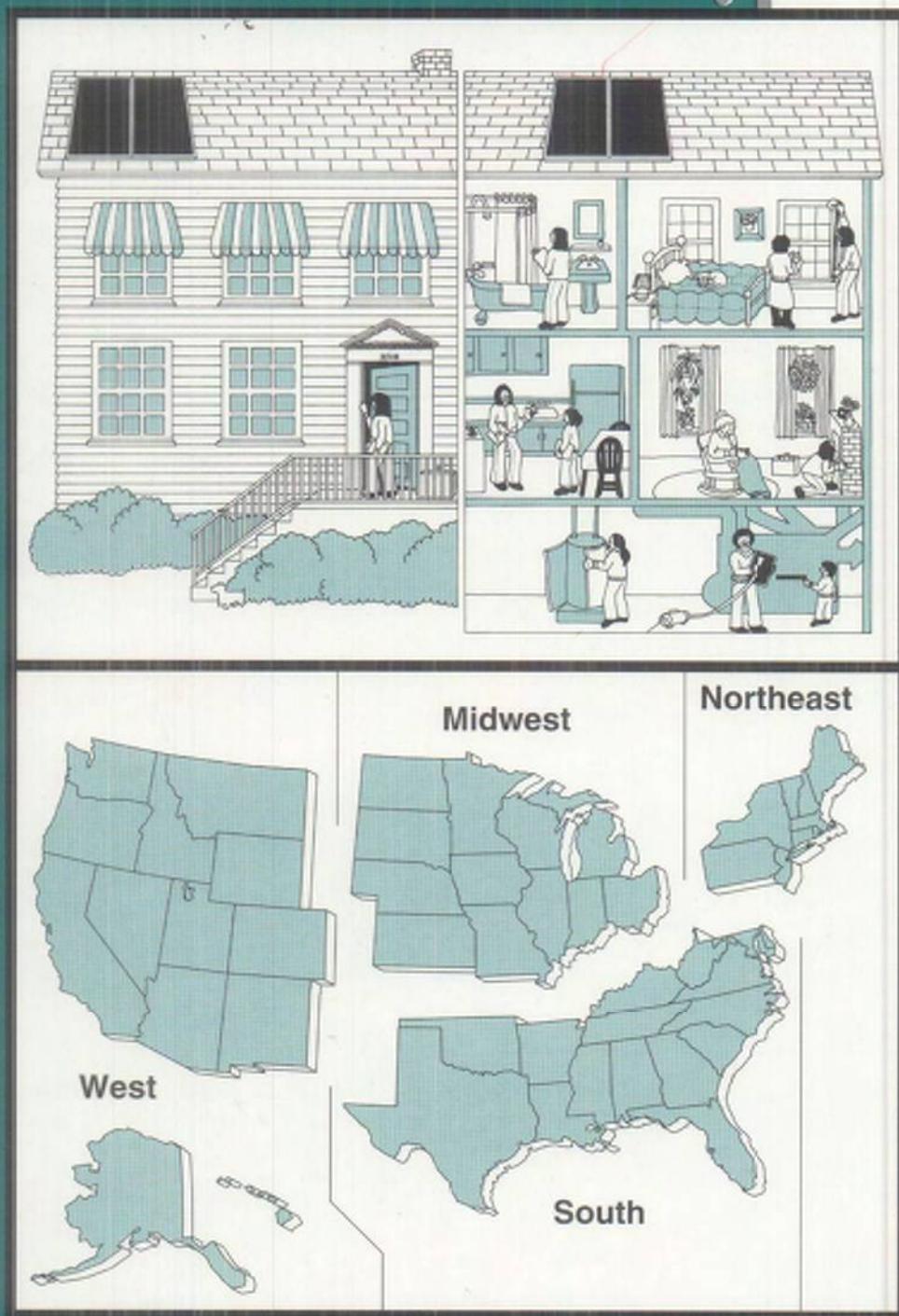


# Household Energy Consumption and Expenditures 1990

## Supplement: Regional

February 1993



Residential Energy Consumption Survey

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*The cover design displays a single-family home, which is one type of housing unit sampled in the Residential Energy Consumption Survey. The family inside the home is doing various things to make the home more energy efficient. The map represents data collection via the four regions of the United States.*

This report covers information on energy consumption and expenditures of households in the residential sector at the regional level. Similar national information was published in the main report, *Household Energy Consumption and Expenditures 1990*.

DOE/EIA-0321(90)/S  
DistributionCategoryUC-950

# **Household Energy Consumption and Expenditures 1990**

## **Supplement: Regional**

**February 1993**

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

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

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The EEUISD would also like to acknowledge Jason Freelin and Christy Hall, for their contribution to the overall quality of the data, especially their editing and reviewing of the tables. Also, we would like to acknowledge David Cotta for the analysis concerning changes in wood consumption.

Support was received from the U.S. Department of Health and Human Services, Administration for Children and Families (ACF), and the Office of Minority Economic Impact in the U.S. Department of Energy for special components of the survey. See Appendix A of the companion report, *Household Energy Consumption and Expenditures 1990*, for a description of the information collected for the ACF.

As part of EIA's mission to provide meaningful data, the consumption surveys have ongoing user needs efforts to ascertain the requirements of its users. If you have any suggestions to make the data in this report more useful to your needs, please contact Dr. Wendel Thompson, RECS Manager, at 202-586-1119 or at the address below.

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# Introduction

The purpose of this supplement to the *Household Energy Consumption and Expenditures 1990* report is to provide information on the use of energy in residential housing units, specifically at the four Census regions and nine Census division levels. This report includes household energy consumption, expenditures, and prices for natural gas, electricity, fuel oil, liquefied petroleum gas (LPG), and kerosene as well as household wood consumption. For national-level data, see the main report, *Household Energy Consumption and Expenditures 1990*.

The Energy Information Administration (EIA) is mandated by Congress to be the agency that collects, analyzes, and disseminates impartial and comprehensive data about energy--how much is produced, who uses it, and the purposes for which it is used. To comply with that Congressional mandate, EIA collects energy data from a variety of sources covering a range of topics.<sup>1</sup>

## Background

The data reported here were collected on the 1990 Residential Energy Consumption Survey (RECS) Forms EIA-457A through G. EIA conducts this national sample survey of residential housing units and their energy suppliers on a triennial basis. The RECS is the only comprehensive source of national-level data on energy-related information for the residential sector. The 1990 RECS is the eighth residential energy consumption survey conducted by EIA. Previous RECS were conducted annually from 1978 to 1982 and in 1984.

The RECS is a national multistage probability sample survey. Housing unit and household characteristics data are collected via a personal interview with the householder. Householders are asked to sign authorization forms allowing their suppliers of energy to release billing information about their household. A mail survey is used to collect household energy consumption and expenditure information from the energy suppliers.

This supplement and the main report, *Household Energy Consumption and Expenditures 1990*, are based on data from both the household interviews from the 1990 RECS, conducted in the fall of 1990 and on the billing records collected during the mail survey for the 12-month period of January through December 1990. Information on the physical characteristics of the housing units, the appliances utilized, the occupants, the types of fuels being used, and other characteristics that relate to energy use was published in an earlier report, *Housing Characteristics 1990*.

Data in this supplement are presented in the form of aggregate totals and household averages. Also included are estimates of consumption and expenditures for the five end uses of residential energy: space heating, air conditioning, water heating, appliances, and refrigerators. The values presented for the end-use estimates are based on the 1990 RECS and are disaggregations of actual bills using a nonlinear regression technique. (See Appendix D, "End-Use Estimation Methodology," of the main report, *Household Energy Consumption and Expenditures 1990*, for details on the procedures used to calculate the end-use estimates.) Measures of energy use are also presented in the form of heating and air-conditioning intensities. (See the box on page 12 of the *Household Energy Consumption and Expenditures 1990* for a description of the intensities.)

<sup>1</sup>The EIA conducts numerous energy-related surveys. In general, the surveys can be divided into two broad groups. One group of surveys is directed to the suppliers and marketers of specific energy sources. These surveys--called supply surveys--measure the quantities of specific fuels produced and/or supplied to the market. The results of the supply surveys are combined and published in the *Monthly Energy Review* and other EIA publications. The second group--the consumption surveys--gathers information on the types of energy used by the end users along with the characteristics of those end users that can be associated with energy use. The RECS belongs to the consumption survey group because it collects information directly from the end user--the household. There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For a summary of the differences in the residential sector, see Appendix C of Energy Information Administration, *Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533 (Washington, DC, April 6, 1990).

The data are published to provide objective, accurate energy information for a wide audience including Congress, Federal and State agencies, industry, and the general public. The data presented were collected and published by the EIA to fulfill its responsibilities as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended.

The EIA gratefully acknowledges the cooperation of the respondents in supplying the information used to produce the estimates presented here.

## Organization of the Supplement

National data are presented in *Household Energy Consumption and Expenditures 1990*, which is the principal volume to this publication. The energy consumption and expenditure data in this supplement are presented at the Census region and division levels. See "Quick-Reference Guide" in the "Detailed Tables" section for a listing of the major topics covered by Tables 1 through 106. Appendix A is a list of 1990 RECS Forms EIA-457 A through G titles. Appendix B contains the Census regions and divisions and climate zones maps.

For background information on the RECS, see the following *Household Energy Consumption and Expenditures 1990* sections:

- Appendix A: How the Survey was Conducted
- Appendix B: Quality of the Data
- Appendix C: RECS Coverage Related to EIA Supply Surveys
- Appendix D: End-Use Methodology
- Appendix E: Survey Forms
- Appendix F: U.S. Climate Zone and Census Regions and Division Maps
- Appendix G: Related EIA Publications on Energy Consumption
- Glossary

## Electronic Data Sets

The regional-level tables from the "Detailed Tables" section of this supplement are available on diskette. In addition, the public use data from the 1990 Residential Energy Consumption Survey will be available on diskette. See the "Detailed Tables" section and the inside back cover of this report for ordering information.

## Statistics Reported

### New Data for the 1990 RECS

Several new data questions were added to the 1990 RECS. New areas introduced were lighting inside the housing unit, participation in demand-side management programs, shade trees and other methods of helping to cool a house other than air conditioning, and the collection of air-conditioning nameplate data to obtain more information on their energy efficiencies. More information was collected on refrigerators and their usage, enabling refrigerators to be estimated as a separate end use (previously refrigerators were included in the appliance end use).

## **Housing Units**

The RECS is a sample of all housing units in the United States. For RECS, a housing unit is considered as a house, an apartment, a mobile home, a group of rooms, or a single room, if it is either occupied, or intended for occupancy, as separate living quarters by a family, an individual, or a group of one to nine unrelated persons. The housing unit must be the primary residence that is occupied for most of the year; seasonal units are not included. Group quarters for ten or more persons, such as a prison or nursing home, are not included in the RECS. Hotel and motel rooms are considered housing units if occupied as the usual or permanent place of residence.

## **Type of Housing Unit**

As stated above, the RECS publishes information on housing units in several types of structures: single-family houses (both detached and attached), mobile homes, and small (two to four units) and large (five or more units) multifamily or apartment buildings.

## **Energy Consumption and Conditional Energy Intensities**

Consumption is reported on a net basis in terms of energy delivered on site; no adjustment was made for the primary fuels consumed to produce electricity. Energy intensities reported are in terms of conditional intensities. Refer to the box on page 12 in the main report, *Household Energy Consumption and Expenditures 1990*, for information on how the intensities are calculated.

## **End-Use Estimates**

There are two types of data reported in the "Detailed Tables" section of this report. The first is the energy consumption and expenditure data that were obtained from the energy suppliers to the households. The second is the nonlinear regression estimates of household energy consumption and expenditures by five end uses--space heating, air conditioning, water heating, appliances, and refrigerators. Appendix D, "End-Use Estimation Methodology," in *Household Energy Consumption and Expenditures 1990*, provides details on the regression equations used.

## **Survey Estimates**

The statistics published in this supplement are based on a random sample selected from the population of occupied housing units in the United States as of November 1990. As a result, all the numbers are estimates rather than exact measures for the population. The 1990 RECS represents 94.0 million households in the 50 States and the District of Columbia. As described in Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990*, the accuracy of each estimate is indicated by the RSE. No estimates were published that were based on data from fewer than 10 sampled households or that had an RSE greater than 50 percent. All of the estimates, except those for the energy end-use estimates, include corresponding RSE's that can be calculated using row/column RSE factors.



# Detailed Tables

The following tables present detailed energy consumption and expenditures of households in the residential sector at the four Census regions and nine Census division levels. The data are from the 1990 RECS. These regional data are designed as a supplement to the national-level data presented in the main report, *Household Energy Consumption and Expenditures 1990*. See the "Glossary" in that main report for definitions of terms used in the tables.

## Table Organization

### Overall Organization

Tables are sequenced by each Census region, and within the region, by Census division. Generally, there will be one page for the total region followed by one page for each Census division within that region. All 27 tables for a region are grouped together. The order of the regions addressed is the Northeast (Tables 1 through 27), Midwest (Tables 28 through 55), South (Tables 56 through 83) and West (Tables 84 through 106). The tables are grouped within region by topics to facilitate finding related information. The Quick-Reference Guide (Figure 1) indicates, by region, the broad topic and relevant table number. See Appendix B, "U.S. Census Region and Division Map" for the States included in each region and division.

### Row Stubs

There is a standard set of row categories (stubs) which appears in all tables. Depending on the specific table topic, the standard stub may be augmented with selected variables pertinent to that topic. The standard stub items always appear in the same order, with any additional stub items interspersed adjacent to the related standard stub items.

### Consumption and Expenditures Tables

The first ten tables in each regional grouping provide household energy consumption and expenditure data that were obtained from the energy suppliers to the households. Data are presented for a total of all energy sources, followed by tables specifically by energy source. Statistics are provided both by all households and per household averages.

### End-Use Tables

The last 17 tables in each regional grouping contain nonlinear regression estimates of energy consumption and expenditures by five end uses--space heating, air conditioning, water heating, appliances, and refrigerators. Details concerning the methodology used for the end-use estimates are in Appendix D, "End-Use Estimation Methodology," of the main report, *Household Energy Consumption and Expenditures 1990*. Data are presented for a total of all energy sources, followed by tables specifically by energy source. Statistics are provided both by all households and per household averages.

**Figure 1. Quick-Reference Guide to the Detailed Tables**

Topic	Northeast	Midwest	South	West
<b>Energy Consumption and Expenditures</b>				
Average of All Major Sources	1	28	56	84
Consumption by Each Major Source	2	29	57	85
Expenditures by Each Major Source	3	30	58	86
Electricity, per Household	4	31	59	87
Natural Gas, per Household	5	32	60	88
Fuel Oil, per Household	6	33	61	1/
Kerosene, per Household	7	34	62	1/
Liquefied Petroleum Gas (LPG), per Household	8	35	63	89
Wood Consumption	9	36	64	90
Average Expenditures by Each Major Source	10	37	65	91
<b>Energy End Use</b>				
Consumption and Expenditures by End Uses	11	38	66	92
Per Household Consumption by End Uses	12	39	67	93
Per Household Expenditures by End Uses	13	40	68	94
<b>Space-Heating Consumption and Expenditures</b>				
Electricity and Natural Gas	14	41	69	95
Fuel Oil, Kerosene, and LPG	15	42	70	1/
Per Household Electricity	16	43	71	96
Per Household Natural Gas	17	44	72	97
Per Household Fuel Oil	18	45	73	1/
Per Household LPG	1/	46	74	1/
<b>Air-Conditioning (A/C) Consumption and Expenditures</b>				
Electricity for All A/C and Central A/C	19	47	75	98
Electricity for Room A/C	20	48	76	99

**Figure 1. Quick-Reference Guide to the Detailed Tables (Continued)**

Topic	Northeast	Midwest	South	West
<b>Water-Heating Consumption and Expenditures</b>				
Electricity and Natural Gas	21	49	77	100
Fuel Oil and LPG	22	50	78	101 <sup>2/</sup>
Per Household Electricity and Natural Gas	23	51	79	102
Per Household Fuel Oil and LPG	24	52	80	103 <sup>2/</sup>
<b>Appliance Consumption and Expenditures</b>				
Electricity, Natural Gas, and LPG	25	53	81	104
Per Household Electricity (both Appliances and Refrigerators)	26	54	82	105
Per Household Natural Gas and LPG	27	55	83	106

<sup>1</sup>Energy source data are not presented since the energy source is used in such small quantities in that region.

<sup>2</sup>Fuel oil data are not presented since fuel oil is used in such small quantities in that region.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1990 Residential Energy Consumption Survey.

## **Electronic Data Sets**

The regional-level tables (1-106) presented in this supplement are also available on diskette. The electronic files on the diskette are flat ASCII files. There is one file for each of these tables. The diskette containing the files also contains a READ.ME DOS text file with a Table of Contents. See the inside back cover for details on obtaining the diskettes.

## **Row and Column Factors**

The tables in this supplement present estimates for occupied residential housing units and their related consumption and expenditures in the United States. Since the estimates are based on the sample surveyed, they are subject to sampling error. To help the reader compute an approximate Relative Standard Error (RSE) for each of the estimates in the tables, row and column factors are displayed on the top line and in the far right column of each table, except for the end-use estimation tables.

To calculate the RSE for a specific estimate, multiply the row factor by the column factor. The use of the row and column RSE factors is illustrated in Figure 2, which includes a table from this supplement. Using the second column of the table labeled "Electricity" and the row labeled "Single Family" under "Type of Housing Unit" gives an estimate of 30.5 Dollars per Million Btu for the average electricity expenditures for households in single-family units in the Northeast. The RSE row factor is 2.6 and the RSE column factor is 0.7. The approximate RSE for the estimate is, therefore,

$$\text{RSE}_{\text{Average Electricity Expenditures in Single-Family Units}} = (2.6)(0.7) = 1.82 \text{ percent.}$$

The standard error derived from the row and column factors can be used to construct confidence intervals, as in Figure 2, to perform hypothesis tests by standard statistical methods. However, because the generalized variance procedure gives only approximate RSE's, such confidence intervals and statistical tests must also be regarded as only approximate.

For more details about the derivation of the row and column RSE factors, see Appendix B, "Quality of the Data," in the main report, *Household Energy Consumption and Expenditures 1990*.

**Figure 2. Use of RSE Row and Column Factors**

**Table 10. Average Expenditures for Major Energy Sources in Northeast Region Households, 1990**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	0.8	0.7	0.8	0.5	1.3	3.4	
<b>Northeast Region</b>							
Total Region .....	12.3	31.1	7.1	7.8	9.3	14.3	2.1
Climate Zone <sup>2</sup>							
Under 2,000 CDD and							
Over 5,500 HDD .....	12.0	28.9	6.6	7.9	9.3	14.2	2.5
Under 5,500 HDD .....	12.9	36.1	7.8	7.7	9.8	Q	3.5
2,000 CDD or More and							
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit							
Single-Family .....	12.4	30.5	6.7	8.0	9.5	14.7	2.6
Mobile Home .....	14.2	23.8	Q	8.3	9.4	12.6	6.9
Multifamily (2 or more units) .....	11.9	34.6	7.9	7.2	Q	Q	3.0
Heated Floorspace (square feet)							
Fewer than 1,000 .....	12.5	32.2	7.7	7.3	9.3	14.4	3.3
1,000 to 1,999 .....	12.3	30.2	7.1	8.0	9.4	13.4	2.6
2,000 or More .....	12.3	31.5	6.8	7.9	9.2	15.8	3.5
Ownership of Unit							
Owned .....	12.4	30.8	6.9	8.0	9.4	14.2	2.4
Rented .....	12.0	32.4	7.6	7.3	9.2	Q	2.8

$$\begin{aligned} \text{Row Factor (Single-Family Unit)} &= 2.6 \\ \text{Column Factor (Electricity)} &= 0.7 \end{aligned}$$

$$\begin{aligned} \text{Approximate RSE (Average Electricity Expenditure in the Single-Family Unit)} &= (2.6) * (0.7) \\ &= 1.82 \text{ percent} \end{aligned}$$

$$\begin{aligned} \text{Approximate Standard Error} \\ (\text{Average Electricity Expenditure in the Single-Family Unit}) &= (.0182) * (30.5) \\ &= 0.56 \text{ Dollars per Million Btu} \end{aligned}$$

$$\begin{aligned} \text{Approximate 2 Standard Errors (95 percent confidence interval)} &= (1.96) * (0.56) \\ &= 1.1 \text{ Dollars per Million Btu} \end{aligned}$$

Therefore, with 95 percent confidence, the average electricity expenditure in a Northeast Single-Family Unit is between 29.4 and 31.6 Dollars per Million Btu ( $30.5 \pm 1.1$ )

Source: Energy Information Administration, Office of Energy Markets and End Use, the 1990 Residential Energy Consumption Survey.

**Table 1. Consumption and Expenditures in Northeast Region Households, 1990**

**NORTHEAST**

**ENERGY CONSUMPTION AND EXPENDITURES**

Characteristics	Residential Buildings		Average of Major Energy Sources <sup>1</sup>				Expenditures (dollars)				RSE Column Factors: .....	
			Total Households (million)	Total Number (million)	Total Floor Space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household Member (million Btu)	per Building	per Square Foot	per Household Member	
	1.4	1.7	1.8	0.9	0.8	0.8	0.9	0.9	0.8	0.7	0.7	
<b>Total Region</b> .....	19.2	13.9	40.3	166	57	119.6	45	2,038	0.70	1.471	556	2.5
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	12.3	9.6	27.7	156	54	121.9	47	1,869	.65	1,458	561	3.2
Under 5,500 HDD .....	6.9	4.3	12.7	187	63	115.4	42	2,419	.81	1,495	549	6.0
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family .....	11.9	11.9	32.3	138	51	137.6	47	1,707	.63	1,707	588	3.1
Mobile Home .....	.5	.5	.5	83	90	83.1	29	1,177	1.27	1,177	412	16.3
Multifamily (2 or more units) .....	6.8	1.5	7.5	420	83	91.0	42	4,989	.98	1,084	498	3.9
<b>Heated Floorspace</b> (square feet)												
Fewer than 1,000 .....	5.1	1.8	3.8	216	102	75.6	38	2,695	1.28	945	477	5.3
1,000 to 1,999 .....	7.1	5.8	13.0	142	63	115.4	42	1,737	.77	1,415	517	3.1
2,000 or More .....	7.0	6.3	23.5	173	47	155.6	51	2,126	.57	1,908	630	4.4
<b>Ownership of Unit</b>												
Owned .....	13.0	11.7	33.6	150	52	134.5	48	1,858	.65	1,669	598	2.9
Rented .....	6.2	2.2	6.8	252	80	88.1	38	3,011	.96	1,054	451	4.4
<b>Year of Construction</b>												
1949 or Before .....	8.9	5.9	17.8	191	64	127.7	47	2,183	.73	1,457	532	3.8
1950 to 1979 .....	8.8	6.6	19.2	158	55	119.2	47	2,005	.69	1,514	594	4.1
1980 or After <sup>3</sup> .....	1.6	1.3	3.4	91	36	76.4	29	1,563	.62	1,317	495	8.5
<b>1990 Family Income</b>												
Less than \$10,000 .....	2.9	1.4	3.8	196	71	95.0	47	2,149	.78	1,044	513	8.3
\$10,000 to \$19,999 .....	3.4	2.1	5.4	166	65	104.1	48	1,879	.73	1,177	548	5.0
\$20,000 to \$34,999 .....	4.5	3.4	8.8	144	56	108.0	39	1,835	.71	1,373	497	4.0
\$35,000 or More .....	8.5	7.0	22.3	170	53	140.2	47	2,162	.68	1,785	598	3.7
<b>Below Poverty Line</b>												
100 Percent .....	2.2	1.1	3.0	212	76	100.9	37	2,370	.85	1,128	412	7.5
125 Percent .....	3.0	1.5	4.3	204	71	102.4	39	2,300	.80	1,155	435	7.2
<b>Age of Householder</b>												
Under 35 Years .....	5.3	3.2	8.2	177	69	107.0	36	2,236	.87	1,351	453	4.7
35 to 59 Years .....	8.3	6.6	19.9	162	53	127.8	43	2,057	.68	1,627	545	3.3
60 Years and Over .....	5.6	4.1	12.3	163	55	119.2	65	1,854	.62	1,353	743	4.3
<b>Household Size</b>												
1 Person .....	4.5	2.5	6.4	147	58	81.6	82	1,747	.68	968	968	5.4
2 to 4 Persons .....	12.5	9.5	28.2	169	57	128.0	47	2,065	.69	1,568	571	2.3
5 or More Persons .....	2.2	1.9	5.7	175	58	150.6	27	2,290	.75	1,969	357	6.4

See footnotes at end of table.

**Table 1. Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Residential Buildings										Average of Major Energy Sources <sup>1</sup>										
		Consumption					Expenditures (dollars)															
		Total Households (million)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household (million Btu)	per Household Member (million Btu)	per Building	per Square Foot	per Household	per Household Member	per Household Member	per Household Member	per Household Member	RSE Row Factors							
New England Division	4.5	3.2	9.3	164	.56	113.9	.45	2,028	.69	1,408	.562	3.1										
<b>Climate Zone<sup>2</sup></b>																						
Under 2,000 CDD and Over 5,500 HDD	4.5	3.1	9.2	164	.56	113.9	.45	2,030	.69	1,406	.561	3.1										
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF										
Under 2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC										
<b>Type of Housing Unit</b>																						
Single-Family	2.5	2.5	7.2	132	.47	132.5	.49	1,662	.59	1,662	.614	4.2										
Mobile Home	.2	.2	.1	88	.91	87.7	.29	1,363	.41	1,363	.446	10.2										
Multifamily (2 or more units)	.5	.5	2.0	360	.86	90.8	.41	4,225	1.00	1,065	.486	6.2										
<b>Heated Floorspace (square feet)</b>																						
Fewer than 1,000	1.4	.5	1.1	204	.97	75.1	.35	2,635	.25	969	.446	4.7										
1,000 to 1,999	1.6	1.3	3.2	148	.59	116.1	.45	1,938	.73	1,443	.564	5.6										
2,000 or More	1.5	1.3	4.9	164	.44	149.8	.54	1,970	.53	1,802	.648	4.3										
<b>Ownership of Unit</b>																						
Owned	2.9	2.5	7.6	144	.49	127.4	.49	1,788	.60	1,579	.608	4.1										
Rented	1.7	.6	1.7	247	.87	90.5	.38	3,030	1.06	1,111	.472	6.3										
<b>Year of Construction</b>																						
1949 or Before	2.1	1.3	3.9	195	.66	123.7	.50	2,187	.74	1,387	.558	5.2										
1950 to 1979	1.9	1.4	4.2	151	.51	110.6	.45	1,973	.66	1,450	.584	6.5										
1980 or After <sup>3</sup>	.6	.4	1.2	114	.41	88.3	.33	1,719	.62	1,338	.501	12.7										
<b>1990 Family Income</b>																						
Less than \$0,000	8	.3	1.1	224	.69	94.3	.49	2,538	.78	1,071	.560	11.9										
\$10,000 to \$19,999	8	.5	1.2	165	.68	109.6	.48	1,930	.79	1,280	.555	6.2										
\$20,000 to \$34,999	1.1	.8	2.1	150	.55	102.4	.40	1,927	.71	1,318	.512	7.0										
\$35,000 or More	1.9	1.5	4.9	158	.50	130.9	.47	2,003	.63	1,655	.592	4.7										
<b>Below Poverty Line</b>																						
100 Percent	6	.3	.7	241	.90	103.8	.37	2,785	1.04	1,201	.424	9.7										
125 Percent	.8	.3	1.0	225	.75	96.5	.37	2,678	.69	1,150	.437	11.3										
<b>Age of Householder</b>																						
Under 35 Years	1.3	.7	1.8	198	.72	104.1	.39	2,479	.90	1,301	.483	5.8										
35 to 59 Years	1.9	1.5	4.1	153	.55	120.9	.41	1,958	.70	1,546	.522	4.8										
60 Years and Over	1.4	1.0	3.4	158	.48	113.5	.65	1,840	.56	1,320	.756	5.9										
<b>Household Size</b>																						
1 Person	1.2	.7	2.0	155	.51	82.5	.83	1,956	.65	1,042	1,042	5.7										
2 to 4 Persons	3.0	2.2	6.6	166	.56	124.6	.45	2,039	.69	1,530	.556	3.8										
5 or More Persons	4	.3	.8	170	.63	132.6	.24	2,111	.78	1,645	.292	10.0										

See footnotes at end of table.

## NORTHEAST

## ENERGY CONSUMPTION AND EXPENDITURES

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 1. Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	Average of Major Energy Sources <sup>1</sup>										RSE Row Factors	
	Residential Buildings		Consumption				Expenditures (dollars)					
	Total House- holds (mil- lion)	Total Num- ber (mil- lion)	Total Floor- space (bil- lion sq. ft.)	per Building (mil- lion Btu)	per Square Foot (thou- sand Btu)	per House- hold (mil- lion Btu)	per House- hold Member (mil- lion Btu)	per Build- ing	per Square Foot	per House- hold (mil- lion Btu)		
RSE Column Factors:	1.4	1.7	1.8	0.9	0.8	0.8	0.9	0.9	0.8	0.7	0.7	
<b>Middle Atlantic Division</b>	14.7	10.7	31.1	166	57	121.3	45	2,041	0.70	1,491	555	
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	7.8	6.5	18.5	152	53	126.4	48	1,791	.63	1,498	561	
Under 5,500 HDD	6.9	4.2	12.6	187	63	115.5	42	2,421	.82	1,494	548	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>												
Single-Family	9.3	9.3	25.1	139	52	139.0	47	1,719	.64	1,719	581	
Mobile Home	Q	Q	81	90	81.2	29	1,102	1.22	1,102	397	19.1	
Multifamily (2 or more units)	5.0	1.0	5.6	447	81	91.1	42	5,357	.97	1,091	503	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	3.7	1.3	2.7	220	104	75.8	40	2,721	1.29	935	491	
1,000 to 1,999	5.4	4.5	9.8	140	64	115.1	41	1,708	.78	1,406	503	
2,000 or More	5.6	5.0	18.6	176	47	157.1	51	2,168	.58	1,936	626	
<b>Ownership of Unit</b>												
Owned	10.2	9.2	26.0	151	53	136.5	48	1,877	.66	1,694	596	
Rented	4.5	1.6	5.1	253	78	87.2	37	3,003	.93	1,033	443	
<b>Year of Construction</b>												
1949 or Before	6.8	4.6	13.8	190	63	128.9	46	2,182	.72	1,478	525	
1950 to 1979	6.9	5.2	15.0	160	56	121.6	47	2,014	.70	1,531	597	
1980 or After <sup>3</sup>	1.0	.9	2.2	80	33	70.1	26	1,490	.62	1,306	491	
<b>1990 Family Income</b>												
Less than \$10,000	2.1	1.1	2.8	187	72	95.2	46	2,029	.78	1,034	497	
\$10,000 to \$19,999	2.6	1.6	4.1	167	64	102.4	49	1,863	.72	1,146	546	
\$20,000 to \$34,999	3.4	2.6	6.7	143	56	109.9	39	1,808	.71	1,391	493	
\$35,000 or More	6.6	5.4	17.4	173	54	142.8	47	2,207	.69	1,822	600	
<b>Below Poverty Line</b>												
100 Percent	1.6	.8	2.3	203	71	99.9	37	2,240	.79	1,102	407	
125 Percent	2.2	1.2	3.3	198	70	104.5	39	2,191	.78	1,157	434	
<b>Age of Householder</b>												
Under 35 Years	4.0	2.5	6.4	171	68	107.9	35	2,172	.86	1,367	445	
35 to 59 Years	6.4	5.1	15.8	164	53	129.8	43	2,086	.67	1,651	551	
60 Years and Over	4.2	3.1	8.9	165	57	121.1	66	1,858	.65	1,364	738	
<b>Household Size</b>												
1 Person	3.3	1.9	4.5	145	60	81.3	81	1,675	.70	940	940	
2 to 4 Persons	9.5	7.3	21.7	169	57	129.0	47	2,073	.70	1,579	576	
5 or More Persons	1.8	1.6	4.9	176	57	154.1	28	2,321	.75	2,033	370	

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

## ENERGY CONSUMPTION AND EXPENDITURES

## NORTHEAST

**Table 2. Total Consumption in Northeast Region Households, 1990**

Characteristics	Major Energy Sources <sup>1</sup> (trillion Btu)	Electricity (trillion Btu)	Natural Gas		Fuel Oil (billion Btu)	Kerosene (billion gallons)	Liquefied Petroleum Gas		RSE Row Factors
			(billion kWh)	(trillion Btu)			(trillion Btu)	(billion gallons)	
RSE Column Factors:	0.5	0.5	0.5	0.8	0.8	0.7	0.7	2.3	2.1
Total Region .....	2,298.1	467.1	136.9	1,033.4	1,000	756.7	5.50	20.7	0.15
<b>Climate Zone<sup>2</sup></b>									20.2 0.22 9.6
Under 2,000 CDD and Over 5,500 HDD .....	1,502.4	321.8	94.3	631.6	610	509.9	3.70	18.8 .14	20.2 .22
Under 5,500 HDD .....	795.8	145.3	42.6	401.9	389	246.7	1.80	.19 .01	Q 19.1
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family .....	1,632.6	354.0	103.7	699.5	676	558.1	4.04	7.4 .06	13.6 .15
Mobile Home .....	43.9	14.8	4.3	Q	Q	Q	Q	5.4 .06	49.4 12.1
Multifamily (2 or more units) .....	621.7	98.4	28.8	331.8	321	187.7	1.38	Q Q	Q Q
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	386.0	75.2	22.0	175.8	170	118.6	.87	Q .06	5.4 .06
1,000 to 1,999 .....	816.1	169.5	49.7	397.0	384	231.7	1.68	8.2 .22	9.7 .11
2,000 or More .....	1,096.0	222.5	65.2	460.6	446	406.3	2.94	1.6 .01	5.1 .06
<b>Ownership of Unit</b>									
Owned .....	1,753.2	369.8	108.4	750.0	725	599.0	4.34	15.2 .11	19.2 .21
Rented .....	545.0	97.3	28.5	283.4	274	157.6	1.16	5.5 .04	Q 14.4
<b>Year of Construction</b>									
1949 or Before .....	1,130.1	175.2	51.3	577.0	558	364.5	.85	4.3 .03	9.1 .10
1950 to 1979 .....	1,045.7	232.5	68.1	425.2	411	368.5	.67	Q Q	5.8 5.3
1980 or After <sup>3</sup> .....	122.3	59.5	17.4	31.2	30	23.7	.17	Q Q	.06 .06
<b>1990 Family Income</b>									
Less than \$10,000 .....	272.9	38.2	11.2	132.2	128	97.7	.71	Q .05	Q Q
\$10,000 to \$19,999 .....	348.7	57.6	16.9	181.1	175	101.4	.74	7.3 .05	19.7 19.1
\$20,000 to \$34,999 .....	490.6	111.5	32.7	192.7	187	169.9	1.24	Q Q	9.3 10
\$35,000 or More .....	1,186.0	259.8	76.1	527.4	510	387.7	2.81	2.2 .02	8.8 .10
<b>Below Poverty Line</b>									
100 Percent .....	224.1	31.9	9.3	120.2	116	67.1	.49	Q Q	Q Q
125 Percent .....	309.4	47.6	14.0	156.8	151	98.0	.72	Q Q	Q Q
<b>Age of Householder</b>									
Under 35 Years .....	563.6	118.0	34.6	256.4	248	172.3	1.26	Q .06	8.7 .09
35 to 59 Years .....	1,061.8	240.2	70.4	476.7	461	328.7	2.38	7.8 Q	8.4 .09
60 Years and Over .....	672.8	108.9	31.9	300.4	291	255.6	1.86	Q Q	3.2 .03
<b>Household Size</b>									
1 Person .....	371.3	69.2	20.3	151.9	147	147.8	1.08	Q Q	1.6 .02
2 to 4 Persons .....	1,600.6	323.0	94.7	739.3	715	506.5	3.68	18.0 .13	13.7 15
5 or More Persons .....	326.2	74.9	22.0	142.2	138	102.3	.74	Q Q	Q Q

See footnotes at end of table.

## NORTHEAST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 2. Total Consumption in Northeast Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:						Major Energy Sources <sup>1</sup> (tril- lion Btu)	(tril- lion kWh)	(billion Btu)	(tril- lion cubic feet)	(tril- lion gal- lons)	(tril- lion gal- lons)	(tril- lion gal- lons)	(tril- lion gal- lons)	Liquefied Petroleum Gas	RSE Row Fac- tors <sup>3</sup>
	0.5	0.5	0.5	0.8	0.8	0.7										
New England Division .....	517.6	103.9	30.5	155.5	150	243.6	1.77	6.8	0.05	7.7	0.08	12.7				
<b>Climate Zone<sup>2</sup></b>																
Under 2,000 CDD and																
Over 5,500 HDD .....	515.8	103.2	30.2	155.5	150	242.5	1.76	6.8	.05	7.7	.08	12.7				
Under 5,500 HDD .....	Q	Q	Q	NC	Q	Q	Q	NC	NC	NC	NC	NC	NC	NC	NC	NC
2,000 CDD or More and																
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>																
Single-Family .....	335.5	71.1	20.8	87.3	65	188.1	1.36	2.7	.02	6.2	.07	13.8				
Mobile Home .....	13.3	3.5	1.0	NC	Q	Q	Q	Q	Q	Q	Q	40.2				
Multifamily (2 or more units) .....	168.8	29.4	8.6	88.2	85	50.7	.37	NC	NC	Q	Q	23.2				
<b>Heated Floorspace (square feet)</b>																
Fewer than 1,000 .....	108.6	22.7	6.7	44.7	43	35.0	.26	0	0	0	0	13.3				
1,000 to 1,999 .....	190.1	40.0	11.7	67.0	65	77.7	.56	0	0	0	0	22.6				
2,000 or More .....	218.9	41.2	12.1	43.9	42	130.9	.95	0	0	2.6	.03	16.8				
<b>Ownership of Unit</b>																
Owned .....	367.0	74.3	21.8	86.4	83	194.2	1.41	Q	Q	Q	Q	7.2	.08	16.2		
Rented .....	150.6	29.7	8.7	69.1	67	49.4	.36	0	0	0	0	Q	Q	17.8		
<b>Year of Construction</b>																
1949 or Before .....	257.8	37.8	11.1	82.6	80	131.8	.96	0	0	Q	Q	21.9				
1950 to 1979 .....	211.1	49.2	14.4	58.3	56	97.2	.70	4.6	.03	1.7	.02	22.3				
1980 or After <sup>3</sup> .....	48.7	16.9	5.0	14.6	14	14.6	.11	Q	Q	Q	Q	47.2				
<b>1990 Family Income</b>																
Less than \$10,000 .....	73.4	11.8	3.5	24.0	23	36.2	.26	0	0	0	0	22.6				
\$10,000 to \$19,999 .....	84.2	13.7	4.0	35.4	34	32.6	.24	0	0	0	0	25.0				
\$20,000 to \$34,999 .....	115.9	24.1	7.1	29.5	28	54.8	.40	0	0	0	0	23.2				
\$35,000 or More .....	244.1	54.4	15.9	66.6	64	120.0	.87	0	0	2.6	.03	17.7				
<b>Below Poverty Line</b>																
100 Percent .....	60.6	10.1	2.9	27.3	26	21.9	.16	0	0	0	0	23.9				
125 Percent .....	76.7	13.8	4.0	28.7	29	31.5	.23	0	0	0	0	22.2				
<b>Age of Householder</b>																
Under 35 Years .....	130.2	27.3	8.0	51.7	50	47.2	.34	0	0	Q	Q	17.6				
35 to 59 Years .....	225.9	49.0	14.4	62.2	60	107.3	.78	3.5	.03	3.8	.04	16.6				
60 Years and Over .....	161.5	27.6	8.1	41.6	40	89.1	.65	Q	Q	1.6	.02	23.5				
<b>Household Size</b>																
1 Person .....	100.9	21.5	6.3	20.7	20	57.6	.42	NC	NC	Q	Q	22.3				
2 to 4 Persons .....	369.0	72.9	21.4	18.6	115	165.5	1.20	6.3	.05	5.8	.06	13.9				
5 or More Persons .....	47.7	9.5	2.8	16.2	16	20.5	.15	Q	Q	Q	Q	28.9				

See footnotes at end of table.

# ENERGY CONSUMPTION AND EXPENDITURES

## NORTHEAST

**Table 2. Total Consumption in Northeast Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	(trillion Btu)	(billion kWh)	(billion cubic feet)	(trillion Btu)	(billion gallons)	(trillion Btu)	
RSE Column Factors:	0.5	0.5	0.8	0.7	2.3	2.1	2.1
Middle Atlantic Division .....	1,780.5	363.2	106.4	877.9	849	513.1	3.73
Climate Zone <sup>2</sup>							
Under 2,000 CDD and							
Over 5,500 HDD .....	986.6	218.7	64.1	476.1	460	267.4	.14
Under 5,500 HDD .....	793.9	144.5	42.4	401.9	389	245.7	19.1
2,000 CDD or More and							
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit							
Single-Family .....	1,287.1	282.9	82.9	632.1	611	370.0	4.7
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units) .....	482.9	69.0	20.2	243.6	236	137.1	1.01
Heated Floorspace (square feet)							
Fewer than 1,000 .....	277.3	52.5	15.4	131.1	127	83.6	.62
1,000 to 1,999 .....	626.0	129.5	37.9	330.1	319	154.1	1.12
2,000 or More .....	877.1	181.2	53.1	416.7	403	275.4	2.00
Ownership of Unit							
Owned .....	1,386.1	295.5	86.6	663.6	642	404.8	2.93
Rented .....	394.4	67.7	19.8	214.4	208	108.2	.80
Year of Construction							
1949 or Before .....	872.3	137.4	40.3	494.4	478	232.7	1.70
1950 to 1979 .....	884.6	183.2	53.7	366.9	355	271.3	1.97
1980 or After <sup>3</sup> .....	73.6	42.5	12.5	Q	Q	Q	Q
1990 Family Income							
Less than \$10,000 .....	199.4	26.4	7.7	108.1	104	61.5	.45
\$10,000 to \$19,999 .....	264.5	43.9	12.9	145.7	141	68.8	.50
\$20,000 to \$34,999 .....	374.7	87.4	25.6	163.3	158	115.1	.84
\$35,000 or More .....	941.9	205.4	60.2	460.8	446	267.7	1.94
Below Poverty Line							
100 Percent .....	163.5	21.8	6.4	92.9	90	45.2	.33
125 Percent .....	232.8	33.8	9.9	127.1	123	66.5	.49
Age of Householder							
Under 35 Years .....	423.3	90.7	26.6	204.6	198	125.1	.91
35 to 59 Years .....	835.9	191.2	56.0	414.5	401	221.4	1.61
60 Years and Over .....	511.3	81.3	23.8	258.8	251	166.5	1.21
Household Size							
1 Person .....	270.4	47.7	14.0	131.1	127	90.2	.66
2 to 4 Persons .....	1,231.6	250.1	73.3	620.7	601	341.1	2.48
5 or More Persons .....	278.6	65.4	19.2	126.1	122	81.8	.59

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gass.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 3. Total Expenditures in Northeast Region Households, 1990**  
(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.5	0.5	0.9	0.8	2.5	2.2	
<b>Northeast Region</b>							
<b>Total Region</b>	28.28	14.55	7.32	5.92	0.19	0.29	8.2
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	17.97	9.30	4.19	4.02	.18	.29	11.3
Under 3,500 HDD and 2,000 CDD or More and Under 4,000 HDD	10.30	5.24	3.13	1.91	.02	Q	17.3
<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>
<b>Type of Housing Unit</b>							
Single-Family	20.25	10.79	4.70	4.48	.07	.20	10.7
Mobile Home	.62	.35	Q	Q	Q	Q	46.0
Multifamily (2 or more units)	7.40	3.40	2.61	1.35	Q	Q	11.3
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	4.82	2.42	1.35	.87	Q	.08	15.3
1,000 to 1,999	10.01	5.12	2.84	1.84	.08	.13	12.3
2,000 or More	13.44	7.00	3.14	3.21	.01	.08	14.7
<b>Ownership of Unit</b>							
Owned	21.75	11.40	5.17	4.77	.14	.27	10.4
Rented	6.52	3.15	2.15	1.15	Q	Q	11.7
<b>Year of Construction</b>							
1949 or Before	12.89	5.70	4.18	2.83	.04	.15	12.2
1950 to 1979	13.28	7.25	2.91	2.91	Q	.07	13.6
1980 or After <sup>a</sup>	2.11	1.60	.23	.19	Q	.07	28.9
<b>1990 Family Income</b>							
Less than \$10,000	3.00	1.23	.99	.73	Q	Q	18.7
\$10,000 to \$19,999	3.94	1.79	1.30	.77	.07	Q	18.2
\$20,000 to \$34,999	6.23	3.34	1.39	1.32	.07	.13	15.2
\$35,000 or More	15.10	8.20	3.65	3.11	.02	.13	13.2
<b>Below Poverty Line</b>							
100 Percent	2.51	1.05	.90	.50	Q	Q	22.5
125 Percent	3.49	1.53	1.16	.73	Q	Q	15.9
<b>Age of Householder</b>							
Under 35 Years	7.12	3.73	1.86	1.33	Q	.12	15.4
35 to 59 Years	13.52	7.41	3.32	2.61	.07	.11	12.1
60 Years and Over	7.63	3.40	2.15	1.99	Q	.06	10.1
<b>Household Size</b>							
1 Person	4.40	2.13	1.12	1.12	Q	.03	13.3
2 to 4 Persons	19.61	10.07	5.21	3.97	.17	.20	8.5
5 or More Persons	4.27	2.35	1.00	.84	Q	Q	18.6

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

NORTHEAST

**Table 3. Total Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics RSE Column Factors:	Major Energy Sources <sup>1</sup>					Liquefied Petroleum Gas	RSE Row Factors
		Electricity	Natural Gas	Fuel Oil	Kerosene		
New England Division .....	6.40	3.08	1.21	1.92	0.07	0.12	11.8
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	6.37	3.06	1.21	1.91	.07	.12	11.8
Under 5,500 HDD .....	Q	Q	NC	Q	NC	NC	NF
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	4.21	2.08	.52	1.47	.03	.10	12.9
Mobile Home .....	.21	.11	NC	Q	Q	Q	40.2
Multifamily (2 or more units) .....	1.98	.88	.69	.40	NC	Q	21.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	1.40	.69	.35	.28	Q	Q	12.0
1,000 to 1,999 .....	2.36	1.16	.52	.62	Q	Q	21.1
2,000 or More .....	2.63	1.22	.34	1.02	Q	.04	15.6
<b>Ownership of Unit</b>							
Owned .....	4.55	2.20	.66	1.53	Q	.11	15.6
Rented .....	1.85	.88	.55	.39	Q	Q	16.6
<b>Year of Construction</b>							
1949 or Before .....	2.89	1.12	.65	1.04	Q	Q	19.3
1950 to 1979 .....	2.77	1.49	.44	.76	.05	.03	21.2
1980 or After <sup>3</sup> .....	.74	.48	.12	.12	Q	Q	44.6
<b>1990 Family Income</b>							
Less than \$10,000 .....	.83	.35	.18	.29	Q	Q	21.0
\$10,000 to \$19,999 .....	.98	.42	.29	.25	Q	Q	23.7
\$20,000 to \$34,999 .....	1.49	.73	.24	.43	Q	Q	21.7
\$35,000 or More .....	3.09	1.58	.50	.95	Q	.04	17.5
<b>Below Poverty Line</b>							
100 Percent .....	.70	.30	.21	.18	Q	Q	21.7
125 Percent .....	.91	.41	.23	.25	Q	Q	20.6
<b>Age of Householder</b>							
Under 35 Years .....	1.63	.81	.39	.37	Q	Q	16.4
35 to 59 Years .....	2.89	1.46	.49	.86	.03	.06	16.0
60 Years and Over .....	1.88	.81	.33	.70	Q	.03	21.2
<b>Household Size</b>							
1 Person .....	1.27	.64	.17	.45	NC	Q	21.0
2 to 4 Persons .....	4.53	2.16	.91	1.30	.06	.09	12.7
5 or More Persons .....	.59	.28	.13	.16	Q	Q	28.7

See footnotes at end of table.

## NORTHEAST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 3. Total Expenditures in Northeast Region Households, 1990 (Continued)**  
(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Liquefied Petroleum Gas				RSE Row Factors
			Natural Gas	Fuel Oil	Kerosene	Petroleum Gas	
RSE Column Factors:	0.5	0.5	0.9	0.8	2.5	2.2	
<b>Middle Atlantic Division</b>	21.88	11.47	6.11	4.00	Q	0.16	9.1
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	11.61	6.25	2.98	2.11	Q	.16	15.8
Under 5,500 HDD	10.27	5.22	3.13	1.90	0.02	Q	17.3
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	16.04	8.71	4.18	3.01	.04	.10	12.9
Mobile Home	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units)	5.42	2.52	1.93	.94	Q	Q	14.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	3.42	1.73	1.00	.59	Q	Q	21.9
1,000 to 1,999	7.65	3.97	2.32	1.23	Q	Q	15.7
2,000 or More	10.81	5.78	2.79	2.19	.05	.09	18.8
<b>Ownership of Unit</b>							
Owned	17.21	9.20	4.51	3.24	Q	.16	11.1
Rented	4.67	2.27	1.60	.76	Q	Q	16.2
<b>Year of Construction</b>							
1949 or Before	10.00	4.58	3.53	1.79	.04	.06	14.3
1950 to 1979	10.51	5.77	2.47	2.14	Q	Q	17.0
1980 or After <sup>3</sup>	1.37	1.12	Q	Q	Q	Q	45.4
<b>1990 Family Income</b>							
Less than \$10,000	2.17	.88	.81	.45	Q	Q	23.3
\$10,000 to \$19,999	2.96	1.37	1.01	.52	Q	Q	23.2
\$20,000 to \$34,999	4.74	2.61	1.15	.89	Q	Q	18.8
\$35,000 or More	12.01	6.61	3.15	2.16	.02	.08	16.3
<b>Below Poverty Line</b>							
100 Percent	1.80	.75	.69	.32	Q	Q	30.3
125 Percent	2.58	1.11	.94	.48	Q	Q	19.9
<b>Age of Householder</b>							
Under 35 Years	5.49	2.92	1.47	.96	Q	.08	19.9
35 to 59 Years	10.63	5.96	2.83	1.76	.04	Q	14.0
60 Years and Over	5.76	2.59	1.81	1.29	Q	Q	10.6
<b>Household Size</b>							
1 Person	3.13	1.50	.95	.66	Q	Q	15.0
2 to 4 Persons	15.08	7.91	.429	.267	Q	.10	8.3
5 or More Persons	3.68	2.06	.87	.67	Q	Q	21.6

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 4. Electricity Consumption and Expenditures in Northeast Region Households, 1990**

Characteristics	Households Using Electricity (million)	Average per Household			Expenditures (cents per kWh)	RSE Row Factors
		Consumption (million Btu)	(kWh)	Expenditures (dollars)	Floorspace (square feet)	
Northeast Region						
Total Region .....	19.2	24.3	7,122	757	2,099	10.6
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD .....	12.3	26.1	7,650	755	2,244	9.9
Under 5,500 HDD .....	6.9	21.1	6,178	761	1,839	12.3
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>						
Single-Family .....	11.9	29.8	8,742	910	2,724	10.4
Mobile Home .....	.5	28.0	8,197	665	924	8.1
Multifamily (2 or more units) .....	6.8	14.4	4,224	498	1,103	11.8
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000 .....	5.1	14.7	4,317	475	741	11.0
1,000 to 1,999 .....	7.1	24.0	7,021	724	1,844	10.3
2,000 or More .....	7.0	31.6	9,255	994	3,339	10.7
<b>Ownership of Unit</b>						
Owned .....	13.0	28.4	8,314	874	2,574	10.5
Rented .....	6.2	15.7	4,611	510	1,097	11.1
<b>Year of Construction</b>						
1949 or Before .....	8.9	19.8	5,801	644	2,006	11.1
1950 to 1979 .....	8.8	26.5	7,767	827	2,186	10.6
1980 or After <sup>2</sup> .....	1.6	37.2	10,889	997	2,131	9.2
<b>1990 Family Income</b>						
Less than \$10,000 .....	2.9	13.3	3,901	428	1,338	11.0
\$10,000 to \$19,999 .....	3.4	17.2	5,039	533	1,605	10.6
\$20,000 to \$34,999 .....	4.5	24.6	7,196	735	1,941	10.2
\$35,000 or More .....	8.5	30.7	9,001	969	2,637	10.8
<b>Below Poverty Line</b>						
100 Percent .....	2.2	14.4	4,206	473	1,334	11.3
125 Percent .....	3.0	15.8	4,617	506	1,438	11.0
<b>Age of Householder</b>						
Under 35 Years .....	5.3	22.4	6,563	709	1,549	10.8
35 to 59 Years .....	8.3	26.9	8,471	892	2,396	10.5
60 Years and Over .....	5.6	19.3	5,658	603	2,175	10.7
<b>Household Size</b>						
1 Person .....	4.5	15.2	4,460	469	1,417	10.5
2 to 4 Persons .....	12.5	25.8	7,569	805	2,257	10.6
5 or More Persons .....	2.2	34.6	10,130	1,083	2,614	10.7

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

### NORTHEAST

**Table 4. Electricity Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors
	Households Using Electricity (million)	Consumption (million Btu)	Expenditures (kWh)	Expenditures (dollars)	Floorspace (square feet)	Expenditures (cents per kWh)	
RSE Column Factors:	1.5	1.1	1.1	1.0	1.2	0.5	
New England Division .....	4.5	22.9	6,704	677	2,046	10.1	3.4
Climate Zone <sup>1</sup>							
Under 2,000 CDD and							
Over 5,500 HDD .....	4.5	22.8	6,679	675	2,035	10.1	3.4
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and							
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit							
Single-Family .....	2.5	26.1	8,228	823	2,833	10.0	4.1
Mobile Home .....	.2	22.9	6,700	722	969	10.8	9.4
Multifamily ( 2 or more units) .....	1.9	15.8	4,628	475	1,061	10.3	4.8
Heated Floorspace (square feet)							
Fewer than 1,000 .....	1.4	15.7	4,600	480	776	10.4	3.8
1,000 to 1,999 .....	1.6	24.4	7,162	708	1,973	9.9	5.5
2,000 or More .....	1.5	28.2	8,273	838	3,384	10.1	5.0
Ownership of Unit							
Owned .....	2.9	25.8	7,560	763	2,624	10.1	3.6
Rented .....	1.7	17.8	5,223	529	1,044	10.1	4.6
Year of Construction							
1949 or Before .....	2.1	18.1	5,309	535	1,882	10.1	4.5
1950 to 1979 .....	1.9	25.8	7,565	778	2,189	10.3	5.3
1980 or After <sup>2</sup> .....	.6	30.7	8,999	863	2,167	9.6	12.3
1990 Family Income							
Less than \$10,000 .....	.8	15.2	4,451	451	1,370	10.1	7.1
\$10,000 to \$19,999 .....	.8	17.8	5,217	541	1,618	10.4	6.9
\$20,000 to \$34,999 .....	1.1	21.3	6,236	643	1,857	10.3	6.1
\$35,000 or More .....	1.9	29.1	8,541	848	2,618	9.9	4.6
Below Poverty Line							
100 Percent .....	.6	17.2	5,048	517	1,153	10.2	7.4
125 Percent .....	.8	17.4	5,090	522	1,286	10.2	7.2
Age of Householder							
Under 35 Years .....	1.3	21.8	6,384	650	1,445	10.2	5.2
35 to 59 Years .....	1.9	26.2	7,688	779	2,207	10.1	5.2
60 Years and Over .....	1.4	19.4	5,693	568	2,361	10.0	4.7
Household Size							
1 Person .....	1.2	17.6	5,150	520	1,510	10.1	7.0
2 to 4 Persons .....	3.0	24.6	7,215	729	2,217	10.1	3.7
5 or More Persons .....	.4	26.6	7,784	786	2,119	10.1	7.5

See footnotes at end of table.

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Table 4. Electricity Consumption and Expenditures in Northeast Region Households, 1990 (Continued)

Characteristics	Households Using Electricity (million)	Average per Household					RSE Row Factors	
		Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (cents per kWh)		
		(million Btu)	(kWh)					
RSE Column Factors:	1.5	1.1	1.1	1.0	1.2	0.5		
<b>Middle Atlantic Division</b>	14.7	24.7	7,252	782	2,115	10.8	3.0	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	7.8	28.0	8,214	801	2,365	9.8	5.2	
Under 5,500 HDD .....	6.9	21.0	6,160	760	1,832	12.3	7.2	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	9.3	30.3	8,881	933	2,694	10.5	3.5	
Mobile Home .....	Q	30.0	8,801	643	906	7.3	21.2	
Multifamily (2 or more units) .....	5.0	13.9	4,073	507	1,119	12.5	5.3	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	3.7	14.4	4,206	473	727	11.2	6.5	
1,000 to 1,999 .....	5.4	23.8	6,979	729	1,805	10.4	4.3	
2,000 or More .....	5.6	32.5	9,513	1035	3,327	10.9	4.8	
<b>Ownership of Unit</b>								
Owned .....	10.2	29.1	8,528	906	2,560	10.6	3.4	
Rented .....	4.5	15.0	4,386	502	1,117	11.5	5.1	
<b>Year of Construction</b>								
1949 or Before .....	6.8	20.3	5,953	677	2,045	11.4	4.0	
1950 to 1979 .....	6.9	26.7	7,824	841	2,185	10.7	4.7	
1980 or After <sup>2</sup> .....	1.0	40.5	11,882	1068	2,112	9.0	7.9	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.1	12.6	3,697	420	1,326	11.4	7.9	
\$10,000 to \$19,999 .....	2.6	17.0	4,986	530	1,601	10.6	6.4	
\$20,000 to \$34,999 .....	3.4	25.6	7,515	765	1,969	10.2	5.0	
\$35,000 or More .....	6.6	31.2	9,132	1003	2,643	11.0	3.4	
<b>Below Poverty Line</b>								
100 Percent .....	1.6	13.3	3,906	458	1,398	11.7	8.7	
125 Percent .....	2.2	15.2	4,449	500	1,493	11.2	9.7	
<b>Age of Householder</b>								
Under 35 Years .....	4.0	22.6	6,618	727	1,582	11.0	6.0	
35 to 59 Years .....	6.4	29.7	8,699	925	2,450	10.6	3.9	
60 Years and Over .....	4.2	19.3	5,846	614	2,112	10.9	5.5	
<b>Household Size</b>								
1 Person .....	3.3	14.4	4,206	451	1,346	10.7	6.5	
2 to 4 Persons .....	9.5	26.2	7,679	828	2,270	10.8	2.7	
5 or More Persons .....	1.8	36.2	10,596	1142	2,713	10.8	7.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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**Table 5. Natural Gas Consumption and Expenditures in Northeast Region Households, 1990**

Characteristics	RSE Column Factors:	Northeast Region						
		Average per Household			Expenditures (dollars per thousand cf)	Floor space (square feet)	Consumption (million Btu)	Households Using Natural Gas (million)
Total Region .....	11.9	86.8	84.0	615	1,982	7.3	4.0	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	6.3	100.0	96.6	663	2,199	6.9	5.2	
Under 5,500 HDD .....	5.6	71.9	69.7	561	1,736	8.0	5.3	
2,000 CDD or More and Under 4,000 HDD .....								
NC .....								
<b>Type of Housing Unit</b>								
Single-Family .....	6.5	108.4	104.8	729	2,672	7.0	4.2	
Mobile Home .....	Q	Q	Q	Q	Q	Q	NF	
Multifamily (2 or more units) .....	5.4	61.1	59.1	481	1,165	8.1	4.3	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	3.4	52.2	50.5	402	726	7.9	5.6	
1,000 to 1,999 .....	4.3	92.4	89.3	660	1,699	7.4	3.2	
2,000 or More .....	4.2	108.6	105.1	740	3,265	7.0	5.9	
<b>Ownership of Unit</b>								
Owned .....	7.3	102.3	99.0	706	2,524	7.1	3.8	
Rented .....	4.6	62.0	60.0	470	1,113	7.8	5.4	
<b>Year of Construction</b>								
1949 or Before .....	6.6	87.5	84.7	634	1,877	7.5	4.8	
1950 to 1979 .....	4.9	86.9	84.1	596	2,071	7.1	5.2	
1980 or After .....	.4	74.4	71.9	552	2,598	7.7	14.5	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.0	64.9	62.6	485	1,285	7.7	9.6	
\$10,000 to \$19,999 .....	2.3	77.8	75.2	557	1,591	7.4	6.0	
\$20,000 to \$34,999 .....	2.4	79.5	77.0	571	1,883	7.4	5.5	
\$35,000 or More .....	5.1	103.2	99.8	715	2,485	7.2	4.6	
<b>Below Poverty Line</b>								
100 Percent .....	1.7	70.5	68.0	529	1,292	7.8	9.5	
125 Percent .....	2.2	72.0	69.5	534	1,408	7.7	8.1	
<b>Age of Householder</b>								
Under 35 Years .....	3.4	75.5	73.1	548	1,396	7.5	4.7	
35 to 59 Years .....	5.0	94.5	91.4	658	2,290	7.2	6.0	
60 Years and Over .....	3.5	86.7	83.9	619	2,107	7.4	4.5	
<b>Household Size</b>								
1 Person .....	2.7	56.5	54.6	415	1,211	7.6	6.7	
2 to 4 Persons .....	7.8	94.6	91.5	666	2,156	7.3	3.9	
5 or More Persons .....	1.4	101.8	98.5	718	2,492	7.3	6.3	

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

## ENERGY CONSUMPTION AND EXPENDITURES

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**Table 5. Natural Gas Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	Households Using Natural Gas (million)	Average per Household				RSE Row Factors	
		Consumption		Expenditures (dollars)	Floorspace (square feet)		
		(million Btu)	(thousand cf)				
RSE Column Factors:	1.9	1.2	1.2	1.0	1.1	0.4	
New England Division .....	2.0	76.0	73.4	592	1,691	8.1	
<b>Climate Zone<sup>1</sup></b>						6.3	
Under 2,000 CDD and Over 5,500 HDD .....	2.0	76.0	73.4	592	1,691	8.1	
Under 5,500 HDD .....	NC	NC	NC	NC	NC	6.3 NC	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>							
Single-Family .....	.7	93.4	90.3	728	2,731	8.1	
Mobile Home .....	NC	NC	NC	518	NC	6.3 NC	
Multifamily (2 or more units) .....	1.3	66.5	64.3		1,126	8.1 9.0	
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	.8	53.4	51.6	417	754	8.1	
1,000 to 1,999 .....	.7	92.3	89.1	716	1,726	8.0	
2,000 or More .....	.5	90.7	87.5	708	3,257	8.1 11.0	
<b>Ownership of Unit</b>							
Owned .....	1.0	86.3	83.3	661	2,383	7.9	
Rented .....	1.0	66.2	63.9	526	1,028	8.2 7.2	
<b>Year of Construction</b>							
1949 or Before .....	1.2	71.7	69.1	564	1,520	8.2	
1950 to 1979 .....	.7	80.0	77.5	609	1,845	7.9	
1980 or After <sup>2</sup> .....	.2	88.7	85.6	715	2,210	8.4 18.8	
<b>1990 Family Income</b>							
Less than \$10,000 .....	.4	57.3	55.4	430	1,019	7.8	
\$10,000 to \$19,999 .....	.4	86.2	83.3	699	1,455	8.4	
\$20,000 to \$34,999 .....	.5	60.9	58.8	494	1,405	8.4 11.4	
\$35,000 or More .....	.7	91.1	87.9	689	2,398	7.8 10.2	
<b>Below Poverty Line</b>							
100 Percent .....	.4	73.3	70.9	558	933	7.9	
125 Percent .....	.4	69.0	66.7	532	963	8.0	
<b>Age of Householder</b>							
Under 35 Years .....	.7	74.5	72.0	560	1,211	7.8	
35 to 59 Years .....	.7	83.4	80.5	656	1,744	8.1	
60 Years and Over .....	.6	68.7	66.3	548	2,177	8.3 14.5	
<b>Household Size</b>							
1 Person .....	.5	42.7	41.2	349	1,028	8.5	
2 to 4 Persons .....	1.4	87.6	84.5	673	1,907	8.0	
5 or More Persons .....	.2	78.6	76.1	629	1,838	8.3 11.6	

See footnotes at end of table.

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## ENERGY CONSUMPTION AND EXPENDITURES

**Table 5. Natural Gas Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors	
	Consumption		Expenditures		Expenditures			
	(million Btu)	(thousand cf)	(dollars)	Floor space (square feet)	(dollars per thousand cf)			
Middle Atlantic Division .....	9.9	89.1	86.2	620	2,042	7.2	4.5	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	4.3	111.5	107.7	698	2,443	6.5	6.0	
Under 5,500 HDD .....	5.6	71.9	69.7	561	1,736	8.0	5.3	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	5.7	110.3	106.6	729	2,665	6.8	4.6	
Mobile Home .....	Q	Q	Q	Q	Q	Q	NF	
Multifamily (2 or more units) .....	4.1	59.3	57.5	469	1,178	8.2	4.8	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	2.5	51.9	50.2	397	717	7.9	7.3	
1,000 to 1,999 .....	3.6	92.4	89.3	648	1,694	7.3	3.7	
2,000 or More .....	3.8	111.0	107.4	744	3,266	6.9	6.1	
<b>Ownership of Unit</b>								
Owned .....	6.3	104.9	101.5	713	2,547	7.0	4.0	
Rented .....	3.5	60.7	58.8	454	1,138	7.7	6.7	
<b>Year of Construction</b>								
1949 or Before .....	5.4	90.9	87.9	649	1,952	7.4	5.5	
1950 to 1979 .....	4.2	88.1	85.3	594	2,111	7.0	5.6	
1980 or After <sup>2</sup> .....	Q	65.2	63.0	447	2,849	7.1	32.8	
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.6	66.9	64.5	499	1,353	7.7	11.9	
\$10,000 to \$19,999 .....	1.9	75.9	73.5	527	1,621	7.2	7.0	
\$20,000 to \$34,999 .....	1.9	84.1	81.5	591	2,002	7.2	6.4	
\$35,000 or More .....	4.4	105.2	101.8	719	2,499	7.1	4.8	
<b>Below Poverty Line</b>								
100 Percent .....	1.3	69.7	67.3	521	1,393	7.7	12.5	
125 Percent .....	1.7	72.8	70.2	535	1,518	7.6	9.9	
<b>Age of Householder</b>								
Under 35 Years .....	2.7	75.8	73.3	544	1,444	7.4	5.1	
35 to 59 Years .....	4.3	96.4	93.2	658	2,385	7.1	6.7	
60 Years and Over .....	2.9	90.5	87.7	634	2,092	7.2	4.4	
<b>Household Size</b>								
1 Person .....	2.2	59.5	57.5	430	1,251	7.5	7.5	
2 to 4 Persons .....	6.5	96.0	93.0	664	2,208	7.1	4.4	
5 or More Persons .....	1.2	105.8	102.3	733	2,605	7.2	6.7	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 6. Fuel Oil Consumption and Expenditures in Northeast Region Households, 1990**

Characteristics	Households Using Fuel Oil (million)	Average per Household				RSE Row Factors	
		Consumption (million Btu)	(gallons)	Expenditures (dollars)	Floorspace (square feet)		
Total Region .....	8.0	94.7	688	741	2,200	1.08	3.1
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	5.1	100.7	730	793	2,401	1.09	3.5
Over 5,500 HDD .....	84.3	84.3	616	651	1,853	1.06	8.1
Under 5,500 CDD or More and 2,000 CDD or More and Under 4,000 HDD .....	2.9						
NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	4.9	113.6	822	913	2,851	1.11	3.4
Mobile Home .....	Q	49.2	360	409	858	1.14	22.6
Multifamily (2 or more units) .....	2.9	65.7	484	471	1,185	.97	4.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	2.1	57.7	424	421	749	.99	5.4
1,000 to 1,999 .....	2.7	86.3	627	687	1,945	1.10	4.0
2,000 or More .....	3.2	125.1	906	989	3,330	1.09	3.8
<b>Ownership of Unit</b>							
Owned .....	5.6	107.6	780	857	2,686	1.10	3.3
Rented .....	2.4	65.0	478	475	1,133	.99	4.4
<b>Year of Construction</b>							
1949 or Before .....	3.8	95.0	691	737	2,090	1.07	6.4
1950 to 1979 .....	3.8	96.0	697	758	2,278	1.09	5.2
1980 or After <sup>2</sup> .....	.3	74.9	543	587	2,596	1.08	11.3
<b>1990 Family Income</b>							
Less than \$10,000 .....	1.3	77.1	562	577	1,572	1.03	14.1
\$10,000 to \$19,999 .....	1.3	80.5	588	611	1,573	1.04	6.3
\$20,000 to \$34,999 .....	2.0	84.5	615	654	2,072	1.06	4.0
\$35,000 or More .....	3.5	112.3	814	899	2,734	1.11	4.3
<b>Below Poverty Line</b>							
100 Percent .....	.9	74.3	543	554	1,472	1.02	12.4
125 Percent .....	1.3	73.6	537	547	1,607	1.02	9.3
<b>Age of Householder</b>							
Under 35 Years .....	2.1	81.9	598	632	1,694	1.06	6.6
35 to 59 Years .....	3.2	102.6	745	814	2,536	1.09	3.4
60 Years and Over .....	2.7	95.3	692	740	2,196	1.07	6.0
<b>Household Size</b>							
1 Person .....	2.0	73.4	535	554	1,547	1.03	7.2
2 to 4 Persons .....	5.1	99.6	724	781	2,348	1.08	3.2
5 or More Persons .....	.9	114.7	832	936	2,833	1.13	6.5

See footnotes at end of table.

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## ENERGY CONSUMPTION AND EXPENDITURES

**Table 6. Fuel Oil Consumption and Expenditures in Northeast Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Average per Household						Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per gallon)					
		Households Using Fuel Oil (million)	(million Bu)								
New England Division .....	2.4	103.3	750	813	2,376	1.08	2.4				
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	2.3	103.2	749	812	2,374	1.08	2.4	NF			
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	NC			
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC			
<b>Type of Housing Unit</b>											
Single-Family .....	1.6	115.5	837	906	2,893	1.08	2.8	NF			
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q			
Multifamily (2 or more units) ...	.7	77.4	567	616	1,238	1.09	6.4				
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	.5	65.0	474	515	881	1.09	7.4				
1,000 to 1,999 .....	.8	99.1	720	788	2,239	1.10	5.1				
2,000 or More .....	1.0	126.4	916	987	3,259	1.08	4.2				
<b>Ownership of Unit</b>											
Owned .....	1.7	113.3	820	890	2,823	1.08	2.9				
Rented .....	.6	76.7	562	609	1,187	1.08	7.3				
<b>Year of Construction</b>											
1949 or Before .....	1.3	104.5	759	822	2,178	1.08	3.7				
1950 to 1979 .....	.9	104.4	757	820	2,601	1.08	5.1				
1980 or After <sup>2</sup> .....	.2	88.0	639	703	2,625	1.10	18.0				
<b>1990 Family Income</b>											
Less than \$10,000 .....	.4	88.4	644	699	1,865	1.08	12.3				
\$10,000 to \$19,999 .....	.4	88.3	641	687	1,895	1.07	6.9				
\$20,000 to \$34,999 .....	.6	93.4	678	728	2,201	1.07	6.1				
\$35,000 or More .....	1.0	120.9	876	957	2,870	1.09	3.8				
<b>Below Poverty Line</b>											
100 Percent .....	.2	93.1	679	745	1,578	1.10	8.7				
125 Percent .....	.4	82.2	601	656	1,765	1.09	12.0				
<b>Age of Householder</b>											
Under 35 Years .....	.5	87.1	634	684	1,754	1.08	5.4				
35 to 59 Years .....	1.0	110.2	800	873	2,538	1.09	5.5				
60 Years and Over .....	.8	105.7	767	827	2,590	1.08	5.6				
<b>Household Size</b>											
1 Person .....	.6	90.0	655	707	1,990	1.08	9.4				
2 to 4 Persons .....	1.5	108.9	790	859	2,523	1.09	4.2				
5 or More Persons .....	.2	103.2	750	807	2,500	1.08	9.5				

See footnotes at end of table.

Table 6. Fuel Oil Consumption and Expenditures in Northeast Region Households, 1990 (Continued)

Characteristics	Households Using Fuel Oil (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	2.0	1.1	1.1	1.2	1.3	0.3			
Middle Atlantic Division .....	5.6	91.1	662	711	2,126	1.07	4.4		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD .....	2.7	98.5	713	776	2,425	1.09	6.2		
Under 5,500 HDD .....	2.9	84.2	615	650	1,849	1.06	8.1		
2,000 CDD or More and									
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC		
<b>Type of Housing Unit</b>									
Single-Family .....	3.3	112.6	815	916	2,830	1.12	4.9		
Mobile Home .....	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units) .....	2.2	62.2	459	429	1,169	.93	5.8		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	1.5	55.1	406	388	702	.95	6.5		
1,000 to 1,999 .....	1.9	81.0	589	645	1,824	1.10	5.1		
2,000 or More .....	2.2	124.4	902	989	3,363	1.10	5.3		
<b>Ownership of Unit</b>									
Owned .....	3.9	105.1	762	843	2,595	1.11	4.6		
Rented .....	1.8	60.8	448	426	1,113	.95	5.4		
<b>Year of Construction</b>									
1949 or Before .....	2.6	90.3	658	695	2,047	1.06	9.5		
1950 to 1979 .....	2.9	93.4	678	738	2,174	1.09	7.0		
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	NF		
<b>1990 Family Income</b>									
Less than \$10,000 .....	.9	71.7	523	519	1,432	.99	21.0		
\$10,000 to \$19,999 .....	.9	77.3	566	579	1,440	1.02	8.8		
\$20,000 to \$34,999 .....	1.4	80.8	589	624	2,019	1.06	5.5		
\$35,000 or More .....	2.5	108.8	788	876	2,679	1.11	6.0		
<b>Below Poverty Line</b>									
100 Percent .....	.7	67.6	495	486	1,435	.98	16.0		
125 Percent .....	.9	70.1	512	503	1,543	.98	11.9		
<b>Age of Householder</b>									
Under 35 Years .....	1.6	80.1	586	613	1,673	1.05	9.4		
35 to 59 Years .....	2.2	99.3	721	788	2,535	1.09	4.2		
60 Years and Over .....	1.8	90.5	657	700	2,016	1.07	8.6		
<b>Household Size</b>									
1 Person .....	1.4	65.6	479	482	1,341	1.01	9.5		
2 to 4 Persons .....	3.6	95.7	696	748	2,273	1.08	4.3		
5 or More Persons .....	.7	117.9	855	973	2,929	1.14	7.6		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 7. Kerosene Consumption and Expenditures in Northeast Region Households, 1990**

Characteristics	Average per Household						RSE Row Factors
	Households Using Kerosene (million)	Consumption (million Btu)	Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per gallon)		
RSE Column Factors:	1.3	1.7	1.7	1.7	0.7	0.2	
							Northeast Region
<b>Total Region</b>	1.2	17.3	128	161	2,038	1.26	14.4
New England Division	.2	28.9	214	285	1,700	1.33	14.8
Middle Atlantic Division	1.0	14.4	107	131	2,121	1.23	19.5
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	1.0	19.4	144	181	1,930	1.25	15.5
Under 5,500 HDD	.2	8.1	60	80	2,484	1.33	15.1
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	.8	8.9	66	85	2,489	1.28	12.6
Mobile Home	.3	41.7	309	394	859	1.27	21.1
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	.3	37.8	280	353	836	1.26	20.2
1,000 to 1,999	.5	18.0	133	169	1,834	1.27	11.3
2,000 or More	.5	3.4	25	31	3,008	1.24	14.6
<b>Ownership of Unit</b>							
Owned	1.0	15.1	112	142	2,182	1.27	16.1
Rented	.2	29.0	214	266	1,274	1.24	24.6
<b>Year of Construction</b>							
1949 or Before	.4	10.6	78	98	2,495	1.25	20.8
1950 to 1979	.6	21.5	159	202	1,816	1.27	21.4
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>							
Less than \$10,000	.2	Q	Q	Q	1,293	1.27	27.7
\$10,000 to \$19,999	.2	30.0	222	270	1,667	1.22	14.9
\$20,000 to \$34,999	.4	Q	Q	190	1,682	1.32	20.1
\$35,000 or More	.4	5.2	38	46	2,806	1.20	16.4
<b>Below Poverty Line</b>							
100 Percent	.2	25.7	191	249	1,535	1.30	26.2
125 Percent	.2	30.0	222	282	1,423	1.27	26.4
<b>Age of Householder</b>							
Under 35 Years	.4	19.6	145	188	1,548	1.29	24.4
35 to 59 Years	.6	13.4	100	125	2,273	1.26	14.1
60 Years and Over	.2	23.6	175	211	2,392	1.21	25.8
<b>Household Size</b>							
1 Person	Q	Q	Q	Q	Q	Q	NF
2 to 4 Persons	.9	19.3	143	179	1,989	1.26	14.4
5 or More Persons	2	9.8	73	99	2,611	1.36	25.6

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

O = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the New England and Middle Atlantic Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. \* See

"Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.  
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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**Table 8. Liquefied Petroleum Gas Consumption and Expenditures in Northeast Region Households, 1990**

Characteristics	Households Using LPG (million)	Average per Household			Expenditures (dollars per gallon)	RSE Row Factors
		Consumption (million Btu)	(gallons)	Expenditures (dollars)	Floorspace (square feet)	
<b>Northeast Region</b>						
Total Region	1.2	16.8	184	240	1,920	1.30
New England Division	.6	13.7	150	219	2,013	1.46
Middle Atlantic Division	.6	19.6	215	259	1,837	1.21
RSSE Column Factors:	1.2	1.4		1.3	0.6	0.5
<b>Northeast Region</b>						
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	1.2	170	186	242	1,905	1.30
Under 5,500 HDD	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>						
Single-Family	8	162	178	239	2,339	1.35
Mobile Home	2	Q	Q	289	892	1.15
Multifamily (2 or more units)	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	3	157	172	226	790	1.32
1,000 to 1,999	.5	18.3	200	245	1,962	1.22
2,000 or More	3	15.6	171	246	3,055	1.44
<b>Ownership of Unit</b>						
Owned	1.1	17.6	193	250	2,039	1.29
Rented	Q	Q	Q	Q	Q	NF
<b>Year of Construction</b>						
1949 or Before	.6	15.9	174	257	2,111	1.48
1950 to 1979	.4	13.6	148	164	1,654	1.11
1980 or After <sup>2</sup>	2	26.4	289	351	1,938	1.21
<b>1990 Family Income</b>						
Less than \$10,000	Q	Q	Q	Q	Q	NF
\$10,000 to \$19,999	Q	Q	Q	Q	Q	NF
\$20,000 to \$34,999	4	22.1	242	301	1,714	1.24
\$35,000 or More	.5	16.3	178	231	2,377	1.30
<b>Below Poverty Line</b>						
100 Percent	Q	Q	Q	Q	Q	NF
125 Percent	Q	Q	Q	Q	Q	NF
<b>Age of Householder</b>						
Under 35 Years	.4	23.6	258	318	1,932	1.23
35 to 59 Years	.5	17.0	186	227	1,938	1.22
60 Years and Over	.3	9.3	102	175	1,881	1.72
<b>Household Size</b>						
1 Person	.2	7.2	79	125	1,434	1.59
2 to 4 Persons	.9	15.4	169	222	1,983	1.31
5 or More Persons	Q	Q	Q	Q	Q	NF

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSSE row/column factor.

Notes: • Data in the New England and Middle Atlantic Divisions are not presented separately due to a scarcity of data. • To obtain the RSSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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## ENERGY CONSUMPTION AND EXPENDITURES

**Table 9. Wood Consumption in Northeast Region Households, December 1989 Through November 1990**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel		
	Consumption			Consumption		
	Total	Average per Household	Total	Average per Household		
	Households (millions)	(quad-million Btu)	Households (millions)	(quad-million Btu)	(million Btu)	(cords)
RSE Column Factors:	0.5	1.0	1.0	0.8	0.8	1.5
Northeast Region						
<b>Total Region</b>	3.9	0.12	6.0	30.7	1.5	0.5
New England Division	1.1	.04	2.0	18.0	.2	0.02
Middle Atlantic Division	2.8	.08	4.0	28.6	.4	0
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	3.0	.11	5.5	36.2	1.8	.5
Under 5,500 HDD	.9	.01	.6	12.3	.6	0
2,000 CDD or More and Under 4,000 HDD	2.0	.02	2.0	24.0	.6	0
Under 4,000 HDD	NC	NC	NC	NC	NC	NC
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	Q	Q	Q	Q	Q	Q
1,000 to 1,999	1.3	Q	Q	33.0	1.6	Q
2,000 or More	2.5	.08	3.8	30.2	1.5	.3
<b>Type of Housing Unit</b>						
Single-Family	3.7	.12	5.9	31.9	1.6	.5
Mobile Home	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units)	.2	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>						
Owned	Q	Q	Q	Q	Q	Q
Rented	.2	Q	.12	5.9	31.0	1.6
<b>Year of Construction</b>						
1949 or Before	1.3	.06	2.9	43.8	2.2	0
1950 to 1979	2.1	.05	2.4	22.8	1.1	0
1980 or After <sup>2</sup>	.5	.01	.7	29.1	1.5	0
<b>1990 Family Income</b>						
Less than \$10,000	Q	Q	Q	Q	Q	Q
\$10,000 to \$19,999	.3	Q	Q	Q	Q	Q
\$20,000 to \$34,999	.8	.04	2.2	54.6	2.7	0
\$35,000 or More	2.7	.05	2.7	19.7	1.0	.2
<b>Below Poverty Line</b>						
100 Percent	Q	Q	Q	Q	Q	Q
125 Percent	Q	Q	Q	Q	Q	Q
<b>Age of Householder</b>						
Under 35 Years	.5	Q	Q	44.7	2.2	0
35 to 59 Years	2.6	.08	3.8	29.3	1.5	0
60 Years and Over	.8	.02	1.1	27.1	1.4	0
<b>Household Size</b>						
1 Person	.5	.01	.4	14.3	.7	0
2 to 4 Persons	2.9	.09	4.5	30.6	1.5	.4
5 or More Persons	.5	Q	Q	Q	Q	Q

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See footnotes at end of table.

**Table 9. Wood Consumption in Northeast Region Households,  
December 1989 Through November 1990 (Continued)**

Characteristics	Households Using Wood					Wood Used as Main Space-Heating Fuel					RSE Row Factors		
	House- holds (mil- lions)	Consumption				House- holds (mil- lions)	Consumption						
		Total		Average per Household			Total		Average per Household				
		(quad- million Btu)	(million cords)	(million Btu)	(cords)		(quad- million Btu)	(million cords)	(million Btu)	(cords)			
RSE Column Factors:	0.5	1.0	1.0	0.8	0.8	1.5	1.9	1.9	0.7	0.7			
<b>Northeast Region</b>													
<b>Main Heating Fuel</b>													
Natural Gas .....	1.3	.01	0.7	10.9	0.5	--	--	--	--	--	32.1		
Electricity .....	.4	.01	.3	12.5	.6	--	--	--	--	--	31.3		
Fuel Oil or Kerosene .....	1.7	.03	1.7	20.7	1.0	--	--	--	--	--	19.6		
Wood .....	.5	Q	Q	133.3	6.7	0.5	Q	Q	133.3	6.7	35.9		
Heating Stove .....	Q	Q	Q	135.4	6.8	Q	Q	Q	135.4	6.8	38.9		
Fireplace .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Furnace/Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF		
LPG .....	Q	Q	Q	Q	Q	--	--	--	--	--	NF		
Other .....	Q	Q	Q	Q	Q	--	--	--	--	--	NF		
<b>Secondary Heating Equipment Used</b> .....	3.8	.11	5.3	27.5	1.4	.4	Q	Q	136.1	6.8	31.3		
<b>Amount of Wood Burned in Past 12 Months</b>													
Less than one-half Cord .....	2.0	.01	.3	3.4	.2	Q	Q	Q	Q	Q	9.9		
One-half to Less than 1 .....	.6	.01	.4	11.8	.6	NC	NC	NC	NC	NC	11.1		
1 to Less than 2 .....	.5	.01	.6	25.5	1.3	NC	NC	NC	NC	NC	14.7		
2 to 4 Cords .....	.5	.03	1.4	58.2	2.9	.2	0.01	0.6	63.6	3.2	14.5		
More than 4 Cords .....	.4	Q	Q	172.5	8.6	Q	Q	Q	186.1	9.3	32.2		
<b>Hours Wood Burned in Winter</b>													
Less than 1 Hour per week ....	1.3	.01	.4	5.9	.3	Q	Q	Q	Q	Q	32.7		
Less than 1 Hour per day ....	1.0	.01	.5	10.4	.5	NC	NC	NC	NC	NC	20.8		
1 to 4 Hours per day .....	.5	.01	.6	23.3	1.2	NC	NC	NC	NC	NC	20.8		
More than 4 Hours per day ....	.4	.02	.8	35.7	1.8	Q	Q	Q	Q	Q	28.1		
Almost Continuously .....	.7	Q	Q	109.3	5.5	.5	Q	Q	134.7	6.7	36.0		
<b>Purchased Firewood</b>													
Yes .....	1.3	Q	Q	38.0	1.9	Q	Q	Q	149.0	7.5	43.3		
No .....	2.6	.07	3.4	26.1	1.3	.3	.03	1.7	124.4	6.2	23.5		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

-- = Data not applicable.

NF = No applicable RSE row/column factor.

Notes: • Data in the New England and Middle Atlantic Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, and C of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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## ENERGY CONSUMPTION AND EXPENDITURES

**Table 10. Average Expenditures for Major Energy Sources in Northeast Region Households, 1990**

(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.8	0.7	0.8	0.5	1.3	3.4	
<b>Northeast Region</b>							
<b>Total Region</b>	12.3	31.1	7.1	7.8	9.3	14.3	2.1
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	12.0	28.9	6.6	7.9	9.3	14.2	2.5
Under 5,500 HDD	12.9	36.1	7.8	7.7	9.8	Q	3.5
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	12.4	30.5	6.7	8.0	9.5	14.7	2.6
Mobile Home	14.2	23.8	8.3	9.4	12.6	6.9	3.0
Multifamily (2 or more units)	11.9	34.6	7.9	7.2	Q	Q	3.5
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	12.5	32.2	7.7	7.3	9.3	14.4	3.3
1,000 to 1,999	12.3	30.2	7.1	8.0	9.4	13.4	2.6
2,000 or More	12.3	31.5	6.8	7.9	9.2	15.8	3.5
<b>Ownership of Unit</b>							
Owned	12.4	30.8	6.9	8.0	9.4	14.2	2.4
Rented	12.0	32.4	7.6	7.3	9.2	Q	2.8
<b>Year of Construction</b>							
1949 or Before	11.4	32.5	7.2	7.8	9.3	16.2	2.8
1950 to 1979	12.7	31.2	6.9	7.9	9.4	12.1	3.3
1980 or After <sup>3</sup>	17.2	26.8	7.4	7.8	Q	13.3	5.2
<b>1990 Family Income</b>							
Less than \$10,000	11.0	32.2	7.5	7.5	9.4	Q	4.3
\$10,000 to \$19,999	11.3	31.0	7.2	7.6	9.0	Q	3.4
\$20,000 to \$34,999	12.7	28.9	7.2	7.7	9.8	13.6	2.8
\$35,000 or More	12.7	31.5	6.9	8.0	8.9	14.2	2.9
<b>Below Poverty Line</b>							
100 Percent	11.2	33.0	7.5	7.5	9.7	Q	4.7
125 Percent	11.3	32.1	7.4	7.4	9.4	Q	3.7
<b>Age of Householder</b>							
Under 35 Years	12.6	31.7	7.3	7.7	9.6	13.5	2.9
35 to 59 Years	12.7	30.9	7.0	7.9	9.3	13.4	2.9
60 Years and Over	11.3	31.2	7.1	7.8	9.0	18.8	2.7
<b>Household Size</b>							
1 Person	11.9	30.8	7.4	7.5	Q	17.4	2.4
2 to 4 Persons	12.3	31.2	7.0	7.8	9.3	14.4	2.2
5 or More Persons	13.1	31.3	7.0	8.2	10.1	Q	3.8

See footnotes at end of table.

# ENERGY CONSUMPTION AND EXPENDITURES

## NORTHEAST

**Table 10. Average Expenditures for Major Energy Sources in Northeast Region Households, 1990 (Continued)**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.8	0.7	0.8	0.5	1.3	3.4	
New England Division .....	12.4	29.6	7.8	7.9	9.9	16.0	1.9
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	12.3	29.6	7.8 NC	7.9 Q	9.9 NC	16.0 NC	1.9 NF
Under 5,500 HDD .....	Q	Q					
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit							
Single-Family .....	12.5	29.3	7.8 NC	7.8 Q	9.7 Q	15.8 17.9	2.1 5.3
Mobile Home .....	15.5	31.6	7.8 7.9	7.8 Q	9.7 NC	15.8 17.9	2.3
Multifamily (2 or more units) .....	11.7	30.1					
Heated Floorspace (square feet)							
Fewer than 1,000 .....	12.9	30.6	7.8 7.8	7.9 7.9	Q Q	16.7 15.1	2.3 2.8
1,000 to 1,999 .....	12.4	29.0	7.8 7.8	7.8 7.8	Q Q	16.2	2.4
2,000 or More .....	12.0	29.7					
Ownership of Unit							
Owned .....	12.4	29.6	7.7 7.9	7.9 7.9	10.0 Q	15.9 Q	2.7 2.5
Rented .....	12.3	29.7					
Year of Construction							
1949 or Before .....	11.2	29.5	7.9 7.6 8.1	7.9 7.9 8.0	Q 10.2 Q	15.7 16.3 Q	2.3 3.4 7.3
1950 to 1979 .....	13.1	30.2					
1980 or After <sup>3</sup> .....	15.1	28.1					
1990 Family Income							
Less than \$10,000 .....	11.4	29.7	7.5 8.1 7.6	7.9 7.8 7.9	Q Q Q	Q 14.9 17.2	3.5 3.6 2.9
\$10,000 to \$19,999 .....	11.7	30.4					
\$20,000 to \$34,999 .....	12.9	30.2					
\$35,000 or More .....	12.6	29.1					
Below Poverty Line							
100 Percent .....	11.6	30.0	7.6 7.7	8.0 8.0	Q Q	Q Q	2.9
125 Percent .....	11.9	30.0					
Age of Householder							
Under 35 Years .....	12.5	29.8	7.5 7.9 8.0	7.9 7.9 7.8	Q 9.7 Q	16.2 15.7 16.5	2.9 2.2 2.3
35 to 59 Years .....	12.8	29.7					
60 Years and Over .....	11.6	29.2					
Household Size							
1 Person .....	12.6	29.6	8.2 7.7 8.0	7.9 7.9 7.8	NC 9.9 Q	Q 16.1 Q	3.0 2.1 3.7
2 to 4 Persons .....	12.3	29.6					
5 or More Persons .....	12.4	29.6					

See footnotes at end of table.

**Table 10. Average Expenditures for Major Energy Sources in Northeast Region Households, 1990 (Continued)**

(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	RSE Column Factors:	0.8	0.7	0.8	0.5	1.3	
<b>Middle Atlantic Division</b>	12.3	31.6	7.0	7.8	9.1	13.2	2.6
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	11.8	28.6	6.3	7.9	9.0	13.2	3.3
Under 5,500 HDD .....	12.9	36.1	7.8	7.7	9.8	Q	3.5
2,000 CDD or More and							
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	12.4	30.8	6.6	8.1	9.4	13.9	3.5
Mobile Home .....	13.6	21.4	Q	Q	Q	Q	29.0
Multifamily (2 or more units) ...	12.0	36.5	7.9	6.9	Q	Q	4.2
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	12.3	33.0	7.6	7.0	9.0	Q	5.5
1,000 to 1,999 .....	12.2	30.6	7.0	8.0	9.2	12.8	3.4
2,000 or More .....	12.3	31.9	6.7	8.0	9.1	Q	4.1
<b>Ownership of Unit</b>							
Owned .....	12.4	31.1	6.8	8.0	9.1	13.1	2.8
Rented .....	11.9	33.6	7.5	7.0	Q	Q	3.9
<b>Year of Construction</b>							
1949 or Before .....	11.5	33.3	7.1	7.7	9.2	17.2	3.7
1950 to 1979 .....	12.6	31.5	6.7	7.9	9.0	10.3	4.1
1980 or After <sup>3</sup> .....	18.6	26.3	6.9	Q	Q	Q	12.6
<b>1990 Family Income</b>							
Less than \$10,000 .....	10.9	33.3	7.5	7.2	Q	Q	6.3
\$10,000 to \$19,999 .....	11.2	31.2	6.9	7.5	8.9	Q	6.0
\$20,000 to \$34,999 .....	12.7	29.9	7.0	7.7	9.3	12.4	3.1
\$35,000 or More .....	12.8	32.2	6.8	8.1	8.8	12.9	3.9
<b>Below Poverty Line</b>							
100 Percent .....	11.0	34.3	7.5	7.2	Q	Q	7.1
125 Percent .....	11.1	33.0	7.4	7.2	9.4	Q	5.3
<b>Age of Householder</b>							
Under 35 Years .....	12.7	32.2	7.2	7.7	9.3	12.5	3.5
35 to 59 Years .....	12.7	31.2	6.8	7.9	9.0	11.4	3.7
60 Years and Over .....	11.3	31.9	7.0	7.7	8.8	Q	3.4
<b>Household Size</b>							
1 Person .....	11.6	31.4	7.2	7.3	Q	Q	3.5
2 to 4 Persons .....	12.2	31.6	6.9	7.8	9.0	13.1	2.7
5 or More Persons .....	13.2	31.6	6.9	8.3	Q	Q	4.2

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## **ENERGY END USE**

## **NORTHEAST**

**Table 11. Total Consumption and Expenditures by End Uses  
in Northeast Region Households, 1990**

		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
Characteristics		Consumption (trillion Btu)	Expenditures (billion dollars)									
RSE Column Factors:	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Total Region .....	1,435.3	11.41	31.2	1.03	398.8	3.86	84.8	2.78	348.1	9.18	3.6	
Climate Zone <sup>1</sup>												
Under 2,000 CDD and												
Over 5,500 HDD .....	963.8	7.61	14.9	.44	244.2	2.54	53.2	1.58	226.2	5.80	5.7	
Under 5,500 HDD .....	471.4	3.81	16.3	.59	154.6	1.32	31.6	1.20	121.8	3.39	11.4	
2,000 CDD or More and												
Under 4,000 HDD .....												
NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Type of Housing Unit												
Single-Family .....	1,041.7	8.23	23.8	.78	250.1	2.53	60.0	1.90	257.0	6.81	6.1	
Mobile Home .....	27.9	.25	Q	.24	5.7	13	Q	.04	8.1	.19	42.7	
Multifamily (2 or more units) .....	385.7	2.93	6.8	.55	143.0	1.20	23.2	.85	82.9	2.18	7.4	
Heated Floorspace (square feet)												
Fewer than 1,000 .....	221.4	1.86	4.9	.17	90.7	.88	15.5	.53	53.4	1.38	10.2	
1,000 to 1,999 .....	498.5	3.98	10.3	.32	148.7	1.46	30.7	.98	129.9	3.26	6.7	
2,000 or More .....	717.3	5.57	16.0	.55	159.4	1.52	38.6	1.27	164.7	4.54	10.6	
Ownership of Unit												
Owned .....	1,113.4	8.81	25.6	.85	277.0	2.75	64.4	2.08	272.8	7.27	5.1	
Rented .....	321.9	2.60	5.6	.18	121.8	1.11	20.4	.71	75.3	1.92	7.4	
Year of Construction												
1949 or Before .....	740.1	5.59	8.3	.28	188.9	1.72	36.8	1.26	156.0	4.04	6.6	
1950 to 1979 .....	633.1	5.11	18.6	.63	187.3	1.75	41.3	1.34	165.3	4.44	8.0	
1980 or After <sup>2</sup> .....	62.1	.71	4.3	.12	22.5	.39	6.7	.19	26.8	.70	19.2	
1990 Family Income												
Less than \$10,000 .....	178.3	1.38	1.4	.04	49.1	.41	9.7	.33	33.3	.83	13.3	
\$10,000 to \$19,999 .....	229.1	1.77	2.9	.09	59.6	.55	12.0	.40	45.2	1.13	10.9	
\$20,000 to \$34,999 .....	297.0	2.46	5.6	.17	91.0	.99	18.9	.60	78.0	2.02	9.0	
\$35,000 or More .....	729.9	5.80	21.3	.73	199.2	1.91	44.1	1.46	191.5	5.21	7.4	
Below Poverty Line												
100 Percent .....	138.7	1.07	.8	.03	47.7	.41	7.1	.25	29.8	.75	15.5	
125 Percent .....	194.2	1.49	1.6	.05	61.3	.55	10.2	.35	42.1	1.05	11.7	
Age of Householder												
Under 35 Years .....	328.7	2.70	7.9	.27	119.9	1.19	20.0	.67	87.1	2.29	10.0	
35 to 59 Years .....	634.6	5.03	16.5	.55	191.2	1.85	39.8	1.29	179.7	4.79	6.3	
60 Years and Over .....	472.0	3.68	6.7	.21	87.8	.82	25.0	.82	81.2	2.10	5.8	
Household Size												
1 Person .....	256.0	2.10	.51	.16	32.9	.52	15.7	.52	41.6	1.09	7.0	
2 to 4 Persons .....	894.2	7.82	21.8	.72	281.0	2.69	58.0	1.90	245.6	6.48	3.6	
5 or More Persons .....	185.1	1.50	4.4	.15	64.9	.65	11.0	.36	60.9	1.61	12.6	

See footnotes at end of table.

**Table 11. Total Consumption and Expenditures by End Uses  
in Northeast Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Con- sump- tion (tril- lion Btu)	Expend- itures (billion dollars)									
	NF	NF									
<b>New England Division .....</b>	335.4	2.86	4.3	0.13	89.3	0.99	17.3	0.52	71.3	1.89	7.0
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	334.2	2.85	4.3	.13	89.0	.99	17.2	.52	71.0	1.88	7.1
Under 5,500 HDD .....	Q	Q	NC	NC	Q	Q	Q	Q	Q	Q	NC
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC								
<b>Type of Housing Unit</b>											
Single-Family .....	227.1	1.92	2.9	.09	47.3	.59	11.1	.33	47.1	1.29	7.9
Mobile Home .....	8.9	.08	Q	Q	1.7	.04	.4	.01	2.3	.07	28.8
Multifamily (2 or more units) ....	99.4	.87	1.3	.04	40.3	.36	5.9	.18	21.9	.54	13.5
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	61.3	.57	.8	.02	27.1	.28	4.2	.13	15.3	.40	8.2
1,000 to 1,999 .....	121.2	1.03	1.6	.05	32.7	.38	6.5	.19	28.0	.72	13.8
2,000 or More .....	152.9	1.27	1.9	.06	29.5	.34	6.7	.20	28.0	.78	12.4
<b>Ownership of Unit</b>											
Owned .....	245.4	2.05	3.0	.09	55.8	.66	11.9	.36	50.9	1.39	9.5
Rented .....	90.0	.81	1.3	.04	33.6	.34	5.4	.16	20.4	.50	9.7
<b>Year of Construction</b>											
1949 or Before .....	174.0	1.41	1.2	.03	42.9	.43	7.7	.23	32.0	.79	12.8
1950 to 1979 .....	133.3	1.17	2.3	.07	36.9	.42	7.8	.24	30.7	.86	13.5
1980 or After <sup>2</sup> .....	28.1	.28	.8	.02	9.4	.14	1.7	.05	8.6	.24	27.4
<b>1990 Family Income</b>											
Less than \$10,000 .....	48.5	.41	.3	.01	13.6	.12	2.6	.08	8.4	.21	14.8
\$10,000 to \$19,999 .....	56.9	.48	.4	.01	13.9	.15	2.8	.09	10.2	.26	13.7
\$20,000 to \$34,999 .....	73.1	.63	1.0	.03	20.7	.25	4.0	.12	17.1	.46	14.1
\$35,000 or More .....	156.8	1.34	2.5	.07	41.1	.47	8.0	.24	35.7	.96	10.9
<b>Below Poverty Line</b>											
100 Percent .....	36.0	.31	.2	.01	14.3	.13	2.0	.06	8.1	.20	12.2
125 Percent .....	46.4	.40	.4	.01	16.9	.16	2.7	.08	10.2	.26	14.1
<b>Age of Householder</b>											
Under 35 Years .....	75.6	.66	1.4	.04	29.2	.30	4.2	.13	19.8	.50	10.2
35 to 59 Years .....	142.6	1.22	1.7	.05	40.4	.47	7.4	.22	33.8	.92	8.4
60 Years and Over .....	117.3	.98	1.1	.03	19.7	.23	5.7	.17	17.7	.47	15.1
<b>Household Size</b>											
1 Person .....	71.5	.67	1.0	.03	13.8	.16	4.1	.13	10.6	.29	11.2
2 to 4 Persons .....	236.4	1.97	3.1	.09	64.9	.72	12.0	.36	52.6	1.40	7.8
5 or More Persons .....	27.4	.22	.3	.01	10.5	.11	1.2	.04	8.2	.21	19.0

See footnotes at end of table.

**Table 11. Total Consumption and Expenditures by End Uses  
in Northeast Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expenditures (billion dollars)									
	RSE Column Factors:	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Middle Atlantic Division .....</b>	1,099.9	8.55	26.9	0.91	309.5	2.87	67.5	2.26	276.8	7.29	4.5
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	629.6	4.76	10.6	.32	155.2	1.55	35.9	1.06	155.2	3.91	9.0
Under 5,500 HDD .....	470.3	3.79	16.3	.59	154.3	1.31	31.5	1.20	121.6	3.38	11.4
2,000 CDD or More and											
Under 4,000 HDD .....	NC	NC	NC								
<b>Type of Housing Unit</b>											
Single-Family .....	814.6	6.31	20.8	.69	202.8	1.94	48.9	1.57	209.9	5.53	7.2
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	54.2
Multifamily (2 or more units) ....	266.3	2.06	5.5	.21	102.7	.84	17.3	.67	61.1	1.64	9.6
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	160.2	1.29	4.1	.14	63.6	.60	11.3	.41	38.2	.99	13.4
1,000 to 1,999 .....	375.3	2.95	8.7	.28	116.0	1.08	24.2	.79	101.9	2.55	8.2
2,000 or More .....	564.5	4.31	14.1	.49	129.9	1.19	31.9	1.07	136.7	3.76	12.7
<b>Ownership of Unit</b>											
Owned .....	868.0	6.76	22.5	.76	221.3	2.09	52.4	1.72	221.9	5.88	5.8
Rented .....	231.9	1.79	4.4	.15	88.2	.78	15.0	.54	54.9	1.41	10.2
<b>Year of Construction</b>											
1949 or Before .....	566.1	4.18	7.1	.25	146.0	1.29	29.1	1.03	124.0	3.25	8.5
1950 to 1979 .....	499.8	3.94	16.4	.56	150.4	1.33	33.4	1.10	134.7	3.58	9.3
1980 or After <sup>2</sup> .....	34.0	.43	3.4	.10	13.1	.25	4.9	.14	18.1	.46	24.3
<b>1990 Family Income</b>											
Less than \$10,000 .....	130.8	.97	1.1	.03	35.5	.29	7.1	.25	25.0	.62	17.5
\$10,000 to \$19,999 .....	172.1	1.29	2.4	.08	45.7	.40	9.3	.31	35.0	.87	13.5
\$20,000 to \$34,999 .....	223.9	1.83	4.6	.14	70.2	.74	14.9	.48	61.0	1.55	11.3
\$35,000 or More .....	573.1	4.46	18.7	.65	158.1	1.43	36.2	1.22	155.8	4.25	8.7
<b>Below Poverty Line</b>											
100 Percent .....	102.7	.76	.6	.02	33.4	.28	5.0	.19	21.7	.55	21.1
125 Percent .....	147.8	1.09	1.2	.04	44.4	.39	7.5	.27	31.9	.79	15.3
<b>Age of Householder</b>											
Under 35 Years .....	253.1	2.04	6.5	.22	90.6	.89	15.8	.54	67.3	1.79	13.0
35 to 59 Years .....	492.0	3.81	14.8	.50	150.7	1.39	32.4	1.07	145.9	3.87	7.4
60 Years and Over .....	354.8	2.70	5.5	.18	68.1	.59	19.3	.65	63.5	1.63	6.2
<b>Household Size</b>											
1 Person .....	184.5	1.43	4.1	.14	39.0	.36	11.6	.40	31.1	.80	8.6
2 to 4 Persons .....	757.8	5.85	18.7	.63	216.1	1.98	46.0	1.54	193.0	5.09	4.3
5 or More Persons .....	157.6	1.27	4.1	.14	54.4	.53	9.8	.33	52.7	1.40	14.2

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 12. Consumption by End Uses, per Northeast Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
RSE Column Factors:	1.1	0.7	NF	NF	RSE Row Factors								
<b>Northeast Region</b>													
<b>Total Region .....</b>	19.2	119.6	19.0	75.5	10.1	3.1	19.1	20.9	19.1	4.4	19.2	18.1	3.5
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD .....	12.3	121.9	12.1	79.3	5.6	2.7	12.3	19.9	12.2	4.3	12.3	18.3	4.8
Under 5,500 HDD .....	6.9	115.4	6.9	68.8	4.6	3.6	6.8	22.6	6.9	4.6	6.9	17.7	7.0
2,000 CDD or More and													
Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	11.9	137.6	11.7	88.9	6.4	3.7	11.8	21.2	11.8	5.1	11.9	21.7	3.9
Mobile Home .....	.5	83.1	.5	52.7	Q	2.6	.5	10.7	.5	3.1	.5	15.4	28.7
Multifamily (2 or more units) ...	6.8	91.0	6.8	54.2	3.5	2.0	6.8	21.1	6.7	3.4	6.8	12.1	5.7
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	5.1	75.6	5.0	44.1	2.5	1.9	5.0	18.0	5.0	3.1	5.1	10.5	7.1
1,000 to 1,999 .....	7.1	115.4	7.0	71.1	3.6	2.9	7.1	21.1	7.0	4.4	7.1	18.4	3.9
2,000 or More .....	7.0	155.6	7.0	102.4	4.0	4.0	7.0	22.8	7.0	5.5	7.0	23.4	5.8
<b>Ownership of Unit</b>													
Owned .....	13.0	134.5	12.9	86.4	7.5	3.4	13.0	21.3	13.0	4.9	13.0	20.9	3.4
Rented .....	6.2	88.1	6.1	52.7	2.7	2.1	6.1	19.9	6.1	3.4	6.2	12.2	5.6
<b>Year of Construction</b>													
1949 or Before .....	8.9	127.7	8.7	84.8	3.7	2.2	8.8	21.5	8.8	4.2	8.9	17.6	4.9
1950 to 1979 .....	8.8	119.2	8.7	72.9	5.5	3.4	8.7	21.5	8.7	4.7	8.8	18.8	4.6
1980 or After <sup>2</sup> .....	1.6	76.4	1.6	39.2	.9	4.6	1.6	14.1	1.6	4.2	1.6	16.7	11.8
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.9	95.0	2.8	63.0	.8	1.7	2.8	17.3	2.8	3.5	2.9	11.6	9.6
\$10,000 to \$19,999 .....	3.4	104.1	3.3	69.6	1.5	2.0	3.3	18.0	3.3	3.6	3.4	13.5	6.6
\$20,000 to \$34,999 .....	4.5	108.0	4.5	66.3	2.2	2.5	4.5	20.1	4.5	4.2	4.5	17.2	6.0
\$35,000 or More .....	8.5	140.2	8.4	87.0	5.6	3.8	8.4	23.6	8.5	5.2	8.5	22.6	4.3
<b>Below Poverty Line</b>													
100 Percent .....	2.2	100.9	2.2	63.0	.6	1.4	2.2	21.6	2.2	3.2	2.2	13.4	9.3
125 Percent .....	3.0	102.4	3.0	64.9	.9	1.8	3.0	20.5	2.9	3.5	3.0	13.9	8.2
<b>Age of Householder</b>													
Under 35 Years .....	5.3	107.0	5.2	63.1	2.7	2.9	5.3	22.8	5.2	3.9	5.3	16.5	6.0
35 to 59 Years .....	8.3	127.8	8.3	76.9	4.4	3.8	8.2	23.2	8.3	4.8	8.3	21.6	4.5
60 Years and Over .....	5.6	119.2	5.5	85.2	3.0	2.2	5.6	15.7	5.6	4.4	5.6	14.4	5.6
<b>Household Size</b>													
1 Person .....	4.5	81.6	4.5	57.3	2.4	2.1	4.5	11.8	4.5	3.5	4.5	9.1	6.4
2 to 4 Persons .....	12.5	128.0	12.4	80.4	6.7	3.3	12.4	22.6	12.4	4.7	12.5	19.6	2.4
5 or More Persons .....	2.2	150.6	2.2	85.4	1.0	4.2	2.2	30.1	2.2	5.1	2.2	28.1	8.0

See footnotes at end of table.

**Table 12. Consumption by End Uses, per Northeast Region Household, 1990 (Continued)**

		All Uses	Space Heating	Air Conditioning	Water Heating	Refrigerator	Appliances	
Characteristics		Households (million)	Consumption Households (million Btu)	Consumption Households (million Btu)	Households (million Btu)	Consumption Households (million Btu)	Households (million Btu)	Consumption (million Btu)
RSE Column Factors:	1.1	0.7	NF	NF	NF	NF	NF	NF
New England Division .....	4.5	113.9	4.5	74.5	2.0	2.1	4.5	19.8
Climate Zone <sup>1</sup>								
Under 2,000 CDD and Over 5,500 HDD .....	4.5	113.9	4.5	74.6	2.0	2.1	4.5	19.8
Under 5,500 HDD .....	Q	Q	Q	Q	NC	NC	Q	Q
Under 5,500 HDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit								
Single-Family .....	2.5	132.5	2.5	90.7	1.1	2.6	2.5	18.8
Mobile Home .....	2	87.7	2	58.4	Q	Q	2	11.1
Multifamily (2 or more units) .....	1.9	90.8	1.8	54.0	.9	1.5	1.8	21.9
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.4	75.1	1.4	42.6	.6	1.3	1.4	19.0
1,000 to 1,999 .....	1.6	116.1	1.6	75.3	.7	2.3	1.6	20.0
2,000 or More .....	1.5	149.8	1.5	105.3	.7	2.6	1.4	20.3
Ownership of Unit								
Owned .....	2.9	127.4	2.9	86.0	1.3	2.3	2.9	19.4
Rented .....	1.7	90.5	1.6	54.6	.7	1.8	1.6	20.4
Year of Construction								
1949 or Before .....	2.1	123.7	2.1	84.5	.8	1.5	2.1	20.8
1950 to 1979 .....	1.9	110.6	1.9	70.6	1.0	2.2	1.9	19.5
1980 or After <sup>2</sup> .....	.6	88.3	.6	50.9	.2	4.1	.6	17.1
1990 Family Income								
Less than \$10,000 .....	.8	94.3	.8	63.0	.3	1.3	.8	17.9
\$10,000 to \$19,999 .....	8	109.6	8	74.1	.3	1.6	.8	18.1
\$20,000 to \$34,999 .....	1.1	102.4	1.1	65.1	.5	2.0	1.1	18.3
\$35,000 or More .....	1.9	130.9	1.8	85.3	1.0	2.5	1.9	22.2
Below Poverty Line								
100 Percent .....	.6	103.8	.6	61.7	.2	1.3	.6	24.4
125 Percent .....	.8	96.5	.8	59.1	.2	1.5	.8	21.7
Age of Householder								
Under 35 Years .....	1.3	104.1	1.2	60.8	.6	2.3	1.2	23.6
35 to 59 Years .....	1.9	120.9	1.9	77.0	.7	2.4	1.9	21.6
60 Years and Over .....	1.4	113.5	1.4	83.5	.7	1.7	1.4	14.0
Household Size								
1 Person .....	1.2	82.5	1.2	58.9	.5	1.8	1.2	11.5
2 to 4 Persons .....	3.0	124.6	2.9	80.8	1.4	2.2	3.0	21.9
5 or More Persons .....	4	132.6	4	76.4	.1	2.1	.3	30.3

See footnotes at end of table.

## ENERGY END USE

## NORTHEAST

**Table 12. Consumption by End Uses, per Northeast Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.7	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Middle Atlantic Division .....</b>	14.7	121.3	14.5	75.8	8.1	3.3	14.6	21.2	14.6	4.6	14.7	18.9	2.7
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	7.8	126.4	7.7	82.1	3.5	3.0	7.8	20.0	7.7	4.6	7.8	19.9	7.7
Under 5,500 HDD .....	6.9	115.5	6.8	68.8	4.6	3.6	6.8	22.6	6.9	4.6	6.9	17.7	7.0
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	9.3	139.0	9.2	88.4	5.3	3.9	9.3	21.9	9.3	5.3	9.3	22.5	4.7
Mobile Home .....	Q	81.2	Q	50.5	Q	Q	Q	10.6	Q	3.3	Q	15.5	36.1
Multifamily (2 or more units) .....	5.0	91.1	4.9	54.2	2.6	2.1	4.9	20.8	4.9	3.5	5.0	12.3	7.7
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	3.7	75.8	3.6	44.7	1.9	2.1	3.6	17.6	3.6	3.1	3.7	10.4	9.5
1,000 to 1,999 .....	5.4	115.1	5.4	69.9	2.9	3.0	5.4	21.4	5.4	4.5	5.4	18.7	4.7
2,000 or More .....	5.6	157.1	5.6	101.7	3.3	4.3	5.5	23.4	5.6	5.7	5.6	24.5	7.0
<b>Ownership of Unit</b>													
Owned .....	10.2	136.5	10.0	86.5	6.1	3.7	10.1	21.9	10.2	5.2	10.2	21.8	4.0
Rented .....	4.5	87.2	4.5	51.9	2.0	2.2	4.5	19.8	4.4	3.4	4.5	12.1	7.5
<b>Year of Construction</b>													
1949 or Before .....	6.8	128.9	6.7	84.9	2.9	2.4	6.7	21.8	6.7	4.3	6.8	18.3	6.2
1950 to 1979 .....	6.9	121.6	6.8	73.5	4.5	3.7	6.8	22.0	6.8	4.9	6.9	19.6	5.4
1980 or After <sup>2</sup> .....	1.0	70.1	1.0	32.9	.7	4.7	1.0	12.5	1.0	4.7	1.0	17.3	15.4
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.1	95.2	2.1	63.1	.6	1.8	2.1	17.1	2.1	3.4	2.1	11.9	12.9
\$10,000 to \$19,999 .....	2.6	102.4	2.5	68.3	1.2	2.0	2.5	18.0	2.5	3.6	2.6	13.5	7.9
\$20,000 to \$34,999 .....	3.4	109.9	3.4	66.7	1.7	2.7	3.4	20.7	3.4	4.4	3.4	17.9	7.5
\$35,000 or More .....	6.6	142.8	6.5	87.5	4.6	4.1	6.6	24.0	6.6	5.5	6.6	23.6	5.1
<b>Below Poverty Line</b>													
100 Percent .....	1.6	99.9	1.6	63.5	.4	1.4	1.6	20.7	1.6	3.1	1.6	13.3	12.0
125 Percent .....	2.2	104.5	2.2	66.9	.6	1.9	2.2	20.1	2.2	3.5	2.2	14.3	10.7
<b>Age of Householder</b>													
Under 35 Years .....	4.0	107.9	4.0	63.8	2.1	3.1	4.0	22.6	3.9	4.0	4.0	16.8	7.6
35 to 59 Years .....	6.4	129.8	6.4	76.8	3.7	4.0	6.4	23.6	6.4	5.0	6.4	22.7	5.3
60 Years and Over .....	4.2	121.1	4.1	85.9	2.3	2.4	4.2	16.3	4.2	4.6	4.2	15.1	7.1
<b>Household Size</b>													
1 Person .....	3.3	81.3	3.3	56.7	1.9	2.2	3.3	11.9	3.3	3.5	3.3	9.3	8.5
2 to 4 Persons .....	9.5	129.0	9.4	80.3	5.3	3.5	9.5	22.8	9.5	4.8	9.5	20.2	2.9
5 or More Persons .....	1.8	154.1	1.8	87.2	.9	4.5	1.8	30.1	1.8	5.4	1.8	29.2	9.1

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 13. Expenditures by End Uses, per Northeast Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Northeast Region</b>													
<b>Total Region .....</b>	<b>19.2</b>	<b>1,471</b>	19.0	601	10.1	102	19.1	202	19.1	146	19.2	478	3.6
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD .....	12.3	1,458	12.1	626	5.6	80	12.3	207	12.2	129	12.3	470	4.6
Under 5,500 HDD .....	6.9	1,495	6.9	555	4.6	129	6.8	193	6.9	175	6.9	491	7.8
2,000 CDD or More and													
Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	11.9	1,707	11.7	702	6.4	121	11.8	214	11.8	160	11.9	574	3.9
Mobile Home .....	5	1,177	.5	481	Q	47	.5	242	.5	72	.5	363	31.3
Multifamily (2 or more units)	6.8	1,084	6.8	434	3.5	70	6.8	178	6.7	126	6.8	319	5.8
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	5.1	945	5.0	371	2.5	65	5.0	174	5.0	106	5.1	271	7.0
1,000 to 1,999 .....	7.1	1,415	7.0	571	3.6	90	7.1	207	7.0	139	7.1	461	3.9
2,000 or More .....	7.0	1,908	7.0	795	4.0	136	7.0	218	7.0	181	7.0	644	6.4
<b>Ownership of Unit</b>													
Owned .....	13.0	1,669	12.9	684	7.5	113	13.0	211	13.0	159	13.0	558	3.3
Rented .....	6.2	1,054	6.1	426	2.7	70	6.1	182	6.1	116	6.2	310	5.5
<b>Year of Construction</b>													
1949 or Before .....	8.9	1,457	8.7	641	3.7	76	8.8	196	8.8	144	8.9	456	4.7
1950 to 1979 .....	8.8	1,514	8.7	589	5.5	115	8.7	201	8.7	153	8.8	506	4.6
1980 or After <sup>2</sup> .....	1.6	1,317	1.6	445	.9	128	1.6	245	1.6	117	1.6	440	11.2
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.9	1,044	2.8	486	.8	52	2.8	146	2.8	116	2.9	289	9.0
\$10,000 to \$19,999 .....	3.4	1,177	3.3	538	1.5	63	3.3	167	3.3	120	3.4	337	7.1
\$20,000 to \$34,999 .....	4.5	1,373	4.5	549	2.2	76	4.5	218	4.5	133	4.5	444	5.6
\$35,000 or More .....	8.5	1,785	8.4	692	5.6	130	8.4	226	8.5	172	8.5	616	4.2
<b>Below Poverty Line</b>													
100 Percent .....	2.2	1,128	2.2	488	.6	50	2.2	184	2.2	113	2.2	337	9.4
125 Percent .....	3.0	1,155	3.0	498	.9	59	3.0	183	2.9	119	3.0	347	8.0
<b>Age of Householder</b>													
Under 35 Years .....	5.3	1,351	5.2	519	2.7	97	5.3	226	5.2	130	5.3	434	6.1
35 to 59 Years .....	8.3	1,627	8.3	610	4.4	126	8.2	225	8.3	156	8.3	577	4.1
60 Years and Over .....	5.6	1,353	5.5	664	3.0	71	5.6	146	5.6	146	5.6	373	5.9
<b>Household Size</b>													
1 Person .....	4.5	968	4.5	471	2.4	68	4.5	116	4.5	116	4.5	240	6.1
2 to 4 Persons .....	12.5	1,568	12.4	632	6.7	108	12.4	216	12.4	153	12.5	518	2.3
5 or More Persons .....	2.2	1,969	2.2	690	1.0	146	2.2	300	2.2	167	2.2	743	8.6

See footnotes at end of table.

**Table 13. Expenditures by End Uses, per Northeast Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Flow Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>New England Division .....</b>	4.5	1,408	4.5	636	2.0	63	4.5	220	4.5	115	4.5	416	4.3
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	4.5	1,406	4.5	635	2.0	63	4.5	220	4.5	115	4.5	416	4.3
Under 5,500 HDD .....	Q	Q	Q	Q	NC	NC	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	2.5	1,662	2.5	765	1.1	76	2.5	233	2.5	130	2.5	509	5.1
Mobile Home .....	.2	1,363	.2	530	Q	Q	.2	295	.2	77	.2	446	14.7
Multifamily (2 or more units) ..	1.9	1,065	1.8	470	.9	45	1.8	196	1.8	98	1.9	288	7.0
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.4	969	1.4	397	.6	40	1.4	195	1.4	92	1.4	275	4.3
1,000 to 1,999 .....	1.6	1,443	1.6	638	.7	67	1.6	230	1.6	117	1.6	439	7.3
2,000 or More .....	1.5	1,802	1.5	871	.7	78	1.4	233	1.5	137	1.5	531	7.3
<b>Ownership of Unit</b>													
Owned .....	2.9	1,579	2.9	720	1.3	67	2.9	229	2.9	124	2.9	482	5.7
Rented .....	1.7	1,111	1.6	492	.7	54	1.6	204	1.6	100	1.7	303	5.3
<b>Year of Construction</b>													
1949 or Before .....	2.1	1,387	2.1	686	.8	43	2.1	207	2.0	112	2.1	377	6.6
1950 to 1979 .....	1.9	1,450	1.9	621	1.0	67	1.9	223	1.9	126	1.9	451	8.0
1980 or After <sup>2</sup> .....	.6	1,338	.6	505	.2	117	.6	257	.6	90	.6	442	16.9
<b>1990 Family Income</b>													
Less than \$10,000 .....	.8	1,071	.8	531	.3	41	.8	163	.7	104	.8	273	10.2
\$10,000 to \$19,999 .....	.8	1,280	.8	624	.3	46	.8	191	.8	111	.8	338	10.6
\$20,000 to \$34,999 .....	1.1	1,318	1.1	561	.5	59	1.1	220	1.1	108	1.1	407	9.3
\$35,000 or More .....	1.9	1,655	1.8	731	1.0	75	1.9	255	1.9	126	1.9	514	6.6
<b>Below Poverty Line</b>													
100 Percent .....	.6	1,201	.6	530	.2	40	.6	215	.6	105	.6	340	11.0
125 Percent .....	.8	1,150	.8	513	.2	45	.8	204	.8	106	.8	326	10.3
<b>Age of Householder</b>													
Under 35 Years .....	1.3	1,301	1.2	532	.6	68	1.2	240	1.2	103	1.3	399	6.2
35 to 59 Years .....	1.9	1,546	1.9	661	.7	70	1.9	251	1.9	120	1.9	493	6.8
60 Years and Over .....	1.4	1,320	1.4	696	.7	49	1.4	162	1.4	120	1.4	331	8.9
<b>Household Size</b>													
1 Person .....	1.2	1,042	1.2	552	.5	53	1.2	135	1.2	104	1.2	235	6.9
2 to 4 Persons .....	3.0	1,530	2.9	673	1.4	66	3.0	242	2.9	121	3.0	471	5.2
5 or More Persons .....	.4	1,645	.4	620	.1	65	.3	329	.4	104	.4	580	10.3

See footnotes at end of table.

**Table 13. Expenditures by End Uses, per Northeast Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Middle Atlantic Division .....</b>	14.7	1,491	14.5	590	8.1	112	14.6	197	14.6	155	14.7	497	2.7
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	7.8	1,488	7.7	621	3.5	89	7.8	200	7.7	137	7.8	502	7.4
Under 5,500 HDD .....	6.9	1,494	6.8	554	4.6	129	6.8	193	6.9	175	6.9	491	7.8
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	9.3	1,719	9.2	685	5.3	131	9.3	209	9.3	169	9.3	592	4.7
Mobile Home .....	Q	1,102	Q	462	Q	Q	Q	Q	Q	69	Q	Q	33.2
Multifamily (2 or more units) ..	5.0	1,091	4.9	420	2.6	78	4.9	171	4.9	136	5.0	331	7.9
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	3.7	935	3.6	361	1.9	73	3.6	165	3.6	112	3.7	269	9.5
1,000 to 1,999 .....	5.4	1,406	5.4	550	2.9	96	5.4	200	5.4	146	5.4	468	4.8
2,000 or More .....	5.6	1,936	5.6	775	3.3	148	5.5	214	5.6	192	5.6	674	7.7
<b>Ownership of Unit</b>													
Owned .....	10.2	1,694	10.0	673	6.1	124	10.1	206	10.2	169	10.2	579	3.8
Rented .....	4.5	1,033	4.5	401	2.0	75	4.5	175	4.4	122	4.5	312	7.5
<b>Year of Construction</b>													
1949 or Before .....	6.8	1,478	6.7	627	2.9	86	6.7	192	6.7	153	6.8	481	6.0
1950 to 1979 .....	6.9	1,531	6.8	580	4.5	126	6.8	195	6.8	160	6.9	522	5.4
1980 or After <sup>2</sup> .....	1.0	1,306	1.0	413	.7	131	1.0	238	1.0	131	1.0	439	14.0
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.1	1,034	2.1	469	.6	57	2.1	140	2.1	121	2.1	295	12.2
\$10,000 to \$19,999 .....	2.6	1,146	2.5	511	1.2	67	2.5	159	2.5	123	2.6	337	8.8
\$20,000 to \$34,999 .....	3.4	1,391	3.4	545	1.7	81	3.4	217	3.4	141	3.4	456	6.9
\$35,000 or More .....	6.6	1,822	6.5	681	4.6	142	6.6	218	6.6	185	6.6	644	4.9
<b>Below Poverty Line</b>													
100 Percent .....	1.6	1,102	1.6	473	.4	53	1.6	173	1.6	115	1.6	335	12.0
125 Percent .....	2.2	1,157	2.2	493	.6	63	2.2	176	2.2	124	2.2	355	10.6
<b>Age of Householder</b>													
Under 35 Years .....	4.0	1,367	4.0	515	2.1	106	4.0	222	3.9	138	4.0	445	7.7
35 to 59 Years .....	6.4	1,651	6.4	595	3.7	137	6.4	217	6.4	166	6.4	601	4.7
60 Years and Over .....	4.2	1,364	4.1	654	2.3	78	4.2	140	4.2	155	4.2	387	7.5
<b>Household Size</b>													
1 Person .....	3.3	940	3.3	440	1.9	72	3.3	109	3.3	120	3.3	242	8.2
2 to 4 Persons .....	9.5	1,579	9.4	619	5.3	118	9.5	208	9.5	162	9.5	533	2.7
5 or More Persons .....	1.8	2,033	1.8	704	.9	157	1.8	295	1.8	180	1.8	775	9.8

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 14. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Northeast Region Households, 1990**

Characteristics	Electricity				Natural Gas				RSE P.O.V. Factors	
	House- holds (million)	Total Consumed		House- holds (million)	Total Consumed		(billion cubic feet)	(billion dollars)		
		(tril- lion Btu)	(billion kWh)		(tril- lion Btu)	(billion dollars)				
RSE Column Factors:	0.8	NF	NF	NF	0.8	NF	NF	NF		
<b>Total Region</b>	4.8	40.8	12.0	1.09	8.9	715.6	692	4.92	9.0	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	3.6	31.3	9.2	.82	5.1	451.0	436	2.94	12.8	
Under 5,500 HDD	1.2	9.5	2.8	.27	3.8	264.6	256	1.98	21.7	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family	3.2	30.7	9.0	.80	5.5	506.3	489	3.34	12.3	
Mobile Home	Q	Q	Q	.27	Q	Q	Q	Q	NF	
Multifamily (2 or more units)	1.5	8.9	2.6	Q	3.4	207.4	201	1.56	13.3	
<b>Heated Floorspace</b> (square feet)										
Fewer than 1,000	1.3	8.8	2.6	.26	2.1	105.8	102	.78	15.9	
1,000 to 1,999	1.6	14.4	4.2	.36	3.5	272.2	263	1.91	14.1	
2,000 or More	2.0	17.6	5.2	.47	3.3	337.7	327	2.23	14.3	
<b>Ownership of Unit</b>										
Owned	3.4	30.2	8.9	.78	5.8	534.6	517	3.60	10.5	
Rented	1.4	10.6	3.1	.31	3.1	181.1	175	1.31	12.1	
<b>Year of Construction</b>										
1949 or Before	1.6	6.3	1.9	.19	4.6	402.9	390	2.80	13.5	
1950 to 1979	2.3	22.3	6.5	.59	3.8	289.0	280	1.95	13.3	
1980 or After <sup>2</sup>	.9	12.2	3.6	.31	.4	23.8	23	.17	31.7	
<b>1990 Family Income</b>										
Less than \$10,000	.5	3.1	.9	.09	1.3	88.9	86	.63	23.9	
\$10,000 to \$19,999	.9	4.6	1.4	.13	1.7	127.4	123	.88	18.2	
\$20,000 to \$34,999	1.2	11.9	3.5	.31	1.8	130.1	126	.91	14.3	
\$35,000 or More	2.3	21.2	6.2	.57	4.0	369.2	357	2.50	10.3	
<b>Below Poverty Line</b>										
100 Percent	.4	2.3	.7	.07	1.1	76.6	74	.54	24.0	
125 Percent	.5	3.2	.9	.09	1.4	102.8	99	.72	21.5	
<b>Age of Householder</b>										
Under 35 Years	1.4	11.9	3.5	.33	2.3	160.4	155	1.12	13.1	
35 to 59 Years	2.2	18.9	5.5	.50	4.0	330.2	319	2.24	13.5	
60 Years and Over	1.3	10.1	3.0	.26	2.6	225.0	218	1.56	12.3	
<b>Household Size</b>										
1 Person	1.3	11.2	3.3	.31	1.8	112.4	109	.79	15.4	
2 to 4 Persons	3.0	25.1	7.4	.66	6.0	512.5	496	3.51	10.4	
5 or More Persons	.5	4.5	1.3	.12	1.0	90.7	88	.62	18.4	

See footnotes at end of table.

## NORTHEAST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 14. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		Households (million)	Households (million)	Total Consumed			
	(trill.-ion Btu)	(billion kWh)			Total Expenditures (billion dollars)	(trill.-ion Btu)		
RSE Column Factors:	0.8	NF	NF	NF	0.8	NF	NF	
New England Division .....	1.5	10.6	3.1	0.30	1.4	98.7	95	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	1.5	10.3	3.0	.29	1.4	98.7	.76	
Under 5,500 HDD .....	Q	Q	Q	Q	NC	NC	NC	
2,000 CDD or More and					NC	NC	NC	
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	.8	6.5	1.9	.18	.5	46.9	.36	
Mobile Home .....	NC	NC	NC	NC	NC	NC	16.9	
Multifamily (2 or more units) .....	7	4.1	1.2	.12	.8	51.8	.40	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	5	3.6	1.1	.11	.5	23.7	.18	
1,000 to 1,999 .....	5	3.3	1.0	.09	.6	45.1	.35	
2,000 or More .....	4	3.7	1.1	.10	.3	29.9	.29	
<b>Ownership of Unit</b>								
Owned .....	9	6.0	1.8	.17	.7	57.0	.43	
Rented .....	6	4.6	1.4	.14	.4	41.8	.33	
<b>Year of Construction</b>								
1949 or Before .....	5	2.1	.6	.06	.7	50.6	.38	
1950 to 1979 .....	7	5.9	1.7	.17	.5	37.3	.26	
1980 or After <sup>2</sup> .....	3	Q	Q	Q	.2	10.9	.10	
<b>1990 Family Income</b>								
Less than \$10,000 .....	3	1.5	.4	.05	.2	13.5	.13	
\$10,000 to \$19,999 .....	2	1.4	.4	.04	.3	23.9	.19	
\$20,000 to \$34,999 .....	3	1.8	.5	.05	.3	17.5	.14	
\$35,000 or More .....	7	5.9	1.7	.17	.5	43.8	.33	
<b>Below Poverty Line</b>								
100 Percent .....	2	1.3	.4	.04	.2	15.0	.15	
125 Percent .....	3	1.7	.5	.05	.2	16.3	.16	
<b>Age of Householder</b>								
Under 35 Years .....	5	3.4	1.0	.10	.4	29.0	.28	
35 to 59 Years .....	5	4.4	1.3	.12	.6	39.6	.38	
60 Years and Over .....	5	2.9	.9	.08	.4	30.1	.29	
<b>Household Size</b>								
1 Person .....	5	5.3	1.5	.15	.2	13.2	.13	
2 to 4 Persons .....	9	5.0	1.5	.14	1.0	77.0	.74	
5 or More Persons .....	Q	Q	Q	Q	.1	8.5	.8	

See footnotes at end of table.

**Table 14. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		House- holds (million)	Total Consumed		(billion cubic feet)		
	(tri- lion Btu)	(billion kwh)		(billion dollars)				
RSE Column Factors:	0.8	NF	NF	NF	NF	NF		
<b>Middle Atlantic Division</b>	3.3	30.2	8.9	0.79	7.5	616.9	597	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	2.2	21.0	6.2	.52	3.7	352.3	341	
Under 5,500 HDD	1.2	Q	Q	.26	3.8	264.5	256	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family	2.4	24.3	7.1	.62	5.0	459.3	444	
Mobile Home	Q	Q	Q	.14	Q	Q	Q	
Multifamily (2 or more units)	.8	4.8	1.4	.14	2.5	155.6	151	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	1.1	11.1	1.5	.15	1.6	82.0	79	
1,000 to 1,999	1.1	11.1	3.3	.27	3.0	227.0	220	
2,000 or More	1.5	13.9	4.1	.36	3.0	307.8	298	
<b>Ownership of Unit</b>								
Owned	2.5	24.2	7.1	.61	5.1	477.6	462	
Rented	.8	6.0	1.8	.17	2.4	139.3	135	
<b>Year of Construction</b>								
1949 or Before	1.1	4.3	1.2	.13	4.0	352.3	341	
1950 to 1979	1.6	16.5	4.8	.42	3.3	251.7	244	
1980 or After <sup>2</sup>	.7	9.5	2.8	.24	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000	.2	1.6	.5	.04	1.1	75.4	73	
\$10,000 to \$19,999	.6	3.2	.9	.09	1.4	103.5	100	
\$20,000 to \$34,999	1.0	10.2	3.0	.26	1.5	112.6	109	
\$35,000 or More	1.6	15.2	4.5	.40	3.5	325.5	315	
<b>Below Poverty Line</b>								
100 Percent	Q	Q	Q	Q	Q	Q	Q	
125 Percent	.2	1.4	.4	.04	1.2	86.5	83	
<b>Age of Householder</b>								
Under 35 Years	.9	8.5	2.5	.23	1.9	131.4	127	
35 to 59 Years	1.6	14.5	4.3	.37	3.5	290.6	281	
60 Years and Over	.9	7.2	2.1	.18	2.2	194.9	189	
<b>Household Size</b>								
1 Person	.8	6.0	1.7	.16	1.5	99.2	96	
2 to 4 Persons	2.2	20.1	5.9	.52	5.1	435.5	422	
5 or More Persons	.4	4.1	1.2	.11	.9	82.2	79	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures, 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 15. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in Northeast Region Households, 1990**

	Fuel Oil			Kerosene			Liquefied Petroleum Gas		
	Total Consumed	(billion gallons)	Hous-holds (mil-lion Btu)	Total Expendi-tures (bil-lion dollars)	Total Consumed	(bil-lion gallons)	Hous-holds (mil-lion Btu)	Total Consumed	(bil-lion gallons)
<b>RSE Column Factors:</b>	0.5	NF	NF	0.9	NF	NF	1.4	NF	NF
<b>Northeast Region</b>									
<b>Total Region</b>	7.8	649.6	4.72	5.11	1.2	20.6	0.15	0.19	0.2
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	5.0	454.2	3.29	3.58	1.0	18.7	.14	.17	.2
Under 5,500 HDD	2.8	195.4	1.43	1.54	Q	Q	Q	NC	8.6
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	.09
<b>Type of Housing Unit</b>	4.9	492.0	3.56	3.95	.8	7.4	.06	.07	.2
Single-Family	Q	Q	Q	Q	3	Q	Q	Q	5.3
Mobile Home	Q	Q	1.08	1.08	Q	Q	Q	NC	.06
Multifamily (2 or more units)	2.7	146.8			Q	Q	Q	NC	Q
<b>Heated Floorspace<sup>e</sup> (square feet)</b>	2.0	93.1	.68	.69	.3	Q	Q	Q	Q
Fewer than 1,000	2.6	197.0	1.43	1.57	.5	8.1	.06	Q	Q
1,000 to 1,999	3.2	359.6	2.61	2.85	.5	1.6	.01	Q	Q
2,000 or More									
<b>Ownership of Unit</b>	5.6	524.9	3.80	4.18	1.0	15.1	.11	.14	.2
Owned	2.3	124.7	.92	.93	.2	5.5	.04	Q	NC
Rented									
<b>Year of Construction</b>	3.8	324.0	2.36	2.53	.4	4.3	.03	.04	Q
1949 or Before	3.7	305.5	2.22	2.43	.6	Q	Q	Q	Q
1950 to 1979									
1980 or After <sup>2</sup>	.3	20.1	.15	.16	Q	Q	Q	Q	Q
<b>1990 Family Income</b>									
Less than \$10,000	1.3	83.3	.61	.63	Q	Q	Q	NC	Q
\$10,000 to \$19,999	1.2	89.3	.65	.69	.2	7.2	.05	Q	Q
\$20,000 to \$34,999	1.9	142.5	1.04	1.11	.4	Q	Q	Q	Q
\$35,000 or More	3.5	334.5	2.42	2.69	.4	2.2	.02	Q	Q
<b>Below Poverty Line</b>									
100 Percent	.9	55.4	.40	.42	.2	Q	Q	Q	NC
125 Percent	1.3	82.0	.60	.62	.2	Q	Q	Q	NC
<b>Age of Householder</b>									
Under 35 Years	2.1	143.7	1.05	1.12	.4	Q	Q	Q	Q
35 to 59 Years	3.1	274.4	1.99	2.19	.6	7.7	.06	Q	Q
60 Years and Over	2.6	231.5	1.68	1.81	2	Q	Q	Q	Q
<b>Household Size</b>									
1 Person	2.0	131.5	.96	1.00	Q	Q	Q	Q	Q
2 to 4 Persons	5.0	432.7	3.14	3.41	.9	17.9	.13	Q	Q
5 or More Persons	.9	85.4	.62	.70	.2	Q	Q	Q	Q

See footnotes at end of table.

## NORTHEAST

**Table 15. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Fuel Oil			Kerosene			Liquefied Petroleum Gas		
	Total Consumed		Total Consumed	Total Consumed		Total Consumed	Total Consumed		
	Households (millions)	(trillion BTU)	(billion gallons)	Households (millions)	(trillion BTU)	Households (millions)	(trillion BTU)	(billion gallons)	
RSE Column Factors:	0.5	NF	NF	0.9	NF	NF	1.4	NF	NF
<b>New England Division</b>	2.3	217.3	1.58	1.71	0.2	6.7	0.05	0.07	Q
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	2.3	216.4	1.57	1.70	.2	6.7	.05	.07	Q
Under 5,500 HDD	Q	Q	Q	NC	NC	NC	NC	NC	NC
2,000 CDD or More and 2,000 HDD or More	NC	NC	NC	NC	NC	NC	NC	NC	NC
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Space-Heating Consumption/Expenditures</b>									
<b>Type of Housing Unit</b>									
Single-Family	1.6	169.0	1.22	1.32	Q	Q	Q	Q	Q
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units)	.6	43.5	.32	.35	NC	NC	NC	NC	NC
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.5	29.6	.22	.24	Q	Q	Q	Q	Q
1,000 to 1,999	.8	89.0	.50	.55	Q	Q	Q	Q	Q
2,000 or More	1.0	118.7	.86	.93	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>									
Owned	1.7	175.6	1.27	1.38	Q	Q	Q	Q	Q
Rented	.6	41.7	.31	.33	Q	Q	Q	Q	Q
<b>Year of Construction</b>									
1949 or Before	1.3	119.2	.87	.94	Q	Q	Q	Q	Q
1950 to 1979	.9	85.7	.52	.67	Q	Q	Q	Q	Q
1980 or After <sup>2</sup>	.2	12.4	.09	.10	Q	Q	Q	Q	Q
<b>1990 Family Income</b>									
Less than \$10,000	.4	32.4	.24	.26	Q	Q	Q	Q	Q
\$10,000 to \$19,999	.4	29.5	.21	.23	Q	Q	Q	Q	Q
\$20,000 to \$34,999	.6	48.8	.35	.38	Q	Q	Q	Q	Q
\$35,000 or More	1.0	106.6	.77	.84	Q	Q	Q	Q	Q
<b>Below Poverty Line</b>									
100 Percent	.2	18.7	.14	.15	Q	Q	Q	Q	Q
125 Percent	.4	27.1	.20	.22	Q	Q	Q	Q	Q
<b>Age of Householder</b>									
Under 35 Years	.5	40.8	.30	.32	Q	Q	Q	Q	Q
35 to 59 Years	1.0	94.0	.68	.75	Q	Q	Q	Q	Q
60 Years and Over	.8	82.5	.60	.64	Q	Q	Q	Q	Q
<b>Household Size</b>									
1 Person	.6	53.0	.39	.42	NC	NC	NC	NC	NC
2 to 4 Persons	1.5	146.4	.106	.115	NC	NC	NC	NC	NC
5 or More Persons	.2	17.9	.13	.14	Q	Q	Q	Q	Q

See footnotes at end of table.

## NORTHEAST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 15. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Fuel Oil			Kerosene			Liquefied Petroleum Gas		
	Total Consumed		(billion gallons)	Total Consumed		(billion gallons)	Total Consumed		(billion gallons)
	Households (trill. Btu)	(billion dollars)		Households (mil. Btu)	(trill. Btu)		Households (mil. Btu)	(trill. Btu)	
RSE Column Factors:	0.5	NF	NF	0.9	NF	NF	1.4	NF	NF
<b>Middle Atlantic Division</b>	5.5	432.3	3.14	3.40	1.0	Q	Q	Q	Q
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	2.7	237.7	1.72	1.88	.7	Q	Q	Q	Q
Under 5,500 HDD	2.8	194.6	1.42	1.53	Q	Q	NC	NC	NC
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>	3.3	323.0	2.34	2.62	.7	4.7	0.03	0.04	Q
Single-Family	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mobile Home	2.1	103.3	.76	.73	Q	Q	NC	NC	NC
Multifamily (2 or more units)	2.2	240.9	1.75	1.92	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.5	63.4	.47	.46	Q	Q	Q	Q	Q
1,000 to 1,999	1.8	128.0	.93	1.03	.4	5.2	.04	.05	Q
2,000 or More	2.2	240.9	1.75	1.92	.4	1.4	.01	.01	Q
<b>Ownership of Unit</b>									
Owned	3.9	349.3	2.53	2.81	.8	Q	Q	Q	Q
Rented	1.6	83.0	.61	.60	Q	Q	Q	Q	Q
<b>Year of Construction</b>									
1949 or Before	2.6	204.8	1.49	1.59	.4	4.3	.03	.04	Q
1950 to 1979	2.8	219.8	1.59	1.75	.5	Q	Q	Q	Q
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>1990 Family Income</b>									
Less than \$10,000	9	50.9	.37	.37	Q	Q	Q	Q	Q
\$10,000 to \$19,999	8	59.8	.44	.46	2	5.1	.04	.05	Q
\$20,000 to \$34,999	1.3	93.7	.68	.73	.3	Q	Q	Q	Q
\$35,000 or More	2.5	227.9	1.65	1.84	.4	1.7	.01	.02	Q
<b>Below Poverty Line</b>									
100 Percent	.7	36.7	.27	.27	Q	Q	Q	Q	Q
125 Percent	9	54.9	.40	.40	Q	Q	Q	Q	Q
<b>Age of Householder</b>									
Under 35 Years	1.5	102.9	.75	.80	4	Q	Q	Q	Q
35 to 59 Years	2.1	180.4	1.31	1.45	.4	4.3	.03	.04	Q
60 Years and Over	1.8	149.0	1.08	1.16	.2	Q	Q	Q	Q
<b>Household Size</b>									
1 Person	1.3	78.6	.57	.58	Q	Q	Q	Q	Q
2 to 4 Persons	3.5	286.3	2.08	2.26	.7	Q	Q	Q	Q
5 or More Persons	7	67.5	.49	.56	Q	Q	Q	Q	Q

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 16. Electricity Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	
		NF	NF			0.4	0.3	NF	NF	
<b>Northeast Region</b>										
Total Region .....	2.0	17.1	5,017	444	1,425	5,152	5,978	0.68	6.0	5.3
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	1.5	17.4	5,114	447	1,370	5,415	6,220	.69	6.0	7.3
Under 5,500 HDD .....	Q	16.1	4,725	433	1,592	4,356	5,245	.68	6.3	12.2
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	1.1	22.8	6,683	576	2,028	5,125	5,968	.64	5.5	7.2
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units) ..	.8	9.3	2,732	275	640	5,219	6,028	.82	8.2	11.0
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.9	9.5	2,772	278	621	5,216	6,029	.86	8.6	9.3
1,000 to 1,999 .....	.7	19.4	5,688	479	1,479	4,909	5,763	.78	6.6	8.6
2,000 or More .....	.5	27.9	8,167	695	2,814	5,377	6,187	.54	4.6	6.3
<b>Ownership of Unit</b>										
Owned .....	1.1	21.9	6,416	543	1,943	5,145	5,955	.64	5.4	6.6
Rented .....	.9	10.9	3,201	315	753	5,162	6,009	.82	8.1	9.3
<b>Year of Construction</b>										
1949 or Before .....	.2	15.2	4,445	463	1,098	5,163	6,012	.78	Q	18.3
1950 to 1979 .....	1.0	18.8	5,522	482	1,345	5,332	6,133	.77	6.7	8.5
1980 or After <sup>2</sup> .....	.8	15.3	4,496	386	1,628	4,905	5,758	.56	4.8	8.3
<b>1990 Family Income</b>										
Less than \$10,000 .....	.3	10.5	3,069	281	609	5,193	5,995	.97	8.9	7.8
\$10,000 to \$19,999 .....	.3	13.5	3,965	370	998	5,503	6,319	.72	6.7	12.2
\$20,000 to \$34,999 .....	.6	17.8	5,211	450	1,265	5,091	5,872	.81	7.0	9.7
\$35,000 or More .....	.9	19.8	5,805	511	1,919	5,068	5,936	.60	5.3	6.5
<b>Below Poverty Line</b>										
100 Percent .....	.2	10.5	3,076	293	821	5,017	5,922	.75	7.1	12.7
125 Percent .....	.2	10.7	3,148	302	766	5,289	6,151	.78	7.5	10.1
<b>Age of Householder</b>										
Under 35 Years .....	.7	14.4	4,218	397	1,217	5,056	5,892	.69	6.4	9.8
35 to 59 Years .....	.8	18.2	5,321	458	1,649	5,131	5,966	.63	5.4	7.2
60 Years and Over .....	.4	19.7	5,773	495	1,333	5,356	6,148	.81	6.9	11.0
<b>Household Size</b>										
1 Person .....	.8	13.8	4,047	374	1,097	5,276	6,064	.70	6.5	8.1
2 to 4 Persons .....	1.1	18.7	5,492	470	1,634	5,109	5,967	.66	5.6	6.5
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Main Heating Equipment Using Electricity</b>										
Central Warm-Air Furnace .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Built-In Electric Units .....	1.3	18.8	5,510	483	1,366	5,344	6,161	.75	6.6	6.5
Heat Pump .....	.5	12.9	3,782	340	1,588	4,750	5,568	.50	4.5	9.1
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 16. Electricity Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption (kWh)	Expenditures (dollars)	Annual Heating Degree-Days		Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	Electricity Space-Heating Intensity	RSE Row Factors				
				Heated Floor Space (square feet)									
				1990	30-Year Average <sup>1</sup>								
RSE Column Factors:	2.2	NF	NF	1.2	0.4	0.3	NF	NF					
<b>Northeast Region</b>													
<b>Age of Main Heating Equipment</b>													
Less than 5 Years .....	0.4	13.0	3,815	354	1,449	4,824	5,669	0.55	5.1				
5 to 9 Years .....	.3	18.7	5,493	484	1,611	5,446	6,296	.63	5.5				
10 to 19 Years .....	.7	16.1	4,726	406	1,282	5,190	5,929	.71	6.1				
20 Years or More .....	.4	26.1	7,846	652	1,818	5,292	6,195	.79	12.2				
Don't Know .....	.2	8.8	2,591	281	780	4,955	5,842	.67	9.1				
								.73	19.4				
<b>Secondary Heating Fuel (more than one may apply)</b>													
No .....	1.2	15.3	4,486	411	1,156	5,275	6,096	.74	6.7				
Yes .....	.8	19.9	5,831	494	1,837	4,963	5,797	.64	5.4				
Wood .....	.5	23.7	6,956	600	2,112	5,068	5,913	.65	5.6				
Electricity .....	Q	Q	Q	Q	Q	Q	Q	Q	NF				
Natural Gas .....	Q	Q	Q	Q	Q	Q	Q	Q	NF				
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q	NF				
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	NF				
<b>Average Electricity Expenditures for Main Space Heat (Cents per kWh)</b>													
Less than 6 .....	Q	19.0	5,555	Q	Q	Q	Q	Q	NF				
6 to Less than 9 .....	Q	14.7	4,301	444	1,207	5,248	6,030	.65	8.1				
9 or More .....	Q	1.0	1.0	448	1,656	5,078	5,955	.70	7.3				
<b>Winter Temperature Inside Housing Unit Prefer</b>													
Usual Temperature .....	1.5	17.3	5,082	451	1,428	5,183	6,005	.69	6.1				
Warmer Temperature .....	4	16.5	4,837	420	1,451	5,109	5,957	.65	5.7				
Cooler Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q	10.5				
<b>Adequacy of Insulation</b>													
Well Insulated .....	.8	16.7	4,894	434	1,552	5,191	6,007	.61	5.4				
Adequately Insulated .....	.8	16.9	4,948	423	1,346	5,072	5,884	.72	6.2				
Poorly Insulated .....	.3	21.6	6,327	586	1,463	5,394	6,271	.80	8.2				
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q	11.2				
									NF				

See footnotes at end of table.

**Table 16. Electricity Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	
		NF	NF			NF	NF	NF	NF	
RSE Column Factors:	2.2	NF	NF	NF	1.2	0.4	0.3	NF	NF	
<b>New England Division .....</b>	0.6	14.4	4,207	406	1,150	5,362	6,229	0.68	6.6	7.0
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	.6	14.0	4,114	398	1,122	5,371	6,240	.68	6.6	7.2
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	.2	26.9	7,896	735	2,278	5,376	6,365	.64	6.0	9.2
Mobile Home .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Multifamily (2 or more units) ..	.4	8.5	2,498	254	628	5,355	6,166	.74	7.5	8.3
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.4	8.4	2,472	254	565	5,401	6,219	.81	8.3	7.6
1,000 to 1,999 .....	.1	19.2	5,627	520	1,467	5,255	6,273	.73	6.7	19.0
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Ownership of Unit</b>										
Owned .....	.3	19.1	5,590	526	1,646	5,257	6,108	.65	6.1	9.4
Rented .....	.4	11.0	3,237	322	802	5,436	6,314	.74	7.4	10.2
<b>Year of Construction</b>										
1949 or Before .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
1950 to 1979 .....	.4	14.2	4,174	414	1,115	5,554	6,355	.67	6.7	11.3
1980 or After <sup>2</sup> .....	Q	16.6	4,870	425	1,627	4,940	5,968	.61	5.3	12.1
<b>1990 Family Income</b>										
Less than \$10,000 .....	.2	8.8	2,583	260	535	5,326	6,091	.91	9.1	11.6
\$10,000 to \$19,999 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
\$20,000 to \$34,999 .....	.1	13.0	3,811	373	1,077	5,489	6,303	.64	6.3	11.8
\$35,000 or More .....	.3	16.7	4,899	465	1,509	5,215	6,137	.62	5.9	8.6
<b>Below Poverty Line</b>										
100 Percent .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
125 Percent .....	.2	9.4	2,750	281	607	5,346	6,216	.85	8.7	9.1
<b>Age of Householder</b>										
Under 35 Years .....	.2	11.5	3,372	341	973	5,266	6,078	.66	6.7	12.0
35 to 59 Years .....	.2	19.2	5,621	528	1,707	5,400	6,402	.61	5.7	15.8
60 Years and Over .....	.2	13.1	3,841	366	807	5,449	6,250	.87	8.3	11.1
<b>Household Size</b>										
1 Person .....	.3	14.3	4,190	406	1,092	5,386	6,219	.71	6.9	9.1
2 to 4 Persons .....	.3	14.1	4,140	401	1,224	5,337	6,247	.63	6.1	9.8
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

**Table 16. Electricity Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption			Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
		(million Btu)	(kWh)	Expenditures (dollars)		1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	
		NF	NF	NF		1.2	0.4	0.3	NF	
Middle Atlantic Division .....	1.4	18.4	5,383	460	1,549	5,058	5,865	0.69	5.9	6.5
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	.9	19.8	5,801	480	1,541	5,445	6,206	.69	5.7	11.6
Under 5,500 HDD .....	Q	15.8	4,618	424	1,565	4,349	5,241	.68	6.2	15.2
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	.9	21.9	6,423	541	1,974	5,071	5,883	.64	5.4	8.6
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units) .....	Q	10.1	2,972	297	653	5,079	5,886	.90	Q	26.0
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.5	10.3	3,019	298	667	5,063	5,872	.89	8.8	17.4
1,000 to 1,999 .....	.5	19.5	5,705	468	1,482	4,813	5,622	.80	6.6	10.6
2,000 or More .....	.4	26.8	7,853	650	2,723	5,380	6,183	.54	4.4	7.2
<b>Ownership of Unit</b>										
Owned .....	.9	22.7	6,658	547	2,030	5,112	5,910	.64	5.3	7.5
Rented .....	.5	10.8	3,175	310	717	4,963	5,787	.89	8.7	14.3
<b>Year of Construction</b>										
1949 or Before .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
1950 to 1979 .....	.7	21.5	6,290	521	1,475	5,205	6,006	.82	6.8	10.5
1980 or After <sup>2</sup> .....	.6	15.0	4,408	376	1,629	4,897	5,709	.55	4.7	9.8
<b>1990 Family Income</b>										
Less than \$10,000 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
\$10,000 to \$19,999 .....	.2	11.9	3,499	320	973	5,388	6,167	.67	6.1	14.6
\$20,000 to \$34,999 .....	.5	19.0	5,560	469	1,312	4,992	5,764	.85	7.2	11.4
\$35,000 or More .....	.6	21.4	6,275	536	2,131	4,992	5,832	.59	5.0	8.8
<b>Below Poverty Line</b>										
100 Percent .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
125 Percent .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Age of Householder</b>										
Under 35 Years .....	.5	15.9	4,646	424	1,341	4,951	5,799	.70	6.4	13.7
35 to 59 Years .....	.7	17.9	5,234	438	1,633	5,053	5,839	.63	5.3	8.0
60 Years and Over .....	.2	24.8	7,268	594	1,740	5,285	6,069	.79	6.5	17.5
<b>Household Size</b>										
1 Person .....	.4	13.4	3,928	348	1,102	5,184	5,934	.69	6.1	12.8
2 to 4 Persons .....	.8	20.2	5,926	492	1,766	5,036	5,878	.67	5.5	7.5
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 17. Natural Gas Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990**

Characteristics	House-holds (million) Btu)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(1000 cubic feet)	Expend- itures (dollars)			Consumption (cubic feet/ HDD*1000 square feet)	Expenditures (cents/ HDD*1000 square feet)	
		RSE Column Factors:	2.5	NF	NF	1.4	0.3	NF
Northeast Region								
Total Region .....	8.7	81.5	78.8	559	1,828	4,905	5,789	8.8
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	5.0	89.2	86.2	581	2,019	5,398	6,266	7.9
Under 5,500 HDD .....	3.7	71.0	68.8	531	1,568	4,236	5,141	10.4
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	8.0
<b>Type of Housing Unit</b>								
Single-Family .....	5.4	93.6	90.5	617	2,302	4,976	5,858	7.9
Mobile Home .....	Q	61.8	59.9	Q	Q	Q	Q	5.4
Multifamily (2 or more units) .....	3.4	59.9	467	1,072	4,787	5,673	11.7	Q
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	2.1	51.4	49.7	377	687	4,793	5,675	15.1
1,000 to 1,999 .....	3.5	76.7	74.1	537	1,401	4,819	5,713	11.0
2,000 or More .....	3.1	106.7	103.2	704	3,060	5,076	5,948	6.6
<b>Ownership of Unit</b>								
Owned .....	5.7	93.7	90.6	631	2,242	4,947	5,829	8.2
Rented .....	3.1	58.9	57.0	427	1,061	4,827	5,714	11.1
<b>Year of Construction</b>								
1949 or Before .....	4.6	87.1	84.2	605	1,765	4,896	5,800	9.7
1950 to 1979 .....	3.8	75.7	73.3	510	1,906	4,879	5,752	7.9
1980 or After <sup>2</sup> .....	.3	69.0	66.6	501	1,806	5,325	6,063	6.9
<b>1990 Family Income</b>								
Less than \$10,999 .....	1.3	66.8	64.4	471	1,150	4,892	5,776	11.5
\$10,000 to \$19,999 .....	1.7	75.4	72.9	519	1,486	4,967	5,853	9.9
\$20,000 to \$34,999 .....	1.7	74.0	71.7	517	1,670	4,874	5,805	8.8
\$35,000 or More .....	4.0	92.2	89.2	624	2,266	4,897	5,759	8.0
<b>Below Poverty Line</b>								
100 Percent .....	1.1	68.8	66.4	483	1,232	4,863	5,764	11.1
125 Percent .....	1.4	72.7	70.2	511	1,296	4,866	5,764	11.1
<b>Age of Householder</b>								
35 to 59 Years .....	2.3	70.3	68.0	492	1,289	4,887	5,778	10.8
60 Years and Over .....	3.9	83.2	80.4	564	2,062	4,933	5,810	7.9
	2.5	88.9	86.1	614	1,949	4,879	5,765	9.1
<b>Household Size</b>								
1 Person .....	1.8	63.1	61.0	443	1,099	4,887	5,771	11.3
2 to 4 Persons .....	5.9	85.9	83.1	588	1,964	4,928	5,818	8.6
5 or More Persons .....	1.0	87.6	84.7	599	2,300	4,808	5,652	7.7
<b>Main Heating Equipment Using Natural Gas</b>								
Central Warm-Air Furnace .....	4.1	83.4	80.5	547	1,954	5,061	5,930	8.1
Steam or Hot-Water System .....	4.5	80.5	78.0	575	1,741	4,750	5,647	9.4
Floor, Wall, or Pipeless Furnace .....	Q	60.9	58.8	Q	Q	Q	Q	7.0
Room Heater/Other .....	Q	60.9	58.8	Q	Q	Q	Q	5.0

## NORTHEAST

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 17. Natural Gas Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(1000 cubic feet)	(million Btu)			Expenditures (dollars)	Consumption (cubic feet/HDD*1000 square feet)	
		NF	NF			1990	30-Year Average <sup>1</sup>	
RSE Column Factors:	2.5	NF	NF	1.4	0.3	0.3	NF	NF
<b>Northeast Region</b>								
<b>Age of Main Heating Equipment</b>								
Less than 5 Years .....	1.5	81.8	79.0	550	1,856	5,082	5,932	8.4
5 to 9 Years .....	1.1	85.1	82.2	581	1,979	4,955	5,766	8.4
10 to 19 Years .....	1.7	96.3	93.3	653	2,298	5,046	5,962	8.0
20 Years or More .....	2.7	85.5	82.7	585	1,849	4,819	5,732	9.3
Don't Know .....	1.8	58.6	56.7	425	1,227	4,719	5,600	9.8
								7.3
								6.0
<b>Secondary Heating Fuel (more than one may apply)</b>								
No .....	5.9	76.6	74.1	538	1,601	4,826	5,705	9.6
Yes .....	2.8	91.6	89.7	604	2,300	5,070	5,964	7.6
Wood .....	1.4	97.9	94.8	634	2,638	5,110	5,986	6.9
Electricity .....	1.3	97.3	94.2	651	2,406	5,027	5,934	7.8
Kerosene .....	.4	90.8	88.1	571	2,110	4,940	5,924	8.5
Other .....	.4	104.0	100.4	678	2,251	4,939	5,837	9.0
								6.1
								15.9
<b>Average Natural Gas Expenditures for Main Space Heat (dollars per 1000 cf)</b>								
Less than 4.50 .....	NC	101.7	98.2	NC	NC	NC	NC	NC
4.50 to Less than 6 .....	9	79.2	76.6	559	2,482	5,411	6,138	7.3
6 or More .....	7.9			559	1,784	4,848	5,749	9.0
								6.6
								13.8
								2.8
<b>Winter Temperature Inside Housing Unit</b>								
Prefer .....	6.8	82.7	80.0	569	1,876	4,884	5,751	8.7
Usual Temperature .....	1.7	82.4	79.6	555	1,733	5,011	5,961	9.2
Warmer Temperature .....	1.3	44.6	43.3	324	1,163	4,771	5,672	7.8
Cooler Temperature .....	2	79.4	77.0	546	1,900	4,347	5,315	9.3
								6.6
								14.7
<b>Adequacy of Insulation</b>								
Well Insulated .....	2.9	87.6	84.7	607	2,136	4,917	5,765	8.1
Adequately Insulated .....	3.9	79.5	77.0	544	1,777	4,912	5,806	8.8
Poorly Insulated .....	1.7	75.7	73.0	514	1,404	4,950	5,859	10.5
Don't Know .....	2	79.4	77.0	546	1,900	4,347	5,315	9.3
								6.6
								14.7

See footnotes at end of table.

## NORTHEAST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 17. Natural Gas Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
	House-holds (million)	(1000 cubic feet)			Expenditures (dollars)	30-Year Average <sup>1</sup>	
				1990	Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
RSE Column Factors:	2.5	NF	NF	NF	1.4	0.3	NF
New England Division .....	1.3	73.5	71.0	562	1,546	5,220	6.030
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	NC	1.3	73.5	71.0	562	1,546	5,220
Under 5,500 HDD .....	NC		NC	NC	NC	1,546	6,030
2,000 CDD or More and Under 4,000 HDD .....	NC		NC	NC	NC	1,546	8.8
<b>Type of Housing Unit</b>							
Single-Family .....	NC	.5	89.1	86.1	681	2,260	5,163
Mobile Home .....	NC	.8	63.4	61.3	485	1,087	5,256
Multifamily (2 or more units) .....	NC		NC	NC	NC	6,022	6,022
<b>Heated Floorspace (square feet)</b>							
1,000 to 1,000 .....		.5	52.0	50.2	397	758	5,114
1,000 to 1,999 .....		.6	75.7	73.2	584	1,370	5,275
2,000 or More .....		.3	102.9	99.3	777	3,160	5,273
<b>Ownership of Unit</b>							
Owned .....		.7	84.3	81.4	637	2,133	5,263
Rented .....		.7	62.5	60.4	486	950	5,176
<b>Year of Construction</b>							
1949 or Before .....		.7	76.8	74.1	581	1,326	5,312
1950 to 1979 .....		.5	71.6	69.4	545	1,764	5,081
1980 or After <sup>2</sup> .....		.2	65.9	63.6	538	1,732	5,293
<b>1990 Family Income</b>							
Less than \$10,000 .....		.2	64.8	62.6	466	1,013	5,127
\$10,000 to \$19,999 .....		.3	76.1	73.5	604	1,228	5,273
\$20,000 to \$34,999 .....		.3	56.2	54.3	446	1,076	5,152
\$35,000 or More .....		.5	86.0	83.0	647	2,247	5,267
<b>Below Poverty Line</b>							
100 Percent .....		.2	68.1	65.9	504	996	5,083
125 Percent .....		.2	68.5	66.3	514	1,012	5,062
<b>Age of Householder</b>							
Under 35 Years .....		.4	69.2	66.8	511	1,169	5,234
35 to 59 Years .....		.6	71.7	69.2	554	1,470	5,158
60 Years and Over .....		.4	81.0	78.2	630	2,089	5,296
<b>Household Size</b>							
1 Person .....		.2	54.6	52.7	430	1,015	5,174
2 to 4 Persons .....		1.0	79.5	76.7	604	1,700	5,230
5 or More Persons .....		.1	64.1	62.2	499	1,390	5,227

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 17. Natural Gas Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

RSE Column Factors:	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(1000 cubic feet)	(million Btu)			Consumption (cubic feet/HDD <sup>1</sup> )	Expenditures (cents/HDD <sup>1</sup> 1000 square feet)	
2.5	NF	NF	NF	1.4	0.3	0.3	NF	NF
Middle Atlantic Division .....	7.4	82.9	80.2	569	1,879	4,848	5,745	8.8
Climate Zone <sup>1</sup>								6.1
Under 2,000 CDD and	3.7	94.9	91.7	587	2,191	5,462	6,352	4.9
Over 5,500 HDD .....	3.7	71.0	68.8	531	1,568	4,236	5,141	8.0
Under 5,500 HDD .....	2,000 CDD or More and							4.4
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	5.0
Type of Housing Unit	4.8	94.1	91.0	610	2,307	4,956	5,838	8.0
Single-Family .....	Q	Q	Q	Q	Q	Q	Q	5.3
Mobile Home .....	2.5	61.3	59.4	460	1,067	4,636	5,560	9.3
Multifamily (2 or more units) .....								6.4
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.6	51.2	49.5	372	667	4,701	5,615	15.8
1,000 to 1,999 .....	3.0	76.9	74.3	528	1,407	4,727	5,640	11.2
2,000 or More .....	2.8	107.1	103.6	697	3,050	5,056	5,927	6.7
Ownership of Unit								
Owned .....	5.0	94.9	91.8	630	2,257	4,905	5,791	8.3
Rented .....	2.4	58.0	56.1	411	1,092	4,730	5,649	10.9
Year of Construction								
1949 or Before .....	4.0	88.8	85.9	608	1,838	4,828	5,746	9.7
1950 to 1979 .....	3.3	76.3	73.9	504	1,928	4,847	5,723	7.9
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	8.0
1990 Family Income								
Less than \$10,000 .....	1.1	67.2	64.8	472	1,175	4,848	5,764	11.4
\$10,000 to \$19,999 .....	1.4	75.2	72.8	500	1,545	4,897	5,790	9.6
\$20,000 to \$34,999 .....	1.4	77.9	75.5	533	1,798	4,813	5,767	8.7
\$35,000 or More .....	3.5	93.1	90.1	621	2,269	4,843	5,712	8.2
Below Poverty Line								
100 Percent .....	9	68.9	66.5	484	1,291	4,808	5,747	10.7
125 Percent .....	12	73.5	71.0	510	1,354	4,827	5,751	10.9
Age of Householder								
Under 35 Years .....	1.9	70.5	68.3	487	1,316	4,808	5,728	10.8
35 to 59 Years .....	3.4	85.1	82.2	565	2,158	4,896	5,783	7.8
60 Years and Over .....	2.1	90.3	87.4	612	1,925	4,807	5,701	9.4
Household Size								
1 Person .....	1.5	64.4	62.3	445	1,113	4,841	5,743	11.6
2 to 4 Persons .....	5.0	87.2	84.4	585	2,015	4,869	5,773	8.6
5 or More Persons .....	9	91.0	87.9	613	2,433	4,746	5,594	7.6
								5.3
								5.9

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 18. Fuel Oil Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990**

Characteristics	Households (million)	Consumption (million Btu)	Expenditures (dollars)	Heated Floorspace (square feet)	Annual Heating Degree-Days		Consumption (gallons/HDD*1000 square feet)	Fuel Oil Expenditures (cents/HDD*1000 square feet)	RSE Row Factor
					1990	30-Year Average <sup>1</sup>			
					NF	NF			
<b>Total Region</b>	7.4	84.8	616	669	1,880	5,108	5,945	0.064	7.0
<b>Climate Zone<sup>1</sup></b>									3.4
Under 2,000 HDD and Over 5,500 HDD	4.7	92.2	688	728	1,958	5,592	6,397	.061	6.6
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	2.7	71.5	522	566	1,741	4,247	5,139	.071	7.6
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	4.6	102.6	742	825	2,327	5,272	6,103	.061	6.7
Mobile Home	Q	52.6	385	438	871	6,137	6,954	.072	8.2
Multifamily (2 or more units)	2.6	55.1	405	407	1,154	4,732	5,579	.074	7.5
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.9	48.4	355	363	676	4,834	5,688	.109	11.1
1,000 to 1,999	2.5	77.0	559	617	1,460	5,202	6,019	.074	8.1
2,000 or More	3.1	113.2	820	898	2,953	5,201	6,041	.053	5.9
<b>Ownership of Unit</b>									
Owned	5.3	96.0	695	767	2,207	5,198	6,035	.061	6.7
Rented	2.1	56.6	416	426	1,062	4,884	5,720	.080	8.2
<b>Year of Construction</b>									
1949 or Before	3.7	85.2	620	668	1,712	5,123	5,959	.071	7.6
1950 to 1979	3.5	85.7	621	683	2,027	5,027	5,869	.061	6.7
1980 or After <sup>2</sup>	.3	66.2	480	521	2,273	5,937	6,717	.036	3.9
<b>1990 Family Income</b>									
Less than \$10,000	1.2	66.8	486	510	1,258	5,008	5,823	.077	8.1
\$10,000 to \$19,999	1.1	74.6	544	576	1,387	4,979	5,859	.079	8.3
\$20,000 to \$34,999	1.8	77.2	561	601	1,799	5,323	6,125	.059	6.3
\$35,000 or More	3.3	99.1	718	799	2,329	5,073	5,921	.061	6.8
<b>Below Poverty Line</b>									
100 Percent	.8	62.5	456	478	1,293	4,815	5,631	.073	7.7
125 Percent	1.2	62.4	456	477	1,311	4,950	5,771	.070	7.4
<b>Age of Householder</b>									
35 to 59 Years	1.9	71.5	522	559	1,563	4,955	5,788	.067	7.2
60 Years and Over	3.0	90.0	653	719	2,138	5,109	5,962	.060	6.6
	2.5	88.6	643	695	1,819	5,224	6,044	.068	7.3
<b>Household Size</b>									
1 Person	1.9	67.2	490	514	1,326	5,091	5,945	.073	7.6
2 to 4 Persons	4.7	89.0	646	704	1,993	5,191	6,008	.062	6.8
5 or More Persons	.8	101.0	732	883	2,524	4,675	5,580	.062	7.1
<b>Main Heating Equipment Using Fuel Oil</b>									
Central Warm-Air Furnace	2.0	72.8	528	583	1,798	5,552	6,327	.053	5.8
Steam or Hot-Water System	5.3	89.4	649	702	1,916	4,943	5,801	.069	7.4
Other	Q	Q	Q	Q	Q	Q	Q	Q	MIF

## NORTHEAST

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 18. Fuel Oil Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Fuel Oil Space-Heating Intensity		RSE Row Factors				
		Household Consumption (million Btu)	Gallons			Consumption (gallons/HDD+1000 square feet)	Expenditures (cents/HDD+1000 square feet)					
		2.1	NF			1.2	0.4					
<b>Northeast Region</b>												
<b>Age of Main Heating Equipment</b>												
Less than 5 Years .....	1.5	91.7	664	728	1,921	5,484	6,326	0.063				
5 to 9 Years .....	.8	97.1	702	784	2,354	5,479	6,257	.054				
10 to 19 Years .....	1.3	91.1	662	712	2,232	5,192	5,922	.057				
20 Years or More .....	2.2	90.4	655	728	1,841	5,043	5,913	.071				
Don't Know .....	1.6	59.1	434	440	1,383	4,599	5,496	.068				
<b>Secondary Heating Fuel (more than one may apply)</b>												
No .....	4.4	71.2	519	553	1,573	4,939	5,788	.067				
Yes .....	3.0	104.5	757	839	2,329	5,356	6,175	.061				
Wood .....	1.9	111.6	807	894	2,706	5,368	6,195	.056				
Electricity .....	1.2	105.3	764	853	2,124	5,360	6,173	.067				
Kerosene .....	.3	97.9	707	787	2,003	5,662	6,422	.062				
Other .....	.3	95.9	697	731	1,934	5,544	6,415	.065				
<b>Average Fuel Oil Expenditures for Main Space Heat (dollars per gallon)</b>												
Less than .95 .....	1.7	45.3	331	267	1,379	4,679	5,543	.051				
.95 to Less than 1.10 .....	3.2	90.8	662	712	1,924	5,286	6,106	.065				
1.10 or More .....	2.5	103.8	749	890	2,166	5,169	6,008	.067				
<b>Winter Temperature Inside Housing Unit Prefer</b>												
Usual Temperature .....	5.9	85.6	622	672	1,914	5,113	5,943	.064				
Warmer Temperature .....	1.1	87.5	634	716	1,882	5,134	5,990	.066				
Cooler Temperature .....	.3	58.1	428	452	1,232	4,927	5,813	.070				
<b>Adequacy of Insulation</b>												
Well Insulated .....	3.1	81.9	595	644	2,060	4,998	5,856	.058				
Adequately Insulated .....	2.9	89.0	646	706	1,888	5,155	5,995	.066				
Poorly Insulated .....	1.2	90.0	655	716	1,635	5,310	6,092	.075				
Don't Know .....	.2	40.9	301	295	684	4,936	5,729	.089				

See footnotes at end of table.

## NORTHEAST

**Table 18. Fuel Oil Consumption and Expenditures for Main Space Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days			Fuel Oil Space-Heating Intensity		RSE Row Factors	
				1990	30-Year Average <sup>1</sup>	(gallons)	Consumption (gallons/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)		
	RSE Column Factors:	2.1	NF	NF	NF	1.2	0.4	0.3	NF	
<b>New England Division</b>	2.2	94.7	687	746	1,909	5,949	6,779	0.060	6.6	2.9
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	Q	2.2	94.7	687	745	1,911	5,954	6,784	Q	6.6
Under 5,500 HDD	Q	2.2	94.7	687	745	1,911	5,954	6,784	Q	2.9
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	1.6	106.1	768	833	2,257	5,958	6,792	.057	6.2	3.3
Mobile Home .....	Q	69.2	507	550	1,114	5,760	6,584	.079	8.6	6.6
Multifamily (2 or more units) .....	Q	6	69.2	507	550	1,114	5,760	6,584	Q	8.6
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	5	58.6	427	466	679	5,775	6,626	.109	11.9	6.9
1,000 to 1,999 .....	8	88.6	643	703	1,489	5,906	6,722	.073	8.0	4.6
2,000 or More .....	1.0	118.1	856	923	2,875	6,074	6,903	.049	5.3	4.0
<b>Ownership of Unit</b>										
Owned .....	1.6	104.4	756	821	2,233	6,046	6,873	.056	6.1	3.1
Rented .....	6	68.3	500	544	1,035	5,690	6,524	.085	9.2	8.1
<b>Year of Construction</b>										
1949 or Before .....	1.2	96.2	699	758	1,692	5,865	6,683	.071	7.7	4.1
1950 to 1979 .....	.9	95.1	689	745	2,146	5,924	6,775	.054	5.9	5.6
1980 or After <sup>2</sup> .....	.1	79.1	574	2,370	6,793	7,592	.036	4.0	18.6	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.4	81.0	589	641	1,283	6,031	6,860	.076	8.3	8.3
\$10,000 to \$19,999 .....	.4	81.4	592	632	1,530	5,798	6,687	.067	7.1	8.3
\$20,000 to \$34,999 .....	.5	87.5	636	684	1,834	6,188	6,975	.056	6.0	7.3
\$35,000 or More .....	.9	109.6	794	869	2,362	5,834	6,666	.056	6.3	4.6
<b>Below Poverty Line</b>										
100 Percent .....	.2	82.6	602	662	1,157	5,861	6,708	.089	9.8	10.2
125 Percent .....	.4	72.5	530	580	1,122	6,048	6,891	.076	8.5	8.6
<b>Age of Householder</b>										
Under 35 Years .....	.5	79.7	580	629	1,611	5,832	6,665	.062	6.7	5.0
35 to 59 Years .....	.9	98.4	714	781	2,013	5,944	6,780	.060	6.5	5.0
60 Years and Over .....	.8	99.4	721	776	1,970	6,026	6,846	.061	6.5	5.6
<b>Household Size</b>										
1 Person .....	.6	85.3	620	670	1,521	5,919	6,772	.069	7.4	6.3
2 to 4 Persons .....	1.4	99.2	720	783	2,043	6,004	6,818	.059	6.4	4.3
5 or More Persons .....	.2	90.2	655	703	2,122	5,648	6,517	.055	5.9	6.1

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 18. Fuel Oil Consumption and Expenditures for Main Space Heating,  
per Northeast Region Household, 1990 (Continued)**

Household Characteristics	Consumption		Heated Floorspace (square feet)	Annual Degree-Days		Fuel Oil Space-Heating Intensity		RSE Row Factors	
	House- holds (million)	House- olds (million)		Expend- itures (dollars)	1990	30-Year Average <sup>1</sup>	Consumption (gallons/ HDD+1000 square feet)		
	House- holds (million)	House- holds (million)		Expend- itures (dollars)	1990	30-Year Average <sup>1</sup>	Consumption (gallons/ HDD+1000 square feet)		
RSE Column Factors:	2.1	NF	NF	NF	1.2	0.4	0.3	NF	
<b>Middle Atlantic Division .....</b>	<b>5.2</b>	<b>80.4</b>	584	636	1,868	4,741	5,581	0.066	
<b>Climate Zone<sup>1</sup></b>								7.2	
Under 2,000 CDD and	2.5	90.0	651	712	2,000	5,267	6,050	0.062	
Over 5,500 HDD .....	2.7	71.4	521	565	1,743	4,246	5,138	0.070	
Under 5,500 HDD .....	2.0	.....	.....	.....	.....	.....	.....	6.8	
2,000 CDD or More and	NC	.....	.....	.....	.....	.....	.....	7.5	
Under 4,000 HDD .....	NC	.....	.....	.....	.....	.....	.....	6.5	
Type of Housing Unit	3.1	100.8	729	821	2,363	4,922	5,752	0.063	
Single-Family .....	Q	Q	Q	Q	Q	Q	Q	7.1	
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	5.1	
Multifamily (2 or more units) .....	2.0	50.7	374	363	1,167	4,412	5,266	0.073	
Heated Floorspace (square feet)								7.0	
Fewer than 1,000 .....	1.4	44.6	329	326	675	4,486	5,342	0.108	
1,000 to 1,999 .....	1.7	71.8	521	577	1,447	4,883	5,702	0.074	
2,000 or More .....	2.1	110.9	803	887	2,990	4,792	5,638	0.056	
Ownership of Unit	3.6	92.2	668	742	2,196	4,817	5,658	0.063	
Owned .....	1.5	51.9	382	379	1,073	4,559	5,395	0.078	
Rented .....	2.1	.....	.....	.....	.....	.....	.....	4.9	
Year of Construction	2.4	79.8	581	622	1,726	4,752	5,596	0.071	
1949 or Before .....	2.6	82.5	598	662	1,986	4,721	5,559	0.064	
1950 to 1979 .....	Q	Q	Q	Q	Q	Q	Q	7.7	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	7.3	
1990 Family Income	.8	59.7	435	445	1,245	4,498	5,306	0.078	
Less than \$10,000 .....	.8	71.4	523	551	1,322	4,605	5,482	0.086	
\$10,000 to \$19,999 .....	1.3	72.7	529	564	1,784	4,945	5,753	0.060	
\$20,000 to \$34,999 .....	1.7	94.9	687	770	2,315	4,762	5,616	0.062	
Below Poverty Line	.6	55.1	403	410	1,344	4,428	5,233	0.068	
100 Percent .....	.9	58.0	423	432	1,393	4,469	5,279	0.068	
125 Percent .....	.....	.....	.....	.....	.....	.....	.....	6.9	
Age of Householder	1.4	68.7	502	535	1,547	4,851	5,484	0.070	
Under 35 Years .....	2.0	86.1	624	691	2,195	4,724	5,584	0.060	
35 to 59 Years .....	1.7	83.5	606	656	1,746	4,838	5,658	0.072	
60 Years and Over .....	1.7	.....	.....	.....	.....	.....	.....	7.8	
Household Size	1 Person .....	1.3	58.8	429	441	1,235	4,704	5,559	0.074
2 to 4 Persons .....	3.2	84.5	614	669	1,971	4,829	5,647	0.064	
5 or More Persons .....	6	104.5	757	875	2,653	4,363	5,279	0.065	

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 19. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Northeast Region Households, 1990**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>		per Household		Annual Cooling Degree-Days	Electric Air-Conditioning Intensity		
			Consumption							
	Total Consumption (trillion BTU)	Total Expenditures (billions of dollars)	Households (million)	Household (million BTU)	Expenditures (billions of dollars)	Cooled Floor-space (square feet)				
RSE Column Factors:	0.9	NF	NF	1.8	NF	NF	1.0	0.4		
								NF		
<b>Total Region</b>	10.1	31.2	1.03	3.0	6.3	1,832	203	2,369		
<b>Climate Zone<sup>2</sup></b>										
Under 2,000 CDD and Over 3,500 HDD	5.6	14.9	.44	1.6	5.4	1,592	162	2,490		
Under 5,500 HDD	4.6	16.3	.59	1.4	7.2	2,124	253	2,222		
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC		
<b>Type of Housing Unit</b>	6.4	23.8	.78	2.4	6.7	1,977	220	2,701		
Single-Family	Q	Q	.24	Q	Q	Q	852	771		
Mobile Home	Q	Q	.5	Q	Q	Q	Q	Q		
Multifamily (2 or more units)	3.5	6.8	.24	3.8	1,127	132	928	961		
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	2.5	4.9	.17	.5	4.0	1,174	139	720		
1,000 to 1,999	3.6	10.3	.32	1.1	5.4	1,579	159	1,825		
2,000 or More	4.0	16.0	.55	1.4	7.7	2,244	259	3,329		
<b>Ownership of Unit</b>	7.5	25.6	.85	2.5	6.7	1,955	216	2,632		
Owned							851	775		
Rented							961	880		
<b>Year of Construction</b>	3.7	8.3	.28	.4	6.3	1,832	186	2,163		
1949 or Before	5.5	18.6	.63	1.9	6.6	1,945	229	2,461		
1950 to 1979	.9	4.3	.12	.8	5.3	1,559	149	2,241		
1980 or After <sup>3</sup>							894	831		
<b>1990 Family Income</b>	.8	1.4	.04	Q	Q	Q	Q	Q		
Less than \$10,000	1.5	2.9	.09	.2	4.0	1,173	119	1,673		
\$10,000 to \$19,999	2.2	5.6	.17	.6	4.9	1,434	135	1,889		
\$20,000 to \$34,999	5.6	21.3	.73	2.0	7.1	2,068	238	2,644		
\$35,000 or More							881	792		
<b>Below Poverty Line</b>										
100 Percent	.6	.8	.03	Q	Q	Q	Q	Q		
125 Percent	.9	1.6	.05	Q	Q	Q	Q	Q		
<b>Age of Householder</b>	2.7	7.9	.27	.7	6.8	2,005	224	2,172		
Under 35 Years	4.4	16.5	.55	1.6	6.6	1,937	213	2,447		
35 to 59 Years	6.7	21	.7	4.9	4.9	1,444	162	2,389		
60 Years and Over							785	718		

## NORTHEAST

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

### Northeast Region

See footnotes at end of table.

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 19. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>		per Household		Electric Air-Conditioning Intensity									
	Households (mil- lion)	Total Con- sumption (tril- ion Btu)	Consumption		Annual Cooling Degree-Days	Con- sumption (kWh/ CDD*1000 square feet)										
			House- holds (mil- lion)	Total Ex- penditures (bil- ion dol- lars)	Ex- penditures (kWh)	Cooled Floor-space (square feet)										
RSE Column Factors:	0.9	NF	NF	1.8	NF	1.0	0.4	0.4	NF	NF	NF	NF	NF	NF	NF	NF
<b>Northeast Region</b>																
<b>Household Size</b>																
1 Person .....	2.4	5.1	0.16	0.6	3.6	1,054	111	1,417	838	777	0.89	9.4	12.5			
2 to 4 Persons .....	6.7	21.8	.72	2.1	6.6	1,942	213	2,521	881	799	.87	9.6	11.5	6.0		
5 or More Persons .....	1.0	4.4	.15	.3	9.0	2,627	316	3,210	856	783	.96	11.5	20.5			
<b>Cooling Degree-Days (CDD)*1990</b>																
2,000 or More .....	NC	NC	NC	NC	6.8	1,988	235	1,954	1,153	1,000	.89	NC	NC			
1,000 to 1,999 .....	2.5	8.9	.33	.7	6.2	1,824	200	2,449	817	751	.91	10.0	9.1			
500 to 999 .....	6.7	20.6	.66	2.1	Q	Q	Q	Q	Q	Q	1.07	9.7	23.1			
Fewer than 500 .....	9	1.6	.04	Q	Q	Q	Q	Q	Q	Q						
<b>Average Humidity for June, July and August 1990 (percent)</b>																
Less than 65 .....	.5	1.6	.05	Q	5.7	1,683	179	2,205	871	806	.99	10.2	7.2			
65 to Less than 70 .....	7.6	21.9	.71	.22	7.8	2,288	285	2,560	889	770	1.01	.84	8.9	7.7		
70 or Higher .....	2.0	7.7	.27	.7								.86	12.5	22.3		
<b>Average Electricity Expenditures (cents per kWh)</b>																
Less than 6 .....	Q	Q	Q	Q	5.3	1,557	127	1,939	843	810	.95	7.8	13.1			
6 to Less than 9 .....	Q	5.5	.13	.6	6.5	1,908	227	2,524	878	776	.86	10.2	7.4			
9 or More .....	8.3	25.1	.89	2.3												
<b>Number of Rooms Usually Air Conditioned</b>																
1 to 3 .....	5.8	9.1	.31	.3	3.5	1,029	122	784	900	817	1.46	17.3	16.3			
4 to 6 .....	2.9	11.6	.36	1.5	5.3	1,559	161	1,983	872	806	.90	9.3	7.6			
7 or More .....	1.4	10.5	.36	1.2	6.2	2,395	278	3,286	860	769	.85	9.8	11.4			
<b>Frequency of Use of Air Conditioning<sup>4</sup></b>																
Only a Few Times .....	6.2	9.6	.32	1.2	3.9	1,132	123	2,449	807	734	.57	6.2	7.9			
Quite a Bit .....	2.2	9.4	.31	.9	6.5	1,892	207	2,107	918	829	.98	10.7	8.4			
All Summer .....	1.6	11.7	.39	1.0	9.0	2,634	297	2,506	904	833	1.16	13.1	10.7			
Other .....	Q	Q	Q	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NF		
<b>Age of Air Conditioning Equipment<sup>4</sup></b>																
Less than 5 Years .....	4.0	11.9	.38	1.1	6.0	1,770	192	2,576	780	723	.88	9.5	9.7			
5 to 9 Years .....	2.3	6.8	.23	.6	6.0	1,760	182	2,349	898	824	.83	8.6	9.9			
10 or More Years .....	3.1	10.4	.35	1.0	7.0	2,039	235	2,339	947	862	.92	10.6	12.6			
Don't Know .....	6	1.6	.05	.2	4.7	1,364	164	1,537	869	717	1.02	12.3	18.4			

See footnotes at end of table.

**Table 19. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		per Household		Electricity Used for Central Air Conditioning <sup>1</sup>	
			Consumption		Annual Cooling Degree-Days	
	Total Consumption	Total Expenditures	Cooled Floor Space (square feet)	Expenditures (dollars)	Consumption (kWhr)	Electric Air-Conditioning Intensity
Household holds (million)	(million Bu)	(million dollars)	(million Bu)	(million dollars)	(kWhr)	
RSE Column Factors:	0.9	NF	NF	1.8	NF	NF
New England Division .....	2.0	4.3	0.13	0.4	4.8	1,418
<b>Climate Zone<sup>2</sup></b>						
Under 2,000 CDD and Over 5,500 HDD .....	2.0	NC	4.3	.13	.4	4.8
Under 5,500 HDD .....	NC	NC	NC	NC	NC	1,418
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	144
Under 4,000 HDD .....	NC	NC	NC	NC	NC	2,590
						777
						637
						NC
						.70
						NC
						7.1
						NC
						\$.1
<b>Type of Housing Unit</b>						
Single-Family .....	1.1	Q	.29	.09	.3	5.4
Mobile Home .....	Q	Q	.04	Q	NC	1,591
Multifamily (2 or more units)..	Q	Q	1.3	Q	Q	164
						2,959
						779
						605
						NC
						.69
						NC
						Q
						12.8
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000 .....	.6		.8	.02	Q	Q
1,000 to 1,999 .....	.7		1.6	.05	.2	4.4
2,000 or More .....	.7		1.9	.06	.2	1,292
						131
						1,958
						791
						652
						591
						Q
						.83
						8.5
						14.9
						15.8
<b>Ownership of Unit</b>						
Owned .....	1.3	3.0	.09	Q	.3	4.7
Rented .....	.7	1.3	.04	Q	Q	1,378
						141
						2,690
						766
						622
						Q
						.67
						6.9
						10.9
						5.8
<b>Year of Construction</b>						
1949 or Before .....	.8		1.2	.03	Q	Q
1950 to 1979 .....	1.0		2.3	.07	.2	5.0
1980 or After <sup>3</sup> .....	.2		.8	.02	.2	1,468
						142
						2,585
						782
						652
						.73
						7.0
						14.6
<b>1990 Family Income</b>						
Less than \$10,000 .....	.3		.3	.01	Q	Q
\$10,000 to \$19,999 .....	.3		.4	.01	Q	Q
\$20,000 to \$34,999 .....	.5		1.0	.03	Q	Q
\$35,000 or More .....	1.0		2.5	.07	.3	5.1
						1,504
						152
						2,857
						743
						602
						.71
						7.2
						10.6
<b>Below Poverty Line</b>						
100 Percent .....	.2		.2	.01	NC	NC
125 Percent .....	.2		.4	.01	NC	NC
						NC
						NC
						NC
						NC
						NC
						NC
						12.7
						21.0
<b>Age of Householder</b>						
Under 35 Years .....	.6		1.4	.04	.1	4.6
35 to 59 Years .....	.7		1.7	.05	.1	5.8
60 Years and Over .....	.7		1.1	.03	Q	1,687
						172
						3,510
						756
						Q
						583
						Q
						.64
						17.1
						14.2
						18.0
<b>Household Size</b>						
1 Person .....	.5		1.0	.03	Q	Q
2 to 4 Persons .....	1.4		3.1	.09	.2	5.2
5 or More Persons .....	.1		.3	.01	Q	1,529
						Q
						155
						2,757
						792
						Q
						646
						Q
						.70
						7.1
						17.7
						23.6
						35.1

See footnotes at end of table.

## NORTHEAST

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 19. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>		Per Household		Electric Air-Conditioning Intensity	
	Households (million)	Total Expenditures (billions of dollars)	Consumption		Cooled Floor-space (square feet)	Annual Cooling Degree-Days	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)
			Households (million)	Expenditures (kWh)				
RSE Column Factors:	0.9	NF	NF	1.8	NF	NF	1.0	0.4
Middle Atlantic Division .....	8.1	26.9	0.91	2.6	6.5	1,891	212	2,337
Climate Zone <sup>2</sup>							883	815
Under 2,000 CDD and Over 5,500 HDD .....	3.5	10.6	.32	1.3	5.6	1,644	2,460	719
Under 5,500 HDD .....	4.6	16.3	.59	1.4	7.2	2,124	2,222	1,038
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit	5.3	20.8	.69	2.2	6.9	2,026	227	2,669
Single-Family .....	Q	Q	.21	Q	Q	Q	Q	Q
Mobile Home .....	Q	Q	Q	4.0	1,170	143	748	1,010
Multifamily (2 or more units) .....	2.6	5.5						
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.9	4.1	.14	.4	4.0	1,184	141	734
1,000 to 1,999 .....	2.9	8.7	.28	.9	5.6	1,636	164	1,799
2,000 or More .....	3.3	14.1	.49	1.3	7.9	2,327	271	3,294
Ownership of Unit	6.1	22.5	.76	2.2	7.0	2,043	228	2,623
Owned .....	2.0	4.4	.15	.5	4.1	1,191	137	1,015
Rented .....								
Year of Construction	2.9	7.1	.25	.3	6.6	1,924	196	2,279
1949 or Before .....	4.5	16.4	.56	1.7	6.8	1,988	237	2,416
1950 to 1979 .....	7	3.4	.10	.6	5.4	1,582	150	2,153
1980 or After <sup>3</sup> .....								
1990 Family Income	6	1.1	.03	Q	Q	Q	Q	Q
Less than \$10,000 .....	1.2	2.4	.08	Q	Q	Q	Q	Q
\$10,000 to \$19,999 .....	1.7	4.6	.14	.6	5.0	1,468	137	1,880
\$20,000 to \$34,999 .....	4.6	18.7	.65	1.8	7.4	2,155	251	2,611
\$35,000 or More .....								
Below Poverty Line	.4	.6	.02	Q	Q	Q	Q	Q
100 Percent .....	6	1.2	.04	Q	Q	Q	Q	Q
125 Percent .....								
Age of Householder	2.1	6.5	.22	.6	7.4	2,166	246	2,276
Under 35 Years .....	3.7	14.8	.50	1.4	6.7	1,963	217	2,335
35 to 59 Years .....	2.3	5.5	.18	.6	5.1	1,498	170	2,394
60 Years and Over .....								

See footnotes at end of table.

**Table 19. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>							
					per Household				Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	
	Households (million)	Total Consumption (trillion Btu)	Total Expenditures (billion dollars)	Households (million)	Consumption		Expenditures (dollars)	Cooled Floor-space (square feet)	1990	30-Year Average <sup>2</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)
RSE Column Factors:	0.9	NF	NF	1.8	NF	NF	NF	1.0	0.4	0.4	NF	NF
<b>Household Size</b>												
1 Person .....	1.9	4.1	0.14	0.5	3.5	1,014	108	1,317	858	808	0.90	9.6
2 to 4 Persons .....	5.3	18.7	.63	1.9	6.8	1,996	221	2,490	893	819	.90	9.8
5 or More Persons .....	.9	4.1	.14	.3	9.7	2,838	343	3,217	863	803	1.02	12.4
												RSE Row Factors

1 An estimated 2.0 million households have a central air conditioner and one or more room air conditioners. These households are included only under central air conditioners and not included under room air conditioners.

2 The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

3 Does not include all new construction for 1990.

4 If a household has both a central and room air conditioner then the usage and age of the equipment is presented only for the central unit.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 20. Electricity Consumption and Expenditures for Room Air Conditioning, per Northeast Region Household, 1990**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors				
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)					
		NF	NF			NF	NF	NF	NF					
<b>RSE Column Factors:</b>														
<b>Northeast Region</b>														
<b>Total Region</b>	7.1	1.7	497	58	903	849	742	0.65	7.6	5.8				
<b>Climate Zone<sup>1</sup></b>														
Under 2,000 CDD and														
Over 5,500 HDD	3.9	1.5	444	45	976	674	575	.67	6.8	6.3				
Under 5,500 HDD	3.2	1.9	564	74	814	1,065	948	.65	8.6	9.0				
2,000 CDD or More and														
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
<b>Type of Housing Unit</b>														
Single-Family	4.0	1.8	519	58	1,088	838	723	.57	6.4	5.4				
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF				
Multifamily (2 or more units)	3.0	1.6	477	59	677	885	779	.80	9.9	11.7				
<b>Heated Floorspace (square feet)</b>														
Fewer than 1,000	2.1	1.5	429	49	431	854	758	1.17	13.3	8.3				
1,000 to 1,999	2.4	1.6	472	54	743	866	749	.73	8.5	5.1				
2,000 or More	2.6	2.0	576	69	1,432	830	721	.49	5.8	8.4				
<b>Ownership of Unit</b>														
Owned	5.0	1.7	511	61	1,091	854	748	.55	6.5	6.5				
Rented	2.1	1.6	465	52	462	839	728	1.20	13.4	7.9				
<b>Year of Construction</b>														
1949 or Before	3.4	1.8	524	65	898	876	761	.67	8.2	8.2				
1950 to 1979	3.6	1.6	480	53	897	831	729	.64	7.1	6.6				
1980 or After <sup>2</sup>	2	1.1	314	28	1,175	683	621	.39	3.5	26.4				
<b>1990 Family Income</b>														
Less than \$10,000	.8	1.5	444	47	478	846	751	1.10	11.7	12.5				
\$10,000 to \$19,999	1.2	1.6	460	52	717	810	727	.79	9.0	9.6				
\$20,000 to \$34,999	1.6	1.6	457	53	861	851	725	.62	7.2	8.3				
\$35,000 or More	3.5	1.8	541	65	1,081	863	752	.58	6.9	7.7				
<b>Below Poverty Line</b>														
100 Percent	.6	1.2	360	44	471	856	760	.89	10.8	15.2				
125 Percent	.8	1.6	469	52	507	840	739	1.10	12.2	11.4				
<b>Age of Householder</b>														
Under 35 Years	2.0	1.6	458	54	646	865	757	.82	9.7	6.3				
35 to 59 Years	2.8	2.1	610	74	928	863	749	.76	9.2	6.9				
60 Years and Over	2.3	1.4	396	42	1,105	817	719	.44	4.7	8.0				
<b>Household Size</b>														
1 Person	1.8	1.6	460	52	694	875	789	.76	8.6	10.6				
2 to 4 Persons	4.5	1.6	481	57	971	824	709	.60	7.1	6.0				
5 or More Persons	.7	2.4	692	79	1,001	941	825	.73	8.4	11.5				
<b>Cooling Degree-Days (CDD)-1990</b>														
2,000 or More	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
1,000 to 1,999	1.7	2.3	680	93	864	1,198	1,041	.66	8.9	11.4				
500 to 999	4.6	1.6	459	50	917	787	680	.64	6.9	4.4				
Fewer than 500	.8	1.1	311	29	911	432	431	.79	7.4	15.3				

See footnotes at end of table.

**Table 20. Electricity Consumption and Expenditures for Room Air Conditioning, per Northeast Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air- Conditioning Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)	
	RSE Column Factors:	1.2	NF	NF	NF	1.0	0.4	0.4	NF	NF
<b>Northeast Region</b>										
<b>Average Humidity for June, July and August 1990 (percent)</b>										
Less than 65 .....	0.4	1.7	500	52	646	949	781	0.81	8.5	16.1
65 to Less than 70 .....	5.4	1.7	490	57	884	853	761	.65	7.6	8.5
70 or Higher .....	1.3	1.8	529	63	1,066	802	650	.62	7.3	9.9
<b>Average Electricity Expenditures (cents per kWh)</b>										
Less than 6 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
6 to Less than 9 .....	1.1	2.0	591	47	1,176	742	701	.68	5.4	9.3
9 or More .....	5.9	1.6	483	61	859	874	751	.64	8.1	6.7
<b>Number of Rooms Usually Air Conditioned</b>										
1 Room .....	2.5	1.2	339	40	359	822	710	1.15	13.7	6.1
2 Rooms .....	1.8	1.4	420	48	673	847	749	.74	8.4	8.3
3 or More .....	2.9	2.3	682	80	1,514	874	764	.52	6.0	7.3
<b>Frequency of Use of Air Conditioning</b>										
Only a Few Times .....	5.1	1.0	296	35	877	833	731	.40	4.8	5.3
Quite a Bit .....	1.4	2.8	823	95	1,036	879	758	.90	10.4	8.0
All Summer .....	.7	4.6	1,360	157	842	905	779	1.78	20.6	11.7
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	N
<b>Age of Air Conditioning Equipment</b>										
Less than 5 Years .....	2.9	1.7	507	58	893	842	728	.67	7.7	7.7
5 to 9 Years .....	1.7	1.8	529	66	896	878	762	.67	8.4	11.4
10 or More Years .....	2.0	1.6	473	54	996	855	754	.55	6.4	8.8
Don't Know .....	.4	1.5	425	47	569	756	698	.99	11.0	12.4
<b>Size of Most-Used Room Air Conditioner</b>										
Small .....	2.8	1.5	427	48	646	831	713	.80	8.9	7.0
Medium .....	3.0	1.6	483	58	960	862	755	.58	7.0	7.3
Large .....	1.2	2.4	716	85	1,408	887	795	.57	6.8	11.6
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	N
<b>Number of Room Air Conditioners</b>										
1 .....	3.9	1.3	373	42	628	804	705	.74	8.3	6.2
2 .....	1.9	1.9	560	67	986	907	794	.63	7.5	9.1
3 or More .....	1.3	2.7	778	92	1,605	899	774	.54	6.4	9.9

See footnotes at end of table.

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 20. Electricity Consumption and Expenditures for Room Air Conditioning, per Northeast Region Household, 1990 (Continued)**

Characteristics	Consumption			Cooled Floorspace (square feet)	Annual Cooling Degree-Days	Electric Air-Conditioning Intensity		RSE Row Factors			
	Households (million)	Households (million) (kWh)				Consumption (kWh/CDD/1000 square feet)	Expenditures (cents/CDD/1000 square feet)				
		NF	(kWh)								
RSE Column Factors:	1.2	NF	NF	1.0	0.4	0.4	NF	NF			
New England Division .....	1.7	1.5	438	44	955	658	497	7.0			
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	1.7	1.5	438	44	955	658	.70	7.0			
Under 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	7.5 NC			
2,000 CDD or More and											
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC			
<b>Type of Housing Unit</b>											
Single-Family .....	.9	1.7	488	48	1,349	650	.56	5.5			
Mobile Home .....	Q	Q	371	39	Q	Q	Q	Q			
Multifamily (2 or more units) .....	.8	1.3			521	672	1.06	11.1			
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	6	1.2	352	37	433	692	.17	12.4			
1,000 to 1,989 .....	5	1.5	450	45	748	656	.92	9.1			
2,000 or More .....	5	1.8	516	51	1,708	624	.48	4.8			
<b>Ownership of Unit</b>											
Owned .....	1.0	1.5	432	43	1,218	638	.56	5.6			
Rented .....	1.5	446	46	532	690	530	1.22	12.5			
<b>Year of Construction</b>											
1949 or Before .....	.8	1.4	417	41	779	656	.81	8.0			
1950 to 1979 .....	.8	1.6	463	48	1,097	670	.63	6.5			
1980 or After <sup>2</sup> .....	Q	Q			Q	Q	Q	Q			
<b>1990 Family Income</b>											
Less than \$10,000 .....	.2	1.3	388	41	599	697	.93	9.9			
\$10,000 to \$19,999 .....	.3	1.4	414	41	813	633	.80	7.9			
\$20,000 to \$34,999 .....	.4	1.5	444	46	728	654	.93	9.7			
\$35,000 or More .....	.7	1.6	460	45	1,262	656	.50	5.5			
<b>Below Poverty Line</b>											
100 Percent .....	2	1.3	368	40	518	740	.96	10.5			
125 Percent .....	2	1.5	443	45	534	665	1.25	12.8			
<b>Age of Householder</b>											
Under 35 Years .....	5	1.6	469	48	640	662	517	11.4			
35 to 59 Years .....	6	1.5	459	44	744	676	504	8.8			
60 Years and Over .....	.6	1.4	410	41	1,424	636	473	4.5			
<b>Household Size</b>											
1 Person .....	4	1.2	364	37	684	669	.80	8.1			
2 to 4 Persons .....	1.1	1.6	463	47	1,068	654	.66	6.7			
5 or More Persons .....	Q	Q			Q	Q	Q	Q			

See footnotes at end of table.

**Table 20. Electricity Consumption and Expenditures for Room Air Conditioning, per Northeast Region Household, 1990 (Continued)**

Characteristics	Consumption			Cooled Floorspace (square feet)	Annual Cooling Degree-Days	Electric Air-Conditioning Intensity				
	Households (million)	(BTU)	(kWh)			Expenditures (\$dollars)	Consumption (kWh/CDD*1000 square feet)			
							1990	Average <sup>1</sup>		
RSE Column Factors:	1.2	NF	NF				NF	NF		
<b>Middle Atlantic Division</b>	5.4	1.8	516	62	888	908	816	0.64		
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 3,500 HDD	2.3	1.5	448	45	991	687	632	.66		
Under 5,500 HDD	3.2	1.9	564	74	814	1,065	948	.65		
2,000 CDD or More and Under 4,000 HDD								8.6		
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	9.0		
<b>Type of Housing Unit</b>										
Single-Family Home	3.1	1.8	527	61	1,015	891	794	.58		
Mobile Home	Q	Q	Q	Q	Q	Q	Q	6.8		
Multifamily (2 or more units)	2.2	1.8	514	66	731	957	862	.73		
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	1.5	1.6	459	53	431	916	839	1.16		
1,000 to 1,999	1.9	1.6	478	57	741	926	825	.70		
2,000 or More	2.1	2.0	592	73	1,358	884	792	.49		
<b>Ownership of Unit</b>										
Owned	4.0	1.8	532	65	1,059	909	818	.55		
Rented	1.5	1.6	473	55	432	903	812	1.21		
<b>Year of Construction</b>										
1949 or Before	2.6	1.9	556	72	933	941	839	.53		
1949 to 1979	2.7	1.7	486	54	835	881	797	.66		
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	0.4		
<b>1990 Family Income</b>										
Less than \$10,999	.5	1.6	470	50	420	917	848	1.22		
\$10,000 to \$19,999	1.0	1.6	472	55	691	857	802	.80		
\$20,000 to \$34,999	1.2	1.6	461	55	910	923	809	.55		
\$35,000 or More	2.8	1.9	562	70	1,034	917	818	.59		
<b>Below Poverty Line</b>										
100 Percent	.4	1.2	357	45	454	898	823	Q		
125 Percent	.6	1.6	479	55	496	911	833	1.06		
<b>Age of Householder</b>										
Under 35 Years	1.6	1.5	454	56	648	929	832	.76		
35 to 59 Years	2.2	2.2	655	81	977	913	813	.73		
60 Years and Over	1.7	1.3	391	43	983	881	806	.45		
<b>Household Size</b>										
1 Person	1.4	1.7	491	57	698	941	876	.75		
2 to 4 Persons	3.4	1.7	487	60	940	880	782	.59		
5 or More Persons	.7	2.5	721	83	1,018	983	872	.72		

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No Applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors.

• Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

## WATER-HEATING CONSUMPTION/EXPENDITURES

**NORTHEAST**

**Table 21. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Northeast Region Households, 1990**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Total Consumed				Total Consumed					
	Households (million)	(trillion Btu)	billion kWh)	Total Expenditures (billion dollars)	Households (million)	(trillion Btu)	billion cubic feet)	Total Expenditures (billion dollars)		
<b>Total Region</b>										
4.6	45.9	13.5	1.24	9.6	239.8	232	1.73	9.6		
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	3.9	38.7	11.3	1.04	5.6	143.6	139	.98	14.4	
Under 5,500 HDD	.7	7.2	2.1	.21	4.0	96.2	93	.74	19.0	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family	3.2	34.2	10.0	.93	5.7	145.5	141	1.00	11.7	
Mobile Home	.5	4.5	1.3	.11	NC	NC	NC	NC	35.5	
Multifamily (2 or more units)	.9	7.2	2.1	.20	3.9	94.3	91	.72	13.2	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	1.2	9.9	2.9	.28	2.4	54.0	52	.41	14.2	
1,000 to 1,999	1.8	18.5	5.4	.49	3.7	93.0	90	.67	10.6	
2,000 or More	1.6	17.5	5.1	.48	3.4	92.8	90	.65	15.3	
<b>Ownership Unit</b>										
Owned	3.4	35.5	10.4	.94	6.2	161.9	157	1.14	11.8	
Rented	1.2	10.5	3.1	.30	3.3	77.9	75	.59	11.8	
<b>Year of Construction</b>										
1949 or Before	1.3	14.1	4.1	.39	5.3	130.7	126	.97	12.5	
1950 to 1979	2.1	20.3	6.0	.55	4.1	102.7	99	.71	14.8	
1980 or After <sup>2</sup>	1.1	11.5	3.4	.30	.3	6.4	6	.05	27.5	
<b>1990 Family Income</b>										
Less than \$10,000	.5	2.8	.8	.08	1.5	31.6	30	.23	18.2	
\$10,000 to \$19,999	.8	6.4	1.9	.16	1.9	40.8	40	.30	19.3	
\$20,000 to \$34,999	1.5	15.2	4.5	.41	1.9	46.1	45	.34	13.7	
\$35,000 or More	1.9	21.5	6.3	.59	4.3	121.3	117	.86	11.7	
<b>Below Poverty Line</b>										
100 Percent	.3	2.7	.8	.08	1.3	33.0	32	.24	20.0	
125 Percent	.5	5.0	1.5	.14	1.6	39.9	39	.29	19.7	
<b>Age of Householder</b>										
Under 35 Years	1.3	14.4	4.2	.41	2.7	74.6	72	.54	12.5	
35 to 59 Years	2.1	23.2	6.8	.62	4.1	111.1	107	.79	13.3	
60 Years and Over	1.2	8.3	2.4	.22	2.8	54.1	52	.40	10.7	
<b>Household Size</b>										
1 Person	1.2	6.9	2.0	.18	2.1	28.9	28	.21	15.7	
2 to 4 Persons	2.9	31.0	9.1	.85	6.4	172.6	167	1.23	9.5	
5 or More Persons	.5	8.0	2.3	.21	1.1	38.3	37	.28	19.7	

See footnotes at end of table.

**Table 21. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors
	Households (million)	Total Consumed (tri-billion Btu)	(billion kWh)	Households (million)	Total Consumed (tri-billion Btu)	(billion cubic feet)	
RSE Column Factors:	1.1	NF	NF	NF	0.8	NF	NF
New England Division .....	1.4	13.2	3.9	0.38	1.7	46.8	45
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	Q	1.4	13.1	3.8	.37	1.7	46.8
Under 5,500 HDD .....	NC	Q	Q	Q	NC	NC	45
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	1.0	9.5	2.8	.27	NC	.6	16.5
Mobile Home .....	.1	1.2	.3	.04	NC	1.1	9.3
Multifamily (2 or more units) .....	.4	2.5	.7	.07	30.3	29	23
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	.4	2.8	.8	.08	.6	.7	16.8
1,000 to 1,999 .....	.6	5.8	1.7	.16	17.4	17	14
2,000 or More .....	.5	4.6	1.4	.13	11.5	11	.09
<b>Ownership of Unit</b>							
Owned .....	1.0	9.7	2.9	.9	24.6	24	.19
Rented .....	.4	3.4	1.0	.10	22.2	21	.17
<b>Year of Construction</b>							
1949 or Before .....	.4	3.4	1.0	.10	1.0	.7	.20
1950 to 1979 .....	.7	6.3	1.8	.18	18.3	18	.14
1980 or After <sup>2</sup> .....	.3	3.4	1.0	.09	Q	Q	Q
<b>1990 Family Income</b>							
Less than \$10,000 .....	.2	1.0	.3	.03	.3	.87	.07
\$10,000 to \$19,999 .....	.2	1.5	.4	.04	.4	.91	.08
\$20,000 to \$34,999 .....	.4	3.5	1.0	.10	.4	9.6	.08
\$35,000 or More .....	.7	7.2	2.1	.20	.6	19.3	.15
<b>Below Poverty Line</b>							
100 Percent .....	Q	.2	.9	.04	.4	10.2	10
125 Percent .....					11.1	11	.09
<b>Age of Householder</b>							
Under 35 Years .....	.3	3.3	1.0	.10	.6	18.7	.14
35 to 59 Years .....	.6	6.6	1.9	.19	.7	19.1	.15
60 Years and Over .....	.5	3.3	1.0	.09	.5	9.0	.07
<b>Household Size</b>							
1 Person .....	.4	2.4	.7	.07	.4	6.1	.05
2 to 4 Persons .....	1.0	9.4	2.8	.27	1.2	34.7	.27
5 or More Persons .....	Q	Q	Q	Q	.2	6.0	.05

See footnotes at end of table.

## NORTHEAST

**Table 21. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)		
		(tril-lion Btu)	(billion kWh)			(tril-lion Btu)	(billion cubic feet)			
RSE Column Factors:	1.1	NF	NF	NF	0.8	NF	NF	NF		
<b>Middle Atlantic Division</b>	3.2	32.7	9.6	0.87	7.8	193.0	187	1.36	12.1	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	2.5	26.6	7.5	.66	3.8	96.9	94	.62	20.9	
Under 5,500 HDD .....	.7	7.1	2.1	.20	4.0	96.2	93	.74	19.1	
2,000 CDD or More and										
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family .....	2.3	24.7	7.3	.66	5.1	129.0	125	.87	13.5	
Mobile Home .....	Q	Q	Q	.07	NC	NC	NC	NC	41.4	
Multifamily (2 or more units) ..	.6	4.7	1.4	.13	2.7	64.0	62	.49	19.1	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.8	7.2	2.1	.20	1.7	36.2	35	.27	18.7	
1,000 to 1,999 .....	1.2	12.7	3.7	.33	3.1	75.5	73	.54	13.0	
2,000 or More .....	1.1	12.9	3.8	.34	3.0	81.3	79	.56	17.4	
<b>Ownership of Unit</b>										
Owned .....	2.4	25.7	7.5	.66	5.3	137.3	133	.95	14.3	
Rented .....	.8	7.0	2.1	.20	2.5	55.7	54	.41	16.5	
<b>Year of Construction</b>										
1949 or Before .....	.9	10.6	3.1	.30	4.3	105.8	102	.77	16.0	
1950 to 1979 .....	1.4	14.0	4.1	.36	3.4	84.4	82	.57	18.2	
1980 or After <sup>2</sup> .....	.8	8.1	2.4	.21	Q	Q	Q	Q	22.3	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.3	1.8	.5	.05	1.1	22.9	22	.17	23.9	
\$10,000 to \$19,999 .....	.5	4.9	1.4	.12	1.5	31.7	31	.23	24.1	
\$20,000 to \$34,999 .....	1.1	11.7	3.4	.31	1.5	36.5	35	.26	16.8	
\$35,000 or More .....	1.3	14.4	4.2	.39	3.6	102.0	99	.71	13.9	
<b>Below Poverty Line</b>										
100 Percent .....	.3	2.0	.6	.06	.9	22.8	22	.17	24.5	
125 Percent .....	.4	3.8	1.1	.10	1.2	28.8	28	.21	26.2	
<b>Age of Householder</b>										
Under 35 Years .....	1.0	11.1	3.3	.31	2.1	55.9	54	.41	16.0	
35 to 59 Years .....	1.5	16.6	4.9	.43	3.4	91.9	89	.63	16.1	
60 Years and Over .....	.7	5.1	1.5	.13	2.3	45.2	44	.32	12.9	
<b>Household Size</b>										
1 Person .....	.8	4.5	1.3	.11	1.7	22.8	22	.17	20.4	
2 to 4 Persons .....	2.0	21.6	6.3	.58	5.2	137.9	133	.97	11.9	
5 or More Persons .....	.4	6.7	2.0	.18	.9	32.3	31	.23	23.1	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 22. Total Fuel Oil and LPG Consumption and Expenditures for Water Heating in Northeast Region Households, 1990**

Characteristics	Fuel Oil				Liquefied Petroleum Gas				RSE Row Factors	
	Total Consumed		Total Expenditures		Total Consumed		Total Expenditures			
	House-holds (million)	(trillion Btu)	(billion gallons)	(billion dollars)	House-holds (million)	(trillion Btu)	(billion gallons)	(billion dollars)		
RSE Column Factors:	0.5	NF	NF	NF	1.7	NF	NF	NF		
<b>Total Region</b>	5.0	107.0	0.78	0.81	0.4	6.0	0.07	0.09	14.8	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	2.7	55.7	.40	.44	NC	.4	6.0	.07	.09	
Under 5,500 HDD	2.3	51.2	.38	.37	NC	NC	NC	NC	19.1 20.0	
2,000 CDD or More and Under 4,000 HDD					NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family	2.9	66.0	.48	.54	Q	Q	Q	Q	17.9	
Mobile Home	NC	40.9	NC	NC	NC	NC	NC	NC	16.6	
Multifamily (2 or more units)	2.1	30	NC	.27	Q	Q	Q	Q		
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	1.5	25.5	.19	.17	Q	Q	Q	Q	37.4	
1,000 to 1,999	1.5	34.8	.25	.27	Q	Q	Q	Q	26.7	
2,000 or More	2.0	46.7	.34	.36	Q	Q	Q	Q	23.6	
<b>Ownership of Unit</b>										
Owned	3.3	74.0	.54	.58	Q	Q	Q	Q	17.6	
Rented	1.6	32.9	.24	.22	Q	Q	Q	Q	15.4	
<b>Year of Construction</b>										
1949 or Before	2.1	40.4	.30	.30	Q	Q	Q	Q	19.1	
1950 to 1979	2.7	63.0	.46	.48	Q	Q	Q	Q	16.5	
1980 or After <sup>2</sup>	.2	3.6	.03	.03	Q	Q	Q	Q	55.0	
<b>1990 Family Income</b>										
Less than \$10,000	.9	14.4	.11	.10	Q	Q	Q	Q	31.6	
\$10,000 to \$19,999	.7	12.1	.09	.08	Q	Q	Q	Q	29.0	
\$20,000 to \$34,999	1.1	27.4	.20	.21	Q	Q	Q	Q	29.1	
\$35,000 or More	2.2	53.2	.39	.42	Q	Q	Q	Q	22.3	
<b>Below Poverty Line</b>										
100 Percent	.6	11.6	.09	.08	Q	Q	Q	Q	44.5	
125 Percent	.9	16.0	.12	.11	Q	Q	Q	Q	26.5	
<b>Age of Householder</b>										
Under 35 Years	1.2	28.6	.21	.21	Q	Q	Q	Q	22.1	
35 to 59 Years	2.2	54.2	.39	.42	Q	Q	Q	Q	15.8	
60 Years and Over	1.6	24.1	.18	.18	Q	Q	Q	Q	23.8	
<b>Household Size</b>										
1 Person	1.3	16.3	.12	.12	Q	Q	Q	Q	31.7	
2 to 4 Persons	3.2	73.9	.54	.56	Q	Q	Q	Q	16.8	
5 or More Persons	.5	16.9	.12	.13	Q	Q	Q	Q	32.7	

See footnotes at end of table.

## NORTHEAST

**WATER-HEATING CONSUMPTION/EXPENDITURES**

**NORTHEAST**

**Table 22. Total Fuel Oil and LPG Consumption and Expenditures for Water Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Fuel Oil			Liquefied Petroleum Gas			RSE Row Factors	
	Total Consumed		Households (million)	Total Expenditures (billion dollars)	Total Consumed			
	(trill.- ion Btu)	(billion gallons)			(trill. ion Btu)	(billion gallons)		
RSE Column Factors:	0.5	NF	NF	NF	1.7	NF	NF	
New England Division	1.3	26.3	0.19	0.21	0.2	3.0	0.03	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD	1.3	26.1	.19	.21	.2	3.0	.03	
Under 5,500 HDD	Q	Q	Q	Q	NC	NC	NC	
2,000 CDD or More and								
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family	9	19.1	.14	.15	.1	2.2	.02	
Mobile Home	NC	NC	.05	NC	Q	Q	Q	
Multifamily (2 or more units)	4	7.2	.05	.06	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	3	5.4	.04	.04	Q	Q	Q	
1,000 to 1,999	4	8.7	.06	.07	Q	Q	Q	
2,000 or More	6	12.2	.09	.09	Q	Q	Q	
<b>Ownership of Unit</b>								
Owned	.9	18.6	.13	.15	.2	.27	.03	
Rented	4	7.7	.06	.06	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before	7	12.5	.09	.10	.1	.21	.02	
1950 to 1973	5	11.5	.08	.09	Q	Q	Q	
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000	3	3.8	.03	.03	Q	Q	Q	
\$10,000 to \$19,999	2	3.1	.02	.02	Q	Q	Q	
\$20,000 to \$34,999	3	6.0	.04	.05	Q	Q	Q	
\$35,000 or More	6	13.4	.10	.11	Q	Q	Q	
<b>Below Poverty Line</b>								
100 Percent	2	3.2	.02	.03	Q	Q	Q	
125 Percent	3	4.4	.03	.03	Q	Q	Q	
<b>Age of Householder</b>								
Under 35 Years	3	6.4	.05	.05	Q	Q	Q	
35 to 59 Years	5	13.3	.10	.10	Q	Q	Q	
60 Years and Over	4	6.6	.05	.05	Q	Q	Q	
<b>Household Size</b>								
1 Person	4	4.6	.03	.04	Q	Q	Q	
2 to 4 Persons	8	19.1	.14	.15	Q	Q	Q	
5 or More Persons	Q	Q	Q	Q	Q	Q	Q	

See footnotes at end of table.

**Table 22. Total Fuel Oil and LPG Consumption and Expenditures for Water Heating in Northeast Region Households, 1990 (Continued)**

Characteristics	Fuel Oil			Liquefied Petroleum Gas			RSE Row Factors	
	Households (million)	Total Consumed		Households (million)	Total Consumed			
		(trillion Btu)	(billion gallons)		(trillion Btu)	(billion gallons)		
RSE Column Factors:	0.5	NF	NF	NF	1.7	NF	NF	
Middle Atlantic Division .....	3.7	80.7	0.59	0.60	0	0	0	
Climate Zone <sup>1</sup>							13.2	
Under 2,000 CDD and Over 5,500 HDD .....	1.4	29.6	.21	.23	Q	Q	Q	
Under 5,500 HDD .....	2.3	51.0	.37	.37	NC	NC	NC	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Type of Housing Unit								
Single-Family .....	2.0	46.9	.34	Q	Q	Q	25.3	
Mobile Home .....	NC	NC	.25	NC	Q	Q	20.3	
Multifamily (2 or more units) .....	1.7	33.7	NC	Q	Q	Q		
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.1	20.1	.15	.13	Q	Q	48.0	
1,000 to 1,999 .....	1.1	26.1	.19	.20	Q	Q	33.5	
2,000 or More .....	1.5	34.5	.25	.27	Q	Q	39.7	
Ownership of Unit								
Owned .....	2.4	55.4	.40	.44	Q	Q	24.0	
Rented .....	1.2	25.2	.19	.16	Q	Q	18.4	
Year of Construction								
1949 or Before .....	1.5	27.9	.20	.20	Q	Q	24.7	
1950 to 1979 .....	2.1	51.4	.37	.39	Q	Q	20.2	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	NF	
1990 Family Income								
Less than \$10,000 .....	.6	10.6	.08	.07	Q	Q	40.7	
\$10,000 to \$19,999 .....	.5	9.0	.07	.06	Q	Q	33.6	
\$20,000 to \$34,999 .....	.9	21.3	.16	.16	Q	Q	36.0	
\$35,000 or More .....	1.7	39.8	.29	.31	Q	Q	39.3	
Below Poverty Line								
100 Percent .....	.4	8.4	.06	.06	Q	Q	57.0	
125 Percent .....	.6	11.6	.09	.08	Q	Q	34.3	
Age of Householder								
Under 35 Years .....	.9	22.2	.16	.16	Q	Q	28.5	
35 to 59 Years .....	1.6	41.0	.30	.31	Q	Q	20.5	
60 Years and Over .....	1.2	17.5	.13	.13	Q	Q	32.6	
Household Size								
1 Person .....	.9	11.6	.09	.08	Q	Q	43.0	
2 to 4 Persons .....	2.4	54.8	.40	.41	Q	Q	21.7	
5 or More Persons .....	.4	14.3	.10	.11	Q	Q	37.8	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

**Table 23. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990**

Characteristics	Electricity						Natural Gas					
	Consumption (million Btu)		Ex- pen- di- tates (dol- lars)		House- holds (million)	Electricity Water- Heating Intensity (kWh per household member)	House- holds (million)	Consumption (1000 cubic feet)		Ex- pen- di- tates (dol- lars)	Natural Gas Water- Heating Intensity (1000 cubic feet per household member)	
	NF	NF	NF	NF				NF	NF		NF	NF
<b>Northeast Region</b>												
Total Region .....	4.3	10.3	3,032	278	1,158	9.5	25.1	24.3	181	9.1	3.6	
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	3.7	10.3	3,023	275	1,165	5.5	25.9	25.0	177	9.6	4.5	
Under 5,500 HDD .....	.6	10.5	3,080	298	1,124	4.0	24.0	23.3	186	8.5	8.0	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>												
Single-Family .....	2.9	11.1	3,267	299	1,168	5.7	25.5	24.6	176	8.3	4.5	
Mobile Home .....	.5	9.1	2,689	227	964	NC	NC	NC	NC	NC	13.4	
Multifamily (2 or more units) .....	.9	8.3	2,433	234	1,272	3.8	24.6	23.8	188	10.6	8.0	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	1.1	8.6	2,518	241	1,130	2.4	22.4	21.7	169	11.2	7.7	
1,000 to 1,999 .....	1.7	10.4	3,037	272	1,165	3.7	25.1	24.2	181	8.8	4.1	
2,000 or More .....	1.4	11.7	3,440	315	1,169	3.4	27.1	26.2	189	8.5	7.0	
<b>Ownership of Unit</b>												
Owned .....	3.1	10.9	3,184	287	1,144	6.2	26.1	25.2	183	9.0	4.1	
Rented .....	1.2	8.9	2,618	254	1,207	3.3	23.3	22.5	176	9.3	7.0	
<b>Year of Construction</b>												
1949 or Before .....	1.2	11.0	3,212	305	1,076	5.3	24.8	24.0	184	8.6	5.6	
1950 to 1979 .....	1.9	10.1	2,946	269	1,207	4.0	25.5	24.7	176	9.8	6.3	
1980 or After <sup>2</sup> .....	1.1	10.2	2,981	265	1,185	.3	24.9	24.0	195	9.1	13.4	
<b>1990 Family Income</b>												
Less than \$10,000 .....	.4	6.7	1,962	189	952	1.5	21.1	20.4	154	9.6	10.8	
\$10,000 to \$19,999 .....	.7	8.5	2,501	217	1,114	1.9	21.4	20.7	159	9.4	9.3	
\$20,000 to \$34,999 .....	1.4	10.7	3,125	287	1,143	1.9	24.1	23.4	176	8.6	6.8	
\$35,000 or More .....	1.7	11.7	3,434	317	1,220	4.2	28.6	27.7	202	9.1	4.9	
<b>Below Poverty Line</b>												
100 Percent .....	.3	8.6	2,522	242	765	1.3	26.0	25.1	193	8.9	12.5	
125 Percent .....	.5	9.8	2,879	270	896	1.6	25.1	24.2	185	8.9	11.1	
<b>Age of Householder</b>												
Under 35 Years .....	1.3	11.0	3,285	310	1,016	2.6	28.0	27.1	204	9.4	6.3	
35 to 59 Years .....	1.9	11.7	3,417	309	1,221	4.1	27.2	26.3	192	8.7	5.4	
60 Years and Over .....	1.1	7.2	2,122	187	1,302	2.8	19.3	18.7	141	9.6	6.1	
<b>Household Size</b>												
1 Person .....	1.1	6.0	1,771	156	1,771	2.0	14.0	13.6	104	13.6	6.2	
2 to 4 Persons .....	2.7	11.1	3,252	302	1,161	6.4	27.0	26.1	193	9.6	3.9	
5 or More Persons .....	16.2	4,753	430	883	1.1	34.7	33.5	222	6.1	7.7		

See footnotes at end of table.

## NORTHEAST

**Table 23. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990 (Continued)**

**WATER-HEATING CONSUMPTION/EXPENDITURES**

Characteristics	Electricity				Natural Gas				RSE Row Factor	
	Consumption		Expenditures (dollars) (kWh)	Electricity Water- Heating Intensity (kWh per household member)	Consumption		Expenditures (dollars) (1000 cubic feet)	Natural Gas Water- Heating Intensity (1000 cubic feet per household member)		
	House- holds (million)	(mil- lion Btu)			Q	Q				
RSE Column Factors:	2.5	NF	NF	NF	NF	NF	NF	NF		
Northeast Region										
<b>Average Electricity Expenditures (cents per kWh)</b>										
Less than 6 .....	Q	1.8	Q	10.5	Q	3.089	Q	251	Q	
6 to Less than 9 .....		2.3		10.0		2,926		1,082		
9 or More .....										
<b>Average Natural Gas Expenditures (dollars per 1000 cft)</b>										
Less than 4.50 .....										
4.50 to Less than 6 .....										
6 or More .....										
<b>Water Heater Used For One Housing Unit</b>										
For Two or More Units .....		4.2		Q	10.4	3,059	Q	281	Q	
<b>Age of Water Heater</b>										
Less than 5 Years .....		1.7		10.4		3,048		276		
5 to 9 Years .....		.9		11.4		3,342		303		
10 to 19 Years .....		1.0		2.828		2,828		1,303		
20 Years or More .....		.3		10.5		3,084		284		
Don't Know .....		.3		10.1		2,956		952		
<b>Size of Water Heater</b>										
30 gallons or less .....		.8		7.8		2,293		214		
31 to 49 gallons .....		1.7		10.7		3,141		286		
50 gallons or more .....		1.3		11.6		3,399		311		
Don't Know .....		.4		10.4		3,040		283		
<b>Location of Water Heater</b>										
Heated Area .....		2.8		10.3		3,013		281		
Unheated Area .....		1.3		10.7		3,131		280		
<b>Clothes Washer Present in Household</b>										
Yes .....		3.6		10.8		3,167		289		
No .....		.7		8.0		2,351		224		
<b>Dishwasher Present in Household</b>										
Yes .....		2.1		11.1		3,255		297		
No .....		2.1		9.6		2,809		259		
<b>Children Present in Household</b>										
No .....		2.6		8.4		2,455		222		
Yes .....		1.7		13.4		3,939		367		
<b>(more than one may apply)</b>										
Under 13 Years .....		1.4		13.1		3,842		356		
13 to 18 Years .....		.5		16.0		4,682		426		

See footnotes at end of table.

**NORTHEAST**

## WATER-HEATING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 23. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Electricity						Natural Gas						
	Consumption		Electricity Water-Heating Intensity (kWh per household member)		Households (million)		Consumption		Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		RSE Row Factors		
	Households (million)	(million Btu)	Expenditures (kWh)	Expenditures (dollars)	Households (million)	(million Btu)	(1000 cubic feet)	Expenditures (dollars)	NC	NC	NF	NF	
RSE Column Factors:	2.5	NF	NF	NF	1.7	NF	NF	NF	NC	NC	NF	NF	
<b>New England Division</b>	1.3	9.8	2,861	279	1,199	1.7	26.8	25.9	208	9.8	5.3		
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	1.3	9.8	2,859	279	1,197	1.7	26.8	25.9	208	9.8	5.3		
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	NC	NC	NC	NC	NF		
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
<b>Type of Housing Unit</b>													
Single Family	.9	10.5	3,077	298	1,251	.6	26.2	25.3	210	8.4	7.1		
Mobile Home	1	9.2	2,700	291	900	NC	NC	NC	NC	NC	8.0		
Multifamily (2 or more units)	.3	7.9	2,325	218	1,207	1.1	27.2	26.2	207	10.8	6.9		
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	.3	8.5	2,482	254	1,127	.7	24.6	23.8	189	10.6	7.7		
1,000 to 1,999	.6	9.8	2,876	269	1,219	.6	27.4	26.4	213	9.5	8.5		
2,000 or More	4	10.7	3,133	311	1,222	.4	29.9	28.9	236	9.2	12.8		
<b>Ownership of Unit</b>													
Owned	.9	10.1	2,971	292	1,177	.9	27.7	26.8	212	10.2	7.1		
Rented	4	8.8	2,592	246	1,265	.9	25.8	25.0	204	9.4	8.7		
<b>Year of Construction</b>													
1949 or Before	.4	8.9	2,615	250	1,129	1.0	25.9	25.0	208	9.1	8.4		
1950 to 1979	.6	9.9	2,912	291	1,192	.7	27.2	26.3	201	10.9	8.9		
1980 or After	3	10.3	3,030	286	1,284	Q	Q	Q	Q	Q	10.7		
<b>1990 Family Income</b>													
Less than \$10,000	.1	7.3	2,144	202	1,388	.3	25.0	24.2	188	9.6	17.9		
\$10,000 to \$19,999	2	7.7	2,242	222	1,009	.4	24.2	23.4	202	9.1	9.6		
\$20,000 to \$34,999	4	9.2	2,707	271	1,059	.4	24.2	23.4	193	10.0	11.6		
\$35,000 or More	.6	11.3	3,308	318	1,318	.6	31.0	29.9	233	10.2	6.6		
<b>Below Poverty Line</b>													
100 Percent	Q	Q	Q	Q	Q	Q	.3	30.1	29.1	232	8.9		
125 Percent	.1	9.5	2,771	268	1,045	.4	29.6	28.7	229	9.0	14.4		
<b>Age of Householder</b>													
Under 35 Years	.3	9.7	2,829	278	1,104	.6	32.1	31.0	238	11.3	7.2		
35 to 59 Years	.5	11.4	3,336	332	1,199	.7	28.2	27.2	225	8.8	6.2		
60 Years and Over	4	7.6	2,238	209	1,320	.5	18.5	17.9	148	9.8	11.1		
<b>Household Size</b>													
1 Person	4	6.6	1,939	183	1,939	.4	14.9	14.4	118	14.4	9.9		
2 to 4 Persons	.9	10.5	3,068	304	1,150	1.2	29.5	28.5	227	10.3	5.9		
5 or More Persons	Q	Q	Q	Q	Q	Q	.2	36.9	35.7	297	6.2	8.4	

See footnotes at end of table.

**Table 23. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Electricity						Natural Gas						RSE Row Factors	
	Consumption			Electricity			Consumption			Natural Gas				
	Households (million)	(million Btu)	(kWh)	Expenditures (dollars)	Water Heating Intensity (kWh per household member)	Households (million)	(million Btu)	(1000 cubic feet)	Expenditures (dollars)	Water Heating Intensity (1000 cubic feet per household member)	Natural Gas			
RSE Column Factors:	2.5	NF	NF	NF	NF	NF	1.7	NF	NF	NF	NF	NF		
<b>Middle Atlantic Division</b>	3.0	10.6	3,105	278	1,143	7.8	24.7	23.9	175	8.9	4.2			
<b>Climate Zone<sup>1</sup></b>														
Under 2,000 CDD and Over 5,500 HDD .....	2.4	10.6	3,112	273	1,149	3.8	25.5	24.6	163	9.4	6.3			
Under 5,500 HDD .....	.6	10.5	3,078	298	1,119	4.0	24.0	23.3	186	8.5	8.1			
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			
<b>Type of Housing Unit</b>														
Single-Family .....	2.1	11.4	3,345	300	1,139	5.1	25.4	24.5	171	8.3	5.1			
Mobile Home .....	Q	9.1	2,658	Q	989	NC	NC	NC	NC	NC	NC			
Multifamily (2 or more units) .....	.6	8.5	2,493	243	1,308	2.7	23.5	22.8	181	10.5	12.7			
<b>Heated Floorspace (square feet)</b>														
Fewer than 1,000 .....	.8	8.6	2,533	236	1,131	1.7	21.4	20.7	160	11.5	11.0			
1,000 to 1,999 .....	1.2	10.6	3,114	274	1,142	3.1	24.6	23.8	174	8.7	4.7			
2,000 or More .....	1.0	12.2	3,566	317	1,151	3.0	26.7	25.8	183	8.4	7.7			
<b>Ownership of Unit</b>														
Owned .....	2.2	11.2	3,272	285	1,133	5.3	25.8	25.0	178	8.8	4.3			
Rented .....	.8	9.0	2,631	257	1,182	2.5	22.4	21.7	166	9.3	9.5			
<b>Year of Construction</b>														
1949 or Before .....	.9	11.8	3,452	327	1,061	4.3	24.6	23.8	178	8.5	7.0			
1950 to 1979 .....	1.3	10.1	2,962	258	1,213	3.3	25.2	24.3	170	9.6	8.1			
1980 or After? .....	.8	10.1	2,960	256	1,147	Q	Q	Q	Q	Q	7.1			
<b>1990 Family Income</b>														
Less than \$10,000 .....	.3	6.4	1,882	184	821	1.1	19.9	19.2	144	9.5	13.8			
\$10,000 to \$19,999 .....	.5	8.8	2,593	216	1,151	1.5	20.7	20.1	148	9.4	12.1			
\$20,000 to \$34,999 .....	1.0	11.2	3,277	293	1,172	1.5	24.1	23.3	171	8.3	7.7			
\$35,000 or More .....	1.1	11.9	3,499	317	1,177	3.6	28.2	27.3	197	8.9	5.9			
<b>Below Poverty Line</b>														
100 Percent .....	.3	7.7	2,263	218	702	.9	24.4	23.6	178	8.8	15.9			
125 Percent .....	.4	9.9	2,915	270	856	1.2	23.7	22.9	171	8.9	14.5			
<b>Age of Householder</b>														
Under 35 Years .....	1.0	11.5	3,380	322	992	2.1	26.9	26.0	195	8.9	8.0			
35 to 59 Years .....	1.4	11.7	3,441	299	1,230	3.4	27.0	26.1	186	8.7	6.3			
60 Years and Over .....	.7	7.0	2,053	173	1,291	2.3	19.5	18.9	140	9.6	7.4			
<b>Household Size</b>														
1 Person .....	.8	5.8	1,694	144	1,694	1.6	13.8	13.4	100	13.4	7.5			
2 to 4 Persons .....	1.8	11.4	3,338	301	1,166	5.2	26.4	25.6	185	9.5	4.2			
5 or More Persons .....	.4	16.3	4,776	430	887	.9	34.3	33.2	244	6.1	9.1			

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

# WATER-HEATING CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 24. Fuel Oil and LPG Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990**

Characteristics	Fuel Oil				Liquefied Petroleum Gas			
	Consumption		Fuel Oil Water- Heating Intensity (gallons per household member)	House- holds (million)	Consumption		(gallons)	LPG Water- Heating Intensity (gallons per household member)
	House- holds (million Btu)	Ex- pendi- tures (dol- lars)			House- holds (million Btu)	Ex- pendi- tures (dol- lars)		
RSE Column Factors:	1.0	NF	NF	NF	3.4	NF	NF	NF
Total Region .....	4.9	21.7	158	164	61	0.3	18.4	201
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	2.6	20.9	152	164	.60	.3	18.4	201
Under 5,500 HDD .....	2.3	22.6	166	163	.62	NC	NC	260
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family .....	2.8	23.1	167	188	.58	.3	16.8	184
Mobile Home .....	NC	NC	NC	NC	Q	Q	Q	240
Multifamily (2 or more units) .....	2.1	19.7	146	130	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	1.5	17.5	129	119	69	Q	Q	Q
1,000 to 1,999 .....	1.5	23.6	171	182	61	Q	Q	Q
2,000 or More .....	2.0	23.4	170	183	56	.2	15.9	174
<b>Ownership of Unit</b>								
Owned .....	3.3	22.4	163	177	59	.3	18.4	201
Rented .....	1.6	20.3	150	137	65	Q	Q	Q
<b>Year of Construction</b>								
1949 or Before .....	2.1	19.2	141	141	57	.2	16.9	185
1950 to 1979 .....	2.7	23.6	172	181	65	Q	Q	260
1980 or After <sup>2</sup> .....	.2	22.1	160	170	47	Q	Q	Q
<b>1990 Family Income</b>								
Less than \$10,000 .....	.9	15.7	115	109	61	Q	Q	Q
\$10,000 to \$19,999 .....	.7	18.1	133	123	70	Q	Q	Q
\$20,000 to \$34,999 .....	1.1	24.5	179	185	63	Q	Q	Q
\$35,000 or More .....	2.2	23.9	174	188	58	.2	19.4	212
<b>Below Poverty Line</b>								
100 Percent .....	.6	19.3	142	134	62	Q	Q	Q
125 Percent .....	.9	18.3	134	126	59	Q	Q	274
<b>Age of Householder</b>								
Under 35 Years .....	1.2	24.0	176	176	61	Q	Q	Q
35 to 59 Years .....	2.1	25.5	185	195	60	Q	Q	Q
60 Years and Over .....	1.6	15.1	110	113	63	Q	Q	Q
<b>Household Size</b>								
1 Person .....	1.3	12.8	94	91	.94	Q	Q	Q
2 to 4 Persons .....	3.1	23.4	170	177	61	.2	18.5	203
5 or More Persons .....	.5	33.9	247	265	44	Q	Q	250
								Q
								73
								Q
								19.3
								6.4
								10.7

See footnotes at end of table.

**Table 24. Fuel Oil and LPG Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Fuel Oil					Liquefied Petroleum Gas					RSE Row Factors	
	Households (million)	Consumption		Fuel Oil Water- Heating Intensity (gallons per household member)	Households (million)	Consumption		LPG Water- Heating Intensity (gallons per household member)				
		(million Btu)	(gallons)			(million Btu)	(gallons)					
RSE Column Factors:	1.0	NF	NF	NF	NF	3.4	NF	NF	NF	NF		
<b>Northeast Region</b>												
<b>Average Fuel Oil Expenditures (dollars per gallon)</b>												
Less than 95 .....	1.6	18.0	133	100	61	--	--	--	--	--	11.2	
95 to Less than 1.10 .....	1.9	22.5	165	177	60	--	--	--	--	--	9.5	
1.10 or More .....	1.4	24.7	178	214	63	--	--	--	--	--	11.0	
<b>Average LPG Expenditures (dollars per gallon)</b>												
Less than 75 .....	--	--	--	--	--	Q	Q	Q	Q	Q	NF	
75 to Less than 1.00 .....	--	--	--	--	--	Q	Q	Q	Q	Q	NF	
1.00 or More .....	--	--	--	--	--	0.3	16.9	185	264	65	9.3	
<b>Water Heater Used</b>												
For One Housing Unit .....	3.0	23.1	167	188	58	.3	18.6	203	263	65	7.8	
For Two or More Units .....	1.9	19.5	145	126	67	Q	Q	Q	Q	Q	12.9	
<b>Age of Water Heater</b>												
Less than 5 Years .....	.5	22.2	161	178	61	.2	21.3	233	295	60	12.6	
5 to 9 Years .....	.3	26.5	192	223	50	Q	Q	Q	Q	Q	24.6	
10 to 19 Years .....	.4	23.2	168	191	54	Q	Q	Q	Q	Q	25.2	
20 Years or More .....	.6	23.0	167	197	73	Q	Q	Q	Q	Q	18.1	
Don't Know .....	.1	30.2	220	244	44	NC	NC	NC	NC	NC	40.6	
<b>Size of Water Heater</b>												
30 gallons or less .....	.3	20.0	145	164	55	Q	Q	Q	Q	Q	31.5	
31 to 49 gallons .....	.9	23.7	172	193	53	.1	18.4	201	270	47	10.9	
50 gallons or more .....	.4	29.5	213	253	77	NC	NC	NC	NC	NC	30.2	
Don't Know .....	.3	21.0	152	173	52	Q	Q	Q	Q	Q	25.0	
<b>Location of Water Heater</b>												
Heated Area .....	1.2	23.4	170	194	58	.2	18.1	198	267	61	13.0	
Unheated Area .....	.7	24.6	178	205	58	Q	Q	Q	Q	Q	16.1	
<b>Clothes Washer Present in Household</b>												
Yes .....	3.1	23.6	171	190	57	.3	18.5	202	261	67	7.2	
No .....	1.8	18.4	136	118	70	Q	Q	Q	Q	Q	13.5	
<b>Dishwasher Present in Household</b>												
Yes .....	2.0	24.2	176	193	61	Q	Q	Q	Q	Q	11.5	
No .....	2.9	20.0	147	144	61	.2	15.8	173	224	68	9.7	
<b>Children Present in Household</b>												
No .....	3.1	18.2	133	136	75	.2	13.6	149	233	94	7.8	
Yes .....	1.8	27.6	201	209	50	.1	24.0	263	292	55	8.7	
<b>(more than one may apply)</b>												
Under 13 Years .....	1.5	26.4	193	197	47	.1	24.0	263	292	55	10.6	
13 to 18 Years .....	.7	33.3	242	255	57	Q	Q	Q	Q	Q	10.8	

See footnotes at end of table.

**Table 24. Fuel Oil and LPG Consumption and Expenditures for Main Water Heating, per Northeast Region Household, 1990 (Continued)**

Characteristics	Fuel Oil				Liquefied Petroleum Gas				RSE Column Factors:	
	Consumption		Fuel Oil-Water-Heating Intensity (gallons per household member)	Households (million)	Consumption		Expenditures (dollars) (gallons)	LPG Water-Heating Intensity (gallons per household member)		
	Households (million)	(million Btu)			NF	NF	millions Btu)	gallons)		
New England Division .....	1.2	21.0	153	61	0.2	16.3	178	247	78	
Climate Zone <sup>1</sup>									8.7	
Under 2,000 CDD and Over 5,500 HDD .....	1.2	21.0	153	61	.2	16.3	178	247	78	
Under 5,500 HDD .....	Q	Q	Q	Q	NC	NC	NC	NC	8.6	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NF	
Type of Housing Unit										
Single-Family .....	.9	21.9	158	57	.1	15.7	172	235	74	
Mobile Home .....	NC	NC	NC	NC	Q	Q	Q	Q	10.7	
Multifamily (2 or more units) .....	.4	19.0	139	73	Q	Q	Q	Q	NF	
2,000 or More .....	.5	22.0	160	56	Q	Q	Q	Q	16.7	
Heated Floorspace (square feet)										
Fewer than 1,000 .....	.3	17.3	127	63	Q	Q	Q	Q	23.4	
1,000 to 1,999 .....	.4	22.6	164	66	Q	Q	Q	Q	12.2	
2,000 or More .....	.5	22.0	171	56	Q	Q	Q	Q	13.2	
Ownership of Unit										
Owned .....	.9	21.5	156	58	.2	15.9	174	240	75	
Rented .....	.4	20.0	147	58	Q	Q	Q	Q	10.3	
Year of Construction									21.3	
1949 or Before .....	.6	19.5	142	64	.1	17.6	192	265	84	
1950 to 1979 .....	.5	22.1	161	60	Q	Q	Q	Q	9.9	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	Q	NF	
1990 Family Income										
Less than \$10,000 .....	.3	14.2	104	110	.73	Q	Q	Q	27.1	
\$10,000 to \$19,999 .....	.2	17.0	123	136	.63	Q	Q	Q	27.0	
\$20,000 to \$34,999 .....	.3	23.1	168	180	.56	Q	Q	Q	22.4	
\$35,000 or More .....	.5	24.8	180	196	.60	Q	Q	Q	15.2	
Below Poverty Line										
100 Percent .....	.2	19.0	139	150	.69	Q	Q	Q	30.2	
125 Percent .....	.3	17.3	126	136	.61	Q	Q	Q	27.6	
Age of Householder										
Under 35 Years .....	.3	23.8	174	188	.60	Q	Q	Q	15.5	
35 to 59 Years .....	.5	24.7	179	193	.59	Q	Q	Q	11.5	
60 Years and Over .....	.4	14.9	108	120	.64	Q	Q	Q	14.1	
Household Size										
1 Person .....	.4	12.4	91	98	.91	Q	Q	Q	16.3	
2 to 4 Persons .....	.8	24.1	175	190	.61	Q	Q	Q	9.0	
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q	NF	

See footnotes at end of table.

## NORTHEAST

**Table 24. Fuel Oil and LPG Consumption and Expenditures for Main Water Heating<sup>1</sup>, per Northeast Region Household, 1990 (Continued)**

Characteristics	Fuel Oil				Liquefied Petroleum Gas				RSE Row Factors	
	Consumption		Fuel Oil Water-Heating Intensity (gallons per household member)	Households (million)	Consumption		LPG Water-Heating Intensity (gallons per household member)	(million)		
	House-holds (mil-lion Btu)	(gallons)			House-holds (million Btu)	(gallons)				
RSE Column Factors:	1.0	NF	NF	NF	3.4	NF	NF	NF	NF	
<b>Middle Atlantic Division</b> .....	3.7	22.0	160	163	61	Q	Q	Q	Q	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	1.4	20.9	151	163	59	Q	Q	Q	19.4	
Under 5,500 HDD .....	2.3	22.6	166	163	62	NC	NC	NC	11.8	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit (square feet)</b>										
Single-Family .....	2.0	23.7	171	195	58	Q	Q	Q	9.9	
Mobile Home .....	NC	19.9	NC	147	NC	66	Q	Q	NF	
Multifamily (2 or more units) .....	1.7	23.9	174	183	60	Q	Q	Q	12.7	
<b>Heated Floorspace</b>										
Fewer than 1,000 .....	1.1	17.6	130	114	71	Q	Q	Q	20.6	
1,000 to 1,999 .....	1.1	23.9	174	183	60	Q	Q	Q	19.7	
2,000 or More .....	1.4	23.9	174	187	56	Q	Q	Q	16.4	
<b>Ownership of Unit</b>										
Owned .....	2.4	22.8	165	180	59	Q	Q	Q	8.2	
Rented .....	1.2	20.4	151	130	64	Q	Q	Q	15.6	
<b>Year of Construction</b>										
1949 or Before .....	1.5	19.1	140	135	54	Q	Q	Q	11.9	
1950 to 1979 .....	2.1	24.0	175	182	66	Q	Q	Q	10.5	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	Q	NF	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.6	16.3	120	108	58	Q	Q	Q	28.6	
\$10,000 to \$19,999 .....	.5	18.5	136	118	72	Q	Q	Q	12.9	
\$20,000 to \$34,999 .....	.9	24.9	182	186	65	Q	Q	Q	19.2	
\$35,000 or More .....	1.7	23.6	172	186	57	Q	Q	Q	12.9	
<b>Below Poverty Line</b>										
100 Percent .....	.4	19.5	144	128	59	Q	Q	Q	37.0	
125 Percent .....	.6	18.7	137	122	58	Q	Q	Q	27.1	
<b>Age of Householder</b>										
Under 35 Years .....	.9	24.0	176	172	61	Q	Q	Q	13.3	
35 to 59 Years .....	1.6	25.7	187	196	60	Q	Q	Q	8.6	
60 Years and Over .....	1.2	15.1	110	111	62	Q	Q	Q	15.6	
<b>Household Size</b>										
1 Person .....	.9	13.0	95	88	95	Q	Q	Q	25.5	
2 to 4 Persons .....	2.4	23.1	169	173	61	Q	Q	Q	6.6	
5 or More Persons .....	.4	34.9	254	271	45	Q	Q	Q	11.3	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = Not applicable.

- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

**Table 25. Total Consumption and Expenditures for Appliances  
in Northeast Region Households, 1990**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas			RSE Row Factors
	Consumed		Expenditures (billion dollars)	Consumed		Expenditures (billion dollars)	Consumed		Expenditures (billion dollars)	
	Households (million)	(trillion Btu)	(billion kWh)	Households (million)	(trillion Btu)	(billion cubic feet)	Households (million)	(trillion Btu)	(billion gallons)	
RSE Column Factors:	0.5	NF	NF	0.9	NF	NF	1.8	NF	NF	
Northeast Region										
Total Region .....	19.2	264.4	77.5	8.40	9.8	78.0	75	668	1.1	5.6
Climate Zone <sup>1</sup>										0.10
Under 2,000 CDD and Over 5,500 HDD .....	12.3	183.8	53.9	5.43	4.6	36.9	36	.27	1.1	5.5
Under 5,500 HDD .....	6.9	80.7	23.6	2.97	5.3	41.1	40	.41	Q	Q
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit	11.9	205.2	60.2	6.38	5.1	47.7	46	.36	.8	4.0
Single-Family .....	5	70	2.0	1.7	Q	Q	Q	.2	Q	.01
Mobile Home .....	52.2	15.3	1.84	4.8	30.1	29	.32	Q	Q	.02
Multifamily (2 or more units) .....	6.8								Q	Q
Heated Floorspace (square feet)	5.1	36.0	10.6	1.19	2.9	16.0	15	.17	3	1.4
Fewer than 1,000 .....	7.1	95.6	28.0	2.97	3.8	31.9	31	.26	5	2.4
1,000 to 1,999 .....	7.0	132.8	38.9	4.25	3.2	30.1	29	.26	3	1.8
2,000 or More .....										.02
Ownership of Unit	13.0	214.2	62.8	6.74	5.8	53.5	52	.43	1.0	5.0
Owned .....	6.2	50.3	14.7	1.66	4.0	24.5	24	.25	Q	Q
Rented .....									Q	.05
Year of Construction	8.9	109.7	32.2	3.57	5.7	43.4	42	.41	5	2.8
1949 or Before .....	8.8	129.9	38.1	4.15	3.9	33.6	32	.26	4	1.8
1950 to 1979 .....	1.6	24.8	7.3	.68	Q	Q	Q	Q	2	1.0
1980 or After <sup>2</sup> .....									1.0	.01
1990 Family Income	2.9	21.2	6.2	.69	1.7	11.7	11	.13	Q	Q
Less than \$10,000 .....	3.4	31.7	9.3	1.00	2.0	12.9	12	.12	Q	Q
\$10,000 to \$19,999 .....	4.5	59.8	17.5	1.85	2.1	16.6	16	.14	.3	1.7
\$20,000 to \$34,999 .....	8.5	151.7	44.5	4.86	4.0	36.9	36	.30	.5	2.9
\$35,000 or More .....										.03
Below Poverty Line	2.2	18.9	5.5	.63	1.5	10.6	10	.11	Q	Q
100 Percent .....	3.0	27.6	8.1	.90	1.9	14.1	14	.15	Q	Q
125 Percent .....									Q	Q
Age of Householder	5.3	63.8	18.7	2.06	2.8	21.4	21	.19	3	1.9
Under 35 Years .....	8.3	141.8	41.6	4.45	4.1	35.4	34	.30	5	2.5
35 to 59 Years .....	5.6	58.8	17.2	1.89	3.0	21.2	21	.19	3	1.2
60 Years and Over .....										.01
Household Size	4.5	30.3	8.9	.96	2.2	10.6	10	.11	2	.8
1 Person .....	12.5	187.1	54.8	5.94	6.5	54.2	52	.46	Q	Q
2 to 4 Persons .....	2.2	47.0	13.8	1.50	1.2	13.3	13	.10	Q	.05
5 or More Persons .....									Q	.08

See footnotes at end of table.

## NORTHEAST

**Table 25. Total Consumption and Expenditures for Appliances  
in Northeast Region Households, 1990**

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 25. Total Consumption and Expenditures for Appliances  
in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				Liquefied Petroleum Gas			
	House-holds (million)	Consumed		Ex-pen-ditures (bil-lion kWh)	Consumed		Ex-pen-ditures (bil-lion cubic feet)	Consumed		Ex-pen-ditures (bil-lion gallons)		
		(tril-lion Btu)	(bil-lion kWh)		(tril-lion Btu)	(bil-lion kWh)		(tril-lion Btu)	(bil-lion kWh)			
RSE Column Factors:	0.5	NF	NF	NF	0.9	NF	NF	NF	1.8	NF	NF	NF
<b>New England Division</b>	4.5	58.5	17.2	1.75	1.4	10.0	10	0.09	0.5	2.8	0.03	0.05
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	4.5	58.3	17.1	1.74	1.4	10.0	10	.09	.5	2.8	.03	.05
Under 5,500 HDD	Q	Q	Q	Q	NC	NC	NC	NC	NC	NC	NC	NC
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family	2.5	41.1	12.1	1.22	.5	3.9	4	.03	.4	2.1	.02	.04
Mobile Home	2	1.9	.5	.06	NC	6.1	NC	.1	Q	.5	.01	Q
Multifamily (2 or more units)	1.9	15.6	4.6	.47	NC	6	.06	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	1.4	11.4	3.3	.35	.5	3.1	3	.03	.2	.9	.01	.02
1,000 to 1,999	1.6	22.8	6.7	.67	.6	4.4	4	.04	.2	.8	.01	.01
2,000 or More	1.5	24.3	7.1	.73	.4	2.5	2	.02	.2	1.1	.01	.02
<b>Ownership of Unit</b>												
Owned	2.9	43.6	12.8	1.30	.7	4.8	5	.04	Q	2.5	.03	Q
Rented	1.7	15.0	4.4	.45	.7	5.2	5	.05	Q	4	Q	Q
<b>Year of Construction</b>												
1949 or Before	2.1	23.3	6.8	.69	1.0	7.1	7	.07	.2	1.5	.02	.03
1950 to 1979	1.9	27.0	7.9	.82	.3	2.7	3	.02	Q	1.0	.01	.02
1980 or After <sup>2</sup>	.6	8.2	2.4	.24	Q	Q	Q	Q	Q	Q	Q	58.7
<b>1990 Family Income</b>												
Less than \$10,000	.8	7.6	2.2	.23	.3	2.4	2	.02	Q	Q	Q	24.0
\$10,000 to \$19,999	1.1	13.8	4.1	.42	.4	2.3	2	.02	Q	9	.01	.02
\$20,000 to \$34,999	1.9	30.8	9.0	.90	.5	3.5	3	.03	2	1.4	.02	.03
\$35,000 or More												
<b>Below Poverty Line</b>												
100 Percent	.6	5.9	1.7	.18	.2	2.1	2	.02	Q	Q	Q	19.0
125 Percent	.8	7.7	2.3	.23	.3	2.3	2	.02	Q	Q	Q	18.9
<b>Age of Householder</b>												
Under 35 Years	1.3	15.0	4.4	.45	.4	4.0	4	.04	Q	3	Q	17.3
35 to 59 Years	1.9	28.9	8.5	.87	.5	3.5	3	.03	.1	1.3	.01	.02
60 Years and Over	1.4	14.6	4.3	.43	.5	2.5	2	.02	.1	6	.01	.01
<b>Household Size</b>												
1 Person	1.2	8.8	2.6	.27	.3	1.4	1	.02	Q	Q	Q	28.7
2 to 4 Persons	3.0	43.4	12.7	.29	.9	6.8	7	.06	Q	2.3	.03	14.3
5 or More Persons	.4	6.3	1.9	.19	.2	1.7	2	.02	Q	Q	Q	27.5

See footnotes at end of table.

## NORTHEAST

## APPLIANCE CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 25. Total Consumption and Expenditures for Appliances in Northeast Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				Liquefied Petroleum Gas			
	Consumed		Expenditures		Consumed		Expenditures		Consumed		Expenditures	
	Households (million)	(trillion Btu)	Households (million)	(billion kWh)	Households (million)	(trillion Btu)	Households (million)	(billion cubic feet)	Households (million)	(trillion Btu)	Households (million)	(billion gallons)
RSE Column Factors:	0.5	NF	NF	0.9	NF	NF	NF	NF	1.8	NF	NF	NF
Middle Atlantic Division .....	14.7	205.9	60.3	6.65	8.5	68.0	66	0.59	0.6	2.8	0.03	0.05
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	7.8	125.5	36.8	3.69	3.2	26.9	26	.18	.6	.28	.03	.05
Under 5,500 HDD .....	6.9	80.4	23.6	2.96	5.3	41.1	40	.41	Q	Q	Q	14.8
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family .....	9.3	164.1	48.1	5.17	4.6	43.8	42	.32	.4	1.9	.02	.03
Mobile Home .....	Q	Q	1.2	3.9	Q	24.0	23	.27	Q	Q	Q	13.2
Multifamily (2 or more units) .....	5.0	36.7	10.8	1.37	2.8	27.6	27	.23	Q	Q	Q	84.3
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	3.7	24.7	7.2	.84	2.4	12.9	13	.14	Q	Q	Q	19.1
1,000 to 1,999 .....	5.4	72.8	21.3	2.30	3.2	27.5	27	.22	.3	.16	.02	.03
2,000 or More .....	5.6	108.5	31.8	3.52	2.8	27.6	27	.23	Q	Q	Q	12.9
Rented .....	4.5	35.3	10.3	1.21	3.3	19.3	19	.20	Q	Q	Q	19.5
<b>Ownership of Unit</b>												
Owned .....	10.2	170.6	50.0	5.44	5.2	48.7	47	.39	.5	.25	.03	.04
Rented .....	4.5	35.3	10.3	1.21	3.3	19.3	19	.20	Q	Q	Q	10.5
<b>Year of Construction</b>												
1949 or Before .....	6.8	86.4	25.3	2.88	4.7	36.3	35	.35	.3	.13	.01	.02
1950 to 1979 .....	6.9	102.9	30.2	3.33	3.6	30.9	30	.24	.2	.8	.01	.02
1980 or After <sup>2</sup> .....	1.0	16.6	4.9	.44	Q	Q	Q	Q	Q	Q	Q	39.5
<b>1990 Family Income</b>												
Less than \$10,000 .....	2.1	14.8	4.4	.50	1.5	9.9	10	.11	Q	Q	Q	23.5
\$10,000 to \$19,999 .....	2.6	24.2	7.1	.77	1.7	10.5	10	.10	Q	Q	Q	17.9
\$20,000 to \$34,999 .....	3.4	46.0	13.5	1.42	1.7	14.3	14	.12	Q	Q	Q	16.2
\$35,000 or More .....	6.6	120.9	35.4	3.96	3.6	33.3	32	.27	.3	.15	.02	.03
<b>Below Poverty Line</b>												
100 Percent .....	1.6	13.1	3.8	.45	1.3	8.5	8	.10	Q	Q	Q	30.4
125 Percent .....	2.2	19.9	5.8	.66	1.7	11.8	11	.13	Q	Q	Q	20.0
<b>Age of Householder</b>												
Under 35 Years .....	4.0	48.8	14.3	1.61	2.4	17.4	17	.16	Q	Q	Q	16.4
35 to 59 Years .....	6.4	112.9	33.1	3.59	3.6	31.9	31	.27	.2	.11	.01	.02
60 Years and Over .....	4.2	44.2	13.0	1.45	2.5	18.7	18	.17	Q	Q	Q	13.3
<b>Household Size</b>												
1 Person .....	3.3	21.5	6.3	.70	1.9	9.1	9	.10	Q	Q	Q	13.8
2 to 4 Persons .....	9.5	143.7	42.1	4.65	5.5	47.3	46	.41	.4	.20	.02	9.4
5 or More Persons .....	1.8	40.7	11.9	1.31	1.0	11.5	11	.09	Q	Q	Q	19.7

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Appliances do not include refrigerators. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 26. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Northeast Region Household, 1990**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	Households (million)	Consumed		Households (million)	Consumed			
		(mil. Btu)	(kWh)		(mil. dollars)	(mil. Btu)		
RSE Column Factors:	1.5	NF	NF	NF	1.5	0.5	NF	
<b>Total Region</b>	19.2	13.8	4,032	437	19.1	1.2	4.4	
<b>Climate Zone<sup>1</sup></b>					Average Number of Refrigerators			
Under 2,000 CDD and Over 5,500 HDD	12.3	14.9	4,368	440	12.2	1.2	4.3	
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	6.9	11.7	3,430	431	6.9	1.1	4.6	
NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family	11.9	17.3	5,069	538	11.8	1.3	5.1	
Mobile Home	.5	13.2	3,867	330	.5	1.0	3.1	
Multifamily (2 or more units)	6.8	7.7	2,242	270	6.7	1.0	3.4	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	5.1	7.1	2,070	233	5.0	1.0	3.1	
1,000 to 1,999	7.1	13.5	3,961	419	7.0	1.1	4.4	
2,000 or More	7.0	18.9	5,525	603	7.0	1.3	5.5	
<b>Ownership of Unit</b>								
Owned	13.0	16.4	4,815	517	13.0	1.2	4.9	
Rented	6.2	8.1	2,381	268	6.1	1.0	3.4	
<b>Year of Construction</b>								
1949 or Before	8.9	12.4	3,633	403	8.8	1.1	4.2	
1950 to 1979	8.8	14.8	4,341	473	8.7	1.2	4.7	
1980 or After	1.6	15.5	4,544	425	1.6	1.2	4.2	
<b>1990 Family Income</b>								
Less than \$10,000	2.9	7.4	2,163	241	2.8	1.0	3.5	
\$10,000 to \$19,999	3.4	9.5	2,777	299	3.3	1.1	3.6	
\$20,000 to \$34,999	4.5	13.2	3,861	407	4.5	1.1	4.2	
\$35,000 or More	8.5	17.9	5,256	574	8.5	1.3	5.2	
<b>Below Poverty Line</b>								
100 Percent	2.2	8.5	2,498	283	2.2	1.0	3.2	
125 Percent	3.0	9.1	2,679	296	2.9	1.0	3.5	
<b>Age of Householder</b>								
Under 35 Years	5.3	12.1	3,549	391	5.2	1.1	3.9	
35 to 59 Years	8.3	17.1	5,001	536	8.3	1.2	4.8	
60 Years and Over	5.6	10.4	3,055	334	5.6	1.2	4.4	
<b>Household Size</b>								
1 Person	4.5	6.7	1,952	212	4.5	1.1	3.5	
2 to 4 Persons	12.5	15.0	4,385	475	12.4	1.2	4.7	
5 or More Persons	2.2	21.7	6,360	691	2.2	1.3	5.1	

See footnotes at end of table.

## NORTHEAST

## APPLIANCE CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 26. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Northeast Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	Consumed		Households (million)	Households (million)	Consumed			
	Households (million Btu)	Expenditures (dollars)			(million Btu)	Expenditures (dollars)		
RSE Column Factors:	1.5	NF	NF	1.5	0.5	NF	NF	
<b>Northeast Region</b>								
<b>Average Electricity Expenditures (cents per kWh)</b>								
Less than 6 .....	Q	18.5	5,415	290	--	--	20.6	
6 to Less than 9 .....		16.2	4,754	392	--	--	5.8	
9 or More .....		3.3	3,849	450	--	--	2.9	
<b>Average Electric Refrigerator Expenditures (cents per kWh)</b>								
Less than 6 .....	--	--	--	--	--	--		
6 to Less than 9 .....	--	--	--	--	--	--		
9 or More .....	--	--	--	--	--	--		
<b>Appliances Present in Household (more than one may apply)</b>								
Separate Freezer .....	5.0	21.3	6,240	641	5.0	1.3	4.9	
Dishwasher .....	8.0	18.8	5,518	595	8.0	1.3	5.4	
Clothes Washer .....	14.4	16.4	4,817	515	14.3	1.2	4.9	
Clothes Dryer .....	9.1	18.7	5,473	569	9.1	1.3	4.9	
Waterbed Heater .....	2.0	22.8	6,692	655	2.0	1.2	5.0	
Swimming-Pool Pump .....	1.5	26.9	7,895	816	1.5	1.5	6.2	
Hot-Tub or Spa Pump .....	4	29.1	8,541	985	4	1.4	6.8	
Hot-Tub or Spa Heater .....	.2	27.5	8,068	861	.2	1.4	5.3	
Well Pump .....	3.4	19.8	5,811	581	3.4	1.3	4.4	
Dishwasher, Clothes Washer, and Clothes Dryer								
With .....	5.5	20.9	6,134	650	5.5	1.3	5.3	
Without .....	4.1	5.5	1,621	194	4.1	1.0	3.1	
Well Pump and Separate Freezer								
With .....	1.8	23.0	6,729	665	1.8	1.3	4.4	
Without .....	12.6	10.4	3,059	349	12.5	1.1	4.3	
<b>Main Heating Fuel</b>								
Natural Gas .....	8.7	13.3	3,900	437	8.7	1.2	4.7	
Electricity .....	2.0	12.8	3,765	330	2.0	1.2	4.2	
Fuel Oil or Kerosene .....	7.7	14.1	4,137	457	7.7	1.2	4.3	
Wood .....	5	18.4	5,406	516	5	1.1	3.6	
LPG .....	.2	17.8	5,204	560	.2	1.1	3.3	
Other .....	Q	Q	Q	Q	Q	Q	Q	
<b>Number of Refrigerators</b>								
1 .....	15.9	12.6	3,682	401	15.9	1.0	3.8	
2 or More .....	3.2	19.8	5,789	616	3.2	2.0	7.7	

See footnotes at end of table.

**Table 26. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Northeast Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances				Electricity Used for Refrigerators				RSE Row Factors	
	Consumed		Households (mil- lion)	Average Number of Refrig- erators	Consumed		(mil- lion Btu)	Expend- itures (dollars)		
	House- holds (mil- lion Btu)	(kWh)			Q	Q				
RSE Column Factors:	1.5	NF	NF	NF	1.5	0.5	NF	NF		
<b>New England Division</b>	4.5	12.9	3,776	385	4.5	1.1	3.8	1,126	115 3.8	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	4.5	Q	12.9	3,772	4.5	1.1	3.8	1,125	115 3.8	
Under 5,500 HDD	..	..	..	..	..	..	..	..	..	
2,000 CDD or More and Under 4,000 HDD	..	..	..	..	..	..	..	..	..	
Under 4,000 HDD	..	..	..	..	..	..	..	..	..	
<b>Type of Housing Unit</b>										
Single-Family .....	2.5	NC	16.2	4,760	2.5	1.2	4.4	1,282	130 4.7	
Mobile Home .....	.2	NC	12.2	3,575	.2	1.0	2.5	724	77 15.8	
Multifamily (2 or more units) ..	1.9	NC	8.4	2,452	1.8	1.0	3.2	942	98 5.4	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.4	NC	7.9	2,302	1.4	1.0	3.0	871	92 4.6	
1,000 to 1,999 .....	1.6	NC	14.0	4,090	1.6	1.1	3.9	1,157	117 6.2	
2,000 or More .....	1.5	NC	16.7	4,883	1.5	1.3	4.6	1,336	137 5.7	
<b>Ownership of Unit</b>										
Owned .....	2.9	NC	15.1	4,434	2.9	1.2	4.1	1,213	124 4.8	
Rented .....	1.7	NC	9.0	2,636	1.6	1.0	3.3	970	100 5.1	
<b>Year of Construction</b>										
1949 or Before .....	2.1	NC	11.2	3,280	2.0	1.1	3.8	1,106	112 5.6	
1950 to 1979 .....	1.9	NC	14.1	4,145	1.9	1.2	4.1	1,206	126 5.6	
1980 or After <sup>2</sup> .....	.6	NC	14.9	4,373	.6	1.1	3.1	922	90 11.4	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.8	NC	8.2	2,393	.7	1.0	3.5	1,031	104 7.3	
\$10,000 to \$19,999 .....	.8	NC	9.9	2,898	.8	1.1	3.6	1,050	111 10.1	
\$20,000 to \$34,999 .....	1.1	NC	12.2	3,582	1.1	1.1	3.5	1,030	108 7.7	
\$35,000 or More .....	1.9	NC	16.5	4,833	1.9	1.2	4.3	1,252	126 5.8	
<b>Below Poverty Line</b>										
100 Percent .....	.6	NC	10.0	2,940	.6	1.0	3.5	1,023	105 7.4	
125 Percent .....	.8	NC	9.7	2,850	.8	1.0	3.5	1,037	106 6.3	
<b>Age of Householder</b>										
Under 35 Years .....	1.3	NC	12.0	3,505	1.2	1.0	3.4	997	103 5.2	
35 to 59 Years .....	1.9	NC	15.5	4,539	1.9	1.1	4.0	1,165	120 5.2	
60 Years and Over .....	1.4	NC	10.3	3,013	1.4	1.2	4.1	1,187	120 6.4	
<b>Household Size</b>										
1 Person .....	1.2	NC	7.2	2,100	1.2	1.1	3.4	997	104 6.7	
2 to 4 Persons .....	3.0	NC	14.7	4,299	2.9	1.2	4.1	1,192	121 4.7	
5 or More Persons .....	.4	NC	17.6	5,168	.4	1.1	3.5	1,012	104 7.2	

See footnotes at end of table.

## NORTHEAST

## APPLIANCE CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 26. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Northeast Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators				
	Households (million)	Consumed		Households (million)	Consumed		Expenditures (dollars) (kWh)	RSE Row Factors
		(million Btu)	(kWh)		Average Number of Refrigerators	(million Btu)		
RSE Column Factors:	1.5	NF	NF	1.5	0.5	NF	NF	
Middle Atlantic Division .....	14.7	14.0	4,111	453	14.6	1.2	4.6	1,354
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	7.8	16.1	4,714	472	7.7	1.2	4.6	1,359
Under 5,500 HDD .....	6.9	11.7	3,427	431	6.9	1.1	4.6	1,349
2,000 CDD or More and								
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family .....	9.3	17.6	5,153	553	9.3	1.3	5.3	1,539
Mobile Home .....	Q	13.6	3,985	Q	Q	1.0	3.3	965
Multifamily (2 or more units) .....	5.0	7.4	2,164	276	4.9	1.1	3.5	1,034
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	3.7	6.7	1,978	229	3.6	1.0	3.1	915
1,000 to 1,999 .....	5.4	13.4	3,922	422	5.4	1.2	4.5	1,312
2,000 or More .....	5.6	19.4	5,693	630	5.6	1.3	5.7	1,682
<b>Ownership of Unit</b>								
Owned .....	10.2	16.8	4,923	536	10.2	1.3	5.2	1,513
Rented .....	4.5	7.8	2,287	267	4.4	1.0	3.4	991
<b>Year of Construction</b>								
1949 or Before .....	6.8	12.8	3,741	425	6.7	1.1	4.3	1,271
1950 to 1979 .....	6.9	15.0	4,396	485	6.8	1.2	4.9	1,432
1980 or After <sup>2</sup> .....	1.0	15.8	4,634	422	1.0	1.3	4.7	1,382
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.1	7.1	2,077	240	2.1	1.1	3.4	1,008
\$10,000 to \$19,999 .....	2.6	9.4	2,741	298	2.5	1.1	3.6	1,064
\$20,000 to \$34,999 .....	3.4	13.5	3,954	418	3.4	1.2	4.4	1,293
\$35,000 or More .....	6.6	18.3	5,375	600	6.6	1.3	5.5	1,607
<b>Below Poverty Line</b>								
100 Percent .....	1.6	8.0	2,341	276	1.6	1.0	3.1	914
125 Percent .....	2.2	8.9	2,618	287	2.2	1.1	3.5	1,011
<b>Age of Householder</b>								
Under 35 Years .....	4.0	12.2	3,563	402	3.9	1.1	4.0	1,173
35 to 59 Years .....	6.4	17.5	5,136	557	6.4	1.2	5.0	1,473
60 Years and Over .....	4.2	10.5	3,069	344	4.2	1.2	4.6	1,343
<b>Household Size</b>								
1 Person .....	3.3	6.5	1,898	210	3.3	1.1	3.5	1,034
2 to 4 Persons .....	9.5	15.1	4,411	487	9.5	1.2	4.8	1,421
5 or More Persons .....	1.8	22.5	6,598	723	1.8	1.3	5.4	1,590
								180
								7.8

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 27. Natural Gas and LPG Consumption and Expenditures for Appliances, per Northeast Region Household, 1990**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Households (million)	Consumed		Households (million)	Consumed			
		(million Btu)	(1000 cubic feet)		(million Btu)	(gallons)		
RSE Column Factors:	1.1	NF	NF	NF	2.0	NF	NF	
<b>Total Region</b>	9.8	7.9	7.7	69	1.1	5.1	56	
<b>Climate Zone<sup>1</sup></b>							92	
Under 2,000 CDD and Over 5,500 HDD	4.6	8.1	7.8	59	1.1	5.1	56	
Under 5,500 HDD	5.3	7.8	7.5	78	Q	Q	Q	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family	5.1	9.4	9.1	70	.8	5.2	57	
Mobile Home	Q	Q	Q	Q	.2	5.0	55	
Multifamily (2 or more units)	4.8	6.3	6.1	68	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	2.9	5.6	5.4	58	.3	4.6	50	
1,000 to 1,999	3.8	8.4	8.1	68	.5	4.8	53	
2,000 or More	3.2	9.4	9.1	80	3	6.1	67	
<b>Ownership of Unit</b>								
Owned	5.8	9.2	8.9	74	1.0	5.1	56	
Rented	4.0	6.1	5.9	62	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before	5.7	7.6	7.3	72	.5	5.5	60	
1950 to 1979	3.9	8.5	8.3	66	.4	4.5	49	
1980 or After <sup>2</sup>	Q	Q	Q	Q	.2	5.3	58	
<b>1990 Family Income</b>								
Less than \$10,000	1.7	6.7	6.5	74	Q	Q	Q	
\$10,000 to \$19,999	2.0	6.3	6.1	57	Q	Q	Q	
\$20,000 to \$34,999	2.1	8.0	7.8	68	.3	4.9	54	
\$35,000 or More	4.0	9.2	8.9	74	.5	5.6	62	
<b>Below Poverty Line</b>								
100 Percent	1.5	7.1	6.9	76	Q	Q	Q	
125 Percent	1.9	7.3	7.1	77	Q	Q	Q	
<b>Age of Householder</b>								
Under 35 Years	2.8	7.7	7.4	70	.3	6.0	65	
35 to 59 Years	4.1	8.6	8.3	72	.5	5.1	56	
60 Years and Over	3.0	7.2	6.9	65	3	4.2	46	
<b>Household Size</b>								
1 Person	2.2	4.8	4.7	52	.2	3.8	42	
2 to 4 Persons	6.5	8.3	8.1	71	Q	5.1	56	
5 or More Persons	1.2	11.4	11.0	89	Q	Q	Q	

See footnotes at end of table.

## NORTHEAST

## APPLIANCE CONSUMPTION/EXPENDITURES

NORTHEAST

**Table 27. Natural Gas and LPG Consumption and Expenditures for Appliances, per Northeast Region Household, 1990 (Continued)**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Households (million)	Consumed			
	Households (million Btu)	(1000 cubic feet)			Expend- itures (dollars)	(million Btu)		
RSE Column Factors:	1.1	NF	NF	NF	2.0	NF	NF	
<b>New England Division</b>	1.4	7.2	7.0	66	0.5	5.4	59	
<b>Climate Zone<sup>1</sup></b>							98	
Under 2,000 CDD and	1.4	7.2	7.0	66	.5	5.4	59	
Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	98	
Under 5,500 HDD .....	NC	NC	NC	NC	NC	NC	98	
2,000 CDD or More and	NC	NC	NC	NC	NC	NC	98	
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	98	
<b>Type of Housing Unit</b>								
Single-Family .....	.5	7.6	7.3	63	.4	5.9	64	
Mobile Home .....	NC	NC	NC	67	.1	4.6	51	
Multifamily (2 or more units) .....	.9	7.0	6.8	Q	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	5	6.5	6.3	66	.2	5.0	55	
1,000 to 1,999 .....	6	7.9	7.6	63	.2	4.8	53	
2,000 or More .....	4	7.1	6.8	69	.2	6.2	67	
<b>Ownership of Unit</b>								
Owned .....	.7	7.2	6.9	63	.4	5.6	61	
Rented .....	.7	7.2	7.0	68	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before .....	1.0	7.1	6.9	66	.2	6.2	68	
1950 to 1979 .....	.4	7.7	7.4	68	.2	5.9	64	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2	7.7	7.5	76	Q	Q	Q	
\$10,000 to \$19,999 .....	3	6.9	6.6	60	Q	Q	Q	
\$20,000 to \$34,999 .....	4	6.5	6.3	66	.2	5.1	56	
\$35,000 or More .....	5	7.7	7.4	65	.2	5.8	64	
<b>Below Poverty Line</b>								
100 Percent .....	.2	9.3	8.9	81	Q	Q	Q	
125 Percent .....	3	9.0	8.7	82	Q	Q	Q	
<b>Age of Householder</b>								
Under 35 Years .....	4	9.7	9.4	87	Q	Q	Q	
35 to 59 Years .....	5	7.1	6.8	62	.3	5.1	56	
60 Years and Over .....	5	5.2	5.0	52	.1	4.7	51	
<b>Household Size</b>								
1 Person .....	3	5.1	4.9	59	Q	Q	Q	
2 to 4 Persons .....	.9	7.2	6.9	62	.4	5.5	60	
5 or More Persons .....	2	11.3	10.9	102	Q	Q	Q	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 27. Natural Gas and LPG Consumption and Expenditures for Appliances, per Northeast Region Household, 1990 (Continued)**

Characteristics	Natural Gas				Liquefied Petroleum Gas				RSE How Factors	
	Households (million)	Consumed		Households (million)	Consumed		(gallons)	Expenditures (dollars)		
		(million Btu)	(1000 cubic feet)		NF	(million Btu)				
Middle Atlantic Division .....	8.5	8.0	7.8	70	0.6	4.9	53	86	9.2	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	3.2	8.4	8.2	56	6	4.9	54	87	13.5	
Under 5,500 HDD .....	5.3	7.8	7.5	78	Q	Q	Q	Q	6.7	
2,000 CDD or More and Under 4,000 HDD .....										
Single-Family .....	4.6	9.6	9.3	71	4	4.6	50	82	11.6	
Mobile Home .....	Q	Q	6.0	68	Q	Q	Q	Q	NF	
Multifamily (2 or more units) .....	3.9	6.2	6.0	Q	Q	Q	Q	Q	6.5	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	2.4	5.4	5.2	57	0	0	0	Q	10.4	
1,000 to 1,999 .....	3.2	8.5	8.2	69	0	0	53	81	12.1	
2,000 or More .....	2.8	9.7	9.4	82	0	0	Q	Q	13.1	
<b>Ownership of Unit</b>										
Owned .....	5.2	9.4	9.1	76	.5	4.7	52	83	9.9	
Rented .....	3.3	5.9	5.7	60	0	0	Q	Q	9.1	
<b>Year of Construction</b>										
1949 or Before .....	4.7	7.7	7.4	74	.3	4.8	53	90	12.4	
1950 to 1979 .....	3.6	8.6	8.3	66	.2	3.5	38	67	15.8	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	Q	NF	
<b>1990 Family Income</b>										
Less than \$10,000 .....	1.5	6.6	6.4	74	Q	Q	Q	Q	20.2	
\$10,000 to \$19,999 .....	1.7	6.2	6.0	57	Q	Q	Q	Q	9.1	
\$20,000 to \$34,999 .....	1.7	8.3	8.1	68	Q	Q	Q	Q	13.9	
\$35,000 or More .....	3.6	9.4	9.1	75	.3	5.5	60	95	11.7	
<b>Below Poverty Line</b>										
100 Percent .....	1.3	6.7	6.5	75	0	0	0	Q	15.7	
125 Percent .....	1.7	7.1	6.9	76	0	0	0	Q	15.4	
<b>Age of Householder</b>										
Under 35 Years .....	2.4	7.3	7.1	67	Q	5.5	61	88	14.7	
35 to 59 Years .....	3.6	8.8	8.5	73	.2	5.0	55	87	15.5	
60 Years and Over .....	2.5	7.5	7.3	68	Q	Q	Q	Q	12.4	
<b>Household Size</b>										
1 Person .....	1.9	4.8	4.6	51	Q	Q	Q	Q	17.7	
2 to 4 Persons .....	5.5	8.5	8.3	73	.4	4.7	52	87	10.4	
5 or More Persons .....	1.0	11.4	11.0	88	Q	Q	Q	Q	14.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## NORTHEAST

**Table 28. Consumption and Expenditures in Midwest Region Households, 1990**

## ENERGY CONSUMPTION AND EXPENDITURES

MIDWEST

	Residential Buildings	Consumption						Expenditures (dollars)				RSE Row Factors
		Total Households (million)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household (million Btu)	per Household Member (million Btu)	per Building	per Square Foot	per Household	per Household Member	
<b>Midwest Region</b>												
Total Region .....	23.1	18.7	46.9	150	60	121.7	49	1,436	0.57	1,166	465	2.3
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and												
Over 2,000 HDD .....	19.7	15.6	39.8	154	61	122.6	49	1,444	.57	1,146	459	2.9
Under 5,500 HDD .....	3.1	7.1	127	55	116.5	45	1,393	.61	1,281	497	6.5	
2,000 CDD or More and												
Under 4,000 HDD .....	3.4											
Type of Housing Unit	16.0	16.0	39.7	136	55	136.4	50	1,298	.52	1,298	471	2.4
Single-Family .....	1.6	1.6	9.7	101	96.6	38	1,111	.16	1,111	433	9.7	
Mobile Home .....	1.1	5.7	423	82	85.9	49	3,906	.75	794	448	6.6	
Multifamily (2 or more units) .....	5.4											
Heated Floorspace (square feet)	6.5	3.6	5.5	149	96	81.3	41	1,541	.99	842	430	5.3
Fewer than 1,000 .....	8.8	7.6	15.9	141	67	121.8	49	1,346	.64	1,162	470	3.1
1,000 to 1,999 .....			25.5	159	47	155.4	52	1,475	.44	1,441	479	3.2
2,000 or More .....	7.8	7.6										
Ownership of Unit	16.4	15.4	38.7	140	56	131.3	49	1,362	.54	1,279	480	2.4
Owned .....	3.4	8.3	196	79	98.2	46	1,770	.72	888	417	4.4	
Rented .....	6.7		127	48	113.6	41	1,364	.52	1,220	439		
Year of Construction	9.0	7.6	18.5	163	67	138.0	55	1,402	.57	1,184	475	3.4
1949 or Before .....	11.3	8.6	21.8	145	57	110.7	45	1,486	.59	1,137	464	3.6
1950 to 1979 .....			21.6	145	48	113.6	41	1,364	.52	1,220	439	7.1
1980 or After <sup>3</sup> .....	2.8	2.5	6.7									
1990 Family Income	3.7	2.7	5.8	162	75	116.7	57	1,411	.65	1,016	497	7.4
Less than \$10,000 .....	5.2	4.0	8.4	132	64	103.3	53	1,257	.60	983	501	4.1
\$10,000 to \$19,999 .....	6.4	5.3	13.0	141	57	115.5	44	1,411	.57	1,158	442	3.9
\$20,000 to \$34,999 .....			19.7	163	56	141.5	47	1,572	.54	1,367	455	4.4
\$35,000 or More .....	7.7	6.7										
Below Poverty Line	2.7	1.9	4.0	159	76	115.0	42	1,447	.69	1,048	384	7.5
100 Percent .....	2.9	2.9	5.9	151	74	112.8	44	1,401	.69	1,044	411	6.0
125 Percent .....	3.9											
Age of Householder	6.7	5.1	11.3	147	66	112.2	40	1,394	.63	1,066	383	4.6
Under 35 Years .....	9.4	8.1	21.5	154	58	132.3	46	1,525	.57	1,308	451	2.9
35 to 59 Years .....			14.1	146	58	116.4	68	1,344	.53	1,069	625	3.7
60 Years and Over .....	7.0	5.5										
Household Size	6.0	3.7	8.8	150	64	93.0	93	1,323	.56	819	5.0	
1 Person .....	15.0	13.1	33.4	149	58	129.4	48	1,451	.57	1,261	465	2.6
2 to 4 Persons .....			4.8	156	63	149.9	27	1,544	.62	1,483	270	5.3
5 or More Persons .....	2.0	1.9										

See footnotes at end of table.

## MIDWEST

**Table 28. Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Average of Major Energy Sources <sup>1</sup>										
	Residential Buildings			Consumption				Expenditures (dollars)			
	Total Households (mil. lion)	Total Number (mil. lion)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	Household Member (million Btu)	per Household	per Building	per Square Foot	Household Member (million Btu)	per Household
RSE Column Factors:	1.5	1.6	1.7	0.9	0.9	0.9	1.0	0.8	0.8	0.7	0.7
<b>East North Central Division</b> ....	16.6	13.3	33.8	154	61	123.1	49	1,472	0.58	1,179	466
<b>Climate Zone<sup>2</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	15.7	12.4	31.9	155	60	122.8	49	1,477	.57	1,168	462
Under 5,500 HDD .....	Q	Q	Q	132	63	128.1	51	1,397	.67	1,358	541
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>											
Single-Family .....	11.3	11.3	28.2	140	56	139.7	50	1,315	.52	1,315	471
Mobile Home .....	1.2	1.2	1.2	95	100	94.6	36	1,139	1.21	1,139	430
Multifamily (2 or more units) .....	4.1	.8	4.4	433	82	86.4	49	4,099	.77	819	461
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	4.8	2.5	4.1	152	94	79.5	40	1,644	1.01	860	430
1,000 to 1,999 .....	6.3	5.4	11.3	146	69	125.1	51	1,374	.65	1,180	481
2,000 or More .....	5.5	5.4	18.4	163	48	158.6	52	1,490	.44	1,453	473
<b>Ownership of Unit</b>											
Owned .....	11.8	11.0	27.8	143	57	133.1	50	1,390	.55	1,291	482
Rented .....	4.8	2.3	6.0	203	80	98.6	46	1,855	.73	903	417
<b>Year of Construction</b>											
1949 or Before .....	6.6	5.6	13.7	168	68	140.6	56	1,444	.58	1,210	482
1950 to 1979 .....	7.9	5.8	14.9	147	58	108.8	44	1,524	.60	1,128	456
1980 or After .....	2.1	1.9	5.1	133	50	121.4	43	1,394	.52	1,270	453
<b>1990 Family Income</b>											
Less than \$10,000 .....	2.7	1.9	4.3	170	76	122.1	56	1,474	.66	1,057	489
\$10,000 to \$19,999 .....	3.6	2.7	5.6	134	65	101.3	52	1,299	.63	983	501
\$20,000 to \$34,999 .....	4.6	3.8	9.5	142	57	116.0	45	1,451	.58	1,183	462
\$35,000 or More .....	5.7	4.9	14.4	167	57	142.9	47	1,582	.54	1,353	447
<b>Below Poverty Line</b>											
100 Percent .....	2.0	1.5	3.1	165	76	119.7	42	1,488	.69	1,079	383
125 Percent .....	2.8	2.1	4.4	158	76	117.9	46	1,437	.69	1,074	415
<b>Age of Householder</b>											
Under 35 Years .....	4.9	3.7	8.3	152	67	113.2	40	1,447	.64	1,075	382
35 to 59 Years .....	6.8	5.7	15.6	159	59	135.2	47	1,561	.58	1,325	460
60 Years and Over .....	4.9	3.9	9.9	147	58	116.5	66	1,365	.54	1,082	615
<b>Household Size</b>											
1 Person .....	4.2	2.5	6.1	153	62	90.9	91	1,375	.56	819	7.0
2 to 4 Persons .....	10.8	9.3	23.9	153	59	130.9	49	1,483	.57	1,271	473
5 or More Persons .....	1.6	1.5	3.7	162	66	155.1	28	1,563	.64	1,498	274

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

# ENERGY CONSUMPTION AND EXPENDITURES

MIDWEST

**Table 28. Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Residential Buildings		Consumption				Expenditures (dollars)			
		Total Households (million)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household Member (million Btu)	per Building (million Btu)	per Square Foot	per Household Member	per Household Member	RSE Row Factors
		1.5	1.6	1.7	0.9	0.9	1.0	0.8	0.8	0.7	0.7
<b>West North Central Division ...</b>											
<b>Climate Zone<sup>2</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	4.0	3.2	7.9	151	61	121.6	52	1,316	.53	1,059	449
Under 5,500 HDD .....	2.5	2.2	5.2	125	53	112.1	43	1,391	.59	1,252	481
2,000 CDD or More and											
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>											
Single-Family .....	4.8	4.8	11.4	128	54	128.5	48	1,256	.52	1,256	473
Mobile Home .....	.4	.4	.4	103	102	102.8	45	1,020	1.01	1,020	442
Multifamily (2 or more units) .....	1.3	.3	1.4	393	81	84.2	48	3,336	.69	714	407
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	1.7	1.1	1.5	141	102	86.3	47	1,299	.94	793	429
1,000 to 1,999 .....	2.5	2.2	4.6	130	62	113.7	45	1,276	.61	1,119	442
2,000 or More .....	2.2	2.2	7.2	150	46	147.5	52	1,440	.44	1,412	498
<b>Ownership of Unit</b>											
Owned .....	4.6	4.4	10.9	131	53	126.6	48	1,293	.52	1,249	475
Rented .....	1.9	1.0	2.3	180	79	97.3	48	1,578	.70	852	419
<b>Year of Construction</b>											
1939 or Before .....	2.3	2.0	4.8	151	64	130.5	53	1,287	.55	1,112	455
1950 to 1979 .....	3.4	2.8	6.9	140	57	115.1	48	1,406	.57	1,159	482
1980 or After <sup>3</sup> .....	.7	.6	1.5	108	44	91.1	34	1,269	.51	1,073	397
<b>1990 Family Income</b>											
Less than \$10,000 .....	1.1	.8	1.5	142	72	103.2	59	1,254	.63	912	523
\$10,000 to \$19,999 .....	1.6	1.3	2.8	129	61	107.9	55	1,173	.55	982	502
\$20,000 to \$34,999 .....	1.8	1.5	3.6	137	58	114.4	41	1,311	.56	1,093	395
\$35,000 or More .....	2.0	1.8	5.3	151	52	137.3	47	1,545	.53	1,408	477
<b>Below Poverty Line</b>											
100 Percent .....	.6	.5	.9	139	72	100.5	41	1,320	.68	951	391
125 Percent .....	1.1	.8	1.6	135	70	99.7	41	1,306	.68	968	398
<b>Age of Householder</b>											
Under 35 Years .....	1.8	1.5	3.1	132	63	109.4	41	1,262	.60	1,043	389
35 to 59 Years .....	2.7	2.3	6.0	142	56	125.1	42	1,436	.56	1,265	427
60 Years and Over .....	2.0	1.6	4.2	145	57	116.2	73	1,294	.51	1,037	653
<b>Household Size</b>											
1 Person .....	1.8	1.2	2.7	145	66	97.6	98	1,218	.56	820	60
2 to 4 Persons .....	4.2	3.8	9.4	139	56	125.5	45	1,374	.55	1,238	447
5 or More Persons .....	.4	.4	1.1	135	51	130.6	23	1,475	.56	1,426	256

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relatiive Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 29. Total Consumption in Midwest Region Households, 1990**

Characteristics	Midwest Region										RSE Row Fac- tors
	Major Energy Sources <sup>1</sup> (tril- lion Btu)	Electricity (tril- lion Btu)	Natural Gas (billion KWh)	Fuel Oil (tril- lion Btu)	Kerosene (billion cubic feet)	Petroleum Gas (tril- lion gal- lons)	Liquefied Petroleum Gas (tril- lion gal- lons)				
RSE Column Factors:	0.4	0.5	0.5	0.5	0.5	1.7	1.7	2.4	2.4	1.4	1.4
Total Region .....	2,806.9	563.6	194.5	1,881.4	1,847	121.5	0.88	Q	Q	131.3	1.44
<b>Climate Zone<sup>2</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	2,412.4	544.5	159.6	1,644.0	1,613	116.0	.84	Q	Q	99.1	1.09
Under 5,500 HDD .....	394.5	119.1	34.9	237.4	234	Q	.3	Q	Q	Q	30.1
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>											
Single-Family .....	2,183.9	522.3	153.1	1,433.0	1,409	113.6	.82	3.9	0.03	111.1	1.22
Mobile Home .....	155.4	45.3	13.3	84.1	83	Q	Q	Q	Q	17.4	12.9
Multifamily (2 or more units) .....	467.6	95.9	28.1	364.3	355	Q	Q	Q	Q	Q	40.9
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	531.7	135.8	39.8	341.9	335	17.0	.12	Q	Q	31.6	.35
1,000 to 1,999 .....	1,066.2	251.0	73.6	710.7	698	47.3	.34	Q	Q	54.4	.60
2,000 or More .....	1,209.0	276.7	81.1	828.8	813	57.3	.41	Q	Q	45.3	.50
<b>Ownership of Unit</b>											
Owned .....	2,149.3	535.9	157.1	1,380.8	1,357	110.2	.80	Q	Q	114.9	1.26
Rented .....	657.6	127.7	37.4	500.6	490	11.3	.08	Q	Q	16.4	.18
<b>Year of Construction</b>											
1949 or Before .....	1,238.2	217.6	63.8	900.4	884	61.5	.45	Q	Q	55.9	.61
1950 to 1979 .....	1,247.8	350.5	102.7	789.6	775	58.8	.43	Q	Q	45.3	.50
1980 or After <sup>3</sup> .....	320.9	95.5	28.0	191.4	188	Q	Q	Q	Q	30.0	.33
<b>1990 Family Income</b>											
Less than \$10,000 .....	436.0	74.1	21.7	311.3	305	24.7	.18	Q	Q	24.8	.27
\$10,000 to \$19,999 .....	533.5	113.9	33.4	365.0	359	18.5	.13	Q	Q	33.3	.36
\$20,000 to \$34,999 .....	744.2	195.5	57.3	468.7	461	40.7	.30	Q	Q	34.7	.38
\$35,000 or More .....	1,093.2	280.0	82.1	736.4	723	37.6	.27	Q	Q	38.5	.42
<b>Below Poverty Line</b>											
100 Percent .....	304.7	55.9	16.4	205.7	201	21.4	.16	Q	Q	20.9	.23
125 Percent .....	437.8	82.9	24.3	293.4	287	23.8	.17	Q	Q	36.7	.40
<b>Age of Householder</b>											
Under 35 Years .....	751.5	177.3	52.0	517.6	508	24.1	.18	Q	Q	30.7	.34
35 to 59 Years .....	1,245.0	319.5	93.6	811.3	796	49.7	.36	Q	Q	58.4	.64
60 Years and Over .....	810.4	166.8	48.9	552.5	543	47.7	.35	Q	Q	42.2	.46
<b>Household Size</b>											
1 Person .....	558.6	102.2	29.9	428.6	420	11.7	.09	Q	Q	13.5	.15
2 to 4 Persons .....	1,946.3	481.0	141.0	1,264.0	1,242	99.5	.72	Q	Q	96.3	1.05
5 or More Persons .....	302.0	80.4	23.6	188.8	185	Q	Q	Q	Q	21.4	.23

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

MIDWEST

**Table 29. Total Consumption in Midwest Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup> (trillion Btu)	Electricity		Natural Gas		Fuel Oil		Kerosene		Liquefied Petroleum Gas		RSE Row Factors
		(trillion Btu)	(billion kWh)	(billion cubic feet)	(trillion Btu)	(billion gallons)	(trillion Btu)	(billion gallons)	(trillion Btu)	(billion gallons)	(billion gallons)	
RSE Column Factors:	0.4	0.5	0.5	0.5	0.5	1.7	1.7	2.4	2.4	1.4	1.4	
<b>East North Central Division ....</b>	<b>2,045.0</b>	<b>469.0</b>	<b>137.4</b>	<b>1,387.5</b>	<b>1,356</b>	<b>93.3</b>	<b>0.68</b>	<b>Q</b>	<b>Q</b>	<b>86.7</b>	<b>0.95</b>	<b>13.9</b>
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	1,926.6	441.2	129.3	1,313.4	1,283	90.5	.66	Q	Q	72.9	.80	16.5
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family .....	1,571.7	361.8	106.0	1,045.9	1,023	88.3	.64	3.3	.02	72.3	.79	16.9
Mobile Home .....	115.8	34.6	10.1	60.0	59	Q	Q	Q	Q	12.7	.14	52.2
Multifamily (2 or more units) .....	357.5	72.6	21.3	281.5	274	Q	Q	Q	Q	Q	Q	21.1
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	381.3	101.1	29.6	238.6	233	Q	Q	Q	Q	23.7	.26	28.2
1,000 to 1,999 .....	783.7	175.2	51.4	531.9	520	39.9	.29	2.5	.02	34.2	.37	16.8
2,000 or More .....	880.1	192.7	56.5	617.0	603	40.7	.30	Q	Q	28.8	.32	21.0
<b>Ownership of Unit</b>												
Owned .....	1,571.8	380.3	111.5	1,021.9	998	85.9	.62	Q	Q	76.7	.84	14.4
Rented .....	473.2	88.7	26.0	365.6	357	Q	Q	1.6	.01	Q	Q	16.9
<b>Year of Construction</b>												
1949 or Before .....	932.5	159.0	46.6	691.1	675	45.2	.33	2.4	.02	34.7	.38	19.0
1950 to 1979 .....	857.6	237.9	69.7	538.9	526	46.9	.34	Q	Q	30.4	.33	21.0
1980 or After <sup>3</sup> .....	255.0	72.0	21.1	157.5	154	Q	Q	Q	Q	21.6	.24	32.9
<b>1990 Family Income</b>												
Less than \$10,000 .....	326.2	53.1	15.6	238.1	232	17.4	.13	Q	Q	Q	Q	35.5
\$10,000 to \$19,999 .....	361.2	75.2	22.0	246.5	241	Q	Q	Q	Q	21.9	.24	17.6
\$20,000 to \$34,999 .....	536.2	140.2	41.1	332.9	325	38.0	.28	Q	Q	20.8	.23	23.4
\$35,000 or More .....	821.3	200.5	58.8	570.0	558	23.1	.17	.5	(*)	27.2	.30	23.3
<b>Below Poverty Line</b>												
100 Percent .....	239.5	41.5	12.2	165.5	161	17.4	.13	Q	Q	14.2	.16	28.4
125 Percent .....	329.5	58.2	17.1	228.9	223	18.1	.13	Q	Q	23.3	.26	29.0
<b>Age of Householder</b>												
Under 35 Years .....	558.4	130.4	38.2	388.5	380	17.6	.13	1.7	.01	20.2	.22	19.1
35 to 59 Years .....	913.0	225.2	66.0	608.7	595	35.2	.26	Q	Q	38.1	.42	16.5
60 Years and Over .....	573.6	113.4	33.2	390.3	381	40.4	.29	Q	Q	28.4	.31	20.3
<b>Household Size</b>												
1 Person .....	380.9	68.5	20.1	295.1	288	Q	.55	5.1	.04	Q	Q	27.1
2 to 4 Persons .....	1,417.5	336.6	98.7	934.8	914	76.2	Q	Q	Q	64.8	.71	16.0
5 or More Persons .....	246.6	63.9	18.7	157.7	154	Q	Q	Q	Q	14.3	.16	30.7

See footnotes at end of table.

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 29. Total Consumption in Midwest Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup> (tril- lion Btu)	Electricity		Natural Gas		Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors			
		(tril- lion Btu)	(billion kWh)	(tril- lion Btu)	(billion cubic feet)	(tril- lion Btu)	(billion gallons)	(tril- lion Btu)				
RSE Column Factors:	0.4	0.5	0.5	0.5	0.5	1.7	1.7	2.4	2.4	1.4	1.4	
West North Central Division ...	761.9	194.6	57.0	493.9	491	28.2	0.20	0.6	(*)	44.6	0.49	12.9
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD ...	485.9	103.2	30.3	330.6	330	25.5	.19	Q	Q	26.2	.29	16.2
Under 5,500 HDD ...	276.0	91.4	26.8	163.3	162	Q	Q	Q	Q	18.4	.20	20.8
2,000 CDD or More and Under 4,000 HDD ...	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family ...	612.3	160.6	47.1	387.0	386	25.4	.18	Q	Q	38.8	.42	14.9
Mobile Home ...	39.6	10.7	3.1	24.1	24	NC	Q	Q	Q	4.7	.05	51.7
Multifamily (2 or more units) ...	110.0	23.3	6.8	82.8	81	Q	Q	NC	Q	Q	Q	28.0
<b>Heated Floorspace</b> (square feet)												
Fewer than 1,000 ...	150.4	34.8	10.2	103.3	103	Q	Q	Q	Q	7.8	.09	16.4
1,000 to 1,999 ...	282.6	75.8	22.2	178.8	178	7.3	.05	Q	Q	20.3	.22	19.1
2,000 or More ...	328.9	84.0	24.6	211.8	211	16.5	.12	Q	Q	16.5	.18	16.5
<b>Ownership of Unit</b>												
Owned ...	577.5	155.6	45.6	358.8	358	24.2	Q	Q	Q	38.2	.42	14.3
Rented ...	184.3	39.0	11.4	135.0	133	Q	Q	Q	Q	Q	Q	25.4
<b>Year of Construction</b>												
1949 or Before ...	305.7	58.5	17.2	209.3	208	16.3	.12	Q	Q	21.2	.23	17.8
1950 to 1979 ...	390.2	112.5	33.0	250.7	249	11.9	.09	Q	Q	14.9	.16	17.6
1980 or After <sup>3</sup> ...	65.9	23.5	6.9	33.9	34	NC	NC	NC	NC	8.4	.09	40.7
<b>1990 Family Income</b>												
Less than \$10,000 ...	109.7	21.0	6.2	73.3	73	7.3	.05	Q	Q	8.1	.09	26.7
\$10,000 to \$19,999 ...	172.3	38.7	11.3	118.4	118	Q	Q	Q	Q	11.4	.12	20.1
\$20,000 to \$34,999 ...	208.0	55.3	16.2	135.8	135	Q	Q	Q	Q	13.9	.15	18.4
\$35,000 or More ...	271.9	79.5	23.3	166.3	165	14.5	.10	Q	Q	11.2	.12	19.2
<b>Below Poverty Line</b>												
100 Percent ...	65.2	14.4	4.2	40.2	40	Q	Q	Q	Q	35.6	33.7	33.7
125 Percent ...	108.3	24.7	7.2	64.5	64	Q	Q	Q	Q	13.4	.15	33.7
<b>Age of Householder</b>												
Under 35 Years ...	193.0	46.9	13.7	129.0	128	Q	Q	Q	Q	10.5	.12	18.6
35 to 59 Years ...	332.0	94.3	27.6	202.6	201	14.5	.10	Q	Q	20.2	.22	17.2
60 Years and Over ...	236.8	53.4	15.6	162.2	162	7.3	.05	Q	Q	13.9	.15	18.8
<b>Household Size</b>												
1 Person ...	177.7	33.7	9.9	133.6	133	Q	Q	Q	Q	6.0	.07	25.3
2 to 4 Persons ...	528.8	144.3	42.3	329.2	327	23.3	.17	Q	Q	31.5	.34	13.1
5 or More Persons ...	55.4	16.5	4.8	31.1	31	Q	Q	Q	Q	7.1	.08	33.4

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.  
<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.  
<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures, 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-487 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 30. Total Expenditures in Midwest Region Households, 1990**  
(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.4	0.5	0.6	1.9	2.8	1.6	
<b>Total Region</b>	<b>26.89</b>	<b>15.37</b>	<b>9.23</b>	<b>.93</b>	<b>.09</b>	<b>1.28</b>	<b>9.2</b>
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	22.56	12.54	8.05	.89	Q	.99	11.3
Under 5,500 HDD	4.34	2.83	1.18	Q	(*)	Q	32.3
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>	<b>20.78</b>	<b>11.83</b>	<b>6.97</b>	<b>.87</b>	<b>.04</b>	<b>1.07</b>	<b>10.9</b>
Single-Family	1.79	1.09	.45	Q	Q	.18	41.3
Mobile Home	4.32	2.45	1.81	Q	Q	Q	16.3
Multifamily (2 or more units)							
<b>Heated Floorspace (square feet)</b>	<b>5.51</b>	<b>3.27</b>	<b>1.72</b>	<b>.14</b>	<b>Q</b>	<b>.38</b>	<b>18.5</b>
Fewer than 1,000	10.17	5.72	3.53	.37	Q	.52	11.5
1,000 to 1,999	11.21	6.38	3.98	.42	Q	.42	14.6
2,000 or More							
<b>Ownership of Unit</b>	<b>20.94</b>	<b>12.15</b>	<b>6.76</b>	<b>.84</b>	<b>Q</b>	<b>1.12</b>	<b>8.5</b>
Owned	5.95	3.22	2.47	.09	.02	.15	15.8
Rented							
<b>Year of Construction</b>	<b>10.63</b>	<b>5.16</b>	<b>4.44</b>	<b>.48</b>	<b>.03</b>	<b>.51</b>	<b>14.2</b>
1949 or Before	12.82	7.99	3.88	.44	Q	.47	12.8
1950 to 1979	3.44	2.21	.92	Q	Q	.29	27.0
1980 or After <sup>3</sup>							
<b>1990 Family Income</b>	<b>3.80</b>	<b>1.77</b>	<b>1.54</b>	<b>.20</b>	<b>Q</b>	<b>.28</b>	<b>27.0</b>
Less than \$10,000	5.07	2.75	1.82	.14	Q	.34	15.2
\$10,000 to \$19,999	7.46	4.46	2.32	.31	Q	.32	17.7
\$20,000 to \$34,999	10.56	6.38	3.56	.28	Q	.34	15.1
\$35,000 or More							
<b>Below Poverty Line</b>	<b>2.78</b>	<b>1.35</b>	<b>1.03</b>	<b>.17</b>	<b>Q</b>	<b>.22</b>	<b>23.8</b>
100 Percent	4.05	1.99	1.46	.19	Q	.41	21.5
125 Percent							
<b>Age of Householder</b>	<b>7.14</b>	<b>4.07</b>	<b>2.56</b>	<b>.19</b>	<b>.02</b>	<b>.30</b>	<b>14.4</b>
Under 35 Years	12.30	7.38	3.93	.37	Q	.56	11.3
35 to 59 Years	7.44	3.91	2.73	.36	Q	.42	15.0
60 Years and Over							
<b>Household Size</b>	<b>4.92</b>	<b>2.54</b>	<b>2.12</b>	<b>.09</b>	<b>Q</b>	<b>.09</b>	<b>18.6</b>
1 Person	18.98	11.07	6.19	.76	.06	.90	10.6
2 to 4 Persons	2.99	1.75	.92	Q	Q	.22	20.5
5 or More Persons							

See footnotes at end of table.

## MIDWEST

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 30. Total Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup>	Liquefied Petroleum Gas						RSE Row Factors
		Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	Petroleum Gas	
RSE Column Factors:	0.4	0.5	0.6	1.9	2.8	1.6		
East North Central Division ....	19.58	11.00	6.90	0.72	Q	0.88		.0.5
Climate Zone <sup>2</sup>								
Under 2,000 CDD and Over 5,500 HDD .....	18.32	10.25	6.54	.70	Q	.76	14.1	NF
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q		NC
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC		
Type of Housing Unit								
Single-Family .....	14.80	8.22	5.14	.68	0.03	.72	14.2	
Mobile Home .....	1.39	.85	.34	Q	Q	.13	51.4	
Multifamily (2 or more units) .....	3.39	1.93	1.43	Q	Q	Q	19.0	
Heated Floorspace (square feet)								
Fewer than 1,000 .....	4.13	2.48	1.23	Q	Q	.26	27.9	
1,000 to 1,999 .....	7.39	4.01	2.70	.32	.03	.34	14.7	
2,000 or More .....	8.06	4.50	2.97	.30	Q	.28	19.4	
Ownership of Unit								
Owned .....	15.24	8.68	5.06	.66	Q	.78	11.2	
Rented .....	4.33	2.31	1.84	.02	Q	Q	15.0	
Year of Construction								
1949 or Before .....	8.02	3.83	3.48	.36	.02	.33	17.3	
1950 to 1979 .....	8.89	5.49	2.68	.35	Q	.34	17.0	
1980 or After <sup>3</sup> .....	2.67	1.68	.74	Q	Q	.21	33.0	
1990 Family Income								
Less than \$10,000 .....	2.83	1.27	1.20	.14	Q	Q	35.0	
\$10,000 to \$19,999 .....	3.51	1.87	1.26	Q	Q	.23	18.4	
\$20,000 to \$34,999 .....	5.47	3.24	1.69	.29	Q	.20	22.5	
\$35,000 or More .....	7.78	4.62	2.75	.17	(?)	.24	20.0	
Below Poverty Line								
100 Percent .....	2.16	1.01	.84	.14	Q	.16	27.9	
125 Percent .....	3.00	1.41	1.16	.15	Q	.28	28.5	
Age of Householder								
Under 35 Years .....	5.30	3.00	1.94	.14	.02	.20	16.8	
35 to 59 Years .....	8.95	5.28	2.97	.27	Q	.38	14.3	
60 Years and Over .....	5.33	2.72	1.99	.31	Q	.30	19.2	
Household Size								
1 Person .....	3.43	1.75	1.50	Q	Q	Q	26.3	
2 to 4 Persons .....	13.76	7.88	4.62	.58	Q	.05	.63	
5 or More Persons .....	2.38	1.37	.78	Q	Q	.16	13.6	

See footnotes at end of table.

**Table 30. Total Expenditures in Midwest Region Households, 1990 (Continued)**

(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.4	0.5	0.6	1.9	2.8	1.6	
<b>West North Central Division</b>	<b>7.31</b>	4.37	2.33	0.21	0.01	0.40	12.0
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	4.23	2.29	1.52	.19	Q	.23	13.6
Under 5,500 HDD .....	3.08	2.08	.81	Q	(*)	.17	21.5
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	5.99	3.61	1.83	.19	.01	.34	13.6
Mobile Home .....	.39	.23	.11	NC	Q	.04	51.3
Multifamily (2 or more units) .....	.93	.52	.38	Q	NC	Q	25.7
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	1.38	.79	.49	Q	Q	.07	17.1
1,000 to 1,999 .....	2.78	1.71	.83	.05	Q	.18	17.4
2,000 or More .....	3.15	1.87	1.01	.12	Q	.14	15.7
<b>Ownership of Unit</b>							
Owned .....	5.70	3.47	1.70	.18	.01	.34	12.8
Rented .....	1.61	.90	.63	Q	Q	Q	26.0
<b>Year of Construction</b>							
1949 or Before .....	2.60	1.33	.96	.12	Q	.19	16.4
1950 to 1979 .....	3.93	2.51	1.20	.09	Q	.14	15.6
1980 or After <sup>3</sup> .....	.78	.53	.17	NC	NC	.07	41.8
<b>1990 Family Income</b>							
Less than \$10,000 .....	.97	.50	.34	.05	Q	.07	24.7
\$10,000 to \$19,999 .....	1.57	.88	.55	Q	Q	.11	17.0
\$20,000 to \$34,999 .....	1.99	1.22	.63	Q	Q	.12	16.9
\$35,000 or More .....	2.79	1.77	.81	.11	Q	.10	18.3
<b>Below Poverty Line</b>							
100 Percent .....	.62	.34	.19	Q	Q	Q	37.0
125 Percent .....	1.05	.58	.30	Q	Q	.13	33.0
<b>Age of Householder</b>							
Under 35 Years .....	1.84	1.07	.62	Q	Q	.10	19.3
35 to 59 Years .....	3.36	2.11	.96	.11	(*)	.18	16.3
60 Years and Over .....	2.11	1.19	.74	.05	Q	.12	17.2
<b>Household Size</b>							
1 Person .....	1.49	.79	.61	Q	Q	.06	22.3
2 to 4 Persons .....	5.21	3.19	1.57	.17	(*)	.27	11.6
5 or More Persons .....	.60	.38	.15	Q	Q	.07	34.0

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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**Table 31. Electricity Consumption and Expenditures in Midwest Region Households, 1990**

Characteristics	Average per Household						RSE Row Factors
	Households Using Electricity (million)	Consumption (million Btu)	Expenditures (\$kWh)	Floorspace (square feet)	Expenditures (cents per kWh)		
RSE Column Factors:	1.4	1.1	1.1	0.9	0.8	0.8	
<b>Midwest Region</b>							
<b>Total Region</b>	23.1	28.8	8,430	666	2,035	7.9	4.0
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	19.7	27.7	8,107	637	2,023	7.9	4.2
Under 5,500 HDD and 2,000 CDD or More	3.4	35.2	10,308	836	2,105	8.1	6.4
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	16.0	32.6	9,559	739	2,477	7.7	3.7
Mobile Home	1.6	28.1	8,248	675	958	8.2	10.2
Multifamily (2 or more units)	5.4	17.6	5,165	450	1,053	8.7	6.0
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	6.5	20.8	6,088	500	848	8.2	5.1
1,000 to 1,999	8.8	28.7	8,407	653	1,812	7.8	4.6
2,000 or More	7.8	35.6	10,426	820	3,282	7.9	3.6
<b>Ownership of Unit</b>							
Owned	16.4	32.7	9,592	742	2,361	7.7	3.5
Rented	6.7	19.1	5,589	480	1,236	8.6	4.9
<b>Year of Construction</b>							
1949 or Before	9.0	24.2	7,106	575	2,063	8.1	4.4
1950 to 1979	11.3	31.1	9,113	709	1,931	7.8	4.5
1980 or After <sup>2</sup>	2.8	38.8	9,913	782	2,358	7.9	7.7
<b>1990 Family Income</b>							
Less than \$10,000	3.7	19.8	5,816	473	1,561	8.1	5.5
\$10,000 to \$19,999	5.2	22.1	6,463	533	1,626	8.2	3.9
\$20,000 to \$34,999	6.4	30.4	8,897	693	2,022	7.8	5.2
\$35,000 or More	7.7	36.2	10,620	826	2,547	7.8	4.6
<b>Below Poverty Line</b>							
100 Percent	2.7	21.1	6,184	508	1,521	8.2	5.6
125 Percent	3.9	21.3	6,257	511	1,523	8.2	5.0
<b>Age of Householder</b>							
Under 35 Years	6.7	26.5	7,755	607	1,693	7.8	6.5
35 to 59 Years	9.4	34.0	9,953	785	2,288	7.9	3.7
60 Years and Over	7.0	24.0	7,022	562	2,022	8.0	4.2
<b>Household Size</b>							
1 Person	6.0	17.0	4,983	423	1,462	8.5	5.0
2 to 4 Persons	15.0	32.0	9,369	736	2,217	7.9	2.9
5 or More Persons	2.0	39.9	11,702	869	2,381	7.4	9.6

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

## ENERGY CONSUMPTION AND EXPENDITURES

MIDWEST

**Table 31. Electricity Consumption and Expenditures in Midwest Region  
Households, 1990 (Continued)**

Characteristics	Households Using Electricity (million)	Average per Household				RSE Row Factors
		Consumption (million Btu)	(kWh)	Expenditures (dollars)	Floorspace (square feet)	
RSE Column Factors:	1.4	1.1	1.1	0.9	0.8	0.8
<b>East North Central Division ...</b>	<b>16.6</b>	<b>28.2</b>	<b>8,274</b>	<b>662</b>	<b>2,032</b>	<b>8.0</b>
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	15.7	28.1	8,244	653	2,032	7.9
Under 5,500 HDD	Q	30.0	8,768	810	2,043	9.2
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>						
Single-Family	11.3	32.2	9,425	730	2,509	7.7
Mobile Home	1.2	28.2	8,274	695	943	8.4
Multifamily ( 2 or more units) ..	4.1	17.6	5,146	466	1,057	9.1
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	4.8	21.1	6,174	517	849	8.4
1,000 to 1,999 .....	6.3	28.0	8,195	640	1,804	7.8
2,000 or More .....	5.5	34.7	10,180	812	3,313	8.0
<b>Ownership of Unit</b>						
Owned .....	11.8	32.2	9,486	735	2,554	7.8
Rented .....	4.8	18.5	5,415	482	1,240	8.9
<b>Year of Construction</b>						
1949 or Before .....	6.6	24.0	7,029	577	2,071	8.2
1950 to 1979 .....	7.9	30.2	8,851	696	1,888	7.9
1980 or After <sup>2</sup> .....	2.1	34.3	10,041	799	2,450	8.0
<b>1990 Family Income</b>						
Less than \$10,000 .....	2.7	19.9	5,822	474	1,611	8.1
\$10,000 to \$19,999 .....	3.6	21.1	6,178	524	1,559	8.5
\$20,000 to \$34,999 .....	4.6	30.3	8,887	702	2,047	7.9
\$35,000 or More .....	5.7	34.9	10,222	803	2,510	7.9
<b>Below Poverty Line</b>						
100 Percent .....	2.0	20.7	6,074	505	1,564	8.3
125 Percent .....	2.8	20.8	6,100	504	1,559	8.3
<b>Age of Householder</b>						
Under 35 Years .....	4.9	26.4	7,744	608	1,680	7.8
35 to 59 Years .....	6.8	33.3	9,772	782	2,303	8.0
60 Years and Over .....	4.9	23.0	6,751	552	2,014	8.2
<b>Household Size</b>						
1 Person .....	4.2	16.3	4,791	418	1,457	8.7
2 to 4 Persons .....	10.8	31.1	9,107	727	2,210	8.0
5 or More Persons .....	1.6	40.2	11,773	859	2,383	7.3

See footnotes at end of table.

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 31. Electricity Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Flow Factors
	Households Using Electricity (million)	Consumption (million Btu)	(kWh)	Expenditures (dollars)	Floorspace (square feet)	Expenditures (cents per kWh)	
RSE Column Factors:	1.4	1.1	1.1	0.9	0.8	0.8	
West North Central Division ...	6.5	30.1	8,832	677	2,041	7.7	3.2
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	4.0	25.8	7,571	573	1,988 2,128	7.6 7.8	3.6 6.0
Under 5,500 HDD .....	2.5	37.1	10,879	845			
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	4.8	33.7	9,875	758	2,400 1,007	7.7 7.5	3.4 13.0
Mobile Home .....	.4	27.9	8,169	609	1,038	7.7	7.5
Multifamily ( 2 or more units) .....	1.3	17.8	5,226	400			
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	1.7	20.0	5,850	454	845	7.8	5.6
1,000 to 1,999 .....	2.5	30.5	8,942	686	1,834 3,207	7.7 7.6	3.7 4.4
2,000 or More .....	2.2	37.7	11,039	840			
<b>Ownership of Unit</b>							
Owned .....	4.6	34.1	9,995	760	2,380 1,226	7.6 7.9	3.7 6.5
Rented .....	1.9	20.6	6,031	476			
<b>Year of Construction</b>							
1949 or Before .....	2.3	25.0	7,322	569	2,039 2,032	7.8 7.6	3.6 4.7
1950 to 1979 .....	3.4	33.2	9,724	739	2,032	7.7	8.4
1980 or After <sup>2</sup> .....	.7	32.6	9,540	732	2,088		
<b>1990 Family Income</b>							
Less than \$10,000 .....	1.1	19.8	5,802	472	1,437	8.1	6.2
\$10,000 to \$19,999 .....	1.6	24.2	7,100	552	1,778	7.8	4.6
\$20,000 to \$34,999 .....	1.8	30.4	8,921	671	1,960	7.5	3.9
\$35,000 or More .....	2.0	40.2	11,774	893	2,653	7.6	6.0
<b>Below Poverty Line</b>							
100 Percent .....	.6	22.3	6,523	516	1,389	7.9	9.1
125 Percent .....	1.1	22.7	6,661	531	1,432	8.0	6.4
<b>Age of Householder</b>							
Under 35 Years .....	1.8	26.6	7,786	606	1,729	7.8	4.9
35 to 59 Years .....	2.7	35.5	10,414	793	2,250	7.6	5.0
60 Years and Over .....	2.0	26.2	7,676	586	2,040	7.6	5.9
<b>Household Size</b>							
1 Person .....	1.8	18.5	5,425	436	1,472	8.0	5.4
2 to 4 Persons .....	4.2	34.3	10,043	758	2,235	7.5	3.4
5 or More Persons .....	.4	39.0	11,435	905	2,559	7.9	6.9

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 32. Natural Gas Consumption and Expenditures in Midwest Region Households, 1990**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	Expenditures (dollars per thousand cf)	RSE Row Factors
		Consumption (million Btu)	(thousand cf)	Expenditures (dollars)	Floorspace (square feet)			
Total Region .....	16.9	111.6	109.6	548	2,059	5.0	5.0	2.1
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	14.5	113.3	111.2	555	2,035	5.0	2.5	
Under 5,500 HDD .....	2.3	101.3	99.8	502	2,208	5.0	5.2	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	11.7	122.2	120.1	595	2,492	4.9	2.4	
Mobile Home .....	1.0	87.0	85.5	466	1,022	5.4	6.7	
Multifamily (2 or more units) .....	4.2	87.5	85.4	434	1,081	5.1	4.5	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	4.5	75.9	74.3	382	810	5.1	4.3	
1,000 to 1,999 .....	6.4	110.8	108.9	551	1,794	5.1	2.4	
2,000 or More .....	5.9	139.7	137.1	670	3,293	4.9	2.7	
<b>Ownership of Unit</b>								
Owned .....	11.3	121.7	119.6	596	2,443	5.0	2.4	
Rented .....	5.5	90.8	88.9	448	1,269	5.0	3.6	
<b>Year of Construction</b>								
1949 or Before .....	7.2	124.3	122.0	612	2,014	5.0	3.1	
1950 to 1979 .....	7.8	101.5	98.6	498	1,980	5.0	3.1	
1980 or After <sup>2</sup> .....	1.8	104.8	102.9	501	2,574	4.9	7.2	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.8	113.0	110.7	560	1,620	5.1	5.8	
\$10,000 to \$19,999 .....	3.8	96.4	94.7	480	1,627	5.1	3.4	
\$20,000 to \$34,999 .....	4.5	104.1	102.3	514	1,995	5.0	3.4	
\$35,000 or More .....	5.8	126.8	124.4	612	2,598	4.9	3.6	
<b>Below Poverty Line</b>								
100 Percent .....	1.8	115.3	112.7	576	1,537	5.1	5.4	
125 Percent .....	2.7	109.1	106.8	544	1,535	5.1	4.3	
<b>Age of Householder</b>								
Under 35 Years .....	5.0	103.3	101.3	512	1,723	5.1	4.5	
35 to 59 Years .....	6.7	120.8	118.5	585	2,334	4.9	2.6	
60 Years and Over .....	5.1	107.8	105.9	533	2,028	5.0	3.3	
<b>Household Size</b>								
1 Person .....	4.6	93.6	91.8	462	1,581	5.0	5.6	
2 to 4 Persons .....	10.9	115.5	113.5	566	2,212	5.0	2.2	
5 or More Persons .....	1.3	141.8	138.8	694	2,443	5.0	4.8	

See footnotes at end of table.

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**Table 32. Natural Gas Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors	
	Households Using Natural Gas (million)	Consumption		Expenditures (dollars)	Floor/space (square feet)	Expenditures (dollars per thousand cf)		
		(million Btu)	(thousand cf)					
RSE Column Factors:	2.3	1.0	1.0	0.9	1.0	0.4		
East North Central Division ...	11.9	116.6	114.0	580	2,078	5.1	2.5	
Climate Zone <sup>1</sup>								
Under 2,000 CDD and Over 5,500 HDD .....	11.2	117.1	114.4	583	2,079	5.1	2.7	
Under 5,500 HDD .....	Q	109.5	106.7	539	2,061	5.0	2.8	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Type of Housing Unit								
Single-Family .....	8.2	127.3	124.5	626	2,522	5.0	2.8	
Mobile Home .....	.7	84.9	82.8	475	1,013	5.7	6.3	
Multifamily (2 or more units) ...	3.0	94.7	92.2	479	1,106	5.2	5.5	
Heated Floorspace (square feet)								
Fewer than 1,000 .....	3.1	76.8	74.8	397	806	5.3	5.4	
1,000 to 1,999 .....	4.6	116.1	113.6	590	1,794	5.2	4.8	
2,000 or More .....	4.2	146.6	143.3	705	3,327	4.9	3.3	
Ownership of Unit								
Owned .....	8.0	127.3	124.5	630	2,456	5.1	2.9	
Rented .....	3.9	94.5	92.1	476	1,285	5.2	4.9	
Year of Construction								
1949 or Before .....	5.4	128.3	125.4	646	2,035	5.2	3.7	
1950 to 1979 .....	5.2	104.1	101.6	517	1,949	5.1	4.1	
1980 or After <sup>2</sup> .....	1.3	118.2	115.8	558	2,752	4.8	9.5	
1990 Family Income								
Less than \$10,000 .....	1.9	123.3	120.0	623	1,715	5.2	6.2	
\$10,000 to \$19,999 .....	2.5	97.2	94.8	498	1,568	5.2	4.2	
\$20,000 to \$34,999 .....	3.1	106.3	103.8	539	2,034	5.2	3.8	
\$35,000 or More .....	4.3	132.7	129.9	640	2,575	4.9	4.4	
Below Poverty Line								
100 Percent .....	1.3	125.2	122.0	635	1,645	5.2	6.0	
125 Percent .....	1.9	118.9	115.8	602	1,620	5.2	4.6	
Age of Householder								
Under 35 Years .....	3.6	107.6	105.2	538	1,735	5.1	5.8	
35 to 59 Years .....	4.8	128.0	125.1	624	2,368	5.0	3.2	
60 Years and Over .....	3.5	110.6	107.9	564	2,039	5.2	3.5	
Household Size								
1 Person .....	3.0	97.4	95.0	497	1,625	5.2	6.8	
2 to 4 Persons .....	7.8	119.7	117.1	592	2,208	5.1	2.7	
5 or More Persons .....	1.1	148.8	145.0	732	2,414	5.0	5.3	

See footnotes at end of table.

**Table 32. Natural Gas Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(thousand cf)						
RSE Column Factors:	2.3	1.0	1.0	0.9	1.0	0.4			
<b>West North Central Division</b>	5.0	99.6	99.1	470	2,013	4.7	3.8		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD .....	3.3	100.4	100.1	461	1,884	4.6	4.9		
Under 5,500 HDD .....	1.7	98.0	97.0	487	2,268	5.0	6.1		
2,000 CDD or More and									
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC		
<b>Type of Housing Unit</b>									
Single-Family .....	3.5	110.3	109.9	522	2,422	4.7	3.7		
Mobile Home .....	.3	92.6	93.0	441	1,045	4.7	13.1		
Multifamily (2 or more units) .....	1.2	69.7	68.4	322	1,018	4.7	7.6		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	1.4	73.8	73.2	347	819	4.7	6.5		
1,000 to 1,999 .....	1.8	97.6	97.2	455	1,795	4.7	3.9		
2,000 or More .....	1.7	122.7	122.0	585	3,213	4.8	3.9		
<b>Ownership of Unit</b>									
Owned .....	3.3	108.2	107.9	513	2,411	4.8	4.0		
Rented .....	1.6	82.2	81.2	382	1,209	4.7	5.3		
<b>Year of Construction</b>									
1949 or Before .....	1.9	112.6	112.1	515	1,955	4.6	5.8		
1950 to 1979 .....	2.6	96.2	95.7	461	2,039	4.8	4.6		
1980 or After <sup>2</sup> .....	.5	68.7	67.9	349	2,094	5.1	9.6		
<b>1990 Family Income</b>									
Less than \$10,000 .....	.8	88.9	88.6	410	1,399	4.6	10.4		
\$10,000 to \$19,999 .....	1.2	94.8	94.4	443	1,747	4.7	3.9		
\$20,000 to \$34,999 .....	1.4	99.1	98.8	458	1,907	4.6	5.4		
\$35,000 or More .....	1.5	109.9	108.8	534	2,663	4.9	5.4		
<b>Below Poverty Line</b>									
100 Percent .....	.5	86.8	86.5	408	1,229	4.7	9.4		
125 Percent .....	.8	84.4	84.0	397	1,321	4.7	8.0		
<b>Age of Householder</b>									
Under 35 Years .....	1.4	92.2	91.4	444	1,692	4.9	4.3		
35 to 59 Years .....	2.0	103.2	102.5	491	2,250	4.8	4.1		
60 Years and Over .....	1.6	101.7	101.6	466	2,003	4.6	6.5		
<b>Household Size</b>									
1 Person .....	1.6	86.0	85.6	394	1,495	4.6	7.3		
2 to 4 Persons .....	3.1	105.1	104.4	501	2,222	4.8	3.2		
5 or More Persons .....	.3	114.5	114.6	545	2,558	4.8	6.5		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 33. Fuel Oil Consumption and Expenditures in Midwest Region Households, 1990**

Characteristics	Households Using Fuel Oil (million)	Average per Household				RSE Row Factors
		Consumption (million Btu)	Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per gallon)	
RSE Column Factors:	2.4	1.2	1.2	1.3	1.0	0.2
<b>Midwest Region</b>						
<b>Total Region</b>	1.6	77.5	563	594	2,450	1.05
East North Central Division	1.2	75.7	550	585	2,453	1.06
West North Central Division	.3	84.1	610	624	2,441	1.02
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	1.5	76.9	559	590	2,450	1.06
Under 5,500 HDD	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>						
Single-Family	1.4	80.2	582	615	2,612	1.06
Mobile Home	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	49.0	360	347	Q	44.0
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	.3	58.3	429	475	1,114	1.11
1,000 to 1,999	.6	74.9	544	590	2,113	1.08
2,000 or More	.6	88.6	642	651	3,381	1.01
<b>Ownership of Unit</b>						
Owned	1.4	80.8	586	615	2,614	1.05
Rented	.2	55.1	407	449	1,363	1.10
<b>Year of Construction</b>						
1949 or Before	.8	77.9	566	613	2,373	1.08
1950 to 1979	.7	78.7	571	585	2,522	1.02
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>						
Less than \$10,000	.3	83.2	609	668	1,692	1.10
\$10,000 to \$19,999	.2	74.2	539	573	2,244	1.06
\$20,000 to \$34,999	.5	74.5	541	569	2,671	1.05
\$35,000 or More	.5	78.9	572	586	2,778	1.03
<b>Below Poverty Line</b>						
100 Percent	.3	80.6	590	650	1,706	1.10
125 Percent	.3	78.9	577	633	1,650	1.10
<b>Age of Householder</b>						
Under 35 Years	.3	80.9	593	654	2,098	1.10
35 to 59 Years	.8	62.8	455	472	2,525	1.04
60 Years and Over	.5	99.6	723	757	2,545	1.05
<b>Household Size</b>						
1 Person	.1	79.8	584	640	1,629	1.10
2 to 4 Persons	.1	78.3	568	596	2,594	1.05
5 or More Persons	Q	Q	Q	Q	Q	NF

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<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 34. Kerosene Consumption and Expenditures in Midwest Region Households, 1990**

Characteristics	Households Using Kerosene (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors
		Consumption (million Btu)	(gallons)	Expenditures (dollars)	Floorspace (square feet)		
RSE Column Factors:	1.2	1.7	1.7	1.7	0.6	0.3	
<b>Midwest Region</b>							
<b>Total Region</b>	1.4	6.6	49	63	2,072	1.28	22.1
East North Central Division	1.2	7.4	55	70	2,115	1.28	24.5
West North Central Division	.2	2.7	20	26	1,854	1.27	19.3
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD	1.2	7.5	56	71	2,102	1.28	24.0
Under 5,500 HDD	.2	1.6	12	16	1,902	1.35	19.4
2,000 CDD or More and							
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	1.1	3.7	27	38	2,421	1.39	17.3
Mobile Home	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	.4	12.6	94	111	897	1.18	20.8
1,000 to 1,999	.5	5.2	39	53	2,028	1.37	13.8
2,000 or More	.4	Q	Q	Q	3,342	1.58	30.5
<b>Ownership of Unit</b>							
Owned	1.0	Q	Q	68	2,180	1.27	22.7
Rented	.3	Q	Q	Q	1,743	1.33	31.4
<b>Year of Construction</b>							
1949 or Before	.5	5.2	39	51	2,035	1.32	15.5
1950 to 1979	.6	Q	Q	Q	2,364	1.34	35.5
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>							
Less than \$10,000	Q	Q	Q	Q	Q	Q	NF
\$10,000 to \$19,999	.2	Q	Q	Q	2,185	1.27	29.4
\$20,000 to \$34,999	.6	7.3	54	70	1,791	1.29	23.1
\$35,000 or More	.4	2.0	15	19	2,791	1.28	21.7
<b>Below Poverty Line</b>							
100 Percent	Q	Q	Q	Q	Q	Q	NF
125 Percent	.2	5.7	42	52	1,455	1.24	21.0
<b>Age of Householder</b>							
Under 35 Years	.4	4.5	33	44	1,631	1.32	26.0
35 to 59 Years	.7	Q	Q	Q	2,218	1.21	21.5
60 Years and Over	.2	Q	Q	Q	2,390	1.58	19.6
<b>Household Size</b>							
1 Person	Q	Q	Q	Q	Q	Q	NF
2 to 4 Persons	1.0	5.6	41	55	2,265	1.34	19.8
5 or More Persons	Q	5.8	49	55	2,008	1.29	29.6

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

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**Table 35. Liquefied Petroleum Gas Consumption and Expenditures in Midwest Region Households, 1990**

Characteristics	Average per Household						RSE Row Factors	
	Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per gallon)			
	(million Btu)	(gallons)			Q	Q		
Total Region .....	2.4	54.8	600	533	2,091	0.89	7.7	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	1.8	55.2	604	550	2,178	.91	9.0	
Under 5,500 HDD .....	.6	53.8	589	481	1,829	.82	13.0	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	1.9	57.5	630	554	2,354	.88	8.6	
Mobile Home .....	.4	42.6	466	435	821	.93	14.6	
Multifamily (2 or more units) ...	Q	Q	Q	Q	Q	Q	NF	
<b>Heated Floorspace</b> (square feet)								
Fewer than 1,000 .....	.7	43.5	476	456	998	.96	8.9	
1,000 to 1,999 .....	.9	60.1	658	577	1,989	.88	11.1	
2,000 or More .....	.8	59.4	650	553	3,253	.85	7.2	
<b>Ownership of Unit</b>								
Owned .....	2.1	54.8	600	535	2,169	.89	7.6	
Rented .....	.3	54.7	599	516	1,544	.86	20.4	
<b>Year of Construction</b>								
1949 or Before .....	.9	59.9	656	549	2,168	.84	10.9	
1950 to 1979 .....	.9	48.6	532	508	1,942	.96	11.1	
1980 or After <sup>2</sup> .....	.5	56.9	623	546	2,218	.88	12.2	
<b>1990 Family Income</b>								
Less than \$10,000 .....	.6	44.6	488	501	1,416	1.03	17.3	
\$10,000 to \$19,999 .....	.7	49.0	536	495	1,661	.92	11.2	
\$20,000 to \$34,999 .....	.6	54.5	597	506	2,423	.85	9.3	
\$35,000 or More .....	.5	73.7	807	648	2,964	.80	12.0	
<b>Below Poverty Line</b>								
100 Percent .....	.5	41.9	459	450	1,309	.98	17.5	
125 Percent .....	.7	50.3	551	556	1,409	1.01	15.8	
<b>Age of Householder</b>								
Under 35 Years .....	.6	51.4	563	501	1,984	.89	10.2	
35 to 59 Years .....	1.1	54.0	592	516	2,208	.87	11.0	
60 Years and Over .....	.7	58.9	644	584	2,004	.91	13.4	
<b>Household Size</b>								
1 Person .....	.3	47.4	519	527	1,428	1.01	20.5	
2 to 4 Persons .....	1.6	59.0	647	553	2,180	.85	8.2	
5 or More Persons .....	.5	44.8	491	468	2,184	.95	13.6	

See footnotes at end of table.

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**Table 35. Liquefied Petroleum Gas Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Households Using LPG (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors
		Consumption (million Btu)	(gallons)	Expenditures (dollars)	Floorspace (square feet)		
RSE Column Factors:	2.0	1.2	1.2	1.2	0.7	0.4	
<b>East North Central Division</b>	1.6	53.8	589	545	2,050	0.92	11.1
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	1.4	51.5	563	535	2,072	.95	11.3
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family	1.2	58.0	635	581	2,374	.91	12.6
Mobile Home	.3	38.6	423	409	807	.97	17.6
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	.6	42.9	470	469	966	1.00	10.7
1,000 to 1,999	.6	61.9	678	614	2,001	.91	17.8
2,000 or More	.5	56.9	623	552	3,289	.89	10.1
<b>Ownership of Unit</b>							
Owned	1.4	55.0	602	558	2,126	.93	11.0
Rented	.2	Q	Q	461	1,557	.91	22.2
<b>Year of Construction</b>							
1949 or Before	.6	60.0	656	562	2,155	.86	17.0
1950 to 1979	.7	46.2	505	515	1,842	1.02	14.8
1980 or After <sup>2</sup>	.4	57.8	633	572	2,253	.90	15.8
<b>1990 Family Income</b>							
Less than \$10,000	Q	42.8	468	521	1,265	1.11	22.6
\$10,000 to \$19,999	Q	45.8	501	480	1,570	.96	14.9
\$20,000 to \$34,999	Q	52.8	578	519	2,595	.90	12.6
\$35,000 or More	Q	78.5	860	691	2,977	.80	18.0
<b>Below Poverty Line</b>							
100 Percent	.4	40.3	442	450	1,093	1.02	22.2
125 Percent	Q	49.3	540	585	1,216	1.08	23.1
<b>Age of Householder</b>							
Under 35 Years	.4	50.1	549	501	1,952	.91	13.5
35 to 59 Years	.7	52.7	577	525	2,186	.91	16.9
60 Years and Over	.5	58.6	641	610	1,927	.95	20.3
<b>Household Size</b>							
1 Person	Q	Q	Q	Q	Q	Q	NF
2 to 4 Persons	1.1	59.2	648	572	2,162	.88	12.0
5 or More Persons	.4	40.5	443	439	2,066	.99	17.8

See footnotes at end of table.

**Table 35. Liquefied Petroleum Gas Consumption and Expenditures in Midwest Region Households, 1990 (Continued)**

Characteristics	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors
	Households Using LPG (million)	Consumption (million Btu)	Expenditures (gallons)	Floorspace (square feet)		
RSE Column Factors:	2.0	1.2	1.2	1.2	.7	.4
West North Central Division ...	0.8	56.9	623	507	2,175	0.81
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD .....	.4	69.0	756	606	2,572	.80
Under 5,500 HDD .....	.4	45.5	498	415	1,802	.83
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>						
Single-Family .....	.7	56.6	620	504	2,316	.81
Mobile Home .....	.1	59.2	648	544	881	.84
Multifamily (2 or more units) ...	Q	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000 .....	.2	45.3	496	414	1,099	.83
1,000 to 1,999 .....	.4	57.3	627	520	1,971	.83
2,000 or More .....	.3	64.2	703	553	3,181	.79
<b>Ownership of Unit</b>						
Owned .....	Q	54.5	597	489	2,254	.82
Rented .....	.7	54.0	Q	Q	1,510	.79
<b>Year of Construction</b>						
1949 or Before .....	.4	59.7	654	529	2,190	.81
1950 to 1979 .....	.3	54.3	595	493	2,180	.83
1980 or After <sup>2</sup> .....	.2	54.9	601	484	2,132	.81
<b>1990 Family Income</b>						
Less than \$10,000 .....	.2	48.9	536	453	1,771	.85
\$10,000 to \$19,999 .....	.2	56.6	620	532	1,878	.86
\$20,000 to \$34,999 .....	.2	57.3	627	485	2,144	.77
\$35,000 or More .....	2	64.2	702	562	2,939	.80
<b>Below Poverty Line</b>						
100 Percent .....	Q	45.8	502	448	1,837	.89
125 Percent .....	.3	52.1	571	502	1,764	.88
<b>Age of Householder</b>						
Under 35 Years .....	.2	54.1	592	499	2,049	.84
35 to 59 Years .....	.4	56.7	621	498	2,252	.80
60 Years and Over .....	.2	59.5	651	528	2,163	.81
<b>Household Size</b>						
1 Person .....	.1	48.1	527	440	1,654	.83
2 to 4 Persons .....	.5	58.8	644	513	2,217	.80
5 or More Persons .....	.1	57.4	628	552	2,523	.88

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

## MIDWEST

**Table 36. Wood Consumption in Midwest Region Households, December 1989 Through November 1990**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel		
	Consumption		Households (million)	Consumption		Average per Household
	Total	Average per Household		Total	(million cords)	
RSE Column Factors:	0.8	1.2	0.7	0.7	1.4	1.7
<b>Total Region</b>	<b>5.4</b>	<b>8.3</b>	<b>30.9</b>	<b>1.5</b>	<b>1.0</b>	<b>4.8</b>
East North Central Division	.12	6.1	30.6	.8	.07	95.2
West North Central Division	.05	2.3	31.7	1.6	.02	94.6
						4.7
						97.1
						4.9
						19.9
						4.9
						19.6
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	.44	.13	6.7	30.0	1.5	.08
Under 5,500 HDD	.03	1.7	35.2	1.8	.Q	3.8
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	87.1
						88.7
						4.4
						17.6
						32.2
<b>Type of Housing Unit</b>						
Single-Family	5.0	.15	7.6	30.2	1.5	.9
Mobile Home	.3	Q	Q	Q	Q	.09
Multifamily (2 or more units)	Q	Q	Q	Q	Q	4.3
						99.5
						Q
						Q
						5.0
						55.1
						NF
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	.4	.02	1.0	52.4	2.6	.Q
1,000 to 1,999	.8	.06	2.9	32.1	1.6	.04
2,000 or More	3.2	.09	4.4	27.6	1.4	.05
						1.8
						2.3
						103.8
						99.9
						5.0
						5.2
						21.7
<b>Ownership of Unit</b>						
Owned	5.0	.15	7.5	30.2	1.5	.9
Rented	.4	.02	.8	39.8	2.0	.Q
						.09
						4.3
						96.8
						Q
						Q
						29.3
						20.1
						4.2
						Q
						43.8
<b>Year of Construction</b>						
1949 or Before	1.6	.07	3.6	44.9	2.2	.5
1950 to 1979	2.9	.07	3.3	22.8	1.1	.5
1980 or After <sup>2</sup>	.9	.03	1.5	31.6	1.6	.Q
						.04
						2.4
						97.2
						83.2
						4.9
						20.3
						4.2
						16.2
						Q
						23.3
<b>1990 Family Income</b>						
Less than \$10,000	Q	Q	Q	Q	Q	Q
\$10,000 to \$19,999	.7	.04	1.8	48.7	2.4	.2
\$20,000 to \$34,999	1.5	.05	2.7	35.2	1.8	.3
\$35,000 or More	2.8	.05	2.7	19.1	1.0	.2
						.03
						1.5
						110.0
						5.5
						23.6
						4.4
						15.0
						3.8
						18.4
<b>Below Poverty Line</b>						
100 Percent	4	.03	1.5	69.4	3.5	.Q
125 Percent	.5	.04	1.8	70.9	3.5	.3
						.03
						1.3
						119.5
						6.0
						41.9
						6.1
						34.7
<b>Age of Householder</b>						
Under 35 Years	1.0	.03	1.7	33.7	1.7	.1
35 to 59 Years	3.2	.10	4.9	31.2	1.6	.7
60 Years and Over	1.2	.03	1.7	27.9	1.4	.2
						.06
						3.0
						1.3
						118.1
						5.9
						25.8
<b>Household Size</b>						
1 Person	.5	.02	.8	31.9	1.6	.Q
2 to 4 Persons	1.3	.02	6.3	29.8	1.5	.7
5 or More Persons	.6	.02	1.2	37.4	1.9	.2
						.07
						3.4
						92.7
						Q
						4.6
						96.0
						4.8
						26.6

See footnotes at end of table.

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 36. Wood Consumption in Midwest Region Households, December 1989 Through November 1990 (Continued)**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel		
	Consumption		Average per Household	Consumption		Average per Household
	Total	(million BTu)		Total	(million BTu)	
	Households (millions)	(quad-million BTu)	(million cords)	Households (millions)	(quad-million BTu)	(million cords)
RSE Column Factors:	0.8	1.2	1.2	0.7	0.7	0.7
<b>Main Heating Fuel</b>						
Natural Gas .....	2.9	0.03	1.7	11.7	0.6	--
Electricity .....	.5	.01	.4	17.6	.9	--
Fuel Oil or Kerosene .....	.5	.01	.6	26.1	1.3	--
Wood .....	1.0	.10	4.8	95.2	4.8	--
Heating Stove .....	.5	.05	2.3	87.7	4.4	--
Fireplace .....	Q	Q	Q	Q	Q	15.2
Furnace/Other .....	Q	Q	Q	Q	Q	NF
LPG .....	.5	.02	.8	107.0	5.3	29.9
Other .....	Q	Q	Q	Q	Q	5.3
<b>Secondary Heating Equipment Used .....</b>		4.9	.12	5.8	23.6	1.2
<b>Amount of Wood Burned In Past 12 Months</b>						
Less than one-half Cord .....	2.4	.01	.5	4.0	.2	NC
One-half to Less than 1 .....	1.0	.01	.6	11.9	.6	Q
1 to Less than 2 .....	.4	.01	.5	22.6	1.1	Q
2 to 4 Cords .....	.9	.06	2.9	62.9	3.1	Q
More than 4 Cords .....	.6	.08	3.9	129.8	6.5	Q
<b>Hours Wood Burned in Winter</b>						
Less than 1 Hour per week .....	1.4	.01	.3	4.1	.2	NC
Less than 1 Hour per day .....	1.1	.01	.5	7.9	.4	NC
1 to 4 Hours per day .....	1.0	.02	.9	17.7	.9	NC
More than 4 Hours per day .....	.6	.03	1.4	44.2	2.2	Q
Almost Continuously .....	1.3	.11	5.3	84.8	4.2	Q
<b>Purchased Firewood</b>						
Yes .....	1.6	.06	3.0	37.4	1.9	.3
No .....	3.8	.10	5.2	27.6	1.4	.7

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

-- = Data not applicable.

NF = No applicable RSE row/column factor.

Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, and C of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

MIDWEST

**Table 37. Average Expenditures for Major Energy Sources in Midwest Region Households, 1990**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.9	1.1	0.5	0.8	2.0	1.4	
Midwest Region							
Total Region .....	9.6	23.2	4.9	7.7	9.5	9.7	2.6
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	9.3	23.0	4.9	7.7	9.5	10.0	2.7
Under 5,500 HDD .....	11.0	23.8	5.0	Q	10.0	8.9	4.0
2,000 CDD or More and 2,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
Under 4,000 HDD .....							
<b>Type of Housing Unit</b>							
Single-Family .....	9.5	22.6	4.9	7.7	10.3	9.6	2.6
Mobile Home .....	11.5	24.0	5.4	Q	Q	10.2	6.9
Multifamily (2 or more units) ...	9.2	25.6	5.0	7.1	Q	Q	5.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	10.4	24.1	5.0	8.2	8.8	10.5	3.5
1,000 to 1,999 .....	9.5	22.8	5.0	7.9	10.2	9.6	2.8
2,000 or More .....	9.3	23.1	4.8	7.3	11.7	9.3	3.1
<b>Ownership of Unit</b>							
Owned .....	9.7	22.7	4.9	7.6	9.4	9.8	2.8
Rented .....	9.0	25.2	4.9	8.1	9.8	9.4	4.2
<b>Year of Construction</b>							
1949 or Before .....	8.6	23.7	4.9	7.9	9.8	9.2	2.7
1950 to 1979 .....	10.3	22.8	4.9	7.4	9.9	10.5	3.6
1980 or After <sup>3</sup> .....	10.7	23.1	4.8	Q	Q	9.6	3.5
<b>1990 Family Income</b>							
Less than \$10,000 .....	8.7	23.8	5.0	8.0	Q	11.2	4.4
\$10,000 to \$19,999 .....	9.5	24.2	5.0	7.7	9.4	10.1	4.0
\$20,000 to \$34,999 .....	10.0	22.8	4.9	7.6	9.6	9.3	3.2
\$35,000 or More .....	9.7	22.8	4.8	7.4	9.5	8.8	2.9
<b>Below Poverty Line</b>							
100 Percent .....	9.1	24.1	5.0	8.1	Q	10.7	4.1
125 Percent .....	9.3	24.0	5.0	8.0	9.2	11.1	3.4
<b>Age of Householder</b>							
Under 35 Years .....	9.5	22.9	5.0	8.1	9.8	9.7	3.6
35 to 59 Years .....	9.9	23.1	4.8	7.5	9.0	9.6	2.3
60 Years and Over .....	9.2	23.5	4.9	7.6	11.7	9.9	3.5
<b>Household Size</b>							
1 Person .....	8.8	24.9	4.9	8.0	Q	11.1	5.3
2 to 4 Persons .....	9.8	23.0	4.9	7.6	9.9	9.4	2.4
5 or More Persons .....	9.9	21.8	4.9	Q	9.5	10.4	5.1

See footnotes at end of table.

## MIDWEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 37. Average Expenditures for Major Energy Sources in Midwest Region Households, 1990 (Continued)**

(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.9	1.1	0.5	0.8	2.0	1.4	
<b>East North Central Division</b> ...	9.6	23.4	5.0	7.7	9.5	10.1	3.2
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	9.5	23.2	5.0	7.7	9.5	10.4	3.1
Under 5,500 HDD .....	10.6	27.0	4.9	Q	Q	Q	11.9
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	9.4	22.7	4.9	7.7	10.5	10.0	3.2
Mobile Home .....	12.0	24.6	5.6	Q	Q	10.6	8.4
Multifamily (2 or more units) ...	9.5	26.6	5.1	Q	Q	Q	4.3
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	10.8	24.5	5.2	Q	8.8	10.9	4.3
1,000 to 1,999 .....	9.4	22.9	5.1	8.0	10.2	9.9	3.9
2,000 or More .....	9.2	23.4	4.8	7.3	11.9	9.7	4.1
<b>Ownership of Unit</b>							
Owned .....	9.7	22.8	5.0	7.7	9.4	10.1	3.5
Rented .....	9.2	26.1	5.0	Q	9.9	10.0	5.4
<b>Year of Construction</b>							
1949 or Before .....	8.6	24.1	5.0	8.0	9.9	9.4	3.5
1950 to 1979 .....	10.4	23.1	5.0	7.5	9.9	11.1	4.7
1980 or After <sup>3</sup> .....	10.5	23.3	4.7	Q	Q	9.9	4.3
<b>1990 Family Income</b>							
Less than \$10,000 .....	8.7	23.8	5.1	8.3	Q	12.2	4.9
\$10,000 to \$19,999 .....	9.7	24.9	5.1	Q	9.5	10.5	4.7
\$20,000 to \$34,999 .....	10.2	23.1	5.1	7.6	9.6	9.8	3.9
\$35,000 or More .....	9.5	23.0	4.8	7.4	9.2	8.8	3.9
<b>Below Poverty Line</b>							
100 Percent .....	9.0	24.4	5.1	8.3	Q	11.2	4.7
125 Percent .....	9.1	24.2	5.1	8.2	Q	11.9	4.8
<b>Age of Householder</b>							
Under 35 Years .....	9.5	23.0	5.0	8.2	9.7	10.0	4.5
35 to 59 Years .....	9.8	23.4	4.9	7.6	9.0	10.0	3.1
60 Years and Over .....	9.3	24.0	5.1	7.7	Q	10.4	3.9
<b>Household Size</b>							
1 Person .....	9.0	25.6	5.1	Q	Q	4.4	
2 to 4 Persons .....	9.7	23.4	4.9	7.7	Q	9.7	2.9
5 or More Persons .....	9.7	21.4	4.9	Q	Q	10.8	6.9

See footnotes at end of table.

**Table 37. Average Expenditures for Major Energy Sources in Midwest Region Households, 1990 (Continued)**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	
RSE Column Factors:	0.9	1.1	0.5	0.8	2.0	1.4	RSE Row Factors
<b>West North Central Division ...</b>	<b>9.6</b>	22.5	4.7	7.4	9.4	8.9	2.9
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	8.7	22.2	4.6	7.4	9.5	8.8	3.8
Under 5,500 HDD .....	11.2	22.8	5.0	Q	9.4	9.1	3.6
2,000 CDD or More and							
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>							
Single-Family .....	9.8	22.5	4.7	7.5	9.5	8.9	2.9
Mobile Home .....	9.9	21.8	4.8	NC	Q	9.2	9.1
Multifamily (2 or more units) ...	8.5	22.4	4.6	Q	NC	Q	3.9
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	9.2	22.8	4.7	Q	Q	9.1	4.4
1,000 to 1,999 .....	9.8	22.5	4.7	7.4	9.9	9.1	3.5
2,000 or More .....	9.6	22.3	4.8	7.5	Q	8.6	2.8
<b>Ownership of Unit</b>							
Owned .....	9.9	22.3	4.7	7.4	9.5	9.0	2.8
Rented .....	8.8	23.2	4.6	Q	Q	8.6	6.4
<b>Year of Construction</b>							
1949 or Before .....	8.5	22.8	4.6	7.5	8.8	8.9	4.3
1950 to 1979 .....	10.1	22.3	4.8	7.3	10.4	9.1	3.3
1980 or After <sup>3</sup> .....	11.8	22.5	5.1	NC	NC	8.8	5.0
<b>1990 Family Income</b>							
Less than \$10,000 .....	8.8	23.8	4.6	7.5	Q	9.3	5.3
\$10,000 to \$19,999 .....	9.1	22.8	4.7	Q	Q	9.4	3.9
\$20,000 to \$34,999 .....	9.6	22.0	4.6	Q	Q	8.5	3.5
\$35,000 or More .....	10.2	22.2	4.9	7.5	9.9	8.8	3.5
<b>Below Poverty Line</b>							
100 Percent .....	9.5	23.2	4.7	Q	Q	9.8	6.3
125 Percent .....	9.7	23.4	4.7	Q	Q	9.6	4.9
<b>Age of Householder</b>							
Under 35 Years .....	9.5	22.8	4.8	Q	Q	9.2	3.5
35 to 59 Years .....	10.1	22.3	4.8	7.4	8.9	8.8	3.3
60 Years and Over .....	8.9	22.4	4.6	7.1	Q	8.9	3.9
<b>Household Size</b>							
1 Person .....	8.4	23.5	4.6	Q	Q	9.1	4.3
2 to 4 Persons .....	9.9	22.1	4.8	7.4	9.5	8.7	2.8
5 or More Persons .....	10.9	23.2	4.8	Q	Q	9.6	5.6

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 38. Total Consumption and Expenditures by End Uses  
in Midwest Region Households, 1990**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expenditures (billion dollars)									
	NF	NF									
<b>Midwest Region</b>											
<b>Total Region</b>	1,710.6	10.11	72.4	1.70	466.0	3.60	114.9	2.77	442.9	8.71	3.5
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD	1,492.0	8.76	52.1	1.22	402.4	3.07	94.1	2.27	371.8	7.23	5.5
Under 5,500 HDD	218.6	1.35	20.4	.49	63.6	.52	20.8	.50	71.1	1.47	20.2
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC								
<b>Type of Housing Unit</b>											
Single-Family	1,341.9	7.80	57.2	1.33	338.8	2.59	89.6	2.11	356.5	6.96	5.2
Mobile Home	91.1	.66	5.5	.13	24.3	.31	5.8	.14	28.7	.55	22.7
Multifamily (2 or more units) ..	277.6	1.65	9.8	.25	102.9	.71	19.5	.53	57.7	1.20	7.1
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000	303.8	2.02	12.2	.30	110.4	.94	24.3	.61	81.0	1.64	8.9
1,000 to 1,999	657.6	3.94	24.3	.57	173.7	1.35	45.0	1.08	165.7	3.23	5.1
2,000 or More	749.2	4.14	36.0	.84	181.9	1.31	45.6	1.08	196.2	3.83	7.5
<b>Ownership of Unit</b>											
Owned	1,312.6	7.87	59.5	1.38	332.5	2.69	89.0	2.10	355.7	6.91	3.9
Rented	398.0	2.24	13.0	.32	133.5	.91	25.9	.68	87.2	1.80	6.9
<b>Year of Construction</b>											
1949 or Before	828.1	4.60	16.6	.39	185.6	1.35	44.5	1.10	163.4	3.18	7.9
1950 to 1979	711.2	4.42	42.7	.99	218.9	1.73	56.9	1.35	218.0	4.33	5.3
1980 or After <sup>2</sup>	171.3	1.09	13.2	.32	61.5	.51	13.5	.32	61.5	1.20	14.4
<b>1990 Family Income</b>											
Less than \$10,000	293.5	1.74	5.2	.13	66.8	.49	16.0	.40	54.6	1.04	14.2
\$10,000 to \$19,999	343.6	2.06	10.3	.25	81.9	.66	23.1	.58	74.8	1.52	7.7
\$20,000 to \$34,999	443.7	2.70	18.8	.42	124.8	1.04	31.8	.75	125.1	2.55	8.3
\$35,000 or More	629.9	3.60	38.2	.91	192.5	1.41	44.2	1.05	188.5	3.60	8.1
<b>Below Poverty Line</b>											
100 Percent	192.5	1.15	3.4	.08	52.7	.40	11.1	.28	45.0	.87	13.4
125 Percent	278.3	1.70	5.8	.14	73.8	.56	16.4	.40	63.6	1.25	12.6
<b>Age of Householder</b>											
Under 35 Years	439.6	2.59	17.9	.42	144.0	1.10	28.5	.69	121.4	2.35	10.1
35 to 59 Years	713.4	4.21	38.5	.90	226.5	1.73	51.8	1.24	214.7	4.22	5.2
60 Years and Over	557.5	3.31	16.0	.39	95.4	.77	34.6	.84	106.8	2.13	7.4
<b>Household Size</b>											
1 Person	387.6	2.26	12.6	.31	76.3	.57	23.5	.61	58.6	1.18	8.3
2 to 4 Persons	1,162.5	6.92	52.9	1.24	327.3	2.57	80.7	1.92	322.9	6.33	4.6
5 or More Persons	160.5	.93	7.0	.15	62.4	.46	10.7	.25	61.4	1.20	12.0

See footnotes at end of table.

**Table 38. Total Consumption and Expenditures by End Uses  
in Midwest Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expenditures (billion dollars)									
RSE Column Factors:	NF	NF	RSE Row Factors								
<b>East North Central Division</b>	1,260.5	7.58	42.4	1.03	342.7	2.71	80.1	1.97	319.4	6.30	4.7
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD	1,184.7	7.13	39.2	.94	325.9	2.55	74.7	1.83	302.1	5.87	6.9
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC								
<b>Type of Housing Unit</b>											
Single-Family	979.9	5.75	32.6	.77	245.1	1.89	61.3	1.46	252.8	4.93	7.2
Mobile Home	67.4	.51	3.7	.09	18.1	.25	4.3	.11	22.4	.44	28.3
Multifamily (2 or more units)	213.2	1.32	6.2	.17	79.5	.57	14.5	.41	44.2	.92	8.1
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000	216.6	1.53	7.3	.19	80.3	.73	17.3	.44	59.8	1.23	12.2
1,000 to 1,999	492.5	3.00	14.1	.34	126.7	1.00	31.7	.77	118.6	2.29	7.0
2,000 or More	551.4	3.05	21.0	.51	135.6	.97	31.1	.76	141.0	2.78	10.4
<b>Ownership of Unit</b>											
Owned	973.1	5.93	35.3	.84	245.1	2.02	61.9	1.48	256.3	4.98	5.2
Rented	287.4	1.65	7.1	.19	97.6	.69	18.1	.49	63.0	1.31	8.1
<b>Year of Construction</b>											
1949 or Before	629.0	3.55	9.2	.23	140.0	1.04	32.2	.81	122.0	2.40	9.9
1950 to 1979	491.3	3.15	24.8	.58	154.2	1.26	37.7	.92	149.5	2.99	7.2
1980 or After <sup>2</sup>	140.2	.88	8.5	.22	48.4	.41	10.1	.24	47.8	.92	16.6
<b>1990 Family Income</b>											
Less than \$10,000	221.8	1.34	2.9	.07	50.5	.37	11.0	.28	40.1	.76	19.4
\$10,000 to \$19,999	234.4	1.46	5.0	.13	55.9	.48	15.3	.40	50.5	1.04	10.4
\$20,000 to \$34,999	326.7	2.06	10.1	.24	87.2	.78	22.7	.54	89.4	1.85	10.7
\$35,000 or More	477.6	2.72	24.4	.58	149.0	1.07	31.0	.75	139.4	2.65	11.1
<b>Below Poverty Line</b>											
100 Percent	153.6	.93	2.0	.05	41.3	.31	8.1	.20	34.5	.67	16.8
125 Percent	214.0	1.32	3.0	.08	55.0	.42	11.3	.28	46.2	.90	16.2
<b>Age of Householder</b>											
Under 35 Years	328.9	1.95	11.5	.27	107.5	.85	20.5	.50	90.0	1.74	13.9
35 to 59 Years	533.0	3.18	22.8	.55	167.4	1.28	35.8	.88	154.0	3.05	6.7
60 Years and Over	398.6	2.44	8.1	.21	67.8	.58	23.7	.59	75.4	1.51	9.8
<b>Household Size</b>											
1 Person	266.1	1.62	7.0	.19	52.9	.42	15.4	.41	39.4	.79	11.2
2 to 4 Persons	860.1	5.18	31.0	.75	239.1	1.92	56.3	1.37	230.9	4.56	6.4
5 or More Persons	134.3	.78	4.4	.09	50.6	.37	8.3	.19	49.0	.95	14.4

See footnotes at end of table.

**Table 38. Total Consumption and Expenditures by End Uses  
in Midwest Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expend- itures (billion dollars)									
	RSE Column Factors:	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West North Central Division</b>	450.1	2.53	30.0	0.68	123.3	0.89	34.9	0.80	123.6	2.41	5.2
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	307.3	1.63	12.9	.27	76.5	.53	19.4	.44	69.8	1.36	7.6
Under 5,500 HDD .....	142.8	.90	17.1	.41	46.8	.36	15.4	.36	53.8	1.05	11.1
2,000 CDD or More and											
Under 4,000 HDD .....	NC	NC	NC								
<b>Type of Housing Unit</b>											
Single-Family .....	362.0	2.06	24.6	.56	93.7	.69	28.4	.65	103.7	2.02	6.2
Mobile Home .....	23.7	.15	1.8	.04	6.2	.06	1.5	.03	6.3	.11	30.6
Multifamily (2 or more units) ..	64.4	.33	3.6	.08	23.4	.14	5.1	.12	13.6	.27	13.2
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	87.2	.49	4.9	.11	30.1	.20	7.0	.16	21.2	.41	9.0
1,000 to 1,999 .....	165.0	.94	10.2	.24	47.0	.35	13.3	.31	47.1	.94	8.6
2,000 or More .....	197.9	1.10	15.0	.33	46.3	.34	14.5	.33	55.2	1.05	7.7
<b>Ownership of Unit</b>											
Owned .....	339.4	1.94	24.2	.55	87.4	.66	27.1	.62	99.4	1.93	6.3
Rented .....	110.7	.59	5.8	.13	35.9	.23	7.8	.18	24.2	.48	12.7
<b>Year of Construction</b>											
1949 or Before .....	199.0	1.05	7.4	.16	45.6	.32	12.3	.29	41.4	.79	9.3
1950 to 1979 .....	219.9	1.27	18.0	.41	64.7	.47	19.2	.44	68.5	1.34	6.6
1980 or After <sup>2</sup> .....	31.1	.21	4.6	.11	13.1	.10	3.4	.08	13.7	.28	28.6
<b>1990 Family Income</b>											
Less than \$10,000 .....	71.7	.40	2.3	.06	16.3	.11	4.9	.12	14.5	.28	13.9
\$10,000 to \$19,999 .....	109.1	.61	5.2	.12	25.9	.18	7.8	.18	24.3	.48	8.5
\$20,000 to \$34,999 .....	117.0	.64	8.6	.18	37.6	.26	9.0	.20	35.7	.70	9.4
\$35,000 or More .....	152.3	.88	13.8	.32	43.5	.33	13.2	.30	49.1	.95	10.1
<b>Below Poverty Line</b>											
100 Percent .....	38.9	.22	1.4	.03	11.5	.08	3.0	.07	10.5	.20	18.9
125 Percent .....	64.3	.38	2.8	.07	18.8	.14	5.0	.12	17.4	.35	17.2
<b>Age of Householder</b>											
Under 35 Years .....	110.7	.64	6.5	.15	36.5	.25	8.0	.19	31.4	.61	9.4
35 to 59 Years .....	180.4	1.03	15.7	.34	59.2	.45	16.0	.36	60.8	1.18	7.8
60 Years and Over .....	158.9	.87	7.9	.18	27.7	.19	10.9	.25	31.4	.62	10.1
<b>Household Size</b>											
1 Person .....	121.5	.64	5.6	.13	23.4	.15	8.1	.20	19.1	.39	11.4
2 to 4 Persons .....	302.4	1.74	21.9	.50	88.2	.65	24.4	.55	92.0	1.77	5.1
5 or More Persons .....	26.2	.15	2.6	.06	11.7	.09	2.4	.06	12.4	.25	19.9

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

Table 39. Consumption by End Uses, per Midwest Region Household, 1990

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households	Consumption (million Btu)	Households	Consumption (million Btu)	Households	Consumption (million Btu)	Households	Consumption (million Btu)	Households	Consumption (million Btu)	Households	Consumption (million Btu)	
	RSE Column Factors:	1.1	0.7	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Midwest Region													
<b>Total Region</b>	23.1	121.7	22.8	75.2	16.0	4.5	23.0	20.2	23.1	5.0	23.1	19.2	3.7
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	19.7	122.6	19.4	76.7	13.1	4.0	19.7	20.5	19.7	4.8	19.7	18.9	3.9
Under 5,500 HDD	3.4	116.5	3.3	66.1	2.9	7.0	3.4	18.8	3.4	6.2	3.4	21.0	10.4
<b>2,000 CDD or More and Under 4,000 HDD</b>	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>													
Single-Family	16.0	136.4	15.7	85.4	11.2	5.1	16.0	21.2	16.0	5.6	16.0	22.3	3.4
Mobile Home	1.6	96.6	1.6	56.6	1.0	5.4	1.6	15.1	1.6	3.6	1.6	17.9	12.6
Multifamily (2 or more units)	5.4	85.9	5.4	51.1	3.8	2.5	5.4	18.9	5.4	3.6	5.4	10.6	6.6
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	6.5	81.3	6.5	46.7	4.1	2.9	6.5	16.9	6.5	3.7	6.5	12.4	6.6
1,000 to 1,999	8.8	121.8	8.7	75.8	6.1	4.0	8.8	19.8	8.8	5.1	8.8	18.9	4.1
2,000 or More	7.8	155.4	7.6	98.9	5.8	6.2	7.7	23.5	7.8	5.9	7.8	25.2	4.6
<b>Ownership of Unit</b>													
Owned	16.4	131.3	16.1	81.5	11.8	5.0	16.3	20.3	16.4	5.4	16.4	21.7	3.0
Rented	6.7	98.2	6.7	59.8	4.2	3.1	6.7	19.9	6.7	3.9	6.7	13.0	5.7
<b>Year of Construction</b>													
1949 or Before	9.0	138.0	8.8	93.9	5.1	3.3	9.0	20.7	9.0	5.0	9.0	18.2	4.8
1950 to 1979	11.3	110.7	11.1	63.9	8.8	4.9	11.2	19.5	11.3	5.1	11.3	19.3	4.9
1980 or After <sup>2</sup>	2.8	113.6	2.8	60.8	2.2	6.0	2.8	21.8	2.8	4.8	2.8	21.8	10.5
<b>1990 Family Income</b>													
Less than \$10,000	3.7	116.7	3.7	79.5	1.9	2.7	3.7	17.9	3.7	4.3	3.7	14.6	8.3
\$10,000 to \$19,999	5.2	103.3	5.0	68.2	3.2	3.2	5.1	16.0	5.2	4.5	5.2	14.5	4.9
\$20,000 to \$34,999	6.4	115.5	6.3	70.2	4.6	4.1	6.4	19.4	6.4	4.9	6.4	19.4	4.8
\$35,000 or More	7.7	141.5	7.7	81.7	6.3	6.1	7.7	24.9	7.7	5.7	7.7	24.4	5.7
<b>Below Poverty Line</b>													
100 Percent	2.7	115.0	2.6	75.3	1.2	2.9	2.6	20.2	2.7	4.2	2.7	17.0	8.8
125 Percent	3.9	112.8	3.8	73.9	1.9	3.1	3.8	19.2	3.9	4.2	3.9	16.4	7.6
<b>Age of Householder</b>													
Under 35 Years	6.7	112.2	6.6	66.2	4.3	4.1	6.7	21.5	6.7	4.3	6.7	18.1	7.1
35 to 59 Years	9.4	132.3	9.3	77.1	6.9	5.6	9.4	24.1	9.4	5.5	9.4	22.8	3.2
60 Years and Over	7.0	116.4	6.9	81.3	4.8	3.3	6.9	13.8	7.0	5.0	7.0	15.3	5.3
<b>Household Size</b>													
1 Person	6.0	93.0	5.9	65.2	4.1	3.1	6.0	12.7	6.0	3.9	6.0	9.7	5.6
2 to 4 Persons	15.0	129.4	14.8	78.4	10.8	4.9	15.0	21.8	15.0	5.4	15.0	21.5	2.9
5 or More Persons	2.0	149.9	2.0	80.9	1.2	6.0	2.0	31.0	2.0	5.3	2.0	30.5	8.1

See footnotes at end of table.

**Table 39. Consumption by End Uses, per Midwest Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.7	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>East North Central Division .....</b>	16.6	123.1	16.4	77.0	10.7	4.0	16.6	20.7	16.6	4.8	16.6	19.2	3.0
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	15.7	122.8	15.5	76.5	10.0	3.9	15.7	20.8	15.7	4.8	15.7	19.3	5.0
Q Under 5,500 HDD .....	Q	128.1	Q	84.8	Q	4.9	Q	18.1	Q	5.8	Q	18.7	19.2
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	11.3	139.7	11.0	89.0	7.2	4.5	11.2	21.9	11.3	5.4	11.3	22.5	4.8
Mobile Home .....	1.2	94.6	1.2	55.1	.7	5.1	1.2	14.8	1.2	3.5	1.2	18.3	16.2
Multifamily (2 or more units) .....	4.1	86.4	4.1	51.5	2.8	2.2	4.1	19.2	4.1	3.5	4.1	10.7	8.4
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	4.8	79.5	4.8	45.3	2.8	2.6	4.8	16.7	4.8	3.6	4.8	12.5	9.1
1,000 to 1,999 .....	6.3	125.1	6.2	79.0	4.0	3.5	6.3	20.2	6.3	5.1	6.3	18.9	5.8
2,000 or More .....	5.5	158.6	5.4	103.0	3.9	5.4	5.5	24.6	5.5	5.6	5.5	25.4	6.1
<b>Ownership of Unit</b>													
Owned .....	11.8	133.1	11.6	83.9	8.0	4.4	11.8	20.8	11.8	5.2	11.8	21.7	4.2
Rented .....	4.8	98.6	4.8	60.3	2.7	2.6	4.8	20.3	4.8	3.8	4.8	13.1	7.5
<b>Year of Construction</b>													
1949 or Before .....	6.6	140.6	6.5	96.6	3.4	2.7	6.6	21.1	6.6	4.9	6.6	18.4	6.0
1950 to 1979 .....	7.9	108.8	7.8	63.3	5.8	4.3	7.8	19.7	7.9	4.8	7.9	19.0	7.1
1980 or After <sup>2</sup> .....	2.1	121.4	2.1	66.7	1.5	5.6	2.1	23.0	2.1	4.8	2.1	22.7	13.4
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.7	122.1	2.7	83.6	1.2	2.5	2.7	18.9	2.7	4.1	2.7	15.0	11.0
\$10,000 to \$19,999 .....	3.6	101.3	3.4	68.0	1.9	2.6	3.5	15.8	3.6	4.3	3.6	14.2	6.7
\$20,000 to \$34,999 .....	4.6	116.0	4.5	72.0	3.2	3.2	4.6	18.9	4.6	4.9	4.6	19.3	6.2
\$35,000 or More .....	5.7	142.9	5.7	83.3	4.4	5.5	5.7	25.9	5.7	5.4	5.7	24.2	7.5
<b>Below Poverty Line</b>													
100 Percent .....	2.0	119.7	1.9	79.4	.8	2.7	2.0	21.0	2.0	4.0	2.0	17.2	11.1
125 Percent .....	2.8	117.9	2.7	78.9	1.1	2.8	2.8	19.9	2.8	4.1	2.8	16.5	9.9
<b>Age of Householder</b>													
Under 35 Years .....	4.9	113.2	4.9	67.1	2.9	3.9	4.9	21.8	4.9	4.2	4.9	18.2	9.9
35 to 59 Years .....	6.8	135.2	6.7	80.1	4.7	4.8	6.8	24.8	6.8	5.3	6.8	22.8	4.2
60 Years and Over .....	4.9	116.5	4.8	82.7	3.1	2.7	4.9	13.9	4.9	4.8	4.9	15.3	7.1
<b>Household Size</b>													
1 Person .....	4.2	90.9	4.1	64.4	2.6	2.7	4.2	12.6	4.2	3.7	4.2	9.4	8.0
2 to 4 Persons .....	10.8	130.9	10.7	80.6	7.3	4.3	10.8	22.1	10.8	5.2	10.8	21.3	4.0
5 or More Persons .....	1.6	155.1	1.6	85.3	.8	5.6	1.6	31.8	1.6	5.2	1.6	30.8	9.8

See footnotes at end of table.

Table 39. Consumption by End Uses, per Midwest Region Household, 1990 (Continued)

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.7	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West North Central Division</b>	6.5	118.0	6.4	70.5	5.3	5.6	6.5	19.1	6.5	5.4	6.5	19.1	3.9
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	4.0	121.6	4.0	77.4	3.1	4.1	4.0	19.1	4.0	4.9	4.0	17.5	5.6
Under 5,500 HDD	2.5	112.1	2.4	59.1	2.2	7.7	2.5	19.0	2.5	6.3	2.5	21.9	7.9
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family	4.8	128.5	4.7	77.0	4.0	6.2	4.8	19.7	4.8	6.0	4.8	21.8	4.4
Mobile Home	.4	102.8	.4	61.6	.3	6.1	.4	16.2	.4	3.8	.4	16.5	17.9
Multifamily (2 or more units)	1.3	84.2	1.3	49.5	1.1	3.4	1.3	17.9	1.3	3.9	1.3	10.4	9.8
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	1.7	86.3	1.7	50.5	1.3	3.7	1.7	17.3	1.7	4.0	1.7	12.2	7.1
1,000 to 1,999	2.5	113.7	2.4	67.6	2.1	4.9	2.5	18.9	2.5	5.4	2.5	19.0	5.4
2,000 or More	2.2	147.5	2.2	89.3	1.9	7.7	2.2	20.8	2.2	6.5	2.2	24.8	6.4
<b>Ownership of Unit</b>													
Owned	4.6	126.6	4.5	75.4	3.8	6.3	4.6	19.2	4.6	5.9	4.6	21.8	4.5
Rented	1.9	97.3	1.9	58.7	1.5	3.8	1.9	19.0	1.9	4.1	1.9	12.8	7.6
<b>Year of Construction</b>													
1949 or Before	2.3	130.5	2.3	86.2	1.7	4.4	2.3	19.5	2.3	5.3	2.3	17.7	6.1
1950 to 1979	3.4	115.1	3.4	65.4	3.0	6.0	3.4	19.1	3.4	5.7	3.4	20.2	5.0
1980 or After <sup>2</sup>	.7	91.1	.7	43.6	.6	7.2	.7	18.1	.7	4.7	.7	18.9	13.6
<b>1990 Family Income</b>													
Less than \$10,000	1.1	103.2	1.0	69.2	.7	3.1	1.1	15.3	1.1	4.6	1.1	13.6	10.3
\$10,000 to \$19,999	1.6	107.9	1.6	68.7	1.3	4.0	1.6	16.2	1.6	4.9	1.6	15.2	5.9
\$20,000 to \$34,999	1.8	114.4	1.8	65.7	1.5	5.9	1.8	20.7	1.8	5.0	1.8	19.6	5.9
\$35,000 or More	2.0	137.3	2.0	76.9	1.8	7.6	2.0	22.0	2.0	6.7	2.0	24.8	8.5
<b>Below Poverty Line</b>													
100 Percent	.6	100.5	.6	62.6	.4	3.3	.6	17.7	.6	4.7	.6	16.1	12.2
125 Percent	1.1	99.7	1.1	61.2	.8	3.6	1.1	17.3	1.1	4.6	1.1	16.0	10.3
<b>Age of Householder</b>													
Under 35 Years	1.8	109.4	1.7	63.6	1.4	4.6	1.8	20.7	1.8	4.5	1.8	17.8	5.7
35 to 59 Years	2.7	125.1	2.6	69.2	2.2	7.2	2.7	22.3	2.7	6.0	2.7	22.9	5.5
60 Years and Over	2.0	116.2	2.0	78.0	1.8	4.5	2.0	13.6	2.0	5.3	2.0	15.4	7.3
<b>Household Size</b>													
1 Person	1.8	97.6	1.8	67.1	1.5	3.8	1.8	12.8	1.8	4.5	1.8	10.5	8.3
2 to 4 Persons	4.2	125.5	4.2	72.6	3.5	6.2	4.2	20.9	4.2	5.8	4.2	21.8	3.8
5 or More Persons	.4	130.6	.4	64.2	.4	7.1	.4	27.7	.4	5.7	.4	29.3	12.7

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 40. Expenditures by End Uses, per Midwest Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.2	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Midwest Region</b>													
<b>Total Region</b>	23.1	1,166	22.8	444	16.0	106	23.0	156	23.1	120	23.1	377	3.3
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	19.7	1,146	19.4	450	13.1	93	19.7	156	19.7	115	19.7	368	3.5
Under 5,500 HDD	3.4	1,281	3.3	408	2.9	169	3.4	155	3.4	149	3.4	435	12.0
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family	16.0	1,298	15.7	497	11.2	119	16.0	162	16.0	132	16.0	434	3.4
Mobile Home	1.6	1,111	1.6	410	1.0	128	1.6	190	1.6	86	1.6	344	14.7
Multifamily (2 or more units) ..	5.4	794	5.4	303	3.8	65	5.4	130	5.4	97	5.4	220	5.8
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	6.5	842	6.5	311	4.1	71	6.5	143	6.5	93	6.5	252	6.1
1,000 to 1,999	8.8	1,162	8.7	454	6.1	95	8.8	154	8.8	123	8.8	369	4.0
2,000 or More	7.8	1,441	7.6	547	5.8	143	7.7	169	7.8	139	7.8	493	4.7
<b>Ownership of Unit</b>													
Owned	16.4	1,279	16.1	489	11.8	117	16.3	164	16.4	128	16.4	422	2.9
Rented	6.7	888	6.7	337	4.2	76	6.7	136	6.7	101	6.7	268	5.0
<b>Year of Construction</b>													
1949 or Before	9.0	1,184	8.8	521	5.1	77	9.0	151	9.0	122	9.0	355	5.3
1950 to 1979	11.3	1,137	11.1	397	8.8	113	11.2	154	11.3	120	11.3	384	4.5
1980 or After <sup>2</sup>	2.8	1,220	2.8	388	2.2	149	2.8	182	2.8	113	2.8	423	9.8
<b>1990 Family Income</b>													
Less than \$10,000	3.7	1,016	3.7	472	1.9	69	3.7	131	3.7	107	3.7	278	8.2
\$10,000 to \$19,999	5.2	983	5.0	410	3.2	77	5.1	129	5.2	112	5.2	295	4.7
\$20,000 to \$34,999	6.4	1,158	6.3	427	4.6	91	6.4	162	6.4	116	6.4	396	5.1
\$35,000 or More	7.7	1,367	7.7	467	6.3	144	7.7	182	7.7	136	7.7	466	5.2
<b>Below Poverty Line</b>													
100 Percent	2.7	1,048	2.6	450	1.2	71	2.6	151	2.7	104	2.7	329	8.8
125 Percent	3.9	1,044	3.8	451	1.9	76	3.8	146	3.9	104	3.9	322	7.9
<b>Age of Householder</b>													
Under 35 Years	6.7	1,066	6.6	390	4.3	97	6.7	164	6.7	103	6.7	351	6.2
35 to 59 Years	9.4	1,308	9.3	455	6.9	130	9.4	184	9.4	132	9.4	449	3.4
60 Years and Over	7.0	1,069	6.9	483	4.8	80	6.9	111	7.0	121	7.0	306	5.1
<b>Household Size</b>													
1 Person	6.0	819	5.9	380	4.1	77	6.0	95	6.0	101	6.0	196	5.4
2 to 4 Persons	15.0	1,261	14.8	467	10.8	115	15.0	171	15.0	127	15.0	421	2.8
5 or More Persons	2.0	1,483	2.0	471	1.2	127	2.0	228	2.0	123	2.0	595	7.0

See footnotes at end of table.

**Table 40. Expenditures by End Uses, per Midwest Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.2	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>East North Central Division</b>	16.6	1,179	16.4	463	10.7	96	16.6	163	16.6	119	16.6	379	2.7
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	15.7	1,168	15.5	460	10.0	94	15.7	163	15.7	117	15.7	374	4.5
Under 5,500 HDD	Q	1,358	Q	501	Q	125	Q	174	Q	153	Q	458	19.0
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family	11.3	1,315	11.0	522	7.2	106	11.2	169	11.3	129	11.3	439	4.5
Mobile Home	1.2	1,139	1.2	418	.7	122	1.2	204	1.2	86	1.2	360	19.6
Multifamily (2 or more units)	4.1	819	4.1	318	2.8	62	4.1	137	4.1	99	4.1	223	7.1
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	4.8	860	4.8	320	2.8	66	4.8	153	4.8	92	4.8	257	8.1
1,000 to 1,999	6.3	1,180	6.2	481	4.0	84	6.3	160	6.3	123	6.3	365	5.3
2,000 or More	5.5	1,453	5.4	569	3.9	130	5.5	176	5.5	136	5.5	501	6.2
<b>Ownership of Unit</b>													
Owned	11.8	1,291	11.6	511	8.0	105	11.8	172	11.8	125	11.8	422	4.0
Rented	4.8	903	4.8	346	2.7	70	4.8	143	4.8	103	4.8	274	6.4
<b>Year of Construction</b>													
1949 or Before	6.6	1,210	6.5	545	3.4	68	6.6	156	6.6	122	6.6	361	6.4
1950 to 1979	7.9	1,128	7.8	406	5.8	100	7.8	160	7.9	116	7.9	379	6.4
1980 or After <sup>2</sup>	2.1	1,270	2.1	420	1.5	141	2.1	197	2.1	115	2.1	436	12.2
<b>1990 Family Income</b>													
Less than \$10,000	2.7	1,057	2.7	506	1.2	63	2.7	140	2.7	104	2.7	283	10.6
\$10,000 to \$19,999	3.6	983	3.4	422	1.9	68	3.5	136	3.6	111	3.6	292	6.5
\$20,000 to \$34,999	4.6	1,183	4.5	454	3.2	75	4.6	169	4.6	117	4.6	400	6.4
\$35,000 or More	5.7	1,353	5.7	474	4.4	131	5.7	187	5.7	131	5.7	461	6.7
<b>Below Poverty Line</b>													
100 Percent	2.0	1,079	1.9	479	.8	65	2.0	158	2.0	102	2.0	334	10.9
125 Percent	2.8	1,074	2.7	486	1.1	69	2.8	152	2.8	102	2.8	322	10.1
<b>Age of Householder</b>													
Under 35 Years	4.9	1,075	4.9	398	2.9	91	4.9	172	4.9	102	4.9	352	8.5
35 to 59 Years	6.8	1,325	6.7	479	4.7	118	6.8	190	6.8	130	6.8	451	4.4
60 Years and Over	4.9	1,082	4.8	506	3.1	68	4.9	118	4.9	120	4.9	307	6.9
<b>Household Size</b>													
1 Person	4.2	819	4.1	392	2.6	71	4.2	100	4.2	98	4.2	189	7.5
2 to 4 Persons	10.8	1,271	10.7	485	7.3	103	10.8	178	10.8	126	10.8	421	3.8
5 or More Persons	1.6	1,498	1.6	496	.8	115	1.6	232	1.6	121	1.6	596	8.2

See footnotes at end of table.

**Table 40. Expenditures by End Uses, per Midwest Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.2	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West North Central Division .</b>	6.5	1,132	6.4	397	5.3	127	6.5	138	6.5	124	6.5	373	4.3
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	4.0	1,059	4.0	411	3.1	87	4.0	132	4.0	110	4.0	341	5.4
Under 5,500 HDD .....	2.5	1,252	2.4	373	2.2	182	2.5	147	2.5	147	2.5	426	9.2
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC										
<b>Type of Housing Unit</b>													
Single-Family .....	4.8	1,256	4.7	438	4.0	141	4.8	146	4.8	137	4.8	425	4.9
Mobile Home .....	.4	1,020	.4	384	.3	143	.4	148	.4	86	.4	293	16.4
Multifamily (2 or more units) ..	1.3	714	1.3	252	1.1	72	1.3	106	1.3	89	1.3	209	10.4
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.7	793	1.7	285	1.3	82	1.7	117	1.7	95	1.7	237	7.3
1,000 to 1,999 .....	2.5	1,119	2.4	387	2.1	115	2.5	139	2.5	125	2.5	379	5.9
2,000 or More .....	2.2	1,412	2.2	495	1.9	170	2.2	152	2.2	147	2.2	473	6.5
<b>Ownership of Unit</b>													
Owned .....	4.6	1,249	4.5	432	3.8	144	4.6	145	4.6	136	4.6	422	4.9
Rented .....	1.9	852	1.9	313	1.5	85	1.9	119	1.9	97	1.9	255	8.4
<b>Year of Construction</b>													
1949 or Before .....	2.3	1,112	2.3	456	1.7	93	2.3	136	2.3	123	2.3	337	6.9
1950 to 1979 .....	3.4	1,159	3.4	378	3.0	137	3.4	139	3.4	129	3.4	395	5.0
1980 or After <sup>2</sup> .....	.7	1,073	.7	294	.6	169	.7	138	.7	108	.7	387	15.0
<b>1990 Family Income</b>													
Less than \$10,000 .....	1.1	912	1.0	385	.7	77	1.1	108	1.1	113	1.1	264	10.2
\$10,000 to \$19,999 .....	1.6	982	1.6	383	1.3	89	1.6	112	1.6	114	1.6	301	5.4
\$20,000 to \$34,999 .....	1.8	1,093	1.8	360	1.5	126	1.8	143	1.8	112	1.8	385	6.1
\$35,000 or More .....	2.0	1,408	2.0	447	1.8	176	2.0	169	2.0	150	2.0	479	8.4
<b>Below Poverty Line</b>													
100 Percent .....	.6	951	.6	361	.4	80	.6	131	.6	111	.6	313	13.3
125 Percent .....	1.1	968	1.1	359	.8	86	1.1	131	1.1	110	1.1	320	10.8
<b>Age of Householder</b>													
Under 35 Years .....	1.8	1,043	1.7	365	1.4	111	1.8	142	1.8	106	1.8	347	6.3
35 to 59 Years .....	2.7	1,265	2.6	393	2.2	157	2.7	168	2.7	137	2.7	443	5.9
60 Years and Over .....	2.0	1,037	2.0	428	1.8	102	2.0	94	2.0	123	2.0	304	6.9
<b>Household Size</b>													
1 Person .....	1.8	820	1.8	352	1.5	87	1.8	81	1.8	108	1.8	212	8.0
2 to 4 Persons .....	4.2	1,238	4.2	419	3.5	141	4.2	155	4.2	130	4.2	421	4.0
5 or More Persons .....	.4	1,426	.4	373	.4	154	.4	212	.4	132	.4	591	12.1

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**SPACE-HEATING CONSUMPTION/EXPENDITURES**

**MIDWEST**

**Table 41. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Midwest Region Households, 1990**

	Households (million)	Electricity			Natural Gas			RSE Row Factors
		Total Consumed (trillion Btu)	(billion kWh)	Total Expenditures (billion dollars)	Households (million)	(trillion Btu)	(billion cubic feet)	
RSE Column Factors:	1.2	NF	NF	0.6	NF	NF	NF	
<b>Total Region</b>	<b>6.0</b>	<b>58.3</b>	<b>17.1</b>	<b>1.17</b>	<b>16.7</b>	<b>1,426.7</b>	<b>1,401</b>	<b>7.01</b>
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	4.8	47.6	14.0	.95	14.3	1,246.6	1,224	6.12
Under 5,500 HDD	1.2	10.7	3.1	.22	2.3	180.2	177	.89
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family	3.8	40.3	11.8	.76	11.6	1,104.4	1,086	5.38
Mobile Home	4.4	4.3	1.3	.31	1.0	64.6	64	.35
Multifamily (2 or more units)	1.7	13.7	4.0	.31	4.1	257.7	251	1.28
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	1.9	16.5	4.8	.37	4.4	241.4	237	1.22
1,000 to 1,999	2.4	24.5	7.2	.47	6.3	544.7	535	2.71
2,000 or More	1.7	17.4	5.1	.33	5.9	640.7	629	3.08
<b>Ownership of Unit</b>								
Owned	4.5	48.7	14.3	.95	11.2	1,063.4	1,045	5.21
Rented	1.5	9.6	2.8	.22	5.5	363.3	356	1.80
<b>Year of Construction</b>								
1949 or Before	2.0	10.9	3.2	.22	7.1	712.6	700	3.51
1950 to 1979	3.2	37.2	10.9	.75	7.7	578.2	568	2.85
1980 or After <sup>2</sup>	.8	10.2	3.0	.20	1.8	135.9	133	.66
<b>1990 Family Income</b>								
Less than \$10,000	9	6.4	1.9	.13	2.7	242.9	238	1.20
\$10,000 to \$19,999	1.4	9.9	2.9	.21	3.7	286.5	282	1.43
\$20,000 to \$34,999	1.8	18.3	5.4	.37	4.5	356.8	351	1.77
\$35,000 or More	1.9	23.7	7.0	.46	5.8	540.5	531	2.62
<b>Below Poverty Line</b>								
100 Percent	.5	2.9	.9	.06	1.7	153.6	150	.77
125 Percent	.8	5.2	1.5	.11	2.6	222.4	218	1.11
<b>Age of Householder</b>								
Under 35 Years	1.5	15.2	4.5	.29	5.0	376.9	370	1.87
35 to 59 Years	2.4	26.5	7.8	.54	6.7	591.3	580	2.87
60 Years and Over	2.1	16.6	4.9	.34	5.0	458.5	451	2.27
<b>Household Size</b>								
1 Person	1.9	13.0	3.8	.29	4.4	349.2	343	1.72
2 to 4 Persons	3.6	40.7	11.9	.81	10.9	946.6	930	4.65
5 or More Persons	.5	Q	Q	Q	1.3	130.9	128	.64

See footnotes at end of table.

MIDWEST

SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 41. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Total Consumed				Total Consumed					
	House- holds (million)	(tri- lion Btu)	(billion kWh)	Total Expenditures (billion dollars)	House- holds (million)	(tri- lion Btu)	(billion cubic feet)	Total Expenditures (billion dollars)		
RSE Column Factors:	1.2	NF	NF	NF	0.6	NF	NF	NF		
<b>East North Central Division</b> .....	4.4	44.2	13.0	0.89	11.8	1,050.6	1,027	5.24	12.1	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	4.1	Q	42.5	12.5	.85	11.1	988.6	966	4.94	
Under 5,500 HDD .....						Q	Q	Q	14.3	
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NFC	
<b>Type of Housing Unit</b>										
Single-Family .....	2.6	28.7	8.4	.53	8.1	806.6	789	3.97	14.1	
Mobile Home .....	.3	Q	Q	Q	.7	46.0	45	.26	54.5	
Multifamily (2 or more units) .....	1.5	12.3	3.6	.28	2.9	198.0	193	1.01	49.7	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.5	13.6	4.0	.31	3.1	166.9	163	.87	21.6	
1,000 to 1,999 .....	1.8	17.9	5.3	.35	4.5	408.5	400	2.08	12.6	
2,000 or More .....	1.1	12.7	3.7	.24	4.2	475.2	464	2.30	20.0	
<b>Ownership of Unit</b>										
Owned .....	3.3	37.5	11.0	.73	7.9	786.3	769	3.90	12.7	
Rented .....	1.1	6.7	2.0	.16	3.8	264.3	258	1.34	16.9	
<b>Year of Construction</b>										
1949 or Before .....	1.5	8.4	2.4	.17	5.3	547.1	535	2.75	18.3	
1950 to 1979 .....	2.3	27.6	8.1	.56	5.1	390.1	381	1.95	16.9	
1980 or After <sup>2</sup> .....	.6	8.2	2.4	.16	1.3	113.3	111	.54	26.7	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.7	5.1	1.5	.10	1.9	185.9	181	.94	24.9	
\$10,000 to \$19,999 .....	1.0	6.4	1.9	.14	2.5	193.3	189	.99	16.3	
\$20,000 to \$34,999 .....	1.2	14.1	4.1	.29	3.1	255.8	250	1.30	17.1	
\$35,000 or More .....	1.5	18.6	5.5	.36	4.3	415.6	407	2.01	19.7	
<b>Below Poverty Line</b>										
100 Percent .....	.4	Q	Q	.05	1.3	123.5	120	.63	24.9	
125 Percent .....	.6	Q	Q	.08	1.9	173.9	169	.88	23.2	
<b>Age of Householder</b>										
Under 35 Years .....	1.1	11.9	3.5	.23	3.6	283.7	277	1.43	23.1	
35 to 59 Years .....	1.7	21.2	6.2	.43	4.7	443.7	434	2.17	12.4	
60 Years and Over .....	1.6	11.1	3.3	.23	3.5	323.2	316	1.65	18.1	
<b>Household Size</b>										
1 Person .....	1.5	10.1	3.0	.23	2.9	239.8	234	1.22	20.3	
2 to 4 Persons .....	2.5	29.8	8.7	.60	7.8	706.0	685	3.48	14.3	
5 or More Persons .....	.4	Q	Q	Q	1.1	110.2	107	.54	30.5	

See footnotes at end of table.

**Table 41. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Total Expenditures (billion-dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)		
		(trillion Btu)	(billion kWh)			(trillion Btu)	(billion cubic feet)			
RSE Column Factors:	1.2	NF	NF	NF	0.6	NF	NF	NF		
<b>West North Central Division ....</b>	1.6	14.1	4.1	0.27	4.9	376.1	374	1.77	10.2	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	.7	5.1	1.5	.10	3.3	257.9	257	1.18	16.0	
Under 5,500 HDD .....	.8	9.0	2.6	.18	1.6	118.2	117	.59	17.5	
2,000 CDD or More and										
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family .....	1.2	11.6	3.4	.22	3.5	297.8	297	1.40	13.5	
Mobile Home .....	Q	Q	Q	Q	.3	18.6	19	.09	62.4	
Multifamily (2 or more units) ....	.3	1.4	.4	.03	1.1	59.7	59	.28	20.4	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.4	2.9	.8	.06	1.4	74.5	74	.35	14.9	
1,000 to 1,999 .....	.6	6.6	1.9	.12	1.8	136.2	136	.63	14.1	
2,000 or More .....	.6	4.7	1.4	.09	1.7	165.5	165	.79	11.8	
<b>Ownership of Unit</b>										
Owned .....	1.2	11.3	3.3	.22	3.3	277.0	276	1.31	12.8	
Rented .....	.4	2.9	.8	.06	1.6	99.1	98	.46	17.3	
<b>Year of Construction</b>										
1949 or Before .....	.5	2.6	.7	.05	1.8	165.5	165	.76	14.5	
1950 to 1979 .....	.9	9.6	2.8	.19	2.6	188.0	187	.90	10.8	
1980 or After <sup>2</sup> .....	.2	2.0	.6	.04	.5	22.6	22	.11	26.1	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.2	1.3	.4	.03	.8	57.0	57	.26	24.6	
\$10,000 to \$19,999 .....	.4	3.5	1.0	.07	1.2	93.2	93	.44	16.5	
\$20,000 to \$34,999 .....	.5	4.2	1.2	.08	1.3	101.0	101	.47	13.3	
\$35,000 or More .....	.5	5.1	1.5	.10	1.5	124.9	124	.61	14.6	
<b>Below Poverty Line</b>										
100 Percent .....	.1	.6	.2	.01	.4	30.1	30	.14	23.4	
125 Percent .....	.2	1.0	.3	.02	.7	48.5	48	.23	22.9	
<b>Age of Householder</b>										
Under 35 Years .....	.4	3.3	1.0	.07	1.4	93.2	93	.45	14.5	
35 to 59 Years .....	.7	5.3	1.6	.10	2.0	147.6	147	.70	13.7	
60 Years and Over .....	.5	5.5	1.6	.10	1.5	135.3	135	.62	20.7	
<b>Household Size</b>										
1 Person .....	.4	2.9	.8	.06	1.5	109.4	109	.50	17.5	
2 to 4 Persons .....	1.0	10.9	3.2	.21	3.1	246.0	245	1.17	11.2	
5 or More Persons .....	.1	.3	.1	.01	.3	20.8	21	.10	16.5	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

### SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 42. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in Midwest Region Households, 1990**

Characteristics	Fuel Oil			Kerosene			Liquefied Petroleum Gas						
	Total Consumed		(bil-lion gallons)	Total Consumed		(bil-lion gallons)	Total Consumed		(bil-lion gallons)				
	House-holds (mil-lion Btu)	(tril-lion Btu)		House-holds (mil-lion Btu)	(tril-lion Btu)		House-holds (mil-lion Btu)	(tril-lion Btu)					
RSE Column Factors:	0.9	NF	NF	1.1	NF	NF	0.8	NF	NF				
Midwest Region													
<b>Total Region</b>	1.6	120.2	0.87	0.92	1.3	Q	Q	0.09	1.8	96.2	1.05	0.92	22.6
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	1.5	114.7	.83	Q .88	1.1	Q .3	Q (*)	Q (*)	1.3	74.3	.81	.73	23.6
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	Q	Q	Q	1.5	21.9	.24	.19	40.4
<b>Type of Housing Unit</b>													
Single-Family Mobile Home	1.4	113.1	.82	Q .87	1.0	Q .3	Q .03	Q .04	1.4	80.2	.88	.76	23.1
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	Q	Q	1.3	13.6	.15	.14	36.6
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	.3	16.2	.12	.13	.4	Q .2	Q .02	Q .03	.5	24.4	.27	.25	31.3
1,000 to 1,999	.6	47.3	.34	.37	.5	Q .4	Q .02	Q .03	.7	38.3	.42	.36	26.5
2,000 or More	.6	56.7	.41	.42	.4	Q .4	Q .02	Q .03	.6	33.5	.37	.30	29.5
<b>Ownership of Unit</b>													
Owned	1.4	109.6	.80	.83	1.0	Q .0	Q .01	Q .02	1.5	83.3	.91	.80	21.2
Rented	.2	10.5	.08	.09	.3	Q .1.7	Q .01	Q .02	.2	12.9	.14	.12	37.9
<b>Year of Construction</b>													
1949 or Before	.8	60.7	.44	.48	.5	Q .2	Q .02	Q .03	.6	41.0	.45	.37	25.3
1950 to 1979	.8	58.3	.42	.43	.6	Q .0	Q .0	Q .0	.7	33.9	.37	.35	32.6
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	Q	4	21.3	.23	.20	35.7
<b>1990 Family Income</b>													
Less than \$10,000	.3	24.3	.18	.20	Q .2	Q .0	Q .0	Q .0	.4	18.8	.21	.21	45.2
\$10,000 to \$19,999	.2	18.0	.13	.14	Q .2	Q .0	Q .0	Q .0	.5	26.3	.29	.26	29.5
\$20,000 to \$34,999	.5	40.5	.29	.31	Q .6	Q .0	Q .0	Q .0	.4	23.6	.26	.21	34.7
\$35,000 or More	.5	37.5	.27	.28	Q .3	Q .0	Q .0	Q .0	.1	27.5	.30	.24	29.2
<b>Below Poverty Line</b>													
100 Percent	.3	20.9	.15	.17	Q .0	Q .0	Q .0	Q .0	.3	14.2	.16	.15	40.†
125 Percent	.3	23.4	.17	.19	Q .0	Q .0	Q .0	Q .0	.5	26.3	.29	.29	38.4
<b>Age of Householder</b>													
Under 35 Years	.3	23.2	.17	.19	Q .4	Q .1.9	Q .01	Q .02	.5	22.4	.25	.21	23.6
35 to 59 Years	.8	49.6	.36	.37	Q .7	Q .0	Q .0	Q .0	.7	40.0	.44	.37	26.6
60 Years and Over	.5	47.4	.34	.36	Q .0	Q .0	Q .0	Q .0	.6	33.8	.37	.34	27.0
<b>Household Size</b>													
1 Person	.1	11.4	.08	.09	Q .0	Q .0	Q .0	Q .0	.2	11.6	.13	Q .0	47.6
2 to 4 Persons	1.3	98.5	.71	.75	1.0	Q .56	Q .04	Q .06	1.2	71.1	.78	.66	24.4
5 or More Persons	Q	Q	Q	Q	Q	Q	Q	Q	.3	13.5	.15	.13	31.7

See footnotes at end of table.

**SPACE-HEATING CONSUMPTION/EXPENDITURES**

**MIDWEST**

**Table 42. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating In Midwest Region Households, 1990 (Continued)**

Characteristics	Fuel Oil		Kerosene		Liquefied Petroleum Gas		RSE Row Factors	
	Total Consumed		Total Consumed		Total Consumed			
	Hous- olds (mil- lion) NF	(bil- lion gal- lons) NF	Hous- olds (mil- lion) NF	(bil- lion gal- lons) NF	Hous- olds (mil- lion) NF	(bil- lion gal- lons) NF		
RSE Column Factors:	0.9	NF	1.1	NF	0.8	NF		
<b>East North Central Division<sup>...*</sup></b>	<b>1.2</b>	<b>92.6</b>	<b>0.67</b>	<b>0.72</b>	<b>1.1</b>	<b>Q</b>	<b>0.64</b>	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD <sup>2</sup> .....	1.2	89.8	.65	.69	1.1	Q	.57	
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	28.9 NF	
Under 4,000 HDD or More and								
2,000 CDD or More .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>	<b>1.2</b>	<b>88.0</b>	<b>.64</b>	<b>.68</b>	<b>.8</b>	<b>3.3</b>	<b>.02</b>	
Single-Family .....	Q	Q	Q	Q	Q	Q		
Mobile Home .....	Q	Q	Q	Q	Q	Q		
Multifamily (2 or more units) .....	Q	Q	Q	Q	Q	Q		
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	Q	Q	Q	Q	Q	Q		
1,000 to 1,999 .....	.5	39.9	.29	.32	.4	.02		
2,000 or More .....	5	40.5	.29	.30	.3	Q		
<b>Ownership of Unit</b>								
Owned .....	1.1	85.6	.62	.66	.8	1.6	Q	
Rented .....	Q	Q	Q	Q	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before .....	.6	44.7	.33	.36	.4	2.4	Q	
1950 to 1979 .....	.6	46.6	.34	.35	.5	Q	Q	
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000 .....	Q	Q	Q	Q	Q	Q	Q	
\$10,000 to \$19,999 .....	5	37.9	.27	.29	.6	Q	Q	
\$20,000 to \$34,999 .....	3	23.1	.17	.17	.6	Q	Q	
\$35,000 or More .....	2	17.7	.13	.15	.6	Q	Q	
<b>Below Poverty Line</b>								
100 Percent .....	Q	Q	Q	Q	Q	Q	Q	
125 Percent .....	.2	17.7	.13	.14	Q	Q	Q	
<b>Age of Householder</b>								
Under 35 Years .....	2	17.1	.13	.14	.4	1.7	Q	
35 to 59 Years .....	.6	35.2	.26	.27	.6	Q	Q	
60 Years and Over .....	4	40.2	.29	.31	Q	Q	Q	
<b>Household Size</b>								
1 Person .....	Q	Q	Q	Q	Q	Q	Q	
2 to 4 Persons .....	1.0	75.5	.55	.58	.8	5.1	Q	
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	

See footnotes at end of table.

**Table 42. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in Midwest Region Households, 1990 (Continued)**

Characteristics	Fuel Oil		Kerosene		Liquefied Petroleum Gas		RSE Column Factors:	
	Total Consumed		Total Consumed		Total Consumed			
	Households (mil-lion)	(bil-lion gallons)	Households (mil-lion)	(bil-lion gallons)	Households (mil-lion)	(bil-lion gallons)		
West North Central Division .	0.3	27.6	0.20	0.20	0.2	0.6 (*)	0.01	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	Q	.3	24.9	.18	Q	.19	Q	
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Type of Housing Unit								
Single-Family .....	NC	.3	25.1	.18	NC	.19	Q	
Mobile Home .....	Q	NC	Q	Q	Q	Q	Q	
Multifamily (2 or more units) .....	Q	Q	Q	Q	NC	NC	Q	
Heated Floorspace (square feet)								
Fewer than 1,000 .....	Q	.1	7.3	.05	Q	.1	Q	
1,000 to 1,999 .....	Q	.2	16.3	.12	Q	.12	Q	
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q	
Ownership of Unit								
Owned .....	Q	.3	24.0	.17	Q	.18	Q	
Rented .....	Q	Q	Q	Q	Q	Q	Q	
Year of Construction								
1949 or Before .....	2	16.0	.12	.12	Q	Q	Q	
1950 to 1979 .....	NC	.2	11.6	.08	NC	.08	NC	
1980 or After <sup>2</sup> .....	NC	NC	NC	NC	NC	NC	NC	
1990 Family Income								
Less than \$10,000 .....	Q	Q	Q	Q	Q	Q	Q	
\$10,000 to \$19,999 .....	Q	Q	Q	Q	Q	Q	Q	
\$20,000 to \$24,999 .....	Q	Q	Q	Q	Q	Q	Q	
\$35,000 or More .....	Q	Q	Q	Q	Q	Q	Q	
Below Poverty Line								
100 Percent .....	Q	Q	Q	Q	Q	Q	Q	
125 Percent .....	Q	Q	Q	Q	Q	Q	Q	
Age of Householder								
Under 35 Years .....	Q	Q	Q	Q	Q	Q	Q	
35 to 59 Years .....	Q	Q	Q	Q	Q	Q	Q	
60 Years and Over .....	Q	Q	Q	Q	Q	Q	Q	
Household Size								
1 Person .....	Q	Q	Q	Q	Q	Q	Q	
2 to 4 Persons .....	Q	Q	Q	Q	Q	Q	Q	
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

## **SPACE-HEATING CONSUMPTION/EXPENDITURES**

MIDWEST

## Electricity Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990

See footnotes at end of table

**MIDWEST**
**SPACE-HEATING CONSUMPTION/EXPENDITURES**

**Table 43. Electricity Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption			Heated Floorspace (square feet)	Annual Heating Degree-Days	Electricity Space-Heating Intensity	RSE Column Factors:	RSE Row Factors:
	Households (million)	(million Btu)	(kWh)					
Age of Main Heating Equipment								"
Less than 5 Years .....	0.3	23.4	6,952	435	1,544	5,246	6,042	0.85
5 to 9 Years .....	.5	24.2	7,096	438	1,607	5,305	6,083	.83
10 to 19 Years .....	1.1	17.4	5,110	352	1,348	5,550	6,395	.68
20 Years or More .....	.4	18.1	5,294	358	1,046	4,934	5,798	1.03
Don't Know .....	.3	13.7	4,026	301	881	5,583	6,485	.82
Secondary Heating Fuel (more than one may apply)								
No .....	1.7	16.1	4,725	311	1,123	5,528	6,406	.76
Yes .....	.9	24.3	7,115	482	1,656	5,113	5,876	.84
Wood .....	.5	24.8	7,259	484	2,072	5,086	5,787	.69
Electricity .....	Q	Q	Q	Q	Q	Q	Q	Q
Natural Gas .....	NC	NC	NC	NC	NC	NC	NC	NC
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q
Average Electricity Expenditures for Main Space Heat (cents per kWh)								
Less than 6 .....	Q	26.8	7,852	357	1,809	5,404	6,164	.80
6 to Less than 9 .....	1.9	19.8	5,793	396	1,329	5,397	6,215	.81
9 or More .....	Q	9.4	2,744	277	838	5,277	6,264	.62
Winter Temperature Inside Housing Unit								
Prefer Usual Temperature .....	2.2	18.3	5,362	356	1,263	5,346	6,178	.79
Warmer Temperature .....	.4	22.9	6,717	467	1,534	5,462	6,325	.80
Cooler Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q
Adequacy of Insulation								
Well Insulated .....	1.5	17.8	5,223	345	1,334	5,373	6,207	.73
Adequately Insulated .....	.7	23.0	6,732	429	1,515	5,666	6,476	.78
Poorly Insulated .....	.4	17.7	5,201	394	949	4,923	5,829	1.11
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 43. Electricity Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
	Households (million)	Households (million Btu)		Expenditures (dollars)	1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	
RSE Column Factors:	2.6	NF	NF	0.8	0.5	0.4	NF	NF
East North Central Division ...	2.1	18.4	5,399	364	1,273	5,484	6,356	0.77
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	2.0	18.2	5,324	355	1,270	5,500	6,373	.76
Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family	.8	28.3	8,282	502	1,856	5,494	6,284	.81
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units)	1.1	10.4	3,052	236	875	5,540	6,461	.63
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	1.0	13.0	3,817	296	785	5,381	6,319	.90
1,000 to 1,999	8	20.7	6,063	382	1,387	5,552	6,365	.79
2,000 or More	3	29.5	8,649	528	2,486	5,643	6,448	.62
<b>Ownership of Unit</b>								
Owned	1.4	22.6	6,609	429	1,511	5,633	6,465	.78
Rented	.7	9.3	2,726	220	747	5,156	6,115	.71
<b>Year of Construction</b>								
1949 or Before	Q	Q	Q	Q	Q	Q	Q	Q
1950 to 1979	1.5	16.8	4,913	335	1,244	5,394	6,297	.73
1980 or After <sup>2</sup>	4	18.5	5,433	367	1,360	5,501	6,267	.73
<b>1990 Family Income</b>								
Less than \$10,000	Q	Q	Q	Q	Q	Q	Q	Q
\$10,000 to \$19,999	4	4	5,499	317	966	5,361	6,239	.83
\$20,000 to \$34,999	.7	18.8	5,985	383	1,317	5,343	6,249	.78
\$35,000 or More	8	20.4	381	1,548	5,591	6,451	.69	.69
<b>Below Poverty Line</b>								
100 Percent	Q	Q	Q	Q	Q	Q	Q	Q
125 Percent	Q	Q	Q	Q	Q	Q	Q	Q
<b>Age of Householder</b>								
Under 35 Years	8	14.5	4,239	271	1,087	5,140	6,076	.76
35 to 59 Years	8	23.5	6,889	473	1,501	5,456	6,284	.84
60 Years and Over	Q	16.9	4,966	343	1,216	5,974	6,818	.68
<b>Household Size</b>								
1 Person	.9	10.1	2,975	234	822	5,425	6,350	.67
2 to 4 Persons	1.0	24.5	7,187	483	1,576	5,631	6,444	.81
5 or More Persons	Q	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 43. Electricity Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	House-holds (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Space-Heating Intensity	Electricity Expenditures (cents/HDD* 1000 square feet)	RSE Row Factor <sup>3</sup>
		(kWh)	(Btu)		1990	30-Year Average <sup>1</sup>		
RSE Column Factors:	2.6	NF	NF	NF	0.8	0.5	0.4	NF
West North Central Division	0.6	21.4	6,264	405	1,469	4,983	5,689	0.86
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	.1	27.9	8,181	503	1,337	7,085	7,870	.86
Under 5,500 HDD	.4	19.2	5,625	372	1,513	4,283	4,963	.87
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family	Q .4	24.6	7,199	462	1,750	5,194	5,859	.79
Mobile Home	Q .1	10.1	2,969	Q 198	Q 712	Q 4,482	Q 5,344	Q .93
Multifamily (2 or more units)	NC	NC	NC	NC	NC	NC	NC	NC
<b>Heated Floorspace</b>								
(square feet)								
Fewer than 1,000	.2	24.7	3,860	260	723	4,685	5,453	1.14
1,000 to 1,999	.2	24.7	7,226	451	1,455	5,451	6,162	.91
2,000 or More	.1	28.1	8,235	544	2,646	4,599	5,201	.68
<b>Ownership of Unit</b>								
Owned	Q .4	23.6	6,916	439	1,679	5,062	5,719	.81
Rented	Q .2	15.6	4,582	315	928	4,781	5,612	1.03
<b>Year of Construction</b>								
1949 or Before	Q .4	23.1	6,763	442	1,420	5,203	5,943	Q .92
1950 to 1979	Q .4	23.1	6,763	442	1,420	5,203	5,943	Q .63
1980 or After <sup>2</sup>	.1	14.2	4,162	270	1,455	4,573	5,245	4.1
<b>1990 Family Income</b>								
Less than \$10,000	Q .1	23.9	7,013	Q 439	1,304	5,620	6,356	Q .96
\$10,000 to \$19,999	Q .2	19.1	5,612	Q 350	1,597	4,792	5,450	Q .73
\$20,000 to \$34,999	Q .2	23.7	6,953	Q 467	1,745	5,011	5,712	Q .80
\$35,000 or More	NC	NC	NC	NC	NC	NC	NC	NC
<b>Below Poverty Line</b>								
100 Percent	Q .1	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	Q NF
125 Percent	Q .2	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	Q NF
<b>Age of Householder</b>								
Under 35 Years	.1	20.5	6,019	401	1,287	5,589	6,282	.84
35 to 59 Years	.2	21.0	6,142	401	1,335	5,039	5,764	.91
60 Years and Over	.2	22.2	6,520	410	1,698	4,556	5,254	.84
<b>Household Size</b>								
1 Person	.2	14.9	4,380	296	879	5,052	5,866	.99
2 to 4 Persons	.4	24.4	7,153	456	1,748	4,951	5,606	.83
5 or More Persons	NC	NC	NC	NC	NC	NC	NC	NC

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No Cases in Sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms ELA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**MIDWEST**

**Table 44. Natural Gas Consumption and Expenditures for Main Space Heating,  
per Midwest Region Household, 1990**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(1000 cubic feet)	(million Btu)			Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
RSE Column Factors:	2.4	NF	NF	1.1	0.4	0.4	NF	NF
<b>Midwest Region</b>								
Total Region .....	16.5	86.2	84.6	423	1,818	5,670	6,482	8.2
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	14.2	87.3	85.7	428	1,807	5,849	6,679	8.1
Under 5,500 HDD .....	2.3	79.1	77.9	391	1,887	4,541	5,248	9.1
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single Family .....	11.5	95.9	94.3	467	2,161	5,653	6,444	7.7
Mobile Home .....	1.0	66.8	65.7	360	993	5,867	6,683	11.3
Multifamily (2 or more units) .....	4.1	63.3	61.8	316	1,048	5,670	6,544	10.4
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	4.4	54.7	53.6	277	752	5,643	6,464	12.6
1,000 to 1,999 .....	6.3	86.2	84.8	429	1,495	5,664	6,468	10.0
2,000 or More .....	5.8	110.1	108.1	529	2,984	5,697	6,513	6.4
<b>Ownership of Unit</b>								
Owned .....	11.1	95.7	94.1	469	2,120	5,694	6,497	7.8
Rented .....	5.4	66.7	65.4	330	1,204	5,621	6,453	9.7
<b>Year of Construction</b>								
1949 or Before .....	7.0	100.8	99.0	496	1,788	5,601	6,408	9.9
1950 to 1979 .....	7.7	75.1	73.7	370	1,735	5,701	6,523	7.5
1980 or After <sup>2</sup> .....	1.8	76.2	74.8	367	2,289	5,807	6,601	5.6
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.7	90.6	88.8	449	1,441	5,700	6,478	10.8
\$10,000 to \$19,999 .....	3.7	77.4	76.1	386	1,413	5,613	6,419	9.6
\$20,000 to \$34,999 .....	4.4	80.6	79.3	399	1,771	5,744	6,550	7.8
\$35,000 or More .....	5.7	93.9	92.2	454	2,291	5,635	6,474	7.1
<b>Below Poverty Line</b>								
100 Percent .....	1.7	89.9	87.9	449	1,409	5,740	6,529	10.9
125 Percent .....	2.6	85.3	83.5	425	1,366	5,699	6,472	10.7
<b>Age of Householder</b>								
Under 35 Years .....	4.9	76.2	74.8	379	1,567	5,647	6,465	8.5
35 to 59 Years .....	6.6	89.1	87.5	433	2,051	5,636	6,463	7.6
60 Years and Over .....	4.9	92.2	90.6	455	1,759	5,737	6,527	9.0
<b>Household Size</b>								
1 Person .....	4.4	78.7	77.3	388	1,380	5,702	6,502	9.8
2 to 4 Persons .....	10.7	87.7	86.2	430	1,958	5,681	6,497	7.8
5 or More Persons .....	1.3	98.4	96.4	482	2,156	5,472	6,300	8.2
<b>Main Heating Equipment Using Natural Gas</b>								
Central Warm-Air Furnace .....	13.1	86.6	85.0	426	1,924	5,677	6,478	7.8
Steam or Hot-Water System .....	2.5	85.7	83.9	415	1,489	5,661	6,560	9.9
Floor, Wall, or Pipeless Furnace .....	4	74.3	73.5	369	1,257	6,417	6,180	10.8
Room Heater/Other .....	.4	87.8	87.3	430	1,021	5,764	6,445	14.8

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 44. Natural Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
	House- holds (million)	(million Btu)	(1000 cubic feet)		Expend- itures (dollars)	30-Year Average <sup>1</sup>	
RSE Column Factors:	2.4	NF	NF	NF	1.1	0.4	0.4
					NF	NF	NF
Midwest Region							
<b>Age of Main Heating Equipment</b>							
Less than 5 Years .....	3.5	93.8	92.1	457	2,199	5,661	6,486
5 to 9 Years .....	2.2	86.0	84.8	430	1,884	5,840	6,606
10 to 19 Years .....	4.5	84.6	83.0	419	1,823	5,780	6,584
20 Years or More .....	4.1	91.6	90.0	446	1,833	5,562	6,371
Don't Know .....	2.2	67.3	65.8	330	1,116	5,491	6,355
<b>Secondary Heating Fuel (more than one may apply)</b>							
No .....	10.6	80.6	79.2	401	1,595	5,658	6,475
Yes .....	5.9	96.2	94.4	464	2,221	5,691	6,496
Wood .....	3.0	101.0	99.2	484	2,747	5,821	6,620
Electricity .....	2.6	95.2	93.2	463	1,894	5,489	6,308
Kerosene .....	.5	85.2	83.5	420	1,982	5,403	6,175
Other .....	.5	77.0	75.5	365	1,384	5,896	6,686
<b>Average Natural Gas Expenditures for Main Space Heat (dollars per 1000 cft)</b>							
Less than 4.50 .....	2.7	102.7	102.0	419	2,282	5,767	6,524
4.50 to Less than 6 .....	12.7	85.7	83.9	433	1,764	5,668	6,490
6 or More .....	1.1	51.8	51.1	325	1,329	5,463	6,294
<b>Winter Temperature Inside Housing Unit</b>							
Pref.							
Usual Temperature .....	13.5	86.8	85.3	425	1,836	5,665	6,479
Warmer Temperature .....	2.5	87.0	85.3	433	1,791	5,710	6,509
Cooler Temperature .....	.5	64.3	62.8	325	1,482	5,610	6,453
<b>Adequacy of Insulation</b>							
Well Insulated .....	5.7	84.3	83.0	410	2,039	5,699	6,506
Adequately Insulated .....	6.9	83.7	82.2	417	1,771	5,682	6,498
Poorly Insulated .....	3.3	96.6	94.7	471	1,627	5,561	6,364
Don't Know .....	.6	74.3	72.3	358	1,345	5,850	6,737

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 44. Natural Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(1000 cubic feet)	(million Btu)			Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
		NF	NF			0.4	NF	
RSE Column Factors:	2.4	NF	NF	1.1	0.4	0.4	NF	
<b>East North Central Division ...</b>	<b>11.6</b>	<b>89.8</b>	<b>87.8</b>	<b>448</b>	<b>1,842</b>	<b>5,613</b>	<b>6,462</b>	<b>8.5</b>
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	11.0	89.6	87.6	447	1,853	5,665	6,517	8.3
Over 5,500 HDD .....	Q	93.9	91.5	461	1,662	4,731	5,538	11.6
Under 5,500 HDD .....								
Under 2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family .....	8.0	100.1	97.9	493	2,197	5,670	6,502	7.9
Mobile Home .....	.7	65.1	63.4	366	982	5,642	6,463	11.4
Multifamily (2 or more units) .....	2.9	67.7	66.0	344	1,077	5,448	6,354	11.2
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	3.1	54.6	53.2	284	757	5,479	6,344	12.8
1,000 to 1,999 .....	4.5	90.3	88.4	459	1,498	5,598	6,439	10.5
2,000 or More .....	4.1	115.7	113.0	558	3,036	5,730	6,577	6.5
<b>Ownership of Unit</b>								
Owned .....	7.8	99.9	97.7	496	2,135	5,686	6,523	8.0
Rented .....	3.8	69.2	67.5	350	1,242	5,463	6,338	10.0
<b>Year of Construction</b>								
1949 or Before .....	5.2	104.4	102.1	525	1,822	5,527	6,370	10.1
1950 to 1979 .....	5.1	76.2	74.4	380	1,707	5,624	6,485	7.7
1980 or After <sup>2</sup> .....	1.3	85.0	83.4	406	2,437	5,904	6,736	5.8
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.9	99.2	96.7	502	1,526	5,624	6,465	11.3
\$10,000 to \$19,999 .....	2.5	77.9	76.0	399	1,369	5,540	6,392	10.0
\$20,000 to \$34,999 .....	3.1	83.0	81.1	421	1,817	5,645	6,485	7.9
\$35,000 or More .....	4.2	97.6	95.6	472	2,276	5,627	6,485	7.5
<b>Below Poverty Line</b>								
100 Percent .....	1.3	97.8	95.2	496	1,513	5,648	6,476	11.1
125 Percent .....	1.9	93.1	90.7	472	1,432	5,654	6,474	11.2
<b>Age of Householder</b>								
Under 35 Years .....	3.6	79.6	77.8	400	1,589	5,537	6,375	8.8
35 to 59 Years .....	4.7	94.4	92.3	461	2,091	5,624	6,493	7.8
60 Years and Over .....	3.4	94.3	92.1	480	1,765	5,676	6,512	9.2
<b>Household Size</b>								
1 Person .....	2.9	81.8	79.8	417	1,413	5,556	6,423	10.2
2 to 4 Persons .....	7.7	91.0	89.0	451	1,963	5,649	6,490	8.0
5 or More Persons .....	1.1	104.0	101.4	512	2,155	5,509	6,374	8.5

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 44. Natural Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity	Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	RSE Row Factors
	Households (million)	(1000 cubic feet)		Expenditures (dollars)	1990				
RSE Column Factors:	2.4	NF	NF	NF	1.1	0.4	0.4	NF	NF
West North Central Division.	4.9	77.3	77.0	364	1,760	5,807	6,531	7.5	3.6
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	3.2	79.4	79.2	364	1,652	6,473	7,227	7.4	3.4
Under 5,500 HDD	1.6	73.2	72.4	363	1,978	4,465	5,130	8.2	4.1
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	3.4	86.2	85.9	406	2,078	5,613	6,308	7.4	3.5
Mobile Home	.3	71.6	71.8	344	1,023	6,476	7,280	10.8	5.2
Multifamily (2 or more units)	1.1	52.1	51.2	242	975	6,236	7,031	8.4	4.0
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.4	54.8	54.5	259	742	6,012	6,733	12.2	5.8
1,000 to 1,999	1.8	75.9	75.6	352	1,486	5,830	6,542	8.7	4.1
2,000 or More	1.7	96.8	96.3	460	2,859	5,619	6,358	6.0	2.9
<b>Ownership of Unit</b>									
Owned	3.2	85.6	85.4	404	2,085	5,714	6,433	7.2	3.4
Rented	1.6	61.0	60.3	283	1,115	5,991	6,724	9.0	4.2
<b>Year of Construction</b>									
1949 or Before	1.8	90.6	90.2	414	1,689	5,811	6,516	9.2	4.2
1950 to 1979	2.6	72.8	72.5	348	1,789	5,853	6,599	6.9	3.3
1980 or After <sup>2</sup>	.5	50.0	49.4	253	1,890	5,521	6,204	4.7	2.4
<b>1990 Family Income</b>									
Less than \$10,000	.8	70.6	70.5	325	1,243	5,875	6,508	9.7	4.5
\$10,000 to \$19,999	1.2	76.5	76.3	358	1,501	5,762	6,473	8.8	4.1
\$20,000 to \$34,999	1.3	75.2	75.1	347	1,666	5,971	6,697	7.6	3.5
\$35,000 or More	1.5	83.5	82.7	405	2,337	5,659	6,440	6.3	3.1
<b>Below Poverty Line</b>									
100 Percent	.4	67.4	67.3	317	1,112	6,000	6,679	10.1	4.8
125 Percent	.7	65.4	65.2	307	1,199	5,813	6,469	9.4	4.4
<b>Age of Householder</b>									
Under 35 Years	1.4	67.5	66.9	324	1,511	5,932	6,696	7.5	3.6
35 to 59 Years	1.9	76.3	75.8	363	1,952	5,666	6,389	6.9	3.3
60 Years and Over	1.5	87.4	87.4	401	1,746	5,869	6,559	8.5	3.9
<b>Household Size</b>									
1 Person	1.5	72.7	72.4	333	1,315	5,985	6,658	9.2	4.2
2 to 4 Persons	3.1	79.7	79.3	379	1,943	5,762	6,514	7.1	3.4
5 or More Persons	.3	76.4	76.5	364	2,158	5,326	6,012	6.7	3.2

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms ELA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (or specific titles of forms, see Appendix A).

## **SPACE-HEATING CONSUMPTION/EXPENDITURES**

MIDWEST

## Fuel Oil Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 45. Fuel Oil Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floor space (square feet)	Annual Heating Degree-Days	Space-Heating Intensity	Fuel Oil Expenditures (cents/ HDD*1000 square feet)	RSE Row Factors
	House- holds (million)	Fuel Oil (million Btu)					
RSE Column Factors:	2.7	NF	NF	0.9	0.6	0.6	NF
Midwest Region							
<b>Age of Main Heating Equipment</b>							
Less than 5 Years .....	Q	Q	Q	Q	Q	Q	NF
5 to 9 Years .....	0.2	96.2	698	716	2,562	0.041	17.1
10 to 19 Years .....	.3	82.6	601	630	2,364	.038	3.9
20 Years or More .....	.5	98.5	701	775	1,789	.066	9.3
Don't Know .....	Q	Q	Q	Q	Q	Q	NF
<b>Secondary Heating Fuel (more than one may apply)</b>							
No .....	.5	94.5	684	726	1,915	.055	5.8
Yes .....	.7	86.7	630	666	2,204	.046	4.8
Wood .....	.5	89.7	652	682	2,444	.042	4.4
Electricity .....	.2	71.7	522	576	1,678	.052	5.7
Kerosene .....	Q	Q	Q	Q	Q	Q	NF
Other .....	Q	Q	Q	Q	Q	Q	NF
<b>Average Fuel Oil Expenditures for Main Space Heat (dollars per gallon)</b>							
Less than .95 .....	.2	60.6	437	387	2,614	.025	2.2
.95 to Less than 1.10 .....	.7	101.4	735	767	2,159	.053	5.5
1.10 or More .....	.3	85.8	627	745	1,527	.069	8.2
<b>Winter Temperature Inside Housing Unit</b>							
Prefer Usual Temperature .....	.9	93.8	680	717	2,084	.051	5.4
Warmer Temperature .....	.3	77.4	563	606	2,099	.042	4.5
Cooler Temperature .....	NC	NC	NC	NC	6,380	NC	NC
<b>Adequacy of Insulation</b>							
Well Insulated .....	.4	88.7	643	672	2,452	.042	4.4
Adequately Insulated .....	.6	85.7	621	655	2,126	.044	4.6
Poorly Insulated .....	.2	105.8	770	834	1,504	.092	10.0
Don't Know .....	Q	Q	Q	Q	Q	Q	NF

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor. Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • Because of rounding, data may not sum to totals. • See "Glossary" percentage for any table cell, multiply the corresponding column and row factors.

in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**MIDWEST**

**Table 46. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990**

Households (million)	Consumption (million Btu)	Expenditures (dollars)	Annual Heating Degree-Days			Liquefied Petroleum Gas Space-Heating Intensity		RSE Row Factors
			1990	30-Year Average <sup>1</sup>	Consumption (gallons/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)		
2.3	NF	NF	1.0	0.6	0.5	NF	NF	RSE Column Factors:
								Midwest Region
Total Region .....	1.6	58.8	644	561	1,690	5,912	6,582	0.064
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	1.2	60.1	658	588	1,789	6,349	7,009	.058
Under 5,500 HDD .....	.4	54.6	598	474	1,372	4,505	5,205	.097
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family .....	1.2	62.7	687	592	1,981	5,993	6,631	.061
Mobile Home .....	.3	43.7	479	439	881	5,700	6,448	.094
Multifamily (2 or more units) .....	Q	Q	Q	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	.5	48.5	531	505	753	5,856	6,550	.120
1,000 to 1,999 .....	.6	63.5	695	596	1,442	5,965	6,654	.081
2,000 or More .....	.5	63.3	694	577	2,879	5,904	6,530	.041
<b>Ownership of Unit</b>								
Owned .....	1.4	58.4	639	559	1,764	5,981	6,680	.061
Rented .....	.2	61.6	675	574	1,187	5,444	6,054	.104
<b>Year of Construction</b>								
1949 or Before .....	.6	69.9	766	622	1,596	5,949	6,568	.081
1950 to 1979 .....	.6	54.5	596	565	1,501	5,795	6,494	.069
1980 or After <sup>2</sup> .....	.4	49.9	546	474	2,082	6,025	6,723	.044
<b>1990 Family Income</b>								
Less than \$10,000 .....	.3	59.0	646	644	1,060	6,161	6,736	.099
\$10,000 to \$19,999 .....	.5	52.3	572	516	1,368	5,725	6,450	.073
\$20,000 to \$34,999 .....	.4	58.3	638	522	1,799	6,040	6,740	.059
\$35,000 or More .....	.4	67.3	737	591	2,487	5,816	6,463	.051
<b>Below Poverty Line</b>								
100 Percent .....	.3	49.0	536	506	1,096	5,717	6,372	.086
125 Percent .....	.5	56.6	620	613	1,128	5,811	6,452	.095
<b>Age of Householder</b>								
Under 35 Years .....	.4	49.4	541	472	1,619	6,136	6,870	.054
35 to 59 Years .....	.6	64.2	703	594	2,025	5,724	6,343	.061
60 Years and Over .....	.5	60.5	662	598	1,377	5,935	6,609	.081
<b>Household Size</b>								
1 Person .....	.2	56.9	623	624	1,046	5,932	6,450	.100
2 to 4 Persons .....	1.1	62.4	683	578	1,743	5,870	6,541	.067
5 or More Persons .....	.3	46.1	505	455	1,926	6,056	6,825	.043
<b>Main Heating Equipment Using LPG</b>								
Central Warm-Air Furnace .....	1.2	57.7	632	539	1,820	5,854	6,542	.059
Room Heater/Other .....	4	62.3	682	635	1,263	6,101	6,712	.088
								5.1
								7.3
								8.2
								14.4

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 46. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption			Annual Heating Degree-Days	Liquefied Petroleum Gas			RSE Row Factors: \$
	House- holds (million)	(million Btu)	(gallons)		Expend- itures (dollars)	Heated Floorspace (square feet)	1990	
RSE Column Factors:	2.3	NF	NF	NF	1.0	0.6	0.5	NF
Age of Main Heating Equipment								
Less than 5 Years .....	0.6	53.8	589	518	1,869	6,163	6,843	0.051
5 to 9 Years .....	.3	56.1	614	552	1,436	5,669	6,312	.075
10 to 19 Years .....	.4	68.6	751	682	1,699	5,724	6,388	.082
20 Years or More .....	.2	60.9	667	505	1,814	6,033	6,765	.061
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q
Secondary Heating Fuel (more than one may apply)								
No .....	.7	61.6	675	582	1,471	5,851	6,502	.078
Yes .....	.9	56.6	620	545	1,859	5,958	6,643	.056
Wood .....	.6	54.1	593	507	2,267	5,886	6,580	.045
Electricity .....	.2	54.3	595	552	1,616	5,430	6,149	.068
Kerosene .....	.2	49.1	538	543	1,830	5,181	5,970	.057
Other .....	Q	Q	Q	Q	Q	Q	Q	Q
Average LPG Expenditures for Main Space Heat (dollars per gallon)								
Less than .75 .....	.3	58.4	640	403	1,798	6,015	6,652	.059
.75 to Less than 1.00 .....	.9	58.4	639	555	1,732	5,950	6,600	.062
1.00 or More .....	.3	60.3	660	746	1,458	5,697	6,457	.079
Winter Temperature Inside Housing Unit								
Prefers								
Usual Temperature .....	1.2	59.7	654	546	1,722	5,862	6,528	.065
Warmer Temperature .....	.4	56.0	613	Q	1,578	6,122	6,808	.063
Cooler Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q
Adequacy of insulation								
Well Insulated .....	.8	59.7	654	558	1,893	6,106	6,786	.057
Adequately Insulated .....	.5	57.6	631	548	1,717	5,697	6,359	.064
Poorly Insulated .....	.3	60.4	661	611	1,211	5,914	6,559	.092
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 46. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption (million Btu)	Expenditures (dollars)	Heated Floorspace (square feet)		Annual Heating Degree-days	Liquefied Petroleum Gas Space-Heating Intensity	RSE Row Factors
				1990	30-Year Average <sup>1</sup>		Consumption (gallons/HDD*1000 square feet)	
RSE Column Factors:	2.3	NF	NF	1.0	0.6	0.5	NF	NF
<b>East North Central Division...</b>	<b>1.1</b>	<b>59.0</b>	<b>646</b>	<b>587</b>	<b>1,684</b>	<b>6,114</b>	<b>6,831</b>	<b>0.063</b>
<b>Climate Zone<sup>2</sup></b>								<b>5.7</b>
Under 2,000 CDD and Over 5,500 HDD	.9	57.5	629	586	1,761	6,320	7,027	.057
Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family	.8	64.3	704	633	1,889	6,232	6,908	.060
Mobile Home	.2	41.5	454	429	894	5,836	6,637	.087
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	.4	48.1	527	519	741	6,164	6,888	.115
1,000 to 1,999	.3	68.1	746	664	1,430	6,150	6,879	.085
2,000 or More	4	62.1	680	586	2,964	6,026	6,722	.038
<b>Ownership of Unit</b>								
Owned	.9	59.2	648	590	1,768	6,223	6,929	.059
Rented	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year of Construction</b>								
1949 or Before	4	71.8	786	660	1,480	6,179	6,889	.086
1950 to 1979	4	55.5	608	603	1,459	6,024	6,751	.069
1980 or After <sup>2</sup>	3	48.6	532	477	2,235	6,162	6,873	.039
<b>1990 Family Income</b>								
Less than \$10,000	Q	53.2	583	548	1,291	5,986	6,730	.075
\$10,000 to \$19,999	Q	60.0	657	568	1,864	6,237	7,049	.057
\$20,000 to \$34,999	Q	66.6	730	587	2,569	5,899	6,540	Q
\$35,000 or More	Q	Q	Q	Q	Q	Q	Q	Q
<b>Below Poverty Line</b>								
100 Percent	.2	47.6	521	505	950	5,980	6,737	.092
125 Percent	3	58.5	641	678	935	6,240	6,941	.110
<b>Age of Householder</b>								
Under 35 Years	.3	46.2	506	453	1,612	6,213	7,008	.051
35 to 59 Years	4	66.9	732	643	2,171	5,961	6,603	.057
60 Years and Over	4	61.4	672	640	1,212	6,198	6,927	.089
<b>Household Size</b>								
1 Person	Q	62.7	687	600	1,742	6,048	6,759	.065
2 to 4 Persons	Q	Q	Q	Q	Q	Q	Q	Q
5 or More Persons	Q	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## MIDWEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 46. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Liquefied Petroleum Gas Space-Heating Intensity		RSE Row Factors
	Households (million)	Btu (gallons)			Expenditures (dollars)	Consumption (gallons/HDD*1000 square feet)	
	2.3	NF	NF	NF	1.0	0.6	0.5
West North Central Division	0.5	58.4	639	508	1,702	5,488	6,050
Climate Zone <sup>1</sup>							
Under 2,000 CDD and Over 5,500 HDD	.3	69.4	759	596	1,866	6,453	6,947
Under 5,500 HDD	.2	46.7	512	414	1,507	4,463	5,119
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC
Type of Housing Unit							
Single-Family	.4	59.6	653	514	1,865	5,539	6,106
Mobile Home	Q	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	Q
Heated Floorspace (square feet)							
Fewer than 1,000	.1	50.0	547	455	794	4,771	5,358
1,000 to 1,999	.2	57.1	625	501	1,459	5,709	6,342
2,000 or More	.2	66.1	724	555	2,693	5,639	6,108
Ownership of Unit							
Rented	Q	4	56.6	620	494	1,756	5,472
Owned	Q	1	52.1	571	477	1,598	5,263
Year of Construction							
1949 or Before	Q	.2	66.7	731	558	1,789	5,564
1950 to 1979	Q	.1	53.1	581	466	1,703	5,687
1980 or After <sup>2</sup>	Q	1	53.1	581	466	1,703	5,652
1990 Family Income							
Less than \$10,000	.1	66.2	725	596	1,437	5,425	5,739
\$10,000 to \$19,999	.2	50.5	553	456	1,513	5,230	5,918
\$20,000 to \$34,999	.2	55.7	610	454	1,701	5,743	6,275
\$35,000 or More	.1	69.2	758	604	2,251	5,577	6,241
Below Poverty Line							
100 Percent	Q	.2	52.9	579	510	1,499	4,985
125 Percent	Q	.2	53.2	583	496	1,474	5,042
Age of Householder							
Under 35 Years	.1	56.9	624	518	1,636	5,952	6,540
35 to 59 Years	.2	59.0	646	497	1,739	5,258	5,830
60 Years and Over	.2	58.8	644	513	1,709	5,406	5,967
Household Size							
1 Person	.1	54.1	592	487	1,479	5,370	5,794
2 to 4 Persons	.2	61.8	677	527	1,745	5,467	6,047
5 or More Persons	.1	49.6	543	454	1,768	5,694	6,393

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 47. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Midwest Region Households, 1990**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>		Per Household		Electric Air-Conditioning Intensity	
	Households (million)	Total Consumption (trillion Btu)	Consumption		Annual Cooling Degree-Days	Consumption (KWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	
			Households (million)	Expenditures (dollars) (kWh)				
RSE Column Factors:	1.0	NF	1.6	NF	NF	0.9	0.6	NF
<b>Midwest Region</b>								
<b>Total Region</b>	16.0	70.9	8.9	6.4	1,875	150	2,312	947
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	13.1	50.5	1.20	7.0	5.7	1,665	133	2,307
Over 5,500 HDD	2.9	20.4	.49	1.9	9.1	2,656	214	2,332
Under 2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>								
Single-Family	11.1	55.9	1.32	6.7	7.0	2,053	165	2,747
Mobile Home	1.0	5.5	.13	.7	6.7	1,952	154	994
Multifamily (2 or more units)	3.8	9.5	.25	1.6	3.8	1,108	90	1,054
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	4.1	11.9	.29	1.6	4.6	1,352	107	837
1,000 to 1,999	6.1	24.3	.57	3.4	5.7	1,677	134	1,737
2,000 or More	5.8	34.7	.83	4.0	7.7	2,250	182	3,388
<b>Ownership of Unit</b>								
Owned	11.8	58.3	1.37	7.3	6.7	1,969	158	2,551
Rented	4.2	12.6	.32	1.6	5.0	1,456	117	1,254
<b>Year of Construction</b>								
1949 or Before	5.1	15.8	.39	1.4	6.3	1,832	145	2,265
1950 to 1979	8.7	42.0	.98	5.8	6.2	1,817	144	2,149
1980 or After <sup>3</sup>	2.2	13.2	.32	1.7	7.2	2,109	177	2,914
<b>1990 Family Income</b>								
Less than \$10,000	1.9	5.2	.13	.6	4.9	1,445	119	1,387
\$10,000 to \$19,999	3.2	10.0	.25	1.5	4.7	1,384	116	1,795
\$20,000 to \$34,999	4.6	17.9	.41	2.4	5.7	1,676	128	2,039
\$35,000 or More	6.3	37.8	.90	4.4	7.5	2,204	178	2,754
<b>Below Poverty Line</b>								
100 Percent	1.2	3.4	.08	.4	4.9	1,438	116	1,332
125 Percent	1.9	5.8	.14	.6	4.9	1,430	117	1,325
<b>Age of Householder</b>								
Under 35 Years	4.3	17.8	.42	2.2	6.2	1,809	143	1,940
35 to 59 Years	6.9	37.0	.89	4.2	7.4	2,157	174	2,631
60 Years and Over	4.8	16.0	.39	2.5	5.0	1,454	117	2,100

See footnotes at end of table.

**MIDWEST**
**AIR-CONDITIONING CONSUMPTION/EXPENDITURES**

**Table 47. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>									
			per Household					Electric Air-Conditioning Intensity				
			Consumption		Total Expenditures	Annual Cooling Degree-Days	Cooled Floor-space (square feet)	30-Year Average <sup>2</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	RSE Row Factors	
RSE Column Factors:	1.0	NF	NF	1.6	NF	NF	NF	0.9	0.6	0.6	NF	NF
<b>Household Size</b>												
1 Person .....	4.1	12.2	0.31	2.1	4.5	1,304	111	1,633	937	889	0.85	7.2
2 to 4 Persons .....	10.8	52.1	1.24	6.3	6.8	1,982	159	2,435	947	897	.84	6.7
5 or More Persons .....	1.1	6.6	.14	.5	9.6	2,827	205	2,816	984	965	1.02	7.4
<b>Cooling Degree-Days (CDD)-1990</b>												
2,000 or More .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	.79	NC
2,000 to 1,999 .....	5.2	32.4	.79	3.1	8.7	2,563	209	2,404	1,345	1,268	.79	6.5
500 to 999 .....	10.5	38.1	.90	5.8	5.2	1,522	121	2,259	743	710	.91	7.2
Fewer than 500 .....	.3	.4	.01	Q	Q	Q	Q	Q	Q	Q	Q	25.1
<b>Average Humidity for June, July and August 1990 (percent)</b>												
Less than 65 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	.83	Q
65 to Less than 70 .....	5.9	25.5	.69	3.5	6.0	1,746	159	2,233	939	939	.85	7.5
70 or Higher .....	9.7	43.7	.96	5.3	6.6	1,942	142	2,340	948	924	.87	6.4
<b>Average Electricity Expenditures (cents per kWh)</b>												
Less than 6 .....	1.1	7.0	.11	.8	8.4	2,454	125	2,333	864	860	1.22	6.2
6 to Less than 9 .....	9.3	42.5	.93	5.5	6.3	1,858	139	2,244	965	931	.86	6.4
9 or More .....	5.6	21.3	.66	2.7	6.0	1,747	180	2,446	934	847	.76	7.9
<b>Number of Rooms Usually Air Conditioned</b>												
1 to 3 .....	5.6	10.0	.25	.7	3.3	971	75	870	902	892	1.24	9.6
4 to 6 .....	7.2	36.0	.86	5.2	5.8	1,708	138	1,887	959	912	.94	7.6
7 or More .....	3.2	24.9	.58	3.0	8.1	2,385	190	3,404	938	879	.75	7.9
<b>Frequency of Use of Air Conditioning<sup>4</sup></b>												
Only a Few Times .....	8.9	20.6	.50	4.0	3.9	1,156	95	2,204	831	790	.63	5.2
Quite a Bit .....	3.9	24.8	.60	2.6	7.8	2,299	186	2,547	987	921	.91	7.4
All Summer .....	3.1	24.9	.57	2.4	8.9	2,617	204	2,244	1,087	1,052	1.07	8.4
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Age of Air Conditioning Equipment<sup>4</sup></b>												
Less than 5 Years .....	4.9	23.5	.58	2.7	7.0	2,046	170	2,765	922	872	.80	6.7
5 to 9 Years .....	3.3	13.6	.32	1.5	6.6	1,932	151	2,213	989	941	.88	6.9
10 or More Years .....	6.0	28.3	.66	3.9	6.2	1,819	144	2,186	960	915	.87	7.3
Don't Know .....	1.5	4.7	.12	.6	5.3	1,541	123	1,667	884	838	1.05	8.4

See footnotes at end of table.

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 47. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>	
					per Household	
	Total Households (million)	Total Consumption	Households (million)	Expenditures (dollars) (kWh)	Cooled Floor-space (square feet)	Annual Cooling Degree-Days
RSE Column Factors:	1.0	NF	1.6	NF	NF	0.9
East North Central Division ...	10.7	420	1.02	5.7	1,678	136
<b>Climate Zone<sup>2</sup></b>						
Under 2,000 CDD and Over 5,500 HDD .....	10.0	38.8	.94	5.4	5.7	2,349
Q Q				7.0	1,660	134
Under 5,500 HDD .....				2.061	165	2,130
2,000 CDD or More and Under 4,000 HDD .....					1,001	1,034
Type of Housing Unit	7.2	32.2	.76	4.1	6.4	808
Single-Family .....				.5	1,981	152
Mobile Home .....	7	3.7	.09	1.2	1,723	135
Multifamily (2 or more units) .....	2.8	6.2	.17	3.2	941	79
Heated Floorspace (square feet)						
Fewer than 1,000 .....	2.8	7.3	.19	1.1	3.9	1,141
1,000 to 1,999 .....	4.0	14.1	.34	2.1	5.2	1,526
2,000 or More .....	3.9	20.6	.50	2.5	6.9	2,036
Ownership of Unit						
Owned .....	8.0	34.9	.83	4.7	6.0	1,762
Rented .....			.19	1.0	4.3	1,264
Year of Construction						
1949 or Before .....	3.4	9.2	.23	.8	5.3	1,550
1950 to 1979 .....	5.7	24.4	.57	3.8	5.5	1,602
1980 or After <sup>3</sup> .....	1.5	8.5	.22	1.1	6.9	2,027
1990 Family Income						
Less than \$10,000 .....	1.2	2.9	.07	.3	4.3	1,255
\$10,000 to \$19,999 .....	1.9	5.0	.13	.8	4.1	1,208
\$20,000 to \$34,999 .....	3.2	10.1	.24	1.6	4.7	1,392
\$35,000 or More .....	4.4	24.0	.58	3.0	6.8	1,996
Below Poverty Line						
100 Percent .....	.8	2.0	.05	.Q	4.2	1,239
125 Percent .....	1.1	3.0	.08	.3	4.2	1,138
Age of Householder						
Under 35 Years .....	2.9	11.5	.27	1.4	5.9	1,721
35 to 59 Years .....	4.7	22.4	.55	2.8	6.5	1,904
60 Years and Over .....	3.1	8.1	.21	1.4	4.1	1,199
Household Size						
1 Person .....	2.6	7.0	.19	1.3	3.9	1,139
2 to 4 Persons .....	7.3	30.6	.74	4.0	6.0	1,758
5 or More Persons .....	8	4.4	.09	.4	9.3	2,754

See footnotes at end of table.

## MIDWEST

### AIR-CONDITIONING CONSUMPTION/EXPENDITURES

**Table 47. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>										
			per Household										
	Consumption				Annual Cooling Degree-Days		Electric Air-Conditioning Intensity						
	Total Consumption	Expenditures	Total Consumption	Expenditures	Expenditures	Cooled Floor-space (square feet)	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	FSE	Flow	FAC	tions	
Household Hold (millions)	(billions of dollars)	(billions of dollars)	Household Hold (million Btu)	Household Hold (million Btu)	Household Hold (kWh)	(million square feet)	1990	30-Year Average <sup>2</sup>	1990	Flow	FAC	tions	
RSE Column Factors:	1.0	NF	NF	1.6	NF	NF	0.9	0.6	0.6	NF	NF	.....	
<b>West North Central Division</b>	5.3	28.9	0.67	3.2	7.6	2,221	176	2,264	1,207	1,139	0.81	6.4	5.6
<b>Climate Zone<sup>2</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	3.1	11.7	.26	1.6	5.7	1,683	129	2,163	951	898	.82	6.3	5.9
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	2.2	17.1	.41	1.6	9.4	2,749	222	2,364	1,459	1,376	.80	6.4	7.9
<b>Type of Housing Unit</b>													
Single-Family .....	3.9	23.7	.55	2.6	7.9	2,320	184	2,548	1,220	1,153	.75	5.9	5.7
Mobile Home .....	.3	1.8	.04	.2	8.9	2,599	207	1,038	1,387	1,303	1.81	14.4	16.8
Multifamily (2 or more units) .....	1.1	3.4	.08	.5	5.2	1,522	117	1,120	1,071	1,001	1.27	9.8	12.4
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.3	4.6	.11	.5	6.2	1,827	144	833	1,274	1,208	1.72	13.5	10.1
1,000 to 1,999 .....	2.1	10.1	.24	1.3	6.5	1,919	154	1,806	1,197	1,122	.89	7.1	7.1
2,000 or More .....	1.9	14.1	.32	1.5	8.9	2,622	206	3,151	1,194	1,131	.70	5.5	6.3
<b>Ownership of Unit</b>													
Owned .....	3.8	23.3	.54	2.6	8.0	2,353	187	2,530	1,215	1,146	.77	6.1	5.6
Rented .....	1.5	5.5	.13	.7	5.9	1,727	136	1,267	1,179	1,111	1.16	9.1	10.7
<b>Year of Construction</b>													
1949 or Before .....	1.7	6.6	.15	.6	7.5	2,204	171	2,211	1,247	1,177	.80	6.2	6.3
1950 to 1979 .....	3.0	17.6	.41	2.0	7.6	2,213	176	2,265	1,200	1,125	.81	6.5	7.2
1980 or After .....	.6	4.6	.11	.6	7.7	2,268	182	2,320	1,189	1,148	.82	6.6	15.5
<b>1990 Family Income</b>													
Less than \$10,000 .....	.7	2.3	.06	.2	5.8	1,709	140	1,712	1,246	1,209	.80	6.5	14.3
\$10,000 to \$19,999 .....	1.3	4.9	.12	.7	5.4	1,585	130	1,854	1,213	1,145	.70	5.8	3.1
\$20,000 to \$34,999 .....	1.4	7.8	.18	.9	7.4	2,177	167	2,021	1,227	1,160	.88	6.7	8.5
\$35,000 or More .....	1.8	13.8	.32	1.4	9.0	2,647	210	2,710	1,186	1,111	.82	6.5	8.3
<b>Below Poverty Line</b>													
100 Percent .....	.4	1.4	.03	.1	6.3	1,840	148	1,858	1,324	1,276	.75	6.0	15.5
125 Percent .....	.8	2.8	.07	.3	5.7	1,664	137	1,555	1,276	1,230	.84	6.9	1.6
<b>Age of Householder</b>													
Under 35 Years .....	1.4	6.4	.15	.7	6.7	1,978	161	1,952	1,189	1,116	.85	6.9	9.3
35 to 59 Years .....	2.2	14.6	.34	1.4	9.0	2,649	208	2,469	1,257	1,179	.85	6.7	7.2
60 Years and Over .....	1.8	7.9	.18	1.0	6.2	1,808	142	2,207	1,152	1,100	.71	5.6	8.2

See footnotes at end of table.

Table 47. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, Midwest Region Households, 1990 (Continued)

Characteristics	Electricity Used for All Air Conditioning			Electricity Used for Central Air Conditioning <sup>1</sup>									RSE Row Factors		
	Households (million)	Total Consumption (trillion Btu)	Total Expenditures (billion dollars)	per Household						Annual Cooling Degree-Days		Electric Air-Conditioning Intensity			
				Households (million)	(million Btu)	(kWh)	Expenditures (dollars)	Cooled Floor-space (square feet)	1990	30-Year Average <sup>2</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)			
RSE Column Factors:	1.0	NF	NF	1.6	NF	NF	NF	0.9	0.6	0.6	NF	NF			

**Household Size**

1 Person .....	1.4	5.2	0.12	0.7	5.5	1,606	131	1,705	1,185	1,116	0.79	6.5	10.1
2 to 4 Persons .....	3.5	21.4	.49	2.3	8.1	2,360	185	2,410	1,204	1,137	.81	6.4	5.5
5 or More Persons .....	.4	2.2	.05	.2	10.4	3,051	254	2,734	1,363	1,279	.82	6.8	17.1

<sup>1</sup> An estimated 2.0 million households have a central air conditioner and one or more room air conditioners. These households are included only under central air conditioners and not included under room air conditioners.

<sup>2</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

<sup>4</sup> If a household has both a central and room air conditioner then the usage and age of the equipment is presented only for the central unit.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 48. Electricity Consumption and Expenditures for Room Air Conditioning, per Midwest Region Household, 1990**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	
RSE Column Factors:	1.4	NF	NF	NF	0.9	0.5	0.6	NF	NF	
Midwest Region										
<b>Total Region</b>	7.0	1.9	569	49	932	855	812	0.71	6.2	6.1
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	6.0	1.7	508	44	922	790	739	.70	6.0	6.5
Under 5,500 HDD	1.0	3.2	936	82	991	1,245	1,253	.76	6.7	13.2
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family	4.5	2.0	599	49	1,112	847	830	.64	5.2	6.6
Mobile Home	.4	3.1	915	82	526	793	773	2.19	19.6	19.2
Multifamily (2 or more units)	2.2	1.5	452	46	637	880	783	.81	8.1	12.0
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	2.5	1.8	533	49	562	898	830	1.06	9.7	8.6
1,000 to 1,999	2.7	1.8	527	45	915	831	803	.69	5.9	7.2
2,000 or More	1.8	2.3	681	57	1,475	830	801	.56	4.7	8.7
<b>Ownership of Unit</b>										
Owned	4.5	2.1	607	50	1,058	839	808	.68	5.6	6.6
Rented	2.6	1.7	504	49	713	883	819	.80	7.8	7.5
<b>Year of Construction</b>										
1949 or Before	3.6	1.9	545	48	975	885	840	.63	5.6	6.6
1950 to 1979	2.9	2.0	593	51	922	827	780	.78	6.7	8.6
1980 or After <sup>2</sup>	.5	2.1	604	51	673	799	802	1.12	9.5	17.6
<b>1990 Family Income</b>										
Less than \$10,000	1.3	1.8	536	48	884	920	850	.66	5.9	9.5
\$10,000 to \$19,999	1.7	1.6	482	41	777	868	840	.72	6.1	8.6
\$20,000 to \$34,999	2.2	1.8	539	47	1,071	807	780	.62	5.4	8.3
\$35,000 or More	1.8	2.4	712	61	951	851	796	.88	7.6	8.9
<b>Below Poverty Line</b>										
100 Percent	.8	2.0	578	50	762	894	838	.85	7.3	11.3
125 Percent	1.2	2.2	653	56	878	914	858	.81	6.9	11.3
<b>Age of Householder</b>										
Under 35 Years	2.1	2.0	587	49	869	865	836	.78	6.6	8.6
35 to 59 Years	2.6	2.2	650	57	930	823	776	.85	7.4	7.7
60 Years and Over	2.3	1.6	462	41	992	881	831	.53	4.7	8.3
<b>Household Size</b>										
1 Person	2.0	1.5	433	41	736	905	838	.65	6.1	10.1
2 to 4 Persons	4.5	2.1	619	53	1,030	836	805	.72	6.1	6.8
5 or More Persons	.6	2.2	641	54	839	832	779	.92	7.7	14.0
<b>Cooling Degree-Days (CDD)-1990</b>										
2,000 or More	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
1,000 to 1,999	2.1	2.6	750	68	931	1,200	1,125	.67	6.1	9.0
500 to 999	4.7	1.7	504	43	944	727	697	.73	6.2	6.7
Fewer than 500	.3	.9	275	20	734	353	350	1.06	7.7	16.5

See footnotes at end of table.

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 48. Electricity Consumption and Expenditures for Room Air Conditioning, per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (mil. lion)	Consumption		Cooled Floorspace (square feet)	Annual Cooling Degree-Days	Electric Air- Conditioning Intensity		RSE Row Factors
		House holds (mil. lion) Btu)	KWh)			Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)	
RSE Column Factors:	1.4	NF	NF	0.9	0.5	0.6	NF	NF
Midwest Region								
Average Humidity for (percent)								
June, July and August 1990								
Less than 65 .....	Q	Q	Q	Q	Q	Q	Q	NF
65 to Less than 70 .....	2.4	1.9	556	910	830	0.67	6.4	11.0
70 or Higher .....	4.4	2.0	582	959	818	.74	6.1	8.1
Average Electricity Expenditures (cents per KWh)								
Less than 6 .....	4	2.0	577	31	969	.81	4.3	14.7
6 to Less than 9 .....	3.8	2.1	602	45	1,043	.68	5.0	6.9
9 or More .....	2.9	1.8	526	58	784	.76	8.4	10.7
Number of Rooms Usually								
Air Conditioned								
1 Room .....	1.5	1.2	361	30	325	1.40	11.8	5.9
2 Rooms .....	1.7	1.5	432	39	610	.82	7.4	8.4
3 or More .....	3.9	2.4	707	61	1,302	.62	5.4	6.6
Frequency of Use								
of Air Conditioning								
Only a Few Times .....	4.9	1.0	300	26	912	.40	3.5	4.6
Quite a Bit .....	1.4	3.5	1,028	94	1,028	1.09	9.9	8.0
All Summer .....	.8	5.1	1,490	121	892	1.75	14.3	10.3
Other .....	Q	Q	Q	Q	Q	Q	Q	NF
Age of Air Conditioning Equipment								
Less than 5 Years .....	2.3	2.2	635	57	963	.75	6.7	8.4
5 to 9 Years .....	1.8	1.9	566	46	980	.67	5.4	7.9
10 or More Years .....	2.1	1.8	541	46	963	.67	5.6	7.9
Don't Know .....	.9	1.6	471	46	685	.85	8.3	12.7
Size of Most-Used Room Air Conditioner								
Small .....	2.1	1.6	465	40	595	.98	8.3	6.6
Medium .....	3.4	1.9	544	48	987	.65	5.7	7.2
Large .....	1.3	2.7	787	66	1,365	.64	5.4	9.5
Don't Know .....	.2	2.2	654	61	742	1,116	1,022	29.1
Number of Room Air Conditioners								
1 .....	5.3	1.9	543	48	856	.74	6.6	6.9
2 .....	1.6	2.3	660	53	1,172	.67	5.4	9.1
3 or More .....	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

**Table 48. Electricity Consumption and Expenditures for Room Air Conditioning, per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	
RSE Column Factors:	1.4	NF	NF	NF	0.9	0.5	0.6	NF	NF	RSE Row Factors
<b>East North Central Division ...</b>	5.0	1.9	557	50	936	788	758	0.76	6.8	3.0
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	4.6	1.8	514	46	911	762	721	.74	6.6	3.0
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	N
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	3.1	2.0	576	47	1,133	758	763	.67	5.5	8.7
Mobile Home .....	.2	Q	Q	Q	510	769	768	2.63	24.5	20.4
Multifamily (2 or more units) ..	1.6	1.5	449	50	613	848	748	.86	9.5	14.2
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.7	1.8	522	51	565	816	754	1.13	11.0	11.6
1,000 to 1,999 .....	1.9	1.7	503	43	906	764	754	.73	6.3	9.3
2,000 or More .....	1.4	2.3	677	59	1,446	787	771	.59	5.2	10.5
<b>Ownership of Unit</b>										
Owned .....	3.2	2.0	588	49	1,060	774	760	.72	6.0	8.8
Rented .....	1.7	1.7	499	52	705	813	756	.87	9.0	9.9
<b>Year of Construction</b>										
1949 or Before .....	2.6	1.9	554	51	983	817	780	.69	6.3	8.7
1950 to 1979 .....	2.0	1.9	558	50	926	765	736	.79	7.0	11.2
1980 or After <sup>2</sup> .....	.4	1.9	566	50	692	717	729	1.14	10.1	21.1
<b>1990 Family Income</b>										
Less than \$10,000 .....	.8	1.8	521	48	1,009	789	715	.65	6.0	12.3
\$10,000 to \$19,999 .....	1.1	1.5	454	42	731	776	766	.80	7.4	12.3
\$20,000 to \$34,999 .....	1.6	1.7	501	45	1,094	756	745	.61	5.4	10.7
\$35,000 or More .....	1.4	2.5	722	64	876	833	794	.99	8.7	10.4
<b>Below Poverty Line</b>										
100 Percent .....	.5	2.0	578	50	832	761	707	.91	7.9	13.4
125 Percent .....	.8	2.1	622	55	946	774	722	.85	7.6	15.
<b>Age of Householder</b>										
Under 35 Years .....	1.5	2.0	581	49	878	794	783	.83	7.0	11.5
35 to 59 Years .....	1.9	2.3	665	61	897	784	750	.95	8.6	10.1
60 Years and Over .....	1.6	1.4	407	39	1,035	787	746	.50	4.8	11.7
<b>Household Size</b>										
1 Person .....	1.3	1.4	403	41	754	809	741	.66	6.8	12.8
2 to 4 Persons .....	3.3	2.1	613	54	1,040	783	769	.75	6.6	8.8
5 or More Persons .....	.4	2.0	580	49	651	760	731	1.17	10.0	19.8

See footnotes at end of table.

**Table 48. Electricity Consumption and Expenditures for Room Air Conditioning, per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	
		NF	NF			NF	NF	NF	NF	
RSE Column Factors:	1.4	NF	NF	NF	0.9	0.5	0.6	NF	NF	
<b>West North Central Division</b>	2.1	2.0	599	47	923	1,018	943	0.64	5.1	7.8
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	1.5	1.7	490	38	958	880	796	.58	4.5	8.7
Under 5,500 HDD .....	.6	3.0	866	70	836	1,357	1,306	.76	6.2	14.6
2,000 CDD or More and										
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family .....	1.3	2.2	654	52	1,061	1,058	991	.58	4.7	9.2
Mobile Home .....	.1	2.4	692	54	555	839	781	1.49	11.6	25.2
Multifamily (2 or more units) .....	.6	1.6	459	35	698	966	873	.68	5.2	13.5
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.8	1.9	556	46	558	1,065	985	.94	7.7	9.0
1,000 to 1,999 .....	.7	2.0	589	47	939	1,003	930	.63	5.0	9.0
2,000 or More .....	.5	2.4	692	51	1,559	955	889	.46	3.4	14.9
<b>Ownership of Unit</b>										
Owned .....	1.2	2.2	657	51	1,053	1,010	938	.62	4.8	8.6
Rented .....	.8	1.8	514	43	731	1,028	951	.68	5.7	9.3
<b>Year of Construction</b>										
1949 or Before .....	1.0	1.8	523	41	956	1,054	988	.52	4.1	9.7
1950 to 1979 .....	.9	2.3	666	54	913	957	871	.76	6.1	12.5
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>										
Less than \$10,000 .....	.5	1.9	560	48	674	1,140	1,076	.73	6.2	9.4
\$10,000 to \$19,999 .....	.6	1.8	536	40	863	1,038	978	.60	4.5	12.0
\$20,000 to \$34,999 .....	.5	2.2	650	52	1,005	956	883	.68	5.4	9.8
\$35,000 or More .....	.4	2.3	674	51	1,219	917	803	.60	4.6	14.8
<b>Below Poverty Line</b>										
100 Percent .....	.3	2.0	578	49	635	1,134	1,078	.80	6.8	11.4
125 Percent .....	.5	2.4	701	56	773	1,132	1,070	.80	6.4	13.8
<b>Age of Householder</b>										
Under 35 Years .....	.6	2.1	603	51	849	1,034	964	.69	5.8	11.1
35 to 59 Years .....	.7	2.1	610	47	1,017	928	847	.65	5.0	9.0
60 Years and Over .....	.7	2.0	584	45	895	1,092	1,020	.60	4.6	11.3
<b>Household Size</b>										
1 Person .....	.7	1.7	486	39	704	1,081	1,015	.64	5.2	12.3
2 to 4 Persons .....	1.2	2.2	638	50	1,001	984	910	.65	5.0	8.5
5 or More Persons .....	.2	2.6	773	64	1,250	990	885	.62	5.2	18.8

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

## WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 49. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Midwest Region Households, 1990**

Characteristics	Electricity			Natural Gas			FSEC Row Factor's Factor's	
	House- holds (million)	Total Consumed		House- holds (million)	Total Consumed			
		(tril- lion Btu)	(billion kWh)		(tril- lion Btu)	(billion cubic feet)		
RSE Column Factors:	1.3	NF	NF	NF	0.7	NF	NF	
<b>Total Region</b>	7.2	75.3	22.1	1.57	14.8	364.5	357	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD	6.2	65.5	19.2	1.35	12.8	318.4	312	
Under 5,500 HDD	1.1	9.9	2.9	.22	2.0	46.1	46	
2,000 CDD or More and								
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family	4.8	55.3	16.2	1.10	10.3	260.3	256	
Mobile Home	.9	8.8	2.6	.22	1.36	13.6	13	
Multifamily (2 or more units)	1.5	11.2	3.3	.25	.6	90.7	88	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	2.4	21.0	6.2	.47	3.9	84.2	82	
1,000 to 1,999	2.8	28.3	8.3	.57	5.6	133.7	131	
2,000 or More	2.1	26.0	7.6	.53	5.3	146.6	144	
<b>Ownership of Unit</b>								
Rented	5.6	61.2	17.9	1.25	9.8	248.1	244	
Owned	1.6	14.1	4.1	.32	5.0	116.4	114	
<b>Year of Construction</b>								
1949 or Before	2.3	24.5	7.2	.51	6.3	150.0	147	
1950 to 1979	3.9	39.2	11.5	.81	7.1	171.3	168	
1980 or After <sup>2</sup>	1.1	11.6	3.4	.25	1.5	43.2	42	
<b>1990 Family Income</b>								
Less than \$10,000	1.0	7.9	2.3	.17	2.5	54.8	54	
\$10,000 to \$19,999	1.6	13.6	4.0	.30	3.3	63.3	62	
\$20,000 to \$34,999	2.2	24.1	7.1	.50	3.9	92.0	90	
\$35,000 or More	2.4	29.7	8.7	.59	5.1	154.4	152	
<b>Below Poverty Line</b>								
100 Percent	.7	6.3	1.9	.14	1.6	41.8	41	
125 Percent	1.0	9.3	2.7	.20	2.4	57.2	56	
<b>Age of Household</b>								
Under 35 Years	2.1	22.4	6.6	.47	4.3	114.2	112	
35 to 59 Years	2.9	36.0	10.6	.75	6.1	177.7	174	
60 Years and Over	2.2	16.9	4.9	.35	4.4	72.5	71	
<b>Household Size</b>								
1 Person	1.7	10.0	2.9	.23	4.1	64.6	63	
2 to 4 Persons	4.9	55.8	16.4	1.16	252.5	248	46	
5 or More Persons	.5	9.6	2.8	.18	1.2	47.4	.23	

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 49. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Households (million)	Total Consumed		(billion cubic feet)	Total Expenditures (billion dollars)		
		(tril.-ion Btu)	(billion kWh)		Total Expenditures (billion dollars)	(tril.-ion Btu)				
RSE Column Factors:	1.3	NF	NF	NF	0.7	NF	NF	NF		
<b>East North Central Division...</b>	<b>5.6</b>	59.2	17.4	1.23	10.4	267.9	262	1.32	11.0	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	5.3	66.5	16.5	1.16	9.9	257.2	251	1.27	12.3	
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	NF	
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family	3.6	42.8	12.5	.84	7.1	188.8	184	.92	14.5	
Mobile Home	.7	7.1	2.1	.18	.4	9.4	9	.05	37.8	
Multifamily (2 or more units)	1.3	9.3	2.7	.22	2.8	69.7	68	.35	17.7	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	2.0	17.5	5.1	.40	2.6	59.4	58	.30	19.1	
1,000 to 1,999	2.1	21.6	6.3	.44	3.9	98.0	96	.50	9.9	
2,000 or More	1.5	20.1	5.9	.40	3.8	110.5	108	.53	16.0	
<b>Ownership of Unit</b>										
Owned	4.4	48.3	14.2	.98	6.9	182.9	179	.90	11.8	
Rented	1.2	10.9	3.2	.25	3.5	85.0	83	.42	15.6	
<b>Year of Construction</b>										
1949 or Before	1.8	19.7	5.8	.40	4.7	114.7	112	.58	13.6	
1950 to 1979	2.9	29.8	8.7	.62	4.7	119.7	117	.59	14.7	
1980 or After <sup>2</sup>	.9	9.7	2.8	.21	1.0	33.5	33	.15	24.9	
<b>1990 Family Income</b>										
Less than \$10,000	.8	6.2	1.8	.13	1.7	41.6	41	.21	25.2	
\$10,000 to \$19,999	1.2	10.7	3.1	.24	2.2	42.4	41	.21	16.8	
\$20,000 to \$34,999	1.8	19.6	5.8	.42	2.6	63.0	61	.32	16.7	
\$35,000 or More	1.8	22.7	6.7	.45	3.8	120.9	118	.58	15.9	
<b>Below Poverty Line</b>										
100 Percent	.6	5.1	1.5	.11	1.2	33.4	33	.17	22.4	
125 Percent	.8	7.2	2.1	.15	1.7	43.7	43	.22	20.6	
<b>Age of Householder</b>										
Under 35 Years	1.7	18.5	5.4	.38	3.1	84.1	82	.42	18.2	
35 to 59 Years	2.2	27.4	8.0	.57	4.4	133.2	130	.65	12.2	
60 Years and Over	1.7	13.4	3.9	.28	2.9	50.6	49	.26	14.9	
<b>Household Size</b>										
1 Person	1.4	7.9	2.3	.19	2.7	44.2	43	.22	20.7	
2 to 4 Persons	3.8	43.0	12.6	.90	6.7	184.7	181	.91	9.9	
5 or More Persons	3.5	8.3	2.4	.55	1.0	39.1	38	.19	31.0	

See footnotes at end of table.

**Table 49. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factor	
	Total Consumed				Total Consumed					
	House-holds (million)	(tril-lion Btu)	(billion kWh)	Total Expenditures (billion dollars)	House-holds (million)	(tril-lion Btu)	(billion cubic feet)	Total Expenditures (billion dollars)		
RSE Column Factors:	1.3	NF	NF	NF	0.7	NF	NF	NF		
West North Central Division .	1.6	16.1	4.7	0.34	4.4	96.6	96	0.46	9.4	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	.9	9.0	2.6	.19	2.9	61.2	61	.28	13.0	
Under 5,500 HDD .....	.7	7.1	2.1	.15	2.5	35.4	35	.18	15.6	
2,000 CDD or More and Under 4,000 HDD .....									NC	
<b>Type of Housing Unit</b>										
Single-Family .....	1.3	12.6	3.7	.26	3.1	71.5	71	.34	11.6	
Mobile Home .....	.2	1.7	.5	.03	.2	4.2	4	.02	39.6	
Multifamily (2 or more units) ..	.2	1.8	.5	.04	1.1	21.0	21	.10	20.0	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.4	3.5	1.0	.07	1.3	24.8	25	.12	13.4	
1,000 to 1,999 .....	.7	6.6	1.9	.14	1.7	35.7	35	.17	12.3	
2,000 or More .....	.6	6.0	1.8	.13	1.5	36.1	36	.17	13.9	
<b>Ownership of Unit</b>										
Owned .....	1.2	12.9	3.8	.27	3.0	65.2	65	.31	12.4	
Rented .....	.4	3.2	.9	.07	1.5	31.4	31	.14	18.4	
<b>Year of Construction</b>										
1949 or Before .....	.5	4.8	1.4	.10	1.6	35.3	35	.16	14.7	
1950 to 1979 .....	.9	9.3	2.7	.19	2.4	51.6	51	.25	10.2	
1980 or After <sup>2</sup> .....	.2	2.0	.6	.04	.4	9.7	10	.05	33.3	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.2	1.7	.5	.04	.8	13.2	13	.06	18.3	
\$10,000 to \$19,999 .....	.4	3.0	.9	.06	1.1	20.9	21	.10	14.5	
\$20,000 to \$34,999 .....	.4	4.4	1.3	.09	1.2	29.0	29	.13	14.7	
\$35,000 or More .....	.6	7.0	2.0	.14	1.3	33.6	33	.16	14.7	
<b>Below Poverty Line</b>										
100 Percent .....	.1	1.2	.4	.03	.4	8.4	8	.04	24.0	
125 Percent .....	.2	2.1	.6	.05	.7	13.5	13	.06	18.6	
<b>Age of Householder</b>										
Under 35 Years .....	.4	3.9	1.1	.08	1.3	30.2	30	.15	14.6	
35 to 59 Years .....	.8	8.7	2.5	.18	1.7	44.5	44	.21	13.0	
60 Years and Over .....	.5	3.5	1.0	.07	1.4	21.9	22	.10	17.3	
<b>Household Size</b>										
1 Person .....	.4	2.1	.6	.05	1.4	20.5	20	.09	12.7	
2 to 4 Persons .....	1.2	12.8	3.8	.26	2.8	67.8	67	.32	9.6	
5 or More Persons .....	.1	1.2	.4	.03	.3	8.3	8	.04	28.9	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

<sup>1</sup>Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

**Table 50. Total LPG Consumption and Expenditures for Water Heating  
in Midwest Region Households, 1990**

Characteristics	Households (million)	Total Consumed		Total Expenditures (billion dollars)	RSE Row Factors
		(trillion Btu)	(billion gallons)		
	1.0	NF	NF	NF	
<b>Midwest Region</b>					
<b>Total Region</b>	1.2	24.9	0.27	0.24	23.6
East North Central Division	.7	14.8	.16	.15	31.8
West North Central Division	.5	10.1	.11	.09	33.5
<b>Climate Zone<sup>1</sup></b>					
Under 2,000 CDD and Over 5,500 HDD	.8	17.3	.19	.17	25.2
Under 5,500 HDD	Q	Q	Q	Q	NF
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>					
Single-Family	1.1	22.6	.25	.22	25.2
Mobile Home	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>					
Fewer than 1,000	.3	4.4	.05	.04	32.7
1,000 to 1,999	.5	11.7	.13	.11	29.2
2,000 or More	.4	8.8	.10	.08	28.6
<b>Ownership of Unit</b>					
Owned	1.1	22.6	.25	.22	22.8
Rented	Q	Q	Q	Q	NF
<b>Year of Construction</b>					
1949 or Before	.5	10.4	.11	.10	25.6
1950 to 1979	.4	7.9	.09	.08	32.5
1980 or After <sup>2</sup>	.3	6.6	.07	.06	27.3
<b>1990 Family Income</b>					
Less than \$10,000	.2	3.6	.04	Q	47.3
\$10,000 to \$19,999	.2	4.4	.05	.04	24.5
\$20,000 to \$34,999	.4	8.5	.09	.08	28.7
\$35,000 or More	.3	8.3	.09	.07	33.7
<b>Below Poverty Line</b>					
100 Percent	.2	4.2	.05	.04	40.5
125 Percent	.4	6.9	.08	.07	35.5
<b>Age of Householder</b>					
Under 35 Years	.3	6.5	.07	.06	19.4
35 to 59 Years	.5	12.6	.14	.12	30.5
60 Years and Over	.4	5.7	.06	.05	31.7
<b>Household Size</b>					
1 Person	Q	Q	Q	Q	NF
2 to 4 Persons	.8	18.1	.20	.17	23.7
5 or More Persons	.2	5.4	.06	.05	26.8

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

\* See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 51. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Midwest Region Household, 1990**

Characteristics	Electricity				Natural Gas				RSE Row Factors
	Households (million)	Consumption (mil- lion Btu)	Ex- pend- itures (do- lars)	Electricity Water- Heating Intensity (kWh per household member)	Households (million)	Consumption (mil- lion Btu)	Ex- pend- itures (do- lars)	Natural Gas Water- Heating Intensity (1000 cubic feet per household member)	
RSE Column Factors:	3.1	NF	NF	NF	NF	1.8	NF	NF	NF
<b>Total Region</b>	7.0	10.6	3,114	221	1,278	14.8	24.6	24.2	120
<b>Midwest Region</b>									
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	6.0	10.8	3,164	222	1,300	12.8	24.9	24.4	121
Under 5,500 HDD	1.0	9.6	2,815	217	1,146	2.0	22.7	22.4	113
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	4.6	11.8	3,458	234	1,285	10.2	25.3	24.9	123
Mobile Home	.9	9.6	2,827	237	1,067	.6	23.0	22.6	120
Multifamily (2 or more units)	1.5	7.5	2,211	172	1,472	3.9	23.0	22.4	112
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	2.4	8.8	2,581	197	1,303	3.9	21.6	21.1	106
1,000 to 1,999	2.6	10.5	3,089	213	1,284	5.6	23.9	23.4	118
2,000 or More	2.0	12.9	3,782	260	1,252	5.3	27.7	27.1	132
<b>Ownership of Unit</b>									
Owned	5.4	11.1	3,263	227	1,270	9.7	25.4	24.9	124
Rented	1.6	8.9	2,595	200	1,314	5.0	23.2	22.6	113
<b>Year of Construction</b>									
1949 or Before	2.2	10.9	3,207	227	1,246	6.3	23.9	23.4	118
1950 to 1979	3.7	10.4	3,043	215	1,286	7.1	24.2	23.7	118
1980 or After <sup>2</sup>	1.1	10.8	3,171	232	1,322	1.4	30.0	29.4	141
<b>1990 Family Income</b>									
Less than \$10,000	1.0	8.0	2,349	174	1,291	2.5	22.1	21.6	109
\$10,000 to \$19,999	1.5	8.8	2,576	194	1,224	3.3	18.9	18.6	93
\$20,000 to \$34,999	2.2	11.0	3,236	231	1,282	3.9	23.8	23.3	117
\$35,000 or More	2.3	12.6	3,681	250	1,298	5.1	30.3	29.7	146
<b>Below Poverty Line</b>									
100 Percent	.7	8.6	2,535	193	1,075	1.6	25.4	24.8	126
125 Percent	1.0	8.9	2,621	194	1,161	2.4	28.7	23.1	118
<b>Age of Householder</b>									
Under 35 Years	2.0	10.9	3,204	227	1,248	4.3	26.3	25.8	129
35 to 59 Years	2.8	12.6	3,699	262	1,302	6.1	29.1	28.6	141
60 Years and Over	2.2	7.7	2,267	162	1,270	4.3	16.6	16.3	82
<b>Household Size</b>									
1 Person	1.7	5.8	1,704	135	1,704	4.1	15.6	15.2	77
2 to 4 Persons	4.8	11.6	3,386	240	1,296	9.4	26.8	26.3	131
5 or More Persons	.5	17.5	5,128	321	957	1.2	38.3	37.4	187

See footnotes at end of table.

## MIDWEST

## WATER-HEATING CONSUMPTION/EXPENDITURES

MIDWEST

**Table 51. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Consumption		Ex-pen-ditures (dol-lars)	House-holds (mil-lion Btu)	Consumption		(mil-lion Btu)	(1000 cubic feet)		
	House-holds (mil-lion Btu)	(kWh)			Electricity Water- Heating Intensity (kWh per household member)	House- holds (million)				
RSE Column Factors:	3.1	NF	NF	NF	1.8	NF	NF	NF		
<b>Midwest Region</b>										
<b>Average Electricity Expenditures (cents per kWh)</b>										
Less than 6 .....	0.8	13.9	4,085	202	1,355	--	--	--	5.1	
6 to Less than 9 .....	5.1	10.6	3,121	219	1,297	--	--	--	8.4	
9 or More .....	1.1	7.9	2,308	245	1,085	--	--	--	9.2	
<b>Average Natural Gas Expenditures (dollars per 1000 cu ft)</b>										
Less than 4.50 .....	--	--	--	--	2.7	28.4	118	11.1	5.6	
4.50 to Less than 6 .....	--	--	--	--	11.3	24.2	122	9.5	3.2	
6 or More .....	--	--	--	--	.8	16.2	15.9	103	18.0	
<b>Water Heater Used</b>										
For One Housing Unit .....	6.9	10.7	3,122	221	1,279	12.2	25.2	124	9.3	
For Two or More Units .....	Q	Q	Q	Q	Q	2.6	21.9	104	13.0	
<b>Age of Water Heater</b>										
Less than 5 Years .....	2.2	11.8	3,462	245	1,268	4.5	27.0	26.5	131	
5 to 9 Years .....	1.7	11.6	3,399	237	1,400	2.8	24.2	23.8	120	
10 to 19 Years .....	2.0	9.8	2,877	204	1,233	2.9	25.0	24.7	123	
20 Years or More .....	.5	8.8	2,577	183	1,125	.8	21.1	20.8	105	
Don't Know .....	.5	7.8	2,272	179	1,252	1.2	24.0	23.4	119	
<b>Size of Water Heater</b>										
30 gallons or less .....	1.7	8.6	2,512	199	1,137	2.9	21.6	21.2	110	
31 to 49 gallons .....	2.9	10.2	2,999	210	1,233	7.0	24.7	24.3	121	
50 gallons or more .....	2.0	13.0	3,801	257	1,409	1.6	34.1	33.5	162	
Don't Know .....	.3	11.3	3,298	218	1,562	.7	24.8	24.2	124	
<b>Location of Water Heater</b>										
Heated Area .....	5.9	10.8	3,170	223	1,298	10.8	25.3	24.9	124	
Unheated Area .....	1.0	9.8	2,875	213	1,181	1.2	24.5	24.1	122	
<b>Clothes Washer Present In Household</b>										
Yes .....	5.3	11.6	3,398	236	1,239	11.3	25.6	25.1	125	
No .....	1.7	7.7	2,246	176	1,499	3.5	21.6	21.1	106	
<b>Dishwasher Present In Household</b>										
Yes .....	3.0	11.1	3,242	226	1,294	5.8	27.1	26.6	129	
No .....	4.0	10.3	3,020	217	1,266	9.0	23.1	22.6	115	
<b>Children Present In Household</b>										
No .....	4.6	8.5	2,504	185	1,473	9.6	20.4	20.0	101	
Yes .....	2.4	14.5	4,259	289	1,115	5.2	32.4	31.7	156	
<i>(more than one may apply)</i>										
Under 13 Years .....	1.8	14.2	4,148	282	1,022	4.1	32.1	31.5	156	
13 to 18 Years .....	1.1	16.2	4,758	306	1,245	2.2	35.2	34.5	170	

See footnotes at end of table.

## MIDWEST

**Table 51. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Column Factors:		
	Consumption		Expenditures (dollars)	Electricity Water- Heating Intensity (kWh per household member)	Consumption		Expenditures (1000 cubic feet)	Natural Gas Water- Heating Intensity (1000 cubic feet per household member)			
	House- holds (million) (Btu)	(mil- lion kWh)			Q	Q					
East North Central Division ...	5.5	10.7	3,135	223	1,302	10.3	25.9	25.2	128	10.0	4.0
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	5.2	10.8	3,167	221	1,318	9.9	26.1	25.5	129	10.0	4.3
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	21.2	20.7	104	9.0	33.0
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>											
Single-Family .....	3.5	12.2	3,582	238	1,317	7.1	26.5	25.9	130	9.3	4.6
Mobile Home .....	.7	9.6	2,818	246	1,049	.4	23.5	23.0	129	10.0	12.6
Multifamily (2 or more units) ..	1.3	7.2	2,111	167	1,496	2.8	24.6	23.9	123	12.4	9.4
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	2.0	8.8	2,581	201	1,306	2.6	22.6	22.0	114	11.2	7.2
1,000 to 1,999 .....	2.1	10.4	3,058	210	1,327	3.9	24.8	24.3	126	10.0	5.8
2,000 or More .....	1.5	13.6	3,993	270	1,272	3.8	29.1	28.5	139	9.4	5.4
<b>Ownership of Unit</b>											
Owned .....	4.3	11.2	3,283	228	1,287	6.8	26.8	26.2	132	9.8	5.0
Rented .....	1.2	8.9	2,608	204	1,370	3.5	24.0	23.3	119	10.4	8.1
<b>Year of Construction</b>											
1949 or Before .....	1.7	11.2	3,272	228	1,280	4.7	24.6	24.1	125	9.8	5.8
1950 to 1979 .....	2.9	10.3	3,017	214	1,290	4.7	25.4	24.8	125	9.9	5.7
1980 or After <sup>2</sup> .....	.9	11.1	3,249	241	1,387	1.0	33.7	33.0	156	11.0	10.1
<b>1990 Family Income</b>											
Less than \$10,000 .....	.8	8.0	2,346	171	1,300	1.7	24.3	23.7	123	10.8	10.0
\$10,000 to \$19,999 .....	1.2	9.0	2,649	202	1,250	2.2	18.9	18.4	96	10.3	8.2
\$20,000 to \$34,999 .....	1.8	11.0	3,216	232	1,318	2.6	24.0	23.4	121	9.1	6.9
\$35,000 or More .....	1.8	12.7	3,721	250	1,314	3.8	31.9	31.2	153	10.1	6.5
<b>Below Poverty Line</b>											
100 Percent .....	.6	8.4	2,450	186	1,069	1.2	27.6	26.9	139	9.5	9.6
125 Percent .....	.8	8.8	2,571	189	1,181	1.7	25.6	24.9	129	9.5	8.4
<b>Age of Householder</b>											
Under 35 Years .....	1.7	11.0	3,212	227	1,285	3.0	27.5	26.9	136	9.4	6.6
35 to 59 Years .....	2.1	12.8	3,760	267	1,337	4.4	30.4	29.7	148	10.3	4.2
60 Years and Over .....	1.7	7.8	2,285	164	1,257	2.9	17.3	16.9	89	10.1	6.2
<b>Household Size</b>											
1 Person .....	1.4	5.7	1,680	134	1,680	2.7	16.2	15.8	82	15.8	10.9
2 to 4 Persons .....	3.7	11.5	3,404	243	1,323	6.6	27.8	27.1	136	10.0	3.8
5 or More Persons .....	.5	18.4	5,381	326	1,005	1.0	39.6	38.4	194	7.0	12.0

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 51. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per Midwest Region Household, 1990 (Continued)**

Characteristics	Electricity					Natural Gas					RSE Row Factors	
	Households (million)	Consumption		Ex-pen-ditures (dol-lars)	Electricity Water-Heating Intensity (kWh per household member)	House-holds (million)	Consumption		Ex-pen-ditures (dol-lars)	Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		
		(mil-lion Btu)	(kWh)				(mil-lion Btu)	(1000 cubic feet)				
RSE Column Factors:	3.1	NF	NF	NF	NF	1.8	NF	NF	NF	NF		
<b>West North Central Division</b>	1.5	10.4	3,040	215	1,196	4.4	21.8	21.6	103	9.2	3.9	
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and												
Over 5,500 HDD .....	.8	10.7	3,143	225	1,196	2.9	21.1	20.9	96	9.4	4.1	
Under 5,500 HDD .....	.7	10.0	2,919	203	1,197	1.5	23.1	22.9	116	8.8	6.3	
2,000 CDD or More and												
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>												
Single-Family .....	1.2	10.5	3,084	219	1,182	3.1	22.8	22.6	109	8.7	4.2	
Mobile Home .....	.2	9.8	2,866	198	1,149	.2	21.8	22.0	101	9.9	16.1	
Multifamily (2 or more units) ..	.2	10.0	2,925	203	1,360	1.1	19.0	18.6	86	11.1	11.0	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	.4	8.8	2,582	180	1,288	1.3	19.5	19.3	91	10.9	6.9	
1,000 to 1,999 .....	.6	10.9	3,194	223	1,161	1.7	21.5	21.4	101	9.2	5.5	
2,000 or More .....	.5	10.9	3,199	232	1,188	1.5	24.0	23.8	116	8.3	5.9	
<b>Ownership of Unit</b>												
Owned .....	1.2	10.9	3,188	224	1,208	3.0	22.1	22.0	106	8.7	4.1	
Rented .....	.3	8.7	2,552	186	1,149	1.5	21.2	20.9	98	10.5	7.9	
<b>Year of Construction</b>												
1949 or Before .....	.5	10.1	2,962	221	1,121	1.6	21.7	21.6	99	9.6	6.1	
1950 to 1979 .....	.8	10.7	3,131	217	1,272	2.4	21.8	21.7	104	9.2	4.8	
1980 or After <sup>2</sup> .....	.2	9.7	2,839	191	1,076	.4	21.7	21.4	109	8.3	10.4	
<b>1990 Family Income</b>												
Less than \$10,000 .....	.2	8.1	2,361	186	1,259	.8	17.1	16.9	80	10.4	10.0	
\$10,000 to \$19,999 .....	.4	8.0	2,334	169	1,133	1.1	18.9	18.8	88	10.0	9.5	
\$20,000 to \$34,999 .....	.4	11.4	3,329	227	1,144	1.2	23.3	23.1	108	9.0	6.8	
\$35,000 or More .....	.6	12.1	3,553	248	1,247	1.3	25.5	25.3	125	8.5	4.7	
<b>Below Poverty Line</b>												
100 Percent .....	.1	10.1	2,951	225	1,100	.4	19.2	19.0	90	9.2	12.7	
125 Percent .....	.2	9.6	2,806	212	1,096	.7	19.0	18.8	90	9.2	9.9	
<b>Age of Householder</b>												
Under 35 Years .....	.4	10.8	3,168	229	1,100	1.3	23.5	23.3	114	9.0	4.5	
35 to 59 Years .....	.7	12.0	3,514	248	1,199	1.7	25.9	25.7	123	9.0	4.8	
60 Years and Over .....	.4	7.5	2,197	152	1,325	1.4	15.3	15.2	69	10.1	7.0	
<b>Household Size</b>												
1 Person .....	.3	6.2	1,805	139	1,805	1.4	14.3	14.2	65	14.2	7.8	
2 to 4 Persons .....	1.1	11.4	3,329	230	1,210	2.8	24.6	24.4	117	8.8	4.3	
5 or More Persons .....	.1	13.2	3,882	299	721	.3	33.2	33.2	158	6.2	11.8	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures: 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

### WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 52. LPG Consumption and Expenditures for Main Water Heating, per Midwest Region Household, 1990**

Characteristics	Consumption		Expend- itures (dollars)	LPG Water- Heating Intensity (gallons per household member)	RSE Row Factors
	House- holds (million)	(million Btu)	(gallons)	NF	NF
RSE Column Factors:	2.6	NF	NF	NF	NF
Midwest Region					
<b>Total Region</b>	1.2	20.7	226	69	6.2
East North Central Division	.7	21.0	230	68	6.7
West North Central Division	.5	20.2	221	70	11.3
<b>Climate Zone<sup>1</sup></b>					
Under 2,000 CDD and					
Over 5,500 HDD	8	20.8	228	69	6.3
Under 5,500 HDD	Q	20.3	222	69	15.4
2,000 CDD or More and					
Under 4,000 HDD	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>					
Single-Family	1.1	21.0	230	71	6.3
Mobile Home	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>					
Fewer than 1,000	.3	16.2	177	70	18.7
1,000 to 1,999	.5	23.1	253	68	10.8
2,000 or More	.4	20.6	226	70	11.9
<b>Ownership of Unit</b>					
Owned	1.1	20.3	222	67	6.2
Rented	Q	25.1	275	95	45.3
<b>Year of Construction</b>					
1949 or Before	.5	22.5	246	77	11.3
1950 to 1979	.4	18.3	200	64	14.3
1980 or After <sup>2</sup>	3	21.3	233	64	14.
<b>1990 Family Income</b>					
Less than \$10,000	.2	14.6	159	162	22.3
\$10,000 to \$19,999	.2	18.0	197	182	17.8
\$20,000 to \$34,999	.4	21.4	234	64	9.9
\$35,000 or More	.3	26.9	294	85	13.3
<b>Below Poverty Line</b>					
100 Percent	.2	18.7	205	46	13.3
125 Percent	.4	18.2	199	53	14.7
<b>Age of Householder</b>					
Under 35 Years	.3	20.0	219	52	11.9
35 to 59 Years	.5	26.2	287	79	8.9
60 Years and Over	.4	14.4	157	139	13.2
<b>Household Size</b>					
1 Person	Q	8.8	96	102	27.1
2 to 4 Persons	Q	22.2	243	207	8.0
5 or More Persons	Q	23.5	257	44	16.6

See footnotes at end of table.

**Table 52. LPG Consumption and Expenditures for Main Water Heating,  
per Midwest Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	LPG Water-Heating Intensity (gallons per household member)	RSE Row Factors
		(million Btu)	(gallons)			
		NF	NF			
RSE Column Factors:	2.6					
<b>Midwest Region</b>						
<b>Average LPG Expenditures (dollars per gallon)</b>						
Less than 75 .....	0.3	22.0	241	155	76	11.6
75 to Less than 1.00 .....	.5	21.7	237	202	73	12.2
1.00 or More .....	.4	18.0	197	226	57	12.2
<b>Water Heater Used</b>						
For One Housing Unit .....	1.2	20.7	226	197	69	6.2
For Two or More Units .....	Q	Q	Q	Q	Q	NF
<b>Age of Water Heater</b>						
Less than 5 Years .....	.4	21.1	231	200	68	10.0
5 to 9 Years .....	.3	19.4	212	191	72	17.5
10 to 19 Years .....	.4	20.6	226	193	66	16.6
20 Years or More .....	Q	Q	Q	Q	Q	NF
Don't Know .....	Q	Q	Q	Q	Q	NF
<b>Size of Water Heater</b>						
30 gallons or less .....	.5	18.0	197	176	63	8.4
31 to 49 gallons .....	.4	22.5	247	215	81	14.3
50 gallons or more .....	.3	22.9	251	212	63	18.9
Don't Know .....	Q	Q	Q	Q	Q	NF
<b>Location of Water Heater</b>						
Heated Area .....	1.1	20.7	227	198	70	6.9
Unheated Area .....	.1	20.3	222	190	66	19.0
<b>Clothes Washer Present in Household</b>						
Yes .....	1.0	22.3	244	210	69	6.6
No .....	Q	Q	Q	Q	Q	NF
<b>Dishwasher Present in Household</b>						
Yes .....	.4	24.4	268	212	77	10.9
No .....	.8	18.7	204	189	64	8.2
<b>Children Present in Household</b>						
No .....	.5	14.2	156	132	86	9.9
Yes .....	.7	25.6	281	248	64	7.4
(more than one may apply)						
Under 13 Years .....	.5	25.9	283	244	59	9.4
13 to 18 Years .....	.4	26.2	287	268	67	9.8

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East North Central and West North Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 53. Total Consumption and Expenditures for Appliances  
in Midwest Region Households, 1990**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas			RSE Column Factors: 0.5 NF NF 0.8 NF NF 1.9 NF NF NF NF			
	House-holds (million)	Consumed		Ex-pend- itures (bil-lion Btu)	Consumed		Ex-pend- itures (bil-lion Btu)	Consumed					
		(bil-lion kWh)	(bil-lion dollars)		(bil-lion kWh)	(bil-lion cubic feet)		(bil-lion dollars)	(bil-lion gallons)				
Midwest Region													
<b>Total Region</b>	23.1	343.9	100.8	8.16	10.9	88.8	87	0.43	1.5	10.2	0.11	0.12	9.3
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	19.7	286.6	84.0	6.76	9.6	77.7	76	.38	1.1	7.5	.08	Q	.09
Under 5,500 HDD	3.4	57.3	16.8	1.39	1.3	11.1	11	.05	.4	Q	Q	Q	27.9
2,000 CDD or More and Under 4,000 HDD													
<b>Type of Housing Unit</b>													
Single-Family .....	16.0	281.0	82.3	6.54	7.8	67.2	66	.32	1.2	8.3	.09	.09	10.4
Mobile Home .....	1.6	20.9	6.1	.50	.8	5.9	6	.03	.3	1.9	.02	.02	31.4
Multifamily (2 or more units) .....	5.4	42.0	12.3	1.12	2.3	15.6	15	.08	Q	Q	Q	Q	13.9
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	6.5	62.1	18.2	1.53	2.5	16.1	16	.08	.5	2.8	.03	.03	17.3
1,000 to 1,999 .....	8.8	129.0	37.8	3.02	4.3	32.3	32	.16	.6	4.4	.05	.05	11.3
2,000 or More .....	7.8	152.7	44.8	3.61	4.1	40.5	40	.19	.5	3.0	.03	.04	12.4
<b>Ownership of Unit</b>													
Owned .....	16.4	278.5	81.6	6.48	7.8	68.2	67	.33	1.4	9.0	.10	.10	9.5
Rented .....	6.7	65.4	19.2	1.68	3.1	20.6	20	.10	.2	1.2	.01	.01	14.2
<b>Year of Construction</b>													
1949 or Before .....	9.0	121.8	35.7	2.95	5.2	37.1	36	.18	.6	4.6	.05	.05	12.6
1950 to 1979 .....	11.3	175.0	51.3	4.09	4.7	39.4	39	.19	.6	3.5	.04	.04	12.1
1980 or After <sup>2</sup> .....	2.8	47.0	13.8	1.11	1.1	12.3	12	.06	3	2.1	.02	.02	21.9
<b>1990 Family Income</b>													
Less than \$10,000 .....	3.7	38.6	11.3	.94	1.8	13.6	13	.07	.4	2.3	.03	.03	22.3
\$10,000 to \$19,999 .....	5.2	57.3	16.8	1.42	2.4	14.9	15	.08	.5	2.6	.03	.03	12.8
\$20,000 to \$34,999 .....	6.4	103.4	30.3	2.42	2.9	19.2	19	.10	.4	2.6	.03	.03	11.4
\$35,000 or More .....	7.7	144.6	42.4	3.38	3.8	41.1	40	.19	.2	2.8	.03	.03	17.2
<b>Below Poverty Line</b>													
100 Percent .....	2.7	32.1	9.4	.79	1.3	10.3	10	.05	.3	2.5	.03	.03	19.1
125 Percent .....	3.9	46.2	13.5	1.13	1.8	13.8	13	.07	.5	3.6	.04	.05	18.2
<b>Age of Householder</b>													
Under 35 Years .....	6.7	93.3	27.3	2.20	3.2	26.3	26	.13	.4	1.8	.02	.02	15.3
35 to 59 Years .....	9.4	167.9	49.2	3.96	4.6	41.1	40	.20	.7	5.7	.06	.07	14.1
60 Years and Over .....	7.0	82.7	24.2	2.00	3.1	21.4	21	.11	.5	2.7	.03	.03	14.1
<b>Household Size</b>													
1 Person .....	6.0	43.5	12.7	1.10	2.8	14.5	14	.07	Q	.6	.01	Q	15.3
2 to 4 Persons .....	9.4	251.6	73.7	5.95	7.1	64.2	63	.31	1.1	7.1	.08	.07	9.3
5 or More Persons .....	2.0	48.8	14.3	1.11	1.0	10.1	10	.05	.3	2.5	.03	.04	19.0

See footnotes at end of table.

## MIDWEST

## APPLIANCE CONSUMPTION/EXPENDITURES

MIDWEST

**Table 53. Total Consumption and Expenditures for Appliances in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas		
	Households (million)	Consumed (trillion Btu)	Expenditures (billion dollars)	Consumed			Expenditures (billion dollars)	Consumed	
				Households (million)	(trillion Btu)	(billion cubic feet)		Households (million)	(trillion Btu)
RSE Column Factors:	0.5	NF	NF	0.8	NF	NF		1.9	NF
									NF
<b>East North Central Division ...</b>	<b>16.6</b>	<b>243.4</b>	<b>71.3</b>	<b>5.87</b>	<b>8.2</b>	<b>68.7</b>	<b>67</b>	<b>0.34</b>	<b>1.0</b>
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	15.7	228.8	67.0	5.47	7.9	67.2	66	.33	.9
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	11.3	196.8	57.7	4.62	5.6	50.3	49	.24	.8
Mobile Home	1.2	16.2	4.7	.40	.6	4.6	5	.03	.2
Multifamily (2 or more units)	4.1	30.4	8.9	.85	2.0	13.8	13	.07	NC
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	4.8	45.4	13.3	1.14	1.9	12.3	12	.06	.4
1,000 to 1,999	6.3	89.8	26.3	2.12	3.3	25.4	25	.13	.4
2,000 or More	5.5	108.2	31.7	2.61	3.0	30.9	30	.14	.3
<b>Ownership of Unit</b>									
Owned	11.8	197.6	57.9	4.65	5.7	52.4	51	.25	.9
Rented	4.8	45.8	13.4	1.22	2.5	16.3	16	.08	Q
<b>Year of Construction</b>									
1949 or Before	6.6	89.6	26.3	2.21	4.0	29.2	29	.15	.4
1950 to 1979	7.9	118.3	34.7	2.81	3.3	28.8	28	.14	.4
1980 or After <sup>2</sup>	2.1	35.5	10.4	.85	.9	10.7	10	.05	Q
<b>1990 Family Income</b>									
Less than \$10,000	2.7	27.9	8.2	.68	1.4	10.5	10	.05	Q
\$10,000 to \$19,999	3.6	37.8	11.1	.96	1.7	10.8	11	.06	.3
\$20,000 to \$34,999	4.6	73.6	21.6	1.76	2.1	14.1	14	.07	.3
\$35,000 or More	5.7	104.1	30.5	2.47	2.9	33.2	32	.15	Q
<b>Below Poverty Line</b>									
100 Percent	2.0	24.0	7.0	.60	1.0	8.6	8	.04	.2
125 Percent	2.8	32.4	9.5	.81	1.4	11.2	11	.06	Q
<b>Age of Householder</b>									
Under 35 Years	4.9	68.0	19.9	1.62	2.3	20.7	20	.10	.2
35 to 59 Years	6.8	118.3	34.7	2.85	3.5	31.5	31	.15	.4
60 Years and Over	4.9	57.0	16.7	1.41	2.4	16.4	16	.08	.4
<b>Household Size</b>									
1 Person	4.2	28.1	8.2	.73	2.1	11.1	11	.06	Q
2 to 4 Persons	10.8	176.8	51.8	4.27	5.2	49.1	48	.24	.7
5 or More Persons	1.6	38.5	11.3	.87	.8	8.4	8	.04	.2

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 53. Total Consumption and Expenditures for Appliances in Midwest Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas					
	House-holds (million)	Consumed		Ex-pendeditures (tril-lion kWh)	Consumed		Ex-pendeditures (tril-lion cubic feet)	Consumed		Ex-pendeditures (tril-lion gal-lons)		
		RSE Column Factors:	0.5	NF	NF	NF	0.8	NF	NF	1.9	NF	NF
West North Central Division	6.5	100.5	29.5	2.28	2.8	20.1	20	0.10	0.5	2.9	0.03	0.03
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and												
Over 5,500 HDD	4.0	57.8	16.9	1.30	1.7	10.5	10	.05	.2	1.4	.02	Q .02
Under 5,500 HDD	2.5	42.7	12.5	.99	1.0	9.7	10	.05	.3	1.5	.02	Q 14.0
2,000 CDD or More and												
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>												
Single-Family	4.8	84.2	24.7	1.92	2.2	17.0	17	.08	.4	2.5	.03	Q .02
Mobile Home	4.4	4.7	1.4	.10	.2	1.3	1	.01	Q .1	Q .4	Q (*)	Q 30.6
Multifamily (2 or more units)..	1.3	11.6	3.4	.26	.4	1.9	2	.01	Q Q	Q Q	Q Q	Q 24.3
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	1.7	16.7	4.9	.39	.6	3.8	4	.02	.2	.7	.01	Q 15.5
1,000 to 1,999	2.5	39.2	11.5	.90	1.0	6.9	7	.03	.2	1.0	.01	Q 15.7
2,000 or More	2.2	44.5	13.0	1.00	1.1	9.5	9	.05	.2	1.2	.01	Q .01
<b>Ownership of Unit</b>												
Owned	4.6	80.9	23.7	1.82	2.1	15.9	16	.08	Q .5	2.6	.03	Q .03
Rented	1.9	19.6	5.7	.46	.7	4.3	4	.02	Q Q	Q Q	Q Q	Q 22.6
<b>Year of Construction</b>												
1949 or Before .....	2.3	32.2	9.4	.74	1.2	7.8	8	.04	.2	1.4	.02	Q .01
1950 to 1979 .....	3.4	56.7	16.6	1.28	1.3	10.7	11	.05	Q .1	Q .5	Q (*)	Q 12.4
1980 or After <sup>2</sup> .....	.7	11.6	3.4	.27	Q	Q	Q	Q	Q .1	Q .5	Q (*)	Q 24.7
<b>1990 Family Income</b>												
Less than \$10,000 .....	1.1	10.8	3.2	.26	.4	3.1	3	.01	Q .1	Q .7	Q .01	Q 24.5
\$10,000 to \$19,999 .....	1.6	19.5	5.7	.45	.7	4.0	4	.02	Q .2	Q .9	Q .01	Q .01
\$20,000 to \$34,999 .....	1.8	29.7	8.7	.67	.8	5.1	5	.02	Q .2	Q .9	Q .01	Q .01
\$35,000 or More .....	2.0	40.5	11.9	.90	.9	7.9	8	.04	Q .1	Q .7	Q .01	Q .01
<b>Below Poverty Line</b>												
100 Percent .....	.6	8.2	2.4	.19	.2	1.7	2	.01	Q Q	Q Q	Q Q	Q 31.4
125 Percent .....	1.1	13.8	4.0	.32	.4	2.5	3	.01	Q Q	Q Q	Q Q	Q 26.3
<b>Age of Householder</b>												
Under 35 Years .....	1.8	25.2	7.4	.58	.9	5.6	6	.03	.1	.5	.01	Q 15.0
35 to 59 Years .....	2.7	49.6	14.5	1.12	1.1	9.5	9	.05	.2	1.6	.02	Q 14.0
60 Years and Over .....	2.0	25.6	7.5	.59	.7	5.0	5	.02	.2	.8	.01	Q 13.4
<b>Household Size</b>												
1 Person .....	1.8	15.4	4.5	.37	.7	3.4	3	.02	Q .4	Q .3	Q (*)	Q 20.4
2 to 4 Persons .....	4.2	74.7	21.9	1.68	1.9	15.1	15	.07	Q .4	Q .2	Q .02	Q 9.9
5 or More Persons .....	.4	10.4	3.0	.24	.2	1.7	2	.01	Q Q	Q Q	Q Q	Q 32.3

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Appliances do not include refrigerators. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## MIDWEST

## APPLIANCE CONSUMPTION/EXPENDITURES

MIDWEST

**Table 54. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Midwest Region Household, 1990**

Characteristics	Electricity Used for Appliances				Electricity Used for Refrigerators				RSE Row Factors	
	Consumed		Households (million)	Households (million)	Consumed		(million Btu)	(kWh)		
	(million Btu)	(kWh)			Average Number of Refrig- erators	(mil- lion Btu)				
RSE Column Factors:	1.5	NF	NF	1.5	0.5	NF	NF	NF		
<b>Midwest Region</b>										
<b>Total Region</b>	23.1	14.9	4,369	354	23.1	1.2	5.0	1,460	120	3.0
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	19.7	14.6	4,267	344	19.7	1.2	4.8	1,401	115	3.1
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	3.4	16.9	4,958	411	3.4	1.3	6.2	1,804	149	7.6
NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>										
Single-Family	16.0	17.5	5,142	408	16.0	1.3	5.6	1,640	132	2.8
Mobile Home	1.6	13.0	3,801	310	1.6	1.0	3.6	1,056	86	7.7
Multifamily (2 or more units)	5.4	7.7	2,263	205	5.4	1.0	3.6	1,051	97	3.9
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	6.5	9.5	2,783	234	6.5	1.0	3.7	1,091	93	4.1
1,000 to 1,999	8.8	14.7	4,321	345	8.8	1.2	5.1	1,506	123	4.2
2,000 or More	7.8	19.6	5,756	464	7.8	1.4	5.9	1,719	139	3.3
Owned	16.4	17.0	4,984	396	16.4	1.3	5.4	1,594	128	2.8
Rented	6.7	9.8	2,863	251	6.7	1.1	3.9	1,134	101	4.4
<b>Year of Construction</b>										
1949 or Before	9.0	13.6	3,977	328	9.0	1.2	5.0	1,454	122	3.9
1950 to 1979	11.3	15.5	4,552	363	11.3	1.2	5.1	1,480	120	3.7
1980 or After <sup>2</sup>	2.8	16.7	4,881	395	2.8	1.3	4.8	1,402	113	7.8
<b>1990 Family Income</b>										
Less than \$10,000	3.7	10.3	3,032	251	3.7	1.1	4.3	1,252	107	5.8
\$10,000 to \$19,999	5.2	11.1	3,252	274	5.2	1.2	4.5	1,309	112	4.0
\$20,000 to \$34,999	6.4	16.0	4,703	376	6.4	1.2	4.9	1,445	116	3.9
\$35,000 or More	7.7	18.7	5,482	437	7.7	1.3	5.7	1,675	136	4.1
<b>Below Poverty Line</b>										
100 Percent	2.7	12.1	3,554	297	2.7	1.1	4.2	1,230	104	6.9
125 Percent	3.9	11.9	3,488	292	3.9	1.1	4.2	1,235	104	5.6
<b>Age of Householder</b>										
Under 35 Years	6.7	13.9	4,081	328	6.7	1.1	4.3	1,248	103	4.6
35 to 59 Years	9.4	17.9	5,232	421	9.4	1.3	5.5	1,614	132	3.2
60 Years and Over	7.0	11.9	3,480	287	7.0	1.2	5.0	1,457	121	3.9
<b>Household Size</b>										
1 Person	6.0	7.2	2,120	183	6.0	1.1	3.9	1,148	101	3.9
2 to 4 Persons	15.0	16.7	4,901	395	15.0	1.3	5.4	1,572	127	2.6
5 or More Persons	2.0	24.2	7,102	552	2.0	1.2	5.3	1,558	123	6.9
<b>Average Electricity Expenditures (cents per kWh)</b>										
Less than 6	1.7	20.5	6,014	312	--	--	--	--	--	13.9
6 to Less than 9	12.8	16.1	4,711	345	--	--	--	--	--	4.0
9 or More	8.5	12.0	3,524	375	--	--	--	--	--	5.7

See footnotes at end of table.

MIDWEST

APPLIANCE CONSUMPTION/EXPENDITURES

**Table 54. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Midwest Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	House- holds (mil- lion Btu)	Consumed		House- holds (mil- lion Btu)	Consumed			
		(mil- lion Btu)	(kwh)		Expend- itures (dollars)	(mil- lion Btu)		
<b>Average Electric Refrigerator Expenditures (cents per kWh)</b>								
Less than 6 .....	..	..	..	..	1.7	1.4	6.2	
6 to Less than 9 .....	..	..	..	..	1.2	5.3	1,816	
9 or More .....	..	..	..	..	8.6	1.1	1,550	
<b>Appliances Present in Household (more than one may apply)</b>								
Separate Freezer .....	9.1	19.5	5,716	442	9.1	1.3	5.5	
Diswasher.....	9.3	18.2	5,346	423	9.3	1.3	5.6	
Clothes Washer .....	17.7	17.3	5,074	406	17.7	1.3	5.4	
Clothes Dryer .....	11.7	18.8	5,512	422	11.7	1.3	5.4	
Waterbed Heater .....	4.6	19.5	5,721	430	4.6	1.3	5.2	
Swimming-Pool Pump .....	.9	28.5	8,367	683	.9	1.3	6.0	
Hot-Tub or Spa Pump .....	.4	27.4	8,036	642	.4	1.6	8.2	
Hot-Tub or Spa Heater .....	.3	25.4	7,442	592	.3	1.8	7.1	
Well Pump .....	4.8	20.1	5,883	450	4.8	1.3	5.6	
<b>Appliance Combinations</b>								
Diswasher, Clothes Washer, and Clothes Dryer .....	5.4	21.1	6,191	466	5.4	1.3	5.8	
With .....	4.0	6.9	2,017	182	4.0	1.0	3.8	
Without .....	..	..	..	..	..	..	..	
<b>Well Pump and Separate Freezer</b>								
With .....	3.2	21.7	6,349	484	3.2	1.4	5.6	
Without .....	12.3	11.2	3,291	284	12.3	1.1	4.6	
<b>Main Heating Fuel</b>								
Natural Gas .....	16.5	14.0	4,114	348	16.5	1.2	4.9	
Electricity .....	2.6	15.0	4,392	283	2.6	1.2	5.2	
Fuel Oil or Kerosene .....	1.3	18.7	5,494	395	1.3	1.3	5.4	
Wood .....	1.0	18.1	5,314	416	1.0	1.3	4.7	
LPG .....	1.6	18.3	5,370	441	1.6	1.2	5.0	
Other .....	Q	Q	Q	Q	Q	Q	Q	
<b>Number of Refrigerators</b>								
1 .....	18.4	13.6	3,988	330	18.4	1.0	4.1	
2 or More .....	4.7	20.0	5,850	444	4.7	2.0	8.4	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

MIDWEST

**Table 54. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Midwest Region Household, 1990 (Continued)**

RSE Characteristics	Electricity Used for Appliances				Electricity Used for Refrigerators				RSE Row Factors
	Households (millions)	Consumed		Households (millions)	Consumed		Expenditures (dollars)	RSE Row Factors	
		(million Btu)	(kWh)		(million Btu)	(kWh)			
RSE Column Factors:	1.5	NF	NF	1.5	0.5	NF	NF	NF	
<b>East North Central Division ...</b>	<b>16.6</b>	<b>14.7</b>	<b>4,294</b>	<b>354</b>	<b>16.6</b>	<b>1.2</b>	<b>4.8</b>	<b>1,413</b>	<b>119</b>
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	15.7	14.6	4,274	349	15.7	1.2	4.8	1,395	117
Over 5,500 HDD .....	Q	15.8	4,632	437	Q	1.3	5.8	1,711	153
Under 5,500 HDD .....									3.9
2,000 CDD or More and Under 4,000 HDD .....									15.7
<b>Type of Housing Unit</b>									
Single-Family .....	11.3	17.5	5,127	411	11.3	1.3	5.4	1,596	129
Mobile Home .....	1.2	13.2	3,878	324	1.2	1.0	3.5	1,040	86
Multifamily (2 or more units) .....	4.1	7.3	2,133	206	4.1	1.0	3.5	1,024	99
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	4.8	9.5	2,772	238	4.8	1.0	3.6	1,057	92
1,000 to 1,999 .....	6.3	14.3	4,200	359	6.3	1.2	5.1	1,482	123
2,000 or More .....	5.5	19.5	5,717	470	5.5	1.4	5.6	1,642	136
<b>Ownership of Unit</b>									
Owned .....	11.8	16.7	4,902	394	11.8	1.3	5.2	1,536	125
Rented .....	4.8	9.5	2,797	254	4.8	1.1	3.8	1,108	103
<b>Year of Construction</b>									
1949 or Before .....	6.6	13.5	3,961	334	6.6	1.2	4.9	1,423	122
1950 to 1979 .....	7.9	15.0	4,401	357	7.9	1.2	4.8	1,404	116
1980 or After <sup>2</sup> .....	2.1	16.9	4,945	404	2.1	1.3	4.8	1,413	115
<b>1990 Family Income</b>									
Less than \$10,000 .....	2.7	10.4	3,056	254	2.7	1.2	4.1	1,211	104
\$10,000 to \$19,999 .....	3.6	10.6	3,105	270	3.6	1.2	4.3	1,257	111
\$20,000 to \$34,999 .....	4.6	15.9	4,667	380	4.6	1.2	4.9	1,441	117
\$35,000 or More .....	5.7	18.1	5,308	430	5.7	1.3	5.4	1,580	131
<b>Below Poverty Line</b>									
100 Percent .....	2.0	12.0	3,511	288	2.0	1.1	4.0	1,186	102
125 Percent .....	2.8	11.6	3,399	280	2.8	1.1	4.1	1,188	102
<b>Age of Householder</b>									
Under 35 Years .....	4.9	13.8	4,042	328	4.9	1.1	4.2	1,219	102
35 to 59 Years .....	6.8	17.5	5,135	421	6.8	1.3	5.3	1,554	130
60 Years and Over .....	4.9	11.6	3,393	286	4.9	1.2	4.8	1,413	120
<b>Household Size</b>									
1 Person .....	4.2	6.7	1,965	175	4.2	1.1	3.7	1,080	98
2 to 4 Persons .....	10.8	16.3	4,785	394	10.8	1.3	5.2	1,524	126
5 or More Persons .....	1.6	24.2	7,086	549	1.6	1.2	5.2	1,529	121

See footnotes at end of table.

## MIDWEST

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 54. Electricity Consumption and Expenditures for Appliances and Refrigerators, per Midwest Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators					
	Consumed		Households (million)	Average Number of Refrigerators	Consumed		(million Btu)	Expenditures (dollars)	RSE Row Factors
	(million Btu)	(kWh)			Households (million)	(kWh)			
RSE Column Factors:	1.5	NF	NF	NF	1.5	0.5	NF	NF	NF
West North Central Division	6.5	15.6	4,561	354	6.5	1.2	5.4	1,583	124
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	4.0	14.5	4,240	324	4.0	1.2	4.9	1,426	110
Under 5,500 HDD	2.5	17.3	5,081	401	2.5	1.3	6.3	1,839	147
2,000 CDD or More and Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	4.8	17.7	5,176	402	4.8	1.3	6.0	1,745	137
Mobile Home	.4	12.1	3,556	269	.4	1.0	3.8	1,108	86
Multifamily (2 or more units)	1.3	8.9	2,612	202	1.3	1.0	3.9	1,134	89
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.7	9.6	2,816	223	1.7	1.0	4.0	1,185	95
1,000 to 1,999	2.5	15.8	4,625	361	2.5	1.2	5.4	1,569	125
2,000 or More	2.2	20.0	5,852	448	2.2	1.4	6.5	1,911	147
<b>Ownership of Unit</b>									
Owned	4.6	17.7	5,196	400	4.6	1.3	5.9	1,742	136
Rented	1.9	10.3	3,030	243	1.9	1.1	4.1	1,202	97
<b>Year of Construction</b>									
1949 or Before	2.3	13.7	4,023	315	2.3	1.2	5.3	1,543	123
1950 to 1979	3.4	16.7	4,904	377	3.4	1.3	5.7	1,657	129
1980 or After <sup>2</sup>	.7	16.0	4,693	369	.7	1.1	4.7	1,369	108
<b>1990 Family Income</b>									
Less than \$10,000	1.1	10.1	2,974	244	1.1	1.1	4.6	1,355	113
\$10,000 to \$19,999	1.6	12.2	3,581	284	1.6	1.2	4.9	1,426	114
\$20,000 to \$34,999	1.8	16.4	4,793	367	1.8	1.2	5.0	1,456	112
\$35,000 or More	2.0	20.4	5,990	456	2.0	1.4	6.7	1,949	150
<b>Below Poverty Line</b>									
100 Percent	.6	12.6	3,684	291	.6	1.1	4.7	1,365	111
125 Percent	1.1	12.7	3,717	297	1.1	1.1	4.6	1,357	110
<b>Age of Householder</b>									
Under 35 Years	1.8	14.3	4,190	329	1.8	1.1	4.5	1,330	106
35 to 59 Years	2.7	18.7	5,477	420	2.7	1.3	6.0	1,768	137
60 Years and Over	2.0	12.6	3,688	289	2.0	1.2	5.3	1,563	123
<b>Household Size</b>									
1 Person	1.8	8.5	2,477	201	1.8	1.1	4.5	1,307	108
2 to 4 Persons	4.2	17.7	5,200	399	4.2	1.3	5.8	1,695	130
5 or More Persons	.4	24.4	7,158	563	.4	1.2	5.7	1,666	132

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

.. = Not applicable.

Notes. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

MIDWEST

**Table 55. Natural Gas and LPG Consumption and Expenditures for Appliances, per Midwest Region Household, 1990**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Consumed		Expenditures (dollars)		
	Households (million Btu)	(1000 cubic feet)		NF	NF			
RSE Column Factors:	1.0	NF	NF	NF	NF	(gallons)		
<b>Midwest Region</b>								
Total Region .....	10.9	8.1	7.9	40	1.5	6.6	72	
Climate Zone <sup>1</sup>							7.7	
Under 2,000 CDD and	9.6	8.1	7.9	39	1.1	6.7	74	
Over 5,500 HDD .....	9.6	8.3	8.2	41	.4	6.2	68	
Under 5,500 HDD .....	1.3							
2,000 CDD or More and								
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Type of Housing Unit								
Single-Family .....	7.8	8.6	8.5	41	1.2	6.7	74	
Mobile Home .....	1.8	7.1	6.9	37	.3	6.2	68	
Multifamily (2 or more units) .....	2.3	6.7	6.6	34	Q	Q	Q	
Heated Floorspace (square feet)								
Fewer than 1,000 .....	2.5	6.3	6.2	32	.5	5.3	58	
1,000 to 1,999 .....	4.3	7.6	7.4	38	.6	7.8	85	
2,000 or More .....	4.1	9.8	9.6	45	.5	6.6	72	
Ownership of Unit								
Owned .....	7.8	8.7	8.6	42	1.4	6.6	72	
Rented .....	3.1	6.5	6.4	33	.2	6.6	73	
Year of Construction								
1949 or Before .....	5.2	7.2	7.0	36	.6	7.5	82	
1950 to 1979 .....	4.7	8.5	8.3	41	.6	5.8	63	
1980 or After <sup>2</sup> .....	1.1	11.0	10.8	51	.3	6.4	71	
1990 Family Income								
Less than \$10,000 .....	1.8	7.4	7.3	37	.4	5.7	62	
\$10,000 to \$19,999 .....	2.4	6.2	6.1	32	.5	5.6	61	
\$20,000 to \$34,999 .....	2.9	6.6	6.4	33	.4	5.7	63	
\$35,000 or More .....	3.8	10.9	10.6	51	.2	11.9	130	
Below Poverty Line								
100 Percent .....	1.3	8.2	8.0	41	.3	7.3	80	
125 Percent .....	1.8	7.4	7.3	37	.5	6.6	72	
Age of Householder								
Under 35 Years .....	3.2	8.3	8.1	40	.4	5.0	55	
35 to 59 Years .....	4.6	8.9	8.7	42	.7	8.5	93	
60 Years and Over .....	3.1	6.9	6.7	35	.5	5.2	57	
Household Size								
1 Person .....	2.8	5.2	5.1	26	Q	3.7	40	
2 to 4 Persons .....	7.1	9.0	8.8	43	1.1	6.6	72	
5 or More Persons .....	1.0	9.9	9.7	49	.3	8.3	90	

See footnotes at end of table.

## MIDWEST

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 55. Natural Gas and LPG Consumption and Expenditures for Appliances, per Midwest Region Household, 1990 (Continued)**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Consumed		Households (million)		
	(million Btu)	(1000 cubic feet)		Expend- itures (dollars)	(million Btu)	(gallons)		
RSE Column Factors:	1.0	NF	NF	NF	2.3	NF	NF	
<b>East North Central Division ...</b>	8.2	8.4	8.2	41	1.0	7.1	78	
<b>Climate Zone<sup>1</sup></b>							86	
Under 2,000 CDD and Over 5,500 HDD .....	7.9	8.5	8.3	42	.9	6.9	76	
Under 5,500 HDD .....	Q	4.5	4.4	23	Q	Q	87	
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>								
Single-Family .....	5.6	9.0	8.8	43	.8	7.2	79	
Mobile Home .....	.6	7.1	6.9	39	.2	6.9	75	
Multifamily (2 or more units) .....	2.0	7.0	6.8	36	NC	NC	NC	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	1.9	6.5	6.3	34	.4	5.6	61	
1,000 to 1,999 .....	3.3	7.8	7.6	39	.4	9.0	98	
2,000 or More .....	3.0	10.2	10.0	47	.3	6.8	75	
<b>Ownership of Unit</b>								
Owned .....	5.7	9.1	8.9	44	.9	7.0	77	
Rented .....	2.5	6.6	6.5	34	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before .....	4.0	7.3	7.2	37	.4	8.5	93	
1950 to 1979 .....	3.3	8.6	8.4	42	.4	5.6	62	
1980 or After <sup>2</sup> .....	.9	12.4	12.2	56	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.4	7.6	7.4	38	Q	5.8	63	
\$10,000 to \$19,999 .....	1.7	6.2	6.1	32	.3	6.0	66	
\$20,000 to \$34,999 .....	2.1	6.6	6.4	33	.3	5.8	63	
\$35,000 or More .....	2.9	11.4	11.1	53	Q	Q	Q	
<b>Below Poverty Line</b>								
100 Percent .....	1.0	8.5	8.2	43	2	8.2	90	
125 Percent .....	1.4	7.8	7.5	39	Q	7.0	76	
<b>Age of Householder</b>								
Under 35 Years .....	2.3	9.1	8.8	44	2	5.5	60	
35 to 59 Years .....	3.5	9.0	8.8	43	4	9.4	103	
60 Years and Over .....	2.4	6.9	6.7	35	4	5.4	59	
<b>Household Size</b>								
1 Person .....	2.1	5.3	5.1	27	Q	Q	Q	
2 to 4 Persons .....	5.2	9.4	9.1	45	.7	6.9	76	
5 or More Persons .....	.8	10.2	9.9	50	2	8.9	98	

See footnotes at end of table.

**Table 55. Natural Gas and LPG Consumption and Expenditures for Appliances, per Midwest Region Household, 1990 (Continued)**

Characteristics	Natural Gas				Liquefied Petroleum Gas				RSE Row Factors	
	Households (million)	Consumed		Households (million)	Consumed		Expenditures (dollars)			
		(million Btu)	(1000 cubic feet)		(million Btu)	(gallons)				
RSE Column Factors:	1.0	NF	NF	NF	2.3	NF	NF	NF		
<b>West North Central Division</b>	2.8	7.3	7.2	36	0.5	5.6	61	54	6.6	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	1.7	6.0	6.0	28	.2	6.1	67	64	9.0	
Under 5,500 HDD .....	1.0	9.6	9.4	47	.3	5.1	56	46	9.3	
2,000 CDD or More and										
Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	
<b>Type of Housing Unit</b>										
Single-Family .....	2.2	7.7	7.6	37	.4	5.8	64	57	7.5	
Mobile Home .....	.2	6.8	6.9	32	.1	4.5	49	40	15.8	
Multifamily (2 or more units) ..	.4	5.1	5.1	24	Q	Q	Q	Q	14.0	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.6	5.9	5.8	28	.2	4.7	51	43	13.0	
1,000 to 1,999 .....	1.0	6.9	6.9	33	.2	5.5	60	57	13.7	
2,000 or More .....	1.1	8.5	8.4	41	.2	6.4	70	59	15.4	
<b>Ownership of Unit</b>										
Owned .....	2.1	7.7	7.6	37	.5	5.7	62	56	7.6	
Rented .....	.7	6.2	6.2	29	Q	4.6	50	41	18.1	
<b>Year of Construction</b>										
1949 or Before .....	1.2	6.6	6.5	30	.2	6.0	65	61	9.6	
1950 to 1979 .....	1.3	8.2	8.1	39	Q	6.2	68	56	16.1	
1980 or After <sup>2</sup> .....	Q	6.4	6.3	35	.1	3.9	42	36	16.4	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.4	7.0	6.9	31	Q	5.3	58	63	17.1	
\$10,000 to \$19,999 .....	.7	6.2	6.1	30	.1	4.7	52	47	13.9	
\$20,000 to \$34,999 .....	.8	6.4	6.4	31	.2	5.6	62	47	10.4	
\$35,000 or More .....	.9	9.1	9.0	45	.1	6.9	75	64	14.4	
<b>Below Poverty Line</b>										
100 Percent .....	.2	6.9	6.9	32	Q	5.4	59	62	19.0	
125 Percent .....	.4	6.3	6.3	30	Q	5.8	63	65	14.6	
<b>Age of Householder</b>										
Under 35 Years .....	.9	6.2	6.2	31	.1	4.2	46	41	11.1	
35 to 59 Years .....	1.1	8.4	8.3	40	.2	6.8	74	66	9.8	
60 Years and Over .....	.7	6.9	6.8	32	.2	4.9	53	46	16.7	
<b>Household Size</b>										
1 Person .....	.7	5.1	5.0	23	Q	3.9	43	47	21.7	
2 to 4 Persons .....	1.9	7.9	7.9	39	.4	5.9	64	54	8.0	
5 or More Persons .....	.2	8.7	8.7	42	Q	Q	Q	Q	22.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 56. Consumption and Expenditures in South Region Households, 1990**

Characteristics	Residential Buildings		Consumption					Expenditures (dollars)					RSE Row Fac- tors
			Total House-holds (mil-lion)	Total Num-ber (mil-lion)	Total Floor-space (bil-lion sq. ft.)	per Building (mil-lion Blu)	per Foot (hou-sand Blu)	per House-hold Member (mil-lion Blu)	per House-hold Member (mil-lion Blu)	per Build-ing	per Square Foot	per House-hold	
	1.4	1.5	1.7	1.0	1.0	0.9	0.9	0.8	0.9	0.6	0.6	0.7	
<b>Total Region</b>	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	2.9
<b>Climate Zone<sup>2</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF 5.0
Under 5,500 HDD	17.6	14.9	29.7	98	49	83.5	33	1,300	.65	1,103	430		
2,000 CDD or More and Under 4,000 HDD	14.7	11.8	22.7	96	50	77.2	29	1,505	.78	1,209	454		4.5
<b>Type of Housing Unit</b>													
Single-Family	23.7	23.7	45.1	91	48	91.4	33	1,277	.67	1,277	466	3.1	
Mobile Home	1.9	1.9	1.7	62	69	61.8	20	1,013	1.13	1,013	336	9.4	
Multifamily (2 or more units)	6.7	1.2	5.7	276	56	47.5	23	4,331	.88	744	367	6.7	
<b>Heated Floorspace</b>													
(square feet)													
Fewer than 1,000	10.9	6.4	8.9	94	68	55.3	25	1,414	1.02	830	380	4.3	
1,000 to 1,999	14.8	13.8	23.1	89	53	83.5	30	1,279	.77	1,197	425	3.1	
2,000 or More	6.6	6.5	20.4	118	38	115.7	41	1,602	.51	1,576	553	5.7	
<b>Ownership of Unit</b>													
Owned	21.6	21.1	41.8	92	47	90.3	33	1,306	.66	1,277	473	3.4	
Rented	10.7	5.7	10.7	116	61	61.0	25	1,701	.90	897	369	4.7	
<b>Year of Construction</b>													
1949 or Before	6.0	5.5	9.1	100	61	91.4	37	1,207	.73	1,105	449	5.5	
1950 to 1979	18.8	15.5	30.9	103	52	84.7	32	1,453	.73	1,198	453	3.2	
1980 or After <sup>a</sup>	7.4	5.7	12.5	80	37	61.3	23	1,395	.64	1,071	405	7.1	
<b>1990 Family Income</b>													
Less than \$10,000	6.4	4.9	7.4	82	54	63.1	29	1,129	.75	869	405	5.6	
\$10,000 to \$19,999	7.0	5.5	9.2	90	53	70.1	28	1,296	.77	1,013	408	5.4	
\$20,000 to \$34,999	8.3	6.7	12.5	97	52	78.8	30	1,360	.73	1,100	419	4.2	
\$35,000 or More	10.6	9.6	23.3	109	45	99.5	34	1,598	.66	1,452	491	4.3	
<b>Below Poverty Line</b>													
100 Percent	5.5	4.3	6.4	84	57	66.0	24	1,157	.78	904	326	5.9	
125 Percent	7.5	6.0	8.9	83	55	66.4	24	1,167	.78	931	338	5.5	
<b>Age of Householder</b>													
Under 35 Years	9.2	6.2	11.7	103	54	69.3	24	1,508	.80	1,019	350	4.3	
35 to 59 Years	14.1	12.6	26.0	99	48	88.9	31	1,454	.70	1,304	449	3.8	
60 Years and Over	9.1	7.9	14.7	90	49	79.0	43	1,196	.65	1,048	566	4.2	
<b>Household Size</b>													
1 Person	7.8	5.5	9.9	80	45	56.4	56	1,133	.63	799	799	4.8	
2 to 4 Persons	21.0	17.9	36.6	101	49	86.0	31	1,445	.71	1,233	451	3.0	
5 or More Persons	3.5	3.3	108	61	102.6	19	1,523	.86	1,447	264	4.3		

See footnotes at end of table.

SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 56. Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Average of Major Energy Sources <sup>1</sup>									
		Consumption					Expenditures (dollars)				
		Total Households (million)	Total Floor-space (million sq. ft.)	per Building (Btu)	per Square Foot (thousand Btu)	per Household (million Btu)	per Building	per Square Foot	per Household	per Household Member	RSE Row Factors
South Atlantic Division .....	16.6	13.4	26.6	89	45	72.1	.29	1,437	.72	1,164	460
<b>Climate Zone:<sup>2</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Under 5,500 HDD .....	9.1	18.3	98	49	80.5	32	1,406	.70	1,153	458	5.4
2,000 CDD or More and Under 4,000 HDD .....	11.1	1.1	1.0	70	36	56.2	.22	1,509	.77	1,187	464
<b>Type of Housing Unit</b>											
Single-Family .....	11.7	22.3	83	43	82.6	.31	1,309	.69	1,309	487	4.6
Mobile Home .....	1.1	1.0	62	70	62.3	.21	1,073	.20	1,073	366	14.5
Multifamily (2 or more units) .....	3.8	.6	3.3	254	48	.22	4,405	.84	740	382	9.3
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	5.9	3.4	4.9	90	61	50.7	.24	1,500	1.03	848	393
1,000 to 1,989 .....	7.0	6.5	10.9	78	47	72.3	.27	1,279	.77	1,190	442
2,000 or More .....	3.6	3.5	10.8	110	36	107.2	.38	1,672	.54	1,633	577
<b>Ownership of Unit</b>											
Owned .....	10.8	20.9	84	42	80.9	.31	1,354	.67	1,302	496	4.8
Rented .....	5.8	3.0	5.7	106	56	55.6	.24	1,722	.91	903	383
<b>Year of Construction</b>											
1949 or Before .....	3.0	2.7	4.8	102	57	92.1	.37	1,322	.74	1,189	479
1950 to 1979 .....	8.9	7.3	14.8	93	46	77.0	.30	1,486	.74	1,227	475
1980 or After <sup>3</sup> .....	4.6	3.4	7.0	69	33	49.9	.20	1,422	.68	1,026	415
<b>1990 Family Income</b>											
Less than \$10,000 .....	2.7	2.0	3.2	77	48	57.7	.28	1,234	.77	920	449
\$10,000 to \$19,999 .....	3.6	2.7	4.6	83	49	61.4	.25	1,324	.78	982	405
\$20,000 to \$34,999 .....	4.3	3.4	6.0	85	48	68.0	.28	1,353	.77	1,088	442
\$35,000 or More .....	6.0	5.3	12.8	100	41	88.1	.31	1,626	.67	1,437	503
<b>Below Poverty Line</b>											
100 Percent .....	2.0	1.5	2.4	81	51	60.1	.22	1,328	.84	988	362
125 Percent .....	3.0	2.3	3.7	78	49	59.6	.22	1,287	.82	988	362
<b>Age of Householder</b>											
Under 35 Years .....	4.9	3.2	5.9	90	49	58.9	.22	1,537	.83	1,003	367
35 to 59 Years .....	7.4	6.7	14.2	90	43	81.7	.29	1,476	.70	1,332	478
60 Years and Over .....	4.3	3.5	6.6	85	46	70.6	.38	1,272	.68	1,051	567
<b>Household Size</b>											
1 Person .....	4.2	2.8	5.2	72	39	48.9	.49	1,157	.63	783	8.1
2 to 4 Persons .....	10.9	9.2	18.8	93	45	77.7	.28	1,506	.73	1,265	462
5 or More Persons .....	1.5	1.4	2.6	100	54	97.1	.18	1,550	.83	1,500	280

See footnotes at end of table.

**Table 56. Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Average of Major Energy Sources <sup>1</sup>										Expenditures (dollars)	
	Residential Buildings		Consumption									
	Total Households (million)	Total Number (million)	Total Floor-space (billion sq. ft.)	per Building (million Blu)	per Square Foot (thousand Blu)	per Household Member (million Btu)	per Householder (million Btu)	per Building	per Square Foot	per Household Member		
RSE Column Factors:	1.4	1.5	1.7	1.0	1.0	0.9	0.9	0.8	0.9	0.6	0.7	
<b>East South Central Division ...</b>	6.4	5.4	10.8	97	49	82.1	33	1,152	0.58	974	386	
<b>Climate Zone:<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	NC 5.1	NC 4.6	NC 9.2	NC 91	NC 45	NC 81.5	NC 32	NC 1,104	NC .55	NC 992	NC 386	
Under 5,500 HDD	O Q	O Q	O Q	132	71	84.4	36	1,419	.77	907	385	
2,000 CDD or More and Under 4,000 HDD	O	O	O	132	71	84.4	36	1,419	.77	907	385	
<b>Type of Housing Unit</b>												
Single-Family	4.7	4.7	9.4	91	46	91.5	34	1,076	.54	1,076	403	
Mobile Home	.5	.5	.4	62	68	61.5	21	924	1.02	924	320	
Multifamily (2 or more units) ..	1.3	.3	1.0	249	73	55.6	30	2,800	.82	624	338	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	2.4	1.5	1.9	100	78	63.0	28	1,204	.94	760	342	
1,000 to 1,999	2.5	2.4	3.8	84	52	80.5	31	1,065	.66	1,015	388	
2,000 or More	1.6	1.6	5.0	114	36	113.0	40	1,236	.39	1,229	434	
<b>Ownership of Unit</b>												
Owned	4.4	4.4	8.9	91	45	89.9	34	1,077	.53	1,064	406	
Rented	2.0	1.1	1.9	122	68	64.6	28	1,466	.82	774	336	
<b>Year of Construction</b>												
1949 or Before	1.4	1.2	1.9	99	63	89.0	39	1,006	.64	903	400	
1950 to 1979	3.7	3.0	5.7	95	50	77.7	31	1,190	.63	989	392	
1980 or After <sup>3</sup>	1.3	1.2	3.1	99	37	87.1	29	1,210	.46	1,065	360	
<b>1990 Family Income</b>												
Less than \$10,000	1.6	1.3	1.9	78	54	61.0	28	919	.63	716	334	
\$10,000 to \$19,999	1.5	1.1	1.9	95	54	72.5	32	1,210	.69	921	404	
\$20,000 to \$34,999	1.6	1.4	2.8	94	46	80.9	30	1,146	.56	987	383	
\$35,000 or More	1.8	1.7	4.2	115	46	110.8	38	1,298	.52	1,250	430	
<b>Below Poverty Line</b>												
100 Percent	1.3	1.1	1.5	80	56	63.9	24	944	.66	756	287	
125 Percent	1.8	1.5	2.0	78	56	64.3	25	939	.67	772	306	
<b>Age of Householder</b>												
Under 35 Years	1.7	1.2	2.4	104	55	78.3	28	1,240	.65	930	336	
35 to 59 Years	2.9	2.5	5.4	101	48	89.6	31	1,218	.58	1,079	374	
60 Years and Over	1.9	1.7	3.0	85	47	74.0	42	985	.54	854	484	
<b>Household Size</b>												
1 Person	1.6	1.2	2.0	86	50	61.8	62	953	.55	685	685	
2 to 4 Persons	4.3	3.7	7.9	99	47	86.7	32	1,203	.57	1,058	388	
5 or More Persons	.5	.5	.9	111	65	107.1	19	1,241	.73	1,193	216	

See footnotes at end of table.

**Table 56. Consumption and Expenditures in South Region Households, 1990 (Continued)**

				Residential Buildings				Consumption				Expenditures (dollars)			
		Total Households (million)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household (million Btu)	per Household Member (million Btu)	per Building	per Square Foot	per Household	per Household Member	per Household	per Household Member	RSE Row Factors	
Characteristics	RSE Column Factors:	1.4	1.5	1.7	1.0	1.0	0.9	0.9	0.8	0.9	0.6	0.7			
West South Central Division		9.3	7.9	15.1	111	58	94.5	34	1,474	0.77	1,251	445	4.2		
Climate Zone: <sup>2</sup>															
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	2.2	133	70	118.5	40	1,243	NC	NC	NC	NC		
Under 5,500 HDD	1.3	1.1								.66	1,110	374	17.7		
2,000 CDD or More and Under 4,000 HDD	6.7	12.9	108	56	90.7	33	1,513	.79	1,273	457	5.3				
Type of Housing Unit		7.3	7.3	13.4	106	58	105.5	37	1,355	.74	1,355	471	4.6		
Single-Family		.3	.3	.3	60	69	60.3	Q	949	1.09	949	271	21.2		
Mobile Home		.3	.3	1.4	372	62	52.3	22	6,014	1.01	846	355	12.3		
Multifamily (2 or more units)		1.6	2												
Heated Floorspace (square feet)															
Fewer than 1,000	2.6	1.6	2.1	98	72	58.7	26	1,431	1.05	854	384	10.0			
1,000 to 1,999	5.2	4.9	8.3	107	63	100.0	33	1,383	.81	1,293	421	4.6			
2,000 or More	1.5	1.4	4.6	141	44	139.8	48	1,829	.57	1,815	625	10.4			
Ownership of Unit															
Owned	6.3	6.3	12.0	107	56	106.7	37	1,387	.73	1,385	481	5.7			
Rented	3.0	1.6	3.1	129	67	68.8	26	1,818	.94	968	364	8.8			
Year of Construction															
1949 or Before	1.6	1.6	2.3	96	65	91.9	35	1,169	.78	1,119	430	9.8			
1950 to 1979	6.2	5.1	10.3	121	60	100.0	35	1,561	.78	1,293	455	4.7			
1980 or After <sup>3</sup>	1.5	1.2	2.4	91	45	74.0	26	1,502	.74	1,220	421	10.5			
1990 Family Income															
Less than \$10,000	2.1	1.7	2.4	90	62	71.6	32	1,167	.81	925	408	9.7			
\$10,000 to \$14,999	1.9	1.7	2.7	97	60	84.8	31	1,309	.81	1,141	416	8.4			
\$20,000 to \$34,999	2.4	1.9	3.7	123	63	96.5	34	1,524	.78	1,196	419	7.4			
\$35,000 or More	2.9	2.7	6.2	125	53	116.2	36	1,734	.74	1,607	502	7.3			
Below Poverty Line															
100 Percent	2.2	1.7	2.5	90	63	72.8	25	1,137	.80	917	317	9.9			
125 Percent	2.7	2.2	3.2	93	62	75.4	26	1,191	.80	971	330	9.9			
Age of Householder															
Under 35 Years	2.7	1.8	3.5	124	64	82.8	25	1,644	.85	1,101	331	6.5			
35 to 59 Years	3.7	3.3	6.5	115	59	102.8	33	1,590	.82	1,419	451	5.3			
60 Years and Over	2.9	2.8	5.1	99	54	94.7	50	1,225	.67	1,171	615	6.5			
Household Size															
1 Person	2.0	1.5	2.7	90	51	67.5	68	1,230	.70	926	926	8.9			
2 to 4 Persons	5.8	5.0	10.0	117	58	100.9	37	1,513	.75	1,303	478	4.9			
5 or More Persons		1.5	1.4	2.4	114	67	106.3	19	1,600	.94	1,487	267	6.3		

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**SOUTH**

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 57. Total Consumption in South Region Households, 1990**

Characteristics	South Region										RSE Column Factors:	
	Electricity (tril- lion Btu)	Natural Gas (tril- lion Btu)	Fuel Oil (billion cubic feet)	Kerosene (tril- lion gal- lons)	Liquefied Petroleum Gas (tril- lion gal- lons)							
Total Region .....	2,602.3	1,361.3	399.0	1,030.3	999	78.7	0.57	34.1	0.25	97.8	1.07	10.4
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	NC	NC	NC	.57	NC	.22	NC	.78	NF
Under 5,500 HDD .....	1,466.9	693.4	203.2	594.4	578	77.9	.57	29.8	.22	71.4	.78	16.3
2,000 CDD or More and Under 4,000 HDD .....	1,133.8	666.3	195.3	435.9	422	Q	Q	Q	Q	26.4	.29	21.3
<b>Type of Housing Unit</b>												
Single-Family .....	2,168.0	1,095.1	321.0	901.3	874	69.3	.50	25.2	.19	77.1	.84	12.3
Mobile Home .....	116.1	69.6	20.4	15.5	15	Q	Q	8.9	.07	18.7	.20	33.5
Multifamily (2 or more units) .....	318.2	195.5	57.6	113.6	110	Q	Q	Q	Q	Q	Q	26.3
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	602.7	327.1	95.9	204.6	199	18.0	.13	21.6	.16	31.4	.34	15.6
1,000 to 1,999 .....	1,232.8	646.1	189.4	497.4	483	32.5	.21	11.1	.08	49.6	.54	14.1
2,000 or More .....	766.8	388.1	113.7	328.3	318	32.2	.23	1.4	.01	16.8	.18	24.2
<b>Ownership of Unit</b>												
Owned .....	1,947.6	1,004.3	294.4	782.2	759	57.5	.42	21.8	.16	81.8	.90	13.7
Rented .....	654.7	357.0	104.6	248.1	241	21.2	.16	12.3	.09	16.1	.18	19.6
<b>Year of Construction</b>												
1949 or Before .....	551.1	197.0	57.7	275.0	266	35.5	.26	14.8	.11	28.7	.31	18.9
1950 to 1979 .....	1,595.7	833.5	244.3	659.9	641	41.9	.30	16.6	.12	43.7	.48	13.6
1980 or After <sup>3</sup> .....	455.5	330.7	96.9	95.4	93	Q	Q	Q	Q	25.4	.28	32.1
<b>1990 Family Income</b>												
Less than \$10,000 .....	403.6	186.0	54.5	166.8	161	13.8	.10	Q	Q	29.6	.32	16.7
\$10,000 to \$19,999 .....	492.6	258.7	75.8	168.8	164	24.2	.18	10.7	.08	30.0	.33	16.3
\$20,000 to \$34,999 .....	652.3	332.2	97.4	276.7	268	16.5	.12	11.9	.09	15.0	.16	15.5
\$35,000 or More .....	1,053.9	584.3	171.3	418.0	406	24.1	.17	4.2	.03	23.2	.25	20.4
<b>Below Poverty Line</b>												
100 Percent .....	365.6	168.1	49.3	150.5	146	9.5	.07	7.9	.06	29.7	.32	21.1
125 Percent .....	495.8	241.2	70.7	194.5	189	13.8	.10	10.5	.08	35.8	.39	20.3
<b>Age of Householder</b>												
Under 35 Years .....	636.1	347.9	102.0	244.4	237	Q	Q	9.3	.07	22.7	.25	15.5
35 to 59 Years .....	1,250.0	693.2	203.2	460.1	447	38.0	.28	20.2	.15	38.6	.42	15.5
60 Years and Over .....	716.1	320.1	93.8	325.9	315	28.9	.21	4.7	.03	36.6	.40	15.1
<b>Household Size</b>												
1 Person .....	442.1	216.2	63.4	188.4	182	12.3	.09	5.1	.04	20.2	.22	16.7
2 to 4 Persons .....	1,801.1	959.2	281.1	698.0	677	60.4	.44	21.5	.16	62.1	.68	12.4
5 or More Persons .....	359.0	185.9	54.5	144.0	140	Q	Q	7.6	.06	15.6	.17	20.6

See footnotes at end of table.

# ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 57. Total Consumption in South Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas		Fuel Oil	Kerosene	Liquefied Petroleum Gas		RSE Row Factors
	(trillion Btu)	(billion kWh)	(trillion Btu)	(billion cubic feet)	(trillion Btu)	(trillion gallons)	(trillion Btu)	(billion gallons)	
RSE Column Factors:	0.5	0.4	0.4	0.8	1.7	1.7	1.7	1.5	1.5
South Atlantic Division .....	1,194.6	673.1	197.3	373.4	361	73.1	0.53	26.0	0.19
<b>Climate Zone<sup>2</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	NC	NC	NC	NC	NC	NC	NF
Under 5,500 HDD .....	896.7	423.2	124.0	346.6	336	.53	.16	32.8	.36
Under 2,000 CDD or More and Under 4,000 HDD .....	296.3	248.3	72.8	Q	Q	Q	Q	16.2	.18
<b>Type of Housing Unit</b>									
Single-Family .....	966.5	530.4	155.5	318.7	308	.46	.15	32.9	.36
Mobile Home .....	66.6	38.6	11.3	Q	Q	Q	Q	14.0	16.4
Multifamily (2 or more units) .....	161.4	104.0	30.5	49.4	48	Q	Q	Q	47.6
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	300.7	174.1	51.0	78.4	76	.12	.12	16.0	.18
1,000 to 1,899 .....	508.8	296.4	86.9	151.9	147	.21	.06	24.2	.26
2,000 or More .....	385.0	202.6	59.4	143.2	139	.21	Q	Q	26.9
<b>Ownership of Unit</b>									
Owned .....	874.3	491.2	144.0	277.2	268	.38	.11	38.7	.42
Rented .....	320.2	181.9	53.3	96.2	93	.15	.08	10.4	.11
<b>Year of Construction</b>									
1949 or Before .....	277.2	96.3	28.2	118.3	115	.24	.09	18.0	.20
1950 to 1979 .....	685.1	383.8	112.5	229.0	221	.28	.12.5	20.8	.23
1980 or After .....	232.2	193.0	56.6	26.1	25	Q	Q	10.2	.11
<b>1990 Family Income</b>									
Less than \$10,000 .....	153.5	78.8	23.1	40.5	39	11.3	.08	Q	16.6
\$10,000 to \$19,999 .....	224.0	124.4	36.4	55.9	54	22.1	.16	.06	13.4
\$20,000 to \$34,999 .....	290.4	163.0	47.8	96.0	93	16.5	.12	.06	7.0
\$35,000 or More .....	526.6	306.8	89.9	181.0	176	23.1	.17	.03	Q
<b>Below Poverty Line</b>									
100 Percent .....	122.8	65.8	19.3	27.3	26	Q	Q	.05	14.8
125 Percent .....	181.2	102.1	29.9	40.6	39	Q	Q	Q	18.1
<b>Age of Householder</b>									
Under 35 Years .....	286.0	173.6	50.9	81.3	78	Q	6.3	.05	13.2
35 to 59 Years .....	608.2	357.1	104.6	181.8	177	.25	16.9	.13	17.6
60 Years and Over .....	300.3	142.4	41.7	110.3	106	.19	2.8	.02	18.1
<b>Household Size</b>									
1 Person .....	204.7	110.4	32.3	70.7	68	.08	.37	.03	13.2
2 to 4 Persons .....	847.4	486.7	142.6	255.7	247	.56.6	.41	.12	17.6
5 or More Persons .....	142.4	76.0	22.3	47.0	46	Q	6.2	.05	19.7

See footnotes at end of table.

## SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 57. Total Consumption in South Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup> (trill- lion Btu)							RSE Column Factors:	RSE Row Factors
	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	(trill- lion Btu)	(billion cubic feet)		
<b>East South Central Division</b> ....	527.8	277.0	81.2	208.8	202	Q	Q	8.0	0.06
<b>Climate Zone<sup>2</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	8.0	.06
Under 5,500 HDD .....	417.8	226.2	66.3	149.6	145	Q	Q	NC	NC
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family .....	426.8	219.4	64.3	172.8	167	Q	Q	4.5	.03
Mobile Home .....	30.0	19.8	5.8	Q	Q	NC	NC	Q	.27
Multifamily (2 or more units) ...	71.0	37.8	11.1	33.2	32	NC	NC	NC	56.3
<b>Heated Floorspace</b> (square feet)									
Fewer than 1,000 .....	148.2	76.6	22.4	53.3	52	Q	Q	5.0	.04
1,000 to 1,999 .....	200.6	114.1	33.4	70.2	68	Q	Q	Q	13.1
2,000 or More .....	179.0	86.3	25.3	Q	Q	Q	Q	Q	4.1
<b>Ownership of Unit</b>									
Owned .....	399.1	206.3	60.5	155.7	150	Q	Q	Q	25.4
Rented .....	128.6	70.7	20.7	53.1	51	Q	Q	Q	Q
<b>Year of Construction</b>									
1949 or Before .....	123.0	43.7	12.8	64.4	62	Q	Q	Q	9.3
1950 to 1979 .....	288.8	165.4	48.5	100.6	97	Q	Q	Q	15.8
1980 or After <sup>3</sup> .....	115.9	68.0	19.9	Q	Q	NC	NC	Q	Q
<b>1990 Family Income</b>									
Less than \$10,000 .....	100.5	48.3	14.2	38.5	37	Q	Q	Q	10.4
\$10,000 to \$19,999 .....	105.2	60.5	17.7	32.5	31	Q	Q	Q	7.9
\$20,000 to \$34,999 .....	127.8	69.2	20.3	49.2	47	Q	Q	Q	15.8
\$35,000 or More .....	194.2	99.1	29.0	88.7	86	Q	Q	Q	.06
<b>Below Poverty Line</b>									
100 Percent .....	84.9	42.2	12.4	30.9	30	Q	Q	9.3	.10
125 Percent .....	113.4	57.4	16.8	40.2	39	Q	Q	11.9	.13
<b>Age of Householder</b>									
Under 35 Years .....	129.7	69.2	20.3	53.2	52	Q	Q	Q	22.8
35 to 59 Years .....	257.2	142.1	41.6	98.6	95	Q	Q	Q	28.7
60 Years and Over .....	140.8	65.7	19.3	56.9	55	Q	Q	Q	21.1
<b>Household Size</b>									
1 Person .....	101.2	44.6	13.1	46.5	45	Q	Q	7.4	.08
2 to 4 Persons .....	368.8	204.8	60.0	137.4	132	Q	Q	17.5	21.4
5 or More Persons .....	57.8	27.6	8.1	24.9	24	Q	Q	Q	22.4

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 57. Total Consumption in South Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup> (trillion Btu)	Electricity (trillion Btu)	Natural Gas		Fuel Oil (billion gallons)	Kerosene (trillion Btu)	Liquefied Petroleum Gas (billion gallons)	RSE Row Factors
			(billion cubic feet)	(trillion Btu)				
RSE Column Factors:	0.5	0.4	0.4	0.8	0.8	1.7	1.7	1.5
<b>West South Central Division ..</b>	<b>880.0</b>	<b>411.2</b>	<b>120.5</b>	<b>448.1</b>	<b>436</b>	<b>NC</b>	<b>NC</b>	<b>Q</b>
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC
Over 5,500 HDD .....	Q	44.0	12.9	Q	Q	Q	Q	85.2
2,000 CDD or More and Under 4,000 HDD .....	727.5	367.2	107.6	349.9	339	NC	Q	23.1
<b>Type of Housing Unit</b>								
Single-Family .....	774.6	345.3	101.2	409.9	399	NC	Q	16.3
Mobile Home .....	19.6	Q	Q	Q	Q	NC	Q	75.9
Multifamily (2 or more units) .....	85.7	54.7	16.0	31.0	30	NC	NC	54.4
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	153.7	76.5	22.4	73.0	71	NC	Q	30.0
1,000 to 1,999 .....	523.4	235.6	69.0	275.4	268	NC	Q	13.5
2,000 or More .....	202.9	99.1	29.0	99.8	97	NC	Q	37.0
<b>Ownership of Unit</b>								
Owned .....	674.1	306.9	89.9	349.4	340	NC	Q	21.7
Rented .....	205.9	104.3	30.6	98.8	96	NC	NC	29.1
<b>Year of Construction</b>								
1949 or Before .....	150.8	57.1	16.7	92.2	89	NC	Q	27.2
1950 to 1979 .....	621.7	284.3	83.3	330.3	322	NC	Q	17.4
1980 or After <sup>3</sup> .....	107.4	69.8	20.4	25.7	25	NC	NC	43.3
<b>1990 Family Income</b>								
Less than \$10,000 .....	149.5	58.9	17.3	87.9	85	NC	NC	32.4
\$10,000 to \$19,999 .....	163.3	73.9	21.7	80.5	78	NC	Q	24.0
\$20,000 to \$34,999 .....	234.0	100.0	29.3	131.5	128	NC	Q	24.3
\$35,000 or More .....	333.1	178.4	52.3	148.2	144	NC	Q	30.6
<b>Below Poverty Line</b>								
100 Percent .....	158.0	60.1	17.6	92.3	90	NC	NC	29.7
125 Percent .....	201.2	81.6	23.9	113.7	111	NC	NC	32.8
<b>Age of Householder</b>								
Under 35 Years .....	220.4	105.1	30.8	109.9	107	NC	Q	22.8
35 to 59 Years .....	384.6	194.1	56.9	179.7	175	NC	Q	23.8
60 Years and Over .....	275.0	112.0	32.8	158.6	154	NC	Q	13.6
<b>Household Size</b>								
1 Person .....	136.2	61.2	17.9	71.2	69	NC	NC	24.6
2 to 4 Persons .....	585.0	267.7	78.5	304.9	287	NC	Q	16.5
5 or More Persons .....	168.8	82.3	24.1	72.0	70	NC	Q	28.3

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 58. Total Expenditures in South Region Households, 1990**  
 (Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Flow Factors
RSE Column Factors:	0.5	0.5	0.8	1.9	1.9	1.6	...
South Region							
Total Region .....	37.17	29.12	5.91	0.63	0.32	1.19	9.1
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	NC	NC	NC	NC	NF
Under 5,500 HDD .....	19.36	14.20	3.40	.63	.27	.87	14.5
2,000 CDD or More and Under 4,000 HDD .....	17.77	14.88	2.51	Q	Q	.32	17.6
<b>Type of Housing Unit</b>							
Single-Family .....	30.28	23.40	5.17	.56	.23	.92	11.0
Mobile Home .....	1.90	1.45	.10	Q	.09	.24	32.5
Multifamily (2 or more units) .....	4.99	4.27	.64	Q	Q	Q	24.9
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	9.06	7.07	1.23	.14	.21	.40	14.2
1,000 to 1,999 .....	17.67	13.93	2.82	.23	.09	.60	12.8
2,000 or More .....	10.45	8.12	1.86	.26	.01	.19	21.8
<b>Ownership of Unit</b>							
Owned .....	27.54	21.40	4.48	.47	.20	.99	12.1
Rented .....	9.64	7.72	1.43	.17	.12	.20	18.4
<b>Year of Construction</b>							
1949 or Before .....	6.66	4.25	1.62	.28	.14	.37	17.9
1950 to 1979 .....	22.55	17.75	3.76	.34	.15	.54	12.0
1980 or After <sup>3</sup> .....	7.96	7.12	.53	Q	Q	.28	27.0
<b>1990 Family Income</b>							
Less than \$10,000 .....	5.56	4.03	.97	.11	Q	.37	16.2
\$10,000 to \$19,999 .....	7.12	5.47	.99	.20	.10	.36	14.7
\$20,000 to \$34,999 .....	9.11	7.16	1.53	.13	.11	.18	13.5
\$35,000 or More .....	15.39	12.47	2.42	.19	.04	.28	17.8
<b>Below Poverty Line</b>							
100 Percent .....	5.01	3.64	.86	.08	.08	.36	19.8
125 Percent .....	6.95	5.19	1.11	.11	.10	.44	18.4
<b>Age of Householder</b>							
Under 35 Years .....	9.34	7.52	1.36	Q	.09	.28	13.9
35 to 59 Years .....	18.33	14.74	2.64	.30	.19	.46	13.8
60 Years and Over .....	9.50	6.86	1.90	.23	.04	.46	14.5
<b>Household Size</b>							
1 Person .....	6.27	4.74	1.13	.10	.05	.25	14.9
2 to 4 Persons .....	25.84	20.43	3.97	.49	.19	.76	10.5
5 or More Persons .....	5.06	3.95	.80	Q	.07	.19	19.5

See footnotes at end of table.

**Table 58. Total Expenditures in South Region Households, 1990 (Continued)**  
 (Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.5	0.5	0.8	1.9	1.9	1.6	
<b>South Atlantic Division</b>	19.27	15.25	2.54	0.59	0.24	0.65	13.4
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	Q	Q	NC	NC	NC	NC	NF
Under 5,500 HDD	12.85	9.32	.231	.58	.20	.44	16.1
2,000 CDD or More and Under 4,000 HDD	6.38	5.89	Q	Q	Q	.21	18.2
<b>Type of Housing Unit</b>							
Single-Family	15.32	12.02	2.16	.52	.19	.43	15.1
Mobile Home	1.15	.84	Q	Q	Q	.19	44.7
Multifamily (2 or more units)	2.80	2.39	.33	Q	Q	Q	31.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	5.03	3.97	.55	.12	.16	.22	17.9
1,000 to 1,999	8.37	6.73	1.02	.23	.07	.32	19.3
2,000 or More	5.87	4.55	.96	.23	Q	Q	25.3
<b>Ownership of Unit</b>							
Owned	14.07	11.10	1.89	.43	.14	.51	15.4
Rented	5.20	4.14	.65	.16	.11	.14	22.5
<b>Year of Construction</b>							
1949 or Before	3.58	2.17	.79	.26	.12	.24	22.7
1950 to 1979	10.92	8.64	1.57	.32	.11	.28	16.5
1980 or After <sup>3</sup>	4.77	4.44	.18	Q	Q	.13	37.0
<b>1990 Family Income</b>							
Less than \$10,000	2.45	1.79	.27	.09	Q	.23	25.2
\$10,000 to \$19,999	3.59	2.76	.40	.18	.07	.18	19.4
\$20,000 to \$34,999	4.65	3.72	.64	.13	.08	.08	18.4
\$35,000 or More	8.59	6.98	1.23	.18	.03	Q	20.5
<b>Below Poverty Line</b>							
100 Percent	2.02	1.51	.17	Q	Q	.19	34.9
125 Percent	3.00	2.31	.27	Q	Q	.24	24.1
<b>Age of Householder</b>							
Under 35 Years	4.87	3.99	.55	Q	.06	.17	21.9
35 to 59 Years	9.92	8.03	1.22	.28	.16	.23	18.5
60 Years and Over	4.47	3.22	.77	.22	.03	.24	21.9
<b>Household Size</b>							
1 Person	3.28	2.53	.50	.08	.04	.13	21.4
2 to 4 Persons	13.79	11.03	1.73	.46	.15	.42	15.2
5 or More Persons	2.20	1.69	.31	Q	Q	Q	27.5

See footnotes at end of table.

SOUTH

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ENERGY CONSUMPTION AND EXPENDITURES

**Table 58. Total Expenditures in South Region Households, 1990 (Continued)**

(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.5	0.5	0.8	1.9	1.9	1.6	.....
<b>East South Central Division</b> ....	6.27	4.81	1.00	Q	0.07	0.34	16.3
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	NC 5.08	NC 3.92	NC .71	NC Q	NC .07	NC .34	NC 31.1
Under 5,500 HDD .....							
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	NC	NC	NC	NF
<b>Type of Housing Unit</b>							
Single-Family .....	5.02	3.80	.83	Q	.04	.30	24.2
Mobile Home .....	.45	.36	Q	Q	Q	Q	48.3
Multifamily (2 or more units) ...	.80	.65	.15	NC	NC	NC	55.8
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	1.79	1.34	.25	Q	.05	.13	22.5
1,000 to 1,999 .....	2.53	2.00	.35	Q	Q	.16	18.3
2,000 or More .....	1.95	1.48	Q	Q	Q	.05	49.3
<b>Ownership of Unit</b>							
Owned .....	4.73	3.58	.74	Q	.06	.31	25.8
Rented .....	1.54	1.23	.26	Q	Q	Q	32.8
<b>Year of Construction</b>							
1949 or Before .....	1.25	.78	.31	Q	Q	.12	36.4
1950 to 1979 .....	3.60	2.86	.49	Q	Q	.19	19.7
1980 or After <sup>3</sup> .....	1.42	1.18	Q	NC	Q	Q	68.2
<b>1990 Family Income</b>							
Less than \$10,000 .....	1.18	.85	.18	Q	Q	.11	21.1
\$10,000 to \$19,999 .....	1.34	1.05	.16	Q	Q	.10	25.6
\$20,000 to \$34,999 .....	1.56	1.22	.23	NC	.03	.08	15.3
\$35,000 or More .....	2.19	1.70	.42	Q	Q	Q	47.3
<b>Below Poverty Line</b>							
100 Percent .....	1.00	.73	.15	Q	Q	.10	28.2
125 Percent .....	1.36	1.00	.19	Q	Q	.13	24.4
<b>Age of Householder</b>							
Under 35 Years .....	1.54	1.22	.25	Q	.03	Q	21.5
35 to 59 Years .....	3.10	2.45	.48	Q	Q	.12	25.9
60 Years and Over .....	1.63	1.15	.27	Q	Q	.17	20.7
<b>Household Size</b>							
1 Person .....	1.12	.80	.22	Q	Q	.08	20.3
2 to 4 Persons .....	4.50	3.54	.66	Q	.05	.22	19.4
5 or More Persons .....	.64	.47	.11	Q	Q	Q	47.6

See footnotes at end of table.

**Table 58. Total Expenditures in South Region Households, 1990 (Continued)**  
(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>							RSE Row Factors
		Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas		
RSE Column Factors:	0.5	0.5	0.8	1.9	1.9	1.6		
<b>West South Central Division ..</b>	<b>11.64</b>	<b>9.06</b>	<b>2.37</b>	<b>NC</b>	<b>Q</b>	<b>Q</b>	<b>12.3</b>	
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Under 5,500 HDD .....	1.43	.96	Q	NC	Q	Q	73.1	
2,000 CDD or More and								
Under 4,000 HDD .....	10.21	8.11	1.99	NC	Q	Q	19.6	
<b>Type of Housing Unit</b>								
Single-Family .....	9.95	7.58	2.17	NC	Q	Q	15.7	
Mobile Home .....	.31	Q	Q	NC	Q	Q	94.4	
Multifamily (2 or more units) .....	1.39	1.23	.16	NC	NC	NC	52.7	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	2.24	1.77	.42	NC	Q	Q	30.7	
1,000 to 1,999 .....	6.77	5.20	1.45	NC	Q	Q	12.8	
2,000 or More .....	2.63	2.10	.50	NC	NC	Q	35.9	
<b>Ownership of Unit</b>								
Owned .....	8.75	6.72	1.85	NC	Q	Q	21.2	
Rented .....	2.90	2.34	.52	NC	NC	Q	31.7	
<b>Year of Construction</b>								
1949 or Before .....	1.84	1.30	.52	NC	Q	Q	28.2	
1950 to 1979 .....	8.03	6.25	1.70	NC	Q	Q	15.2	
1980 or After <sup>3</sup> .....	1.77	1.51	.15	NC	NC	Q	41.2	
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.93	1.39	.52	NC	NC	Q	30.7	
\$10,000 to \$19,999 .....	2.20	1.67	.44	NC	Q	Q	23.3	
\$20,000 to \$34,999 .....	2.90	2.22	.66	NC	Q	Q	20.7	
\$35,000 or More .....	4.61	3.79	.76	NC	NC	Q	31.0	
<b>Below Poverty Line</b>								
100 Percent .....	1.99	1.39	.53	NC	NC	Q	25.6	
125 Percent .....	2.59	1.88	.65	NC	NC	Q	29.3	
<b>Age of Householder</b>								
Under 35 Years .....	2.93	2.31	.56	NC	Q	Q	19.2	
35 to 59 Years .....	5.31	4.27	.94	NC	NC	Q	22.8	
60 Years and Over .....	3.40	2.49	.87	NC	Q	Q	14.9	
<b>Household Size</b>								
1 Person .....	1.87	1.41	.41	NC	NC	Q	26.3	
2 to 4 Persons .....	7.55	5.86	1.58	NC	Q	Q	14.7	
5 or More Persons .....	2.22	1.79	.38	NC	NC	Q	26.8	

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 59. Electricity Consumption and Expenditures in South Region Households, 1990**

Characteristics	Average per Household						RSE Row Factors	
	Consumption		Expenditures (dollars)	Floor space (square feet)	Expenditures (cents per kWh)			
	Households Using Electricity (million)	(million Btu)						
RSE Column Factors:	1.9	1.0	1.0	1.0	1.2	0.5		
<b>Total Region .....</b>	32.3	42.2	12,354	902	1,624	7.3	2.7	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	11,573	Q	Q	Q	NF	
Under 5,500 HDD .....	17.6	39.5	808	1,690	7.0	3.6		
2,000 CDD or More and Under 4,000 HDD .....	14.7	45.4	13,292	1013	1,547	7.6	4.1	
<b>Type of Housing Unit</b>								
Single-Family .....	23.7	46.2	13,537	987	1,901	7.3	2.7	
Mobile Home .....	1.9	37.0	10,855	772	894	7.1	7.0	
Multifamily ( 2 or more units) .....	6.7	29.3	8,591	637	848	7.4	4.4	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	10.9	30.0	8,792	649	818	7.4	3.0	
1,000 to 1,999 .....	14.8	43.8	12,825	943	1,564	7.4	2.3	
2,000 or More .....	6.6	58.6	17,165	1,226	3,083	7.1	4.2	
<b>Ownership of Unit</b>								
Owned .....	21.6	46.6	13,653	993	1,937	7.3	2.8	
Rented .....	10.7	33.2	9,744	719	994	7.4	3.4	
<b>Year of Construction</b>								
1949 or Before .....	6.0	32.7	9,574	704	1,509	7.4	4.2	
1950 to 1979 .....	18.8	44.3	12,972	943	1,639	7.3	2.9	
1980 or After <sup>2</sup> .....	7.4	44.5	13,043	958	1,678	7.3	4.4	
<b>1990 Family Income</b>								
Less than \$10,000 .....	6.4	29.1	8,528	630	1,161	7.4	3.9	
\$10,000 to \$19,999 .....	7.0	36.8	10,788	779	1,313	7.2	3.2	
\$20,000 to \$34,999 .....	8.3	40.1	11,763	865	1,513	7.4	3.2	
\$35,000 or More .....	10.6	55.1	16,162	1,177	2,196	7.3	3.9	
<b>Below Poverty Line</b>								
100 Percent .....	5.5	30.3	8,890	657	1,157	7.4	4.2	
125 Percent .....	7.5	32.3	9,463	695	1,196	7.3	3.6	
<b>Age of Householder</b>								
Under 35 Years .....	9.2	37.9	11,117	820	1,276	7.4	3.0	
35 to 59 Years .....	14.1	49.3	14,450	1,048	1,852	7.3	3.1	
60 Years and Over .....	9.1	35.3	10,353	757	1,621	7.3	3.2	
<b>Household Size</b>								
1 Person .....	7.8	27.6	8,076	604	1,264	7.5	3.4	
2 to 4 Persons .....	21.0	45.8	13,419	975	1,749	7.3	2.4	
5 or More Persons .....	3.5	35.1	15,566	1,129	1,681	7.3	4.1	

See footnotes at end of table.

**Table 59. Electricity Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Electricity (million)	Average per Household				Expenditures (cents per kWh)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(kWh)						
RSE Column Factors:	1.9	1.0	1.0	1.0	1.2	0.5			
<b>South Atlantic Division</b>	16.6	40.7	11,914	921	1,607	7.7	3.1		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	NF		
Under 5,500 HDD	11.1	38.0	11,129	836	1,639	7.5	4.3		
2,000 CDD or More and Under 4,000 HDD	5.4	46.3	13,556	1096	1,547	8.1	5.0		
<b>Type of Housing Unit</b>									
Single-Family	11.7	45.3	13,284	1027	1,907	7.7	3.9		
Mobile Home	1.1	36.2	10,603	783	894	7.4	9.6		
Multifamily (2 or more units)	3.8	27.5	8,049	632	883	7.9	6.9		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	5.9	29.4	8,603	669	825	7.8	4.3		
1,000 to 1,999	7.0	42.1	12,345	957	1,550	7.8	3.4		
2,000 or More	3.6	56.4	16,537	1266	3,010	7.7	5.5		
<b>Ownership of Unit</b>									
Owned	10.8	45.5	13,325	1028	1,935	7.7	4.2		
Rented	5.8	31.6	9,265	720	992	7.8	5.3		
<b>Year of Construction</b>									
1949 or Before	3.0	32.0	9,377	721	1,611	7.7	5.6		
1950 to 1979	8.9	43.1	12,641	971	1,663	7.7	4.6		
1980 or After <sup>2</sup>	4.6	41.5	12,164	954	1,498	7.8	5.0		
<b>1990 Family Income</b>									
Less than \$10,000	2.7	29.6	8,688	672	1,191	7.7	6.3		
\$10,000 to \$19,999	3.6	34.1	9,985	755	1,258	7.6	4.9		
\$20,000 to \$34,999	4.3	38.2	11,189	870	1,414	7.8	4.3		
\$35,000 or More	6.0	51.3	15,045	1168	2,144	7.8	5.6		
<b>Below Poverty Line</b>									
100 Percent	2.0	32.2	9,441	742	1,176	7.9	7.0		
125 Percent	3.0	33.6	9,849	761	1,211	7.7	5.0		
<b>Age of Householder</b>									
Under 35 Years	4.9	35.8	10,483	823	1,209	7.8	4.1		
35 to 59 Years	7.4	47.9	14,049	1078	1,901	7.7	4.4		
60 Years and Over	4.3	33.5	9,809	757	1,547	7.7	5.1		
<b>Household Size</b>									
1 Person	4.2	26.3	7,719	603	1,243	7.8	5.4		
2 to 4 Persons	10.9	44.6	13,086	1012	1,722	7.7	3.9		
5 or More Persons	1.5	51.8	15,189	1152	1,798	7.6	5.9		

See footnotes at end of table.

**Table 59. Electricity Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Electricity (million)	Average per Household				Expenditures (cents per kWh)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(kWh)						
RSE Column Factors:	1.9	1.0	1.0	1.0	1.2	0.5			
<b>East South Central Division ....</b>	6.4	43.1	12,624	749	1,675	5.9	3.6		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD .....	5.1	44.1	12,930	765	1,800	5.9	5.2		
2,000 CDD or More and Under 4,000 HDD .....	Q	39.0	11,421	684	1,182	6.0	41.2		
<b>Type of Housing Unit</b>									
Single-Family .....	4.7	47.0	13,779	815	2,006	5.9	4.1		
Mobile Home .....	.5	40.6	11,913	743	908	6.2	8.5		
Multifamily ( 2 or more units) ..	1.3	29.6	8,676	507	758	5.8	6.7		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	2.4	32.5	9,532	569	807	6.0	5.2		
1,000 to 1,999 .....	2.5	45.8	13,417	801	1,540	6.0	4.3		
2,000 or More .....	1.6	54.5	15,971	932	3,178	5.8	7.7		
<b>Ownership of Unit</b>									
Owned .....	4.4	46.5	13,616	806	2,000	5.9	4.3		
Rented .....	2.0	35.5	10,412	620	949	6.0	4.7		
<b>Year of Construction</b>									
1949 or Before .....	1.4	31.6	9,256	563	1,404	6.1	8.5		
1950 to 1979 .....	3.7	44.5	13,037	769	1,541	5.9	4.3		
1980 or After <sup>2</sup> .....	1.3	51.1	14,969	883	2,330	5.9	11.0		
<b>1990 Family Income</b>									
Less than \$10,000 .....	1.6	29.3	8,593	517	1,128	6.0	5.4		
\$10,000 to \$19,999 .....	1.5	41.6	12,201	720	1,331	5.9	5.6		
\$20,000 to \$34,999 .....	1.6	43.8	12,827	771	1,752	6.0	6.4		
\$35,000 or More .....	1.8	56.6	16,582	969	2,404	5.8	6.8		
<b>Below Poverty Line</b>									
100 Percent .....	1.3	31.8	9,308	551	1,143	5.9	5.0		
125 Percent .....	1.8	32.5	9,540	569	1,154	6.0	4.9		
<b>Age of Householder</b>									
Under 35 Years .....	1.7	41.8	12,240	733	1,431	6.0	4.9		
35 to 59 Years .....	2.9	49.5	14,506	852	1,874	5.9	4.8		
60 Years and Over .....	1.9	34.5	10,120	606	1,586	6.0	4.5		
<b>Household Size</b>									
1 Person .....	1.6	27.2	7,982	487	1,240	6.1	6.3		
2 to 4 Persons .....	4.3	48.2	14,113	833	1,847	5.9	4.1		
5 or More Persons .....	.5	51.1	14,981	875	1,637	5.8	7.4		

See footnotes at end of table.

**Table 59. Electricity Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Electricity (million)	Average per Household				Expenditures (cents per kWh)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(kWh)						
RSE Column Factors:	1.9	1.0	1.0	1.0	1.2	0.5			
<b>West South Central Division ..</b>	9.3	44.2	12,949	974	1,618	7.5	4.3		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD .....	1.3	34.2	10,017	744	1,694	7.4	11.2		
2,000 CDD or More and Under 4,000 HDD .....	8.0	45.8	13,419	1011	1,606	7.5	5.6		
<b>Type of Housing Unit</b>									
Single-Family .....	7.3	47.0	13,784	1033	1,825	7.5	4.4		
Mobile Home .....	3.3	34.5	10,097	781	872	7.7	25.6		
Multifamily ( 2 or more units) ..	1.6	33.3	9,773	748	839	7.7	6.1		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	2.6	29.2	8,555	674	812	7.9	6.1		
1,000 to 1,999 .....	5.2	45.0	13,188	992	1,595	7.5	3.9		
2,000 or More .....	1.5	68.3	20,023	1449	3,157	7.2	7.6		
<b>Ownership of Unit</b>									
Owned .....	6.3	48.6	14,241	1064	1,897	7.5	4.9		
Rented .....	3.0	34.9	10,222	783	1,028	7.7	5.3		
<b>Year of Construction</b>									
1949 or Before .....	1.6	34.8	10,203	791	1,410	7.8	7.9		
1950 to 1979 .....	6.2	45.7	13,407	1006	1,663	7.5	4.4		
1980 or After <sup>2</sup> .....	1.5	48.1	14,093	1042	1,659	7.4	6.7		
<b>1990 Family Income</b>									
Less than \$10,000 .....	2.1	28.2	8,271	664	1,149	8.0	7.1		
\$10,000 to \$19,999 .....	1.9	38.4	11,244	866	1,405	7.7	6.0		
\$20,000 to \$34,999 .....	2.4	41.2	12,080	916	1,530	7.6	5.1		
\$35,000 or More .....	2.9	62.2	18,234	1321	2,176	7.2	6.7		
<b>Below Poverty Line</b>									
100 Percent .....	2.2	27.7	8,116	643	1,147	7.9	7.5		
125 Percent .....	2.7	30.6	8,973	703	1,207	7.8	7.5		
<b>Age of Householder</b>									
Under 35 Years .....	2.7	39.5	11,575	869	1,301	7.5	5.1		
35 to 59 Years .....	3.7	51.9	15,204	1140	1,738	7.5	6.0		
60 Years and Over .....	2.9	38.6	11,303	856	1,753	7.6	5.1		
<b>Household Size</b>									
1 Person .....	2.0	30.4	8,896	702	1,327	7.9	6.3		
2 to 4 Persons .....	5.8	46.2	13,534	1011	1,728	7.5	4.0		
5 or More Persons .....	1.5	55.1	16,148	1198	1,581	7.4	6.2		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 60. Natural Gas Consumption and Expenditures in South Region Households, 1990**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(thousand cf)						
RSE Column Factors:	1.8	1.1	1.1	1.0	1.0	0.5	0.5		
<b>South Region</b>									
<b>Total Region</b>	15.3	67.5	65.5	387	1,745	5.9	4.8		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD	NC 7.6	NC 78.2	NC 76.0	NC 447	NC 1,921	NC 5.9	NC 7.0		
Under 5,500 HDD									
2,000 CDD or More and									
Under 4,000 HDD	7.7	56.9	55.0	328	1,570	6.0	6.6		
<b>Type of Housing Unit</b>									
Single-Family	12.4	72.7	70.5	417	1,948	5.9	4.9		
Mobile Home	.3	50.0	48.3	310	818	6.4	14.1		
Multifamily (2 or more units)	2.6	44.5	43.1	282	870	5.8	7.5		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	4.2	49.3	47.8	296	851	6.2	4.9		
1,000 to 1,999	7.5	66.0	64.1	374	1,584	5.8	4.4		
2,000 or More	3.6	91.8	88.9	521	3,119	5.9	6.3		
<b>Ownership of Unit</b>									
Owned	10.6	73.6	71.4	421	2,053	5.9	5.2		
Rented	4.6	53.6	51.9	309	1,036	5.9	5.6		
<b>Year of Construction</b>									
1949 or Before	3.8	72.3	69.9	426	1,639	6.1	5.3		
1950 to 1979	10.0	65.9	64.0	376	1,704	5.9	5.3		
1980 or After <sup>2</sup>	1.5	65.8	64.2	363	2,301	5.7	16.9		
<b>1990 Family Income</b>									
Less than \$10,000	3.2	52.3	50.6	304	1,218	6.0	7.1		
\$10,000 to \$19,999	2.8	60.6	58.8	357	1,395	6.1	6.0		
\$20,000 to \$34,999	4.1	68.3	66.1	377	1,587	5.7	5.3		
\$35,000 or More	5.2	79.8	77.6	462	2,374	5.9	5.9		
<b>Below Poverty Line</b>									
100 Percent	2.8	53.4	51.8	304	1,181	5.9	6.4		
125 Percent	3.6	54.1	52.5	309	1,236	5.9	6.3		
<b>Age of Householder</b>									
Under 35 Years	3.9	62.4	60.6	348	1,471	5.7	6.3		
35 to 59 Years	6.5	71.1	69.0	408	1,939	5.9	4.8		
60 Years and Over	4.9	66.9	64.7	391	1,706	6.0	5.7		
<b>Household Size</b>									
1 Person	3.6	52.7	51.1	318	1,503	6.2	6.4		
2 to 4 Persons	9.8	71.4	69.3	406	1,855	5.9	5.0		
5 or More Persons	1.9	74.9	72.8	418	1,633	5.7	5.2		

See footnotes at end of table.

**Table 60. Natural Gas Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(thousand cf)						
RSE Column Factors:	1.8	1.1	1.1	1.0	1.0	0.5			
<b>South Atlantic Division</b>	5.6	66.6	64.5	453	1,770	7.0	6.6		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD	4.7	73.0	70.7	486	1,833	6.9	6.0		
2,000 CDD or More and Under 4,000 HDD	.9	31.4	30.1	271	1,417	9.0	25.6		
<b>Type of Housing Unit</b>									
Single-Family	4.3	74.2	71.8	504	2,043	7.0	7.3		
Mobile Home	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units)	1.2	41.1	39.9	278	891	7.0	8.9		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.7	45.4	43.9	320	851	7.3	6.5		
1,000 to 1,999	2.3	65.4	63.2	439	1,583	6.9	7.9		
2,000 or More	1.6	92.1	89.3	621	3,071	7.0	6.9		
<b>Ownership of Unit</b>									
Owned	3.6	76.5	74.1	521	2,162	7.0	6.5		
Rented	2.0	48.5	47.0	328	1,053	7.0	8.9		
<b>Year of Construction</b>									
1949 or Before	1.6	76.0	73.6	507	1,905	6.9	7.0		
1950 to 1979	3.6	63.4	61.3	434	1,701	7.1	8.6		
1980 or After <sup>2</sup>	.4	59.9	58.5	413	1,852	7.1	19.2		
<b>1990 Family Income</b>									
Less than \$10,000	.8	50.9	49.0	338	1,326	6.9	14.6		
\$10,000 to \$19,999	1.0	54.4	52.7	368	1,327	7.4	10.7		
\$20,000 to \$34,999	1.5	66.1	63.7	440	1,459	6.9	7.5		
\$35,000 or More	2.3	77.7	75.5	529	2,910	7.0	6.8		
<b>Below Poverty Line</b>									
100 Percent	.6	47.8	46.4	304	1,209	6.6	13.3		
125 Percent	.8	48.0	46.5	316	1,226	6.8	11.3		
<b>Age of Householder</b>									
Under 35 Years	1.4	56.3	54.3	379	1,402	7.0	8.4		
35 to 59 Years	2.6	71.0	68.9	478	2,011	6.9	5.6		
60 Years and Over	1.6	69.1	66.6	479	1,716	7.2	10.7		
<b>Household Size</b>									
1 Person	1.4	50.2	48.5	357	1,489	7.4	10.2		
2 to 4 Persons	3.6	71.5	69.2	483	1,885	7.0	6.6		
5 or More Persons	.6	75.7	73.5	494	1,746	6.7	9.1		

See footnotes at end of table.

## SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 60. Natural Gas Consumption and Expenditures in South Region  
Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors	
	Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per thousand cf)			
	(million Btu)	(thousand cf)			1.0	1.0		
RSE Column Factors:	1.8	1.1	1.1	1.0	1.0	0.5		
<b>East South Central Division</b> ....	2.9	71.8	69.3	343	1,907	5.0	11.0	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	NC 1.9	NC 79.3	NC 76.6	NC 376	NC 2,276	NC 4.9	NC 14.5	
Under 5,500 HDD .....								
2,000 CDD or More and Under 4,000 HDD .....	Q 0	57.9	55.8	283	1,226	5.1	41.7	
<b>Type of Housing Unit</b>								
Single-Family .....	2.2	77.5	74.8	374	2,243	5.0	11.3	
Mobile Home .....	Q 0	Q 52.9	Q 51.3	239	Q 782	Q 4.7	NF 11.6	
<b>Multifamily (2 or more units) ...</b>	.6							
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	.9	58.0	56.1	274	862	4.9	10.0	
1,000 to 1,999 .....	1.0	67.6	65.2	337	1,595	5.2	7.9	
2,000 or More .....	Q 0	89.6	86.5	417	3,255	4.8	10.8	
<b>Ownership of Unit</b>								
Owned .....	2.0	77.2	74.6	368	2,323	4.9	11.2	
Rented .....	.9	59.4	57.4	287	967	5.0	13.4	
<b>Year of Construction</b>								
1949 or Before .....	.8	82.2	78.7	393	1,523	5.0	12.9	
1950 to 1979 .....	1.6	61.7	59.6	302	1,646	5.1	10.3	
1980 or After <sup>2</sup> .....	Q 0	88.6	86.4	399	3,378	4.6	22.3	
<b>1990 Family Income</b>								
Less than \$10,000 .....	.6	64.3	61.9	309	1,129	5.0	14.5	
\$10,000 to \$19,999 .....	.6	58.8	57.0	284	1,321	5.0	9.9	
\$20,000 to \$34,999 .....	.7	67.6	64.6	318	1,673	4.9	8.8	
\$35,000 or More .....	1.0	85.9	83.5	411	2,831	4.9	14.5	
<b>Below Poverty Line</b>								
100 Percent .....	.4	70.1	67.2	340	1,175	5.1	14.6	
125 Percent .....	.6	68.0	65.4	327	1,166	5.0	12.1	
<b>Age of Householder</b>								
Under 35 Years .....	.7	71.7	69.5	343	1,705	4.9	13.6	
35 to 59 Years .....	1.3	74.9	72.3	362	2,273	5.0	12.3	
60 Years and Over .....	.8	67.0	64.4	314	1,516	4.9	8.5	
<b>Household Size</b>								
1 Person .....	.8	58.2	56.3	275	1,450	4.9	10.7	
2 to 4 Persons .....	1.8	75.2	72.5	364	2,128	5.0	11.3	
5 or More Persons .....	.3	87.8	85.2	403	1,802	4.7	12.8	

See footnotes at end of table.

**Table 60. Natural Gas Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(thousand cf)						
RSE Column Factors:	1.8	1.1	1.1	1.0	1.0	0.5			
<b>West South Central Division ..</b>	6.7	66.4	64.7	352	1,654	5.4	5.6		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD .....	Q	101.9	101.3	395	1,658	3.9	10.4		
<b>2,000 CDD or More and Under 4,000 HDD .....</b>	5.8	60.5	58.6	344	1,653	5.9	6.8		
<b>Type of Housing Unit</b>									
Single-Family .....	5.9	69.7	67.9	370	1,767	5.4	6.0		
Mobile Home .....	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units) ...	.7	42.6	41.4	221	910	5.3	16.1		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	1.5	48.4	47.3	281	844	6.0	6.5		
1,000 to 1,999 .....	4.2	66.0	64.3	347	1,583	5.4	5.7		
2,000 or More .....	1.1	93.1	90.7	468	3,069	5.2	10.1		
<b>Ownership of Unit</b>									
Owned .....	5.0	70.0	68.1	370	1,866	5.4	6.9		
Rented .....	1.8	56.3	54.8	298	1,051	5.4	7.4		
<b>Year of Construction</b>									
1949 or Before .....	1.5	63.2	61.1	359	1,418	5.9	7.6		
1950 to 1979 .....	4.8	69.3	67.6	357	1,726	5.3	6.4		
1980 or After <sup>2</sup> .....	.5	49.1	48.0	286	1,658	6.0	15.5		
<b>1990 Family Income</b>									
Less than \$10,000 .....	1.8	48.9	47.5	287	1,200	6.0	7.4		
\$10,000 to \$19,999 .....	1.2	66.8	64.9	364	1,486	5.6	7.1		
\$20,000 to \$34,999 .....	1.9	70.2	68.6	350	1,651	5.1	8.1		
\$35,000 or More .....	1.9	79.1	77.0	407	2,201	5.3	9.4		
<b>Below Poverty Line</b>									
100 Percent .....	1.8	51.1	49.7	296	1,173	6.0	7.3		
125 Percent .....	2.2	52.7	51.2	301	1,260	5.9	7.4		
<b>Age of Householder</b>									
Under 35 Years .....	1.7	63.6	62.1	323	1,429	5.2	7.2		
35 to 59 Years .....	2.6	69.2	67.4	363	1,699	5.4	6.2		
60 Years and Over .....	2.4	65.4	63.5	359	1,766	5.7	6.5		
<b>Household Size</b>									
1 Person .....	1.4	52.1	50.7	302	1,549	6.0	8.2		
2 to 4 Persons .....	4.4	69.8	68.0	361	1,719	5.3	6.5		
5 or More Persons .....	1.0	70.9	69.0	377	1,516	5.5	5.8		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 61. Fuel Oil Consumption and Expenditures in South Region Households, 1990**

Characteristics	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
	Households Using Fuel Oil (million)	Consumption		Expenditures (dollars)				
		(million Btu)	(gallons)					
RSE Column Factors:	1.9	1.5	1.5	1.6	0.9	0.2		
<b>South Region</b>								
<b>Total Region</b>	1.7	45.0	327	362	1,703	1.11		
South Atlantic Division	1.6	45.8	333	369	1,673	1.11		
East South Central Division	Q	Q	Q	Q	Q	9.3		
West South Central Division	NC	NC	NC	NC	NC	NF		
<b>Climate Zone<sup>1</sup></b>						NC		
Under 2,000 CDD and						8.8		
Over 5,500 HDD	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD	1.7	47.1	343	378	1,710	1.10		
2,000 CDD or More and						NF		
Under 4,000 HDD	Q	Q	Q	Q	Q	NF		
<b>Type of Housing Unit</b>								
Single-Family	1.5	46.0	334	371	1,876	1.11		
Mobile Home	Q	Q	Q	Q	Q	8.7		
Multifamily (2 or more units)	Q	Q	Q	Q	Q	NF		
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	5	35.7	263	285	771	1.08		
1,000 to 1,999	.7	40.8	297	335	1,486	1.13		
2,000 or More	.5	59.0	426	467	2,840	1.09		
<b>Ownership of Unit</b>								
Owned	1.4	41.6	302	338	1,888	1.12		
Rented	.4	58.0	424	453	1,008	1.07		
<b>Year of Construction</b>								
1949 or Before	.6	60.0	437	478	1,946	1.09		
1950 to 1979	1.1	37.0	269	300	1,594	1.12		
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	10.2		
<b>1990 Family Income</b>								
Less than \$10,000	.4	34.7	252	285	1,376	1.13		
\$10,000 to \$19,999	.5	45.6	334	370	1,351	1.11		
\$20,000 to \$34,999	.4	45.1	329	365	1,660	1.11		
\$35,000 or More	.5	53.3	385	418	2,440	1.08		
<b>Below Poverty Line</b>								
100 Percent	.3	33.9	247	281	1,355	1.14		
125 Percent	.4	30.9	225	255	1,310	1.13		
<b>Age of Householder</b>								
Under 35 Years	Q	46.1	339	376	Q	21.0		
35 to 59 Years	.8	45.2	329	359	1,764	1.09		
60 Years and Over	.7	44.3	321	360	1,738	1.12		
<b>Household Size</b>								
1 Person	3	37.7	275	291	1,280	1.06		
2 to 4 Persons	1.3	46.3	337	376	1,811	1.12		
5 or More Persons	Q	Q	Q	Q	Q	NF		

See footnotes at end of table.

**Table 61. Fuel Oil Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Fuel Oil (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	1.9	1.5	1.5	1.6	0.9	0.2			
<b>South Atlantic Division</b>	1.6	45.8	333	369	1,673	1.11	9.3		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD	1.5	48.1	350	388	1,678	1.11	9.4		
2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	Q	NF		
<b>Type of Housing Unit</b>									
Single-Family	1.4	46.9	340	380	1,850	1.12	9.3		
Mobile Home	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	NF		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.5	33.8	249	269	766	1.08	13.9		
1,000 to 1,999	.7	41.2	299	339	1,476	1.13	10.6		
2,000 or More	.4	65.5	473	521	2,927	1.10	14.0		
<b>Ownership of Unit</b>									
Owned	1.2	42.0	305	343	1,861	1.13	10.3		
Rented	.4	58.9	431	460	1,018	1.07	24.6		
<b>Year of Construction</b>									
1949 or Before	.5	60.3	438	481	1,959	1.10	15.6		
1950 to 1979	1.0	37.9	276	309	1,540	1.12	10.9		
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	NF		
<b>1990 Family Income</b>									
Less than \$10,000	.3	38.9	282	320	1,139	1.14	10.2		
\$10,000 to \$19,999	.5	44.5	325	362	1,360	1.11	11.0		
\$20,000 to \$34,999	.4	45.1	329	365	1,660	1.11	15.2		
\$35,000 or More	.4	52.4	379	413	2,391	1.09	17.7		
<b>Below Poverty Line</b>									
100 Percent	Q	Q	Q	Q	Q	Q	NF		
125 Percent	.3	33.1	242	276	1,049	1.14	19.4		
<b>Age of Householder</b>									
Under 35 Years	Q	46.9	345	383	Q	1.11	23.3		
35 to 59 Years	.8	45.8	333	365	1,713	1.09	13.0		
60 Years and Over	.6	45.2	328	369	1,714	1.13	9.0		
<b>Household Size</b>									
1 Person	.3	34.6	253	267	1,299	1.06	20.3		
2 to 4 Persons	1.2	48.2	350	392	1,777	1.12	13.0		
5 or More Persons	Q	Q	Q	Q	Q	Q	NF		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East, South Central and West South Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 62. Kerosene Consumption and Expenditures in South Region Households, 1990**

Characteristics	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors
	Households Using Kerosene (million)	Consumption (million Btu)	Expenditures (dollars)	Floor-space (square feet)		
RSE Column Factors:	1.3	1.8	1.8	1.8	0.5	0.2
<b>South Region</b>						
<b>Total Region</b>	2.5	13.7	101	127	1,384	1.25
South Atlantic Division	1.8	14.3	106	134	1,396	1.27
East South Central Division	.6	13.6	101	121	1,347	1.20
West South Central Division	Q	Q	Q	Q	Q	Q
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and						
Under 5,500 HDD	Q	NC	NC	NC	NC	NF
Under 5,500 HDD	2.3	13.2	97	121	1,411	1.24
2,000 CDD or More and	Q	Q	Q	Q	Q	NF
Under 4,000 HDD	Q	Q	Q	Q	Q	Q
<b>Type of Housing Unit</b>						
Single-Family	2.0	12.8	95	118	1,493	1.24
Mobile Home	.5	19.0	141	182	833	1.29
Multifamily (2 or more units)	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	1.0	21.0	156	204	874	1.31
1,000 to 1,999	1.1	9.7	72	83	1,448	1.15
2,000 or More	3	Q	Q	Q	2,765	1.18
<b>Ownership of Unit</b>						
Owned	1.8	11.8	88	107	1,516	1.22
Rented	.7	18.9	140	184	1,012	1.32
<b>Year of Construction</b>						
1949 or Before	.7	21.1	156	201	1,279	1.28
1950 to 1979	1.4	11.9	88	110	1,436	1.25
1980 or After <sup>2</sup>	4	Q	Q	Q	1,389	1.14
<b>1990 Family Income</b>						
Less than \$10,000	.6	12.6	93	127	996	1.37
\$10,000 to \$19,999	.6	17.3	128	156	1,120	1.22
\$20,000 to \$34,999	.8	15.7	117	145	1,339	1.25
\$35,000 or More	5	7.8	58	67	2,167	1.16
<b>Below Poverty Line</b>						
100 Percent	5	15.6	115	152	1,021	1.32
125 Percent	.7	15.6	116	151	1,050	1.31
<b>Age of Householder</b>						
Under 35 Years	.9	10.8	80	103	1,074	1.29
35 to 59 Years	1.1	17.6	131	164	1,630	1.25
60 Years and Over	.5	9.4	70	84	1,352	1.20
<b>Household Size</b>						
1 Person	.5	10.3	76	106	1,178	1.39
2 to 4 Persons	1.6	13.3	98	119	1,427	1.21
5 or More Persons	.4	9.7	146	189	1,471	1.30

See footnotes at end of table.

**Table 62. Kerosene Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using Kerosene (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	1.3	1.8	1.8	1.8	0.5	0.2			
<b>South Atlantic Division</b>	1.8	14.3	106	134	1,396	1.27	9.8		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	Q	NC	NC	NC	Q	NC	NF		
Under 5,500 HDD	1.7	13.1	97	122	1,425	1.25	9.5		
2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	Q	NF		
<b>Type of Housing Unit</b>									
Single-Family	1.5	14.1	104	131	1,504	1.26	8.8		
Mobile Home	.3	17.9	132	175	730	1.33	25.7		
Multifamily (2 or more units) ...	Q	Q	Q	Q	Q	Q	NF		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.8	21.3	158	209	889	1.32	16.2		
1,000 to 1,999	.8	10.6	79	92	1,418	1.17	14.9		
2,000 or More	.3	Q	Q	Q	2,764	1.20	12.9		
<b>Ownership of Unit</b>									
Owned	1.3	12.0	89	109	1,575	1.23	10.8		
Rented	.6	19.4	144	192	990	1.33	15.5		
<b>Year of Construction</b>									
1949 or Before	.5	23.2	172	227	1,206	1.32	16.2		
1950 to 1979	1.0	12.2	90	112	1,491	1.24	17.6		
1980 or After <sup>2</sup>	.3	Q	Q	Q	1,397	1.17	18.9		
<b>1990 Family Income</b>									
Less than \$10,000	.5	Q	Q	Q	991	1.39	27.0		
\$10,000 to \$19,999	.4	19.2	143	174	1,138	1.22	13.9		
\$20,000 to \$34,999	.5	15.1	112	145	1,288	1.29	19.3		
\$35,000 or More	.4	8.6	64	72	2,246	1.13	17.1		
<b>Below Poverty Line</b>									
100 Percent	.4	17.4	129	170	1,021	1.33	19.8		
125 Percent	.5	18.1	134	176	1,060	1.32	24.2		
<b>Age of Householder</b>									
Under 35 Years	.5	12.0	89	116	993	1.31	18.3		
35 to 59 Years	.9	18.5	137	172	1,695	1.26	14.0		
60 Years and Over	.4	7.4	55	68	1,235	1.24	17.2		
<b>Household Size</b>									
1 Person	.4	9.9	74	104	1,275	1.41	24.6		
2 to 4 Persons	1.2	13.4	99	121	1,416	1.22	9.6		
5 or More Persons	.2	25.6	190	249	1,485	1.31	22.3		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the East South Central and West South Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix E).

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 63. Liquefied Petroleum Gas Consumption and Expenditures in South Region Households, 1990**

Characteristics	Average per Household					Expenditures (dollars per gallon)	RSE Row Fac- tors		
	Households Using LPG (million)	Consumption		Expenditures (dollars)	Heated Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	2.1	1.2	1.2	1.2	1.2	0.6	0.5		
<b>South Region</b>									
<b>Total Region</b>	3.5	28.0	306	341	1,451	1.11	7.8		
South Atlantic Division	2.0	24.9	273	331	1,439	1.21	12.3		
East South Central Division	.9	33.0	361	395	1,399	1.09	10.4		
West South Central Division	.7	30.6	335	303	1,552	.91	23.5		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD	2.3	31.6	346	385	1,441	1.11	10.2		
2,000 CDD or More and									
Under 4,000 HDD	1.2	21.4	234	260	1,469	1.11	13.3		
<b>Type of Housing Unit</b>									
Single-Family	2.5	30.2	331	360	1,647	1.09	8.6		
Mobile Home	.9	21.8	238	284	899	1.19	11.7		
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	NF		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.5	21.6	237	278	853	1.18	8.6		
1,000 to 1,999	1.5	32.5	356	392	1,418	1.10	8.6		
2,000 or More	5	32.4	355	367	3,226	1.03	16.5		
<b>Ownership of Unit</b>									
Owned	2.7	29.9	327	363	1,589	1.11	8.2		
Rented	.8	21.2	232	263	953	1.13	15.1		
<b>Year of Construction</b>									
1949 or Before	.8	35.5	388	459	1,283	1.18	12.2		
1950 to 1979	1.8	24.1	264	299	1,451	1.14	11.1		
1980 or After <sup>2</sup>	.9	29.2	320	319	1,606	1.00	15.4		
<b>1990 Family Income</b>									
Less than \$10,000	1.2	25.6	280	322	1,084	1.15	10.4		
\$10,000 to \$19,999	.9	31.8	348	384	1,338	1.10	9.9		
\$20,000 to \$34,999	.6	24.0	263	290	1,552	1.10	17.9		
\$35,000 or More	.8	30.2	331	359	2,068	1.09	17.5		
<b>Below Poverty Line</b>									
100 Percent	1.1	27.3	299	329	1,026	1.10	9.1		
125 Percent	1.4	26.5	290	324	1,094	1.12	9.0		
<b>Age of Householder</b>									
Under 35 Years	.9	24.9	272	303	1,180	1.11	10.7		
35 to 59 Years	1.3	28.8	315	340	1,581	1.08	12.8		
60 Years and Over	1.2	29.4	322	370	1,510	1.15	11.8		
<b>Household Size</b>									
1 Person	.8	24.2	265	294	1,027	1.11	12.1		
2 to 4 Persons	2.2	28.8	316	352	1,667	1.11	9.7		
5 or More Persons	.5	30.5	334	371	1,232	1.11	15.8		

See footnotes at end of table.

# ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 63. Liquefied Petroleum Gas Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using LPG (million)	Consumption			Average per Household			RSE Row Factors
		(million Btu)	(gallons)	Expenditures (dollars)	Floorspace (square feet)	Expenditures (dollars per gallon)		
RSE Column Factors:	2.1	1.2	1.2	1.2	0.6	0.5		
South Atlantic Division .....	2.0	24.9	273	331	1,439	1.21	12.3	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	NC	28.6	313	NC	NC	1,418	1.23	NC
Under 5,500 HDD .....	1.1							18.4
2,000 CDD or More and Under 4,000 HDD .....	.8	19.7	216	254	1,470	1.18	15.8	
<b>Type of Housing Unit</b>								
Single-Family .....	1.2	26.6	291	346	1,720	1.19	14.9	
Mobile Home .....	.6	21.9	240	299	937	1.25	16.3	
Multifamily (2 or more units) .....	Q	Q	Q	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	.9	17.7	193	246	831	1.27	15.1	
1,000 to 1,999 .....	.8	31.4	344	410	1,387	1.19	13.6	
2,000 or More .....	.3	30.4	332	385	3,480	1.16	27.1	
<b>Ownership of Unit</b>								
Owned .....	1.4	27.1	297	360	1,634	1.21	12.2	
Rented .....	.5	19.2	210	252	924	1.20	22.5	
<b>Year of Construction</b>								
1949 or Before .....	.6	32.5	356	436	1,285	1.22	17.0	
1950 to 1979 .....	1.0	20.2	221	270	1,555	1.22	22.1	
1980 or After <sup>2</sup> .....	.4	26.7	292	342	1,353	1.17	20.5	
<b>1990 Family Income</b>								
Less than \$10,000 .....	.7	22.7	248	316	1,083	1.27	17.2	
\$10,000 to \$19,999 .....	.4	30.6	335	403	1,140	1.20	13.0	
\$20,000 to \$34,999 .....	.4	19.8	217	228	1,718	1.05	29.8	
\$35,000 or More .....	.4	27.1	297	365	2,098	1.23	29.8	
<b>Below Poverty Line</b>								
100 Percent .....	.6	23.7	260	312	1,006	1.20	16.5	
125 Percent .....	.7	24.3	266	323	1,058	1.21	15.0	
<b>Age of Householder</b>								
Under 35 Years .....	.6	23.5	257	308	1,135	1.20	16.5	
35 to 59 Years .....	.7	26.3	288	348	1,593	1.21	20.2	
60 Years and Over .....	.7	24.8	271	332	1,533	1.22	18.7	
<b>Household Size</b>								
1 Person .....	.5	19.7	215	276	1,012	1.28	21.3	
2 to 4 Persons .....	1.3	25.2	275	330	1,647	1.20	14.7	
5 or More Persons .....	Q	34.4	377	447	1,117	1.19	37.3	

See footnotes at end of table.

**Table 63. Liquefied Petroleum Gas Consumption and Expenditures in South Region Households, 1990 (Continued)**

Characteristics	Households Using LPG (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	2.1	1.2	1.2	1.2	0.6	0.5			
<b>East South Central Division ....</b>	0.9	33.0	361	395	1,399	1.09	10.4		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC		
Under 5,500 HDD .....	.9	33.0	361	395	1,399	1.09	10.4		
2,000 CDD or More and Under 4,000 HDD .....	NC	NC	NC	NC	NC	NC	NC		
<b>Type of Housing Unit</b>									
Single-Family .....	.7	34.2	374	415	1,517	1.11	13.2		
Mobile Home .....	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units) ...	NC	NC	NC	NC	NC	NC	NC		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	.3	31.9	350	381	878	1.09	12.4		
1,000 to 1,999 .....	.4	36.5	400	437	1,351	1.09	16.8		
2,000 or More .....	.2	26.8	294	323	2,717	1.10	18.2		
<b>Ownership of Unit</b>									
Owned .....	.8	33.0	361	398	1,463	1.10	11.5		
Rented .....	Q	Q	Q	Q	Q	Q	NF		
<b>Year of Construction</b>									
1949 or Before .....	.2	40.5	443	506	1,294	1.14	23.7		
1950 to 1979 .....	.5	31.8	349	375	1,341	1.08	15.0		
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	NF		
<b>1990 Family Income</b>									
Less than \$10,000 .....	.3	30.7	337	335	1,117	.99	17.7		
\$10,000 to \$19,999 .....	.2	41.0	449	505	1,528	1.13	22.0		
\$20,000 to \$34,999 .....	.2	28.3	310	388	1,280	1.25	22.7		
\$35,000 or More .....	Q	Q	Q	Q	Q	Q	NF		
<b>Below Poverty Line</b>									
100 Percent .....	.3	34.5	377	379	983	1.00	13.9		
125 Percent .....	.4	30.7	337	346	1,138	1.03	16.6		
<b>Age of Householder</b>									
Under 35 Years .....	Q	Q	Q	Q	Q	Q	NF		
35 to 59 Years .....	.4	27.2	297	329	1,423	1.11	11.0		
60 Years and Over .....	.4	37.8	414	462	1,457	1.11	21.1		
<b>Household Size</b>									
1 Person .....	.2	29.7	325	319	1,060	.98	22.4		
2 to 4 Persons .....	.5	34.6	379	432	1,642	1.14	10.9		
5 or More Persons .....	Q	Q	Q	Q	Q	Q	NF		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the West South Central Division are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

# ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 64. Wood Consumption in South Region Households, December 1989 Through November 1990**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel		
	Consumption		Households (million)	Consumption		Average per Household
	Total	Average per Household		Total	(million cords)	
RSE Column Factors:	0.9	1.1	1.1	0.8	0.8	0.7
<b>South Region</b>						
<b>Total Region</b>	7.8	8.5	21.8	1.1	.07	3.6
South Atlantic Div	.08	3.9	19.8	.5	.03	1.4
East South Central Div	.06	2.8	31.0	.6	.04	1.9
West South Central Div	.04	1.8	17.5	.9	Q	Q
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	NC	NC
Under 5,500 HDD	.13	6.6	25.4	1.3	.06	3.0
2,000 CDD or More and Under 4,000 HDD	5.2	3.4	21.7	.7	Q	Q
<b>Type of Housing Unit</b>						
Single-Family	.16	8.1	23.0	1.2	.07	3.4
Mobile Home	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units)	Q	Q	6.5	.3	NC	NC
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	.8	.02	1.2	28.7	.3	.02
1,000 to 1,999	3.8	.08	3.9	20.4	.6	.03
2,000 or More	3.1	.07	3.4	1.0	1.1	1.1
<b>Ownership of Unit</b>						
Owned	7.0	.15	7.7	21.9	1.1	1.0
Rented	Q	.02	.8	21.3	Q	Q
<b>Year of Construction</b>						
1949 or Before	.6	.02	1.2	38.8	.9	.01
1950 to 1979	4.6	.10	5.2	22.6	.1	.04
1980 or After <sup>2</sup>	2.6	.04	2.1	16.3	.8	.01
<b>1990 Family Income</b>						
Less than \$10,000	.8	.03	1.5	39.3	.3	.02
\$10,000 to \$19,999	1.3	.04	2.0	31.8	.2	.01
\$20,000 to \$34,999	1.3	.03	1.5	22.8	.3	.02
\$35,000 or More	4.4	.07	3.4	15.6	.8	.02
<b>Below Poverty Line</b>						
100 Percent	.7	.03	1.5	41.5	2.1	.3
125 Percent	1.1	.04	2.2	39.4	2.0	.4
<b>Age of Householder</b>						
Under 35 Years	1.4	.03	1.4	20.3	1.0	.01
35 to 59 Years	4.8	.08	4.1	17.2	.9	.03
60 Years and Over	1.6	.06	2.9	36.8	.8	.03
<b>Household Size</b>						
1 Person	1.2	.02	.8	13.7	.7	Q
2 to 4 Persons	6.6	.13	6.5	23.2	1.2	.05
5 or More Persons	1.0	.02	1.2	23.7	1.2	.01

See footnotes at end of table.

# SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 64. Wood Consumption in South Region Households, December 1989 Through November 1990 (Continued)**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel								
	Consumption		Average per Household	Consumption		Average per Household						
	Total	Households (mil-lions)		(quad-billion Btu)	(million cords)							
RSE Column Factors:	0.9	1.1	1.1	0.8	0.8	1.5	1.5	1.5	0.7	0.7	0.7	RSE Row Factors
<b>Main Heating Fuel</b>												
Natural Gas .....	2.5	0.03	1.6	12.9	0.6	--	--	--	--	--	--	17.9
Electricity .....	3.0	.04	2.0	13.1	.7	--	--	--	--	--	--	22.3
Fuel Oil or Kerosene .....	.6	.02	.8	25.8	1.3	--	--	--	--	--	--	30.7
Wood .....	1.2	.07	3.6	58.9	2.9	1.2	0.07	3.6	2.9	2.9	11.7	13.7
Heating Stove .....	1.0	.06	2.9	59.9	3.0	1.0	.06	2.9	59.9	Q	Q	NF
Fireplace .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Furnace/Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
LPG .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Other .....	Q	Q	Q	Q	Q	Q	--	--	--	--	--	NF
<b>Secondary Heating Equipment Used .....</b>	7.5	.15	7.7	20.5	1.0	1.0	.06	3.0	56.9	2.8	10.9	
<b>Amount of Wood Burned In Past 12 Months</b>												
Less than one-half Cord .....	3.4	.01	.6	3.5	.2	NC	NC	NC	NC	NC	11.0	11.0
One-half to Less than 1 .....	1.4	.02	.8	11.5	.6	Q	Q	Q	Q	Q	8.0	8.0
1 to Less than 2 .....	1.2	.03	1.3	22.5	1.1	Q	Q	Q	Q	Q	9.4	9.4
2 to 4 Cords .....	1.5	.08	4.1	55.4	2.8	.7	.04	2.0	61.5	3.1	9.5	9.5
More than 4 Cords .....	.3	.03	1.6	110.7	5.5	.2	.02	1.1	119.2	6.0	21.8	21.8
<b>Hours Wood Burned in Winter</b>												
Less than 1 Hour per week .....	2.0	.01	.5	5.0	.3	NC	NC	NC	NC	NC	21.4	21.4
Less than 1 Hour per day .....	1.8	.02	1.1	11.5	.6	NC	NC	NC	NC	NC	20.7	20.7
1 to 4 Hours per day .....	1.7	.03	5	17.3	.9	Q	Q	Q	Q	Q	19.0	19.0
More than 4 Hours per day .....	.9	.03	1.7	37.1	1.9	Q	Q	Q	Q	Q	18.3	18.3
Almost Continuously .....	1.3	.07	3.7	56.3	2.8	.9	.06	2.9	61.4	3.1	11.3	11.3
<b>Purchased Firewood</b>												
Yes .....	2.8	.07	3.3	23.3	1.2	.3	.02	.9	66.6	3.3	14.7	14.7
No .....	4.9	.10	5.0	20.7	1.0	.9	.05	2.5	54.6	2.7	13.3	13.3

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: \* Data in the South Atlantic, East South Central and West South Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, and C of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 65. Average Expenditures for Major Energy Sources in South Region Households, 1990**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources		Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	RSE Column Factors:	1.2	0.6	1.0	0.6	1.1	2.0	
Total Region .....	14.3	21.4		5.7	8.0	9.3	12.2	2.4
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	Q	20.5	NC	8.0	9.2	NC	12.2	NF
Under 5,500 HDD .....	13.2		5.7					3.7
2,000 CDD or More and Under 4,000 HDD .....	15.7	22.3	5.8	Q	Q	12.1		3.9
<b>Type of Housing Unit</b>								
Single-Family .....	14.0	21.4	5.7	8.1	9.2	11.9	2.6	
Mobile Home .....	16.4	20.8	6.2	Q	9.5	13.0	4.7	
Multifamily (2 or more units) .....	15.7	21.7	5.7	Q	Q	Q		3.8
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	15.0	21.6	6.0	8.0	9.7	12.9	2.7	
1,000 to 1,999 .....	14.3	21.6	5.7	8.2	8.5	12.1	2.9	
2,000 or More .....	13.6	20.9	5.7	7.9	8.8	11.3		3.9
<b>Ownership of Unit</b>								
Owned .....	14.1	21.3	5.7	8.1	9.0	12.2	2.7	
Rented .....	14.7	21.6	5.8	7.8	9.8	12.4	3.2	
<b>Year of Construction</b>								
1949 or Before .....	12.1	21.6	5.9	8.0	9.5	12.9	2.9	
1950 to 1979 .....	14.1	21.3	5.7	8.1	9.3	12.4	2.4	
1980 or After <sup>3</sup> .....	17.5	21.5	5.5	Q	8.4	10.9		5.5
<b>1990 Family Income</b>								
Less than \$10,000 .....	13.8	21.6	5.8	8.2	10.1	12.6	3.7	
\$10,000 to \$19,999 .....	14.5	21.2	5.9	8.1	9.1	12.1	2.7	
\$20,000 to \$34,999 .....	14.0	21.5	5.5	8.1	9.2	12.1	3.8	
\$35,000 or More .....	14.6	21.3	5.8	7.8	8.6	11.9		3.5
<b>Below Poverty Line</b>								
100 Percent .....	13.7	21.7	5.7	8.3	9.7	12.0	4.1	
125 Percent .....	14.0	21.5	5.7	8.3	9.7	12.2	3.5	
<b>Age of Householder</b>								
Under 35 Years .....	14.7	21.6	5.6	8.2	9.5	12.2	3.8	
35 to 59 Years .....	14.7	21.3	5.7	7.9	9.3	11.8	3.1	
60 Years and Over .....	13.3	21.4	5.8	8.1	8.9	12.6	2.7	
<b>Household Size</b>								
1 Person .....	14.2	21.9	6.0	7.7	10.3	12.2	3.6	
2 to 4 Persons .....	14.3	21.3	5.7	8.1	8.9	12.2	2.3	
5 or More Persons .....	14.1	21.3	5.6	Q	9.6	12.1	3.5	

See footnotes at end of table.

# SOUTH

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 65. Average Expenditures for Major Energy Sources in South Region Households, 1990 (Continued)**

(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors	
							1.2	0.6
<b>South Atlantic Division</b>	16.1	22.6	6.8	8.1	9.4	13.3	2.6	
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	Q	22.0	NC 6.7	NC 8.1	NC 9.3	NC 13.4	NF	3.0
Over 5,500 HDD	14.3							
2,000 CDD or More and Under 4,000 HDD	21.5	23.7	8.6	Q	Q	12.9	6.3	
<b>Type of Housing Unit</b>								
Single-Family	15.8	22.7	6.8	8.1	9.3	13.0	3.1	
Mobile Home	17.2	21.6	Q	Q	9.8	13.6	5.7	
Multifamily (2 or more units)	17.4	23.0	6.8	Q	Q	Q	2.5	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	16.7	22.8	7.0	8.0	9.8	13.9	3.3	
1,000 to 1,999	16.5	22.7	6.7	8.2	8.7	13.0	3.5	
2,000 or More	15.2	22.4	6.7	8.0	8.9	12.7	3.8	
<b>Ownership of Unit</b>								
Owned	16.1	22.6	6.8	8.2	9.1	13.3	2.8	
Rented	16.2	22.8	6.8	7.8	9.9	13.1	4.0	
<b>Year of Construction</b>								
1949 or Before	12.9	22.5	6.7	8.0	9.8	13.4	3.3	
1950 to 1979	15.9	22.5	6.9	8.1	9.2	13.4	3.3	
1980 or After <sup>3</sup>	20.5	23.0	6.9	Q	8.7	12.8	3.8	
<b>1990 Family Income</b>								
Less than \$10,000	15.9	22.7	6.6	8.2	10.3	13.9	4.9	
\$10,000 to \$19,999	16.0	22.2	7.1	8.1	9.1	13.2	3.3	
\$20,000 to \$34,999	16.0	22.8	6.7	8.1	9.6	11.5	4.6	
\$35,000 or More	16.3	22.8	6.8	7.9	8.3	13.5	3.7	
<b>Below Poverty Line</b>								
100 Percent	16.4	23.0	6.4	Q	9.8	13.1	4.4	
125 Percent	16.6	22.6	6.6	8.3	9.7	13.3	3.9	
<b>Age of Householder</b>								
Under 35 Years	17.0	23.0	6.7	8.2	9.7	13.1	4.6	
35 to 59 Years	16.3	22.5	6.7	8.0	9.3	13.2	3.3	
60 Years and Over	14.9	22.6	6.9	8.2	9.2	13.4	3.4	
<b>Household Size</b>								
1 Person	16.0	22.9	7.1	7.7	10.4	14.1	5.2	
2 to 4 Persons	16.3	22.7	6.8	8.1	9.1	13.1	2.4	
5 or More Persons	15.5	22.2	6.5	Q	9.7	13.0	5.0	

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

SOUTH

**Table 65. Average Expenditures for Major Energy Sources in South Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	1.2	0.6	1.0	0.6	1.1	2.0	
East South Central Division.....	11.9	17.4	4.8	Q	8.9	12.0	3.1
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD .....	12.2	17.3	4.7	Q	8.9	12.0	4.3
2,000 CDD or More and							
Under 4,000 HDD .....	10.7	17.6	4.9	NC	NC	NC	39.8
<b>Type of Housing Unit</b>							
Single-Family .....	11.8	17.3	4.8	Q	8.7	12.1	3.4
Mobile Home .....	15.0	18.3	4.5	NC	Q	Q	5.6
Multifamily (2 or more units).....	11.2	17.1	4.5	NC	NC	NC	6.3
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	12.1	17.5	4.7	Q	9.4	11.9	3.1
1,000 to 1,999 .....	12.6	17.5	5.0	Q	8.0	12.0	4.3
2,000 or More .....	10.9	17.1	4.6	Q	Q	12.0	5.3
<b>Ownership of Unit</b>							
Owned .....	11.8	17.3	4.8	Q	8.8	12.1	3.7
Rented .....	12.0	17.5	4.8	Q	Q	Q	3.8
<b>Year of Construction</b>							
1949 or Before .....	10.1	17.8	4.8	Q	8.3	12.5	6.2
1950 to 1979 .....	12.5	17.3	4.9	Q	9.5	11.8	2.6
1980 or After <sup>3</sup> .....	12.2	17.3	4.5	NC	Q	Q	9.7
<b>1990 Family Income</b>							
Less than \$10,000 .....	11.7	17.6	4.8	Q	Q	10.9	4.1
\$10,000 to \$19,999 .....	12.7	17.3	4.8	Q	Q	12.3	2.7
\$20,000 to \$34,999 .....	12.2	17.6	4.7	NC	8.6	13.7	3.6
\$35,000 or More .....	11.3	17.1	4.8	Q	Q	Q	5.5
<b>Below Poverty Line</b>							
100 Percent .....	11.8	17.3	4.9	Q	Q	11.0	4.3
125 Percent .....	12.0	17.5	4.8	Q	Q	11.2	3.9
<b>Age of Householder</b>							
Under 35 Years .....	11.9	17.6	4.8	Q	9.1	Q	2.9
35 to 59 Years .....	12.0	17.2	4.8	Q	9.0	12.1	3.7
60 Years and Over .....	11.5	17.6	4.7	Q	Q	12.2	2.9
<b>Household Size</b>							
1 Person .....	11.1	17.9	4.7	Q	Q	10.8	3.1
2 to 4 Persons .....	12.2	17.3	4.8	Q	8.6	12.5	3.5
5 or More Persons .....	11.1	17.1	4.6	Q	Q	Q	4.2

See footnotes at end of table.

## SOUTH

**Table 65. Average Expenditures for Major Energy Sources in South Region Households, 1990 (Continued)**

(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	1.2	0.6	1.0	0.6	1.1	2.0	
West South Central Division ..	13.2	22.0	5.3	NC	Q	9.9	4.5
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD .....	9.4	21.8	3.9	NC	Q	Q	21.3
2,000 CDD or More and							
Under 4,000 HDD .....	14.0	22.1	5.7	NC	Q	11.0	6.2
<b>Type of Housing Unit</b>							
Single-Family .....	12.8	22.0	5.3	NC	Q	9.8	4.4
Mobile Home .....	15.7	22.7	Q	NC	Q	Q	22.4
Multifamily (2 or more units) ..	16.2	22.4	5.2	NC	NC	NC	9.0
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	14.6	23.1	5.8	NC	Q	Q	6.6
1,000 to 1,999 .....	12.9	22.1	5.3	NC	Q	10.2	6.1
2,000 or More .....	13.0	21.2	5.0	NC	NC	Q	6.3
<b>Ownership of Unit</b>							
Owned .....	13.0	21.9	5.3	NC	NC	Q	9.8
Rented .....	14.1	22.4	5.3	NC	NC	Q	5.0
<b>Year of Construction</b>							
1949 or Before .....	12.2	22.7	5.7	NC	Q	Q	2.7
1950 to 1979 .....	12.9	22.0	5.1	NC	Q	Q	4.2
1980 or After <sup>3</sup> .....	16.5	21.7	5.8	NC	NC	Q	5.6
<b>1990 Family Income</b>							
Less than \$10,000 .....	12.9	23.5	5.9	NC	NC	Q	6.6
\$10,000 to \$19,999 .....	13.5	22.6	5.5	NC	NC	Q	4.6
\$20,000 to \$34,999 .....	12.4	22.2	5.0	NC	NC	Q	5.7
\$35,000 or More .....	13.8	21.2	5.1	NC	NC	Q	4.7
<b>Below Poverty Line</b>							
100 Percent .....	12.6	23.2	5.8	NC	NC	Q	7.0
125 Percent .....	12.9	23.0	5.7	NC	NC	Q	6.9
<b>Age of Householder</b>							
Under 35 Years .....	13.3	22.0	5.1	NC	Q	Q	5.1
35 to 59 Years .....	13.8	22.0	5.2	NC	Q	Q	4.7
60 Years and Over .....	12.4	22.2	5.5	NC	Q	Q	4.1
<b>Household Size</b>							
1 Person .....	13.7	23.1	5.8	NC	NC	Q	4.6
2 to 4 Persons .....	12.9	21.9	5.2	NC	Q	Q	6.5
5 or More Persons .....	14.0	21.7	5.3	NC	NC	Q	4.7

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

# ENERGY END USE

SOUTH

**Table 66. Total Consumption and Expenditures by End Uses  
in South Region Households, 1990**

Characteristics	Space Heating	Air Conditioning	Water Heating	Refrigerator	Appliances		RSE Column Factors:
	Con-sump-tion (tri-lion Btu)	Expend-itutes (billion dollars)					
NF	NF	NF	NF	NF	NF	NF	NF
<b>South Region</b>							
Total Region .....	974.8	8.12	343.1	7.41	449.5	5.10	208.5
Climate Zone <sup>1</sup>							
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD .....	654.9	5.48	118.2	2.39	257.3	3.03	102.9
2,000 CDD or More and Under 4,000 HDD .....	319.4	2.62	224.8	5.02	191.8	2.06	105.5
Type of Housing Unit							
Single-Family .....	844.1	6.78	271.3	5.88	355.6	3.85	168.2
Mobile Home .....	45.1	.51	14.7	.32	18.2	.32	8.2
Multifamily (2 or more units) .....	85.6	.83	57.1	1.21	75.6	.92	32.1
Heated Floor Space (square feet)							
Fewer than 1,000 .....	215.5	1.97	78.0	1.86	118.7	1.58	55.9
1,000 to 1,999 .....	454.9	3.76	162.4	3.56	215.6	2.32	96.7
2,000 or More .....	304.4	2.39	102.7	2.19	115.2	1.21	55.9
Ownership of Unit							
Owned .....	751.7	6.15	249.3	6.38	310.7	3.46	152.4
Rented .....	223.1	1.97	93.8	2.02	138.8	1.64	56.2
Year of Construction							
1949 or Before .....	280.2	2.06	36.2	.80	87.4	.91	38.4
1950 to 1979 .....	573.4	4.67	220.1	4.69	282.7	3.02	127.8
1980 or After <sup>2</sup> .....	121.2	1.38	86.7	1.91	79.3	1.17	42.4
1990 Family Income							
Less than \$10,000 .....	168.5	1.40	35.2	.78	72.0	.82	36.3
\$10,000 to \$19,999 .....	194.2	1.70	57.1	1.22	86.9	1.12	40.2
\$20,000 to \$34,999 .....	252.8	1.98	85.0	1.85	116.0	1.28	50.8
\$35,000 or More .....	359.2	3.03	165.8	3.55	174.5	1.87	81.3
Below Poverty Line							
100 Percent .....	145.4	1.21	29.2	.64	72.4	.81	30.5
125 Percent .....	193.3	1.62	42.9	.95	95.5	1.13	41.8
Age of Householder							
Under 35 Years .....	217.2	1.83	92.0	2.02	128.6	1.48	48.5
35 to 59 Years .....	427.6	3.69	177.3	3.81	222.9	2.54	99.3
60 Years and Over .....	330.1	2.60	73.8	1.58	98.0	1.08	60.8
Household Size							
1 Person .....	198.2	1.68	55.8	1.20	62.2	.75	44.4
2 to 4 Persons .....	664.5	5.53	243.8	5.27	309.5	3.55	140.0
5 or More Persons .....	112.1	.90	43.5	.94	77.7	.80	24.1

See footnotes at end of table.

**Table 66. Total Consumption and Expenditures by End Uses  
in South Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE: Row Factors
	Con- sump- tion (tril- lion Btu)	Expend- itures (billion dollars)									
	NF	NF									
<b>South Atlantic Division .....</b>	443.1	4.31	157.6	3.63	198.3	2.86	99.4	2.27	296.1	6.19	4.8
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	Q 402.0	Q 3.68	Q 71.4	Q 1.57	Q 155.0	Q 2.06	Q 62.4	Q 1.38	Q 205.9	Q 4.15	NF 6.8
Under 5,500 HDD .....											
2,000 CDD or More and Under 4,000 HDD .....	40.5	.61	86.1	2.05	43.1	.80	36.9	.89	89.7	2.03	9.5
<b>Type of Housing Unit</b>											
Single-Family .....	374.6	3.51	121.3	2.82	150.6	2.14	77.9	1.78	242.1	5.07	6.7
Mobile Home .....	27.6	.33	8.1	.18	9.3	.19	4.4	.10	17.1	.35	29.9
Multifamily (2 or more units) .....	40.8	.47	28.1	.62	38.5	.54	17.1	.40	36.9	.78	18.8
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	104.3	1.08	40.4	.92	57.4	.90	28.7	.67	70.0	1.47	9.7
1,000 to 1,999 .....	185.2	1.86	67.4	1.57	83.3	1.22	42.1	.96	130.9	2.76	9.2
2,000 or More .....	153.6	1.37	49.8	1.14	57.7	.74	28.7	.64	95.2	1.97	14.7
<b>Ownership of Unit</b>											
Owned .....	336.7	3.24	111.2	2.58	131.8	1.94	71.6	1.63	223.1	4.68	6.3
Rented .....	106.4	1.07	46.3	1.05	66.6	.92	27.9	.64	73.0	1.51	11.5
<b>Year of Construction</b>											
1949 or Before .....	146.3	1.17	15.6	.36	42.3	.54	18.1	.41	55.0	1.09	14.5
1950 to 1979 .....	246.3	2.95	92.1	2.09	116.9	1.59	57.6	1.31	172.2	3.58	6.5
1980 or After <sup>2</sup> .....	50.4	.79	49.9	1.18	39.2	.74	23.7	.55	69.0	1.52	16.1
<b>1990 Family Income</b>											
Less than \$10,000 .....	67.0	.68	13.8	.32	24.4	.39	14.2	.33	34.2	.73	17.1
\$10,000 to \$19,999 .....	90.3	.90	23.5	.54	37.6	.62	19.2	.43	53.3	1.10	9.3
\$20,000 to \$34,999 .....	107.9	1.01	37.7	.88	50.1	.72	24.1	.56	70.7	1.48	8.5
\$35,000 or More .....	177.9	1.72	82.5	1.89	86.2	1.14	42.0	.96	137.9	2.88	9.7
<b>Below Poverty Line</b>											
100 Percent .....	50.4	.53	10.1	.24	21.8	.36	10.4	.24	30.1	.65	22.5
125 Percent .....	71.1	.74	15.6	.37	31.9	.54	16.0	.37	46.6	.99	13.3
<b>Age of Householder</b>											
Under 35 Years .....	90.5	.95	44.8	1.05	56.2	.82	22.7	.53	71.8	1.53	10.6
35 to 59 Years .....	211.8	2.09	83.9	1.92	103.2	1.47	50.3	1.14	159.0	3.30	8.9
60 Years and Over .....	140.7	1.27	28.9	.66	39.0	.57	26.5	.60	65.3	1.37	11.1
<b>Household Size</b>											
1 Person .....	87.6	.89	25.4	.58	30.0	.45	21.9	.51	39.8	.85	9.0
2 to 4 Persons .....	307.2	2.97	116.8	2.70	138.8	2.03	68.7	1.57	215.9	4.53	5.6
5 or More Persons .....	48.3	.45	15.4	.35	29.5	.39	8.8	.20	40.4	.81	14.4

See footnotes at end of table.

**Table 66. Total Consumption and Expenditures by End Uses  
in South Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expenditures (billion dollars)									
	NF	NF									
<b>East South Central Division .....</b>	216.3	1.66	54.6	0.95	94.3	0.96	41.1	0.72	121.6	1.97	8.4
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC								
Under 5,500 HDD .....	177.8	1.43	36.7	.64	72.1	.81	32.4	.57	98.8	1.63	24.0
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Type of Housing Unit</b>											
Single-Family .....	180.8	1.37	40.6	.71	72.5	.73	32.4	.57	100.5	1.65	14.6
Mobile Home .....	11.3	.13	3.1	.06	5.3	.09	2.3	.04	8.0	.14	26.6
Multifamily (2 or more units) .....	24.2	.17	10.8	.18	16.4	.15	6.4	.11	13.1	.19	29.3
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	60.2	.49	16.0	.28	29.0	.32	12.5	.22	30.5	.49	14.9
1,000 to 1,999 .....	79.3	.66	20.5	.36	34.7	.40	15.9	.28	50.2	.83	8.8
2,000 or More .....	76.8	.52	18.1	.31	30.5	.25	12.7	.22	40.8	.65	38.9
<b>Ownership of Unit</b>											
Owned .....	169.4	1.29	39.0	.68	66.3	.68	29.9	.52	94.6	1.55	15.5
Rented .....	47.0	.37	15.6	.27	27.9	.28	11.1	.20	27.0	.42	18.3
<b>Year of Construction</b>											
1949 or Before .....	68.0	.45	6.3	.11	18.9	.18	7.7	.14	22.1	.36	20.5
1950 to 1979 .....	107.5	.90	33.8	.59	53.4	.57	24.2	.42	69.8	1.13	11.9
1980 or After <sup>2</sup> .....	Q	.31	14.4	.25	22.0	.21	9.1	.16	29.6	.49	38.4
<b>1990 Family Income</b>											
Less than \$10,000 .....	45.2	.35	5.9	.10	17.7	.20	8.7	.16	23.0	.37	15.0
\$10,000 to \$19,999 .....	42.2	.38	12.4	.22	19.6	.23	8.5	.15	22.7	.37	14.2
\$20,000 to \$34,999 .....	51.8	.41	13.8	.24	23.2	.25	9.2	.16	29.9	.50	9.1
\$35,000 or More .....	77.2	.53	22.5	.39	33.8	.28	14.6	.25	46.0	.74	24.4
<b>Below Poverty Line</b>											
100 Percent .....	36.3	.28	5.0	.09	16.2	.19	7.1	.13	20.3	.32	17.6
125 Percent .....	48.3	.38	7.0	.12	20.9	.25	9.6	.17	27.6	.44	16.3
<b>Age of Householder</b>											
Under 35 Years .....	51.0	.38	15.0	.27	25.4	.26	9.3	.16	29.0	.48	11.7
35 to 59 Years .....	95.6	.73	29.2	.50	49.1	.49	20.4	.36	62.9	1.02	13.4
60 Years and Over .....	69.8	.55	10.4	.18	19.7	.22	11.4	.20	29.6	.48	11.3
<b>Household Size</b>											
1 Person .....	51.8	.38	10.2	.18	14.2	.14	8.6	.16	16.5	.27	13.2
2 to 4 Persons .....	145.4	1.16	39.9	.69	66.5	.70	28.4	.49	88.7	1.45	9.4
5 or More Persons .....	19.1	.12	4.5	.08	13.6	.12	4.1	.07	16.5	.25	25.0

See footnotes at end of table.

**Table 66. Total Consumption and Expenditures by End Uses  
in South Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expend- itures (billion dollars)									
	NF	NF									
<b>West South Central Division ....</b>	315.4	2.15	131.0	2.83	156.9	1.27	68.0	1.52	208.7	3.87	6.7
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	NC Q	NC .36	NC 10.2	NC .18	NC Q	NC .16	NC 8.1	NC .18	NC 28.9	NC .55	NC 38.6
Under 5,500 HDD .....											
2,000 CDD or More and Under 4,000 HDD .....	240.4	1.78	120.8	2.66	126.6	1.11	60.0	1.34	179.8	3.32	11.2
<b>Type of Housing Unit</b>											
Single-Family .....	288.6	1.90	109.4	2.35	132.5	.99	57.9	1.29	186.1	3.42	8.5
Mobile Home .....	6.2	.06	Q	3.6	.04	1.6	.04	4.9	.09	38.4	
Multifamily (2 or more units) ....	20.6	.19	18.1	.41	20.7	.24	8.6	.19	17.7	.36	27.6
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	51.0	.41	21.7	.47	32.3	.36	14.7	.35	34.0	.65	17.6
1,000 to 1,999 .....	190.4	1.24	74.6	1.63	97.6	.70	38.7	.86	122.0	2.34	7.0
2,000 or More .....	74.0	.50	34.7	.74	27.0	.22	14.5	.30	52.6	.88	19.5
<b>Ownership of Unit</b>											
Owned .....	245.7	1.62	99.1	2.13	112.6	.84	50.9	1.12	165.8	3.04	11.1
Rented .....	69.7	.53	31.8	.70	44.3	.43	17.2	.40	42.9	.83	18.7
<b>Year of Construction</b>											
1949 or Before .....	65.9	.44	14.3	.33	26.3	.19	12.6	.29	31.7	.60	16.6
1950 to 1979 .....	219.5	1.42	94.2	2.02	112.4	.86	45.9	1.02	149.7	2.71	8.4
1980 or After <sup>2</sup> .....	30.0	.29	22.4	.49	18.2	.22	9.6	.21	27.3	.56	19.3
<b>1990 Family Income</b>											
Less than \$10,000 .....	56.4	.38	15.5	.36	29.9	.23	13.4	.32	34.3	.64	18.4
\$10,000 to \$19,999 .....	61.7	.43	21.2	.47	29.7	.27	12.5	.28	38.1	.74	14.1
\$20,000 to \$34,999 .....	93.2	.56	33.5	.73	42.7	.32	17.5	.39	47.2	.91	13.2
\$35,000 or More .....	104.2	.78	60.7	1.27	54.5	.45	24.6	.52	89.1	1.58	16.9
<b>Below Poverty Line</b>											
100 Percent .....	58.6	.40	14.1	.32	34.5	.27	13.0	.31	37.7	.70	16.5
125 Percent .....	73.9	.50	20.3	.46	42.6	.35	16.1	.38	48.2	.90	17.7
<b>Age of Householder</b>											
Under 35 Years .....	75.6	.51	32.2	.71	47.0	.40	16.5	.37	49.0	.95	11.6
35 to 59 Years .....	120.2	.87	64.2	1.39	70.6	.59	28.6	.64	101.1	1.83	12.0
60 Years and Over .....	119.6	.77	34.6	.74	39.3	.29	22.9	.51	58.6	1.09	8.5
<b>Household Size</b>											
1 Person .....	58.8	.41	20.3	.44	18.0	.17	13.9	.33	25.2	.52	16.0
2 to 4 Persons .....	212.0	1.40	87.1	1.88	104.2	.82	42.9	.95	138.8	2.51	8.3
5 or More Persons .....	44.6	.33	23.6	.51	34.7	.29	11.2	.25	44.7	.84	15.1

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 67. Consumption by End Uses, per South Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.8	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>South Region</b>													
<b>Total Region .....</b>	32.3	80.6	31.8	30.6	27.2	12.6	32.2	13.9	32.2	6.5	32.3	19.4	3.8
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Under 5,500 HDD .....	17.6	83.5	17.2	38.0	14.2	8.3	17.5	14.7	17.5	5.9	17.6	19.0	6.0
2,000 CDD or More and Under 4,000 HDD .....	14.7	77.2	14.6	21.9	12.9	17.4	14.7	13.1	14.7	7.2	14.7	19.9	6.5
<b>Type of Housing Unit</b>													
Single-Family .....	23.7	91.4	23.4	36.1	19.8	13.7	23.7	15.0	23.7	7.1	23.7	22.3	3.6
Mobile Home .....	1.9	61.8	1.9	24.0	1.4	10.7	1.9	9.7	1.9	4.4	1.9	15.9	12.2
Multifamily (2 or more units) .....	6.7	47.5	6.6	13.0	6.0	9.5	6.7	11.4	6.7	4.8	6.7	10.1	8.2
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	10.9	55.3	10.6	20.3	8.4	9.2	10.8	11.0	10.9	5.1	10.9	12.3	5.0
1,000 to 1,999 .....	14.8	83.5	14.7	31.0	12.9	12.6	14.8	14.6	14.8	6.5	14.8	20.5	3.8
2,000 or More .....	6.6	115.7	6.6	46.4	5.9	17.5	6.6	17.4	6.6	8.5	6.6	28.5	8.1
<b>Ownership of Unit</b>													
Owned .....	21.6	90.3	21.2	35.5	18.3	13.6	21.5	14.4	21.5	7.1	21.6	22.4	3.9
Rented .....	10.7	61.0	10.7	20.9	8.9	10.6	10.7	13.0	10.7	5.2	10.7	13.3	5.7
<b>Year of Construction</b>													
1949 or Before .....	6.0	91.4	5.9	47.3	4.3	8.4	6.0	14.5	6.0	6.4	6.0	18.0	6.8
1950 to 1979 .....	18.8	84.7	18.5	30.9	15.9	13.9	18.8	15.1	18.8	6.8	18.8	20.8	3.8
1980 or After <sup>2</sup> .....	7.4	61.3	7.4	16.5	7.0	12.4	7.4	10.7	7.4	5.7	7.4	16.9	9.8
<b>1990 Family Income</b>													
Less than \$10,000 .....	6.4	63.1	6.3	26.8	4.4	8.0	6.4	11.3	6.3	5.7	6.4	14.3	6.6
\$10,000 to \$19,999 .....	7.0	70.1	6.9	28.3	5.6	10.2	7.0	12.4	7.0	5.7	7.0	16.2	5.6
\$20,000 to \$34,999 .....	8.3	78.8	8.1	31.0	7.2	11.8	8.3	14.0	8.3	6.1	8.3	17.9	4.6
\$35,000 or More .....	10.6	99.5	10.5	34.1	10.0	16.6	10.5	16.5	10.6	7.7	10.6	25.8	6.0
<b>Below Poverty Line</b>													
100 Percent .....	5.5	66.0	5.5	26.5	3.6	8.2	5.5	13.1	5.5	5.6	5.5	15.9	7.2
125 Percent .....	7.5	66.4	7.3	26.5	5.0	8.6	7.5	12.8	7.4	5.6	7.5	16.4	6.4
<b>Age of Householder</b>													
Under 35 Years .....	9.2	69.3	9.1	24.0	8.0	11.5	9.1	14.1	9.2	5.3	9.2	16.3	5.5
35 to 59 Years .....	14.1	88.9	13.8	30.9	11.8	15.1	14.0	15.9	14.0	7.1	14.1	23.0	4.4
60 Years and Over .....	9.1	79.0	8.9	36.9	7.4	10.0	9.1	10.8	9.0	6.7	9.1	16.9	5.4
<b>Household Size</b>													
1 Person .....	7.8	56.4	7.7	25.7	6.7	8.4	7.8	8.0	7.8	5.7	7.8	10.4	5.2
2 to 4 Persons .....	21.0	86.0	20.6	32.2	17.7	13.8	20.9	14.8	20.9	6.7	21.0	21.2	2.6
5 or More Persons .....	3.5	102.6	3.5	32.4	2.8	15.5	3.5	22.2	3.5	6.9	3.5	29.0	6.2

See footnotes at end of table.

**Table 67. Consumption by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.8	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>South Atlantic Division .....</b>	16.6	72.1	16.3	27.3	13.9	11.3	16.5	12.0	16.6	6.0	16.6	17.9	3.8
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD .....	Q 11.1	Q 80.5	Q 11.0	Q 36.7	Q 9.1	Q 7.8	Q 11.1	Q 14.0	Q 11.1	Q 5.6	Q 11.1	Q 18.5	NF 5.8
Under 5,500 HDD .....													
2,000 CDD or More and													
Under 4,000 HDD .....	5.4	55.2	5.2	7.7	4.7	18.2	5.4	8.0	5.4	6.9	5.4	16.7	7.0
<b>Type of Housing Unit</b>													
Single-Family .....	11.7	82.6	11.5	32.5	9.7	12.6	11.7	12.9	11.7	6.7	11.7	20.7	5.2
Mobile Home .....	1.1	62.3	1.1	25.9	.8	10.3	1.1	8.7	1.1	4.1	1.1	16.0	17.1
Multifamily (2 or more units) ....	3.8	42.6	3.7	11.1	3.5	8.1	3.7	10.3	3.8	4.5	3.8	9.7	10.9
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	5.9	50.7	5.7	18.2	4.8	8.4	5.9	9.8	5.9	4.8	5.9	11.8	6.7
1,000 to 1,999 .....	7.0	72.3	7.0	26.6	6.1	11.1	7.0	11.8	7.0	6.0	7.0	18.6	7.0
2,000 or More .....	3.6	107.2	3.6	43.0	3.0	16.3	3.6	16.1	3.6	8.0	3.6	26.5	9.4
<b>Ownership of Unit</b>													
Owned .....	10.8	80.9	10.6	31.8	9.1	12.3	10.8	12.2	10.8	6.6	10.8	20.7	5.2
Rented .....	5.8	55.6	5.7	18.8	4.8	9.6	5.7	11.7	5.8	4.8	5.8	12.7	7.5
<b>Year of Construction</b>													
1949 or Before .....	3.0	92.1	2.9	49.9	2.1	7.4	3.0	14.0	3.0	6.0	3.0	18.3	9.5
1950 to 1979 .....	8.9	77.0	8.7	28.3	7.5	12.4	8.9	13.2	8.9	6.5	8.9	19.3	5.1
1980 or After <sup>2</sup> .....	4.6	49.9	4.6	10.9	4.3	11.5	4.6	8.5	4.6	5.1	4.6	14.8	11.8
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.7	57.7	2.6	25.4	2.0	7.1	2.7	9.2	2.7	5.3	2.7	12.8	11.0
\$10,000 to \$19,999 .....	3.6	61.4	3.5	25.8	2.7	8.7	3.6	10.4	3.6	5.3	3.6	14.6	7.6
\$20,000 to \$34,999 .....	4.3	68.0	4.2	25.7	3.6	10.4	4.3	11.7	4.3	5.6	4.3	16.6	6.4
\$35,000 or More .....	6.0	88.1	5.9	30.1	5.6	14.7	5.9	14.5	6.0	7.0	6.0	23.1	8.6
<b>Below Poverty Line</b>													
100 Percent .....	2.0	60.1	2.0	24.9	1.3	7.6	2.0	10.7	2.0	5.1	2.0	14.7	13.7
125 Percent .....	3.0	59.6	2.9	24.1	2.0	7.6	3.0	10.5	3.0	5.3	3.0	15.3	9.9
<b>Age of Householder</b>													
Under 35 Years .....	4.9	58.9	4.8	18.9	4.3	10.4	4.8	11.6	4.9	4.7	4.9	14.8	7.8
35 to 59 Years .....	7.4	81.7	7.2	29.2	6.1	13.8	7.4	13.9	7.4	6.7	7.4	21.3	7.1
60 Years and Over .....	4.3	70.6	4.2	33.2	3.5	8.2	4.3	9.2	4.3	6.2	4.3	15.3	8.9
<b>Household Size</b>													
1 Person .....	4.2	48.9	4.1	21.2	3.6	7.1	4.2	7.2	4.2	5.2	4.2	9.5	8.2
2 to 4 Persons .....	10.9	77.7	10.7	28.7	9.2	12.7	10.9	12.8	10.9	6.3	10.9	19.8	4.7
5 or More Persons .....	1.5	97.1	1.4	33.5	1.2	13.3	1.5	20.1	1.5	6.0	1.5	27.6	9.7

See footnotes at end of table.

**Table 67. Consumption by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.8	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>East South Central Division</b>	6.4	82.1	6.3	34.5	5.2	10.5	6.4	14.7	6.4	6.4	6.4	18.9	5.9
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC										
Over 5,500 HDD	5.1	81.5	5.0	35.8	4.1	9.0	5.1	14.1	5.1	6.4	5.1	19.3	13.3
Under 5,500 HDD													
2,000 CDD or More and Under 4,000 HDD	Q	84.4	Q	29.6	Q	15.4	Q	17.0	Q	6.7	Q	17.5	43.2
<b>Type of Housing Unit</b>													
Single-Family	4.7	91.5	4.5	40.2	3.8	10.7	4.7	15.5	4.6	7.0	4.7	21.5	9.2
Mobile Home	.5	61.5	.5	23.1	.4	8.7	.5	10.9	.5	4.6	.5	16.4	17.6
Multifamily (2 or more units)	1.3	55.6	1.3	18.9	1.1	10.3	1.3	12.9	1.3	5.1	1.3	10.3	16.3
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	2.4	63.0	2.3	26.6	1.8	9.1	2.4	12.3	2.3	5.3	2.4	13.0	9.5
1,000 to 1,999	2.5	80.5	2.5	32.2	2.1	9.9	2.5	13.9	2.5	6.4	2.5	20.1	5.9
2,000 or More	1.6	113.0	1.5	49.9	1.4	13.0	1.6	19.3	1.6	8.1	1.6	25.8	21.2
<b>Ownership of Unit</b>													
Owned	4.4	89.9	4.3	39.6	3.7	10.6	4.4	14.9	4.4	6.8	4.4	21.3	9.4
Rented	2.0	64.6	2.0	23.6	1.5	10.1	2.0	14.0	2.0	5.6	2.0	13.6	11.0
<b>Year of Construction</b>													
1949 or Before	1.4	89.0	1.4	50.2	.9	6.8	1.4	13.6	1.4	5.6	1.4	16.0	12.0
1950 to 1979	3.7	77.7	3.6	29.7	3.1	11.1	3.7	14.4	3.7	6.6	3.7	18.8	7.4
1980 or After <sup>2</sup>	1.3	87.1	1.3	31.6	1.2	11.8	1.3	16.5	1.3	6.8	1.3	22.3	24.6
<b>1990 Family Income</b>													
Less than \$10,000	1.6	61.0	1.6	28.8	1.0	6.1	1.6	10.7	1.6	5.4	1.6	14.0	10.9
\$10,000 to \$19,999	1.5	72.5	1.4	29.3	1.2	10.4	1.5	13.5	1.5	5.8	1.5	15.6	9.7
\$20,000 to \$34,999	1.6	80.9	1.5	34.0	1.4	9.9	1.6	14.7	1.6	5.8	1.6	18.9	6.8
\$35,000 or More	1.8	110.8	1.7	44.5	1.7	13.5	1.8	19.3	1.8	8.4	1.8	26.3	14.4
<b>Below Poverty Line</b>													
100 Percent	1.3	63.9	1.3	28.2	.8	6.5	1.3	12.2	1.3	5.5	1.3	15.3	11.6
125 Percent	1.8	64.3	1.7	28.7	1.0	6.8	1.8	11.8	1.7	5.6	1.8	15.6	11.6
<b>Age of Householder</b>													
Under 35 Years	1.7	78.3	1.6	31.6	1.4	10.5	1.7	15.3	1.7	5.6	1.7	17.5	9.4
35 to 59 Years	2.9	89.6	2.8	33.6	2.4	12.3	2.9	17.1	2.9	7.1	2.9	21.9	8.6
60 Years and Over	1.9	74.0	1.8	38.6	1.4	7.4	1.9	10.4	1.9	6.1	1.9	15.6	8.4
<b>Household Size</b>													
1 Person	1.6	61.8	1.6	32.6	1.3	7.6	1.6	8.6	1.6	5.3	1.6	10.1	9.8
2 to 4 Persons	4.3	86.7	4.2	35.0	3.5	11.4	4.3	15.6	4.2	6.7	4.3	20.8	6.7
5 or More Persons	.5	107.1	.5	36.4	.4	11.8	.5	25.3	.5	7.5	.5	30.5	13.1

See footnotes at end of table.

**Table 67. Consumption by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.8	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West South Central Division ....</b>	9.3	94.5	9.3	33.9	8.0	16.3	9.3	16.9	9.3	7.3	9.3	22.4	5.4
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC										
Under 5,500 HDD .....	1.3	118.5	1.3	58.3	1.0	10.1	1.3	23.5	1.3	6.3	1.3	22.5	24.4
2,000 CDD or More and Under 4,000 HDD .....	8.0	90.7	8.0	30.0	7.0	17.2	8.0	15.8	8.0	7.5	8.0	22.4	8.4
<b>Type of Housing Unit</b>													
Single-Family .....	7.3	105.5	7.3	39.3	6.3	17.3	7.3	18.1	7.3	7.9	7.3	25.4	6.4
Mobile Home .....	.3	60.3	.3	19.0	Q	Q	.3	11.0	.3	4.8	.3	15.0	28.5
Multifamily (2 or more units) ....	1.6	52.3	1.6	12.6	1.5	12.2	1.6	12.6	1.6	5.3	1.6	10.8	18.2
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	2.6	58.7	2.6	19.5	1.9	11.4	2.6	12.3	2.6	5.7	2.6	13.0	13.2
1,000 to 1,999 .....	5.2	100.0	5.2	36.4	4.7	15.8	5.2	18.6	5.2	7.4	5.2	23.3	5.4
2,000 or More .....	1.5	139.8	1.5	51.0	1.4	24.5	1.5	18.6	1.5	10.0	1.5	36.3	13.6
<b>Ownership of Unit</b>													
Owned .....	6.3	106.7	6.3	38.9	5.5	17.9	6.3	17.8	6.3	8.1	6.3	26.3	8.3
Rented .....	3.0	68.8	3.0	23.3	2.5	12.7	3.0	14.8	3.0	5.8	3.0	14.3	12.7
<b>Year of Construction</b>													
1949 or Before .....	1.6	91.9	1.6	40.2	1.3	11.3	1.6	16.0	1.6	7.7	1.6	19.3	12.7
1950 to 1979 .....	6.2	100.0	6.2	35.3	5.4	17.6	6.2	18.1	6.2	7.4	6.2	24.1	6.1
1980 or After <sup>2</sup> .....	1.5	74.0	1.5	20.7	1.4	15.9	1.5	12.5	1.5	6.6	1.5	18.8	13.8
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.1	71.6	2.1	27.0	1.5	10.6	2.1	14.3	2.1	6.5	2.1	16.4	11.1
\$10,000 to \$19,999 .....	1.9	84.8	1.9	32.1	1.7	12.6	1.9	15.4	1.9	6.5	1.9	19.8	12.1
\$20,000 to \$34,999 .....	2.4	96.5	2.4	38.4	2.2	15.3	2.4	17.6	2.4	7.2	2.4	19.4	9.9
\$35,000 or More .....	2.9	116.2	2.9	36.3	2.7	22.3	2.9	19.0	2.9	8.6	2.9	31.1	11.7
<b>Below Poverty Line</b>													
100 Percent .....	2.2	72.8	2.2	27.0	1.5	9.6	2.2	15.9	2.2	6.0	2.2	17.4	11.2
125 Percent .....	2.7	75.4	2.7	27.7	1.9	10.7	2.7	16.0	2.6	6.1	2.7	18.1	11.2
<b>Age of Householder</b>													
Under 35 Years .....	2.7	82.8	2.7	28.4	2.2	14.3	2.7	17.7	2.6	6.2	2.7	18.4	9.5
35 to 59 Years .....	3.7	102.8	3.7	32.1	3.3	19.2	3.7	18.9	3.7	7.6	3.7	27.0	8.2
60 Years and Over .....	2.9	94.7	2.9	41.2	2.5	14.0	2.9	13.5	2.9	7.9	2.9	20.2	8.7
<b>Household Size</b>													
1 Person .....	2.0	67.5	2.0	29.2	1.8	11.4	2.0	8.9	2.0	6.9	2.0	12.5	12.8
2 to 4 Persons .....	5.8	100.9	5.8	36.6	5.0	17.4	5.8	18.0	5.8	7.4	5.8	23.9	5.4
5 or More Persons .....	1.5	106.3	1.5	29.9	1.3	18.6	1.5	23.2	1.5	7.5	1.5	29.9	9.3

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

Table 68. Expenditures by End Uses, per South Region Household, 1990

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.3	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
South Region													
<b>Total Region</b>	32.3	1,151	31.8	255	27.2	273	32.2	158	32.2	140	32.3	373	3.3
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Under 5,500 HDD	17.6	1,103	17.2	318	14.2	168	17.5	173	17.5	121	17.6	361	5.2
2,000 CDD or More and													
Under 4,000 HDD	14.7	1,209	14.6	180	12.9	388	14.7	140	14.7	162	14.7	387	5.9
<b>Type of Housing Unit</b>													
Single-Family	23.7	1,277	23.4	290	19.8	297	23.7	163	23.7	153	23.7	427	3.2
Mobile Home	1.9	1,013	1.9	270	1.4	229	1.9	172	1.9	95	1.9	309	12.4
Multifamily (2 or more units) ..	6.7	744	6.6	126	6.0	203	6.7	139	6.7	105	6.7	197	7.8
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	10.9	830	10.6	186	8.4	197	10.8	145	10.9	114	10.9	239	4.8
1,000 to 1,999	14.8	1,197	14.7	256	12.9	277	14.8	157	14.8	143	14.8	402	3.4
2,000 or More	6.6	1,576	6.6	364	5.9	373	6.6	182	6.6	177	6.6	528	7.4
<b>Ownership of Unit</b>													
Owned	21.6	1,277	21.2	290	18.3	295	21.5	161	21.5	152	21.6	430	3.4
Rented	10.7	897	10.7	185	8.9	228	10.7	153	10.7	115	10.7	258	5.5
<b>Year of Construction</b>													
1949 or Before	6.0	1,105	5.9	348	4.3	186	6.0	150	6.0	140	6.0	340	6.7
1950 to 1979	18.8	1,198	18.5	252	15.9	296	18.8	161	18.8	147	18.8	394	3.5
1980 or After <sup>2</sup>	7.4	1,071	7.4	188	7.0	274	7.4	158	7.4	123	7.4	346	7.5
<b>1990 Family Income</b>													
Less than \$10,000	6.4	869	6.3	223	4.4	179	6.4	128	6.3	127	6.4	273	6.7
\$10,000 to \$19,999	7.0	1,013	6.9	248	5.6	220	7.0	160	7.0	123	7.0	314	5.2
\$20,000 to \$34,999	8.3	1,100	8.1	243	7.2	257	8.3	155	8.3	135	8.3	348	4.2
\$35,000 or More	10.6	1,452	10.5	288	10.0	355	10.5	178	10.6	163	10.6	491	5.1
<b>Below Poverty Line</b>													
100 Percent	5.5	904	5.5	221	3.6	180	5.5	147	5.5	124	5.5	301	7.5
125 Percent	7.5	931	7.3	222	5.0	191	7.5	152	7.4	124	7.5	313	6.4
<b>Age of Householder</b>													
Under 35 Years	9.2	1,019	9.1	203	8.0	252	9.1	162	9.2	116	9.2	321	4.8
35 to 59 Years	14.1	1,304	13.8	267	11.8	324	14.0	181	14.0	152	14.1	438	4.0
60 Years and Over	9.1	1,048	8.9	290	7.4	213	9.1	119	9.0	146	9.1	324	4.8
<b>Household Size</b>													
1 Person	7.8	799	7.7	218	6.7	180	7.8	96	7.8	127	7.8	209	4.5
2 to 4 Persons	21.0	1,233	20.6	268	17.7	298	20.9	170	20.9	144	21.0	405	2.4
5 or More Persons	3.5	1,447	3.5	261	2.8	336	3.5	228	3.5	147	3.5	545	5.8

See footnotes at end of table.

**Table 68. Expenditures by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.3	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>South Atlantic Division .....</b>	16.6	1,164	16.3	265	13.9	261	16.5	174	16.6	137	16.6	374	3.6
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	Q 11.1	Q 1,153	Q 11.0	Q 336	Q 9.1	Q 172	Q 11.1	Q 186	Q 11.1	Q 124	Q 11.1	Q 372	5.3
Under 5,500 HDD .....													
2,000 CDD or More and Under 4,000 HDD .....	5.4	1,187	5.2	116	4.7	434	5.4	148	5.4	165	5.4	378	6.7
<b>Type of Housing Unit</b>													
Single-Family .....	11.7	1,309	11.5	305	9.7	292	11.7	183	11.7	152	11.7	433	4.8
Mobile Home .....	1.1	1,073	1.1	305	.8	231	1.1	177	1.1	92	1.1	328	18.9
Multifamily (2 or more units) ..	3.8	740	3.7	128	3.5	181	3.7	144	3.8	105	3.8	205	11.1
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	5.9	848	5.7	188	4.8	192	5.9	154	5.9	112	5.9	247	6.4
1,000 to 1,999 .....	7.0	1,190	7.0	267	6.1	259	7.0	174	7.0	137	7.0	392	5.8
2,000 or More .....	3.6	1,633	3.6	385	3.0	374	3.6	206	3.6	179	3.6	548	8.9
<b>Ownership of Unit</b>													
Owned .....	10.8	1,302	10.6	306	9.1	284	10.8	180	10.8	151	10.8	433	4.9
Rented .....	5.8	903	5.7	189	4.8	217	5.7	162	5.8	112	5.8	263	7.2
<b>Year of Construction</b>													
1949 or Before .....	9.0	1,189	2.9	400	2.1	173	3.0	179	3.0	137	3.0	363	9.0
1950 to 1979 .....	8.9	1,227	8.7	270	7.5	280	8.9	180	8.9	148	8.9	402	5.0
1980 or After <sup>2</sup> .....	4.6	1,026	4.6	170	4.3	271	4.6	159	4.6	118	4.6	327	10.6
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.7	920	2.6	256	2.0	165	2.7	147	2.7	123	2.7	275	10.8
\$10,000 to \$19,999 .....	3.6	982	3.5	258	2.7	198	3.6	170	3.6	118	3.6	302	7.5
\$20,000 to \$34,999 .....	4.3	1,088	4.2	240	3.6	242	4.3	168	4.3	131	4.3	346	5.8
\$35,000 or More .....	6.0	1,437	5.9	291	5.6	337	5.9	192	6.0	160	6.0	482	7.9
<b>Below Poverty Line</b>													
100 Percent .....	2.0	988	2.0	262	1.3	179	2.0	175	2.0	119	2.0	317	14.3
125 Percent .....	3.0	988	2.9	252	2.0	180	3.0	178	3.0	121	3.0	324	9.7
<b>Age of Householder</b>													
Under 35 Years .....	4.9	1,003	4.8	198	4.3	242	4.8	171	4.9	109	4.9	314	7.4
35 to 59 Years .....	7.4	1,332	7.2	289	6.1	317	7.4	198	7.4	153	7.4	443	6.6
60 Years and Over .....	4.3	1,051	4.2	300	3.5	187	4.3	135	4.3	142	4.3	321	7.9
<b>Household Size</b>													
1 Person .....	4.2	783	4.1	217	3.6	162	4.2	108	4.2	122	4.2	204	7.2
2 to 4 Persons .....	10.9	1,265	10.7	278	9.2	294	10.9	187	10.9	144	10.9	415	4.3
5 or More Persons .....	1.5	1,500	1.4	310	1.2	306	1.5	264	1.5	136	1.5	554	9.4

See footnotes at end of table.

**Table 68. Expenditures by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.3	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>East South Central Division ..</b>	6.4	974	6.3	265	5.2	182	6.4	149	6.4	113	6.4	307	4.9
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC										
Over 5,500 HDD .....	5.1	992	5.0	288	4.1	158	5.1	159	5.1	111	5.1	319	10.2
Under 5,500 HDD .....													
2,000 CDD or More and Under 4,000 HDD .....	Q	907	Q	177	Q	269	Q	113	Q	118	Q	261	48.6
<b>Type of Housing Unit</b>													
Single-Family .....	4.7	1,076	4.5	304	3.8	186	4.7	156	4.6	123	4.7	353	7.2
Mobile Home .....	.5	924	.5	258	.4	160	.5	182	.5	86	.5	279	17.6
Multifamily (2 or more units) ..	1.3	624	1.3	130	1.1	176	1.3	114	1.3	87	1.3	149	14.0
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	2.4	760	2.3	216	1.8	157	2.4	134	2.3	94	2.4	208	8.6
1,000 to 1,999 .....	2.5	1,015	2.5	267	2.1	176	2.5	159	2.5	113	2.5	333	5.8
2,000 or More .....	1.6	1,229	1.5	336	1.4	223	1.6	156	1.6	140	1.6	413	17.4
<b>Ownership of Unit</b>													
Owned .....	4.4	1,064	4.3	302	3.7	185	4.4	153	4.4	119	4.4	349	7.2
Rented .....	2.0	774	2.0	186	1.5	176	2.0	141	2.0	99	2.0	212	10.5
<b>Year of Construction</b>													
1949 or Before .....	1.4	903	1.4	334	.9	119	1.4	133	1.4	103	1.4	260	11.2
1950 to 1979 .....	3.7	969	3.6	248	3.1	193	3.7	152	3.7	114	3.7	303	8.0
1980 or After <sup>2</sup> .....	1.3	1,065	1.3	241	1.2	205	1.3	158	1.3	118	1.3	367	18.4
<b>1990 Family Income</b>													
Less than \$10,000 .....	1.6	716	1.6	221	1.0	107	1.6	122	1.6	99	1.6	225	9.9
\$10,000 to \$19,999 .....	1.5	921	1.4	262	1.2	181	1.5	159	1.5	102	1.5	252	9.6
\$20,000 to \$34,999 .....	1.6	987	1.5	269	1.4	176	1.6	157	1.6	103	1.6	314	7.2
\$35,000 or More .....	1.8	1,250	1.7	305	1.7	233	1.8	160	1.8	144	1.8	423	10.6
<b>Below Poverty Line</b>													
100 Percent .....	1.3	756	1.3	219	.8	112	1.3	141	1.3	99	1.3	242	10.9
125 Percent .....	1.8	772	1.7	223	1.0	118	1.8	140	1.7	100	1.8	252	10.8
<b>Age of Householder</b>													
Under 35 Years .....	1.7	930	1.6	236	1.4	185	1.7	154	1.7	99	1.7	287	7.4
35 to 59 Years .....	2.9	1,079	2.8	257	2.4	213	2.9	169	2.9	124	2.9	356	7.2
60 Years and Over .....	1.9	854	1.8	304	1.4	128	1.9	115	1.9	108	1.9	250	7.7
<b>Household Size</b>													
1 Person .....	1.6	685	1.6	236	1.3	136	1.6	85	1.6	96	1.6	164	8.4
2 to 4 Persons .....	4.3	1,058	4.2	280	3.5	198	4.3	165	4.2	117	4.3	342	6.0
5 or More Persons .....	.5	1,193	.5	236	.4	202	.5	222	.5	132	.5	466	11.3

See footnotes at end of table.

**Table 68. Expenditures by End Uses, per South Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.3	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West South Central Division</b>	9.3	1,251	9.3	231	8.0	352	9.3	137	9.3	163	9.3	416	4.7
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC										
Under 5,500 HDD .....	1.3	1,110	1.3	283	1.0	174	1.3	126	1.3	137	1.3	429	18.5
2,000 CDD or More and Under 4,000 HDD .....	8.0	1,273	8.0	222	7.0	377	8.0	139	8.0	168	8.0	414	7.3
<b>Type of Housing Unit</b>													
Single-Family .....	7.3	1,355	7.3	259	6.3	371	7.3	135	7.3	175	7.3	466	5.7
Mobile Home .....	.3	949	.3	170	Q	Q	.3	139	.3	117	.3	289	27.5
Multifamily (2 or more units) ..	1.6	846	1.6	117	1.5	272	1.6	147	1.6	118	1.6	218	14.9
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	2.6	854	2.6	156	1.9	247	2.6	137	2.6	134	2.6	249	11.5
1,000 to 1,999 .....	5.2	1,293	5.2	237	4.7	344	5.2	133	5.2	165	5.2	447	5.2
2,000 or More .....	1.5	1,815	1.5	343	1.4	520	1.5	151	1.5	210	1.5	603	12.0
<b>Ownership of Unit</b>													
Owned .....	6.3	1,385	6.3	257	5.5	384	6.3	133	6.3	178	6.3	481	7.3
Rented .....	3.0	968	3.0	176	2.5	281	3.0	145	3.0	133	3.0	279	11.0
<b>Year of Construction</b>													
1949 or Before .....	1.6	1,119	1.6	266	1.3	257	1.6	113	1.6	176	1.6	366	12.2
1950 to 1979 .....	6.2	1,293	6.2	229	5.4	376	6.2	139	6.2	165	6.2	436	5.1
1980 or After <sup>2</sup> .....	1.5	1,220	1.5	199	1.4	344	1.5	155	1.5	144	1.5	388	12.6
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.1	925	2.1	183	1.5	245	2.1	110	2.1	155	2.1	308	11.0
\$10,000 to \$19,999 .....	1.9	1,141	1.9	221	1.7	281	1.9	142	1.9	147	1.9	385	10.6
\$20,000 to \$34,999 .....	2.4	1,196	2.4	230	2.2	333	2.4	131	2.4	162	2.4	374	8.6
\$35,000 or More .....	2.9	1,607	2.9	272	2.7	468	2.9	158	2.9	182	2.9	550	9.6
<b>Below Poverty Line</b>													
100 Percent .....	2.2	917	2.2	184	1.5	217	2.2	123	2.2	143	2.2	321	10.6
125 Percent .....	2.7	971	2.7	187	1.9	243	2.7	130	2.6	143	2.7	339	10.4
<b>Age of Householder</b>													
Under 35 Years .....	2.7	1,101	2.7	191	2.2	315	2.7	151	2.6	139	2.7	356	8.2
35 to 59 Years .....	3.7	1,419	3.7	232	3.3	416	3.7	157	3.7	171	3.7	489	7.2
60 Years and Over .....	2.9	1,171	2.9	266	2.5	299	2.9	98	2.9	176	2.9	377	7.5
<b>Household Size</b>													
1 Person .....	2.0	926	2.0	205	1.8	248	2.0	82	2.0	162	2.0	257	10.8
2 to 4 Persons .....	5.8	1,303	5.8	242	5.0	376	5.8	141	5.8	163	5.8	433	5.1
5 or More Persons .....	1.5	1,487	1.5	221	1.3	403	1.5	194	1.5	165	1.5	564	7.6

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 69. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in South Region Households, 1990**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Total Consumed				Total Consumed					
	Households (million)	(trillion Btu)	billion kWh	(billion dollars)	Households (million)	(trillion Btu)	billion cubic feet)	(billion dollars)		
RSE Column Factors:	0.8	NF	NF	NF	0.9	NF	NF	NF		
<b>Total Region</b>	<b>18.1</b>	125.3	36.7	2.55	14.4	673.0	663	3.85	8.0	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	NC	NC	NC	NC	NF	
Under 5,500 HDD	81.9	24.0	1.61	1.61	7.3	415.4	404	2.37	15.1	
2,000 CDD or More and Under 4,000 HDD	9.2	12.6	.92	.92	7.1	257.7	249	1.48	12.4	
	8.9	42.9								
<b>Type of Housing Unit</b>										
Single-Family	12.7	95.7	28.0	1.94	11.9	603.8	586	3.45	9.3	
Mobile Home	.9	7.9	2.3	.15	.3	10.3	10	.07	34.9	
Multifamily (2 or more units)	4.5	21.7	6.4	.46	2.2	59.0	57	.33	18.1	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	6.2	31.6	9.3	.64	3.8	125.3	122	.74	10.5	
1,000 to 1,999	7.9	58.1	17.0	1.19	7.3	322.8	313	1.82	10.1	
2,000 or More	4.0	35.6	10.4	.72	3.4	224.9	218	1.28	14.6	
<b>Ownership of Unit</b>										
Owned	11.6	88.2	25.8	1.78	10.3	527.6	512	3.01	10.1	
Rented	6.5	37.1	10.9	.77	4.1	145.4	141	.83	11.0	
<b>Year of Construction</b>										
1949 or Before	2.3	12.4	3.6	.24	3.7	200.1	193	1.17	15.2	
1950 to 1979	10.3	72.8	21.3	1.47	9.3	413.4	402	2.35	8.0	
1980 or After <sup>2</sup>	5.5	40.1	11.7	.83	1.4	59.6	58	.32	24.1	
<b>1990 Family Income</b>										
Less than \$10,000	2.9	16.8	4.9	.33	3.0	110.5	107	.65	15.9	
\$10,000 to \$19,999	3.7	25.7	7.5	.51	2.6	114.5	111	.67	12.2	
\$20,000 to \$34,999	4.6	28.6	8.4	.59	3.9	186.1	180	1.02	9.9	
\$35,000 or More	7.0	54.1	15.9	1.13	4.9	262.0	255	1.51	12.2	
<b>Below Poverty Line</b>										
100 Percent	2.4	14.6	4.3	.29	2.7	94.2	91	.54	14.8	
125 Percent	3.3	21.4	6.3	.42	3.4	126.1	122	.73	14.3	
<b>Age of Householder</b>										
Under 35 Years	5.3	31.2	9.1	.65	3.7	150.1	146	.83	11.7	
35 to 59 Years	8.4	64.4	18.9	1.30	6.1	283.5	275	1.63	9.5	
60 Years and Over	4.5	29.7	8.7	.59	4.6	239.4	232	1.39	12.6	
<b>Household Size</b>										
1 Person	4.5	25.5	7.5	.52	3.3	141.4	137	.84	13.6	
2 to 4 Persons	11.8	86.7	25.4	1.75	9.3	452.4	439	2.56	8.2	
5 or More Persons	1.8	13.1	3.8	.27	1.8	79.3	77	.44	13.9	

See footnotes at end of table.

SOUTH

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 69. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in South Region Households, 1990 (Continued)

Characteristics	Electricity			Natural Gas			RSE Row Factors		
	Total Consumed		Households (million)	Total Consumed		(billion cubic feet)			
	Households (million)	(trillion Btu)		(billion kWh)	Total Expenditures (billion dollars)				
RSE Column Factors:	0.8	NF	NF	NF	0.9	NF	NF		
South Atlantic Division .....	10.3	65.1	19.1	1.41	5.0	250.1	242	1.68	14.7
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	NC	NC	NC	NF
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD .....	5.9	49.1	14.4	1.04	4.4	237.9	230	1.58	18.1
Under 4,000 HDD .....	4.3	15.5	4.5	.35	Q	Q	Q	Q	11.3
<b>Type of Housing Unit</b>									
Single-Family .....	7.3	48.7	14.3	1.07	3.9	222.4	215	1.49	16.5
Mobile Home .....	.4	Q	Q	.27	Q	Q	Q	.68	47.7
Multifamily (2 or more units)..	2.6	12.2	3.6	.27	1.0	23.7	23	.16	21.1
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	3.5	17.3	5.1	.37	1.4	47.4	46	.33	14.5
1,000 to 1,999 .....	4.4	29.7	8.7	.65	2.1	102.1	99	.68	20.3
2,000 or More .....	2.3	18.0	5.3	.40	1.4	100.5	97	.68	21.4
<b>Ownership of Unit</b>									
Owned .....	6.7	46.3	13.6	1.00	3.3	196.8	190	1.32	17.7
Rented .....	3.6	18.8	5.5	.41	1.7	53.3	52	.36	16.2
<b>Year of Construction</b>									
1949 or Before .....	1.2	4.9	1.4	.10	1.4	88.4	86	.59	23.6
1950 to 1979 .....	5.2	34.6	10.1	.75	3.2	148.2	143	1.00	13.0
1980 or After <sup>2</sup> .....	3.9	25.6	7.5	.56	.4	13.5	13	.09	32.8
<b>1990 Family Income</b>									
Less than \$10,000 .....	1.4	8.9	2.6	.18	.7	29.9	29	.20	30.7
\$10,000 to \$19,999 .....	2.1	12.5	3.7	.26	.9	38.9	38	.27	22.6
\$20,000 to \$34,999 .....	2.6	14.5	4.2	.32	1.4	65.8	63	.44	17.1
\$35,000 or More .....	4.2	29.2	8.5	.65	2.0	115.4	112	.77	17.3
<b>Below Poverty Line</b>									
100 Percent .....	1.1	7.6	2.2	.16	.5	18.5	18	.12	26.2
125 Percent .....	1.7	11.4	3.4	.24	.7	29.3	28	.19	24.0
<b>Age of Householder</b>									
Under 35 Years .....	3.0	17.0	5.0	.38	1.3	47.6	46	.32	19.2
35 to 59 Years .....	4.9	35.0	10.2	.76	2.3	117.5	114	.78	14.6
60 Years and Over .....	2.4	13.1	3.8	.28	1.4	85.0	82	.58	27.3
<b>Household Size</b>									
1 Person .....	2.7	15.4	4.5	.33	1.2	52.7	51	.37	24.3
2 to 4 Persons .....	6.7	43.5	12.8	.95	3.3	169.7	164	1.13	14.3
5 or More Persons .....	.9	6.2	1.8	.13	.5	27.7	27	.18	20.6

See footnotes at end of table.

# SPACE-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 69. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in South Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Total Consumed		Households (million)	Households (million)	Total Consumed		(billion cubic feet)	Total Expenditures (\$billion dollars)		
	(trill.- ion Btu)	(billion kWh)			Total Expenditures (billion dollars)	(trill.- ion Btu)				
RSE Column Factors:	0.8	NF	NF	NF	0.9	NF	NF	NF		
<b>East South Central Division ..</b>	3.4	33.6	9.8	0.57	2.9	146.1	141	0.70	12.5	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and	NC	NC	NC	.51	NC	NC	NC	NC	NC	
Over 5,500 HDD .....	30.3	8.9	1.9		110.8	107	.53	.53	23.4	
Under 5,500 HDD .....	2.9								NF	
2,000 CDD or More and										
Under 4,000 HDD .....	Q	Q	Q		Q	Q	Q	Q		
<b>Type of Housing Unit</b>										
Single-Family .....	2.3	26.4	7.7	.44	2.2	124.6	120	.60	18.0	
Mobile Home .....	3	2.8	.8	.05	Q	Q	Q	Q	24.9	
Multifamily (2 or more units) ..	.8	4.4	1.3	.08	.6	19.8	19	.09	26.2	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.2	8.4	2.5	.14	.9	35.4	34	.17	20.8	
1,000 to 1,999 .....	1.4	15.2	4.5	.26	1.0	50.5	49	.25	16.1	
2,000 or More .....	.8	10.0	2.9	.17	Q	Q	Q	.28	22.6	
<b>Ownership of Unit</b>										
Owned .....	2.2	24.3	7.1	.41	2.0	112.6	109	.54	17.3	
Rented .....	1.2	9.2	2.7	.16	.9	33.5	32	.17	17.8	
<b>Year of Construction</b>										
1949 or Before .....	.6	3.6	1.0	.06	.8	50.7	48	.24	26.7	
1950 to 1979 .....	2.0	21.7	6.3	.37	1.6	66.6	64	.33	14.4	
1980 or After <sup>2</sup> .....	.8	8.3	2.4	.14	Q	Q	Q	Q	13.2	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.8	5.5	1.6	.09	.6	28.2	27	.14	18.9	
\$10,000 to \$19,999 .....	.9	9.1	2.7	.16	.6	22.6	22	.11	16.0	
\$20,000 to \$34,999 .....	.8	6.9	2.6	.15	.7	34.2	33	.16	11.5	
\$35,000 or More .....	.9	9.9	2.9	.17	1.0	61.1	59	.30	24.2	
<b>Below Poverty Line</b>										
100 Percent .....	.7	4.6	1.4	.08	.4	22.2	21	.11	21.7	
125 Percent .....	.9	6.5	1.9	.11	.6	29.3	28	.14	23.7	
<b>Age of Householder</b>										
Under 35 Years .....	.9	7.8	2.3	.14	.7	36.4	35	.18	15.9	
35 to 59 Years .....	1.6	16.0	4.7	.27	1.3	65.5	63	.32	17.8	
60 Years and Over .....	1.0	9.7	2.9	.17	.8	44.1	42	.21	17.8	
<b>Household Size</b>										
1 Person .....	.9	6.3	1.9	.11	.8	36.1	35	.17	17.9	
2 to 4 Persons .....	2.4	25.5	7.5	.43	1.8	96.0	93	.47	12.8	
5 or More Persons .....	1	1.7	.5	.03	.3	14.0	14	.06	28.3	

See footnotes at end of table.

**Table 69. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in South Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Column Factors: 0.8 NF	
	Total Consumed				Total Consumed					
	House-holds (million)	(tril- lion Btu)	(billion kWh)	Expenditures (billion dollars)	House-holds (million)	(tril- lion Btu)	(billion cubic feet)	Expenditures (billion dollars)		
<b>West South Central Division</b>	4.4	26.6	7.8	0.57	6.5	276.9	270	1.46	10.9	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	NF	
2,000 CDD or More and Under 4,000 HDD	4.0	24.2	7.1	.51	5.6	210.3	203	1.21	15.3	
<b>Type of Housing Unit</b>										
Single-Family	3.1	20.6	6.0	.43	5.8	256.8	250	1.36	11.8	
Mobile Home	Q	O	Q	Q	Q	Q	Q	Q	NF	
Multifamily (2 or more units)	1.2	5.1	1.5	.11	.6	15.5	15	.08	34.1	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	1.5	5.9	1.7	.13	1.4	42.6	42	.25	20.0	
1,000 to 1,999	2.1	13.2	3.9	.28	4.1	170.2	166	.89	11.6	
2,000 or More	.9	7.6	2.2	.15	1.0	64.1	62	.33	19.8	
<b>Ownership of Unit</b>										
Owned	2.7	17.6	5.1	.37	4.9	218.2	213	1.16	14.2	
Rented	1.8	9.1	2.7	.20	1.6	58.6	57	.31	19.5	
<b>Year of Construction</b>										
1949 or Before	.5	3.9	1.2	.08	1.5	61.0	59	.35	23.0	
1950 to 1979	3.1	16.6	4.9	.36	4.5	198.6	194	1.02	13.3	
1980 or After <sup>2</sup>	.8	6.1	1.8	.13	.5	17.2	17	.10	28.2	
<b>1990 Family Income</b>										
Less than \$10,000	.6	2.3	.7	.05	1.8	52.4	51	.31	26.6	
\$10,000 to \$19,999	.8	4.1	1.2	.09	1.2	53.0	51	.29	18.3	
\$20,000 to \$34,999	1.1	5.2	1.5	.12	1.8	86.1	84	.43	17.2	
\$35,000 or More	1.9	15.0	4.4	.31	1.8	85.4	83	.44	19.3	
<b>Below Poverty Line</b>										
100 Percent	.6	2.4	.7	.05	1.8	53.4	52	.31	26.0	
125 Percent	.8	3.4	1.0	.08	2.1	67.5	66	.39	25.3	
<b>Age of Householder</b>										
Under 35 Years	1.4	6.3	1.9	.14	1.6	66.1	65	.33	18.8	
35 to 59 Years	1.9	13.4	3.9	.28	2.5	100.5	98	.53	16.6	
60 Years and Over	1.2	6.9	2.0	.15	2.4	110.3	107	.60	9.2	
<b>Household Size</b>										
1 Person	.9	3.8	1.1	.08	1.3	52.6	51	.30	19.2	
2 to 4 Persons	2.8	17.7	5.2	.37	4.2	186.7	182	.96	13.6	
5 or More Persons	.7	5.2	1.5	.11	1.0	37.6	37	.20	21.1	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## **SPACE-HEATING CONSUMPTION/EXPENDITURES**

SOUTH

## Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in South Region Households, 1990

Characteristics	Fuel Oil			Kerosene			Liquefied Petroleum Gas		
	Total Consumed			Total Consumed			Total Consumed		
	Households (million)	(billion gallons)	Total Expenditures (billion dollars)	Households (million)	(billion gallons)	Total Expenditures (billion dollars)	Households (million)	(billion gallons)	Total Expenditures (billion dollars)
RSE Column Factors:	0.9	NF	NF	0.6	NF	NF	1.0	NF	NF
<b>South Region</b>									
<b>Total Region</b>	1.7	76.7	0.62	2.5	34.1	0.25	0.32	2.6	65.6
South Atlantic Division	1.5	71.1	.52	1.8	26.0	.19	.24	1.3	30.8
East South Central Division	Q	Q	Q	.6	8.0	.06	.07	.7	23.0
West South Central Division	NC	NC	NC	Q	Q	Q	Q	Q	Q
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	NC	NC	.61	2.3	29.8	.22	.27	1.6	51.8
Under 5,500 HDD	1.6	76.0	.55	Q	Q	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Type of Housing Unit</b>									
Single-Family Mobile Home	1.5	68.3	.50	.55	2.0	25.2	.19	.23	51.1
Mobile Home	Q	Q	Q	Q	.5	8.9	.07	.09	14.5
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	Q	NC	NC
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.4	17.0	.13	.14	1.0	21.6	.16	.21	20.1
1,000 to 1,999	.7	28.1	.20	.23	1.1	11.1	.08	.09	34.7
2,000 or More	.5	31.6	.23	.25	.3	1.4	.01	.01	10.8
<b>Ownership of Unit</b>									
Owned	1.4	56.5	.41	.46	1.8	21.8	.16	.20	57.6
Rented	.3	20.3	.15	.16	.7	12.3	.09	.12	.4
<b>Year of Construction</b>									
1949 or Before	.6	35.3	.26	.28	.7	14.8	.11	.14	17.6
1950 to 1979	1.1	40.2	.29	.33	1.4	16.6	.12	.15	14.4
1980 or After <sup>2</sup>	Q	Q	Q	Q	.4	Q	Q	Q	17.6
<b>1990 Family Income</b>									
Less than \$10,000	4	13.8	.10	.11	.6	Q	.08	.10	Q
\$10,000 to \$19,999	.5	24.1	.18	.20	.6	10.7	.06	.10	.7
\$20,000 to \$34,999	.3	15.0	.11	.12	.8	11.9	.09	.11	.5
\$35,000 or More	.4	23.9	.17	.19	.5	4.2	.03	.04	.6
<b>Below Poverty Line</b>									
100 Percent	Q	Q	Q	Q	.5	7.9	.06	.08	.7
125 Percent	.4	13.8	.10	.11	.7	10.5	.08	.10	.9
<b>Age of Householder</b>									
Under 35 Years	Q	Q	Q	Q	.9	9.3	.07	.09	.6
35 to 59 Years	.8	36.2	.26	.29	1.1	20.2	.15	.19	1.1
60 Years and Over	.7	28.7	.21	.23	5.4	4.7	.03	.04	.9

See footnotes at end of table.

**Table 70. Total Fuel Oil, Kerosene, and LPG Consumption and Expenditures for Space Heating in South Region Households, 1990 (Continued)**

Characteristics	Fuel Oil			Kerosene			Liquefied Petroleum Gas			RSE Row Factors		
	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		
		(trillion Btu)	(billion gallons)			(trillion Btu)	(billion gallons)			(trillion Btu)	(billion gallons)	
RSE Column Factors:	0.9	NF	NF	NF	0.6	NF	NF	NF	1.0	NF	NF	NF

**South Region**

**Household Size**

1 Person .....	Q	Q	Q	Q	0.5	5.1	0.04	0.05	0.6	14.9	0.16	0.17
2 to 4 Persons .....	1.3	59.4	0.43	0.48	1.6	21.5	.16	.19	1.7	44.6	.49	.54
5 or More Persons .....	Q	Q	Q	Q	.4	7.6	.06	.07	.3	6.2	.07	.07

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the South Atlantic, East South Central and West South Central Divisions are not presented separately due to a scarcity of data.

• To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 71. Electricity Consumption and Expenditures for Main Space Heating, per South Region Household, 1990**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Electricity Space-Heating Intensity		RSE Row Factors		
		Households (million) (Blu)	(kWh)			Expenditures (dollars)	Consumption (kWh/HDD* 1000 square feet)			
		NF	NF			NF	Q			
RSE Column Factors:	1.5	NF	NF	0.7	1.0	0.9	NF	NF		
<b>Total Region</b>	12.3	9.0	2,626	181	1,375	1,791	2,431	1.07	7.4	6.3
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	.96	Q	NF
Under 5,500 HDD	12.5	3,670	245	1,372	2,797	3,650	3,650	.96	6.4	7.3
2,000 CDD or More and Under 4,000 HDD	5.8	5.7	1,681	123	1,379	871	1,314	1.40	10.2	10.1
<b>Type of Housing Unit</b>										
Single-Family	7.4	11.1	3,257	224	1,734	1,669	2,288	1.13	7.7	7.0
Mobile Home	6	11.8	3,448	217	1,901	2,788	3,539	1.37	8.6	13.5
Multifamily (2 or more units)	4.3	4.8	1,412	102	823	1,856	2,512	.92	6.7	10.2
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	4.9	5.9	1,722	119	751	1,835	2,490	1.25	8.6	7.7
1,000 to 1,999	5.2	10.0	2,917	202	1,417	1,772	2,405	1.16	8.0	8.0
2,000 or More	2.2	13.5	3,968	273	2,670	1,738	2,358	.86	5.9	8.4
<b>Ownership of Unit</b>										
Owned	6.9	11.0	3,217	220	1,735	1,852	2,509	1.00	6.9	7.8
Rented	5.4	6.4	1,879	132	920	1,715	2,331	1.19	8.4	7.0
<b>Year of Construction</b>										
1949 or Before	8	11.8	3,446	224	1,208	1,968	2,536	1.45	9.4	15.1
1950 to 1979	6.4	9.8	2,880	197	1,381	1,654	2,242	1.26	8.6	6.9
1980 or After <sup>2</sup>	5.1	7.5	2,188	155	1,991	1,937	2,650	.81	5.8	10.0
<b>1990 Family Income</b>										
Less than \$10,000	1.7	8.4	2,474	161	923	2,008	2,670	1.34	8.7	10.9
\$10,000 to \$19,999	2.7	8.8	2,586	173	1,134	1,927	2,570	1.18	7.9	8.8
\$20,000 to \$34,999	3.2	7.9	2,313	180	1,274	1,732	2,363	1.05	7.3	10.3
\$35,000 or More	4.7	9.9	2,915	207	1,744	1,675	2,309	1.00	7.1	9.2
<b>Below Poverty Line</b>										
100 Percent	1.4	8.9	2,620	173	1,005	1,977	2,624	1.32	8.7	10.8
125 Percent	2.1	9.1	2,656	175	1,020	1,952	2,595	1.33	8.8	9.5
<b>Age of Householder</b>										
Under 35 Years	4.1	6.9	2,021	144	1,059	1,843	2,493	1.04	7.4	9.8
35 to 59 Years	5.5	10.2	2,979	204	1,657	1,732	2,360	1.04	7.1	7.4
60 Years and Over	2.6	9.7	2,840	192	1,277	1,835	2,481	1.21	8.2	10.2
<b>Household Size</b>										
1 Person	3.3	7.1	2,067	144	985	1,927	2,611	1.09	7.6	9.6
2 to 4 Persons	7.8	9.7	2,837	195	1,505	1,788	2,424	1.05	7.2	7.5
5 or More Persons	1.1	9.6	2,813	196	1,619	1,419	1,949	1.22	8.5	10.7
<b>Main Heating Equipment Using Electricity</b>										
Central Warm-Air Furnace	5.2	7.3	2,153	149	1,285	1,415	1,944	1.20	8.3	9.6
Built-In Electric Units	1.7	12.6	3,682	240	1,187	2,551	3,317	1.22	7.9	9.9
Heat Pump	4.8	9.5	2,785	197	1,595	2,004	2,742	.87	6.2	8.4
Other	.6	8.4	2,472	167	1,098	1,181	1,622	1.91	12.9	25.2

See footnotes at end of table.

SOUTH

SOUTH

SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 71. Electricity Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors	
	(million BTU)	(kWh)		1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)		
	RSE Column Factors:	1.5	NF	NF	NF	NF	NF		
<b>Age of Main Heating Equipment</b>									
Less than 5 Years .....									
5 to 9 Years .....	2.8	9.1	2,681	190	1,580	2,457	0.94	6.7	
10 to 19 Years .....	3.5	7.2	2,124	154	1,388	1,726	.89	6.4	
20 Years or More .....	3.2	10.4	3,045	205	1,421	1,808	2,426	10.7	
Don't Know .....	1.2	12.8	3,741	240	1,207	2,330	3,034	8.0	
1.7	6.7	1,975	134	1,027	1,490	2,036	1.33	10.2	
1.7	6.7	1,975	134	1,027	1,490	2,036	1.29	8.7	
<b>Secondary Heating Fuel (more than one may apply)</b>									
No .....	7.4	6.8	1,986	137	1,105	1,598	2,204	1.12	
Yes .....	4.9	12.3	3,593	249	1,782	2,084	2,774	.97	
Wood .....	3.3	12.4	3,637	254	1,982	2,136	2,844	.87	
Electricity .....	.7	9.7	2,829	197	1,305	1,751	2,342	1.24	
Natural Gas .....	.3	13.0	3,811	266	1,743	1,500	1,998	1.46	
Kerosene .....	.7	14.6	4,268	286	1,420	2,512	3,333	1.20	
Other .....	Q	Q	Q	Q	Q	Q	Q	NF	
<b>Average Electricity Expenditures for Main Space Heat (cents per kWh)</b>									
Less than 6 .....	2.0	16.1	4,713	259	1,419	3,036	3,797	1.09	
6 to Less than 9 .....	9.9	7.8	2,276	170	1,378	1,572	2,190	1.05	
9 or More .....	.4	Q	Q	Q	Q	Q	Q	Q	
<b>Winter Temperature Inside Housing Unit</b>									
Pref.	10.2	8.4	2,459	170	1,937	1,692	2,313	1.09	
Usual Temperature .....	2.0	11.8	3,467	298	1,563	2,358	3,095	.94	
Warmer Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q	
Cooler Temperature .....	Q	Q	Q	Q	Q	Q	Q	NF	
<b>Adequacy of Insulation</b>									
Well Insulated .....	4.9	9.7	2,836	191	1,522	1,846	2,505	1.01	
Adequately Insulated .....	5.4	8.2	2,399	168	1,341	1,732	2,367	1.03	
Poorly Insulated .....	1.7	9.5	2,782	198	1,113	1,813	2,418	1.38	
Don't Know .....	.3	8.1	2,369	159	1,068	1,827	2,425	Q	

See footnotes at end of table.

South Region

## SPACE-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 71. Electricity Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Households (million)	Household Income (million \$)	Consumption (kWh)	Expenditures (dollars)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors	
					Heated Floorspace (square feet)		Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)		
					1990	30-Year Average <sup>1</sup>				
RSE Column Factors:	1.5	NF	NF	NF	0.7	1.0	0.9	NF	NF	
South Atlantic Division .....	7.9	7.4	2,179	161	1,363	1,606	2,269	1.00	7.3	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	Q	Q	3,272	237	Q	Q	Q	.90	6.5	
Under 5,500 HDD .....	3.9	11.2	3,272	237	1,325	2,752	3,643	Q	NF	
2,000 CDD or More and									9.2	
Under 4,000 HDD .....	3.9	3.6	1,061	83	1,406	420	849	1.80	14.0	
Type of Housing Unit										
Single-Family .....	5.1	8.5	2,492	185	1,641	1,415	2,042	1.07	8.0	
Mobile Home .....	Q	13.7	4,024	249	888	3,477	4,271	1.30	8.1	
Multifamily (2 or more units) .....	2.5	4.6	1,342	102	863	1,771	2,492	.88	6.7	
Heated Floorspace (square feet)										
Fewer than 1,000 .....	3.1	5.4	1,579	113	777	1,680	2,374	1.21	8.7	
1,000 to 1,999 .....	3.5	8.0	2,337	174	1,426	1,606	2,254	1.02	7.6	
2,000 or More .....	1.4	10.6	3,119	233	2,509	1,438	2,073	.86	6.5	
Ownership of Unit										
Owned .....	4.7	8.7	2,558	188	1,669	1,668	2,339	.92	6.8	
Rented .....	3.3	5.6	1,637	122	925	1,516	2,169	1.17	8.7	
Year of Construction										
1949 or Before .....	4	7.8	2,300	153	1,173	1,433	1,946	1.37	9.1	
1950 to 1979 .....	3.7	8.3	2,422	178	1,404	1,382	1,988	1.25	9.2	
1980 or After <sup>2</sup> .....	3.8	6.6	1,934	145	1,344	1,838	2,573	.78	5.9	
1990 Family Income										
Less than \$10,000 .....	1.1	7.6	2,223	152	1,020	1,781	2,450	1.22	8.4	
\$10,000 to \$19,999 .....	1.7	7.2	2,098	148	1,121	1,684	2,341	1.11	7.8	
\$20,000 to \$34,999 .....	2.0	6.4	1,872	140	1,194	1,505	2,168	1.04	7.8	
\$35,000 or More .....	3.2	8.2	2,402	184	1,717	1,568	2,233	.89	6.8	
Below Poverty Line										
100 Percent .....	.9	7.9	2,323	165	1,090	1,725	2,380	1.23	8.8	
125 Percent .....	1.3	8.1	2,374	166	1,119	1,727	2,377	1.23	8.6	
Age of Householder										
Under 35 Years .....	2.7	6.1	1,786	134	1,081	1,719	2,408	.96	7.2	
35 to 59 Years .....	3.6	8.7	2,536	187	1,709	1,530	2,172	.97	7.2	
60 Years and Over .....	1.6	7.0	2,051	147	1,073	1,583	2,250	1.21	8.6	
Household Size										
1 Person .....	2.2	6.5	1,901	198	1,023	1,829	2,560	1.02	7.4	
2 to 4 Persons .....	5.0	7.8	2,278	169	1,479	1,547	2,195	1.00	7.4	
5 or More Persons .....	.7	8.0	2,346	171	1,602	1,322	1,881	1.11	8.1	

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 71. Electricity Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Space-Heating Intensity		RSE Row Factors
	Households (million)	(Btu)			30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	
RSE Column Factors:	1.5	NF	NF	NF	0.7	1.0	0.9
East South Central Division ..	2.1	14.5	4,259	246	1,377	2,749	3,513
Climate Zone <sup>1</sup>							
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	912	2,037	2,666
Type of Housing Unit							
Single-Family .....	1.2	20.0	5,853	335	1,857	2,904	3,673
Mobile Home .....	.2	12.1	3,556	214	891	2,823	3,711
Multifamily (2 or more units) ..	.7	6.0	1,764	104	711	2,462	3,178
Heated Floorspace (square feet)							
Fewer than 1,000 .....	.9	8.7	2,542	148	669	2,559	3,291
1,000 to 1,999 .....	.8	17.1	5,014	287	1,395	2,811	3,583
2,000 or More .....	.4	22.4	6,560	382	2,995	3,049	3,864
Ownership of Unit							
Owned .....	1.1	18.7	5,476	313	1,815	2,957	3,768
Rented .....	.9	9.3	2,738	162	830	2,490	3,193
Year of Construction							
1949 or Before .....	.2	14.4	4,228	245	1,103	2,803	3,527
1950 to 1979 .....	1.2	15.9	4,671	268	1,278	2,671	3,403
1980 or After <sup>2</sup> .....	.6	11.9	3,473	203	1,651	2,884	3,721
1990 Family Income							
Less than \$10,000 .....	.4	11.1	3,259	182	736	2,680	3,431
\$10,000 to \$19,999 .....	.6	14.3	4,185	245	1,160	2,655	3,390
\$20,000 to \$34,999 .....	.5	15.7	4,599	267	1,912	2,884	3,635
\$35,000 or More .....	.5	16.5	4,830	279	1,623	2,778	3,594
Below Poverty Line							
100 Percent .....	.3	11.9	3,490	190	828	2,666	3,397
125 Percent .....	.5	12.5	3,654	202	819	2,693	3,433
Age of Householder							
Under 35 Years .....	.6	11.6	3,389	202	1,125	2,604	3,350
35 to 59 Years .....	1.0	14.8	4,338	246	1,447	2,747	3,510
60 Years and Over .....	.5	17.5	5,133	297	1,541	2,924	3,710
Household Size							
1 Person .....	.6	10.6	3,104	182	933	2,732	3,496
2 to 4 Persons .....	1.4	16.0	4,702	271	1,540	2,759	3,525
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

**Table 71. Electricity Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	
RSE Column Factors:	1.5	NF	NF	NF	0.7	1.0	0.9	NF	NF	
<b>West South Central Division</b>	2.3	9.2	2,691	192	1,411	1,571	2,018	1.21	8.7	14.2
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC NF
Under 5,500 HDD .....										
2,000 CDD or More and Under 4,000 HDD .....	2.2	9.0	2,626	187	1,396	1,500	1,945	1.25	8.9	13.2
<b>Type of Housing Unit</b>										
Single-Family .....	1.2	13.6	3,994	281	2,018	1,530	1,966	1.29	9.1	13.8
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units) ..	1.0	4.6	1,350	101	802	1,664	2,126	1.01	7.6	17.8
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.0	4.9	1,436	109	743	1,672	2,136	1.16	8.8	21.3
1,000 to 1,999 .....	.9	11.2	3,297	233	1,438	1,498	1,952	1.53	10.8	7.9
2,000 or More .....	.4	14.7	4,297	298	2,886	1,491	1,887	1.00	6.9	17.8
<b>Ownership of Unit</b>										
Owned .....	1.1	12.5	3,658	259	1,934	1,461	1,897	1.29	9.2	18.0
Rented .....	1.3	6.4	1,876	136	970	1,663	2,121	1.16	8.5	18.0
<b>Year of Construction</b>										
1949 or Before .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
1950 to 1979 .....	1.5	8.6	2,524	183	1,411	1,478	1,907	1.21	8.8	15.3
1980 or After <sup>2</sup> .....	.7	8.2	2,414	169	1,408	1,595	2,070	1.07	7.5	18.7
<b>1990 Family Income</b>										
Less than \$10,000 .....	Q	7.3	2,133	163	814	1,779	2,217	1.47	11.3	19.3
\$10,000 to \$19,999 .....	.4	7.9	2,323	174	1,153	1,890	2,356	1.07	8.0	25.4
\$20,000 to \$34,999 .....	.6	6.3	1,857	138	1,013	1,517	1,957	1.21	9.0	19.0
\$35,000 or More .....	1.0	11.9	3,478	240	1,890	1,429	1,876	1.29	8.9	13.4
<b>Below Poverty Line</b>										
100 Percent .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
125 Percent .....	.3	8.1	2,365	175	891	1,798	2,267	1.48	10.9	18.2
<b>Age of Householder</b>										
Under 35 Years .....	.8	6.2	1,810	132	943	1,703	2,161	1.13	8.2	19.2
35 to 59 Years .....	1.0	11.1	3,246	225	1,677	1,468	1,917	1.32	9.1	16.7
60 Years and Over .....	.5	10.5	3,089	231	1,683	1,550	1,979	1.18	8.9	14.1
<b>Household Size</b>										
1 Person .....	.6	5.8	1,686	127	891	1,510	1,942	1.25	9.4	19.6
2 to 4 Persons .....	1.4	10.2	2,990	211	1,565	1,689	2,151	1.13	8.0	15.6
5 or More Persons .....	.4	10.8	3,160	225	1,656	1,215	1,636	1.57	11.2	14.7

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 72. Natural Gas Consumption and Expenditures for Main Space Heating,  
per South Region Household, 1990**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity		RSE Column Factors:
				Expend- itures (dollars)	1990	30-Year Average <sup>1</sup>	Consumption (cubic feet/ HDD*1000 square feet)	
	House- holds (million)	(1000 cubic feet)		0.7	1.0	0.8	NF	
<b>South Region</b>								
<b>Total Region</b>	14.1	47.1	45.7	269	1,561	2,513	3,097	11.6
<b>Climate Zone<sup>1</sup></b>								6.9
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD	7.2	57.3	55.7	327	1,691	3,278	3,978	10.0
2,000 CDD or More and Under 4,000 HDD	6.9	36.5	35.3	208	1,426	1,721	2,184	14.4
<b>Type of Housing Unit</b>								8.5
Single-Family	11.6	51.3	49.7	293	1,710	2,475	3,060	11.8
Mobile Home	.3	33.2	32.0	213	818	2,862	3,398	13.7
Multifamily (2 or more units)	2.2	26.8	26.1	149	876	2,667	3,249	11.2
<b>Heated Floorspace (square feet)</b>								7.9
Fewer than 1,000	3.8	33.4	32.4	197	761	2,508	3,124	17.0
1,000 to 1,999	7.1	45.1	43.8	254	1,411	2,927	2,839	13.3
2,000 or More	3.3	67.0	64.9	383	2,799	2,921	3,622	7.9
<b>Ownership of Unit</b>								4.7
Owned	10.0	52.0	50.4	297	1,799	2,533	3,119	11.1
Rented	4.1	35.1	34.1	201	981	2,465	3,042	14.1
<b>Year of Construction</b>								8.3
1949 or Before	3.6	54.8	52.9	322	1,395	2,484	3,110	15.2
1950 to 1979	9.2	44.6	43.3	253	1,552	2,495	3,043	11.2
1980 or After <sup>2</sup>	1.3	43.7	42.6	234	2,072	2,720	3,431	7.6
<b>1990 Family Income</b>								4.2
Less than \$10,000	3.0	36.8	35.6	216	1,096	2,289	2,762	14.2
\$10,000 to \$19,999	2.6	43.6	42.3	254	1,290	2,440	3,033	13.4
\$20,000 to \$34,999	3.8	48.2	46.6	263	1,440	2,523	3,095	12.8
\$35,000 or More	4.7	54.7	53.2	316	2,110	2,689	3,348	9.4
<b>Below Poverty Line</b>								5.6
100 Percent	2.7	35.1	34.0	201	1,077	2,177	2,629	14.5
125 Percent	3.4	36.8	35.6	212	1,125	2,186	2,648	14.5
<b>Age of Householder</b>								8.6
Under 35 Years	3.6	40.8	39.6	225	1,313	2,572	3,140	11.7
35 to 59 Years	6.0	46.6	45.3	268	1,727	2,547	3,162	10.3
60 Years and Over	4.5	52.8	51.1	306	1,540	2,419	2,974	13.7
<b>Household Size</b>								8.2
1 Person	3.2	43.8	42.4	261	1,320	2,419	3,033	13.3
2 to 4 Persons	9.2	48.7	47.2	275	1,660	2,557	3,133	11.1
5 or More Persons	1.7	44.7	43.5	248	1,474	2,453	3,020	12.0
<b>Main Heating Equipment Using Natural Gas</b>								6.9
Central Warm-Air Furnace	9.6	49.6	48.1	282	1,744	2,610	3,221	10.6
Steam or Hot-Water System	.7	59.3	57.5	362	1,318	3,465	4,180	12.6
Floor, Wall, or Pipeless Furnace	1.6	42.0	41.0	223	1,183	2,461	2,944	14.1
Room Heater/Other	2.2	36.1	34.9	219	1,115	1,847	2,349	17.0

SOUTH  
See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 72. Natural Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption (1000 cubic feet)	Expenditures (dollars)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity		RSE Row Factors	
				Heated Floorspace (square feet)		Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)		
				1990	30-Year Average <sup>1</sup>				
RSE Column Factors:	1.6	NF	NF	0.7	1.0	0.8	NF	NF	
<b>South Region</b>									
<b>Age of Main Heating Equipment</b>									
Less than 5 Years .....	2.4	53.4	51.9	298	2,080	2,783	3,452	8.9	
5 to 9 Years .....	2.3	45.3	43.8	264	1,563	2,306	2,899	12.1	
10 to 19 Years .....	4.1	47.4	46.2	266	1,589	2,585	3,119	11.2	
20 Years or More .....	3.5	49.8	48.1	293	1,451	2,424	3,000	13.7	
Don't Know .....	1.9	35.4	34.4	199	1,035	2,436	3,022	13.6	
								7.9	
<b>Secondary Heating Fuel (more than one may apply)</b>									
No .....	7.5	41.1	39.8	242	1,316	2,406	2,988	12.6	
Yes .....	6.6	53.9	52.3	300	1,838	2,635	3,219	10.8	
Wood .....	2.8	65.9	54.2	302	2,235	2,712	3,345	8.9	
Electricity .....	3.6	53.1	51.7	300	1,738	2,571	3,131	11.6	
Kerosene .....	.5	53.6	52.0	328	1,333	2,951	3,646	13.2	
Other .....	.6	45.2	43.9	237	1,359	2,176	2,591	14.8	
								8.0	
								9.9	
<b>Average Natural Gas Expenditures for Main Space Heat (dollars per 1000 cf)</b>									
Less than 4.50 .....	2.1	62.6	61.3	241	1,643	3,298	3,661	11.3	
4.50 to Less than 6 .....	4.1	51.1	49.6	261	1,528	2,148	3,062	13.4	
6 or More .....	8.0	41.0	39.6	280	1,556	2,359	2,958	10.8	
								10.8	
<b>Winter Temperature Inside Housing Unit Prefer</b>									
Usual Temperature .....	12.1	47.4	46.0	270	1,583	2,506	3,082	11.6	
Warmer Temperature .....	1.8	44.2	42.8	256	1,379	2,506	3,134	12.4	
Cooler Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q	
<b>Adequacy of Insulation</b>									
Well Insulated .....	5.1	48.2	46.8	276	1,803	2,599	3,242	10.0	
Adequately Insulated .....	5.2	47.5	46.0	268	1,548	2,572	3,147	11.6	
Poorly Insulated .....	3.1	47.8	46.3	278	1,289	2,201	2,726	16.2	
Don't Know .....	.7	32.0	31.2	176	1,007	2,857	3,314	10.8	
								10.8	
								6.1	
								14.7	

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 72. Natural Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity		RSE Column Factors:
	Households (million)	(1000 cubic feet)		1990	30-Year Average <sup>1</sup>	Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
South Atlantic Division .....	5.0	50.0	48.4	336	1,595	2,904	3,621	10.5
Climate Zone <sup>1</sup>								
Under 2,000 CDD and								
Over 5,500 HDD .....	NC	NC	NC	359	1,623	3,196	3,954	10.1
Under 5,500 HDD .....	4.4	54.0	52.3					NC
2,000 CDD or More and								6.9
Under 4,000 HDD .....	Q	Q	Q	1,391	Q	Q	Q	Q
Type of Housing Unit								
Single-Family .....	3.9	57.5	55.6	385	1,801	2,887	3,599	10.7
Mobile Home .....	Q	Q	Q	910	Q	Q	Q	Q
Multifamily (2 or more units) .....	1.0	23.3	22.6	157	2,902	3,642	8.6	5.9
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.4	32.8	31.8	226	733	2,894	3,646	15.0
1,000 to 1,999 .....	2.1	47.7	46.1	316	1,412	2,529	3,198	12.9
2,000 or More .....	1.4	71.3	69.0	479	2,759	3,486	4,239	7.2
Ownership of Unit								
Owned .....	3.3	59.4	57.5	399	1,896	3,062	3,776	9.9
Rented .....	1.7	31.7	30.7	212	1,004	2,595	3,316	11.8
Year of Construction								
1949 or Before .....	1.4	62.4	60.5	414	1,513	3,004	3,742	13.3
1950 to 1979 .....	3.2	46.2	44.7	312	1,632	2,893	3,596	9.5
1980 or After <sup>2</sup> .....	Q	35.7	34.9	243	1,589	2,619	3,377	8.4
1990 Family Income								
Less than \$10,000 .....	.7	45.4	43.7	302	1,183	2,610	3,253	14.1
\$10,000 to \$19,999 .....	.9	42.8	41.4	295	1,270	2,836	3,547	11.5
\$20,000 to \$34,999 .....	1.4	47.0	45.3	313	1,326	2,770	3,485	12.3
\$35,000 or More .....	2.0	56.9	55.3	381	2,062	3,124	3,869	8.6
Below Poverty Line								
100 Percent .....	.5	40.7	39.5	258	1,152	2,214	2,867	15.5
125 Percent .....	.7	41.2	39.9	272	1,108	2,238	2,879	16.1
Age of Householder								
Under 35 Years .....	1.3	36.4	35.1	242	1,202	2,665	3,411	11.0
35 to 59 Years .....	2.3	51.9	50.5	345	1,813	3,007	3,744	9.3
60 Years and Over .....	1.4	59.7	57.5	408	1,611	2,961	3,618	12.0
Household Size								
1 Person .....	1.2	44.4	42.9	309	1,315	2,774	3,462	11.8
2 to 4 Persons .....	3.3	51.0	49.3	341	1,694	2,881	3,594	10.1
5 or More Persons .....	.5	57.7	56.1	368	1,597	3,390	4,200	10.4

See footnotes at end of table.

Table 72. Natural Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Heated Floorspace (square feet)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity		RSE Row Factors
		(million Btu)	(1000 cubic feet)			1990	30-Year Average <sup>1</sup>	Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
RSE Column Factors:	1.6	NF	NF	NF	0.7	1.0	0.8	NF	NF	
<b>East South Central Division</b>	2.8	50.9	49.1	245	1,696	2,734	3,506	10.6	5.3	14.9
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD	1.8	59.0	57.0	283	1,971	3,186	4,047	9.1	4.5	13.0
2,000 CDD or More and Under 4,000 HDD	Q	35.7	34.4	175	1,187	1,896	2,503	15.3	7.8	41.3
<b>Type of Housing Unit</b>										
Single-Family	2.2	56.1	54.1	272	1,953	2,814	3,609	9.8	4.9	14.5
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units)	.6	33.4	32.4	152	810	2,472	3,179	16.2	7.6	15.5
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	.9	40.0	38.8	189	773	2,571	3,297	19.5	9.5	11.5
1,000 to 1,999	1.0	49.1	47.4	246	1,400	2,506	3,202	13.5	7.0	9.6
2,000 or More	Q	63.4	61.0	297	2,929	3,149	4,053	6.6	3.2	15.2
<b>Ownership of Unit</b>										
Owned	2.0	56.1	54.1	267	2,022	2,853	3,660	9.4	4.6	14.5
Rented	.9	39.0	37.7	193	951	2,462	3,156	16.1	8.2	15.6
<b>Year of Construction</b>										
1949 or Before	.8	64.7	61.8	310	1,238	2,731	3,478	18.3	9.2	10.4
1950 to 1979	1.6	41.7	40.4	206	1,514	2,537	3,266	10.5	5.4	13.6
1980 or After <sup>2</sup>	Q	59.3	57.8	269	3,024	3,390	4,344	5.6	2.6	29.4
<b>1990 Family Income</b>										
Less than \$10,000	.6	50.1	48.2	245	972	2,537	3,236	19.6	9.9	15.3
\$10,000 to \$19,999	.6	40.9	39.7	199	1,166	2,619	3,327	13.0	6.5	13.9
\$20,000 to \$34,999	.7	47.7	45.4	221	1,514	2,580	3,303	11.6	5.7	12.6
\$35,000 or More	1.0	59.2	57.5	287	2,536	3,021	3,906	7.5	3.7	18.4
<b>Below Poverty Line</b>										
100 Percent	.4	50.4	48.4	249	982	2,523	3,211	19.5	10.0	17.0
125 Percent	.6	50.6	48.7	247	1,021	2,527	3,209	18.9	9.6	15.1
<b>Age of Householder</b>										
Under 35 Years	.7	47.9	46.5	235	1,555	2,822	3,598	10.6	5.3	18.5
35 to 59 Years	1.3	49.9	48.2	242	1,999	2,739	3,534	8.8	4.4	16.8
60 Years and Over	.8	55.2	53.0	258	1,325	2,643	3,376	15.1	7.4	10.3
<b>Household Size</b>										
1 Person	.7	47.5	45.9	225	1,209	2,623	3,370	14.5	7.1	13.1
2 to 4 Persons	1.8	53.0	51.1	258	1,924	2,781	3,567	9.5	4.8	15.5
5 or More Persons	.3	46.1	44.8	209	1,521	2,728	3,478	10.8	5.0	23.7

See footnotes at end of table.

**Table 72. Natural Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Column Factors:			
	House-holds (million)	(1000 cubic feet)			Expenditures (dollars)	Consumption (cubic feet/HDD*1000 square feet)				
	1.6	NF			NF	0.7				
<b>West South Central Division.</b>	6.3	43.0	41.9	227	1,473	2,104	2,498	13.5	7.3	6.6
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	NC Q	NC 69.6	NC 69.2	NC 269	NC 1,468	NC 3,840	NC 3,950	NC 12.3	NC 4.8	NC 11.5
Under 5,500 HDD										
2,000 CDD or More and Under 4,000 HDD	5.4	38.4	37.1	219	1,474	1,798	2,242	14.0	8.3	7.4
<b>Type of Housing Unit</b>										
Single-Family	5.6	45.1	43.9	238	1,553	2,056	2,470	13.8	7.4	6.6
Mobile Home	Q .6	Q 26.3	Q 25.6	Q 134	Q 885	Q 2,457	Q 2,645	Q Q	Q NF	Q Row Factors
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000		1.4	29.9	29.2	173	782	2,078	2,488	18.0	10.6
1,000 to 1,999		3.9	42.6	41.5	222	1,414	2,169	2,546	13.5	7.2
2,000 or More		1.0	64.2	62.5	326	2,735	1,879	2,314	12.2	6.3
<b>Ownership of Unit</b>										
Rented	4.7	45.1	44.0	238	1,639	2,029	2,434	2,687	13.2	7.1
Owned	1.6	36.7	35.8	193	974	2,328	2,687	3,148	15.8	8.5
<b>Year of Construction</b>										
1949 or Before	1.4	41.8	40.5	237	1,362	1,833	2,281	2,681	16.2	9.5
1950 to 1979	4.4	44.4	43.3	227	1,507	2,189	2,560	2,951	13.1	6.9
1980 or After <sup>2</sup>	.5	34.1	33.4	192	1,492	2,129	2,561	2,951	10.5	6.1
<b>1990 Family Income</b>										
Less than \$10,000	1.8	29.4	28.6	174	1,103	2,089	2,426	2,846	12.4	7.6
\$10,000 to \$19,999	1.2	45.6	44.3	247	1,364	2,046	2,491	2,891	15.9	8.9
\$20,000 to \$34,999	1.7	49.3	48.2	241	1,502	2,299	2,693	3,148	14.0	7.0
\$35,000 or More	1.6	49.2	47.9	253	1,912	1,956	2,374	2,748	12.8	6.8
<b>Below Poverty Line</b>										
100 Percent	1.8	29.8	29.0	175	1,081	2,081	2,422	2,416	12.9	7.8
125 Percent	2.1	31.5	30.6	182	1,159	2,075	2,416	2,416	12.7	7.6
<b>Age of Householder</b>										
Under 35 Years	1.6	41.1	40.2	208	1,294	2,383	2,712	2,712	13.0	6.7
35 to 59 Years	2.4	40.0	38.9	209	1,502	2,017	2,420	2,420	12.8	6.9
60 Years and Over	2.3	47.7	46.4	259	1,569	1,999	2,428	2,428	14.8	8.2
<b>Household Size</b>										
1 Person	1.3	41.1	39.9	237	1,391	1,967	2,434	2,434	14.6	8.7
2 to 4 Persons	4.1	44.9	43.8	230	1,516	2,194	2,564	2,564	13.2	6.9
5 or More Persons	1.0	37.7	36.8	199	1,398	1,904	2,297	2,297	13.8	7.5

## SPACE-HEATING CONSUMPTION/EXPENDITURES

SOUTH

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.  
<sup>2</sup> Does not include all new construction for 1990.  
 NC = No cases in sample.  
 Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.  
 NF = No applicable RSE row/column factor.  
 Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.  
 Source: Energy Information Administration, Office of Energy Markets and End Use, Forms ELA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 73. Fuel Oil Consumption and Expenditures for Main Space Heating, per South Region Household, 1990**

## **SPACE-HEATING CONSUMPTION/EXPENDITURES**

SOUTH

		South Region				North Region			
		Total Region	356	395	1,607	3,125	3,978	0,071	7.9
Climate Zone <sup>1</sup>		South Atlantic Division	49.0	359	1,581	3,094	3,939	.073	8.2
		East South Central Division	49.3	Q	Q	Q	Q	Q	NF
		West South Central Division	49.0	NC	NC	NC	NC	NC	NC
Type of Housing Unit		Under 2,000 CDD and	1.5	NC	NC	NC	NC	NC	NC
		Over 5,500 HDD	1.4	NC	407	1,650	3,245	.070	7.7
		Under 5,500 HDD	1.4	Q	Q	Q	Q	Q	10.0
		2,000 CDD or More and	1.5	Q	Q	Q	Q	Q	Q
		Under 4,000 HDD	1.5	Q	Q	Q	Q	Q	NF
Heated Floorspace (square feet)		Single-Family	1.3	48.9	355	395	1,722	3,131	3,985
		Mobile Home	1.3	Q	Q	Q	Q	Q	.066
		Multifamily (2 or more units)	1.3	Q	Q	Q	Q	Q	7.3
Ownership of Unit		Fewer than 1,000	4	39.8	294	324	744	2,875	3,719
		1,000 to 1,999	6	44.5	323	366	1,303	2,914	3,731
		2,000 or More	5	61.0	441	482	2,589	3,559	4,461
Year of Construction		1949 or Before	6	63.3	461	504	1,751	3,351	3,919
		1950 to 1979	9	40.4	293	330	1,540	2,980	4,222
		1980 or After <sup>2</sup>	9	Q	Q	Q	Q	Q	.060
1990 Family Income		Less than \$10,000	4	37.3	271	306	1,217	3,125	3,988
		\$10,000 to \$19,999	4	50.4	368	409	1,270	3,320	4,151
		\$20,000 to \$34,999	3	48.8	356	402	1,611	3,127	4,028
		\$35,000 or More	4	58.7	424	460	2,384	2,892	3,719
Below Poverty Line		100 Percent	Q	Q	Q	Q	Q	Q	Q
		125 Percent	4	33.9	247	280	1,187	3,278	4,155
Age of Householder		Under 35 Years	Q	50.9	374	416	Q	Q	Q
		35 to 59 Years	7	49.2	357	392	1,776	3,168	3,751
		60 Years and Over	6	48.0	348	391	1,564	3,159	3,986
Household Size		1 Person	Q	Q	Q	Q	Q	Q	Q
		2 to 4 Persons	12	48.5	352	393	1,649	3,110	3,967
		5 or More Persons	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 73. Fuel Oil Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)

Characteristics	Consumption			Heated Floor- space (square feet)	Annual Heating Degree-Days	Space-Heating Intensity	Fuel Oil Expenditures (cents/ HDD*1000 square feet)	RSE Row Factors					
	House- holds (million)	(million Btu)	(gallons)										
<b>South Region</b>													
<b>Main Heating Equipment Using Fuel Oil</b>													
Central Warm-Air													
Furnace .....	1.0	45.7	332	371	1,669	3,114	3,953	0.064					
Steam or Hot-Water System .....	Q	Q	84.1	611	Q	Q	4,356	4,333					
Other .....	Q	Q	666	Q	Q	Q	Q	.092					
								.073					
<b>Age of Main Heating Equipment</b>													
Less than 5 Years .....	3	47.4	345	400	1,398	2,940	3,755	.084					
5 to 9 Years .....	Q	Q	41.0	Q	Q	Q	Q	Q					
10 to 19 Years .....	Q	Q	298	333	1,814	3,070	3,899	.054					
20 Years or More .....	4	59.6	433	471	1,592	3,129	4,017	.087					
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q					
<b>Secondary Heating Fuel (more than one may apply)</b>													
No .....	5	57.4	417	459	1,452	3,269	4,085	.088					
Yes .....	1.0	45.1	329	366	1,678	3,060	3,929	.064					
Wood .....	5	43.6	318	355	1,930	3,266	4,166	.051					
Electricity .....	Q	Q	48.9	356	1,753	3,058	3,917	.066					
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q					
Other .....	Q	Q	Q	Q	Q	Q	Q	Q					
<b>Average Fuel Oil Expenditures for Main Space Heat (dollars per gallon)</b>													
Less than .95 .....	95	57.4	417	459	1,452	3,269	4,085	.088					
.95 to Less than 1.10 .....	Q	Q	40.1	329	1,678	3,060	3,929	.064					
1.10 or More .....	6	47.1	340	398	1,930	3,266	4,166	.051					
<b>Winter Temperature Inside Housing Unit</b>													
Prefer													
Usual Temperature .....	1.3	47.9	348	387	1,582	3,050	3,904	.072					
Warmer Temperature .....	Q	Q	Q	Q	Q	Q	Q	Q					
Cooler Temperature .....	NC	NC	NC	NC	NC	NC	NC	NC					
<b>Adequacy of Insulation</b>													
Well Insulated .....	6	39.2	283	320	1,715	3,092	3,928	.053					
Adequately Insulated .....	6	48.3	352	391	1,566	3,016	3,874	.075					
Poorly Insulated .....	3	70.3	512	557	1,480	3,427	4,301	.101					
Don't Know .....	NC	NC	NC	NC	NC	NC	NC	NC					

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the South Atlantic, East, South Central and West South Central Divisions are not presented separately due to a scarcity of data.

• To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 74. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990**

Characteristics	Consumption		Heated Floor-space (square feet)	Annual Heating Degree-Days	Liquefied Petroleum Gas Space-Heating Intensity		RSE Row Factors
	Households (million)	Consumption (million Btu)			Expenditures (dollars)	30-Year Average <sup>1</sup>	
RSE Column Factors:	1.8	NF	NF	0.6	0.8	0.7	NF
<b>South Region</b>							
Total Region .....	27.8	305	331	2,141	2,812	0.112	12.2
South Atlantic Division .....	2.2	301	360	1,232	2,403	.136	15.9
East South Central Division .....	1.0	34.5	408	1,184	2,617	.122	13.2
West South Central Division .....	1.6	21.0	207	1,325	2,452	.071	Q
Climate Zone <sup>1</sup>							
Under 2,000 HDD and Over 5,500 HDD .....	NC	35.2	386	NC	NC	NC	NC
Under 5,500 HDD .....	1.4	1.4	413	1,272	2,835	3,545	11.4
2,000 HDD or More and Under 4,000 HDD .....	8	15.6	170	195	1,180	1,107	12.9
Type of Housing Unit							
Single-Family .....	1.5	30.6	335	358	2,320	2,960	105
Mobile Home .....	21.6	236	268	936	1,878	2,474	.135
Multifamily (2 or more units) .....	NC	NC	NC	NC	NC	NC	NC
Heated Floorspace (square feet)							
Fewer than 1,000 .....	9	22.8	250	277	788	1,863	2,443
1,000 to 1,999 .....	1.1	29.0	317	350	1,324	2,352	2,984
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q
Ownership of Unit							
Owned .....	1.9	28.8	315	345	1,304	2,203	2,847
Rented .....	3	22.8	250	254	900	2,090	2,621
Year of Construction							
1949 or Before .....	4	40.7	445	516	1,062	2,397	3,120
1950 to 1979 .....	1.1	24.9	272	299	1,277	1,832	2,467
1980 or After <sup>2</sup> .....	.7	24.9	273	270	1,292	2,658	3,211
1990 Family Income							
Less than \$10,000 .....	7	26.2	287	312	938	2,024	2,615
\$10,000 to \$19,999 .....	7	26.7	293	332	1,267	2,339	2,957
\$20,000 to \$34,999 .....	4	28.2	308	336	1,452	1,947	2,606
\$35,000 or More .....	4	32.5	366	361	1,569	2,419	3,099
Below Poverty Line							
100 Percent .....	7	26.7	293	313	991	2,319	2,905
125 Percent .....	9	24.4	268	287	981	2,123	2,707
Age of Householder							
Under 35 Years .....	6	24.8	272	287	1,035	2,172	2,725
35 to 59 Years .....	8	25.0	274	290	1,305	2,330	2,991
60 Years and Over .....	8	33.0	362	406	1,320	2,041	2,683

See footnotes at end of table.

SOUTH

**Table 74. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floor-space (square feet)	Annual Heating Degree-Days	Liquefied Petroleum Gas Intensity	Consumption (gallons/HDD 1000 square feet)	Expenditures (cents/HDD 1000 square feet)	RSE Row Factor
	House-holds (million)	(million Btu)						
RSE Column Factors:	1.8	NF	NF	NF	0.6	0.8	0.7	NF
<b>South Region</b>								
<b>Household Size</b>								
1 Person .....	0.5	25.5	280	296	872	2,261	2,875	0.142
2 to 4 Persons .....	1.4	29.7	325	356	1,398	2,109	2,755	.110
5 or More Persons .....	.3	23.0	252	269	1,181	2,428	2,978	.088
<b>Main Heating Equipment Using LPG</b>								
Central Warm-Air Furnace .....	1.1	28.2	309	324	1,351	2,324	2,928	.098
Room Heater/Other .....	1.1	27.4	300	337	1,132	2,047	2,695	.130
<b>Age of Main Heating Equipment</b>								
Less than 5 Years .....	.6	28.8	316	324	1,331	2,229	2,896	.106
5 to 9 Years .....	.7	25.1	275	298	1,284	2,372	2,970	.090
10 to 19 Years .....	.5	29.3	299	335	1,238	1,959	2,557	.124
20 Years or More .....	.3	29.1	319	372	947	1,913	2,530	.176
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q
<b>Secondary Heating Fuel (more than one may apply)</b>								
No .....	1.2	31.4	344	359	1,204	2,310	2,933	.124
Yes .....	1.0	23.9	262	299	1,283	2,048	2,678	.100
Wood .....	.3	27.8	305	319	1,467	2,865	3,192	Q
Electricity .....	.6	24.3	266	320	1,366	1,759	2,431	.111
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	NF
<b>Average LPG Expenditures for Main Space Heat (dollars per gallon)</b>								
Less than .75 .....	Q	Q	Q	Q	Q	Q	Q	NF
.75 to Less than 1.00 .....	Q	Q	Q	Q	Q	Q	Q	18.1
1.00 or More .....	1.4	28.2	309	369	1,177	2,582	3,136	.094
								15.8
								13.2
<b>Winter Temperature Inside Housing Unit</b>								
Prefers .....	1.9	28.7	314	343	1,300	2,168	2,801	.111
Usual Temperature .....	.3	23.2	254	265	930	2,279	2,873	.120
Warmer Temperature .....	NC	NC	NC	NC	NC	NC	NC	NC
Cooler Temperature .....	NC	NC	NC	NC	NC	NC	NC	NC
<b>Adequacy of Insulation</b>								
Well Insulated .....	1.1	26.8	294	310	1,503	2,431	3,084	.080
Adequately Insulated .....	.6	28.0	307	366	1,881	2,508	3,155	.18.5
Poorly Insulated .....	.5	29.7	326	332	912	2,038	2,608	.175
Don't Know .....	NC	NC	NC	NC	NC	NC	NC	NC

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 74. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Households (million) Characteristics	Consumption		Heated Floor-space (square feet)	Annual Heating Degree-days	Liquefied Petroleum Gas Space-Heating Intensity		RSE Row Factors
	House- (million) Blu)	Consump- (gallons)			Expend- (dollars)	Consumption/ HDD*1000 square feet)	
RSE Column Factors:	1.8	NF	NF	0.6	0.8	0.7	NF
South Atlantic Division .....	1.0	27.5	301	350	1,232	1,791	2,403
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD .....	.6	42.1	461	522	1,250	2,796	3,495
2,000 CDD or More and Under 4,000 HDD .....	Q	13.7	150	187	1,214	840	1,369
<b>Type of Housing Unit</b>							
Single-Family .....	.5	32.7	359	414	1,453	1,906	2,573
Mobile Home .....	.5	21.8	238	280	991	1,866	2,217
Multifamily (2 or more units) .....	NC	NC	NC	NC	NC	NC	NC
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	.4	18.2	200	227	788	1,391	1,873
1,000 to 1,999 .....	.5	32.5	356	428	1,319	2,030	2,799
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>							
Owned .....	.9	27.5	301	355	1,292	1,780	2,415
Rented .....	Q	Q	Q	Q	Q	Q	Q
<b>Year of Construction</b>							
1949 or Before .....	Q	Q	Q	Q	Q	Q	Q
1950 to 1979 .....	.5	23.9	262	308	1,444	1,377	1,991
1980 or After <sup>2</sup> .....	Q	26.1	286	321	958	2,144	2,684
<b>1990 Family Income</b>							
Less than \$10,000 .....	.4	26.1	286	335	968	1,773	2,298
\$10,000 to \$19,999 .....	.3	30.7	336	421	1,112	1,795	2,463
\$20,000 to \$34,999 .....	Q	Q	Q	Q	Q	Q	Q
\$35,000 or More .....	Q	Q	Q	Q	Q	Q	Q
<b>Below Poverty Line</b>							
100 Percent .....	.3	31.0	340	387	996	2,187	2,745
125 Percent .....	.4	26.4	289	335	960	1,826	2,365
<b>Age of Householder</b>							
Under 35 Years .....	Q	27.4	301	331	995	2,015	2,527
35 to 59 Years .....	.3	26.0	284	346	1,202	1,592	2,272
60 Years and Over .....	4	28.6	313	365	1,405	1,791	2,417
<b>Household Size</b>							
1 Person .....	Q	27.4	300	344	1,390	1,745	2,374
2 to 4 Persons .....	Q	Q	Q	Q	Q	Q	Q
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 74. Liquefied Petroleum Gas Consumption and Expenditures for Main Space Heating, per South Region Household, 1990 (Continued)**

Characteristics	Consumption			Heated Floor- space (square feet)	Annual Heating Degree-Days	Liquefied Petroleum Gas Space-Heating Intensity			RSE Row Factors
	House- holds (million)	(million Btu)	(gallons)			Expend- itures (dollars)	Consumption (gallons/ HDD*1000 square feet)	Expenditures (cents/ HDD*1000 square feet)	
RSE Column Factors:	1.8	NF	NF	NF	0.6	0.8	0.7	NF	NF
<b>East South Central Division</b>	0.6	34.5	377	408	1,184	2,617	3,398	0.122	13.2
<b>Climate Zone<sup>1</sup></b>									17.8
Under 2,000 CDD and									NC
Over 5,500 HDD	NC	NC	34.5	377	NC	408	1,184	.122	13.2
Under 5,500 HDD	NC	NC	34.5	377	NC	408	1,184	.122	13.2
2,000 CDD or More and									17.8
Under 4,000 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Type of Housing Unit</b>									
Single-Family	.5	36.8	402	442	1,278	2,613	3,399	.120	13.2
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q	22.2
Multifamily (2 or more units)	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	3	32.4	355	392	798	2,633	3,416	.169	18.6
1,000 to 1,999	3	35.0	363	404	1,272	2,572	3,344	.117	12.4
2,000 or More	Q	Q	Q	Q	Q	Q	Q	Q	25.8
<b>Ownership of Unit</b>									
Owned	5	35.8	392	427	1,240	2,608	3,399	.121	13.2
Rented	Q	Q	Q	Q	Q	Q	Q	Q	20.3
<b>Year of Construction</b>									
1949 or Before	2	44.4	486	566	988	2,639	3,426	.186	21.7
1950 to 1979	4	32.0	350	365	1,215	2,551	3,383	.113	11.8
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>									
Less than \$10,000	.3	28.3	320	320	917	2,409	3,120	.145	14.5
\$10,000 to \$19,999	Q	Q	Q	Q	Q	Q	Q	Q	19.1
\$20,000 to \$34,999	Q	Q	Q	Q	Q	Q	Q	Q	NF
\$35,000 or More	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Below Poverty Line</b>									
100 Percent	2	29.0	317	316	901	2,451	3,150	.144	14.3
125 Percent	3	28.2	309	308	932	2,384	3,097	.139	13.9
<b>Age of Householder</b>									
Under 35 Years	Q	Q	Q	Q	Q	Q	Q	Q	NF
35 to 59 Years	3	25.8	282	303	1,191	2,615	3,370	.091	9.7
60 Years and Over	3	43.2	473	524	1,290	2,620	3,377	.140	15.5
<b>Household Size</b>									
1 Person	2	Q	Q	Q	951	2,437	3,189	.143	13.9
2 to 4 Persons	3	39.0	427	492	1,383	2,725	3,534	.113	13.1
5 or More Persons	Q	Q	Q	Q	Q	Q	Q	Q	18.1

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the West South Central Division are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

SOUTH

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>			
	Households (million)	Total Consumption (trillion Btu)	Consumption		Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	
			Households (million)	(millions of dollars)	Cooled Floor-space (square feet)	30-Year Average <sup>2</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/square foot)
RSE Column Factors:	1.2	NF	1.5	NF	NF	0.8	0.7	NF
<b>Total Region</b>	27.0	386.6	7.36	18.4	15.0	4,399	327	1,789
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD	14.1	112.8	2.35	9.2	9.8	2,881	205	1,896
2,000 CDD or More and Under 4,000 HDD	12.9	223.7	5.01	9.2	20.2	5,920	450	1,685
Type of Housing Unit	19.7	267.1	5.85	13.0	16.7	4,903	365	2,355
Single-Family	1.4	14.7	.32	.6	14.4	4,208	306	1,864
Mobile Home	5.9	54.8	1.20	4.7	10.4	3,036	226	2,382
Multifamily (2 or more units)								
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	8.4	74.5	1.64	5.0	10.8	3,176	239	775
1,000 to 1,999	12.8	161.1	3.55	8.3	15.0	4,406	330	1,614
2,000 or More	5.8	101.0	2.17	5.1	19.1	5,585	409	3,072
Ownership of Unit	18.2	245.1	5.35	12.4	16.2	4,751	353	2,170
Rented	8.8	91.5	2.00	5.9	12.5	3,657	273	988
Year of Construction	4.3	36.2	.80	1.2	13.4	3,929	292	1,926
1949 or Before	15.7	213.6	4.64	11.1	16.1	4,712	349	1,806
1950 to 1979	7.0	86.7	1.91	6.1	13.4	3,920	295	1,733
1980 or After <sup>3</sup>								
<b>1990 Family Income</b>								
Less than \$10,000	4.4	35.2	.78	1.9	11.0	3,229	244	1,277
\$10,000 to \$19,999	5.6	56.5	1.22	3.0	12.8	3,758	274	1,334
\$20,000 to \$34,999	7.2	82.7	1.84	4.9	13.5	3,969	301	1,490
\$35,000 or More	9.9	162.1	3.52	8.6	17.5	5,127	379	2,233
<b>Below Poverty Line</b>	3.6	29.2	.64	1.4	11.3	3,313	247	1,242
100 Percent	5.0	42.9	.95	2.0	12.7	3,712	279	1,293
125 Percent								
<b>Age of Householder</b>								
Under 35 Years	8.0	91.4	2.01	5.8	13.0	3,811	288	1,304
35 to 59 Years	11.7	174.2	3.79	8.8	17.3	5,068	375	2,070
60 Years and Over	7.3	70.9	1.55	3.8	12.8	3,756	278	1,889

See footnotes at end of table.

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		per Household		Electricity Used for Central Air Conditioning <sup>1</sup>	
	House-holds (mil-lion)	Total Con-sum-p-tures (bil-lion dol-lars)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	
			Ex-pen-ditures (bil-lion dol-lars)	Cooled Floor-space (square feet)	Con-sum-p-tion (kWh/ CDD*1000 square feet)	Ex-pen-ditures (cents/ CDD*1000 square feet)
RSE Column Factors:	1.2	NF	NF	1.5	NF	NF
<b>South Region</b>						
<b>Household Size</b>						
1 Person .....	6.6	52.9	1,18	4.0	9.6	2,810
2 to 4 Persons .....	17.6	240.1	5,24	12.5	16.2	4,753
5 or More Persons .....	2.8	43.5	.94	1.9	18.5	5,427
<b>Cooling Degree-Days (CDD)*1990</b>						
2,000 or More .....	15.3	249.9	5,60	10.9	19.1	5,591
1,000 to 1,999 .....	10.8	81.9	1.67	7.0	9.3	2,717
500 to 999 .....	Q	Q	Q	Q	7.4	2,175
Fewer than 500 .....	Q	Q	Q	Q	Q	Q
<b>Average Humidity for June, July and August 1990 (percent)</b>						
Less than 65 .....	Q	Q	Q	Q	Q	Q
65 to Less than 70 .....	6.4	61.4	1.32	4.0	11.7	3,434
70 or Higher .....	20.0	267.1	5.88	13.7	16.1	4,719
<b>Average Electricity Expenditures (cents per kWh)</b>						
Less than 6 .....	4.0	43.9	.72	2.6	13.5	3,966
6 to Less than 9 .....	21.5	285.2	6.41	15.1	15.6	4,583
9 or More .....	1.5	7.4	.22	.7	6.7	1,958
<b>Number of Rooms Usually Air Conditioned</b>						
1 to 3 .....	6.5	46.5	1.04	2.6	10.1	2,963
4 to 6 .....	14.8	190.6	4.20	10.6	14.5	4,235
7 or More .....	5.7	99.6	2.12	5.2	18.6	5,447
<b>Frequency of Use of Air Conditioning<sup>4</sup></b>						
Only a Few Times .....	5.2	23.7	.54	2.6	7.0	2,065
Quite a Bit .....	5.7	55.8	1.22	3.3	12.1	3,533
All Summer .....	15.9	255.2	5.57	12.3	17.5	5,128
Other .....	Q	Q	Q	Q	Q	Q
<b>Age of Air Conditioning Equipment<sup>4</sup></b>						
Less than 5 Years .....	7.7	95.2	2.09	5.1	15.1	4,434
5 to 9 Years .....	7.7	89.0	1.97	4.7	14.5	4,236
10 or More Years .....	8.7	118.4	2.57	6.2	16.2	4,755
Don't Know .....	2.6	31.3	.68	2.1	13.5	3,957

See footnotes at end of table.

## SOUTH

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

SOUTH

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>					
			Consumption		Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	
	Total Consumption (trillion BTU)	Expenditures (billions of dollars)	Households (million)	Households (million BTU)	Expenditures (dollars)	Cooled Floor-space (square feet)	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)
RSE Column Factors:	1.2	NF	1.5	NF	NF	0.8	0.7	NF
South Atlantic Division .....	13.8	154.7	3,60	9.8	13.6	3,973	316	1,703
Climate Zone <sup>2</sup>							2,347	2,049
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD .....	9.0	68.5	6.1	9.2	2,707	209	1,743	1,439
Under 5,500 HDD or More and Under 4,000 HDD .....	4.7	36.1	2.06	3.7	20.9	6,114	497	1,641
Type of Housing Unit	9.6	120.8	2.82	6.8	15.5	4,528	361	2,073
Single Family .....	8	8.1	.18	.4	13.1	3,854	289	999
Mobile Home .....	3.4	25.9	.60	2.6	8.7	2,543	203	645
Multifamily (2 or more units) .....								
Heated Floorspace (square feet)	4.7	38.1	.90	2.9	9.8	2,873	233	786
Fewer than 1,000 .....	6.1	67.4	1.57	4.4	13.3	3,896	310	1,569
1,000 to 1,999 .....	3.0	49.2	1.14	2.5	18.4	5,394	424	3,008
2,000 or More .....								
Ownership of Unit	9.1	110.7	2.57	6.6	14.7	4,310	343	2,068
Owned .....	4.7	44.0	1.03	3.2	11.2	3,286	262	956
Rented .....								
Year of Construction	2.1	15.6	.36	.6	13.4	3,920	311	1,858
1949 or Before .....	7.4	89.3	2.06	5.3	14.5	4,257	336	1,818
1950 to 1979 .....	4.3	49.9	1.18	3.9	12.3	3,595	291	1,520
1980 or After <sup>3</sup> .....								
1990 Family Income	2.0	13.8	.32	.9	10.1	2,972	235	1,347
Less than \$10,000 .....	2.7	22.9	.53	1.5	10.1	2,970	237	1,176
\$10,000 to \$19,999 .....	3.6	36.7	.87	2.6	12.5	3,653	299	1,311
\$20,000 to \$44,999 .....	5.6	81.3	1.88	4.9	15.8	4,633	365	2,136
\$45,000 or More .....								
Below Poverty Line	1.3	10.1	.24	.6	11.4	3,328	266	1,319
100 Percent .....	2.0	15.6	.37	.9	12.2	3,565	287	1,369
125 Percent .....								
Age of Household	4.3	44.2	1.04	3.3	11.5	3,377	272	1,187
Under 35 Years .....	6.0	82.2	1.91	4.6	16.1	4,708	374	2,056
35 to 59 Years .....	3.5	28.3	.65	1.8	10.9	3,189	250	1,673
60 Years and Over .....								
Household Size	3.5	23.8	.56	2.3	8.1	2,364	192	1,280
1 Person .....	9.1	115.6	2.69	6.6	15.2	4,441	353	1,803
2 to 4 Persons .....	1.2	15.4	.35	.9	15.8	4,636	364	2,048
5 or More Persons .....								

See footnotes at end of table.

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>									
			per Household					Annual Cooling Degree-Days				
	Consumption		Total Construction Expenditures (billions of dollars)	Households (millions)	Household (million BTU)	Expenditures (dollars)	Cooled Floor-space (square feet)	Expenditures (dollars)	Cooled Floor-space (square feet)	30-Year Average <sup>2</sup>	Expenditures (kWh/square foot)	Expenditures (cents/square foot)
RSE Column Factors:	1.2	NF	NF	1.5	NF	NF	NF	0.8	0.7	0.7	NF	NF
<b>East South Central Division ...</b>	5.2	54.6	0.95	3.3	12.9	3,788	224	2,019	1,849	1,691	1.01	6.0
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	NC	NC	.64	NC	NC	3,334	NC	NC	NC	NC	.88	NC
Under 5,500 HDD	4.1	36.7	2.4	11.4	NC	197	2,279	1,657	1,479	NC	.52	12.8
2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	17.3	5,075	299	1,284	2,393	2,290	1.65
Under 4,000 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	9.7	46.2
<b>Type of Housing Unit</b>												
Single-Family	3.8	40.6	.71	2.3	13.5	3,947	233	2,498	1,761	1,605	.90	5.3
Mobile Home	.4	3.1	.06	Q	Q	Q	Q	Q	Q	Q	1.70	32.4
Multifamily (2 or more units) ...	1.1	10.8	.8	11.6	3,414	201	798	2,122	1,963	2.02	11.9	19.8
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	1.8	16.0	.28	1.0	11.6	3,403	199	771	2,052	1,876	2.15	12.6
1,000 to 1,999	2.1	20.5	.36	1.0	12.9	3,790	228	1,674	1,940	1,790	1.17	7.0
2,000 or More	1.4	18.1	.31	1.3	13.9	4,083	238	3,268	1,616	1,465	.77	4.5
<b>Ownership of Unit</b>												
Owned	3.7	39.0	.68	2.3	13.3	3,887	229	2,495	1,727	1,564	.90	5.3
Rented	1.5	15.6	.27	1.0	12.2	3,566	211	942	2,123	1,977	1.78	10.5
<b>Year of Construction</b>												
1949 or Before	.9	6.3	.11	.3	8.6	2,519	155	1,920	1,762	1,559	.74	4.6
1950 to 1979	3.1	33.8	.59	2.0	13.7	4,024	237	1,702	1,982	1,834	1.19	7.0
1980 or After <sup>3</sup>	1.2	14.4	.25	1.0	12.6	3,703	218	2,649	1,620	1,457	.86	5.1
<b>1990 Family Income</b>												
Less than \$10,000	1.0	5.9	.10	.3	8.7	2,541	150	1,017	1,940	1,757	1.29	7.6
\$10,000 to \$19,999	1.2	12.4	.22	.7	13.1	3,833	227	1,449	1,950	1,827	.36	8.0
\$20,000 to \$34,999	1.4	13.8	.24	.9	11.7	3,435	206	1,981	1,886	1,747	.92	5.5
\$35,000 or More	1.7	22.5	.39	1.3	14.7	4,297	251	2,599	1,747	1,564	.95	5.5
<b>Below Poverty Line</b>												
100 Percent	.8	5.0	.09	.3	9.4	2,765	159	1,111	1,999	1,840	1.24	7.2
125 Percent	1.0	7.0	.12	.4	9.9	2,911	170	1,085	2,010	1,842	1.33	7.8
<b>Age of Householder</b>												
Under 35 Years	1.4	15.0	.27	.9	12.4	3,636	219	1,617	1,963	1,801	1.15	6.9
35 to 59 Years	2.4	29.2	.50	1.7	14.4	4,228	248	2,225	1,850	1,690	1.03	8.7
60 Years and Over	1.4	10.4	.18	.7	9.8	2,859	167	2,022	1,694	1,544	.83	4.9
<b>Household Size</b>												
1 Person	1.3	10.2	.18	.8	9.5	2,797	169	1,377	1,874	1,667	1.08	6.5
2 to 4 Persons	3.5	39.9	.69	2.2	14.1	4,137	244	2,253	1,845	1,699	1.00	5.9
5 or More Persons	.4	4.5	.08	.3	13.0	3,824	219	1,973	1,805	1,689	1.07	6.1

See footnotes at end of table.

SOUTH

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

SOUTH

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>		per Household				Electric Air-Conditioning Intensity			
	Households (million)	Total Consumption (trillion Btu)	Consumption		Cooled Floor-space (square feet)	Annual Cooling Degree-Days	30-Year Average <sup>2</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	RSE Row Factors		
			Households (million)	Expenditures (billions of dollars)						NF	NF	
RSE Column Factors:	1.2	NF	NF	1.5	NF	NF	0.8	0.7	0.7	NF	NF	NF
West South Central Division ..	8.0	127.3	2.60	5.3	19.0	5,563	412	1,806	2,646	2,500	1.16	8.6
Climate Zone <sup>2</sup>												
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	.16	.6	NC	9.7	2,834	196	1,908	NC	NC	NC
Under 5,500 HDD .....	1.0	7.5	4.7	20.2	5,923	440	1,793	2,788	2,623	1.567	.94	6.5
2,000 CDD or More and Under 4,000 HDD .....	7.0	119.7	2.64	4.7	12.9	3,784	288	840	2,699	2,587	1.18	8.8
Type of Housing Unit	6.3	105.7	2.32	3.9	20.9	6,132	451	2,152	2,635	2,477	1.08	8.0
Single-Family .....	Q	Q	.41	1.3	Q	Q	Q	Q	Q	Q	2.55	19.2
Mobile Home .....	Q	Q	1.5	18.1	Q	Q	Q	Q	Q	Q	1.67	12.7
Multifamily (2 or more units) .....	1.4	33.6	.72	1.3	25.3	7,420	544	3,005	2,665	2,512	.93	6.8
Heated Floorspace (square feet)												
Fewer than 1,000 .....	1.9	20.4	.46	1.1	13.0	3,807	294	751	2,756	2,593	1.84	14.2
1,000 to 1,999 .....	4.7	73.3	1.62	2.9	18.4	5,381	396	1,660	2,599	2,461	1.25	9.2
2,000 or More .....	1.4	33.6	.72	1.3	25.3	5,415	328	1,077	2,706	2,567	.93	6.8
Ownership of Unit	5.5	95.4	2.10	3.6	20.8	6,104	451	2,150	2,619	2,468	1.08	8.0
Owned .....	2.5	31.8	.70	1.7	15.1	4,415	328	1,077	2,706	2,567	1.52	11.3
Rented .....												10.3
Year of Construction	1.3	14.3	.33	.2	19.8	5,811	415	2,131	2,367	2,269	1.15	8.2
1949 or Before .....	5.3	90.5	1.99	3.8	19.4	5,686	423	1,843	2,679	2,529	1.15	8.6
1950 to 1979 .....	1.4	22.4	.49	1.2	17.5	5,132	375	1,633	2,596	2,449	1.21	8.9
1980 or After <sup>3</sup> .....												9.6
1990 Family Income	1.5	15.5	.36	.7	13.3	3,908	301	1,309	2,422	2,327	1.23	9.5
Less than \$10,000 .....	1.7	21.2	.47	.8	17.9	5,247	394	1,536	2,711	2,542	1.26	9.5
\$10,000 to \$19,999 .....	2.2	32.2	.72	1.5	16.4	4,809	361	1,510	2,677	2,523	1.19	8.9
\$20,000 to \$34,999 .....	2.7	58.3	1.25	2.4	22.6	6,620	482	2,225	2,670	2,521	1.11	8.0
Below Poverty Line	1.5	14.1	.32	.6	12.1	3,560	268	1,224	2,406	2,326	1.21	9.1
100 Percent .....	1.9	20.3	.46	.7	14.6	4,271	323	1,306	2,501	2,393	1.31	9.9
125 Percent .....												18.0
Age of Householder	2.2	32.2	.71	1.6	16.4	4,804	359	1,373	2,593	2,457	1.35	10.1
Under 35 Years .....	3.3	62.8	1.38	2.4	21.7	6,373	468	1,929	2,676	2,540	1.23	9.1
35 to 59 Years .....	2.4	32.3	.72	1.3	17.1	5,016	375	2,123	2,659	2,480	.89	6.6

See footnotes at end of table.

**Table 75. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, South Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning			Electricity Used for Central Air Conditioning <sup>1</sup>											
	Households (million)	Total Consumption (trillion Btu)	Expenditures (billion dollars)	Households (million)	Consumption			Expenditures (dollars)	Cooled Floor-space (square feet)	per Household		Electric Air-Conditioning Intensity			
					Consumption		1990			30-Year Average <sup>2</sup>					
					(million Btu)	(kWh)									
RSE Column Factors:	1.2	NF	NF	1.5	NF	NF	NF	0.8	0.7	0.7	NF	NF	RSE Row Factors		
<b>Household Size</b>															
1 Person .....	1.8	19.0	0.44	0.9	13.4	3,922	301	1,195	2,789	2,603	1.18	9.0	13.3		
2 to 4 Persons .....	5.0	84.6	1.86	3.6	19.5	5,701	422	1,955	2,592	2,449	1.12	8.3	6.0		
5 or More Persons .....	1.3	23.6	.51	.7	23.7	6,944	501	1,846	2,733	2,618	1.38	9.9	8.1		

<sup>1</sup> An estimated 2.0 million households have a central air conditioner and one or more room air conditioners. These households are included only under central air conditioners and not included under room air conditioners.

<sup>2</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

<sup>4</sup> If a household has both a central and room air conditioner then the usage and age of the equipment is presented only for the central unit.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 76. Electricity Consumption and Expenditures for Room Air Conditioning,  
per South Region Household, 1990**

Household Characteristics	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air- Conditioning Intensity		RSE Row Factors	
	House holds (mil. lion)	House holds (million Btu)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)		
	NF	NF			0.8	0.6	NF	NF		
<b>South Region</b>										
Total Region .....	8.6	7.1	2,067	156	935	2,164	1,988	1.02	7.7	5.5
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Under 5,500 HDD .....	4.9	4.6	1,358	96	967	1,562	1,453	.90	6.4	5.6
2,000 CDD or More and Under 4,000 HDD .....	3.7	10.3	3,020	236	895	2,975	2,708	1.13	8.9	7.3
<b>Type of Housing Unit</b>										
Single-Family .....	6.7	7.4	2,170	164	1,027	2,175	2,007	.97	7.4	6.0
Mobile Home .....	.7	7.4	2,172	162	642	1,764	1,653	1.92	14.3	14.2
Multifamily (2 or more units) .....	1.2	4.9	1,433	107	601	2,350	2,085	1.02	7.6	13.1
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	3.4	6.1	1,789	133	620	2,173	1,974	1.38	9.8	8.1
1,000 to 1,999 .....	4.5	7.9	2,324	177	1,019	2,209	2,044	1.03	7.9	6.6
2,000 or More .....	.8	6.1	1,801	137	1,849	1,860	1,719	.52	4.0	11.9
<b>Ownership of Unit</b>										
Owned .....	5.7	7.5	2,202	166	1,066	2,117	1,955	.98	7.4	6.1
Rented .....	2.9	6.1	1,799	136	673	2,258	2,052	1.18	8.9	8.6
<b>Year of Construction</b>										
1949 or Before .....	3.1	6.6	1,931	147	970	2,145	1,996	.93	7.1	8.1
1950 to 1979 .....	4.6	7.6	2,286	168	913	2,200	2,013	1.11	8.3	6.1
1980 or After <sup>2</sup> .....	.9	5.7	1,657	124	921	2,041	1,819	.88	6.6	19.3
<b>1990 Family Income</b>										
Less than \$10,000 .....	2.5	5.8	1,689	130	687	2,336	2,138	1.06	8.1	8.0
\$10,000 to \$19,999 .....	2.5	7.1	2,083	157	844	2,270	2,085	1.09	8.2	8.4
\$20,000 to \$34,999 .....	2.1	7.1	2,080	156	1,075	1,961	1,815	.99	7.4	8.0
\$35,000 or More .....	1.3	9.2	2,697	203	1,330	1,981	1,812	1.02	7.7	9.5
<b>Below Poverty Line</b>										
100 Percent .....	2.2	6.1	1,792	137	720	2,307	2,142	1.08	8.2	9.1
125 Percent .....	3.0	6.0	1,747	132	722	2,281	2,109	1.06	8.0	8.5
<b>Age of Householder</b>										
Under 35 Years .....	2.1	7.3	2,128	155	870	2,122	1,940	1.15	8.4	8.9
35 to 59 Years .....	2.9	7.8	2,272	174	1,003	2,030	1,879	1.12	8.5	7.8
60 Years and Over .....	3.6	6.4	1,863	142	917	2,300	2,105	.88	6.7	6.5
<b>Household Size</b>										
1 Person .....	2.6	5.6	1,689	126	845	2,268	2,074	.86	6.6	9.1
2 to 4 Persons .....	5.1	7.4	2,172	162	977	2,089	1,912	1.06	8.0	5.3
5 or More Persons .....	.9	9.2	2,705	206	955	2,288	2,166	1.24	9.4	13.9
<b>Cooling Degree-Days (CDD)*1990</b>										
2,000 or More .....	4.4	9.7	2,852	221	907	2,849	2,590	1.10	8.6	6.8
1,000 to 1,999 .....	3.9	4.5	1,308	92	989	1,518	1,415	.87	6.1	6.1
500 to 999 .....	Q	2.4	714	43	703	784	832	1.29	7.8	43.9
Fewer than 500 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

**SOUTH**

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

Table 76. Electricity Consumption and Expenditures for Room Air Conditioning, per South Region Household, 1990 (Continued)

Characteristics	Consumption		Cooling Degree-Days	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	RSE Column Factors:	
	Households (million)	(million Btu)		(kWh)	Floorspace (square feet)	1990	30-Year Average <sup>1</sup>	
Average Humidity for June, July and August 1990 (percent)								
Less than 65 .....	Q	Q	Q	Q	Q	Q	Q	NF
65 to Less than 70 .....	2.3	6.0	1,766	134	1,059	1,905	1,820	12.8
70 or Higher .....	6.3	7.4	2,183	165	884	2,262	2,052	6.7
Average Electricity Expenditures (cents per kWh)								
Less than 6 .....	1.4	6.1	1,796	100	959	1,640	1,546	1.14
6 to Less than 9 .....	6.4	7.7	2,270	175	957	2,274	2,083	1.04
9 or More .....	.9	3.4	1,004	102	733	2,187	1,990	.63
Number of Rooms Usually								
Air Conditioned								
1 Room .....	1.0	3.4	1,004	79	289	2,214	1,984	1.57
2 Rooms .....	1.5	5.2	1,519	116	502	2,224	2,101	1.36
3 or More .....	6.1	8.1	2,372	178	1,145	2,141	1,960	.97
Frequency of Use of Air Conditioning								
Only a Few Times .....	2.6	2.1	602	47	769	2,051	1,874	.38
Quite a Bit .....	2.4	6.6	1,940	145	999	2,042	1,890	.95
All Summer .....	3.6	11.0	3,221	242	1,011	2,338	2,145	1.36
Other .....	Q	Q	Q	Q	Q	Q	Q	NF
Age of Air Conditioning Equipment								
Less than 5 Years .....	2.6	7.2	2,099	158	830	2,172	1,980	1.16
5 to 9 Years .....	3.0	6.9	2,020	152	892	2,141	1,977	1.06
10 or More Years .....	2.5	7.3	2,134	162	1,101	2,197	2,026	.88
Don't Know .....	.5	6.3	1,841	141	900	2,096	1,893	.98
Size of Most-Used Room Air Conditioner								
Small .....	1.4	5.9	1,716	134	686	2,159	1,968	1.16
Medium .....	3.9	5.7	1,659	124	832	2,099	1,927	.95
Large .....	3.3	9.1	2,676	202	1,159	2,239	2,065	1.03
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	NF
Number of Room Air Conditioners								
1 .....	4.5	5.8	1,708	127	791	2,051	1,893	1.05
2 .....	2.8	8.4	2,466	189	983	2,343	2,131	1.07
3 or More .....	1.3	8.4	2,475	186	1,334	2,177	2,012	.85

See footnotes at end of table.

**Table 76. Electricity Consumption and Expenditures for Room Air Conditioning, per South Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors			
						1990		30-Year Average <sup>1</sup>					
		(million Btu)	(kWh)			1990	NF	0.8	0.6				
RSE Column Factors:	1.6	NF	NF					NF	NF				
South Atlantic Division .....	4.0	5.5	1,603	126	892	2,058	1,839	0.87	0.87	6.9			
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 2,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF			
Under 5,500 HDD .....	4.1	4.1	1,206	92	904	1,469	1,366	.91	.91	7.0			
Under 5,500 CDD or More and	2.9	2.9	..	..	..	..	..	..	..	6.7			
Under 4,000 HDD .....	1.1	1.1	2,708	220	873	3,689	3,152	.84	.84	6.8			
Under 4,000 CDD .....	9.2	9.2	..	..	..	..	..	..	..	13.1			
<b>Type of Housing Unit</b>													
Single-Family .....	2.8	5.6	1,630	127	1,009	2,004	1,804	.81	.81	7.9			
Mobile Home .....	7.3	7.3	2,148	172	605	1,619	1,513	.219	.219	25.0			
Multifamily (2 or more units) .....	.4	.4	2,1235	99	610	2,469	2,126	.82	.82	18.7			
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.8	5.2	1,537	121	561	2,169	1,919	1.26	1.26	9.9			
1,000 to 1,999 .....	5.5	5.5	1,626	128	1,007	2,011	1,803	.80	.80	6.3			
2,000 or More .....	6.0	6.0	1,758	140	1,663	1,825	1,676	.58	.58	4.6			
<b>Ownership of Unit</b>													
Owned .....	2.5	5.6	1,649	130	1,035	1,929	1,740	.83	.83	8.6			
Rented .....	1.5	5.2	1,529	120	661	2,266	1,997	1.02	1.02	8.0			
<b>Year of Construction</b>													
1949 or Before .....	1.4	4.8	1,404	112	990	1,874	1,720	.76	.76	12.5			
1950 to 1979 .....	6.0	6.0	1,766	139	856	2,133	1,892	.97	.97	7.6			
1980 or After <sup>2</sup> .....	5.1	5.1	1,497	115	755	2,291	1,963	.87	.87	6.6			
<b>1990 Family Income</b>													
Less than \$10,000 .....	1.1	4.5	1,318	107	636	2,411	2,112	.86	.86	7.0			
\$10,000 to \$19,999 .....	1.2	6.6	1,925	150	708	2,309	2,054	1.18	1.18	9.1			
\$20,000 to \$34,999 .....	1.1	4.6	1,353	104	1,039	1,673	1,535	.78	.78	6.0			
\$35,000 or More .....	.7	6.4	1,877	149	1,377	1,678	1,516	.81	.81	6.5			
<b>Below Poverty Line</b>													
100 Percent .....	.7	4.6	1,350	110	633	2,311	2,052	.92	.92	7.5			
125 Percent .....	1.2	4.3	1,263	101	619	2,236	1,984	.91	.91	7.3			
<b>Age of Householder</b>													
Under 35 Years .....	1.0	6.0	1,756	137	771	2,067	1,828	1.10	1.10	8.6			
35 to 59 Years .....	1.4	5.5	1,625	126	995	1,821	1,655	.90	.90	10.1			
60 Years and Over .....	1.7	5.1	1,500	120	878	2,246	1,994	.76	.76	9.5			
<b>Household Size</b>													
1 Person .....	1.2	4.4	1,281	101	747	2,246	1,974	.76	.76	14.8			
2 to 4 Persons .....	2.5	6.1	1,776	140	955	2,010	1,799	.93	.93	9.5			
5 or More Persons .....	.3	4.9	1,427	107	959	1,652	1,594	.90	.90	6.8			

See footnotes at end of table.

## SOUTH

## SOUTH

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

Table 76. Electricity Consumption and Expenditures for Room Air Conditioning, per South Region Household, 1990 (Continued)

Characteristics	Consumption		Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	RSE Row Factors
	Households (mil-lion)	(kWh)		Expenditures (\$dollars)	1990	30-Year Average <sup>1</sup>	
RSE Column Factors:	1.6	NF	NF	NF	0.8	0.6	NF
East South Central Division ..	1.9	6.3	1,850	113	985	1,780	1,658
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD .....	16	5.6	1,639	99	1,028	1,651	.97
2,000 CDD or More and Under 4,000 HDD .....	Q	10.2	2,981	186	759	2,473	2,327
<b>Type of Housing Unit</b>							
Single-Family .....	1.5	6.3	1,850	113	1,090	1,799	1,671
Mobile Home .....	2	7.2	2,105	137	723	1,675	1,557
Multifamily (2 or more units) ..	2	5.4	1,597	88	577	1,769	1,675
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	.8	6.0	1,750	105	706	1,773	1,646
1,000 to 1,999 .....	1.0	6.8	1,999	123	1,058	1,824	1,706
2,000 or More .....	.1	4.5	1,324	82	2,052	1,502	1,374
<b>Ownership of Unit</b>							
Owned .....	1.4	6.3	1,853	113	1,071	1,770	1,643
Rented .....	.5	6.3	1,842	111	1,764	1,806	1,697
<b>Year of Construction</b>							
1949 or Before .....	.6	5.9	1,736	103	893	1,838	1,698
1950 to 1979 .....	1.1	6.4	1,863	115	1,047	1,793	1,675
1980 or After <sup>2</sup> .....	.2	7.4	2,161	132	938	1,511	1,422
<b>1990 Family Income</b>							
Less than \$10,000 .....	.6	4.8	1,406	84	755	1,825	1,696
\$10,000 to \$19,999 .....	.5	6.0	1,771	108	895	1,775	1,685
\$20,000 to \$34,999 .....	.5	6.9	2,025	124	1,108	1,738	1,626
\$35,000 or More .....	3	8.7	2,552	155	1,367	1,768	1,596
<b>Below Poverty Line</b>							
100 Percent .....	.5	4.9	1,425	87	750	1,751	1,642
125 Percent .....	.7	5.1	1,482	89	798	1,798	1,680
<b>Age of Householder</b>							
Under 35 Years .....	.5	7.3	2,151	130	995	1,748	1,620
35 to 59 Years .....	.7	6.7	1,973	120	996	1,745	1,688
60 Years and Over .....	.7	5.2	1,521	93	969	1,835	1,704
<b>Household Size</b>							
1 Person .....	.5	4.8	1,413	88	834	1,904	1,789
2 to 4 Persons .....	1.3	6.7	1,965	118	1,044	1,718	1,594
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q

See footnotes at end of table.

Table 76. Electricity Consumption and Expenditures for Room Air Conditioning, per South Region Household, 1990 (Continued)

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)	
RSE Column Factors:	1.6	NF	NF	NF	0.8	0.6	0.6	NF	NF	
<b>West South Central Division</b>	<b>2.7</b>	<b>10.0</b>	<b>2,922</b>	<b>232</b>	<b>961</b>	<b>2,603</b>	<b>2,451</b>	<b>1.17</b>	<b>9.3</b>	<b>10.1</b>
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD	Q	4.4	1,304	113	1,204	1,907	1,790	.57	4.9	14.8
2,000 CDD or More and Under 4,000 HDD	2.3	10.8	3,171	251	924	2,709	2,552	1.27	10.0	8.7
<b>Type of Housing Unit</b>										
Single-Family	2.4	10.3	3,019	241	1,009	2,615	2,461	1.14	9.1	10.4
Mobile Home	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Multifamily (2 or more units)	.2	7.0	2,047	162	Q	2,569	2,415	Q	Q	17.9
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	.8	8.1	2,380	185	664	2,568	2,408	1.40	10.9	10.9
1,000 to 1,999	1.7	10.9	3,193	257	1,008	2,625	2,475	1.21	9.7	10.8
2,000 or More	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>Ownership of Unit</b>										
Owned	1.9	10.9	3,204	254	1,103	2,629	2,477	1.10	8.8	10.1
Rented	.8	7.8	2,279	182	637	2,543	2,391	1.41	11.3	14.9
<b>Year of Construction</b>										
1949 or Before	1.0	9.5	2,781	224	989	2,708	2,561	1.04	8.4	11.8
1950 to 1979	1.4	10.9	3,207	251	894	2,614	2,450	1.37	10.7	8.9
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
<b>1990 Family Income</b>										
Less than \$10,000	.8	8.3	2,447	198	701	2,648	2,528	1.32	10.7	13.2
\$10,000 to \$19,999	.9	8.4	2,453	191	998	2,475	2,332	.99	7.7	15.5
\$20,000 to \$34,999	.6	11.3	3,324	266	1,108	2,613	2,425	1.15	9.2	10.1
\$35,000 or More	.3	15.5	4,546	361	1,197	2,821	2,640	1.35	10.7	12.4
<b>Below Poverty Line</b>										
100 Percent	.9	8.0	2,352	186	775	2,608	2,489	1.16	9.2	14.1
125 Percent	1.1	8.3	2,420	192	786	2,621	2,501	1.18	9.3	13.1
<b>Age of Householder</b>										
Under 35 Years	.6	9.1	2,672	204	913	2,527	2,384	1.16	8.8	16.3
35 to 59 Years	.9	11.9	3,475	286	1,020	2,555	2,395	1.33	11.0	13.7
60 Years and Over	1.1	9.0	2,623	206	942	2,682	2,532	1.04	8.2	9.6
<b>Household Size</b>										
1 Person	.8	7.9	2,308	187	994	2,538	2,407	.91	7.4	15.6
2 to 4 Persons	1.3	10.7	3,140	249	952	2,607	2,442	1.26	10.0	7.3
5 or More Persons	.5	11.4	3,354	264	931	2,693	2,543	1.34	10.5	16.2

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 77. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in South Region Households, 1990**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		Households (million)	Total Consumed		(billion cubic feet)		
	Households (million)	(trill. Btu)		(billion dollars)	(billion dollars)			
RSE Column Factors:	0.9	NF	NF	NF	NF	NF	NF	
<b>Total Region</b>	18.5	157.8	46.3	3.30	12.8	270.4	262	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	NC	NC	NC	
Under 5,500 HDD	10.9	103.2	30.2	2.08	6.0	140.2	136	
2,000 CDD or More and Under 4,000 HDD	7.6	54.4	15.9	1.21	6.8	130.1	126	
<b>Type of Housing Unit</b>								
Single-Family	12.4	113.7	33.3	2.36	10.5	224.0	217	
Mobile Home	1.6	14.3	4.2	.30	Q	Q	Q	
Multifamily (2 or more units)	4.5	29.9	8.8	.65	2.2	.43.2	42	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	7.4	54.6	16.0	1.16	3.1	58.1	56	
1,000 to 1,999	7.8	68.7	20.1	1.43	6.5	137.2	133	
2,000 or More	3.3	34.5	10.1	.71	3.2	75.1	73	
<b>Ownership of Unit</b>								
Owned	11.7	105.4	30.9	2.19	9.0	189.1	183	
Rented	6.7	52.4	15.4	1.11	3.9	81.3	79	
<b>Year of Construction</b>								
1949 or Before	2.8	23.0	6.8	.48	3.0	57.0	55	
1950 to 1979	9.9	89.9	26.3	1.87	8.6	184.0	178	
1980 or After <sup>2</sup>	5.8	44.9	13.2	.96	1.2	29.4	29	
<b>1990 Family Income</b>								
Less than \$10,000	3.5	24.7	7.2	.52	2.6	42.1	41	
\$10,000 to \$19,999	4.5	39.8	11.7	.82	2.1	40.9	40	
\$20,000 to \$34,999	4.9	41.2	12.1	.86	3.4	71.6	69	
\$35,000 or More	5.6	52.2	15.3	1.11	4.8	115.7	112	
<b>Below Poverty Line</b>								
100 Percent	2.9	24.5	7.2	.51	2.3	42.3	41	
125 Percent	4.3	36.4	10.7	.76	2.8	51.1	50	
<b>Age of Householder</b>								
Under 35 Years	5.6	46.9	13.8	1.00	3.4	77.7	75	
35 to 59 Years	8.0	79.9	23.4	1.65	5.5	130.4	126	
60 Years and Over	4.8	31.0	9.1	.65	4.0	62.3	60	
<b>Household Size</b>								
1 Person	4.7	22.9	6.7	.49	2.9	35.3	34	
2 to 4 Persons	12.2	113.3	33.2	2.37	8.3	184.7	179	
5 or More Persons	1.6	21.7	6.3	.45	1.7	50.4	49	

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 77. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in South Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas			
	Total Consumed		Households (million)	Households (billion kWh)	Total Consumed		(billion cubic feet)	Total Expenditures (\$billion dollars)
	(trillion Btu)	(billion dollars)			(million)	NF		
RSE Column Factors:	0.9	NF						
South Atlantic Division .....	11.5	98.3	27.4		2.08	4.5	93.3	90
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	NC	NC
Under 5,500 HDD .....	7.0	65.3	19.1	1.42	3.9	82.4	.80	.55
2,000 CDD or More and								
Under 4,000 HDD .....	4.5	27.7	8.1	.65	.7	11.0	10	.10
18.5								
<b>Type of Housing Unit</b>								
Single-Family .....	7.9	68.6	20.1	1.52	3.5	73.1	71	.51
Mobile Home .....	1.0	8.2	2.4	.18	Q	Q	Q	Q
Multifamily (2 or more units) .....	2.7	16.5	4.8	.38	1.0	19.4	19	.13
20.0								
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	4.5	31.0	9.1	.69	1.2	22.2	21	.16
1,000 to 1,999 .....	5.0	40.9	12.0	.92	1.9	38.5	37	.27
2,000 or More .....	2.1	21.4	6.3	.47	1.5	32.7	32	.22
19.3								
<b>Ownership of Unit</b>								
Owned .....	7.6	64.6	18.9	1.44	2.9	59.9	58	.42
Rented .....	4.0	28.7	8.4	.64	1.6	33.4	32	.23
12.8								
<b>Year of Construction</b>								
1949 or Before .....	1.6	13.8	4.0	.31	1.2	22.2	22	.15
1950 to 1979 .....	5.7	50.3	14.7	1.11	3.0	61.5	59	.43
1980 or After <sup>2</sup> .....	4.2	29.2	8.6	.66	.4	9.6	9	.07
27.9								
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.9	13.0	3.8	.29	.6	8.4	8	.06
\$10,000 to \$19,999 .....	2.8	23.3	6.8	.50	.7	12.2	12	.09
\$20,000 to \$34,999 .....	3.1	24.6	7.2	.55	1.1	23.0	22	.15
\$35,000 or More .....	3.7	32.4	9.5	.74	2.2	49.7	48	.35
15.4								
<b>Below Poverty Line</b>								
100 Percent .....	1.6	12.6	3.7	.29	.4	7.1	7	.05
125 Percent .....	2.4	19.5	5.7	.44	.5	8.4	8	.05
16.3								
<b>Age of Household</b>								
Under 35 Years .....	3.5	26.8	7.9	.61	1.2	27.1	26	.19
35 to 59 Years .....	5.1	48.2	14.1	1.06	2.1	47.7	46	.33
60 Years and Over .....	2.9	18.3	5.4	.41	1.2	18.5	18	.13
18.0								
<b>Household Size</b>								
1 Person .....	3.0	14.0	4.1	.31	1.1	13.2	13	.10
2 to 4 Persons .....	7.7	67.7	19.8	1.51	2.9	64.9	63	.44
5 or More Persons .....	.9	11.6	3.4	.25	.5	15.2	15	.10
9.8								

See footnotes at end of table.

**Table 77. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in South Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		House-holds (million)	Total Consumed		(tril-lion cubic feet)		
	(tril-lion Btu)	(billion kWh)		(billion dollars)				
RSE Column Factors:	0.9	NF	NF	NF	1.1	NF	NF	
East South Central Division ..	4.0	39.5	11.6	0.68	2.2	51.9	50	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	NC	36.4	NC 10.7	NC .63	NC Q	NC Q	NC Q	
Under 5,500 HDD 2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	
<b>Type of Housing Unit</b>								
Single-Family .....	2.8	29.3	8.6	.50	1.7	40.4	39	
Mobile Home .....	.4	4.6	1.3	.08	Q	Q	Q	
Multifamily (2 or more units)..	.8	5.6	1.7	.10	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	1.6	13.6	4.0	.24	.7	14.4	14	
1,000 to 1,999 .....	1.7	17.5	5.1	.30	.8	15.9	15	
2,000 or More .....	.8	8.3	2.4	.14	Q	Q	Q	
<b>Ownership of Unit</b>								
Owned .....	2.8	27.7	8.1	.48	1.5	36.0	35	
Rented .....	1.3	11.8	3.4	.20	.7	15.9	15	
<b>Year of Construction</b>								
1949 or Before .....	.9	7.0	2.1	.12	.5	11.1	11	
1950 to 1979 .....	2.3	23.9	7.0	.41	.13	27.7	27.7	
1980 or After <sup>2</sup> .....	.8	8.5	2.5	.15	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.1	8.6	2.5	.15	.4	7.6	7	
\$10,000 to \$19,999 .....	1.1	10.6	3.1	.18	.4	7.9	8	
\$20,000 to \$34,999 .....	1.0	10.4	3.0	.18	.6	12.5	12	
\$35,000 or More .....	.9	9.9	2.9	.17	.9	Q	Q	
<b>Below Poverty Line</b>								
100 Percent .....	.9	8.3	2.4	.14	.3	6.4	6	
125 Percent .....	1.2	11.0	3.2	.19	.4	7.9	8	
<b>Age of Householder</b>								
Under 35 Years .....	1.1	10.7	3.1	.19	.6	14.4	14	
35 to 59 Years .....	1.7	19.7	5.8	.34	1.1	28.2	27	
60 Years and Over .....	1.3	9.1	2.7	.16	.5	9.2	9	
<b>Household Size</b>								
1 Person .....	1.1	5.5	1.6	.10	.6	8.5	8	
2 to 4 Persons .....	2.7	29.8	8.7	.51	1.4	34.9	34	
5 or More Persons .....	.3	4.2	1.2	.07	.2	8.5	8	

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 77. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in South Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)		
		(trillion Btu)	(billion kWh)			(trillion Btu)	(billion cubic feet)			
RSE Column Factors:	0.9	NF	NF	NF	1.1	NF	NF	NF	RSE Row Factors	
<b>West South Central Division</b>	2.9	25.0	7.3	0.54	6.0	125.2	122	0.67	11.7	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD .....	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC NF	
Under 5,500 HDD .....										
2,000 CDD or More and Under 4,000 HDD .....	2.7	23.5	6.9	.51	5.2	100.1	97	.57	15.5	
<b>Type of Housing Unit</b>										
Single-Family .....	1.7	15.8	4.6	.34	5.3	110.4	107	.59	12.3	
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	100.0	
Multifamily (2 or more units) ..	1.0	7.8	2.3	.17	.6	13.0	13	.07	34.9	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	1.3	10.0	2.9	.23	1.2	21.5	21	.12	20.2	
1,000 to 1,999 .....	1.1	10.2	3.0	.21	3.8	82.8	81	.43	12.8	
2,000 or More .....	.5	4.8	1.4	.10	1.0	20.8	20	.11	25.8	
<b>Ownership of Unit</b>										
Owned .....	1.4	13.1	3.8	.28	4.5	93.2	91	.50	16.5	
Rented .....	1.5	12.0	3.5	.26	1.5	32.0	31	.17	20.0	
<b>Year of Construction</b>										
1949 or Before .....	.3	2.2	.7	.05	1.4	23.6	23	.13	19.4	
1950 to 1979 .....	1.8	15.7	4.6	.34	4.3	94.8	92	.50	14.3	
1980 or After <sup>2</sup> .....	.8	7.1	2.1	.15	.3	6.7	7	.04	26.7	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.4	3.1	.9	.07	1.6	26.0	25	.15	22.6	
\$10,000 to \$19,999 .....	.7	5.9	1.7	.13	1.0	20.8	20	.11	16.3	
\$20,000 to \$34,999 .....	.8	6.2	1.8	.13	1.7	36.1	35	.18	18.8	
\$35,000 or More .....	1.0	9.9	2.9	.21	1.7	42.2	41	.23	23.1	
<b>Below Poverty Line</b>										
100 Percent .....	.4	3.6	1.0	.08	1.6	28.9	28	.16	22.6	
125 Percent .....	.6	5.8	1.7	.13	1.9	34.8	34	.19	20.2	
<b>Age of Householder</b>										
Under 35 Years .....	1.0	9.4	2.7	.20	1.5	36.2	35	.18	20.2	
35 to 59 Years .....	1.2	12.0	3.5	.26	2.3	54.4	53	.29	19.4	
60 Years and Over .....	.6	3.6	1.1	.08	2.2	34.6	34	.19	11.7	
<b>Household Size</b>										
1 Person .....	.7	3.4	1.0	.07	1.2	13.6	13	.08	19.7	
2 to 4 Persons .....	1.7	15.9	4.6	.34	3.9	84.9	83	.45	13.6	
5 or More Persons .....	.5	5.8	1.7	.12	.9	26.7	26	.14	23.0	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and F for the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 78. Total LPG Consumption and Expenditures for Water Heating  
in South Region Households, 1990**

Characteristics	Households (million)	Total Consumed		Total Expenditures (billion dollars)	RSE Row Factors
		(trillion Btu)	(billion gallons)		
		NF	NF		
RSE Column Factors:	0.9	NF	NF	NF	
<b>South Region</b>					
<b>Total Region</b>	1.1	19.3	0.21	0.22	29.5
South Atlantic Division	.4	9.7	.11	.12	35.9
East South Central Division	Q	Q	Q	Q	NF
West South Central Division	Q	Q	Q	Q	NF
<b>Climate Zone<sup>1</sup></b>					
Under 2,000 CDD and Over 5,500 HDD	NC	NC	NC	NC	NC
Under 5,500 HDD	.7	12.0	.13	.14	40.1
2,000 CDD or More and Under 4,000 HDD	.4	7.3	.08	.08	41.6
<b>Type of Housing Unit</b>					
Single-Family	1.0	17.0	.19	.19	31.5
Mobile Home	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>					
Fewer than 1,000	.3	5.0	.06	.06	30.8
1,000 to 1,999	.6	9.2	.10	.10	38.5
2,000 or More	Q	Q	Q	Q	NF
<b>Ownership of Unit</b>					
Owned	1.0	15.2	.17	.17	30.9
Rented	Q	Q	Q	Q	NF
<b>Year of Construction</b>					
1949 or Before	.3	7.1	.08	Q	44.9
1950 to 1979	.4	7.2	.08	.08	37.8
1980 or After <sup>2</sup>	Q	Q	Q	Q	NF
<b>1990 Family Income</b>					
Less than \$10,000	.4	5.2	.06	.07	34.5
\$10,000 to \$19,999	Q	6.1	.07	.06	45.1
\$20,000 to \$34,999	Q	Q	Q	Q	NF
\$35,000 or More	.3	6.4	.07	Q	46.5
<b>Below Poverty Line</b>					
100 Percent	.4	5.6	.06	.06	32.6
125 Percent	.5	8.0	.09	.09	32.3
<b>Age of Householder</b>					
Under 35 Years	Q	Q	Q	Q	NF
35 to 59 Years	.5	10.8	.12	.12	36.8
60 Years and Over	.4	4.5	.05	.06	29.9
<b>Household Size</b>					
1 Person	.3	3.1	.03	.04	37.0
2 to 4 Persons	.6	10.5	.11	.11	33.1
5 or More Persons	Q	Q	Q	Q	NF

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the South Atlantic, East South Central and West South Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 79. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per South Region Household, 1990**

Characteristics	Electricity						Natural Gas					
	Consumption		Ex-pen-ditures (dollars) (kWh)	House-holds (million)	House-holds (million)	House-holds (million)	Consumption		(mil-lion cubic feet)	Ex-pen-ditures (mil-lion cubic feet)	Natural Gas Heating Intensity (1000 cubic feet per household member)	
	House-holds (million)	NF					NF	NF			NF	NF
<b>South Region</b>												
Total Region .....	18.2	8.6	2,527	180	996	12.8	21.1	20.5	122	7.6	2.9	
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	193	Q	NC	NC	NC	133	NC	NC	NF
Over 5,500 HDD .....	9.6	2,805	6.0	1,122	6.0	23.3	22.7	8.5		8.5	4.4	
Under 5,500 CDD or More and 2,000 CDD or More and Under 4,000 HDD .....	10.7	2,127	162	823	6.8	19.2	18.5	112		6.8	5.3	
Type of Housing Unit	7.4	7.3	2,127	162	823	6.8						
Single-Family .....	12.1	9.3	2,717	192	1,010	10.4	21.4	20.8	124	7.5	3.6	
Mobile Home .....	1.6	8.9	2,596	184	840	Q	Q	Q	Q	Q	7.2	
Multifamily (2 or more units) ..	4.4	6.7	1,977	146	1,035	2.2	19.9	19.3	113	8.5	7.0	
Heated Floorspace (square feet)												
Fewer than 1,000 .....	7.3	7.4	2,175	157	982	3.1	18.5	17.9	111	8.3	4.8	
1,000 to 1,989 .....	7.6	8.9	2,617	186	975	6.5	21.3	20.6	121	7.1	4.2	
2,000 or More .....	3.2	10.6	3,118	220	1,068	3.2	23.5	22.8	135	8.3	5.7	
Ownership of Unit												
Owned .....	11.5	9.1	2,663	189	1,009	9.0	21.1	20.5	122	7.5	3.8	
Rented .....	6.7	7.8	2,292	166	973	3.8	21.2	20.5	123	8.0	4.9	
Year of Construction												
1949 or Before .....	2.7	8.4	2,468	174	1,044	3.0	18.8	18.2	111	7.1	6.6	
1950 to 1979 .....	9.7	9.2	2,704	192	1,038	8.6	21.5	20.8	124	7.8	3.3	
1980 or After <sup>2</sup> .....	5.8	7.7	2,259	165	905	1.2	24.4	23.8	136	7.7	8.7	
1990 Family Income												
Less than \$10,000 .....	3.4	7.1	2,093	149	986	2.6	16.5	15.9	93	7.2	7.2	
\$10,000 to \$19,999 .....	4.5	8.8	2,570	181	1,046	2.1	19.5	18.9	114	8.0	5.4	
\$20,000 to \$34,999 .....	4.7	8.6	2,516	179	1,002	3.4	21.2	20.6	118	7.3	4.9	
\$35,000 or More .....	5.5	9.5	2,773	201	982	4.8	24.3	23.6	144	7.8	4.8	
Below Poverty Line												
100 Percent .....	2.9	8.4	2,469	176	909	2.3	18.7	18.1	104	6.6	7.1	
125 Percent .....	4.2	8.5	2,506	178	916	2.8	18.6	18.0	103	6.6	5.9	
Age of Householder												
Under 35 Years .....	5.6	8.3	2,437	177	876	3.3	23.3	22.6	130	7.3	4.3	
35 to 59 Years .....	7.9	10.1	2,959	209	1,086	5.5	23.7	23.0	138	7.6	4.1	
60 Years and Over .....	4.7	6.5	1,909	137	1,038	4.0	15.8	15.3	93	8.1	5.7	
Household Size												
1 Person .....	4.6	4.9	1,444	105	1,444	2.9	12.3	11.9	77	11.9	5.9	
2 to 4 Persons .....	12.0	9.4	2,753	196	1,005	8.2	22.4	21.7	128	8.0	3.1	
5 or More Persons .....	1.6	13.6	3,973	280	725	1.7	30.0	29.2	169	5.4	5.0	

See footnotes at end of table.

SOUTH

**Table 79. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per South Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	House- holds (million)	Consumption		Electricity Water- Heating Intensity (kWh per household member)	Consumption		Natural Gas Water- Heating Intensity (1000 cubic feet per household member)			
		(mil- lion Btu)	(kWh)		(mil- lion Btu)	(1000 cubic feet)				
RSE Column Factors:	1.9	NF	NF	NF	NF	2.4	NF	NF	NF	
South Region										
Average Electricity Expenditures (cents per kWh)										
Less than 6 .....	3.4	10.9	3,193	176	1,244	--	--	--	3.7	
6 to Less than 9 .....	13.8	8.3	2,432	184	951	732	--	--	3.8	
9 or More .....	1.0	5.4	1,574	152	--	--	--	--	18.2	
Average Natural Gas Expenditures (dollars per 1000 cft)										
Less than 4.50 .....	--	--	--	--	1.9	26.4	26.0	102	8.8	
4.50 to Less than 6 .....	--	--	--	--	3.7	24.0	23.3	123	8.3	
6 or More .....	--	--	--	--	7.1	18.2	17.6	127	6.9	
Water Heater Used For One Housing Unit .....	17.3	8.7	2,560	183	993	11.7	21.3	123	7.6	
For Two or More Units .....	.9	6.3	1,858	137	1,091	1.1	19.1	112	7.5	
Age of Water Heater										
Less than 5 Years .....	5.4	9.0	2,634	188	979	3.8	22.0	124	7.7	
5 to 9 Years .....	4.6	8.4	2,452	176	1,008	2.4	21.9	21.2	128	
10 to 19 Years .....	4.1	9.3	2,713	192	1,015	3.2	20.5	19.8	122	
20 Years or More .....	1.3	7.5	2,188	158	1,037	.8	18.3	17.6	109	
Don't Know .....	1.9	8.9	2,623	187	952	1.3	22.1	21.3	122	
Size of Water Heater										
30 gallons or less .....	3.8	6.8	2,004	143	875	2.2	17.4	16.8	105	
31 to 49 gallons .....	9.5	8.7	2,543	185	984	7.2	21.4	20.8	123	
50 gallons or more .....	3.2	11.2	3,289	224	1,095	1.9	25.7	24.9	144	
Don't Know .....	.7	9.1	2,665	181	1,228	.3	22.1	21.4	124	
Location of Water Heater										
Heated Area .....	12.2	8.8	2,565	180	1,047	7.8	21.5	20.8	121	
Unheated Area .....	5.0	8.8	2,574	191	887	3.7	20.9	20.2	125	
Clothes Washer Present In Household										
Yes .....	14.3	9.0	2,645	188	983	10.3	21.5	20.9	124	
No .....	3.9	7.1	2,091	152	1,062	2.5	19.6	19.0	113	
Dishwasher Present In Household										
Yes .....	8.8	8.5	2,499	179	999	6.1	22.4	21.7	128	
No .....	9.3	8.7	2,553	182	994	6.7	20.0	19.4	116	
Children Present in Household										
Yes .....	11.0	7.0	2,057	148	1,194	7.5	17.7	17.1	104	
No .....	7.2	11.1	3,241	229	859	5.3	26.0	25.2	147	
(more than one may apply)										
Under 13 Years .....	5.5	10.8	3,160	221	801	4.1	25.4	24.6	145	
13 to 18 Years .....	3.1	13.1	3,828	272	980	2.2	29.0	28.2	159	

See footnotes at end of table.

**SOUTH**

## WATER-HEATING CONSUMPTION/EXPENDITURES

SOUTH

**Table 79. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per South Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas			
	Consumption		Electricity Water- Heating Intensity (kWh per household member)	House- holds (million)	House- holds (million)	Consumption		Natural Gas Water- Heating Intensity (1000 cubic feet per household member)
	House- holds (million)	(kWh)				Ex- pendi- tures (dol- lars)	(1000 cubic feet)	
RSE Column Factors:	1.9	NF	NF	NF	2.4	NF	NF	RSE Row Factors
South Atlantic Division .....	11.4	8.1	2,388	182	952	4.5	20.6	19.9
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	Q	Q	Q	Q	Q	NC	NC	NC
Under 5,500 HDD .....	6.9	9.4	2,768	206	1,098	3.9	212	20.6
2,000 CDD or More and								
Under 4,000 HDD .....	4.5	6.2	1,806	145	727	.7	16.9	16.1
<b>Type of Housing Unit</b>								
Single-Family .....	7.8	8.8	2,572	195	963	3.4	21.2	20.5
Mobile Home .....	1.0	8.3	2,434	182	820	Q	Q	Q
Multifamily (2 or more units) .....	2.6	6.2	1,828	143	984	1.0	18.8	18.3
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	4.5	7.0	2,040	156	926	1.2	17.9	127
1,000 to 1,999 .....	4.9	8.3	2,424	185	983	1.9	20.7	20.0
2,000 or More .....	2.0	10.5	3,068	231	1,037	1.4	22.7	22.0
<b>Ownership of Unit</b>								
Owned .....	7.4	8.6	2,533	192	973	2.9	20.6	20.0
Rented .....	4.0	7.2	2,116	162	908	1.6	20.5	19.8
<b>Year of Construction</b>								
1949 or Before .....	1.6	8.5	2,503	189	1,020	1.2	19.0	18.4
1950 to 1979 .....	5.6	8.9	2,607	196	1,008	3.0	20.7	20.0
1980 or After <sup>2</sup> .....	4.2	7.0	2,049	159	846	.4	24.1	23.5
<b>1990 Family Income</b>								
Less than \$10,000 .....	1.9	6.8	1,983	153	932	.6	14.8	14.3
\$10,000 to \$19,999 .....	2.8	8.2	2,410	178	970	.7	17.4	16.9
\$20,000 to \$34,999 .....	3.0	8.1	2,362	178	971	1.1	20.6	19.8
\$35,000 or More .....	3.6	8.9	2,607	202	934	2.1	23.2	22.5
<b>Below Poverty Line</b>								
100 Percent .....	1.6	8.1	2,371	185	854	.4	18.4	17.8
125 Percent .....	2.4	8.2	2,406	184	854	.5	17.2	16.6
<b>Age of Householder</b>								
Under 35 Years .....	3.5	7.6	2,231	173	824	1.2	22.2	21.4
35 to 59 Years .....	5.0	9.6	2,812	211	1,029	2.1	22.4	21.7
60 Years and Over .....	2.9	6.3	1,943	141	986	1.2	15.7	15.1
<b>Household Size</b>								
1 Person .....	2.9	4.8	1,395	107	1,395	1.1	12.3	11.9
2 to 4 Persons .....	7.6	8.9	2,595	198	943	2.9	22.1	21.4
5 or More Persons .....	9	13.3	3,905	291	719	.5	29.0	28.1

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

Table 79. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per South Region Household, 1990 (Continued)

Characteristics	Electricity				Natural Gas				RSE Flow Factors		
	Households (million)	Consumption		Expenditures (dollars)	Electricity Water-Heating Intensity (kWh per household member)	Consumption		(1000 cubic feet)			
		(mil-lion Btu)	(kWh)			Households (million)	(mil-lion Btu)				
RSE Column Factors:	1.9	NF	NF	NF	2.4	NF	NF	NF	NF		
East South Central Division ..	4.0	9.8	2,883	170	1,179	2.2	23.3	22.5	110	8.6	
Climate Zone <sup>1</sup>											
Under 2,000 CDD and Over 5,500 HDD .....	NC 3.7	NC 9.9	NC 2,906	NC 171	NC 1,182	NC Q	NC 26.0	NC 25.2	NC 121	NC 9.0	
2,000 CDD or More and Under 4,000 HDD .....	Q	9.0	2,631	156	1,152	Q	19.8	19.0	96	8.0	
Type of Housing Unit											
Single-Family .....	2.8	10.4	3,034	177	1,200	1.6	24.4	23.6	117	8.2	
Mobile Home .....	.4	10.3	3,025	190	1,036	Q	Q	Q	Q	5.7	
Multifamily (2 or more units) ..	.7	7.6	2,219	131	1,209	Q	19.9	19.3	88	16.3	
Heated Floorspace (square feet)											
Fewer than 1,000 .....	1.6	8.6	2,507	149	1,122	.7	20.9	20.2	98	9.9	
1,000 to 1,999 .....	1.7	10.5	3,081	182	1,187	.8	21.2	20.4	105	7.8	
2,000 or More .....	.7	11.1	3,241	187	1,268	Q	27.3	26.5	126	8.5	
Ownership of Unit											
Owned .....	2.7	10.1	2,960	174	1,176	1.5	23.9	23.1	114	8.4	
Rented .....	1.3	9.3	2,716	161	1,187	.7	21.9	21.2	102	9.2	
Year of Construction											
1949 or Before .....	.8	8.2	2,403	143	1,040	.5	23.3	22.3	112	10.1	
1950 to 1979 .....	2.3	10.3	3,032	178	1,261	1.3	21.4	20.6	103	8.2	
1980 or After <sup>2</sup> .....	.8	10.1	2,957	175	1,100	Q	28.7	28.0	128	8.5	
1990 Family Income											
Less than \$10,000 .....	1.1	7.6	2,229	133	1,062	.4	19.3	18.5	88	8.5	
\$10,000 to \$19,999 .....	1.0	10.2	2,987	175	1,343	.4	21.0	20.3	100	9.6	
\$20,000 to \$34,999 .....	1.0	10.7	3,124	187	1,130	.6	21.4	20.6	104	7.7	
\$35,000 or More .....	.9	11.4	3,341	193	1,192	.9	27.3	26.5	129	8.9	
Below Poverty Line											
100 Percent .....	.9	9.0	2,626	153	1,044	.3	21.2	20.3	97	8.2	
125 Percent .....	1.2	8.8	2,586	152	1,067	.4	21.3	20.4	98	8.1	
Age of Householder											
Under 35 Years .....	1.1	10.0	2,920	174	1,061	.6	24.8	24.0	114	8.7	
35 to 59 Years .....	1.7	11.7	3,416	199	1,250	1.1	25.4	24.5	123	8.3	
60 Years and Over .....	1.2	7.3	2,131	127	1,189	.5	17.3	16.6	80	9.7	
Household Size											
1 Person .....	1.0	5.3	1,544	94	1,544	.6	15.0	14.5	70	14.5	
2 to 4 Persons .....	2.7	11.0	3,211	189	1,186	1.4	24.5	23.6	117	8.4	
5 or More Persons .....	.3	16.6	4,864	273	877	.2	35.7	34.6	167	6.5	

See footnotes at end of table.

**Table 79. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per South Region Household, 1990 (Continued)**

Characteristics	Electricity					Natural Gas					RSE Row Factors	
	Households (million)	Consumption		Expenditures (dollars)	Electricity Water-Heating Intensity (kWh per household member)	Households (million)	Consumption		Expenditures (dollars)	Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		
		(million Btu)	(kWh)				(million Btu)	(1000 cubic feet)				
RSE Column Factors:	1.9	NF	NF	NF	NF	2.4	NF	NF	NF	NF	RSE Row Factors	
<b>West South Central Division</b>	2.8	8.8	2,584	191	929	6.0	20.8	20.2	111	7.2	6.5	
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC 28.9	NC 28.7	NC 112	NC 9.6	NC 6.2	
Under 5,500 HDD												
2,000 CDD or More and Under 4,000 HDD	2.6	8.9	2,611	193	933	5.2	19.4	18.8	111	6.8	7.6	
<b>Type of Housing Unit</b>												
Single-Family	1.6 Q	9.8 Q	2,868 Q	208 Q	932 Q	5.3 Q	20.7 Q	20.1 Q	111 Q	7.3 Q	6.2 NF	
Mobile Home												
Multifamily (2 or more units)	1.0	7.5	2,184	167	1,041	.6	21.7	21.0	112	7.3	15.2	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	1.3	7.6	2,232	173	1,003	1.2	17.6	17.2	101	7.5	11.4	
1,000 to 1,999	1.0	9.5	2,793	200	864	3.8	21.5	21.0	113	7.0	6.4	
2,000 or More	.4	10.7	3,142	224	929	1.0	21.6	20.9	113	8.0	12.1	
<b>Ownership of Unit</b>												
Owned	1.3	9.5	2,779	203	896	4.5	20.5	19.9	110	7.2	8.2	
Rented	1.5	8.2	2,406	180	967	1.5	21.6	20.9	114	7.4	9.6	
<b>Year of Construction</b>												
1949 or Before	Q	Q	Q	Q	Q	1.4	17.2	16.6	97	6.1	10.4	
1950 to 1979	1.7	8.8	2,585	194	881	4.3	22.0	21.5	116	7.7	6.5	
1980 or After <sup>2</sup>	.8	8.9	2,617	186	972	.3	19.2	18.7	106	6.1	15.4	
<b>1990 Family Income</b>												
Less than \$10,000	.4	7.6	2,239	180	1,030	1.6	16.4	15.9	93	6.8	15.2	
\$10,000 to \$19,999	.7	8.9	2,606	200	964	1.0	20.4	19.8	108	7.5	9.6	
\$20,000 to \$34,999	.7	8.0	2,347	169	937	1.7	21.6	21.1	110	7.0	8.7	
\$35,000 or More	1.0	9.8	2,885	205	878	1.7	24.2	23.5	129	7.6	10.6	
<b>Below Poverty Line</b>												
100 Percent	.4	8.5	2,488	197	842	1.6	18.3	17.8	102	6.3	15.2	
125 Percent	.6	9.3	2,732	213	893	1.9	18.4	17.9	102	6.2	12.1	
<b>Age of Householder</b>												
Under 35 Years	1.0	9.0	2,643	196	860	1.5	23.6	23.0	119	6.7	8.4	
35 to 59 Years	1.2	10.0	2,932	213	973	2.3	24.1	23.4	130	7.3	7.7	
60 Years and Over	.6	6.0	1,760	136	986	2.2	15.4	15.0	86	7.7	9.3	
<b>Household Size</b>												
1 Person	.7	5.1	1,499	113	1,499	1.2	11.0	10.7	65	10.7	9.0	
2 to 4 Persons	1.7	9.3	2,736	202	998	3.9	21.9	21.3	115	7.9	6.5	
5 or More Persons	.4	12.3	3,601	265	650	.9	29.2	28.3	155	5.1	6.2	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WATER-HEATING CONSUMPTION/EXPENDITURES

Table 80. LPG Consumption and Expenditures for Main Water Heating, per South Region Household, 1990

Characteristics	Households (million)	Consumption		Expenditures (dollars)	LPG Water-Heating Intensity (gallons per household member)	RSE Row Factor
		(million Btu)	(gallons)			
RSE Column Factors:	.14	NF	NF	NF	NF	
South Region						
<b>Total Region</b>		16.9	185	194	64	17.1
South Atlantic Division	.4	22.6	247	287	101	22.1
East South Central Division	Q	13.4	147	150	48	18.4
West South Central Division	Q	13.6	149	133	47	24.7
<b>Climate Zone<sup>1</sup></b>						
Under 2,000 CDD and Over 5,500 HDD	NC				NC	25.1
Under 5,500 HDD	.7					
2,000 CDD or More and Under 4,000 HDD	4	16.8	184	186	Q	29.3
<b>Type of Housing Unit</b>						
Single-Family	1.0	16.9	185	189	63	17.3
Mobile Home	Q	Q	Q	Q	Q	NC
Multifamily (2 or more units)	Q	Q	Q	Q	Q	NC
<b>Heated Floorspace (square feet)</b>						
Fewer than 1,000	.3	15.3	168	197	86	24.7
1,000 to 1,999	.6	14.9	164	163	49	20.5
2,000 or More	Q	Q	Q	Q	Q	NF
<b>Ownership of Unit</b>						
Owned	1.0	15.4	168	172	58	17.2
Rented	Q	Q	Q	Q	Q	NF
<b>Year of Construction</b>						
1949 or Before	.3	21.4	234	277	98	29.2
1950 to 1979	.4	16.7	183	190	63	26.6
1980 or After <sup>2</sup>	0	13.3	146	127	44	25.5
<b>1990 Family Income</b>						
Less than \$10,000	.4	13.4	147	172	76	34.9
\$10,000 to \$19,999	0	16.2	177	167	0	43.7
\$20,000 to \$34,999	Q	Q	Q	Q	Q	NF
\$35,000 or More	.3	23.1	253	274	67	36.5
<b>Below Poverty Line</b>						
100 Percent	.4	15.0	165	169	48	18.7
125 Percent	.5	16.4	179	190	58	27.5
<b>Age of Householder</b>						
Under 35 Years	Q	Q	Q	Q	Q	NF
35 to 59 Years	.5	20.2	221	220	64	26.4
60 Years and Over	.4	11.4	125	142	78	17.3
<b>Household Size</b>						
1 Person	.3	9.9	109	132	109	28.3
2 to 4 Persons	.6	18.1	198	196	75	28.0
5 or More Persons	Q	Q	Q	Q	Q	NF

See footnotes at end of table.

Table 80. LPG Consumption and Expenditures for Main Water Heating, per South Region Household, 1990 (Continued)

Characteristics	Households (million)	Consumption		Expenditures (dollars)	LPG Water-Heating Intensity (gallons per household member)	RSE Row Factors
		(million Btu)	(gallons)			
RSE Column Factors:	1.4	NF	NF	NF	NF	
South Region						
<b>Average Fuel Oil Expenditures (dollars per gallon)</b>						
Less than 95 .....	1.1	16.9		185	64	17.1
95 to Less than 1.10 .....	NC	NC		NC	NC	NC
1.10 or More .....	NC	NC		NC	NC	NC
<b>Average LPG Expenditures (dollars per gallon)</b>						
Less than 75 .....	Q	Q		Q	Q	NF
75 to Less than 1.00 .....	.5	12.6		138	44	19.6
1.00 or More .....	.6	18.1		198	246	82
<b>Water Heater Used</b>						
For One Housing Unit .....	1.1	16.1		177	181	61
For Two or More Units .....	Q	Q		Q	Q	NF
<b>Age of Water Heater</b>						
Less than 5 Years .....	.3	18.3		200	168	55
5 to 9 Years .....	Q	11.8		129	136	Q
10 to 19 Years .....	.3	20.7		227	253	81
20 Years or More .....	Q	Q		Q	Q	NF
Don't Know .....	NC	NC		NC	NC	NC
<b>Size of Water Heater</b>						
30 gallons or less .....	.3	18.6		204	210	99
31 to 49 gallons .....	.5	16.2		178	201	58
50 gallons or more .....	Q	Q		Q	Q	NF
Don't Know .....	Q	Q		Q	Q	NF
<b>Location of Water Heater</b>						
Heated Area .....	.8	15.8		173	178	60
Unheated Area .....	.2	20.3		223	224	76
<b>Clothes Washer Present in Household</b>						
Yes .....	.9	19.0		208	217	66
No .....	.3	9.6		105	116	53
<b>Dishwasher Present in Household</b>						
Yes .....	.4	18.7		205	193	61
No .....	.8	16.1		177	195	66
<b>Children Present in Household</b>						
No .....	.7	14.6		159	181	99
Yes .....	.5	20.2		222	213	48
(more than one may apply)						
Under 13 Years .....	.4	19.5		213	204	43
13 to 18 Years .....	Q	Q		Q	Q	NF

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the South Atlantic, East South Central and West South Central Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals.

• See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 81. Total Consumption and Expenditures for Appliances  
in South Region Households, 1990**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas			RSE Column Factors: 0.4									
	House-holds (million)	Consumed		Ex-penditures (bil-lion kWh)	Consumed		Ex-penditures (bil-lion cubic feet)	Consumed											
		(bil-lion Btu)	(bil-lion kWh)		(bil-lion Btu)	(bil-lion Btu)		(bil-lion Btu)	(bil-lion gallons)										
Total Region .....	32.3	532.0	155.9	11.38	10.1	81.5	79	0.48	2.4	12.9	0.14	0.18	10.0						
<b>Climate Zone<sup>1</sup></b>																			
Under 2,000 CDD and Over 5,500 HDD .....	Q	17.6	292.0	Q	6.01	NC	4.7	NC	34.0	NC	.20	1.4	NC	7.6	.08	NC	.12	NC	16.2
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD .....	14.7	239.5	70.2	5.35	5.4	47.5	46	.27	1.0	5.3	.06	.07	17.4						
<b>Type of Housing Unit</b>																			
Single-Family .....	23.7	449.7	131.8	9.61	8.2	70.0	68	.41	1.7	9.0	.10	.12	12.2						
Mobile Home .....	1.9	24.5	7.2	.51	.3	2.0	2	.01	.7	3.4	.04	.06	28.3						
Multifamily (2 or more units) .....	6.7	57.7	16.9	1.26	1.6	9.5	9	.06	Q	Q	Q	Q	20.3						
<b>Heated Floorspace (square feet)</b>																			
Fewer than 1,000 .....	10.9	110.1	32.3	2.39	2.9	18.1	18	.12	1.2	6.3	.07	.10	13.1						
1,000 to 1,999 .....	14.8	261.3	76.6	5.64	4.9	36.2	35	.21	1.0	5.7	.06	.07	12.0						
2,000 or More .....	6.6	160.6	47.1	3.35	2.2	27.1	26	.14	.3	1.0	.01	.01	23.2						
<b>Ownership of Unit</b>																			
Owned .....	21.6	412.6	120.9	8.78	7.1	62.0	60	.36	1.8	9.0	.10	.13	12.5						
Rented .....	10.7	119.4	35.0	2.59	3.1	19.5	19	.12	.6	4.0	.04	.06	14.7						
<b>Year of Construction</b>																			
1949 or Before .....	6.0	87.0	25.5	1.89	2.6	17.9	17	.11	.6	4.0	.04	.06	19.4						
1950 to 1979 .....	18.8	328.3	96.2	6.99	6.6	57.1	56	.33	1.2	6.2	.07	.09	11.3						
1980 or After <sup>2</sup> .....	7.4	116.6	34.2	2.50	1.0	6.5	6	.04	.6	2.8	.03	.04	24.3						
<b>1990 Family Income</b>																			
Less than \$10,000 .....	6.4	73.0	21.4	1.59	2.1	14.2	14	.08	.8	4.2	.05	.07	16.7						
\$10,000 to \$19,999 .....	7.0	96.4	28.3	2.06	1.9	13.0	13	.09	.7	4.8	.05	.06	14.5						
\$20,000 to \$34,999 .....	8.3	128.6	37.7	2.75	2.6	17.0	16	.10	.4	2.2	.02	.03	12						
\$35,000 or More .....	10.6	233.9	68.6	4.97	3.5	37.3	36	.21	.4	1.8	.02	.03	17.2						
<b>Below Poverty Line</b>																			
100 Percent .....	5.5	69.2	20.3	1.52	1.9	14.0	14	.08	.8	4.9	.05	.07	16.6						
125 Percent .....	7.5	98.7	28.9	2.14	2.3	17.3	17	.10	1.0	6.3	.07	.09	14.8						
<b>Age of Householder</b>																			
Under 35 Years .....	9.2	129.9	38.1	2.80	2.5	16.1	16	.09	.6	3.9	.04	.06	11.3						
35 to 59 Years .....	14.1	275.0	80.6	5.85	4.5	43.6	42	.24	.9	4.5	.05	.06	13.6						
60 Years and Over .....	9.1	127.1	37.3	2.73	3.1	21.8	21	.14	.9	4.6	.05	.06	14						
<b>Household Size</b>																			
1 Person .....	7.8	70.1	20.5	1.55	2.2	9.2	9	.06	.6	2.2	.02	.03	13.8						
2 to 4 Persons .....	21.0	378.4	110.9	8.05	6.4	57.9	56	.34	1.4	7.0	.08	.10	9.9						
5 or More Persons .....	3.5	83.5	24.5	1.77	1.5	14.3	14	.08	.4	3.7	.04	.05	16.5						

See footnotes at end of table.

SOUTH

## APPLIANCE CONSUMPTION/EXPENDITURES

SOUTH

**Table 81. Total Consumption and Expenditures for Appliances  
in South Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas		
	Consumed		Expenditures (billions of dollars)	Consumed		Expenditures (billions of dollars)	Consumed		Expenditures (billions of dollars)
	Households (million)	(billions kWh)	Households (million)	(trillion Btu)	Households (million)	(trillion cubic feet)	Households (million)	(trillion Btu)	FSE Flow Factors
RSE Column Factors:	0.4	NF	NF	0.9	NF	NF	1.7	NF	NF
<b>South Atlantic Division</b>	<b>16.6</b>	<b>260.1</b>	<b>76.2</b>	<b>5.87</b>	<b>3.8</b>	<b>27.6</b>	<b>27</b>	<b>0.20</b>	<b>1.4</b>
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	Q	177.5	52.0	3.91	NC	23.8	.23	.16	.7
Under 5,500 HDD .....	11.1	NF	NF	NF	Q	Q	Q	Q	NC
2,000 CDD or More and Under 4,000 HDD .....	5.4	82.1	24.1	1.94	Q	Q	Q	Q	Q
<b>Type of Housing Unit</b>									
Single-Family .....	11.7	214.3	62.8	4.83	2.9	22.6	.22	.16	.9
Mobile Home .....	1.1	13.7	4.0	.30	Q	Q	Q	Q	5.1
Multifamily (2 or more units) .....	3.8	32.0	9.4	.74	.8	4.3	4	.03	.5
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	5.9	58.6	17.2	1.33	1.1	6.9	7	.06	.8
1,000 to 1,999 .....	7.0	116.3	34.1	2.63	1.6	11.3	11	.08	.5
2,000 or More .....	3.6	85.2	25.0	1.90	1.1	9.4	9	.06	Q
<b>Ownership of Unit</b>									
Owned .....	10.8	197.9	58.0	4.46	2.5	20.0	19	.14	1.0
Rented .....	5.8	62.2	18.2	1.41	1.3	7.6	7	.05	.5
<b>Year of Construction</b>									
1949 or Before .....	3.0	43.9	12.9	.99	1.1	7.7	7	.05	.5
1950 to 1979 .....	8.9	151.6	44.4	3.40	2.5	16.9	16	.12	Q
1980 or After <sup>2</sup> .....	4.6	64.5	18.9	1.48	Q	Q	Q	Q	Q
<b>1990 Family Income</b>									
Less than \$10,000 .....	2.7	28.9	8.5	.66	.3	2.1	2	.01	.5
\$10,000 to \$19,999 .....	3.6	46.4	13.6	1.03	.7	4.2	4	.04	.3
\$20,000 to \$34,999 .....	4.3	63.0	18.5	1.42	1.0	6.4	6	.04	Q
\$35,000 or More .....	6.0	121.8	35.7	2.76	1.7	14.8	14	.10	.3
<b>Below Poverty Line</b>									
100 Percent .....	2.0	25.1	7.4	.58	.2	1.7	2	.01	.4
125 Percent .....	3.0	39.5	11.6	.90	.4	2.9	3	.02	.6
<b>Age of Householder</b>									
Under 35 Years .....	4.9	62.8	18.4	1.44	1.0	6.1	6	.04	.4
35 to 59 Years .....	7.4	141.2	41.4	3.16	1.8	15.1	15	.10	.5
60 Years and Over .....	4.3	56.1	16.4	1.27	.9	6.4	6	.05	.5
<b>Household Size</b>									
1 Person .....	4.2	35.0	10.3	.81	.8	3.4	3	.03	.3
2 to 4 Persons .....	10.9	191.1	56.0	4.31	2.5	20.0	19	.03	Q
5 or More Persons .....	1.5	34.0	10.0	.75	.5	4.2	4	.03	Q

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 81. Total Consumption and Expenditures for Appliances  
in South Region Households, 1990 (Continued)**

Characteristics	Electricity		Natural Gas				Liquefied Petroleum Gas			
	House-holds (million)	Consumed		Ex-pend- itures (bil-lion kWh)	Consumed		Ex-pend- itures (bil-lion cubic feet)	Consumed		
		(tril-lion Btu)	(bil-lion kWh)		(bil-lion dollars)	(tril-lion Btu)		(bil-lion cubic feet)	(bil-lion dollars)	
RSE Column Factors:	0.4	NF	NF	NF	0.9	NF	NF	1.7	NF	
East South Central Division ..	6.4	108.3	31.8	1.89	1.6	10.8	10	0.05	0.5	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	NC	5.1	NC	90.4	NC	26.5	NC	1.57	NC	
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	NC	
2,000 CDD or More and										
Under 4,000 HDD .....										
<b>Type of Housing Unit</b>										
Single-Family .....	4.7	90.8	26.6	1.58	1.1	7.7	7	.04	Q	
Mobile Home .....	.5	7.0	2.1	.13	.4	Q	2.6	Q	3	
Multifamily (2 or more units) ..	1.3	10.5	3.1	.18	.4	Q	2.6	Q	.01	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	2.4	26.1	7.6	.46	.6	3.5	3	.02	2	
1,000 to 1,999 .....	2.5	45.0	13.2	.79	.5	3.8	4	.02	Q	
2,000 or More .....	1.6	37.2	10.9	.64	.5	3.8	Q	Q	Q	
<b>Ownership of Unit</b>										
Owned .....	4.4	85.3	25.0	1.49	1.1	7.1	7	.03	Q	
Rented .....	2.0	23.0	6.7	.40	.5	3.7	4	.02	Q	
<b>Year of Construction</b>										
1949 or Before .....	1.4	19.0	5.6	.34	.3	2.6	3	.01	Q	
1950 to 1979 .....	3.7	61.7	18.1	1.07	.9	6.4	6	.03	Q	
1980 or After <sup>2</sup> .....	1.3	27.6	8.1	.48	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>										
Less than \$10,000 .....	1.6	19.5	5.7	.35	.3	2.7	3	.01	2	
\$10,000 to \$19,999 .....	1.5	19.8	5.8	.34	.3	1.9	2	.01	Q	
\$20,000 to \$34,999 .....	1.6	26.9	7.9	.48	.4	2.4	2	.01	Q	
\$35,000 or More .....	1.8	42.1	12.3	.72	.6	3.8	4	.02	Q	
<b>Below Poverty Line</b>										
100 Percent .....	1.3	17.2	5.0	.30	.3	2.4	2	.01	2	
125 Percent .....	1.8	23.3	6.8	.41	.3	3.0	3	.01	Q	
<b>Age of Householder</b>										
Under 35 Years .....	1.7	26.4	7.7	.46	.5	2.4	2	.01	Q	
35 to 59 Years .....	2.9	56.7	16.6	.98	.8	4.9	5	.02	Q	
60 Years and Over .....	1.9	25.2	7.4	.45	.4	3.6	3	.02	Q	
<b>Household Size</b>										
1 Person .....	1.6	14.0	4.1	.25	.4	1.9	2	.01	Q	
2 to 4 Persons .....	4.3	81.2	23.8	1.41	1.0	6.4	6	.03	Q	
5 or More Persons .....	.5	13.1	3.8	.23	.2	2.5	2	.01	Q	

See footnotes at end of table.

**Table 81. Total Consumption and Expenditures for Appliances  
in South Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas		
	Consumed		Expenditures (billions of dollars)	Consumed		Expenditures (billions of dollars)	Consumed		Expenditures (billions of dollars)
	Households (million)	(trill. Btu)	(bill. kWh)	Households (million)	(trill. Btu)	(bill. cubic feet)	Households (million)	(trill. Btu)	(bill. gallons)
RSE Column Factors:	0.4	NF	NF	0.9	NF	NF	1.7	NF	NF
<b>West South Central Division</b>	9.3	163.5	47.9	3.62	4.7	43.1	42	0.5	Q
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC
Under 5,500 HDD .....	1.3	.24.1	7.0	.53	4.2	38.8	.38	.21	Q
2,000 CDD or More and									
Under 4,000 HDD .....	8.0	139.5	40.9	3.09	4.2	39.6	.39	Q	Q
<b>Type of Housing Unit</b>									
Single-Family .....	7.3	144.6	42.4	3.19	4.2	39.6	.21	Q	Q
Mobile Home .....	.3	Q	Q	.34	Q	Q	2	.02	NC
Multifamily (2 or more units) .....	1.6	15.1	4.4		4	2.6	2		NC
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	2.6	25.4	7.5	.59	1.2	7.7	7	.05	Q
1,000 to 1,999 .....	5.2	100.0	29.3	2.22	2.8	21.2	.21	.12	Q
2,000 or More .....	1.5	38.2	11.2	.81	.7	Q	Q	Q	Q
<b>Ownership of Unit</b>									
Owned .....	6.3	129.3	37.9	2.84	3.5	35.0	.34	.18	Q
Rented .....	3.0	34.3	10.0	.78	1.2	8.2	8	.05	Q
<b>Year of Construction</b>									
1949 or Before .....	1.6	24.1	7.1	.55	1.2	7.5	7	.04	Q
1950 to 1979 .....	6.2	115.0	33.7	2.53	3.2	33.8	.33	.17	Q
1980 or After <sup>2</sup> .....	1.5	24.5	7.2	.54	.3	1.7	2	.01	Q
<b>1990 Family Income</b>									
Less than \$10,000 .....	2.1	24.6	7.2	.58	1.4	9.4	9	.06	Q
\$10,000 to \$19,999 .....	1.9	30.2	8.9	.69	.9	6.8	7	.04	Q
\$20,000 to \$34,999 .....	2.4	38.8	11.4	.86	1.2	8.2	8	.04	Q
\$35,000 or More .....	2.9	70.0	20.5	1.49	1.2	18.8	18	.09	Q
<b>Below Poverty Line</b>									
100 Percent .....	2.2	27.0	7.9	.63	1.4	10.0	10	.06	Q
125 Percent .....	2.7	35.9	10.5	.83	1.6	11.4	11	.07	Q
<b>Age of Household</b>									
Under 35 Years .....	2.7	40.6	11.9	.90	1.0	7.6	7	.04	Q
35 to 59 Years .....	3.7	77.1	22.6	1.71	2.0	23.6	.23	.12	Q
60 Years and Over .....	2.9	45.9	13.4	1.01	1.8	11.9	12	.07	Q
<b>Household Size</b>									
1 Person .....	2.0	21.0	6.2	.49	1.0	3.9	4	.02	Q
2 to 4 Persons .....	5.8	106.1	31.1	2.33	3.0	31.5	31	.16	Q
5 or More Persons .....	1.5	36.4	10.7	.80	.8	7.7	7	.04	Q

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Appliances do not include refrigerators. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**SOUTH**

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 82. Electricity Consumption and Expenditures for Appliances and Refrigerators, per South Region Household, 1990**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators						RSE Row Factors	
	House- holds (mil- lion BrU)	Consumed		House- holds (mil- lion BrU)	Average Number of Refrig- erators	Consumed		(mil- lion BrU)	(kWh)	Expend- itures (dollars)	
		Q	Q			Q	Q				
Total Region .....	32.3	16.5	4,828	352	32.2	1.1	6.5	1,896	140	2.6	
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF 3.7	
Under 5,500 HDD .....	17.6	16.6	4,874	342	17.5	1.1	5.9	1,720	121	NF 3.7	
2,000 CDD or More and Under 4,000 HDD .....	14.7	16.3	4,778	364	14.7	1.1	7.2	2,108	162	3.8	
<b>Type of Housing Unit</b>											
Single-Family .....	23.7	19.0	5,559	405	23.7	1.2	7.1	2,082	153	2.3	
Mobile Home .....	1.9	13.0	3,823	273	1.9	1.0	4.4	1,284	95	6.6	
Multifamily (2 or more units) .....	6.7	8.6	2,523	188	6.7	1.0	4.8	1,408	105	4.6	
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	10.9	10.1	2,960	219	10.9	1.0	5.1	1,506	114	2.8	
1,000 to 1,999 .....	14.8	17.7	5,187	382	14.8	1.1	6.5	1,920	143	2.5	
2,000 or More .....	6.6	24.2	7,102	505	6.6	1.3	8.5	2,484	177	5.2	
<b>Ownership of Unit</b>											
Owned .....	21.6	19.1	5,608	407	21.5	1.2	7.1	2,074	152	2.8	
Rented .....	10.7	11.1	3,260	242	10.7	1.0	5.2	1,537	115	3.3	
<b>Year of Construction</b>											
1949 or Before .....	6.0	14.4	4,227	313	6.0	1.1	6.4	1,868	140	4.6	
1950 to 1979 .....	18.8	17.4	5,110	371	18.8	1.1	6.8	1,993	147	2.7	
1980 or After <sup>2</sup> .....	7.4	15.7	4,600	336	7.4	1.1	5.7	1,571	123	6.2	
<b>1990 Family Income</b>											
Less than \$10,000 .....	6.4	11.4	3,347	249	6.3	1.1	5.7	1,679	127	4.1	
\$10,000 to \$19,999 .....	7.0	13.7	4,022	293	7.0	1.1	5.7	1,674	123	3.6	
\$20,000 to \$34,999 .....	8.3	15.5	4,554	333	8.3	1.1	6.1	1,797	135	3.3	
\$35,000 or More .....	10.6	22.1	6,470	469	10.6	1.2	7.7	2,249	163	4.8	
<b>Below Poverty Line</b>											
100 Percent .....	5.5	12.5	3,662	273	5.5	1.1	5.6	1,630	124	4.8	
125 Percent .....	7.5	13.2	3,874	287	7.4	1.1	5.6	1,650	124	4.0	
<b>Age of Householder</b>											
Under 35 Years .....	9.2	14.2	4,150	305	9.2	1.0	5.3	1,551	116	3.6	
35 to 59 Years .....	14.1	19.6	5,732	416	14.0	1.2	7.1	2,071	152	3.6	
60 Years and Over .....	9.1	14.0	4,111	302	9.0	1.2	6.7	1,971	146	3.4	
<b>Household Size</b>											
1 Person .....	7.8	8.9	2,617	198	7.8	1.1	5.7	1,662	127	3.6	
2 to 4 Persons .....	21.0	18.1	5,294	384	20.9	1.1	6.7	1,962	144	2.3	
5 or More Persons .....	3.5	23.9	6,991	507	3.5	1.2	6.9	2,021	147	4.1	
<b>Average Electricity Expenditures (cents per kWh)</b>											
Less than 6 .....	4.9	19.2	5,620	313	--	--	--	--	--	8.5	
6 to Less than 9 .....	25.0	16.7	4,895	370	--	--	--	--	--	2.7	
9 or More .....	2.4	8.7	2,547	254	--	--	--	--	--	9.4	

SOUTH  
See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

SOUTH

**Table 82. Electricity Consumption and Expenditures for Appliances and Refrigerators, per South Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators				
	Households (million)	Consumed		Households (million)	Consumed		Expenditures (dollars)	RSE Row Factors
		(million Btu)	(kWh)		(million Btu)	(kWh)		
RSE Column Factors:	1.7	NF	NF	1.7	0.5	NF	NF	NF
<b>South Region</b>								
<b>Average Electric Refrigerator Expenditures (cents per kWh)</b>								
Less than 6 .....	..	..	..	4.8	1.2	7.1	2,067	116
6 to Less than 9 .....	..	..	..	25.0	1.1	6.6	1,924	146
9 or More .....	..	..	..	2.4	1.0	4.3	1,232	127
<b>Appliances Present in Household (more than one may apply)</b>								
Separate Freezer .....	12.3	22.3	6,547	472	12.3	1.2	7.2	2,108
Dishwasher .....	15.3	19.4	5,698	413	15.3	1.2	7.2	1,152
Clothes Washer .....	25.6	18.8	5,507	401	25.5	1.1	6.8	2,103
Clothes Dryer .....	19.8	19.9	5,820	421	19.8	1.1	6.9	2,002
Waterbed Heater .....	4.1	20.4	5,993	424	4.1	1.1	6.0	2,013
Swimming-Pool Pump .....	1.6	32.3	9,466	689	1.6	1.2	9.0	1,772
Hot-Tub or Spa Pump .....	1.1	27.3	7,991	562	1.1	1.2	8.8	1,638
Hot-Tub or Spa Heater .....	.8	26.1	7,637	535	.8	1.2	7.7	1,599
Well Pump .....	4.9	20.0	5,852	436	4.9	1.2	6.7	1,588
<b>Appliance Combinations</b>								
Dishwasher, Clothes Washer, and Clothes Dyer								
With .....	11.5	21.7	6,364	459	11.5	1.2	7.5	2,195
Without .....		4.7	2,164	164	4.7	1.1	5.2	1,526
<b>Well Pump and Separate Freezer</b>								
With .....	2.6	24.0	7,043	525	2.6	1.2	6.6	1,945
Without .....	17.6	12.5	3,667	271	17.6	1.1	5.9	1,734
<b>Main Heating Fuel</b>								
Natural Gas .....	14.1	17.3	5,078	371	14.1	1.2	7.0	2,058
Electricity .....	12.3	15.4	4,510	329	12.3	1.1	6.1	1,787
Fuel Oil or Kerosene .....	2.2	17.2	5,029	372	2.2	1.1	5.8	1,692
Wood .....	1.2	19.5	5,720	394	1.2	1.2	5.9	1,723
LPG .....	2.2	15.3	4,493	337	2.2	1.1	6.1	1,776
Other .....	Q	Q	Q	Q	Q	Q	Q	Q
<b>Number of Refrigerators</b>								
1 .....	28.4	15.6	4,560	336	28.4	1.0	5.7	1,683
2 or More .....	3.8	23.4	6,853	479	3.8	2.1	11.9	3,482

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

Table 82. Electricity Consumption and Expenditures for Appliances and Refrigerators, per South Region Household, 1990 (Continued)

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators						RSE Row Factors	
	Consumed		Households (mil. lion Btu)	Average Number of Households (mil. lion Btu)	Consumed		(mil. lion Btu)	(kWh)	Expenditures (dollars)		
	House- holds (mil. lion Btu)	(kwh)			Q	Q					
RSE Column Factors:	1.7	NF	NF	NF	1.7	0.5	NF	NF	NF		
<b>South Atlantic Division</b>	16.6	15.7	4,604	354	16.6	1.1	6.0	1,760	137	3.0	
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	Q	Q	4.1	
Under 5,500 HDD and Over 2,000 CDD or More and Under 4,000 HDD	11.1	15.9	4,668	351	11.1	1.1	5.6	1,641	124	4.4	
Under 4,000 HDD	5.4	15.3	4,482	362	5.4	1.1	6.9	2,016	165	4.4	
<b>Type of Housing Unit</b>											
Single-Family	11.7	18.3	5,368	413	11.7	1.2	6.7	1,952	152	3.4	
Mobile Home	1.1	12.8	3,765	279	1.1	1.1	4.1	1,214	92	8.8	
Multifamily (2 or more units)	3.8	8.5	2,480	195	3.8	1.0	4.5	1,323	105	6.8	
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000	5.9	9.9	2,896	225	5.9	1.0	4.8	1,416	112	3.9	
1,000 to 1,999	7.0	16.5	4,844	374	7.0	1.1	6.0	1,753	137	4.6	
2,000 or More	3.6	23.7	6,955	529	3.6	1.2	8.0	2,343	179	6.5	
<b>Ownership of Unit</b>											
Owned	10.8	18.3	5,370	413	10.8	1.2	6.6	1,942	151	4.2	
Rented	5.8	10.8	3,166	245	5.8	1.0	4.8	1,418	112	4.4	
<b>Year of Construction</b>											
1949 or Before	3.0	14.6	4,278	330	3.0	1.2	6.0	1,763	137	6.4	
1950 to 1979	8.9	17.0	4,904	382	8.9	1.1	6.5	1,898	148	4.0	
1980 or After <sup>2</sup>	4.6	13.9	4,068	318	4.6	1.1	5.1	1,494	118	6.3	
<b>1990 Family Income</b>											
Less than \$10,000	2.7	10.9	3,188	250	2.7	1.1	5.3	1,563	123	6.7	
\$10,000 to \$19,999	3.6	12.7	3,727	282	3.6	1.1	5.3	1,541	118	4.6	
\$20,000 to \$34,999	4.3	14.7	4,320	392	4.3	1.1	5.6	1,651	131	4.3	
\$35,000 or More	6.0	20.4	5,972	461	6.0	1.2	7.0	2,060	160	7.4	
<b>Below Poverty Line</b>											
100 Percent	2.0	12.3	3,603	286	2.0	1.1	5.1	1,491	119	9.5	
125 Percent	3.0	13.0	3,812	297	3.0	1.1	5.3	1,543	121	6.2	
<b>Age of Householder</b>											
Under 35 Years	4.9	12.9	3,793	296	4.9	1.0	4.7	1,368	109	4.1	
35 to 59 Years	7.4	19.0	5,556	424	7.4	1.2	6.7	1,977	153	5.3	
60 Years and Over	4.3	13.2	3,863	299	4.3	1.1	6.2	1,827	142	5.6	
<b>Household Size</b>											
1 Person	4.2	8.4	2,449	193	4.2	1.1	5.2	1,533	122	5.7	
2 to 4 Persons	10.9	17.5	5,138	395	10.9	1.1	6.3	1,847	144	3.7	
5 or More Persons	1.5	23.2	6,794	513	1.5	1.1	6.0	1,767	136	6.7	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

SOUTH

**Table 82. Electricity Consumption and Expenditures for Appliances and Refrigerators, per South Region Household, 1990 (Continued)**

RSE Column Factors:	Electricity Used for Appliances				Electricity Used for Refrigerators			
	Consumed		Households (mil.-million)	Expenditures (dollars) (kWh)	Consumed		(million kWh)	Expenditures (dollars) (kWh)
	Households (mil.-million)	(mil.-million Btu)			Average Number of Refrigerators	(million Btu)		
East South Central Division ..	6.4	16.8	4,937	294	6.4	1.2	6.4	1,882
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD ..	NC	NC	5.1	5,168	NC	307	NC	NC
Over 5,500 HDD ..	NC	17.6	Q	4,030	Q	242	6.4	1,864
Under 5,500 HDD ..	NC	13.7	Q	13.7	Q	1.1	6.7	1,954
2,000 CDD or More and Under 4,000 HDD ..	Q	NF	NF	NF	NF	0.5	NF	NF
<b>Type of Housing Unit</b>								
Single-Family ..	4.7	19.5	5,702	339	4.6	1.2	7.0	2,045
Mobile Home ..	.5	14.4	4,226	263	.5	1.0	4.6	1,358
Multifamily (2 or more units) ..	1.3	8.2	2,417	140	1.3	1.0	5.1	1,488
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 ..	2.4	11.1	3,249	186	2.3	1.0	5.3	1,563
1,000 to 1,999 ..	2.5	18.1	5,296	318	2.5	1.1	6.4	1,867
2,000 or More ..	1.6	23.5	6,881	402	1.6	1.4	8.1	2,388
<b>Ownership of Unit</b>								
Owned ..	4.4	19.2	5,633	335	4.4	1.2	6.8	1,986
Rented ..	2.0	11.6	3,386	202	2.0	1.0	5.6	1,650
<b>Year of Construction</b>								
1949 or Before ..	1.4	13.7	4,029	247	1.4	1.1	5.6	1,650
1950 to 1979 ..	3.7	16.6	4,867	288	3.7	1.1	6.6	1,924
1980 or After <sup>2</sup> ..	1.3	20.7	6,077	359	1.3	1.2	6.8	2,005
<b>1990 Family Income</b>								
Less than \$10,000 ..	1.6	11.8	3,470	211	1.6	1.1	5.4	1,594
\$10,000 to \$19,999 ..	1.5	13.7	4,001	237	1.5	1.0	5.8	1,714
\$20,000 to \$34,999 ..	1.6	17.0	4,987	302	1.6	1.2	5.8	1,702
\$35,000 or More ..	1.8	24.0	7,048	412	1.8	1.3	6.4	2,449
<b>Below Poverty Line</b>								
100 Percent ..	1.3	12.9	3,783	226	1.3	1.1	5.5	1,620
125 Percent ..	1.8	13.2	3,863	233	1.7	1.1	5.6	1,632
<b>Age of Householder</b>								
Under 35 Years ..	1.7	15.9	4,673	279	1.7	1.1	5.6	1,641
35 to 59 Years ..	2.9	19.8	5,794	342	2.9	1.2	7.1	2,092
60 Years and Over ..	1.9	13.2	3,875	235	1.9	1.2	6.1	1,776
<b>Household Size</b>								
1 Person ..	1.6	8.6	2,511	155	1.6	1.1	5.3	1,548
2 to 4 Persons ..	4.3	19.1	5,598	332	4.2	1.2	6.7	1,969
5 or More Persons ..	.5	24.2	7,091	419	.5	1.2	7.5	2,208

See footnotes at end of table.

## SOUTH

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 82. Electricity Consumption and Expenditures for Appliances and Refrigerators, per South Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	Consumed		Households (mil- lion)	Average Number of Refig- erators	Consumed			
	House- olds (mil- lion Btu)	Expend- itures (dollars)			(mil- lion Btu)	Expend- itures (dollars)		
RSE Column Factors:	1.7	NF	NF	1.7	0.5	NF	NF	
<b>West South Central Division.</b>	9.3	17.6	5,150	389	9.3	1.1	7.3	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	18.7	5,480	NC	1.1	NC	
Under 5,500 HDD .....	1.3				1.3		1.3	
2,000 CDD or More and Under 4,000 HDD .....	8.0	17.4	5,097	385	8.0	1.1	7.5	
Under 4,000 HDD .....							2,195	
<b>Type of Housing Unit</b>								
Single-Family .....	7.3	19.7	5,773	435	7.3	1.2	7.9	
Mobile Home .....	.3	11.6	3,410	266	.3	1.0	4.8	
Multifamily (2 or more units) ..	1.6	9.2	2,707	208	1.6	1.0	5.3	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	2.6	9.7	2,844	227	2.6	1.0	5.7	
1,000 to 1,999 .....	5.2	19.1	5,595	423	5.2	1.1	7.4	
2,000 or More .....	1.5	26.3	7,709	559	1.5	1.3	10.0	
<b>Ownership of Unit</b>								
Owned .....	6.3	20.5	5,999	449	6.3	1.2	8.1	
Rented .....	3.0	11.5	3,358	262	3.0	1.0	5.8	
<b>Year of Construction</b>								
1949 or Before .....	1.6	14.7	4,301	338	1.6	1.1	7.7	
1950 to 1979 .....	6.2	18.5	5,421	406	6.2	1.1	7.4	
1980 or After <sup>2</sup> .....	1.5	16.9	4,950	373	1.5	1.1	6.6	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.1	11.8	3,452	279	2.1	1.1	6.5	
\$10,000 to \$19,999 .....	1.9	15.7	4,596	358	1.9	1.1	6.5	
\$20,000 to \$34,999 .....	2.4	16.0	4,682	355	2.4	1.1	7.2	
\$35,000 or More .....	2.9	24.4	7,154	519	2.9	1.2	8.6	
<b>Below Poverty Line</b>								
100 Percent .....	2.2	12.4	3,643	290	2.2	1.1	6.0	
125 Percent .....	2.7	13.5	3,951	311	2.6	1.1	6.1	
<b>Age of Householder</b>								
Under 35 Years .....	2.7	15.3	4,474	337	2.6	1.1	6.2	
35 to 59 Years .....	3.7	20.6	6,037	457	3.7	1.1	7.6	
60 Years and Over .....	2.9	15.8	4,627	349	2.9	1.2	7.9	
<b>Household Size</b>								
1 Person .....	2.0	10.4	3,053	243	2.0	1.1	6.9	
2 to 4 Persons .....	5.8	18.3	5,364	403	5.8	1.1	7.4	
5 or More Persons .....	1.5	24.4	7,149	533	1.5	1.2	7.5	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

SOUTH

**Table 83. Natural Gas and LPG Consumption and Expenditures for Appliances, per South Region Household, 1990**

Characteristics	Natural Gas				Liquefied Petroleum Gas				RSE Row Factors	
	Consumed				Consumed					
	Households (million)	(1000 cubic feet)	Expenditures (dollars)	Households (million)	(million Btu)	(gallons)	Expenditures (dollars)	NF		
RSE Column Factors:	1.0	NF	NF	1.8	NF	NF	NF	NF		
<b>Total Region</b>	10.1	8.1	7.8	7.47	2.4	5.4	59	77	11.0	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Cover 5,500 HDD	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Under 5,500 HDD	7.2	7.0	43	1.4	5.4	60	85	85	13.6	
2,000 CDD or More and Under 4,000 HDD	4.7	5.4	51	1.0	5.3	58	65	65	17.0	
<b>Type of Housing Unit</b>										
Single-Family	8.2	8.5	8.3	49	1.7	5.4	59	73	13.1	
Mobile Home	3	6.4	6.2	39	.7	5.3	58	85	18.1	
Multifamily (2 or more units)	1.6	6.0	5.8	36	Q	Q	Q	Q	13.9	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	2.9	6.2	6.0	42	1.2	5.5	60	84	11.3	
1,000 to 1,999	4.9	7.3	7.1	43	1.0	5.7	62	74	12.3	
2,000 or More	2.2	12.1	11.8	62	.3	3.9	42	51	26.1	
<b>Ownership of Unit</b>										
Owned	7.1	8.8	8.5	51	1.8	5.1	56	72	13.2	
Rented	3.1	6.4	6.2	38	.6	6.2	67	89	12.2	
<b>Year of Construction</b>										
1949 or Before	2.6	6.9	6.7	42	.6	6.5	71	90	17.3	
1950 to 1979	6.6	8.7	8.4	50	1.2	5.0	55	75	13.2	
1980 or After <sup>2</sup>	1.0	6.8	6.6	41	.6	5.0	55	64	32.9	
<b>1990 Family Income</b>										
Less than \$10,000	2.1	6.8	6.6	40	.8	5.1	56	79	14.3	
\$10,000 to \$19,999	1.9	6.7	6.5	46	.7	6.5	71	85	15.2	
\$20,000 to \$34,999	2.6	6.5	6.3	38	.4	5.2	57	71	12.3	
\$35,000 or More	3.5	10.7	10.5	59	.4	4.2	46	63	20.5	
<b>Below Poverty Line</b>										
100 Percent	1.9	7.4	7.2	43	.8	6.1	66	86	13.1	
125 Percent	2.3	7.4	7.2	44	1.0	6.1	67	88	12.4	
<b>Age of Householder</b>										
Under 35 Years	2.5	6.5	6.3	38	.6	6.1	67	90	10.6	
35 to 59 Years	4.5	9.6	9.3	54	.9	5.1	56	71	16.7	
60 Years and Over	3.1	7.1	6.8	45	.9	5.1	56	72	12.9	
<b>Household Size</b>										
1 Person	2.2	4.2	4.0	26	.6	3.7	41	51	14.1	
2 to 4 Persons	6.4	9.0	8.8	52	1.4	5.0	55	74	11.3	
5 or More Persons	1.5	9.7	9.4	55	.4	9.0	98	123	12.2	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 83. Natural Gas and LPG Consumption and Expenditures for Appliances, per South Region Household, 1990 (Continued)**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Consumed		(gallons)		
	(million Btu)	(1000 cubic feet)		Expend- itures (dollars)	House- holds (million)			
RSE Column Factors:	1.0	NF	NF	NF	1.8	NF	NF	
<b>South Atlantic Division</b>	3.8	7.3	7.1	52	1.4	5.9	64	
<b>Climate Zone<sup>1</sup></b>							90	
Under 2,000 CDD and Over 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	
Under 5,500 HDD .....	3.2	7.4	7.2	49	.7	6.2	68	
2,000 CDD or More and Under 4,000 HDD .....	Q	6.7	6.4	69	.7	5.5	60	
<b>Type of Housing Unit</b>							70	
Single-Family .....	2.9	7.9	7.6	57	.9	5.7	63	
Mobile Home .....	Q	Q	5.3	Q	.5	6.2	68	
Multifamily (2 or more units) ..	.8	5.5	38	Q	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>							104	
Fewer than 1,000 .....	1.1	6.0	5.8	49	.8	6.0	66	
1,000 to 1,999 .....	1.6	7.2	6.9	50	.5	6.8	74	
2,000 or More .....	1.1	8.9	8.7	59	Q	Q	Q	
<b>Ownership of Unit</b>							29.4	
Owned .....	2.5	8.1	7.8	58	1.0	5.5	60	
Rented .....	1.3	5.8	5.6	41	.5	6.7	73	
<b>Year of Construction</b>							84	
1949 or Before .....	1.1	7.2	7.0	49	.5	7.1	78	
1950 to 1979 .....	2.5	6.9	6.7	51	.7	5.0	55	
1980 or After .....	Q	Q	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>							101	
Less than \$10,000 .....	.3	.7	6.1	5.9	.5	5.9	65	
\$10,000 to \$19,999 .....	1.0	6.3	5.9	53	.3	8.1	89	
\$20,000 to \$34,999 .....	1.7	8.6	8.4	60	.3	Q	Q	
\$35,000 or More .....					4.1	45	65	
<b>Below Poverty Line</b>							12.5	
100 Percent .....	.2	7.4	7.2	47	.4	7.4	82	
125 Percent .....	.4	7.7	7.5	53	.6	7.3	80	
<b>Age of Householder</b>							112	
Under 35 Years .....	1.0	5.8	5.6	41	.4	7.0	76	
35 to 59 Years .....	1.8	8.4	8.1	58	.5	5.5	60	
60 Years and Over .....	.9	6.9	6.7	54	.5	5.3	58	
<b>Household Size</b>							83	
1 Person .....	.8	4.2	4.1	31	.3	4.5	50	
2 to 4 Persons .....	2.5	8.1	7.8	57	.9	5.1	56	
5 or More Persons .....	.5	8.7	8.4	61	Q	Q	Q	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

SOUTH

**Table 83. Natural Gas and LPG Consumption and Expenditures for Appliances, per South Region Household, 1990 (Continued)**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Consumed		Expenditures (dollars) (gallons)		
	Households (million Btu)	(1000 cubic feet)		Households (million)	(million Btu)			
RSE Column Factors:	1.0	NF	NF	1.8	NF	NF		
<b>East South Central Division ..</b>	1.6	6.7	6.5	32	0.5	5.3	57	
<b>Climate Zone<sup>1</sup></b>							70	
Under 2,000 CDD and	NC	NC	NC	NC	5.3	57	NC	
Over 5,500 HDD .....	Q	Q	Q	NC	NC	NC	70	
Under 5,500 HDD .....	Q	7.2	6.9	35	NC	NC	NC	
2,000 CDD or More and							57.2	
Under 4,000 HDD .....	Q							
<b>Type of Housing Unit</b>								
Single-Family .....	1.1	6.8	6.6	32	.4	5.6	62	
Mobile Home .....	Q	Q	Q	Q	Q	Q	78	
Multifamily (2 or more units) .....	Q	6.2	6.0	28	NC	NC	Q	
<b>Heated Floorspace (square feet)</b>							NC	
Fewer than 1,000 .....	6	6.4	6.2	30	.2	4.5	49	
1,000 to 1,999 .....	5	7.1	6.8	35	Q	6.0	66	
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q	
<b>Ownership of Unit</b>								
Owned .....	1.1	6.6	6.4	32	.4	5.3	57	
Rented .....	Q	6.9	6.7	32	Q	Q	Q	
<b>Year of Construction</b>								
1949 or Before .....	3	7.7	7.4	35	.3	Q	Q	
1950 to 1979 .....	9	7.1	6.8	34	Q	5.4	59	
1980 or After .....	Q	Q	Q	Q	Q	Q	Q	
<b>1990 Family Income</b>								
Less than \$10,000 .....	3	7.9	7.6	37	.2	3.9	43	
\$10,000 to \$19,999 .....	3	6.2	6.0	30	Q	Q	Q	
\$20,000 to \$34,999 .....	4	6.1	5.8	29	Q	Q	Q	
\$35,000 or More .....	6	6.8	6.6	32	Q	Q	Q	
<b>Below Poverty Line</b>								
100 Percent .....	3	8.5	8.2	40	.2	4.3	47	
125 Percent .....	3	8.6	8.3	41	.3	5.1	55	
<b>Age of Householder</b>								
Under 35 Years .....	5	5.3	5.2	24	Q	Q	Q	
35 to 59 Years .....	8	6.3	6.1	30	.2	6.3	69	
60 Years and Over .....	4	9.3	8.9	44	2	4.0	44	
<b>Household Size</b>								
1 Person .....	4	4.6	4.5	22	Q	Q	Q	
2 to 4 Persons .....	1.0	6.7	6.5	31	.2	5.0	55	
5 or More Persons .....	2	10.5	10.1	50	Q	Q	Q	

See footnotes at end of table.

**Table 83. Natural Gas and LPG Consumption and Expenditures for Appliances, per South Region Household, 1990 (Continued)**

Characteristics	Households (million)	Natural Gas			Households (million)	Liquefied Petroleum Gas			RSE Row Factors		
		Consumed		Expenditures (dollars)		Consumed		(gallons)			
		(million Btu)	(1000 cubic feet)			(million Btu)	(gallons)				
RSE Column Factors:	1.0	NF	NF	NF	1.8	NF	NF	NF	RSE Row Factors		
West South Central Division .	4.7	9.1	8.9	48	0.5	4.1	45	44	19.6		
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC Q	NC NF		
Under 5,500 HDD .....	2,000 CDD or More and Under 4,000 HDD .....	4.2	9.3	9.1	51	Q	4.8	53	53		
21.3											
<b>Type of Housing Unit</b>											
Single-Family .....	4.2	9.4	9.1	49	Q	4.6	50	46	26.2		
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q	NF		
Multifamily (2 or more units) ..	.4	7.0	6.7	41	NC	NC	NC	NC	37.9		
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	1.2	6.3	6.1	41	Q	Q	Q	Q	17.4		
1,000 to 1,999 .....	2.8	7.5	7.2	41	Q	Q	Q	Q	13.3		
2,000 or More .....	.7	Q	Q	93	Q	Q	Q	Q	36.1		
<b>Ownership of Unit</b>											
Owned .....	3.5	9.9	9.7	52	4	4.1	45	43	23.7		
Rented .....	1.2	6.8	6.6	38	Q	Q	Q	Q	14.2		
<b>Year of Construction</b>											
1949 or Before .....	1.2	6.4	6.2	38	Q	Q	Q	Q	19.8		
1950 to 1979 .....	3.2	10.5	10.3	54	Q	Q	Q	Q	24.0		
1980 or After <sup>2</sup> .....	.3	5.2	5.0	32	Q	Q	Q	Q	22.0		
<b>1990 Family Income</b>											
Less than \$10,000 .....	1.4	6.7	6.5	40	Q	Q	Q	Q	17.4		
\$10,000 to \$19,999 .....	.9	7.4	7.2	46	Q	Q	Q	Q	17.2		
\$20,000 to \$34,999 .....	1.2	6.8	6.6	36	Q	Q	Q	Q	12.3		
\$35,000 or More .....	1.2	15.5	15.2	71	Q	Q	Q	Q	41.8		
<b>Below Poverty Line</b>											
100 Percent .....	1.4	7.2	7.0	43	Q	Q	Q	Q	15.3		
125 Percent .....	1.6	7.1	6.9	42	Q	Q	Q	Q	15.0		
<b>Age of Householder</b>											
Under 35 Years .....	1.0	7.6	7.5	41	Q	Q	Q	Q	12.7		
35 to 59 Years .....	2.0	12.1	11.8	59	Q	Q	Q	Q	30.0		
60 Years and Over .....	1.8	6.7	6.5	41	Q	Q	Q	Q	16.0		
<b>Household Size</b>											
1 Person .....	1.0	4.0	3.9	24	Q	Q	Q	Q	13.8		
2 to 4 Persons .....	3.0	10.6	10.3	55	Q	Q	Q	Q	25.2		
5 or More Persons .....	.8	10.0	9.7	53	Q	Q	Q	Q	15.5		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 84. Consumption and Expenditures in West Region Households, 1990**

Characteristics	RSE Column Factors:	Residential Buildings						Average of Major Energy Sources <sup>1</sup>					
		Total Households (million)	Total Number (million)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (thousand Btu)	per Household Member (million Btu)	per Building	per Square Foot	per Household Member	per Household Member	RSE Row Factors	
<b>Total Region</b>	19.4	14.8	29.5	102	51	77.8	29	1,203	0.60	920	342	3.5	
<b>Climate Zone:<sup>2</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	4.7	4.1	8.0	119	61	103.9	39	1,034	.53	902	336	9.0	
Under 5,500 HDD	8.8	8.8	18.5	99	47	70.7	27	1,247	.59	889	341	5.5	
2,000 CDD or More and Under 4,000 HDD	12.3	2.3	3.0	77	48	62.5	20	1,369	.86	1,119	361	8.7	
<b>Type of Housing Unit</b>													
Single Family	12.8	12.8	23.8	90	48	90.3	31	1,072	.58	1,072	365	3.8	
Mobile Home	1.2	1.2	1.2	76	77	76.4	33	801	.81	801	350	11.2	
Multifamily (2 or more units)	5.4	.9	4.5	308	59	49.0	22	3,699	.71	588	270	6.9	
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	8.0	4.3	6.1	97	69	52.7	22	1,185	.84	640	271	4.8	
1,000 to 1,999	8.5	7.7	14.4	96	51	86.4	30	1,140	.61	1,030	360	4.2	
2,000 or More	2.8	2.8	8.9	126	39	122.8	40	1,410	.44	1,373	449	6.3	
<b>Ownership of Unit</b>													
Owned	11.3	10.8	21.8	96	47	91.2	34	1,123	.56	1,071	394	3.8	
Rented	8.1	4.0	7.7	118	62	59.2	22	1,418	.74	709	268	4.8	
<b>Year of Construction</b>													
1949 or Before	4.6	3.8	7.0	103	56	84.1	33	1,014	.55	832	324	6.5	
1950 to 1979	10.8	7.8	15.4	104	53	75.6	29	1,251	.63	907	348	4.0	
1980 or After <sup>3</sup>	4.0	3.2	7.2	95	43	76.5	25	1,312	.59	1,056	346	7.5	
<b>1990 Family Income</b>													
Less than \$10,000	2.9	1.8	2.6	89	61	54.5	25	999	.69	612	286	8.5	
\$10,000 to \$19,999	4.3	3.1	5.2	92	54	66.5	25	1,055	.62	759	289	5.2	
\$20,000 to \$34,999	5.0	3.7	7.1	104	54	76.1	28	1,163	.61	851	308	6.0	
\$35,000 or More	7.2	6.3	14.6	109	47	95.2	33	1,357	.58	1,187	411	4.3	
<b>Below Poverty Line</b>													
100 Percent	2.8	1.8	2.7	91	59	58.0	18	1,092	.71	698	211	8.3	
125 Percent	3.8	2.5	4.0	94	60	62.0	20	1,110	.71	733	235	6.9	
<b>Age of Householder</b>													
Under 35 Years	6.4	3.9	7.6	113	58	69.0	22	1,316	.68	804	257	4.9	
35 to 59 Years	8.1	6.8	14.0	104	51	87.8	31	1,240	.60	1,046	364	4.3	
60 Years and Over	4.9	4.1	7.9	88	46	73.0	40	1,036	.54	869	476	5.3	
<b>Household Size</b>													
1 Person	5.0	3.3	5.9	88	49	58.1	58	990	.55	657	657	4.5	
2 to 4 Persons	11.8	9.2	19.0	107	51	82.9	31	1,245	.60	968	358	3.5	
5 or More Persons	2.6	2.3	4.6	103	53	92.4	16	1,342	.69	1,201	207	6.4	

See footnotes at end of table.

WEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 84. Consumption and Expenditures in West Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Average of Major Energy Sources <sup>1</sup>										
		Consumption					Expenditures (dollars)					
		Total Households (mil-lion)	Total Number (mil-lion)	Total Floor-space (billion sq. ft.)	per Building (million Btu)	per Square Foot (hour sand Btu)	Household Member	per Household Member	per Building	per Square Foot	Household Member	
Mountain Division .....	4.8	4.2	7.8	118	63	101.8	37	1,166	0.62	1,002	366	5.4
<b>Climate Zone:<sup>2</sup></b>												
Under 2,000 CDD and												
Over 5,500 HDD .....	2.9	2.5	5.2	143	67	120.9	45	1,112	.52	942	350	8.9
Under 5,500 HDD .....	.5	.5	Q	96	73	93.0	31	955	.73	924	312	14.6
2,000 CDD or More and												
Under 4,000 HDD .....	1.4	1.2	1.9	78	48	65.7	24	1,367	.85	1,155	419	5.4
<b>Type of Housing Unit</b>												
Single-Family .....	3.5	3.5	6.7	113	59	112.7	38	1,097	.57	1,097	372	5.3
Mobile Home .....	.5	.5	.5	86	86	85.6	33	798	.80	798	305	13.4
Multifamily (2 or more units) ...	.9	.2	.7	292	91	68.1	34	3,193	.99	744	372	16.6
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	1.7	1.1	1.3	118	103	76.7	33	1,194	1.04	776	335	9.2
1,000 to 1,999 .....	2.3	2.2	3.8	107	62	103.1	36	1,093	.64	1,054	365	5.7
2,000 or More .....	.9	.9	2.8	149	46	147.2	46	1,317	.41	1,304	411	9.9
<b>Ownership of Unit</b>												
Owned .....	3.3	3.3	6.4	115	59	113.4	40	1,095	.56	1,075	382	6.1
Rented .....	1.5	.9	1.5	129	81	76.7	30	1,421	.89	845	326	7.9
<b>Year of Construction</b>												
1949 or Before .....	1.2	1.1	1.8	132	79	120.6	45	1,016	.61	929	343	10.0
1950 to 1979 .....	2.5	2.1	3.9	122	66	101.3	38	1,191	.65	992	376	5.9
1980 or After <sup>3</sup> .....	1.1	1.0	2.1	97	44	83.8	28	1,274	.58	1,101	367	11.2
<b>1990 Family Income</b>												
Less than \$10,000 .....	.9	.6	.9	106	72	77.9	36	1,069	.73	786	360	13.2
\$10,000 to \$19,999 .....	1.0	.8	1.2	112	73	88.1	32	1,168	.76	921	334	7.9
\$20,000 to \$34,999 .....	1.4	1.2	2.2	125	70	109.9	41	1,080	.60	953	355	8.9
\$35,000 or More .....	1.6	1.5	3.5	122	53	116.5	38	1,274	.55	1,214	394	5.8
<b>Below Poverty Line</b>												
100 Percent .....	.7	.6	.8	105	73	83.2	26	1,109	.77	880	274	14.1
125 Percent .....	1.0	.8	1.2	111	75	87.6	28	1,128	.76	888	280	11.5
<b>Age of Householder</b>												
Under 35 Years .....	1.5	1.1	2.1	126	69	94.0	28	1,293	.71	961	287	7.8
35 to 59 Years .....	2.1	1.9	3.7	116	60	106.4	38	1,145	.59	1,050	376	6.7
60 Years and Over .....	1.2	1.1	2.0	115	63	103.8	56	1,070	.59	970	521	9.9
<b>Household Size</b>												
1 Person .....	1.2	.9	1.5	109	62	79.8	80	994	.56	727	727	9.4
2 to 4 Persons .....	3.0	2.6	5.0	121	63	106.4	39	1,207	.63	1,066	389	5.4
5 or More Persons .....	.7	.7	1.3	122	64	119.6	21	1,222	.63	1,195	209	8.5

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

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**Table 84. Consumption and Expenditures in West Region Households, 1990 (Continued)**

		Residential Buildings		Consumption				Expenditures (dollars)			
		Total Households (million)	Total Floor-space (billion sq. ft.)	per Building (million BTu)	per Square Foot (thousand BTu)	per Household Member (million BTu)	per Building	per Square Foot	per Household Member	RSE	Row Factors
<b>RSE Column Factors:</b>	1.4	1.6	1.5	1.0	0.9	0.8	1.0	0.9	0.9	0.7	0.8
<b>Pacific Division</b>	14.6	10.7	21.7	95	47	69.9	26	1,218	0.60	892	334
<b>Climate Zone:<sup>2</sup></b>											3.9
Under 2,000 CDD and Over 5,500 HDD	1.8	1.7	2.8	84	51	76.7	29	920	.56	837	313
Under 5,500 HDD	11.8	8.3	17.8	99	46	69.7	27	1,265	.59	888	342
2,000 CDD or More and Under 4,000 HDD	9	.7	Q	74	47	57.6	16	1,372	.86	1,062	293
<b>Type of Housing Unit</b>											21.5
Single-Family	9.3	9.3	17.1	82	44	81.9	28	1,063	.58	1,063	362
Mobile Home	.7	.7	.7	70	71	70.1	34	804	.81	804	390
Multifamily (2 or more units)	4.6	.7	3.8	313	54	45.2	20	3,858	.66	557	252
<b>Heated Floorspace (square feet)</b>											7.4
Fewer than 1,000	6.3	3.2	4.9	91	60	46.3	19	1,182	.78	604	254
1,000 to 1,999	6.3	5.5	10.6	91	47	80.3	28	1,158	.60	1,022	358
2,000 or More	2.0	1.9	6.2	116	36	112.0	37	1,452	.45	1,403	467
<b>Ownership of Unit</b>											7.3
Owned	8.0	7.5	15.4	87	42	81.9	31	1,135	.55	1,069	399
Rented	6.6	3.1	6.2	115	58	55.1	21	1,417	.71	677	255
<b>Year of Construction</b>											5.9
1949 or Before	3.5	2.7	5.2	91	48	71.9	29	1,013	.53	799	317
1950 to 1979	8.2	5.7	11.4	98	49	67.7	26	1,273	.63	880	340
1980 or After <sup>3</sup>	2.9	2.3	5.0	94	42	73.6	24	1,328	.60	1,039	338
<b>1990 Family Income</b>											9.8
Less than \$10,000	2.0	1.1	1.7	80	55	44.7	21	960	.66	538	254
\$10,000 to \$19,999	3.3	2.3	4.0	86	49	59.9	23	1,016	.57	709	274
\$20,000 to \$34,999	3.6	2.5	4.9	94	47	63.2	23	1,204	.61	813	291
\$35,000 or More	5.6	4.8	11.1	105	45	89.2	31	1,384	.59	1,180	417
<b>Below Poverty Line</b>											5.4
100 Percent	2.1	1.2	1.9	84	53	49.4	15	1,085	.69	636	191
125 Percent	2.8	1.7	2.8	86	54	52.7	17	1,101	.69	676	218
<b>Age of Householder</b>											8.6
Under 35 Years	4.8	2.8	5.5	107	54	61.1	20	1,325	.67	754	247
35 to 59 Years	6.0	4.9	10.3	99	47	81.2	28	1,279	.61	1,044	360
60 Years and Over	3.7	3.0	5.9	78	40	63.1	35	1,023	.52	829	461
<b>Household Size</b>											6.2
1 Person	3.8	2.4	4.4	80	44	51.5	52	988	.55	636	635
2 to 4 Persons	8.8	6.5	14.0	101	47	74.9	28	1,260	.59	935	347
5 or More Persons	1.9	1.7	3.3	96	49	82.8	14	1,390	.71	1,203	206

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 85. Total Consumption in West Region Households, 1990**

Characteristics	RSE Column Factors:	Major Energy Sources <sup>1</sup> (tril- lion Btu)	Electricity (tril- lion Btu)	Natural Gas (billion kWh)	Fuel Oil (tril- lion Btu)	Kerosene (billion cubic feet)	Liquefied Petroleum Gas (tril- lion gal- lons)	(tril- lion Btu)	(tril- lion gal- lons)	(tril- lion Btu)	(tril- lion gal- lons)	RSE Row Fac- tors
West Region												
Total Region .....	1,510.2	539.4	158.1	918.3	891	Q	Q	Q	Q	31.5	0.35	12.8
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	492.6	172.9	50.7	300.8	294	Q	Q	Q	Q	13.0	.14	52.5
Under 5,500 HDD .....	873.2	295.3	86.5	549.7	532	Q	Q	Q	Q	21.6		
2,000 CDD or More and Under 4,000 HDD .....	144.5	71.2	20.9	67.9	66	Q	Q	Q	Q	5.2	.06	48.
<b>Type of Housing Unit</b>												
Single-Family .....	1,152.7	414.1	121.4	695.4	675	Q	Q	Q	Q	22.3	.24	16.8
Mobile Home .....	91.3	31.9	9.4	51.3	50	NC	NC	NC	Q	Q	Q	60.3
Multifamily (2 or more units) .....	266.2	93.4	27.4	171.6	166	NC	NC	NC	Q	Q	Q	31.6
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	422.2	153.0	44.9	253.8	246	Q	Q	Q	Q	14.4	.16	17.6
1,000 to 1,999 .....	738.5	274.3	80.4	443.9	431	Q	Q	Q	Q	19.1		
2,000 or More .....	349.6	112.1	32.8	220.6	214	Q	Q	Q	Q	35.0		
<b>Ownership of Unit</b>												
Owned .....	1,031.0	363.4	106.5	628.6	610	Q	Q	Q	Q	21.3	.23	17.2
Rented .....	479.3	176.0	51.6	289.7	281	Q	Q	Q	Q	10.2	.11	18.3
<b>Year of Construction</b>												
1949 or Before .....	389.6	113.5	33.3	258.0	251	10.9	.08	Q	Q	7.0	.08	26.2
1950 to 1979 .....	813.2	296.6	86.9	490.4	475	Q	Q	Q	Q	16.4	.18	18.6
1980 or After .....	307.4	129.3	37.9	169.9	165	NC	NC	Q	Q	8.1	.09	32.6
<b>1990 Family Income</b>												
Less than \$10,000 .....	158.5	60.0	17.6	87.5	85	Q	Q	Q	Q	4.4	.05	37.5
\$10,000 to \$19,999 .....	284.1	103.1	30.2	169.9	164	Q	Q	Q	Q	10.1	.11	21.1
\$20,000 to \$34,999 .....	382.6	133.9	39.2	230.2	224	Q	Q	Q	Q	28.3		
\$35,000 or More .....	685.0	242.4	71.1	430.7	418	Q	Q	Q	Q	13.0		
<b>Below Poverty Line</b>												
100 Percent .....	159.5	64.7	19.0	87.0	85	NC	Q	Q	Q	7.7	.08	28.0
125 Percent .....	238.3	92.0	27.0	134.0	130	Q	Q	Q	Q	11.5	.13	24.9
<b>Age of Householder</b>												
Under 35 Years .....	440.4	146.9	43.1	284.9	276	Q	Q	Q	Q	Q	Q	21.5
35 to 59 Years .....	709.0	268.9	75.9	433.3	422	Q	Q	Q	Q	9.5	.10	16.6
60 Years and Over .....	360.8	133.6	39.2	200.1	194	Q	Q	Q	Q	14.9	.16	24.
<b>Household Size</b>												
1 Person .....	289.1	103.3	30.3	170.5	166	Q	Q	Q	Q	17.8	.19	20.4
2 to 4 Persons .....	978.5	344.0	100.8	607.9	590	Q	Q	Q	Q	15.3	.04	23.5
5 or More Persons .....	242.6	92.1	27.0	139.9	135	Q	Q	Q	Q	4.0		

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

WEST

**Table 85. Total Consumption in West Region Households, 1990 (Continued)**

Characteristics	Major Energy Sources <sup>1</sup> (trillion Btu)	Electricity (billion kWh)	Natural Gas (trillion Btu)	Fuel Oil (billion cubic feet)	Kerosene (trillion Btu)	Liquefied Petroleum Gas (billion gallons)	RSE Row Factors
RSSE Column Factors:	0.3	0.4	0.4	0.4	0.4	1.9	2.7
<b>Mountain Division</b>	488.2	141.8	41.6	333.7	324	Q	Q
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	352.6	79.4	23.3	256.6	250	Q	Q
Under 5,500 HDD	Q	Q	35.3	33	NC	NC	Q
2,000 CDD or More and Under 4,000 HDD	92.7	50.4	14.8	41.9	41	NC	Q
<b>Type of Housing Unit</b>							
Single-Family	381.0	111.2	32.6	264.6	257	Q	Q
Mobile Home	41.8	12.2	3.6	27.2	26	NC	Q
Multifamily (2 or more units)	60.4	18.4	5.4	42.0	41	NC	Q
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	129.3	33.7	9.9	92.5	90	Q	Q
1,000 to 1,999	238.0	73.7	21.6	154.4	150	Q	Q
2,000 or More	128.0	34.3	10.1	86.8	84	Q	Q
<b>Ownership of Unit</b>							
Owned	375.7	105.3	30.9	255.9	249	Q	Q
Rented	117.5	36.5	10.7	77.9	76	NC	Q
<b>Year of Construction</b>							
1949 or Before	140.2	27.2	8.0	106.0	104	Q	Q
1950 to 1979	257.7	73.2	21.4	178.5	173	Q	Q
1980 or After <sup>3</sup>	95.3	41.4	12.1	49.3	47	NC	Q
<b>1990 Family Income</b>							
Less than \$10,000	67.1	18.3	5.4	44.9	44	Q	Q
\$10,000 to \$19,999	88.9	25.1	7.3	63.3	61	NC	Q
\$20,000 to \$34,999	152.2	37.5	11.0	107.6	105	Q	Q
\$35,000 or More	183.0	61.0	17.9	118.0	115	Q	Q
<b>Below Poverty Line</b>							
100 Percent	58.0	17.9	5.3	37.0	36	NC	Q
125 Percent	90.3	25.8	7.6	60.6	59	Q	Q
<b>Age of Householder</b>							
Under 35 Years	144.7	42.7	12.5	98.4	95	NC	Q
35 to 59 Years	224.4	69.3	20.3	148.2	145	Q	Q
60 Years and Over	124.2	29.8	8.7	87.1	85	Q	Q
<b>Household Size</b>							
1 Person	93.2	20.5	6.0	69.8	69	Q	Q
2 to 4 Persons	318.4	97.0	28.4	209.2	203	Q	Q
5 or More Persons	81.7	24.3	7.1	54.7	52	Q	Q

See footnotes at end of table.

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 85. Total Consumption in West Region Households, 1990 (Continued)**

Characteristics	RSE Column Factors:	Major Energy Sources <sup>1</sup> (tril- lion Btu)	Electricity (tril- lion kWh)	Natural Gas (billion cubic feet)	Fuel Oil (tril- lion Btu)	Kerosene (billion gal- lons)	Liquefied Petroleum Gas (tril- lion Btu)	Petroleum Gas (billion gal- lons)	RSE Fac- tors			
		0.3	0.4	0.4	0.4	0.4	1.9	1.9	2.7	2.8	1.8	
Pacific Division .....	1,017.0	397.6	116.5	584.6	567	Q	Q	Q	Q	18.1	0.20	12.6
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD .....	140.0	93.5	27.4	44.2	44	Q	Q	Q	Q	Q	.79	0
Under 5,500 HDD .....	825.2	283.3	83.0	514.4	498	Q	Q	Q	Q	Q	21.6	
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	NC	NC	4.9	.05	27.1
<b>Type of Housing Unit</b>												
Single-Family .....	761.7	302.9	88.8	430.8	418	Q	Q	Q	Q	11.3	.12	18.9
Mobile Home .....	49.5	19.7	5.8	24.2	23	NC	NC	NC	NC	Q	79.5	
Multifamily (2 or more units) .....	205.8	75.0	22.0	129.7	126	NC	NC	NC	NC	Q	38.3	
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000 .....	292.9	119.3	35.0	161.3	157	Q	Q	Q	Q	12.1	.13	18.5
1,000 to 1,999 .....	502.5	200.6	58.8	289.5	281	Q	Q	Q	Q	5.6	.06	21.5
2,000 or More .....	221.6	77.7	22.8	133.8	130	Q	Q	Q	Q	Q	47.3	
<b>Ownership of Unit</b>												
Owned .....	655.2	258.1	75.7	372.8	362	Q	Q	Q	Q	11.1	.12	18.6
Rented .....	361.8	139.5	40.9	211.8	206	Q	Q	Q	Q	7.0	.08	20.5
<b>Year of Construction</b>												
1949 or Before .....	249.4	86.3	25.3	152.0	147	Q	Q	Q	Q	3.3	.04	23.4
1950 to 1979 .....	555.5	223.4	65.5	311.9	302	Q	Q	Q	Q	11.2	.12	22.8
1980 or After .....	212.1	87.9	25.8	120.6	117	NC	NC	NC	NC	3.6	.04	36.
<b>1990 Family Income</b>												
Less than \$10,000 .....	91.5	41.8	12.2	42.7	41	NC	NC	Q	Q	43.8		
\$10,000 to \$19,999 .....	195.2	78.0	22.9	105.6	103	Q	Q	Q	Q	3.8	.04	25.5
\$20,000 to \$34,999 .....	230.4	96.4	28.3	122.6	119	Q	Q	Q	Q	4.3	.05	26.9
\$35,000 or More .....	500.0	181.5	53.2	312.7	304	Q	Q	Q	Q	Q	16.7	
<b>Below Poverty Line</b>												
100 Percent .....	101.4	46.8	13.7	50.0	49	NC	NC	Q	Q	4.6	.05	24.5
125 Percent .....	148.0	66.3	19.4	73.3	71	NC	NC	Q	Q	8.4	.09	25.2
<b>Age of Householder</b>												
Under 35 Years .....	295.7	104.2	30.5	186.5	181	Q	Q	NC	NC	3.6	.04	23.9
35 to 59 Years .....	484.7	189.6	55.6	285.0	277	Q	Q	NC	NC	6.2	.07	17.6
60 Years and Over .....	236.6	103.8	30.4	113.0	109	Q	Q	NC	NC	Q	29.7	
<b>Household Size</b>												
1 Person .....	195.9	82.7	24.2	100.7	98	Q	Q	Q	Q	7.3	.08	21.4
2 to 4 Persons .....	660.1	247.0	72.4	398.7	387	Q	Q	Q	Q	15.6		
5 or More Persons .....	161.0	67.9	19.9	85.2	82	Q	Q	NC	NC	3.1	.03	28.2

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 86. Total Expenditures in West Region Households, 1990**  
(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	West Region		RSE Row Factors
							0.4	0.5	
Total Region .....	17.85	12.50	4.80	Q	Q	Q	0.38	10.7	
<b>Climate Zone<sup>2</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	4.28	2.85	1.25	Q	Q	Q	.16	46.3 20.4	
Under 5,500 HDD .....	10.98	7.60	3.10	Q	Q	Q	.09	42.6	
2,000 CDD or More and Under 4,000 HDD .....	2.58	2.05	.45	Q	Q	Q			
<b>Type of Housing Unit</b>									
Single-Family .....	13.69	9.62	3.63	Q	Q	Q	.27	14.9 55.0 30.0	
Mobile Home .....	.96	.61	.26	NC	NC	Q			
Multifamily (2 or more units) .....	3.20	2.27	.91	NC	NC	Q			
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	5.13	3.60	1.33	Q	Q	Q	.19	16.6	
1,000 to 1,999 .....	8.80	6.28	2.32	0.06	Q	Q	.13	18.0	
2,000 or More .....	3.91	2.62	1.15	Q	Q	Q	.09	31.2	
<b>Ownership of Unit</b>									
Owned .....	12.11	8.46	3.26	.13	Q	Q	.25	15.1	
Rented .....	5.74	4.04	1.54	Q	Q	Q	.13	16.6	
<b>Year of Construction</b>									
1949 or Before .....	3.85	2.38	1.30	.08	Q	Q	.09	21.5	
1950 to 1979 .....	9.75	6.86	2.60	Q	Q	Q	.20	17.2	
1980 or After <sup>3</sup> .....	4.25	3.26	.90	NC	Q	Q	.09	29.6	
<b>1990 Family Income</b>									
Less than \$10,000 .....	1.78	1.20	.45	Q	Q	Q	.32.9		
\$10,000 to \$19,999 .....	3.24	2.24	.89	Q	Q	Q	.05	22.4	
\$20,000 to \$34,999 .....	4.28	2.93	1.16	Q	Q	Q	.12	22.2	
\$35,000 or More .....	8.54	6.13	2.30	Q	Q	Q	.08	16.0	
<b>Below Poverty Line</b>									
100 Percent .....	1.92	1.37	.46	NC	Q	Q	.09	27.6	
125 Percent .....	2.82	1.97	.70	Q	Q	Q	.14	24.9	
<b>Age of Householder</b>									
Under 35 Years .....	5.13	3.54	1.50	Q	Q	Q	.08	21.5	
35 to 59 Years .....	8.45	5.98	2.27	Q	Q	Q	.13	14.7	
60 Years and Over .....	4.27	2.98	1.03	.09	Q	Q	.17	23.9	
<b>Household Size</b>									
1 Person .....	3.27	2.23	.87	Q	Q	Q	.19.1		
2 to 4 Persons .....	11.42	7.98	3.17	Q	Q	Q	.21	11.8	
5 or More Persons .....	3.15	2.29	.76	Q	Q	Q	.06	25.1	

See footnotes at end of table.

WEST

**Table 86. Total Expenditures in West Region Households, 1990 (Continued)**

(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	RSE Column Factors:	0.4	0.4	0.5	2.3	3.2	
<b>Mountain Division .....</b>	4.86	3.12	1.57	Q	Q	Q	21.7
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	2.75	1.53	1.07	Q	Q	Q	45.2
Under 5,500 HDD .....	.48	.27	.20	NC	NC	Q	109.0
2,000 CDD or More and							
Under 4,000 HDD .....	1.63	1.32	.30	NC	Q	Q	27.1
<b>Type of Housing Unit</b>							
Single-Family .....	3.81	2.41	1.25	Q	Q	Q	21.1
Mobile Home .....	.39	.24	.13	NC	NC	Q	70.8
Multifamily (2 or more units) ...	.66	.47	.19	NC	NC	NC	66.7
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	1.31	.83	.45	Q	NC	Q	42.2
1,000 to 1,999 .....	2.41	1.60	.75	Q	Q	Q	26.0
2,000 or More .....	1.13	.69	.38	Q	Q	Q	46.4
<b>Ownership of Unit</b>							
Owned .....	3.56	2.23	1.20	Q	Q	Q	25.8
Rented .....	1.29	.89	.37	NC	NC	Q	29.7
<b>Year of Construction</b>							
1949 or Before .....	1.08	.56	.46	Q	Q	Q	49.0
1950 to 1979 .....	2.52	1.60	.87	Q	Q	Q	22.3
1980 or After <sup>3</sup> .....	1.25	.96	.25	NC	Q	Q	54.0
<b>1990 Family Income</b>							
Less than \$10,000 .....	.68	.43	.21	Q	NC	Q	58.2
\$10,000 to \$19,999 .....	.93	.61	.32	NC	NC	Q	39.7
\$20,000 to \$34,999 .....	1.32	.77	.48	Q	Q	Q	38.4
\$35,000 or More .....	1.93	1.32	.56	Q	Q	Q	25.4
<b>Below Poverty Line</b>							
100 Percent .....	.61	.41	.17	NC	NC	Q	69.8
125 Percent .....	.92	.59	.29	Q	NC	Q	54.5
<b>Age of Householder</b>							
Under 35 Years .....	1.48	.97	.47	NC	NC	Q	29.9
35 to 59 Years .....	2.22	1.46	.69	Q	Q	Q	26.6
60 Years and Over .....	1.16	.69	.41	Q	Q	Q	40.5
<b>Household Size</b>							
1 Person .....	.85	.50	.32	Q	Q	Q	35.7
2 to 4 Persons .....	3.19	2.10	.98	Q	Q	Q	21.4
5 or More Persons .....	.82	.52	.27	Q	Q	Q	51.6

See footnotes at end of table.

**Table 86. Total Expenditures in West Region Households, 1990 (Continued)**

(Billion Dollars)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	RSE Column Factors:	0.4	0.4	0.5	2.3	3.2	
<b>Pacific Division</b>	<b>12.99</b>	9.38	3.23	Q	Q	0.25	13.4
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	1.53	1.32	.18	Q	Q	Q	84.7
Under 5,500 HDD	10.51	7.33	2.90	Q	Q	.16	20.6
2,000 CDD or More and Under 4,000 HDD	Q	.72	Q	Q	NC	.08	47.9
<b>Type of Housing Unit</b>							
Single-Family	9.89	7.21	2.38	Q	Q	.17	19.3
Mobile Home	.57	.37	.13	NC	NC	Q	79.3
Multifamily (2 or more units)	2.54	1.80	.72	NC	NC	Q	32.5
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	3.82	2.77	.89	Q	Q	.17	18.4
1,000 to 1,999	6.39	4.68	1.57	Q	Q	.08	22.0
2,000 or More	2.78	1.93	.77	Q	Q	Q	41.0
<b>Ownership of Unit</b>							
Owned	8.55	6.23	2.06	Q	Q	.15	17.7
Rented	4.44	3.15	1.16	Q	Q	.10	18.8
<b>Year of Construction</b>							
1949 or Before	2.77	1.82	.84	Q	Q	.05	24.6
1950 to 1979	7.22	5.26	1.73	Q	Q	.15	21.8
1980 or After <sup>3</sup>	2.99	2.30	.65	NC	NC	.05	35.9
<b>1990 Family Income</b>							
Less than \$10,000	1.10	.77	.23	NC	Q	Q	37.4
\$10,000 to \$19,999	2.31	1.64	.58	Q	NC	Q	27.4
\$20,000 to \$34,999	2.96	2.16	.68	Q	Q	.07	25.7
\$35,000 or More	6.61	4.81	1.74	Q	Q	.04	18.8
<b>Below Poverty Line</b>							
100 Percent	1.31	.96	.28	NC	Q	.06	26.8
125 Percent	1.90	1.38	.41	NC	Q	.11	27.7
<b>Age of Householder</b>							
Under 35 Years	3.65	2.57	1.02	Q	NC	.05	29.9
35 to 59 Years	6.23	4.52	1.58	Q	Q	.09	18.6
60 Years and Over	3.11	2.29	.62	Q	NC	Q	32.5
<b>Household Size</b>							
1 Person	2.42	1.73	.55	Q	Q	Q	23.6
2 to 4 Persons	8.23	5.88	2.19	Q	Q	.11	15.0
5 or More Persons	2.34	1.77	.49	Q	NC	Q	30.9

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

(\*) = Data cannot be displayed due to rounding.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

Table 87. Electricity Consumption and Expenditures in West Region  
Households, 1990

Characteristics	Average per Household						RSE Row Factors	
	Households Using Electricity (million)	Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (cents per kWh)		
		(million Btu)	(kWh)					
RSE Column Factors:	1.3	1.1	1.1	1.0	0.7	0.8		
West Region								
<b>Total Region</b>	19.4	27.8	8,162	645	1,522	7.9	3.9	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	4.7	36.7	10,763	605	1,698	5.6	11.4	
Under 5,500 HDD	12.3	23.9	7,007	615	1,495	8.8	6.2	
2,000 CDD or More and Under 4,000 HDD	2.3	30.8	9,033	886	1,308	9.8	5.8	
<b>Type of Housing Unit</b>								
Single-Family	12.7	32.5	9,528	755	1,868	7.9	4.1	
Mobile Home	1.2	26.7	7,927	510	993	6.5	13.9	
Multifamily ( 2 or more units)	5.4	17.2	5,036	417	829	8.3	7.0	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	8.0	19.2	5,623	451	767	8.0	4.4	
1,000 to 1,999	8.5	32.1	9,407	734	1,689	7.8	4.4	
2,000 or More	2.8	39.4	11,536	922	3,135	8.0	6.3	
<b>Ownership of Unit</b>								
Owned	11.3	32.2	9,446	750	1,931	7.9	4.0	
Rented	8.1	21.7	6,372	499	952	7.8	4.9	
<b>Year of Construction</b>								
1949 or Before	4.6	24.5	7,182	514	1,508	7.2	7.2	
1950 to 1979	10.8	27.6	8,086	638	1,428	7.9	4.1	
1980 or After <sup>2</sup>	4.0	32.4	9,506	817	1,792	8.6	5.7	
<b>1990 Family Income</b>								
Less than \$10,000	2.9	20.9	6,122	418	894	6.8	9.6	
\$10,000 to \$19,999	4.3	24.1	7,072	525	1,226	7.4	5.3	
\$20,000 to \$34,999	5.0	26.6	7,801	582	1,405	7.5	6.6	
\$35,000 or More	7.2	33.7	9,876	852	2,030	8.6	3.5	
<b>Below Poverty Line</b>								
100 Percent	2.7	23.8	6,983	504	984	7.2	8.8	
125 Percent	3.8	24.2	7,082	516	1,035	7.3	7.4	
<b>Age of Householder</b>								
Under 35 Years	6.4	23.0	6,747	555	1,187	8.2	5.1	
35 to 59 Years	8.0	32.2	9,435	744	1,739	7.9	4.2	
60 Years and Over	4.9	27.0	7,918	602	1,602	7.6	5.1	
<b>Household Size</b>								
1 Person	4.9	20.9	6,127	452	1,193	7.4	5.1	
2 to 4 Persons	11.8	29.1	8,541	676	1,612	7.9	3.5	
5 or More Persons	2.6	35.1	10,287	872	1,737	8.5	6.2	

See footnotes at end of table.

**Table 87. Electricity Consumption and Expenditures in West Region  
Households, 1990 (Continued)**

Characteristics	Households Using Electricity (million)	Average per Household						RSE Row Factors	
		Consumption		Expenditures (dollars)	Floorspace (square feet)	Expenditures (cents per kWh)			
		(million Btu)	(kWh)			1.0	0.7		
RSE Column Factors:	1.3	1.1	1.1						
<b>Mountain Division</b>	4.8	29.3	8,578	644	1,614	7.5	6.4		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	2.9	27.2	7,982	524	1,799	6.6	11.7		
Over 5,500 HDD	.5	23.1	6,774	520	1,270	7.7	15.6		
Under 5,500 CDD or More and 2,000 HDD	1.4	35.7	10,468	938	1,357	9.0	4.2		
Under 4,000 HDD									
<b>Type of Housing Unit</b>									
Single-Family	3.5	32.0	9,393	696	1,922	7.4	6.7		
Mobile Home	.5	24.9	7,298	483	997	6.6	21.5		
Multifamily ( 2 or more units)	.9	20.8	6,095	532	750	8.7	14.1		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	1.7	20.0	5,867	495	745	8.4	8.6		
1,000 to 1,999	2.3	32.2	9,435	697	1,660	7.4	6.3		
2,000 or More	.9	39.5	11,578	795	3,179	6.9	10.3		
<b>Ownership of Unit</b>									
Owned	3.3	31.8	9,318	673	1,920	7.2	7.5		
Rented	1.5	23.8	6,978	583	953	8.4	6.1		
<b>Year of Construction</b>									
1949 or Before	1.2	23.4	6,861	485	1,520	7.1	12.0		
1950 to 1979	2.5	28.8	8,430	628	1,536	7.5	7.3		
1980 or After <sup>2</sup>	1.1	36.4	10,662	843	1,884	7.9	7.9		
<b>1990 Family Income</b>									
Less than \$10,000	.9	21.3	6,231	495	1,080	7.9	11.4		
\$10,000 to \$19,999	1.0	24.8	7,274	601	1,206	8.3	8.7		
\$20,000 to \$34,999	1.4	27.1	7,928	556	1,581	7.0	10.5		
\$35,000 or More	1.6	38.4	11,244	830	2,191	7.4	6.3		
<b>Below Poverty Line</b>									
100 Percent	.7	25.7	7,538	586	1,143	7.8	14.0		
125 Percent	1.0	25.0	7,327	569	1,169	7.8	11.6		
<b>Age of Householder</b>									
Under 35 Years	1.5	27.7	8,131	632	1,360	7.8	5.8		
35 to 59 Years	2.1	32.9	9,628	693	1,776	7.2	8.3		
60 Years and Over	1.2	24.9	7,300	575	1,655	7.9	10.2		
<b>Household Size</b>									
1 Person	1.2	17.6	5,150	428	1,291	8.3	9.4		
2 to 4 Persons	3.0	32.4	9,493	700	1,678	7.4	6.5		
5 or More Persons	.7	35.6	10,431	768	1,883	7.4	10.2		

See footnotes at end of table.

WEST

## WEST

**Table 87. Electricity Consumption and Expenditures in West Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors	
	Households Using Electricity (million)		Consumption (million Btu)		Expenditures (kWh)			
	Floorspace (square feet)	Expenditures (cents per kWh)						
RSE Column Factors:	1.3	1.1	1.1	1.0	0.7	0.8		
Pacific Division .....	14.5	27.4	8,023	646	1,491	8.0	3.8	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	1.8	52.2	15,288	737	1,533	4.8	15.2	
Under 5,500 HDD .....	11.8	23.9	7,017	620	1,505	8.8	6.4	
2,000 CDD or More and Under 4,000 HDD .....	.9	23.1	6,780	805	1,229	11.9	13.2	
<b>Type of Housing Unit</b>								
Single-Family .....	9.3	32.7	9,578	777	1,847	8.1	5.0	
Mobile Home .....	.7	28.0	8,183	529	989	6.5	18.6	
Multifamily ( 2 or more units) ..	4.6	16.5	4,830	395	845	8.2	7.5	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	6.3	19.0	5,558	440	773	7.9	4.9	
1,000 to 1,999 .....	6.3	32.1	9,397	748	1,700	8.0	5.5	
2,000 or More .....	2.0	39.3	11,518	977	3,116	8.5	7.4	
<b>Ownership of Unit</b>								
Owned .....	8.0	32.4	9,500	783	1,936	8.2	4.6	
Rented .....	6.6	21.3	6,231	479	951	7.7	5.9	
<b>Year of Construction</b>								
1949 or Before .....	3.5	24.9	7,289	524	1,504	7.2	8.4	
1950 to 1979 .....	8.2	27.2	7,979	641	1,394	8.0	4.8	
1980 or After <sup>2</sup> .....	2.8	30.9	9,045	807	1,755	8.9	7.6	
<b>1990 Family Income</b>								
Less than \$10,000 .....	2.0	20.7	6,075	385	815	6.3	11.7	
\$10,000 to \$19,999 .....	3.3	23.9	7,009	502	1,233	7.2	6.4	
\$20,000 to \$34,999 .....	3.6	26.5	7,753	592	1,339	7.6	8.2	
\$35,000 or More .....	5.6	32.4	9,488	858	1,984	9.0	4.1	
<b>Below Poverty Line</b>								
100 Percent .....	2.0	23.2	6,792	476	929	7.0	10.5	
125 Percent .....	2.8	23.9	6,991	496	985	7.1	9.1	
<b>Age of Householder</b>								
Under 35 Years .....	4.8	21.5	6,307	530	1,132	8.4	6.5	
35 to 59 Years .....	5.9	32.0	9,367	762	1,726	8.1	4.8	
60 Years and Over .....	3.7	27.7	8,115	611	1,585	7.5	5.7	
<b>Household Size</b>								
1 Person .....	3.8	21.9	6,429	460	1,162	7.1	5.3	
2 to 4 Persons .....	8.8	28.0	8,217	667	1,589	8.1	4.2	
5 or More Persons .....	1.9	34.9	10,236	909	1,686	8.9	7.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

# ENERGY CONSUMPTION AND EXPENDITURES

WEST

**Table 88. Natural Gas Consumption and Expenditures in West Region Households, 1990**

Characteristics	Households Using Natural Gas (million)	Average per Household			Expenditures (dollars per thousand cf)	RSE Row Factors
		Consumption (million Btu)	(thousand cf)	Expenditures (dollars)		
RSE Column Factors:	1.8	1.1	1.1	0.9	1.0	0.6
<b>West Region</b>						
Total Region .....	13.7	67.0	65.0	350	1,561	5.4
Climate Zone <sup>1</sup>						3.3
Under 2,000 CDD and Over 5,500 HDD .....	2.8	109.1	106.5	453	1,775	4.3
Under 5,500 HDD .....	9.7	56.8	55.0	321	1,524	5.8
2,000 CDD or More and Under 4,000 HDD .....	1.3	53.0	51.5	349	1,372	6.8
Type of Housing Unit						9.0
Single-Family .....	8.9	77.7	75.5	406	1,939	5.4
Mobile Home .....	.7	72.2	69.9	363	984	5.2
Multifamily (2 or more units) .....	4.1	42.3	41.0	224	828	5.5
Heated Floorspace (square feet)						4.9
Fewer than 1,000 .....	5.3	47.8	46.4	251	742	5.4
1,000 to 1,999 .....	6.2	71.9	69.8	376	1,685	5.4
2,000 or More .....	2.2	98.9	95.9	513	3,164	5.4
Ownership of Unit						4.8
Owned .....	8.2	76.7	74.5	398	1,992	5.3
Rented .....	5.5	52.5	50.9	278	921	5.5
Year of Construction						4.2
1949 or Before .....	3.4	75.2	73.2	379	1,466	5.2
1950 to 1979 .....	7.7	63.7	61.7	338	1,484	5.5
1980 or After <sup>2</sup> .....	2.6	65.9	63.8	347	1,976	5.4
1990 Family Income						3.1
Less than \$10,000 .....	1.6	53.3	51.8	273	853	5.3
\$10,000 to \$19,999 .....	2.9	58.0	56.1	305	1,167	5.4
\$20,000 to \$34,999 .....	3.4	67.5	65.5	340	1,387	5.2
\$35,000 or More .....	5.7	75.2	73.0	401	2,069	5.5
Below Poverty Line						3.5
100 Percent .....	1.6	55.7	54.2	293	961	5.4
125 Percent .....	2.2	59.6	57.8	313	1,025	5.4
Age of Householder						8.7
Under 35 Years .....	4.9	57.6	55.8	303	1,209	5.4
35 to 59 Years .....	5.6	76.8	74.7	403	1,814	5.4
60 Years and Over .....	3.1	64.0	62.0	329	1,660	5.3
Household Size						6.8
1 Person .....	3.2	52.8	51.6	269	1,220	5.2
2 to 4 Persons .....	8.6	70.3	68.3	367	1,658	5.4
5 or More Persons .....	1.8	76.0	73.1	412	1,698	5.6

See footnotes at end of table.

## WEST

**Table 88. Natural Gas Consumption and Expenditures in West Region Households, 1990 (Continued)**

Characteristics	Average per Household						RSE Row Factors	
	Consumption		Expenditures (dollars)	Floor space (square feet)	Expenditures (dollars per thousand cf)	RSE Row Factors		
	Households Using Natural Gas (million)	(million Btu)	(thousand cf)	(square feet)	(dollars per thousand cf)			
RSE Column Factors:	1.8	1.1	1.1	0.9	1.0	0.6		
<b>Mountain Division</b>	3.8	88.6	86.1	417	1,593	4.8	6.4	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD	2.4	104.9	102.3	437	1,729	4.3	7.8	
Under 5,500 HDD	.5	72.6	68.9	415	1,280	6.0	14.7	
2,000 CDD or More and								
Under 4,000 HDD	.8	50.2	48.7	359	1,379	7.4	5.9	
<b>Type of Housing Unit</b>								
Single-Family	2.8	95.5	92.8	452	1,866	4.9	6.2	
Mobile Home	.4	73.7	71.2	350	958	4.9	12.3	
Multifamily (2 or more units)	.6	67.1	64.9	301	758	4.6	11.7	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	1.3	68.7	66.8	331	756	5.0	8.4	
1,000 to 1,999	1.7	88.7	86.1	429	1,631	5.0	5.6	
2,000 or More	.7	127.9	124.2	557	3,157	4.5	7.2	
<b>Ownership of Unit</b>								
Owned	2.7	95.8	93.0	449	1,872	4.8	6.4	
Rented	1.1	71.2	69.1	340	913	4.9	8.5	
<b>Year of Construction</b>								
1949 or Before	1.0	105.2	103.0	453	1,467	4.4	9.1	
1950 to 1979	2.1	84.4	81.9	410	1,512	5.0	5.5	
1980 or After <sup>2</sup>	.6	76.6	73.4	382	2,057	5.2	14.5	
<b>1990 Family Income</b>								
Less than \$10,000	.6	74.1	72.2	354	1,098	4.9	11.2	
\$10,000 to \$19,999	.8	76.7	74.2	386	1,220	5.2	7.0	
\$20,000 to \$34,999	1.1	95.8	93.2	428	1,526	4.6	10.5	
\$35,000 or More	1.2	97.3	94.5	459	2,156	4.9	5.3	
<b>Below Poverty Line</b>								
100 Percent	.4	83.3	81.1	394	1,157	4.9	13.9	
125 Percent	.7	83.8	81.2	404	1,193	5.0	11.3	
<b>Age of Householder</b>								
Under 35 Years	1.2	83.5	80.6	401	1,406	5.0	10.2	
35 to 59 Years	1.6	93.7	91.4	437	1,731	4.8	7.1	
60 Years and Over	1.0	86.7	84.1	404	1,596	4.8	8.0	
<b>Household Size</b>								
1 Person	1.0	70.6	69.3	325	1,343	4.7	9.7	
2 to 4 Persons	2.2	93.9	91.3	440	1,636	4.8	5.9	
5 or More Persons	.5	99.7	95.0	488	1,870	5.1	9.7	

See footnotes at end of table.

**Table 88. Natural Gas Consumption and Expenditures in West Region Households, 1990 (Continued)**

Characteristics	Households Using Natural Gas (million)	Average per Household				Expenditures (dollars per thousand cf)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(thousand cf)						
RSE Column Factors:	1.8	1.1	1.1	0.9	1.0	0.6			
Pacific Division .....	9.9	58.8	57.0	325	1,548	5.7	2.9		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	.3	141.7	140.0	576	2,141	4.1	12.7		
Under 5,500 HDD .....	9.2	56.0	54.2	316	1,537	5.8	3.5		
<b>2,000 CDD or More and Under 4,000 HDD .....</b>	<b>Q</b>	<b>58.4</b>	<b>56.6</b>	<b>331</b>	<b>1,358</b>	<b>5.9</b>	<b>28.5</b>		
<b>Type of Housing Unit</b>									
Single-Family .....	6.2	69.8	67.7	385	1,971	5.7	3.1		
Mobile Home .....	.3	70.6	68.5	376	1,012	5.5	12.4		
Multifamily (2 or more units) .....	3.4	37.8	36.7	210	840	5.7	5.2		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	4.0	40.7	39.5	224	737	5.7	3.3		
1,000 to 1,999 .....	4.4	65.3	63.4	355	1,706	5.6	2.8		
2,000 or More .....	1.6	86.2	83.5	495	3,167	5.9	4.1		
<b>Ownership of Unit</b>									
Owned .....	5.5	67.5	65.5	374	2,050	5.7	3.3		
Rented .....	4.4	47.8	46.4	263	923	5.7	4.6		
<b>Year of Construction</b>									
1949 or Before .....	2.4	62.7	60.8	348	1,465	5.7	6.3		
1950 to 1979 .....	5.6	55.8	54.1	310	1,445	5.7	4.5		
1980 or After <sup>2</sup> .....	1.9	62.3	60.6	336	1,949	5.5	10.1		
<b>1990 Family Income</b>									
Less than \$10,000 .....	1.0	41.1	39.9	225	711	5.6	8.0		
\$10,000 to \$19,999 .....	2.1	50.6	49.1	273	1,146	5.6	4.9		
\$20,000 to \$34,999 .....	2.3	53.6	52.0	296	1,318	5.7	5.5		
\$35,000 or More .....	4.5	69.2	67.2	386	2,045	5.7	3.8		
<b>Below Poverty Line</b>									
100 Percent .....	1.1	44.8	43.5	252	883	5.8	9.1		
125 Percent .....	1.5	48.1	46.7	270	946	5.8	7.0		
<b>Age of Householder</b>									
Under 35 Years .....	3.8	49.5	48.0	272	1,147	5.7	5.5		
35 to 59 Years .....	4.1	70.2	68.2	390	1,846	5.7	3.3		
60 Years and Over .....	2.1	53.2	51.6	293	1,690	5.7	5.5		
<b>Household Size</b>									
1 Person .....	2.2	45.0	43.7	244	1,166	5.6	5.8		
2 to 4 Persons .....	6.4	62.1	60.3	341	1,666	5.7	3.1		
5 or More Persons .....	1.3	66.0	63.8	380	1,625	6.0	7.7		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 89. Liquefied Petroleum Gas Consumption and Expenditures in West Region Households, 1990**

Characteristics	Households Using LPG (million)	Average per Household				Expenditures (dollars per gallon)	RSE Row Factors		
		Consumption		Expenditures (dollars)	Floorspace (square feet)				
		(million Btu)	(gallons)						
RSE Column Factors:	1.4	1.4	1.4	1.1	0.7	0.5			
<b>West Region</b>									
<b>Total Region</b>	1.1	27.4	301	333	1,296	1.11	17.2		
Mountain Division	Q	63.7	697	616	1,925	.88	35.0		
Pacific Division	.9	19.3	211	270	1,154	1.28	14.1		
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	.3	Q	Q	Q	1,629	Q	37.9		
Under 5,500 HDD	.5	24.7	271	309	1,181	1.14	20.7		
2,000 CDD or More and Under 4,000 HDD	.3	17.5	191	294	1,135	1.54	19.2		
<b>Type of Housing Unit</b>									
Single-Family	.9	26.0	284	320	1,434	1.12	20.4		
Mobile Home	Q	43.4	475	484	732	1.02	38.8		
Multifamily (2 or more units) ...	Q	Q	Q	Q	Q	Q	NF		
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.7	20.6	225	275	802	1.22	14.7		
1,000 to 1,999	.4	31.8	348	369	1,648	1.06	22.1		
2,000 or More	Q	Q	Q	Q	Q	Q	NF		
<b>Ownership of Unit</b>									
Owned	.7	29.1	318	347	1,541	1.09	24.4		
Rented	.4	24.6	269	310	861	1.15	17.5		
<b>Year of Construction</b>									
1949 or Before	.3	27.8	304	342	1,428	1.12	24.5		
1950 to 1979	.6	26.0	285	324	1,197	1.14	19.5		
1980 or After <sup>2</sup>	.3	30.5	334	348	1,405	1.04	31.1		
<b>1990 Family Income</b>									
Less than \$10,000	.4	23.4	257	286	921	1.12	28.8		
\$10,000 to \$19,999	.2	25.2	276	308	914	1.11	14.7		
\$20,000 to \$34,999	.3	38.4	420	475	1,421	1.13	24.5		
\$35,000 or More	.3	Q	Q	290	2,005	1.07	33.2		
<b>Below Poverty Line</b>									
100 Percent	.4	19.0	208	232	955	1.11	25.9		
125 Percent	.5	23.0	252	281	946	1.11	20.5		
<b>Age of Householder</b>									
Under 35 Years	.2	31.7	347	371	1,062	1.07	23.6		
35 to 59 Years	.6	16.8	184	226	1,288	1.23	19.8		
60 Years and Over	.4	41.6	456	479	1,456	1.05	24.0		
<b>Household Size</b>									
1 Person	.4	25.4	278	309	693	1.11	25.6		
2 to 4 Persons	.6	30.1	329	349	1,555	1.06	24.6		
5 or More Persons	.2	23.1	253	336	1,749	1.33	22.7		

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the Mountain and Pacific Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and D of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

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**Table 90. Wood Consumption in West Region Households, December 1989 Through November 1990**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel			RSE Row Factors		
	Consumption		Households (million)	Consumption		Average per Household			
	Total	Average per Household		Households (million)	(million cords)				
<b>West, Region</b>									
<b>Total Region</b>	5.8	0.12	6.2	21.6	1.1	1.2	0.07	3.4	57.3
Mountain Division	1.2	.03	1.5	24.1	1.2	1.2	.01	.7	75.3
Pacific Division	4.6	.10	4.8	20.9	1.0	1.0	.05	2.7	53.9
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD	1.8	.07	3.3	36.3	1.8	.6	.04	1.9	64.7
Over 5,500 HDD	3.7	.06	2.7	15.0	.7	.6	Q	Q	49.7
Under 5,500 HDD	Q	Q	Q	14.0	.7	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD	3	Q	Q	Q	Q	Q	Q	Q	Q
<b>Type of Housing Unit</b>									
Single-Family	5.2	.11	5.6	21.8	1.1	1.0	.06	3.0	59.0
Mobile Home	Q	Q	Q	54.7	2.7	Q	Q	Q	Q
Multifamily (2 or more units)	2	Q	2	Q	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000	.9	.02	1.1	22.5	1.1	.4	.02	.9	46.3
1,000 to 1,999	3.2	.08	3.9	24.3	1.2	.7	.04	1.9	59.5
2,000 or More	1.6	.03	1.3	15.7	.8	.1	.01	.5	78.4
<b>Ownership of Unit</b>									
Owned	4.7	.10	5.1	21.6	1.1	.9	.05	2.6	58.4
Rented	1.0	.02	1.1	21.6	1.1	Q	Q	Q	53.6
<b>Year of Construction</b>									
1949 or Before	1.4	.05	2.4	34.9	1.7	.5	.03	1.7	74.7
1950 to 1979	2.9	.05	2.5	17.3	.9	.9	Q	Q	45.3
1980 or After <sup>2</sup>	1.5	.03	1.3	17.5	Q	Q	Q	Q	46.8
<b>1990 Family Income</b>									
Less than \$10,000	.5	.01	.7	27.8	1.4	Q	Q	Q	43.7
\$10,000 to \$19,999	8	.02	1.1	27.7	1.4	Q	Q	Q	63.8
\$20,000 to \$34,999	1.6	.04	2.2	27.7	1.4	.3	.02	1.2	72.8
\$35,000 or More	2.9	.05	2.3	15.5	.8	.4	.02	1.0	46.8
<b>Below Poverty Line</b>									
100 Percent	7	.02	1.1	31.0	1.6	Q	Q	Q	54.5
125 Percent	9	.03	1.3	28.5	1.4	Q	Q	Q	50.8
<b>Age of Householder</b>									
Under 35 Years	1.3	.02	1.0	15.5	.8	.3	Q	Q	44.5
35 to 59 Years	3.2	.07	3.5	21.9	1.1	.6	.04	1.9	58.4
60 Years and Over	1.3	.03	1.7	26.7	1.3	.3	.02	.9	68.2
<b>Household Size</b>									
1 Person	.9	.02	.8	19.0	.9	Q	Q	Q	Q
2 to 4 Persons	3.9	.06	3.9	20.0	1.0	.8	.04	2.1	51.9
5 or More Persons	1.1	.03	1.6	29.4	1.5	.2	.02	1.0	76.8

See footnotes at end of table.

## WEST

**Table 90. Wood Consumption in West Region Households, December 1989 Through November 1990 (Continued)**

Characteristics	Households Using Wood			Wood Used as Main Space-Heating Fuel		
	Consumption		Average per Household	Consumption		Average per Household
	Total	(quads/Btu)		Total	(quads/Btu)	(million cords)
	Households (millions)	(million cords)		Households (millions)	(quads/Btu)	(million cords)
RSE Column Factors:	0.8	1.1	1.1	0.7	0.7	0.7
<b>Main Heating Fuel</b>						
Natural Gas .....	3.2	.03	1.4	8.6	.4	--
Electricity.....	1.0	.03	1.3	24.6	1.2	--
Fuel Oil or Kerosene .....	Q	Q	Q	Q	--	--
Wood .....	1.2	.07	3.4	57.3	2.9	--
Heating Stove .....	1.0	.06	3.1	59.9	3.0	--
Fireplace .....	Q	Q	Q	Q	Q	Q
Furnace/Other .....	Q	Q	Q	Q	Q	Q
LPG .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q
<b>Secondary Heating Equipment Used .....</b>	5.6	.12	5.9	21.0	1.0	1.0
<b>Amount of Wood Burned in Past 12 Months</b>						
Less than one-half Cord .....	2.9	.01	.5	3.4	.2	Q
One-half to Less than 1 .....	.8	.01	.5	11.2	.6	Q
1 to Less than 2 .....	.7	.02	.8	23.7	1.2	2
2 to 4 Cords .....	1.1	.06	2.9	54.0	2.7	.6
More than 4 Cords .....	.3	.03	1.6	108.9	5.4	2
More than 4 Cords .....					.03	1.3
<b>Hours Wood Burned in Winter</b>						
Less than 1 Hour per week .....	1.6	.01	.3	3.6	.2	Q
Less than 1 Hour per day .....	1.2	.01	.5	7.6	.4	NC
1 to 4 Hours per day .....	1.3	.02	1.0	15.6	.8	Q
More than 4 Hours per day .....	.7	.03	1.5	40.6	2.0	.3
Almost Continuously .....	.9	.06	3.0	63.8	3.2	.7
More than 4 Cords .....					.05	.24
<b>Purchased Firewood</b>						
Yes .....	2.4	.06	3.2	26.7	1.3	.5
No .....	3.3	.06	2.9	17.7	.9	.7
More than 4 Cords .....					.04	1.8

## West Region

**ENERGY CONSUMPTION AND EXPENDITURES**

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

<sup>NC</sup> = No cases in sample.

<sup>(\*)</sup> = Data cannot be displayed due to rounding.

<sup>Q</sup> = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

-- = Data not applicable.

NF = No applicable RSE row/column factor.

Notes: • Data in the Mountain and Pacific Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, and C of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## ENERGY CONSUMPTION AND EXPENDITURES

WEST

**Table 91. Average Expenditures for Major Energy Sources in West Region Households, 1990**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>		Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
	RSE Column Factors:	0.7	0.6	0.3	2.3	2.3	1.3	
<b>Total Region</b>	11.8	23.2		5.2	7.5	12.8	12.1	5.8
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	8.7	16.5		4.2	Q	Q	Q	15.8
Under 5,500 HDD	12.6	25.7		5.6	Q	Q	Q	5.6
2,000 CDD or More and Under 4,000 HDD	17.9	28.8		6.6	Q	Q	Q	9.3
<b>Type of Housing Unit</b>								
Single-Family	11.9	23.2		5.2	7.5	12.8	12.3	6.5
Mobile Home	10.5	19.1		5.0	NC	NC	11.2	16.6
Multifamily (2 or more units)	12.0	24.3		5.3	NC	NC	Q	7.4
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	12.2	23.5		5.2	Q	Q	Q	6.0
1,000 to 1,989	11.9	22.9		5.2	7.9	Q	11.6	6.6
2,000 or More	11.2	23.4		5.2	7.2	Q	Q	10.3
<b>Ownership of Unit</b>								
Owned	11.7	23.3		5.2	7.4	11.9	11.9	7.6
Rented	12.0	23.0		5.3	Q	Q	12.6	5.9
<b>Year of Construction</b>								
1949 or Before	9.9	21.0		5.0	7.4	Q	12.3	10.7
1950 to 1979	12.0	23.1		5.3	7.6	13.7	12.4	6.6
1980 or After <sup>3</sup>	13.8	25.2		5.3	NC	Q	11.4	7.9
<b>1990 Family Income</b>								
Less than \$10,000	11.2	20.0		5.1	Q	Q	12.2	14.3
\$10,000 to \$19,999	11.4	21.8		5.3	Q	NC	12.2	7.1
\$20,000 to \$34,999	11.2	21.9		5.0	Q	Q	12.4	10.8
\$35,000 or More	12.5	25.3		5.3	Q	Q	11.7	6.5
<b>Below Poverty Line</b>								
100 Percent	12.0	21.2		5.2	NC	Q	12.2	11.6
125 Percent	11.8	21.4		5.3	Q	Q	12.2	9.6
<b>Age of Householder</b>								
Under 35 Years	11.7	24.1		5.3	Q	NC	11.7	6.4
35 to 59 Years	11.9	23.1		5.2	Q	12.8	13.5	6.7
60 Years and Over	11.8	22.3		5.1	7.5	Q	11.5	7.5
<b>Household Size</b>								
1 Person	11.3	21.6		5.1	Q	Q	12.2	8.9
2 to 4 Persons	11.7	23.2		5.2	7.3	13.1	11.6	7.2
5 or More Persons	13.0	24.9		5.4	Q	Q	14.5	7.5

See footnotes at end of table.

## WEST

## ENERGY CONSUMPTION AND EXPENDITURES

**Table 91. Average Expenditures for Major Energy Sources in West Region Households, 1990 (Continued)**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.7	0.6	0.3	2.3	2.3	1.3	
<b>Mountain Division</b>	9.8	22.0	4.7	Q	Q	9.7	11.1
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	7.8	19.3	4.2	Q	Q	9.5	16.8
Under 5,500 HDD	9.9	22.5	5.7	NC	NC	Q	26.5
2,000 CDD or More and Under 4,000 HDD	17.6	26.3	7.1	NC	Q	Q	6.3
<b>Type of Housing Unit</b>							
Single-Family	9.7	21.7	4.7	Q	Q	9.6	10.4
Mobile Home	9.3	19.4	4.7	NC	NC	Q	23.4
Multifamily (2 or more units)	10.9	25.6	4.5	NC	NC	NC	15.1
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	10.1	24.7	4.8	Q	NC	Q	12.3
1,000 to 1,999	10.2	21.7	4.8	Q	Q	Q	11.8
2,000 or More	8.9	20.1	4.4	Q	Q	Q	13.7
<b>Ownership of Unit</b>							
Owned	9.5	21.2	4.7	Q	NC	Q	9.8
Rented	11.0	24.5	4.8	Q	NC	Q	10.2
<b>Year of Construction</b>							
1949 or Before	7.7	20.7	4.3	Q	Q	Q	16.2
1950 to 1979	9.8	21.8	4.9	Q	Q	Q	10.1
1980 or After	13.1	23.2	5.0	NC	Q	Q	12.9
<b>1990 Family Income</b>							
Less than \$10,000	10.1	23.3	4.8	Q	NC	Q	15.8
\$10,000 to \$19,999	10.5	24.2	5.0	NC	NC	Q	11.8
\$20,000 to \$34,999	8.7	20.6	4.5	Q	Q	Q	16.8
\$35,000 or More	10.4	21.6	4.7	Q	Q	Q	8.4
<b>Below Poverty Line</b>							
100 Percent	10.6	22.8	4.7	NC	NC	Q	20.3
125 Percent	10.1	22.8	4.8	Q	Q	Q	16.2
<b>Age of Householder</b>							
Under 35 Years	10.2	22.8	4.8	NC	NC	Q	7.9
35 to 59 Years	9.9	21.1	4.7	Q	Q	Q	14.0
60 Years and Over	9.3	23.1	4.7	Q	Q	Q	11.4
<b>Household Size</b>							
1 Person	9.1	24.4	4.6	Q	Q	Q	13.5
2 to 4 Persons	10.0	21.6	4.7	Q	Q	Q	10.8
5 or More Persons	10.0	21.6	4.9	Q	Q	Q	10.3

See footnotes at end of table.

**Table 91. Average Expenditures for Major Energy Sources in West Region Households, 1990 (Continued)**  
(Dollars per Million Btu)

Characteristics	Major Energy Sources <sup>1</sup>	Electricity	Natural Gas	Fuel Oil	Kerosene	Liquefied Petroleum Gas	RSE Row Factors
RSE Column Factors:	0.7	0.6	0.3	2.3	2.3	1.3	
<b>Pacific Division</b>	<b>12.8</b>	23.6	5.5	7.4	Q	14.0	5.5
<b>Climate Zone<sup>2</sup></b>							
Under 2,000 CDD and							
Over 5,500 HDD .....	10.9	14.1	4.1	Q	Q	Q	21.9
Under 5,500 HDD .....	12.7	25.9	5.6	Q	Q	12.7	5.6
2,000 CDD or More and							
Under 4,000 HDD .....	18.4	34.8	5.7	Q	NC	16.9	26.5
<b>Type of Housing Unit</b>							
Single-Family .....	13.0	23.8	5.5	7.4	Q	14.9	5.5
Mobile Home .....	11.5	18.9	5.3	NC	NC	Q	17.3
Multifamily (2 or more units) .....	12.3	24.0	5.6	NC	NC	Q	6.5
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000 .....	13.1	23.2	5.5	Q	Q	13.9	5.6
1,000 to 1,999 .....	12.7	23.3	5.4	Q	Q	14.1	6.7
2,000 or More .....	12.5	24.9	5.7	Q	Q	Q	8.0
<b>Ownership of Unit</b>							
Owned .....	13.0	24.1	5.5	7.3	Q	13.9	7.1
Rented .....	12.3	22.5	5.5	Q	Q	14.1	5.3
<b>Year of Construction</b>							
1949 or Before .....	11.1	21.1	5.6	Q	Q	16.0	8.9
1950 to 1979 .....	13.0	23.5	5.6	7.6	Q	13.8	6.3
1980 or After <sup>3</sup> .....	14.1	26.1	5.4	NC	NC	12.8	7.7
<b>1990 Family Income</b>							
Less than \$10,000 .....	12.1	18.6	5.5	NC	Q	Q	16.5
\$10,000 to \$19,999 .....	11.8	21.0	5.4	Q	NC	12.8	7.1
\$20,000 to \$34,999 .....	12.9	22.4	5.5	Q	Q	15.7	8.4
\$35,000 or More .....	13.2	26.5	5.6	Q	Q	14.6	6.1
<b>Below Poverty Line</b>							
100 Percent .....	12.9	20.5	5.6	NC	Q	13.8	10.1
125 Percent .....	12.8	20.8	5.6	NC	Q	13.1	8.1
<b>Age of Householder</b>							
Under 35 Years .....	12.3	24.6	5.5	Q	NC	13.5	6.3
35 to 59 Years .....	12.9	23.8	5.6	Q	Q	15.2	5.4
60 Years and Over .....	13.1	22.1	5.5	7.5	NC	13.3	7.8
<b>Household Size</b>							
1 Person .....	12.3	20.9	5.4	Q	Q	12.7	9.6
2 to 4 Persons .....	12.5	23.8	5.5	Q	Q	14.7	4.7
5 or More Persons .....	14.5	26.0	5.8	Q	NC	15.6	9.3

<sup>1</sup> Major Energy Sources include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas.

<sup>2</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 92. Total Consumption and Expenditures by End Uses  
in West Region Households, 1990**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expend- itures (billion dollars)									
	NF	NF									
<b>West Region</b>											
<b>Total Region</b> .....	668.9	4.53	44.7	1.14	353.7	2.72	91.4	2.36	351.5	7.11	4.0
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	278.1	1.59	6.1	.10	100.1	.72	20.4	.37	87.9	1.50	20.5
Under 5,500 HDD .....	348.0	2.54	26.4	.70	220.1	1.62	55.2	1.51	223.5	4.61	10.8
2,000 CDD or More and											
Under 4,000 HDD .....	42.9	.40	12.2	.34	33.4	.38	15.8	.47	40.2	1.00	22.6
<b>Type of Housing Unit</b>											
Single-Family .....	529.8	3.52	31.7	.84	244.0	1.90	68.6	1.78	278.6	5.65	6.2
Mobile Home .....	45.6	.34	1.8	.04	19.8	.15	5.0	.11	19.1	.32	24.3
Multifamily (2 or more units) ....	93.5	.68	11.2	.26	89.9	.67	17.7	.46	53.9	1.13	13.3
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	163.0	1.20	11.2	.25	124.7	1.01	29.7	.79	93.5	1.88	8.4
1,000 to 1,999 .....	329.9	2.26	22.4	.57	164.1	1.26	43.9	1.11	178.2	3.60	7.9
2,000 or More .....	176.0	1.07	11.1	.31	64.9	.45	17.7	.46	79.9	1.62	15.0
<b>Ownership of Unit</b>											
Owned .....	485.6	3.13	30.8	.81	206.8	1.56	62.2	1.59	245.6	5.02	5.7
Rented .....	183.3	1.40	13.9	.33	146.9	1.16	29.2	.76	106.0	2.09	7.9
<b>Year of Construction</b>											
1949 or Before .....	205.0	1.27	3.4	.07	84.0	.61	19.5	.46	77.7	1.44	11.0
1950 to 1979 .....	351.3	2.45	21.5	.57	193.6	1.47	50.6	1.31	196.3	3.94	7.2
1980 or After <sup>2</sup> .....	112.6	.81	19.9	.49	76.1	.64	21.3	.58	77.5	1.73	13.7
<b>1990 Family Income</b>											
Less than \$10,000 .....	74.3	.58	2.9	.07	39.5	.33	10.0	.23	31.8	.57	16.2
\$10,000 to \$19,999 .....	126.4	.86	6.1	.16	70.5	.56	18.8	.47	62.3	1.19	10.3
\$20,000 to \$34,999 .....	173.1	1.16	8.4	.17	92.6	.72	22.1	.55	86.3	1.68	10.3
\$35,000 or More .....	295.0	1.93	27.3	.74	151.1	1.11	40.5	1.10	171.1	3.67	6.0
<b>Below Poverty Line</b>											
100 Percent .....	62.1	.48	2.9	.08	46.7	.41	10.2	.25	37.6	.70	14.6
125 Percent .....	98.7	.74	4.3	.11	66.0	.56	15.1	.37	54.3	1.03	12.6
<b>Age of Householder</b>											
Under 35 Years .....	171.1	1.11	15.2	.38	126.0	.93	25.0	.67	103.2	2.05	10.3
35 to 59 Years .....	309.2	2.05	20.7	.52	165.4	1.29	41.9	1.07	171.9	3.51	6.2
60 Years and Over .....	188.6	1.37	8.8	.23	62.3	.50	24.6	.62	76.5	1.55	11.7
<b>Household Size</b>											
1 Person .....	157.1	1.17	6.8	.17	53.1	.42	19.9	.48	52.3	1.03	8.1
2 to 4 Persons .....	427.4	2.80	32.2	.80	233.0	1.74	57.2	1.47	228.7	4.61	4.2
5 or More Persons .....	84.4	.57	5.8	.16	67.6	.56	14.3	.40	70.5	1.47	12.0

See footnotes at end of table.

**Table 92. Total Consumption and Expenditures by End Uses  
in West Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expenditures (billion dollars)									
	NF	NF									
<b>Mountain Division .....</b>	260.9	1.46	16.0	0.37	102.2	0.72	26.1	0.61	87.9	1.70	8.5
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and											
Over 5,500 HDD .....	209.5	1.02	5.2	.09	71.8	.42	12.6	.25	53.5	.96	20.2
Under 5,500 HDD .....	Q	.14	Q	Q	Q	.07	3.2	.08	Q	.17	50.8
2,000 CDD or More and											
Under 4,000 HDD .....	28.6	.30	9.7	.26	19.3	.23	10.4	.28	24.7	.57	10.9
<b>Type of Housing Unit</b>											
Single-Family .....	211.0	1.17	11.0	.26	77.7	.54	20.2	.46	71.0	1.37	8.9
Mobile Home .....	21.0	.12	Q	Q	9.1	.06	2.2	.05	8.6	.14	30.1
Multifamily (2 or more units) ....	28.9	.16	4.1	.10	15.4	.12	3.7	.10	8.3	.19	26.3
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	64.6	.37	4.6	.11	31.1	.21	7.9	.20	21.1	.41	18.7
1,000 to 1,999 .....	122.7	.70	8.4	.19	47.0	.35	12.7	.29	45.1	.87	10.9
2,000 or More .....	73.6	.39	3.1	.07	24.1	.15	5.4	.11	21.7	.41	20.6
<b>Ownership of Unit</b>											
Owned .....	206.7	1.13	9.6	.22	72.2	.50	19.0	.43	68.2	1.29	10.4
Rented .....	54.2	.33	6.4	.15	30.1	.22	7.1	.18	19.7	.41	12.2
<b>Year of Construction</b>											
1949 or Before .....	85.3	.41	1.2	.03	27.3	.16	5.3	.12	21.2	.37	23.1
1950 to 1979 .....	135.3	.76	8.4	.19	53.5	.36	14.4	.34	46.2	.88	9.2
1980 or After <sup>2</sup> .....	40.4	.29	6.4	.16	21.5	.21	6.5	.15	20.6	.44	21.8
<b>1990 Family Income</b>											
Less than \$10,000 .....	36.3	.22	1.9	.05	14.0	.11	3.9	.09	11.1	.21	24.3
\$10,000 to \$19,999 .....	45.4	.26	3.3	.08	19.6	.14	5.3	.14	15.3	.31	17.1
\$20,000 to \$34,999 .....	84.1	.43	2.8	.06	32.7	.20	6.8	.15	25.8	.48	16.6
\$35,000 or More .....	95.2	.54	8.0	.18	36.0	.28	10.1	.22	35.8	.70	10.4
<b>Below Poverty Line</b>											
100 Percent .....	29.0	.19	Q	Q	13.4	.11	3.2	.08	10.9	.20	30.4
125 Percent .....	46.5	.28	2.4	.06	20.5	.16	4.8	.12	16.1	.30	24.0
<b>Age of Householder</b>											
Under 35 Years .....	71.7	.41	5.2	.12	34.8	.25	7.0	.17	26.0	.53	13.7
35 to 59 Years .....	114.5	.64	7.3	.16	47.4	.34	12.1	.27	43.1	.80	10.4
60 Years and Over .....	74.8	.40	3.6	.09	20.1	.13	7.0	.17	18.8	.37	17.7
<b>Household Size</b>											
1 Person .....	57.8	.30	3.0	.07	15.1	.10	5.5	.14	11.8	.24	15.6
2 to 4 Persons .....	165.3	.94	11.5	.27	67.1	.49	17.0	.39	57.5	1.11	8.2
5 or More Persons .....	37.9	.22	1.6	.03	20.0	.13	3.6	.08	18.6	.35	22.0

See footnotes at end of table.

**Table 92. Total Consumption and Expenditures by End Uses  
in West Region Households, 1990 (Continued)**

Characteristics	Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Consumption (trillion Btu)	Expend- itures (billion dollars)									
	RSE Column Factors:	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Pacific Division</b>	408.0	3.07	28.7	0.77	251.5	2.00	65.2	1.75	263.6	5.41	5.5
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD	68.6	Q	Q	Q	28.4	.30	7.8	.12	34.4	.54	43.7
Under 5,500 HDD	325.1	2.40	25.3	.68	209.0	1.55	52.0	1.44	213.8	4.44	11.0
2,000 CDD or More and Under 4,000 HDD	Q	Q	Q	Q	Q	Q	5.4	.19	Q	.43	51.4
<b>Type of Housing Unit</b>											
Single-Family	318.8	2.35	20.7	.58	166.4	1.35	48.3	1.32	207.5	4.28	8.5
Mobile Home	24.5	.21	.9	.02	10.7	.09	2.9	.06	10.5	.18	30.8
Multifamily (2 or more units)	64.7	.51	7.1	.16	74.4	.55	14.0	.37	45.6	.95	15.0
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000	98.5	.83	6.7	.14	93.7	.80	21.8	.58	72.3	1.47	9.3
1,000 to 1,999	207.2	1.55	14.0	.38	117.1	.90	31.2	.82	133.1	2.73	10.3
2,000 or More	102.4	.68	8.0	.24	40.8	.29	12.3	.34	58.2	1.21	19.9
<b>Ownership of Unit</b>											
Owned	278.9	2.00	21.1	.59	134.6	1.06	43.2	1.17	177.4	3.73	7.5
Rented	129.1	1.07	7.6	.17	116.8	.94	22.1	.58	86.2	1.68	10.2
<b>Year of Construction</b>											
1949 or Before	119.7	.86	2.2	.05	56.7	.45	14.2	.35	56.5	1.06	12.6
1950 to 1979	216.0	1.70	13.1	.38	140.1	1.11	36.2	.98	150.1	3.06	9.6
1980 or After <sup>2</sup>	72.3	.52	13.4	.33	54.6	.43	14.8	.42	57.0	1.29	18.1
<b>1990 Family Income</b>											
Less than \$10,000	38.1	.36	1.0	.02	25.5	.23	6.1	.13	20.7	.36	20.1
\$10,000 to \$19,999	81.1	.61	2.7	.07	50.9	.42	13.4	.34	47.0	.88	13.8
\$20,000 to \$34,999	89.0	.73	5.7	.11	59.9	.52	15.3	.40	60.5	1.21	13.0
\$35,000 or More	199.8	1.39	19.3	.56	115.1	.84	30.4	.87	135.4	2.96	7.5
<b>Below Poverty Line</b>											
100 Percent	33.0	.29	1.4	.04	33.3	.30	7.0	.17	26.7	.50	15.1
125 Percent	52.2	.46	1.9	.05	45.5	.41	10.3	.25	38.2	.73	14.9
<b>Age of Householder</b>											
Under 35 Years	99.4	.69	10.0	.26	91.2	.67	17.9	.50	77.2	1.53	13.7
35 to 59 Years	194.7	1.41	13.5	.36	118.0	.95	29.7	.80	128.7	2.70	8.1
60 Years and Over	113.8	.97	5.2	.15	42.3	.37	17.6	.45	57.7	1.18	15.4
<b>Household Size</b>											
1 Person	99.3	.86	3.8	.10	38.0	.32	14.3	.34	40.5	.79	10.1
2 to 4 Persons	262.2	1.86	20.7	.54	165.9	1.25	40.2	1.09	171.2	3.50	5.6
5 or More Persons	46.5	.35	4.2	.13	47.6	.42	10.7	.32	51.9	1.12	14.2

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 93. Consumption by End Uses, per West Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West Region</b>													
<b>Total Region</b>	19.4	77.8	18.7	35.7	7.3	6.1	19.2	18.4	19.3	4.7	19.4	18.1	4.5
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	4.7	103.9	4.7	59.7	1.2	5.0	4.7	21.3	4.7	4.3	4.7	18.5	12.7
Under 5,500 HDD	12.3	70.7	12.1	28.7	4.9	5.4	12.3	17.9	12.3	4.5	12.3	18.1	6.5
2,000 CDD or More and Under 4,000 HDD	2.3	62.5	1.9	22.4	1.2	10.2	2.2	15.0	2.3	6.8	2.3	17.4	13.3
<b>Type of Housing Unit</b>													
Single-Family	12.8	90.3	12.2	43.4	4.8	6.6	12.7	19.3	12.7	5.4	12.8	21.8	4.4
Mobile Home	1.2	76.4	1.2	39.5	.4	4.5	1.2	16.6	1.2	4.3	1.2	16.0	15.0
Multifamily (2 or more units)	5.4	49.0	5.4	17.5	2.1	5.3	5.4	16.7	5.4	3.3	5.4	9.9	8.6
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	8.0	52.7	7.4	22.0	2.4	4.8	7.9	15.9	8.0	3.7	8.0	11.7	6.2
1,000 to 1,999	8.5	86.4	8.5	39.0	3.5	6.4	8.5	19.2	8.5	5.1	8.5	20.9	5.0
2,000 or More	2.8	122.8	2.8	61.8	1.4	7.7	2.8	22.8	2.8	6.2	2.8	28.1	8.8
<b>Ownership of Unit</b>													
Owned	11.3	91.2	11.0	44.3	4.8	6.4	11.2	18.4	11.3	5.5	11.3	21.7	4.0
Rented	8.1	59.2	7.7	23.7	2.5	5.6	8.0	18.3	8.1	3.6	8.1	13.1	6.1
<b>Year of Construction</b>													
1949 or Before	4.6	84.1	4.5	45.8	1.0	3.5	4.6	18.3	4.6	4.2	4.6	16.8	8.1
1950 to 1979	10.8	75.6	10.5	33.4	4.1	5.2	10.7	18.1	10.7	4.7	10.8	18.3	4.8
1980 or After <sup>2</sup>	4.0	76.5	3.7	30.4	2.2	9.0	4.0	19.1	4.0	5.4	4.0	19.3	9.8
<b>1990 Family Income</b>													
Less than \$10,000	2.9	54.5	2.8	26.3	.8	3.7	2.8	13.9	2.9	3.5	2.9	10.9	10.4
\$10,000 to \$19,999	4.3	66.5	4.1	31.2	1.3	4.6	4.2	16.6	4.3	4.4	4.3	14.6	6.5
\$20,000 to \$34,999	5.0	76.1	4.8	35.9	1.6	5.3	5.0	18.6	5.0	4.4	5.0	17.2	7.9
\$35,000 or More	7.2	95.2	7.0	42.1	3.6	7.5	7.2	21.1	7.2	5.6	7.2	23.8	4.7
<b>Below Poverty Line</b>													
100 Percent	2.8	58.0	2.6	24.0	.7	4.4	2.7	17.3	2.7	3.8	2.8	13.7	10.1
125 Percent	3.8	62.0	3.7	27.0	1.0	4.3	3.8	17.4	3.8	4.0	3.8	14.1	8.2
<b>Age of Householder</b>													
Under 35 Years	6.4	69.0	6.2	27.6	2.6	5.9	6.3	19.9	6.4	3.9	6.4	16.2	7.4
35 to 59 Years	8.1	87.8	7.8	39.7	2.9	7.1	8.0	20.6	8.0	5.2	8.1	21.3	4.3
60 Years and Over	4.9	73.0	4.7	39.9	1.8	4.8	4.9	12.8	4.9	5.0	4.9	15.5	6.8
<b>Household Size</b>													
1 Person	5.0	58.1	4.8	32.6	1.7	4.1	4.9	10.8	4.9	4.0	5.0	10.5	5.7
2 to 4 Persons	11.8	82.9	11.4	37.3	4.8	6.7	11.7	19.8	11.8	4.8	11.8	19.4	3.2
5 or More Persons	2.6	92.4	2.5	34.4	.8	6.9	2.6	25.9	2.6	5.5	2.6	26.9	7.7

See footnotes at end of table.

**Table 93. Consumption by End Uses, per West Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Con- sump- tion (mil- lion Btu)	House- holds (mil- lion)	Con- sump- tion (mil- lion Btu)	House- holds (million)	Con- sump- tion (mil- lion Btu)	House- holds (million)	Con- sump- tion (mil- lion Btu)	House- holds (mil- lion)	Con- sump- tion (mil- lion Btu)	House- holds (mil- lion)	Con- sump- tion (mil- lion Btu)	
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Mountain Division</b>	4.8	101.8	4.8	54.2	2.0	8.1	4.8	21.1	4.8	5.4	4.8	18.2	6.4
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD .....	2.9	120.9	2.9	72.5	.9	5.6	2.9	24.6	2.9	4.3	2.9	18.4	12.3
Under 5,500 HDD .....	.5	93.0	.5	44.4	Q	Q	.5	21.6	.5	6.2	.5	18.8	23.4
2,000 CDD or More and													
Under 4,000 HDD .....	1.4	65.7	1.4	20.3	.9	10.5	1.4	13.8	1.4	7.3	1.4	17.5	8.4
<b>Type of Housing Unit</b>													
Single-Family .....	3.5	112.7	3.4	61.2	1.3	8.7	3.5	22.4	3.5	5.8	3.5	20.5	7.2
Mobile Home .....	.5	85.6	.5	43.9	Q	5.6	.5	18.7	.5	4.6	.5	17.6	19.6
Multifamily (2 or more units) ....	.9	68.1	.9	32.6	.6	7.4	.9	17.6	.9	4.2	.9	9.4	20.7
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.7	76.7	1.7	38.5	.7	6.5	1.7	18.6	1.7	4.7	1.7	12.5	13.3
1,000 to 1,999 .....	2.3	103.1	2.3	54.1	1.0	8.8	2.3	20.5	2.3	5.6	2.3	19.7	7.6
2,000 or More .....	.9	147.2	.9	84.7	.3	9.3	.9	27.8	.9	6.3	.9	24.9	13.1
<b>Ownership of Unit</b>													
Owned .....	3.3	113.4	3.3	62.8	1.2	7.9	3.3	21.8	3.3	5.7	3.3	20.6	8.2
Rented .....	1.5	76.7	1.5	35.6	.8	8.4	1.5	19.6	1.5	4.7	1.5	12.9	11.4
<b>Year of Construction</b>													
1949 or Before .....	1.2	120.6	1.2	73.4	.2	5.3	1.2	23.5	1.2	4.5	1.2	18.2	15.5
1950 to 1979 .....	2.5	101.3	2.5	53.6	1.1	7.4	2.5	21.1	2.5	5.6	2.5	18.2	7.2
1980 or After <sup>2</sup> .....	1.1	83.8	1.1	35.8	.6	10.4	1.1	18.9	1.1	5.7	1.1	18.1	14.2
<b>1990 Family Income</b>													
Less than \$10,000 .....	.9	77.9	.9	42.1	.3	6.4	.9	16.5	.9	4.5	.9	12.9	15.8
\$10,000 to \$19,999 .....	1.0	88.1	1.0	44.9	.4	7.5	1.0	19.4	1.0	5.3	1.0	15.2	11.0
\$20,000 to \$34,999 .....	1.4	109.9	1.4	61.6	.5	5.5	1.4	23.6	1.4	4.9	1.4	18.6	11.8
\$35,000 or More .....	1.6	116.5	1.6	60.3	.7	10.9	1.6	22.6	1.6	6.3	1.6	22.5	8.3
<b>Below Poverty Line</b>													
100 Percent .....	.7	83.2	.7	41.6	.2	6.4	.7	19.5	.7	4.7	.7	15.6	19.3
125 Percent .....	1.0	87.6	1.0	45.1	.3	6.9	1.0	20.1	1.0	4.7	1.0	15.6	14.6
<b>Age of Householder</b>													
Under 35 Years .....	1.5	94.0	1.5	46.9	.7	7.4	1.5	22.6	1.5	4.6	1.5	16.9	9.6
35 to 59 Years .....	2.1	106.4	2.1	54.5	.8	8.9	2.1	22.5	2.1	5.7	2.1	20.5	8.1
60 Years and Over .....	1.2	103.8	1.2	63.1	.5	7.7	1.2	16.9	1.2	5.8	1.2	15.7	12.1
<b>Household Size</b>													
1 Person .....	1.2	79.8	1.2	49.5	.5	5.9	1.2	13.0	1.2	4.7	1.2	10.1	11.6
2 to 4 Persons .....	3.0	106.4	3.0	55.8	1.3	9.0	3.0	22.4	3.0	5.7	3.0	19.2	6.8
5 or More Persons .....	.7	119.6	.7	55.5	.2	7.6	.7	29.3	.7	5.3	.7	27.3	13.6

See footnotes at end of table.

Table 93. Consumption by End Uses, per West Region Household, 1990 (Continued)

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Consumption (million Btu)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
Pacific Division .....	14.6	69.9	13.9	29.4	5.3	5.4	14.4	17.4	14.5	4.5	14.6	18.1	3.2
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and													
Over 5,500 HDD .....	1.8	76.7	1.8	38.7	Q	Q	1.8	15.8	1.8	4.4	1.8	18.8	16.3
Under 5,500 HDD .....	11.8	69.7	11.6	28.0	4.8	5.3	11.8	17.7	11.8	4.4	11.8	18.1	6.7
2,000 CDD or More and													
Under 4,000 HDD .....	.9	57.6	Q	28.2	Q	Q	Q	17.1	.9	6.0	.9	17.2	31.4
<b>Type of Housing Unit</b>													
Single-Family .....	9.3	81.9	8.8	36.4	3.5	5.9	9.2	18.1	9.3	5.2	9.3	22.3	5.6
Mobile Home .....	.7	70.1	.7	36.4	.2	3.8	.7	15.1	.7	4.1	.7	14.9	21.7
Multifamily (2 or more units) .....	4.6	45.2	4.5	14.5	1.6	4.5	4.5	16.5	4.6	3.1	4.6	10.0	9.2
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	6.3	46.3	5.7	17.2	1.7	4.0	6.2	15.2	6.3	3.5	6.3	11.4	6.8
1,000 to 1,999 .....	6.3	80.3	6.2	33.5	2.6	5.5	6.3	18.7	6.3	5.0	6.3	21.3	6.0
2,000 or More .....	2.0	112.0	2.0	51.7	1.1	7.3	2.0	20.6	2.0	6.2	2.0	29.4	10.6
<b>Ownership of Unit</b>													
Owned .....	8.0	81.9	7.7	36.3	3.6	5.9	7.9	17.0	8.0	5.4	8.0	22.2	4.9
Rented .....	6.6	55.1	6.2	20.7	1.7	4.4	6.5	18.0	6.5	3.4	6.6	13.1	7.3
<b>Year of Construction</b>													
1949 or Before .....	3.5	71.9	3.3	36.1	.7	3.0	3.4	16.5	3.5	4.1	3.5	16.3	8.6
1950 to 1979 .....	8.2	67.7	8.0	27.0	3.0	4.4	8.1	17.2	8.2	4.4	8.2	18.3	5.9
1980 or After <sup>2</sup> .....	2.9	73.6	2.6	28.0	1.6	8.4	2.8	19.2	2.8	5.2	2.9	19.8	12.9
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.0	44.7	2.0	19.4	.5	2.1	2.0	12.8	2.0	3.1	2.0	10.1	12.8
\$10,000 to \$19,999 .....	3.3	59.9	3.0	26.6	.9	3.2	3.2	15.7	3.3	4.1	3.3	14.4	7.9
\$20,000 to \$34,999 .....	3.6	63.2	3.5	25.8	1.1	5.2	3.6	16.6	3.6	4.2	3.6	16.6	9.2
\$35,000 or More .....	5.6	89.2	5.4	36.8	2.9	6.7	5.6	20.6	5.6	5.4	5.6	24.1	5.7
<b>Below Poverty Line</b>													
100 Percent .....	2.1	49.4	1.9	17.5	.4	3.2	2.0	16.5	2.0	3.5	2.1	13.0	11.0
125 Percent .....	2.8	52.7	2.6	19.9	.7	2.9	2.8	16.4	2.8	3.7	2.8	13.6	9.6
<b>Age of Householder</b>													
Under 35 Years .....	4.8	61.1	4.7	21.3	1.9	5.4	4.8	19.0	4.8	3.7	4.8	15.9	9.1
35 to 59 Years .....	6.0	81.2	5.7	34.2	2.1	6.4	5.9	19.9	5.9	5.0	6.0	21.6	5.3
60 Years and Over .....	3.7	63.1	3.5	32.1	1.4	3.8	3.7	11.5	3.7	4.7	3.7	15.4	8.4
<b>Household Size</b>													
1 Person .....	3.8	51.5	3.6	27.2	1.2	3.3	3.7	10.2	3.8	3.8	3.8	10.7	6.5
2 to 4 Persons .....	8.8	74.9	8.5	30.9	3.5	5.9	8.8	18.9	8.8	4.6	8.8	19.4	4.0
5 or More Persons .....	1.9	82.8	1.8	26.3	.6	6.6	1.9	24.7	1.9	5.5	1.9	26.7	9.4

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 94. Expenditures by End Uses, per West Region Household, 1990**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RISE Flow Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>West Region</b>													
<b>Total Region</b>	19.4	920	18.7	242	7.3	156	19.2	141	19.3	122	19.4	366	4.6
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD	4.7	902	4.7	341	1.2	79	4.7	153	4.7	79	4.7	316	13.8
Under 5,500 HDD	12.3	889	12.1	209	4.9	144	12.3	131	12.3	123	12.3	373	6.9
2,000 CDD or More and Under 4,000 HDD	2.3	1,119	1.9	208	1.2	279	2.2	171	2.3	204	2.3	432	10.3
<b>Type of Housing Unit</b>													
Single-Family	12.8	1,072	12.2	288	4.8	176	12.7	150	12.7	140	12.8	443	4.7
Mobile Home	1.2	801	1.2	291	.4	89	1.2	130	1.2	95	1.2	266	15.7
Multifamily (2 or more units) ..	5.4	588	5.4	126	2.1	122	5.4	124	5.4	85	5.4	208	7.9
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000	8.0	640	7.4	162	2.4	107	7.9	129	8.0	99	8.0	235	6.0
1,000 to 1,999	8.5	1,030	8.5	267	3.5	163	8.5	147	8.5	130	8.5	422	5.6
2,000 or More	2.8	1,373	2.8	376	1.4	217	2.8	157	2.8	161	2.8	570	9.7
<b>Ownership of Unit</b>													
Owned	11.3	1,071	11.0	285	4.8	168	11.2	139	11.3	142	11.3	444	4.3
Rented	8.1	709	7.7	181	2.5	132	8.0	145	8.1	94	8.1	258	6.0
<b>Year of Construction</b>													
1949 or Before	4.6	832	4.5	283	1.0	77	4.6	132	4.6	100	4.6	310	8.6
1950 to 1979	10.8	907	10.5	233	4.1	139	10.7	137	10.7	122	10.8	366	4.8
1980 or After <sup>2</sup>	4.0	1,056	3.7	217	2.2	221	4.0	162	4.0	145	4.0	430	8.8
<b>1990 Family Income</b>													
Less than \$10,000	2.9	612	2.8	204	.8	93	2.8	117	2.9	80	2.9	196	10.3
\$10,000 to \$19,999	4.3	759	4.1	213	1.3	121	4.2	132	4.3	111	4.3	278	7.1
\$20,000 to \$34,999	5.0	851	4.8	241	1.6	107	5.0	144	5.0	110	5.0	334	7.3
\$35,000 or More	7.2	1,187	7.0	275	3.6	203	7.2	155	7.2	153	7.2	510	4.8
<b>Below Poverty Line</b>													
100 Percent	2.8	698	2.6	185	.7	116	2.7	152	2.7	93	2.8	256	10.2
125 Percent	3.8	733	3.7	203	1.0	111	3.8	149	3.8	97	3.8	269	8.5
<b>Age of Householder</b>													
Under 35 Years	6.4	804	6.2	179	2.6	148	6.3	146	6.4	105	6.4	322	7.2
35 to 59 Years	8.1	1,046	7.8	263	2.9	181	8.0	161	8.0	133	8.1	434	4.2
60 Years and Over	4.9	863	4.7	290	1.8	127	4.9	102	4.9	125	4.9	313	7.1
<b>Household Size</b>													
1 Person	5.0	657	4.8	242	1.7	103	4.9	86	4.9	98	5.0	207	5.6
2 to 4 Persons	11.8	968	11.4	244	4.8	167	11.7	148	11.8	125	11.8	391	3.3
5 or More Persons	2.6	1,201	2.5	232	.8	195	2.6	213	2.6	152	2.6	559	8.1

See footnotes at end of table.

**Table 94. Expenditures by End Uses, per West Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Mountain Division .....</b>	4.8	1,002	4.8	303	2.0	187	4.8	149	4.8	126	4.8	351	6.1
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	2.9	942	2.9	354	.9	96	2.9	144	2.9	88	2.9	330	11.6
Under 5,500 HDD .....	.5	924	.5	272	Q	Q	.5	133	.5	147	.5	333	26.7
2,000 CDD or More and Under 4,000 HDD .....	1.4	1,155	1.4	210	.9	282	1.4	165	1.4	197	1.4	400	6.6
<b>Type of Housing Unit</b>													
Single-Family .....	3.5	1,097	3.4	339	1.3	204	3.5	157	3.5	133	3.5	396	7.5
Mobile Home .....	.5	798	.5	260	Q	91	.5	128	.5	103	.5	284	15.7
Multifamily (2 or more units) ..	.9	744	.9	185	.6	176	.9	131	.9	109	.9	210	17.4
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	1.7	776	1.7	219	.7	157	1.7	128	1.7	121	1.7	246	11.2
1,000 to 1,999 .....	2.3	1,054	2.3	310	1.0	203	2.3	154	2.3	127	2.3	382	7.2
2,000 or More .....	.9	1,304	.9	444	.3	206	.9	178	.9	132	.9	473	14.2
<b>Ownership of Unit</b>													
Owned .....	3.3	1,075	3.3	342	1.2	178	3.3	151	3.3	129	3.3	390	8.3
Rented .....	1.5	845	1.5	218	.8	201	1.5	146	1.5	118	1.5	265	9.5
<b>Year of Construction</b>													
1949 or Before .....	1.2	929	1.2	352	.2	111	1.2	134	1.2	101	1.2	320	14.9
1950 to 1979 .....	2.5	992	2.5	300	1.1	167	2.5	141	2.5	132	2.5	347	7.1
1980 or After <sup>2</sup> .....	1.1	1,101	1.1	258	.6	252	1.1	184	1.1	136	1.1	390	12.6
<b>1990 Family Income</b>													
Less than \$10,000 .....	.9	786	.9	255	.3	162	.9	124	.9	110	.9	244	15.8
\$10,000 to \$19,999 .....	1.0	921	1.0	256	.4	190	1.0	142	1.0	136	1.0	306	10.6
\$20,000 to \$34,999 .....	1.4	953	1.4	319	.5	116	1.4	143	1.4	110	1.4	343	10.2
\$35,000 or More .....	1.6	1,214	1.6	345	.7	245	1.6	173	1.6	142	1.6	444	8.4
<b>Below Poverty Line</b>													
100 Percent .....	.7	880	.7	266	.2	161	.7	163	.7	115	.7	287	17.6
125 Percent .....	1.0	888	1.0	272	.3	172	1.0	155	1.0	114	1.0	293	13.8
<b>Age of Householder</b>													
Under 35 Years .....	1.5	961	1.5	270	.7	173	1.5	164	1.5	110	1.5	342	8.8
35 to 59 Years .....	2.1	1,050	2.1	304	.8	198	2.1	161	2.1	129	2.1	381	7.3
60 Years and Over .....	1.2	970	1.2	341	.5	190	1.2	110	1.2	140	1.2	308	13.1
<b>Household Size</b>													
1 Person .....	1.2	727	1.2	258	.5	139	1.2	84	1.2	119	1.2	207	11.1
2 to 4 Persons .....	3.0	1,066	3.0	317	1.3	209	3.0	164	3.0	129	3.0	370	6.2
5 or More Persons .....	.7	1,195	.7	317	.2	168	.7	195	.7	121	.7	513	13.1

See footnotes at end of table.

**Table 94. Expenditures by End Uses, per West Region Household, 1990 (Continued)**

Characteristics	All Uses		Space Heating		Air Conditioning		Water Heating		Refrigerator		Appliances		RSE Row Factors
	Households (million)	Expenditures (dollars)											
	RSE Column Factors:	1.1	0.6	NF	NF	NF	NF	NF	NF	NF	NF	NF	
<b>Pacific Division .....</b>	14.6	892	13.9	221	5.3	144	14.4	139	14.5	120	14.6	371	3.5
<b>Climate Zone<sup>1</sup></b>													
Under 2,000 CDD and Over 5,500 HDD .....	1.8	837	1.8	322	Q	Q	1.8	167	1.8	65	1.8	294	31.4
Under 5,500 HDD .....	11.8	888	11.6	207	4.8	144	11.8	131	11.8	122	11.8	375	7.1
2,000 CDD or More and Under 4,000 HDD .....	.9	1,062	Q	204	Q	Q	Q	182	.9	215	.9	482	25.6
<b>Type of Housing Unit</b>													
Single-Family .....	9.3	1,063	8.8	268	3.5	166	9.2	147	9.3	142	9.3	460	6.1
Mobile Home .....	.7	804	.7	313	.2	87	.7	130	.7	90	.7	254	24.6
Multifamily (2 or more units) ..	4.6	557	4.5	114	1.6	103	4.5	122	4.6	80	4.6	208	8.7
<b>Heated Floorspace (square feet)</b>													
Fewer than 1,000 .....	6.3	604	5.7	145	1.7	86	6.2	129	6.3	93	6.3	232	7.0
1,000 to 1,999 .....	6.3	1,022	6.2	251	2.6	149	6.3	145	6.3	131	6.3	436	7.3
2,000 or More .....	2.0	1,403	2.0	346	1.1	220	2.0	148	2.0	173	2.0	612	12.3
<b>Ownership of Unit</b>													
Owned .....	8.0	1,069	7.7	261	3.6	164	7.9	134	8.0	147	8.0	466	5.4
Rented .....	6.6	677	6.2	172	1.7	101	6.5	144	6.5	88	6.6	256	7.2
<b>Year of Construction</b>													
1949 or Before .....	3.5	799	3.3	259	.7	66	3.4	131	3.5	100	3.5	307	10.1
1950 to 1979 .....	8.2	880	8.0	212	3.0	128	8.1	137	8.2	119	8.2	372	6.0
1980 or After <sup>2</sup> .....	2.9	1,039	2.6	200	1.6	209	2.8	153	2.8	149	2.9	446	11.6
<b>1990 Family Income</b>													
Less than \$10,000 .....	2.0	538	2.0	182	.5	51	2.0	114	2.0	67	2.0	176	12.6
\$10,000 to \$19,999 .....	3.3	709	3.0	199	.9	86	3.2	129	3.3	103	3.3	269	9.1
\$20,000 to \$34,999 .....	3.6	813	3.5	210	1.1	102	3.6	144	3.6	110	3.6	331	9.7
\$35,000 or More .....	5.6	1,180	5.4	255	2.9	192	5.6	150	5.6	156	5.6	528	5.8
<b>Below Poverty Line</b>													
100 Percent .....	2.1	636	1.9	155	.4	91	2.0	148	2.0	86	2.1	245	11.9
125 Percent .....	2.8	676	2.6	176	.7	79	2.8	147	2.8	91	2.8	260	10.7
<b>Age of Householder</b>													
Under 35 Years .....	4.8	754	4.7	149	1.9	139	4.8	140	4.8	103	4.8	315	9.3
35 to 59 Years .....	6.0	1,044	5.7	248	2.1	174	5.9	161	5.9	135	6.0	453	5.4
60 Years and Over .....	3.7	829	3.5	272	1.4	106	3.7	100	3.7	120	3.7	314	8.7
<b>Household Size</b>													
1 Person .....	3.8	635	3.6	237	1.2	87	3.7	87	3.8	91	3.8	207	6.7
2 to 4 Persons .....	8.8	935	8.5	219	3.5	152	8.8	143	8.8	123	8.8	398	4.3
5 or More Persons .....	1.9	1,203	1.8	199	.6	203	1.9	219	1.9	163	1.9	575	9.6

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Consumption and Expenditure data are for major energy sources which include: electricity, natural gas, fuel oil, kerosene, and liquefied petroleum gas. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## SPACE-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 95. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in West Region Households, 1990**

Characteristics	Electricity				Natural Gas			
	Total Consumed		Households (million)	Households (billion kWh)	Total Consumed		Total Expenditures (billion dollars)	
	(trillion Btu)	(billion kWh)			(million)	(trillion Btu)	(billion cubic feet)	(billion dollars)
RSE Column Factors:	0.9	NF	NF	NF	0.6	NF	NF	NF
<b>Total Region</b>	8.3	78.2	22.9	1.35	12.8	551.4	536	2.81
<b>Climate Zone<sup>1</sup></b>								9.0
Under 2,000 CDD and Over 5,500 HDD	2.2	40.1	11.8	.54	2.7	223.2	218	.92
Under 5,500 HDD	5.0	33.0	9.7	.68	8.9	292.3	283	1.65
2,000 CDD or More and Under 4,000 HDD	1.0	5.1	1.5	.13	1.2	35.8	35	.24
<b>Type of Housing Unit</b>								
Single-Family	5.3	56.7	16.6	.97	8.7	439.3	427	2.25
Mobile Home	5.5	Q	4.1	.11	.7	32.8	32	12.4
Multifamily (2 or more units)	2.5	14.0	2.5	.27	3.4	79.3	77	32.7
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	3.5	25.7	7.5	.46	4.7	129.7	126	.66
1,000 to 1,999	3.6	40.8	12.0	.70	6.0	272.4	265	1.40
2,000 or More	1.1	11.7	3.4	.19	2.2	149.3	145	.76
<b>Ownership of Unit</b>								
Owned	4.6	45.5	13.3	.76	8.0	409.6	398	2.08
Rented	3.6	32.8	9.6	.59	4.9	141.8	138	.73
<b>Year of Construction</b>								
1949 or Before	1.9	18.3	5.4	.29	3.3	171.2	167	.85
1950 to 1979	4.7	45.9	13.4	.78	7.2	285.8	278	1.48
1980 or After <sup>2</sup>	1.7	14.0	4.1	.28	2.3	94.4	92	.49
<b>1990 Family Income</b>								
Less than \$10,000	1.4	14.8	4.3	.23	1.5	51.9	51	.26
\$10,000 to \$19,999	1.7	17.9	5.3	.28	2.7	99.6	97	.51
\$20,000 to \$34,999	2.3	21.5	6.3	.37	3.2	138.2	134	.67
\$35,000 or More	2.9	24.0	7.0	.47	5.4	261.6	254	1.37
<b>Below Poverty Line</b>								
100 Percent	1.4	12.6	3.7	.20	1.4	45.2	44	.22
125 Percent	1.8	17.8	5.2	.29	2.1	73.4	71	.37
<b>Age of Householder</b>								
Under 35 Years	2.4	17.2	5.0	.30	4.4	148.7	144	.76
35 to 59 Years	3.5	34.4	10.1	.60	5.5	263.9	257	1.35
60 Years and Over	2.3	26.6	7.8	.45	2.9	138.7	135	.70
<b>Household Size</b>								
1 Person	2.5	25.9	7.6	.45	3.1	119.4	117	.60
2 to 4 Persons	4.8	44.0	12.9	.75	8.0	364.0	354	1.86
5 or More Persons	1.0	8.4	2.5	.15	1.7	67.9	65	.36

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

**Table 95. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in West Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		(billion kWh)	Total Consumed		(billion cubic feet)		
	Households (million)	(tril-lion Btu)		Households (million)	(tril-lion Btu)			
RSE Column Factors:	0.9	NF	NF	0.6	NF	NF	NF	
<b>Mountain Division</b>	1.7	12.5	3.7	0.25	3.7	234.4	228	
<b>Climate Zone<sup>1</sup></b>							1.08	
Under 2,000 CDD and Over 5,500 HDD	.7	0	0	2.4	188.9	184	.78	
Under 5,500 HDD	Q	0	0	.5	21.9	21	.13	
2,000 CDD or More and Under 4,000 HDD	.8	4.7	1.4	.12	.8	23.7	.23	
<b>Type of Housing Unit</b>							.17	
Single-Family	1.2	9.1	2.7	.18	2.7	189.7	185	
Mobile Home	Q	Q	Q	Q	.4	17.7	17	
Multifamily (2 or more units)	Q	Q	Q	.6	27.1	26	.12	
<b>Heated Floorspace (square feet)</b>							28.4	
Fewer than 1,000	.5	2.8	.8	.07	1.3	59.4	58	
1,000 to 1,999	.9	6.5	1.9	.13	1.7	109.7	107	
2,000 or More	3	Q	Q	.06	.7	65.4	64	
<b>Ownership of Unit</b>							.28	
Owned	1.1	8.7	2.6	.17	2.6	186.5	181	
Rented	5	3.8	1.1	.08	1.1	48.0	47	
<b>Year of Construction</b>							.22	
1949 or Before	.3	1.5	.4	.03	1.0	77.5	76	
1950 to 1979	.8	6.6	1.9	.12	2.1	124.0	121	
1980 or After <sup>2</sup>	.6	4.4	1.3	.10	.6	32.9	32	
<b>1990 Family Income</b>							.16	
Less than \$10,000	3	2.4	.7	.05	.6	30.9	30	
\$10,000 to \$19,999	3	1.9	.6	.04	.8	42.9	41	
\$20,000 to \$34,999	4	Q	Q	.05	1.1	75.8	74	
\$35,000 or More	6	5.0	1.5	.11	1.2	84.9	83	
<b>Below Poverty Line</b>							.39	
10 Percent	.3	Q	Q	.05	.4	24.2	24	
12.5 Percent	.4	3.1	.9	.06	.7	40.4	39	
<b>Age of Householder</b>							.19	
Under 35 Years	.5	3.7	1.1	.08	1.2	65.4	63	
35 to 59 Years	.7	6.7	2.0	.13	1.6	102.3	100	
60 Years and Over	4	2.1	.6	.05	1.0	66.7	65	
<b>Household Size</b>							.30	
1 Person	.4	1.5	.4	.03	1.0	53.9	53	
2 to 4 Persons	1.0	9.4	2.7	.18	2.2	146.6	143	
5 or More Persons	.2	1.6	.5	.03	.5	33.9	32	

See footnotes at end of table.

Table 95. Total Electricity and Natural Gas Consumption and Expenditures for Space Heating in West Region Households, 1990 (Continued)

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)		
		(trillion Btu)	(billion kWh)			(trillion Btu)	(billion cubic feet)			
RSE Column Factors:	0.9	NF	NF	NF	0.6	NF	NF	NF		
<b>Pacific Division</b>	6.6	65.8	19.3	1.10	9.1	316.9	308	1.74	9.3	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	1.5	Q	Q	Q	.3	34.3	34	.14	33.5	
Under 5,500 HDD .....	4.9	32.5	9.5	.67	8.4	270.5	262	1.53	11.7	
2,000 CDD or More and										
Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q	NF	
<b>Type of Housing Unit</b>										
Single-Family .....	4.1	47.6	13.9	.78	5.9	249.6	243	1.37	14.1	
Mobile Home .....	.3	Q	Q	Q	.3	15.1	15	.08	37.7	
Multifamily (2 or more units) ..	2.2	12.2	3.6	.23	2.8	52.2	51	.28	18.1	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	3.0	22.9	6.7	.39	3.4	70.3	68	.38	10.6	
1,000 to 1,999 .....	2.8	34.3	10.1	.57	4.3	162.7	158	.88	12.2	
2,000 or More .....	.9	8.5	2.5	.14	1.5	83.9	82	.48	22.5	
<b>Ownership of Unit</b>										
Owned .....	3.5	36.8	10.8	.60	5.3	223.1	217	1.23	12.0	
Rented .....	3.1	29.0	8.5	.50	3.8	93.9	91	.51	12.7	
<b>Year of Construction</b>										
1949 or Before .....	1.6	16.9	4.9	.26	2.3	93.7	91	.52	11.9	
1950 to 1979 .....	3.9	39.3	11.5	.66	5.1	161.7	157	.89	15.5	
1980 or After <sup>2</sup> .....	1.2	9.7	2.8	.18	1.6	61.5	60	.33	26.5	
<b>1990 Family Income</b>										
Less than \$10,000 .....	1.1	12.4	3.6	.18	.9	21.1	20	.11	20.0	
\$10,000 to \$19,999 .....	1.4	16.0	4.7	.23	1.9	56.7	55	.30	14.5	
\$20,000 to \$34,999 .....	1.9	18.4	5.4	.31	2.1	62.5	61	.34	16.0	
\$35,000 or More .....	2.2	19.0	5.6	.37	4.2	176.7	172	.98	13.2	
<b>Below Poverty Line</b>										
100 Percent .....	1.1	9.9	2.9	.15	.9	21.0	20	.11	19.6	
125 Percent .....	1.4	14.7	4.3	.23	1.4	33.0	32	.18	16.0	
<b>Age of Householder</b>										
Under 35 Years .....	1.9	13.5	4.0	.22	3.3	83.3	81	.45	18.5	
35 to 59 Years .....	2.8	27.7	8.1	.47	3.9	161.6	157	.89	11.1	
60 Years and Over .....	1.9	24.5	7.2	.40	1.9	72.0	70	.40	16.3	
<b>Household Size</b>										
1 Person .....	2.1	24.4	7.2	.42	2.1	65.6	64	.35	13.6	
2 to 4 Persons .....	3.7	34.6	10.1	.57	5.8	217.4	211	1.19	12.0	
5 or More Persons .....	.8	6.8	2.0	.12	1.2	34.0	33	.19	22.2	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 96. Electricity Consumption and Expenditures for Main Space Heating, per West Region Household, 1990**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)	Electricity Space-Heating Intensity
	Households (million)	Btu (million)		(kWh)	1990			
RSE Column Factors:	1.5	NF	NF	NF	0.5	0.9	0.9	NF
								NF
<b>West Region</b>								
<b>Total Region</b>	4.6	15.3	4,471	253	1,162	3,723	4,015	1.03
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	1.3	27.9	8,163	361	1,275	6,016	6,356	1.06
Under 5,500 HDD	2.6	11.0	3,223	217	1,104	3,212	3,443	.91
2,000 CDD or More and Under 4,000 HDD	.7	6.7	1,985	175	1,159	1,164	1,592	1.46
<b>Type of Housing Unit</b>								
Single-Family	2.5	20.1	5,900	327	1,422	3,957	4,250	1.05
Mobile Home	Q	24.5	7,183	361	1,147	5,153	5,244	1.22
Multifamily (2 or more units)	1.8	7.2	2,105	135	814	3,176	3,499	.81
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	2.3	10.3	3,009	179	715	3,667	3,930	1.15
1,000 to 1,999	1.9	18.9	5,539	311	1,399	3,689	4,018	1.07
2,000 or More	.3	28.3	8,286	427	2,826	4,282	4,568	.68
<b>Ownership of Unit</b>								
Owned	2.0	19.4	5,694	309	1,497	3,808	4,108	1.00
Rented	2.6	11.9	3,501	208	1,896	3,655	3,941	1.07
<b>Year of Construction</b>								
1949 or Before	.5	28.7	8,415	430	1,290	5,424	5,684	1.20
1950 to 1979	2.8	14.9	4,354	244	1,130	3,770	4,042	1.02
1980 or After <sup>2</sup>	1.2	10.3	3,024	197	1,178	2,878	3,229	.89
<b>1990 Family Income</b>								
Less than \$19,999	1.0	13.8	4,039	212	851	3,956	4,248	1.20
\$10,000 to \$19,999	1.0	16.1	4,731	241	989	4,184	4,470	1.14
\$20,000 to \$34,999	1.2	15.8	4,617	256	1,179	3,918	4,199	1.00
\$35,000 or More	1.3	15.2	4,469	291	1,524	2,997	3,302	.98
<b>Below Poverty Line</b>								
100 Percent	.9	13.3	3,901	209	862	3,812	4,158	1.19
125 Percent	1.2	14.2	4,152	223	913	3,963	4,281	1.15
<b>Age of Householder</b>								
35 to 59 Years	1.5	10.4	3,043	171	932	3,095	3,432	1.05
60 Years and Over	1.3	18.7	5,482	310	1,246	4,141	4,369	1.06
<b>Household Size</b>								
1 Person	1.6	15.5	4,531	266	971	4,058	4,268	1.15
2 to 4 Persons	2.6	14.9	4,364	241	1,218	3,558	3,900	1.01
5 or More Persons	4	16.9	4,954	278	1,578	3,444	3,740	.91
<b>Main Heating Equipment Using Electricity</b>								
Central Warm-Air Furnace	1.2	17.1	5,003	292	1,357	3,165	3,442	1.17
Built-In Electric Units	2.2	16.5	4,841	246	1,012	4,639	4,932	1.03
Heat Pump	.8	9.2	2,698	195	1,397	2,144	2,501	.90
Other	.3	15.1	4,425	295	820	3,606	3,773	1.50

WEST

## SPACE-HEATING CONSUMPTION/EXPENDITURES

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 96. Electricity Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)**

Households Characteristics	House- holds (million) RSE Column Factors:	Consumption		Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors							
		(million Btu)	(kWh)	Heated Floor Space (square feet)		Consumption (kWh/HDD* 1000 square feet)	Expenditures (cents/HDD* 1000 square feet)								
				1990	30-Year Average <sup>1</sup>										
<b>West Region</b>															
<b>Age of Main Heating Equipment</b>															
Less than 5 Years .....	0.7	13.3	3,903	251	1,047	3,133	3,406	1.19							
5 to 9 Years .....	.8	11.8	3,445	217	1,143	3,090	3,391	.98							
10 to 19 Years .....	1.9	15.8	4,634	257	1,167	3,993	4,287	.99							
20 Years or More .....	.7	17.9	5,243	258	1,173	4,029	4,344	1.11							
Don't Know .....	.5	17.9	5,249	291	1,316	4,141	4,404	.96							
<b>Secondary Heating Fuel (more than one may apply)</b>															
No .....	2.9	13.6	3,987	224	966	3,670	3,972	1.12							
Yes .....	1.7	18.0	5,265	300	1,483	3,810	4,085	.93							
Wood .....	1.2	20.0	5,863	311	1,519	4,300	4,589	.90							
Electricity .....	Q	Q	Q	Q	Q	Q	Q	Q							
Natural Gas .....	Q	7.4	2,163	225	1,521	1,474	1,750	.96							
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q							
Other .....	NC	NC	NC	NC	NC	NC	NC	NC							
<b>Average Electricity Expenditures for Main Space Heat (cents per kWh)</b>															
Less than 6 .....	2.1	23.5	6,890	301	1,180	5,422	5,728	1.08							
6 to Less than 9 .....	1.1	10.6	3,110	230	1,146	2,668	2,938	1.02							
9 or More .....	1.4	6.6	1,927	199	1,147	2,008	2,295	.84							
<b>Winter Temperature Inside Housing Unit</b>															
Prefer .....															
Usual Temperature .....	3.6	15.4	4,526	259	1,162	3,729	4,014	1.04							
Warmer Temperature .....	.7	15.2	4,456	251	1,245	3,568	3,847	1.00							
Cooler Temperature .....	.3	13.0	3,807	177	954	4,046	4,455	.99							
<b>Adequacy of Insulation</b>															
Well Insulated .....	1.4	19.3	5,644	315	1,378	4,440	4,692	.92							
Adequately Insulated .....	1.9	12.4	3,636	201	1,098	3,216	3,541	1.03							
Poorly Insulated .....	1.2	14.9	4,353	257	1,007	3,748	4,039	1.15							
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q							

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 96. Electricity Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)

Characteristics	Consumption			Heated Floorspace (square feet)	Annual Heating Degree-Days	Electricity Space-Heating Intensity		RSE Row Factor			
	Households (million)	(million Btu)	(kWh)			30-Year Average <sup>1</sup>	Consumption (kWh/HDD <sup>a</sup> )				
						1990	Average <sup>1</sup>				
RSE Column Factors:	1.5	NF	NF	NF	0.5	0.9	0.9	NF			
<b>Mountain Division</b> .....	0.9	11.7	3,431	233	1,297	2,470	2,904	1.07			
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	25.0	7,323	382	1,539	6,037	6,452			
Under 5,500 HDD .....	Q	Q	25.0	7,323	382	1,539	6,037	6,452			
2,000 CDD or More and Under 4,000 HDD .....	.6	.6	6.8	2,000	179	1,196	1,152	1,597			
<b>Type of Housing Unit</b>											
Single-Family .....	.6	13.2	3,862	261	1,571	2,330	2,773	1.05			
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q			
Multifamily (2 or more units) .....	Q	Q	Q	Q	Q	Q	Q	Q			
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000 .....	Q	Q	11.6	3,408	173	703	Q	1.37			
1,000 to 1,999 .....	Q	Q	8.5	2,487	272	1,571	2,848	3,261			
2,000 or More .....	Q	Q	4.4	2,472	189	989	2,045	2,504			
<b>Ownership of Unit</b>											
Owned .....	.5	14.6	13.8	4,044	251	1,266	2,794	3,146			
Rented .....	Q	Q	9.2	2,687	207	1,369	1,975	2,483			
<b>Year of Construction</b>											
1949 or Before .....	Q	Q	4.4	2,487	189	989	2,045	2,504			
1950 to 1979 .....	Q	Q	8.5	2,487	189	1,571	2,848	3,261			
1980 or After <sup>2</sup> .....	Q	Q	4.4	2,472	189	989	2,045	2,504			
<b>1990 Family Income</b>											
Less than \$10,000 .....	Q	Q	8.7	2,548	227	1,000	Q	1.19			
\$10,000 to \$19,999 .....	Q	Q	14.5	4,244	190	865	Q	1.31			
\$20,000 to \$34,999 .....	Q	Q	12.4	3,624	239	1,571	3,067	.88			
\$35,000 or More .....	Q	Q	3.3	259	1,590	2,120	2,592	1.08			
<b>Below Poverty Line</b>											
100 Percent .....	Q	Q	Q	243	997	Q	3,726	Q			
125 Percent .....	Q	Q	11.2	3,292	228	1,013	2,813	3,311			
<b>Age of Householder</b>											
Under 35 Years .....	.3	9.2	2,692	190	1,050	2,149	2,673	1.19			
35 to 59 Years .....	.4	14.7	4,319	272	1,518	2,968	3,364	.96			
60 Years and Over .....	Q	Q	Q	225	1,258	Q	Q	Q			
<b>Household Size</b>											
1 Person .....	.1	7.8	2,292	177	999	2,018	2,266	1.14			
2 to 4 Persons .....	.4	12.4	3,633	244	1,342	2,536	3,020	1.07			
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q			

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 96. Electricity Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)**

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Electricity Space-Heating Intensity		RSE Row Factors
	Households (million)	Households (million) (kWh)		Expenses (dollars)	1990	30-Year Average <sup>1</sup>	Consumption (kWh/HDD* 1000 square feet)	
	NF	NF		NF	0.5	0.9	NF	
RSE Column Factors:	1.5	1.5						
Pacific Division .....	3.7	16.1	4,725	258	1,129	4,028	4,285	1.04
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	Q	28.5	8,342	357	1,219	6,011	6,335	1.14
Over 5,500 HDD .....	2.6	11.0	3,220	217	1,099	3,217	3,447	.91
Under 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	NF
<b>Type of Housing Unit</b>								
Single-Family .....	1.9	22.2	6,497	347	1,378	4,434	4,683	1.06
Mobile Home .....	Q	Q	Q	Q	Q	Q	Q	Q
Multifamily (2 or more units) .....	1.6	7.3	2,152	131	831	3,362	3,652	.77
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	2.0	10.8	3,152	179	717	3,900	4,138	1.13
1,000 to 1,999 .....	1.5	21.3	6,288	339	1,403	4,110	4,388	1.08
2,000 or More .....	2.2	29.6	8,678	416	2,910	4,594	4,892	.65
<b>Ownership of Unit</b>								
Owned .....	1.6	20.9	6,128	321	1,475	4,100	4,366	1.01
Rented .....	2.1	12.6	3,702	212	878	3,975	4,226	1.06
<b>Year of Construction</b>								
1949 or Before .....	.5	30.4	8,900	447	1,327	5,630	5,862	1.19
1950 to 1979 .....	2.4	15.0	4,408	242	1,106	3,940	4,199	1.01
1980 or After <sup>2</sup> .....	.8	10.9	3,196	191	1,080	3,341	3,611	.89
<b>1990 Family Income</b>								
Less than \$10,000 .....	.8	14.4	4,225	209	816	4,249	4,491	1.22
\$10,000 to \$19,999 .....	.8	17.9	5,242	253	1,018	4,637	4,909	1.11
\$20,000 to \$34,999 .....	1.0	16.0	4,680	259	1,113	4,062	4,327	1.04
\$35,000 or More .....	1.0	16.2	4,748	301	1,503	3,287	3,536	.96
<b>Below Poverty Line</b>								
100 Percent .....	.7	13.6	3,980	199	822	3,994	4,286	1.21
125 Percent .....	.9	15.0	4,385	222	886	4,276	4,545	1.16
<b>Age of Householder</b>								
Under 35 Years .....	1.1	10.7	3,150	166	897	3,381	3,662	1.04
35 to 59 Years .....	1.4	17.3	5,058	279	1,219	4,204	4,480	.99
60 Years and Over .....	1.2	19.9	5,841	321	1,245	4,438	4,651	1.06
<b>Household Size</b>								
1 Person .....	1.5	16.2	4,751	274	968	4,258	4,464	1.15
2 to 4 Persons .....	1.9	15.8	4,619	241	1,175	3,914	4,206	1.00
5 or More Persons .....	.3	18.0	5,286	288	1,615	3,846	3,926	.90

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EI/A-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 97. Natural Gas Consumption and Expenditures for Main Space Heating, per West Region Household, 1990**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE RCW Factors
		(1000 cubic feet)	Expenditures (dollars)			1990	30-Year Average <sup>1</sup>	
RSE Column Factors:	1.4	NF	NF	NF	0.7	0.9	0.9	NF
<b>West Region</b>								
<b>Total Region</b>	12.4	43.7	42.5	223	1,389	2,950	3,221	10.4
<b>Climate Zone<sup>1</sup></b>								5.5
Under 2,000 CDD and Over 5,500 HDD	2.7	82.4	80.5	341	1,572	6,344	6,645	8.1
Under 5,500 HDD	8.6	33.5	32.4	189	1,345	2,080	2,337	11.7
2,000 CDD or More and Under 4,000 HDD	1.1	30.9	30.0	206	1,293	1,753	1,921	13.2
<b>Type of Housing Unit</b>								9.1
Single-Family	8.3	51.9	50.5	266	1,668	3,050	3,326	9.9
Mobile Home	.7	47.8	46.3	239	951	3,288	3,518	14.8
Multifamily (2 or more units)..	3.4	23.1	22.4	117	804	2,641	2,910	10.5
<b>Heated Floorspace (square feet)</b>								5.5
Fewer than 1,000	4.6	28.0	27.2	142	687	2,754	3,020	14.4
1,000 to 1,999	5.6	46.9	45.6	241	1,435	2,979	3,244	10.7
2,000 or More	2.1	69.1	67.1	352	2,778	3,295	3,597	7.3
<b>Ownership of Unit</b>								3.8
Owned .....	7.6	52.7	51.2	269	1,726	3,131	3,409	9.5
Rented .....	4.8	29.4	28.6	151	854	2,682	2,924	12.6
<b>Year of Construction</b>								6.6
1949 or Before	3.3	51.1	49.7	254	1,312	3,176	3,498	11.9
1950 to 1979	6.9	40.8	39.7	211	1,302	2,776	2,961	11.2
1980 or After <sup>2</sup>	2.2	41.8	40.6	215	1,770	3,341	3,621	6.9
<b>1990 Family Income</b>								3.6
Less than \$10,000	1.5	35.2	34.3	173	802	3,121	3,386	13.7
\$10,000 to \$19,999	2.7	37.3	36.1	191	1,028	2,807	3,095	12.5
\$20,000 to \$34,999	3.1	43.3	42.1	212	1,240	3,072	3,341	11.0
\$35,000 or More	5.2	49.6	48.3	261	1,826	2,902	3,169	9.1
<b>Below Poverty Line</b>								4.9
100 Percent .....	1.4	32.9	32.1	163	876	2,885	3,123	12.8
125 Percent .....	2.0	36.0	34.9	179	909	2,964	3,216	13.0
<b>Age of Householder</b>								6.7
Under 35 Years	4.4	33.5	32.5	171	1,117	2,673	2,945	10.9
35 to 59 Years	5.2	49.7	48.4	254	1,586	3,205	3,470	9.5
60 Years and Over	2.8	48.6	47.1	247	1,449	2,906	3,192	11.2
<b>Household Size</b>								5.9
1 Person	2.9	40.9	39.9	205	1,998	3,309	3,602	11.0
2 to 4 Persons	7.8	45.8	44.6	234	1,478	2,919	3,186	10.3
5 or More Persons	1.7	38.7	37.2	204	1,478	2,479	2,737	10.1
<b>Main Heating Equipment Using Natural Gas</b>								5.6
Central Warm-Air Furnace	8.1	48.4	47.0	250	1,596	3,104	3,375	9.5
Steam or Hot-Water System	.5	85.3	83.7	368	1,605	5,770	6,054	9.0
Floor, Wall, or Pipeless Furnace	3.0	27.5	26.7	146	941	2,051	2,301	13.8
Room Heater/Other	.7	29.2	28.4	147	810	2,920	3,282	12.0

**WEST**

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 97. Natural Gas Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity		RSE Row Factors
		(million Btu)	(1000 cubic feet)			Consumption (cubic feet/HDD*1000 square feet)	Expenditures (cents/HDD*1000 square feet)	
		NF	NF			30-Year Average <sup>1</sup>	30-Year Average <sup>1</sup>	
RSE Column Factors:	1.4	NF	NF		0.7	0.9	0.9	NF
<b>West Region</b>								
<b>Age of Main Heating Equipment</b>								
Less than 5 Years .....	1.6	49.5	48.1	258	1,742	3,223	3,514	4.6
5 to 9 Years .....	2.4	39.7	38.5	197	1,458	3,257	3,543	8.1
10 to 19 Years .....	3.0	49.3	47.9	257	1,467	3,027	3,264	10.8
20 Years or More .....	4.0	43.9	42.7	222	1,301	2,823	3,107	11.6
Don't Know .....	1.4	31.1	30.4	159	942	2,298	2,560	14.0
								7.4
<b>Secondary Heating Fuel (more than one may apply)</b>								
No .....	6.9	39.6	37.9	198	1,140	2,905	3,183	11.4
Yes .....	5.5	49.6	48.2	255	1,702	3,005	3,270	9.4
Wood .....	3.5	55.4	53.9	284	1,931	3,111	3,371	9.0
Electricity .....	2.6	42.6	41.4	224	1,525	2,837	3,108	9.6
Kerosene .....	Q	Q	Q	Q	Q	Q	Q	Q
Other .....	.3	54.4	52.7	267	1,986	3,229	3,410	8.2
								4.2
<b>Average Natural Gas Expenditures for Main Space Heat (dollars per 1000 cf)</b>								
Less than 4.50 .....	2.0	80.5	79.9	305	1,489	5,949	6,223	9.3
4.50 to Less than 6 .....	6.9	35.2	33.8	181	1,324	2,574	2,846	9.9
6 or More .....	3.5	39.9	38.7	260	1,488	2,011	2,281	12.9
								8.7
<b>Winter Temperature Inside Housing Unit</b>								
Prefer Usual Temperature .....	9.4	43.8	42.6	224	1,368	2,990	3,263	10.4
Warmer Temperature .....	2.4	44.1	42.9	224	1,487	2,918	3,179	9.9
Cooler Temperature .....	6	40.3	38.6	212	1,398	2,448	2,739	11.8
<b>Adequacy of Insulation</b>								
Well Insulated .....	3.9	46.6	45.3	240	1,501	3,123	3,401	9.7
Adequately Insulated .....	5.0	45.0	43.8	227	1,425	3,000	3,282	10.2
Poorly Insulated .....	2.9	38.6	36.6	207	1,276	2,666	2,928	11.3
Don't Know .....	.6	32.4	31.6	164	886	2,776	2,964	12.8
								6.7

See footnotes at end of table.

## SPACE-HEATING CONSUMPTION/EXPENDITURES

Table 97. Natural Gas Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)

Characteristics	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days		Natural Gas Space-Heating Intensity		RSE Row Factors		
	Households (million)	(1000 cubic feet)		Expenditures (dollars)	30-Year Average <sup>1</sup>	Consumption (cubic feet/HDD <sup>-1</sup> 1000 square feet)	Expenditures (cents/HDD <sup>-1</sup> 1000 square feet)			
RSE Column Factors:	1.4	NF	NF	NF	0.7	0.9	0.9	NF		
<b>Mountain Division</b>	3.6	64.2	62.4	286	1,429	4,648	4,955	9.4		
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and Over 5,500 HDD	2.3	78.7	76.7	327	1,529	5,961	6,302	8.4		
Under 5,500 HDD or More and 2,000 CDD or More and Under 4,000 HDD	.5	45.5	43.1	261	1,172	2,972	3,220	12.4		
Under 4,000 HDD	.8	30.8	29.9	220	1,278	1,602	1,844	14.6		
<b>Type of Housing Unit</b>										
Single-Family	2.6	71.0	69.2	329	1,660	4,599	4,912	9.1		
Mobile Home	.4	49.3	47.8	232	911	4,097	4,395	12.8		
Multifamily (2 or more units)	.6	44.1	42.6	195	761	5,176	5,464	10.8		
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000	1.3	45.9	44.6	215	719	4,477	4,763	13.9		
1,000 to 1,999	1.6	65.4	63.6	310	1,422	4,518	4,825	9.9		
2,000 or More	.7	96.8	94.1	418	2,821	5,289	5,639	6.3		
<b>Ownership of Unit</b>										
Owned	2.5	72.1	70.1	332	1,676	4,704	5,024	8.9		
Rented	1.0	45.2	43.9	210	835	4,514	4,791	11.7		
<b>Year of Construction</b>										
1949 or Before	.9	79.2	77.5	338	1,292	5,470	5,827	11.0		
1950 to 1979	2.0	61.2	59.5	290	1,330	4,310	4,607	9.9		
1980 or After <sup>2</sup>	.6	51.7	49.7	253	1,756	4,518	4,788	6.3		
<b>1990 Family Income</b>										
Less than \$10,000	.6	52.4	51.1	241	982	4,676	5,015	11.1		
\$10,000 to \$19,999	.8	54.9	53.1	270	1,108	4,217	4,538	11.4		
\$20,000 to \$34,999	1.0	68.9	67.1	305	1,322	5,052	5,348	10.0		
\$35,000 or More	1.2	72.2	70.3	333	1,968	4,563	4,856	7.8		
<b>Below Poverty Line</b>										
100 Percent	.4	56.5	55.2	259	1,056	4,723	5,072	11.1		
125 Percent	.7	58.0	56.4	270	1,061	4,726	5,061	11.2		
<b>Age of Householder</b>										
Under 35 Years	1.1	57.2	55.3	271	1,269	4,659	4,959	9.4		
35 to 59 Years	1.5	66.2	64.7	302	1,527	4,659	4,958	9.1		
60 Years and Over	.9	69.4	67.3	318	1,462	4,615	4,947	10.0		
<b>Household Size</b>										
1 Person	1.0	55.6	54.7	252	1,169	4,796	5,108	9.8		
2 to 4 Persons	2.1	68.6	66.8	314	1,497	4,627	4,938	9.6		
5 or More Persons	.5	62.6	59.6	304	1,642	4,457	4,741	8.1		

See footnotes at end of table.

# SPACE-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 97. Natural Gas Consumption and Expenditures for Main Space Heating, per West Region Household, 1990 (Continued)**

Characteristics	Households (million)	(million Btu)	Consumption		Heated Floorspace (square feet)	Annual Heating Degree-Days	Natural Gas Space-Heating Intensity	
			(1000 cubic feet)	Expenditures (dollars)			30-Year Average <sup>1</sup>	Consumption (cubic feet/HDD*1000 square feet)
RSE Column Factors:	1.4	NF	NF	NF	0.7	0.9	0.9	NF
Pacific Division .....	8.8	35.4	34.4	194	1,373	2,264	2,521	11.1
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and								
Over 5,500 HDD .....	.3	110.1	108.8	447	1,853	9,223	6.2	2.6
Under 5,500 HDD .....	8.1	32.8	31.8	185	1,355	2,007	11.7	6.8
2,000 CDD or More and								19.6
Under 4,000 HDD .....								5.7
<b>Type of Housing Unit</b>								
Single-Family .....	5.7	43.2	42.0	237	1,671	2,344	2,603	10.7
Mobile Home .....	3	46.1	44.7	246	996	2,392	2,547	18.8
Multifamily (2 or more units) .....	2.8	18.5	18.0	100	813	2,088	2,353	10.6
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000 .....	3.3	21.0	20.4	113	674	2,083	2,341	14.6
1,000 to 1,899 .....	4.0	39.6	38.4	214	1,441	2,365	2,613	11.3
2,000 or More .....	1.5	56.5	54.9	322	2,759	2,395	2,674	8.3
<b>Ownership of Unit</b>								
Owned .....	5.1	43.1	41.9	238	1,751	2,352	2,609	10.2
Rented .....	3.7	25.0	24.3	135	889	2,144	2,401	13.2
<b>Year of Construction</b>								
1949 or Before .....	2.3	40.0	38.8	221	1,321	2,270	2,579	12.9
1950 to 1979 .....	4.9	32.4	31.5	179	1,266	2,058	2,282	12.1
1980 or After <sup>2</sup> .....	1.6	37.9	37.0	200	1,775	2,880	3,163	7.2
<b>1990 Family Income</b>								
Less than \$10,000 .....	9	23.8	23.1	128	692	2,083	2,298	16.3
\$10,000 to \$19,999 .....	1.9	29.9	29.0	158	995	2,219	2,493	13.2
\$20,000 to \$34,999 .....	2.0	30.2	29.3	165	1,198	2,063	2,318	11.9
\$35,000 or More .....	4.0	43.1	41.9	240	1,756	2,425	2,685	9.7
<b>Below Poverty Line</b>								
100 Percent .....	9	22.3	21.7	120	796	2,030	2,246	13.4
125 Percent .....	1.3	24.3	23.6	131	830	2,038	2,247	14.0
<b>Age of Householder</b>								
Under 35 Years .....	3.3	25.4	24.7	137	1,064	1,992	2,254	11.6
35 to 59 Years .....	3.7	42.9	41.7	235	1,611	2,605	2,855	9.9
60 Years and Over .....	1.8	38.2	37.1	212	1,443	2,061	2,324	12.5
<b>Household Size</b>								
1 Person .....	1.9	33.5	32.5	181	1,062	2,563	2,846	11.9
2 to 4 Persons .....	5.7	37.6	36.5	205	1,471	2,298	2,549	10.8
5 or More Persons .....	1.2	28.2	27.3	160	1,406	1,607	1,853	12.1

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 98. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, West Region Households, 1990**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup> per Household									
			Consumption		Annual Cooling Degree-Days			Electric Air-Conditioning Intensity				
	Households (mil-lion)	Total consumption (tril-lion Btu)	Households (mil-lion)	Total consumption (tril-lion Btu)	Cooled Floor-space (square feet)	Expenditures (dol-lars) (kWh)	Consumption (KWH/ square foot)	Expenditures (cents/ square foot)	CDD+1000 (square feet)	FSE (cents/ square foot)	FSE (cents/ square foot)	FSE (cents/ square foot)
RSE Column Factors:	1.5	NF	NF	1.6	NF	NF	0.7	0.8	0.8	NF	NF	NF
<b>Total Region</b>	7.2	40.5	1.10	4.8	7.3	2,153	205	1,745	1,865	1,548	0.66	6.3
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	1.2	5.3	.09	.4	7.0	2,044	126	1,987	800	636	1.29	7.9
Under 5,500 HDD	4.8	23.0	.67	3.3	6.2	1,819	183	1,834	1,416	1,145	.70	7.0
Under 5,500 HDD or More and 2,000 CDD or More and Under 4,000 HDD	1.2	12.2	.34	1.1	10.9	3,203	301	1,379	3,643	3,127	.64	6.0
<b>Type of Housing Unit</b>												
Single-Family	4.7	30.2	.82	3.2	8.2	2,415	231	2,127	1,874	1,526	.61	5.8
Mobile Home	.4	1.8	.04	.2	6.4	1,864	130	1,197	1,219	1,117	1.28	8.9
Multifamily (2 or more units)	2.0	8.5	.24	1.3	5.3	1,552	151	889	1,937	1,664	.90	8.8
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	2.3	8.6	.23	1.2	5.3	1,556	149	733	2,138	1,852	.99	9.5
1,000 to 1,999	3.5	20.8	.56	2.4	7.6	2,222	208	1,649	1,918	1,561	.70	6.6
2,000 or More	1.4	11.1	.31	1.2	8.9	2,611	254	2,965	1,481	1,212	.59	5.8
<b>Ownership of Unit</b>												
Owned	4.8	29.2	.79	3.3	7.8	2,277	218	2,056	1,734	1,426	.64	6.1
Rented	2.4	11.3	.31	1.5	6.4	1,873	176	1,047	2,159	1,822	.83	7.8
<b>Year of Construction</b>												
1949 or Before	1.0	3.4	.07	.3	7.5	2,187	172	2,306	1,548	1,247	.61	4.8
1950 to 1979	4.1	20.7	.57	2.6	6.6	1,932	187	1,607	1,786	1,544	.67	6.5
1980 or After	2.1	16.4	.46	1.9	8.4	2,451	235	1,848	2,023	1,599	.66	6.3
<b>1990 Family Income</b>												
Less than \$10,000	.8	2.9	.07	.3	6.3	1,848	165	920	2,561	2,158	.78	7.0
\$10,000 to \$19,999	1.3	5.8	.16	.8	6.1	1,800	171	1,181	2,161	1,856	.71	6.7
\$20,000 to \$34,999	1.6	6.6	.16	.8	5.4	1,589	135	1,417	1,615	1,360	.69	5.9
\$35,000 or More	3.6	25.3	.72	2.8	8.4	2,452	289	2,093	1,776	1,447	.66	6.4
<b>Below Poverty Line</b>												
100 Percent	.7	2.9	.08	.3	6.6	1,933	185	1,380	2,361	1,876	.59	5.7
125 Percent	1.0	4.3	.11	.5	6.9	2,025	185	1,370	2,418	2,006	.61	5.6
<b>Age of Householder</b>												
Under 35 Years	2.5	13.0	.36	1.6	6.8	1,984	193	1,373	1,924	1,539	.75	7.3
35 to 59 Years	2.8	18.7	.50	2.0	8.3	2,427	280	2,000	1,915	1,609	.63	6.0
60 Years and Over	1.8	8.8	.23	1.2	6.6	1,927	178	1,822	1,704	1,458	.62	5.7

WEST

West Region

See footnotes at end of table.

# AIR-CONDITIONING CONSUMPTION/EXPENDITURES

WEST

**Table 98. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, West Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>			
	Households (million)	Total Consumption (trillion BTU)	Consumption		Annual Cooling Degree-Days		Electric Air-Conditioning Intensity	
			Households (million)	(million BTU)	Expenditures (billions of dollars)	Cooled Floor-space (square feet)	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD 1000 square feet)
RSE Column Factors:	1.5	NF	1.6	NF	NF	0.7	0.8	NF
<b>West Region</b>								
<b>Household Size</b>								
1 Person .....	1.6	6.4	0.17	1.0	5.5	1,600	148	1,472
2 to 4 Persons .....	4.7	28.4	.77	3.2	7.7	2,256	214	1,580
5 or More Persons .....	.8	5.8	.16	.6	8.6	2,518	252	1,494
<b>Cooling Degree-Days (CDD)*1990</b>								
2,000 or More .....	1.9	17.7	.51	1.7	10.3	3,028	301	2,644
1,000 to 1,999 .....	2.7	13.0	.35	1.6	6.4	1,889	177	1,383
500 to 999 .....	1.8	7.5	.19	1.0	6.0	1,765	157	708
Fewer than 500 .....	.9	2.3	.05	.5	3.2	929	76	323
<b>Average Humidity for June, July and August 1990 (percent)</b>								
Less than 65 .....	3.3	21.9	.53	2.2	8.5	2,504	213	2,408
65 to Less than 70 .....	1.5	9.1	.28	1.0	7.6	2,233	240	1,730
70 or Higher .....	2.4	9.4	.29	1.5	5.4	1,589	168	1,170
<b>Average Electricity Expenditures (cents per kWh)</b>								
Less than 6 .....	8	3.7	.06	.3	7.6	2,216	104	2,326
6 to Less than 9 .....	2.1	12.7	.30	1.4	8.1	2,360	192	1,521
9 or More .....	4.3	24.1	.75	3.1	7.0	2,055	220	1,787
<b>Number of Rooms Usually Air Conditioned</b>								
1 to 3 .....	2.3	5.8	.16	.5	4.9	1,449	148	1,746
4 to 6 .....	3.6	24.0	.65	3.1	7.2	1,122	199	1,462
7 or More .....	1.3	10.7	.30	1.2	8.6	2,517	242	2,873
<b>Frequency of Use of Air Conditioning<sup>a</sup></b>								
Only a Few Times .....	3.3	9.2	.26	1.8	4.2	1,232	120	1,679
Quite a Bit .....	2.1	14.6	.40	1.5	8.4	2,463	237	1,885
All Summer .....	1.7	16.1	.43	1.4	10.4	3,048	283	1,697
Other .....	Q	Q	Q	Q	Q	Q	Q	Q
<b>Age of Air Conditioning Equipment<sup>b</sup></b>								
Less than 5 Years .....	1.6	9.7	.27	1.2	7.5	2,197	211	1,860
5 to 9 Years .....	2.2	13.2	.37	1.5	7.8	2,273	222	1,823
10 or More Years .....	2.5	13.5	.35	1.6	7.1	2,094	192	1,724
Don't Know .....	.8	3.5	.10	.4	6.3	1,859	176	1,383

See footnotes at end of table.

**Table 98. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, West Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning		Electricity Used for Central Air Conditioning <sup>1</sup>									
			per Household					Electric Air-Conditioning Intensity				
			Consumption		Annual Cooling Degree-Days			Cooled Floor-Space (square feet)		Consumption (kWh/square foot)		
RSE Column Factors:	1.5	NF	NF	1.6	NF	NF	NF	0.7	0.8	0.8	NF	NF
<b>Mountain Division</b>	1.9	15.2	0.37	1.3	10.1	2,959	248	1,517	2,926	2,450	0.67	5.6
<b>Climate Zone<sup>2</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	Q .9	Q .45	.08	Q .4	Q .73	2,148	138	2,002	863	696	Q 1.24	8.0
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	Q .9	Q .97	.26	Q .8	Q 11.6	3,395	311	1,289	4,026	3,374	Q .65	6.0
<b>Type of Housing Unit</b>												
Single-Family	Q 1.3	Q 11.0	.26	Q .8	Q 11.6	3,407	279	1,914	3,001	2,494	Q .59	4.9
Mobile Home	Q .5	Q .33	.09	Q .4	Q 7.2	2,114	202	785	3,015	2,573	Q .89	8.5
Multifamily (2 or more units)												
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	Q .7	Q .38	.10	Q .4	Q 7.2	2,120	207	704	3,304	2,853	Q .91	8.9
1,000 to 1,999	Q 1.0	Q 8.4	.19	Q .7	Q 11.3	3,304	265	1,543	2,980	2,416	Q .72	5.8
2,000 or More	Q .3	Q 3.1	.07	Q .2	Q 12.4	3,629	282	3,129	1,989	1,718	Q .59	4.6
<b>Ownership of Unit</b>												
Owned	Q 1.2	Q 9.6	.22	Q .7	Q 11.0	3,210	255	1,937	2,667	2,223	Q .62	4.9
Rented	Q .7	Q 5.6	.15	Q .6	Q 9.1	2,655	241	1,007	3,240	2,727	Q .81	7.4
<b>Year of Construction</b>												
1949 or Before	Q .2	Q 1.2	.03	Q .7	Q 9.3	2,721	234	1,408	2,999	2,583	Q .64	4.3
1950 to 1979	Q 1.1	Q 7.6	.18	Q .5	Q 11.4	3,355	279	1,628	2,902	2,347	Q .71	5.9
1980 or After <sup>3</sup>	Q .6	Q 6.4	.16	Q .5	Q 12.6	3,699	300	2,022	2,792	2,289	Q .66	5.3
<b>1990 Family Income</b>												
Less than \$10,000	Q .3	Q 1.9	.05	Q .7	Q 7.9	2,308	204	1,000	3,111	2,543	Q .74	6.6
\$10,000 to \$19,999	Q .4	Q 3.0	.08	Q .3	Q 8.9	2,614	252	1,035	3,549	3,086	Q .71	6.8
\$20,000 to \$34,999	Q .5	Q 2.8	.06	Q .3	Q 7.9	2,323	174	1,402	2,388	2,030	Q .69	5.2
\$35,000 or More	Q .7	Q 7.6	.18	Q .5	Q 12.6	3,699						10.1
<b>Below Poverty Line</b>												
100 Percent	Q 2	Q 2.4	.06	Q .2	Q 8.8	2,576	225	1,091	Q 3,299	2,702	Q .68	6.1
125 Percent	Q .3	Q 2.4	.06	Q .2	Q 8.8	2,576						34.2
<b>Age of Householder</b>												
Under 35 Years	Q .7	Q 4.8	.12	Q .5	Q 8.8	2,594	218	1,193	2,880	2,321	Q .75	6.3
35 to 59 Years	Q .8	Q 6.8	.16	Q .4	Q 12.1	3,556	295	1,757	3,129	2,673	Q .65	5.4
60 Years and Over	Q .5	Q 3.6	.09	Q .4	Q 9.3	2,715	232	1,663	2,735	2,349	Q .60	5.1
<b>Household Size</b>												
1 Person	Q .5	Q 2.5	.07	Q .3	Q 7.3	2,130	199	1,082	2,733	2,452	Q .71	6.7
2 to 4 Persons	Q 1.3	Q 11.1	.26	Q .9	Q 10.7	3,150	260	1,583	2,992	2,459	Q .66	5.4
5 or More Persons	Q .2	Q 1.6	.03	Q .Q	Q 10.7	Q 3,150	Q 260	Q 1,583	Q 2,992	Q 2,459	Q .61	4.9

See footnotes at end of table.

WEST

**AIR-CONDITIONING CONSUMPTION/EXPENDITURES**

**Table 98. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, West Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>			
	Households (million)	Total Consumption (trillion BTU)	Consumption		per Household		Electric Air-Conditioning Intensity	
			Households (million)	(kWh/Btu)	Expenditures (dollars)	Cooled Floor-space (square feet)	Annual Cooling Degree-Days	Consumption (kWh/CBD*1000 square feet)
RSE Column Factors:	1.5	NF	1.6	NF	NF	0.7	0.8	NF
Pacific Division .....	5.2	25.3	0.73	3.5	6.3	1,853	188	1,471
<b>Climate Zone<sup>2</sup></b>								
Under 2,000 CDD and Over 5,500 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q
Under 5,500 HDD .....	4.7	21.9	.65	3.1	6.1	1,793	184	1,396
2,000 CDD or More and Under 4,000 HDD .....	Q	Q	Q	Q	Q	Q	Q	Q
Type of Housing Unit	3.5	19.1	.57	2.4	7.1	2,092	215	1,506
Single-Family .....	2	9	.02	Q	Q	Q	Q	Q
Mobile Home .....	1.5	5.2	.15	.9	4.3	1,272	125	941
Heated Floorspace (square feet)								
Fewer than 1,000 .....	1.6	4.8	.13	.7	4.2	1,227	115	1,458
1,000 to 1,999 .....	2.5	12.4	.36	1.8	6.2	1,825	187	1,528
2,000 or More .....	1.1	8.0	.24	1.0	8.2	2,391	248	2,929
Ownership of Unit	3.6	19.6	.58	2.6	6.9	2,022	207	2,088
Owned .....	1.7	5.7	.16	.9	4.6	1,358	133	1,073
Rented .....								
Year of Construction								
1949 or Before .....	7	2.2	.05	.2	7.0	2,055	166	2,636
1950 to 1979 .....	3.0	13.1	.38	1.9	5.7	1,660	170	1,676
1980 or After <sup>3</sup> .....	1.5	10.0	.30	1.4	7.2	2,099	217	1,934
1990 Family Income								
Less than \$10,000 .....	.5	1.0	.02	Q	Q	Q	Q	Q
\$10,000 to \$19,999 .....	.9	2.7	.07	.5	4.6	1,347	127	1,262
\$20,000 to \$34,999 .....	1.0	3.8	.10	.6	4.3	1,247	116	1,424
\$35,000 or More .....	2.8	17.7	.54	2.3	7.4	2,157	225	2,110
Below Poverty Line								
100 Percent .....	.4	1.4	.04	Q	Q	Q	Q	Q
125 Percent .....	.7	1.9	.05	.2	5.1	1,501	148	1,636
Age of Householder								
Under 35 Years .....	1.8	8.1	.24	1.1	5.9	1,716	183	1,452
35 to 59 Years .....	2.0	11.9	.35	1.5	7.2	2,097	211	2,071
60 Years and Over .....	1.4	5.2	.15	.8	5.4	1,592	155	1,890

See footnotes at end of table.

WEST

**Table 98. Electricity Consumption and Expenditures for All Air Conditioning and Central Air Conditioning, West Region Households, 1990 (Continued)**

Characteristics	Electricity Used for All Air Conditioning				Electricity Used for Central Air Conditioning <sup>1</sup>							
	Households (million)	Total Consumption (trillion Btu)	Expenditures (billions of dollars)	Households (million)	Consumption		Expenditures (dollars)	Cooled Floor-space (square feet)	per Household		Annual Cooling Degree-Days	Electric Air-Conditioning Intensity
					(million Btu)	(kWh)			1990	30-Year Average <sup>2</sup>		
RSE Column Factors:	1.5	NF	NF	1.6	NF	NF	NF	0.7	0.8	0.8	NF	NF
<b>Household Size</b>												
1 Person .....	1.2	3.8	0.10	0.7	4.7	1,385	127	1,314	1,222	1,075	0.86	7.9
2 to 4 Persons .....	3.4	17.2	.51	2.3	6.5	1,896	195	1,919	1,489	1,226	.66	6.8
5 or More Persons .....	.6	4.2	.13	.5	7.9	2,319	245	2,144	1,743	1,342	.62	6.6
												RSE Row Factors

<sup>1</sup> An estimated 2.0 million households have a central air conditioner and one or more room air conditioners. These households are included only under central air conditioners and not included under room air conditioners.

<sup>2</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>3</sup> Does not include all new construction for 1990.

<sup>4</sup> If a household has both a central and room air conditioner then the usage and age of the equipment is presented only for the central unit.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**AIR-CONDITIONING CONSUMPTION/EXPENDITURES**

**Table 99. Electricity Consumption and Expenditures for Room Air Conditioning, per West Region Household, 1990**

Households (million)	Consumption (kWh)	Expenditures (dollars)	Annual Cooling Degree-Days		Electric Air-Conditioning Intensity		RSE Row Factors		
			Cooled Floorspace (square feet)	1990 30-Year Average <sup>1</sup>	Consumption (kWh/CDD*1000 square feet)	Expenditures (cents/CDD*1000 square feet)			
Total Region .....	2.4	644	50	662	1,251	1,065	0.78	6.0	11.1
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	.7	3.0	868	47	908	806	1.19	6.4	20.7
Over 5,500 HDD .....	1.5	1.7	508	48	565	1,284	.70	6.7	13.4
Under 5,500 CDD or More and 2,000 CDD or More and Under 4,000 HDD .....	.1	3.4	988	84	359	3,601	.76	6.5	21.5
<b>Type of Housing Unit</b>									
Single-Family .....	1.5	2.2	642	46	747	1,252	1,036	.69	4.9
Mobile Home .....	.2	2.7	800	50	679	1,279	1,052	.92	5.7
Multifamily (2 or more units) .....	.7	2.1	605	56	487	1,241	1,128	1.00	9.3
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	1.1	2.1	613	52	468	1,426	1,241	.92	7.9
1,000 to 1,999 .....	1.0	2.2	638	45	777	1,101	912	.75	5.3
2,000 or More .....	.3	2.7	795	54	1,029	1,089	916	.71	4.9
<b>Ownership of Unit</b>									
Owned .....	1.5	2.3	674	48	777	1,201	987	.72	5.1
Rented .....	.9	2.0	599	53	482	1,329	1,189	.93	8.3
<b>Year of Construction</b>									
1949 or Before .....	.7	1.8	533	36	907	1,057	857	.56	3.7
1950 to 1979 .....	1.5	2.4	712	57	554	1,339	1,152	.96	7.7
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	1,250	1,116	.66	5.5
<b>1990 Family Income</b>									
Less than \$10,000 .....	.5	1.8	540	41	525	1,251	1,093	.82	6.3
\$10,000 to \$19,999 .....	.5	1.8	537	42	643	1,137	930	.73	5.7
\$20,000 to \$34,999 .....	.7	2.6	758	54	721	1,366	1,192	.77	5.5
\$35,000 or More .....	.7	2.3	673	56	703	1,218	1,018	.79	6.5
<b>Below Poverty Line</b>									
100 Percent .....	.3	2.3	680	53	373	1,418	1,241	1.28	10.1
125 Percent .....	.5	1.9	546	42	487	1,234	1,081	.91	7.0
<b>Age of Householder</b>									
Under 35 Years .....	.9	2.4	694	58	459	1,415	1,248	1.07	8.9
35 to 59 Years .....	.8	2.6	755	54	771	1,253	1,045	.78	5.6
60 Years and Over .....	.6	1.5	433	32	804	1,020	836	.53	3.9
<b>Household Size</b>									
1 Person .....	.6	1.2	359	28	570	1,254	1,085	.50	4.0
2 to 4 Persons .....	1.5	2.4	716	55	710	1,213	1,030	.83	6.4
5 or More Persons .....	.3	3.2	936	72	619	1,453	1,253	1.04	8.0
<b>Cooling Degrees-Days (CDD)<sup>1990</sup></b>									
2,000 or More .....	.2	2.7	782	69	445	3,059	2,802	.57	5.0
1,000 to 1,999 .....	1.1	2.5	719	62	596	1,564	1,322	.77	6.6
500 to 999 .....	.8	1.9	570	38	722	773	648	1.02	15.0
Fewer than 500 .....	Q	1.7	512	27	845	414	298	1.46	13.6
									Q 26.5

See footnotes at end of table.

**WEST**

**Table 99. Electricity Consumption and Expenditures for Room Air Conditioning, per West Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days		Electric Air- Conditioning Intensity		RSE Row Factors	
		(million Btu)	(kWh)			1990	30-Year Average <sup>1</sup>	Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)		
	1.6	NF	NF	NF	0.8	0.7	0.8	NF	NF		
<b>West Region</b>											
<b>Average Humidity for June, July and August 1990 (percent)</b>											
Less than 65 .....	1.1	2.7	805	49	802	1,213	1,021	0.83	5.1	13.2	
65 to Less than 70 .....	.5	2.3	685	67	565	1,198	1,113	1.01	9.9	22.5	
70 or Higher .....	.8	1.4	416	41	536	1,330	1,095	.58	5.7	18.2	
<b>Average Electricity Expenditures (cents per kWh)</b>											
Less than 6 .....	Q	2.7	797	31	961	715	495	1.16	4.5	31.0	
6 to Less than 9 .....	.7	2.3	675	52	661	1,332	1,177	.77	5.9	17.2	
9 or More .....	1.2	1.9	561	57	532	1,439	1,250	.73	7.4	11.5	
<b>Number of Rooms Usually Air Conditioned</b>											
1 Room .....	.7	1.9	561	53	251	1,531	1,354	1.46	13.7	19.3	
2 Rooms .....	.7	1.6	473	38	548	1,321	1,116	.65	5.2	11.4	
3 or More .....	.9	2.9	851	57	1,079	973	797	.81	5.4	12.9	
<b>Frequency of Use of Air Conditioning</b>											
Only a Few Times .....	1.4	1.0	305	25	613	1,241	1,048	.40	3.3	8.1	
Quite a Bit .....	.5	3.2	928	74	725	1,357	1,157	.94	7.5	13.5	
All Summer .....	.4	5.2	1,522	107	797	1,133	985	1.68	11.8	14.9	
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF	
<b>Age of Air Conditioning Equipment</b>											
Less than 5 Years .....	.4	2.2	648	51	722	1,332	1,100	.67	5.3	19.1	
5 to 9 Years .....	.6	2.2	634	47	552	1,175	984	.98	7.2	17.0	
10 or More Years .....	.9	2.2	647	45	797	1,175	985	.69	4.8	15.1	
Don't Know .....	.4	2.2	652	63	483	1,443	1,325	.94	9.0	21.1	
<b>Size of Most-Used Room Air Conditioner</b>											
Small .....	.7	2.5	742	61	469	1,565	1,364	1.01	8.3	15.8	
Medium .....	1.2	1.9	556	41	664	1,117	951	.75	5.5	14.7	
Large .....	.3	2.8	823	59	1,083	1,102	864	.69	4.9	13.3	
Don't Know .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF	
<b>Number of Room Air Conditioners</b>											
1 .....	2.0	2.1	604	47	609	1,281	1,094	.77	6.0	11.3	
2 .....	.3	3.2	930	66	902	1,034	875	1.00	7.1	22.7	
3 or More .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF	

See footnotes at end of table.

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

WEST

**Table 99. Electricity Consumption and Expenditures for Room Air Conditioning, per West Region Household, 1990 (Continued)**

Households (million) Characteristics	Consumption		Cooled Floorspace (square feet)	Annual Cooling Degree-Days 1990	Electric Air- Conditioning Intensity		RSE Row Factors
	Households (million Btu)	(kWh)			Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)	
RSE Column Factors:	1.6	NF	NF	0.8	0.7	0.8	NF
<b>Mountain Division</b>	0.6	3.3	954	66	782	1,453	0.84
<b>Climate Zone<sup>1</sup></b>							
Under 2,000 CDD and Over 5,500 HDD	.5	3.1	899	59	851	936	1.13
Under 5,500 HDD	Q	Q	Q	Q	Q	Q	Q
2,000 CDD or More and Under 4,000 HDD	.1	3.4	988	84	359	3,601	.76
Under 4,000 HDD	Q	Q	Q	Q	Q	Q	Q
<b>Type of Housing Unit</b>							
Single Family	.5	3.5	1,036	71	841	1,587	1.371
Mobile Home	2.9	846	55	807	Q	Q	Q
Multifamily (2 or more units)	Q	Q	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>							
Fewer than 1,000	2	2.9	860	66	471	1,601	1,398
1,000 to 1,999	3	3.1	920	61	854	1,368	.79
2,000 or More	1	4.1	1,207	Q	1,178	1,384	1,169
2,000 or More (units)	Q	Q	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>							
Owned	.5	3.5	1,019	69	863	1,588	1,361
Rented	2.4	706	53	472	938	836	1.59
<b>Year of Construction</b>							
1949 or Before	1	3.0	891	57	807	Q	.88
1950 to 1979	4	3.4	986	69	675	1,623	1,408
1980 or After <sup>2</sup>	Q	Q	Q	Q	Q	Q	Q
<b>1990 Family Income</b>							
Less than \$10,000	Q	Q	Q	Q	Q	Q	Q
\$10,000 to \$19,999	1	3.5	1,024	75	714	1,159	976
\$20,000 to \$34,999	2	2.4	713	45	817	1,557	1,350
\$35,000 or More	2	4.4	1,290	89	906	1,491	1,279
<b>Below Poverty Line</b>							
100 Percent	Q	Q	Q	Q	Q	Q	Q
125 Percent	1	2.9	836	57	491	1,271	1,088
<b>Age of Householder</b>							
Under 35 Years	2	2.7	779	61	430	1,399	1,283
35 to 59 Years	3	3.8	1,119	72	950	1,512	1,294
60 Years and Over	Q	Q	Q	Q	Q	Q	Q
<b>Household Size</b>							
1 Person	2	1.9	563	47	449	1,843	1,645
2 to 4 Persons	3	3.7	1,091	71	937	1,263	1,074
5 or More Persons	Q	4.1	1,200	81	889	1,351	1,112

See footnotes at end of table.

## AIR-CONDITIONING CONSUMPTION/EXPENDITURES

Table 99. Electricity Consumption and Expenditures for Room Air Conditioning, per West Region Household, 1990 (Continued)

Characteristics	Consumption		Expenditures (dollars)	Cooled Floorspace (square feet)	Annual Cooling Degree-Days	30-Year Average <sup>1</sup>	Electric Air- Conditioning Intensity	Consumption (kWh/ CDD*1000 square feet)	Expenditures (cents/ CDD*1000 square feet)	RSE Row Factor <sup>3</sup>
	House holds (mil- lion)	Blu) (kWh)								
Pacific Division .....	1.7	1.8	531	44	618	1,177	997	0.73	6.0	15.2 <sup>2</sup>
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	Q	1.5	Q	489	Q	47	Q	554	1,279	1,100
Under 5,500 HDD .....	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
2,000 CDD or More and										
Under 4,000 HDD .....	Q	1.0	1.6	459	35	703	1,097	881	60	4.5
Mobile Home .....	Q	.7	2.1	606	Q	58	Q	500	1,302	1,179
Multifamily (2 or more units) .....	Q	.7	2.1	606	Q	58	Q	500	1,302	1,179
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	Q	.9	1.9	551	49	467	1,382	1,201	85	7.6
1,000 to 1,999 .....	Q	.7	1.8	523	39	746	992	804	.71	5.2
2,000 or More .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>										
Owned .....	1.0	1.7	490	36	731	995	787	.67	4.9	14.5
Rented .....	.8	2.0	581	53	483	1,394	1,247	.86	7.9	19.5
<b>Year of Construction</b>										
1949 or Before .....	.5	1.1	2.1	601	52	Q	Q	Q	Q	Q
1950 to 1979 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1980 or After <sup>2</sup> .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>1990 Family Income</b>										
Less than \$10,000 .....	.4	1.6	469	36	519	1,174	1,025	.77	6.0	27.9
\$10,000 to \$19,999 .....	.4	1.2	345	29	615	1,128	912	.50	4.2	14.5
\$20,000 to \$34,999 .....	.5	2.7	781	58	671	1,269	1,111	.92	6.9	26.7
\$35,000 or More .....	.6	1.7	484	46	641	1,134	938	.67	6.3	19.6
<b>Below Poverty Line</b>										
100 Percent .....	.3	2.0	580	49	322	1,431	1,255	1.26	10.5	26.8
125 Percent .....	.4	1.6	471	38	486	1,225	1,079	.79	6.4	24.4
<b>Age of Householder</b>										
Under 35 Years .....	.7	2.3	671	57	467	1,419	1,252	1.01	8.6	23.5
35 to 59 Years .....	.5	1.7	510	42	650	1,079	877	.73	6.0	17.1
60 Years and Over .....	.5	1.2	366	28	789	947	769	.49	3.7	9.8
<b>Household Size</b>										
1 Person .....	.5	.9	272	20	621	1,004	819	.44	3.3	12.8
2 to 4 Persons .....	1.1	2.1	609	50	645	1,199	1,018	.79	6.5	17.3
5 or More Persons .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF

<sup>1</sup> The 30-year average and climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1980.

NC = No cases in sample.

O = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • This table reflects only those households that used their air conditioning equipment. See Appendix B, "Quality of the Data," in *Household Energy Consumption and Expenditures 1990* for a discussion of households that had air-conditioning equipment but did not use it. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WATER-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 100. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in West Region Households, 1990**

Household Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		Households (million)	Total Consumed		Natural Gas (billion cubic feet)		
	(trillion Btu)	(billion kWh)		Total Expenditures (billion dollars)	(trillion Btu)			
RSE Column Factors:	1.2	NF	NF	NF	0.7	NF	NF	
<b>Total Region</b>	5.8	59.9	17.6	1.09	13.1	285.7	277	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	2.1	26.6	7.8	.39	2.5	70.3	.68	
Over 5,500 HDD	2.9	26.9	7.9	.52	9.4	190.4	184	
Under 5,500 HDD								
2,000 CDD or More and Under 4,000 HDD								
Under 4,000 HDD	.9	6.5	1.9	.19	1.3	25.1	24	
Type of Housing Unit								
Single Family	3.9	44.0	12.9	.79	8.6	194.4	188	
Mobile Home	.4	3.7	1.1	.06	.7	13.9	13	
Multifamily (2 or more units)	1.5	12.3	3.6	.24	3.9	77.4	75	
Heated Floorspace (square feet)								
Fewer than 1,000	2.5	21.1	6.2	.42	5.1	99.3	96	
1,000 to 1,999	2.6	29.7	8.7	.53	5.9	132.2	128	
2,000 or More	.7	9.1	2.7	.15	2.1	54.2	52	
Ownership of Unit								
Owned	3.2	34.5	10.1	.61	7.8	166.7	161	
Rented	2.6	25.4	7.4	.48	5.3	119.0	115	
Year of Construction								
1949 or Before	1.3	13.8	4.0	.23	3.2	69.2	67	
1950 to 1979	3.2	32.0	9.4	.56	7.4	157.6	153	
1980 or After	1.3	14.1	4.1	.29	2.5	58.9	57	
1990 Family Income								
Less than \$10,000	1.1	9.2	2.7	.16	1.6	28.5	28	
\$10,000 to \$19,999	1.4	13.1	3.8	.24	2.7	55.8	54	
\$20,000 to \$34,999	1.6	17.3	5.1	.30	3.3	72.4	70	
\$35,000 or More	1.7	20.4	6.0	.39	5.5	128.9	125	
Below Poverty Line								
100 Percent	1.1	11.5	3.4	.21	1.5	33.4	32	
125 Percent	1.4	14.5	4.2	.26	2.1	48.6	47	
Age of Householder								
Under 35 Years	1.6	17.1	5.0	.33	4.6	106.6	103	
35 to 59 Years	2.5	30.4	8.9	.54	5.5	131.9	128	
60 Years and Over	1.7	12.4	3.6	.22	3.0	47.2	46	
Household Size								
1 Person	1.6	10.2	3.0	.18	3.1	41.1	40	
2 to 4 Persons	3.4	37.8	11.1	.68	8.2	190.3	185	
5 or More Persons	.8	11.9	3.5	.23	1.8	54.3	52	

See footnotes at end of table.

**Table 100. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in West Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			RSE Row Factors	
	Total Consumed		Households (million)	Total Consumed		(trillion cubic feet)		
	(tril. Btu)	(billion kWh)		(billion dollars)	(tril. Btu)			
RSE Column Factors:	1.2	NF	NF	NF	NF	NF		
<b>Mountain Division</b>	1.3	13.7	4.0	0.28	3.5	85.6	83	
<b>Climate Zone<sup>1</sup></b>							0.42	
Under 2,000 CDD and Over 5,500 HDD	.6	Q	Q	.14	2.2	60.8	59	
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	.6	5.1	1.5	.13	.8	14.2	14	
<b>Type of Housing Unit</b>								
Single-Family	.9	10.1	3.0	.20	2.6	65.2	63	
Mobile Home	.1	1.3	.4	.02	.3	7.3	7	
Multifamily (2 or more units)	Q	Q	Q	Q	.6	13.2	13	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	Q	3.2	.9	Q	1.3	27.5	27	
1,000 to 1,999	.7	7.6	2.2	.15	1.6	38.4	.19	
2,000 or More	.2	2.9	.8	.05	.7	19.8	19	
<b>Ownership of Unit</b>								
Owned	.8	9.5	2.8	.18	2.4	60.2	58	
Rented	.5	4.1	1.2	.09	1.0	25.4	25	
<b>Year of Construction</b>								
1949 or Before	.2	2.5	.7	.04	.9	24.2	24	
1950 to 1979	.6	5.9	1.7	.11	2.0	46.4	45	
1980 or After <sup>2</sup>	.5	5.3	1.5	.12	.6	15.0	14	
<b>1990 Family Income</b>								
Less than \$10,000	.3	1.9	.6	.04	.6	11.4	11	
\$10,000 to \$19,999	.3	2.5	.7	.05	.8	17.1	16	
\$20,000 to \$34,999	.3	Q	Q	.05	1.0	28.1	27	
\$35,000 or More	.5	6.2	1.8	.13	1.1	29.1	28	
<b>Below Poverty Line</b>								
100 Percent	.3	2.6	.8	.06	.4	10.1	10	
125 Percent	.4	3.3	1.0	.07	.6	16.6	16	
<b>Age of Householder</b>								
Under 35 Years	.4	4.8	1.4	.10	1.1	29.1	28	
35 to 59 Years	.6	7.3	2.1	.14	1.5	39.2	.19	
60 Years and Over	2	1.6	.5	Q	.9	17.3	17	
<b>Household Size</b>								
1 Person	.2	1.3	.4	Q	.9	13.5	13	
2 to 4 Persons	.9	10.0	2.9	.20	2.0	54.7	53	
5 or More Persons	.2	2.4	.7	.05	.5	17.4	17	

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

**Table 100. Total Electricity and Natural Gas Consumption and Expenditures for Water Heating in West Region Households, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factors	
	Households (million)	Total Consumed		Total Expenditures (billion dollars)	Households (million)	Total Consumed		Total Expenditures (billion dollars)		
		(trill- lion Btu)	(billion kWh)			(trill- lion Btu)	(billion cubic feet)			
RSE Column Factors:	1.2	NF	NF	NF	0.7	NF	NF	NF		
Pacific Division .....	4.5	46.2	13.6	0.82	9.6	200.1	194	1.11	6.8	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	1.4	18.3	5.4	.25	.3	9.4	9	.04	36.4	
Under 5,500 HDD .....	2.8	26.5	7.8	.51	8.9	179.7	174	1.01	12.2	
2,000 CDD or More and										
Under 4,000 HDD .....	.3	1.4	.4	.06	Q	Q	Q	Q	34.4	
<b>Type of Housing Unit</b>										
Single-Family .....	3.0	33.8	9.9	.59	6.0	129.2	125	.71	9.7	
Mobile Home .....	Q	Q	Q	Q	.3	6.6	6	.04	39.9	
Multifamily (2 or more units) ..	1.2	10.0	2.9	.19	3.3	64.2	62	.36	24.0	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	2.1	17.9	5.3	.34	3.8	71.9	70	.40	13.0	
1,000 to 1,999 .....	1.9	22.1	6.5	.38	4.3	93.9	91	.51	11.9	
2,000 or More .....	.5	Q	Q	.09	1.5	34.4	33	.20	26.3	
<b>Ownership of Unit</b>										
Owned .....	2.4	25.0	7.3	.43	5.4	106.5	103	.59	9.7	
Rented .....	2.1	21.3	6.2	.39	4.2	93.5	91	.52	13.1	
<b>Year of Construction</b>										
1949 or Before .....	1.1	11.3	3.3	.19	2.3	44.9	44	.25	14.3	
1950 to 1979 .....	2.6	26.1	7.7	.45	5.4	111.2	108	.62	10.1	
1980 or After <sup>2</sup> .....	.8	8.8	2.6	.17	1.9	43.9	43	.24	23.5	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.8	7.2	2.1	.12	1.0	17.2	17	.10	16.4	
\$10,000 to \$19,999 .....	1.2	10.6	3.1	.18	2.0	38.8	38	.21	14.4	
\$20,000 to \$34,999 .....	1.3	14.2	4.2	.25	2.3	44.3	43	.25	15.7	
\$35,000 or More .....	1.2	14.2	4.2	.27	4.4	99.9	97	.55	11.1	
<b>Below Poverty Line</b>										
100 Percent .....	.8	8.9	2.6	.15	1.1	23.3	23	.13	13.4	
125 Percent .....	1.1	11.2	3.3	.19	1.5	32.0	31	.18	11.4	
<b>Age of Householder</b>										
Under 35 Years .....	1.1	12.2	3.6	.23	3.6	77.5	75	.43	16.3	
35 to 59 Years .....	1.9	23.2	6.8	.40	4.0	92.7	90	.52	9.7	
60 Years and Over .....	1.5	10.8	3.2	.19	2.1	29.9	29	.16	14.6	
<b>Household Size</b>										
1 Person .....	1.4	9.0	2.6	.15	2.2	27.6	27	.15	10.9	
2 to 4 Persons .....	2.5	27.8	8.1	.47	6.2	135.6	132	.74	6.9	
5 or More Persons .....	.6	9.5	2.8	.19	1.3	36.9	36	.21	15.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

**Table 101. Total LPG Consumption and Expenditures for Water Heating  
in West Region Households, 1990**

Characteristics	Households (million)	Total Consumed		Total Expenditures (billion dollars)	RSE Row Factors
		(trillion Btu)	(billion gallons)		
	1.0	NF	NF	NF	
<b>West Region</b>					
<b>Total Region</b>	0.5	7.7	0.08	0.10	27.6
Mountain Division	Q	Q	Q	Q	NF
Pacific Division	.4	4.9	.05	.07	27.9
<b>Climate Zone<sup>1</sup></b>					
Under 2,000 CDD and					
Over 5,500 HDD	Q	Q	Q	Q	NF
Under 5,500 HDD	.3	2.9	.03	.03	29.1
2,000 CDD or More and					
Under 4,000 HDD	.1	1.7	.02	.03	35.2
<b>Type of Housing Unit</b>					
Single-Family	.3	5.5	.06	.07	31.0
Mobile Home	Q	Q	Q	Q	NF
Multifamily (2 or more units)	Q	Q	Q	Q	NF
<b>Heated Floorspace (square feet)</b>					
Fewer than 1,000	.3	4.1	.04	.06	30.0
1,000 to 1,999	Q	Q	Q	Q	NF
2,000 or More	Q	Q	Q	Q	NF
<b>Ownership of Unit</b>					
Owned	.3	5.3	.06	.06	37.6
Rented	.2	2.4	.03	.03	32.0
<b>Year of Construction</b>					
1949 or Before	Q	Q	Q	Q	NF
1950 to 1979	.3	3.7	.04	.05	35.1
1980 or After <sup>2</sup>	.2	3.1	.03	.04	47.0
<b>1990 Family Income</b>					
Less than \$10,000	Q	Q	Q	Q	NF
\$10,000 to \$19,999	Q	Q	Q	Q	NF
\$20,000 to \$34,999	.2	2.9	.03	.04	39.7
\$35,000 or More	Q	Q	Q	Q	NF
<b>Below Poverty Line</b>					
100 Percent	Q	Q	Q	Q	NF
125 Percent	.2	2.8	.03	.03	43.4
<b>Age of Householder</b>					
Under 35 Years	.1	Q	Q	.03	45.5
35 to 59 Years	.2	2.8	.03	.04	35.9
60 Years and Over	.2	2.6	.03	.03	39.1
<b>Household Size</b>					
1 Person	Q	Q	Q	Q	NF
2 to 4 Persons	.3	4.6	.05	.06	35.7
5 or More Persons	Q	Q	Q	Q	NF

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.<sup>2</sup> Does not include all new construction for 1990.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the Mountain and Pacific Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WATER-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 102. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per West Region Household, 1990**

Characteristics	Households (million)	Electricity				Natural Gas				RSE Row Factors
		Consumption (million Btu)	Expenditures (kWh)	Electricity Water-Heating Intensity (kWh per household member)	Households (million)	Consumption (million Btu)	Expenditures (1000 cubic feet)	Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		
RSE Column Factors:	2.3	NF	NF	NF	NF	1.3	NF	NF	NF	
<b>West Region</b>										
<b>Total Region</b>	5.6	10.6	3,100	191	1,199	12.9	21.9	21.3	117	7.8
<b>Climate Zone<sup>1</sup></b>										3.8
Under 2,000 CDD and Over 5,500 HDD	2.1	12.8	3,749	188	1,350	2.5	28.2	27.4	118	10.5
Over 5,500 HDD	2.7	9.8	2,867	186	1,278	9.2	20.4	19.8	115	7.2
Under 5,500 HDD	2.000 CDD or More and Under 4,000 HDD	.8	7.6	2,234	217	694	1.2	20.6	20.0	133
<b>Type of Housing Unit</b>										6.7
Single-Family	3.7	11.6	3,413	207	1,194	8.4	22.9	22.2	122	7.5
Mobile Home	.4	10.4	3,036	169	1,129	.7	20.4	19.8	103	9.0
Multifamily (2 or more units)	1.5	8.0	2,351	159	1,240	3.8	20.1	19.5	109	8.5
<b>Heated Floorspace (square feet)</b>										9.6
Fewer than 1,000	2.4	8.6	2,506	167	1,134	5.0	19.7	19.1	107	7.9
1,000 to 1,999	2.5	11.7	3,433	208	1,225	5.8	22.5	21.8	120	7.5
2,000 or More	.6	13.9	4,063	219	1,281	2.1	25.8	24.9	135	8.3
<b>Ownership of Unit</b>										7.8
Owned	3.0	11.2	3,271	195	1,190	7.7	21.5	20.8	113	7.7
Rented	2.6	9.9	2,898	187	1,211	5.2	22.6	21.9	122	7.9
<b>Year of Construction</b>										4.6
1949 or Before	1.3	10.6	3,121	179	1,215	3.2	21.4	20.8	111	8.1
1950 to 1979	3.0	10.4	3,047	182	1,225	7.2	21.6	20.9	117	7.9
1980 or After <sup>2</sup>	1.3	10.9	3,207	226	1,129	2.5	23.6	22.8	126	7.3
<b>1990 Family Income</b>										6.2
Less than \$10,000	1.1	8.4	2,470	145	1,139	1.6	18.1	17.5	97	7.7
\$10,000 to \$19,999	1.4	9.3	2,722	170	1,170	2.7	20.5	19.9	111	7.2
\$20,000 to \$34,999	1.6	11.1	3,250	193	1,161	3.2	22.2	21.5	115	7.9
\$35,000 or More	1.6	12.7	3,729	241	1,287	5.4	23.6	22.9	127	8.0
<b>Below Poverty Line</b>										5.6
100 Percent	1.1	10.7	3,134	191	1,024	1.5	22.6	22.0	125	6.0
125 Percent	1.4	10.3	3,006	184	1,050	2.1	22.6	21.9	125	6.3
<b>Age of Householder</b>										7.7
Under 35 Years	1.6	10.7	3,147	206	1,019	4.6	23.0	22.3	123	7.1
35 to 59 Years	2.3	12.8	3,754	225	1,315	5.3	24.4	23.7	131	8.3
60 Years and Over	1.7	7.3	2,150	131	1,287	3.0	15.8	15.3	83	8.4
<b>Household Size</b>										6.2
1 Person	1.6	6.4	1,867	115	1,867	3.1	13.2	12.8	69	12.8
2 to 4 Persons	3.2	11.5	3,366	204	1,281	8.1	23.4	22.7	124	8.3
5 or More Persons	.7	15.7	4,595	302	1,792	1.8	30.5	29.4	169	5.1

See footnotes at end of table.

**Table 102. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per West Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Column Factors:	
	Households (million)	Consumption		Electricity Water-Heating Intensity (kWh per household member)	Consumption		(1000 cubic feet)	Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		
		(mill. Btu)	(kWh)		Households (million)	(mill. Btu)				
Average Electricity Expenditures (cents per kWh)										
Less than 6 .....	2.9	12.0	3,522	161	1,448	--	--	--	4.1	
6 to Less than 9 .....	1.5	11.0	3,210	235	1,093	--	--	--	10.6	
9 or More .....	1.2	6.7	1,950	210	774	--	--	--	12.0	
Average Natural Gas Expenditures (dollars per 1000 cft)										
Less than 4.50 .....	--	--	--	--	--	2.2	25.4	25.1	11.6	
4.50 to Less than 6 .....	--	--	--	--	--	7.0	20.3	19.6	7.1	
6 or More .....	--	--	--	--	--	3.8	23.0	22.2	7.4	
Water Heater Used										
For One Housing Unit .....	5.3	10.8	3,159	192	1,202	10.8	22.3	21.6	118	
For Two or More Units .....	.3	7.3	2,137	174	1,133	2.1	20.3	19.7	110	
Age of Water Heater										
Less than 5 Years .....	1.2	10.7	3,146	200	1,087	3.5	23.3	22.6	126	
5 to 9 Years .....	1.4	10.2	2,995	196	1,169	3.3	22.0	21.2	114	
10 to 19 Years .....	1.3	11.1	3,266	180	1,286	2.2	22.1	21.4	116	
20 Years or More .....	.3	8.2	2,414	122	1,397	.5	18.5	18.1	98	
Don't Know .....	1.0	12.0	3,525	218	1,257	1.2	22.0	21.4	122	
Size of Water Heater										
30 gallons or less .....	.7	6.6	1,946	129	898	1.9	18.3	17.7	98	
31 to 49 gallons .....	1.9	10.4	3,055	193	1,247	6.3	23.0	22.3	120	
50 gallons or more .....	2.2	12.6	3,686	213	1,278	2.1	24.1	23.3	133	
Don't Know .....	.4	10.0	2,936	188	1,020	.5	20.4	19.8	112	
Location of Water Heater										
Heated Area .....	2.7	11.3	3,323	184	1,319	5.0	23.2	22.6	118	
Unheated Area .....	2.4	10.1	2,971	202	1,090	5.7	21.3	20.6	118	
Clothes Washer Present In Household										
Yes .....	4.0	11.5	3,378	204	1,202	9.4	22.6	21.9	120	
No .....	1.6	8.2	2,404	158	1,188	3.5	20.2	19.6	110	
Dishwasher Present In Household										
Yes .....	3.0	10.9	3,202	199	1,301	6.7	22.6	21.9	7.9	
No .....	2.6	10.2	2,985	182	1,095	6.2	21.2	20.6	114	
Children Present in Household										
No .....	3.5	8.3	2,437	150	1,514	7.6	18.3	17.7	94	
Yes .....	2.1	14.2	4,173	259	1,002	5.3	27.2	26.3	149	
(more than one may apply)										
Under 13 Years .....	1.5	12.7	3,732	240	846	4.5	27.4	26.5	149	
13 to 18 Years .....	1.0	17.4	5,095	305	1,168	1.8	29.4	28.4	170	

WEST

See footnotes at end of table.

## WATER-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 102. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per West Region Household, 1990 (Continued)**

Characteristics	Electricity						Natural Gas					
	Consumption		Electricity Water-Heating Intensity (kWh per household member)		Households (million)	(mill. Btu)	Consumption		Natural Gas Water-Heating Intensity (1000 cubic feet per household member)		RSE Row Factors	
	Households (million)	(mill. Btu)	Expenditures (dollars)	(kWh)			(mill. Btu)	(1000 cubic feet)	Expenditures (dollars)	(1000 cubic feet)		
RSE Column Factors:	2.3	NF	NF	NF	1.3	NF	NF	NF	NF	NF	NF	
<b>Mountain Division</b>	1.3	10.7	3,150	217	1,086	3.4	26.0	24.2	121	9.0	7.7	
<b>Climate Zone<sup>1</sup></b>												
Under 2,000 CDD and Over 5,500 HDD	6	13.0	3,815	220	1,322	2.2	27.9	27.1	117	10.2	9.7	
Over 5,500 HDD	Q	Q	Q	Q	Q	.5	22.4	21.2	127	7.4	14.5	
Under 5,500 HDD	6	8.4	2,453	213	860	.8	18.2	17.7	130	6.5	7.0	
2,000 CDD or More and Under 4,000 HDD	6	11.9	3,487	232	1,127	2.5	25.9	25.1	128	8.7	7.6	
<b>Type of Housing Unit</b>												
Single-Family	8	11.0	3,220	194	937	.3	21.5	20.7	103	8.4	15.9	
Mobile Home	1	2,177	183	Q	Q	.6	23.0	22.2	104	11.5	20.4	
Multifamily (2 or more units)	Q	7.4										
<b>Heated Floorspace (square feet)</b>												
Fewer than 1,000	Q	8.1	2,373	186	982	1.3	21.9	21.2	109	9.2	11.4	
1,000 to 1,999	7	11.0	3,228	216	1,125	1.5	24.8	24.0	125	8.3	9.2	
2,000 or More	2	15.3	4,484	284	1,107	.6	31.7	30.7	138	10.4	10.5	
<b>Ownership of Unit</b>												
Owned	8	11.9	3,477	226	1,098	2.4	25.1	24.3	122	9.0	8.1	
Rented	5	8.8	2,588	202	1,055	1.0	24.6	23.9	120	8.9	13.6	
<b>Year of Construction</b>												
1949 or Before	2	10.7	3,147	186	1,197	.9	27.0	26.4	120	9.7	13.9	
1950 to 1979	.5	10.8	3,160	205	1,102	1.9	24.0	23.2	120	8.9	8.7	
1980 or After <sup>2</sup>	5	10.7	3,140	245	1,023	.6	25.1	24.0	128	8.1	11.8	
<b>1990 Family Income</b>												
Less than \$10,000	3	7.3	2,141	156	1,086	.6	20.5	19.8	104	8.5	18.0	
\$10,000 to \$19,999	3	9.6	2,814	212	950	.8	22.7	21.9	117	8.1	11.2	
\$20,000 to \$34,999	3	11.6	3,409	202	1,145	1.0	27.2	26.4	124	10.2	13.3	
\$35,000 or More	5	12.8	3,738	261	1,119	1.1	26.8	25.9	131	8.7	7.9	
<b>Below Poverty Line</b>												
100 Percent	3	9.4	2,748	197	956	4	27.0	26.2	133	7.2	17.2	
125 Percent	4	9.2	2,695	188	910	.6	26.1	25.2	133	7.4	14.9	
<b>Age of Householder</b>												
Under 35 Years	4	10.9	3,203	231	926	1.1	27.5	26.4	133	7.9	8.8	
35 to 59 Years	6	12.2	3,561	234	1,214	1.5	26.8	26.1	130	9.6	9.8	
60 Years and Over	2	6.8	1,990	146	1,127	.9	19.1	18.5	93	9.8	13.8	
<b>Household Size</b>												
1 Person	2	5.7	1,676	132	1,676	.9	14.7	14.4	70	14.4	11.1	
2 to 4 Persons	.9	11.2	3,297	227	1,161	2.0	27.4	26.6	132	9.8	7.1	
5 or More Persons	2	14.8	4,339	278	1,745	.5	34.1	32.5	169	5.7	10.0	

See footnotes at end of table.

**Table 102. Electricity and Natural Gas Consumption and Expenditures for Main Water Heating, per West Region Household, 1990 (Continued)**

Characteristics	Electricity				Natural Gas				RSE Row Factor	
	Consumption		Households (million)	(mill. Btu)	Consumption		Households (million)	(mill. Btu)		
	(kWh)	Expenditures (dollars)			Water-Heating Intensity (kWh per household member)	(1000 cubic feet)				
RSE Column Factors:	2.3	NF	NF	NF	NF	1.3	NF	NF	NF	
Pacific Division .....	4.3	10.5	3,086	184	1,237	9.5	20.9	20.2	116	
Climate Zone <sup>1</sup>										
Under 2,000 CDD and Over 5,500 HDD .....	1.4	12.7	3,720	174	1,363	.3	30.3	29.9	124	
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD .....	2.7	9.8	2,863	185	1,290	8.8	20.3	19.7	114	
Under 4,000 HDD .....	.2	5.6	1,646	228	391	Q	24.5	23.8	138	
Type of Housing Unit										
Single-Family .....	2.9	11.6	3,391	199	1,216	5.9	21.6	21.0	119	
Mobile Home .....	Q	Q	Q	Q	Q	.3	19.4	18.8	104	
Multifamily (2 or more units) .....	1.2	8.2	2,385	153	1,309	3.2	19.6	19.0	110	
Heated Floorspace (square feet)										
Fewer than 1,000 .....	2.1	8.6	2,531	164	1,165	3.8	19.0	18.4	106	
1,000 to 1,999 .....	1.8	12.0	3,512	204	1,264	4.3	21.7	21.0	118	
2,000 or More .....	Q	13.3	3,980	192	1,383	1.5	23.3	22.5	134	
Ownership of Unit										
Owned .....	2.2	10.9	3,197	184	1,229	5.3	19.9	19.2	110	
Rented .....	2.1	10.1	2,967	183	1,247	4.2	22.1	21.4	123	
Year of Construction										
1949 or Before .....	1.0	10.6	3,115	178	1,219	2.3	19.2	18.6	107	
1950 to 1979 .....	2.5	10.3	3,022	177	1,257	5.3	20.8	20.1	116	
1980 or After <sup>2</sup> .....	.8	11.1	3,249	213	1,205	1.9	23.1	22.4	125	
1990 Family Income										
Less than \$10,000 .....	.8	8.8	2,575	141	1,155	1.0	16.8	16.3	94	
\$10,000 to \$19,999 .....	1.1	9.2	2,701	160	1,238	2.0	19.7	19.1	108	
\$20,000 to \$34,999 .....	1.3	11.0	3,218	191	1,164	2.2	19.9	19.2	111	
\$35,000 or More .....	1.1	12.7	3,726	232	1,380	4.3	22.9	22.2	126	
Below Poverty Line										
100 Percent .....	.8	11.2	3,271	189	1,047	1.1	21.1	20.5	122	
125 Percent .....	1.1	10.6	3,110	183	1,099	1.5	21.2	20.5	122	
Age of Householder										
Under 35 Years .....	1.1	10.7	3,125	196	1,060	3.6	21.7	21.0	120	
35 to 59 Years .....	1.7	13.0	3,820	222	1,351	3.9	23.5	22.8	131	
60 Years and Over .....	1.4	7.4	2,175	128	1,254	2.1	14.4	13.9	78	
Household Size										
1 Person .....	1.4	6.5	1,897	112	1,897	2.2	12.5	12.2	69	
2 to 4 Persons .....	2.4	11.6	3,391	195	1,330	6.1	22.1	21.4	121	
5 or More Persons .....	.6	15.9	4,667	309	805	1.3	29.1	28.1	168	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.  
Q = Data withheld either because the Relational Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

-- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, E, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

WEST

## WATER-HEATING CONSUMPTION/EXPENDITURES

## WATER-HEATING CONSUMPTION/EXPENDITURES

WEST

**Table 103. LPG Consumption and Expenditures for Main Water Heating,  
per West Region Household, 1990**

Characteristics	Households (million)	Consumption		LPG Water- Heating Intensity (gallons per household member)	RSE Row Factors
		(million Btu)	(gallons)		
<b>West Region</b>					
Total Region .....	0.5	14.9	163	189	68
Mountain Division .....		23.6	258	240	34.8
Pacific Division .....	.4	12.4	135	174	19.2
<b>Climate Zone<sup>1</sup></b>					
Under 2,000 CDD and					
Over 5,500 HDD .....	Q	23.4	256	252	47.1
Under 5,500 HDD .....	.3	11.4	125	130	26.5
2,000 CDD or More and					
Under 4,000 HDD .....	.1	13.0	142	239	53
18.7					
<b>Type of Housing Unit</b>					
Single-Family .....	.3	16.5	180	217	66
Mobile Home .....	Q	Q	Q	Q	Q
Multifamily (2 or more units) .....	Q	Q	Q	Q	Q
<b>Heated Floorspace (square feet)</b>					
Fewer than 1,000 .....	.3	12.4	136	175	57
1,000 to 1,999 .....	Q	Q	Q	Q	Q
2,000 or More .....	Q	Q	Q	Q	Q
<b>Ownership of Unit</b>					
Owned .....	.3	17.4	190	209	73
Rented .....	.2	11.4	125	161	59
<b>Year of Construction</b>					
1949 or Before .....	Q	Q	Q	Q	Q
1950 to 1979 .....	.3	13.4	147	178	69
1980 or After <sup>2</sup> .....	.2	16.8	184	194	Q
21.7					
<b>1990 Family Income</b>					
Less than \$10,000 .....	Q	Q	Q	Q	Q
\$10,000 to \$19,999 .....	Q	Q	Q	Q	Q
\$20,000 to \$34,999 .....	.2	19.4	212	272	65
\$35,000 or More .....	Q	Q	Q	Q	Q
36.3					
<b>Below Poverty Line</b>					
100 Percent .....	Q	Q	Q	Q	Q
125 Percent .....	.2	12.0	132	137	64
15.5					
<b>Age of Householder</b>					
Under 35 Years .....	.1	17.1	188	212	64
35 to 59 Years .....	.2	13.6	149	190	55
60 Years and Over .....	.2	14.8	162	170	96
30.1					
<b>Household Size</b>					
1 Person .....	Q	8.9	97	104	97
2 to 4 Persons .....	.3	17.8	195	216	68
5 or More Persons .....	Q	Q	Q	Q	Q
20.2					
<b>Average LPG Expenditures (dollars per gallon)</b>					
Less than .75 .....	NC	NC	NC	NC	NC
75 to Less than 1.00 .....	.1	19.6	214	190	86
1.00 or More .....	.4	13.2	145	189	61
34.6					
19.6					

See footnotes at end of table.

**Table 103. LPG Consumption and Expenditures for Main Water Heating, per West Region Household, 1990 (Continued)**

Characteristics	Households (million)	Consumption		Expenditures (dollars)	LPG Water-Heating Intensity (gallons per household member)	RSE Row Factors
		(million Btu)	(gallons)			
RSE Column Factors:	1.5	NF	NF	NF	NF	
<b>West Region</b>						
<b>Water Heater Used</b>						
For One Housing Unit .....	0.5	14.9		163	189	68
For Two or More Units .....	NC	NC		NC	NC	NC
<b>Age of Water Heater</b>						
Less than 5 Years .....	.2	13.0		142	179	56
5 to 9 Years .....	Q	Q		Q	Q	Q
10 to 19 Years .....	Q	17.6		193	198	89
20 Years or More .....	Q	Q		Q	Q	Q
Don't Know .....	Q	Q		Q	Q	Q
<b>Size of Water Heater</b>						
30 gallons or less .....	.2	11.2		123	143	72
31 to 49 gallons .....	.2	18.5		203	248	57
50 gallons or more .....	Q	Q		Q	Q	Q
Don't Know .....	NC	NC		NC	NC	NC
<b>Location of Water Heater</b>						
Heated Area .....	.2	20.6		225	226	84
Unheated Area .....	.3	12.0		131	170	58
<b>Clothes Washer Present In Household</b>						
Yes .....	.4	16.3		178	210	70
No .....	.2	11.8		129	142	61
<b>Dishwasher Present In Household</b>						
Yes .....	Q	Q		Q	Q	Q
No .....	.4	13.3		145	182	61
<b>Children Present In Household</b>						
No .....	.4	11.9		130	140	87
Yes .....	.2	21.7		238	299	53
<b>(more than one may apply)</b>						
Under 13 Years .....	.1	22.6		247	322	54
13 to 18 Years .....	Q	Q		Q	Q	Q

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

Notes: • Data in the Mountain and Pacific Divisions are not presented separately due to a scarcity of data. • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and G of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

WEST

**Table 104. Total Consumption and Expenditures for Appliances  
in West Region Households, 1990**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas		
	Consumed		Expenditures (billion dollars)	Consumed		Expenditures (billion dollars)	Consumed		Expenditures (billion dollars)
	Households (million)	(trillion Btu)		Households (million)	(trillion Btu)		Households (million)	(trillion Btu)	
RSE Column Factors:	0.5	NF	NF	0.6	NF	NF	2.3	NF	NF
<b>West Region</b>									
Total Region .....	19.4	268.8	78.8	6.59	9.1	77.6	75	0.44	1.0
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and Over 5,500 HDD .....	4.7	80.4	23.6	1.46	1.0	6.6	6	.03	.2
Under 5,500 HDD .....	12.3	156.8	45.9	4.21	7.1	64.0	62	.36	.5
2,000 CDD or More and Under 4,000 HDD .....	2.3	31.7	9.3	.92	1.0	7.0	7	.05	.2
<b>Type of Housing Unit</b>									
Single-Family .....	12.7	214.3	62.8	5.25	6.2	60.5	58	.34	.7
Mobile Home .....	1.2	13.8	4.1	.29	.7	4.6	4	.02	.Q
Multifamily (2 or more units) .....	5.4	40.7	11.9	1.05	2.2	12.5	12	.07	Q
<b>Heated Floorspace (square feet)</b>									
Fewer than 1,000 .....	8.0	67.7	19.8	1.70	3.6	22.4	22	.12	.6
1,000 to 1,999 .....	8.5	138.7	40.7	3.37	4.1	38.0	37	.21	.3
2,000 or More .....	2.8	62.4	18.3	1.52	1.4	17.2	17	.10	Q
<b>Ownership of Unit</b>									
Owned .....	11.3	191.8	56.2	4.69	5.5	51.1	49	.29	.6
Rented .....	8.1	77.1	22.6	1.90	3.6	26.5	26	.15	.4
<b>Year of Construction</b>									
1949 or Before .....	4.6	58.6	17.2	1.32	2.6	17.6	17	.10	.2
1950 to 1979 .....	10.8	147.2	43.2	3.63	5.0	46.4	45	.27	.6
1980 or After <sup>2</sup> .....	4.0	63.0	18.5	1.64	1.5	13.6	13	.08	.2
<b>1990 Family Income</b>									
Less than \$10,000 .....	2.9	23.2	6.8	.51	1.2	7.1	7	.04	.4
\$10,000 to \$19,999 .....	4.3	47.5	13.9	1.10	2.0	14.2	14	.08	.1
\$20,000 to \$34,999 .....	5.0	66.4	19.4	1.55	2.1	17.8	17	.10	.2
\$35,000 or More .....	7.2	131.8	38.6	3.43	3.7	38.5	37	.22	.2
<b>Below Poverty Line</b>									
100 Percent .....	2.7	27.5	8.1	.63	1.2	8.4	8	.05	.4
125 Percent .....	3.8	40.3	11.8	.94	1.7	12.1	12	.07	.5
<b>Age of Householder</b>									
Under 35 Years .....	6.4	74.5	21.8	1.88	3.1	27.6	27	.16	.1
35 to 59 Years .....	8.0	133.1	39.0	3.25	3.9	35.8	35	.20	.5
60 Years and Over .....	4.9	61.2	17.9	1.45	2.1	14.2	14	.08	.3
<b>Household Size</b>									
1 Person .....	4.9	40.9	12.0	.95	2.0	9.6	9	.06	.4
2 to 4 Persons .....	11.8	176.1	51.6	4.29	5.6	50.2	49	.28	.5
5 or More Persons .....	2.6	51.8	15.2	1.35	1.4	17.7	17	.10	.1

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

Table 104. Total Consumption and Expenditures for Appliances in West Region Households, 1990 (Continued)

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas			RSE Column Factors:	
	House-holds (million)	Consumed		House-holds (million)	Consumed		House-holds (million)	Consumed			
		(tril-lion Btu)	(bil-lion kWh)		(bil-lion kWh)	(bil-lion kWh)		(bil-lion cubic feet)	(bil-lion cubic feet)		
<b>Mountain Division</b>	4.8	74.2	21.7	1.62	1.9	13.0	13	0.07	Q	Q	
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and Over 5,500 HDD	2.9	46.7	13.7	.93	.9	6.2	6	.03	Q	Q	
Under 5,500 HDD and 2,000 CDD or More and Under 4,000 HDD	.5	Q	Q	.16	.4	2.7	3	.02	Q	Q	
	1.4	20.6	6.0	.53	.6	4.1	4	.03	Q	Q	
									Q	Q	
<b>Type of Housing Unit</b>											
Single-Family	3.5	60.6	17.8	1.31	1.4	9.8	9	.05	Q	Q	
Mobile Home	.5	6.3	1.8	.13	.3	2.2	2	.01	Q	Q	
Multifamily (2 or more units)	.9	7.3	2.1	.18	.2	1.1	1	.01	NC	NC	
									Q	Q	
<b>Heated Floorspace (square feet)</b>											
Fewer than 1,000	1.7	16.0	4.7	.38	.8	5.0	5	.03	Q	Q	
1,000 to 1,999	2.3	38.4	11.3	.84	.9	6.4	6	.03	Q	Q	
2,000 or More	.9	19.8	5.8	.40	.2	1.6	2	.01	Q	Q	
									Q	Q	
<b>Ownership of Unit</b>											
Owned	3.3	58.4	17.1	1.24	1.3	9.2	9	.05	Q	Q	
Rented	1.5	15.7	4.6	.38	.6	3.8	4	.02	Q	Q	
									Q	Q	
<b>Year of Construction</b>											
1949 or Before	1.2	16.8	4.9	.35	.6	4.2	4	.02	Q	Q	
1950 to 1979	2.5	38.5	11.3	.84	1.0	7.4	7	.04	Q	Q	
1980 or After <sup>2</sup>	1.1	18.9	5.5	.43	.2	1.4	1	.01	Q	Q	
									Q	Q	
<b>1990 Family Income</b>											
Less than \$10,000	.9	8.2	2.4	.19	.4	2.6	3	.01	Q	Q	
\$10,000 to \$19,999	1.0	12.2	3.6	.29	.4	3.0	3	.02	Q	Q	
\$20,000 to \$34,999	1.4	21.7	6.4	.45	.5	3.7	4	.02	Q	Q	
\$35,000 or More	1.6	32.0	9.4	.68	.5	3.7	4	.02	Q	Q	
									Q	Q	
<b>Below Poverty Line</b>											
100 Percent	.7	8.0	2.3	.18	.3	2.7	3	.01	Q	Q	
125 Percent	1.0	12.2	3.6	.28	.5	3.6	4	.02	Q	Q	
									Q	Q	
<b>Age of Householder</b>											
Under 35 Years	1.5	22.2	6.5	.50	.5	3.6	3	.02	Q	Q	
35 to 59 Years	2.1	36.4	10.7	.76	.8	6.3	6	.03	Q	Q	
60 Years and Over	1.2	15.5	4.6	.35	.6	3.1	3	.02	Q	Q	
									Q	Q	
<b>Household Size</b>											
1 Person	1.2	9.7	2.8	.23	.5	2.1	2	.01	Q	Q	
2 to 4 Persons	3.0	49.4	14.5	1.06	1.1	7.6	7	.04	Q	Q	
5 or More Persons	.7	15.1	4.4	.33	.3	3.4	3	.02	Q	Q	
									Q	Q	

See footnotes at end of table.

# APPLIANCE CONSUMPTION/EXPENDITURES

WEST

**Table 104. Total Consumption and Expenditures for Appliances in West Region Households, 1990 (Continued)**

Characteristics	Electricity			Natural Gas			Liquefied Petroleum Gas		
	Consumed		Expenditures (bill. lion kWh)	Consumed		Expenditures (bill. lion cubic feet)	Consumed		Expenditures (bill. lion dol. lars)
	Households (million)	(bill. lion Btu)	Households (million)	(bill. lion Btu)	Households (million)	(bill. lion Btu)	Households (million)	(bill. lion gal. lions)	RSE Row Factors
RSE Column Factors:	0.5	NF	NF	0.6	NF	NF	2.3	NF	NF
Pacific Division .....	14.5	194.6	57.0	4.97	7.2	64.6	62	0.37	0.8
<b>Climate Zone<sup>1</sup></b>									
Under 2,000 CDD and									
Over 5,500 HDD .....	1.8	33.6	9.9	.53	Q	Q	.5	Q	Q
Under 5,500 HDD .....	11.8	149.9	43.9	4.05	6.7	61.2	59	.35	.2,7
2,000 CDD or More and									
Under 4,000 HDD .....	9	Q	Q	.39	Q	Q	Q	.2	1,4
Type of Housing Unit									
Single-Family .....	9.3	153.7	45.0	3.94	4.8	50.7	.49	.6	3,1
Mobile Home .....	7	7.6	2.2	.16	.3	2.4	.2	Q	Q
Multifamily (2 or more units) .....	4.6	33.4	9.8	.87	2.0	11.4	11	.07	Q
Heated Floorspace (square feet)									
Fewer than 1,000 .....	6.3	51.7	15.2	1.31	2.8	17.3	17	.10	.6
1,000 to 1,999 .....	6.3	100.3	29.4	2.54	3.3	31.7	31	.18	Q
2,000 or More .....	2.0	42.6	12.5	1.12	1.1	15.6	15	.09	Q
Ownership of Unit									
Owned .....	8.0	133.3	39.1	3.45	4.2	41.9	40	.24	.5
Rented .....	6.6	61.3	18.0	1.51	3.0	22.6	22	.13	.3
Year of Construction									
1949 or Before .....	3.5	41.8	12.2	.97	2.0	13.4	13	.07	.1
1950 to 1979 .....	8.2	108.7	31.9	2.79	3.9	38.9	38	.22	.6
1980 or After <sup>2</sup> .....	2.8	44.1	12.9	1.21	1.2	12.2	12	.07	Q
1990 Family Income									
Less than \$10,000 .....	2.0	15.0	4.4	.32	.8	4.5	4	.02	.3
\$10,000 to \$19,999 .....	3.3	36.2	10.3	.81	1.5	11.1	11	.06	Q
\$20,000 to \$34,999 .....	3.6	44.7	13.1	1.10	1.6	14.1	14	.08	1.8
\$35,000 or More .....	5.6	99.8	29.2	2.75	3.2	34.9	34	.20	.2
Below Poverty Line									
100 Percent .....	2.0	19.6	5.7	.45	.8	5.8	6	.03	.3
125 Percent .....	2.8	28.1	8.2	.66	1.2	8.4	8	.05	.4
Age of Householder									
Under 35 Years .....	4.8	52.3	15.3	1.38	2.5	24.0	23	.14	Q
35 to 59 Years .....	5.9	96.7	28.3	2.49	3.1	29.5	28	.17	.4
60 Years and Over .....	3.7	45.6	13.4	1.10	1.5	11.1	11	.06	.3
Household Size									
1 Person .....	3.8	31.2	9.1	.72	1.6	7.6	7	.04	3
2 to 4 Persons .....	8.8	126.8	37.2	3.24	4.5	42.6	41	.24	4
5 or More Persons .....	1.9	36.7	10.8	1.02	1.1	14.3	14	.08	.1

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE/row/column factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • Appliances do not include refrigerators. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-F of the 1980 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 105. Electricity Consumption and Expenditures for Appliances and Refrigerators, per West Region Household, 1990**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors...	
	Consumed		Households (mil-lion)	Average Number of Refrigerators	Consumed			
	House-holds (mil-lion Btu)	Expenditures (dollars)			(mil-lion Btu)	Expenditures (dollars)		
RSE Column Factors:	1.6	NF	NF	NF	1.6	0.4	NF	
<b>Total Region</b>	19.4	13.9	4,067	340	19.3	1.1	4.7	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	4.7	17.1	5,002	309	4.7	1.1	4.3	
2,000 CDD or More and Under 4,000 HDD	12.3	12.7	3,720	341	12.3	1.1	4.5	
<b>Type of Housing Unit</b>								
Single-Family	12.7	16.8	4,931	412	12.7	1.2	5.4	
Mobile Home	1.2	11.6	3,395	240	1.2	1.1	4.3	
Multifamily (2 or more units)	5.4	7.5	2,192	193	5.4	1.0	3.3	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	8.0	8.5	2,488	213	8.0	1.1	3.7	
1,000 to 1,999	8.5	16.2	4,757	395	8.5	1.1	5.1	
2,000 or More	2.8	21.9	6,423	533	2.8	1.3	6.2	
<b>Ownership of Unit</b>								
Owned	11.3	17.0	4,984	416	11.3	1.2	5.5	
Rented	8.1	9.5	2,790	234	8.1	1.0	3.6	
<b>Year of Construction</b>								
1949 or Before	4.6	12.6	3,706	284	4.6	1.1	4.2	
1950 to 1979	10.8	13.7	4,014	338	10.7	1.1	4.7	
1980 or After <sup>2</sup>	4.0	15.8	4,632	411	4.0	1.1	5.4	
<b>1990 Family Income</b>								
Less than \$10,000	2.9	8.1	2,362	177	2.9	1.0	3.5	
\$10,000 to \$19,999	4.3	11.1	3,258	257	4.3	1.1	4.4	
\$20,000 to \$34,999	5.0	13.2	3,868	308	5.0	1.1	4.4	
\$35,000 or More	7.2	18.3	5,369	477	7.2	1.2	5.6	
<b>Below Poverty Line</b>								
100 Percent	2.7	10.1	2,972	233	2.7	1.1	3.8	
125 Percent	3.8	10.6	3,104	246	3.8	1.1	4.0	
<b>Age of Householder</b>								
Under 35 Years	6.4	11.7	3,421	295	6.4	1.1	3.9	
35 to 59 Years	8.0	16.6	4,852	405	8.0	1.2	5.2	
60 Years and Over	4.9	12.4	3,625	294	4.9	1.2	5.0	
<b>Household Size</b>								
1 Person	4.9	8.3	2,424	191	4.9	1.1	4.0	
2 to 4 Persons	11.8	14.9	4,373	364	11.8	1.1	4.8	
5 or More Persons	2.6	19.7	5,783	513	2.6	1.3	5.5	
<b>Average Electricity Expenditures (cents per kWh)</b>								
Less than 6	3.8	17.5	5,118	237	--	--	--	
6 to Less than 9	5.4	14.1	4,145	316	--	--	--	
9 or More	10.2	3.631	391	--	--	--	--	

See footnotes at end of table.

WEST

## APPLIANCE CONSUMPTION/EXPENDITURES

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**Table 105. Electricity Consumption and Expenditures for Appliances and Refrigerators, per West Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	Households (million)	Consumed (million kWh)	Expend- itures (dollars)	House- holds (mil- lion)	Average Number of Refrig- erators	Consumed (mil- lion kWh)	Expend- itures (dollars)	
RSE Column Factors:	1.6	NF	NF	1.6	0.4	NF	NF	
<b>West Region</b>								
<b>Average Electric Refrigerator Expenditures (cents per kWh)</b>								
Less than 6 .....	—	—	—	3.8	1.1	4.4	1,301	
6 to Less than 9 .....	—	—	—	5.4	1.1	4.6	1,359	
9 or More .....	—	—	—	10.1	1.1	4.9	1,429	
<b>Appliances Present in Household (more than one may apply)</b>								
Separate Freezer .....	5.9	20.3	5,937	457	5.9	1.2	5.1	
Dishwasher .....	10.0	17.1	5,026	423	10.0	1.2	5.2	
Clothes Washer .....	14.0	16.6	4,857	405	14.0	1.2	5.2	
Clothes Dryer .....	8.8	18.5	5,413	405	8.8	1.2	5.2	
Waterbed Heater .....	3.0	21.0	6,148	512	3.0	1.1	5.2	
Swimming-Pool Pump .....	1.1	25.6	7,498	800	1.1	1.3	6.9	
Hot-Tub or Spa Pump .....	1.4	23.2	6,811	646	1.4	1.2	6.1	
Hot-Tub or Spa Heater .....	5	21.6	6,343	529	5	1.2	5.3	
Well Pump .....	1.2	18.4	5,381	363	1.2	1.3	4.8	
<b>Appliance Combinations</b>								
Dishwasher, Clothes Washer, and Clothes Dryer								
With .....	5.9	20.0	5,850	452	5.9	1.2	5.4	
Without .....	3.8	6.4	1,866	162	3.8	1.0	3.2	
Well Pump and Separate Freezer								
With .....	8	20.7	6,061	397	.8	1.4	5.0	
Without .....	13.0	11.0	3,220	288	13.0	1.1	4.5	
<b>Main Heating Fuel</b>								
Natural Gas .....	12.4	13.2	3,870	368	12.4	1.1	4.7	
Electricity .....	4.6	13.7	4,007	264	4.6	1.1	4.5	
Fuel Oil or Kerosene .....	Q	23.3	6,834	336	Q	1.2	5.5	
Wood .....	1.1	21.7	6,354	428	1.1	1.3	5.2	
LPG .....	.4	11.3	3,299	281	.4	Q	3.9	
Other .....	Q	Q	Q	Q	Q	Q	Q	
<b>Number of Refrigerators</b>								
1 .....	16.7	13.1	3,842	320	16.7	1.0	4.2	
2 or More .....	2.6	18.9	5,537	473	2.6	2.0	8.3	

See footnotes at end of table.

## WEST

## APPLIANCE CONSUMPTION/EXPENDITURES

Table 105. Electricity Consumption and Expenditures for Appliances and Refrigerators, per West Region Household, 1990 (Continued)

Characteristics	Electricity Used for Appliances			Electricity Used for Refrigerators			RSE Row Factors	
	Consumed		Households (mil. lion)	Average Number of Refrig- erators	Consumed			
	(mil. lion Btu)	(kWh)			(mil. lion Btu)	(kWh)		
RSE Column Factors:	1.6	NF	NF	NF	1.6	0.4	NF	
<b>Mountain Division</b>	4.8	15.3	4,487	334	4.8	1.1	5.4	
<b>Climate Zone<sup>1</sup></b>					1,584	126	4.4	
Under 2,000 CDD and Over 5,500 HDD	2.9	16.0	4,695	318	2.9	1.1	4.3	
Under 5,500 HDD	.5	13.3	3,897	301	.5	1.2	6.2	
2,000 CDD or More and Under 4,000 HDD	1.4	14.6	4,272	379	1.4	1.1	7.3	
Mobile Home	.5	12.8	3,765	259	.5	1.1	4.6	
Multifamily (2 or more units)	.9	8.2	2,403	203	.9	1.0	4.2	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	1.7	9.5	2,774	228	1.7	1.1	4.7	
1,000 to 1,999	2.3	16.8	4,921	365	2.3	1.1	5.6	
2,000 or More	.9	22.7	6,665	458	.9	1.2	6.3	
<b>Ownership of Unit</b>								
Owned	3.3	17.6	5,170	373	3.3	1.2	5.7	
Rented	1.5	10.3	3,009	250	1.5	1.0	4.7	
<b>Year of Construction</b>								
1949 or Before	1.2	14.4	4,232	301	1.2	1.1	4.5	
1950 to 1979	2.5	15.1	4,438	329	2.5	1.1	5.6	
1980 or After <sup>2</sup>	1.1	16.6	4,857	379	1.1	1.1	5.7	
<b>1990 Family Income</b>								
Less than \$10,000	.9	9.5	2,792	224	.9	1.0	4.5	
\$10,000 to \$19,999	1.0	12.1	3,551	288	1.0	1.1	5.3	
\$20,000 to \$34,999	1.4	15.7	4,593	327	1.4	1.1	4.9	
\$35,000 or More	1.6	20.2	5,908	429	1.6	1.2	6.3	
<b>Below Poverty Line</b>								
100 Percent	.7	11.4	3,340	264	.7	1.0	4.7	
125 Percent	1.0	11.8	3,467	272	1.0	1.0	4.7	
<b>Age of Householder</b>								
Under 35 Years	1.5	14.4	4,229	327	1.5	1.0	4.6	
35 to 59 Years	2.1	17.3	5,060	363	2.1	1.1	5.7	
60 Years and Over	1.2	13.0	3,807	292	1.2	1.2	5.8	
<b>Household Size</b>								
1 Person	1.2	8.3	2,423	196	1.2	1.1	4.7	
2 to 4 Persons	3.0	16.5	4,835	354	3.0	1.1	5.7	
5 or More Persons	.7	22.2	6,494	484	.7	1.1	5.3	

See footnotes at end of table.

# APPLIANCE CONSUMPTION/EXPENDITURES

WEST

**Table 105. Electricity Consumption and Expenditures for Appliances and Refrigerators, per West Region Household, 1990 (Continued)**

Characteristics	Electricity Used for Appliances				Electricity Used for Refrigerators				RSE Row Factors		
	Consumed		Households (million)	Expenditures (dollars) (kWh)	Consumed		(million kWh)	Expenditures (dollars)			
	Households (million) NF	NF			Average Number of Refrig- erators	(mil- lion Btu)					
RSE Column Factors:	1.6	NF	NF	NF	1.6	0.4	NF	NF	NF		
Pacific Division .....	14.5	13.4	3,928	342	14.5	1.1	4.5	1,318	120	2.7	
<b>Climate Zone<sup>1</sup></b>											
Under 2,000 CDD and	1.8	18.8	5,502	295	1.8	1.1	4.4	1,276	65	10.5	
Over 5,500 HDD .....	11.8	12.7	3,713	342	11.8	1.1	4.4	1,290	122	5.0	
Under 5,500 HDD .....	2,000 CDD or More and	2,000 or More HDD .....	9	3,616	432	.9	1.1	6.0	1,769	215	11.3
Type of Housing Unit											
Single-Family .....	9.3	16.6	4,860	425	9.3	1.2	5.2	1,532	142	3.7	
Mobile Home .....	.7	10.7	3,198	227	.7	1.0	4.1	1,187	90	14.3	
Multifamily (2 or more units) .....	4.6	7.3	2,151	191	4.6	1.0	3.1	904	80	5.4	
Heated Floorspace (square feet)											
Fewer than 1,000 .....	6.3	8.2	2,411	209	6.3	1.1	3.5	1,017	93	4.2	
1,000 to 1,999 .....	6.3	16.0	4,697	405	6.3	1.2	5.0	1,461	131	3.9	
2,000 or More .....	2.0	21.6	6,316	565	2.0	1.4	6.2	1,819	173	7.3	
Ownership of Unit											
Owned .....	8.0	16.7	4,906	434	8.0	1.2	5.4	1,589	147	3.5	
Rented .....	6.6	9.3	2,739	231	6.5	1.0	3.4	987	88	5.2	
Year of Construction											
1949 or Before .....	3.5	12.0	3,529	279	3.5	1.1	4.1	1,198	100	7.1	
1950 to 1979 .....	8.2	13.2	3,883	340	8.2	1.1	4.4	1,297	119	3.2	
1980 or After <sup>2</sup> .....	2.8	15.5	4,542	424	2.8	1.2	5.2	1,525	149	7.0	
1990 Family Income											
Less than \$10,000 .....	2.0	7.4	2,118	156	2.0	1.0	3.1	900	67	8.2	
\$10,000 to \$19,999 .....	3.3	10.8	3,167	247	3.3	1.1	4.1	1,206	103	7.0	
\$20,000 to \$34,999 .....	3.6	12.3	3,592	301	3.6	1.1	4.2	1,228	110	5.9	
\$35,000 or More .....	5.6	17.8	5,217	491	5.6	1.2	5.4	1,590	156	4.0	
Below Poverty Line											
100 Percent .....	2.0	9.7	2,844	222	2.0	1.1	3.5	1,027	86	9.3	
125 Percent .....	2.8	10.1	2,969	236	2.8	1.1	3.7	1,088	91	8.5	
Age of Householder											
Under 35 Years .....	4.8	10.8	3,165	284	4.8	1.1	3.7	1,083	103	6.0	
35 to 59 Years .....	5.9	16.3	4,778	419	5.9	1.2	5.0	1,474	135	3.8	
60 Years and Over .....	3.7	12.2	3,567	284	3.7	1.2	4.7	1,375	120	5.5	
Household Size											
1 Person .....	3.8	8.3	2,425	190	3.8	1.1	3.8	1,117	91	4.8	
2 to 4 Persons .....	8.8	14.4	4,216	367	8.8	1.1	4.6	1,338	123	2.9	
5 or More Persons .....	1.9	18.9	5,534	523	1.9	1.3	5.5	1,613	163	7.4	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1980.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

- = Not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EA-457 A, B, C, and E of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WEST

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 106. Natural Gas and LPG Consumption and Expenditures for Appliances, per West Region Household, 1990**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Consumed		Households (million)	Consumed		(gallons)		
	(million Btu)	(1000 cubic feet)		Expenditures (dollars)	Households (million)			
RSE Column Factors:	0.7	NF	NF	NF	2.4	NF	NF	
<b>Total Region</b>	9.1	8.6	8.3	48	1.0	5.4	59	
<b>Climate Zone<sup>1</sup></b>							86	
Under 2,000 CDD and Over 5,500 HDD	1.0	6.8	6.6	30	.2	3.9	43	
Under 5,500 HDD	7.1	9.1	8.7	51	.5	5.5	61	
2,000 CDD or More and Under 4,000 HDD	1.0	6.9	6.7	45	.2	6.5	72	
<b>Type of Housing Unit</b>							126	
Single-Family	6.2	9.8	9.4	55	.7	5.3	58	
Mobile Home	.7	6.8	6.6	35	Q	4.1	45	
Multifamily (2 or more units)	2.2	5.7	5.5	33	Q	Q	Q	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	3.6	6.3	6.1	35	.6	5.4	59	
1,000 to 1,999	4.1	9.2	8.9	51	.3	5.7	63	
2,000 or More	1.4	12.6	12.1	74	Q	Q	Q	
<b>Ownership of Unit</b>								
Owned	5.5	9.3	9.0	52	.6	4.6	50	
Rented	3.6	7.4	7.2	42	.4	6.7	73	
<b>Year of Construction</b>								
1949 or Before	2.6	6.7	6.5	36	.2	8.6	94	
1950 to 1979	5.0	9.4	9.0	54	.6	4.4	48	
1980 or After <sup>2</sup>	1.5	9.2	8.9	51	.2	5.9	65	
<b>1990 Family Income</b>								
Less than \$10,000	1.2	5.7	5.6	32	.4	3.8	42	
\$10,000 to \$19,999	2.0	7.1	6.9	40	.1	4.8	53	
\$20,000 to \$34,999	2.1	8.5	8.2	47	.2	11.2	122	
\$35,000 or More	3.7	10.4	10.0	59	.2	3.7	40	
<b>Below Poverty Line</b>								
100 Percent	1.2	7.2	7.0	40	.4	4.2	46	
125 Percent	1.7	7.2	7.0	41	.5	4.1	45	
<b>Age of Householder</b>								
Under 35 Years	3.1	9.0	8.7	51	.1	8.2	90	
35 to 59 Years	3.9	9.2	8.8	52	.5	5.8	63	
60 Years and Over	2.1	6.8	6.6	37	.3	3.6	39	
<b>Household Size</b>								
1 Person	2.0	4.7	4.6	26	.4	5.1	56	
2 to 4 Persons	5.6	9.0	8.7	50	.5	5.0	55	
5 or More Persons	1.4	12.5	12.1	72	.1	7.5	83	

See footnotes at end of table.

Table 106. Natural Gas and LPG Consumption and Expenditures for Appliances, per West Region Household, 1990 (Continued)

Characteristics	Natural Gas				Liquefied Petroleum Gas				RSE Row Factors	
	Households (million)	Consumed		Expenditures (dollars)	Households (million)	Consumed		Expenditures (dollars)		
		(million Btu)	(1000 cubic feet)			(million Btu)	(gallons)			
RSE Column Factors:	0.7	NF	NF	NF	2.4	NF	NF	NF		
<b>Mountain Division</b>	1.9	6.9	6.7	38	Q	4.9	53	52	15.0	
<b>Climate Zone<sup>1</sup></b>										
Under 2,000 CDD and										
Over 5,500 HDD .....	.9	7.1	6.9	31	Q	Q	Q	Q	19.5	
Under 5,500 HDD .....	.4	7.3	6.9	42	Q	Q	Q	Q	22.4	
2,000 CDD or More and										
Under 4,000 HDD .....	.6	6.5	6.4	47	Q	Q	Q	Q	16.6	
<b>Type of Housing Unit</b>										
Single-Family .....	1.4	7.3	7.0	40	Q	5.3	58	57	17.1	
Mobile Home .....	.3	6.5	6.3	33	Q	Q	Q	Q	27.9	
Multifamily (2 or more units) ..	.2	5.4	5.2	34	NC	NC	NC	NC	31.2	
<b>Heated Floorspace (square feet)</b>										
Fewer than 1,000 .....	.8	6.3	6.1	36	Q	Q	Q	Q	14.9	
1,000 to 1,999 .....	.9	7.4	7.1	40	Q	Q	Q	Q	14.7	
2,000 or More .....	.2	7.5	7.1	41	Q	Q	Q	Q	31.4	
<b>Ownership of Unit</b>										
Owned .....	1.3	6.9	6.7	38	Q	5.0	55	56	18.5	
Rented .....	.6	6.9	6.8	38	Q	Q	Q	Q	21.3	
<b>Year of Construction</b>										
1949 or Before .....	.6	6.9	6.8	34	Q	Q	Q	Q	26.0	
1950 to 1979 .....	1.0	7.1	6.9	42	Q	Q	Q	Q	13.1	
1980 or After <sup>2</sup> .....	.2	6.0	5.8	35	Q	Q	Q	Q	38.5	
<b>1990 Family Income</b>										
Less than \$10,000 .....	.4	6.2	6.0	33	Q	Q	Q	Q	32.8	
\$10,000 to \$19,999 .....	.4	6.8	6.6	40	Q	Q	Q	Q	19.3	
\$20,000 to \$34,999 .....	.5	7.6	7.4	39	Q	Q	Q	Q	18.1	
\$35,000 or More .....	.5	7.0	6.8	41	Q	Q	Q	Q	16.6	
<b>Below Poverty Line</b>										
100 Percent .....	.3	8.0	7.8	41	Q	Q	Q	Q	29.5	
125 Percent .....	.5	7.6	7.4	40	Q	Q	Q	Q	21.4	
<b>Age of Householder</b>										
Under 35 Years .....	.5	6.9	6.7	38	Q	Q	Q	Q	16.2	
35 to 59 Years .....	.8	8.1	7.8	44	Q	Q	Q	Q	19.1	
60 Years and Over .....	.6	5.4	5.2	31	Q	Q	Q	Q	19.0	
<b>Household Size</b>										
1 Person .....	.5	4.4	4.3	24	Q	Q	Q	Q	27.2	
2 to 4 Persons .....	1.1	7.1	6.8	40	Q	Q	Q	Q	10.6	
5 or More Persons .....	.3	10.1	9.7	52	Q	Q	Q	Q	17.4	

See footnotes at end of table.

## APPLIANCE CONSUMPTION/EXPENDITURES

**Table 106. Natural Gas and LPG Consumption and Expenditures for Appliances, per West Region Household, 1990 (Continued)**

Characteristics	Natural Gas			Liquefied Petroleum Gas			RSE Row Factors	
	Households (million)	Consumed		Households (million)	Consumed			
		(million Btu)	(1000 cubic feet)		Expenditures (dollars)	(million Btu)		
RSE Column Factors:	0.7	NF	NF	NF	2.4	NF	NF	
<b>Pacific Division</b>	7.2	9.0	8.7	51	0.8	5.5	60	
<b>Climate Zone<sup>1</sup></b>								
Under 2,000 CDD and Over 5,500 HDD	Q	Q	Q	Q	Q	Q	Q	
Under 5,500 HDD	6.7	9.2	8.8	52	.5	5.6	61	
2,000 CDD or More and Under 4,000 HDD	Q	7.4	7.1	42	.2	7.3	80	
							142	
							18.4	
<b>Type of Housing Unit</b>								
Single-Family	4.8	10.5	10.1	59	.6	5.3	58	
Mobile Home	.3	7.1	6.9	37	Q	Q	Q	
Multifamily (2 or more units)	2.0	5.8	5.6	33	Q	Q	Q	
							93	
							36.3	
							11.7	
<b>Heated Floorspace (square feet)</b>								
Fewer than 1,000	2.8	6.3	6.1	35	.6	5.6	61	
1,000 to 1,999	3.3	9.7	9.3	54	Q	Q	Q	
2,000 or More	1.1	13.6	13.1	81	Q	Q	Q	
							13.2	
							25.6	
<b>Ownership of Unit</b>								
Owned	4.2	10.1	9.7	57	.5	4.5	49	
Rented	3.0	7.5	7.3	43	3	7.0	76	
							77	
							12.7	
							16.8	
<b>Year of Construction</b>								
1949 or Before	2.0	6.6	6.4	37	.1	9.9	108	
1950 to 1979	3.9	10.0	9.6	57	.1	4.4	48	
1980 or After <sup>2</sup>	1.2	9.8	9.5	55	Q	Q	Q	
							169	
							74	
							39.8	
<b>1990 Family Income</b>								
Less than \$10,000	.8	5.5	5.4	31	.3	3.7	41	
\$10,000 to \$19,999	1.5	7.2	6.9	40	Q	Q	60	
\$20,000 to \$34,999	1.6	8.7	8.4	50	.1	12.3	134	
\$35,000 or More	3.2	10.9	10.5	62	.2	3.8	41	
							209	
							71	
							13.9	
<b>Below Poverty Line</b>								
100 Percent	.8	6.9	6.6	40	.3	4.2	46	
125 Percent	1.2	7.0	6.8	41	.4	4.1	45	
							64	
							21.3	
							17.8	
<b>Age of Householder</b>								
Under 35 Years	2.5	9.4	9.1	53	Q	Q	Q	
35 to 59 Years	3.1	9.4	9.1	54	.4	6.0	66	
60 Years and Over	1.5	7.4	7.1	40	.3	3.6	40	
							103	
							58	
							14.6	
							16.9	
<b>Household Size</b>								
1 Person	1.6	4.8	4.7	27	.3	5.3	58	
2 to 4 Persons	4.5	9.4	9.1	53	.4	4.9	54	
5 or More Persons	1.1	13.3	12.8	78	.1	8.1	89	
							81	
							155	
							24.7	

<sup>1</sup> Climate zones are based on annual degree-days that are averaged over 30 years from 1951 to 1980.

<sup>2</sup> Does not include all new construction for 1990.

NC = No cases in sample.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

NF = No applicable RSE row/column factor.

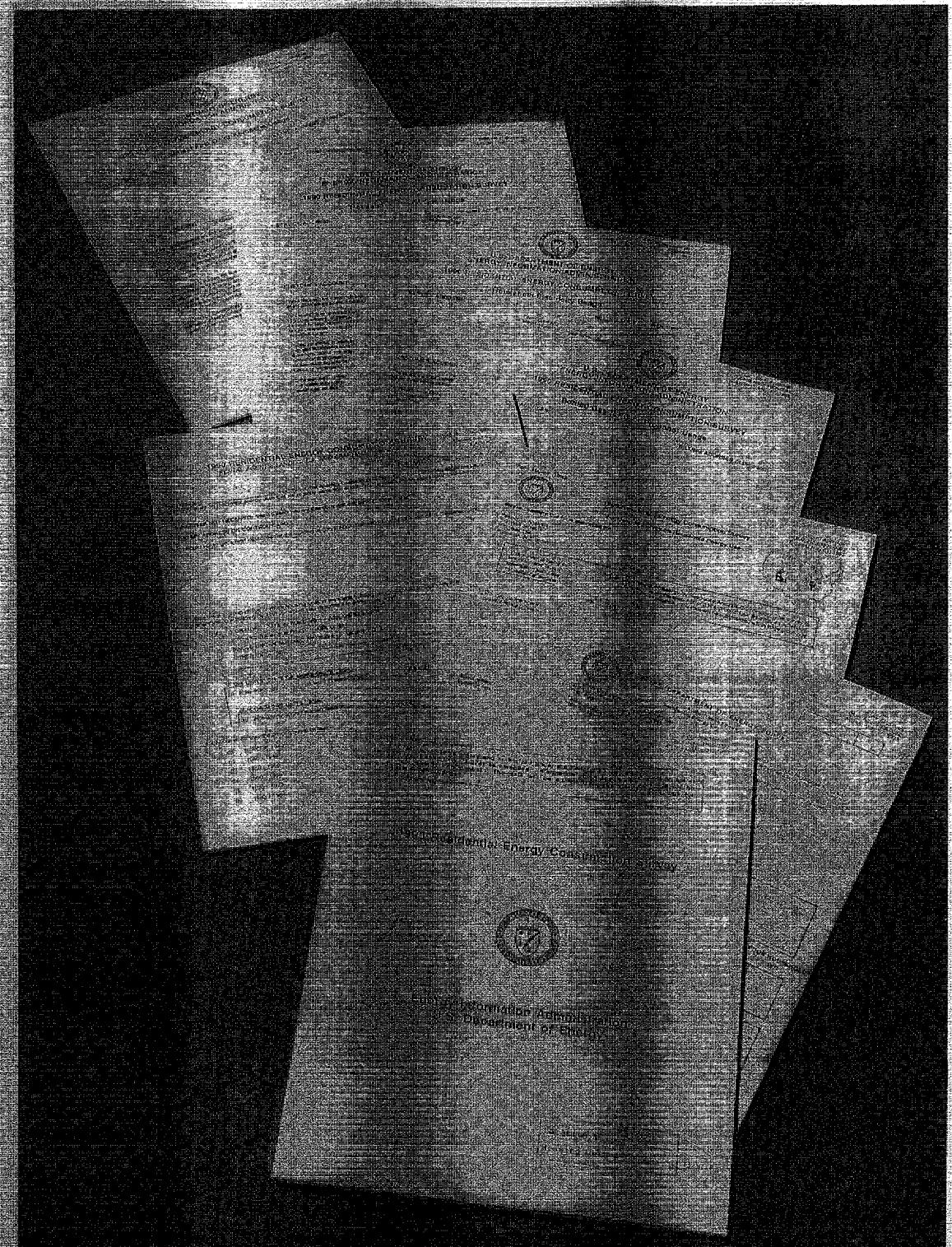
Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" in *Household Energy Consumption and Expenditures 1990* for definition of terms used in this report.

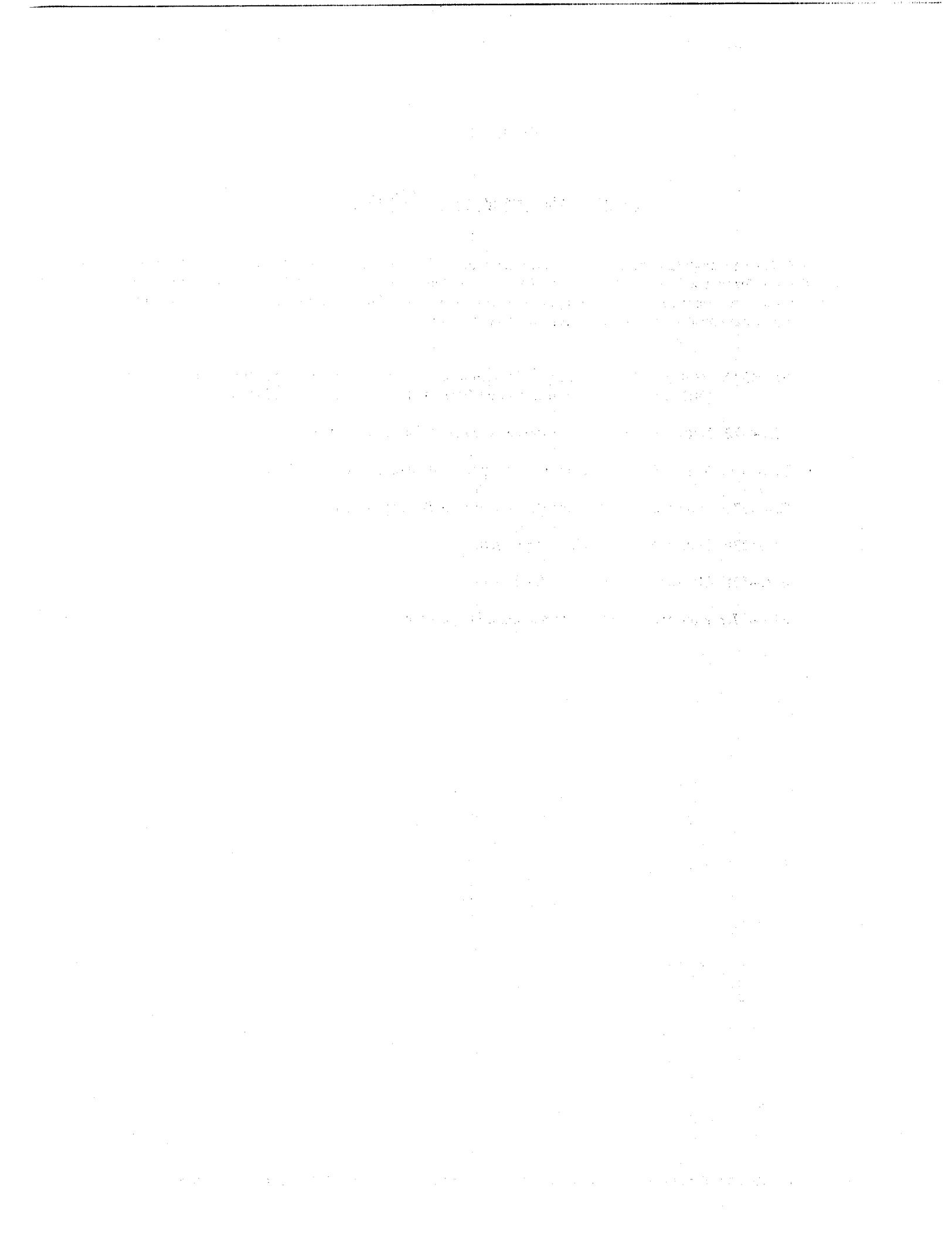
Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A, B, C, D, and F of the 1990 Residential Energy Consumption Survey (for specific titles of forms, see Appendix A).

## WEST

## **Appendix A**

### **Survey Forms Titles**





## Appendix A

# Survey Forms Titles

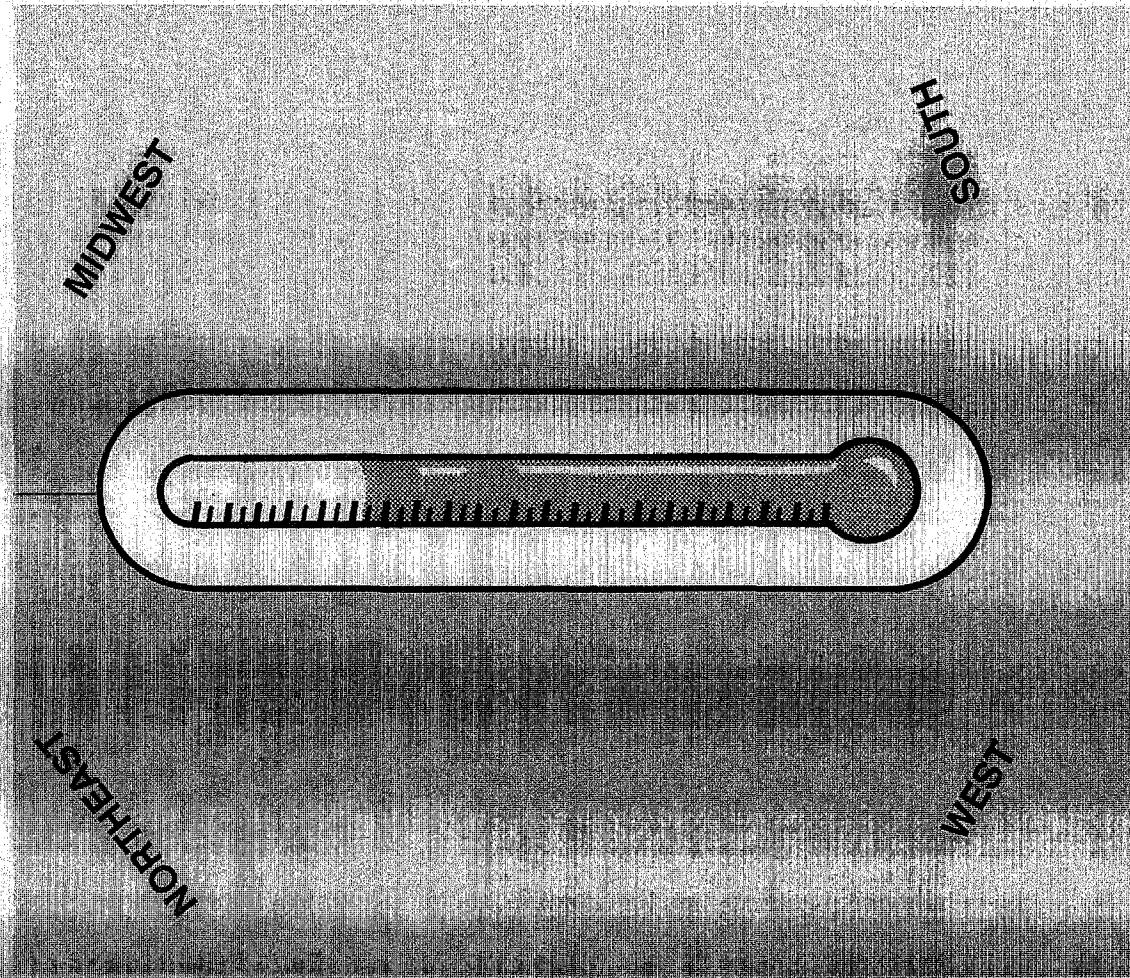
Forms EIA-457A through G were used to produce this report. This appendix contains only the titles of these data collection forms used in the 1990 Residential Energy Consumption Survey (RECS). Copies of these actual forms are in Appendix E of the companion report, *Household Energy Consumption and Expenditures 1990*. (The original color of each form is also indicated below.)

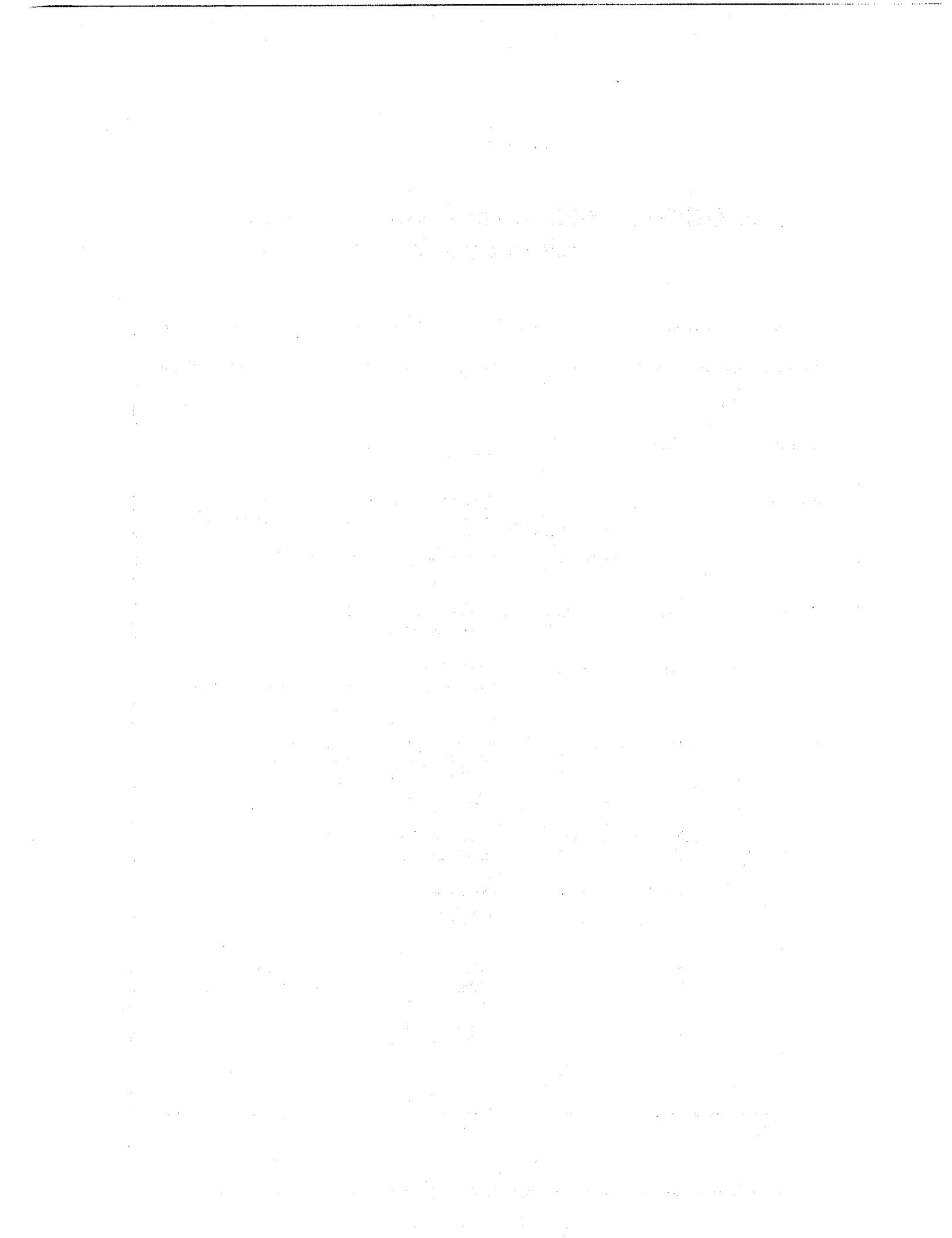
- EIA-457A 1990 Residential Energy Consumption Survey Household Questionnaire - white  
(Includes the yellow Authorization Form and a blue vehicle data form).
- EIA-457B Nationwide Survey on Household Energy Use (Mail) - white.
- EIA-457C Rental Agents, Landlords and Apartment Managers form - white.
- EIA-457D Household Bottled Gas (LPG or Propane) Usage - blue.
- EIA-457E Household Electricity Usage - yellow.
- EIA-457F Household Natural Gas Usage - pink.
- EIA-457G Household Fuel Oil or Kerosene Usage - green.



## Appendix B

### U.S. Climate Zone and Census Regions and Divisions Maps





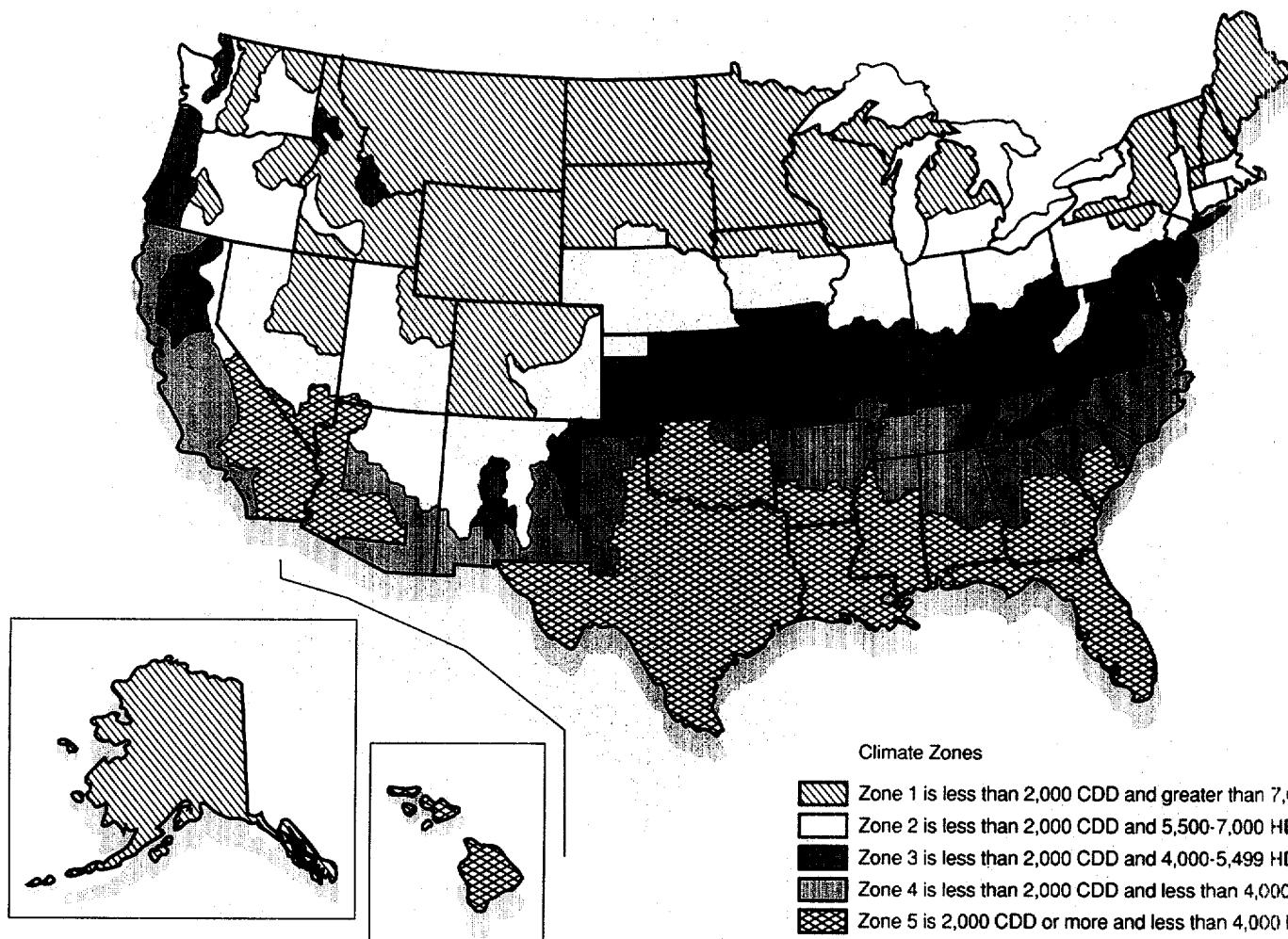
## Appendix B

# U.S. Climate Zone and Census Regions and Divisions Maps

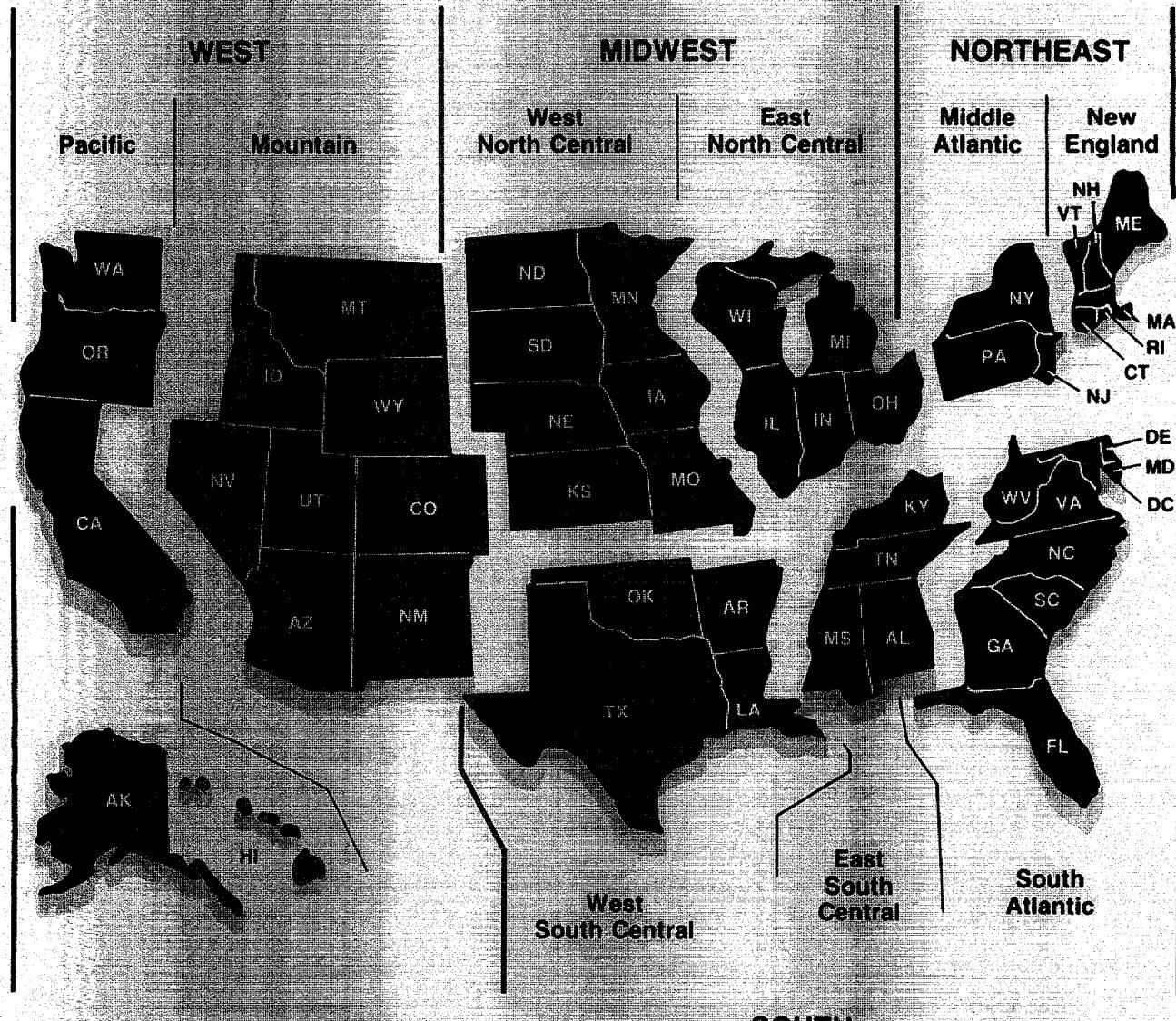
As indicated below, the 50 States and the District of Columbia are grouped into four regions and nine divisions.

Region	Division	States
Northeast	New England	Connecticut, Maine, Massachusetts, New Hampshire, Vermont, and Rhode Island
	Middle Atlantic	New Jersey, New York, and Pennsylvania
Midwest	East North Central	Illinois, Indiana, Michigan, Ohio, and Wisconsin
	West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
South	South Atlantic	Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia
	East South Central	Alabama, Kentucky, Mississippi, and Tennessee
West	West South Central	Arkansas, Louisiana, Oklahoma, and Texas
	Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
	Pacific	Alaska, California, Hawaii, Oregon, and Washington

## U.S. Climate Zone Map



# U.S. Census Regions and Divisions



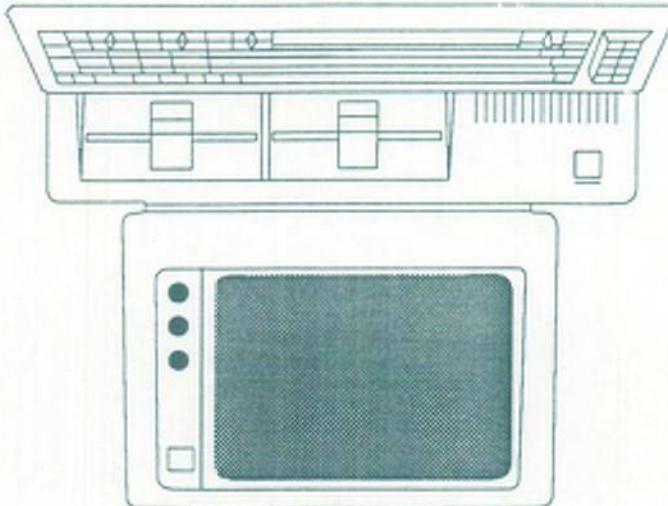
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The Residential Energy Consumption Survey (RECS) diskette contains the data published in Tables I through 106 of the *Household Energy Consumption and Expenditures 1990 Supplement: Regional Report*. The diskette contains data at the regional level and has one file for each table. In addition, the public use data from the 1990 RECS will be available on diskette. For ordering information contact:

- Contains a READ.ME DOS text file
- Flat ASCII format
- 5-1/4 inch double-sided high-density diskette
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## **RECS Data on Diskettes**



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