.7	4.8
NONE/NC DOORS...	74.7	73.5	70.3	82.7	72.9	89.4	80.7	75.5	68.2

SEE NOTES AT END OF TABLE

TABLE 56. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS)-continued

HOUSEHOLD CHARACTERISTICS	TOTAL	SELECTED DEMOGRAPHIC CHARACTERISTICS									
		AGE OF HOUSEHOLD HEAD			ORIGIN				NUMBER OF HOUSEHOLD MEMBERS		
		35 OR LESS	36 TO 59	60 AND OVER	WHITE, OTHER	BLACK	1	2	3	4	5 OR MORE
NUMBER OF STORM DOORS											
1	15.9	18.5	15.2	13.6	16.5	11.3	15.9	15.6	17.8	14.8	15.4
2	26.9	21.6	29.1	30.7	27.7	20.4	20.7	28.0	27.6	31.9	26.1
3	10.9	7.2	14.0	11.4	11.7	5.3	5.0	11.0	11.6	13.2	15.7
4 OR MORE	3.5	2.0	4.9	3.5	3.9	2.5	2.0	3.0	3.1	4.9	5.6
NONE/NC DOORS	42.7	50.7	16.8	40.8	40.2	62.6	56.5	42.4	39.9	35.2	36.9
PERCENT OF OUTSIDE DOORS WITH STORM DOORS											
100 PERCENT	32.2	25.1	34.2	38.7	33.3	24.0	26.9	33.5	30.5	36.4	34.0
51 TO 99 PERCENT	9.3	7.4	12.4	7.1	10.0	3.7	4.5	8.1	11.8	12.3	11.7
1 TO 50 EFFCNT.	15.8	16.8	16.6	13.4	16.6	9.7	12.1	16.0	17.9	16.1	17.4
NONE/NC DOORS	42.7	50.7	36.8	40.8	40.2	62.6	56.5	42.4	39.9	35.2	36.9
TOTAL SINGLE-FAMILY UNITS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HAVE ROOF OR CEILING INSULATION (SINGLE-FAMILY UNITS)											
YFS	76.8	73.6	81.3	72.9	79.6	48.8	64.8	78.2	78.7	81.1	76.0
ALL INSULATED	68.5	64.3	72.4	66.8	71.2	41.6	59.6	69.6	71.0	72.4	66.0
PART INSULATED	7.3	8.9	7.7	4.9	7.3	6.9	4.0	7.3	6.7	8.3	9.3
DON'T KNKN AMOUNT / NCT REFCFTED	1.0	4	1.2	1.0	1.0	3.3	1.2	1.3	1.0	1.4	1.7
NONE/NC KNKN/NOT REFCFTED	14.5	12.7	11.3	21.1	12.3	36.0	22.2	14.6	12.3	10.0	15.8
DCN'T KNKN/NOT REFCFTED	8.8	13.6	7.4	6.0	8.1	15.2	13.0	7.2	9.0	8.9	8.3
TYPE OF INSULATION											
BATTS ONLY	38.2	34.7	42.6	35.0	39.2	28.2	26.8	36.8	41.4	43.9	39.5
LOOSE FILL ONLY	20.7	21.9	20.7	19.5	21.6	11.4	20.6	21.7	21.0	20.0	19.5
BATTS AND LOOSE FILL ONLY	8.3	7.9	9.1	7.5	8.9	2.1	5.7	8.6	7.0	9.8	9.6
OTHER/COMBINATIONS	5.8	5.0	5.9	6.2	6.0	3.4	6.6	6.9	6.1	4.0	4.5
DCN'T KNKN TYPE / NCT REFCFTED	3.8	4.1	3.0	4.7	3.8	3.8	5.2	4.3	3.2	3.4	2.9
NC INSULATION/DCN'T KNOW / NCT REFCFTED	23.2	26.4	18.7	27.1	20.4	51.2	35.2	21.8	21.3	18.9	24.0

SEE NOTES AT END OF TABLE

TABLE 56. THERMAL CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS  
(PERCENTAGE OF HOUSEHOLDS) -Continued

SELECTED DEMOGRAPHIC CHARACTERISTICS									
HOUSEHOLD CHARACTERISTICS	AGE OF HOUSEHOLD HEAD			ORIGIN			NUMBER OF HOUSEHOLD MEMBERS		
				WHITE, OTHER	BLACK		1	2	3
	35 OR LESS	36 TO 59	60 OVER						4
HAVE WALL INSULATION (SINGLE-FAMILY UNITS)									5 OR MORE
TOTAL	64.4	62.3	68.8	59.8	66.9	39.2	52.0	64.1	70.9
YES.....	52.6	49.8	56.5	49.4	50.8	30.8	42.3	52.9	58.2
ALL WALLS.....	11.8	12.5	12.3	10.3	12.1	8.5	9.8	11.2	12.7
SOME WALLS.....	20.5	19.0	17.1	27.2	18.7	38.2	30.2	22.1	20.4
NC.....	15.1	18.7	14.1	13.0	14.4	22.6	17.8	13.8	15.2
DON'T KNOW/NOT REPORTED.....									
FLOOR INSULATION (SINGLE-FAMILY UNITS)									
HAVE BASEMENT/CRAWL SPACE.....	78.2	74.4	77.8	82.6	78.8	72.1	80.4	79.3	77.2
HEATED.....	23.0	18.7	26.0	22.7	23.4	18.8	17.8	22.8	20.3
NOT HEATED.....	55.1	55.7	51.7	59.9	55.3	53.3	62.4	56.5	56.8
HAVE FLOOR INSULATION.....	8.7	9.1	9.8	6.7	9.3	2.8	4.8	8.7	10.3
ALL PARTS INSULATED.....	6.9	7.2	7.5	5.5	7.3	2.3	4.3	6.8	8.6
SOME PARTS INSULATED.....	1.8	1.9	2.3	1.1	2.0	.5	.5	1.9	1.7
NO FLOOR INSULATION.....	38.7	36.6	34.8	46.6	38.7	38.1	48.4	41.4	39.1
DON'T KNOW/NOT REPORTED.....	7.8	10.0	7.1	6.6	7.3	12.3	9.3	6.4	7.4
NO BASEMENT/CRAWL SPACE.....	21.8	25.6	22.3	17.4	21.2	27.9	19.7	20.7	22.8
INSULATION CHARACTERISTICS (SINGLE-FAMILY UNITS)									
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ROOF OR CEILING INSULATION.....	48.8	43.1	53.2	47.7	51.5	21.8	37.3	50.7	49.5
UNITS WITH ONE OR OF THESE TYPES OF INSULATION.....	89.8	89.2	91.6	87.8	91.8	70.8	85.6	90.4	91.3
UNITS WITH NONE OF THESE TYPES OF INSULATION.....	10.2	10.8	8.4	12.2	8.2	29.2	14.4	9.6	8.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR REFERS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 57. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE			SMSA/NON-SMSA	
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
TOTAL HOUSEHOLDS.....	81.6	17.7	21.1	27.0	16.0	56.0	25.6	55.6	26.0
HOME ENERGY AUDIT DURING THE PAST YEAR									
YES.....	4.2	.8	.9	1.1	1.4	2.9	1.2	3.0	1.2
NO.....	77.4	16.9	26.1	25.8	14.5	53.0	24.4	52.5	24.9
DCN'T KNKN/NGT REPORTED.....	.1	—	—	—	.1	—	—	.1	—
ENERGY AUDIT PROVIDER									
GAS OR ELECTRIC COMPANY.....	1.7	.2	.3	.5	.8	1.3	.4	1.2	.5
FUEL OIL OR LPG SUPPLIER.....	.2	.2	—	—	—	.2	—	.2	.1
OTHER PROVIDER.....	2.1	.4	.6	.6	.6	1.5	.7	1.5	.6
RC ENERGY MULIT/D DCN'T KNKN PROVIDER/ NOT REPORTED.....	77.6	16.9	26.2	25.9	14.6	53.1	24.5	52.7	24.9
TOTAL HOUSEHOLDS ADDING ITEMS DURING 1979 OR 1980									
STORM DOORS.....	6.7	1.6	2.0	2.4	.7	4.0	2.7	4.3	2.4
1979.....	3.2	.9	.8	1.2	.3	1.9	1.3	2.0	1.2
1980.....	3.6	.7	1.2	1.3	.4	2.2	1.4	2.4	1.3
AVERAGE NUMBER ADDED.....	1.5	1.4	1.5	1.6	1.5	1.5	1.7	1.5	1.6
STORM WINDOWS.....	5.7	1.5	1.8	1.7	.7	3.7	2.0	3.8	1.8
1979.....	2.9	.8	.9	.9	.3	1.9	1.0	2.1	.8
1980.....	2.8	.7	1.0	.8	.3	1.8	1.0	1.8	1.0
AVERAGE NUMBER ADDED.....	7.5	6.5	6.0	6.9	7.3	7.2	8.0	7.1	8.2
CAULKING.....	18.4	4.8	6.6	5.4	1.7	12.0	6.4	12.3	6.2
1979.....	5.8	1.5	2.1	1.8	.5	3.8	2.0	3.9	1.9
1980.....	12.6	3.3	4.5	3.5	1.2	8.3	4.4	8.4	4.2
WEATHER STRIPPING.....	15.1	4.2	5.1	3.8	2.0	9.3	5.7	9.7	5.3
1979.....	5.5	1.7	1.7	1.4	.7	3.4	2.1	3.6	1.9
1980.....	9.5	2.5	3.3	2.4	1.3	5.9	3.6	6.2	3.4
CLOSEABLE SHUTTERS, PLASTIC SHEETS, INSULATING DRAPE.....	11.3	3.0	3.5	3.5	1.4	6.7	4.6	7.2	4.2
1979.....	3.8	1.1	1.0	1.0	.5	2.6	1.2	2.7	1.1
1980.....	7.6	1.8	2.4	2.4	.9	4.1	3.4	4.5	3.1

SEE NOTES AT END OF TABLE

TABLE 57. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(BILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA / NON-SMSA
		NORTHEAST	NORTH	SOUTH	URBAN	RURAL	
		CENTRAL					
TOTAL SINGLE-FAMILY UNITS.....	56.3	10.3	15.4	19.7	10.8	36.0	20.3
SINGLE-FAMILY UNITS ADDING ITEMS DURING 1979 OR 1980							
ROOF OR CEILING INSULATION	6.5	1.4	2.0	1.1	4.4	2.1	2.2
1979.....	3.1	.7	1.1	.8	.4	2.0	1.0
1980.....	3.4	.6	.9	1.2	.7	2.3	1.1
OUTSIDE WALL INSULATION	3.8	1.0	1.2	1.1	.5	2.3	1.4
1979.....	1.8	.6	.6	.4	.2	1.0	.6
1980.....	2.0	.4	.6	.7	.3	1.2	.8
FLOOR INSULATION	1.8	.4	.6	.5	.2	1.0	.7
1979.....	.9	.2	.3	.1	.5	.4	.4
1980.....	.9	.2	.4	.3	.1	.5	.3
TOTAL SINGLE-FAMILY UNITS AND MOBILE HOMES.....	60.9	10.9	16.1	22.1	11.9	37.3	23.6
KNWS ABOUT WEATHERIZATION PROGRAM (SINGLE-FAMILY UNITS OR MOBILE HOME)							
YES.....	9.2	2.0	3.3	2.6	1.3	5.0	4.2
USED THE PROGRAM							
NO.....	8.2	1.9	3.0	2.3	1.1	4.4	3.8
YES, ADDED CNF OR MORE ITEMS.....	-.9	-.1	-.3	-.2	-.1	-.5	-.4
ATTIC INSULATION ADDED.....	-.4	-.1	-.2	-.1	-.1	-.2	-.2
SCREEN WINDOWS ADDED.....	-.3	-.1	-.1	-.1	-.1	-.1	-.1
STORM DOORS ADDED.....	-.2	-.1	-.1	-.1	-.1	-.1	-.1
WALL INSULATION ADDED.....	-.1	-.1	-.1	-.1	-.1	-.1	-.1
OTHER ITEMS ADDED.....	-.5	-.1	-.2	-.1	-.3	-.2	-.3
NO.....	51.6	8.9	12.8	19.5	10.5	32.2	19.4
NOT REPORTED.....	.1	-	-	-	.1	-	.1

SEF NOTES AT END OF TABLE

TABLE 57. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
 (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	
<b>SINGLE-FAMILY UNITS CR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>							
WOOD BURNING STOVE	4.1	1.2	1.0	1.5	0.4	1.2	2.9
1979...	1.8	.5	.5	.7	.2	.6	1.2
1980...	2.3	.7	.5	.8	.2	.6	1.7
INSULATION AROUND HOT WATER PIPES	2.7	.6	.7	.9	.5	1.3	1.4
1979...	1.1	.3	.3	.4	.1	.6	1.4
1980...	1.6	.3	.4	.5	.3	.7	.9
INSULATION AROUND WATER HEATER	2.5	.4	.4	.7	1.0	1.3	1.2
1979...	1.9	.2	.2	.3	.2	.5	1.5
1980...	1.6	.2	.2	.5	.7	.8	.8
AUTOMATIC CR CLOCK THERMOSTAT	2.5	.6	.8	.8	.4	1.8	1.9
1979...	1.3	.3	.4	.4	.2	.9	1.4
1980...	1.2	.3	.4	.4	.2	.9	1.6
ADJUSTMENTS TO THERMOSTAT	2.1	.3	.7	.7	.3	1.5	1.4
1979...	.9	.2	.4	.2	.2	.6	1.4
1980...	1.2	.2	.3	.5	.2	.9	.3
INSULATION AROUND HEATING DUCTS	1.3	.3	.3	.6	.2	.7	.6
1979...	.6	.1	.1	.3	.1	.5	.3
1980...	.7	.1	.2	.3	.1	.4	.4
ELECTRICAL OR MECHANICAL FURNACE IGNITION	.9	.2	.4	.2	.1	.7	.6
1979...	.5	.1	.3	.1	.1	.4	.3
1980...	.5	.1	.1	.2	.1	.3	.2
SMALLER NOZZLE GF BURNER	.9	.4	.2	.2	.1	.6	.3
1979...	.3	.1	.1	.1	.1	.3	.1
1980...	.6	.3	.1	.1	.1	.4	.2

SFF NOTES AT END OF TABLE

TABLE 57. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTHEAST	NORTH	SOUTH	URBAN	RURAL	
<b>SINGLE-FAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>							
AN ADDITIONAL THERMOSTAT	0.7	0.1	0.3	0.2	0.4	0.3	0.4
1979	-	-	-2	-1	-2	-1	-3
1980	-	-	-1	-1	-1	-2	-1
AUTOMATIC FLUE DOOR	.5	-	-3	-3	-2	-3	-2
1979	.3	-	-2	-2	-1	-2	-1
1980	.2	-1	-1	-1	-1	-1	-1
HOT PUMP	.3	-	-3	-2	-1	-3	-1
1979	.2	-	-1	-1	-1	-1	-1
1980	.2	-	-1	-1	-1	-2	-1
PIAHF RETENTION HEAD FURNER	.3	.2	-1	-1	-1	-3	-1
1979	.2	-1	-1	-1	-2	-1	-1
1980	.2	-1	-1	-1	-2	-2	-1
ENERGY CCST METEE	.2	-	-1	-1	-1	-1	-1
1979	.1	-	-1	-1	-1	-1	-1
1980	-	-	-1	-1	-1	-1	-1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDED FIGURES. A BASE "0" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 58. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION				AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST		SCUTH	WEST	URBAN	RURAL	SMSA	NONSMSA
		NORTH	CENTRAL						
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HOME ENERGY AUDIT DURING THE PAST YEAR									
YES.....	5.1	4.4	4.4	4.1	8.6	5.3	4.8	5.4	4.4
NO.....	94.8	95.6	95.6	91.1	91.6	95.2	94.5	95.5	-
DON'T KNOW/NOT REPORTED.....	.1	-	-	.1	.1	-	-	.1	-
ENERGY AUDIT PROVIDER									
GAS OR ELECTRIC COMPANY.....	2.1	1.2	1.3	1.8	4.8	2.3	1.7	2.2	1.9
FUEL OIL OR LPG SUPPLIER.....	.3	1.0	.1	.1	.3	.3	.2	.3	.2
OTHER PROVIDER.....	2.6	2.0	2.8	2.1	3.8	2.6	2.6	2.7	2.3
NO ENERGY AUDIT/									
DON'T KNOW PROVIDER/									
NOT REPORTED.....	95.0	95.7	95.8	96.0	91.5	94.8	95.5	94.7	95.6
TOTAL HOUSEHOLDING ITEMS DURING 1979 OR 1980									
STORM DOORS.....	8.2	9.1	9.6	8.8	4.4	7.2	10.5	7.8	9.2
1979.....	3.9	5.2	4.0	4.3	1.8	3.3	5.2	3.6	4.7
1980.....	4.4	4.1	5.8	4.6	2.7	3.9	5.6	4.3	4.8
STORM WINDOWS.....	6.9	8.4	8.8	6.2	4.1	6.5	7.8	6.9	7.0
1979.....	3.6	4.4	4.3	3.3	2.1	3.4	4.0	3.7	3.2
1980.....	3.5	4.0	4.6	3.0	2.2	3.2	4.0	3.2	4.0
CAULKING.....	22.6	27.1	31.4	16.9	10.7	21.5	25.0	22.1	23.7
1979.....	7.1	8.4	9.8	6.7	2.9	6.8	7.9	7.4	7.4
1980.....	15.5	18.7	21.6	13.2	7.7	14.7	17.1	15.1	16.3
WEATHER STRIPPING.....	18.5	24.0	24.1	14.1	12.2	16.7	22.4	17.5	20.4
1979.....	6.8	9.6	8.3	5.3	4.1	6.1	8.3	6.5	7.4
1980.....	11.7	14.4	15.8	8.8	8.1	10.6	14.1	11.1	13.0
CLOSEABLE SHUTTERS, PLASTIC SHEETS, INSULATING DRAPES.....	13.9	16.8	16.8	12.8	8.6	12.0	18.1	12.9	16.0
1979.....	4.6	6.4	5.3	3.8	3.2	4.6	4.6	4.6	4.1
1980.....	9.2	10.4	11.4	9.1	5.4	7.3	13.5	8.0	11.9

SEE NOTES AT END OF TABLE

TABLE 58. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS)—Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTHEAST	NORTH CENTRAL	SOUTH	WEST	URBAN	SMSA	NONSMSA
		100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>TOTAL SINGLE-FAMILY UNITS.....</b>								
SINGLE-FAMILY UNITS ADDING ITEMS DURING 1979 OR 1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ROOF OR CEILING INSULATION.....	11.6	13.4	10.1	10.4	12.2	10.5	12.1	10.7
1979.....	5.5	7.2	4.0	3.9	5.6	5.2	5.8	5.0
1980.....	6.1	6.3	6.1	6.5	5.3	6.3	6.5	5.6
OUTSIDE WALL INSULATION.....	6.7	9.4	7.8	5.6	4.5	6.3	7.3	6.9
1979.....	3.1	5.5	3.8	2.1	1.9	2.9	3.7	3.1
1980.....	3.5	4.0	4.0	3.4	2.6	3.4	3.4	3.8
FLOOR INSULATION.....	3.2	4.2	4.1	2.8	1.6	2.9	3.7	3.0
1979.....	1.6	2.4	1.8	1.5	1.7	1.5	1.8	1.8
1980.....	1.6	1.8	2.3	1.3	1.0	1.4	1.9	1.6
<b>TOTAL SINGLE-FAMILY UNITS AND MOBILE HOMES.....</b>								
KNOWS ABOUT WEATHERIZATION PROGRAM (SINGLE-FAMILY UNITS OR MOBILE HOME)								
YES.....	15.0	18.1	20.4	11.8	11.0	13.3	17.7	11.7
USED THE PROGRAM.....	13.5	17.2	16.7	10.2	9.3	11.9	16.1	10.6
NO.....	1.4	.9	1.6	1.5	1.5	1.3	1.6	1.0
YES, ADDED ONE OR MORE ITEMS.....	.6	.5	.5	.7	.7	.5	.8	.5
ATTIC INSULATION ADDED.....	.5	.2	.7	.5	.4	.3	.8	.9
STORM WINDOWS ADDED.....	.3	—	.4	.3	.2	.4	.1	.5
STORM DOORS ADDED.....	.2	.5	.1	.2	.3	.2	.1	.4
WALL INSULATION ADDED.....	.8	.9	.9	.7	.7	.8	.6	1.1
OTHER ITEMS ADDED.....	84.7	81.7	79.5	88.0	88.3	82.2	88.1	79.2
NOT REPORTED.....	.2	.1	.1	.2	.7	.4	.2	.2

SEE NOTES AT END OF TABLE

TABLE 58. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA	
		NORTH EAST	NORTH CENTRAL	SOUTH	WEST	URBAN	RURAL	SMSA
								NONSMSA
<b>SINGLE-FAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>								
WOOD BURNING STOVE.....	6.7	10.7	6.3	6.8	3.4	3.2	12.2	4.3
1979..	3.0	4.6	3.0	3.1	1.4	1.6	5.1	4.7
1980..	3.7	6.2	3.3	3.7	2.0	1.6	7.0	5.9
INSULATION AROUND HOT WATER PIPES.....	4.4	5.5	4.6	4.1	3.9	3.5	5.8	3.7
1979..	1.8	2.4	1.8	1.9	1.2	1.6	2.1	1.7
1980..	2.6	3.0	2.8	2.2	2.7	1.9	3.7	2.0
INSULATION AROUND WATER HEATER.....	4.1	4.0	2.3	3.3	8.0	3.6	5.0	3.9
1979..	1.5	2.2	1.2	1.2	1.9	1.4	1.7	1.3
1980..	2.6	1.8	1.1	2.1	6.1	2.1	3.3	3.0
AUTOMATIC CF CLOCK THERMOSTAT.....	4.1	5.1	4.9	3.7	3.0	4.8	3.0	5.0
1979..	2.1	2.3	2.6	2.0	1.6	2.5	1.6	2.6
1980..	2.0	2.8	2.2	1.7	1.4	2.4	1.4	2.3
ADJUSTMENTS TO THERMOSTAT.....	3.5	2.9	4.6	3.2	2.9	3.9	2.7	3.8
1979..	1.5	1.4	2.5	.8	1.4	1.5	1.4	1.7
1980..	2.0	1.4	2.0	2.5	1.5	2.4	1.2	2.5
INSULATION AROUND HEATING DUCTS.....	2.2	2.6	2.0	2.6	1.3	2.0	2.5	1.9
1979..	1.0	1.3	.9	1.2	.7	1.2	.8	1.0
1980..	1.1	1.3	1.1	1.4	.6	.8	1.7	.9
ELFCTRICAL OF MECHANICAL FURNACE IGNITION.....	1.5	1.7	2.5	1.1	.8	1.8	1.0	1.6
1979..	.7	.7	1.7	.3	.3	.9	.4	.7
1980..	.8	1.0	.8	.8	.5	.9	.6	.8
SMALLER NOZZLE OF FURNER.....	1.5	3.7	1.5	.7	.9	1.7	1.2	1.1
1979..	.6	1.2	.8	.1	.4	.7	.4	.6
1980..	.9	2.5	.7	.6	.5	1.0	.8	.6

SEE NOTES AT END OF TABLE

TABLE 58. CONSERVATION BY CENSUS REGION, AREA TYPE AND SMSA/NON-SMSA  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	CENSUS REGION			AREA TYPE		SMSA/NON-SMSA
		NORTHEAST	NORTH CENTRAL	SOUTH	URBAN	RURAL	
<b>SINGLE-FAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>							
AN ADDITIONAL THERMOSTAT	1.1	1.2	1.7	0.9	0.6	0.9	1.3
1979.....	.4	1.0	-6	-3	-6	-5	.5
1980.....	.6	.8	7	4	3	3	-6
AUTOMATIC FLUE DOOR	.5	1.3	2.1	1	2	9	.9
1979.....	.8	1.4	1.4	1	2	8	.8
1980.....	.5	1.4	1	1	1	9	.4
FLAME RETENTION HEAD FURNER	.4	1.8	7	1	1	1	.5
1979.....	.6	3	-	1.2	3	3	-5
1980.....	.3	2	-	6	3	3	-8
HEAT PUMP	.3	1	-	6	3	3	.1
1979.....	.3	1	-	6	3	3	.4
1980.....	.3	1	-	6	3	3	-4
ENERGY COST METER	.3	1	1.9	3	2	2	-
1979.....	.3	1.1	1	3	2	8	.2
1980.....	.3	.8	2	2	1	4	-1
.....	1	1	4	2	2	4	-3
.....	2	1	4	5	3	1	-1
.....	2	1	4	5	3	1	.1
.....	2	1	4	5	3	1	.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 59. CONSERVATION BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS. EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						1979 FAMILY INCOME						
	TOTAL		\$5,000 TO \$10,000 TO \$14,999	\$10,000 TO \$19,999	\$15,000 TO \$24,999	\$20,000 TO \$34,999	\$25,000 TO \$35,000 OR MORE	(100 PERCENT LEVEL)		POOR (125 PERCENT LEVEL)		POOR (100 PERCENT LEVEL)	
	LESS THAN \$5,000	\$9,999	\$14,999	\$19,999	\$24,999	\$34,999	6	7	6	7	4	5	
TOTAL HOUSEHOLDS.....	81.6	10.4	13.5	13.8	11.9	9.9	12.4	9.4	10.9	10.9	14.8		
HOME ENERGY AUDIT DURING THE PAST YEAR													
YES.....	.2	.3	.6	.6	.7	.6	.6	.7	.4	.4	.5		
NO.....	77.4	10.0	13.2	13.2	11.2	9.3	11.7	8.7	10.5	10.5	14.2		
DCN'T KNW/NOT REPORTED.....	.1	-	-	-	-	-	-	-	-	-	-		
ENERGY AUDIT PROVIDER													
GAS OR ELECTRIC COMPANY.....	1.7	.1	.3	.3	.3	.3	.3	.2	.2	.1	.2		
FUEL OIL/LPG SUPPLIER.....	.2	-	-	.1	.1	.1	-	-	-	-	-		
OTHER PROVIDER.....	2.1	.2	.2	.2	.2	.3	.3	.4	.5	.2	.3		
NO ENERGY AUDIT/													
DON'T KNOW PROVIDER/													
NOT REPORTED.....	77.6	10.0	13.3	13.2	11.2	9.3	11.7	8.7	10.5	10.5	14.3		
TOTAL HOUSEHOLDS ADDING ITEMS DURING 1979 OR 1980													
STORM DOORS.....	6.7	.4	.7	1.0	1.1	1.1	1.3	1.1	1.1	.6	.8		
1979.....	3.2	.2	.4	.4	.6	.6	.6	.5	.6	.2	.4		
1980.....	3.6	.3	.3	.6	.6	.6	.7	.5	.7	.3	.4		
AVERAGE NUMBER ADDED.....	1.5	1.7	1.5	1.5	1.4	1.5	1.5	1.5	1.5	1.7	1.6		
STORM WINDOWS.....	5.7	.4	.7	.9	.9	.9	1.0	.9	.9	.9	.6		
1979.....	2.9	.2	.4	.4	.4	.4	.5	.4	.6	.2	.3		
1980.....	2.8	.2	.3	.3	.5	.5	.5	.5	.4	.2	.3		
AVERAGE NUMBER ADDED.....	7.5	7.1	6.8	7.6	7.8	7.0	7.4	8.3	7.0	7.0	6.6		
CAULKING.....	18.4	1.1	2.2	2.7	2.7	2.7	4.0	2.7	2.7	1.3	1.9		
1979.....	5.8	.3	.7	.8	.8	.8	1.3	1.0	1.0	.6	.6		
1980.....	12.6	.8	1.6	1.9	1.9	2.0	2.7	1.8	1.8	.9	1.3		
WEATHER STRIPPING.....	15.1	.8	1.8	2.5	2.5	2.2	2.9	2.3	2.3	1.0	1.4		
1979.....	5.5	.3	.5	.8	1.0	1.0	1.1	1.0	1.0	.4	.4		
1980.....	9.5	.6	1.3	1.7	1.4	1.5	1.8	1.3	1.3	.7	1.0		
CLOSEABLE SHUTTERS, PLASTIC SHEETS,													
INSULATING DRAPE.....	11.3	1.1	1.9	2.1	1.9	1.5	1.6	1.2	1.2	2.0	2.0		
1979.....	3.8	.3	.5	.7	.7	.5	.6	.5	.5	.5	.6		
1980.....	7.6	.7	1.5	1.5	1.2	1.0	1.0	.7	.7	1.1	1.4		

SEE NOTES AT END OF TABLE

TABLE 59. CONSERVATION BY 1979 FAMILY INCOME (MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (125 PERCENT LEVEL)
	TOTAL	LESS THAN \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	
						\$25,000 OR MORE	
TOTAL SINGLE-FAMILY UNITS.....	56.3	5.5	7.7	8.6	8.2	8.0	10.1
SINGLE-FAMILY UNITS ADDING ITEMS DURING 1979 OR 1980							
ROOF OR CEILING INSULATION....	6.5	.5	.6	.9	1.0	1.5	1.1
1979.....	3.1	-2	-3	-4	-5	-8	-8
1980.....	3.4	-3	-4	-6	-5	-3	-4
OUTSIDE WALL INSULATION.....	3.8	-3	-4	-6	-5	-7	-5
1979.....	1.8	-2	-1	-2	-3	-8	-3
1980.....	2.0	-1	-2	-4	-2	-4	-2
FLOOR INSULATION.....	1.8	-1	-1	-2	-3	-4	-2
1979.....	.9	-1	-1	-1	-1	-2	-1
1980.....	.9	-1	-1	-1	-1	-2	-1
TOTAL SINGLE-FAMILY UNITS AND MOBILE HOMES.....	60.9	6.2	8.8	9.5	8.9	8.4	10.6
KNOWS ABOUT WEATHERIZATION PROGRAM (SINGLE-FAMILY UNITS OR MOBILE HOME)							
YES.....	9.2	1.4	1.6	1.3	1.4	1.2	1.3
USED THE PROGRAM							
NO.....	8.2	1.0	1.4	1.2	1.2	1.3	.9
YES AIDED ONE OF MORE ITEMS.....	-9	-3	-2	-1	-2	-	-4
ATTIC INSULATION ADDED....	-4	-2	-1	-	-	-	-2
STORM WINDOWS ADDED....	-3	-2	-1	-	-	-	-2
STORM DOORS ADDED....	-2	-1	-	-	-	-	-1
WALL INSULATION ADDED....	-1	-1	-	-	-	-	-1
OTHER ITEMS ADDED....	.5	.1	-	-	-	-	.2
NO.....	4.8	7.1	8.2	7.5	7.2	9.3	7.5
NOT REPORTED.....	.1	-	-	-	-	-	.1
TOTAL	51.6	5.1	7.1	8.2	7.5	9.3	10.6

SEE NOTES AT END OF TABLE

TABLE 59. CONSERVATION BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (\$100 PERCENT LEVEL)	POOR (\$125 PERCENT LEVEL)			
		LESS THAN \$15,000	\$15,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 OR MORE	\$35,000 OR MORE					
		\$15,000	\$14,999	\$19,999	\$24,999	\$34,999	\$35,000					
<b>SINGLE-FAMILY UNITS OR MOBILE</b>												
<b>HOMES ADDING ITEMS DURING</b>												
<b>1979 OR 1980</b>												
WOOD BURNING STOVES.....	4.1	0.2	0.4	0.8	0.7	0.6	0.9	0.4	0.3			
1979.....	1.8	.1	.2	.2	.4	.4	.4	-.2	-.1			
1980.....	2.3	.1	.2	.6	.2	.5	.2	-.2	-.3			
INSULATION AROUND HOT WATER	2.7	.1	.3	.5	.6	.4	.5	-.4	-.2			
PIPES.....	1.1	.1	.1	.1	.2	.2	.2	-.2	-.1			
1979.....	1.1	.1	.2	.4	.4	.2	.2	-.1	-.1			
1980.....	1.6	.1	.2	.4	.4	.2	.2	-.1	-.1			
INSULATION AROUND WATER	2.5	.1	.3	.4	.3	.5	.5	-.4	-.1			
HEATER.....	2.5	.1	.1	.1	.2	.2	.2	-.2	-.1			
1979.....	1.9	-	.1	.1	.3	.1	.3	-.2	-.1			
1980.....	1.6	.1	.2	.3	.3	.3	.3	-.1	-.2			
AUTOMATIC CR CLOCK	2.5	.1	.2	.4	.4	.4	.5	-.6	-.2			
THERMOSTAT.....	1.3	-	.1	.2	.2	.2	.3	-.4	-.1			
1980.....	1.2	.1	.1	.2	.2	.2	.2	-.2	-.1			
ADJUSTMENTS TO THERMOSTAT.....	2.1	.1	.3	.2	.3	.3	.4	-.4	-.1			
1979.....	.9	.1	.1	.1	.1	.1	.2	-.1	-.1			
1980.....	1.2	-	.1	.2	.2	.2	.2	-.3	-.1			
INSULATION AROUND HEATING	1.3	.1	.1	.2	.2	.2	.2	-.3	-.1			
DUCTS.....	1.3	.1	.1	.1	.1	.1	.1	-.2	-.1			
1979.....	.6	-	.1	.1	.1	.1	.1	-.1	-.1			
1980.....	.7	-	.1	.2	.1	.1	.1	-.1	-.1			
ELECTRICAL OR MECHANICAL	1.9	-	.1	.2	.1	.1	.1	-.1	-.1			
FURNACE IGNITION.....	1.5	-	-	-	-	-	-	-.1	-.1			
1980.....	.5	-	-	-	-	-	-	-.1	-.1			
SMALLER NOZZLE OF BURNER.....	.9	-	.1	.2	.2	.1	.2	-.1	-.1			
1979.....	.3	-	-	-	-	-	-	-.1	-.1			
1980.....	.6	-	-	-	-	-	-	-.1	-.1			

SEE NOTES AT END OF TABLE

TABLE 59. CONSERVATION BY 1979 FAMILY INCOME  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED) -Continued

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME						POOR (100 (125 PERCENT LEVEL)
	TOTAL	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	
SINGLE-PAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980							
AN ADDITIONAL THERMOSTAT.....	0.7	0.1	0.1	0.1	0.1	0.2	0.1
1979.....	0.4	-	-	-	-	-	-
1980.....	0.3	-	-	-	-	-	-
AUTOMATIC FLUE DOOR.....	0.5	-	-	-	-	-	-
1979.....	0.3	-	-	-	-	-	-
1980.....	0.2	-	-	-	-	-	-
HEAT PUMP.....	0.3	-	-	-	-	-	-
1979.....	0.2	-	-	-	-	-	-
1980.....	0.2	-	-	-	-	-	-
FLAME RETENTION HEAD BURNER.....	0.3	-	-	-	-	-	-
1979.....	0.2	-	-	-	-	-	-
1980.....	0.2	-	-	-	-	-	-
ENERGY CCST METER.....	0.2	-	-	-	-	-	-
1979.....	0.1	-	-	-	-	-	-
1980.....	0.1	-	-	-	-	-	-

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO FOUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 60. CONSERVATION BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	1979 FAMILY INCOME										POOF (125 PERCENT LEVEL)	
	TOTAL	LESS THAN \$5,000			\$10,000 TO \$9,999			\$15,000 TO \$14,999				
		LESS THAN \$5,000	\$10,000 TO \$9,999	\$15,000 TO \$14,999	\$20,000 TO \$19,999	\$25,000 TO \$24,999	\$35,000 OR MORE	\$20,000 TO \$19,999	\$25,000 TO \$24,999	\$35,000 OR MORE		
TOTAL HOUSEHOLDS.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
HOME ENERGY AUDIT DURING THE PAST YEAR												
YES.....	5.1	3.2	4.4	4.3	5.6	6.0	5.2	7.8	3.4	3.5		
NO.....	94.8	96.4	95.4	95.6	94.4	94.0	94.8	92.2	96.3	96.2		
DON'T KNOW/NOT REPORTED.....	.1	.4	.1	.1	—	—	—	—	.3	.2		
ENERGY AUDIT PROVIDER												
GAS OR ELECTRIC COMPANY.....	2.1	1.1	2.4	2.2	2.3	3.0	1.4	2.6	1.3	1.5		
FUEL OIL, CE LEG SUPPLIER.....	.3	—	.2	.4	.5	.4	.3	—	—	.1		
OTHER PROVIDER.....	2.6	2.1	1.6	1.6	2.8	2.6	3.3	5.0	2.1	1.8		
NO ENERGY AUDIT/ DON'T KNOW PROVIDER/ NOT REPORTED.....	95.0	96.8	95.8	95.8	94.5	94.0	95.0	92.4	96.6	96.5		
TOTAL HOUSEHOLDS ADDING ITEMS DURING 1979 OR 1980												
STORM DOORS.....	8.2	4.0	5.2	7.0	9.2	11.4	10.7	11.5	5.2	5.3		
1979.....	3.9	1.5	2.7	3.0	4.7	5.3	5.0	6.0	2.2	2.4		
1980.....	4.4	2.5	2.4	4.1	4.9	6.1	5.9	5.7	3.1	2.8		
STORM WINDOWS.....	6.9	3.6	4.7	6.8	7.4	8.9	8.3	9.4	3.5	3.9		
1979.....	3.6	1.5	2.7	3.0	3.9	3.9	4.7	5.7	1.6	1.9		
1980.....	3.5	2.1	2.2	3.8	3.9	5.2	3.7	3.8	1.9	2.0		
CAULKING.....	22.6	10.9	16.5	19.5	22.9	28.6	32.5	28.8	11.8	12.8		
1979.....	7.1	3.3	5.0	5.9	7.6	8.3	10.5	10.1	3.4	3.9		
1980.....	15.5	7.6	11.9	13.6	15.3	20.3	22.0	16.7	8.5	8.9		
WEATHERSTRIPPING.....	18.5	8.0	13.0	18.3	20.9	22.6	23.5	24.0	9.3	9.7		
1979.....	6.8	2.5	3.8	6.1	8.8	7.9	9.0	10.1	3.2	2.9		
1980.....	11.7	5.5	9.2	12.2	12.1	14.8	14.5	13.9	6.1	6.8		
CLOSEABLE SHUTTERS, PLASTIC SHEETS, INSULATING DRAPES												
1979.....	13.9	10.5	14.6	15.3	15.8	15.5	12.7	12.6	14.5	13.7		
1980.....	4.6	3.3	3.5	4.7	5.5	4.8	5.4	4.4	4.3	4.3		
	9.2	7.2	10.5	10.6	10.3	10.1	8.0	7.2	10.1	9.5		

SEE NOTES AT END OF TABLE

TABLE 60. CONSERVATION BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

		1979 FAMILY INCOME							
HOUSEHOLD CHARACTERISTICS		TOTAL			POOR (100 PERCENT LIVES)			POOR (125 PERCENT LEVEL)	
SINGLE-FAMILY UNITS ADDING ITEMS DURING 1979 OR 1980					\$15,000	\$20,000	\$25,000	\$35,000	
RCOF OR CEILING INSULATION....	11.6	8.9	8.4	10.1	11.0	12.7	14.9	13.3	9.0
1979.....	5.5	4.0	3.5	3.6	4.9	6.8	7.8	6.9	4.1
1980.....	6.1	4.9	4.9	6.5	6.1	5.9	7.1	6.4	4.9
OUTSIDE WALL INSULATION....	6.7	5.3	4.7	6.5	6.3	8.2	7.7	7.2	4.7
1979.....	3.1	2.8	1.6	2.1	3.4	4.7	3.7	3.6	2.3
1980.....	3.5	2.6	3.2	4.4	2.9	3.5	4.0	3.6	2.5
FICOR INSULATION.....	3.2	2.1	1.6	1.9	3.5	2.4	4.3	5.8	2.1
1979.....	1.6	1.0	.7	1.2	1.9	1.2	1.6	3.2	1.1
1980.....	1.6	1.1	.9	1.7	1.6	1.2	2.8	2.6	1.2
TOTAL SINGLE-FAMILY UNITS AND MOBILE HOMES.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
KNOWS ABOUT WEATHERIZATION PROGRAM (SINGLE-FAMILY UNITS OR MOBILE HOME)									
YES.....	15.0	21.8	18.8	13.6	15.5	14.8	12.5	10.6	20.4
USED THE PROGRAM									21.5
NO.....	13.5	16.0	16.2	12.7	13.7	14.6	12.1	10.3	14.8
YES, ADDED ONE OR MORE ITEMS.....									16.3
ATTIC INSULATION ADDED....	1.4	5.6	2.3	.8	1.9	.2	4	3	5.3
STORM WINDOWS ADDED....	.6	2.9	1.0	.2	.5	-.1	-.1	-.3	2.6
STORM DOORS ADDED....	.5	2.8	.7	.3	.1	-.2	-.1	-.2	2.5
WALL INSULATION ADDED....	.3	1.5	.5	-.1	-.1	-.1	-.1	-.1	2.1
OTHER ITEMS ADDED....	.8	2.3	1.3	.2	1.8	.2	.2	.1	1.2
NO, NOT REPORTED.....	84.7	77.2	81.0	86.2	84.4	85.1	87.5	89.0	78.7
									.9

SEE NOTES AT END OF TABLE

TABLE 60. CONSERVATION BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS) -Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>SINGLE-FAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>									
WOOD BURNING STOVE.....	6.7	3.8	4.7	8.9	8.0	6.7	8.5	4.7	5.3
1979.....	3.0	1.7	2.1	2.4	4.0	4.4	3.3	2.6	2.6
1980.....	3.7	2.1	2.6	6.5	4.0	2.3	5.2	2.1	2.7
INSULATION AROUND HOT WATER PIPES.....	4.4	2.4	3.0	4.9	6.4	4.8	4.4	4.3	2.5
1979.....	1.8	1.0	1.3	1.2	2.4	2.4	2.2	2.0	1.3
1980.....	2.6	1.4	1.7	3.7	4.0	2.4	2.2	2.3	1.6
INSULATION AROUND WATER HEATER.....	4.1	2.1	3.0	4.2	3.6	6.2	4.6	4.6	2.1
1979.....	1.5	1.2	1.5	1.4	1.9	2.3	1.5	2.1	2.5
1980.....	2.6	1.9	2.1	2.8	1.7	3.9	3.1	2.5	1.7
AUTOMATIC CR CLOCK THERMOSTAT.....	4.1	1.8	2.5	3.9	4.1	4.4	4.8	6.5	2.3
1979.....	2.1	1.7	1.9	1.9	1.9	2.1	2.7	4.3	1.0
1980.....	2.0	1.1	1.5	2.0	2.3	2.3	2.1	2.2	1.3
ADJUSTMENTS TO THERMSTAT.....	3.5	2.0	3.1	2.6	3.6	3.6	4.1	4.8	1.9
1979.....	1.5	1.2	1.6	.9	1.6	1.5	1.9	1.4	1.4
1980.....	2.0	.8	1.5	1.6	2.0	2.1	2.2	3.4	.6
INSULATION AROUND HEATING DUCTS.....	2.2	1.2	1.4	2.5	1.7	2.7	2.2	3.4	1.2
1979.....	1.0	.6	.6	.6	.6	1.5	1.2	2.1	.6
1980.....	1.1	.6	.8	1.9	1.1	1.2	.9	1.3	.6
ELECTRICAL OR MECHANICAL FURNACE IGNITION.....	1.5	-	.9	1.9	1.2	1.7	1.4	3.3	-.2
1979.....	.7	-	.4	.8	.7	.8	-.7	1.6	-
1980.....	.8	-	.4	1.1	.4	.9	-.7	1.7	-.2
SMALLER NOZZLE OR FURNER.....	1.5	.5	1.1	1.7	2.6	1.3	1.5	1.5	-.3
1979.....	.6	-	.3	.5	1.2	-.8	-.6	-	-.1
1980.....	.9	.5	.7	1.1	1.4	-.5	1.1	-.9	-.3

SEE NOTES AT END OF TABLE

TABLE 60. CONSERVATION BY 1979 FAMILY INCOME  
(PERCENTAGE OF HOUSEHOLDS)-Continued

HOUSEHOLD CHARACTERISTICS	TOTAL	1979 FAMILY INCOME						POOR (100 PERCENT LEVEL)	POOR (125 PERCENT LEVEL)
		LESS * THAN \$15,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 TO \$34,999		
<b>SINGLE-FAMILY UNITS OR MOBILE HOMES ADDING ITEMS DURING 1979 OR 1980</b>									
AN ADDITIONAL THERMOSTAT.....	1.1	0.7	0.4	1.0	1.2	1.2	1.5	1.7	0.6
1979	-	.5	-	.6	.2	.6	1.2	1.0	-.3
1980	-	.2	.4	.4	.9	.6	-.3	-.7	-.4
AUTOMATIC FLUE DOOR....	.8	.1	-	.6	.9	.9	1.3	1.7	-.2
1979	.5	.1	-	-	.5	.6	.7	1.2	-.1
1980	.4	-	.6	.4	.3	.6	-.5	-.5	-.1
HEAT PUMP.....	.6	.5	.2	.4	.1	.5	-.1	2.2	-.3
1979	.3	.2	-	-	-	.5	-	1.3	-.1
1980	.3	.3	.2	.4	.1	-	.1	-.3	.2
FLAME RETENTION HEAD FURNER....	.6	.1	.1	.4	.9	.7	-.9	-.8	-.1
1979	.3	.1	.1	.2	.6	.3	-.3	-.4	-.1
1980	.3	.1	.1	.2	.3	.3	-.5	-.1	-.1
ENERGY COST METER.....	.3	.1	-	.5	.1	.3	-.4	-.6	-.1
1979	.1	.1	-	.1	.1	.2	-.1	-.1	-.1
1980	.2	-	.2	.4	.1	.1	-.4	-.5	-.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR REFERS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL FRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 61. CONSERVATION BY HOUSING STRUCTURE  
(MILLION HOUSEHOLDS, EXCEPT WHERE AVERAGES ARE INDICATED)

HOUSEHOLD CHARACTERISTICS	TOTAL	HOUSING STRUCTURE			
		SINGLE-FAMILY DETACHED	SINGLE-FAMILY ATTACHED	BUILDING WITH 2 TO 4 UNITS	BUILDING WITH 5 OR MORE UNITS
					MOBILE HOME
TOTAL HOUSEHOLDS.....	81.6	53.0	3.3	9.9	10.8
HOME ENERGY AUDIT DURING THE PAST YEAR					4.6
YES.....	4.2	3.4	.2	.3	.1
NO.....	77.4	49.5	3.1	9.6	10.7
DON'T KNOW/NOT REPCFTED.....	-1	-	-	-	4.5
ENERGY AUDIT PROVIDER					
GAS OR ELECTRIC COMPANY.....	1.7	1.4	.1	.1	.1
FUEL OIL OR LPG SUPPLIER.....	.2	.1	.1	.1	.1
OTHER PROVIDER.....	2.1	1.8	.1	.1	.1
NO ENERGY AUDIT/					
DON'T KNOW PROVIDER/ NOT REQUESTED.....	77.6	49.7	3.1	9.6	10.7
TOTAL HOUSEHOLDS ADDING ITEMS DURING 1979 OR 1980					
STORM DOORS.....	6.7	5.8	.3	.4	.1
1979.....	3.2	2.7	.2	.2	.1
1980.....	3.6	3.1	.1	.2	-1
AVERAGE NUMBER ADDED.....	1.5	1.6	1.5	1.6	1.1
STORM WINDOWS.....	5.7	4.5	.4	.4	1.2
1979.....	2.5	2.3	.3	.2	.1
1980.....	2.8	2.3	.1	.2	.1
AVERAGE NUMBER ADDED.....	7.5	7.7	7.2	6.2	5.6
CAULKING.....	18.4	15.2	.7	1.5	.7
1979.....	5.8	4.8	.3	.5	.2
1980.....	12.6	10.3	.4	1.0	.3
WEATHER STRIPPING.....	15.1	11.5	.7	1.3	.7
1979.....	5.5	4.3	.3	.5	.3
1980.....	9.5	7.3	.4	.8	.6
CLOSEABLE SHUTTERS, PLASTIC SHEETS,					
INSULATING DRAPES.....	11.3	7.6	.6	1.5	.9
1979.....	3.6	2.5	.2	.5	.2
1980.....	7.6	5.1	.3	1.0	.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 62. CONSERVATION BY HOUSING STRUCTURE  
(PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	HOUSING STRUCTURE				
	TOTAL	SINGLE-FAMILY DETACHED	SINGLE-FAMILY ATTACHED	BUILDING WITH 2 TO 4 UNITS	BUILDING WITH 5 OR MORE UNITS
					MOBILE HOME
TOTAL HOUSEHOLDS.....	100.0			100.0	100.0
HOME ENERGY AUDIT DURING THE PAST YEAR.....					
YES.....	5.1	6.4	7.2	3.3	2.9
NO.....	94.8	93.5	92.5	96.7	97.1
DON'T KNOW/NOT REPCFTED.....	-1	.1	.3	.1	-.1
ENERGY AUDIT PROVIDER.....					
GAS OR ELECTRIC COMPANY.....	2.1	2.6	3.4	.9	2.2
FUEL OIL OR LP GAS SUPPLIER.....	-.3	-.3	-.8	-.8	-.8
OTHER PROVIDER.....	2.6	3.4	3.8	1.4	1.4
NO ENERGY AUDIT/ DCN'T KNW PROVDR/ NOT FEE OFFER.....	95.0	93.7	92.8	97.0	99.3
TOTAL HOUSEHOLDS ADOPTING ITEMS DURING 1979 OR 1980.....					
STORM DOORS.....	5.2	10.9	10.1	3.5	2.5
1979.....	3.9	5.2	5.9	2.0	1.5
1980.....	4.4	5.9	4.2	1.6	1.0
STORM WINDOWS.....	6.9	8.6	11.8	3.9	2.3
1979.....	3.6	4.4	8.1	2.3	1.2
1980.....	3.5	4.3	3.8	1.7	1.1
CAULKING.....	22.6	28.6	21.4	15.2	14.1
1979.....	7.1	9.1	8.4	4.6	3.5
1980.....	15.5	19.5	13.0	10.5	10.6
WEATHER STRIPPING.....	16.5	21.8	21.5	12.7	18.3
1979.....	6.8	8.1	9.1	5.1	5.8
1980.....	11.7	13.7	12.4	7.6	12.5
CLOSEABLE SHUTTERS, PLASTIC SHEETS, INSULATING TRAPES.....					
1979.....	13.9	14.3	16.8	14.8	20.1
1980.....	4.6	4.7	7.3	5.2	5.4
		9.6	9.5	9.6	14.7

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNRounded NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 63. MAIN HEATING EQUIPMENT AND HEATING FUEL BY SECONDARY HEATING EQUIPMENT AND HEATING FUEL (MILLION HOUSEHOLDS)

MAIN HEATING FUEL BY MAIN HEATING EQUIPMENT											
HOUSEHOLD CHARACTERISTICS	NATURAL GAS			FUEL OIL			ELECTRICITY			WOOD	LPG
	TOTAL	CENTRAL SYSTEM	FLOOR, WALL, PIPELESS	RCOM	STEAM OR WATER SYSTEM	CENTRAL OR WATER FURNACE	BUILT-IN HEATING UNITS	AIR FURNACE	ELECTRIC FURNACE		
WARM- ATE FURNACE/WATER SYSTEM	81.6	28.1	5.8	6.0	4.0	7.1	4.7	5.6	5.3	2.1	3.7
TOTAL HOUSEHOLDS.....	81.6	28.1	5.8	6.0	4.0	7.1	4.7	5.6	5.3	2.1	3.7
<b>SECONDARY HEATING EQUIPMENT</b>											
WOOD.....	13.4	5.8	-5	-5	-1	1.3	1.2	1.0	1.2	-8	-3
FIREPLACE.....	10.0	5.1	-4	-5	-1	.7	.7	.6	.6	-	-1
STOVE.....	3.3	-6	-1	-	-	.6	.5	.5	.5	-	.2
OTHER.....	-1	-	-	-	-	-	-	-	-	-	-3
ELECTRICITY.....	9.2	2.4	-7	1.0	-5	.9	.6	.8	.2	-2	1.6
PORTABLE HEATER.....	5.8	1.4	-5	-6	-4	.8	.4	.3	.1	-2	.1
BUILT-IN ELECTRIC UNITS.....	2.8	.9	.1	.4	.1	.1	.1	.1	.1	-6	.1
HEAT ENPP.....	-2	-	-	-	-	-	-	-	-	-	-1
OTHER.....	.4	.1	-	-	-	-	-	-	-	-	-1
NATURAL GAS.....	3.3	1.5	.2	.6	-1	.2	-	-	.1	-3	-2
FUEL OIL.....	1.3	.1	-	-	-	-	-	-	-	-8	-
LPG.....	.9	-	-	-	-	-	-	-	-	-4	-
OTHER.....	.9	.2	-1	-	-1	.1	.2	.1	-	-1	-3
NONE.....	52.6	18.2	4.3	4.0	3.3	4.6	2.7	3.7	3.7	1.0	1.1
<b>SECONDARY HEATING EQUIPMENT</b>											
FIREPLACE.....	11.2	5.8	.4	.5	-1	.7	.7	.7	.8	-6	-2
FORTABLE HEATER.....	6.1	1.4	.6	.6	.4	.8	.4	.4	.1	-2	.6
WOOD OR CCOM HEATING STOVE.....	3.5	.7	.1	-	-	.6	.5	.3	.5	-	.2
BUILT-IN ELECTRIC UNITS.....	2.8	.9	.1	.4	.1	.1	.1	.1	.1	-	.1
OIL OR GAS RCOM FURNACE.....	2.3	.6	.1	.5	.1	.2	.1	.1	.1	-6	-
CENTRAL WARM-BY FURNACE.....	1.4	.1	-	-	-	-	-	-	.1	-4	-
FLOOR, WALL, CR, PIPELESS FURNACE.....	.5	.2	-	-	-	-	-	-	.1	.9	-
STEAM OR HOT WATER SYSTEM.....	.5	.1	.2	-	-	-	-	-	.1	-	.1
HEAT PUMP.....	.3	-	-	-	-	-	-	-	.1	-2	-
OTHER.....	.5	.1	-	-	-	-	-	-	.1	-	.1
NONE.....	52.6	18.2	4.3	4.0	3.3	4.6	2.7	3.7	3.7	1.0	1.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 64. MAIN HEATING EQUIPMENT AND HEATING FUEL (PERCENTAGE OF HOUSEHOLDS)

MAIN HEATING FUEL BY SECONDARY HEATING EQUIPMENT																
HOUSEHOLD CHARACTERISTICS		NATURAL GAS			FUEL OIL			ELECTRICITY			WOOD			LPG		
TOTAL		CENTRAL STEAM OR WARM-AIR		FLOOR, WALL, OR PIPELESS	RADIANT, HOT WATER, OR FURNACE SYSTEM	STEAM OR FURNACE	WARM-AIR FURNACE	BUILT-IN HEAT PUMP	HEAT PUMP	STOVE	AIR FURNACE	CENTRAL AIR FURNACE	WARM-AIR FURNACE	WOOD FURNACE	LPG FURNACE	
TOTAL HOUSEHOLDS.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
SECONDARY HEATING FUEL AND EQUIPMENT																
WOOD.	16.4	20.5	9.1	8.2	2.1	18.0	25.3	17.5	22.6	37.9	1.4	15.2	10.2			
FIREPLACE.	12.3	16.3	6.7	6.0	2.1	10.0	14.2	11.8	13.3	30.4	.6	6.9	5.6			
STOVE.	4.1	2.3	2.4	.2	—	8.1	10.7	5.7	8.9	6.5	.5	8.1	4.6			
CTHR.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
ELECTRICITY.	11.3	8.4	11.2	16.1	12.6	12.1	13.1	13.5	3.0	9.4	25.9	9.6	14.0			
PORTABLE HEATER.	7.1	5.0	9.3	9.5	10.9	10.5	8.6	6.2	2.8	5.3	5.7	7.0	10.6			
BUILT-IN ELECTRIC UNITS.	3.4	3.3	1.5	6.3	1.2	1.5	3.1	6.0	—	—	—	14.9	1.4	2.0		
HEAT PUMP.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
OTHER.	5.2	3.1	—	—	—	—	—	—	—	—	—	—	—	—		
NATURAL GAS.	4.0	5.4	3.1	9.3	1.7	3.2	—	—	—	—	—	—	—	—		
FUEL OIL.	1.6	.2	2.4	—	—	.2	—	.2	—	.2	.9	21.9	—	3.6		
LPG.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
CTHR.	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—		
NONE.	64.5	64.7	73.2	66.3	82.2	64.4	57.0	66.4	70.7	45.2	30.8	72.8	63.4			
SECONDARY HEATING EQUIPMENT																
PIPEPLACE.	13.7	20.7	7.5	8.7	3.0	10.3	14.8	13.0	14.2	30.9	1.1	7.9	7.0			
PORTABLE HEATER.	7.5	5.1	10.2	10.1	10.9	11.1	9.5	6.8	2.8	6.4	6.0	7.4	10.6			
WOOD OR CCAL HEATING STOVE.	4.3	2.4	2.5	.2	—	8.4	10.7	6.1	9.1	6.5	-8	8.5	5.3			
BUILT-IN ELECTRIC UNITS.	3.4	3.3	1.5	6.3	1.2	1.5	3.1	6.0	—	—	—	14.9	1.4	2.0		
CYL OR GAS ROOM HEATER.	2.8	2.3	.9	7.7	—	—	3.4	.7	1.7	1.8	10.5	—	4.3			
CENTRAL WARM-AIR FURNACE.	1.7	.2	.5	—	.7	.1	.3	—	.5	3.4	25.3	—	3.4			
FLOOR, WALL OR PIPELESS FURNACE.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
STEAM OR HOT WATER SYSTEM.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HEAT PUMP.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
OTHER.	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NONE.	64.5	64.7	73.2	66.3	82.2	64.4	57.0	66.4	70.7	45.2	30.8	72.8	63.4			

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 65. WATER HEATING FUEL AND COOKING FUEL BY TYPE OF MAIN HEATING FUEL (MILLION HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	TYPE OF MAIN HEATING FUEL					
		NATURAL GAS	ELECTRICITY	KEROSENE	WOOD	Liquid PETROLEUM GAS	
						OTHER/ NONE	
TOTAL HOUSEHOLDS.....	81.6	44.6	14.2	13.4	4.7	3.7	1.0
WATER-HEATING FUEL							
NATURAL GAS.....	46.1	40.9	1.4	1.4	.4	-	.1
ELECTRICITY.....	26.1	3.6	12.5	5.0	3.1	1.5	.4
FUEL OIL OR KEROSENE.....	7.1	.1	.1	6.6	-2	-	.1
LIQUID PETROLEUM GAS.....	3.6	-	.2	.4	.6	2.1	.2
OTHER/NONE.....	.8	.1	-	.1	.4	.1	.2
WATER-HEATING FUEL: NATURAL GAS BY MOST USED COOKING FUEL							
NATURAL GAS.....	27.1	25.1	.4	1.2	.3	-	.1
ELECTRICITY.....	16.9	15.7	.9	.2	.1	-	.1
LIQUID PETROLEUM GAS.....	-	-	-	-	-	-	-
OTHER/NONE.....	.1	.1	-	-	-	-	-
WATER-HEATING FUEL: ELECTRICITY BY MOST USED COOKING FUEL							
NATURAL GAS.....	1.1	.9	.1	.1	.7	-	-
ELECTRICITY.....	22.8	2.6	12.2	4.1	2.7	.7	.4
LIQUID PETROLEUM GAS.....	2.0	-	.1	.8	.3	.8	-
OTHER/NONE.....	.2	-	-	-	.1	-	-
WATER-HEATING FUEL: FUEL OIL OR KEROSENE BY MOST USED COOKING FUEL							
NATURAL GAS.....	3.4	.1	.1	3.3	.2	-	-
ELECTRICITY.....	3.2	-	-	2.9	.2	-	-
LIQUID PETROLEUM GAS.....	.4	-	-	.4	-	-	-
OTHER/NONE.....	.1	-	-	-	-	-	-
WATER-HEATING FUEL: LIQUID PETROLEUM GAS BY MOST USED COOKING FUEL							
NATURAL GAS.....	-	-	.1	.1	.2	.5	-
ELECTRICITY.....	1.0	-	.1	.3	.5	1.5	.1
LIQUID PETROLEUM GAS.....	2.5	-	-	-	-	-	-
OTHER/NONE.....	-	-	-	-	-	-	-
OTHER/NONE.....	.8	.1	-	.1	.4	.1	.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO Rounding. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 66. WATER HEATING FUEL AND COOKING FUEL BY TYPE OF MAIN HEATING FUEL (PERCENTAGE OF HOUSEHOLDS)

HOUSEHOLD CHARACTERISTICS	TOTAL	TYPE OF MAIN HEATING FUEL					
		NATURAL GAS	ELECTRICITY	FUEL OIL, CR KEROSENF	WOOD	Liquid PETROLEUM GAS	OTHER/ NONE
<b>TOTAL HOUSEHOLDS</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
WATER-HEATING FUEL							
NATURAL GAS	54.1	91.6	9.7	10.1	8.5	-	14.8
ELECTRICITY	31.9	8.0	87.7	37.1	65.3	41.5	45.1
FUEL OIL OR KEROSENF	8.7	.2	.6	49.3	4.1	-	5.3
LIQUID PETROLEUM GAS	4.4	-	1.7	3.0	13.7	56.7	18.0
OTHER/NCNE	1.0	.2	.3	.5	8.5	1.8	16.9
WATER-HEATING FUEL: NATURAL GAS							
BY MOST USED COOKING FUEL							
NATURAL GAS	33.2	56.2	2.9	8.6	6.5	-	11.5
ELECTRICITY	20.7	35.2	6.6	1.3	2.0	-	1.3
LIQUID PETROLEUM GAS	-	-	-	.1	-	-	-
OTHER/NCNE	.1	.2	.2	-	-	-	1.9
WATER-HEATING FUEL: ELECTRICITY							
BY MOST USED COOKING FUEL							
NATURAL GAS	1.3	2.0	.5	-	-	-	-
ELECTRICITY	27.9	5.9	86.0	30.5	57.8	19.9	39.6
LIQUID PETROLEUM GAS	2.5	-	1.0	5.6	6.2	21.6	4.6
OTHER/NCNE	.2	.1	.1	.3	1.3	-	.9
WATER-HEATING FUEL: FUEL OIL OR KEROSENF							
BY MOST USED COOKING FUEL							
NATURAL GAS	4.1	.2	.6	24.3	-	-	1.0
ELECTRICITY	4.0	.1	-	21.7	3.7	-	4.3
LIQUID PETROLEUM GAS	.5	-	-	3.1	.4	-	-
OTHER/NCNE	-	-	-	.2	-	-	-
WATER-HEATING FUEL: LIQUID PETROLEUM GAS							
BY MOST USED COOKING FUEL							
NATURAL GAS	-	-	1.0	.9	3.9	-	14.6
ELECTRICITY	1.2	-	.7	2.1	9.8	41.8	3.5
LIQUID PETROLEUM GAS	3.1	-	-	-	-	.4	13.6
OTHER/NCNE	-	-	-	-	-	-	.8
OTHER/NONE	1.0	.2	.3	.5	8.5	1.8	16.9

NOTE: DATA MAY NOT SUM TO TOTALS BECAUSE OF ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. PERCENTAGES ARE CALCULATED ON UNROUNDED NUMBERS. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.  
 SOURCE: RESIDENTIAL AND COMMERCIAL SECTORS, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE 67. WOOD BURNED IN 1980

HOUSEHOLD CHARACTERISTICS	NUMBER OF HOUSEHOLDS BURNING WOOD		TOTAL NUMBER OF CORDS BURNED		AVERAGE NUMBER OF CORDS BURNED PER HOUSEHOLD		AVERAGE NUMBER OF HOUSEHOLDS REPORTING (MILLIONS)		PRICE PER CORD PAID IN (MILLIONS) (DOLLARS)		MOST RECENT PURCHASE (1980)	
	(MILLIONS)		(PERCENT)		(MILLIONS)		(PERCENT)		(MILLIONS)			
TOTAL HOUSEHOLDS.....	14.2	100.0	41.9	100.0	2.9	2.3	2.3	2.3	1.8	1.3	81	77
CENSUS REGION												
NORTHWEST.....	3.2	22.5	0	30.5	4.0	.7	.7	.7	3.5	2.5	68	68
NORTH CENTRAL.....	3.5	24.4	12.3	29.4	5.5	.5	.5	.5	2.4	2.6	74	74
SOUTH.....	4.8	34.0	11.7	28.0	4.0	.4	.4	.4	1.8	1.8	88	88
WEST.....	2.7	19.1	5.0	12.0	5.5	.5	.5	.5			82	82
URBAN/RURAL												
URBAN.....	5.5	38.4	9.8	23.4	1.8	1.3	1.3	1.3	3.7	1.0	81	81
RURAL.....	8.8	61.6	32.1	76.6	3.7	1.0	1.0	1.0			72	72
ANNUAL HEATING DEGREE-DAYS (HDD) AND COOLING DEGREE-DAYS (CDD)												
<2000 CDD AND >700C HDD.....	2.7	18.6	15.6	37.3	5.8	.6	.6	.6			59	59
<2000 CDD AND 5500 TO 7000 HDD.....	3.0	20.8	7.4	17.7	2.5	.5	.5	.5			73	73
<2000 CDD AND 4000 TO 5499 HDD.....	4.2	29.2	10.9	26.0	2.6	.7	.7	.7			87	87
<2000 CDD AND <4000C HDD.....	3.4	23.7	6.3	15.0	1.9	.4	.4	.4			84	84
>2000 CDD AND <4600C HDD.....	1.1	7.5	1.6	3.9	1.5	.1	.1	.1			89	89
YEAR HOUSE BUILT												
1939 OR EARLIER.....	4.0	28.1	18.2	43.5	4.5	.6	.6	.6			56	56
1940 TO 1949.....	1.0	6.7	2.7	6.4	2.8	.1	.1	.1			79	79
1950 TO 1959.....	1.0	12.7	3.7	8.8	2.0	.2	.2	.2			86	86
1960 TO 1964.....	1.4	9.8	3.2	7.6	2.3	.3	.3	.3			77	77
1965 TO 1969.....	1.3	9.5	3.5	8.3	2.6	.4	.4	.4			82	82
1970 TO 1974.....	1.0	12.4	4.0	9.6	2.3	.3	.3	.3			97	97
1975 OR LATER.....	3.0	20.7	6.6	15.9	2.2	.4	.4	.4			84	84
MEASURED HEATED SPACE OF RESIDENCE (IN SQ FT)												
LESS THAN 1000.....	1.7	12.0	5.8	13.8	3.4	.1	.1	.1			65	65
1,000 TO 1,599.....	3.6	25.1	9.2	22.0	2.6	.6	.6	.6			76	76
1,600 TO 1,999.....	2.5	17.3	6.7	16.0	2.7	.4	.4	.4			64	64
2,000 TO 2,399.....	2.5	17.3	8.2	19.7	3.3	.5	.5	.5			83	83
2,400 TO 2,999.....	2.1	14.5	6.4	15.3	3.1	.3	.3	.3			92	92
3,000 OR MORE.....	2.0	13.6	5.6	13.3	2.8	.4	.4	.4			75	75

SEE NOTES AT END OF TABLE

TABLE 67. WOOD BURNED IN 1980—continued

HOUSEHOLD CHARACTERISTICS	(MILLIONS) (PERCENT)	(MILLIONS) (PERCENT)	NUMBER OF HOUSEHOLDS BURNING WOOD	TOTAL NUMBER OF CORDS BURNED	AVERAGE NUMBER OF CORDS BURNED PER HOUSEHOLD	IN MOST RECENT PURCHASE (1980)	
						BURNED PER HOUSEHOLD	AVERAGE PRICE PER CORD PAID IN 1980 (DOLLARS)
						REPORTING (MILLIONS) (BILLIONS)	(DOLLARS)
<b>1979 FAMILY INCOME</b>							
LESS THAN \$5,000.....	1.0	7.3	3.9	9.4	3.8	0.1	61
\$5,000 TO \$5,999.....	1.6	11.0	6.2	14.8	4.0	.2	63
\$10,000 TO \$14,999.....	1.8	12.9	6.8	16.3	3.7	.2	72
\$15,000 TO \$19,999.....	2.0	14.3	6.7	16.1	3.3	.2	61
\$20,000 TO \$24,999.....	1.7	12.0	4.9	11.6	2.9	.3	81
\$25,000 TO \$34,999.....	3.2	22.4	7.6	18.1	2.4	.4	80
\$35,000 OR MORE.....	2.9	20.0	5.7	13.7	2.0	.8	85
<b>AMOUNT OF WOOD BURNED</b>							
1/3-1 CORD.....	6.2	43.3	4.3	10.2	.7	1.2	87
2 CORDS.....	2.6	18.4	4.9	11.6	1.9	.4	73
3 CORDS.....	1.8	12.6	5.3	12.7	3.0	.2	70
4 CORDS.....	1.0	7.2	4.0	9.6	3.9	.1	64
5 CORDS OR MORE.....	2.6	18.6	23.4	55.9	8.8	.3	54
<b>WOOD IS MAIN HEATING FUEL</b>							
YES.....	4.5	31.8	22.1	52.8	4.9	.4	51
NO.....	9.7	68.2	19.8	47.2	2.0	1.8	83
<b>WOOD BURNED IN</b>							
FIREPLACE ONLY.....	6.6	46.7	9.5	22.8	1.4	1.4	86
AIRTIGHT STOVE ONLY.....	3.6	25.2	13.6	32.6	3.8	.5	68
NONAIRTIGHT STOVE ONLY.....	2.1	14.4	7.0	16.8	3.4	.1	66
FURNACE ONLY.....	1.1	7.4	7.0	16.8	6.6	0	0
COMBINATION OF ABOVE.....	.9	6.2	4.5	10.9	5.1	.1	56
<b>TYPE OF WOOD BURNED</b>							
HARDWOODS.....	12.0	84.3	37.2	88.9	3.1	2.0	78
SOFTWOODS.....	1.7	12.2	4.0	9.6	2.3	.2	71
DON'T KNOW / NOT REFFERED.....	.5	3.4	.6	1.5	1.3	.1	69

SEE NOTES AT END OF TABLE

TABLE 67. WOOD BURNED IN 1980—Continued

HOUSEHOLD CHARACTERISTICS	NUMBER OF HOUSEHOLDS BURNING WOOD		TOTAL NUMBER OF CORDS BURNED		AVERAGE NUMBER OF CORDS BURNED PER HOUSEHOLD		AVERAGE PRICE PER CORD REPORTED IN 1980 (DOLLARS)		MOST RECENT PURCHASE (1980)	
	(MILLIONS)	(PERCENT)	(MILLIONS)	(PERCENT)	BURNED PER HOUSEHOLD (MILLIONS)	REPORTING (MILLIONS)	PAID IN 1980 (MILLIONS)	(DOLLARS)		
<b>AMOUNT OF WOOD BURNED THAT WAS PURCHASED</b>										
ALL.....	3.2	22.2	8.0	19.1	2.5	1.5	77			
SOME.....	2.1	15.0	6.0	14.4	2.8	.7	76			
NCNF/NCT REPORTED.....	8.6	62.6	27.8	66.5	3.1	—	NA			
<b>AVERAGE PRICE PER CORD PAID IN 1980</b>										
LESS THAN \$50.....	4	2.7	0	4.5	5.0	.4	30			
\$50 TO \$75.....	1.0	7.0	2.8	6.7	2.8	1.0	64			
OVER \$75.....	.9	6.3	1.0	2.5	1.1	.9	111			
NONE PURCHASED/TCN'T KNOW/NOT REPORTED.....	12.6	84.1	36.1	86.3	3.0	—	NA			
<b>PRICE INCLUDES DELIVERY</b>										
YES.....	4.1	28.8	10.5	25.2	2.6	1.9	80			
NO.....	1.1	8.0	3.4	8.1	3.0	.3	60			
DON'T KNW/NCT REPORTED/NONE PURCHASED.....	9.0	63.3	27.9	66.8	3.1	—	Q			

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH “-” REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

Q = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

## **Appendix A**



## Appendix A

### HOW THE SURVEY WAS CONDUCTED

#### Introduction

The Residential Energy Consumption Surveys (RECS) have been designed by the Energy Information Administration (EIA) to provide information concerning energy consumption within the residential sector. Information concerning the housing unit is collected through personal interviews with adult residents of a representative national sample of households. Data concerning actual energy consumption is obtained from fuel records maintained by the household's fuel suppliers.<sup>1</sup> An inventory of motor vehicles used by the household residents is also obtained at the time of the personal interview.<sup>2</sup>

This survey is the first RECS to: use a national sample custom-designed to meet the analytic objectives for surveys of residential energy use; sample as many as 5,500 households; provide two-day personal training sessions for interviewers; include households in Alaska and Hawaii and households on military bases; collect data on household consumption of wood; and have interviewers measure the square footage of the housing unit. Plans are to continue the RECS survey incorporating these new features and, in addition, to collect longitudinal data by revisiting a probability subsample of households at two-year intervals.

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<sup>1</sup>The most recent report published using the billing data from the fuel suppliers is: Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures Part I: National Data (including Conservation), DOE/EIA-0262/1, April 1981, and Residential Energy Consumption Survey: 1978-1980 Consumption and Expenditures, Part II: Regional Data, DOE/EIA-0262/2, May 1981.

<sup>2</sup>The Household Transportation Survey is a survey of household automobile usage and gasoline consumption using rotating subsamples from the residential survey. The methodology and the first results have been reported in Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, June to August 1979, DOE/EIA-0207/4, June 1980. Data for the Household Transportation Panel were collected for the period June 1979 through September 1981.

## Data Collection

The fieldwork for this study was conducted by a contractor, Response Analysis Corporation of Princeton, New Jersey. The original sample consisted of 7,338 units, of which some 106 were either not used for dwelling purposes or were not habitable. Of the 7,232 habitable housing units, 598 were ineligible for this study due to a current vacancy or seasonal occupancy (occupants did not live in the units for more than half the year). Personal interviews were conducted at 5,804 of the 6,634 eligible units, for a response rate of 87.5 percent. Subsequently, mail questionnaires were sent to 648 of the 798 households that had not participated in personal interviews. Completed questionnaires were returned by 247 of these households, or 38.1 percent of those mailed. Of the total eligible households, responses were received from 91.2 percent (or 6,051 households).

The fieldwork for this study was begun in October 1980, but because the survey utilized a new sample design, materials and interviewers had to be located for a number of new sample locations. As a result, the sample work took longer to complete and the interviewing schedule was extended through April 1981. Most mail questionnaires were completed in April or May although some mail questionnaires were received in June 1981. January 1981 represents the mid-point of data collection, but November 1980 was selected as the date for determining the independent estimates of the size of the universe of households used in the ratio estimation of survey results. The primary reason for selecting November 1980 was to continue a 12-month interval between survey dates which had been established for the NIECS and Screener surveys. In addition, future RECS surveys are planned so that November is the mid-point of data collection.

### The Interview

The average personal interview lasted 58 minutes with 80 percent of the interviews lasting between 35 and 86 minutes. The interview covered: structural features of the house related to energy such as insulation, doors, and windows; the heating and cooling systems and the fuels used in these systems; use of wood; energy conservation efforts; household appliances; vehicles and commuting to work; participation in a Government-sponsored weatherization program or energy audit; and, demographic data on household members. The questionnaire is reproduced in Appendix D.

At the end of the interview, respondents were asked to sign a waiver authorizing the contractor to obtain records of energy consumption from the housing unit's energy supplier(s). At this time, the interviewer also measured the dimensions of the housing unit using a retractable 50-foot metal tape measure and recording the dimensions on a rough-drawn diagram of the floor plan (See Appendix B for further details on the measurement of housing units).

### Interviewers

During the period September 24 to November 1, 1980, 323 interviewers attended one of the 41 training sessions held in one of 37 locations around the country. Each session was led by a trainer, most of whom had participated in a prior four-day workshop in Princeton, New Jersey. The two-day training session for interviewers covered interviewing techniques generally, background of the residential energy consumption surveys, the household questionnaire, how to measure respondents' homes, the sampling tasks, and administrative requirements.

The training session also included a practice interview with another interviewer serving as respondent. Self-corrected tests were used in the training. The basic training document was the 62-page, "Instructions for Interviewers".

Each interviewer was required to submit a practice interview for review by RAC before proceeding to interview at the assigned housing units.

Most of the 346 interviewers used in this survey had previous interviewing experience. About 20 percent had worked on previous RECS surveys; most of the remainder were conducting their first RECS survey but had other interviewing experience either with other survey research organizations or with the U.S. Bureau of the Census. Fewer than 20 percent of the interviewers had no previous interviewing experience. The need for recruiting new interviewers will decrease in the future as trained interviewers become available in each PSU. Of the 323 interviewers who attended training sessions, 294 completed one or more interviews. Another 52 interviewers received individual training prior to conducting interviews.

Interviewers were paid on an hourly basis for their work on RECS, including time for home study, attendance at training sessions, review of completed interviews, actual interviewing time, and travel time to and from training sessions and sample clusters. Interviewers were also reimbursed at standard mileage rates for use of personal vehicles and other travel expenses. Interviewers working in locations believed to present a hazard to their safety were compensated for use of an escort.

Each interviewer conducted an average of 17 interviews. Fifty-one interviewers each completed fewer than six interviews; the average for this group of 51 interviewers was 2.9 completed interviews. The most interviews completed by one interviewer was 72. Twenty percent of the personal interviews were verified by telephone or mail to ensure that interviews were conducted as intended.

### Sample Design

The sample of households used as the basis for the 1980 estimates was selected using a probability sampling design developed especially for the Residential Energy Consumption Survey (RECS). The 1980 survey represents the first time the design was used. The design required a sample with a minimum level of precision within each of the ten Federal regions and nine Census Divisions. This requirement meant disproportionate sampling in each of the 17 intersections which are created by the overlap between the Federal regions and the Census Divisions.

The 3,141 counties and independent cities in the 50 States and the District of Columbia were divided into 1,782 Primary Sampling Units (PSU's) on the basis of Standard Metropolitan Statistical Areas (SMSA), county and independent city boundary lines, and population characteristics. The PSU's were grouped into 131 strata having roughly similar population totals within each of the 17 intersections. Each stratum contained PSU's similar in several characteristics including, among others, the dominant space-heating fuel and, in some strata, similar weather conditions. Some PSU's comprising all or part of large metropolitan areas were large enough in population to comprise a stratum by themselves; 31 of the PSU's are of this type and are called self-representing (SR) because the sample from that PSU represented only that PSU. In the other 100 strata, one PSU was selected from among two or more PSU's in the stratum. Each of the 100 PSU's selected from these strata are called nonself-representing (NSR) PSU's because each PSU also represents the nonselected PSU's in its stratum.

A number of intermediate probability sampling stages preceded the final selection of RECS households. These stages included the selection of minor civil divisions (MCD's) such as cities, towns, townships, and other Census divisions within each PSU. Within the MCD's, Census tracts or enumeration districts (ED's) were selected. Finally, a segment of 25 or more housing units was selected within a tract or ED. Segments were formed from field counts in easily identified geographic units. Definition of urban/rural and metropolitan statistical areas is based on definitions using the 1970 Census results. These definitions will be updated at some time in the future to use results from the 1980 Census.

The 131 PSU's were selected in early 1980. The population size of PSU's were 1978 population estimates from the U.S. Bureau of the Census. Other data used in stratification, such as the dominant home heating fuel, came from the 1970 Census. For selection within PSU's, 1980 projected household counts for subareas of the PSU were used. The projections were based on data for minor civil divisions (MCD's) provided by the National Planning Data Corporation. Within selected MCD's, the procedure for deriving estimated numbers of households in tracts and enumeration districts was based on data from a combination of sources including Reuben H. Donnelley household address counts, 1970 Census data, and contacts with local sources of information.

Detailed field listings were created for each segment by sending a person to visit the area and identify each housing unit by street address or apartment number or other observable feature. A cluster of 25 housing units was selected from the sample segment. The ultimate cluster to be contacted for interviews (averaging about four housing units) was systematically selected from the cluster and these housing units constituted the assignments given to the interviewers. The number of ultimate clusters totaled 1,667 of which 152 clusters were for a supplementary sample of 500 households described below.

A supplementary sample of 500 households was a special feature of the design. This sample was selected in 25 strata formed by combining the 131 original strata. One PSU was selected from each of the combined strata by a probability selection among the strata forming a given one of the 25 strata. Two PSU's were self-representing and the other 23 sample PSU's were selected with probability proportionate to stratum size. The supplementary sample constitutes a national sample on its own, but is included here with the larger national sample to increase the precision of the estimates and because no special use was made of the supplementary sample households. There were early plans to use these households as a test for energy audit procedures and for reinterviews to check the reliability of information. Due to budgetary limitations, these reliability checks were not undertaken.

#### **Survey Estimates**

Survey estimates were developed to project sample results to the universe. The universe includes all households in the 50 States and the District of Columbia. Households on military installations are included. Definition of "household" is the same as that used by the Bureau of the Census. At the time of the survey, November 1980, the universe was estimated to contain 81,645,000 households based on the 1980 Census and Current Population Survey (CPS) estimates of the population updated by the 1980 Census.

Weights were calculated for each sample household. The household weight reflected the probability of selection for that household and additional adjustments to correct for potential biases arising from the failure to contact all sample housing units and the failure to list all housing units in the sample area. Contacts were not successful with 8.8 percent of the eligible units.

The adjustment for these noninterviews was designed to spread the effects of noninterviews over the interviewed sample of households in the final cluster. This same procedure was used in the National Interim Energy Consumption Survey (NIECS) and the Screener (see Glossary), but because the cluster size is smaller for the RECS (approximately four households, on the average, for the RECS as compared with about 10 in the NIECS), the effects were spread over additional clusters within the PSU whenever the adjustment exceeded 2.0. In these cases, only that part of the noninterview adjustment that exceeded 2.0 was spread over the remaining ultimate clusters in the PSU.

The failure to list all housing units in the field-listing task is a common problem in surveys of this type. The result is an undercount of housing units in the sample area and, hence, an underestimate of the number of households in the universe. This problem is treated in two ways in the RECS. One treatment occurs during the interviewing process and the second in the estimation process. During the interviewing stage, unlisted housing units or households are discovered by querying the household where interviews are conducted to determine if other households are present in the unit. In addition, the interviewer is instructed to conduct an interview at all housing units contained in the geographical area between the interviewed household and the next listed address. This tactic reduces the number of missed households but does not eliminate the noncoverage problem altogether.

The noncoverage problem is also treated by using ratio estimation to adjust selected estimates of households to official population values. Ratio adjustment took place in two stages for the RECS. The first stage adjustment was computed from information for PSU's in NSR strata only. A separate factor was created for each of twenty cells (four regions classified by five home-heating fuel categories). The first-stage adjustment for cell C was given by:

$$R_{1c} = \frac{N_c}{N'_c}$$

where  $N_c$  is the 1970 population Census total number of households in cell C for all PSU's in RECS NSR strata, and

$N'_c$  is an estimate of  $N_c$  generated by applying RECS PSU sampling weights to 1970 Census household totals for cell C in RECS NSR sample PSU's.

The implementation of this factor reduced somewhat the amount of variance due to the sampling of PSU's. The second stage factor adjusted data from the survey after nonresponse adjustment and first stage ratio estimation to independently derived estimates of the number of households in twelve categories shown in Table A1. The second stage adjustment for category k was given by

$$R_{2k} = \frac{H_k}{H'_k}$$

where  $H'_k$  is the RECS estimate of the total number of households in category k, and

$H_k$  is an independent estimate of the total.

The numerator is based on a linear interpolation of values for each of the twelve cells between the 1980 Census figure and Current Population Survey estimate for March 1981. The second stage factor reduced both the between PSU variance and the within PSU variance. An additional effect of applying this factor is that the final sample estimate of the number of households for each cell shown in Table A1 equals the control estimate.

**Table A1. Population Estimates Used as Controls in Ratio Estimates**

<b>Census Region</b>	<b>SMSA-Central City</b>	<b>SMSA-Outside Central City</b>	<b>Non-SMSA</b>	<b>Total</b>
Northeast.....	5,901,000	8,018,500	3,748,900	17,668,400
North Central...	5,862,400	7,969,700	7,242,100	21,074,200
South.....	7,251,100	8,074,800	11,625,300	26,951,200
West.....	5,312,700	7,238,600	3,399,900	15,951,200
<b>Total.....</b>	<b>24,327,200</b>	<b>31,301,600</b>	<b>26,016,200</b>	<b>81,645,000</b>

#### Minimizing Nonresponse

In an effort to maximize the validity of the survey data, a multi-wave, multi-contact approach was employed. Prior to the initial contacts, two letters were sent to each household. A letter from the Administrator of the EIA, briefly described the purposes and stressed the importance of the survey. A subsequent letter from the contractor announced the impending arrival of the interviewer. To elicit rapport and cooperation, a \$2 incentive was given to the respondent before the interview. Ninety-three percent of the respondents accepted the \$2.

Beginning in October 1980, interviewers made up to seven or more callbacks at different times of the day and week in an effort to minimize the number of uncontacted households. The interviewers also queried neighbors regarding the most opportune times to contact the prospective respondent. By the end of the first wave, 106 addresses were found to be nonresidential and an additional 551 were found to be ineligible. Some 5,261 personal interviews were completed leaving 1,420 nonrespondents in this wave.

A second wave was initiated in an effort to contact households that were not available during the first wave and to attempt to convince selected first-wave refusals to reconsider. A new set of letters preceded the renewed effort and, in most cases, the sampled housing units were assigned to a different interviewer. Again, up to seven or more attempts were made to contact the prospective respondents. At the end of this wave, an additional 47 addresses were found to be ineligible. Also, some 32 previously contacted potential respondents had moved and were removed from consideration. As a result of the second wave, an additional 521 interviews were completed leaving 820 nonrespondents.

A third wave was initiated in an effort to reach nonrespondents in locations that had low completion rates. The third wave produced 22 additional personal interviews.

In a final attempt to reduce nonresponse, an abbreviated version of the questionnaire (adapted for self-administration) was mailed to the remaining nonrespondents. The \$2 incentive was included in the mailing. As a result of this effort, 247 additional households responded.

After three waves of personal interview attempts and one mailed questionnaire, 551 households had not responded and 32 households had moved leaving a total of 583 nonrespondents or 8.8 percent of all eligible housing units. These results are displayed in Table A2.

These efforts were successful in accomplishing the following:

- o Approximately 88 percent of the households were contacted and agreed to be interviewed personally. An additional 3.7 percent of the sample households completed and returned mailed questionnaires.
- o Of the 6,051 responses, 86.9 percent were obtained during the first wave of contacts; 8.6 percent were obtained during the second wave; and less than 0.4 percent resulted from third wave contacts. Some 4.1 percent were responses to the mailed questionnaire.
- o Of all households which participated in the personal interviews, 33.3 percent required only one visit and 74.1 percent were completed with no more than two call-backs.
- o A total of 199 personal interviews were completed in the second and third waves with respondents who had previously refused to participate, representing 3.4 percent of all completed personal interviews. In addition, of the 247 mailed questionnaires which were completed and returned, 152 were from households which previously refused to participate.

Table A2. Interviews Completed by Stage

	Personal Interviews			After Third Wave	Status	
	First Wave	Second Wave	Third Wave		Mail	Final Status
Total Listed Units.....	7,338	1,420	820	7,338	798	7,338
<b>Non-Housing Units</b>						
Business, Other.....	43	-	-	43	-	43
Not Habitable.....	38	-	-	38	-	38
Non-Housing Unit.....	25	-	-	25	-	25
Subtotal.....	106	-	-	106	-	106
Housing Units.....	7,232	1,420	820	7,232	798	7,232
<b>Ineligible Units</b>						
Vacant.....	393	37	-	430	-	430
Seasonal Occupied.....	7	-	-	7	-	7
Seasonal Vacant.....	151	10	-	161	-	161
Subtotal.....	551	47	-	598	-	598
Eligible Units.....	6,681	1,373	820	6,634	798	6,634
<b>Not Completed--Personal</b>						
Moved After Contact...	-	32	-	32	-	32
No One Home.....	575	194	16	145	-	145
<b>Eligible Respondent</b>						
Not Home.....	40	15	-	12	-	12
Refused.....	669	406	16	555	-	a555
Illness.....	38	8	-	8	-	8
Language Barrier.....	27	7	-	9	-	9
Wrong Respondent or Unit.....	2	5	-	2	-	2
Not Contacted.....	33	154	757	23	-	23
Other.....	36	31	9	44	-	44
Subtotal.....	1,420	820	798	798	-	798
<b>Not Completed--Mail</b>						
Unusable Address.....	-	-	-	-	55	55
Post Master Return....	-	-	-	-	61	61
Returned Blank.....	-	-	-	-	51	51
Returned Unusable.....	-	-	-	-	3	3
Not Returned.....	-	-	-	-	284	284
Other Not Mailed.....	-	-	-	-	97	97
Subtotal.....	-	-	-	-	551	551
<b>Total Interviews</b>						
Completed.....	5,261	521	22	5,804	247	6,051

<sup>a</sup>A household that refused an interview during any one of the three waves was classified as a "refusal" for the final status even though no one was at home in the second or third wave.

## Evaluation of Response and Nonresponse Characteristics

This section of the report will compare various response and nonresponse category rates across census region, location type, and structure type. These rates are reported in Table A3.

Several patterns are clear from Table A3. First, personal interviews enjoyed the most success in the South (89.8 percent), in non-SMSA areas (91.4 percent), and among residents of mobile homes (90.9 percent). Conversely, the interviewers had their lowest success rates in the Northeast (83.8 percent), SMSA central cities (83.3 percent), and in buildings with five or more residential units (79.0 percent). It is important to keep in mind when looking at the categories that make up these groupings that there is no guarantee that the characteristics are independent. Rather, it is highly likely that they overlap. That is to say that the Northeast has a high concentration of central cities and large apartment buildings.

The categories which were least successful for the personal interviewers were the most responsive for the mailed questionnaire. The opposite situation also holds: the categories where personal interviewers had the most success were the least responsive to the mailed questionnaire.

An added factor with regard to the results of the mail questionnaire could be the number of potential respondents who received the mail questionnaires. For example, the Northeast had a higher response rate since more were mailed out to that area of the country. This indeed turns out to be the case. Response rates by region for only those respondents to whom questionnaires were mailed are virtually the same (data not shown).

The total response rate patterns with regard to highest and lowest rates are not affected by the addition of the responses to the mailed questionnaire. However, the range from highest to lowest decreases with only one exception. The highest "refusal" and "unable to contact" rates correspond to the lowest success rates for the personal interviewers, the exception being that noncentral city SMSA urban areas have a higher refusal rate (10.9 percent) than the SMSA central city areas (10.1 percent). The lowest refusal rate categories match the highest personal interviewers success groups.

**Table A3. Response Rates by Region, Location, and Type of Structure**

Characteristic	Percent of Eligible Housing Units			Personal Interview Nonresponse Rates	
	Response Rates			Refuse	Unable to Contact
	Personal Interview	Mail Questionnaire	Total Response		
Total.....	87.5	3.7	91.2	8.6	3.9
<b>Census Region</b>					
Northeast.....	83.8	4.9	88.7	10.5	5.7
North Central.....	87.4	3.7	91.1	9.0	3.6
South.....	89.8	3.1	92.9	6.8	3.4
West.....	87.9	3.5	91.4	8.8	3.3
<b>Location Type</b>					
SMSA Central City....	83.3	5.5	88.8	10.1	6.5
SMSA Other Urban....	85.9	4.7	90.6	10.9	3.1
SMSA Rural.....	89.3	2.9	92.2	8.5	2.2
Non-SMSA.....	91.4	1.9	93.3	5.6	3.0
<b>Structure Type</b>					
Single-Family House..	88.9	3.3	92.2	6.4	2.7
Mobile Home.....	90.9	2.1	93.0	8.4	2.7
Buildings with 2-4 Units.....	86.5	4.4	90.9	8.6	4.9
Buildings with 5 or More Units.....	79.0	6.4	85.4	10.7	10.3

### Adjustment for Item Nonresponse

Item nonresponse occurs when respondents do not know the answer or refuse to answer a question or when an interviewer does not ask a question or does not record an answer. Imputations were made for nonresponse to most items which were to be used for making national estimates and items which had less than 10 percent nonresponse. Items for which national estimates are made but for which imputations were not made include questions on the presence, type, and amount of attic and floor insulation; the presence of wall insulation; and the cost of adding storm windows, doors, and insulation. For these items, the number of missing cases was considered large enough that the imputations would have introduced too much additional error.

The most frequently used imputation procedure was "hot-deck." This procedure requires sorting the file of households by variables related to the missing item. A household is then selected which has the same value on the related variables and this "donor" household supplies the value for the variable which is missing in the "donee" household.

Less frequently used imputation methods included regression estimates and use of modal values. Regression procedures were used to impute the total square footage of the housing unit in the three percent of the cases where all data were missing. Discussion of the regression procedure and other imputations involved in the square footage estimates is found in Appendix B. A few variables were imputed by assigning modal values; this was done when the distribution of available data showed a highly skewed distribution.

Table A4 shows the most frequently imputed items, the number of cases requiring imputation, and the method used.

The 247 mail questionnaires had considerable missing data since the mail questionnaire was a small subset of questions from the household interview. For the mail questionnaires, the hot-deck imputation method was used. Households were selected by sorting the file by Census region, type of structure, space-heating fuel, hot water fuel, air-conditioning fuel, number of rooms, and number of persons in the household. The donor household was matched on these characteristics and the entire set of response from the donor household was imputed to the mailed questionnaire household. This meant that all the responses for the mailed questionnaire households were imputed except the seven matching items, weather data, fuel consumption data acquired from the household's fuel suppliers, and the geographical location of the mail questionnaire household.

**Table A4. 1980 RECS Items Most Frequently Imputed**

Item	Cases Imputed	Percent of		Method of Imputing
		Cases Imputed	All Interviews <sup>a</sup> (6,051)	
1979 Family Income.....	787		13	Hot-deck
Same Main-Heating Fuel Used Last Winter.....	422		7	Hot-deck, but no cases were imputed as having changed fuels.
Most-Used Oven is/is Not Microwave.....	281		5	Hot-deck
Availability of Natural Gas.....	254		4	Hot-deck
Year House Was Built.....	241		4	Hot-deck
Square Footage of Housing Unit.....	b		b	b
Central Heating System for the Building.....	183		3	Hot-deck
Condominium or Cooperative.....	167		3	Hot-deck
Central Water-Heating System for the Building.....	122		2	Hot-deck
Second Oven is/is Not a Microwave.....	115		2	Hot-deck
Hispanic.....	109		2	Hot-deck
Self-Cleaning Features of Most-Used Oven.....	79		1	Hot-deck
Warm Air Forced Through Ducts.....	78		1	Hot-deck
Number of Cords of Wood Burned.....	74		1	Hot-deck
Age of Respondent.....	67		1	Hot-deck
Type of Freezer Compartment in Most-Used Refrigerator...	53		1	Hot-deck
Age of Second Person in Household.....	49		1	Hot-deck
Most-Used Freezer is/is Not Frost-Free.....	44		1	Hot-deck
Energy Used by Second Oven..	38		1	Hot-deck
Employment Status of Third Person in the Household....	37		1	Hot-deck

<sup>a</sup>Mail questionnaires are not included. To account for these, add four percentage points to the percent listed.

<sup>b</sup>See Appendix B for details on the square footage imputations.

### Rental Agent Survey

Telephone and/or in-person interviews were carried out with rental agents and landlords of selected RECS households who did not pay directly to utility companies and fuel suppliers for household fuel use. Primary purposes of the rental agent survey were to obtain additional information on fuels for specified end uses and on actual fuel consumption for buildings containing these households. The rental agent survey was limited to those primary sampling units where there were at least three or more households whose fuel was included in their rent.

After an advance letter from DOE, telephone interviews were attempted wherever it was possible to reach the rental agent or his/her deputy by phone. Telephone interviewing was conducted during the week of June 22, 1981.

Personal interviews were conducted under the following circumstances: when it was not possible to reach the rental agent by telephone; where interviewer travel costs would not be excessively high; and, when a signed authorization had not been received. The personal interview included a request for the rental agent's signature on an authorization form that would permit Response Analysis to contact utility companies for building consumption data.

Rental agents whose utility bills covered nonresidential purposes were not requested to sign an authorization form if five percent or more of the billing was for nonresidential purposes. Personal contacts were made during July and early August, 1981.

Altogether, 283 rental agents were interviewed by telephone or in-person. These 283 interviews covered 551 households in 346 structures.

In those cases when a discrepancy occurred between the rental agent's report and the household's report, the rental agent's report was accepted as the "true" one. Altogether, 104 changes were made, 31 in the main heating fuel, 27 in supplementary heating fuel, 40 in water-heating fuel, and 6 in air-conditioning fuel.

The fuel consumption records acquired from the fuel suppliers will be used to determine whether modifications should be made in the consumption imputations for households not paying their own fuel bills. Results of this analysis will not be available until 1983.

#### Editing Completed Questionnaires

Interviewers mailed completed questionnaires to the contractor, where they were carefully reviewed. The first step in the review process was to verify the accuracy of the basic identifying information. Next, the questionnaires were manually reviewed by two editors to insure completeness and the logical consistency of selected patterns of responses and to prepare the questionnaires for translation into machine-readable form. All keypunching was fully verified. Finally, the data were machine-edited to further insure completeness, logical consistency, and the legitimacy of coded values. The computer editing utilized a proprietary software package called EDITOR II.

The contractor attempted to resolve inconsistencies or ambiguities in the data internally, by reference to other parts of the questionnaire. In the event that these efforts failed to resolve the problem, the contractor made telephone contact with a member of the household in question.

Additional editing resolved discrepancies among the household interview, the rental agent survey, and the information from fuel suppliers. For example, information on the fuel used in apartment buildings was taken from the rental agent survey to correct the data from the household. In other cases, a fuel supplier reported supplying kerosene to a household, not fuel oil as was reported by the household. The data, therefore, do not always represent the respondents' reports, exclusively.



## **APPENDIX B**



## Appendix B

### ESTIMATES OF THE SIZE OF U.S. HOUSING UNITS IN SQUARE FEET

Interviewers for the 1980 RECS survey were given 50-foot tape measures and were instructed to measure the dimensions of each housing unit. The instructions were to measure the "area enclosed from the weather". This included garages attached to the house, attics that were either heated or finished, and basements that were enclosed from the weather (See "Square Feet" in Glossary for further definition). Interviewers also recorded the dimensions of areas that were heated and unheated. This further breakdown into heated and unheated areas provides a closer approximation to the area of the housing unit which places the demand on the heating system and, therefore, is the figure which may prove to be more useful in analysis of residential energy consumption. All measurements were rounded to the nearest foot by the interviewer or in the editing process. Interviewers were given an option of measuring the home from the inside, taking into account the thickness of inside walls, or from the outside. In 108 cases, the measurements were taken from a floor plan. These measurements provide the first data on a national sample of all types of residential housing units including apartment units and mobile homes.

In 97 percent of the cases, usable measurements were acquired. In 3 percent, the measurements were either not usable or were not made. Although most cases contained the basic information, some imputations were required to produce a final set of three figures for each housing unit:

HOMEAREA = total square footage of area enclosed from the weather

HEATED = total square footage of heated area

UNHEATED = HOMEAREA-HEATED = total square footage of unheated area.

Table B1 indicates the number of cases with missing data. The imputations required: standardizing all measurements to outside measurements when the measurement was inside; characterizing a measurement as inside or outside when this was unknown; apportioning the total space between heated and unheated when this proportion was unknown; and estimating the total square footage when the measurements were not made or not usable.

### Scaling Up to Outside Measurements

As shown in Table B1, 4,729 homes had complete dimensions for the total area, the heated area, and the unheated area. The only adjustment required was to scale up the measurement for the 2,076 homes that were measured on the inside. The inside measurements were standardized to outside dimensions. The scaling value was determined for each housing unit as a quadratic function of HOMEAREA for the housing unit.<sup>1</sup>

$$\text{SCALE} = 1.034 + 6.5E-05 \times \text{HOMEAREA} - 6.0E-09 \times (\text{HOMEAREA})^2 \quad (1)$$

This formula indicates that the larger the HOMEAREA, the larger will be the scaling-up value. These scale values, which increased the inside measurements, ranged from 6.4 percent to 17.4 percent depending on the size of HOMEAREA. For any case where HOMEAREA was less than 500, SCALE was set to 1.064; for HOMEAREA greater than 3,000, SCALE was set to 1.174.

**Table B1. Completeness of Data on Square Footage of Housing Units**

Amount of Information Collected	Number of Households	Percent
Complete Set of Dimensions.....	4,729	82
Outside Measurement of Home.....	2,653	46
Inside Measurement of Home.....	2,076	36
Unknown Whether Dimensions are for Inside or Outside of the Home.....	715	12
Information Available on Heated and Unheated Areas.....	574	10
Information on Heated and Unheated Areas Also is Missing....	141	2
Basement Dimensions Missing.....	176	3
All Dimensions Missing or Not Usable.....	184	3
Total.....	<u>5,804</u>	<u>100</u>

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<sup>1</sup>This equation was developed in the following manner: a regression model of square footage for the 2,653 housing units with complete data was applied to the 2,076 housing units with complete inside dimensions. The ratio of the estimated outside measurements to the actual inside measurements was computed. A quadratic equation was fit that expressed the relationship between the ratio and the inside measurement.

## Treatment of Housing Units With Some Missing Data

The 574 cases lacking information as to whether the measurements were inside or outside measurements or where the measurements may have been a combination of both inside and outside measurements were treated to a hot-deck imputation scheme.<sup>1</sup> Those cases where the imputed method of measurement became inside were then scaled up to outside dimensions using equation 1.

The 141 cases lacking information on the ratio of heated to unheated space as well as whether the measurements were inside or outside were treated to a hot-deck procedure. The donor household provided information as to whether the measurement was inside or outside and also provided the ratio of heated to unheated area. The inside measurements were scaled up to outside dimensions.

For the 176 cases missing basement dimensions, the basement area was imputed using a simple regression based on the area of the first floor. The heated and unheated areas were determined or imputed and then added to known totals for the remaining floors. The total area was then scaled up to outside dimensions, if necessary.

### Regression Model

Regression equations were used for the 184 cases with no usable data. One of the regression equations is given below.

$$\begin{aligned} \text{HOMEAREA} = & -222 + 111 \times \text{NROOMS} + 137 \times \text{TYPEHOME} \\ & + 257 \times (\text{NCOMBATH} + .5 \times \text{NHAFBATH}) \\ & + 17.3 \times \text{BUILTYR} + 6.2 \times \text{INCOME79} \\ & + 16.8 \times (\text{DOOR1ALL} + \text{DOOR2ALL} + \text{DOOR3ALL} + \text{WINDOWS}) \\ & + 669 \times \text{BASEMENT} \end{aligned} \quad (2)$$

The variables within the equation are described in Table B2. Another equation used the size of the largest room as an additional independent variable for cases when this information was available. A third equation was developed for houses without basements.

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<sup>1</sup>See Glossary for explanation of hot-deck imputation.

Having imputed HOMEAREA using the regression model, a hot-deck procedure was used to impute the ratio of heated and unheated space. All estimates were then scaled up. This was necessary since the regression equation estimated inside dimensions.

Table B2. Variables in the Regression Equation Used to Impute the Total Square Footage of the Housing Unit

Variable Definition	Question Number
NROOMS - Number of Rooms in the home.....	7
TYPEHOME - Single-Family or Nonsingle-Family (Mobile home included with Nonsingle-Family).....	Item 1 in the Housing Unit Record Sheet
NCOMBATH - Number of Complete Bathrooms <sup>a</sup> .....	15
NHAFBATH - Number of Half-Bathrooms <sup>a</sup> .....	15
BUILTYR - Year the Home was Built.....	3
INCOME79 - 1979 Family Income.....	154
DOOR1ALL - Number of Sliding Glass Doors to the Outside <sup>a</sup> .....	59
DOOR2ALL - Number of Outside Doors with Glass Panels <sup>a</sup> .....	59
DOOR3ALL - Number of Regular Outside Doors <sup>a</sup> .....	59
WINDOWS - Number of Windows in the Home.....	65
BASEMENT - Basement in/Not in the Single-Family or Mobile Home.....	54

<sup>a</sup>For each of the variables NCOMBATH, NHAFBATH, DOOR1ALL, DOOR2ALL, and DOOR3ALL, the values for "five or more" were collapsed into one category.

<sup>b</sup>For this analysis, values for houses built from 1975 to 1981 have been collapsed into one category.

## **Appendix C**



## Appendix C

### LIMITATIONS OF THE DATA

#### Introduction

Data from the 1980 Residential Energy Consumption Survey are subject to many sources of sampling error, nonsampling error, and bias. Sampling error is a measure of the variability in the data because a sample of households was surveyed rather than the entire population. Because the survey used probability sampling techniques, it is possible to estimate sampling errors of the survey estimates and use these sampling errors as a guide in making inferences from the sample estimates to the total population.

Nonsampling error and bias are measures of variability due to the conduct of the survey. They can include population undercoverage during sampling, response bias and variance, interviewer error, coding and/or punching error, and nonresponse bias. 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 discussion of these procedures, see Appendix A--"How the Survey was Conducted"). In addition, response adjustments and ratio estimation were incorporated into the survey estimator to help reduce both sampling and nonsampling error. These procedures are also discussed in Appendix A.

#### Summary and Display of Sampling Errors

The form of the sampling error that is presented in this Appendix is the relative standard error. For a given survey statistic,  $Y'$ , the relative standard error,  $RSE(Y')$ , is given by

$$RSE(Y') = (SY'/Y') \times 100\%$$

Thus the standard error of  $Y'$ , the error form used in the text of this report, is given by

$$SY' = RSE(Y') \times Y'/100.$$

#### Averages and Aggregate Totals

Tables C3 to C15 present estimated relative errors in percent for averages and aggregate totals of square feet and other estimates which are not counts of households.

In order to generalize the error estimates for statistics other than household counts, we would still need an estimate of the number of households or some other measure of size over which the estimate applies. In addition, a different generalization may be required for each type of statistic (i.e., one for average square footage, another for average number of windows, another for amount of wood burned, etc.). For these reasons, the RSE's of statistics that are not household counts are displayed in tables and are not generalized.

Unless otherwise noted, the average is:

$$\Sigma V_i W_i / \Sigma W_i$$

in which

$V_i$  is the value of the variable for the  $i^{\text{th}}$  household and  
 $W_i$  is the weight for the  $i^{\text{th}}$  household.

The summation for most averages is over the entire sample of 6,051 households. When the value of the variable is zero, the household makes no contribution to the numerator but does contribute its weight to the denominator.

The following averages were calculated on a subset of the sample as indicated.

<u>Item</u>	<u>Base</u>
1. Average number of inches of batt insulation	1. Households reporting some inches of batt insulation
2. Average number of inches of loose-fill insulation	2. Households reporting some inches of loose-fill insulation
3. Average number of inches of batts and loose-fill insulation	3. Households reporting some inches of batts and some inches of loose-fill insulation
4. Average number of storm windows added	4. Households adding one or more storm windows
5. Average number storm doors added	5. Households adding one or more storm doors
6. Average number of cords burned per household	6. Households burning 1/3 of a cord or more
7. Average price per cord	7. Households burning 1/3 of a cord or more and purchasing 1/4 or more of their wood who reported a price in cord units for a purchase of wood in 1980.

#### Number of Households

The estimated relative errors were generalized for sample statistics that are numbers of households with a particular set of characteristics. Equation 2 (page 305) represents the generalization and Figure C1 presents a plot of the resulting error curve on a log to log scale.

There are two reasons why the summary error curve is used:

- (1) Showing an error estimate for every statistic in the detailed tables would mean producing an error table for each detailed table, thus greatly increasing the size of the report.

- (2) Because the half-sample variance estimates are themselves subject to sampling error, certain variance estimates would be misleading simply because they are outliers.

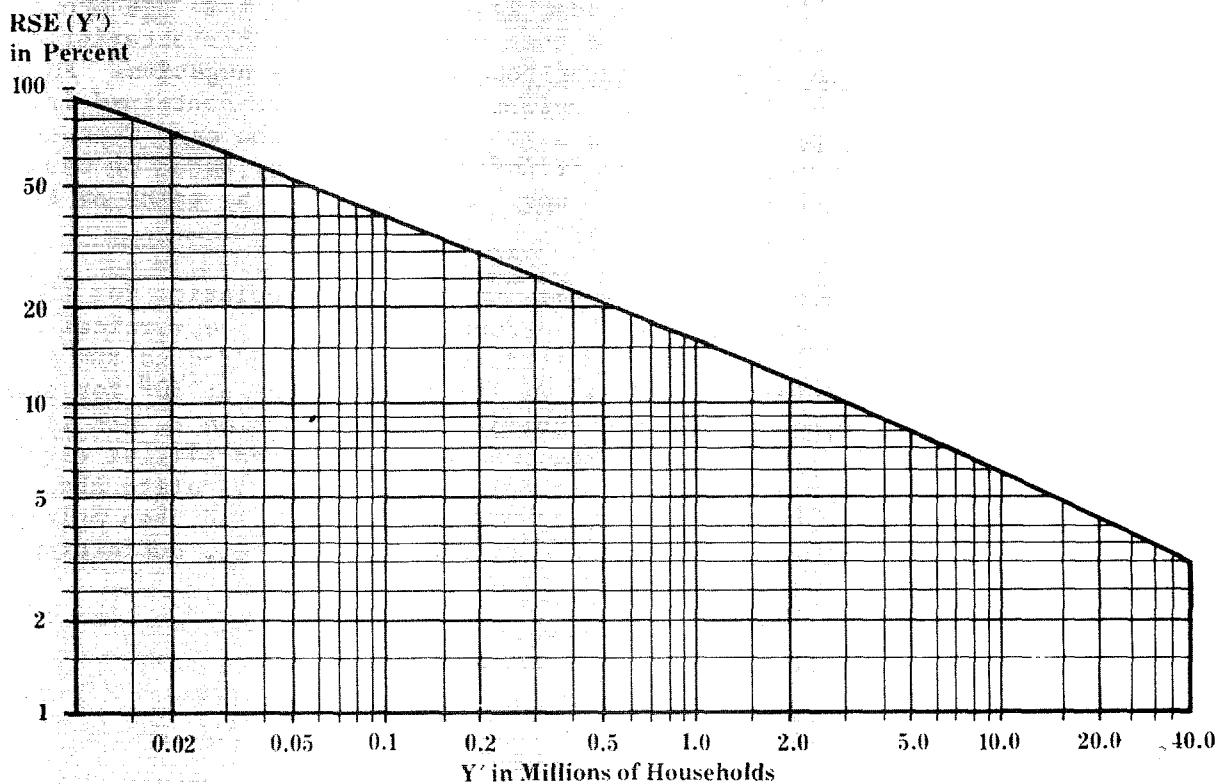
The error formula was constructed from variance estimates computed for selected statistics in the report by a least squares estimate of the model:

$$\log[RSE(Y')] = A + B + C[\log(Y')] + D[\log(Y')]^2 \quad (1)$$

where A, B, C, and D are the parameters whose least squares estimate determines the shape of the curve. The logarithms used in estimating the parameters of the model were all computed using base 10. The number of households Y' is given in units of millions of households. The value of RSE(Y') is given in percent. The value of B depends on the characteristics used in defining the cell. Equation 2 and Figure C1 are presented as if B=0. The adjustments to RSE (Y') for nonzero values of B will be discussed later.

$$\log[RSE(Y')] = 1.2005 - .4269 \times [\log(Y')] - .0241 \times [\log(Y')]^2 \quad (2)$$

**Figure C1. Curve to Use in Calculating the Relative Standard Error (RSE) for Estimates of the Number of Households**



### Use of Error Curve and Equation

An estimate of the standard error for any statistic in this report that is in terms of numbers of households can be obtained using either Equation 2 or Figure C1. The formula or figure can be applied directly only if the estimated number of households is less than one half of the appropriate control estimate. In this report, the categories for "SMSA Central City" and "SMSA Other" were combined into one SMSA category. Hence, the corresponding control estimates were combined. In Table C1, the number of households in SMSA's and those in non-SMSA areas is given by Census region. These are control estimates or sums of control estimates and are therefore not subject to sampling error. They are subject to possible design bias. When the estimated number of households exceeds one-half of the appropriate control estimate, then the standard error should be calculated for the statistic equal to the control estimate minus the estimate. This resulting standard error will also be the standard error of the original estimated household count.

The value of  $B$ , the cell definition factor, depends partly on the amount of clustering of the characteristics used in defining the cell. In particular, the value of  $B$  depends on the strength of the tendency of households with similar characteristics to live in groups within each replicate pair. If the characteristic is highly clustered, the value of  $B$  is positive. If the characteristic is widely spread out, the value of  $B$  is negative. For example, one characteristic used in the report is heating and cooling degree-days. People that live close to each other experience the same weather conditions; consequently, the value of  $B$  for heating and cooling degree-days is positive. On the other hand, there is some clustering of households headed by people of the same age group, but this tendency is less pronounced than for most other characteristics. As a result, the value of  $B$  for age of household head is negative. As a final example, consider the Census regions households are contained in. Everyone in the same pair of replicate groups lives in the same Census region. Therefore, there is no way of defining a cluster based on Census region within a pair of replicate groups. As a result, the value of  $B$  for Census regions is near zero.

Most cells in the tables of this report use two characteristics for their definition, one for the horizontal breakdown and one for the vertical breakdown. The factor for the vertical definition should be added to the factor for the horizontal definition. Table C2 lists the values of  $10^B$  for some of the cell definitions used in the tables. If a definition is not listed, use  $B=0.0$  ( $10^B=1.0$ ) or use a value for a variable that has similar clustering tendency. If we use  $10^B$  to adjust  $RSE(Y')$  we first calculate the initial estimate of  $RSE(Y')$  from Equation 2 or Figure C1 and then multiply this value by the values for  $10^B$  that correspond to the cell definition.

### Determination of Relative Standard Error

The following is a set of steps that give an algorithm for obtaining the relative standard error for any statistic in this report.

**Step 1:** Is the statistic a household count?

Yes: Go to Step 2 (Note: A simplified procedure for deriving relative standard errors may be followed. This procedure would use Steps 4 and 5 and would produce overestimates of sampling error for some statistics.)

No: Obtain the relative standard errors from Tables C3 to C1. If the statistic is a percentage, go to the section entitled "Percents" on page 311.

**Step 2:** Is the statistic one of the 20 control estimates given in Table A1 or a sum of two or more control estimates? (See Table A1, Appendix A.)

Yes: Set the RSE equal to zero and skip to Step 6.

No: Go to Step 3.

**Step 3:** Is the estimated household count less than one half of the appropriate control estimate? (See Table C1, Column C for these values).

Yes: Use estimate directly in Step 4.

No: Use the value equal to the control minus the estimate to calculate the RSE. Call this value the control complement (see Table C1, Column D) and go to Step 4.

**Step 4:** Use Figure C1 or Equation 2 to obtain the initial RSE of the estimate or its control complement. Denote this value as RSE (I).

**Step 5:** Is the vertical or horizontal cell definition that corresponds to the household count one of the clustering factors listed in Column A of Table C2 or similar to one that is listed?

Yes: Multiply the RSE (I) by the corresponding factor or factors and go to Step 6.

No: Use RSE (I) as is and go to Step 6.

Step 6: Was the RSE (I) computed using the control complement?

Yes: RSE of  $Y'$  = RSE (I)  $\times$  (Control Complement)/ $Y'$

No: RSE of  $Y'$  = RSE (I)

Table C1. Population Control Estimates for Use In Calculating Sampling Error  
(Millions of Households)

Column A Type of Aggregate	Column B Control Estimates	Column C Upper Bound for Direct Application of Formula C1 or Figure C1	Column D Control Complement of $Y'$
National.....	81.6	40.8	81.6 - $Y'$
Census Region			
Northeast.....	17.7	8.8	17.7 - $Y'$
North Central....	21.1	10.5	21.1 - $Y'$
South.....	27.0	13.5	27.0 - $Y'$
West.....	16.0	8.0	16.0 - $Y'$
SMSA Status			
SMSA.....	55.6	27.8	55.6 - $Y'$
Non-SMSA.....	26.0	13.0	26.0 - $Y'$

Note: Column C = Column B/2.

**Table C2. Clustering Factor for Calculation of Sampling Error**

<u>Column A Cell Definition</u>	<u>Column B Value of 10<sup>B</sup></u>
Heating and Cooling Degree-Days.....	1.5
Availability of Natural Gas	
for Nonusers of Natural Gas.....	1.2
Utilities Paid by Household.....	1.2
Use Any Natural Gas.....	1.1
Main Heating Fuel.....	1.1
Type of Housing Structure (Crossed with Own/Rent).....	1.1
Main Heating Equipment.....	1.1
Main Cooking Fuel.....	1.1
Main Outside Wall Material.....	1.1
Main Water-Heating Fuel.....	1.1
Urban/Rural Status.....	1.1
Origin (Race).....	1.1
Number of Stories.....	1.1
Census Region.....	1.0
SMSA Status.....	1.0
Secondary Heating Fuel.....	1.0
Central Main Heating System for Building.....	1.0
Year House Built.....	1.0
Amount of Wood Burned.....	1.0
Types of Appliances Used.....	1.0
Own/Rent.....	.9
Number of Windows.....	.9
Number of Complete and Half-Bathrooms.....	.9
Income.....	.9
Size of Dwelling (Square Feet or Number of Rooms).....	.8
Insulation Characteristics.....	.8
Conservation Measures (Storm Windows Added, etc.).....	.8
Demographic Characteristic (Age of Head and Number of Household Members).....	.8

Example 1: Table 13 shows that 14.3 million households heat with electricity nationally.

Step 1: This is a household count.

Step 2: This is not a control value.

Step 3: The upper boundary for national statistics is 40.8, thus enabling either Equation 2 or Figure C1 to be directly applied to  $Y' = 14.3$ .

Step 4: Equation 2 gives  $\log [RSE(Y')] = 0.68$  and  $RSE(Y') = 4.7$  percent.

Using Figure C1, and reading up from 14.3 million households on the horizontal axis until the curve and then to the left to the vertical axis, the RSE is read at 4.7 percent.

Step 5: The factor for main heating fuel is 1.1.  
This gives an RSE of  $(4.7)(1.1) = 5.2$  percent.

Step 6: The relative standard error equals 5.2 percent.

Example 2: Table 15 shows that 11.1 million households heat with natural gas in the West.

Step 1: This is a household count.

Step 2: This is not a control value.

Step 3: The upper boundary for using Equation 2 or Figure C1 on household counts for the West is 8.0 million households. Therefore, the control complement  $= 16.0 - 11.1 = 4.9$  should be used in determining the RSE.

Step 4: Equation 2 or Figure C1 gives RSE = 7.8 percent.

Step 5: The factor for main heating fuel is 1.1; the factor for Census region is 1.0. This gives an RSE of 8.6 percent for the 4.85 million households that do not heat with natural gas in the West.

Step 6: The relative standard error equals  $(8.6)(4.9)/(11.1) = 3.8$  percent.

The standard error of 0.4 million households applies to both the 11.1 million households that heat with natural gas in the West and the 4.9 million households that do not.

Percents. Estimates of the relative standard errors can be obtained using the approximation

$$\text{RSE}(X'/Y') = \sqrt{\text{RSE}^2(X') - \text{RSE}^2(Y')} .$$

This approximation applies to percentages derived from aggregate totals and numbers of households. For some percentages, the estimate of the RSE can be obtained directly from Tables C3 to C15.

#### Computation of Sampling Errors

The complex multi-stage, multi-frame design of the survey makes it virtually impossible to construct an exact algebraic variance estimator. The method used to produce variances for this survey is balanced half-sampled replication (see References 1 and 2.) In order to apply the half-sample technique to this survey, the 131 Primary Sampling Units (PSU's) were grouped into 81 strata. Thirty-one of the strata were self-representing; that is, they consisted of large metropolitan areas that came into the sample with certainty. In these strata, segments were divided into two replication groups. Each of the remaining 50 strata consisted of two sample PSU's belonging to one of 17 intersections created by the overlap between the 10 Federal regions and the nine Census Divisions. The two replication groups in these strata consisted of one PSU each.

In order to save time and effort, a fully balanced half-sample design was not used. Instead, the half-samples were balanced only among strata in the same Census region. If a fully balanced design were used, it would require 82 half-samples. By balancing only within Census regions, a balanced design could be constructed using 32 half-samples.

The survey was constructed so that the results in each Census region can stand alone. No PSU lines cross Census region boundaries. The nonself-representing PSU's were paired within Census regions. All controlled selection was done within each Census region. The ratio estimation was also done within each Census region. Consequently, the national totals can be considered to be the sum of four independent totals for the four Census regions. Therefore, the variances of a national total is the sum of the variance for its four corresponding regional totals. This fact was used as one justification for balancing the half-sample design only within Census regions.

The 32 half-sample design is defined by a  $32 \times 81$  matrix of +1's and -1's. The 32 rows correspond to the 32 half-samples and the 81 columns correspond to the 81 pairs of replication groups. The +1's and -1's determine which of the groups in the pairs is used in each half-sample. All column totals are 0. Therefore, each of the groups is used in exactly 16 of the halfsamples. The columns for sets of pairs that fall within the same Census region are orthogonal. This is not necessarily true for columns corresponding to pairs that fall into different Census regions.

The  $32 \times 81$  design matrix was constructed using a  $32 \times 32$  orthogonal matrix adapted from an article by Plackett and Burman (Reference 3). The rows of this  $32 \times 32$  matrix were randomly sorted. The sorting preserves orthogonality. For each Census region,  $K$  columns were randomly selected from the sorted matrix. Therefore,  $K$  is the number of replication groups in a Census region. After the columns for a Census region have been selected, the rows are randomly sorted again.

Without the random sortings, all of the 81 columns would be orthogonal with each other except possibly three other columns that would be identical to it. The three other columns would correspond to pairs in the three other Census regions. When two columns are identical, it means the groups corresponding to the +1's will always be in 16 half-samples together. (The groups corresponding to the -1's would follow a similar pattern.) Random sorting makes the possibility of two identical rows zero for all practical purposes.

Variance estimates for selected survey statistics were created by computing 32 half-sample estimates for each statistic. If a +1 falls in the  $i$ th row and  $j$ th column of the design matrix, the replication group corresponding to the +1 in the  $j$ th pair was used in the  $i$ th half-sample. The sampling weights in each half-sample were ratio-adjusted upward so that the total number of households in each Census region classified by SMSA status corresponded to the control total for that cell (see Table A1, Appendix A).

As a result of using control estimates, the total number of households in each of the 12 cells (Census region classified by SMSA status) is the same for all half-samples. The variance for these 12 totals, then, is zero. Any errors in these numbers are biases. In particular, they are affected by any undercount or overcount in the 1980 Census.

The half-sample variance estimate for the survey estimate  $Y'$  of characteristic  $Y$  is given by

$$s_{Y'}^2 = (Y'_i - Y')^2 / 32$$

where  $Y'_i$  is the  $i$ th half-sample estimate of  $Y$ , and  $Y'$  is the full sample estimate of  $Y$ . The half-sample procedure measures variability due to sampling error and random response variance.

#### References

1. National Center for Health Statistics: "Replication: An Approach to the Analysis of Data From Complex Surveys." Vital and Health Statistics. Public Health Service Publication No. 1000 - Series 2 - No. 14., Washington: U.S. Government Printing Office, April 1966.

2. National Center for Health Statistics: "Pseudoreplication: Further Evaluation and Application of the Balanced Half-Sample Technique," Vital and Health Statistics. Public Health Service Publication No. 1000 - Series 2 - No. 31., Washington: U.S. Government Printing Office, January 1969.
3. Plackett, R.L., and Burman, J.P.: "The Design of Optimum Multifactorial Experiments." Biometrika 33: pp. 305-325, 1946.

Table C3. Relative Standard Errors (RSE) for Averages by Census Region, Area Type, and SMSA/Non-SMSA  
(Percent)

Average Number of:	Total	Census Region				Area Type		SMSA/Non-SMSA	
		North		South	West	Urban	Rural	SMSA	Non-SMSA
		East	Central						
Windows.....	1.2	2.7	3.0	1.8	2.5	1.4	2.2	1.5	1.9
Large.....	4.1	9.1	6.7	8.7	6.2	3.7	7.0	4.7	6.9
Medium.....	1.7	2.9	3.1	3.0	4.0	1.7	3.2	2.2	2.5
Small.....	2.2	5.2	5.3	4.7	5.0	2.8	4.5	2.7	3.8
Storm.....	2.7	3.7	4.3	7.8	10.7	3.6	4.1	3.8	4.4
Large.....	5.8	13.1	7.3	10.4	13.7	6.7	6.7	6.4	8.0
Medium.....	2.9	3.9	4.7	8.5	12.0	3.6	4.6	4.3	4.6
Small.....	4.2	7.3	6.4	9.9	14.4	5.5	6.7	5.2	7.1
Added in 1979 or 1980.....	3.9	9.5	8.4	5.0	7.2	4.6	7.1	3.8	8.6
Doors.....	1.0	1.6	1.7	1.8	2.4	1.2	1.6	1.2	1.6
Standard.....	1.0	1.7	2.1	2.2	2.0	1.0	1.8	1.0	2.0
Sliding Glass.....	5.8	9.6	9.3	11.1	8.2	7.9	3.6	7.5	5.2
Storm.....	2.3	2.2	3.5	6.0	6.8	3.4	3.2	3.8	2.4
Standard.....	2.5	3.0	3.9	6.2	6.9	3.3	3.2	4.0	2.6
Sliding Glass.....	5.4	10.1	10.4	12.0	9.2	8.8	6.8	7.5	8.4
Added in 1979 or 1980.....	2.8	4.8	3.4	5.5	4.5	2.4	4.9	3.0	5.6
Roof or Ceiling Insulation (inches)									
Batts Only.....	2.0	3.1	5.0	3.1	4.2	2.8	2.8	3.0	2.7
Loose-Fill Only.....	2.2	12.9	3.1	3.7	5.7	2.1	3.7	2.3	4.3
Batts and Loose- Fill.....	2.7	5.9	3.6	6.6	7.3	3.4	4.4	3.1	3.8

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and  
End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential  
Energy Consumption Survey.

Table C4. Relative Standard Errors (RSE) for Averages by Housing Structure (Percent)

Average Number of:	Single-Family Detached			Single-Family Attached			Building with 2 to 4 Units			Building with 5 or more Units			Mobile Home			
	Total	Total	Rent	Total	Total	Rent	Total	Own	Rent	Total	Own	Rent	Total	Own	Rent	
Windows.....	1.2	1.2	1.3	1.8	4.6	5.5	10.3	3.2	6.6	2.9	3.1	11.8	3.0	2.9	3.5	
Large.....	4.1	5.3	4.9	14.3	21.1	20.5	29.5	10.4	20.7	10.7	8.7	20.3	11.3	10.9	11.1	
Medium.....	1.7	1.6	1.8	2.5	7.1	8.3	14.9	4.1	9.6	3.9	6.6	22.5	7.2	4.7	5.6	
Small.....	2.2	2.6	2.6	5.5	9.3	10.7	21.3	8.3	15.2	9.0	8.1	32.2	9.2	6.0	7.1	
Storm.....	2.7	3.0	3.2	5.8	9.4	12.2	21.9	7.5	13.7	7.9	9.2	44.6	8.8	9.4	11.9	
Large.....	5.8	6.6	6.5	15.5	24.9	30.7	29.6	15.4	24.3	15.5	14.3	40.7	12.9	21.5	21.8	
Medium.....	2.9	3.0	3.4	6.0	11.2	14.1	27.1	8.0	15.8	7.2	12.5	66.1	12.9	11.2	14.7	
Small.....	4.2	4.2	4.8	4.7	13.0	15.1	16.6	31.4	17.7	22.4	23.1	20.9	83.3	21.7	11.8	14.5
Added in 1979 or 1980.....																
Doors.....	1.0	1.1	1.2	1.9	4.2	4.9	5.9	3.1	5.7	3.5	NA	NA	NA	NA	NA	
Standard.....	1.0	1.1	1.2	2.1	3.7	4.3	8.3	2.9	5.1	3.3	5.6	29.9	5.1	1.9	2.7	
Sliding Glass.....	5.8	6.6	6.7	16.7	14.8	19.3	28.8	18.9	37.0	20.9	13.8	16.5	15.5	20.4	22.4	
Storm.....	2.3	2.3	2.5	5.1	13.7	17.1	15.5	7.1	16.2	11.6	15.6	31.8	16.8	8.5	12.2	
Standard.....	2.5	2.5	2.6	5.1	14.0	17.0	17.1	7.1	16.5	11.3	19.1	60.7	20.6	8.6	12.2	
Sliding Glass....	5.4	5.4	5.2	5.5	24.5	32.5	37.8	42.2	24.7	46.1	30.6	21.8	35.6	28.0	20.4	20.8
Added in 1979 or 1980.....																
Roof or Ceiling Insulation (inches)																
Batts Only.....	2.0	2.3	2.4	4.4	5.2	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Loose-Fill Only.....																
Batts and Loose- Fill.....	2.7	2.6	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

NA = Not Available because data were not collected or not tabulated.

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and  
End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential  
Energy Consumption Survey.

Table C5. Relative Standard Errors (RSE) for Averages by Size of Residence (Percent)

Average Number of:	Total	Measured Heated Square Footage of Residence					
		Less Than 600	600 to 999	1,000 to 1,500	1,600 to 1,999	2,000 to 2,399	2,400 to 2,999
Windows.....	1.2	3.9	1.8	1.6	1.8	2.1	4.0
Large.....	4.1	10.8	7.1	7.7	5.2	7.3	8.3
Medium.....	1.7	6.4	3.0	2.7	2.4	2.8	3.6
Small.....	2.2	9.2	4.3	3.2	5.6	5.1	5.9
Storm.....	2.7	12.0	5.1	3.8	3.6	5.1	8.3
Large.....	5.8	27.3	12.1	7.9	5.7	11.3	5.1
Medium.....	2.9	12.3	6.1	4.3	3.7	4.8	11.0
Small.....	4.2	22.5	7.6	5.7	8.5	5.4	6.1
Doors.....	1.0	3.3	1.8	.9	2.2	1.6	7.9
Standard.....	1.0	3.6	1.9	.9	2.6	1.7	2.4
Sliding Glass.....	5.8	21.0	11.1	6.6	7.4	8.3	3.7
Storm.....	2.3	11.2	3.6	2.6	3.6	4.5	10.4
Standard.....	2.5	12.3	4.0	2.8	3.9	5.0	4.1
Sliding Glass.....	5.4	37.2	20.5	11.9	9.5	9.0	4.9
Roof or Ceiling Insulation (inches)							
Batts Only.....	2.0	40.6	3.2	2.3	3.8	4.6	5.1
Loose-Fill Only....	2.2	NA	5.9	3.3	4.4	4.9	3.8
Batts and Loose- Fill.....	2.7	NA	9.5	4.9	9.6	5.0	5.3

NA = Not available because the sample did not contain a sufficient number of cases to compute the standard error.

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential Energy Consumption Survey.

Table C6. Relative Standard Errors (RSE) for Averages by Family Income (Percent)

Average Number of:	1979 Family Income						1979 Family Income					
	Less Than \$5,000			\$5,000-\$9,999			\$10,000-\$14,999			\$15,000-\$19,999		
	To Total	To Total	To Total	To Total	To Total	To Total	To Total	To Total	To Total	To Total	To Total	To Total
Windows.....	1.2	3.9	2.3	1.9	2.1	2.5	2.0	2.9	3.4	2.9	3.4	2.9
Large.....	4.1	8.1	7.9	9.2	8.0	7.4	5.7	8.4	8.1	7.2	8.1	7.2
Medium.....	1.7	4.7	2.5	3.2	2.7	4.0	2.7	4.6	4.0	3.3	4.0	3.3
Small.....	2.2	5.9	3.2	4.5	3.6	3.5	4.3	5.5	7.9	6.4	7.9	6.4
Storm.....	2.7	8.3	4.3	4.3	4.2	4.7	4.0	7.3	8.6	6.0	8.6	6.0
Large.....	5.8	11.3	10.0	13.8	13.6	9.8	6.6	7.7	14.6	9.9	14.6	9.9
Medium.....	2.9	9.5	4.6	5.2	3.9	5.7	4.9	8.0	9.4	6.7	9.4	6.7
Small.....	4.2	11.1	9.8	6.7	8.2	6.9	7.2	10.0	16.0	11.8	16.0	11.8
Added in 1979 or 1980.....	3.9	15.1	9.4	11.7	11.8	11.1	8.0	10.3	12.3	12.9	12.3	12.9
Doors.....	1.0	2.9	2.0	1.7	1.4	1.8	1.3	2.4	2.6	2.3	2.4	2.3
Standard.....	1.0	3.0	2.1	1.6	1.5	2.0	1.3	2.4	2.8	2.3	2.4	2.3
Sliding Glass.....	5.8	17.7	12.2	8.5	6.9	7.5	7.7	11.7	18.2	13.1	18.2	13.1
Storm.....	2.3	7.1	4.7	3.8	4.6	4.5	2.9	6.0	7.4	5.7	7.4	5.7
Standard.....	2.5	7.3	5.0	3.9	4.2	4.7	3.0	6.4	7.8	5.9	7.8	5.9
Sliding Glass.....	5.4	17.7	12.2	8.5	6.9	7.5	7.7	11.7	18.2	13.1	18.2	13.1
Added in 1979 or 1980.....	2.8	12.3	9.1	6.9	5.2	7.9	5.1	5.8	9.6	9.2	9.6	9.2
Roof or Ceiling Insulation (inches)												
Batts Only.....	2.0	5.9	3.2	6.5	4.0	3.2	3.7	5.8	5.2	5.2	5.8	5.2
Loose-Fill Only.....	2.2	6.2	4.8	5.6	3.8	6.0	3.3	8.9	5.3	5.3	8.9	5.3
Batts and Loose-fill.....	2.7	10.0	8.0	15.5	5.4	5.3	4.8	13.0	6.3	6.3	13.0	6.3

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential Energy Consumption Survey.

Table C7. Relative Standard Errors (RSE) For Averages by Main Heating Fuel  
(Percent)

Average Number of:	Total	Main Heating Fuel				Wood	Other/ None
		Fuel Oil or Kerosene	Electricity	Liquid Petroleum Gas	2.5		
Windows.....	1.2	1.4	2.2	2.7	4.0	8.5	
Large.....	4.1	4.3	8.7	6.4	17.6	11.7	33.9
Medium.....	1.7	1.8	2.2	4.5	4.3	6.2	7.6
Small.....	2.2	2.2	4.6	7.6	8.3	9.5	22.2
Storm.....	2.7	3.6	3.9	10.1	8.0	9.0	30.4
Large.....	5.8	5.6	15.1	10.9	24.8	11.8	56.3
Medium.....	2.9	3.9	4.1	11.6	9.2	9.9	26.8
Small.....	4.2	4.6	6.7	12.7	10.7	14.0	41.5
Doors.....	1.0	1.1	2.6	2.2	2.4	2.3	6.2
Standard.....	1.0	1.1	2.5	3.1	2.2	2.9	3.1
Sliding Glass.....	5.8	6.9	11.4	7.7	22.5	12.5	52.5
Storm.....	2.3	2.6	3.9	10.3	8.2	5.5	24.0
Standard.....	2.5	2.9	4.0	11.2	7.8	6.7	22.1
Sliding Glass.....	5.4	7.8	12.9	12.5	33.2	17.0	66.2
Roof or Ceiling Insulation (inches)							
Batts Only.....	2.0	3.5	2.5	3.5	7.1	4.6	13.2
Loose-fill Only.....	2.2	2.2	8.0	3.9	6.2	14.5	NA
Batts and Loose-fill.....	2.7	2.8	7.3	9.3	13.9	9.6	NA

NA = Not available because the sample did not contain a sufficient number of cases to compute the standard error.

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential Energy Consumption Survey.

Table C8. Relative Standard Errors (RSE) for Averages by Heating and Cooling Degree-Days  
(Percent)

Average Number of:	Total	Heating Degree-Days (HDD) and Cooling Degree-Days (CDD)						<4,000 HDD & <4,000 CDD	
		<2,000 CDD and >2,000 CDD and <2,000 HDD		<2,000 CDD and >2,000 CDD and <2,000 HDD		>2,000 CDD and >2,000 CDD and <4,000 HDD			
		5,500 to 7,000 HDD	4,000 to 5,499 HDD	>5,499 HDD	<4,000 HDD	<4,000 HDD	<4,000 HDD		
Windows.....	1.2	3.3	2.8	3.0	2.2	2.2	2.8		
Large.....	4.1	8.3	5.0	8.0	7.1	13.4			
Medium.....	1.7	4.3	3.1	3.2	3.7	4.8			
Small.....	2.2	6.2	5.0	5.3	5.3	7.9			
Storm.....	2.7	4.1	4.4	5.7	13.0				
Large.....	5.8	9.1	6.8	13.4	20.0	16.0			
Medium.....	2.9	4.6	4.7	5.7	14.3	20.1			
Small.....	4.2	8.7	7.0	8.8	11.9	17.0			
Doors.....	1.0	2.3	1.7	1.7	2.8	2.2			
Standard.....	1.0	3.1	1.9	2.1	3.0	2.7			
Sliding Glass.....	5.8	7.1	8.7	8.1	10.0	20.5			
Storm.....	2.3	2.9	4.4	4.2	10.5	17.3			
Standard.....	2.5	3.8	5.0	4.9	12.0	17.7			
Sliding Glass.....	5.4	8.6	10.0	6.3	16.6	24.1			
Roof or Ceiling Insulation (Inches)									
Batts Only.....	2.0	3.7	4.9	3.5	4.2	3.3			
Loose-fill only.....	2.2	4.3	4.3	4.1	4.3	6.8			
Batts and Loose-fill.....	2.7	6.1	3.6	6.8	7.5	5.3			

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and  
End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential  
Energy Consumption Survey.

Table C9. Relative Standard Errors (RSE) for Averages by Year House Built  
(Percent)

Average Number of:	Total	Later	Year House Built					
			1975 or	1970 to	1965 to	1950 to	1940 to	1939 or
	1974	1969	1964	1959	1949	Earlier		
Windows.....	1.2	3.9	3.1	3.9	3.1	1.7	3.3	2.1
Large.....	4.1	8.1	5.9	13.3	8.6	4.7	8.3	7.7
Medium.....	1.7	6.0	5.0	4.7	4.2	2.2	3.7	2.6
Small.....	2.2	6.9	7.3	6.0	7.0	4.0	7.9	4.2
Storm.....	2.7	9.0	6.3	6.8	6.0	4.2	7.8	4.1
Large.....	5.8	9.2	10.9	14.0	9.7	8.7	12.5	13.1
Medium.....	2.9	10.3	7.5	7.3	6.9	4.8	7.9	4.1
Small.....	4.2	12.0	11.0	10.1	10.7	6.4	14.8	5.9
Doors.....	1.0	2.8	2.1	3.4	3.4	1.9	3.6	1.8
Standard.....	1.0	3.0	2.6	2.4	3.5	1.6	3.7	1.8
Sliding Glass.....	5.8	10.2	6.0	10.1	11.7	12.5	13.2	14.3
Storm.....	2.3	8.0	6.6	6.4	4.7	4.3	6.8	3.9
Standard.....	2.5	8.7	7.9	6.4	5.5	4.1	7.0	4.0
Sliding Glass.....	5.4	10.3	9.7	13.4	10.9	16.4	16.2	17.6
Roof or Ceiling Insulation (inches)								
Batts Only.....	2.0	4.2	5.5	8.9	4.7	3.6	5.2	2.8
Loose-fill Only.....	2.2	4.0	5.5	7.1	7.3	5.4	5.6	3.1
Batts and Loose-fill.....	2.7	11.1	3.7	8.3	6.3	5.3	7.0	6.5

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and  
End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential  
Energy Consumption Survey.

Table C10. Relative Standard Errors (RSE) for Averages by Selected Demographic Characteristics  
(Percent)

Average Number of Household Members	Age of Household Head						Race						Number of Household Members						1			2			3			4			
	35			36			60			and Over			White Other			Black			1			2			3			4			
	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total	Less than 59	to 60	Total			
Windows.	1.2	1.6	1.8	2.0	1.2	2.0	3.1	2.5	1.3	2.3	2.3	2.3	1.8	2.0	2.0	2.0	2.0	2.0	5.9	5.9	5.9	5.9	5.9	5.9	6.6	6.6	6.6	6.6			
Large.	4.1	4.2	5.8	6.0	4.2	8.4	7.4	5.6	8.5	5.6	8.5	8.5	8.5	5.9	5.9	5.9	5.9	5.9	5.9	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6		
Medium.	1.7	2.4	2.2	2.7	1.7	4.1	3.7	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2		
Small.	2.2	3.4	3.4	3.8	2.3	4.9	5.2	3.1	5.4	5.4	5.4	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4		
Storm.	2.7	3.6	3.7	4.1	2.6	7.0	5.4	3.2	3.5	3.5	3.5	3.5	3.5	5.2	5.2	5.2	5.2	5.2	5.2	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8		
Large.	5.8	6.4	7.2	8.0	6.1	17.2	10.7	8.1	9.2	9.2	9.2	9.2	9.2	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	
Medium.	2.9	4.0	4.1	4.3	2.7	9.0	6.6	4.3	3.3	3.3	3.3	3.3	3.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	
Small.	4.2	7.1	5.3	6.4	4.1	10.1	6.3	4.5	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	
Doors.	1.0	1.2	1.6	1.9	1.1	2.8	2.1	1.7	1.2	1.2	1.2	1.2	1.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	
Standard.	1.0	1.5	1.3	1.8	1.2	3.1	2.0	1.6	1.4	1.4	1.4	1.4	1.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Sliding Glass.	5.8	6.9	6.7	11.5	5.9	19.4	11.6	10.1	5.7	5.7	5.7	5.7	5.7	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	
Sliding Glass.	5.8	6.9	6.7	11.5	5.9	19.4	11.6	10.1	5.7	5.7	5.7	5.7	5.7	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	
Storm.	2.3	4.7	2.5	4.1	2.3	8.8	4.2	3.2	2.7	2.7	2.7	2.7	2.7	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	
Standard.	2.5	5.2	2.5	4.3	2.6	9.0	4.7	3.4	2.8	2.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	
Sliding Glass.	5.4	9.0	5.9	15.5	5.2	28.3	8.3	10.3	10.9	10.9	10.9	10.9	10.9	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	
Roof or Ceiling Insulation (inches)																															
Batts Only.	2.0	3.5	3.1	2.8	1.8	24.0	4.2	2.2	3.4	3.4	3.4	3.4	3.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Loose-fill Only.	2.2	3.8	3.1	4.3	2.2	7.0	6.6	3.7	3.7	3.7	3.7	3.7	3.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	
Batts and Loose-fill.	2.7	5.8	3.5	3.2	2.7	NA	5.4	5.9	5.2	5.2	5.2	5.2	5.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	

NA = Not available because the sample did not contain a sufficient number of cases to compute the standard error.

Source: Residential and Commercial Branch, Energy End Use Division, Office of Energy Markets and End Use, Energy Information Administration, U.S. Department of Energy, The 1980 Residential Energy Consumption Survey.

TABLE C11. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 9 (PERCENT)

HOUSEHOLD CHARACTERISTICS	HOUSEHOLD HOLDINGS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER			
		MEDIAN		SINGLE-FAMILY UNIT	MULTI-FAMILY UNIT	MOBILE HOME	HOUSEHOLD MEMBER		
		HEATED AND HEATED	UNHEATED	HEATED	UNHEATED	HEATED	UNHEATED		
TOTAL HOUSEHOLDS.....	-	1.4	1.7	1.5	1.2	1.8	2.4	1.3	
CENSUS REGION									
NORTHWEST.....	-	2.3	2.2	4.1	3.3	2.4	2.5	2.6	
NORTH CENTRAL.....	-	2.0	1.8	3.1	2.4	1.8	2.5	2.0	
SOUTH.....	-	2.4	2.0	2.6	2.1	1.9	3.1	3.3	
WEST.....	-	3.0	3.3	3.5	3.1	3.2	7.2	2.1	
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS									
<2,000 CDD AND >7,000 HDD.....	18.8	4.8	4.8	5.5	5.1	4.1	4.9	6.2	4.1
<2,000 CDD AND 5,500 TO 7,000 HDD.....	7.6	1.9	1.4	3.8	2.7	1.5	2.6	5.9	2.0
<2,000 CDD AND 4,000 TO 5,499 HDD.....	8.6	2.8	2.7	4.1	3.2	2.7	2.5	5.2	3.2
<2,000 CDD AND <4,000 HDD.....	8.5	2.9	2.9	3.1	2.8	2.8	7.1	4.9	2.5
>2,000 CDD AND <4,000 HDD.....	7.6	3.4	3.5	4.7	3.3	3.3	6.3	3.7	
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)									
LESS THAN 400.....	6.7	3.4	2.0	1.4	1.2	6.1	1.7	5.5	4.3
600 TO 999.....	3.1	1.2	.9	.9	.7	1.1	1.0	1.3	
1,000 TO 1,599.....	7.8	1.1	.4	.9	.6	.5	.7	2.3	1.9
1,600 TO 1,999.....	4.3	1.2	.2	.6	.5	.2	.9	1.7	1.9
2,000 TO 2,395.....	4.9	1.0	.3	.6	.3	1.4	30.7	2.7	
2,400 TO 2,999.....	5.8	1.0	.3	.7	.7	2.2	NA	2.5	
3,000 OR MORE.....	7.1	1.8	2.2	1.1	1.7	2.0	NA	3.8	
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)									
LESS THAN 400.....	6.3	1.2	1.5	1.1	1.1	3.4	1.6	5.6	4.4
600 TO 999.....	3.4	.7	.9	.8	.9	1.7	1.2	1.0	1.7
1,000 TO 1,599.....	3.4	.4	.7	.7	.6	1.0	2.2	1.9	
1,600 TO 1,999.....	4.4	.3	.6	.5	.8	1.0	3.0	4.4	2.1
2,000 TO 2,395.....	3.0	.3	1.0	.3	1.7	1.1	5.3	27.1	2.6
2,400 TO 2,999.....	4.8	.2	1.0	.4	1.0	9.6	0	2.3	
3,000 OR MORE.....	5.2	1.2	1.9	1.3	2.1	1.9	5.3	NA	2.4

ESTIMATES AT END OF TABLE

TABLE C11. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 9 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
	HOUSE-HOLDS (MILLIONS)	MEDIAN		HEATED		HEATED		
		HEATED AND UNHEATED	HEATFD	HEATFD AND UNHEATFD	UNHEATFD			
<b>UTILITIES PAID BY HOUSEHOLD</b>								
ALL PAID BY HOUSEHOLD.....	0.8	1.4	1.2	1.7	1.4	1.2	2.2	
SOME PAID, SOME INCLUDED IN RENT.....							1.3	
RNT.....	7.3	4.0	3.9	3.5	3.6	3.6	3.4	
ALL INCLUDED IN RENT.....	9.9	5.0	5.1	4.5	4.3	5.1	6.0	
OTHER.....	17.4	9.9	9.4	7.9	9.2	10.7	9.2	
<b>OWN/RENT</b>								
OWN....	1.6	1.4	1.3	1.6	1.5	1.2	5.0	
RENT....	3.2	1.5	1.5	1.7	1.5	2.4	2.0	
<b>TYPE OF HOUSING STRUCTURE</b>								
SINGLE-FAMILY DETACHD	1.8	1.4	1.1	1.8	1.2	1.1	1.1	
OWN....	2.2	1.4	1.2	1.9	1.3	1.2	1.4	
RENT....	5.2	2.6	2.5	4.1	2.8	2.5	3.2	
SINGLE-FAMILY ATTACHD	12.1	4.7	5.2	3.8	7.8	5.2	6.7	
OWN....	13.5	4.2	4.5	4.1	5.7	4.5	7.7	
RENT....	20.0	11.8	10.2	20.9	16.5	10.2	9.7	
BUILDING WITH 2 TO 4 UNITS	6.4	2.2	1.9	2.2	1.8	-	3.7	
OWN....	10.0	4.2	4.0	4.2	4.7	4.0	5.4	
RENT....	7.5	2.4	1.9	1.7	1.7	1.9	3.3	
BUILDING WITH 5 OR MORE UNITS	5.1	3.6	3.4	3.9	3.7	-	3.5	
OWN....	26.5	12.8	12.9	15.3	15.3	-	12.6	
RENT....	5.2	3.1	3.0	3.9	3.7	3.0	3.0	
MOBILE HOME	10.5	2.5	2.4	2.3	2.3	-	3.2	
OWN....	17.1	3.1	3.0	2.9	2.9	-	3.7	
RENT....	16.6	5.5	4.7	3.4	3.2	-	6.1	

S.E. NOTIFS AT END OF TABLE

TABLE C11. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 9 (PERCENT)—CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSE-HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		
		MEDIAN		HEATED AND UNHEATED	HEATED AND UNHEATED		SINGLE-FAMILY UNIT	MULTI-FAMILY UNIT		MOBILE HOME
		HEATED	UNHEATED		HEATED	UNHEATED		HEATED	UNHEATED	
<b>YEAR HOUSE BUILT</b>										
1939 OR EARLIER	3.7	2.2	2.4	3.6	2.6	4.5	4.9	3.3	5.5	40.7
1940 TO 1949	5.4	3.6	3.8	4.5	2.8	2.8	2.6	2.3	6.9	2.9
1950 TO 1959	6.0	2.0	2.0	5.9	5.0	5.0	7.6	9.0	18.5	2.9
1960 TO 1964	5.4	3.2	2.6	6.7	5.5	5.5	2.6	4.8	9.6	3.4
1965 TO 1969	5.8	3.9	3.4	6.8	4.1	4.1	4.2	4.2	4.8	4.5
1970 TO 1974	6.2	4.3	3.9	6.8	4.7	4.0	2.2	2.2	5.5	3.0
1975 OR LATER	7.5	3.0	2.7	7.5	—	—	—	—	—	2.8
<b>NUMBER OF ROOMS</b>										
1	15.7	6.5	6.7	9.2	9.2	9.2	9.0	6.4	6.4	7.8
2	10.7	5.3	5.4	4.7	5.4	5.4	18.1	5.3	18.1	8.6
3	6.0	2.6	2.9	3.4	3.1	3.1	6.9	3.9	5.4	2.9
4	3.6	1.9	1.7	1.7	1.7	1.7	1.1	2.6	2.2	2.8
5	2.8	1.8	1.9	2.3	2.3	2.3	1.4	1.5	2.1	2.2
6	2.7	1.3	1.4	1.3	1.3	1.3	1.4	1.6	2.5	2.4
7	5.5	1.9	2.2	1.7	2.2	2.2	2.4	7.8	11.7	2.9
8 OR MORE	5.2	2.1	2.5	1.7	1.7	1.9	2.6	7.2	Q	3.4
<b>MAIN OUTSIDE WALL MATERIAL</b>										
WOOD	3.8	2.0	1.9	3.4	2.5	2.5	2.1	3.8	28.7	2.0
BRICK	4.4	2.8	2.8	4.2	3.2	3.2	2.4	4.3	NA	2.7
ALUMINUM SIDING	6.3	2.5	2.3	4.7	4.1	4.1	2.3	6.3	2.5	3.0
STUCCO	7.7	4.5	4.9	4.5	3.7	3.7	5.4	7.4	0	4.2
COMPOSITION	8.1	3.2	2.7	5.5	3.1	3.1	2.8	10.3	0	2.7
CERAMIC TILE	16.2	6.6	6.9	11.6	11.7	8.7	15.1	NA	9.1	12.9
STONE	16.2	7.8	7.4	8.7	12.4	7.4	31.6	NA	NA	12.9
COMBINATIONS/OTHER	7.3	3.2	3.3	4.3	4.5	3.1	5.7	6.6	3.4	3.4

SEE NOTES AT END OF TABLE

TABLE C11. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 9 (PERCENT)—CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HEATED HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
		MEDIAN			1				
		HEATED AND UNHEATED	HEATED AND HEATED	HEATED ONLY	FAMILY UNIT	MULTI- FAMILY UNIT	MOBILE HOME		
<b>NUMBER OF COMPLETE AND HALF BATHROOMS</b>									
1 COMPLETE.....	1.5	1.5	1.5	1.9	1.4	1.6	7.0	3.7	
1 COMPLETE AND 1 HALF.....	3.5	2.6	2.3	3.8	3.1	2.4	4.8	4.0	
2 COMPLETE.....	3.7	1.7	1.6	1.7	1.6	1.7	4.9	3.4	
2 COMPLETE AND 1 HALF.....	7.1	3.1	3.2	3.3	2.7	3.2	11.9	6.3	
3 COMPLETE.....	12.3	4.6	5.5	5.5	4.8	5.2	Q	3.6	
OTHER COMBINATIONS.....	8.7	6.1	6.7	9.4	14.0	7.2	36.7	6.0	
							40.8	6.0	
							7.8	7.8	
<b>1979 FAMILY INCOME</b>									
LESS THAN \$5,000.....	4.7	3.7	3.0	3.9	2.7	3.6	7.2	4.4	
\$5,000 TO \$9,999.....	4.2	2.0	1.9	2.3	2.2	2.1	5.6	2.9	
\$10,000 TO \$14,999.....	3.8	2.9	2.4	2.9	3.0	2.5	5.9	2.4	
\$15,000 TO \$19,999.....	3.3	2.2	2.0	2.4	2.1	1.9	3.9	2.6	
\$20,000 TO \$24,999.....	5.1	2.5	2.4	3.1	2.6	2.7	5.7	2.9	
\$25,000 TO \$34,999.....	4.1	1.9	1.8	2.5	2.1	1.8	5.2	2.3	
\$35,000 OR MORE.....	5.9	2.5	2.5	2.7	2.5	2.7	7.7	3.0	
TOTAL POOR (100 PERCENT LEVEL).....	4.4	3.8	3.3	3.7	3.6	3.8	7.9	4.1	
TOTAL POOR (125 PERCENT LEVEL).....	4.0	3.3	2.7	3.6	3.1	3.0	6.1	3.6	
<b>AGE OF HOUSEHOLD HEAD</b>									
UNDER 25 YEARS.....	5.2	3.1	2.6	2.2	1.9	3.6	3.3	4.6	
25 TO 34 YEARS.....	2.8	1.9	1.5	2.9	1.6	2.0	3.4	1.9	
35 TO 44 YEARS.....	4.2	3.0	2.7	4.3	3.5	2.3	5.5	2.5	
45 TO 59 YEARS.....	2.8	2.0	1.9	2.6	2.0	1.9	4.7	1.8	
60 YEARS AND OVER.....	3.5	2.2	2.3	3.1	2.5	2.2	3.5	2.0	
<b>ORIGIN</b>									
WHITE.....	1.1	1.4	1.2	1.9	1.8	1.2	2.1	1.3	
BLACK.....	9.0	4.8	4.3	6.1	3.4	4.8	8.9	4.3	
OTHER.....	8.3	6.4	7.5	10.5	9.5	9.0	9.4	8.8	

SEE NOTES AT END OF TABLE

TABLE C11. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 9 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSEHOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
		MEAN		MEDIAN			
		HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED		
HOUSEHOLD MEMBERS							
1.....	2.5	2.5	2.4	3.0	3.0	3.1	
2.....	3.1	1.6	1.4	1.9	2.2	1.7	
3.....	4.5	2.0	2.0	2.9	2.6	2.3	
4.....	3.8	2.2	2.2	2.5	2.7	2.2	
5.....	3.7	3.5	3.5	4.9	3.5	5.1	
6 CP-MRF.....	7.8	4.5	4.3	7.3	5.9	4.1	
					15.3	7.7	
						4.5	

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS OF RSE'S USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

0 = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY. THE 1970 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE C12. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 10 (PERCENT)

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS) (PERCENT)		(BILLIONS) (PERCENT)	
	TOTAL	HEATED AND UNHEATED	TOTAL	HEATED
TOTAL HOUSEHOLDS	-	-	1.4	-
CENSUS REGION	-	-	1.2	-
NORTH EAST.....	-	2.3	1.8	1.8
5,500 TO 7,000 HHD.....	-	2.0	1.7	1.6
NORTH CENTRAL.....	-	2.4	2.1	1.9
SOUTH.....	-	3.0	2.5	2.8
WEST.....	-	-	-	-
ANNUAL HEATING DEGREE-DAYS AND COOLING DEGREE-DAYS	18.8	18.8	20.4	19.9
<2,000 HDD AND >7,000 HCD.....	7.6	7.6	8.1	8.4
<2,000 HCD AND 5,500 TO 7,000 HCD.....	8.6	8.6	9.5	9.5
4,000 TO 5,499 HDD.....	8.5	8.5	8.1	8.1
<2,000 HCD AND <4,000 HDD.....	7.6	7.6	8.0	8.4
>2,000 HCD AND <4,000 HDD.....	-	-	-	8.3
MEASURED HEATED SPACE OF RESIDENCE (IN SQ. FT.)	5.7	5.7	5.8	6.4
LESS THAN 600.....	3.1	3.1	3.2	3.8
600 TO 999.....	2.8	2.8	2.6	3.0
1,000 TO 1,599.....	4.3	4.3	4.3	4.6
1,600 TO 1,999.....	4.9	4.9	5.2	5.0
2,000 TO 2,999.....	5.8	5.8	6.0	5.5
3,000 OR MORE.....	7.1	7.1	7.3	7.7
TOTAL MEASURED SPACE OF RESIDENCE (IN SQ. FT.)	6.7	6.7	6.4	6.8
LESS THAN 600.....	3.4	3.4	3.4	4.3
600 TO 999.....	3.4	3.4	3.3	4.0
1,000 TO 1,599.....	4.4	4.4	4.4	4.9
1,600 TO 1,999.....	4.4	4.4	4.4	4.7
2,000 TO 2,999.....	3.0	3.0	3.0	3.3
3,000 OR MORE.....	4.8	4.8	4.8	4.5

SEE NOTES AT END OF TABLE

TABLE C12. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 10 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		TOTAL HEATED UNHEATED	
	(MILLIONS) (PERCENT)		(BILLIONS) (PERCENT)			
	(BILLIONS)	(PERCENT)	(BILLIONS)	(PERCENT)		
UTILITIES PAID BY HOUSEHOLD						
ALL PAID BY HOUSEHOLD.....	0.8	0.8	1.6	0.6	1.5	
SOME PAID, SAME INCLUDED IN RENT.....	7.3	7.3	9.6	10.0	9.6	
ALL INCLUDED IN RENT.....	9.9	9.9	8.6	8.7	8.8	
OTHER.....	17.4	17.4	17.0	17.0	17.3	
OWN/RENT						
OWN.....	1.6	1.6	2.3	1.1	2.2	
RENT.....	3.2	3.2	3.6	4.3	3.6	
TYPE OF HOUSING STRUCTURE						
SINGLE-FAMILY DETACHED.....	1.8	1.8	2.1	1.5	2.0	
OWN.....	2.2	2.2	2.5	1.5	2.4	
RENT.....	5.2	5.2	4.9	5.5	5.8	
SINGLE-FAMILY ATTACHED.....	12.1	12.1	12.0	11.9	13.3	
OWN.....	13.5	13.5	13.7	13.4	15.1	
RENT.....	20.0	20.0	20.0	20.2	19.9	
BUILDING WITH 2 TO 4 UNITS.....						
OWN.....	6.4	6.4	6.0	6.3	5.7	
RENT.....	10.0	10.0	9.7	9.5	9.5	
7.5	7.5	8.1	8.5	7.7	8.2	
BUILDING WITH 5 OR MORE UNITS.....						
OWN.....	5.1	5.1	7.3	7.5	7.1	
RENT.....	26.5	26.5	25.8	25.8	25.9	
MOTILE HOME.....						
OWN.....	5.2	5.2	6.6	6.9	6.5	
RENT.....	10.5	10.5	10.1	10.6	10.1	
YEAR HOUSE BUILT						
1939 OR EARLIER.....	3.7	3.7	4.4	3.7	4.4	
1940 TO 1943.....	5.4	5.4	6.2	6.3	6.4	
1950 TO 1959.....	6.0	6.0	6.1	6.5	6.1	
1960 TO 1964.....	5.4	5.4	6.1	6.5	6.4	
1965 TO 1969.....	5.8	5.8	3.9	4.2	4.2	
1970 TO 1974.....	6.2	6.2	6.7	6.2	6.1	

STF NOTES AT END OF TABLE

TABLE C12. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 10 (PERCENT)-CONTINUED

YEAR HOUSE BUILT 1975 OR LATER.....	HOUSEHOLD CHARACTERISTICS (MILLIONS) (PERCENT)	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		8.0	
		TOTAL HEATED AND UNHEATED		TOTAL HEATED			
		(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	(BILLIONS) (PERCENT)		
7.5		7.5	9.0	7.7	9.2		
8.0		8.0	9.0	8.0	9.0		
8.5		8.5	9.0	8.5	9.0		
9.0		9.0	9.0	9.0	9.0		
9.5		9.5	9.0	9.5	9.0		
10.0		10.0	9.0	10.0	9.0		
10.5		10.5	9.0	10.5	9.0		
11.0		11.0	9.0	11.0	9.0		
11.5		11.5	9.0	11.5	9.0		
12.0		12.0	9.0	12.0	9.0		
12.5		12.5	9.0	12.5	9.0		
13.0		13.0	9.0	13.0	9.0		
13.5		13.5	9.0	13.5	9.0		
14.0		14.0	9.0	14.0	9.0		
14.5		14.5	9.0	14.5	9.0		
15.0		15.0	9.0	15.0	9.0		
15.5		15.5	9.0	15.5	9.0		
16.0		16.0	9.0	16.0	9.0		
16.5		16.5	9.0	16.5	9.0		
17.0		17.0	9.0	17.0	9.0		
17.5		17.5	9.0	17.5	9.0		
18.0		18.0	9.0	18.0	9.0		
18.5		18.5	9.0	18.5	9.0		
19.0		19.0	9.0	19.0	9.0		
19.5		19.5	9.0	19.5	9.0		
20.0		20.0	9.0	20.0	9.0		
20.5		20.5	9.0	20.5	9.0		
21.0		21.0	9.0	21.0	9.0		
21.5		21.5	9.0	21.5	9.0		
22.0		22.0	9.0	22.0	9.0		
22.5		22.5	9.0	22.5	9.0		
23.0		23.0	9.0	23.0	9.0		
23.5		23.5	9.0	23.5	9.0		
24.0		24.0	9.0	24.0	9.0		
24.5		24.5	9.0	24.5	9.0		
25.0		25.0	9.0	25.0	9.0		
25.5		25.5	9.0	25.5	9.0		
26.0		26.0	9.0	26.0	9.0		
26.5		26.5	9.0	26.5	9.0		
27.0		27.0	9.0	27.0	9.0		
27.5		27.5	9.0	27.5	9.0		
28.0		28.0	9.0	28.0	9.0		
28.5		28.5	9.0	28.5	9.0		
29.0		29.0	9.0	29.0	9.0		
29.5		29.5	9.0	29.5	9.0		
30.0		30.0	9.0	30.0	9.0		
30.5		30.5	9.0	30.5	9.0		
31.0		31.0	9.0	31.0	9.0		
31.5		31.5	9.0	31.5	9.0		
32.0		32.0	9.0	32.0	9.0		
32.5		32.5	9.0	32.5	9.0		
33.0		33.0	9.0	33.0	9.0		
33.5		33.5	9.0	33.5	9.0		
34.0		34.0	9.0	34.0	9.0		
34.5		34.5	9.0	34.5	9.0		
35.0		35.0	9.0	35.0	9.0		
35.5		35.5	9.0	35.5	9.0		
36.0		36.0	9.0	36.0	9.0		
36.5		36.5	9.0	36.5	9.0		
37.0		37.0	9.0	37.0	9.0		
37.5		37.5	9.0	37.5	9.0		
38.0		38.0	9.0	38.0	9.0		
38.5		38.5	9.0	38.5	9.0		
39.0		39.0	9.0	39.0	9.0		
39.5		39.5	9.0	39.5	9.0		
40.0		40.0	9.0	40.0	9.0		
40.5		40.5	9.0	40.5	9.0		
41.0		41.0	9.0	41.0	9.0		
41.5		41.5	9.0	41.5	9.0		
42.0		42.0	9.0	42.0	9.0		
42.5		42.5	9.0	42.5	9.0		
43.0		43.0	9.0	43.0	9.0		
43.5		43.5	9.0	43.5	9.0		
44.0		44.0	9.0	44.0	9.0		
44.5		44.5	9.0	44.5	9.0		
45.0		45.0	9.0	45.0	9.0		
45.5		45.5	9.0	45.5	9.0		
46.0		46.0	9.0	46.0	9.0		
46.5		46.5	9.0	46.5	9.0		
47.0		47.0	9.0	47.0	9.0		
47.5		47.5	9.0	47.5	9.0		
48.0		48.0	9.0	48.0	9.0		
48.5		48.5	9.0	48.5	9.0		
49.0		49.0	9.0	49.0	9.0		
49.5		49.5	9.0	49.5	9.0		
50.0		50.0	9.0	50.0	9.0		
50.5		50.5	9.0	50.5	9.0		
51.0		51.0	9.0	51.0	9.0		
51.5		51.5	9.0	51.5	9.0		
52.0		52.0	9.0	52.0	9.0		
52.5		52.5	9.0	52.5	9.0		
53.0		53.0	9.0	53.0	9.0		
53.5		53.5	9.0	53.5	9.0		
54.0		54.0	9.0	54.0	9.0		
54.5		54.5	9.0	54.5	9.0		
55.0		55.0	9.0	55.0	9.0		
55.5		55.5	9.0	55.5	9.0		
56.0		56.0	9.0	56.0	9.0		
56.5		56.5	9.0	56.5	9.0		
57.0		57.0	9.0	57.0	9.0		
57.5		57.5	9.0	57.5	9.0		
58.0		58.0	9.0	58.0	9.0		
58.5		58.5	9.0	58.5	9.0		
59.0		59.0	9.0	59.0	9.0		
59.5		59.5	9.0	59.5	9.0		
60.0		60.0	9.0	60.0	9.0		
60.5		60.5	9.0	60.5	9.0		
61.0		61.0	9.0	61.0	9.0		
61.5		61.5	9.0	61.5	9.0		
62.0		62.0	9.0	62.0	9.0		
62.5		62.5	9.0	62.5	9.0		
63.0		63.0	9.0	63.0	9.0		
63.5		63.5	9.0	63.5	9.0		
64.0		64.0	9.0	64.0	9.0		
64.5		64.5	9.0	64.5	9.0		
65.0		65.0	9.0	65.0	9.0		
65.5		65.5	9.0	65.5	9.0		
66.0		66.0	9.0	66.0	9.0		
66.5		66.5	9.0	66.5	9.0		
67.0		67.0	9.0	67.0	9.0		
67.5		67.5	9.0	67.5	9.0		
68.0		68.0	9.0	68.0	9.0		
68.5		68.5	9.0	68.5	9.0		
69.0		69.0	9.0	69.0	9.0		
69.5		69.5	9.0	69.5	9.0		
70.0		70.0	9.0	70.0	9.0		
70.5		70.5	9.0	70.5	9.0		
71.0		71.0	9.0	71.0	9.0		
71.5		71.5	9.0	71.5	9.0		
72.0		72.0	9.0	72.0	9.0		
72.5		72.5	9.0	72.5	9.0		
73.0		73.0	9.0	73.0	9.0		
73.5		73.5	9.0	73.5	9.0		
74.0		74.0	9.0	74.0	9.0		
74.5		74.5	9.0	74.5	9.0		
75.0		75.0	9.0	75.0	9.0		
75.5		75.5	9.0	75.5	9.0		
76.0		76.0	9.0	76.0	9.0		
76.5		76.5	9.0	76.5	9.0		
77.0		77.0	9.0	77.0	9.0		
77.5		77.5	9.0	77.5	9.0		
78.0		78.0	9.0	78.0	9.0		
78.5		78.5	9.0	78.5	9.0		
79.0		79.0	9.0	79.0	9.0		
79.5		79.5	9.0	79.5	9.0		
80.0		80.0	9.0	80.0	9.0		
80.5		80.5	9.0	80.5	9.0		
81.0		81.0	9.0	81.0	9.0		
81.5		81.5	9.0	81.5	9.0		
82.0		82.0	9.0	82.0	9.0		
82.5		82.5	9.0	82.5	9.0		
83.0		83.0	9.0	83.0	9.0		
83.5		83.5	9.0	83.5	9.0		
84.0		84.0	9.0	84.0	9.0		
84.5		84.5	9.0	84.5	9.0		
85.0		85.0	9.0	85.0	9.0		
85.5		85.5	9.0	85.5	9.0		
86.0		86.0	9.0	86.0	9.0		
86.5		86.5	9.0	86.5	9.0		
87.0		87.0	9.0	87.0	9.0		
87.5		87.5	9.0	87.5	9.0		
88.0		88.0	9.0	88.0	9.0		
88.5		88.5	9.0	88.5	9.0		
89.0		89.0	9.0	89.0	9.0		
89.5		89.5	9.0	89.5	9.0		
90.0		90.0	9.0	90.0	9.0		
90.5		90.5	9.0	90.5	9.0		
91.0		91.0	9.0	91.0	9.0		
91.5		91.5	9.0	91.5	9.0		
92.0		92.0	9.0	92.0	9.0		
92.5		92.5	9.0	92.5	9.0		
93.0		93.0	9.0	93.0	9.0		
93.5		93.5	9.0	93.5	9.0		
94.0		94.0	9.0	94.0	9.0		
94.5		94.5	9.0	94.5	9.0		
95.0		95.0	9.0	95.0	9.0		
95.5		95.5	9.0	95.5	9.0		
96.0		96.0	9.0	96.0	9.0		
96.5		96.5	9.0	96.5	9.0		
97.0		97.0	9.0	97.0	9.0		
97.5		97.5	9.0	97.5	9.0		
98.0		98.0	9.0	98.0	9.0		
98.5		98.5	9.0	98.5	9.0		
99.0		99.0	9.0	99.0	9.0		
99.5		99.5	9.0	99.5	9.0		
100.0		100.0	9.0	100.0	9.0		
100.5		100.5	9.0	100.5	9.0		
101.0		101.0	9.0	101.0	9.0		
101.5		101.5	9.0	101.5	9.0		
102.0		102.0	9.0	102.0	9.0		
102.5		102.5	9.0	102.5	9.0		
103.0		103.0	9.0	103.0	9.0		
103.5		103.5	9.0	103.5	9.0		
104.0		104.0					

TABLE C12. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 10 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS) (PERCENT)	(MILLIONS) (PERCENT)	TOTAL HEATED AND UNHEATED	TOTAL HEATED
<b>1979 FAMILY INCOME</b>				
LESS THAN \$5,000.....	4.7	4.7	5.7	5.5
\$5,000 TO \$9,999.....	4.2	4.2	4.9	4.8
\$10,000 TO \$14,999.....	3.9	3.8	4.8	4.6
\$15,000 TO \$19,999.....	2.3	2.3	3.7	3.8
\$20,000 TO \$24,999.....	5.1	5.1	6.0	5.9
\$25,000 TO \$34,999.....	4.1	4.1	4.1	4.0
\$35,000 OR MORE.....	5.9	5.9	7.5	7.4
<b>TOTAL POOR (100 PERCENT LEVEL).....</b>	<b>4.4</b>	<b>4.4</b>	<b>5.4</b>	<b>4.9</b>
<b>TOTAL POOR (125 PERCENT LEVEL).....</b>	<b>4.0</b>	<b>4.0</b>	<b>5.0</b>	<b>4.4</b>
<b>AGE OF HOUSEHOLD HEAD</b>				
UNDER 25 YEARS.....	5.2	5.2	6.2	6.6
25 TO 34 YEARS.....	2.8	2.8	2.8	3.2
35 TO 44 YEARS.....	4.2	4.2	4.8	4.3
45 TO 54 YEARS.....	2.8	2.8	3.5	3.1
55 YEARS AND OVER.....	3.5	3.5	3.9	3.5
<b>ORIGIN</b>				
WHITE.....	1.1	1.1	1.7	1.5
BLACK.....	9.0	9.0	10.4	10.4
OTHER.....	8.3	8.3	10.6	11.1
<b>HOUSEHOLD MEMBERS</b>				
1.....	2.5	2.5	3.1	3.1
2.....	3.1	3.1	3.7	3.9
3.....	4.5	4.5	5.2	5.3
4.....	3.8	3.8	5.0	4.5
5.....	3.7	3.7	5.0	4.2
6 OR MORE.....	7.8	7.8	9.6	9.2

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A dash "-" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

Q = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY MARKETS AND FNU USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE C13. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 23 (PERCENT)

HOUSEHOLD CHARACTERISTICS	HOUSEHOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER					
		MEAN			MEDIAN			SINGLE-FAMILY UNIT			MULTI-FAMILY UNIT		
		HEATED AND HEATED	HEATED AND UNHEATED	UNHEATED	HEATED	HEATED AND UNHEATED	UNHEATED	MOBILE HOME	MOBILE HOME	MOBILE HOME	MOBILE HOME	MOBILE HOME	MOBILE HOME
TOTAL HOUSEHOLDS.....	1.4	1.2	1.7	-	1.5	1.2	1.8	1.2	1.8	2.4	1.3	-	-
MAIN HEATING EQUIPMENT													
CENTRAL WARM-AIR FURNACE.....	2.4	1.6	1.5	2.1	1.9	1.7	2.5	2.2	2.2	2.2	1.7	-	-
FORCED AIR.....	2.4	1.6	1.5	2.1	1.8	1.7	2.6	2.1	2.1	2.1	1.6	-	-
GRAVITY.....	8.7	6.2	6.6	7.1	8.7	9.1	9.8	49.3	49.3	8.5	8.5	-	-
STREAM OR UNIT WATER SYSTEM.....	4.1	2.4	2.3	4.8	3.8	2.2	3.2	Q	Q	3.2	3.2	-	-
HEAT PUMP.....	15.4	5.1	4.6	5.5	6.7	3.9	20.6	36.8	36.8	6.5	6.5	-	-
FLOOR, WALL OR PIPELESS.....	6.9	3.0	2.4	3.7	3.6	2.5	5.7	9.6	9.6	3.3	3.3	-	-
FURNACE.....	10.6	5.1	4.9	3.0	3.0	5.9	3.6	10.4	10.4	6.4	6.4	-	-
OIL OR GAS ROOM HEATFP.....	8.2	6.0	5.0	6.9	4.9	4.9	4.7	33.7	33.7	4.6	4.6	-	-
BUILT-IN ELECTRIC UNITS.....	12.6	3.3	3.3	4.1	3.7	3.5	25.1	7.0	7.0	2.9	2.9	-	-
WOOD OR COAL HEATING STOVE.....	28.5	12.0	12.7	13.9	12.0	9.5	27.8	40.3	40.3	10.8	10.8	-	-
PORTABLE HEATER.....	23.1	19.0	16.3	15.2	21.2	18.4	NA	0	0	10.7	10.7	-	-
FIREPLACE.....	18.8	16.0	17.6	17.8	15.3	20.5	13.1	36.1	36.1	13.9	13.9	-	-
OTHER.....	19.5	11.8	-	11.7	-	-	-	-	-	-	-	-	-
NONE.....	-	-	-	-	-	-	-	-	-	-	-	-	-
MAIN HEATING FUEL													
NATURAL GAS.....	3.4	1.5	1.4	2.2	2.0	1.5	2.3	4.6	4.6	1.7	1.7	-	-
ELECTRICITY.....	7.3	3.2	2.4	4.2	3.4	2.3	3.2	9.1	9.1	2.9	2.9	-	-
FUEL OIL OR KEROSENF.....	5.1	3.1	3.0	5.5	4.4	2.7	4.7	7.6	7.6	3.5	3.5	-	-
WOOD.....	13.6	3.9	3.6	4.1	3.9	4.0	28.7	5.0	5.0	2.3	2.3	-	-
LIQUID PETROLEUM GAS.....	9.5	5.6	5.2	6.8	7.0	6.0	8.9	5.3	5.3	3.8	3.8	-	-
COAL.....	26.3	14.5	16.4	10.0	15.3	16.5	0	NA	NA	25.0	25.0	-	-
OTHER/PNCF.....	19.0	15.8	45.8	10.9	NA	45.4	NA	Q	Q	38.7	38.7	-	-
CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)													
YES.....	4.9	2.5	2.5	3.5	3.4	NA	2.5	2.5	2.5	NA	2.5	2.5	-
NO.....	6.5	2.4	2.0	1.7	1.7	NA	2.0	NA	NA	NA	3.7	3.7	-
NO MAIN HEATING SYSTEM.....	47.2	Q	-	0	-	-	-	-	-	-	-	-	-

S.E. NOTES AT END OF TABLE

TABLE C13. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 23 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSEHOLDS ((MILLIONS))	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER		
		MEAN		MEDIAN	SINGLE-FAMILY UNIT		MULTI-FAMILY UNIT	MOBILE HOME	HEATED	
		HEATED AND HEATED	UNHEATED	HEATED AND UNHEATED	HEATED	UNHEATED	HEATED	UNHEATED	FEET PER	HOUSEHOLD MEMBER
<b>SECONDARY HEATING FUEL</b>										
WOOD.....	4.7	2.0	2.0	1.9	2.4	2.0	6.8	24.4	1.7	
FLUORICITY.....	6.4	3.4	3.1	3.2	3.8	2.8	6.8	11.2	3.0	
NATURAL GAS.....	11.3	5.2	5.6	6.7	7.3	5.1	14.1	22.8	5.7	
FUEL OIL OR KEROSENE.....	14.5	5.5	5.5	5.7	5.4	9.8	6.5	6.7	6.4	
LIQUID PETROLEUM GAS.....	15.2	8.0	7.6	7.4	8.0	7.8	0	0	9.6	
COAL.....	33.5	22.0	19.8	33.5	27.7	21.4	NA	0	22.5	
OTHER.....	24.5	30.3	28.2	45.1	39.2	15.5	Q	Q	16.6	
NC/NF.....	2.0	1.5	1.4	1.8	1.7	1.4	1.4	2.5	1.8	
<b>WATER-HEATING FUEL</b>										
NATURAL GAS.....	2.9	1.6	1.5	2.3	1.9	1.7	2.2	5.0	1.6	
ELECTRICITY.....	4.4	2.4	2.0	3.3	2.4	1.8	3.8	3.2	1.9	
FUEL OIL OR KEROSENE.....	6.9	5.3	4.3	10.5	6.5	2.9	4.2	42.0	5.6	
LIQUID PETROLEUM GAS.....	9.7	5.2	5.4	7.5	8.4	5.2	29.5	6.4	4.4	
WOOD.....	18.7	10.8	11.6	35.9	14.4	12.0	Q	NA	18.8	
SOLAR.....	38.2	13.7	0	37.0	0	0	NA	NA	0	
OTHER.....	48.9	18.3	35.5	22.6	46.7	0	NA	Q	Q	
NC/NF.....	33.8	16.1	21.2	19.1	27.4	20.6	NA	Q	47.2	
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>										
YFS.....	5.7	2.6	2.4	3.8	3.6	-	2.4	-	2.8	
NC/NF) WATER-HEATING FUEL/ NC HIT PUMPING WATER.....	9.1	2.6	2.3	1.5	1.5	-	2.3	-	4.0	
<b>MAIN COOKING FUEL</b>										
ELECTRICITY.....	3.0	1.7	1.5	1.9	2.0	1.6	2.7	5.8	1.6	
NATURAL GAS.....	3.9	2.0	1.8	3.1	2.2	2.0	2.2	4.7	2.3	
LIQUID PETROLEUM GAS.....	11.0	5.3	4.6	6.5	6.0	5.3	17.9	3.4	4.9	
WOOD.....	30.3	27.7	24.9	45.4	16.0	26.0	0	NA	15.5	
NC/NF/CHFP.....	25.4	34.3	21.6	9.0	20.3	Q	43.1	37.4	16.8	

SEE NOTES AT END OF TABLE

TABLE C13. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 23 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSEHOLD HOLDINGS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD			AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER	
		MEAN		MEDIAN	HEATED				
		HEATED AND HEATED UNHEATED	HEATED AND UNHEATED		HEATED	HEATED AND UNHEATED			
<b>AIR CONDITIONING (A/C)</b>									
CENTRAL AIR CONDITIONING ONLY.....	4.1	1.9	1.7	2.1	1.6	4.6	6.2	1.8	
INDIVIDUAL ROOM UNITS ONLY.....	2.9	2.3	2.0	3.1	1.9	2.2	4.7	2.1	
CENTRAL A/C AND ROOM UNITS.....	23.6	13.7	13.8	27.6	29.4	12.9	0	14.9	
NO AIR CONDITIONING.....	2.9	2.1	1.9	3.2	2.0	1.9	2.7	1.8	
<b>CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)</b>									
YES.....	20.5	7.6	7.4	13.9	13.0	7.4	-	12.8	
NO.....	11.6	4.3	4.3	5.9	6.2	4.3	-	4.3	
NO AIR CONDITIONING SYSTEM.....	3.7	2.0	1.7	2.1	2.2	1.7	-	2.7	
<b>NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED</b>									
ALL.....	2.4	1.9	1.7	2.9	2.7	1.5	3.6	5.4	
SOME.....	3.6	2.3	1.9	3.9	2.9	2.1	2.0	6.9	
NONE.....	2.9	2.1	1.9	3.7	2.0	1.9	2.7	4.3	
<b>WOOD BURNED</b>									
YES (1/3 CORD OR MORE).....	5.0	2.2	2.1	2.4	2.7	2.2	8.5	7.7	
NO.....	1.5	1.5	1.4	1.9	1.8	1.3	1.9	7.5	
<b>AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MORILE HOME)</b>									
USE ANY NATURAL GAS.....	3.7	1.7	1.6	1.8	2.0	1.5	-	4.5	
DO NOT USE ANY NATURAL GAS.....	4.9	2.3	1.9	3.2	2.4	1.7	-	3.2	
GAS IS AVAILABLE.....	8.7	4.1	4.6	4.9	3.1	4.5	-	10.5	
GAS IS NOT AVAILABLE.....	6.6	2.6	1.9	3.7	3.2	1.9	-	4.2	
								1.9	

SFF NOTFS AT END OF TABLE

TABLE C13. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 23 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSEHOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD		AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD		NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER
		MEDIAN		SINGLE-FAMILY UNIT	MULTI-FAMILY UNIT	
		HEATED AND UNHEATED	HEATED AND UNHEATED	HEATED	UNHEATED	
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>						
SAW DUST WINTER 1980	0.5	1.4	1.3	1.9	1.7	1.7
TO WINTER 1981.....	9.8	5.5	5.5	8.7	6.5	3.7
DIFFERENT FUEL.....	11.1	7.4	8.0	10.3	9.3	6.2
FUEL OIL OR KEROSENE.....	32.6	19.0	19.1	0	42.4	19.1
NATURAL GAS.....	24.4	21.3	21.1	17.3	17.3	NA
LIQUID PETROLEUM GAS.....	29.7	18.1	12.5	37.6	20.0	NA
ELECTRICITY.....	28.5	14.5	11.7	15.3	12.7	13.1
OTHER/NO FUEL USED.....	19.5	11.8	-	11.7	-	Q
NOT HEATED IN WINTER 1980	22.3	18.7	16.8	26.8	16.6	NA
TO WINTER 1981.....	UNIT NOT BUILT IN WINTER 1979 TO 1980.....	22.3	18.7	16.8	26.8	16.6
						20.3
						9.8

SFF MEAN AT END OF TABLE

TABLE C13. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 23 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	HOUSE- HOLDS (MILLIONS)	AVERAGE NUMBER OF SQUARE FEET PER HOUSEHOLD				AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD				AVERAGE NUMBER OF HEATED SQUARE FEET PER HOUSEHOLD MEMBER			
		MEAN		MEDIAN		SINGLE- FAMILY UNIT		MULTI- FAMILY UNIT		MORALE HOME		MORALE HOME	
		HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED	HEATED AND UNHEATED	HEATED	HEATED	HEATED	HEATED	HEATED
<b>FUEL COMBINATIONS</b>													
USE NATURAL GAS FOR MAIN HEATING.....	3.4	1.5	1.4	2.2	2.0	1.5	2.3	4.6	4.6	4.6	4.6	4.6	4.7
WATER HEAT AND COOK WITH NATURAL GAS.....	4.3	2.1	1.8	3.1	2.1	2.0	2.5	5.2	5.2	5.2	5.2	5.2	5.3
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY....	6.1	2.3	2.6	2.1	2.6	2.6	5.0	13.3	13.3	13.3	13.3	13.3	13.1
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	16.4	7.6	6.4	12.8	5.8	10.1	21.9	8.0	8.0	8.0	8.0	8.0	10.8
WATER HEAT AND COOK WITH ELECTRICITY.....	12.4	5.0	5.9	9.6	9.5	4.9	11.1	23.9	23.9	23.9	23.9	23.9	6.5
OTHER.....	27.0	20.5	8.8	13.7	8.1	14.1	15.4	Q	Q	Q	Q	Q	31.5
USE ELECTRICITY FOR MAIN HEATING.....	7.3	3.2	2.4	4.2	3.4	2.3	3.2	9.1	9.1	9.1	9.1	9.1	2.9
WATER HEAT AND COOK WITH ELECTRICITY.....	7.1	3.2	2.4	4.7	3.1	2.4	3.5	7.3	7.3	7.3	7.3	7.3	2.7
OTHER.....	15.9	7.2	7.5	10.2	9.2	7.3	10.8	25.6	25.6	25.6	25.6	25.6	9.1
USE FUEL OIL FOR MAIN HEATING.	5.8	2.9	2.9	5.1	4.5	2.3	3.9	13.0	13.0	13.0	13.0	13.0	3.6
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	12.5	4.3	4.0	5.4	7.5	3.5	5.5	NA	NA	NA	NA	NA	6.0
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	9.8	4.7	5.2	8.9	9.7	7.8	5.0	NA	NA	NA	NA	NA	6.9
WATER HEAT AND COOK WITH ELECTRICITY.....	12.7	4.4	4.5	5.5	5.1	4.1	25.9	13.0	13.0	13.0	13.0	13.0	4.2
WATER HEAT AND COOK WITH NATURAL GAS.....	14.1	6.0	5.2	4.0	7.9	3.2	19.5	NA	NA	NA	NA	NA	9.2
OTHER.....	17.2	6.6	6.5	8.2	9.9	7.6	17.6	12.6	12.6	12.6	12.6	12.6	8.2
NCNE/OTHER FUEL.....	R.C	3.5	3.5	3.9	3.4	3.8	14.7	4.0	4.0	4.0	4.0	4.0	2.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS OF  
TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

Q = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE C14. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 24 (PERCENT)

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS) (PERCENT)	(BILLIONS) (PERCENT)	TOTAL HEATED AND UNHEATED (BILLIONS) (PERCENT)	TOTAL HEATED (BILLIONS) (PERCENT)
<b>TOTAL HOUSEHOLDS.....</b>	-	-	1.4	-
<b>MAIN HEATING EQUIPMENT</b>				1.2
CENTRAL WARM-AIR FURNACE.....	2.4	2.4	2.4	2.3
FORCED AIR.....	2.4	2.4	2.5	2.4
GRAVITY.....	8.7	8.7	10.3	10.2
STEAM OR HOT WATER SYSTEM.....	4.1	4.1	5.2	4.6
HEAT PUMP.....	15.4	15.4	15.9	15.7
FLOOR, WALL OR PIPELESS FURNACE.....	6.9	6.9	7.7	8.0
OIL OR GAS BURN. HEATER.....	10.6	10.6	12.7	7.5
BUILT-IN ELECTRIC UNITS.....	8.2	8.2	11.3	12.6
WOOD OR COAL HEATING STOVE.....	12.6	12.6	14.0	13.6
PORTABLE HEATER.....	28.5	28.5	28.0	28.0
PIPEPLACE.....	23.1	23.1	34.9	34.2
OTHR.....	18.8	18.8	21.2	21.0
NONE.....	19.5	19.5	21.6	21.7
<b>MAIN HEATING FUEL</b>				3.5
NATURAL GAS.....	3.4	3.4	3.6	3.6
ELECTRICITY.....	7.3	7.3	7.2	7.7
FUEL OIL OR KEROSENE.....	5.1	5.1	6.4	5.8
WOOD.....	13.6	13.6	15.9	15.6
LIQUID PETROLEUM GAS.....	9.5	9.5	10.6	10.4
COAL.....	26.3	26.3	32.1	32.0
OTHR/NONE.....	19.0	19.0	24.1	24.3
<b>CENTRAL MAIN HEATING SYSTEM FOR BUILDING (2-OR-MORE UNIT BUILDINGS)</b>				3.5
YFS.....	4.9	4.9	5.3	5.3
NO.....	6.5	6.5	7.4	7.2
OTR MAIN HEATING SYSTEM.....	47.2	47.2	45.7	NA

SFF, NCTFS AT END OF TABLE

TABLE C14. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 24 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		TOTAL HEATED AND UNHEATED	TOTAL HEATED
	(MILLIONS)	(PERCENT)	(BILLIONS)	(PERCENT)		
<b>SECONDARY HEATING FUEL</b>						
WOOD.....	4.7	4.7	4.7	4.7	4.4	4.4
ELECTRICITY.....	6.4	6.4	6.8	6.2	6.4	5.9
NATURAL GAS.....	11.3	11.3	11.6	11.6	12.0	12.0
FUEL OIL OR KEROSENE.....	14.5	14.5	17.5	17.1	17.0	16.8
LIQUID PETROLEUM GAS.....	15.2	15.2	15.0	15.0	16.1	16.0
COAL.....	32.5	33.5	34.2	33.8	30.9	30.5
OTHER.....	24.5	24.5	43.5	43.2	42.4	42.1
NONE.....	2.0	2.0	2.3	2.5	2.3	2.4
<b>WATER-HEATING FUEL</b>						
NATURAL GAS.....	2.9	2.9	3.6	3.5	3.4	3.2
ELECTRICITY.....	4.4	4.4	4.9	4.9	4.8	4.9
FUEL OIL OR KEROSENE.....	6.9	6.9	9.5	9.0	8.4	8.1
LIQUID PETROLEUM GAS.....	9.7	9.7	11.0	10.3	11.3	10.7
WOOD.....	18.7	18.7	23.7	23.3	23.8	23.3
SOLAR.....	38.2	38.2	36.0	36.0	78.1	77.9
OTHER.....	48.9	48.9	53.3	53.0	52.2	52.1
NONE.....	33.8	33.8	35.3	35.6	43.9	44.0
<b>CENTRAL WATER-HEATING SYSTEM (2-OR-MORE UNIT BUILDINGS)</b>						
YES.....	5.7	5.7	5.9	6.3	5.9	6.1
NO/NU WATER-HEATING FUEL / NO HOT PUNNING WATER.....	9.1	9.1	9.6	9.8	9.6	9.8
<b>MAIN COOKING FUEL</b>						
ELECTRICITY.....	3.0	3.0	2.8	2.5	2.6	2.4
NATURAL GAS.....	3.9	3.9	4.5	4.5	4.2	4.1
LIQUID PETROLEUM GAS.....	11.0	11.0	13.3	12.6	12.8	12.3
WOOD.....	30.3	30.3	39.4	38.6	39.5	38.9
NONE/OTHER.....	25.4	25.4	36.1	36.2	30.6	30.8

SFF NOTES AT END OF TABLE

TABLE C14. RELATIVE STANDARD ERRORS (RSF) FOR ESTIMATES IN TABLE 24 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED	TOTAL, HEATED
AIR CONDITIONING (A/C)				
CENTRAL AIR CONDITIONING ONLY.....	4.1	4.1	4.7	4.4
INDIVIDUAL ROOM UNITS ONLY.....	2.9	2.9	3.9	3.8
CENTRAL A/C AND ROOM UNITS.....	23.6	23.6	21.1	21.4
NO AIR CONDITIONING.....	2.9	2.9	4.1	3.8
CENTRAL AIR CONDITIONING SYSTEM FOR THE BUILDING (2-OR-MORE UNIT BUILDINGS)				
YES.....	20.5	20.5	19.3	19.6
NO.....	11.6	11.6	12.9	12.8
NO AIR CONDITIONING SYSTEM.....	3.7	3.7	3.9	3.9
NUMBER OF ROOMS THAT CAN BE AIR CONDITIONED				
ALL.....	2.4	2.4	3.3	3.2
SOME.....	3.6	3.6	4.2	4.2
None.....	2.9	2.9	4.1	3.8
WOOD BURNED YES (1/3 CORD OR MORE).....				
NO.....	5.0	5.0	5.6	5.1
1.5	1.5	2.1	2.2	2.1
AVAILABILITY OF NATURAL GAS IN THE NEIGHBORHOOD (SINGLE FAMILY OR MOBILE HOME)				
USE ANY NATURAL GAS.....	3.7	3.7	3.8	3.6
DO NOT USE ANY NATURAL GAS.....	4.9	4.9	5.9	5.5
GAS IS AVAILABLE.....	8.7	8.7	7.8	5.7
GAS IS NOT AVAILABLE.....	6.6	6.6	6.1	8.1
				7.6
				7.2

SFN NOTES AT END OF TABLE

TABLE C14. RELATIVE STANDARD ERRORS (RSF) FOR ESTIMATES IN TABLE 24 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE	
	(MILLIONS) (PERCENT)	TOTAL HEATED AND UNHEATED	(BILLIONS) (PERCENT)	TOTAL HEATED
<b>TYPE OF MAIN HEATING FUEL USED LAST WINTER 1979 TO 1980</b>				
SAME FUEL WINTER 1980 TO WINTER 1981.....	0.5	0.5	1.5	0.5
DIFFERENT FUEL.....	9.8	9.8	10.2	9.9
FUEL OIL OR KEROSENE.....	11.1	11.1	9.9	9.7
NATURAL GAS.....	32.6	32.6	39.2	39.7
LIQUID PETROLEUM GAS.....	24.4	24.4	32.9	33.0
ELECTRICITY.....	29.7	29.7	36.1	35.8
OTHER/NO FUEL USED.....	28.5	28.5	33.2	32.9
NOT HEATED IN WINTER 1980 TO WINTER 1981.....	19.5	19.5	21.6	21.7
UNIT NOT BUILT IN WINTER 1979 TO 1980.....	22.3	22.3	27.7	28.2
				27.5
				27.9

SFF NOTES AT END OF TABLE

TABLE C14. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 24 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	TOTAL HOUSEHOLDS		TOTAL SQUARE FOOTAGE		
	(MILLIONS)	(PERCENT)	TOTAL HEATED AND UNHEATED	TOTAL HEATED	
	(BILLIONS)	(PERCENT)	(BILLIONS)	(PERCENT)	(PERCENT)
<b>FUEL COMBINATIONS</b>					
USE NATURAL GAS FOR MAIN HEATING.....	3.4	3.4	3.6	3.6	3.5
WATER HEAT AND COOK WITH NATURAL GAS.....	4.3	4.3	5.0	5.1	4.6
WATER HEAT WITH NATURAL GAS AND COOK WITH ELECTRICITY.....	6.1	6.1	6.3	6.0	6.0
WATER HEAT WITH ELECTRICITY AND COOK WITH NATURAL GAS....	16.4	16.4	15.3	15.5	15.4
WATER HEAT AND COOK WITH ELECTRICITY.....	12.4	12.4	12.8	13.1	14.1
OTHER.....	27.0	27.0	30.1	30.3	25.1
USE ELECTRICITY FOR MAIN HEATING.....	7.3	7.3	7.2	7.2	7.7
WATER HEAT AND COOK WITH ELECTRICITY.....	7.1	7.1	7.1	7.1	7.5
OTHER.....	15.9	15.9	17.2	17.1	17.1
USE FUEL OIL FOR MAIN HEATING.	5.8	5.8	6.7	6.1	6.0
WATER HEAT WITH FUEL OIL AND COOK WITH ELECTRICITY.....	12.5	12.5	14.0	13.6	12.7
WATER HEAT WITH FUEL OIL AND COOK WITH NATURAL GAS.....	5.8	5.8	10.0	10.0	9.8
WATER HEAT AND COOK WITH ELECTRICITY.....	12.7	12.7	12.6	12.7	12.5
WATER HEAT AND COOK WITH NATURAL GAS.....	14.1	14.1	15.5	15.3	14.6
OTHER.....	17.2	17.2	17.2	16.3	15.9
NONE/OTHER FUEL.....	8.0	8.0	9.1	8.8	9.1

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "--" REPRESENTS ZERO. SEE GLOSSARY  
FOR DEFINITIONS OF TERMS USE IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

SOURCE: PRESIDENTIAL AND COMMERCIAL BRANCH, ENERGY AND USE DIVISION, OFFICE OF ENERGY  
MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980  
RESIDENTIAL ENERGY CONSUMPTION SURVEY.

TABLE C15. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 67 (PERCENT)

HOUSEHOLD CHARACTERISTICS	NUMBER OF HOUSEHOLDS BURNING WOOD		TOTAL NUMBER OF CORDS BURNED		AVERAGE NUMBER OF CORDS BURNED PER HOUSEHOLD		AVERAGE PRICE PER CORD PAID IN 1980 (DOLLARS)		MOST RECENT PURCHASE (1980)	
	(MILLIONS) (PCTRCENT)	(MILLIONS) (PFTRCENT)	(MILLIONS) (PFTRCENT)	(MILLIONS) (PFTRCENT)	HOUSEHOLD REPORTING	(MILLIONS) (DOLLARS)	HOUSEHOLD REPORTING	(MILLIONS) (DOLLARS)	HOUSEHOLD REPORTING	(MILLIONS) (DOLLARS)
TOTAL HOUSEHOLDS.....	5.6	-	18.2	-	-	14.4	12.5	5.1	-	-
CENSUS REGION										
NORTHWEST.....	15.4	12.9	0	33.2	34.5	28.4	8.6			
NCPTH CENTRAL.....	11.0	9.9	27.1	24.8	20.5	19.1	7.4			
SOUTH.....	9.9	8.8	12.0	20.4	5.5	27.1	12.7			
WEST.....	8.2	9.1	17.6	19.7	12.1	12.5	7.0			
URBAN/RURAL										
URBAN.....	7.0	6.9	11.9	14.9	8.7	12.3	5.7			
RURAL.....	7.7	4.3	21.8	4.6	16.7	21.4	7.7			
ANNUAL HEATING DEGREE-DAYS (CDD) AND COOLING DEGREE-DAYS (CDD)										
<2000 CDD AND >7000 HDD.....	29.0	26.0	48.7	31.7	22.3	36.8	6.8			
<2000 CDD AND 5500 TO 7000 HDD.....	11.9	13.4	13.3	21.7	8.1	16.1	6.1			
<2000 CDD AND 4000 TO 5499 HDD.....	16.9	16.6	21.4	29.1	7.4	20.4	7.7			
<2000 CDD AND <4000 HDD.....	15.0	15.5	19.5	26.2	9.4	24.1	11.7			
>2000 CDD AND <4000 HDD.....	17.2	17.2	20.9	26.7	13.8	47.0	8.2			
YEAR HOUSE BUILT										
1939 OR EARLIER.....	8.8	6.0	28.6	11.2	21.9	24.6	7.9			
1940 TO 1949.....	11.4	10.7	21.5	20.6	15.8	30.5	14.5			
1950 TO 1959.....	7.3	9.5	14.4	12.6	26.7	21.0				
1960 TO 1964.....	7.9	7.4	13.3	18.2	9.9	24.9	7.5			
1965 TO 1969.....	7.7	7.8	20.3	17.7	20.7	27.6	13.8			
1970 TO 1974.....	10.5	7.6	12.3	13.7	7.3	28.2	13.9			
1975 OR LATER.....	9.6	6.3	21.5	11.8	15.8	23.5	7.7			

SEE NOTES AT END OF TABLE

TABLE C15. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 67 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	NUMBER OF HOUSEHOLDS BURNING WOOD			TOTAL NUMBER OF CORDS BURNED			AVERAGE NUMBER OF CORDS			BURNED PER HOUSEHOLD (REPORTING IN 1980) (MILLIONS)			AVERAGE NUMBER OF HOUSEHOLDS (REPORTING IN 1980) (MILLIONS)			PRICE PER CORD PAID IN 1980 (\$DOLLARS)			MOST RECENT PURCHASE (1980)		
	(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)			(MILLIONS) (PERCENT)		
MEASURED HEATED SPACE OF RESIDENCE (IN SQ FT)																					
LESS THAN 1,000	13.0	9.9	21.0	16.9	11.6	31.9	30.6														
1,000 TO 1,599	6.6	5.2	12.5	13.1	8.0	16.3	9.7														
1,600 TO 1,999	10.9	10.6	22.1	11.9	19.8	24.2	15.6														
2,000 TO 2,399	9.1	6.7	17.8	5.1	13.2	19.1	9.6														
2,400 TO 2,999	7.3	9.1	27.3	16.2	23.5	23.7	17.8														
3,000 OR MORE	11.9	10.2	36.4	19.5	27.1	27.1	5.9														
1979 FAMILY INCOME																					
LESS THAN \$5,000	12.7	11.3	23.6	19.4	17.6	35.1	32.7														
\$5,000 TO \$9,999	14.3	12.0	17.6	11.8	16.1	28.7	10.1														
\$10,000 TO \$14,999	13.9	10.6	40.2	22.3	29.3	32.4	11.4														
\$15,000 TO \$19,999	10.4	8.2	21.2	9.3	15.0	49.8	17.3														
\$20,000 TO \$24,999	9.1	8.4	19.0	12.0	16.2	21.4	8.2														
\$25,000 TO \$34,999	7.9	8.0	17.1	11.9	16.2	22.8	11.6														
\$35,000 OR MORE	9.0	8.9	15.6	15.4	12.1	18.4	7.4														
AMOUNT OF WOOD BURNED																					
1/3-1 CORD	6.1	6.9	7.0	20.5	2.6	14.7	6.3														
2 CORDS	9.8	9.8	9.7	20.8	1.0	23.7	7.7														
3 CORDS	9.6	8.5	9.6	16.9	.6	25.7	9.1														
4 CORDS	16.4	13.3	16.5	16.0	.7	38.7	5.8														
5 CORDS OR MORE	21.1	17.6	31.2	13.2	11.1	37.2	9.0														
WOOD IS MAIN HEATING FUEL																					
YES	14.1	10.5	26.2	10.1	14.6	28.9	7.9														
NO	5.0	5.0	12.7	11.7	11.8	12.5	4.9														
WOOD BURNED IN																					
FIREPLACE ONLY	6.4	7.4	8.1	19.1	5.1	12.5	5.0														
ADDITIONAL STOVE ONLY	10.3	7.6	21.1	6.5	13.4	23.5	10.8														
ADDITIONAL STOVE ONLY	11.6	9.1	18.0	10.8	10.5	32.8	29.8														
FIREPLACE ONLY	75.5	22.6	42.7	29.5	23.2	Q	Q														

STANDARD ERRORS AT END OF TABLE

TABLE C15. RELATIVE STANDARD ERRORS (RSE) FOR ESTIMATES IN TABLE 67 (PERCENT)-CONTINUED

HOUSEHOLD CHARACTERISTICS	NUMBER OF HOUSEHOLDS BURNING WOOD		TOTAL NUMBER OF CORDS BURNED		AVERAGE NUMBER OF CORDS BURNED PER HOUSEHOLD		AVERAGE PRICE PER CORD		MOST RECENT PURCHASE (1980)	
	(MILLIONS)	(PERCENT)	(MILLIONS)	(PERCENT)	HOUSEHOLD REPORTING	NUMBER OF HOUSEHOLDS REPORTING	PAYOUT (MILLIONS)	1980 (DOLLARS)		
CONFIRMATION BY ANPWF.....	11.8	9.3	31.1	15.9	24.5	14.6	13.8	4.0		
TYPE OF WOOD BURNED										
HARDWOODS.....	6.0	1.7	19.3	2.3	14.6	13.8	5.7			
SFTWOODS.....	8.5	8.9	23.9	20.2	19.7	22.0	3.1			
DON'T KNOW/ NOT REPORTED.....	21.2	22.3	22.1	31.1	17.1	48.1	12.3			
AMOUNT OF WOOD BURNED THAT WAS PURCHASED										
ALL.....	7.9	6.7	20.3	6.8	17.2	13.3	5.8			
SOME.....	11.3	8.9	20.6	12.2	14.3	19.3	6.5			
NONE/NOT REPORTED.....	5.7	3.0	18.6	3.3	15.2	NA	NA			
AVERAGE PRICE PER CORD PAID IN 1980										
LESS THAN \$50.....	31.5	27.8	0	48.3	40.2	31.5	12.1			
\$50 TO \$75.....	15.6	14.4	21.6	14.1	15.7	15.6	2.0			
OVER \$75.....	14.1	13.6	19.4	22.7	13.9	14.1	4.0			
NONE PURCHASED/DON'T KNW/NOT REPORTED.....	4.9	1.9	16.9	2.8	13.7	NA	NA			
PRICE INCLUDES DELIVERY										
YES.....	7.3	5.1	17.7	6.3	13.4	11.7	4.7			
NO.....	13.5	12.0	27.6	15.9	21.8	29.3	17.5			
DON'T KNW/NOT REPORTED/NOT PURCHASED.....	5.7	3.0	18.5	3.4	15.1	Q	Q			

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "—" REPRESENTS ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

NA = NOT AVAILABLE BECAUSE THE SAMPLE DID NOT CONTAIN CASES IN THIS CELL.

Q = DATA WITHHELD BECAUSE THE RELATIVE STANDARD ERROR WAS 50 PERCENT OR GREATER.

SOURCE: RESIDENTIAL AND COMMERCIAL BRANCH, ENERGY END USE DIVISION, OFFICE OF ENERGY MARKETS AND END USE, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, THE 1980 RESIDENTIAL ENERGY CONSUMPTION SURVEY.



## **Appendix D.**



## SURVEY FORMS

This appendix contains copies of the survey forms used in the 1980 Residential Energy Consumption Survey.

- EIA-457A Housing Unit Record Sheet (actual form was pink)
- EIA-457B Household Questionnaire (actual form had a beige cover)
- EIA-457C Rental Agent Questionnaire
- EIA-457E Electricity Utility Form (actual form was yellow)
- EIA-457F Natural Gas Utility Form (actual form was pink)
- EIA-457G Fuel Oil Supplier Form (actual form was green)
- EIA-457H Liquified Petroleum Gas Supplier Form (actual form was blue)

### HOUSING UNIT RECORD SHEET

Location # \_\_\_\_\_ Housing Unit # \_\_\_\_\_  
Address (or description) \_\_\_\_\_  
Post Office (city or town) \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_

#### INTRODUCTION

Hello, I'm \_\_\_\_\_ from Response Analysis, a survey organization in Princeton, New Jersey. We are working on a national survey for the U.S. Department of Energy. May I speak to the head of the household?

#### CONTINUE WITH HEAD OF HOUSEHOLD, OR ONE OF HOUSEHOLD HEADS, OR SPOUSE

We would like to ask some questions about your home, about heating and air-conditioning, household vehicles, and related topics.

HAND PRIVACY ACT NOTICE TO RESPONDENT: This notice explains that information about your household is protected by The Privacy Act of 1974 and will remain confidential.

HAND PACKET OF TWO DOLLAR COINS TO RESPONDENT: As Response Analysis mentioned in the letter to your household, these coins are a token of appreciation for your participation in the survey.

#### CONTINUE WITH INTERVIEW

1

#### INTERVIEWER OBSERVATION OF TYPE OF LIVING QUARTERS

##### MARK BOX BELOW

01 [ ] MOBILE HOME OR TRAILER

02 [ ] ONE-FAMILY HOUSE

03 [ ] HOUSE OR BUILDING WITH  
2-4 HOUSING UNITS

04 [ ] BUILDING WITH 5 OR  
MORE UNITS

##### MARK TYPE OF STRUCTURE:

1 [ ] DETACHED

2 [ ] ATTACHED ON ONE SIDE  
(SEMI-DETACHED)

3 [ ] ATTACHED ON TWO SIDES

##### MARK ANSWERS:

NUMBER OF UNITS: \_\_\_\_\_

NUMBER OF FLOORS (STORIES): \_\_\_\_\_

21 [ ] OTHER -- DESCRIBE IN DETAIL ANY STRUCTURE THAT DOES NOT FIT ONE OF ABOVE.

COMPLETE RECORD OF CONTACTS AND ADDITIONAL INFORMATION ON BACK OF THIS RECORD SHEET.

(2) TYPE OF OCCUPANCY OF HOUSING UNIT

- 1  YEAR-ROUND UNIT  
2  SEASONAL UNIT  
3  MIGRATORY UNIT

MARK ANSWER WHETHER HOUSING UNIT IS OCCUPIED OR VACANT -- SEE P. 10 OF INSTRUCTION BOOKLET FOR INTERVIEWERS.

(3) PRESENCE OF COMMERCIAL ACTIVITY

- 1  SIGN VISIBLE FROM THE STREET INDICATING PRESENCE OF COMMERCIAL ACTIVITY, SUCH AS A DOCTOR'S OFFICE OR BEAUTY SHOP  
2  NO SIGN VISIBLE FROM THE OUTSIDE INDICATING PRESENCE OF COMMERCIAL ACTIVITY

(4) RECORD OF VISITS TO HOUSING UNIT

Visit number	Time of day (include AM or PM)	Date	Day of Week	Result or comments

(5) USE THIS SPACE FOR ADDITIONAL NOTES OR COMMENTS ABOUT VISITS TO THIS HOUSEHOLD. DESCRIBE FULLY IF REFUSAL OR OTHER NONINTERVIEW.

(6) GIFT TO HOUSEHOLD

MARK TO SHOW WHETHER TWO DOLLAR COIN PACKET WAS ACCEPTED

- 1  TWO DOLLAR COIN PACKET ACCEPTED BY HOUSEHOLD  
0  NOT ACCEPTED

(7) NAME AND PHONE NUMBER OF HEAD OF HOUSEHOLD (OR ONE OF HOUSEHOLD HEADS)

Name

Phone number

Area code ( )

(8) INTERVIEWER'S NAME AND I.D. NUMBER

Interviewer

I.D. number

This survey is voluntary and authorized under the Federal Energy Administration Act of 1974 (Public Law 93-275). Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

# Residential Energy Consumption Survey

Fall-Winter • 1980-1981



**U.S. Department of Energy**  
**Energy Information Administration**

Location # _____	111-116
Housing Unit # _____	117-118

TIME INTERVIEW STARTED

1. In what year did your family move into this house (apartment)?

- 01[] BEFORE 1940  
02[] 1940-1949  
03[] 1950-1959  
04[] 1960-1964  
05[] 1965-1969  
06[] 1970-1974  
07[] 1975-1979  
08[] 1980 -- ASK Q. 2  
09[] 1981

121-122

IF "1980" OR "1981," ASK:

2. In which month did you move in?  
(SPECIFY MONTH AND ENTER LAST TWO DIGITS OF YEAR.)

MONTH:

123-124

YEAR: 19

3. In what year was this house (building) built?  
Just your estimate.

- 01[] BEFORE 1940  
02[] 1940-1949  
03[] 1950-1959  
04[] 1960-1964  
05[] 1965-1969  
06[] 1970-1974  
07[] 1975  
08[] 1976  
09[] 1977 -- ASK Q. 4  
10[] 1978  
11[] 1979  
12[] 1980  
13[] 1981

125-126

IF "1977," ASK:

4. Do you happen to know if the (house/building) was completed in January through June or July through December of 1977?

- 1[] JANUARY-JUNE 1977  
2[] JULY-DECEMBER 1977  
6[] DON'T KNOW

127

5. What material is mainly used on the outside walls of your (house/building)? (IF TWO MATERIALS ARE USED ABOUT THE SAME AMOUNT, MARK TWO BOXES.)

- |   |     |
|---|-----|
| <input type="checkbox"/> BRICK                                | 138 |
| <input type="checkbox"/> WOOD                                 | 139 |
| <input type="checkbox"/> CONCRETE                             | 140 |
| <input type="checkbox"/> STUCCO                               | 141 |
| <input type="checkbox"/> STONE                                | 142 |
| <input type="checkbox"/> ALUMINUM SIDING                      | 143 |
| <input type="checkbox"/> COMPOSITION (ASBESTOS SHINGLE, ETC.) | 144 |
| <input type="checkbox"/> GLASS                                | 145 |
| <input type="checkbox"/> OTHER (SPECIFY): _____               | 146 |

6. How many floors do you use as year-round living space here in your house (apartment)?

AREAS USED AS REGULAR, YEAR-ROUND LIVING SPACE (FOR BEDROOM, KITCHEN, STUDY, ETC.) IN BASEMENT OR ATTIC SHOULD BE COUNTED.

DO NOT COUNT UNFINISHED AREAS USED FOR ROUGH WORKROOMS, UTILITY ROOM, LAUNDRY ROOM, ETC., OR AREAS USED EXCLUSIVELY FOR BUSINESS/PROFESSIONAL PURPOSES.

7. Altogether (counting all areas that are used as year-round living space), how many rooms do you have in your living quarters? Do not count bathrooms, unheated porches, foyers, or hallways.

8. How about the largest room (living or family room) of your house (apartment) -- what is your estimate of the length and width in feet?

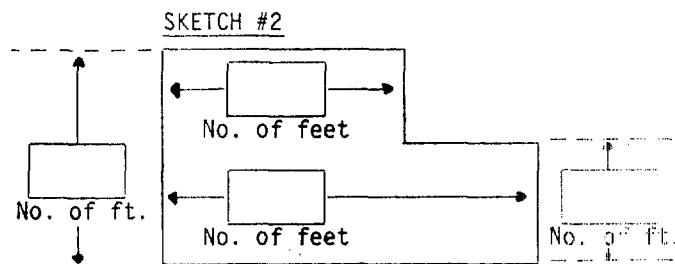
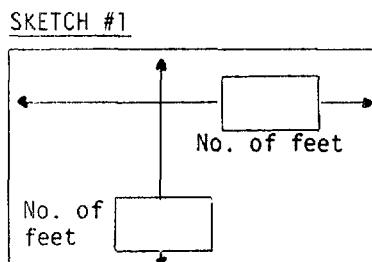
INTERVIEWER: PUT RESPONDENT'S ESTIMATE IN BOXES IN RECTANGULAR OR L-SHAPED SKETCH AT RIGHT, AS APPROPRIATE. IF RESPONDENT IS UNABLE TO MAKE ESTIMATE, PUT IN YOUR OWN BEST ESTIMATE.

NOTE BELOW WHETHER LARGEST ROOM IS RECTANGULAR OR L-SHAPED, AND HOW ESTIMATE WAS MADE.

- 140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153
- 1 LARGEST ROOM IS RECTANGULAR: ENTER DIMENSIONS IN SKETCH #1
- 2 LARGEST ROOM IS L-SHAPED: ENTER DIMENSIONS IN SKETCH #2

- SOURCE OF ESTIMATE
- 1 ESTIMATE MADE BY RESPONDENT
- 2 ESTIMATE MADE BY INTERVIEWER
- 3 RESPONDENT/INTERVIEWER MEASURED

NUMBER OF ROOMS: \_\_\_\_\_ 148-149



INTERVIEWER: DO NOT WRITE IN THIS SPACE.  
OFFICE USE ONLY.

--	--	--	--

142-144      145-147      148-150      151-153

9. Is any part of your (house/apartment) used exclusively for business or professional purposes, such as a real estate office, doctor's office, or beauty parlor?

YES

NO-- SKIP TO Q. 13

154

IF "YES," ASK:

10. Could you describe that business or professional activity? (IF MORE THAN ONE BUSINESS/PROFESSIONAL ACTIVITY, DESCRIBE THE MAIN ACTIVITY.)

155-

156

11. How many rooms are used exclusively for this purpose?

NUMBER OF ROOMS USED EXCLUSIVELY FOR BUSINESS/PROFESSIONAL PURPOSES:

157-  
158

12. Were these rooms included in your count of (# IN Q.7) rooms in your living quarters?

YES

NO

159

13. Do you have complete plumbing facilities in this house (building); that is, hot and cold running water, a flush toilet, and a bathtub or shower?

YES

NO, HAVE SOME BUT NOT ALL PLUMBING FACILITIES -- SKIP TO Q. 16

160

NO PLUMBING FACILITIES IN HOUSE OR BUILDING -- SKIP TO Q. 16

IF "YES," ASK:

14. Are they for this household only or are they also used by another household?

FOR THIS HOUSEHOLD ONLY

161

ALSO USED BY ANOTHER HOUSEHOLD

15. How many complete bathrooms and how many half-bathrooms do you have? (A complete bathroom is a room with a flush toilet, bathtub or shower, and a sink/washbasin with running water. A half-bath has at least a flush toilet or bathtub or shower, but does not have all the facilities for a complete bathroom.)

NUMBER OF COMPLETE BATHROOMS:

162

NONE

NUMBER OF HALF BATHROOMS:

163

NONE

HAND RESPONDENT EXHIBIT 16

16. What is the main heating equipment for your home?

- 01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING)
- 02 STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS
- 03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (DO NOT COUNT HEAT PUMP HERE) -- ASK Q. 17
- 04 HEAT PUMP
- 05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)
- 06 FLOOR, WALL, OR PIPELESS FURNACE
- 07 ROOM HEATER BURNING GAS, OIL, KEROSENE
- 08 HEATING STOVE BURNING WOOD, COAL, COKE
- 09 FIREPLACE(S)
- 10 PORTABLE HEATER(S)
- 21 OTHER (SPECIFY): \_\_\_\_\_
- 96 DON'T KNOW
- 00 NO HEATING EQUIPMENT USED -- SKIP TO Q. 29

164-  
165TAKE BACK EXHIBIT 16

IF "CENTRAL WARM AIR," ASK:

17. Is the warm air forced through the ducts by a fan?

- 1 YES
- 0 NO
- 6 DON'T KNOW

166

18. Since September 1979, has your main heating equipment been serviced or cleaned?

- 1 YES
- 0 NO
- 6 DON'T KNOW

167

IF "YES", ASK:

19. In what month and year was this work completed?

MONTH: \_\_\_\_\_

168-  
169

YEAR: 19 \_\_\_\_\_

170-  
171

IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q. 20. OTHERWISE, SKIP TO Q. 21.

20. Is your home heated by a central system for your building (or group of buildings) or is the main heating equipment for your living quarters only?

- 1 CENTRAL SYSTEM FOR BUILDING(S)
- 2 MAIN HEATING EQUIPMENT FOR THESE LIVING QUARTERS ONLY

172

HAND RESPONDENT EXHIBIT 21

21. What is the main fuel used for heating this house (apartment)?

- 01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
- 02 GAS, LPG (BOTTLED OR TANK GAS)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): \_\_\_\_\_

173-  
174

00 NO FUEL USED

TAKE BACK EXHIBIT 21

22. Do you have a thermostat, radiator valve, or other control to adjust the temperature in your (house/apartment) during the heating season?

- 1 YES
- 0 NO

175

23. In the winter of 1979-80 was the main fuel used to heat this house (apartment) the same as it is now?

- 1 YES -- SKIP TO Q. 25
- 2 NO
- 9 DID NOT LIVE IN THIS HOUSE (APARTMENT) LAST WINTER -- SKIP TO Q. 25
- 0 NO FUEL USED -- SKIP TO Q. 29

176

IF "NO," ASK:

HAND RESPONDENT EXHIBIT 24

24. What was the main fuel used to heat this house (apartment) in the winter of 1979-80?

- 01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
- 02 GAS, LPG (BOTTLED OR TANK GAS)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): \_\_\_\_\_

177-  
178

00 NO FUEL USED

TAKE BACK EXHIBIT 24

HAND RESPONDENT EXHIBIT 25

207-208:02

25. You have already mentioned your main heating equipment. Are any of these types of equipment used in your home in addition to your main equipment?

 YES NO -- TAKE BACK EXHIBIT 25,  
SKIP TO Q. 29

211

IF "YES," ASK:

26. What type(s) do you use? (IF MORE THAN ONE TYPE IS MENTIONED, MARK ONLY THE ONE USED MOST.)

 01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) 02 STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS 03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (DO NOT COUNT HEAT PUMP HERE) -- ASK Q. 27 04 HEAT PUMP

212-

 05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)

213

 06 FLOOR, WALL, OR PIPELESS FURNACE 07 ROOM HEATER BURNING GAS, OIL, KEROSENE 08 HEATING STOVE BURNING WOOD, COAL, COKE 09 FIREPLACE(S) 10 PORTABLE HEATER(S) 21 OTHER (SPECIFY): \_\_\_\_\_ 96 DON'T KNOW

IF "CENTRAL WARM AIR," ASK:

27. Is the warm air forced through the ducts by a fan?

 1 YES 0 NO

214

TURN TO EXHIBIT 28

28. What fuel is used by this additional equipment?

 01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD 02 GAS, LPG (BOTTLED OR TANK GAS) 03 FUEL OIL 04 KEROSENE OR COAL OIL 05 ELECTRICITY

215-

 06 COAL OR COKE

216

 07 WOOD 08 SOLAR COLLECTORS 21 OTHER (SPECIFY): \_\_\_\_\_TAKE BACK EXHIBIT 28

29. Has any wood been burned in your home in the past 12 months?

YES

NO -- SKIP TO Q. 40

217

IF "YES," ASK:

HAND RESPONDENT EXHIBIT 30

30. Did your household burn less than a rack, or one rack or more? A rack is 16 in. x 4 ft. x 8 ft. or one third of a cord.

LESS THAN ONE RACK -- TAKE BACK EXHIBIT 30,  
SKIP TO Q. 40

218

ONE RACK OR MORE

219-221

NUMBER OF RACKS

(16 in. x 4 ft. x 8 ft.):

[ ]

OR

NUMBER OF CORDS

(4 ft. x 4 ft. x 8 ft.):

[ ]

[ ] DON'T KNOW

TAKE BACK EXHIBIT 30

32. Was the wood you burned in the past 12 months mostly hardwood or mostly softwood? Hardwood is from broad-leaf trees such as maple, or birch. Softwood is from evergreens such as pine, spruce, or fir.

HARDWOOD

SOFTWOOD

222

DON'T KNOW

HAND RESPONDENT EXHIBIT 33

33. About how much of the wood you burned in the past 12 months did you purchase?

NONE, VERY LITTLE (LESS THAN 5%) --  
TAKE BACK EXHIBIT 33, SKIP TO Q. 38

1/4 (5 - 33%)

223

1/2 (34 - 66%)

3/4 (67 - 95%)

ALL (96 - 100%)

TAKE BACK EXHIBIT 33

IF 1/4 OR MORE PURCHASED, ASK:

34. About when was your household's most recent purchase of wood?

MONTH: [ ]

224-  
225

YEAR: 19 [ ]

226-  
227

35. On your household's most recent purchase of wood, how was the wood measured: by the rack, cord, or some other measure? (IF "TRUCKLOAD," PROBE FOR SIZE OF TRUCK.)

RACK

CORD

228

OTHER (SPECIFY): \_\_\_\_\_

36. About what was the price per (rack/cord/other measure) on your household's most recent purchase of wood?

PRICE: \$ \_\_\_\_\_

229-  
231

37. Did the purchase price include delivery of the wood to your home?

YES

NO

232

CONTINUE IF ONE RACK OR MORE OF WOOD WAS BURNED IN LAST 12 MONTHS. OTHERWISE, SKIP TO Q. 40.

HAND RESPONDENT EXHIBIT 38

38. We may have covered some of these before, but please look at this exhibit and tell me which of these you have in your house (apartment)?

233-240

	HAVE	DO NOT HAVE	AMOUNT BURNED				
			NONE (LESS THAN 5%)	1/4 (5 - 33%)	1/2 (34 - 66%)	3/4 (67 - 95%)	ALL (96 - 100%)
a. Fireplace	1[ ]	0[ ]	0[ ]	1[ ]	2[ ]	3[ ]	4[ ]
b. Airtight stove (with gasket)	1[ ]	0[ ]	0[ ]	1[ ]	2[ ]	3[ ]	4[ ]
c. Non-airtight stove (no gasket)	1[ ]	0[ ]	0[ ]	1[ ]	2[ ]	3[ ]	4[ ]
d. Wood-burning furnace	1[ ]	0[ ]	0[ ]	1[ ]	2[ ]	3[ ]	4[ ]

TURN TO EXHIBIT 39

39. About how much of the wood you burned in the past 12 months was burned in \_\_\_\_\_? (ASK FOR EACH TYPE OF EQUIPMENT HOUSEHOLD HAS.)

TAKE BACK EXHIBIT 39

HAND RESPONDENT EXHIBIT 4040. Which fuel is used most for heating water?

- 01[] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD  
 02[] GAS, LPG (BOTTLED OR TANK GAS)  
 03[] FUEL OIL  
 04[] KEROSENE OR COAL OIL  
 05[] ELECTRICITY  
 06[] COAL OR COKE  
 07[] WOOD  
 08[] SOLAR COLLECTORS  
 21[] OTHER (SPECIFY): \_\_\_\_\_

241-  
242 00[] NO FUEL USED -- SKIP TO Q. 43TAKE BACK EXHIBIT 40

41. Do you have hot running water in your home?

- 1[] YES  
 0[] NO -- SKIP TO Q. 43

243

IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q. 42. OTHERWISE, SKIP TO Q. 43.

42. Is your hot water supplied by a central system for your building (or group of buildings) or is the water heater for your living quarters only?

- 1[] CENTRAL SYSTEM FOR BUILDING(S)  
 2[] FOR THESE LIVING QUARTERS ONLY

244

43. Do you have air-conditioning, either a central system or individual window or wall units? (MARK ALL THAT APPLY.)

- [] YES, CENTRAL SYSTEM  
 [] YES, INDIVIDUAL (WINDOW/WALL) UNITS  
 [] NO -- SKIP TO INSTRUCTION FOR Q. 48

245-  
246

44. How many rooms in your house (apartment) are cooled by air-conditioning? Do not count bathrooms, hallways, foyers, or enclosed porches.

NUMBER OF ROOMS: \_\_\_\_\_  
 95[] ENTIRE HOUSE OR APARTMENT

247-  
248

IF "INDIVIDUAL (WINDOW/WALL) UNITS" ON Q. 43 ASK:

45. How many window or wall units do you have in your house (apartment)?

NUMBER OF  
 (WINDOW/WALL) UNITS: \_\_\_\_\_

249

IF "CENTRAL SYSTEM" ON Q. 43, ASK:

46. Does the central air-conditioning system use gas or electricity?

- 1[] GAS  
 2[] ELECTRICITY  
 6[] DON'T KNOW

250

IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q. 47. OTHERWISE SKIP TO INSTRUCTION FOR Q. 48.

47. Is it a central air-conditioning system for your building (or group of buildings) or is the main air-conditioning equipment for your living quarters only?

- 1[] CENTRAL SYSTEM FOR BUILDING  
 2[] AIR-CONDITIONING IS FOR THESE LIVING QUARTERS ONLY

251

IF ONE-FAMILY HOUSE, ASK Q. 48 ff. OTHERWISE (TRAILER OR 2 OR MORE UNITS IN BUILDING) SKIP TO Q. 59.

48. Do you have insulation in all, or some, or none of the outside walls of your home?

1 ALL  
 2 SOME  
 0 NONE  
 6 DON'T KNOW

252

49. Do you have roof or ceiling insulation?

1 YES  
 0 NO -- SKIP TO Q. 54.  
 6 DON'T KNOW -- SKIP TO Q. 54.

253

IF "YES," ASK:

50. Is all the roof or ceiling area insulated or just part of it?

1 ALL  
 2 PART

254

IF "PART," ASK:

HAND RESPONDENT EXHIBIT 51

51. About how much of the roof or ceiling area is insulated?

0 NONE, VERY LITTLE (LESS THAN 5%)  
 1 1/4 (5 - 33%)  
 2 1/2 (34 - 66%)  
 3 3/4 (67 - 95%)  
 4 ALL (96 - 100%)

255

TAKE BACK EXHIBIT 51

HAND RESPONDENT EXHIBIT 52

52. This exhibit shows different kinds of insulation. Please tell me whether or not you have each one in your roof or ceiling area.

a. BATT/BLANKET	<input type="checkbox"/> 1 YES <input type="checkbox"/> 0 NO <input type="checkbox"/> 6 DON'T KNOW	INCHES <input type="checkbox"/> 1 DON'T KNOW
b. LOOSE PARTICLES/LOOSE FILL	<input type="checkbox"/> 1 YES <input type="checkbox"/> 0 NO <input type="checkbox"/> 6 DON'T KNOW	INCHES <input type="checkbox"/> 1 DON'T KNOW
c. FIRM FOAM/FIRM PLASTIC	<input type="checkbox"/> 1 YES <input type="checkbox"/> 0 NO <input type="checkbox"/> 6 DON'T KNOW	INCHES <input type="checkbox"/> 1 DON'T KNOW
d. SPRAYED-IN URETHANE FOAM	<input type="checkbox"/> 1 YES <input type="checkbox"/> 0 NO <input type="checkbox"/> 6 DON'T KNOW	INCHES <input type="checkbox"/> 1 DON'T KNOW
e. OTHER (SPECIFY):	<input type="checkbox"/> 1 YES <input type="checkbox"/> 0 NO <input type="checkbox"/> 6 DON'T KNOW	INCHES <input type="checkbox"/> 1 DON'T KNOW

258-

258

259-

261

262-

264

265-

267

268-

270

FOR EACH "YES," ASK:

53. About how many inches of (INSULATION TYPE) do you have in your roof or ceiling area? \_\_\_\_\_

TAKE BACK EXHIBIT 52

CONTINUE IF ONE-FAMILY HOUSE. OTHERWISE SKIP TO Q. 59.

307-308:03

HAND RESPONDENT EXHIBIT 54

54. Does this house have a basement, an enclosed crawl space, a crawl space open to the outside, a concrete slab, or a combination of these? (MARK ALL THAT APPLY.)

- |   |     |
|---|-----|
| <input type="checkbox"/> BASEMENT   | 311 |
| <input type="checkbox"/> CRAWL SPACE -- ENCLOSED                              | 312 |
| <input type="checkbox"/> CRAWL SPACE OPEN TO OUTSIDE                          | 313 |
| <input type="checkbox"/> CONCRETE SLAB -- TAKE BACK EXHIBIT 54, SKIP TO Q. 59 | 314 |
| <input type="checkbox"/> OTHER (SPECIFY): _____                               | 315 |

IF "BASEMENT," "CRAWL SPACE," OR "COMBINATION," ASK:

55. Is all, part, or none of the basement or crawl space heated?

- |   |     |
|---|-----|
| <input type="checkbox"/> ALL -- SKIP TO Q. 59 |     |
| <input type="checkbox"/> PART                 | 316 |
| <input type="checkbox"/> NONE                 |     |

IF "PART" OR "NONE" IS HEATED, ASK:

TURN TO EXHIBIT 56

56. Think of the floor area above the unheated basement or crawl space. About how much of that floor area is insulated?

- |  |     |
|--|-----|
| <input type="checkbox"/> NONE, VERY LITTLE (LESS THAN 5%) -- TAKE BACK EXHIBIT 56, SKIP TO Q. 59 |     |
| <input type="checkbox"/> 1/4 (5 - 33%)   |     |
| <input type="checkbox"/> 1/2 (34 - 66%)  | 317 |
| <input type="checkbox"/> 3/4 (67 - 95%)  |     |
| <input type="checkbox"/> ALL (96 - 100%)   |     |
| <input type="checkbox"/> DON'T KNOW  |     |

TURN TO EXHIBIT 57

57. Please look at this exhibit and tell me whether or not you have each one in the floor above your unheated basement and/or crawl space.

a. BATT/BLANKET	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> DON'T KNOW	INCHES <input type="checkbox"/> DON'T KNOW	318-320
b. LOOSE PARTICLES/LOOSE FILL	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> DON'T KNOW	INCHES <input type="checkbox"/> DON'T KNOW	321-323
c. FIRM FOAM/FIRM PLASTIC	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> DON'T KNOW	INCHES <input type="checkbox"/> DON'T KNOW	324-326
d. SPRAYED-IN URETHANE FOAM	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> DON'T KNOW	INCHES <input type="checkbox"/> DON'T KNOW	327-329
e. OTHER (SPECIFY): _____	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> DON'T KNOW	INCHES <input type="checkbox"/> DON'T KNOW	330-332

FOR EACH "YES," ASK:

58. About how many inches of (INSULATION TYPE) do you have in the floor area above your unheated basement and/or crawl space? \_\_\_\_\_

TAKE BACK EXHIBIT 57

HAND RESPONDENT EXHIBIT 59

59. Please look at this exhibit of different kinds of doors. How many of each of these types of doors do you have that go from a heated area to the outside or to an unheated area? (SEE INSTRUCTION BELOW.)

NUMBER OF DOORS	NUMBER WITH STORM DOOR OR INSULATING GLASS	NUMBER STORM/INSULATED DOORS PUT IN SINCE JANUARY 1, 1979	MONTH: _____ YEAR: 19_____	1[ ] DOORS AND HAVING THEM PUT IN 340 2[ ] DOORS ONLY 5[ ] OTHER (SPECIFY): _____	340-342
a. Sliding glass doors 333	334	335	MONTH: _____ YEAR: 19_____	1[ ] DOORS AND HAVING THEM PUT IN 340 2[ ] DOORS ONLY 5[ ] OTHER (SPECIFY): _____	APPROXIMATE COST: \$ _____.00 [ ] DON'T KNOW
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		
b. Doors with glass panels 344	345	346	MONTH: _____ YEAR: 19_____	1[ ] DOORS AND HAVING THEM PUT IN 351 2[ ] DOORS ONLY 5[ ] OTHER (SPECIFY): _____	352-354 APPROXIMATE COST: \$ _____.00 [ ] DON'T KNOW
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		
c. Regular doors (doors without glass panels) 355	356	357	MONTH: _____ YEAR: 19_____	1[ ] DOORS AND HAVING THEM PUT IN 362 2[ ] DOORS ONLY 5[ ] OTHER (SPECIFY): _____	363-365 APPROXIMATE COST: \$ _____.00 [ ] DON'T KNOW
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		

TAKE BACK EXHIBIT 59

FOR EACH TYPE OF DOOR FOR WHICH ANSWER IS "ONE OR MORE," ASK:

60. (Does/How many of) the door(s) have (a storm door/storm doors) or insulating glass?

FOR EACH TYPE OF STORM DOOR OR DOOR WITH INSULATING GLASS, ASK:

61. How many of the (storm/insulated glass) doors were put in your home since January 1, 1979?

IF ONE OR MORE, ASK:

62. In what month and year did you get (it/them)?

63. (Did you pay/Are you paying) both for the door(s) and having the door(s) put in, only for the door(s) themselves, or what?

64. Approximately what (did/will) the job cost? (SEE INSTRUCTION BELOW.)

**INTERVIEWER INSTRUCTIONS:**

Q. 59 -- Count each pair of sliding glass doors as one door. Include doors that go to an unheated porch or garage. Do not include doors to a heated hallway in an apartment building, doors that are permanently sealed shut, or doors to an unheated attic or basement.

Q. 64 -- If more than one type of door was part of the same job and if respondent is unable to break down the cost among the different types, note below and record the total cost.

407-408:04

65. How many windows do you have in your home? Please include base-  
ment, attic, garage, and porch windows only if these areas are  
heated. (SEE INSTRUCTIONS BELOW.)

NUMBER OF  
WINDOWS:409-  
410HAND RESPONDENT EXHIBIT 66

66. How many of your windows are these sizes?

NUMBER OF WINDOWS	NUMBER WITH STORM WINDOWS OR INSULATING GLASS	NUMBER STORM WINDOWS PUT IN SINCE JANUARY 1, 1979	MONTH: YEAR: [ ] IN PROCESS	1[ ] WINDOWS AND HAVING THEM PUT IN 2[ ] WINDOWS ONLY 5[ ] OTHER (SPECIFY): _____	APPROXIMATE COST: \$ _____ .00 [ ] DON'T KNOW
	411- 412	413- 414			
a. Large	411- 412	413- 414	415- 416	1[ ] WINDOWS AND HAVING THEM PUT IN 421 2[ ] WINDOWS ONLY 5[ ] OTHER (SPECIFY): _____	422-424
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		APPROXIMATE COST: \$ _____ .00 [ ] DON'T KNOW
b. Medium	425- 426	427- 428	429- 430	1[ ] WINDOWS AND HAVING THEM PUT IN 435 2[ ] WINDOWS ONLY 5[ ] OTHER (SPECIFY): _____	436-438
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		APPROXIMATE COST: \$ _____ .00 [ ] DON'T KNOW
c. Small	439- 440	441- 442	443- 444	1[ ] WINDOWS AND HAVING THEM PUT IN 449 2[ ] WINDOWS ONLY 5[ ] OTHER (SPECIFY): _____	450-452
[ ] NONE	[ ] NONE	[ ] NONE	[ ] IN PROCESS		APPROXIMATE COST: \$ _____ .00 [ ] DON'T KNOW

TAKE BACK EXHIBIT 66

67. How many of the \_\_\_\_\_ windows  
have storm windows or insulating  
glass? (SEE INSTRUCTIONS  
BELOW.)

IF ONE OR MORE WINDOWS WITH STORM  
WINDOWS OR INSULATING GLASS, ASK:

68. How many of the storm windows or  
windows with insulating glass  
were put in your home since  
January 1, 1979?

IF ONE OR MORE, ASK:

69. In what month and year did you get them?

70. (Did you pay/are you paying) for having the windows put in, only  
for the windows themselves, or what?

71. Approximately what (did/will) the job cost? (SEE INSTRUCTION BELOW.)

**INTERVIEWER INSTRUCTIONS:**

Q. 65 -- Each window that opens separately should be counted as one window. Also count windows that are fixed in place. Do not include windows (glass panels) in doors.

Q. 67 -- Windows made of double glass and other types of insulating glass count the same as storm windows.

Q. 71 -- If more than one type of window was part of the same job and if respondent is unable to break down the cost among the different types, note below and record the total cost.

HAND RESPONDENT EXHIBIT 72

72. Please look at this list and tell me which items, if any, have been added or installed in your home since January 1, 1979? (SEE INSTRUCTIONS BELOW.)

a. CLOSEABLE SHUTTERS, PLASTIC SHEETS, INSULATING DRAPES	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IN PROCESS	MONTH: _____ YEAR: 19_____ [ ] IN PROCESS	463- 467
b. CAULKING AROUND ANY WINDOWS OR DOORS TO THE OUTSIDE	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IN PROCESS	MONTH: _____ YEAR: 19_____ [ ] IN PROCESS	466- 468
c. WEATHER STRIPPING AROUND ANY WINDOWS OR DOORS TO THE OUTSIDE	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IN PROCESS	MONTH: _____ YEAR: 19_____ [ ] IN PROCESS	463- 467

FOR EACH "YES," ASK:

73. In what month and year was it added or installed? \_\_\_\_\_  
(SEE INSTRUCTION BELOW.)

TAKE BACK EXHIBIT 72

**INTERVIEWER INSTRUCTIONS:**

Q. 72 -- Count as "In Process" any work started but not yet completed. Do not count any changes made before this household moved in.

Q. 73 -- If household has done item more than once, put down the most recent date.

507-508:05

74. In the past year, has any professional come to your home to advise you on how your household could save on its energy bills?

 YES NO -- SKIP TO Q. 77

511

IF "YES," ASK:

75. In what month and year did the visit occur?

MONTH:

512-  
513

YEAR:

19

514-  
515HAND RESPONDENT EXHIBIT 76

76. Was the professional a private contractor, a representative from the electric or gas company, a representative from a fuel oil or LPG company, or someone else?

 ELECTRIC OR GAS COMPANY REPRESENTATIVE -- SKIP TO INSTRUCTION FOR Q. 81 FUEL OIL OR LPG COMPANY REPRESENTATIVE -- SKIP TO INSTRUCTION FOR Q. 81 PRIVATE CONTRACTOR SOMEONE ELSE (SPECIFY):-- ASK Q. 77 IF  
BOX "1" OR "2"  
IS NOT MARKEDTAKE BACK EXHIBIT 76IF ELECTRIC, GAS, FUEL OIL, OR LPG COMPANY REPRESENTATIVE  
NOT MENTIONED ON Q. 76 OR "NO" ON Q. 74, ASK:

77. If you request it, will your electric company or heating fuel supplier send a professional to inspect your house and advise you on ways to save energy?

 YES, THEY WILL

517

 NO, THEY WON'TSKIP TO INSTRUCTION  
FOR Q. 81 DON'T KNOW

IF "YES," ASK:

78. Do you now have any plans to request this service from your electric company or heating fuel supplier?

 YES -- SKIP TO INSTRUCTION FOR Q. 81

518

 NO

IF "NO," ASK:

79. Is there some reason you have for not requesting this service?

 YES

519

 NO -- SKIP TO INSTRUCTION FOR Q. 81

IF "YES," ASK:

80. What is your reason?

IF ONE-FAMILY HOUSE, ASK Q. 81 ff. IF TRAILER, SKIP TO Q. 86. IF 2 OR MORE UNITS IN BUILDING, SKIP TO Q. 98.

HAND RESPONDENT EXHIBIT 81

81. Please look at this list and tell me which items, if any, have been added or installed in your home since January 1, 1979. (SEE INSTRUCTION BELOW.)

a. Roof or ceiling insulation	MONTH: _____ YEAR: 19 [ ] IN PROCESS	521-524	525	526	527-- 528
b. Insulation in the outside walls	MONTH: _____ YEAR: 19 [ ] IN PROCESS	531-534	535	536	537-- 538
c. Insulation in the basement or crawl space below floor of house	MONTH: _____ YEAR: 19 [ ] IN PROCESS	541-544	545	546	547-- 549

TAKE BACK EXHIBIT 81

FOR EACH "YES" OR "IN PROCESS" ANSWER, ASK:

82. In what month and year was the work completed? (SEE INSTRUCTIONS BELOW.) \_\_\_\_\_

HAND RESPONDENT EXHIBIT 83

83. What type of insulation is it? (SEE INSTRUCTION BELOW.) \_\_\_\_\_

TAKE BACK EXHIBIT 83

84. (Did you pay/Are you paying) for labor and materials, only for materials, or what? \_\_\_\_\_

85. Approximately what (did/will) the job cost? \_\_\_\_\_

INTERVIEWER INSTRUCTIONS:

Q. 81 -- Mark "Yes," "No," or "In Process," for each item. Count as "In Process" any work started but not yet completed. Do not count changes made before this household moved in.

Q. 82 -- If household has done item more than once, write down the most recent date.

Q. 83 -- If more than one type of insulation, mark one used most.

IF ONE-FAMILY HOUSE OR TRAILER, ASK Q. 86 ff. OTHERWISE SKIP TO Q. 98.

86. Since January 1, 1979, has a heat pump or wood burning stove been installed in your home? (SEE INSTRUCTION BELOW.)

a. Heat pump 550 <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IN PROCESS	551-554 MONTH: _____ YEAR: 19 <input type="checkbox"/> IN PROCESS	<input type="checkbox"/> LABOR AND MATERIALS 555 <input type="checkbox"/> MATERIALS ONLY <input type="checkbox"/> OTHER (SPECIFY): _____	556-559 APPROXIMATE COST: \$ _____.00 <input type="checkbox"/> DON'T KNOW
b. Wood-burning stove <input type="checkbox"/> YES 560 <input type="checkbox"/> NO <input type="checkbox"/> IN PROCESS	561-564 MONTH: _____ YEAR: 19 <input type="checkbox"/> IN PROCESS	<input type="checkbox"/> LABOR AND MATERIALS 565 <input type="checkbox"/> MATERIALS ONLY <input type="checkbox"/> OTHER (SPECIFY): _____	566-569 APPROXIMATE COST: \$ _____.00 <input type="checkbox"/> DON'T KNOW

FOR EACH "YES" OR "IN PROCESS"  
ANSWER, ASK:

87. In what month and year was the work completed? (SEE INSTRUCTION BELOW.)

88. (Did you pay/Are you paying) for labor and materials or only for materials?

89. Approximately what (did/will) the job cost?

### INTERVIEWER INSTRUCTIONS:

Q. 86 -- Mark "Yes," "No," or "In Process" for each item. Count as "In Process" any work started but not yet completed. Do not count any changes made before this household moved in.

Q. 87 -- If household has done item more than once, write down most recent date.

CONTINUE IF ONE-FAMILY HOUSE OR TRAILER. OTHERWISE SKIP TO Q. 98.

607-608:06

HAND RESPONDENT EXHIBIT 90

90. Please look at this list and tell me which items, if any, have been added or installed in your home since January 1, 1979. (SEE INSTRUCTION BELOW.)

	<u>YES</u>	<u>NO</u>	<u>IN PROCESS</u>	<u>MONTH</u>	<u>YEAR</u>	<u>IN PROCESS</u>	
a. An automatic or clock thermostat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	611-615
b. Adjustments to thermostat control (recalibration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	615-620
c. An additional thermostat (zoned your home)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	621-625
d. Smaller nozzle or burner or smaller line on furnace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	626-630
e. Flame retention head burner for furnace (fuel oil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	631-635
f. Automatic flue door (vent damper)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	636-640
g. Electrical or mechanical furnace ignition system (spark ignition)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	641-645
h. Insulation around heating ducts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	646-650
i. Insulation around the hot water pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	651-655
j. Insulation around the hot water heater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	656-660
k. Meter which displays the cost of energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	661-665
l. Other energy-saving devices (Specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		19	<input type="checkbox"/>	666-670

FOR EACH "YES," ASK:

91. In what month and year was the work completed? \_\_\_\_\_

TAKE BACK EXHIBIT 90

**INTERVIEWER INSTRUCTIONS:**

Q. 90 -- Mark "Yes," "No," or "In Process" for each item. Count as "In Process" any work started but not yet completed. Do not count any changes made before this household moved in.

Q. 91 -- If household has done item more than once, write down most recent date.

CONTINUE IF ONE-FAMILY HOUSE OR TRAILER, OTHERWISE SKIP TO Q. 98.

707-708:07

92. In some communities there are programs to help some people save energy by providing and installing such things as insulation, storm windows, or storm doors at no cost to the household. Do you know of such a program in your community?

YES

711

NO -- SKIP TO Q. 95

IF "YES," ASK:

93. Have you made use of the program?

YES

712

NO -- SKIP TO Q. 95

IF "YES," ASK:

HAND RESPONDENT EXHIBIT 94

94. Which of these things have you had done, at no cost to you, through the program?

ATTIC INSULATION

713

INSULATION IN OUTSIDE WALLS

714

INSULATION IN FLOOR AREA ABOVE UNHEATED BASEMENT OR CRAWL SPACE

715

STORM DOORS ADDED

716

STORM WINDOWS ADDED

717

OTHER (SPECIFY): \_\_\_\_\_

718

TAKE BACK EXHIBIT 94

95. Do you have your own swimming pool?

YES

719

NO -- SKIP TO Q. 98

IF "YES," ASK:

96. Do you use a pool heater?

YES

720

NO -- SKIP TO Q. 98

IF "YES," ASK:

97. What fuel is used with the heater?

GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD

721-

GAS, LPG (BOTTLED OR TANK GAS)

722

FUEL OIL

KEROSENE OR COAL OIL

721-

ELECTRICITY

722

COAL OR COKE

WOOD

SOLAR COLLECTORS

OTHER (SPECIFY): \_\_\_\_\_

98. Do you have a refrigerator in your home that is presently in use?

YES  
 NO -- SKIP TO Q. 102

723

IF "YES," ASK:

99. Do you have one refrigerator or more than one that is presently in use? (How many altogether?)

ONE  
 TWO  
 THREE OR MORE

724

ASK ABOUT EACH REFRIGERATOR -- FIRST ASK ABOUT REFRIGERATOR USED MOST:

100. Is it electric or gas?

HAND RESPONDENT EXHIBIT 101

101. Which of these best describes your refrigerator? (MARK ALL THAT APPLY.)

- Freezer section (or ice cube section) must be defrosted periodically . . . . .
- Freezer section defrosts automatically after frost builds up (catch pan must be emptied). . . .
- Full frost-free (frost does not build up). . . .
- No working freezer section . . . . .

REFRIGERATOR #1	REFRIGERATOR #2
<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> ELECTRIC
<input type="checkbox"/> GAS 725	<input type="checkbox"/> GAS 727
<input type="checkbox"/> 726	<input type="checkbox"/> 728
<input type="checkbox"/> 2[]	<input type="checkbox"/> 2[]
<input type="checkbox"/> 3[]	<input type="checkbox"/> 3[]
<input type="checkbox"/> 4[]	<input type="checkbox"/> 4[]

TAKE BACK EXHIBIT 101

102. Do you have a home freezer (that is separate from the refrigerator) that is presently in use?

YES  
 NO -- SKIP TO Q. 106

729

IF "YES," ASK:

103. Do you have one freezer or more than one that is presently in use? (How many altogether?)

ONE  
 TWO  
 THREE OR MORE

730

ASK ABOUT EACH FREEZER -- ASK FIRST ABOUT FREEZER USED MOST:

104. Is it electric or gas?

105. Is it a frost-free freezer or must it be defrosted?

FREEZER #1	FREEZER #2
<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> ELECTRIC
<input type="checkbox"/> GAS 731	<input type="checkbox"/> GAS 733
<input type="checkbox"/> 732	<input type="checkbox"/> 734
<input type="checkbox"/> FROST-FREE	<input type="checkbox"/> FROST-FREE
<input type="checkbox"/> MUST DEFROST	<input type="checkbox"/> MUST DEFROST

HAND RESPONDENT EXHIBIT 106

106. Thinking of all the different kinds of cooking done here, including cooking in the oven, on a range, and with small appliances, which fuel is used most?

- 01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD  
 02 GAS, LPG (BOTTLED OR TANK GAS)  
 03 FUEL OIL  
 04 KEROSENE OR COAL OIL  
 05 ELECTRICITY  
 06 COAL OR COKE  
 07 WOOD  
 21 OTHER (SPECIFY): \_\_\_\_\_  
 00 NO COOKING DONE -- SKIP TO Q. 112

735-  
736TAKE BACK EXHIBIT 106

107. Does your household use an oven of any type, including microwave ovens, for cooking at least occasionally?

IF "YES," ASK:

108. Do you have one oven or more than one oven that you presently use? (How many altogether?)

ASK ABOUT EACH OVEN -- ASK FIRST  
ABOUT OVEN USED MOST:

109. Is it electric or gas?

IF "ELECTRIC," ASK:

110. Is it a microwave oven?

111. Does your oven have a self-cleaning or continuous cleaning feature?

- 1 YES  
 0 NO -- SKIP TO Q. 112

737

- 1 ONE  
 2 TWO  
 3 THREE OR MORE

738

ELECTRIC	SELF-CLEANING
GAS	CONTINUOUS CLEANING
	NEITHER OF THESE

OVEN #1	OVEN #2
<input type="checkbox"/> 1	<input type="checkbox"/> 1
<input type="checkbox"/> 2	<input type="checkbox"/> 2
<input type="checkbox"/> 1	<input type="checkbox"/> 1
<input type="checkbox"/> 0	<input type="checkbox"/> 0
<input type="checkbox"/> 1	<input type="checkbox"/> 1
<input type="checkbox"/> 2	<input type="checkbox"/> 2
<input type="checkbox"/> 0	<input type="checkbox"/> 0

739-  
741 742-  
744

HAND RESPONDENT EXHIBIT 112

112. Which of these do you use here in your (home/apartment)?

ELECTRIC RANGE (STOVE-TOP OR BURNERS)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	745
GAS RANGE (STOVE-TOP OR BURNERS)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	746
OUTDOOR GAS GRILL	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	747
AUTOMATIC CLOTHES WASHER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	748
WRINGER WASHING MACHINE (ELECTRIC)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	749
ELECTRIC DISHWASHER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	750
ELECTRIC CLOTHES DRYER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	751
GAS CLOTHES DRYER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	752
OUTDOOR GAS LIGHT	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	753
ELECTRIC DEHUMIDIFIER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	754
ELECTRIC HUMIDIFIER	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	755
EVAPORATIVE COOLER (SWAMP COOLER)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	756
BLACK AND WHITE TELEVISION SET	<input type="checkbox"/> YES	<input type="checkbox"/> NO	NUMBER: <input type="text"/>
COLOR TELEVISION SET	<input type="checkbox"/> YES	<input type="checkbox"/> NO	NUMBER: <input type="text"/>

IF "YES" FOR BLACK AND WHITE TV SET, ASK:

113. How many black and white television sets do you use here  
in your home? \_\_\_\_\_

IF "YES" FOR COLOR TV SET, ASK:

114. How many color television sets do you use here in your home? \_\_\_\_\_

TAKE BACK EXHIBIT 112

115. Now I have some questions about the people who live here. Please tell me who they are, just in relation to you (if they are related to you), and their ages on their last birthdays. Please begin with yourself.

807-808:08

PERSON NUMBER	RELATIONSHIP TO RESPONDENT	SEX		AGE	Q. 120 - EMPLOYMENT (AGE 14+)		
		FEMALE	MALE		FULL TIME	PART TIME	NOT EMPLOYED
1	RESPONDENT	1[]	2[]		1[]	2[]	0[]
2		1[]	2[]		1[]	2[]	0[]
3		1[]	2[]		1[]	2[]	0[]
4		1[]	2[]		1[]	2[]	0[]
5		1[]	2[]		1[]	2[]	0[]
6		1[]	2[]		1[]	2[]	0[]
7		1[]	2[]		1[]	2[]	0[]
8		1[]	2[]		1[]	2[]	0[]
9		1[]	2[]		1[]	2[]	0[]
10		1[]	2[]		1[]	2[]	0[]
11		1[]	2[]		1[]	2[]	0[]
12		1[]	2[]		1[]	2[]	0[]

I have listed (READ RELATIONSHIPS FROM Q. 115 ABOVE). Have I missed.....

116. Any babies or small children?

YES (ADD TO LISTING)  
 NO

961-962

117. Any lodgers, boarders, or persons in your employ who live here?

YES (ADD TO LISTING)  
 NO

118. Anyone who usually lives here but is away traveling or in the hospital? (SEE INSTRUCTION BELOW.)

YES (ADD TO LISTING)  
 NO

119. Anyone else staying here who does not have a regular residence elsewhere?

YES (ADD TO LISTING)  
 NO

FOR EACH PERSON AGED 14 YEARS OR OLDER, ASK:

120. Is he/she employed full-time (30 hours or more per week), part-time, or not employed?

1[] YES -- SEE INSTRUCTION BELOW  
0[] NO

963

121. Does another family share your home with you?

**INTERVIEWER INSTRUCTIONS:**

Q. 118 -- Persons who are normally members of the household but who are now living away from home (e.g., college students or members of the Armed Forces) should not be listed.

Q. 121 -- If another family shares the same housing unit, members should be listed in household composition table above.

If another family has a separate apartment that is defined by our rules as a separate housing unit, the additional housing unit should be listed on your housing unit address list for this location. See sampling instructions to see whether an additional interview should be completed.

INTERVIEWER: MARK ANSWER. ASK, IF NECESSARY.

RESPONDENT'S  
MARITAL STATUS

122. Are you now married, widowed, divorced, or separated, or have you never been married?

- 1 NOW MARRIED
- 2 WIDOWED
- 3 DIVORCED OR SEPARATED
- 4 NEVER MARRIED

964

HAND RESPONDENT EXHIBIT 123

123. Which of the groups on this exhibit best describes your origin?

- 1 WHITE
- 2 BLACK OR NEGRO
- 3 AMERICAN INDIAN, ALASKAN NATIVE
- 4 ASIAN, PACIFIC ISLANDER
- 5 OTHER (SPECIFY): \_\_\_\_\_

965

TAKE BACK EXHIBIT 123

124. Are you of Spanish origin; that is, from a Spanish-American family?

- 1 YES
- 0 NO

966

IF "YES," ASK:

HAND RESPONDENT EXHIBIT 125

125. Which of these types of Spanish-Americans best describes you?

- 1 MEXICAN, MEXICAN-AMERICAN, CHICANO
- 2 PUERTO RICAN
- 3 CUBAN
- 5 OTHER/SPANISH/HISPANIC

967

TAKE BACK EXHIBIT 125

126. How many members of your household can drive a car?

NUMBER OF  
DRIVERS:

968-  
969

[] NONE

HAND RESPONDENT EXHIBIT 127

1007-1008:10

127. Do you or other members of your household own or have the regular use of any cars, trucks, vans, or similar vehicles? (DO NOT INCLUDE MOTORCYCLES OR MOPEDS.)

 YES NO -- TAKE BACK EXHIBIT 127, SKIP TO 1011 INSTRUCTION FOR Q. 137

IF "YES," ASK:

128. How many do you have?

NUMBER OF VEHICLES: 1012-  
1013

129. Which type(s) do you have? (IF HOUSEHOLD HAS MORE THAN FOUR VEHICLES, MARK ANSWERS FOR THE FOUR VEHICLES USED MOST.)

STATION WAGON  
AUTOMOBILE  
JEEP OR SIMILAR VEHICLE  
PASSENGER VAN OR MINIBUS  
CARGO VAN  
PICKUP TRUCK  
OTHER TRUCK  
MOTOR HOME  
OTHER (SPECIFY):

VE H I C L E   N U M B E R				
	1	2	3	4
1014-	1014-	1029-	1044-	1059-
01[] 1015	01[] 1030	01[] 1045	01[] 1060	
02[]	02[]	02[]	02[]	
03[]	03[]	03[]	03[]	
04[]	04[]	04[]	04[]	
05[]	05[]	05[]	05[]	
06[]	06[]	06[]	06[]	
07[]	07[]	07[]	07[]	
08[]	08[]	08[]	08[]	
21[]	21[]	21[]	21[]	
1016-1017	1031-1032	1046-1047	1061-1062	
MAKE				
1018-1019	1033-1034	1048-1049	1063-1064	
MODEL NAME				
1020-1021	1035-1036	1050-1051	1065-1066	
MODEL YEAR	19_____	19_____	19_____	19_____
	1022	1037	1052	1067
YES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

130. Please tell me the make and model name (of each one).

131. What is the model year (of each one)? (ENTER LAST TWO DIGITS OF MODEL YEAR.)

TAKE BACK EXHIBIT 127

132. Is it used on the job by anyone in your household not counting going to or from work?

CONTINUE IF ONE OR MORE VEHICLES ON Q. 128. OTHERWISE SKIP TO INSTRUCTION FOR Q. 137.

VEHICLE NUMBER				
	1	2	3	4
HAND RESPONDENT EXHIBIT 133				
133. What kind of fuel is used most frequently?				
UNLEADED REGULAR GASOLINE	1023- 1024	1038- 1039	1053- 1054	1068- 1069
UNLEADED PREMIUM GASOLINE	01[]	01[]	01[]	01[]
REGULAR GASOLINE	02[]	02[]	02[]	02[]
PREMIUM OR HIGH TEST GASOLINE	03[]	03[]	03[]	03[]
GASOHOL	04[]	04[]	04[]	04[]
DIESEL	05[]	05[]	05[]	05[]
ELECTRICITY	06[]	06[]	06[]	06[]
OTHER (SPECIFY):	07[]	07[]	07[]	07[]
	21[]	21[]	21[]	21[]
DON'T KNOW	96[]	96[]	96[]	96[]
<u>TURN TO EXHIBIT 134</u>				
134. What type of engine does it have?				
1-CYLINDER	1025- 1026	1040- 1041	1055- 1056	1070- 1071
2-CYLINDER	01[]	01[]	01[]	01[]
3-CYLINDER	02[]	02[]	02[]	02[]
4-CYLINDER	03[]	03[]	03[]	03[]
5-CYLINDER	04[]	04[]	04[]	04[]
6-CYLINDER	05[]	05[]	05[]	05[]
8-CYLINDER	06[]	06[]	06[]	06[]
ROTARY	08[]	08[]	08[]	08[]
ELECTRIC	09[]	09[]	09[]	09[]
OTHER (SPECIFY):	10[]	10[]	10[]	10[]
	21[]	21[]	21[]	21[]
DON'T KNOW	96[]	96[]	96[]	96[]
<u>TAKE BACK EXHIBIT 134</u>				
135. Does it have air-conditioning?	YES	1027	1042	1057
	NO	1[]	1[]	1[]
		0[]	0[]	0[]
136. Does it have an automatic transmission or a manual shift?	AUTOMATIC	1028	1043	1058
	MANUAL SHIFT	1[]	1[]	1[]
		2[]	2[]	2[]

1107-1108:11

CHECK BACK TO Q. 120 ON PAGE 23. MARK APPROPRIATE BOXES.

EMPLOYED FULL/PART TIME  
NOT EMPLOYED  
NO SPOUSE IN HOUSEHOLD

RESPONDENT	SPOUSE
1 [ ]	1 [ ]
0 [ ]	0 [ ]
	9 [ ]
1111	1126

IF RESPONDENT AND/OR SPOUSE (IF IN HOUSEHOLD) IS EMPLOYED,  
ASK Q. 137 ff. OTHERWISE SKIP TO Q. 144.

ASK ABOUT RESPONDENT FIRST, THEN SPOUSE

137. How many miles is it from your home to the place where (you work/your husband or wife works)? (IF RESPONDENT OR SPOUSE HAS NO FIXED PLACE OF WORK, CHECK "NO FIXED PLACE.")

LESS THAN 1 MILE  
1-4 MILES  
5-9 MILES  
10-14 MILES  
15-19 MILES  
20-29 MILES  
30 OR MORE MILES  
NO FIXED PLACE OF WORK  
WORK AT HOME

1112-	1127-
1113	1128
01 [ ]	02 [ ]
02 [ ]	02 [ ]
03 [ ]	03 [ ]
04 [ ]	04 [ ]
05 [ ]	05 [ ]
06 [ ]	06 [ ]
07 [ ]	07 [ ]
11 [ ]	11 [ ]
00 [ ]	00 [ ]
1114-1115	1129-1130

38. How (do you/does your husband or wife) usually get to work? (IF MORE THAN ONE MODE OF TRAVEL, ASK ABOUT MODE USED FOR GREATEST DISTANCE.)

BUS OR STREETCAR  
SUBWAY, ELEVATED  
COMMUTER TRAIN  
TAXI  
AUTOMOBILE OTHER THAN TAXI  
TRUCK  
MOTORCYCLE OR MOPED  
WALK OR BICYCLE  
WORK AT HOME

01 [ ]	01 [ ]
02 [ ]	02 [ ]
03 [ ]	03 [ ]
04 [ ]	04 [ ]
05 [ ]	05 [ ]
06 [ ]	06 [ ]
07 [ ]	07 [ ]
08 [ ]	08 [ ]
00 [ ]	00 [ ]
1116	1131

IF "AUTOMOBILE OTHER THAN TAXI" OR  
"TRUCK," ASK:

139. (Do you/Does your husband or wife) usually ride alone or with other people?

ALONE  
WITH OTHERS

1 [ ]	1 [ ]
2 [ ]	2 [ ]
1117	1132

IF "WITH OTHERS":

140. How many other people?

NUMBER

1118-1120	1133-1135
-----------	-----------

141. About how long would it take (you/your husband or wife) one way to go to work if some form of public transportation were used -- from time leaving home until arriving at work?

MINUTES FOR TRIP, ONE WAY  
NOT POSSIBLE TO USE  
PUBLIC TRANSPORTATION

995 [ ]	995 [ ]
---------	---------

142. How much time is usually required for (you/your husband or wife) to get to work -- from time leaving home until arriving at work?

MINUTES FOR  
TRIP, ONE WAY

1121-1123	1136-1138
-----------	-----------

143. About how many round trips are made between home and work each week?

NUMBER OF  
ROUND TRIPS

1124-1125	1139-1140
-----------	-----------

I have just a few questions for background statistical purposes.

144. What is the highest grade (or year) you attended in school?

00 NEVER ATTENDED SCHOOL -- SKIP TO Q. 146

01 FIRST       07 SEVENTH

02 SECOND      08 EIGHTH

03 THIRD       09 NINTH

04 FOURTH      10 TENTH

05 FIFTH       11 ELEVENTH

06 SIXTH       12 TWELFTH

1141-

1142

COLLEGE (ACADEMIC YEARS)

13 C1       16 C4

14 C2       17 C5

15 C3       18 C6 OR MORE

145. Did you finish that grade (or year)?

1 YES

0 NO

1143

146. At any time in 1979, did you work for pay at a job or business?

1 YES

0 NO -- SKIP TO Q. 148

1144

IF "YES," ASK:

147. During 1979, in how many weeks did you work even for a few hours?  
Include paid vacation and sick leave as work.

NUMBER  
OF WEEKS:

1145-

1146

IF LESS THAN 50 WEEKS, OR "NO" ON Q. 146, ASK:

HAND RESPONDENT EXHIBIT 148/153

148. What was the main reason you did not work (the remaining weeks) in 1979? (READ EACH RESPONSE).  
Were you . . .

01 LOOKING FOR WORK (OR ON LAY-OFF)

02 ILL OR DISABLED AND UNABLE TO WORK

03 TAKING CARE OF FAMILY

04 GOING TO SCHOOL

05 UNABLE TO FIND WORK

1147-

1148

06 IN ARMED FORCES

07 RETIRED

08 DOING SOMETHING ELSE

TAKE BACK EXHIBIT 148/153

**IF RESPONDENT IS MARRIED, ASK Q. 149 ff. OTHERWISE SKIP TO Q. 154.**

149. What is the highest grade (or year) that your (husband/wife) attended in school?

00[ ] NEVER ATTENDED SCHOOL -- SKIP TO Q. 151	
01[ ] FIRST	07[ ] SEVENTH
02[ ] SECOND	08[ ] EIGHTH
03[ ] THIRD	09[ ] NINTH
04[ ] FOURTH	10[ ] TENTH
05[ ] FIFTH	11[ ] ELEVENTH
06[ ] SIXTH	12[ ] TWELFTH

1149-  
1150

COLLEGE (ACADEMIC YEARS)

13[ ] C1	16[ ] C4
14[ ] C2	17[ ] C5
15[ ] C3	18[ ] C6 OR MORE

150. Did (he/she) finish that grade (or year)?

1[ ] YES  
0[ ] NO

1151

151. At any time in 1979, did your (husband/wife) work for pay at a job or business?

1[ ] YES  
0[ ] NO -- SKIP TO Q. 153

1152

IF "YES," ASK:

152. During 1979, in how many weeks did your (husband/wife) work even for a few hours? Include paid vacation and sick leave as work.

NUMBER  
OF WEEKS:

1153-  
1154

IF LESS THAN 50 WEEKS, OR "NO" ON Q. 151 ASK:

HAND RESPONDENT EXHIBIT 148/153

153. What was the main reason your (husband/wife) did not work (the remaining weeks) in 1979? (READ EACH RESPONSE). Was he/she . . .

01[ ] LOOKING FOR WORK (OR ON LAY-OFF)	
02[ ] ILL OR DISABLED AND UNABLE TO WORK	
03[ ] TAKING CARE OF FAMILY	
04[ ] GOING TO SCHOOL	
05[ ] UNABLE TO FIND WORK	1155-
06[ ] IN ARMED SERVICES	1156
07[ ] RETIRED	
08[ ] DOING SOMETHING ELSE	

TAKE BACK EXHIBIT 148/153

HAND RESPONDENT EXHIBIT 154

154. Now let's look at this list of income groups. Please tell me which group letter best describes the total combined income in 1979 of all members of your family living here, from all sources -- wages, dividends, Social Security, and so forth -- before taxes and deductions. (Family includes all related persons living in this household.)

CIRCLE LETTER FOR INCOME GROUP

01 A LOSS	14 N \$14,000 - \$14,999	
02 B \$0 - \$2,999	15 O \$15,000 - \$16,999	
03 C \$3,000 - \$3,999	16 P \$17,000 - \$19,999	
04 D \$4,000 - \$4,999	17 Q \$20,000 - \$24,999	
05 E \$5,000 - \$5,999	18 R \$25,000 - \$29,999	
06 F \$6,000 - \$6,999	19 S \$30,000 - \$34,999	1157--
07 G \$7,000 - \$7,999	20 T \$35,000 - \$39,999	1158
08 H \$8,000 - \$8,999	21 U \$40,000 - \$49,999	
09 I \$9,000 - \$9,999	22 V \$50,000 - \$74,999	
10 J \$10,000 - \$10,999	23 W \$75,000 OR OVER	
11 K \$11,000 - \$11,999	96 [ ] DON'T KNOW	
12 L \$12,000 - \$12,999	97 [ ] REFUSED	
13 M \$13,000 - \$13,999		

TAKE BACK EXHIBIT 154

155. Do you or members of your household own your home or do you rent?

1[ ] OWN (BUYING)

2[ ] RENT -- SKIP TO Q. 157

1159

3[ ] OCCUPIED WITHOUT PAYMENT OF  
RENT -- SKIP TO Q. 157

IF "OWN (BUYING)," ASK:

156. Is this house (apartment) part of a condominium or cooperative?

1[ ] YES, CONDOMINIUM

2[ ] YES, COOPERATIVE

0[ ] NO

1160

HAND RESPONDENT EXHIBIT 157

157. We may have covered some of these points before, but just to be sure, please look at this exhibit and tell me whether these fuels are used here in your household.

<u>ELECTRICITY</u>	<u>USED</u>	<u>NOT USED</u>	<u>PAID BY HOUSEHOLD</u>	<u>INCLUDED IN RENT</u>	<u>OTHER (SPECIFY)</u>	
a. FOR HOT WATER	1[]	0[]	1[]	2[]	5[]	1161-1162
b. FOR HEATING YOUR HOME	1[]	0[]	1[]	2[]	5[]	1163-1164
c. FOR AIR-CONDITIONING (CENTRAL OR WINDOW/WALL UNITS)	1[]	0[]	1[]	2[]	5[]	1165-1166
d. FOR COOKING	1[]	0[]	1[]	2[]	5[]	1167-1168
e. FOR LIGHTING AND OTHER APPLIANCES	1[]	0[]	1[]	2[]	5[]	1169-1170
<u>GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD</u>						
f. FOR HOT WATER	1[]	0[]	1[]	2[]	5[]	1171-1172
g. FOR HEATING YOUR HOME	1[]	0[]	1[]	2[]	5[]	1173-1174
h. FOR CENTRAL AIR-CONDITIONING	1[]	0[]	1[]	2[]	5[]	1175-1176
i. FOR COOKING	1[]	0[]	1[]	2[]	5[]	1177-1178
j. FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)	1[]	0[]	1[]	2[]	5[]	1179-1180
<u>GAS, LPG (BOTTLED OR TANK GAS)</u>						
k. FOR HOT WATER	1[]	0[]	1[]	2[]	5[]	1211-1212
l. FOR HEATING YOUR HOME	1[]	0[]	1[]	2[]	5[]	1213-1214
m. FOR CENTRAL AIR-CONDITIONING	1[]	0[]	1[]	2[]	5[]	1215-1216
n. FOR COOKING INSIDE HOME	1[]	0[]	1[]	2[]	5[]	1217-1218
o. FOR COOKING ON OUTDOOR GRILL	1[]	0[]	1[]	2[]	5[]	1219-1220
p. FOR OTHER APPLIANCES	1[]	0[]	1[]	2[]	5[]	1221-1222
<u>FUEL OIL OR KEROSENE</u>						
q. FOR HOT WATER	1[]	0[]	1[]	2[]	5[]	1223-1224
r. FOR HEATING YOUR HOME	1[]	0[]	1[]	2[]	5[]	1225-1226

FOR EACH USE OF EACH FUEL, ASK:

158. Is that paid for by your household, included in your rent, or do you get it some other way?

TAKE BACK EXHIBIT 157

IF ONE-FAMILY HOUSE OR TRAILER AND IF UNDERGROUND GAS IS NOT USED, ASK Q. 159. OTHERWISE SKIP TO INSTRUCTION FOR Q. 160.

159. Is gas from underground pipes available in this neighborhood?

1[] YES

1227

0[] NO

6[] DON'T KNOW

IF ALL FUEL BILLS ARE INCLUDED IN RENT, SKIP TO Q. 186.

IF HOUSEHOLD USES AND PAYS FOR GAS, LPG (SEE QUESTIONS 157-158, PARTS k-p), ASK Q. 160 ff.  
OTHERWISE, SKIP TO INSTRUCTION FOR Q. 163.

160. About how many deliveries of LPG does your household usually get in a year?

NUMBER OF DELIVERIES:

1228-  
1229

95[] LIVED HERE LESS THAN ONE YEAR  
00[] NONE DELIVERED, CASH AND CARRY,  
PICK UP AT STORE

161. Did you buy LPG for this house (apartment) in the past 12 months from one company or from more than one company?

1[] ONE COMPANY  
2[] MORE THAN ONE COMPANY

1230

IF "MORE THAN ONE COMPANY," ASK:

162. How many different companies?

2[] TWO  
3[] THREE  
4[] FOUR OR MORE

1231

IF HOUSEHOLD USES AND PAYS FOR FUEL OIL OR KEROSENE (SEE QUESTIONS 157-158, PARTS q and r), ASK Q. 163 ff. OTHERWISE SKIP TO INSTRUCTION FOR Q. 176.

163. How many tanks do you have for fuel oil or kerosene?

1[] ONE  
2[] TWO  
3[] THREE OR MORE

1232

164. What is the capacity of the tank (each tank) in total gallons?

TANK #1	TANK #2
<input type="text"/>	<input type="text"/>
[ ] 275 GALLONS 1233-	[ ] 275 GALLONS 1243-
[ ] 550 GALLONS 1236	[ ] 550 GALLONS 1249
[ ] 1000 GALLONS	[ ] 1000 GALLONS
[ ] OTHER - (SPECIFY):	[ ] OTHER - (SPECIFY):

165. Did you have this same tank in January 1979, or is it a replacement (or has it been added since January 1979)?

1[] SAME TANK 1237	1[] SAME TANK 1250
2[] REPLACEMENT	2[] REPLACEMENT
3[] ADDITIONAL TANK	3[] ADDITIONAL TANK

IF REPLACEMENT TANK, ASK:

166. What was the capacity of the tank that was replaced?

[ ] 275 GALLONS 1238-	[ ] 275 GALLONS 1251-
[ ] 550 GALLONS 1241	[ ] 550 GALLONS 1254
[ ] 1000 GALLONS	[ ] 1000 GALLONS
[ ] OTHER - (SPECIFY):	[ ] OTHER - (SPECIFY):

167. In what month and year was it replaced?

MONTH: <input type="text"/>	MONTH: <input type="text"/>
YEAR: 19	YEAR: 19

CONTINUE IF HOUSEHOLD USES AND PAYS FOR FUEL OIL OR KEROSENE. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 176.

HAND RESPONDENT EXHIBIT 168

168. About how much fuel oil/kerosene does your household use in a year -- which of these groups would it be?

- 1 LESS THAN 100 GALLONS PER YEAR  
 2 100-499 GALLONS PER YEAR  
 3 500-999 GALLONS PER YEAR  
 4 1000 GALLONS OR MORE

1259

TAKE BACK EXHIBIT 168

169. About how many times a year does your household purchase fuel oil/kerosene?

NUMBER OF DELIVERIES:

1260-  
1261

170. Did you buy fuel oil for this house (apartment) in the past 12 months from one company, or from more than one company?

95  LIVED HERE LESS THAN 1 YEAR

- 1 ONE COMPANY  
 2 MORE THAN ONE COMPANY

1262

IF "MORE THAN ONE," ASK:

171. How many different companies?

- 2 TWO  
 3 THREE  
 4 FOUR OR MORE

1263

172. About what did your household pay per gallon on your last delivery/purchase of fuel oil/kerosene?

PRICE PER GALLON:

1264-  
1266

DON'T KNOW

173. In what month and year did you have your last delivery/purchase of fuel oil/kerosene?

MONTH:

1267-  
1268

YEAR: 19

1269-  
1270

174. Since the beginning of June, 1980, has your household had any problems getting fuel oil/kerosene when it was needed?

- 1 YES  
 0 NO  
 5 HAVEN'T NEEDED ANY

1271

IF "YES," ASK:

175. Was the problem that no fuel oil/kerosene was available, or that the fuel oil/kerosene cost more than your household could afford, or was it something else? (MARK AS MANY AS APPLY.)

- 1 NONE AVAILABLE  
 2 COST MORE THAN HOUSEHOLD COULD AFFORD  
 5 OTHER (SPECIFY): \_\_\_\_\_

1272

IF HOUSEHOLD USES AND PAYS FOR ELECTRICITY, GAS (FROM UNDERGROUND PIPES OR LPG) OR FUEL OIL/ KEROSENE IN Q. 158, ASK Q. 176 ff. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 186.

HAND RESPONDENT EXHIBIT 176

176. Do any of your household electric, gas, fuel oil or kerosene bills include charges for fuel used for purposes other than for your own living quarters, such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "YES," ASK:

177. Which fuel bills include charges for fuel used for purposes other than your own living quarters? (CHECK AS MANY AS APPLY.)

YES

1311

NO -- TAKE BACK EXHIBIT 176,  
SKIP TO Q. 182

TURN TO EXHIBIT 178-181

IF "ELECTRICITY" ON Q. 177, ASK:

178. About how much of your household's electricity bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

VERY LITTLE (LESS THAN 5%)

1312

1/4 (5 - 33%)

1313

1/2 (34 - 66%)

1314

3/4 (67 - 95%)

IF "GAS FROM UNDERGROUND PIPES" ON Q. 177, ASK:

179. About how much of your household's gas bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

VERY LITTLE (LESS THAN 5%)

1315

1/4 (5 - 33%)

1316

1/2 (34 - 66%)

1317

3/4 (67 - 95%)

IF "GAS, LPG" ON Q. 177, ASK:

180. About how much of your household's LPG bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

VERY LITTLE (LESS THAN 5%)

1318

1/4 (5 - 33%)

1319

1/2 (34 - 66%)

1320

3/4 (67 - 95%)

IF "FUEL OIL OR KEROSENE" ON Q. 177, ASK:

181. About how much of your household's fuel oil/kerosene bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

VERY LITTLE (LESS THAN 5%)

1321

1/4 (5 - 33%)

1322

1/2 (34 - 66%)

1323

3/4 (67 - 95%)

TAKE BACK EXHIBIT 178-181

CONTINUE IF ANY ELECTRIC, GAS (FROM UNDERGROUND PIPES OR LPG) OR FUEL OIL OR KEROSENE BILLS ARE PAID BY HOUSEHOLD. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 186.

182. In addition to the types of fuel you use, we are interested in the quantities used and in the amount that people pay for electricity, gas, fuel oil or kerosene in different parts of the United States.

I have a form that would authorize the companies that supply your household to provide that information to Response Analysis Corporation.

Since this study is being done nationwide, it will give a good picture of the differences in fuel cost and usage all over the country. The information is needed to help establish important national energy policies.

INTERVIEWER: REMOVE THE AUTHORIZATION FORM FROM THE QUESTIONNAIRE AND HAND TO RESPONDENT. EITHER YOU OR RESPONDENT SHOULD FILL IN THE NAME(S) OF COMPANIES. IF MORE THAN ONE LPG OR FUEL OIL OR KEROSENE COMPANY HAS BEEN USED SINCE JANUARY 1, 1980, FILL IN ADDITIONAL COMPANY NAMES ON OTHER SIDE OF FORM. PLEASE PRINT.

1 AUTHORIZATION FORM SIGNED

1320

0 AUTHORIZATION FORM NOT SIGNED -- INTERVIEWER, EXPLAIN BELOW:

---



---

IF AUTHORIZATION FORM IS SIGNED, ASK Q. 183 ff. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 186.

183. Do your fuel bills come addressed to (LAST NAME OF SIGNATURE ON AUTHORIZATION FORM), or are they in another name?

1 SAME AS LAST NAME -- SKIP TO INSTRUCTION FOR Q. 185

2 ANOTHER NAME 1321

IF BILL IS IN ANOTHER NAME, ASK:

184. What is that name and address?

BILLING NAME: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY OR STATE: \_\_\_\_\_

ZIP CODE: \_\_\_\_\_

IF HOUSEHOLD'S ADDRESS IS A P.O. BOX OR RURAL ROUTE OR OTHER VAGUE ADDRESS AND  
IF HOUSEHOLD PAYS FOR ELECTRICITY OR GAS FROM UNDERGROUND PIPES AND  
IF HOUSEHOLD SIGNED THE AUTHORIZATION FORM, ASK Q. 185. OTHERWISE, SKIP TO  
INSTRUCTION FOR Q. 186.

185. Would it be possible for you to give me your customer number at your electric/gas company? This number is on your bills from the company.

ELECTRIC COMPANY -- CUSTOMER NUMBER: \_\_\_\_\_ 1322

NOT AVAILABLE/REFUSED

GAS (FROM UNDERGROUND PIPES) -- CUSTOMER NUMBER: \_\_\_\_\_ 1323

NOT AVAILABLE/REFUSED





## U.S. DEPARTMENT OF ENERGY SURVEY

### Authorization Form for Residential Energy Consumption Survey

I hereby give permission to the company (companies) below to provide information to Response Analysis Corporation for confidential use in connection with their survey for the U.S. Department of Energy.

This authorization covers use of fuels (electricity, natural gas or LPG, fuel oil or kerosene) by my household from January 1, 1980 through April 30, 1982, including:

- 1) the total amount of fuels used by my household.
- 2) the total price charged for fuels used by my household.

Companies are authorized to provide this information by monthly periods or by delivery date, whichever applies.

A photocopy of this authorization may be accepted with the same authority as the original.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**PLEASE  
PRINT**

**YOUR NAME**

**ADDRESS**

**APT. NO.**

**CITY OR POST OFFICE**

**STATE**

**ZIP CODE**

**TELEPHONE  
AREA CODE:** \_\_\_\_\_

**NUMBER:** \_\_\_\_\_

**PLEASE COMPLETE ONE BLOCK BELOW FOR EACH FUEL USED BY YOUR HOUSEHOLD  
(IF MORE THAN ONE SUPPLIER OF A PARTICULAR FUEL USE THE OTHER SIDE OF THIS SHEET)**

**ELECTRICITY** →

**PRINT FULL NAME OF ELECTRIC COMPANY**

**LOCATION OF COMPANY (IF KNOWN) – CITY AND STATE**

**TELEPHONE  
AREA CODE:** \_\_\_\_\_

**NUMBER:** \_\_\_\_\_

**GAS** →

from underground pipes  
or LPG (bottled or tank gas)

**PRINT FULL NAME OF GAS COMPANY**

**LOCATION OF COMPANY (IF KNOWN) – CITY AND STATE**

**TELEPHONE  
AREA CODE:** \_\_\_\_\_

**NUMBER:** \_\_\_\_\_

**FUEL OIL** →

or KEROSENE

**PRINT FULL NAME OF OIL COMPANY**

**LOCATION OF COMPANY (IF KNOWN) – CITY AND STATE**

**TELEPHONE  
AREA CODE:** \_\_\_\_\_

**NUMBER:** \_\_\_\_\_

GAS

LPG (bottled  
or tank gas)**SECOND GAS COMPANY**

PRINT FULL NAME OF GAS COMPANY

LOCATION OF COMPANY (IF KNOWN) ~ CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_**THIRD GAS COMPANY**

PRINT FULL NAME OF GAS COMPANY

LOCATION OF COMPANY (IF KNOWN) ~ CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

FUEL OIL

or KEROSENE

**SECOND FUEL OIL/KEROSENE COMPANY**

PRINT FULL NAME OF OIL COMPANY

LOCATION OF COMPANY (IF KNOWN) ~ CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_**THIRD FUEL OIL/KEROSENE COMPANY**

PRINT FULL NAME OF OIL COMPANY

LOCATION OF COMPANY (IF KNOWN) ~ CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

IF HOUSEHOLD HAS ONE OR MORE FUELS INCLUDED IN RENT (SEE Q. 158), ASK Q. 186. OTHERWISE,  
SKIP TO Q. 187.

186. We may be needing some additional information about fuels used in this building (house):  
May I have the name of the person or company to whom you pay rent?

NAME: \_\_\_\_\_ 1324

TELEPHONE NUMBER: (AREA CODE: \_\_\_\_\_)

STREET ADDRESS: \_\_\_\_\_

CITY OR TOWN/STATE/ZIP CODE: \_\_\_\_\_

ASK EVERYONE

187. For interview verification purposes, may I have your name, phone number, and mailing address please?

RESPONDENT'S NAME: \_\_\_\_\_

TELEPHONE NUMBER: (AREA CODE \_\_\_\_\_)

STREET ADDRESS: \_\_\_\_\_

CITY OR TOWN/STATE/ZIP CODE: \_\_\_\_\_

188. So far we've been talking about things in your household that affect your energy use. What we need also is a measure of your year-round living space.

With your permission, I would like to measure your home. I can do it from the inside or the outside. With your home, I think it would be most accurate to do it on the (inside/outside).

INCLUDE ONLY THE PART OF THE HOUSE THAT IS ENCLOSED FROM THE WEATHER. ASK THE RESPONDENT ABOUT ANY PECULIARITIES IN SHAPE THAT THE HOME MAY HAVE.

INDICATE WHETHER THE MEASUREMENT IS DONE  
INSIDE OR OUTSIDE THE HOME.

INSIDE

1325

OUTSIDE

189. Are any of the areas measured not heated during most of the heating season?

YES -- INDICATE UNHEATED AREA(S)  
ON THE DIAGRAM WITH LINES LIKE  
THIS (////).

1326

NO

### INTERVIEWER INSTRUCTIONS:

- MARK TYPE OF HOUSING UNIT

MOBILE HOME OR TRAILER

ONE-FAMILY HOUSE

STYLE:  ONE STORY

TWO STORY

1327-

THREE STORY

1328

SPLIT LEVEL

OTHER (SPECIFY): \_\_\_\_\_

OFFICE USE ONLY		
B		
1		
2		
3		

1329-

1333

1334-

1333

1339-

1343

1344-

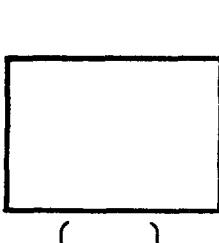
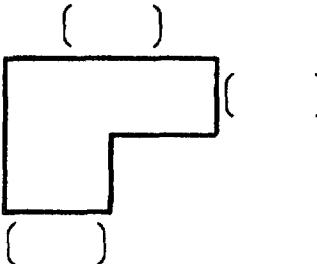
1343

APARTMENT BUILDING OR OTHER STRUCTURE  
WITH TWO OR MORE UNITS

- Note measurement problems, if any, on page 42. Use bottom of page 42 if additional space is needed for sketch or detailed measurements.

RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

RECTANGULAR SHAPE      OR      L-SHAPE      OR      DIAGRAM OTHER SHAPES

Basement	
<input type="checkbox"/> Full	<input type="checkbox"/> Half basement
	
	

RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

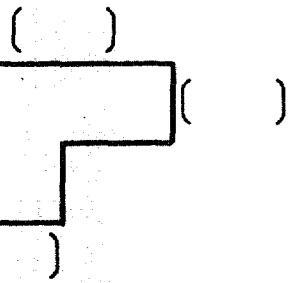
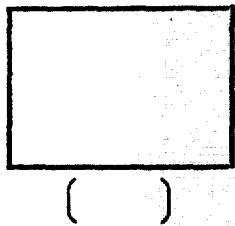
**RECTANGULAR SHAPE      OR**

**L-SHAPE**

**OR      DIAGRAM OTHER SHAPES**

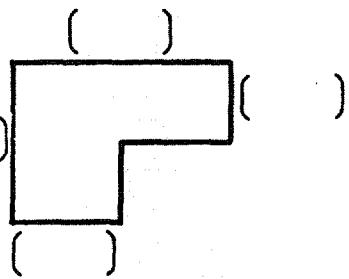
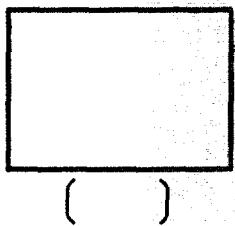
**First story**

**1[ ] Full story      2[ ] Half story**



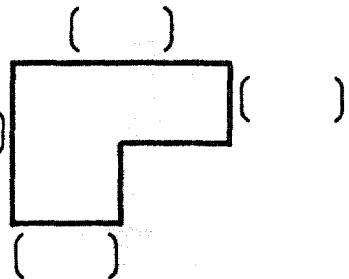
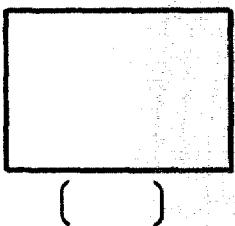
**Second story**

**1[ ] Full story      2[ ] Half story**



**Third story**

**1[ ] Full story      2[ ] Half story**



INTERVIEWER REPORT ON MEASUREMENT OF YEAR-ROUND LIVING SPACE

A. What problems, if any, did you have in measuring this house/apartment?

1349  
1350

B. What effect, if any, did these problems have on the accuracy of your measurement?

CONTINUE IF ONE OR MORE VEHICLES LISTED IN Q. 128. OTHERWISE, MAKE ENTRIES IN INTERVIEWER OBSERVATION BOX AND AT BOTTOM OF PAGE TO COMPLETE INTERVIEW.

ONE OR MORE VEHICLES LISTED IN Q. 128 -- ASK Q. 190

1411

NO VEHICLES LISTED IN Q. 128 -- MAKE ENTRIES AT BOTTOM OF PAGE TO COMPLETE INTERVIEW

V E H I C L E   N U M B E R

1	2	3	4	
VEHICLE MAKE (FROM Q. 130)				
MODEL YEAR (FROM Q. 131)	19 _____	19 _____	19 _____	19 _____
ODOMETER READING				
VEHICLE NOT AT HOME	[ ]	[ ]	[ ]	[ ]
ESTIMATED MILES DRIVEN				

1412-1417 1419-1424 1426-1431 1433-1438

1418

1425

1432

1439

INTERVIEWER OBSERVATION:

192. COLOR OF EXTERIOR OF HOME OR BUILDING:

1440

LIGHT  MEDIUM  DARK  OTHER (SPECIFY): \_\_\_\_\_

193. IS ROOF SLANTED (PITCHED) OR FLAT?

1441

SLANTED (PITCHED) -- MARK COLOR  FLAT

ROOF COLOR:  LIGHT  MEDIUM  DARK

1442

OTHER (SPECIFY): \_\_\_\_\_

194. FOR HOUSING UNITS IN BUILDINGS WITH 2 OR MORE UNITS -- SAMPLE UNIT IS LOCATED ON:

1443

BASEMENT LEVEL  FIRST FLOOR  SECOND FLOOR OR HIGHER

OTHER (SPECIFY): \_\_\_\_\_

Thank you very much for your help.

TIME INTERVIEW COMPLETED: _____	LENGTH OF INTERVIEW: _____	MINUTES
---------------------------------	----------------------------	---------

1444-  
1446

INTERVIEWER'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

1447-  
1450





## U.S. DEPARTMENT OF ENERGY SURVEY

OMB No. 038-R0457  
EIA-457E F2153-1Conducted by  
RESPONSE ANALYSIS CORPORATION  
P.O. Box 158, Princeton, New Jersey 08540

Mandatory under Public Law 93-275 and 94-385

1980-81  
FIRST YEAR DATA

## HOUSEHOLD:

If the customer account number is not shown, please enter it. It will be helpful when we request next year's information about this household.

If you have any questions please call collect to Ms. Luci Raaum at (609) 921-3333.

Customer Account  
Number for Household: \_\_\_\_\_

Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

ELECTRICITY USAGE FROM MARCH 1, 1980 TO THE PRESENT					
Time Period	Consumption Period		Number of Kwhr Used	(Circle One) Kwhr are:	Total Dollar* Amount
	Beginning Date	Ending Date		A - Actual E - Estimated R - Read by Customer	
1				A E R	
2				A E R	
3				A E R	
4				A E R	
5				A E R	
6				A E R	
7				A E R	
8				A E R	
9				A E R	
10				A E R	
11				A E R	
12				A E R	
13				A E R	
14				A E R	
15				A E R	
16				A E R	
17				A E R	
18				A E R	

\*Please include state and local taxes. Exclude merchandise, repair, and service charges. If the household is on the budget plan, do not provide the budgeted bill; provide instead the dollar amount that is the cost of the actual consumption in the period.

Form completed by: \_\_\_\_\_

(Name)

(Telephone Number)

(Date)





## U.S. DEPARTMENT OF ENERGY SURVEY

OMB No. 038-R0457  
EIA-457F F2154-1

Conducted by  
RESPONSE ANALYSIS CORPORATION  
P.O. Box 158, Princeton, New Jersey 08540  
Mandatory under Public Law 93-275 and 94-385

1980-81  
FIRST YEAR DATA

## #HOUSEHOLD:

If the customer account number is not shown, please enter it. It will be helpful when we request next year's information about this household.

If you have any questions please call collect to Ms. Luci Raam at (609) 921-3333.

Customer Account  
Number for Household: \_\_\_\_\_

Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

UTILITY GAS USAGE FROM MARCH 1, 1980 TO THE PRESENT					
Time Period	Consumption Period		Quantity Used	(Circle One) Quantities are: A - Actual E - Estimated R - Read by Customer	Total Dollar* Amount
	Beginning Date	Ending Date			
1				A E R	
2				A E R	
3				A E R	
4				A E R	
5				A E R	
6				A E R	
7				A E R	
8				A E R	
9				A E R	
10				A E R	
11				A E R	
12				A E R	
13				A E R	
14				A E R	
15				A E R	
16				A E R	
17				A E R	
18				A E R	

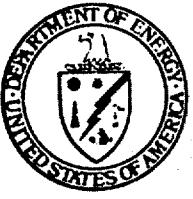
\*The quantity used is expressed in terms of: (Mark one)

- Therms  
 Cubic Feet  
 Hundreds of Cubic Feet (CCF)  
 Thousands of Cubic Feet (MCF)  
 Other (Please specify): \_\_\_\_\_

\*\*Please include state and local taxes. Exclude merchandise, repairs, and service charges. If the household is on the budget plan, do not provide the budgeted bill; provide instead the dollar amount that is the cost of the actual consumption in the period.

Form completed by \_\_\_\_\_ (Name) \_\_\_\_\_ (Telephone Number) \_\_\_\_\_ (Date)





OMB No. 038-R0457  
EIA-457G F2151-1  
FIRST YEAR DATA

## U.S. DEPARTMENT OF ENERGY 1980-81 RESIDENTIAL ENERGY CONSUMPTION SURVEY

Conducted by  
RESPONSE ANALYSIS CORPORATION  
Research Park, Route 206  
P. O. Box 158  
Princeton, New Jersey 08540

### FUEL OIL OR KEROSENE HOUSEHOLD

This research is being conducted by Response Analysis Corporation under U.S. Department of Energy Contract Number DE-AC01-EI10085. This survey is mandatory as authorized by the Federal Energy Administration Act of 1974 (Public Law 93-275) as amended by the Energy Conservation and Production Act (Public Law 94-385).

Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

HOUSEHOLD:

If you have any questions, please call collect to Luci Raam at (609) 921-3333.

FUEL OIL AND KEROSENE USAGE

Please provide information on all deliveries to this household from March 1, 1980 to the present. If information is available only for a shorter period, just report deliveries for that shorter period.

<u>Del. #</u>	<u>Column 1</u> <u>Date of Delivery</u>	<u>Column 2</u> <u>Fuel Sold Was:</u> Fuel oil #1 (1) Fuel oil #2 (2) Kerosene (K) Other (O) (Circle one)	<u>Column 3</u> <u>Gallons Delivered</u>	<u>Column 4</u> <u>Price per Gallon</u>	<u>Column 5</u> <u>Total Dollar Amount*</u>	<u>Column 6</u> <u>Was tank completely filled?</u> Yes No Don't Know (DK) (Circle one)
1		1 2 K 0				YES NO DK
2		1 2 K 0				YES NO DK
3		1 2 K 0				YES NO DK
4		1 2 K 0				YES NO DK
5		1 2 K 0				YES NO DK
6		1 2 K 0				YES NO DK
7		1 2 K 0				YES NO DK
8		1 2 K 0				YES NO DK
9		1 2 K 0				YES NO DK
10		1 2 K 0				YES NO DK
11		1 2 K 0				YES NO DK
12		1 2 K 0				YES NO DK
13		1 2 K 0				YES NO DK
14		1 2 K 0				YES NO DK
15		1 2 K 0				YES NO DK
16		1 2 K 0				YES NO DK
17		1 2 K 0				YES NO DK
18		1 2 K 0				YES NO DK

PLEASE CONTINUE ON PAGE 4 IF NECESSARY.

\*Please include state and local sales taxes, where applicable. Exclude merchandise, repairs, or service charges.

**FUEL OIL AND KEROSENE**

1. If "Other" has been circled for type of fuel in Column 2 (page 2 or page 4), please specify what fuel was sold:

NOT APPLICABLE

2. What is the capacity of this household's storage tank?

CAPACITY: \_\_\_\_\_ GALLONS

3. Was this household your customer as of March 1, 1980?

YES

NO

IF "NO," approximately when did this household become a customer of your company?

APPROXIMATE DATE: \_\_\_\_\_

DON'T KNOW

NEVER A CUSTOMER

4. Is this household presently your customer?

YES

NO

IF "NO," approximately when did this household stop being a customer of your company?

APPROXIMATE DATE: \_\_\_\_\_

DON'T KNOW

NEVER A CUSTOMER

5. The information presented here is from:

COMPANY RECORDS

AN ESTIMATE MADE BY A COMPANY REPRESENTATIVE

INFORMATION SECURED FROM THE CUSTOMER

6. This information has been supplied by:

---

(Name)

(Company)

(Telephone)

(Date)

FUEL OIL AND KEROSENE

<u>Del. #</u>	<u>Date of Delivery</u>	<u>Column 2</u> Fuel Sold Was: Fuel oil #1 (1) Fuel oil #2 (2) Kerosene (K) Other (0) (Circle one)	<u>Column 3</u> Gallons Delivered	<u>Column 4</u> Price per Gallon	<u>Column 5</u> Total Dollar Amount*	<u>Column 6</u> Was tank completely filled? Yes No Don't Know (DK) (Circle one)
19		1 2 K 0				YES NO DK
20		1 2 K 0				YES NO DK
21		1 2 K 0				YES NO DK
22		1 2 K 0				YES NO DK
23		1 2 K 0				YES NO DK
24		1 2 K 0				YES NO DK
25		1 2 K 0				YES NO DK
26		1 2 K 0				YES NO DK
27		1 2 K 0				YES NO DK
28		1 2 K 0				YES NO DK
29		1 2 K 0				YES NO DK
30		1 2 K 0				YES NO DK

\*Please include state and local sales taxes, where applicable. Exclude merchandise, repairs, or service charges.

PLEASE USE THIS SPACE FOR ANY ADDITIONAL NOTES THAT YOU WISH TO MAKE TO EXPLAIN ENTRIES ON THIS FORM.

PLEASE CHECK THAT THE QUESTIONS ON PAGE THREE HAVE BEEN ANSWERED.



OMB 038-R0457  
EIA-457H F2152-1  
FIRST YEAR DATA

**U.S. DEPARTMENT OF ENERGY**  
**1980-1981 RESIDENTIAL ENERGY CONSUMPTION SURVEY**

Conducted by  
RESPONSE ANALYSIS CORPORATION  
Research Park, Route 206  
P. O. Box 158  
Princeton, New Jersey 08540

**LIQUEFIED PETROLEUM GAS (LPG)**

**HOUSEHOLD**

This research is being conducted by Response Analysis Corporation under U.S. Department of Energy Contract Number DE-AC01-EI10085. This survey is mandatory as authorized by the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended by the Energy Conservation and Production Act (Public Law 94-385).

Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

HOUSEHOLD:

If you have any questions, please call collect to Luci Raam at (609) 921-3333.

LIQUEFIED PETROLEUM GAS USAGE

Please provide information on all deliveries to this building from March 1, 1980 to the present. If information is available only for a shorter period, just report deliveries for that shorter period.

Del. #	Date of Delivery	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
		Fuel Sold Was: Propane P Butane B Other O (Circle one)	Quantity Delivered	Price per Unit	Total Dollar Amount*	Was tank/cylinder completely filled? Yes No Don't Know (DK) (Circle one)	
1		P B O					YES NO DK
2		P B O					YES NO DK
3		P B O					YES NO DK
4		P B O					YES NO DK
5		P B O					YES NO DK
6		P B O					YES NO DK
7		P B O					YES NO DK
8		P B O					YES NO DK
9		P B O					YES NO DK
10		P B O					YES NO DK
11		P B O					YES NO DK
12		P B O					YES NO DK
13		P B O					YES NO DK
14		P B O					YES NO DK
15		P B O					YES NO DK
16		P B O					YES NO DK
17		P B O					YES NO DK
18		P B O					YES NO DK

PLEASE CONTINUE ON PAGE 4 IF NECESSARY.

\*Please include state and local taxes, where applicable. Exclude merchandise, repairs, or service charges.

**LIQUEFIED PETROLEUM GAS (LPG)**

1. If "Other" has been circled for type of fuel in Column 2 (page 2 or page 4), please specify what fuel was sold?

NOT APPLICABLE

2. Please mark unit of measure for deliveries reported on page 2.

<input type="checkbox"/> POUNDS	<input type="checkbox"/> CUBIC METERS
<input type="checkbox"/> GALLONS	<input type="checkbox"/> DECITHERMS
<input type="checkbox"/> CUBIC FEET	<input type="checkbox"/> OTHER (Please specify): _____

3. What is the capacity of this building's storage tank(s)?

Capacity is \_\_\_\_\_ and is measured  
in number of:

<input type="checkbox"/> POUNDS	<input type="checkbox"/> CUBIC METERS
<input type="checkbox"/> GALLONS	<input type="checkbox"/> DECITHERMS
<input type="checkbox"/> OTHER UNIT (Please specify): _____	<input type="checkbox"/> OTHER (Please specify): _____

4. Were you supplying this building on March 1, 1980?

YES       NO

IF "NO," approximately when did you start  
supplying the building?

APPROXIMATE DATE: \_\_\_\_\_

DON'T KNOW  
 NEVER A CUSTOMER

5. Do you supply this building now?

YES       NO

IF "NO," approximately when did you stop  
supplying this building?

APPROXIMATE DATE: \_\_\_\_\_

DON'T KNOW  
 NEVER A CUSTOMER

6. The information reported here is from:

COMPANY RECORDS  
 AN ESTIMATE MADE BY A COMPANY  
REPRESENTATIVE  
 INFORMATION SECURED FROM THE  
CUSTOMER

7. This information has been supplied by:

---

(Name) _____	(Company) _____	(Telephone) _____	(Date) _____
--------------	-----------------	-------------------	--------------

LIQUEFIED PETROLEUM GAS (LPG)

<u>Del. #</u>	<u>Column 1 Date of Delivery</u>	<u>Column 2 Fuel Sold Was:</u> Propane P Butane B Other O (Circle one)	<u>Column 3 Quantity Delivered</u>	<u>Column 4 Price per Unit</u>	<u>Column 5 Total Dollar Amount*</u>	<u>Column 6 Was tank/cylinder completely filled?</u> Yes No Don't Know (DK) (Circle one)
19		P B 0				YES NO DK
20		P B 0				YES NO DK
21		P B 0				YES NO DK
22		P B 0				YES NO DK
23		P B 0				YES NO DK
24		P B 0				YES NO DK
25		P B 0				YES NO DK
26		P B 0				YES NO DK
27		P B 0				YES NO DK
28		P B 0				YES NO DK
29		P B 0				YES NO DK
30		P B 0				YES NO DK

\*Please include state and local sales taxes, where applicable. Exclude merchandise, repairs, or service charges.

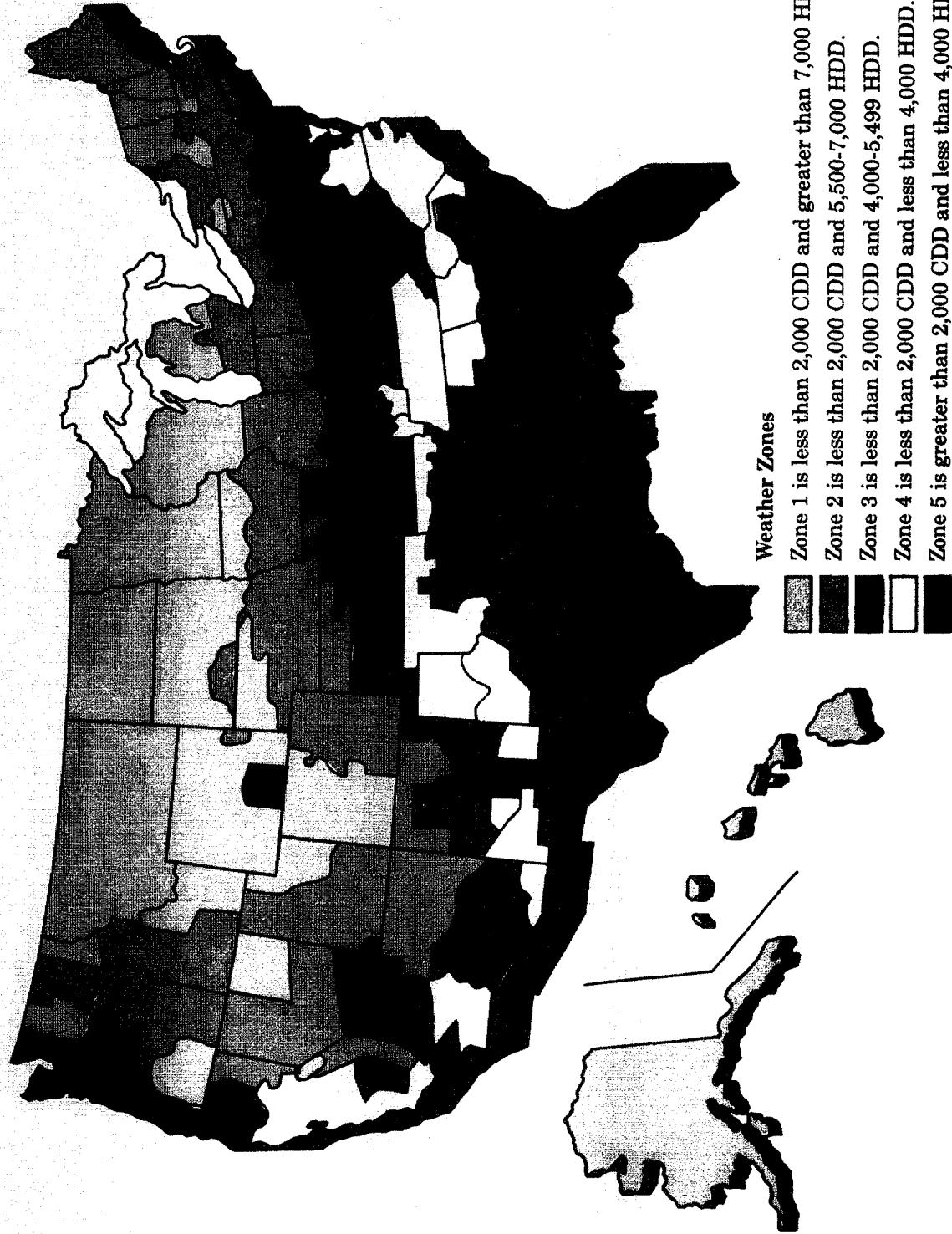
PLEASE USE THIS SPACE FOR ANY ADDITIONAL NOTES THAT YOU WISH TO MAKE TO EXPLAIN ENTRIES ON THIS FORM.

PLEASE CHECK THAT THE QUESTIONS ON PAGE THREE HAVE BEEN ANSWERED.

## **Appendix E**



## **United States Weather Zone Map of Heating Degree - Days (HDD) and Cooling - Degree Days (CDD)**

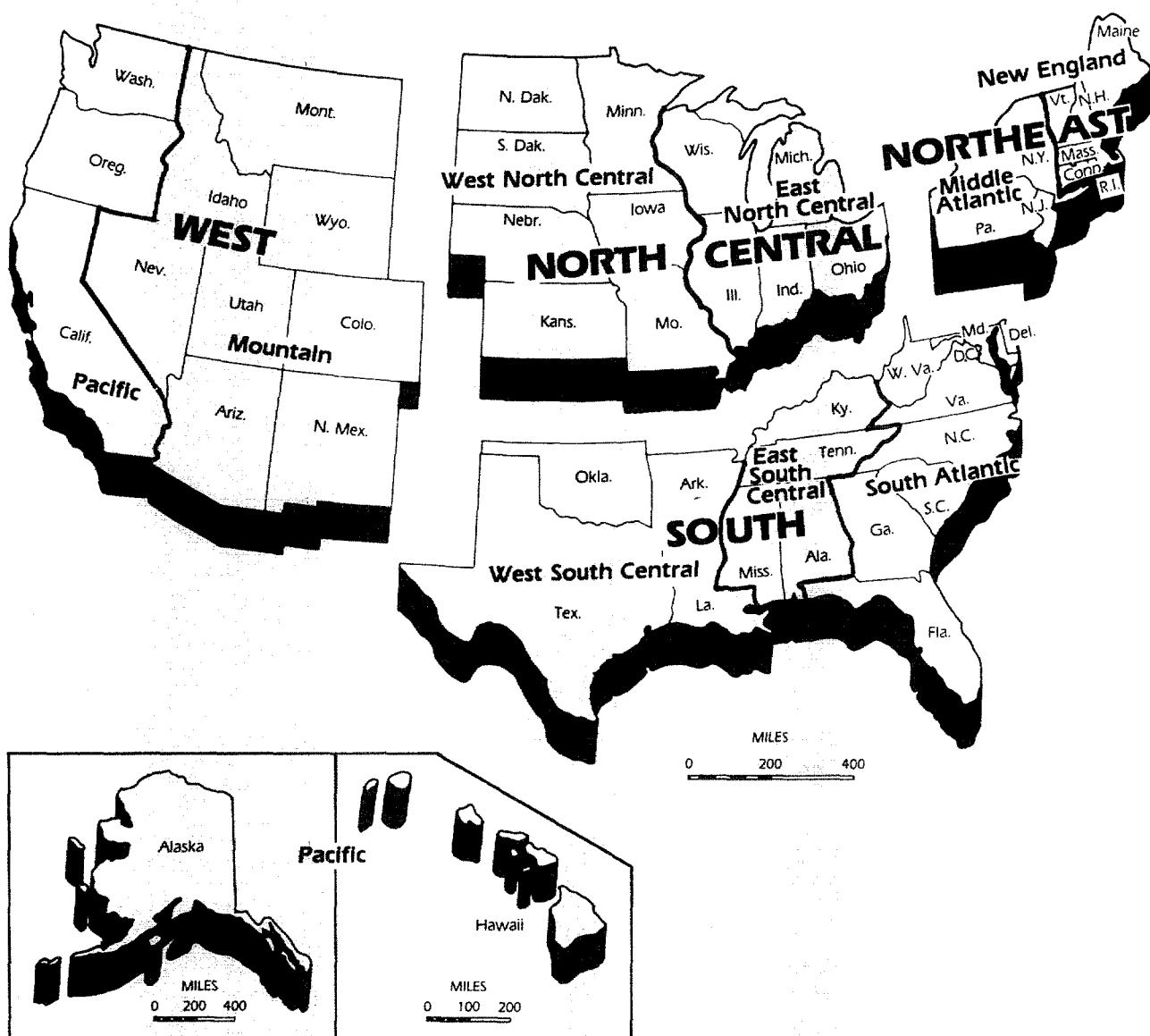




## **Appendix F**



# U.S. Census Regions and Divisions





## **Appendix G**



## Appendix G

### RESIDENTIAL ENERGY CONSUMPTION DATA ITEMS

1978 to 1981

This section gives a thumbnail sketch of the first four Residential Energy Consumption Surveys (RECS)<sup>1</sup> and provides an index of data items included in each survey.

#### Residential Energy Consumption Surveys

<u>Survey</u>	<u>Survey Date</u>	<u>Number of Households in Sample</u>
National Interim Energy Consumption Survey (NIECS)	Nov. 1978	4,081
Household Screener Survey (Screener)	Nov. 1979	4,033
Residential Energy Consumption Survey (RECS-1)	Nov. 1980	6,051
Residential Energy Consumption Survey (RECS-2)	Nov. 1981	6,000 <sup>a</sup>

<sup>a</sup>This number is approximate.

Note: The RECS-2 includes a supplemental sample of low-income households at the request of the Social Security Administration.

---

<sup>1</sup>Previous studies similar in design and scope conducted in 1973 and 1975 by the Washington Center for Metropolitan Studies (WCMS) and Response Analysis Corporation are available in microdata file in machine/readable form from the National Technical Information Service (NTIS), Order No. PB-272448, \$125; a codebook is also available (PB-272449).

Reports on the first two surveys contained "Residential Energy Consumption Survey" in their titles since both surveys included the major components of the RECS--a household interview and a follow-up survey of the household's fuel suppliers. The main distinction between the earlier and later surveys is in their sample designs.

The first two surveys sampled clusters of ten households (from the same block or buildings) scattered throughout 103 Primary Sampling Units (PSU's). The RECS 1 and RECS 2 sampled clusters of about four households in 131 PSU's. In addition, the RECS PSU's were selected for the Department of Energy according to a design that used the main heating fuel in the selection process. The survey was designed to produce estimates with a minimum sampling variation within each of the ten Federal regions and nine Census Divisions (See "Sample Design," Appendix A, for more information).

#### INDEX OF RECS DATA ITEMS

This index, showing what data items are included in each of the four RECS surveys, serves as a quick overview of what data are available from the RECS surveys. The index shows what data are available for a trend analysis and indicates which survey included a specific data item of interest. A review of the questionnaire for a particular study will give the reader more precise information on question wording and response categories used.

The index shows, for example, that: questions on temperature maintained in the house were first included with the 1981 RECS; that the value of the house was included in the 1978 NIECS, but not in later surveys; that questions on wood usage were first included in the 1980 RECS and were scaled down for the 1981 RECS; that the cost of energy retrofit measures were first included in the 1979 Screener; and that the square footage of the housing unit was self-reported in the 1978 NIECS and measured by the interviewer beginning with the 1980 RECS.

RESIDENTIAL ENERGY CONSUMPTION SURVEY  
DATA ITEMS--1978 to 1981

Table G1. Energy Consumption From Fuel Supplier Records by Individual Survey

<u>Fuel Type</u>	<u>NIECS<sup>a</sup></u>	<u>Screener<sup>b</sup></u>	<u>RECS<sup>c</sup></u>	<u>RECS<sup>c</sup></u>
	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Electricity .....				
Consumption per Billing Period (kilowatt-hours).....	X	dX	X	X
Expenditures per Billing Period (dollars).....	X	dX	X	X
Natural Gas .....				
Consumption per Billing Period (cubic feet/therms).....	X	dX	X	X
Expenditures per Billing Period (dollars).....	X	dX	X	X
Fuel Oil/Kerosene .....				
Gallons per Delivery.....	X	dX	X	X
Dollars Paid per Delivery.....	X	dX	X	X
Liquified Petroleum Gas (LPG) .....				
Gallons per Delivery.....	X	dX	X	X
Dollars Paid per Delivery.....	X	dX	X	X

<sup>a</sup>National Interim Energy Consumption Survey.

<sup>b</sup>Household Screener Survey which was designed to "screen" households for participation in the Household Transportation Panel.

<sup>c</sup>Residential Energy Consumption Surveys (RECS) which used a sampling frame of 131 Primary Sampling Units especially designed for surveys of residential energy consumption.

<sup>d</sup>EIA is not planning to make these data available to the public. Annual consumption and expenditures estimated from these data, however, will be included on the public use data tape.

Note: An "X" in the column means the survey included the data item.

Note: These data constitute the basis for estimating annual consumption and expenditures, converting to Btu equivalents, and estimating marginal prices for electricity and natural gas.

Table G2. Weather Data (Cooling/Heating Degree-Days for NOAA Divisions Containing Households) by Individual Survey

	NIECS 1978	Screener 1979	RECS 1980	RECS 1981
<u>Annual Degree-Days</u>				
40-Year Average Modified for Survey Consumption Period.....	X	--	--	--
Standard Year for Survey Consumption Period (April 1 through March 31 of following year).....	--	X	<sup>a</sup> X	<sup>a</sup> X
AIA Weather Zones (40-Year Average)....	X	X	X	X
Billing Period Degree-Days.....	X	--	X	X

<sup>a</sup>Will include degree-days for bases other than 65.

Note: An "X" in the column means the survey included the data item.

Table G3. End Uses of Energy by Fuel Type

<u>End Uses of Energy</u>	<u>Electricity</u>	<u>Natural Gas</u>	<u>LPG</u>	<u>Unspec-</u>	<u>Fuel Oil</u>	<u>Kero-</u>	<u>Solar</u>	<u>Coal /</u>	<u>Coke</u>	<u>Wood Collectors</u>
Space-Heating										
Main Source.....	X	X	--	X	--	X	X	X	X	
Secondary Source.....	X	X	--	X	--	X	X	X	X	
Used at All.....	X	X	--	--	--	X	--	--	--	
Space-Cooling										
Central System.....	X	aX	X	--	--	--	--	--	--	
Used at All.....	X	X	--	--	--	--	--	--	--	
Water-Heating										
Most-Used Fuel.....	X	X	--	X	X	--	X	X	X	
Secondary Sourcea.....	X	X	--	X	X	--	X	X	X	
Used at All.....	X	X	--	--	--	X	--	--	--	
Cooking										
Most-Used Fuel.....	X	X	--	X	X	--	X	X	X	
Used at All.....	X	X	--	--	--	--	aX	--	--	
Fuel for Ovens.....	X	--	--	X	--	--	--	--	--	
Refrigeration.....	X	--	--	X	--	--	--	--	--	
Freezing.....	X	--	--	X	--	--	--	--	--	
Heating Swimming Poolb.....	X	X	--	X	X	--	X	X	X	
Nonhousehold Uses of Fuelb.....	X	X	--	--	--	X	--	--	--	
Appliances.....	X	--	--	X	--	--	--	--	--	

<sup>a</sup>Newly added in 1981.<sup>b</sup>Newly added in 1980.

Note: An "X" in the column means the survey included the data item.

Table G4. Equipment and Appliance Type by Individual Survey

<u>Equipment and Appliances</u>	<u>NIECS 1978</u>	<u>Screener 1979</u>	<u>RECS 1980</u>	<u>RECS 1981</u>
Type of Main Heating Equipment.....	X	--	X	X
Fuel Used.....	X	X	X	X
Presence of Heating Control.....	X	--	X	X
Type of Control.....	X	--	--	--
Temperature Settings.....	--	--	--	X
Type of Secondary Heating Equipment..	X	--	X	X
Fuel Used.....	X	X	X	X
Type of Air Conditioning Equipment...	X	X	X	X
Fuel Used.....	X	X	X	X
Number of Wall Units.....	X	--	X	--
Number of Rooms That Can Be Cooled.....	X	X	X	X
Use of Air Conditioning.....	--	--	--	X
Swimming Pool.....	--	--	X	X
Heater.....	--	--	X	X
Fuel Used.....	--	--	X	X
Number of Refrigerators.....	X	--	X	X
Fuel Used.....	X	--	X	X
Frost-Free.....	X	--	X	X
Other Features.....	X	--	--	--
Number of Separate Freezers.....	--	--	X	X
Fuel Used.....	--	--	X	X
Frost-Free.....	--	--	X	X
Number of Ovens.....	X	--	X	X
Fuel Used.....	X	--	X	X
Self-Cleaning Features.....	X	--	X	--
Other Appliances <sup>a</sup> .....	12	--	15	15
Water Heater is Part of Furnace.....	X	--	--	--

<sup>a</sup>Appliances include microwave oven, electric range, gas range, outdoor gas grill, automatic clothes-washer, wringer clothes-washer, dishwasher, electric clothes-dryer, gas clothes-dryer, outdoor gas light, small electric appliances such as toaster/oven or fry pan (NIECS), separate freezer (NIECS), dehumidifier (RECS), humidifier (RECS), evaporative cooler (RECS), television--black/white, color (RECS).

Note: An "X" in the column means the survey included the data item.

Table G5. Structural Characteristics by Individual Survey

<u>Structural Characteristics</u>	<u>NIECS 1978</u>	<u>Screener 1979</u>	<u>RECS 1980</u>	<u>RECS 1981</u>
Housing Type (e.g., single-family)....	X	X	X	X
Year-Round or Seasonal.....	X	X	X	X
Year House Built.....	X	X	X	X
Material on Outside Walls.....	--	--	X	X
Number of Outside Doors.....	X	--	X	X
Basement/Crawl Space.....	--	--	X	X
Heated or Unheated.....	--	--	X	X
Number of Windows.....	X	--	X	X
Size.....	--	--	X	--
Type (e.g., double-hung).....	X	--	--	--
Number of Rooms.....	X	X	X	X
Number of Bathrooms.....	X	--	X	X
Number of Floors.....	X	--	X	--
Size of Largest Room.....	X	X	X	--
Square Footage				
As Reported by Respondent (living space).....	X	--	--	--
As Measured by Interviewer (areas enclosed from the weather).....	--	--	X	X
Single-family Housing Units				
Wall Insulation.....	abX	--	X	aX
Attic Insulation.....	abX	--	X	aX
Extent.....	--	--	X	aX
Type.....	abX	--	X	aX
Number of Inches.....	abX	--	X	aX
Floor insulation.....				
Extent.....	--	--	X	aX
Type.....	--	--	X	--
Number of Inches.....	--	--	X	--
Number of Storm Doors.....	X	--	X	X
Number of Storm Windows.....	X	--	X	X
Color of Outside Walls.....	--	--	X	--
Roof is Slanted or Pitched.....	--	--	X	--

<sup>a</sup>Mobile homes also included.

<sup>b</sup>Buildings of 2-4 units also included. Insulation questions were not asked of respondents in buildings of 5 or more units.

Note: An "X" in the column means the survey included the data item.

Table G6. Conservation Activities (Two Years Prior to the Survey)  
by Individual Survey

<u>Type of Activity</u>	<u>NIECS 1978</u>	<u>Screener 1979</u>	<u>RECS 1980</u>	<u>RECS 1981</u>
Attic Insulation Added.....	X	X	X	X
Type.....	--	--	X	X
Cost.....	--	X	X	X
Wall Insulation Added.....	X	X	X	X
Type.....	--	--	X	X
Cost.....	--	X	X	X
Floor Insulation Added.....	X	--	X	X
Type.....	--	--	X	X
Cost.....	--	--	X	X
Storm Doors Added.....	X	<sup>a</sup> X	X	X
Number Added.....	--	--	X	X
Cost.....	--	<sup>a</sup> X	X	X
Storm Windows Added.....	X	<sup>a</sup> X	X	X
Number Added.....	--	--	X	X
Size of Windows Added.....	--	--	X	--
Cost.....	--	<sup>a</sup> X	X	X
Closeable Shutters Added.....	X	--	<sup>b</sup> X	<sup>b</sup> X
Plastic Sheeting Added.....	X	--	<sup>b</sup> X	<sup>b</sup> X
Weatherstripping Added.....	X	--	X	X
Caulking Added.....	X	--	X	X
Clock Thermostat Installed.....	X	--	X	X
Insulation Added Around:				
Hot Water Pipes.....	X	--	X	X
Water Heater.....	X	--	X	X
Heating Ducts.....	--	--	X	X
Adjustment to Thermostat Control.....	--	--	X	X
Additional Thermostats.....	--	--	X	X
Smaller Nozzle on Burner.....	--	--	X	X
Flame-Retention Burner Installed.....	--	--	X	X
Automatic Flue Door Installed.....	--	--	X	X
Electrical/Mechanical Ignition.....	--	--	X	X
Meter Displaying Cost of Energy.....	--	--	X	X
Heat Pump Installed.....	X	--	X	X
Cost.....	--	--	X	--
New Water-Heating Equipment.....	X	--	--	--
New Furnace.....	X	--	--	--

**Table G6. Conservation Activities (Two Years Prior to the Survey) by Individual Survey (Continued)**

<u>Type of Activity</u>	<u>NIECS 1978</u>	<u>Screener 1979</u>	<u>RECS 1980</u>	<u>RECS 1981</u>
Wood-Burning Stove Added.....	--	--	X	X
Cost.....	--	--	X	--
Visit by Professional Energy Adviser.....	--	--	X	--
Participation in Weatherization Program.....	--	--	X	--
Rooms Closed Off.....	X	--	--	--
Cleaning Main Heating Equipment.....	--	--	X	--

<sup>a</sup>Windows and doors grouped together.

<sup>b</sup>Closeable shutters and plastic sheeting grouped together.

**Note:** An "X" in the column means the survey included the data item.

Table G7. Data Items by Individual Survey and Year

Data Items	NIECS 1978	Screener 1979	RECS 1980	RECS 1981
<b>Demographic Characteristics</b>				
Community Size.....	X	X	X	X
Census Region (4).....	X	X	X	X
Census Division (9).....	--	--	X	X
Year Moved Into Housing Unit.....	X	X	X	X
Number, Relation, Sex, and Age of Household Members.....	X	X	X	X
Employment Status of Members Aged 14 and Over.....	X	X	X	--
Respondent's Marital Status.....	X	X	X	X
Race.....	X	X	--	--
Origin.....	--	--	X	X
Hispanic Descent.....	--	--	X	X
Respondent and Spouse Education.....	X	X	X	X
Previous Year's Employment History.....	--	--	X	X
Family Income for Calendar Year.....	X	X	X	X
Sources of Family Income.....	--	--	--	X
Housing Tenure (Own or Rent).....	X	X	X	X
Condominium.....	X	X	X	X
Monthly Rent Payment.....	X	--	--	X
Food Stamps/Heating Assistance.....	--	--	--	X
Value of Housing Unit.....	X	--	--	--
<b>Wood Use Characteristics</b>				
Total Cords Burned.....	--	--	X	X
Type of Wood (e.g., hardwood).....	--	--	X	--
Amount Purchased.....	--	--	X	--
Price Paid.....	--	--	X	X
Price Includes Delivery.....	--	--	X	--
Amount Burned in Type of Equipment.....	--	--	X	<sup>a</sup> X
<b>Building Characteristics (buildings of 2 or more units)</b>				
Floor Location of Sampling Unit.....	--	--	X	--
Central or Individual System(s) in Multi-Family Buildings for:				
Heating.....	X	--	X	X
Air Conditioning.....	X	--	X	X
Water Heating.....	X	--	X	X
<b>General Characteristics</b>				
Cars and Trucks Used by the Household <sup>b</sup> .....	X	X	X	X
Change in Space-Heating Fuel During Past Year.....	--	X	X	X
Households Served by Same Utility.....	--	--	X	X
Membership of Utility <sup>c</sup> .....	--	--	X	X
Commercial Activity in Housing Unit.....	--	--	X	--
Availability of Gas in Neighborhood.....	--	--	X	X

Table G7. Data Items by Individual Survey and Year (Continued)

Data Items	NIECS 1978	Screener 1979	RECS 1980	RECS 1981
<b>Transportation Characteristics</b>				
Number of Vehicles.....	X	X	X	X
Number of Drivers.....	X	X	X	X
<b>Vehicle Characteristics</b>				
Type (station wagon, etc.).....	X	X	X	X
Make.....	X	X	X	X
Model Year.....	X	X	X	X
Model Name.....	X	X	X	X
When Acquired.....	X	X	--	--
Total Annual Mileage.....	X	X	--	--
Annual Highway Mileage.....	X	--	--	--
Used On-The-Job.....	X	--	--	--
Total Mileage.....	X	--	--	--
Miles-Per-Gallon				
Highway.....	X	--	--	--
Local.....	X	--	--	--
Basis for Miles-Per-Gallon.....	X	--	--	--
Fuel Used Most Frequently.....	X	--	X	--
Number of Cylinders.....	X	--	X	--
Air Conditioning.....	--	--	X	--
Automatic Transmission.....	--	--	X	--
Number of Vehicles Disposed of in Past 12 Months.....	X	X	--	--
<b>Commuting Characteristics (data for both respondent and spouse)</b>				
Miles to Work.....	--	--	X	--
Mode of Travel to Work.....	--	--	X	--
Alone/Other.....	--	--	X	--
Number of Others.....	--	--	X	--
Amount of Time Spent Commuting.....	--	--	X	--
Number of Trips between Home and Work.....	--	--	X	--

<sup>a</sup>All wood burned by household must be assigned to either the main or secondary heating equipment in those cases where wood was burned in both kinds of equipment.

<sup>b</sup>Data reported separately as part of the RECS Household Transportation Panel.

<sup>c</sup>For households paying directly to the utility, this code will distinguish investor-owned utilities from municipal utilities as indicated by the utility's membership in Edison Electric Institute, American Public Power Association, National Rural Electric Cooperative Association, or American Gas Association.

Note: An "X" in the column means the survey included that data item. A "--" means the item was not included.



## **GLOSSARY**

<b>A</b>	abutment - the end of a bridge pier or wall that rests against a fixed point such as a rock or another pier.
<b>B</b>	backfill - material placed behind a retaining wall or embankment.
<b>C</b>	cap - a thick concrete slab placed over a pier or abutment to support a bridge deck.
<b>D</b>	dead load - weight of the bridge superstructure, piers, and abutments.
<b>E</b>	embankment - a long, low wall or bank built along a riverbank to hold back water.
<b>F</b>	fill - material placed in a foundation or embankment.
<b>G</b>	girder - a horizontal beam that supports a bridge deck.
<b>H</b>	header - a horizontal beam that connects two vertical piers.
<b>I</b>	infill - material placed between the piers of a bridge.
<b>L</b>	lateral force - a force applied to a bridge pier or abutment from the side.
<b>M</b>	mass - the weight of a bridge pier or abutment.
<b>N</b>	neutral axis - the center of gravity of a bridge girder.
<b>P</b>	pier - a vertical column that supports a bridge deck.
<b>R</b>	retaining wall - a wall built to hold back soil or rock.
<b>T</b>	transom - a horizontal beam that connects two piers.
<b>U</b>	underpinning - a method of supporting a bridge pier or abutment while it is being repaired.
<b>W</b>	wall - a vertical structure that supports a bridge deck.



## GLOSSARY

**AIA Weather Zone.** Seven distinct areas designated by the American Institute of Architects (AIA) for the U.S. Departments of Energy and Housing and Urban Development; they are used to classify housing units based on long-term weather conditions. The zones were determined according to the number of heating and cooling degree-days averaged over a number of years as follows:

<u>Zone</u>	<u>Cooling Degree-Days</u>	<u>Heating Degree-Days</u>	<u>Comments</u>
1	Less than 2,000	More than 7,000	
2	Less than 2,000	5,500 to 7,000	
3	Less than 2,000	4,000 to 5,499	
4	Less than 2,000	2,000 to 3,999	No RECS household is in Zone 4 based on the long-term weather data for the household's NOAA Division. Zones 4 and 5 are combined for RECS reports.
5	Less than 2,000	Less than 2,000	
6	More than 2,000	Less than 2,000	Zones 6 and 7 are combined for RECS reports.
7	More than 2,000	2,000 to 3,999	

**Air-Conditioning:** Cooling of air by a refrigeration unit. This does not include fans, blowers, or evaporative cooling systems which are not connected to a refrigeration unit. Air-conditioning units that are not currently in working condition or are not used, but are in place in the housing unit, are included in this survey.

"Number of rooms that can be air-conditioned" refers to the number of rooms the air-conditioning equipment is capable of cooling when the equipment is used. Question 44 "How many rooms in your house (apartment) are cooled by air-conditioning?" refers to rooms which could be cooled if the air-conditioning equipment were used. There are, therefore, no cases in the data set of a household with air-conditioning equipment which air-conditioned zero rooms.

"All rooms air-conditioned" means that 100 percent of the rooms are air-conditioned. "Some rooms air-conditioned" means that less than 100 percent are air-conditioned.

"Central air-conditioning system" refers to a system that air-conditions a number of rooms in a home. See also "Central system for the building". For a definition of rooms, see "Number of Rooms".

Appliances Used: Appliances possessed and used by the household. Appliances possessed by the household but not used are not counted. Air-conditioning units are an exception. Air-conditioning is counted if present whether or not it is used. See "Air-Conditioning". Appliances loaned to the household for their regular use are included. Appliances temporarily not in working condition but generally used by the household are included only if a repair person has been called. "Swimming pool heater" applies only to swimming pools that are for the exclusive use of the housing unit. Swimming pools in apartment buildings, condominiums, or cooperatives that are for the use of many resident households are not included. "An evaporative cooler (swamp cooler)" is an air-cooling unit that turns air into moist, cool air by saturating the air with water vapor. See also "Refrigerators".

Availability of Natural Gas in the Neighborhood: Respondents living in single-family units or mobile homes who did not use natural gas answered "yes", "no", or "don't know" to the question, "Is gas from underground pipes available in this neighborhood?" Respondents were not provided with a definition of "available" or "neighborhood", so some variation is expected in what these concepts mean to each respondent.

Basement: is an enclosed space in which a person can walk upright under all or part of the building. A "crawl space" is the space between the ground and the floor of a house. An "enclosed" crawl space is one not accessible from the outside of the house because the walls of the space protect it from the weather. A crawl space "open to the outside" is accessible from outside the house even though it may be covered by a trellis or lathwork, or some kind of brick work that leaves space for circulation of air.

Bathroom: A "complete" bathroom has a flush toilet, a bathtub or shower, and a sink or washbasin with running water. A "half-bath" has a flush toilet or a bathtub or shower but does not have all the facilities for a complete bathroom.

Billing Period: The time between meter-readings. It does not refer to the time the bill was sent nor when the payment was to have been received. In some cases, the billing period is the same as the billing cycle which corresponds closely (within several days) to meter reading dates. For fuel oil and LPG, the billing period is the number of days between fuel deliveries.

Built-in Electric Units: Individual resistance electric heating units are permanently installed in the floors, walls, ceilings, or baseboards, and are part of the electrical installation of the building. Electric heating devices that are plugged into an electric socket or outlet are not considered built-in.

Central System for the Building: A central system serving one or more buildings of two or more housing units each that is used for main heating, water-heating, or air-conditioning. A system that is for the respondent's living quarters only is not a central system for the building.

Central Warm-Air Furnace: A central furnace providing warm air through ducts leading to the various rooms. Heat pumps are not included in this category. A "forced-air" furnace is one in which a fan is used to force the air through the ducts. In a "gravity" furnace, air is circulated by gravity. The warm air rises through ducts and the cold air falls through cold air ducts bringing the cold air back to the furnace to be reheated. This completes the circulation cycle.

Condominium Ownership: A type of ownership that enables a person to own an apartment or house in a project of similar units. The owner has his or her own deed and, very likely, has a mortgage on the unit. The owner also holds common or joint ownership in all common areas such as hallways, entrances, and elevators. Condominium ownership may apply to single-family houses, row houses, town houses, or apartments.

Conservation Items Added during 1979 or 1980: Energy-saving items added to the housing unit the household now occupies. Items added to a previous place of residence and changes made by previous occupants of the housing unit are not counted. Changes made by a landlord are counted. For respondents interviewed before December 31, 1980, the year 1980 represents an incomplete year. About 37 percent of the interviews were completed between September 1980 and the end of the year.

"Automatic or clock thermostat" is a thermostat that can be set to turn the heating system off and on at certain preset times of day.

"Adjustments to thermostat control (recalibration)" assures that the temperature the thermostat is set for is the actual temperature maintained in your house.

"An additional thermostat (zoning the home)". Adding an additional thermostat regulates the temperature in different parts of the home. For example, the sleeping areas of the home can be kept at a lower temperature than the living areas.

"Smaller nozzle or burner or smaller line on furnace". Adding one of these smaller lines to the oil furnace will cut down on the amount of fuel the furnace burns.

"Flame-retention head burner for furnace (fuel oil)" is a device that controls the pattern of flame in the combustion chamber of a boiler or furnace.

"Automatic flue door (vent damper)" automatically closes the flue when the furnace goes off, preventing heat loss up the chimney.

"Electrical or mechanical furnace ignition system (spark ignition)". This type of ignition added to the furnace means that fuel will ignite from an electrically or mechanically produced spark rather than from a pilot light that burns continuously.

"Insulation around heating ducts" is extra insulation around the heating ducts to reduce heat loss as the hot air travels to different parts of the residence.

"Insulation around hot water pipes" is blanket insulation wrapped around the hot water heater to reduce heat loss. This is in addition to any insulation provided by the manufacturer.

"Meter which displays the cost of energy" is a device to show the homeowner how much energy is being used in his home at a given time and/or to add up the cost of energy usage over a specific period of time.

"Closeable shutters, plastic sheets, insulating drapes" are counted if any one of these has been added to any door or window in the housing unit. Shutters that close to provide an insulating effect are counted. Decorative shutters that do not close are not counted.

"Caulking around any windows or doors to the outside" is available in these types: oil or resin base, latex, butyl-or polyvinyl-based, elastomeric or a filler such as oakum, caulking cotton, sponge rubber, or glass fiber types. Caulking is counted whether done on the inside or outside of the home.

"Weather-stripping around any windows or doors to the outside" can be applied on the inside or outside of the home. Weatherstripping is available in these basic types: thin spring metal, rolled vinyl, or foam rubber with adhesive backing.

Cooling Degree-Days: refers to the number of degrees per day the daily average temperature is above 65 degrees Fahrenheit. Normally, cooling is not required in a building when the outdoor average daily temperature is below 65 degrees. Cooling degree-days are determined by subtracting the base of 65 from the daily average temperature. For example, a day with an average temperature of 85 degrees has 20 cooling degree-days ( $85-65 = 20$ ), while one with an average temperature of 65 degrees or lower has none. The average daily temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

The cooling degree-days for RECS households in the 48 States and the District of Columbia were assigned according to the NOAA division in which each household was located (See "NOAA Division"). Cooling degree-day totals for Alaskan and Hawaiian households were assigned by appropriate nearby weather stations.

Doors: (outside doors) go from a heated area to the outside or to an unheated area, such as an unheated porch or garage. Doors to a heated hallway in an apartment building, doors that were permanently sealed shut, and doors to an unheated attic or basement were not counted because these doors are not usually fitted with storm doors. The NIECS survey counted doors to an unheated attic or basement, but this rule was not followed in the RECS survey. Double doors were counted as one door. A pair of sliding glass doors was counted as one door in this survey. A pair of sliding glass doors was counted as two doors in the NIECS survey. "Standard" doors include doors with and without glass panels.

Family Income: is the total combined income in 1979 from all sources of the family members before taxes and deductions. It includes wages, salaries, tips, commissions, and income from social security, pensions, interest, dividends, rent, public assistance, and unemployment insurance. This includes the total income for all family members who lived in the household in 1979, regardless of whether they were living there at the time of the interview. Income of nonfamily members of the household is not included. "Family" includes the following types of relationships: mother, father, sister, brother, son, daughter, father-in-law, uncle, aunt, niece, grandchild, foster child and similar relationships.

Federal Regions: The States are divided into ten groups as follows:

Region	States
1	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
2	New York, New Jersey
3	Delaware, Pennsylvania, Maryland, Virginia, West Virginia, District of Columbia
4	Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida
5	Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota
6	Louisiana, Arkansas, Texas, Oklahoma, New Mexico
7	Missouri, Iowa, Nebraska, Kansas
8	Colorado, Utah, North Dakota, South Dakota, Wyoming, Montana
9	Hawaii, Arizona, California, Nevada
10	Alaska, Idaho, Oregon, Washington.

Fireplace: is any masonry or pre-built installed fireplace. Fireplaces in mobile homes are included. A fireplace must have a permanent chimney built into the wall of the house. A free-standing fireplace that can be detached from its chimney is a heating stove.

Floor, Wall, or Pipeless Furnace: A floor furnace is located below the floor and delivers heated air to the room immediately above or, if under a partition, to the room on each side. A "wall furnace" is installed in a partition or in an outside wall and delivers heated air to the rooms on one or both sides of the wall. A "pipeless furnace" is installed in a basement and delivers heated air through a large register in the floor of the room or hallway immediately above.

Fuels: refers to the primary fuel delivered to the residential site. It may be converted at the site to some other energy form. "Electricity" is included in this report as a fuel.

"Coal" includes coke.

"Electricity" refers to electric power supplied by a central utility to a residence via underground or above-ground power lines. It does not refer to electricity generated onsite for the exclusive use of the residence. In this case, the fuel used for the generator will be indicated.

"Fuel oil" is No. 1, No. 2, or No. 4 grade fuel oil or residual fuel oil which might be burned for space- or water-heating purposes.

"Kerosene" refers to a distilled product of oil or coal with the generic name "kerosene," mainly used for space- and water-heating.

"LPG or liquified petroleum gas" refers to any fuel gas supplied to a residence in liquid form. It is usually delivered by tank truck and stored near the residence in a tank or cylinder until used. Propane and butane are liquified petroleum gases. Household use of LPG solely for outdoor gas grills is not considered sufficient use to mark the household as an LPG user.

"Natural gas" is utility gas supplied by underground pipeline to individual housing units by a central utility company. It does not refer to privately owned gas wells operated by the household.

"Solar Collector" refers to active, thermal, concentrating collectors using either air or liquid as the working fluid. It does not refer to passive collection of solar thermal energy.

Head of Household: If the respondent was married and living with his or her spouse, the male was considered to be the head of the household. Otherwise, the respondent was the head of the household.

Heating Degree-Days: The number of degrees per day the daily average temperature is below 65 degrees Fahrenheit. Normally, heating is not required in a building when the outdoor average daily temperature is above 65 degrees. Heating degree-days are determined by subtracting the average daily temperature below 65 degrees from the base 65. For example, a day with an average temperature of 50 degrees has 15 heating degree-days ( $65-50 = 15$ ), while one with an average temperature of 65 or higher has none. The average daily temperature is the mean of the maximum and minimum temperature for a 24-hour period.

The heating degree-days for RECS households in the 48 States and the District of Columbia were assigned according to the NOAA division in which each household is located (See "NOAA Division"). Heating degree-days for Alaskan and Hawaiian households were assigned by appropriate nearby weather stations.

Heating Stove Burning Wood, Coal, and Coke: Any free-standing box or controlled draft stove or built-in fireplace stove. Stoves are made of cast iron, sheet metal, or plate steel. Free-standing fireplaces that can be detached from their chimneys are considered heating stoves. "Airtight" stoves have a gasket around the doors to close off air leakage and control the amount of air intake. "Nonairtight" stoves do not have gaskets around their door openings.

Heat Pump (Reverse Cycle System): A year-round heating-air-conditioning system in which refrigeration equipment supplies both heating and cooling through ducts leading to individual rooms. It generally consists of a compressor, both in- and outdoor coils, and a thermostat.

When the heat pump is attached to a central furnace, the heat pump is either the main or secondary heating equipment depending on how often the heat pump operates. If it operates for a short time and then the furnace comes on, the heat pump is secondary (or additional heating equipment). If the heat pump is sufficient to provide the desired warmth, the heat pump is the main heating equipment.

Home Energy Audit: A visit to each housing unit by a professional energy auditor to advise the household on how it could save money on its energy bills. Advice received over the telephone (such as from an energy hotline) or from literature received in the mail is not counted. The "Energy audit provider" was a professional who represented an electric or gas company, a fuel oil or LPG company, or someone else such as a private contractor.

Hot-Deck Imputation: A procedure by which the household file is sorted by variables related to the missing item. A household is then selected which has the same value on the matching variables and this "donor" household supplies the value for the missing item. (See "Imputation").

Household: A group of up to 12 persons occupying the same housing unit. "Occupy" means the housing unit was the person's usual or permanent place of residence at the time of the first field contact. The household includes babies, lodgers, boarders, employed persons who live in the housing unit, and persons who usually live in the household, but are away traveling or in a hospital. The household does not include persons who are normally members of the household but who were away from home as college students or members of the armed forces at the time of the contact.

The household does not include persons temporarily visiting with the household if they have a place of residence elsewhere, persons who take their meals with the household but usually lodge or sleep elsewhere, domestic employees or other persons employed by the household who do not sleep in the same housing unit, or persons who are former members of the household, but have since become inmates of correction or penal institutions, mental institutions, homes for the aged or needy, homes or hospitals for the chronically ill or handicapped, nursing homes, convents or monasteries or other places in which residents may remain for long periods of time. By definition, the count of households is the same as the count of occupied housing units.

Housing Structure: One of four structure types used to categorize the building the housing unit was located in.

A "single-family housing unit" refers to a structure that provides living space for one household or family. The structure may be detached, attached on one side (semi-detached), or attached on two sides. Attached houses are considered single-family houses as long as the house itself is not divided into more than one housing unit and has an independent, outside entrance. A single-family house is contained within walls that go from the basement to the roof.

A "house or building with two to four housing units" is divided into living quarters for two, three, or four families or households. This category also includes houses originally intended for occupancy by one family or for some other use, but have since been converted to a separate dwelling for two to four families. Typical arrangements in these types of living quarters are separate apartments, downstairs and upstairs, or one apartment on each of three or four floors.

A "building with five or more housing units" refers to a building containing living quarters for five or more separate households or families.

A "mobile home or trailer" refers to a structure which has all the facilities of a dwelling unit, but is built on a movable chassis. It may be placed on a permanent or temporary foundation and contain one or more rooms. If additional rooms are added to the structure, it is still considered a mobile home.

Housing Unit: A structure or part of a structure where a household (family or individual) lives or could live. It has direct access from the outside of the building or through a common hall. Housing units do not include group quarters such as prisons, hospitals, dormitories, nursing homes, fraternity houses, or convents where ten or more unrelated persons live. Hotel rooms, motel rooms, mobile homes, or trailers are considered housing units if occupied.

Imputation: is a statistical method used to estimate the response to specific questions for which answers are missing.

Insulation: refers to any material which, when placed between the interior of the dwelling and the outdoor environment, reduces the rate of heat loss to the environment or heat gain from the environment. The four forms of insulation, illustrated in a drawing shown to respondents, are listed below:

"Blankets or batts"; rolls or pieces of insulation which are nailed or stapled between the rafters or wall joists (beams). It is usually made of fiberglass or rock wool.

"Loose particles or loose fill"; loose insulation comes in a bag and is poured between joists (beams). Loose insulation can also be blown into open spaces. Loose fill can be glass fiber, rock wood fibers, cellulosic fiber, or vermiculite.

"Firm foam or firm plastic"; rigid boards (such as styrofoam) that can be cut to size and either edged, nailed, or glued into place.

"Sprayed-in urethane foam" is not shown separately as a category because the description used in the survey was inaccurate. Urethane foam is not sprayed in because it expands so much that confined areas may be broken apart by the force of the expanding substance. The more general category of "sprayed foam" will be used in the future to include all types of foam insulation.

"Floor insulation" is insulation between the bottom floor and the unheated basement or crawl space. Carpeting or carpeting pads are not insulation.

Main Cooking Fuel: is the answer to the question: "Thinking of all the different kinds of cooking done here, including cooking in the oven, on a range, and with small appliances, which fuel is used most?"

Main Heating Equipment: (See description of specific heating equipment.) Main heating equipment, if temporarily out of order, is reported as the main heating equipment. If two types of heating equipment are used, the main equipment is the one used more. If both are used equally, the main equipment is the one that appears first on the list in the question.

Main Heating Fuel: The fuel mentioned by the respondent in response to Question 21, "What is the main fuel used for heating this house (apartment)?" Question 24 asked about the main heating fuel used to heat the house (apartment) in the winter of 1979-80. This question does not apply to housing units not yet built in the winter of 1979-1980 or to housing units not heated in the winter of 1980-1981 (and assumed not to have been heated in the winter of 1979-1980).

Main Outside Wall Material: The predominant type of wall material. Houses built with two materials used in approximately the same amount are classified as having a "combination" of materials.

NIECS: The National Interim Energy Consumption Survey, the first developmental survey in the planned series of Residential Energy Consumption Surveys. The NIECS contacted 4,081 households in October and November 1978. Fuel suppliers provided data on consumption and expenditures for the period April 1978 through March 1979.

NOAA Division: One of the 344 weather divisions designated by the National Oceanic and Atmospheric Administration (NOAA) encompassing the 48 contiguous States. These divisions usually follow county borders to encompass counties with similar weather conditions. The NOAA division does not follow county borders when weather conditions vary considerably within a county such as is likely to happen when the 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.

Number of Rooms: Whole rooms are rooms such as living rooms, dining rooms, bedrooms, kitchens, lodger's rooms, finished basements or attic rooms, recreation rooms, and permanently enclosed sun porches which are used year-round. Rooms used for offices by a person living in the unit are included in this survey.

Bathrooms, halls, foyers or vestibules, balconies, closets, alcoves, pantries, strip or pullman kitchens, laundry or furnace rooms, unfinished attics or basements, open porches, and unfinished space used for storage are not included.

A partially divided room, such as a dinette next to a kitchen or living room, is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets. If a room is used by occupants of more than one unit, the room is included with the unit from which it is most easily reached.

Rooms are counted as year-round living space if they are completely enclosed with permanently installed walls, windows, and roof, and can be heated.

Occupied Housing Unit: A unit someone was living in as his/her usual or permanent place of residence at the time of the first field contact.

Origin: Each respondent was asked, "Which of the groups on this exhibit best describes your origin"? The groups included--white, black or negro, American Indian, Alaska native, Asian, Pacific Islander. The word "race" was not used in either the questionnaire or the instructions.

Owner/Renter: Own/rent refers to the structure itself, not the land on which it is located. The household is classified "renter" even if the rent is paid by someone not living in the unit. "Rent-free" means the unit is not owned or being bought and no money rent is paid nor contracted for. Such units are usually provided in exchange for services rendered or as an allowance or favor from a relative or friend not living in the unit. "Rent-free" also includes occupants who pay only for utilities. Unless shown separately, "rent-free" households are grouped together with "renters".

Poor: Definitions of the poor were developed for 100 percent and for 125 percent of the level of poverty. The definition was based on the number of family members in the household and family income. Because income data were collected by using categories of income (for example, \$3,000 to \$3,999), an exact match of Census thresholds could not be made. In addition, the RECS survey did not ask about the farm-nonfarm distinction, thus further limiting a closer match to Census thresholds which are lower for farm households.

Table H. Definition of Poor

Number of Persons per Family	100 Percent Level of Poverty		125 Percent Level of Poverty	
	1979 RECS Income Range Less than:	Census Threshold*	1979 RECS Income Range Less than:	125 Percent of 100 Percent Threshold
1	\$4,000	\$3,683	\$5,000	\$4,604
2	\$5,000	\$4,702	\$6,000	\$5,878
3	\$6,000	\$5,763	\$7,000	\$7,204
4	\$7,000	\$7,386	\$9,000	\$9,233
5	\$9,000	\$8,736	\$11,000	\$10,920
6	\$10,000	\$9,849	\$12,000	\$12,311
7 or more	\$12,000	\$12,212	\$15,000	\$15,265

\*Figures from the Bureau of the Census, Money Income and Poverty Status of Families and Persons in the United States: 1979 (Advance Report), (Series P-60, No. 125), October 1980. See Table 17, page 28.

The definitions above produced an estimate of 10.897 million poor households (100 percent level of poverty) and 14.774, million poor households at the higher level. The Bureau of the Census estimate for March 1980 is 9.521 million poor households (100 percent of poverty) and 13.670 million poor households (125 percent level of poverty). The Census estimates have not been adjusted for the 1980 Census which counted several million households more than were anticipated. The RECS estimates are based on the 1980 Census results and thus would be expected to be larger than estimates not based on the larger number of households found in the 1980 Census.

Portable Heater(s): Heaters that can be picked up and moved including electric heaters that get current through a cord plugged into an electrical wall outlet. Portable space-heaters are included in this category.

Race: See "Origin".

Refrigerators: with no freezer sections are included in the nonfrost-free category. "Frost-free" means that frost does not buildup on the sides of the freezer section or ice cube section.

Room Heaters Burning Gas, Oil, Kerosene: are circulating heaters, convectors, radiant gas heaters, space-heaters or other nonportable room heaters which may or may not be connected to a flue, vent, or chimney.

Rural: refers to places which had a population of less than 2,500 in the 1970 Census.

Screener Survey: The Residential Energy Consumption Survey which contacted 4,033 households in October and November 1979. Fuel suppliers provided data on consumption and expenditures for the period April 1979 through March 1980. This survey was named the Household Screener Survey because it was used to screen households for participation in the household Transportation Panel.

Secondary Heating Equipment: Equipment used in addition to the main equipment. Description of the secondary heating equipment is the same as for the main heating equipment.

SMSA: A group of households located within Standard Metropolitan Statistical Areas (SMSA's) as defined in the 1970 Census. Except in New England, an SMSA is a county or group of contiguous counties which contain at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. The contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, SMSA's consist of towns and cities, rather than counties. "Non-SMSA" refers to households not located within SMSA's as defined in the 1970 Census.

Square Feet: The floor area of the housing unit that is enclosed from the weather. Basements are included whether or not they contain finished space. Garages are included if they are attached to the house. Attics that have finished space and attics that have some heated space are

included. Crawl spaces are not included even if they are enclosed from the weather. Sheds and other buildings that are not attached to the house are not included. "Measured" square feet means the measurement of the dimensions of the home did not rely on the respondent's reports but was an actual measurement by the interviewer using a metallic, retractable, 50-foot tape measure. All "measurements" are standardized to outside estimates, if not already outside measurements. For details on how the measurement was made and how the data were treated, see Appendix B.

"Heated square feet" is that portion of the measured square feet that is heated during most of the season. Rooms that are shut off during the heating season to save on fuel use are not counted as heated square footage. Attached garages that are unheated and unheated areas in basements and attics are not counted as heated square feet.

Steam or Hot Water System with Radiators or Convectors: A central heating system supplying steam or hot water to conventional radiators, baseboard radiators, heating pipes embedded in the walls or ceilings, or heating coils or equipment which are part of a combined heating-ventilating or heating-air-conditioning system. This category also includes hot water pipes under the floor which provides central radiant heating through hot water pipes inlaid in a concrete, slab floor.

Storm Doors and Windows: Storm doors made of double or insulating glass such as thermopane. Glass or plexiglass placed over a sliding glass door on either the exterior or interior is counted as a storm door. A plastic sheet covering the door is not counted as a storm door.

Storm windows are added to the exterior of existing windows. Windows made of double or insulating glass, such as thermopane, are storm windows. Glass or plexiglass placed over windows on either the interior or exterior side are included. Plastic sheets covering windows are not included.

Note: Responses of "don't know" for storm doors, windows, and/or attic insulation were treated the same as "do not have". For example, a respondent who indicated his/her house had storm windows (some or all) and storm doors (some or all) but who did not know if it had attic insulation, was counted in the "have one or two of these" category.

Urban: Includes housing in places of 2,500 inhabitants or more as defined in the 1970 Census.

Utilities Paid by Household: Fuel suppliers or utility companies paid directly for all electricity, natural gas, fuel oil, kerosene, or liquified petroleum gas used by the household. Households paying directly to the utility were classified in this survey as "all paid." Households that paid directly for at least one but not all of their fuels used and had at least one fuel charge included in their rent were classified as "some paid, some included in rent". Households in which all fuels used were included in their rent were classified as "all included in rent". Some households were classified as "other" if they did not fall into any of the above three categories. Included are households for which fuel bills were paid by a department of social services or a relative, and households that paid for some of their fuels used but paid for other fuels through some other arrangement.

Windows: All windows in the year-round living space. Windows in the basement, attic, garage, and porch are included only if these areas are heated. Windows in doors are not included. Each window that opens separately is counted as one window. Windows fixed in place are also counted. Respondents were shown an exhibit which presented the picture of a door of standard size and a large, medium, and small-sized window beside the door for comparison. In addition, each size of window was defined in square feet to enable the interviewer or respondent to classify windows by multiplying the width times the height.

Vacant Housing Unit: A housing unit not occupied at the time of the first field contact. An occupied seasonal or migratory housing unit is classified as vacant at the time of the first field contact when all persons had a usual place of residence elsewhere.

Water-Heating Fuel: The answer to the question "Which fuel is used most for heating water"? This included households that did not have running water water in their home. This fuel is used for heating water for bathing and washing. The hot water may have been available anywhere in the same building as the respondent's living quarters. This may have been in a hallway, in a room used by several units in the building, in the basement, or on an enclosed porch provided the respondent's household had access to it.

Weatherization Program: A community program to help some people save energy by providing and installing such materials as insulation, storm windows, or storm doors at no cost to the household.

Wood Burned: Amount of wood burned in the home at any time in the past 12 months in either a fireplace, stove, or furnace. Households burning less than 1/3 of cord of wood are not shown separately in this report, nor is their consumption of wood included in figures on wood consumption. January 1981 represents the midpoint of interviewing; therefore, the consumption period for wood burned in the prior 12 months is calendar year 1980 for the typical respondent. This means the figures for wood burned cover part of the 1979-1980 heating season and part of the 1980-1981 heating season.

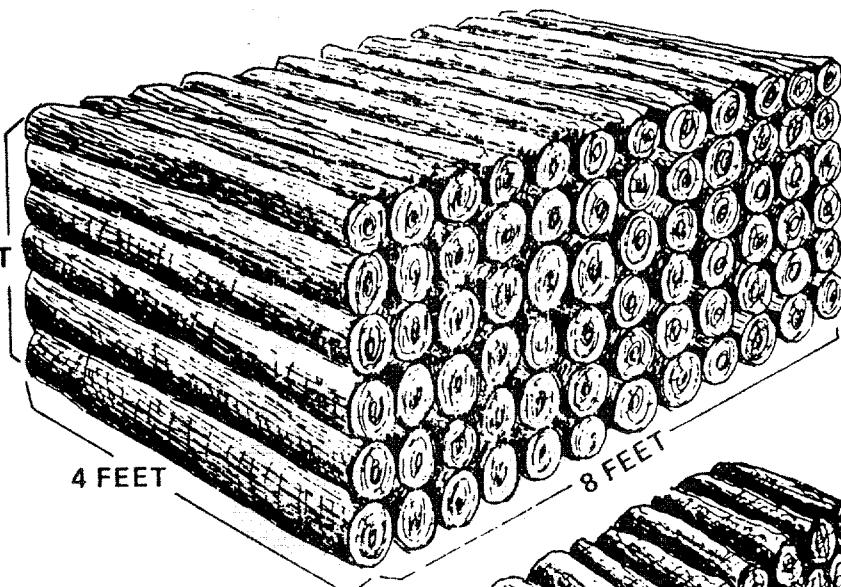
A "cord" measures 4 feet by 4 feet by 8 feet and is approximately 128 cubic feet. A third of a cord measures 16 inches by 4 feet by 8 feet. The following picture of a cord and a rack (1/3 of a cord) was shown to respondents.

"Average price per cord from most recent purchase (1980 purchases)". Households which purchased 1/4th or more of the wood burned were asked about their most recent purchase of wood. Only prices for the most recent purchase in 1980 are reported. Purchases of less than one cord were converted to a cord base. Purchases in "other" units are not included in the average price.

SIZE AND VOLUME CONTAINED IN  
A CORD AND A RACK OF FIREWOOD

**CORD** →  
CONTAINS  
128 CUBIC FEET

4 FEET

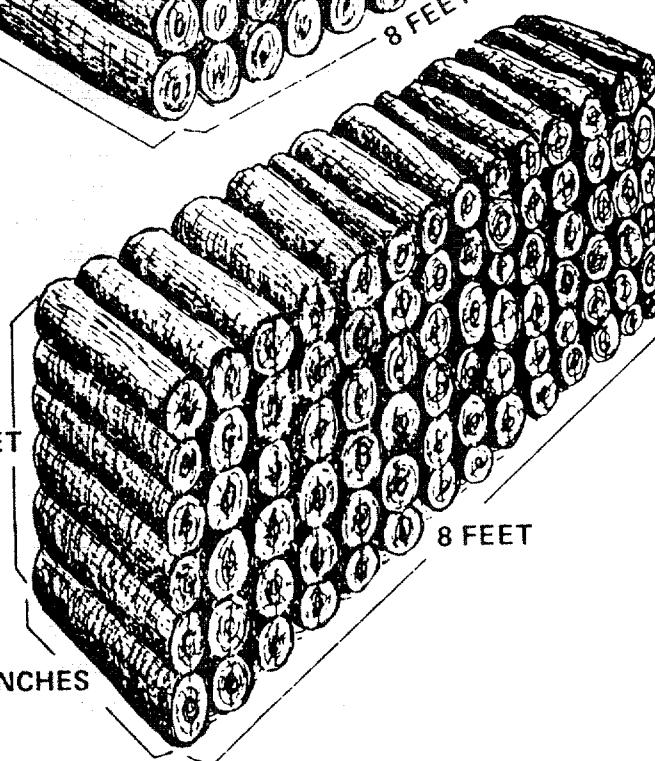


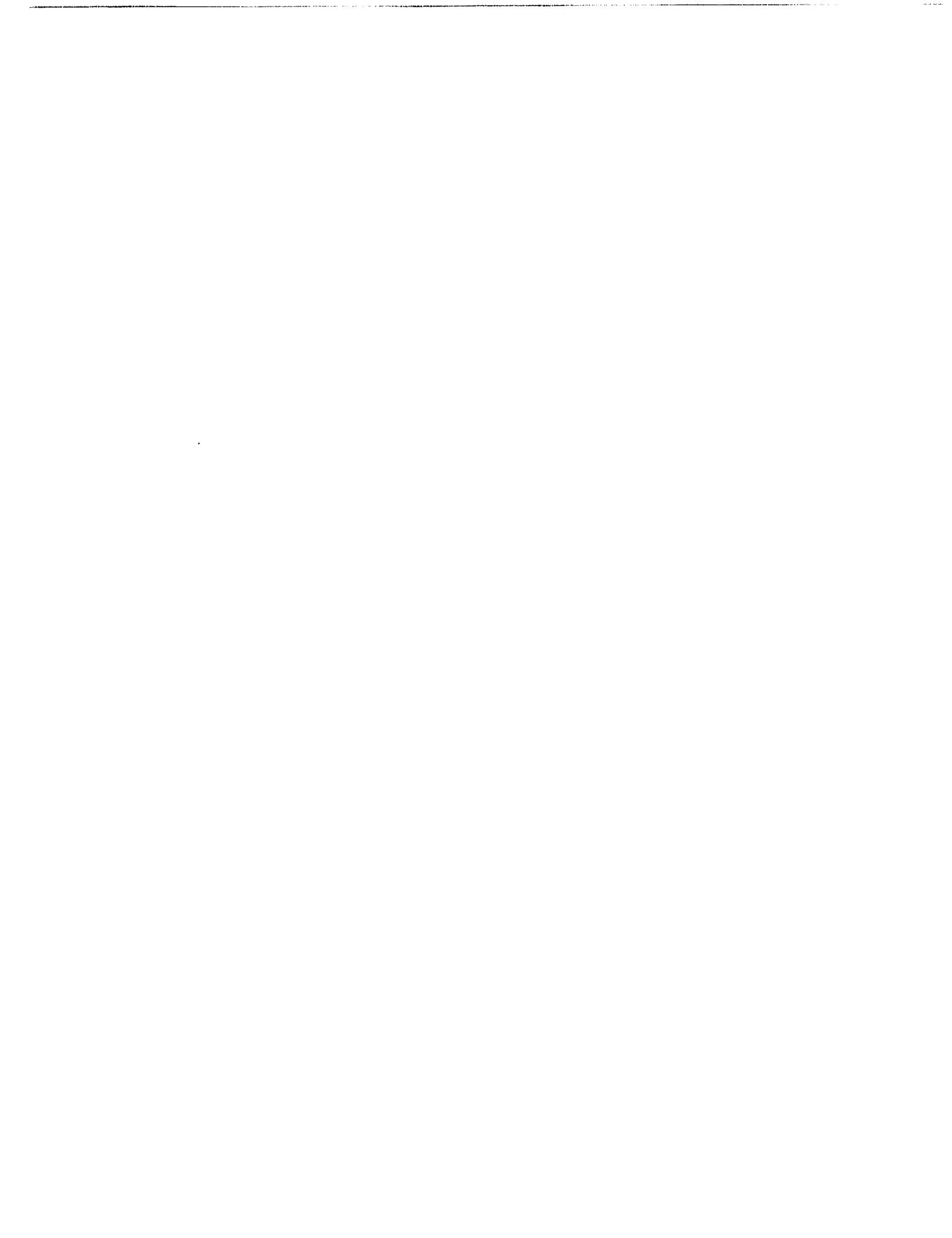
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43 CUBIC FEET

4 FEET

16 INCHES

8 FEET







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Materials on the Residential Energy Consumption Survey

Residential Energy Consumption Survey: Conservation, February 1980,  
DOE/EIA-0207/3, GPO Stock No. 061-003-00087-8, \$6.00

Single-Family Households: Fuel Inventories and Expenditures: National  
Interim Energy Consumption Survey, December 1979, DOE/EIA-0207/1, GPO  
Stock No. 061-003-00075-4, \$1.75.

Residential Energy Consumption Survey: Characteristics of the Housing  
Stock and Households, 1978, February 1980, DOE/EIA-0207/2, GPO Stock No.  
061-003-00093-2, \$4.25.

Residential Energy Consumption Survey: Consumption and Expenditures,  
April 1978 Through March 1979, July 1980, DOE/EIA-0207/5, GPO Stock No.  
061-003-00131-9, \$6.50.

Residential Energy Consumption Survey: 1979-1980 Consumption and  
Expenditures (Part I: National Data Including Conservation), April, 1981,  
DOE/EIA-0262/1, GPO Stock No. 061-003-00191-2, \$5.50.

Residential Energy Consumption Survey: 1978-1980 Consumption and  
Expenditures (Part II: Regional Data), May 1981, DOE/EIA-0262/2, GPO  
Stock No. 061-003-00189-1, \$8.50.

Residential Energy Consumption Survey: Consumption Patterns of Household  
Vehicles, June to August 1979, June 1980, DOE/EIA-0207/4, GPO Stock No.  
061-003-00156-4, \$3.75.

Copies of the above reports are available from Superintendent of Documents,  
U.S. Government Printing Office, Washington, DC 20402.

Residential Energy Consumption Survey: Consumption Patterns of Household  
Vehicles, June 1979 to December 1980, April 1982, DOE/EIA-0319. Copies  
are available from the National Energy Information Center, 1F-048, Forrestal  
Building, U.S. Department of Energy, Washington, DC 20585. Telephone:  
(202) 252-8800.

Copies of the following household data files on magnetic tape with name,  
address, and other potentially identifying data removed, are available  
from the National Technical Information Service, Computer Products Division,  
5285 Port Royal Road, Springfield, Virginia 22161. Telephone:  
(703) 487-4808.

National Interim Energy Consumption Survey: Household Interview File,  
Accession No. PB-81-108714, \$125.00.

National Interim Energy Consumption Survey: Household Monthly Energy  
Consumption and Expenditures, Accession No. PB-82-114901, \$125.00.

Household Screener Survey: Household Characteristics and Annualized  
Consumption, Accession No. PB-82-114877, \$125.00.

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