

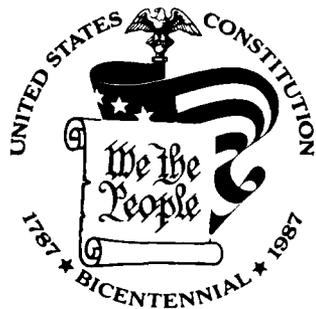


Energy Information Administration

Residential Transportation Energy Consumption Survey:

Consumption Patterns of Household Vehicles 1985





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**Residential Transportation
Energy Consumption Survey:
Consumption Patterns of
Household Vehicles 1985**

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

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Contacts

General information about Energy Information Administration data on energy consumption can be obtained from Lynda T. Carlson, Director of the Energy End Use Division (202-586-1112).

Specific information regarding the contents or preparation of this publication can be obtained from Nancy L. Leach, Chief of the Residential and Commercial Branch (202-586-1114) or Robert B. Latta, Team Leader (202-586-1385). Paul Gargiullo, the principal author (202-586-1137), can also be contacted for specific information on sampling error and sample design. John L. Preston (202-586-1128) is the author of Appendices A and B. Leigh Carleton (202-586-1132) can be contacted for general information on data collection procedures for the 1985 survey. Hattie Ramseur (202-586-1112) is the contact for related energy consumption publications and Debbie Kleinwachter (202-586-1133) is the contact for computer-related issues.

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Executive Summary

This report presents findings from the Residential Transportation Energy Consumption Survey (RTECS) conducted in 1985. This survey was designed by the Energy Information Administration to provide information on motor fuel consumption and expenditures by households in vehicles for personal use. The principal findings from the survey are as follows:

- o In 1985, 77.7 (± 1.1) million households (or 89 (± 1) percent of all households) had the regular use of a vehicle for personal transportation. For households using vehicles, the average was 1.8 vehicles per household.
- o Household vehicles use consumed 10.5 (± 0.6) quadrillion Btu, or 14 percent of the total U.S. energy consumption of 73.8 quadrillion Btu. Household vehicle consumption accounted for about one-third of U.S. petroleum consumption and about one-half of total fuel consumption by the transportation sector.
- o The average household that used a vehicle consumed 1,079 (± 38) gallons of motor fuel. This 1985 consumption level was not statistically significantly different from the level estimated in the RTECS for 1983. Average household expenditures for motor vehicle fuel were \$1,274 (± 42), and the average price paid was \$1.18 (± 0.01) per gallon, which was not significantly different from the average price paid in 1983.
- o Household characteristics (such as family income, the size of the household, and the number of vehicles used by the household) were more strongly related to variations in motor fuel consumption than was geographic location by Census region.
- o Total mileage in personal vehicles increased in 1985 over the 1983 figure, but the increase was primarily due to the increase in the number of households with vehicles. The average number of miles per vehicle, 9,855 (± 270), and the average total number of miles per household, 17,402 (± 546), were not significantly changed from their 1983 values.
- o Average fuel efficiency for all vehicles increased by 7 (± 3) percent from 1983. The average efficiency was 16.1 (± 0.3) miles per gallon in 1985 and 15.1 (± 0.2) in 1983. The overall fuel efficiency increased because older cars in the total fleet were replaced by newer cars. However, for model years after 1982, the average fuel efficiency was fairly constant.

1. Introduction

This report presents data collected in the 1985 Residential Transportation Energy Consumption Survey (RTECS). The survey was designed by the Energy Information Administration (EIA) to provide information on how energy is used by households for personal vehicles. It is an integral part of a series of surveys designed by the EIA to collect data on energy used by households. Data from the surveys are available to the public through published reports such as this one and through public use data tapes. The RTECS collects data on the number and type of vehicles used by the household. For each vehicle, data are collected on the number of miles traveled for the year, the number of gallons of fuel consumed, the type of fuel used, the price paid for fuel, and the number of miles per gallon.

The RTECS sample, which consists of 4,020 households, was drawn from a larger sample selected for participation in the 1984 Residential Energy Consumption Survey (RECS). Households were interviewed for the RECS in fall 1984. The RECS collected data on the ways energy is used within the home, including heating fuel(s), the types of appliances, and conservation practices. Actual energy bills for these households were obtained from fuel suppliers for April 1984 through March 1985. These data are presented in a series of residential energy consumption reports (See Appendix F).¹ For those households that participated in both the RECS and RTECS, data are available on energy used within the home as well as energy used in personal vehicles. However, the time periods of consumption for these two components of energy use do not fully overlap. The transportation data represent energy consumed in personal vehicles during calendar year 1985; household data represent energy consumed in the home from April 1984 through March 1985.

There are small differences between the home energy use data presented in the RECS reports and the home energy use data presented here as part of this transportation report. These differences exist because the transportation sample is a subsample of the households that participated in the RECS. Furthermore, the RECS sample was weighted to represent the number of U.S. households as of November 1984; the RTECS sample has been weighted to represent the number of U.S. households as of July 1985.² Therefore, in this report, all survey statistics for number or percentage of households are estimates as of the July 1985 reference point. Although the statistics in this report are stated for calendar year 1985, they do not account for growth in the housing stock and the resulting growth in the vehicle stock which occurred from July through December 1985.

¹ Reports are available from the National Energy Information Center or U.S. Government Printing Office (see inside front cover). Public-use data tapes are available from the National Technical Information Service, Computer Products Division, 5285 Port Royal Road, Springfield, Virginia 22161 (Telephone: 703-487-4808).

² A household is a family or group of unrelated persons occupying the same housing unit. This corresponds to the U.S. Bureau of the Census definition. (See Glossary.)

2. Size and Composition of the Vehicle Stock

In 1985, 77.7 (± 1.1) million or 89 (± 1) percent of all U.S. households owned or had the regular use of a vehicle for personal transportation.^{3,4} These households owned or had the use of an average of 137.3 (± 3.2) million vehicles.⁵ Automobiles, including station wagons, were the most prevalent body style, comprising 78 (± 1) percent of household vehicles. Pickup trucks, the second most common vehicle type, comprised 15 (± 1) percent, while vans and jeep-like vehicles (see Glossary) each comprised 3 (± 0.5) percent.

The number of different vehicles in use by households changes throughout the year, as households acquire and dispose of vehicles. In 1985, 46 (± 2) percent of all households using vehicles had either acquired one or more vehicles, or disposed of one or more vehicles, or both. For most of these households, only one vehicle was acquired during the year, or one vehicle was disposed of during the year, or both. Also within more than half of these households, both acquisition and disposal of vehicles occurred.

In 1985, households acquired a total of 34.6 (± 1.7) million vehicles and disposed of 37.3 (± 2.1) million vehicles. However, the net change in vehicle stock due to vehicle acquisition and disposal was not statistically significant.

³The \pm value in parentheses after a statistic represents a 95-percent confidence interval; that is, it represents 1.96 times the standard error of the statistic. The standard error is a measure of the variability of an estimate that is based on a sample survey. A 95-percent confidence interval can be calculated by multiplying 1.96 times the standard error: subtracting this value from the statistic gives the lower end of the interval, and adding this value to the statistic gives the upper end. A 95-percent confidence interval means that if the survey were repeated under the same conditions using all possible samples, 95 percent of the surveys would yield intervals that contained the true value of the statistic. Nonsampling error and bias due to nonresponse is an additional concern regarding the statistics in this report. For further information on evaluating the data, see Appendix B.

⁴Household vehicles include company owned cars if regularly available to household members for personal transportation and cars rented or leased for 1 month or more. (See Glossary.)

⁵This average was computed by adding together the number of days each different vehicle was available to a household during the year and dividing the sum by 365. The resulting figure was aggregated across all households. The total number of distinct vehicles used by households would exceed 137.3 million.

The average number of vehicles owned by or available to a household during 1985 was 1.8 (± 0.04).⁶ Of the 77.7 million households having use of a vehicle, 5 (± 1) percent had an average of less than one vehicle for the year, 31 (± 2) percent averaged 1 vehicle for the year, and 15 (± 1) percent averaged between 1 and 2 vehicles. Another 25 (± 2) percent of the households averaged 2 vehicles, and the remaining⁷ 23 (± 2) percent averaged more than 2 vehicles for the year (Table 3).



Purchasing motor fuel—Fuel expenditures for personal transportation totaled \$99.1 billion in 1985.

⁶This is the effective number of vehicles in a household's possession for a full year. For example, a household that owned two vehicles, one each for one-half of a year, would effectively possess an average of one vehicle for the year.

⁷All table numbers refer to tables in the Detailed Statistics chapter of this report.

3. Aggregate Consumption, Expenditures, and Types of Fuel for Household Vehicles

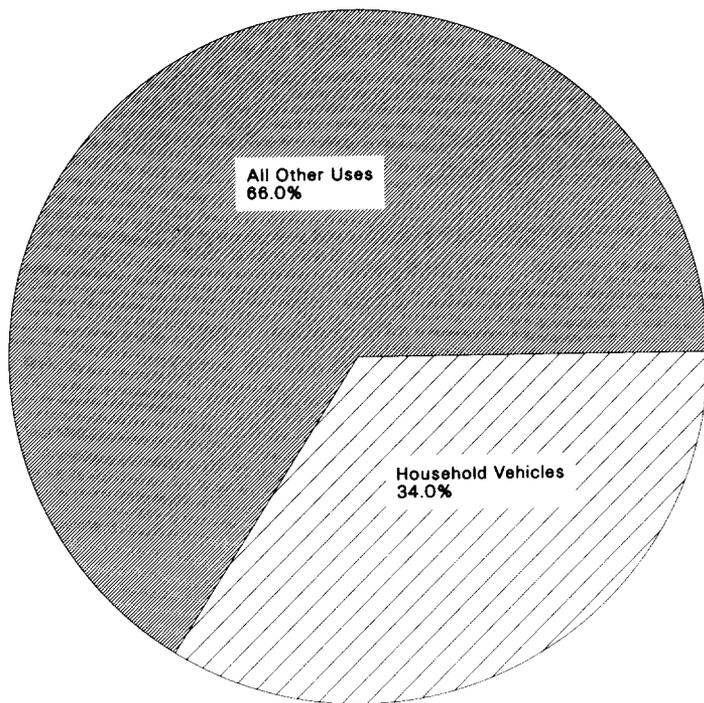
In 1985, U.S. energy consumption of all fuels was 73.8 quadrillion Btu.⁸ Of this total, household vehicles consumed 10.5 (± 0.6) quadrillion Btu, or 14 percent (See Glossary for Btu conversion factors). Household vehicle fuel consumption in 1985 accounted for about one-third of U.S. petroleum consumption and about one-half of the total fuel consumption in the transportation sector (10.5 quadrillion Btu out of 19 quadrillion Btu) (Figure 1).

The 10.5 quadrillion Btu consumed in household vehicles in 1985 represented 83.9 (± 4.4) billion gallons of motor fuel (i.e., gasoline, diesel fuel, and gasohol). This consumption was not significantly different from the 80.3 (± 4.7) billion gallons consumed in 1983. In 1985, expenditures for motor fuel totaled \$99.1 (± 5.1) billion. Gasoline accounted for 82.4 (± 4.7) billion gallons or 98 (± 1) percent of the 83.9 billion gallons of motor fuel consumed for personal transportation. Expenditures for gasoline totaled \$97.2 (± 5.3) billion. Of the 82.4 billion gallons of gasoline consumed, 70 (± 3) percent was unleaded and 30 (± 3) percent was leaded. In 1983, only 59 (± 3) percent of the gasoline consumed in household vehicles was unleaded, and 41 (± 3) percent was leaded (Figure 2).

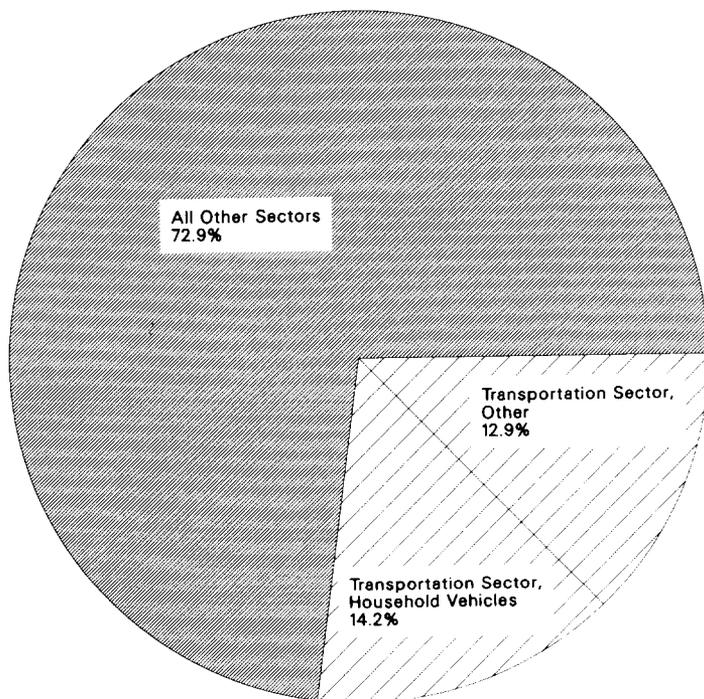
In addition to the 82.4 billion gallons of gasoline consumed in 1985, residential vehicles also consumed 1.5 (± 0.5) billion gallons of diesel fuel.

⁸Energy Information Administration, Annual Energy Review 1985, DOE/EIA-0384(85) (Washington, DC, May 1986), p.1.

Figure 1. Fuel Consumption by Household Vehicles as a Percentage of U.S. Fuel Consumption, 1985



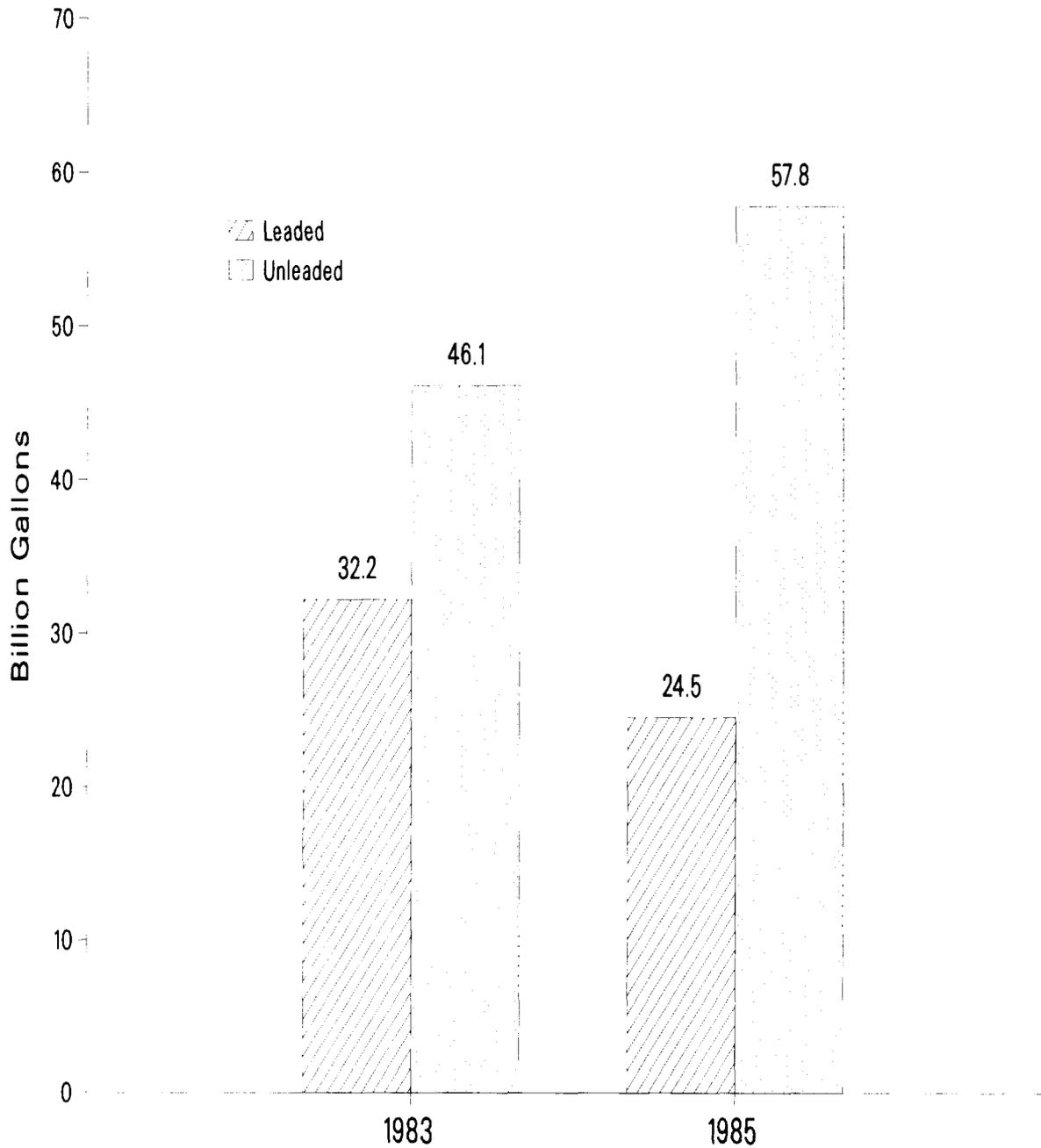
Total U.S. Petroleum Consumption = 30.9 Quadrillion Btu



Total U.S. Energy Consumption = 73.8 Quadrillion Btu

Note: "Transportation Sector, Other" is the remainder of the Total Transportation Sector Consumption minus Household Vehicles Consumption.
 Source: Energy Information Administration, Office of Energy Markets and End Use. Household Vehicles Data: Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey. All other data: Annual Energy Review, 1985.

Figure 2. Total Consumption of Leaded and Unleaded Gasoline by Household Vehicles: 1983 and 1985



Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1983 and 1985 Residential Transportation Energy Consumption Surveys.

4. Average Household Consumption of Motor Fuel

In 1985, there were 77.7 (± 1.1) million households which owned or had use of at least one vehicle for at least part of the year. These households contained 215.1 (± 6.3) million members; 145.2 (± 3.7) million of these were drivers. Thus, the average was 1.9 (± 0.04) drivers per household.

In 1985, an average of 1,079 (± 38) gallons of motor fuel were consumed per household with vehicles, and an average of 578 (± 19) gallons were consumed per driver. The amount consumed per household had not changed significantly from 1983, when 1,112 (± 41) gallons were consumed per household (Figure 3).

Figure 3. Motor Fuel Consumption per Household: 1983 and 1985



Note: Data in this figure include only households with motor vehicles for personal transportation.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1983 and 1985 Residential Transportation Energy Consumption Surveys.

The consumption of motor fuel per household was different for different Census regions (Table 3). There were 972 (± 84) gallons consumed per household in the Northeast, 1,070 (± 67) gallons per household in the North Central region, 1,137 (± 62) gallons in the South, and 1,095 (± 88) gallons in the West. However, only the difference between the Northeast and South was statistically significant. Household characteristics such as family income, the size of the household, and the number of vehicles in the household were strongly related to fuel consumption per household. Lower income households consumed less than higher income households. Consumption ranged from 645 (± 216) gallons per household for

families with income of less than \$5,000, to 1,406 (± 66) gallons for families with income of \$35,000 or more. Consumption per household was positively correlated with family size, ranging from 628 (± 86) gallons for 1-person households to 1,450 (± 99) for households with 5 or more persons. Household consumption was roughly proportional to the number of vehicles in the household. For example, households with an average of 1 vehicle consumed 569 (± 50) gallons of motor fuel. Households with 2 vehicles consumed a little more than twice as much, 1,225 gallons (± 65).

The age of the householder (see Glossary) seemed to affect consumption only when the householder was 60 years and older. For other categories of age of householder, consumption was relatively close to the average for all U.S. households with vehicles. Households in which the householder was 60 years and older consumed 698 (± 53) gallons, compared with 1,079 (± 38) gallons for the average household. Older householders had the fewest vehicles and the lowest vehicle fuel efficiency of any householder age category. However, the factor that distinguishes these households more than any other was their lower than average annual mileage, 10,972 (± 882) compared to 17,402 (± 546).

5. Average Household Expenditures for Motor Fuel

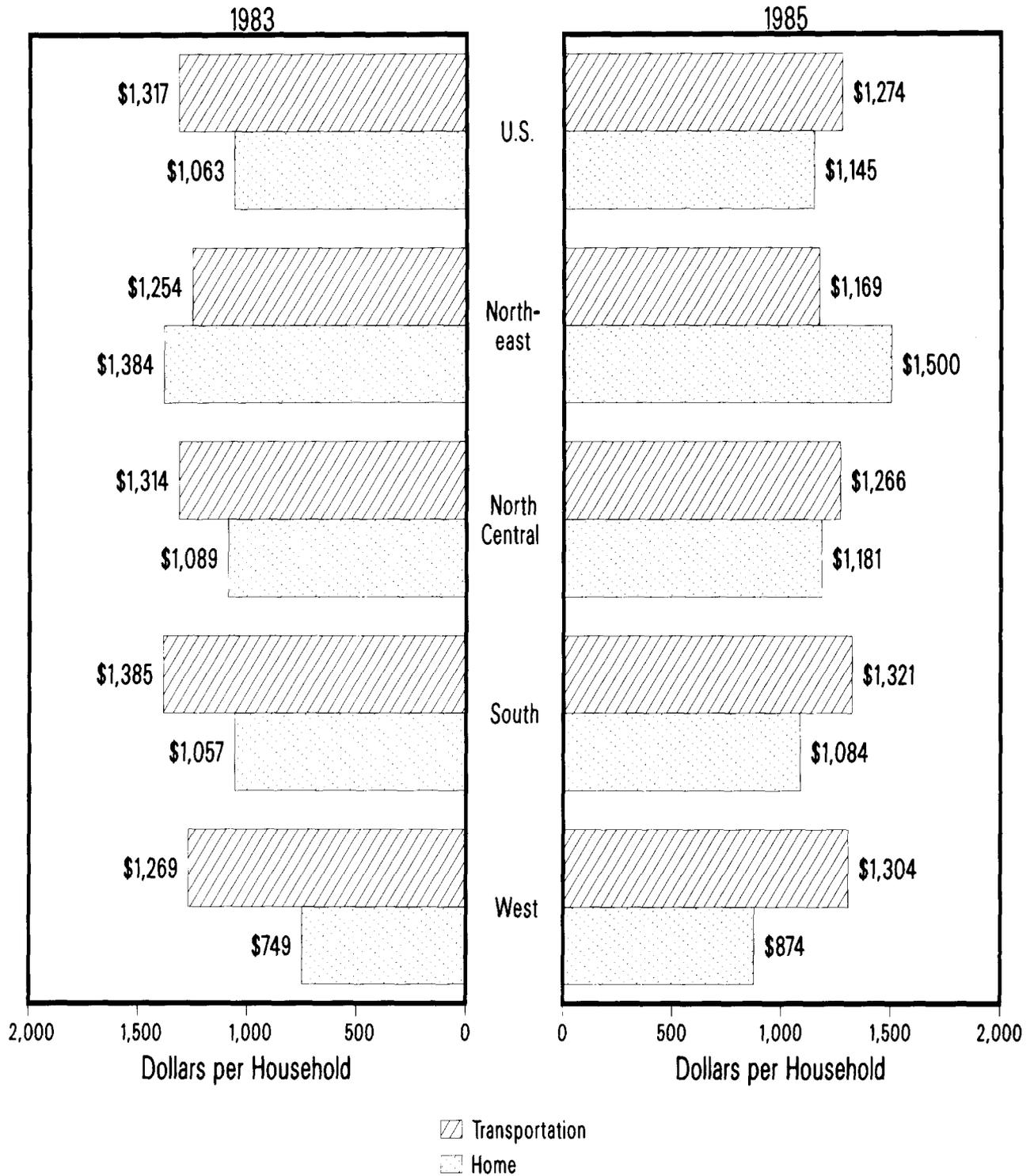
Households that had the regular use of a vehicle spent an average of \$1,274 (± 42) for motor vehicle fuel in 1985. In addition, these same households spent \$1,145 (± 29) for fuels used in the home for purposes such as heating and cooking (Table 13). Thus, total energy expenditures were \$2,419 (± 57) per household, 53 (± 2) percent of which was spent on motor fuel, and 47 (± 2) percent of which was spent on fuels used in the home.⁹ In 1983, transportation energy expenditures accounted for 55 (± 3) percent of total household energy expenditures.

Expenditures per household for motor fuel appeared to be slightly higher in the South and West Census regions than in other regions, but the differences were not statistically significant. Expenditures per household for motor fuel were \$1,169 (± 99) in the Northeast, \$1,266 (± 77) in the North Central region, \$1,321 (± 70) in the South, and \$1,304 (± 100) in the West. Therefore, differences across Census regions in total household energy expenditures were due mainly to expenditures for nontransportation fuel used in the home (Figure 4). Across Census regions, the pattern of expenditures for motor fuel mirrored the pattern of consumption. (See Table 3 and Chapter 4.)

The average price paid for motor fuel in 1985 remained approximately the same as in 1983, \$1.18 (± 0.01) per gallon. Unleaded gasoline reflected this stability, with an average price of \$1.21 (± 0.01) in 1985 and \$1.22 (± 0.01) in 1983. The average price of leaded gasoline decreased slightly, from \$1.14 (± 0.01) in 1983 to \$1.11 (± 0.01) in 1985 (Table 2). The percentage of unleaded gasoline consumption grew from 59 (± 2) percent in 1983 to 70 (± 2) percent in 1985.

⁹ Expenditures for motor fuels were estimated from the 1985 RTECS, while expenditures for fuels used in the home were estimated from the 1984 RECS. Although the households participating in RTECS were subsampled from RECS, the reference periods for these surveys only partially overlapped. The assumption has been made of enough stability in expenditures over these 2 years to allow the summing of expenditures for household fuel and motor fuel. See the Introduction and Appendix A for more details on the relationship between the two surveys.

Figure 4. Energy Expenditures per Household by Census Region: 1983 and 1985



Note: Expenditures for energy used in the home may differ slightly from the published Residential Energy Consumption Survey reports. Transportation data in the figure include only households with motor vehicles for personal transportation.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division.

Home data: 1982 and 1984 Residential Energy Consumption Surveys.

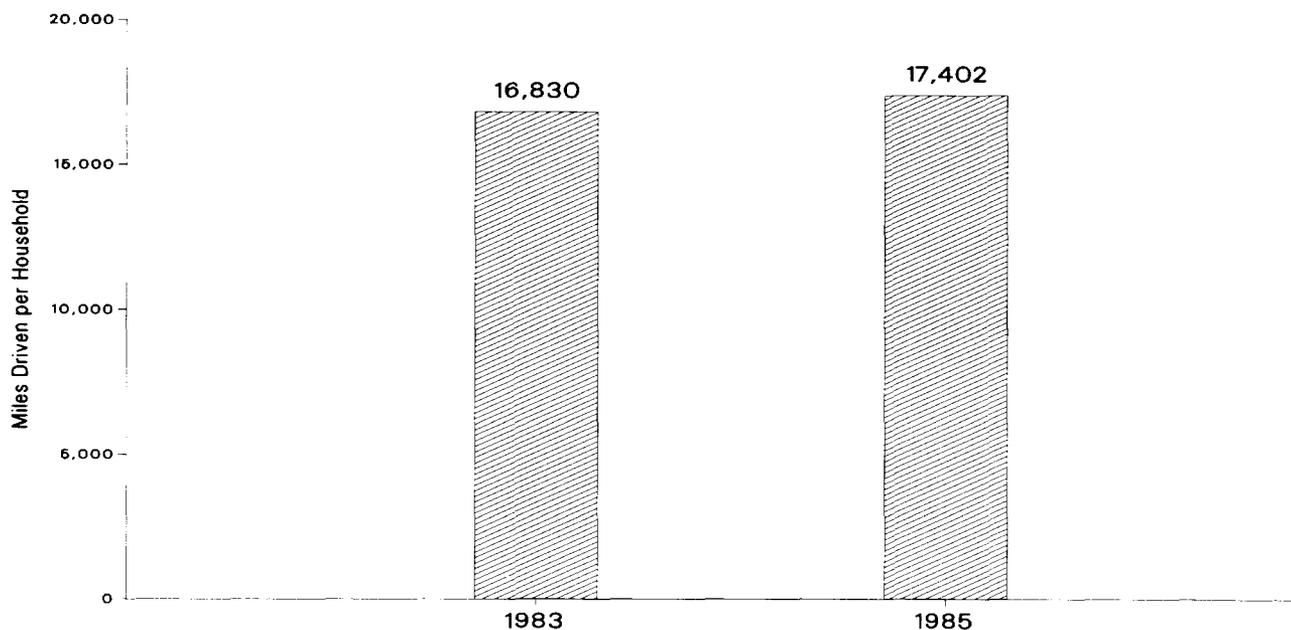
Transportation data: 1983 and 1985 Residential Transportation Energy Consumption Surveys.

6. Total Mileage and Average Mileage per Household

In 1985, personal vehicles were used to travel a total of 1,353 (± 66) billion miles. This represents an 11 (± 7) percent increase over the 1,215 (± 52) billion miles traveled in 1983.

Most of the 11 percent increase in total miles driven can be accounted for by an 8 (± 2) percent increase in the number of households with vehicles (Table 3), and a corresponding 6 (± 4) percent increase in the total number of vehicles.¹⁰ The increase in mileage was apparently not due to a change in motor vehicle use patterns. In 1985, an average of 9,855 (± 270) miles were driven per vehicle, and an average of 17,402 (± 546) miles were driven per household. These motor vehicle use patterns had not changed significantly since 1983 (Figure 5).

Figure 5. Annual Mileage per Household: 1983 and 1985



Note: Data in this figure include only households with motor vehicles for personal transportation.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1983 and 1985 Residential Transportation Energy Consumption Surveys.

¹⁰ Two percent of the growth since 1983 in the number of households with vehicles is attributable to a change in the definition of car-owning households for the 1985 report. For this report we have included households that owned a vehicle at any time during 1985. For the 1983 report, only households that owned a car as of July 1983 (the date for which population control totals are set for all U.S. households) were considered vehicle-owning households.

It appears that more miles were driven per household in the West and South Census regions, than in the Northeast and North Central regions. An average of 18,086 ($\pm 1,028$) miles were driven per household in the West, and 17,991 (± 811) miles per household in the South. In the Northeast, 16,476 ($\pm 1,647$) miles were driven per household, and in the North Central region, 16,734 ($\pm 1,050$) miles were driven per household. However, the differences between Census regions were not statistically significant. A larger sample size would be needed to statistically distinguish regional differences in vehicle use patterns.

7. Fuel Efficiency

Fuel efficiency averaged for all vehicles, measured in miles per gallon or MPG, was 16.1 (± 0.3) MPG in 1985.¹¹ This represents a 7 (± 3) percent increase over the 15.1 (± 0.2) MPG estimated for 1983. Because of this increase in vehicle efficiency, total consumption of motor fuel did not increase significantly between 1983 and 1985, even though total mileage driven did increase significantly.

Federal Highway Administration statistics on fuel efficiency indicate 17.9 MPG for 1985, and 16.7 MPG for 1983, averaged for all United States passenger cars.¹² This increase over time is similar in magnitude to the increase estimated by RTECS. The RTECS estimates of MPG are slightly lower than those of FHA, in part because RTECS includes data for vans and trucks, whereas the FHA statistics are generally oriented toward passenger cars.

The overall MPG increased through time because as older vehicles were retired from the national residential fleet, they were replaced by newer, more fuel efficient vehicles. Figure 6 shows a steady improvement in fuel efficiency over model years 1974 through 1982. Vehicles of model years 1974 to 1978 had an average fuel efficiency of 13.8 (± 0.4) MPG, while vehicles of model years 1981 to 1982 attained an average of 19.1 (± 0.5) MPG. For model years after 1982, however, the average MPG was fairly constant (Figure 6 and Table 8).

Vehicles of newer vintage were apparently driven more in 1985 than were older vehicles. Vehicles of model year 1985 or later were driven 13,007 ($\pm 1,020$) miles per vehicle, while vehicles of model year 1973 or earlier were driven 6,859 (± 847) miles (Figure 7). Because newer vehicles were more fuel efficient, however, they did not consume as much fuel as might be expected, given their greater use (Figure 8).

The number of cylinders in a vehicle's engine was an important determinant of fuel efficiency. In general, the fewer the number of cylinders, the higher the fuel efficiency (Figure 9).

Fuel efficiency was related to vehicle type (automobile, pickup truck, and van) probably as a result of the different engine sizes and body weights found in these vehicle types. Automobiles averaged 17.2 (± 0.3) MPG, pickup trucks averaged 13.5 (± 0.5) MPG, and vans averaged 13.2 (± 1.0) MPG (Figure 10). Automobiles consumed less fuel per vehicle in 1985 than did pickup trucks or

¹¹Miles per gallon (MPG) for all vehicles in a subgroup, such as the whole United States or a given Census region, is computed as the ratio of total miles traveled by all vehicles in that subgroup, divided by the total gallons consumed by all vehicles in the subgroup. It is not an arithmetic average of the individual MPG's achieved by the vehicles in the subgroup.

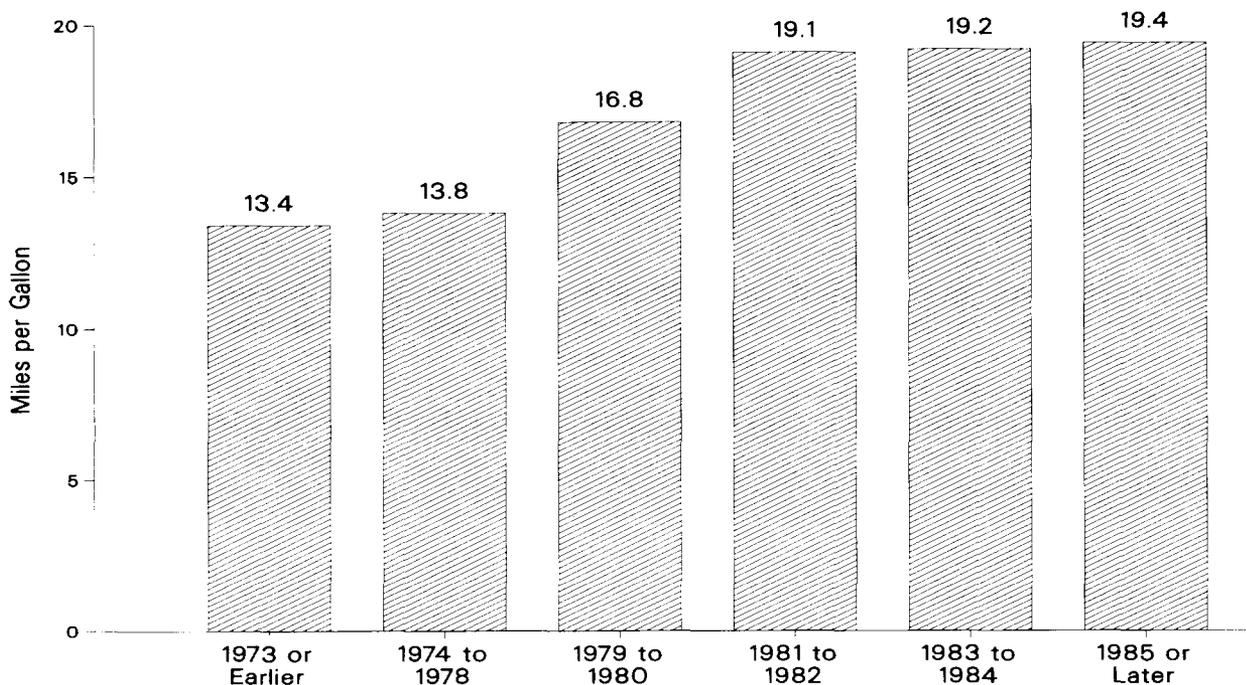
¹²Energy Information Administration, Monthly Energy Review, September 1986, DOE/EIA-0035(86/09) (Washington, DC, December 1986), p. 19.

vans, despite the fact that there were no significant differences in miles driven in 1985 between automobiles, pickup trucks, and vans (Figure 11 and Table 8). The lower consumption per automobile in 1985 was due to the higher fuel efficiency of automobiles.

An estimated 63 (± 2) percent of household vehicles had air conditioning in 1985. There was no significant difference in fuel efficiency between air-conditioned vehicles, 16.0 (± 0.3) MPG, and non-air-conditioned vehicles, 16.3 (± 0.5) MPG.

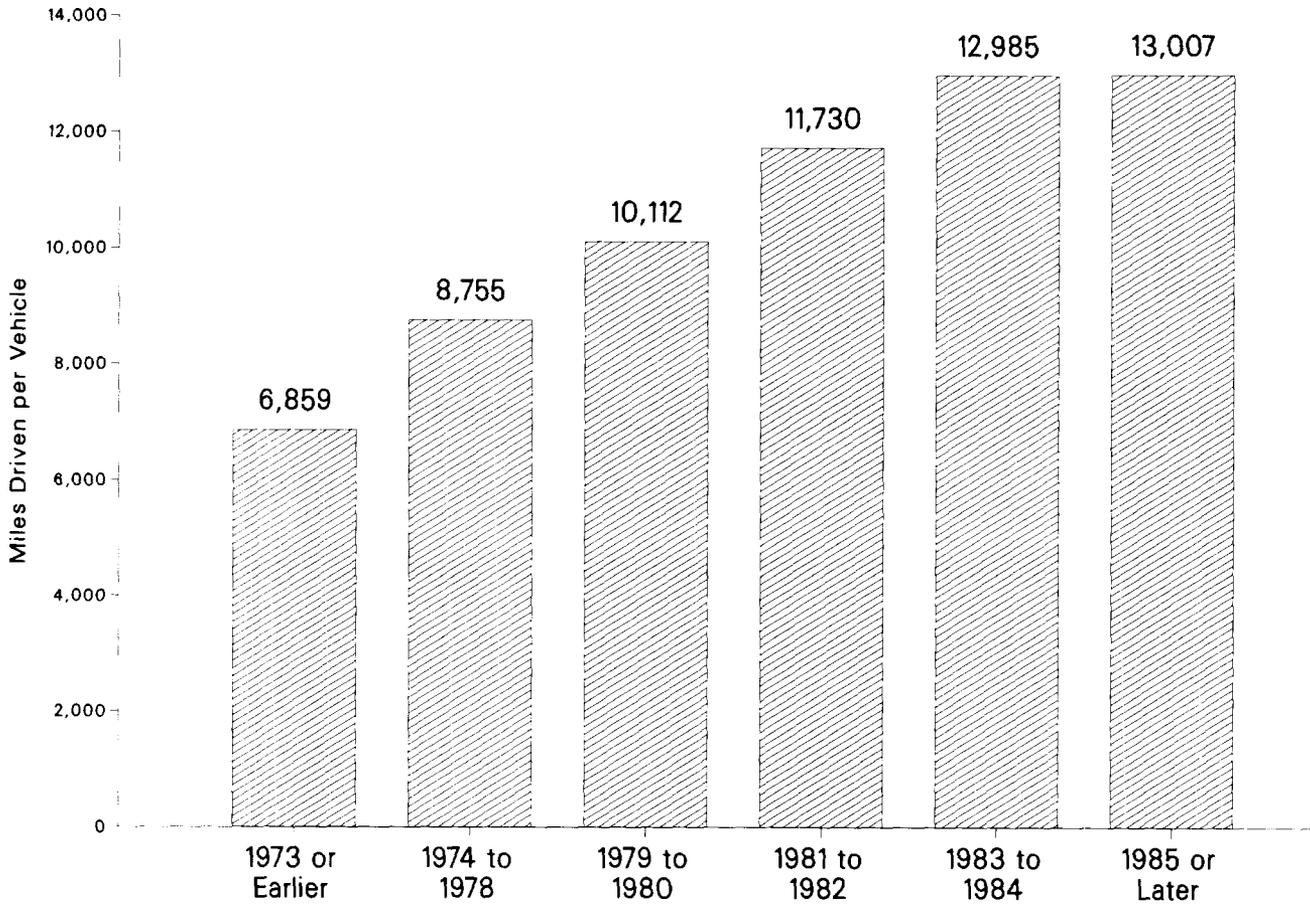
An estimated 72 (± 2) percent of vehicles had automatic transmissions in 1985, while only 28 (± 1) percent had manual shift transmissions. However, the fuel efficiency of vehicles with automatic transmissions averaged only 15.1 (± 0.3) MPG, compared to vehicles with manual transmissions, which averaged 19.3 (± 0.9) MPG (Table 8). Although a significant part of this difference in MPG may be directly caused by transmission type, other factors correlated with transmission type, may also influence MPG. Engine size could be such a factor.

Figure 6. Fuel Efficiency per Vehicle by Vehicle Model Year



Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

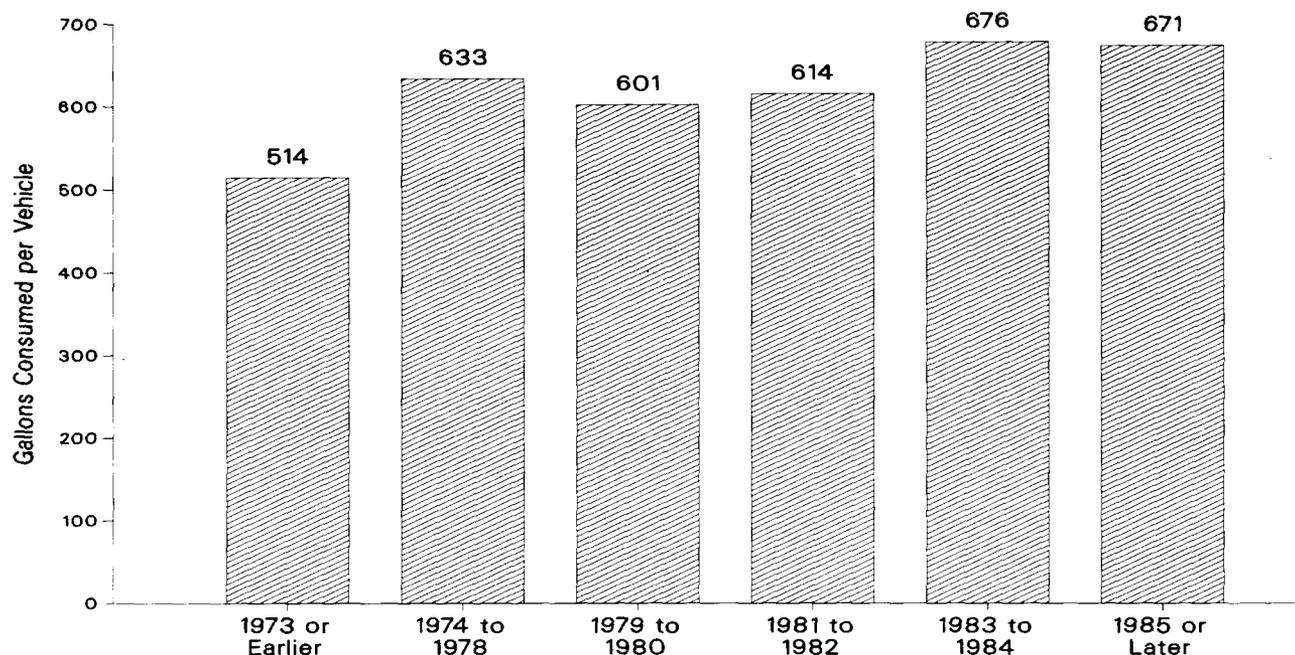
Figure 7. Annual Mileage per Vehicle by Vehicle Model Year



Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.

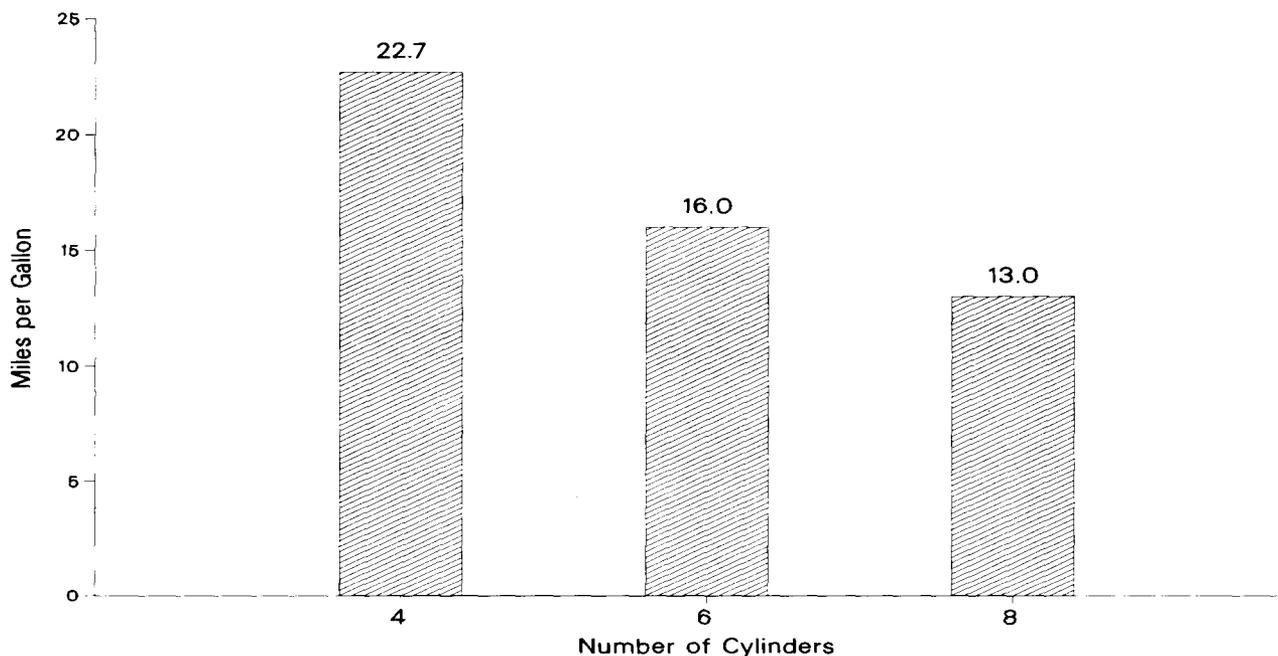
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

Figure 8. Motor Fuel Consumption per Vehicle by Model Year



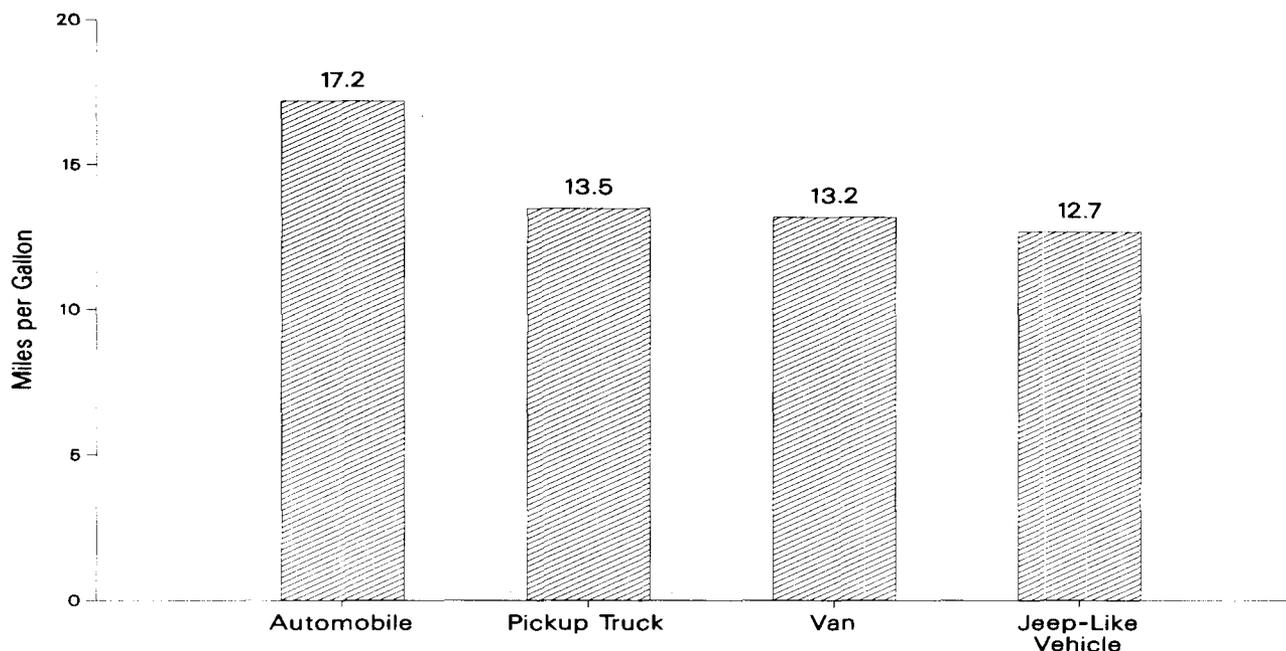
Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

Figure 9. Fuel Efficiency per Vehicle by Number of Cylinders, 1985



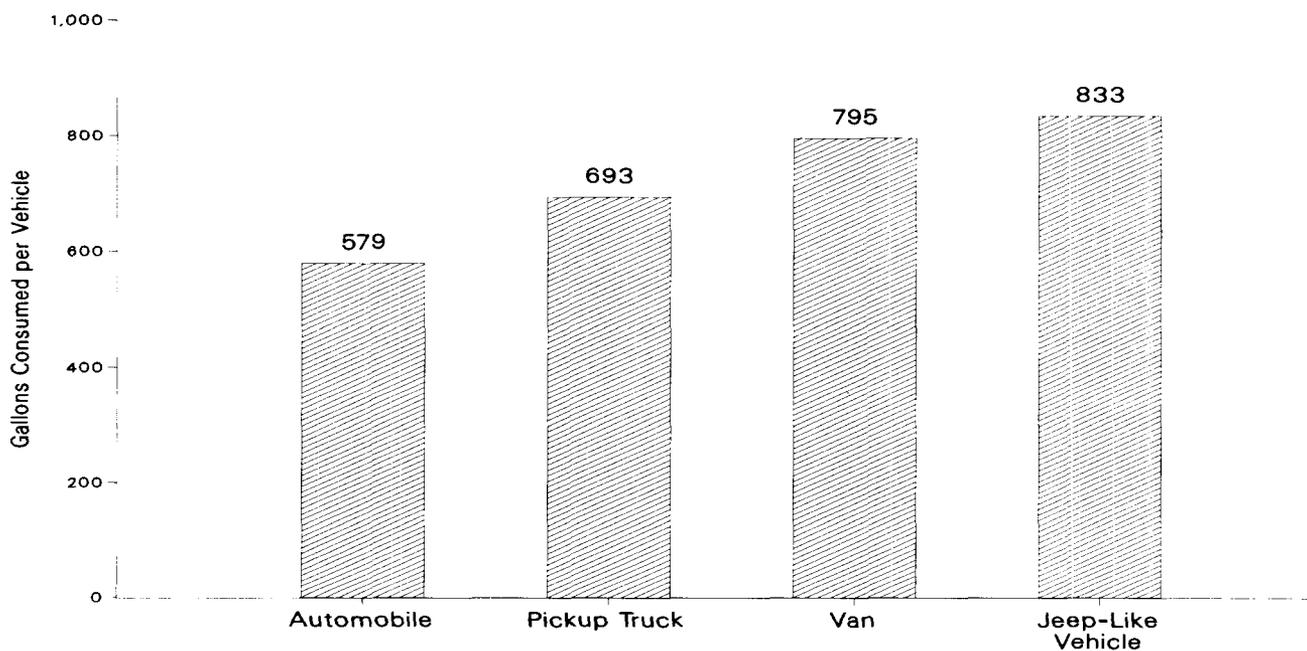
Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

Figure 10. Fuel Efficiency per Vehicle by Vehicle Type, 1985



Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

Figure 11. Motor Fuel Consumption per Vehicle by Vehicle Type, 1985



Note: Data in this figure are for motor vehicles used by households for personal transportation only; commercial transportation is not included.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

8. Detailed Statistics

The following 13 tables provide summaries of the 1985 RTECS data on such residential transportation parameters as miles driven, gallons of fuel consumed, expenditures for fuel, and price per gallon. Also presented are actual or "in-use" fuel efficiencies in miles per gallon (MPG). These statistics are broken out according to (1) various characteristics of the households owning the vehicles, and (2) various characteristics of the vehicles themselves. The household and vehicle characteristics are represented by the different table rows. In all tables of this report, the term "automobile" includes station wagons. See the Glossary for definition of terms used in the tables.

Table 1 presents national totals for miles driven, gallons of fuel consumed, and motor fuel expenditures, by various household and vehicle characteristics. Table 2 contrasts leaded and unleaded gasoline in terms of gallons consumed, price per gallon, and MPG, for different vehicle characteristics.

Table 3 displays statistics on a per household basis; for example, number of vehicles per household, number of gallons consumed per household, miles driven per household, and expenditures per household. These statistics are computed as ratios. For example, miles driven per household is calculated by dividing the total miles driven by the corresponding total number of households. Table 3 also contains ratios for MPG, expenditures per gallon, and expenditures per mile. Table 8 is similar to Table 3, except that the ratios are computed on a per vehicle-year basis. For example, miles driven per vehicle is calculated by dividing the total miles driven by the effective number of vehicles. Consequently, a household that only owned one automobile for 6 months and drove it 5,000 miles would have a value of 10,000 miles per vehicle-year.

Table 4 shows the distribution of motor fuel expenditures per household. The distribution is presented as percentages in each of five motor fuel expenditure categories. Tables 5, 6, and 7 are similar except that the categories deal with gallons consumed per household, miles driven per household, and MPG for the household. The MPG for a given household is the ratio of total miles to total gallons consumed, for all vehicles in that household. Tables 9, 10, 11, and 12 are similar to Tables 4 through 7, except that they contain the percentage distribution of vehicles, and the categories deal with motor fuel expenditures per vehicle (Table 9), gallons consumed per vehicle (Table 10), miles traveled per vehicle (Table 11), and vehicle MPG (Table 12).

Table 13 is unique in that it shows the expenditures of households for energy used in the home, combined with expenditures for motor vehicle fuel. That is, all residential sector energy expenditures are combined: home heating and cooling, water heating, appliances, and motor vehicle fuel. Table 13 presents the total energy consumption and expenditures in the residential sector, listed by various characteristics of households.

Relative Standard Errors (RSE's) for the statistics in Tables 1 through 13 are found in Tables B1 through B13 of Appendix B. There is a one-to-one correspondence between the values in Tables 1 through 13 and the RSE's in Tables B1 through B13. Appendix B gives information on the meaning and use of RSE's as measures of reliability.

Table 1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Total.....	1,353	100.0	83.9	100.0	99.1	100.0
Census Region and Division						
Northeast.....	248	18.3	14.6	17.4	17.6	17.7
New England.....	64	4.7	3.6	4.3	4.4	4.4
Middle Atlantic.....	184	13.6	11.0	13.1	13.2	13.3
North Central.....	327	24.2	20.9	24.9	24.7	25.0
East North Central.....	216	16.0	13.5	16.1	16.1	16.2
West North Central.....	111	8.2	7.4	8.8	8.7	8.7
South.....	486	36.0	30.7	36.6	35.7	36.1
South Atlantic.....	246	18.2	15.2	18.1	17.8	18.0
East South Central.....	96	7.1	6.1	7.2	7.0	7.1
West South Central.....	144	10.6	9.5	11.3	10.9	11.0
West.....	292	21.6	17.7	21.1	21.0	21.2
Mountain.....	79	5.8	4.9	5.8	5.7	5.8
Pacific.....	213	15.8	12.8	15.3	15.3	15.5
Metropolitan Status						
Metropolitan.....	1,029	76.1	62.6	74.6	73.8	74.5
Central City.....	383	28.3	23.9	28.5	28.3	28.5
Outside Central City.....	646	47.8	38.7	46.1	45.6	46.0
Nonmetropolitan.....	324	23.9	21.3	25.4	25.2	25.5
Origin of Householder						
White.....	1,204	89.0	74.3	88.5	87.7	88.5
Black.....	112	8.3	7.4	8.9	8.8	8.8
Other.....	37	2.7	2.2	2.6	2.6	2.6
Hispanic Descent						
Yes.....	58	4.3	3.6	4.3	4.3	4.3
No.....	1,295	95.7	80.3	95.7	94.8	95.7
Age of Householder						
24 Years and Under.....	104	7.7	6.4	7.7	7.6	7.7
25 to 34 Years.....	357	26.4	21.5	25.6	25.3	25.6
35 to 44 Years.....	343	25.3	21.3	25.4	25.2	25.4
45 to 59 Years.....	333	24.6	20.9	24.9	24.6	24.9
60 Years and Over.....	216	15.9	13.7	16.4	16.3	16.5

See notes at the end of the table.

Table 1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985 (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Household Size						
1 Person.....	162	12.0	10.0	11.9	11.8	12.0
2 Persons.....	386	28.6	23.5	28.0	27.8	28.0
3 Persons.....	293	21.7	18.2	21.7	21.5	21.7
4 Persons.....	281	20.8	17.8	21.3	21.0	21.2
5 or More Persons.....	230	17.0	14.4	17.1	16.9	17.1
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	136	10.1	8.6	10.2	10.3	10.4
5,500 to 7,000 HDD.....	332	24.5	20.3	24.1	24.2	24.4
4,000 to 5,499 HDD.....	328	24.2	20.2	24.0	23.7	24.0
Fewer than 4,000 HDD.....	330	24.4	20.7	24.7	24.2	24.5
More than 2,000 CDD and						
Fewer than 4,000 HDD.....	226	16.7	14.2	16.9	16.6	16.7
Family Income 1985						
Less than \$ 5,000.....	34	2.5	2.4	2.8	2.8	2.8
\$ 5,000 - \$ 9,999.....	98	7.2	6.7	8.0	7.8	7.9
\$10,000 - \$14,999.....	149	11.0	9.8	11.7	11.5	11.6
\$15,000 - \$19,999.....	141	10.4	9.0	10.7	10.5	10.6
\$20,000 - \$24,999.....	165	12.2	10.4	12.3	12.2	12.3
\$25,000 - \$34,999.....	289	21.4	17.8	21.3	21.0	21.2
\$35,000 or More.....	477	35.2	27.9	33.2	33.3	33.6
Below 100% of Poverty.....	117	8.6	8.0	9.6	9.3	9.4
Below 125% of Poverty.....	176	13.0	12.1	14.4	14.0	14.1
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	19	1.4	1.3	1.5	1.5	1.5
\$10,000 - \$14,999.....	24	1.8	1.6	1.9	1.9	1.9
\$15,000 - \$24,999.....	50	3.7	3.1	3.6	3.7	3.7
\$25,000 - \$34,999.....	57	4.2	3.3	3.9	3.9	4.0
\$35,000 or More.....	97	7.2	5.4	6.4	6.6	6.6

See notes at the end of the table.

Table 1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985 (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Census Region by Family Income 1985						
North Central						
Less than \$9,999.....	33	2.4	2.4	2.8	2.8	2.8
\$10,000 - \$14,999.....	35	2.6	2.3	2.8	2.8	2.8
\$15,000 - \$24,999.....	75	5.5	4.8	5.7	5.7	5.7
\$25,000 - \$34,999.....	75	5.5	4.7	5.6	5.6	5.6
\$35,000 or More.....	109	8.1	6.7	8.0	7.9	8.0
South						
Less than \$9,999.....	48	3.5	3.4	4.1	3.9	4.0
\$10,000 - \$14,999.....	55	4.1	3.7	4.4	4.2	4.3
\$15,000 - \$24,999.....	125	9.3	8.1	9.6	9.4	9.4
\$25,000 - \$34,999.....	102	7.5	6.4	7.7	7.5	7.5
\$35,000 or More.....	156	11.5	9.1	10.8	10.7	10.8
West						
Less than \$9,999.....	32	2.4	2.0	2.4	2.4	2.4
\$10,000 - \$14,999.....	34	2.5	2.2	2.6	2.5	2.6
\$15,000 - \$24,999.....	56	4.1	3.4	4.0	4.0	4.1
\$25,000 - \$34,999.....	55	4.1	3.4	4.1	4.0	4.1
\$35,000 or More.....	115	8.5	6.7	8.0	8.1	8.1
Number of Drivers (Fall 1984)						
1.....	257	19.0	16.1	19.1	19.0	19.2
2.....	730	53.9	45.3	54.0	53.5	54.0
3 or More.....	352	26.0	21.7	25.9	25.7	25.9
None/No Answer.....	14	1.0	.8	1.0	1.0	1.0
Average Number of Vehicles per Household per Year						
Fewer than 1.....	25	1.8	1.6	1.9	1.8	1.9
1.....	223	16.5	13.7	16.4	16.3	16.5
Between 1 and 2.....	200	14.8	12.5	14.9	14.8	15.0
2.....	390	28.8	23.9	28.5	28.2	28.5
More than 2.....	515	38.1	32.2	38.4	37.9	38.2

See notes at the end of the table.

Table 1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985 (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Type of Fuel						
Leaded.....	332	24.5	24.5	29.2	27.3	27.6
Unleaded.....	990	73.2	57.8	68.9	69.9	70.6
Other.....	31	2.3	1.6	1.9	1.9	1.9
Model Year						
1973 or Earlier.....	184	13.6	13.8	16.4	15.5	15.7
1974 to 1978.....	379	28.0	27.4	32.7	32.1	32.4
1979 to 1980.....	205	15.1	12.2	14.5	14.5	14.7
1981 to 1982.....	206	15.2	10.8	12.9	13.1	13.2
1983 to 1984.....	269	19.9	14.0	16.7	16.9	17.1
1985 or Later.....	104	7.7	5.3	6.4	6.4	6.5
No Answer.....	Q	Q	Q	Q	Q	Q
Type of Vehicle						
Automobile.....	1,059	78.3	61.7	73.5	73.4	74.1
Jeep-Like Vehicle.....	39	2.9	3.1	3.6	3.6	3.6
Van.....	49	3.6	3.7	4.4	4.3	4.4
Pickup Truck.....	199	14.7	14.7	17.5	16.9	17.1
Other/No Answer.....	7	.5	.7	.8	.8	.8
Number of Cylinders						
4.....	445	32.9	19.6	23.4	23.5	23.7
6.....	362	26.8	22.7	27.0	26.9	27.2
8.....	536	39.6	41.1	49.0	48.1	48.5
Other.....	9	.7	.5	.6	.6	.6
Air Conditioning						
Yes.....	885	65.4	55.2	65.8	65.6	66.2
No.....	468	34.6	28.7	34.2	33.5	33.8

See notes at the end of the table.

Table 1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985 (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Type of Transmission						
Automatic.....	954	70.5	63.2	75.4	74.7	75.4
Manual.....	399	29.5	20.7	24.6	24.4	24.6
Vehicle Used on the Job						
Yes.....	203	15.0	12.6	15.0	15.0	15.2
No.....	1,150	85.0	71.3	85.0	84.0	84.8

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 2. Leaded Versus Unleaded Gasoline: Consumption, Fuel Efficiency, and Price per Gallon for Household Vehicles, 1985

Household and Vehicle Characteristics	Gasoline						
	Gallons Consumed (billions)	Gallons Consumed (billions)		Price per Gallon (dollars)		Miles per Gallon	
		Leaded	Unleaded	Leaded	Unleaded	Leaded	Unleaded
Total.....	82.4	24.5	57.8	1.11	1.21	13.5	17.1
Average Number of Vehicles per Household per Year							
Less than 1.....	1.6	Q	1.0	Q	1.20	Q	16.6
1.....	13.5	3.1	10.5	1.11	1.21	14.1	16.9
Between 1 and 2.....	12.2	3.4	8.7	1.11	1.21	13.4	16.9
2.....	23.5	6.5	17.0	1.11	1.21	13.5	17.3
More than 2.....	31.6	11.0	20.6	1.11	1.21	13.4	17.2
Type of Fuel							
Leaded.....	24.5	24.5	--	1.11	--	13.5	--
Unleaded.....	57.8	--	57.8	--	1.21	--	17.1
Other.....	NC	NC	NC	NC	NC	NC	NC
Model Year							
1973 or Earlier.....	13.8	11.4	2.3	1.11	1.20	13.3	13.4
1974 to 1978.....	27.4	10.5	16.8	1.12	1.20	13.1	14.2
1979 to 1980.....	11.8	1.7	10.1	1.11	1.21	16.3	16.8
1981 to 1982.....	10.3	.4	9.9	1.11	1.22	16.4	19.0
1983 to 1984.....	13.4	Q	13.2	Q	1.21	Q	19.5
1985 or Later.....	5.3	Q	5.2	Q	1.21	Q	19.4
No Answer.....	Q	Q	Q	Q	Q	Q	Q
Type of Vehicle							
Automobile.....	60.8	14.2	46.6	1.12	1.21	14.8	17.8
Jeep-Like Vehicle.....	3.0	.9	2.1	1.11	1.20	11.6	13.2
Van.....	3.7	1.7	2.0	1.11	1.21	11.4	14.8
Pickup Truck.....	14.1	7.1	7.0	1.11	1.19	12.1	14.9
Other/No Answer.....	.7	.6	Q	1.10	Q	9.9	Q

See notes at the end of the table.

Table 2. Leaded Versus Unleaded Gasoline: Consumption, Fuel Efficiency, and Price per Gallon for Household Vehicles, 1985 (Continued)

Household and Vehicle Characteristics	Gasoline						
	Gallons Consumed (billions)	Gallons Consumed (billions)		Price per Gallon (dollars)		Miles per Gallon	
		Leaded	Unleaded	Leaded	Unleaded	Leaded	Unleaded
Number of Cylinders							
4.....	19.2	3.3	15.9	1.12	1.21	20.9	22.9
6.....	22.4	5.4	17.0	1.11	1.21	14.0	16.6
8.....	40.3	15.8	24.5	1.11	1.21	11.8	13.7
Other.....	.5	Q	Q	Q	Q	Q	Q
Air Conditioning							
Yes.....	54.0	11.7	42.3	1.11	1.21	12.9	16.8
No.....	28.3	12.8	15.5	1.12	1.21	14.1	17.9
Type of Transmission							
Automatic.....	62.3	17.7	44.6	1.11	1.21	12.6	16.0
Manual.....	20.0	6.8	13.2	1.12	1.21	15.8	20.9
Vehicle Used on the Job							
Yes.....	12.4	3.4	8.9	1.12	1.22	13.2	17.1
No.....	70.0	21.1	48.9	1.11	1.21	13.6	17.1

NC/ No cases in sample.

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 3. Motor Fuel Consumption and Expenditures per Household, 1985

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Total.....	77.7	1.8	1,079	17,402	1,274	16.1	1.18	0.073
Census Region and Division								
Northeast.....	15.0	1.7	972	16,476	1,169	17.0	1.20	.071
New England.....	3.7	1.6	972	17,315	1,177	17.8	1.21	.068
Middle Atlantic.....	11.3	1.7	971	16,202	1,166	16.7	1.20	.072
North Central.....	19.5	1.7	1,070	16,734	1,266	15.6	1.18	.076
East North Central.....	13.2	1.7	1,025	16,406	1,220	16.0	1.19	.074
West North Central.....	6.4	1.9	1,163	17,413	1,361	15.0	1.17	.078
South.....	27.0	1.8	1,137	17,991	1,321	15.8	1.16	.073
South Atlantic.....	13.8	1.8	1,099	17,859	1,292	16.3	1.18	.072
East South Central.....	5.2	1.8	1,164	18,410	1,344	15.8	1.15	.073
West South Central.....	8.0	1.8	1,185	17,945	1,358	15.1	1.15	.076
West.....	16.1	1.8	1,095	18,086	1,304	16.5	1.19	.072
Mountain.....	4.4	1.9	1,099	17,829	1,297	16.2	1.18	.073
Pacific.....	11.7	1.8	1,093	18,182	1,306	16.6	1.19	.072
Metropolitan Status								
Metropolitan.....	59.0	1.7	1,060	17,428	1,250	16.4	1.18	.072
Central City.....	25.5	1.6	937	15,020	1,109	16.0	1.18	.074
Outside Central City.....	33.6	1.8	1,153	19,257	1,358	16.7	1.18	.071
Nonmetropolitan.....	18.7	1.8	1,141	17,319	1,349	15.2	1.18	.078
Origin of Householder								
White.....	68.1	1.8	1,091	17,668	1,288	16.2	1.18	.073
Black.....	7.2	1.5	1,037	15,660	1,220	15.1	1.18	.078
Other.....	2.5	1.6	890	15,112	1,059	17.0	1.19	.070
Hispanic Descent								
Yes.....	3.5	1.7	1,038	16,706	1,225	16.1	1.18	.073
No.....	74.3	1.8	1,081	17,434	1,277	16.1	1.18	.073

See notes at the end of the table.

Table 3. Motor Fuel Consumption and Expenditures per Household, 1985 (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Age of Householder								
24 Years and Under.....	5.9	1.6	1,093	17,673	1,287	16.2	1.18	0.073
25 to 34 Years.....	19.6	1.7	1,095	18,204	1,290	16.6	1.18	.071
35 to 44 Years.....	16.2	1.9	1,319	21,192	1,555	16.1	1.18	.073
45 to 59 Years.....	16.4	2.1	1,277	20,321	1,506	15.9	1.18	.074
60 Years and Over.....	19.7	1.5	698	10,972	831	15.7	1.19	.076
Household Size								
1 Person.....	15.9	1.2	628	10,212	746	16.2	1.19	.073
2 Persons.....	24.5	1.7	960	15,791	1,135	16.4	1.18	.072
3 Persons.....	14.6	2.0	1,248	20,043	1,472	16.1	1.18	.073
4 Persons.....	12.9	2.1	1,385	21,824	1,630	15.8	1.18	.075
5 or More Persons.....	9.9	2.2	1,450	23,261	1,711	16.0	1.18	.074
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	8.4	1.7	1,019	16,171	1,220	15.9	1.20	.075
5,500 to 7,000 HDD.....	19.0	1.7	1,064	17,442	1,271	16.4	1.19	.073
4,000 to 5,499 HDD.....	19.3	1.7	1,047	17,016	1,233	16.3	1.18	.072
Fewer than 4,000 HDD.....	18.5	1.8	1,120	17,869	1,311	16.0	1.17	.073
More than 2,000 CDD and								
Fewer than 4,000 HDD.....	12.5	1.8	1,134	18,073	1,325	15.9	1.17	.073
Family Income 1985								
Less than \$ 5,000.....	3.7	1.2	645	9,176	749	14.2	1.16	.082
\$ 5,000 - \$ 9,999.....	9.7	1.3	694	10,094	811	14.6	1.17	.080
\$10,000 - \$14,999.....	10.7	1.5	912	13,848	1,068	15.2	1.17	.077
\$15,000 - \$19,999.....	9.7	1.6	929	14,599	1,085	15.7	1.17	.074
\$20,000 - \$24,999.....	9.5	1.8	1,091	17,411	1,286	16.0	1.18	.074
\$25,000 - \$34,999.....	14.7	1.9	1,217	19,741	1,434	16.2	1.18	.073
\$35,000 or More.....	19.8	2.2	1,406	24,069	1,679	17.1	1.19	.070
Below 100% of Poverty.....	9.6	1.4	834	12,082	967	14.5	1.16	.080
Below 125% of Poverty.....	14.4	1.4	837	12,229	972	14.6	1.16	.079

See notes at the end of the table.

Table 3. Motor Fuel Consumption and Expenditures per Household, 1985 (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Census Region by Family Income 1985								
Northeast								
Less than \$9,999.....	2.1	1.2	604	8,865	714	14.7	1.18	0.080
\$10,000 - \$14,999.....	1.9	1.4	835	12,814	1,006	15.3	1.21	.079
\$15,000 - \$24,999.....	3.6	1.5	856	14,003	1,021	16.4	1.19	.073
\$25,000 - \$34,999.....	3.0	1.8	1,080	18,858	1,297	17.5	1.20	.069
\$35,000 or More.....	4.4	2.0	1,226	22,073	1,490	18.0	1.22	.067
North Central								
Less than \$9,999.....	3.5	1.2	678	9,375	795	13.8	1.17	.085
\$10,000 - \$14,999.....	2.8	1.4	826	12,437	979	15.1	1.19	.079
\$15,000 - \$24,999.....	4.9	1.7	980	15,297	1,155	15.6	1.18	.076
\$25,000 - \$34,999.....	3.9	2.0	1,194	18,988	1,417	15.9	1.19	.075
\$35,000 or More.....	4.4	2.2	1,535	25,058	1,821	16.3	1.19	.073
South								
Less than \$9,999.....	5.1	1.2	672	9,327	771	13.9	1.15	.083
\$10,000 - \$14,999.....	3.6	1.5	1,013	15,183	1,164	15.0	1.15	.077
\$15,000 - \$24,999.....	7.2	1.8	1,131	17,534	1,308	15.5	1.16	.075
\$25,000 - \$34,999.....	4.8	2.1	1,330	21,126	1,544	15.9	1.16	.073
\$35,000 or More.....	6.3	2.2	1,446	24,779	1,705	17.1	1.18	.069
West								
Less than \$9,999.....	2.6	1.5	759	12,243	902	16.1	1.19	.074
\$10,000 - \$14,999.....	2.4	1.6	920	14,308	1,075	15.6	1.17	.075
\$15,000 - \$24,999.....	3.5	1.7	959	15,840	1,142	16.5	1.19	.072
\$25,000 - \$34,999.....	2.8	1.8	1,201	19,381	1,415	16.1	1.18	.073
\$35,000 or More.....	4.8	2.3	1,404	24,070	1,691	17.1	1.20	.070

See notes at the end of the table.

Table 3. Motor Fuel Consumption and Expenditures per Household, 1985 (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Number of Drivers (Fall 1984)								
1.....	24.7	1.2	650	10,401	769	16.0	1.18	0.074
2.....	39.1	1.9	1,160	18,670	1,368	16.1	1.18	.073
3 or More.....	12.5	2.6	1,742	28,236	2,057	16.2	1.18	.073
None/No Answer.....	1.5	1.1	542	9,463	641	17.4	1.18	.068
Average Number of Vehicles per Household per Year								
Fewer than 1.....	4.2	.6	376	5,973	443	15.9	1.18	.074
1.....	24.1	1.0	569	9,264	676	16.3	1.19	.073
Between 1 and 2.....	12.0	1.5	1,043	16,659	1,237	16.0	1.19	.074
2.....	19.5	2.0	1,225	19,953	1,447	16.3	1.18	.073
More than 2.....	18.0	3.0	1,793	28,697	2,108	16.0	1.18	.073

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Total.....	100.0	18.2	28.8	21.5	14.4	17.1
Census Region and Division						
Northeast.....	100.0	21.1	29.5	23.2	12.6	13.6
New England.....	100.0	20.7	28.6	25.6	10.1	15.1
Middle Atlantic.....	100.0	21.2	29.7	22.4	13.4	13.2
North Central.....	100.0	20.8	28.2	18.7	14.6	17.6
East North Central.....	100.0	20.3	30.5	17.6	14.5	17.1
West North Central.....	100.0	21.8	23.6	20.9	14.9	18.9
South.....	100.0	15.5	28.3	22.4	16.2	17.5
South Atlantic.....	100.0	15.6	28.2	23.3	18.0	15.0
East South Central.....	100.0	16.6	29.3	21.8	10.1	22.2
West South Central.....	100.0	14.7	28.0	21.5	17.1	18.8
West.....	100.0	16.7	29.8	21.6	12.8	19.2
Mountain.....	100.0	17.7	30.2	18.3	16.1	17.6
Pacific.....	100.0	16.2	29.6	22.9	11.5	19.7
Metropolitan Status						
Metropolitan.....	100.0	18.4	29.7	21.5	14.1	16.3
Central City.....	100.0	23.6	33.1	20.5	10.7	12.2
Outside Central City.....	100.0	14.5	27.1	22.2	16.8	19.4
Nonmetropolitan.....	100.0	17.3	26.2	21.5	15.2	19.8
Origin of Householder						
White.....	100.0	17.7	28.4	21.7	14.8	17.4
Black.....	100.0	20.5	32.4	17.7	11.9	17.4
Other.....	100.0	23.5	31.2	25.5	Q	Q
Hispanic Descent						
Yes.....	100.0	Q	33.9	21.4	13.7	15.4
No.....	100.0	18.3	28.6	21.5	14.4	17.2

See notes at the end of the table.

Table 4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Age of Householder						
24 Years and Under.....	100.0	12.2	30.9	28.7	12.5	15.7
25 to 34 Years.....	100.0	9.8	34.5	25.6	14.9	15.2
35 to 44 Years.....	100.0	9.0	24.3	22.4	18.9	25.3
45 to 59 Years.....	100.0	13.5	21.9	22.6	17.2	24.8
60 Years and Over.....	100.0	39.7	32.0	13.5	8.5	6.4
Household Size						
1 Person.....	100.0	41.1	37.7	11.1	6.0	4.1
2 Persons.....	100.0	19.0	32.1	24.3	13.5	11.2
3 Persons.....	100.0	10.0	23.9	24.8	19.2	22.2
4 Persons.....	100.0	6.1	24.3	23.2	18.0	28.4
5 or More Persons.....	100.0	7.1	19.7	24.1	18.5	30.6
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	100.0	20.9	31.2	19.6	10.9	17.4
5,500 to 7,000 HDD.....	100.0	18.4	28.9	20.8	15.3	16.6
4,000 to 5,499 HDD.....	100.0	20.8	27.6	21.0	15.4	15.2
More than 2,000 CDD and						
Fewer than 4,000 HDD.....	100.0	15.4	28.9	23.1	13.9	18.7
Fewer than 4,000 HDD.....	100.0	16.0	28.9	22.0	14.7	18.3
Family Income 1985						
Less than \$ 5,000.....	100.0	44.6	35.4	Q	Q	Q
\$ 5,000 - \$ 9,999.....	100.0	40.1	32.0	17.1	5.5	5.3
\$10,000 - \$14,999.....	100.0	27.9	33.6	14.8	10.8	13.0
\$15,000 - \$19,999.....	100.0	22.1	34.5	20.8	11.9	10.6
\$20,000 - \$24,999.....	100.0	12.8	31.0	26.9	13.6	15.8
\$25,000 - \$34,999.....	100.0	9.6	27.6	25.5	16.6	20.7
\$35,000 or More.....	100.0	4.2	20.6	23.9	23.1	28.2
Below 100% of Poverty.....	100.0	33.9	29.7	19.3	8.3	8.8
Below 125% of Poverty.....	100.0	32.7	30.6	18.8	8.7	9.1

See notes at the end of the table.

Table 4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	100.0	43.9	32.3	Q	Q	Q
\$10,000 - \$14,999.....	100.0	30.7	35.5	12.8	Q	13.1
\$15,000 - \$24,999.....	100.0	22.6	33.6	23.7	12.5	7.6
\$25,000 - \$34,999.....	100.0	Q	30.9	27.0	16.0	13.9
\$35,000 or More.....	100.0	10.9	21.1	28.1	17.2	22.6
North Central						
Less than \$9,999.....	100.0	46.7	29.0	13.9	Q	Q
\$10,000 - \$14,999.....	100.0	33.4	30.8	11.5	14.6	9.8
\$15,000 - \$24,999.....	100.0	19.7	31.6	26.1	10.3	12.2
\$25,000 - \$34,999.....	100.0	11.0	32.4	17.0	18.5	21.1
\$35,000 or More.....	100.0	Q	18.3	20.5	24.1	35.4
South						
Less than \$9,999.....	100.0	38.2	36.5	16.9	Q	Q
\$10,000 - \$14,999.....	100.0	25.5	30.0	19.4	Q	14.6
\$15,000 - \$24,999.....	100.0	11.6	32.2	24.1	16.2	15.9
\$25,000 - \$34,999.....	100.0	8.0	22.0	25.6	20.1	24.3
\$35,000 or More.....	100.0	Q	21.2	24.4	27.0	26.0
West						
Less than \$9,999.....	100.0	38.3	31.9	13.7	Q	Q
\$10,000 - \$14,999.....	100.0	22.7	40.8	Q	Q	14.1
\$15,000 - \$24,999.....	100.0	21.0	34.4	20.4	9.5	14.6
\$25,000 - \$34,999.....	100.0	Q	26.9	35.5	Q	21.2
\$35,000 or More.....	100.0	Q	21.5	22.6	22.3	29.7
Number of Drivers (Fall 1984)						
1.....	100.0	39.1	38.5	11.8	5.8	4.7
2.....	100.0	8.5	27.9	28.5	18.0	16.9
3 or More.....	100.0	Q	12.4	20.3	21.5	43.5
None/No Answer.....	100.0	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Average Number of Vehicles per Household per Year						
Fewer than 1.....	100.0	64.8	28.6	Q	NC	Q
1.....	100.0	40.3	44.4	11.3	1.5	2.6
Between 1 and 2.....	100.0	7.8	33.3	34.4	14.6	9.9
2.....	100.0	3.3	26.5	31.8	21.6	16.8
More than 2.....	100.0	Q	7.4	19.1	27.2	45.6

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 10 households with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Total.....	100.0	16.5	27.4	21.7	14.4	20.0
Census Region and Division						
Northeast.....	100.0	20.1	28.3	22.9	13.1	15.6
New England.....	100.0	20.7	24.7	26.9	11.9	15.8
Middle Atlantic.....	100.0	19.9	29.5	21.6	13.5	15.5
North Central.....	100.0	19.0	27.0	20.0	13.7	20.2
East North Central.....	100.0	19.3	28.1	20.0	13.8	18.8
West North Central.....	100.0	18.5	24.8	19.9	13.5	23.2
South.....	100.0	13.8	26.6	21.7	15.9	22.0
South Atlantic.....	100.0	14.9	26.3	21.4	18.7	18.7
East South Central.....	100.0	13.3	27.4	24.1	9.3	26.0
West South Central.....	100.0	12.3	26.6	20.7	15.4	25.0
West.....	100.0	14.3	28.5	22.6	14.0	20.6
Mountain.....	100.0	15.4	25.1	24.3	14.6	20.7
Pacific.....	100.0	13.9	29.8	22.0	13.7	20.6
Metropolitan Status						
Metropolitan.....	100.0	16.6	28.6	21.5	14.2	19.1
Central City.....	100.0	21.4	32.0	22.0	9.9	14.7
Outside Central City.....	100.0	13.0	26.1	21.2	17.4	22.4
Nonmetropolitan.....	100.0	15.9	23.7	22.2	15.1	23.0
Origin of Householder						
White.....	100.0	16.0	27.1	21.6	14.9	20.4
Black.....	100.0	19.0	28.7	22.1	11.0	19.2
Other.....	100.0	22.7	32.6	22.7	Q	Q
Hispanic Descent						
Yes.....	100.0	Q	30.7	21.4	15.5	16.6
No.....	100.0	16.5	27.3	21.7	14.3	20.2

See notes at the end of the table.

Table 5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Age of Householder						
24 Years and Under.....	100.0	Q	28.6	27.3	15.0	18.7
25 to 34 Years.....	100.0	8.1	32.2	25.7	16.2	17.8
35 to 44 Years.....	100.0	7.6	23.4	22.1	18.3	28.5
45 to 59 Years.....	100.0	12.3	20.9	21.4	16.2	29.2
60 Years and Over.....	100.0	37.3	31.1	15.9	7.7	8.0
Household Size						
1 Person.....	100.0	38.3	38.9	11.2	6.0	5.5
2 Persons.....	100.0	16.9	30.8	25.0	12.8	14.4
3 Persons.....	100.0	8.2	22.3	24.6	19.9	25.0
4 Persons.....	100.0	5.6	21.1	23.4	17.2	32.7
5 or More Persons.....	100.0	Q	16.4	23.8	19.9	33.3
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	100.0	19.1	29.0	22.1	10.8	18.9
5,500 to 7,000 HDD.....	100.0	17.4	26.8	22.5	14.8	18.5
4,000 to 5,499 HDD.....	100.0	18.3	26.9	20.4	15.2	19.2
Fewer than 4,000 HDD.....						
More than 2,000 CDD and Fewer than 4,000 HDD.....	100.0	13.6	28.5	21.7	13.9	22.3
More than 2,000 CDD and Fewer than 4,000 HDD.....	100.0	14.5	26.7	22.2	15.8	20.9
Family Income 1985						
Less than \$ 5,000.....	100.0	44.0	31.7	Q	Q	Q
\$ 5,000 - \$ 9,999.....	100.0	36.6	30.6	20.1	6.5	6.3
\$10,000 - \$14,999.....	100.0	24.1	33.1	16.3	9.5	16.9
\$15,000 - \$19,999.....	100.0	20.5	32.4	21.4	12.4	13.3
\$20,000 - \$24,999.....	100.0	11.4	29.5	26.7	13.6	18.9
\$25,000 - \$34,999.....	100.0	8.1	27.2	24.5	16.3	23.9
\$35,000 or More.....	100.0	3.9	18.8	22.5	23.1	31.6
Below 100% of Poverty.....	100.0	31.7	26.4	21.4	10.3	10.2
Below 125% of Poverty.....	100.0	30.5	28.1	21.2	9.1	11.1

See notes at the end of the table.

Table 5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	100.0	39.6	34.3	Q	Q	Q
\$10,000 - \$14,999.....	100.0	28.4	34.6	16.0	Q	14.8
\$15,000 - \$24,999.....	100.0	22.6	30.9	23.8	11.5	11.1
\$25,000 - \$34,999.....	100.0	Q	29.5	25.0	16.2	17.1
\$35,000 or More.....	100.0	10.7	19.6	25.9	20.3	23.6
North Central						
Less than \$9,999.....	100.0	41.7	30.6	15.9	Q	Q
\$10,000 - \$14,999.....	100.0	32.2	27.0	15.9	Q	14.8
\$15,000 - \$24,999.....	100.0	18.0	30.5	25.9	12.0	13.6
\$25,000 - \$34,999.....	100.0	9.6	30.9	19.3	15.9	24.4
\$35,000 or More.....	100.0	Q	16.8	19.9	22.5	38.9
South						
Less than \$9,999.....	100.0	35.6	34.2	20.2	Q	Q
\$10,000 - \$14,999.....	100.0	19.8	31.0	17.5	13.0	18.7
\$15,000 - \$24,999.....	100.0	10.9	29.3	23.2	16.0	20.6
\$25,000 - \$34,999.....	100.0	6.7	21.6	23.2	19.0	29.5
\$35,000 or More.....	100.0	Q	18.6	22.6	24.9	32.5
West						
Less than \$9,999.....	100.0	39.6	22.1	18.3	Q	Q
\$10,000 - \$14,999.....	100.0	17.8	42.4	15.4	Q	18.3
\$15,000 - \$24,999.....	100.0	16.6	35.0	23.2	9.8	15.4
\$25,000 - \$34,999.....	100.0	Q	29.1	33.3	12.2	21.2
\$35,000 or More.....	100.0	Q	20.2	21.7	24.0	31.2
Number of Drivers (Fall 1984)						
1.....	100.0	35.9	39.7	12.8	5.4	6.1
2.....	100.0	7.3	25.3	28.5	18.4	20.5
3 or More.....	100.0	Q	10.4	18.9	21.1	47.7
None/No Answer.....	100.0	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Average Number of Vehicles per Household per Year						
Fewer than 1.....	100.0	61.4	29.7	Q	Q	Q
1.....	100.0	36.2	45.8	13.6	1.2	3.2
Between 1 and 2.....	100.0	6.8	31.5	32.5	17.6	11.6
2.....	100.0	3.2	22.1	32.6	22.0	20.1
More than 2.....	100.0	Q	5.4	16.8	24.9	52.5

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 10 households with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Total.....	100.0	14.8	24.2	21.0	16.7	10.0	13.3
Census Region and Division							
Northeast.....	100.0	16.7	26.5	20.9	15.8	7.9	12.2
New England.....	100.0	15.6	23.2	20.0	19.4	7.3	14.5
Middle Atlantic.....	100.0	17.1	27.6	21.1	14.6	8.1	11.5
North Central.....	100.0	17.3	24.2	19.9	16.4	10.0	12.2
East North Central.....	100.0	18.4	23.6	20.1	16.1	10.4	11.3
West North Central.....	100.0	15.0	25.3	19.3	17.0	9.2	14.2
South.....	100.0	13.6	23.3	21.1	17.2	11.1	13.8
South Atlantic.....	100.0	14.2	23.0	21.5	16.8	12.2	12.3
East South Central.....	100.0	15.6	20.9	21.9	16.0	7.5	18.2
West South Central.....	100.0	11.1	25.4	19.8	18.8	11.5	13.5
West.....	100.0	12.0	23.5	22.5	17.2	10.0	14.8
Mountain.....	100.0	14.1	23.5	21.1	19.0	8.0	14.2
Pacific.....	100.0	11.2	23.6	23.0	16.5	10.7	15.1
Metropolitan Status							
Metropolitan.....	100.0	14.2	25.2	20.8	16.3	10.1	13.4
Central City.....	100.0	18.6	30.2	21.0	12.9	8.0	9.3
Outside Central City.....	100.0	10.9	21.4	20.7	18.8	11.6	16.6
Nonmetropolitan.....	100.0	16.5	21.1	21.7	18.2	9.6	12.9
Origin of Householder							
White.....	100.0	14.3	22.9	21.7	17.3	10.3	13.5
Black.....	100.0	18.4	33.9	14.8	12.5	7.2	13.2
Other.....	100.0	18.3	31.0	19.2	Q	Q	Q
Hispanic Descent							
Yes.....	100.0	Q	26.9	25.5	19.3	Q	11.1
No.....	100.0	15.0	24.1	20.8	16.6	10.1	13.4

See notes at the end of the table.

Table 6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Age of Householder							
24 Years and Under.....	100.0	Q	20.9	29.7	20.5	8.9	11.8
25 to 34 Years.....	100.0	6.1	25.8	24.8	19.7	11.4	12.2
35 to 44 Years.....	100.0	5.8	18.6	23.4	20.6	11.2	20.5
45 to 59 Years.....	100.0	9.9	23.1	17.4	16.5	14.2	18.9
60 Years and Over.....	100.0	36.8	29.1	15.8	9.7	4.2	4.4
Household Size							
1 Person.....	100.0	33.4	37.3	17.0	5.2	3.9	3.1
2 Persons.....	100.0	15.9	25.4	23.6	17.8	8.9	8.5
3 Persons.....	100.0	7.1	19.1	21.3	21.5	14.2	16.8
4 Persons.....	100.0	5.8	15.2	21.4	24.1	12.7	20.7
5 or More Persons.....	100.0	Q	19.5	20.3	15.9	12.4	26.7
Weather Zone							
Fewer than 2,000 CDD and--							
More than 7,000 HDD.....	100.0	17.9	24.3	22.3	17.1	6.4	12.0
5,500 to 7,000 HDD.....	100.0	15.7	23.4	20.0	17.5	10.0	13.4
4,000 to 5,499 HDD.....	100.0	15.8	24.9	20.7	15.7	10.3	12.7
More than 2,000 CDD and							
Fewer than 4,000 HDD.....	100.0	13.1	23.6	22.0	16.4	10.4	14.4
Fewer than 4,000 HDD.....	100.0	12.3	25.2	20.8	17.4	11.0	13.3
Family Income 1985							
Less than \$ 5,000.....	100.0	44.5	33.5	Q	Q	Q	Q
\$ 5,000 - \$ 9,999.....	100.0	37.1	34.3	16.6	5.2	Q	4.6
\$10,000 - \$14,999.....	100.0	23.4	31.0	20.0	10.6	7.1	7.9
\$15,000 - \$19,999.....	100.0	17.6	27.6	26.5	14.4	7.2	6.8
\$20,000 - \$24,999.....	100.0	8.9	28.1	23.4	20.0	8.6	11.0
\$25,000 - \$34,999.....	100.0	4.8	19.9	26.9	21.3	11.7	15.4
\$35,000 or More.....	100.0	2.5	13.5	17.4	24.3	17.4	24.9
Below 100% of Poverty.....	100.0	32.3	29.4	18.5	8.9	4.5	6.4
Below 125% of Poverty.....	100.0	30.4	31.9	17.9	8.9	4.3	6.5

See notes at the end of the table.

Table 6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Census Region by Family Income 1985							
Northeast							
Less than \$9,999.....	100.0	43.5	32.9	Q	Q	Q	Q
\$10,000 - \$14,999.....	100.0	27.6	29.2	18.3	Q	Q	Q
\$15,000 - \$24,999.....	100.0	18.7	35.0	18.1	16.5	Q	5.9
\$25,000 - \$34,999.....	100.0	Q	20.4	29.4	23.2	8.2	13.6
\$35,000 or More.....	100.0	Q	19.7	20.5	17.4	13.1	23.7
North Central							
Less than \$9,999.....	100.0	41.2	38.3	11.7	Q	Q	Q
\$10,000 - \$14,999.....	100.0	32.0	26.8	20.2	Q	8.8	Q
\$15,000 - \$24,999.....	100.0	13.9	26.1	27.7	18.4	7.2	6.6
\$25,000 - \$34,999.....	100.0	6.7	23.2	23.5	20.6	11.4	14.6
\$35,000 or More.....	100.0	Q	9.8	14.1	26.9	19.6	27.7
South							
Less than \$9,999.....	100.0	38.4	36.1	15.9	Q	Q	Q
\$10,000 - \$14,999.....	100.0	17.4	31.8	21.8	12.8	Q	10.2
\$15,000 - \$24,999.....	100.0	10.1	25.1	25.5	17.6	10.3	11.4
\$25,000 - \$34,999.....	100.0	Q	16.3	24.2	21.3	15.8	17.5
\$35,000 or More.....	100.0	Q	11.4	17.4	26.8	18.7	24.0
West							
Less than \$9,999.....	100.0	34.4	25.5	17.2	Q	Q	Q
\$10,000 - \$14,999.....	100.0	18.9	36.3	18.4	Q	Q	Q
\$15,000 - \$24,999.....	100.0	13.3	28.7	27.0	15.1	6.2	9.7
\$25,000 - \$34,999.....	100.0	Q	21.1	33.7	20.0	Q	14.6
\$35,000 or More.....	100.0	Q	13.8	17.4	25.1	17.6	24.7
Number of Drivers (Fall 1984)							
1.....	100.0	32.5	37.6	17.3	5.9	3.2	3.5
2.....	100.0	6.3	20.4	26.0	23.3	12.3	11.7
3 or More.....	100.0	Q	10.4	13.6	19.4	16.9	38.4
None/No Answer.....	100.0	Q	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Average Number of Vehicles per Household per Year							
Fewer than 1.....	100.0	61.0	29.0	7.4	Q	Q	Q
1.....	100.0	32.6	44.8	15.9	3.7	1.3	1.7
Between 1 and 2.....	100.0	4.1	25.1	35.8	20.1	8.0	6.9
2.....	100.0	2.8	14.9	29.5	28.5	12.0	12.3
More than 2.....	100.0	Q	4.9	12.0	22.9	22.7	37.1

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 10 households with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category)

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Total.....	100.0	18.3	26.4	22.4	15.3	8.9	8.1
Census Region and Division							
Northeast.....	100.0	14.7	24.0	22.9	16.3	11.9	9.5
New England.....	100.0	12.2	19.9	23.5	13.9	17.6	11.8
Middle Atlantic.....	100.0	15.5	25.3	22.7	17.1	10.0	8.8
North Central.....	100.0	19.6	28.8	21.3	14.1	7.6	8.1
East North Central.....	100.0	18.1	28.4	21.2	14.7	8.5	8.5
West North Central.....	100.0	22.7	29.8	21.6	12.9	5.6	7.1
South.....	100.0	20.7	27.0	22.6	15.1	7.8	5.9
South Atlantic.....	100.0	19.2	25.5	23.3	15.0	9.0	7.5
East South Central.....	100.0	23.1	26.5	19.3	17.0	7.2	5.8
West South Central.....	100.0	21.9	30.1	23.8	14.0	6.1	Q
West.....	100.0	16.0	24.7	22.6	16.4	9.5	10.2
Mountain.....	100.0	16.4	29.1	25.3	13.1	8.0	7.4
Pacific.....	100.0	15.9	23.1	21.7	17.6	10.0	11.3
Metropolitan Status							
Metropolitan.....	100.0	16.4	25.3	22.7	16.6	9.6	8.8
Central City.....	100.0	17.1	27.1	22.7	15.0	9.4	8.3
Outside Central City.....	100.0	15.8	23.9	22.7	17.9	9.7	9.1
Nonmetropolitan.....	100.0	24.4	30.0	21.2	11.3	6.7	5.8
Origin of Householder							
White.....	100.0	17.7	26.6	22.2	15.5	8.9	8.4
Black.....	100.0	25.7	26.5	23.1	12.4	7.8	Q
Other.....	100.0	Q	20.1	24.1	20.8	Q	Q
Hispanic Descent							
Yes.....	100.0	14.0	25.8	21.3	25.0	Q	Q
No.....	100.0	18.5	26.4	22.4	14.9	9.0	8.1
Age of Householder							
24 Years and Under.....	100.0	15.2	28.0	23.0	15.7	8.7	8.9
25 to 34 Years.....	100.0	16.1	24.3	18.7	16.4	13.1	10.9
35 to 44 Years.....	100.0	16.0	26.9	23.8	16.8	8.2	7.8
45 to 59 Years.....	100.0	19.2	27.5	24.5	14.5	6.4	7.3
60 Years and Over.....	100.0	22.6	26.8	22.8	13.7	7.4	5.8

See notes at the end of the table.

Table 7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Household Size							
1 Person.....	100.0	20.6	24.5	19.6	14.9	9.6	10.3
2 Persons.....	100.0	17.2	24.7	24.5	13.7	10.0	9.2
3 Persons.....	100.0	14.8	29.5	23.1	16.6	8.9	6.2
4 Persons.....	100.0	18.9	29.4	20.6	16.4	6.9	7.5
5 or More Persons.....	100.0	21.7	25.3	22.7	17.0	7.5	5.1
Weather Zone							
Fewer than 2,000 CDD and--							
More than 7,000 HDD.....	100.0	17.5	27.5	22.6	14.6	6.8	9.8
5,500 to 7,000 HDD.....	100.0	16.8	26.5	20.8	15.9	10.7	8.8
4,000 to 5,499 HDD.....	100.0	18.9	25.7	22.6	13.6	8.8	9.7
Fewer than 4,000 HDD.....	100.0	19.4	26.1	22.6	15.8	9.1	6.5
More than 2,000 CDD and							
Fewer than 4,000 HDD.....	100.0	18.5	27.1	23.8	17.0	7.4	5.5
Family Income 1985							
Less than \$ 5,000.....	100.0	33.5	Q	18.4	Q	Q	Q
\$ 5,000 - \$ 9,999.....	100.0	32.1	23.4	19.2	14.4	3.8	6.3
\$10,000 - \$14,999.....	100.0	22.3	32.5	16.8	14.3	8.3	5.5
\$15,000 - \$19,999.....	100.0	16.7	30.3	24.9	12.2	6.6	9.2
\$20,000 - \$24,999.....	100.0	18.9	26.5	19.3	16.3	8.7	9.2
\$25,000 - \$34,999.....	100.0	14.1	26.3	24.6	13.5	9.8	11.2
\$35,000 or More.....	100.0	10.2	23.4	26.3	19.5	12.3	7.6
Below 100% of Poverty.....	100.0	31.8	24.2	19.4	13.3	6.8	4.2
Below 125% of Poverty.....	100.0	29.8	27.6	18.9	12.2	6.5	4.6
Census Region by Family Income 1985							
Northeast							
Less than \$9,999.....	100.0	28.0	26.9	Q	Q	Q	Q
\$10,000 - \$14,999.....	100.0	16.1	35.5	21.8	15.4	Q	Q
\$15,000 - \$24,999.....	100.0	19.0	20.7	27.2	14.3	9.4	8.5

See notes at the end of the table.

Table 7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category) (Continued)

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Census Region by Family Income 1985							
Northeast							
\$25,000 - \$34,999.....	100.0	11.2	20.6	20.4	9.5	21.6	16.6
\$35,000 or More.....	100.0	6.6	22.6	25.0	23.5	11.6	9.8
North Central							
Less than \$9,999.....	100.0	29.7	29.2	19.0	Q	Q	Q
\$10,000 - \$14,999.....	100.0	28.3	28.9	Q	13.3	Q	Q
\$15,000 - \$24,999.....	100.0	14.4	36.8	18.5	11.8	6.2	11.4
\$25,000 - \$34,999.....	100.0	16.5	23.9	24.8	14.3	9.3	10.9
\$35,000 or More.....	100.0	14.4	24.0	27.5	18.8	9.1	5.4
South							
Less than \$9,999.....	100.0	40.7	19.7	18.9	Q	Q	Q
\$10,000 - \$14,999.....	100.0	21.3	36.5	14.4	15.4	8.3	Q
\$15,000 - \$24,999.....	100.0	20.0	27.9	23.1	14.1	8.5	5.8
\$25,000 - \$34,999.....	100.0	13.7	31.3	27.4	14.9	Q	8.3
\$35,000 or More.....	100.0	10.4	23.3	26.2	19.1	13.4	6.7
West							
Less than \$9,999.....	100.0	24.2	19.6	21.6	19.1	Q	Q
\$10,000 - \$14,999.....	100.0	21.6	28.3	18.7	Q	9.0	Q
\$15,000 - \$24,999.....	100.0	16.6	25.5	20.0	17.9	Q	13.8
\$25,000 - \$34,999.....	100.0	14.5	27.4	24.1	14.1	Q	10.9
\$35,000 or More.....	100.0	9.2	23.6	26.3	16.7	14.3	8.7
Number of Drivers (Fall 1984)							
1.....	100.0	20.0	25.8	21.0	14.2	8.9	9.6
2.....	100.0	17.9	26.2	23.2	15.2	9.0	7.8
3 or More.....	100.0	16.5	27.8	22.6	18.4	8.8	5.2
None/No Answer.....	100.0	Q	Q	Q	Q	Q	Q
Average Number of Vehicles per Household per Year							
Fewer than 1.....	100.0	Q	26.4	23.6	Q	Q	Q
1.....	100.0	20.2	25.1	19.6	15.1	8.0	11.5
Between 1 and 2.....	100.0	17.1	27.0	22.1	15.2	11.6	7.0
2.....	100.0	18.7	24.5	23.2	14.8	10.0	7.9
More than 2.....	100.0	16.0	29.9	25.0	16.7	7.2	4.3

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 10 households with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 8. Fuel Consumption and Expenditures per Vehicle, 1985

Household and Vehicle Characteristics	Number of Vehicles (millions)	Averages per Vehicle			Price per Gallon (dollars)	Miles per Gallon
		Gallons Consumed	Miles Driven	Expenditures (dollars)		
Total.....	137.3	611	9,855	722	1.18	16.1
Average Number of Vehicles per Household per Year						
Fewer than 1.....	2.5	614	9,752	723	1.18	15.9
1.....	24.1	569	9,264	676	1.19	16.3
Between 1 and 2.....	18.5	677	10,802	802	1.19	16.0
2.....	39.0	613	9,976	723	1.18	16.3
More than 2.....	53.1	607	9,709	713	1.18	16.0
Type of Fuel						
Leaded.....	42.0	584	7,902	650	1.11	13.5
Unleaded.....	92.8	623	10,662	753	1.21	17.1
Other.....	2.5	640	12,743	757	1.18	19.9
Model Year						
1973 or Earlier.....	26.9	514	6,859	578	1.13	13.4
1974 to 1978.....	43.3	633	8,755	741	1.17	13.8
1979 to 1980.....	20.2	601	10,112	718	1.20	16.8
1981 to 1982.....	17.6	614	11,730	744	1.21	19.1
1983 to 1984.....	20.7	676	12,985	817	1.21	19.2
1985 or Later.....	8.0	671	13,007	809	1.20	19.4
No Answer.....	.6	Q	Q	Q	Q	Q
Type of Vehicle						
Automobile.....	106.6	579	9,938	689	1.19	17.2
Jeep-Like Vehicle.....	3.7	833	10,577	974	1.17	12.7
Van.....	4.7	795	10,518	925	1.16	13.2
Pickup Truck.....	21.2	693	9,369	798	1.15	13.5
Other/No Answer.....	1.1	628	6,042	709	1.13	9.6
Number of Cylinders						
4.....	39.9	492	11,159	589	1.20	22.7
6.....	35.6	638	10,175	757	1.19	16.0
8.....	61.0	674	8,792	788	1.17	13.0
Other.....	.8	596	11,541	719	1.21	19.4

See notes at the end of the table.

Table 8. Fuel Consumption and Expenditures per Vehicle, 1985 (Continued)

Household and Vehicle Characteristics	Number of Vehicles (millions)	Averages per Vehicle			Price per Gallon (dollars)	Miles per Gallon
		Gallons Consumed	Miles Driven	Expenditures (dollars)		
Air Conditioning						
Yes.....	86.3	640	10,262	760	1.19	16.0
No.....	51.0	563	9,167	657	1.17	16.3
Type of Transmission						
Automatic.....	99.0	639	9,637	754	1.18	15.1
Manual.....	38.3	541	10,417	637	1.18	19.3
Vehicle Used on the Job						
Yes.....	17.3	730	11,726	870	1.19	16.1
No.....	120.0	594	9,585	700	1.18	16.1

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.
 Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.
 Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 9. Expenditure Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Expenditures (dollars per vehicle)				
		300 or Less	301 to 600	601 to 900	901 to 1,200	1,200 or More
Total.....	100.0	14.4	33.6	26.8	13.5	11.6
Average Number of Vehicles per Household per Year						
Fewer than 1.....	100.0	Q	Q	Q	Q	Q
1.....	100.0	17.3	35.0	25.7	13.0	9.0
Between 1 and 2.....	100.0	10.3	29.3	31.7	15.0	13.7
2.....	100.0	14.1	35.1	25.6	12.6	12.5
More than 2.....	100.0	14.9	33.4	26.3	13.8	11.6
Type of Fuel						
Leaded.....	100.0	21.7	36.9	21.8	9.4	10.2
Unleaded.....	100.0	11.2	32.1	29.1	15.4	12.2
Other.....	100.0	Q	35.1	28.1	Q	Q
Model Year						
1973 or Earlier.....	100.0	30.4	37.7	16.7	7.1	8.1
1974 to 1978.....	100.0	14.4	31.9	26.4	14.4	12.9
1979 to 1980.....	100.0	12.3	35.3	26.1	15.1	11.2
1981 to 1982.....	100.0	7.6	36.8	30.0	14.8	10.7
1983 to 1984.....	100.0	5.9	29.8	33.5	15.4	15.4
1985 or Later.....	100.0	Q	28.1	39.6	16.6	10.9
No Answer.....	100.0	Q	Q	Q	Q	Q
Type of Vehicle						
Automobile.....	100.0	14.7	35.7	27.0	12.9	9.7
Jeep-Like Vehicle.....	100.0	Q	20.9	23.7	24.1	22.8
Van.....	100.0	12.8	20.7	22.6	20.3	23.7
Pickup Truck.....	100.0	14.3	28.4	27.6	12.9	16.7
Other/No Answer.....	100.0	Q	Q	Q	Q	Q
Number of Cylinders						
4.....	100.0	16.5	43.6	26.2	9.3	4.5
6.....	100.0	11.6	32.3	28.7	15.0	12.4
8.....	100.0	14.7	27.9	26.2	15.3	15.9
Other.....	100.0	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 9. Expenditure Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category) (Continued)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Expenditures (dollars per vehicle)				
		300 or Less	301 to 600	601 to 900	901 to 1,200	1,200 or More
Air Conditioning						
Yes.....	100.0	11.1	32.1	29.0	15.1	12.8
No.....	100.0	20.2	36.2	23.2	10.7	9.7
Type of Transmission						
Automatic.....	100.0	12.9	31.7	27.7	14.6	13.2
Manual.....	100.0	18.4	38.6	24.6	10.6	7.7
Vehicle Used on the Job						
Yes.....	100.0	5.7	26.2	30.7	18.6	18.7
No.....	100.0	15.7	34.7	26.3	12.7	10.6

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 10. Consumption Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Consumption (gallons per vehicle)			
		400 or Less	401 to 800	801 to 1,200	1,201 or More
Total.....	100.0	31.9	46.2	15.2	6.6
Average Number of Vehicles per Household per Year					
Fewer than 1.....	100.0	Q	Q	Q	Q
1.....	100.0	36.6	44.7	14.2	4.4
Between 1 and 2.....	100.0	24.2	50.4	16.8	8.5
2.....	100.0	32.7	45.0	15.1	7.1
More than 2.....	100.0	31.9	46.4	15.2	6.5
Type of Fuel					
Leaded.....	100.0	39.1	41.1	12.1	7.7
Unleaded.....	100.0	28.7	48.5	16.7	6.1
Other.....	100.0	32.3	47.7	Q	Q
Model Year					
1973 or Earlier.....	100.0	50.0	34.9	8.4	6.7
1974 to 1978.....	100.0	31.0	44.4	17.1	7.5
1979 to 1980.....	100.0	30.8	47.6	16.5	5.1
1981 to 1982.....	100.0	27.5	52.1	15.8	4.6
1983 to 1984.....	100.0	21.3	52.6	18.6	7.5
1985 or Later.....	100.0	17.9	59.2	15.7	7.1
No Answer.....	100.0	Q	Q	Q	Q
Type of Vehicle					
Automobile.....	100.0	33.7	47.2	14.1	5.1
Jeep-Like Vehicle.....	100.0	22.2	34.9	26.4	16.5
Van.....	100.0	24.3	36.7	24.6	14.4
Pickup Truck.....	100.0	26.7	45.7	16.9	10.6
Other/No Answer.....	100.0	Q	Q	Q	Q
Number of Cylinders					
4.....	100.0	40.1	48.8	9.3	1.8
6.....	100.0	29.5	47.4	16.0	7.1
8.....	100.0	27.9	44.0	18.8	9.4
Other.....	100.0	Q	Q	Q	Q

See notes at the end of the table.

Table 10. Consumption Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category) (Continued)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Consumption (gallons per vehicle)			
		400 or Less	401 to 800	801 to 1,200	1,201 or More
Air Conditioning					
Yes.....	100.0	27.5	48.6	16.9	7.0
No.....	100.0	39.5	42.3	12.5	5.8
Type of Transmission					
Automatic.....	100.0	28.8	47.0	17.0	7.3
Manual.....	100.0	40.1	44.4	10.8	4.6
Vehicle Used on the Job					
Yes.....	100.0	19.3	47.9	22.9	10.0
No.....	100.0	33.8	46.0	14.1	6.1

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 11. Annual Mileage Categories, 1985
(Percent of Vehicles in Each Category)

Household and Vehicle Characteristics	Total Vehicles	Annual Mileage (miles driven per vehicle)						
		3,000 or Less	3,001 to 6,000	6,001 to 9,000	9,001 to 12,000	12,001 to 15,000	15,001 to 18,000	18,001 or More
Total.....	100.0	8.9	17.7	23.5	24.0	12.2	5.2	8.6
Average Number of Vehicles per Household per Year								
Less than 1.....	100.0	Q	Q	Q	Q	Q	Q	Q
1.....	100.0	11.0	21.6	20.9	23.8	11.5	4.5	6.8
Between 1 and 2.....	100.0	5.6	12.8	22.7	29.0	15.8	4.9	9.2
2.....	100.0	8.3	18.0	23.5	23.5	12.0	5.6	9.1
More than 2.....	100.0	9.7	17.5	24.8	22.4	11.4	5.3	8.9
Type of Fuel								
Leaded.....	100.0	15.4	25.8	28.8	16.6	5.3	2.6	5.5
Unleaded.....	100.0	6.2	14.4	21.1	27.1	15.2	6.1	9.8
Other.....	100.0	Q	Q	Q	Q	Q	Q	Q
Model Year								
1973 or Earlier.....	100.0	22.3	31.2	25.8	11.0	3.3	1.4	5.0
1974 to 1978.....	100.0	9.5	21.7	28.9	23.2	7.7	3.4	5.6
1979 to 1980.....	100.0	5.9	15.4	24.5	27.9	11.8	6.3	8.1
1981 to 1982.....	100.0	2.4	9.9	18.0	33.7	17.7	7.8	10.4
1983 to 1984.....	100.0	1.9	6.8	15.8	27.3	22.8	8.5	16.9
1985 or Later.....	100.0	Q	Q	15.5	28.7	28.1	10.1	12.8
No Answer.....	100.0	NC	Q	Q	Q	Q	NC	NC
Type of Vehicle								
Automobile.....	100.0	8.3	17.1	23.8	24.7	12.4	5.1	8.6
Jeep-Like Vehicle.....	100.0	Q	19.2	17.3	24.0	18.8	Q	Q
Van.....	100.0	8.3	15.7	24.4	23.4	10.0	Q	11.0
Pickup Truck.....	100.0	11.2	20.8	22.4	21.2	10.9	4.9	8.6
Other/No Answer.....	100.0	Q	Q	Q	Q	Q	Q	NC
Number of Cylinders								
4.....	100.0	4.7	12.8	19.3	28.6	16.7	6.8	11.2
6.....	100.0	7.3	17.1	23.8	23.9	13.6	5.8	8.6
8.....	100.0	12.6	21.4	26.2	21.1	8.3	3.6	6.8
Other.....	100.0	Q	Q	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 11. Annual Mileage Categories, 1985
(Percent of Vehicles in Each Category) (Continued)

Household and Vehicle Characteristics	Total Vehicles	Annual Mileage (miles driven per vehicle)						
		3,000 or Less	3,001 to 6,000	6,001 to 9,000	9,001 to 12,000	12,001 to 15,000	15,001 to 18,000	18,001 or More
Air Conditioning								
Yes.....	100.0	7.0	16.3	23.1	25.5	13.3	5.8	8.9
No.....	100.0	12.1	20.1	24.1	21.3	10.3	4.1	8.0
Type of Transmission								
Automatic.....	100.0	8.8	18.6	24.7	23.8	11.3	4.9	7.8
Manual.....	100.0	9.1	15.3	20.2	24.3	14.5	5.9	10.6
Vehicle Used on the Job								
Yes.....	100.0	3.8	11.3	20.1	27.3	16.7	7.7	13.2
No.....	100.0	9.7	18.6	24.0	23.5	11.5	4.8	7.9

NC/ No cases in sample.

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 12. Fuel Efficiency Categories, 1985
(Percent of Vehicles in Each Category)

Household and Vehicle Characteristics	Total Vehicles	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Total.....	100.0	23.2	21.9	17.6	13.4	9.2	13.0
Average Number of Vehicles per Household per Year							
Fewer than 1.....	100.0	Q	Q	Q	Q	Q	Q
1.....	100.0	20.5	24.7	19.9	14.3	7.5	12.2
Between 1 and 2.....	100.0	22.5	21.1	17.9	12.6	10.1	14.4
2.....	100.0	22.7	20.8	17.6	12.8	9.9	14.2
More than 2.....	100.0	25.2	21.3	16.2	13.9	9.0	12.1
Type of Fuel							
Leaded.....	100.0	38.6	24.6	14.4	9.1	5.0	6.6
Unleaded.....	100.0	16.7	21.0	19.0	15.5	10.9	15.2
Other.....	100.0	Q	Q	Q	Q	Q	38.2
Model Year							
1973 or Earlier.....	100.0	38.6	26.4	14.1	9.0	4.4	4.5
1974 to 1978.....	100.0	33.8	28.8	17.5	8.6	4.5	6.2
1979 to 1980.....	100.0	15.9	21.4	19.6	15.9	9.8	15.8
1981 to 1982.....	100.0	7.7	13.4	20.2	18.3	16.4	21.9
1983 to 1984.....	100.0	7.8	13.1	18.0	20.4	15.7	23.1
1985 or Later.....	100.0	8.9	10.6	16.2	19.1	16.8	25.8
No Answer.....	100.0	Q	Q	Q	Q	Q	Q
Type of Vehicle							
Automobile.....	100.0	17.3	21.6	18.8	14.8	10.1	15.6
Jeep-like Vehicle.....	100.0	40.2	32.1	14.5	Q	Q	NC
Van.....	100.0	42.8	23.3	13.9	10.6	Q	Q
Pickup Truck.....	100.0	43.4	21.7	13.4	8.4	6.3	5.1
Other/No Answer.....	100.0	72.8	Q	Q	Q	NC	Q
Number of Cylinders							
4.....	100.0	2.5	6.1	11.8	18.0	20.1	38.3
6.....	100.0	18.3	23.9	23.9	19.3	8.5	4.9
8.....	100.0	39.9	31.2	17.6	7.0	2.3	1.0
Other.....	100.0	Q	Q	Q	Q	Q	Q

See notes at the end of the table.

Table 12. Fuel Efficiency Categories, 1985
(Percent of Vehicles in Each Category) (Continued)

Household and Vehicle Characteristics	Total Vehicles	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Air Conditioning							
Yes.....	100.0	22.8	22.9	18.6	14.3	8.8	11.3
No.....	100.0	24.0	20.1	15.8	11.9	9.8	15.8
Type of Transmission							
Automatic.....	100.0	26.5	25.7	19.3	13.2	7.6	6.6
Manual.....	100.0	14.9	11.8	13.1	14.1	13.4	29.5
Vehicle Used on the Job							
Yes.....	100.0	26.0	20.3	16.1	14.7	8.4	12.8
No.....	100.0	22.8	22.1	17.8	13.2	9.3	13.0

NC/ No cases in sample.

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 18 vehicles with reliable data were sampled.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Total.....	87.3	2,258	9.5	937	77.7	2,419	1,145	1,274
Expenditures for Energy Used in The Home--April 1984 through March 1985 (dollars per household)								
600 or Less.....	13.5	1,283	2.2	430	11.3	1,451	456	995
601 to 800.....	13.4	1,646	2.0	711	11.5	1,807	697	1,109
801 to 1,000.....	14.0	1,899	1.7	888	12.4	2,036	905	1,131
1,001 to 1,200.....	13.0	2,263	1.2	1,099	11.7	2,388	1,096	1,291
1,201 to 1,600.....	18.9	2,634	1.6	1,358	17.3	2,752	1,380	1,372
1,601 or Over.....	14.4	3,596	.8	1,929	13.6	3,691	2,056	1,636
Energy Used in The Home--April 1984 through March 1985 (million Btu per household)								
50 or Less.....	16.3	1,590	1.8	464	14.4	1,732	624	1,108
51 to 75.....	15.4	1,962	1.5	672	13.8	2,106	886	1,220
76 to 100.....	14.8	2,091	1.9	842	12.9	2,276	1,031	1,245
101 to 125.....	12.6	2,298	1.6	1,060	11.0	2,480	1,177	1,302
126 to 150.....	11.4	2,536	1.1	1,161	10.3	2,688	1,356	1,331
151 or Over.....	16.8	3,102	1.5	1,610	15.3	3,246	1,801	1,445
Census Region and Division								
Northeast.....	18.4	2,393	3.4	1,159	15.0	2,669	1,500	1,169
New England.....	4.3	2,452	.6	1,185	3.7	2,650	1,472	1,177
Middle Atlantic.....	14.1	2,375	2.8	1,153	11.3	2,675	1,509	1,166
North Central.....	21.8	2,299	2.2	1,003	19.5	2,447	1,181	1,266
East North Central.....	15.2	2,230	2.0	1,009	13.2	2,415	1,195	1,220
West North Central.....	6.6	2,456	Q	Q	6.4	2,514	1,153	1,361

See notes at the end of the table.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985 (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Census Region and Division								
South.....	29.8	2,253	2.8	786	27.0	2,405	1,084	1,321
South Atlantic.....	15.0	2,269	1.2	796	13.8	2,399	1,108	1,292
East South Central.....	5.9	2,091	.7	700	5.2	2,281	937	1,344
West South Central.....	8.9	2,333	.9	843	8.0	2,495	1,137	1,358
West.....	17.2	2,071	1.1	505	16.1	2,177	874	1,304
Mountain.....	4.6	2,196	0	0	4.4	2,255	958	1,297
Pacific.....	12.7	2,026	.9	487	11.7	2,148	842	1,306
Metropolitan Status								
Metropolitan.....	66.4	2,270	7.3	979	59.0	2,430	1,180	1,250
Central City.....	31.1	1,991	5.6	1,002	25.5	2,207	1,098	1,109
Outside Central City.....	35.3	2,514	1.8	906	33.6	2,600	1,242	1,358
Nonmetropolitan.....	20.9	2,220	2.2	794	18.7	2,385	1,036	1,349
Origin of Householder								
White.....	73.5	2,323	5.4	872	68.1	2,439	1,151	1,288
Black.....	10.5	1,967	3.4	1,038	7.2	2,402	1,182	1,220
Other.....	3.2	1,710	.7	950	2.5	1,933	874	1,059
Hispanic Descent								
Yes.....	4.4	1,970	.9	911	3.5	2,241	1,017	1,225
No.....	82.9	2,273	8.6	939	74.3	2,428	1,151	1,277
Age of Householder								
24 Years and Under.....	6.5	2,027	.6	864	5.9	2,144	857	1,287
25 to 34 Years.....	21.1	2,187	1.5	948	19.6	2,279	989	1,290
35 to 44 Years.....	17.0	2,776	.8	1,114	16.2	2,861	1,306	1,555
45 to 59 Years.....	17.7	2,693	1.3	1,016	16.4	2,825	1,319	1,506
60 Years and Over.....	25.0	1,718	5.3	895	19.7	1,942	1,111	831

See notes at the end of the table.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985 (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Household Size								
1 Person.....	20.8	1,405	4.9	838	15.9	1,581	836	746
2 Persons.....	26.6	2,110	2.1	984	24.5	2,206	1,071	1,135
3 Persons.....	15.9	2,547	1.2	1,010	14.6	2,677	1,205	1,472
4 Persons.....	13.5	2,878	.7	1,121	12.9	2,967	1,337	1,630
5 or More Persons.....	10.5	3,088	.6	1,238	9.9	3,196	1,485	1,711
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	9.1	2,199	.7	870	8.4	2,302	1,081	1,220
5,500 to 7,000 HDD.....	21.6	2,398	2.6	1,083	19.0	2,577	1,306	1,271
4,000 to 5,499 HDD.....	22.8	2,250	3.6	1,014	19.3	2,479	1,246	1,233
Fewer than 4,000 HDD.....	20.3	2,098	1.8	699	18.5	2,234	924	1,311
More than 2,000 CDD and								
Fewer than 4,000 HDD.....	13.4	2,327	.9	731	12.5	2,440	1,116	1,325
Family Income 1985								
Less than \$ 5,000.....	6.4	1,409	2.7	946	3.7	1,745	995	749
\$ 5,000 - \$ 9,999.....	13.2	1,548	3.6	898	9.7	1,786	975	811
\$10,000 - \$14,999.....	12.1	1,937	1.4	876	10.7	2,074	1,006	1,068
\$15,000 - \$19,999.....	10.4	2,039	.7	1,030	9.7	2,111	1,026	1,085
\$20,000 - \$24,999.....	9.9	2,312	.4	1,191	9.5	2,359	1,073	1,286
\$25,000 - \$34,999.....	15.0	2,547	.3	719	14.7	2,586	1,153	1,434
\$35,000 or More.....	20.3	3,052	.5	1,144	19.8	3,098	1,419	1,679
Below 100% of Poverty.....	13.8	1,653	4.1	925	9.6	1,965	999	967
Below 125% of Poverty.....	19.8	1,691	5.4	938	14.4	1,976	1,004	972

See notes at the end of the table.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985 (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Census Region by Family Income 1985								
Northeast								
Less than \$9,999.....	4.0	1,559	1.9	1,135	2.1	1,938	1,224	714
\$10,000 - \$14,999.....	2.4	2,119	.4	1,031	1.9	2,374	1,368	1,006
\$15,000 - \$24,999.....	4.3	2,206	.7	1,253	3.6	2,386	1,364	1,021
\$25,000 - \$34,999.....	3.1	2,724	Q	Q	3.0	2,746	1,450	1,297
\$35,000 or More.....	4.7	3,189	.3	1,285	4.4	3,323	1,834	1,490
North Central								
Less than \$9,999.....	5.2	1,612	1.7	979	3.5	1,913	1,118	795
\$10,000 - \$14,999.....	3.2	1,903	.4	1,022	2.8	2,028	1,049	979
\$15,000 - \$24,999.....	5.0	2,216	Q	Q	4.9	2,231	1,076	1,155
\$25,000 - \$34,999.....	4.0	2,582	Q	Q	3.9	2,604	1,186	1,417
\$35,000 or More.....	4.4	3,241	Q	Q	4.4	3,254	1,433	1,821
South								
Less than \$9,999.....	7.2	1,405	2.1	771	5.1	1,666	895	771
\$10,000 - \$14,999.....	3.9	1,989	.3	866	3.6	2,069	905	1,164
\$15,000 - \$24,999.....	7.4	2,288	Q	Q	7.2	2,334	1,027	1,308
\$25,000 - \$34,999.....	4.9	2,638	Q	Q	4.8	2,666	1,122	1,544
\$35,000 or More.....	6.4	3,033	Q	Q	6.3	3,080	1,376	1,705
West								
Less than \$9,999.....	3.2	1,474	.6	573	2.6	1,669	767	902
\$10,000 - \$14,999.....	2.6	1,741	.3	421	2.4	1,894	819	1,075
\$15,000 - \$24,999.....	3.6	1,840	Q	Q	3.5	1,881	739	1,142
\$25,000 - \$34,999.....	3.0	2,167	Q	Q	2.8	2,257	842	1,415
\$35,000 or More.....	4.8	2,770	NC	NC	4.8	2,770	1,079	1,691

See notes at the end of the table.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985 (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Number of Drivers (Fall 1984)								
1.....	27.5	1,609	2.8	903	24.7	1,690	921	769
2.....	39.7	2,516	.7	1,072	39.1	2,541	1,173	1,368
3 or More.....	12.5	3,553	0	0	12.5	3,566	1,509	2,057
None/No Answer.....	7.4	1,093	5.9	934	1.5	1,724	1,083	641
Average Number of Vehicles per Household per Year								
None.....	9.5	937	9.5	937	--	--	--	--
Fewer than 1.....	4.2	1,454	--	--	4.2	1,454	1,011	443
1.....	24.1	1,667	--	--	24.1	1,667	991	676
Between 1 and 2.....	12.0	2,334	--	--	12.0	2,334	1,098	1,237
2.....	19.5	2,651	--	--	19.5	2,651	1,204	1,447
More than 2.....	18.0	3,459	--	--	18.0	3,459	1,351	2,108
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	9.1	2,199	.7	870	8.4	2,302	1,081	1,220
5,500 to 7,000 HDD.....	21.6	2,398	2.6	1,083	19.0	2,577	1,306	1,271
4,000 to 5,499 HDD.....	22.8	2,250	3.6	1,014	19.3	2,479	1,246	1,233
Fewer than 4,000 HDD.....	20.3	2,098	1.8	699	18.5	2,234	924	1,311
More than 2,000 CDD and								
Fewer than 4,000 HDD.....	13.4	2,327	.9	731	12.5	2,440	1,116	1,325

See notes at the end of the table.

Table 13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985 (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Measured Heated Area of Residence (square feet)								
Fewer than 600.....	7.9	1,393	2.2	792	5.7	1,624	687	938
600 to 999.....	24.1	1,746	3.9	856	20.2	1,916	856	1,060
1,000 to 1,599.....	25.6	2,238	2.5	1,068	23.1	2,364	1,101	1,263
1,600 to 1,999.....	11.8	2,671	.6	1,036	11.2	2,760	1,323	1,437
2,000 to 2,399.....	7.4	2,957	Q	Q	7.3	2,987	1,454	1,534
2,400 to 2,999.....	5.5	2,964	Q	Q	5.4	3,012	1,455	1,557
3,000 or More.....	4.9	3,410	Q	Q	4.8	3,421	1,884	1,537
Main Heating Fuel								
Natural Gas.....	48.4	2,241	5.8	957	42.6	2,416	1,143	1,273
Electricity.....	14.5	2,201	.9	559	13.6	2,311	1,049	1,261
Fuel Oil or Kerosene.....	12.6	2,353	2.2	1,128	10.4	2,607	1,488	1,118
Wood.....	6.6	2,301	Q	Q	6.4	2,364	871	1,493
Liquefied Petroleum Gas....	3.7	2,392	.3	938	3.5	2,507	1,169	1,338
Other/None.....	1.4	2,009	Q	Q	1.3	2,198	753	1,445

Q/ Data withheld either because the RSE was greater than 50%, or fewer than 10 households with reliable data were sampled.

NC/ No cases in sample.

Note: Because of rounding, data may not sum to totals. Data in this table are for households with and without vehicles for personal transportation. Data may differ slightly from the Residential Energy Consumption Survey (RECS) reports. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division. Household data: Form EIA-457, 1984 Residential Energy Consumption Survey. Transportation data: Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.



Filling up the tanks—On average, 1,079 gallons of fuel were consumed by each household with vehicles for personal transportation in 1985.

Appendix A

How the Survey Was Conducted



A modern self-service station supplying gasoline—Of the 82.4 billion gallons of gasoline purchased in 1985 for personal vehicles, 70 percent was unleaded and 30 percent was leaded.

How the Survey Was Conducted

Introduction

The purpose of the RTECS is to obtain information on energy consumption and related matters for vehicles operated for personal transportation by members of residential households in the United States. It is a companion survey to the Residential Energy Consumption Survey (RECS), which collects information for residential households in the United States on energy consumption and expenditures within the housing unit and on housing characteristics. Both of these surveys are conducted by the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE).

The 1985 RTECS is the second such survey covering a calendar year conducted by EIA. (The first RTECS was for 1983.) Subsequent surveys will be conducted triennially, with the next one scheduled for 1988. Previously, monthly surveys were conducted from June 1979 to September 1981.

Survey Forms and Collection Procedures

The overall objective of the RTECS is to provide a database containing information for calendar year 1985 on the number and types of vehicles per household, and for each vehicle: annual mileage, gallons of fuel consumed, type of fuel used, price paid for fuel, and fuel efficiency. This requires for each vehicle, the collection of background information, odometer readings at the beginning and end of the year, and fuel-purchase data.

Three separate forms were used to collect these data. Form EIA-429, the Background Questionnaire, was used to update the information obtained on the RECS concerning vehicles in use by the household in 1985. This form collected information on the number of vehicles, and for each vehicle, the body type, make, model, and model year. Form EIA-141 consisted of two parts, a set of cards that were used to obtain beginning- and end-of-year odometer readings and a monthly fuel purchase log.

The Background Questionnaire was administered primarily by telephone, although these data were occasionally collected by mail or personal visit when a telephone contact could not be successfully completed. The background information was collected in December 1984 for the majority of the units in the RTECS sample and was updated during the middle of 1985. Some households were not contacted until later because the RECS interview was not completed by December 1984.

For the majority of the units in RTECS, the odometer reading cards (one for each vehicle) were mailed in December 1984. The respondents were instructed to enter the vehicle's odometer reading on this card after the last use of the vehicle on a specified date. For the majority of the units, the date was between December 31, 1984 and January 15, 1985. These cards were retained by the respondents and the information was obtained from them by telephone.

Respondents were assigned to monthly panels by means of a sampling procedure described below. Fuel-purchase data for an assigned calendar month during 1985 were collected on the fuel-purchase log. In addition to beginning- and end-of-month odometer readings, this form obtained for each purchase: the date, vehicle mileage, number of gallons purchased, total cost of fuel, price per

gallon, whether the tank was filled, type of fuel used (gasoline, diesel, or gasohol), and if gasoline, whether leaded, unleaded, or premium. Information from the completed log was collected by telephone.

End-of-year odometer readings were obtained from all respondents in a manner similar to the procedures used for obtaining the beginning-of-year readings.

The Target Population and the Sample

The target population for the RTECS was estimated at 87.3 million households in the 50 States and the District of Columbia as of July 1985. Basically, a household is defined as a housing unit occupied by an individual, a family, or a group of up to nine unrelated persons. (See the Glossary for a more comprehensive definition.) The RTECS uses the same definition of household as does the U.S. Bureau of the Census.

The RTECS sample was designed to be representative of this target population. The respondents were a subsample of the households selected for the 1984 RECS sample. Therefore, before describing this subsampling procedure, it is useful to briefly describe the RECS sample. Full details on the RECS sampling procedures are available in Residential Energy Consumption Survey: Housing Characteristics 1984, DOE/EIA-0314(84).

The RECS sample is a multistage area probability sample with the ultimate sampling unit being the household. The original RECS sample consisted of 7,658 units. Of these, 123 units were either not used for dwelling purposes or were not habitable. An additional 783 units were ineligible because of a current vacancy or seasonal occupancy. Of the 6,752 eligible units, information on housing characteristics was successfully collected from 5,682 for a response rate of 84.2 percent.

The RECS sampling procedures were designed to permit the observation of changes in certain individual housing units over the period between two data collection cycles. It was not desirable, however, to sample the same units cycle-after-cycle because this approach is unduly burdensome to the respondent. Therefore, a rotation plan was developed that resulted in approximately one-half of the total sample being included in any two contiguous cycles.

The households to be included in the RTECS were subsampled from the 5,682 RECS units for which data were successfully collected. The general plan for selecting the RTECS sample was to subsample a national core sample of all households and to supplement this core sample with additional households whose total annual vehicle mileage was "average and above." This plan essentially oversampled those households that accounted for the largest portion of total vehicle mileage and resulted in a more efficient design for obtaining fuel-purchase data.

The target sample size for the RTECS was initially set at 3,850 households. The next step was to allocate this total sample to the core sample and the supplementary sample. A core sample of 3,200 households represented a sampling rate of 545 per 10 million households, the lowest sampling rate for any part of the 1984 RECS sample. This left an additional 650 households to be included in the

supplementary "average and above" sample. In order to determine which households should be included in this supplement, the responses to the RECS question on estimated vehicle mileage were aggregated to the household level. An empirical analysis of these aggregated data from the first 2,000 responses to RECS indicated that if households that traveled 12,500 miles in the previous 12 months were sampled at a rate of 1,288 per 10 million households, then the required 650 households would be added. This sampling rate is equal to the highest sampling rate for the RECS excluding Alaska, low-income areas, and other selected primary sampling units. The total RTECS sample obtained in this manner was 4,020 households, 170 more than the original target. This increase was due to the slightly higher RECS sample size than was originally planned.

Once the basic RTECS sample had been selected, a systematic random procedure was used to assign the households to one of the 12 months of 1985 for reporting fuel purchases. This procedure limited the reporting burden of each household to a single month, while preserving the seasonality inherent in fuel purchase patterns.

Survey Estimates

Survey estimates were developed to project the RTECS sample results to the target population. This required the development of weights for each sample household using a multistage weighting procedure. The weights for the RTECS were developed from the weights that originally had been used in the 1984 RECS. These original weights were divided by the probability that a household was selected into the RTECS sample. These selection probabilities were determined by a ratio of the sampling rate for the RTECS to the original sampling rate appropriate for that household in the 1984 RECS. For cases in which the value of this ratio exceeded 1.0, a value of 1.0 was substituted.

These initial approximations of the RTECS weights were appropriate for estimates of U.S. households as of November 1984 (the midpoint of the RECS data collection time period). Since the midpoint of the RTECS data collection period was July 1985, additional adjustments were necessary. These RTECS weights were adjusted in three steps using data from the Current Population Survey (CPS). Each step consisted of a ratio adjustment using household characteristics, so that the resulting number of RTECS households (that is, the sum of the RTECS weights) matched the CPS control totals of the number of households in the categories included in each step.

In the first ratio adjustment step, the RTECS sample was categorized by the four Census regions and by metropolitan status (in a center city of an Metropolitan Statistical Area (MSA), in an MSA but not in the center city, and not in an MSA). Because the breakdowns by community type were not available from the March 1985 CPS (at the time the weighting was completed), the controls for region by metropolitan status were extrapolated from the March 1983 and March 1984 CPS and then adjusted to match the estimated July 1985 regional totals.

In the second ratio adjustment, the RTECS sample was categorized by type of household (one-person male household, one-person female household, and all other household types). This step was used to adjust for the lower response rates for one-person households.

The third ratio adjustment used the same categories as the first ratio adjustment.

The final weights, after the application of the three ratio adjustments, reflect estimates of total households as of July 1985.

Nonresponse to the Survey

Nonsampling errors and bias are sources of variability due to the conduct of the survey. These can include population undercoverage during sampling, response bias, interviewer error, coding and/or key punching error, and nonresponse bias. The wording and format of the survey questionnaires, the procedures used to select and train interviewers, and the quality control procedures built into the data collection and processing operations were all designed to minimize these sources of error.

The RTECS required substantial participation from households throughout the survey year of 1985, above and beyond their prior participation in the RECS. As previously described, background information was obtained in December 1984 and again at midyear. In addition, beginning- and end-of-year odometer readings were obtained, and fuel purchases were recorded for 1 of the 12 months during 1985. These diverse needs necessitated numerous telephone and mail contacts with the respondents. Such ongoing participation adversely affects survey response. In order to improve participation, cash incentives were provided to the respondents throughout the year. Households received one dollar for beginning- and end-of-year odometer readings, and five dollars for each monthly vehicle log completed.

Because the RTECS sample was selected from RECS respondents, in no case were data for a respondent totally absent. In fact, the RECS weights that formed the basis for the RTECS weights included a nonresponse weight adjustment that which is reflected in the RTECS weights. There were instances in the RTECS, however, where it was impossible to track the respondents at any time during the data collection year. Some RECS data existed on each selected RTECS household; therefore, missing RTECS data were estimated by item imputation methods rather than by adjusting the weights for nonresponse.

Imputation Procedures

The most commonly used method of imputation for the RTECS was the "hot deck" procedure. This procedure requires sorting the file of households by variables related to the missing item. A household is then selected that has the same value for the related variables, and this "donor" household supplies the value of the variable that is missing in the "donee" household. Other imputation methods included regression estimates and the use of medium values. These procedures are described in more detail in the remainder of this section.

Household Vehicle Inventory

In some households, vehicles were acquired and/or disposed of during the survey year, causing the vehicle stock associated with those households to fluctuate. Efforts were made to contact households periodically throughout the survey year

to record changes in vehicle stock. Nevertheless, 1,654 households (41.1 percent) could not be followed for a complete survey year. Hence, for that part of the year that a household was not "tracked," no record of possible vehicle acquisition or deposition was available.

For households with incomplete vehicle data, change or lack of change in vehicle stock was imputed by means of the "hot-deck" imputation method. In this procedure, donor and recipient households were matched according to variables such as income, number of vehicles, ages of vehicles, geographic area, known patterns of vehicle acquisition/disposition, and so on. The donor household record was inspected for that part of the survey year for which recipient household information was lacking, and any vehicle acquisition/deposition or "no-change" was imputed to the recipient. Thus 375 (4.4 percent) of the 8,491 vehicles belonging to the sampled households during 1985 were imputed as being newly acquired vehicles. Vehicles "acquired" by hot-deck imputation also "acquired" from the donor's vehicle certain technical characteristics, such as: make, model, model year, transmission type, number of doors, fuel efficiency, and fuel type. Vehicle-use characteristics, such as air conditioning, number of drivers, and fuel cost, were imputed independently. Similarly, of the 8,491 sample vehicles, 300 (3.5 percent) were imputed as being disposed of.

Annual Mileage

Where possible, beginning- and end-of-year odometer readings were used to compute the miles driven (annual mileage) for a vehicle. In addition, the midyear update mailings and monthly fuel purchase logs provided intermediate odometer readings, as well as readings for acquired or disposed of vehicles. However, not all respondents provided the data; only part of the annual mileage was obtained for some vehicles and no mileage for others (Table A1).

Table A1. Sampled Vehicles Categorized by Days of Mileage Data Available

Days of Mileage Data Available	Number of Vehicles	Percent of Vehicles
270 or More Days	3,184	37.5
180 - 269 Days	517	6.1
46 - 179 Days	736	8.7
22 - 45 Days	193	2.3
No Mileage Data	3,861	45.4
Total Vehicles	8,491	100.0

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

For vehicles with 46 or more days of mileage data, the available mileage was scaled to the full year by use of an empirical distribution of monthly mileage percentages. Annual mileage data was imputed for the 4,054 vehicles (47.7 percent) with 45 days or less of annual mileage data available. When 22 to 45 days of mileage data were known, linear regression on this mileage data was used to impute for annual mileage. Where no mileage data were available, annual mileage was imputed by regressing on the respondent's estimate of mileage for the 12 months prior to the RECS survey, when this information was available. If this previous year's estimate was not available, the total number of miles traveled in 1985 was generally imputed using multiple regression on such variables as number of drivers, 1985 income, age of household head, type of vehicle, and use of vehicle on the job. This regression was also used for imputation of mileage to vehicles which were imputed as being acquired.

As a final step, the imputed annual mileage was adjusted to represent only that part of the year that the vehicle was in use by the household (to account for acquisition or disposal).

Miles per Gallon (MPG)

Each household in the RTECS sample was assigned 1 month in the survey year to record fuel purchases in logs for each vehicle. Monthly fuel purchase data were available and were of acceptable quality to allow the computation of MPG for 3,412 vehicles (40.2 percent). Monthly MPG's for these vehicles were converted to "annualized" MPG's, based on the observed way that MPG varies for different months of the year. These conversions were performed within categories defined by vehicle type, make, model, and model year. Annualized MPG data together with annual mileage were used to estimate the number of gallons consumed per year by each vehicle; this in turn was used to compute annual fuel expenditures.

Fuel purchase logs were missing or inadequate for calculating annualized MPG's for 5,079 vehicles (59.8 percent). These MPG's were imputed by using the medians of the applicable categories defined above, plus a random error.

Vehicle Characteristics

The "hot-deck" method was used to impute for missing vehicle characteristics (Table A2). All imputations were performed within categories defined by other vehicle characteristics such as vehicle type, make, model, and model year. Additional characteristics that were sometimes used to define categories were employment status, number of drivers, and climate zone. The total number of vehicles is 8,491; the number and percentage of sample vehicles receiving imputed vehicle characteristics are indicated in Table A2.

Table A2. Imputations for Vehicle Characteristics

Imputed Characteristic	Number of Vehicles ¹	Percent of Vehicles ¹
Number of Cylinders	2,109	24.8
Air-Conditioning	1,893	22.3
Automatic/Manual Transmission	1,630	19.2
Number of Doors	1,641	19.3
Vehicle Used on the Job	1,888	22.2
Number of Drivers	1,871	22.0

¹Out of a total of 8,491 vehicles.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, 1985 Residential Transportation Energy Consumption Survey.

Fuel Type

One of four fuel types (regular unleaded, regular leaded, premium, and diesel/gasohol/propane) was assigned to a vehicle if it represented more than half of the fuel purchased according to the monthly log. When missing or unusable, fuel type information was imputed by the hot-deck method within categories defined by vehicle type, make, and model year. Fuel type was imputed for 4,677 vehicles (55.1 percent).

Cost per Gallon

Because fuel prices vary throughout the year, the cost per gallon reported on the monthly fuel purchase log for each vehicle was adjusted to derive a more meaningful "annualized" price. Price adjustment ratios were produced for cells defined by Census region and fuel type, based upon the Average Pump Price Series of the Bureau of Labor Statistics' (BLS) Consumer Price Index. The total annual fuel expenditure for each vehicle was obtained as the product of gallons consumed and cost per gallon.

For the 4,601 vehicles (54.2 percent) where fuel price was missing, an imputation procedure was employed. Vehicles with nonmissing fuel price data were grouped by Census region, metropolitan/nonmetropolitan status, and fuel type. Annualized prices were averaged within each group, and the averages were used to supply the missing prices for recipient vehicles in the same group.

Appendix B

Quality of the Data

$$RSE(Y) = \frac{S_Y}{Y} \times 100\%$$

Quality of the Data

Introduction

Data from the 1985 RTECS are subject to many sources of sampling error, nonsampling error, and bias. Sampling error is a measure of the data variability that results from surveying a sample rather than the entire population. The different samples that could be selected would each produce different values for the survey statistics.

Nonsampling errors are measures of variability due to the conduct of the survey. Procedures to minimize these errors were discussed in Appendix A, "How the Survey Was Conducted." A major source of these errors is nonresponse bias. The imputation procedures used to minimize this bias were also discussed in Appendix A. The use of imputation procedures, however, can result in biased estimates of sampling errors, and thus can adversely affect data quality.

This Appendix discusses the development of sampling error estimates and procedures used to minimize the biasing effects of imputations on these estimates. A section on data quality compares the 1980 and 1983 RTECS results with other available data, and provides an analysis of the 1983 RTECS response rates. The tables of relative standard errors included at the end of this Appendix correspond to each of the tables in the Detailed Statistics section. That is, the statistics in the cells of Table B1 are the relative standard errors of the corresponding data in Table 1. The same applies to Tables B2 and 2, B3 and 3, etc.

Sampling Error

The 1985 RTECS is based on a sample rather than a total census, and is thus subject to sampling error. Because probability sampling was used for RTECS, it is possible to estimate the size of the sampling error for any survey statistic. The measurement of the sampling error that is presented in Tables B1 through B13 is the relative standard error (RSE). For a given survey statistic, Y, the relative standard error, RSE (Y), is given by

$$RSE (Y) = (S_Y/Y) \times 100.$$

The standard error of Y is S_Y , and can be computed using Tables B1 through B13 and the formula

$$S_Y = RSE (Y) \times Y/100.$$

The complex multistage, multiframe design of the survey made it virtually impossible to construct an exact algebraic estimate of the standard error of the survey statistics. The method used to estimate a standard error for each table cell statistic was "balanced half-sample replication" (see references 2 and 3). This method involved collapsing similar sampling strata so that primary sampling units (PSU's) became paired. Differences between the PSU's of each pair can be used in various ways to build an estimate of standard error. Balanced half-sample replication refers to the particular technique by which PSU's were repeatedly drawn from the collapsed strata during the calculations. Once the standard errors were computed, they were converted to RSE's because it is useful to express the size of a standard error as a percent of the survey statistic in question.

The confidence interval, another useful expression of sampling error, is an estimated range of values with a given probability of containing the true but unknown population value. In any normal distribution of sample statistics, the probability is 0.95 that an interval defined by the sample mean plus and minus 1.96 standard errors will contain the true population value. For example, Table 1 shows that an estimated total of 1,353 billion miles were driven by residential vehicles in the United States during 1985. Table B1 shows an RSE of 1.5 percent for this statistic. The standard error is

$$(1.5 \times 1,353)/100 = 20.3.$$

The 95 percent confidence interval equals 1.96 times the standard error, or

$$1.96 \times 20.3 = 40.$$

Therefore, the 95 percent confidence interval would be expressed as 1,353 (± 40) billion miles. That is, one can be 95 percent confident that between 1,313 and 1,393 billion miles were driven by the population in 1985.

Effects of Item Imputations on Sampling Errors

If missing data were not compensated for by imputation, survey statistics would generally be biased. For example, total annual mileage would be underestimated if the survey statistic were based only on the 54.6 percent of vehicles that had some mileage data available. Missing data were imputed to minimize the nonresponse bias in the survey statistics.

However, imputed data can result in biased estimates of the standard errors of survey statistics. Ideally, imputation procedures would provide the same data values that would have been obtained directly from the respondents, and imputations would not introduce bias into the standard error estimates. However, because imputations never have perfect accuracy, they can introduce a bias into the standard error estimates. This bias may result if standard error estimates fail to include a component of error due to the imputation itself, or if the imputation artificially reduces the variability naturally found among sample units. The size of this bias depends on the accuracy and type of imputation.

Hot-deck and regression procedures are the two major types of imputation used in RTECS (See Glossary). The accuracy of the hot-deck procedure depends on the homogeneity among donors and recipients within the imputation categories. Homogeneity can be increased by employing as many characteristics as possible to differentiate the imputation categories. However, finely differentiated categories may be impractical because of lack of sample data to fill the categories. A compromise is usually reached between limited sample size and the desire for finely differentiated categories which are internally homogeneous. Even so, hot-deck imputation may not seriously bias the standard error because this procedure selects donors at random from the distribution within each imputation category, and thus incorporates or "mimics" the variability already present among the respondents.

Imputed values that are predictions from regression equations may not seriously affect estimates of standard error when those predictions are highly accurate (that is, with R^2 close to 100 percent). However, regression imputations based on a model of less than near-perfect fit can result in underestimates of standard error, since such a model may not adequately account for the variability present among the sample units. A common technique to compensate for this bias is to add to each predicted value a random deviate from the distribution of residuals about the regression line.

In RTECS, regression equations were used to impute for the number of miles driven in 1985 for most of the 45.4 percent of vehicles with no mileage data available. The R^2 for these fits ranged from 27.7 to 51.2 percent. Because no random residuals were applied to the predictions, these imputations could lead to underestimates of standard error. Furthermore, due to data limitations, the regression models were not fit independently within PSU's paired for standard error estimation by balanced repeated replications. The models were fit using any applicable data from the survey across all sampled households and vehicles. That is, the regression procedures "crossed" the boundaries between respective pair-members. Thus, regression-imputed mileage introduced an artificial homogeneity between the data of paired PSU's, contributing to the underestimation of standard error. The survey statistics affected would be total miles traveled, fuel consumption, and fuel expenditures. Data for these three statistics were excluded from standard error calculations for any vehicle for which mileage was imputed by regression. The purpose was to minimize the biasing effects of imputations on the RSE's in Tables B1 through B13.

Special Data Quality Studies

Comparisons with Other Data¹³

Prior to conducting the 1985 RTECS, the results of previous RTECS were compared to other available data. No comparison has yet been made using the 1985 RTECS results. However, as all RTECS used the same survey methodology, there is no reason to believe that the results would be substantially different.

RTECS estimates of fuel efficiency (in miles per gallon) for 1980 and 1983 were compared with estimates from several other major sources. Generally, the results from other sources were consistent with estimates from RTECS. Where data yielded different estimates, differences existed in one or more of the following: the target population, sample selection methodology, definitions of vehicle categories, basic study objectives, and data collection methods.

The RTECS data were compared with the following data:

- o Environmental Protection Agency (EPA) estimates of new car fuel economy

¹³Based on the report "Analysis of In-Use Fuel Economy Estimates from the Residential Transportation Energy Consumption Survey and Other Data Sources," 1986, prepared by SRA Technologies, Inc. under contract with the Energy Information Administration.

- o National Panel Diary (NPD), Inc. data on MPG estimates
- o Published reports from the Department of Energy's Division of Conservation and Renewable Energy based on NPD data as prepared by Energy and Environmental Analysis (EEA), Inc.
- o Federal Highway Administration (FHWA) data from Highway Statistics
- o Fleet mix data compiled by R.L. Polk from State vehicle registration data.

The EPA fuel efficiency estimates were derived by testing new cars, with a statistical adjustment for anticipated rates of highway and city driving. The RTECS estimates came from national samples of households that were asked to keep a log of fuel purchases.

NPD estimates were derived from information in ongoing diaries of fuel purchases and mileage. (The 1981 NPD survey was the primary source of data analyzed by EEA.) NPD Research, Inc. conducts market research on fuel purchasing patterns and vehicle use trends for the automotive and the petroleum marketing industries. It utilizes a national quota sample of 4,100 households, balanced according to demographic and geographic characteristics. The NPD records national and regional vehicle use and fuel purchase patterns over extended time periods. However, scientific or probability sampling is not employed. The participants in the survey do not represent a random sample of U.S. households.

The FHWA estimates of fuel efficiency (miles per gallon) were derived from aggregate data on registered vehicles, gasoline sales, and estimates of mileage. FHWA estimates include commercially operated vehicles, and FHWA uses a vehicle classification different from RTECS. RTECS data were reclassified when being compared with FHWA automobile data. FHWA includes passenger vans and jeep-like vehicles with automobiles. RTECS truck data could not be made comparable with FHWA truck data. Polk registration data for automobiles were used to study the RTECS fleet age distribution. Again, only automobiles were at all comparable between these sources.

RTECS and FHWA provide lower estimates of automobile MPG than does NPD. In 1983, the estimated overall fuel economy of automobiles was 16.0 MPG in RTECS, and 18.4 in NPD. When vehicles were reclassified (passenger vans and jeep-like vehicles included with automobiles), the estimated fuel economy of automobiles was 15.7 MPG in RTECS and 16.7 MPG in FHWA. Estimates of fuel economy for light trucks in 1983 were 12.5 MPG in RTECS, compared with 14.5 in estimates provided by NPD. The fleet of vehicles sampled for NPD contained a higher proportion of newer vehicles than the fleet of vehicles sampled for RTECS. The fleet age distribution of RTECS more closely approximated the national estimates of fleet age distribution derived from automobile registration data compiled by R.L. Polk, Inc. than those of the NPD. When comparisons are made by model year, RTECS ratings are somewhat lower than EPA new car ratings, while NPD ratings are often somewhat higher. It is important to note that both the RTECS and NPD MPG ratings are based on actual in-use conditions. The NPD ratings are based on consumer logs that cover several months, while the RTECS ratings are based on logs that cover only one month. Thus, the NPD data for individual vehicles have

smaller measurement errors than do RTECS data. However, as noted before, the NPD sample is not a random sample; therefore, the model year MPG rating for NPD may be biased.

Analysis of RTECS Response Rates

Appendix A presented the percentage of vehicles for which the main data items collected in the 1985 RECS were imputed. For data measuring annual mileage, 47.7 percent of vehicles had imputed data, and for data measuring miles per gallon, 59.8 percent. In 1983, the values were 40.1 percent and 54 percent, respectively.

The above rates are the percentage of vehicles requiring imputation on a data item by item basis. In the RTECS, households were required to provide these data items for each vehicle within the household. A study was made of response rates at the household level in contrast to the vehicle level on an item-by-item basis. For the 1983 RTECS data, response rates were analyzed at the household level, and a household response level percentage was computed for the two main RTECS data items collected--annual mileage and miles per gallon. A response level of 100 percent indicated that the household had provided information on annual mileage and miles per gallon for all vehicles within the household. A response level of 50 percent indicated that a household either (1) provided 50 percent of the requested information for all vehicles, or (2) provided all of the requested information for only half of the vehicles. The frequency distribution of the 1983 household response levels is shown below:

Household Response Level (Percent)	Frequency in 1983 (Percent)
Zero	26.1
1 - 10	.3
11 - 20	1.2
21 - 30	2.7
31 - 40	2.4
41 - 50	11.6
51 - 60	2.3
61 - 70	4.6
71 - 80	10.6
81 - 90	6.8
91 - 99	4.1
100	27.6

The two largest categories of response level were zero and 100 percent, each representing about one-fourth of the households; most of the remaining households were distributed in the categories above the 40 percent response level. Almost half of the households (48.9 percent) had a household response level of 71 percent or greater.

Table B1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985
--Relative Standard Errors

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Total.....	2.5	--	2.7	--	2.6	--
Census Region and Division						
Northeast.....	5.2	4.9	4.3	4.3	4.3	4.3
New England.....	14.8	14.6	13.4	13.2	13.8	13.4
Middle Atlantic.....	7.4	7.3	5.9	6.1	5.8	6.0
North Central.....	4.9	4.7	4.8	4.7	4.7	4.7
East North Central.....	7.0	6.7	6.6	6.4	6.6	6.4
West North Central.....	8.7	8.8	8.6	8.7	8.6	8.6
South.....	5.0	3.7	5.2	3.7	5.2	3.7
South Atlantic.....	7.3	6.4	7.7	6.8	7.7	6.8
East South Central.....	9.2	8.9	10.1	9.7	10.1	9.6
West South Central.....	11.4	10.9	10.7	9.9	10.9	10.1
West.....	5.3	4.6	6.1	5.1	5.8	4.9
Mountain.....	9.2	9.0	9.4	9.3	9.2	9.1
Pacific.....	6.5	5.8	7.6	6.6	7.2	6.2
Metropolitan Status						
Metropolitan.....	3.8	2.1	4.1	2.3	4.1	2.3
Central City.....	5.6	4.8	5.7	4.8	5.6	4.7
Outside Central City.....	4.7	3.4	5.1	3.6	5.1	3.6
Nonmetropolitan.....	6.3	6.7	6.3	6.8	6.2	6.7
Origin of Householder						
White.....	2.7	1.0	2.8	1.0	2.8	1.0
Black.....	12.7	12.6	12.5	12.3	12.4	12.2
Other.....	21.3	20.8	20.8	19.9	20.1	19.2
Hispanic Descent						
Yes.....	18.8	17.8	19.4	17.9	18.9	17.6
No.....	2.4	.7	2.4	.7	2.4	.7
Age of Householder						
24 Years and Under.....	10.6	10.6	9.6	9.7	9.8	9.9
25 to 34 Years.....	5.4	4.0	5.2	4.2	5.3	4.2
35 to 44 Years.....	5.6	4.9	5.9	4.8	5.8	4.8
45 to 59 Years.....	5.7	5.0	5.7	4.8	5.9	5.0
60 Years and Over.....	5.5	6.0	5.2	5.5	5.2	5.6

See notes at the end of the table.

Table B1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985
 --Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Household Size						
1 Person.....	7.7	7.9	8.2	8.2	8.1	8.1
2 Persons.....	4.9	4.3	4.4	4.4	4.4	4.4
3 Persons.....	6.1	5.2	6.6	5.6	6.5	5.7
4 Persons.....	5.7	5.4	5.6	5.2	5.6	5.2
5 or More Persons.....	6.8	5.8	8.1	6.6	7.9	6.5
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	13.1	13.4	13.4	13.8	13.5	13.8
5,500 to 7,000 HDD.....	7.3	7.1	7.7	7.6	7.6	7.5
4,000 to 5,499 HDD.....	9.9	9.2	10.7	9.8	10.6	9.8
Fewer than 4,000 HDD.....	8.6	8.4	8.8	8.5	8.7	8.5
More than 2,000 CDD and						
Fewer than 4,000 HDD.....	8.9	8.2	9.3	8.5	9.3	8.6
Family Income 1985						
Less than \$ 5,000.....	19.8	19.7	21.6	21.1	21.7	21.2
\$ 5,000 - \$ 9,999.....	8.7	9.5	9.8	10.3	9.6	10.1
\$10,000 - \$14,999.....	9.4	9.1	9.7	9.3	9.7	9.4
\$15,000 - \$19,999.....	7.5	7.8	7.4	7.8	7.4	7.7
\$20,000 - \$24,999.....	6.4	6.6	6.7	6.6	6.6	6.5
\$25,000 - \$34,999.....	6.0	5.1	6.1	5.2	6.1	5.2
\$35,000 or More.....	5.6	4.3	5.8	4.6	5.7	4.4
Below 100% of Poverty.....	10.3	10.3	10.9	10.5	10.7	10.4
Below 125% of Poverty.....	7.3	7.5	7.9	7.6	7.6	7.5
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	12.8	13.2	14.9	15.3	15.0	15.3
\$10,000 - \$14,999.....	25.6	26.2	27.7	28.0	28.1	28.4
\$15,000 - \$24,999.....	10.8	11.0	11.1	11.1	11.0	11.1
\$25,000 - \$34,999.....	15.2	15.0	15.1	14.9	14.7	14.6
\$35,000 or More.....	10.6	10.1	9.9	9.6	9.8	9.5

See notes at the end of the table.

Table B1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985
 --Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Census Region by Family Income 1985						
North Central						
Less than \$9,999.....	12.6	13.3	16.0	16.2	15.7	15.9
\$10,000 - \$14,999.....	15.5	15.5	14.6	14.5	14.9	14.7
\$15,000 - \$24,999.....	8.5	8.7	9.5	9.9	9.2	9.6
\$25,000 - \$34,999.....	9.2	9.3	11.2	11.1	11.3	11.2
\$35,000 or More.....	13.5	13.0	12.2	11.9	12.0	11.7
South						
Less than \$9,999.....	17.0	17.2	17.7	17.6	17.3	17.3
\$10,000 - \$14,999.....	13.8	13.6	13.1	13.5	13.3	13.7
\$15,000 - \$24,999.....	7.0	7.5	7.0	7.4	6.7	7.1
\$25,000 - \$34,999.....	10.7	9.8	10.4	9.6	10.4	9.6
\$35,000 or More.....	12.4	11.3	14.2	12.9	14.1	12.8
West						
Less than \$9,999.....	10.6	10.8	13.8	14.0	14.2	14.4
\$10,000 - \$14,999.....	20.6	19.6	23.1	21.7	22.3	21.0
\$15,000 - \$24,999.....	9.9	9.7	10.8	10.2	10.9	10.3
\$25,000 - \$34,999.....	12.7	12.1	10.9	10.3	10.7	10.2
\$35,000 or More.....	5.4	5.6	5.2	5.2	5.2	5.4
Number of Drivers (Fall 1984)						
1.....	5.9	5.6	6.3	5.8	6.2	5.8
2.....	3.5	2.5	3.5	2.7	3.4	2.7
3 or More.....	6.1	5.1	6.6	5.5	6.6	5.5
None/No Answer.....	28.3	28.5	23.3	23.5	23.6	23.8
Average Number of Vehicles per Household per Year						
Fewer than 1.....	21.2	20.9	23.0	22.8	22.9	22.8
1.....	6.4	6.1	6.3	6.3	6.1	6.2
Between 1 and 2.....	6.3	7.0	6.7	7.1	6.7	7.1
2.....	5.2	3.8	5.4	3.9	5.3	3.9
More than 2.....	4.4	3.5	4.7	3.6	4.7	3.6

See notes at the end of the table.

Table B1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985
 --Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Type of Fuel						
Leaded.....	5.7	5.3	5.5	4.5	5.5	4.6
Unleaded.....	3.2	1.6	3.2	1.7	3.2	1.6
Other.....	14.5	15.3	17.3	18.2	17.2	18.2
Model Year						
1973 or Earlier.....	8.7	8.2	8.4	7.7	8.3	7.6
1974 to 1978.....	4.3	3.7	4.3	3.5	4.3	3.5
1979 to 1980.....	5.5	4.6	5.8	4.5	5.6	4.4
1981 to 1982.....	5.3	4.7	5.4	5.2	5.4	5.1
1983 to 1984.....	5.2	4.7	5.3	4.9	5.2	4.8
1985 or Later.....	7.5	6.8	8.1	7.7	8.0	7.5
No Answer.....	98.3	98.1	98.3	98.1	98.3	98.1
Type of Vehicle						
Automobile.....	2.6	1.0	2.6	1.2	2.6	1.2
Jeep-Like Vehicle.....	12.9	12.4	13.4	12.6	13.3	12.5
Van.....	12.5	11.6	13.0	12.1	12.8	12.0
Pickup Truck.....	5.6	5.3	6.1	5.3	6.0	5.3
Other/No Answer.....	24.8	24.7	27.6	27.5	27.0	26.9
Number of Cylinders						
4.....	4.5	3.7	4.5	4.4	4.5	4.3
6.....	4.8	3.6	5.1	3.7	5.1	3.7
8.....	3.6	3.0	3.7	2.5	3.6	2.5
Other.....	26.4	26.4	28.6	28.7	28.4	28.4
Air Conditioning						
Yes.....	3.6	2.0	3.8	2.0	3.7	2.0
No.....	4.1	4.0	4.3	4.2	4.4	4.2

See notes at the end of the table.

Table B1. Household Vehicles: Annual Mileage, Fuel Consumption, and Fuel Expenditures, 1985
 --Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Miles Driven (billions)	Miles Driven (percent)	Gallons Consumed (billions)	Gallons Consumed (percent)	Expenditures (billion dollars)	Expenditures (percent)
Type of Transmission						
Automatic.....	3.2	1.8	3.2	1.5	3.1	1.5
Manual.....	4.7	4.2	5.1	4.5	5.1	4.6
Vehicle Used on the Job						
Yes.....	6.3	5.2	6.6	5.4	6.4	5.3
No.....	2.5	.9	2.6	.9	2.6	1.0

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B2. Leaded Versus Unleaded Gasoline: Consumption, Fuel Efficiency, and Price per Gallon for Household Vehicles, 1985--Relative Standard Errors

Household and Vehicle Characteristics	Gasoline						
	Gallons Consumed (billions)	Gallons Consumed (billions)		Price per Gallon (dollars)		Miles per Gallon	
		Leaded	Unleaded	Leaded	Unleaded	Leaded	Unleaded
Total.....	2.9	5.5	3.2	0.3	0.2	1.6	1.0
Average Number of Vehicles per Household per Year							
Fewer than 1.....	23.0	52.7	18.6	3.6	1.5	14.0	5.5
1.....	6.4	15.9	6.8	.8	.6	3.6	2.2
Between 1 and 2.....	6.8	15.0	7.0	.7	.6	4.7	3.2
2.....	5.5	8.9	5.7	.6	.4	3.2	1.4
More than 2.....	5.0	8.4	5.6	.5	.3	2.3	1.8
Type of Fuel							
Leaded.....	5.5	5.5	--	.3	--	1.6	--
Unleaded.....	3.2	--	3.2	--	.2	--	1.0
Other.....	NC	NC	NC	NC	NC	NC	NC
Model Year							
1973 or Earlier.....	8.4	9.1	16.7	.4	1.5	2.4	3.9
1974 to 1978.....	4.4	6.5	5.3	.5	.3	2.6	1.2
1979 to 1980.....	5.9	15.4	6.2	.9	.5	5.3	1.6
1981 to 1982.....	5.7	25.8	5.6	2.0	.4	7.7	1.5
1983 to 1984.....	5.7	29.5	5.7	2.3	.4	14.5	1.9
1985 or Later.....	8.3	60.1	8.3	23.4	.6	45.0	3.8
No Answer.....	98.3	NA	98.3	NA	70.7	NA	70.7
Type of Vehicle							
Automobile.....	2.7	5.9	3.4	.4	.2	2.1	1.0
Jeep-Like Vehicle.....	13.4	23.5	15.8	1.4	1.1	5.8	3.5
Van.....	13.1	21.4	13.0	.7	.9	5.6	4.9
Pickup Truck.....	6.3	8.7	7.6	.5	.4	2.9	2.9
Other/No Answer.....	27.6	30.9	52.0	3.7	8.9	7.2	14.3

See notes at the end of the table.

Table B2. Leaded Versus Unleaded Gasoline: Consumption, Fuel Efficiency, and Price per Gallon for Household Vehicles, 1985--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Gasoline						
	Gallons Consumed (billions)	Gallons Consumed (billions)		Price per Gallon (dollars)		Miles per Gallon	
		Leaded	Unleaded	Leaded	Unleaded	Leaded	Unleaded
Number of Cylinders							
4.....	4.5	10.3	4.8	0.9	0.3	3.2	1.1
6.....	5.3	11.7	5.3	.5	.3	3.2	1.4
8.....	3.9	6.5	4.4	.4	.4	1.2	1.1
Other.....	29.7	88.6	31.3	26.7	2.3	31.3	11.5
Air Conditioning							
Yes.....	4.0	7.3	4.1	.5	.3	1.6	1.1
No.....	4.5	7.4	5.0	.4	.3	2.4	1.8
Type of Transmission							
Automatic.....	3.3	6.3	3.7	.4	.3	1.4	1.0
Manual.....	5.0	9.0	5.9	.6	.4	3.8	2.3
Vehicle Used on the Job							
Yes.....	6.8	13.0	7.1	.8	.5	3.6	2.1
No.....	2.8	5.4	3.3	.4	.2	1.7	1.1

NC/ No cases in sample.

NA/ Relative Standard Error is not available due to a small number of observations and a prevalence of imputed data.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B3. Motor Fuel Consumption and Expenditures per Household, 1985
 --Relative Standard Errors

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Total.....	0.7	1.0	1.8	1.6	1.7	1.0	0.3	1.0
Census Region and Division								
Northeast.....	1.4	2.3	4.4	5.1	4.3	1.7	.5	1.7
New England.....	8.7	5.7	8.8	9.7	8.8	2.2	1.9	2.1
Middle Atlantic.....	3.2	2.9	5.4	6.6	5.3	2.1	.3	2.2
North Central.....	1.8	2.3	3.2	3.2	3.1	2.0	.6	2.2
East North Central.....	4.1	3.1	4.5	4.3	4.4	2.7	.8	2.8
West North Central.....	6.5	2.1	4.5	5.1	4.5	2.1	.6	2.3
South.....	1.2	1.7	2.8	2.3	2.7	1.8	.6	1.8
South Atlantic.....	3.7	2.4	3.3	3.0	3.2	3.2	.8	3.2
East South Central.....	7.2	3.8	5.1	4.1	4.5	2.4	1.5	2.9
West South Central.....	5.1	3.6	6.0	6.4	6.1	2.2	1.2	1.5
West.....	.9	1.5	4.1	2.9	3.9	1.6	.7	1.6
Mountain.....	7.2	3.8	6.0	5.4	6.0	3.9	.7	4.4
Pacific.....	2.9	1.7	4.9	3.2	4.5	1.7	.9	1.4
Metropolitan Status								
Metropolitan.....	2.0	1.1	2.2	2.0	2.1	1.3	.3	1.2
Central City.....	3.0	1.8	3.2	3.0	3.1	1.7	.6	1.5
Outside Central City.....	3.6	1.3	2.7	2.5	2.6	1.7	.4	1.7
Nonmetropolitan.....	5.5	2.2	2.9	2.8	2.9	1.7	.6	1.8
Origin of Householder								
White.....	1.4	1.0	1.9	1.7	1.8	1.1	.3	1.1
Black.....	9.4	3.5	6.5	6.5	6.2	3.7	1.4	3.4
Other.....	13.0	5.6	11.9	12.1	12.0	7.4	1.7	8.0
Hispanic Descent								
Yes.....	11.7	3.9	8.4	8.3	8.0	4.2	1.0	4.8
No.....	.8	1.0	1.8	1.7	1.8	1.1	.3	1.1

See notes at the end of the table.

Table B3. Motor Fuel Consumption and Expenditures per Household, 1985
 --Relative Standard Errors (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Age of Householder								
24 Years and Under.....	8.8	3.7	5.3	5.2	5.5	4.0	1.0	4.1
25 to 34 Years.....	3.1	1.5	2.7	2.2	2.8	2.2	.6	2.4
35 to 44 Years.....	4.0	1.6	3.2	2.9	3.1	2.2	.6	2.1
45 to 59 Years.....	3.3	1.9	3.4	3.5	3.5	1.7	.5	1.7
60 Years and Over.....	4.4	1.9	3.9	4.1	3.8	2.0	.7	1.8
Household Size								
1 Person.....	4.4	2.4	7.0	5.9	6.8	3.4	1.1	3.0
2 Persons.....	3.5	1.5	3.0	3.1	2.9	2.0	.5	1.9
3 Persons.....	4.4	1.8	2.8	2.2	2.7	1.9	.5	1.7
4 Persons.....	4.3	1.7	2.8	3.0	3.0	2.1	.5	2.2
5 or More Persons.....	5.6	2.1	3.5	3.5	3.6	3.1	.6	3.1
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	14.3	3.8	4.3	3.6	4.4	2.9	.5	3.1
5,500 to 7,000 HDD.....	6.4	2.1	3.3	3.7	3.3	1.9	.5	1.7
4,000 to 5,499 HDD.....	8.4	2.1	4.1	4.0	4.1	2.4	.6	2.4
Fewer than 4,000 HDD.....								
More than 2,000 CDD and Fewer than 4,000 HDD.....	8.1	2.1	3.2	2.4	3.0	1.7	.7	1.6
6.5	2.5	4.8	4.6	4.8	2.0	1.0	2.2	
Family Income 1985								
Less than \$ 5,000.....	11.3	4.6	17.1	16.1	17.2	5.4	1.2	5.6
\$ 5,000 - \$ 9,999.....	4.6	2.6	8.6	7.9	8.3	5.0	.6	4.9
\$10,000 - \$14,999.....	5.1	2.2	4.5	4.6	4.5	2.6	.7	2.6
\$15,000 - \$19,999.....	5.2	2.9	4.9	4.1	4.6	2.5	.7	2.4
\$20,000 - \$24,999.....	4.7	3.3	5.5	4.6	5.5	2.7	.6	2.5
\$25,000 - \$34,999.....	4.3	1.7	3.0	2.5	2.9	1.7	.6	1.6
\$35,000 or More.....	4.5	1.6	2.4	2.2	2.3	2.0	.6	2.0
Below 100% of Poverty.....	5.0	2.5	8.0	7.6	7.9	3.8	.9	4.0
Below 125% of Poverty.....	4.6	2.0	6.6	5.9	6.5	3.1	.8	3.1

See notes at the end of the table.

Table B3. Motor Fuel Consumption and Expenditures per Household, 1985
--Relative Standard Errors (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Census Region by Family Income 1985								
Northeast								
Less than \$9,999.....	12.3	4.4	16.1	15.0	15.7	4.4	1.1	4.5
\$10,000 - \$14,999.....	11.3	5.2	12.4	11.0	12.8	3.8	1.0	3.8
\$15,000 - \$24,999.....	6.6	3.0	7.0	6.9	7.2	2.6	1.2	2.7
\$25,000 - \$34,999.....	10.6	2.8	5.4	4.6	5.1	3.4	.9	3.5
\$35,000 or More.....	6.5	3.6	7.0	7.2	6.8	3.4	1.2	3.2
North Central								
Less than \$9,999.....	8.5	4.6	16.6	14.4	16.1	11.8	.9	11.1
\$10,000 - \$14,999.....	9.3	4.2	7.9	9.1	7.8	3.9	1.3	4.2
\$15,000 - \$24,999.....	7.8	4.4	8.0	5.9	7.7	3.5	.6	3.3
\$25,000 - \$34,999.....	8.9	3.7	6.6	4.8	6.8	3.5	1.7	3.4
\$35,000 or More.....	10.7	3.4	2.7	3.2	2.6	4.1	1.3	4.2
South								
Less than \$9,999.....	9.7	2.9	13.5	12.4	12.9	3.6	1.1	3.4
\$10,000 - \$14,999.....	6.4	4.0	8.1	9.4	8.3	5.6	1.5	5.3
\$15,000 - \$24,999.....	5.7	3.3	5.2	4.5	5.0	3.4	.6	3.3
\$25,000 - \$34,999.....	7.3	2.7	5.1	3.6	4.9	3.3	.9	3.0
\$35,000 or More.....	9.6	1.9	4.2	4.2	4.1	4.5	.9	4.7
West								
Less than \$9,999.....	5.8	6.1	16.4	13.4	16.8	7.4	1.1	7.7
\$10,000 - \$14,999.....	12.1	4.9	12.7	11.3	12.8	4.9	1.6	4.5
\$15,000 - \$24,999.....	8.2	3.9	8.6	6.3	8.7	4.4	1.0	4.6
\$25,000 - \$34,999.....	8.1	4.9	9.0	7.6	8.8	3.8	1.6	4.4
\$35,000 or More.....	8.0	3.3	5.4	4.0	5.1	2.5	1.2	2.4

See notes at the end of the table.

Table B3. Motor Fuel Consumption and Expenditures per Household, 1985
 --Relative Standard Errors (Continued)

Household Characteristics	Number of Households (millions)	Number of Vehicles per Household	Averages per Household			Miles per Gallon	Price per Gallon (dollars)	Expenditures per Mile (dollars)
			Gallons Consumed	Miles Driven	Expenditures (dollars)			
Number of Drivers (Fall 1984)								
1.....	3.1	1.7	5.1	4.7	5.1	2.4	1.0	2.3
2.....	2.2	.8	1.9	1.7	1.9	1.6	.3	1.7
3 or More.....	5.5	1.7	2.8	2.6	2.7	2.1	.5	2.0
None/No Answer.....	13.8	9.2	17.6	22.4	17.4	10.1	1.1	11.3
Average Number of Vehicles per Household per Year								
Fewer than 1.....	10.6	4.1	16.6	12.8	16.6	5.9	1.5	6.2
1.....	3.3	0	4.5	4.7	4.3	2.1	.6	2.1
Between 1 and 2.....	5.1	.9	3.8	3.2	4.0	3.0	1.1	3.3
2.....	3.7	0	2.7	2.1	2.6	1.6	.5	1.6
More than 2.....	3.4	1.0	2.3	2.3	2.3	1.5	.4	1.5

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B4. Expenditure Categories for Household Motor Fuel, 1985
 (Percent of Households in Each Category)--Relative Standard Errors

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Total.....	--	5.7	2.9	4.1	5.1	4.3
Census Region and Division						
Northeast.....	--	14.6	8.8	7.6	10.1	12.3
New England.....	--	19.3	16.5	9.7	23.8	17.5
Middle Atlantic.....	--	18.5	10.2	9.5	11.2	15.9
North Central.....	--	10.5	3.7	10.3	7.3	8.1
East North Central.....	--	13.9	4.2	13.4	8.4	10.3
West North Central.....	--	17.3	7.2	19.3	15.3	15.4
South.....	--	9.6	7.3	6.0	8.9	5.4
South Atlantic.....	--	10.8	11.5	9.0	12.6	6.7
East South Central.....	--	32.1	14.9	18.0	25.4	7.4
West South Central.....	--	20.2	12.8	11.1	12.9	10.4
West.....	--	11.8	7.6	9.7	11.7	9.9
Mountain.....	--	19.3	12.4	15.0	20.0	12.8
Pacific.....	--	13.0	10.2	11.9	15.8	12.3
Metropolitan Status						
Metropolitan.....	--	6.7	3.4	4.9	5.6	5.5
Central City.....	--	8.5	5.4	8.0	10.7	10.3
Outside Central City.....	--	10.9	5.4	6.0	6.8	6.3
Nonmetropolitan.....	--	11.9	7.8	6.6	9.9	7.4
Origin of Householder						
White.....	--	6.3	3.2	4.3	5.3	4.7
Black.....	--	25.3	12.8	18.1	23.2	13.0
Other.....	--	24.4	21.9	26.2	45.6	41.0
Hispanic Descent						
Yes.....	--	19.0	18.8	23.7	29.4	26.9
No.....	--	5.8	3.0	4.0	5.3	4.1

See notes at the end of the table.

Table B4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Age of Householder						
24 Years and Under.....	--	34.6	13.9	13.8	24.2	21.0
25 to 34 Years.....	--	14.9	6.1	6.6	9.6	11.2
35 to 44 Years.....	--	13.5	8.9	8.7	10.5	8.7
45 to 59 Years.....	--	10.7	11.2	8.5	8.8	7.0
60 Years and Over.....	--	5.6	7.0	10.2	14.7	13.3
Household Size						
1 Person.....	--	7.5	6.7	19.1	22.5	28.5
2 Persons.....	--	9.4	6.4	7.2	12.0	9.3
3 Persons.....	--	13.5	10.2	7.5	10.3	7.7
4 Persons.....	--	29.0	11.3	8.5	11.6	8.6
5 or More Persons.....	--	30.7	13.8	10.8	11.5	7.6
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	--	14.8	8.0	16.6	17.0	12.4
5,500 to 7,000 HDD.....	--	10.6	5.5	8.2	8.6	7.8
4,000 to 5,499 HDD.....	--	10.5	6.2	7.4	7.9	11.4
Fewer than 4,000 HDD.....						
More than 2,000 CDD and Fewer than 4,000 HDD.....	--	14.0	10.6	7.7	12.3	8.0
More than 2,000 CDD and Fewer than 4,000 HDD.....	--	16.1	8.6	9.5	9.7	8.5
Family Income 1985						
Less than \$ 5,000.....	--	17.6	30.9	29.6	103.5	32.0
\$ 5,000 - \$ 9,999.....	--	9.6	11.9	15.5	26.0	31.1
\$10,000 - \$14,999.....	--	10.9	8.4	16.3	21.7	12.5
\$15,000 - \$19,999.....	--	11.8	11.6	13.7	14.9	15.9
\$20,000 - \$24,999.....	--	21.1	12.3	15.5	14.9	14.2
\$25,000 - \$34,999.....	--	16.2	8.4	7.9	9.1	8.7
\$35,000 or More.....	--	20.0	8.7	5.7	7.7	6.0
Below 100% of Poverty.....	--	14.7	16.0	16.4	24.8	22.5
Below 125% of Poverty.....	--	12.1	12.0	12.3	19.3	17.6

See notes at the end of the table.

Table B4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	--	21.1	32.9	43.4	123.6	40.9
\$10,000 - \$14,999.....	--	23.8	20.1	30.2	55.0	40.6
\$15,000 - \$24,999.....	--	16.3	14.5	18.6	28.4	37.2
\$25,000 - \$34,999.....	--	40.5	20.4	20.6	12.9	15.8
\$35,000 or More.....	--	25.5	17.9	8.3	14.1	18.4
North Central						
Less than \$9,999.....	--	19.1	31.0	23.0	39.7	59.1
\$10,000 - \$14,999.....	--	15.0	15.1	36.4	32.1	34.3
\$15,000 - \$24,999.....	--	18.5	16.0	22.3	18.9	19.4
\$25,000 - \$34,999.....	--	24.2	14.2	24.9	18.9	18.4
\$35,000 or More.....	--	77.1	14.3	12.7	13.8	8.6
South						
Less than \$9,999.....	--	13.1	19.2	22.6	18.8	48.7
\$10,000 - \$14,999.....	--	24.3	18.1	27.7	42.8	19.2
\$15,000 - \$24,999.....	--	31.6	15.4	15.6	15.6	12.2
\$25,000 - \$34,999.....	--	27.6	14.2	9.4	14.1	12.3
\$35,000 or More.....	--	63.4	14.2	12.7	10.0	10.2
West						
Less than \$9,999.....	--	17.4	23.0	25.1	46.6	51.5
\$10,000 - \$14,999.....	--	25.3	14.9	30.5	45.3	26.4
\$15,000 - \$24,999.....	--	14.2	16.4	20.4	26.1	26.9
\$25,000 - \$34,999.....	--	70.0	20.9	17.8	42.3	25.6
\$35,000 or More.....	--	35.7	20.8	11.6	20.2	12.9
Number of Drivers (Fall 1984)						
1.....	--	6.8	5.5	14.6	18.0	19.5
2.....	--	9.3	5.4	4.6	6.4	6.5
3 or More.....	--	35.9	16.3	10.3	9.4	4.5
None/No Answer.....	--	43.5	38.3	50.4	107.3	46.9

See notes at the end of the table.

Table B4. Expenditure Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Expenditures (dollars per household)				
		500 or Less	501 to 1,000	1,001 to 1,500	1,501 to 2,000	2,001 or More
Average Number of Vehicles per Household per Year						
Fewer than 1.....	--	22.5	15.1	37.9	NC	76.9
1.....	--	5.1	4.7	11.3	33.2	24.4
Between 1 and 2.....	--	18.3	8.1	7.9	12.6	17.3
2.....	--	18.7	7.6	5.4	7.0	9.4
More than 2.....	--	46.1	16.4	11.2	7.3	5.1

NC/ No cases in sample.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Total.....	--	5.6	3.2	4.0	4.7	4.6
Census Region and Division						
Northeast.....	--	14.0	9.2	8.6	13.1	13.3
New England.....	--	19.6	18.8	11.5	22.2	18.6
Middle Atlantic.....	--	18.2	10.4	11.3	14.8	16.8
North Central.....	--	10.7	3.7	8.1	8.2	7.5
East North Central.....	--	13.4	4.3	8.4	9.7	10.4
West North Central.....	--	19.0	9.2	18.2	16.5	12.3
South.....	--	10.8	8.0	7.1	8.6	6.3
South Atlantic.....	--	12.5	13.8	10.5	11.2	9.1
East South Central.....	--	36.8	14.1	16.2	16.2	9.3
West South Central.....	--	23.1	8.2	11.5	15.9	11.2
West.....	--	12.9	6.6	10.0	8.9	10.8
Mountain.....	--	21.2	15.7	17.3	10.4	11.2
Pacific.....	--	14.5	6.6	12.5	11.5	13.9
Metropolitan Status						
Metropolitan.....	--	6.8	3.6	4.9	5.7	5.8
Central City.....	--	9.2	6.2	7.4	11.9	10.5
Outside Central City.....	--	10.9	6.1	6.7	7.2	6.9
Nonmetropolitan.....	--	12.8	8.1	6.7	10.9	7.6
Origin of Householder						
White.....	--	6.1	3.2	4.4	5.0	4.9
Black.....	--	25.3	14.6	14.4	25.0	12.3
Other.....	--	29.9	22.6	33.4	39.7	56.0
Hispanic Descent						
Yes.....	--	19.3	19.6	16.9	30.5	24.7
No.....	--	5.7	3.3	4.1	4.6	4.5

See notes at the end of the table.

Table B5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Age of Householder						
24 Years and Under.....	--	43.9	13.6	16.3	20.3	20.0
25 to 34 Years.....	--	15.4	5.7	6.9	10.8	10.3
35 to 44 Years.....	--	14.9	10.2	9.8	9.2	8.4
45 to 59 Years.....	--	11.5	11.0	8.4	10.5	6.5
60 Years and Over.....	--	5.5	7.7	8.9	15.1	12.6
Household Size						
1 Person.....	--	7.4	6.2	19.0	22.5	24.7
2 Persons.....	--	9.2	6.5	7.0	12.3	9.5
3 Persons.....	--	13.7	9.7	7.6	9.0	6.9
4 Persons.....	--	25.2	10.7	7.7	10.7	6.8
5 or More Persons.....	--	32.5	18.3	10.8	12.1	7.1
Weather Zone						
Fewer than 2,000 CDD and--						
More than 7,000 HDD.....	--	17.4	8.3	14.0	16.4	11.2
5,500 to 7,000 HDD.....	--	10.7	6.7	7.2	8.5	8.1
4,000 to 5,499 HDD.....	--	10.4	7.1	6.6	9.2	12.1
Fewer than 4,000 HDD.....						
More than 2,000 CDD and Fewer than 4,000 HDD.....	--	16.9	10.5	10.9	11.4	8.2
Family Income 1985						
Less than \$ 5,000.....	--	17.6	30.9	35.3	99.5	29.6
\$ 5,000 - \$ 9,999.....	--	9.6	11.7	14.7	26.1	30.7
\$10,000 - \$14,999.....	--	11.5	8.8	16.5	19.8	9.8
\$15,000 - \$19,999.....	--	12.1	13.4	13.2	14.9	12.9
\$20,000 - \$24,999.....	--	21.5	12.7	12.4	12.4	13.4
\$25,000 - \$34,999.....	--	16.0	8.9	7.5	13.9	8.6
\$35,000 or More.....	--	18.8	8.4	7.5	8.4	5.4
Below 100% of Poverty.....	--	15.5	17.8	12.1	22.0	18.6
Below 125% of Poverty.....	--	12.5	12.9	10.7	16.9	15.1

See notes at the end of the table.

Table B5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Census Region by Family Income 1985						
Northeast						
Less than \$9,999.....	--	21.7	25.7	36.0	123.6	40.9
\$10,000 - \$14,999.....	--	24.0	17.5	26.6	58.2	39.0
\$15,000 - \$24,999.....	--	16.3	17.7	25.5	23.6	23.6
\$25,000 - \$34,999.....	--	40.5	23.2	23.2	22.9	21.0
\$35,000 or More.....	--	20.4	20.4	12.9	15.7	18.6
North Central						
Less than \$9,999.....	--	22.0	28.1	19.0	43.0	56.4
\$10,000 - \$14,999.....	--	15.5	17.0	27.6	37.8	21.0
\$15,000 - \$24,999.....	--	19.0	19.1	20.6	22.6	18.5
\$25,000 - \$34,999.....	--	24.7	13.9	18.5	21.2	18.3
\$35,000 or More.....	--	77.0	15.5	12.6	14.9	7.4
South						
Less than \$9,999.....	--	12.8	20.8	25.4	25.6	41.7
\$10,000 - \$14,999.....	--	27.2	16.2	31.6	36.8	15.9
\$15,000 - \$24,999.....	--	32.4	16.7	15.6	15.2	10.4
\$25,000 - \$34,999.....	--	30.6	16.6	11.1	20.8	12.9
\$35,000 or More.....	--	63.4	14.5	16.9	18.2	8.9
West						
Less than \$9,999.....	--	16.2	30.9	35.9	38.6	40.9
\$10,000 - \$14,999.....	--	33.4	16.3	33.1	33.9	25.7
\$15,000 - \$24,999.....	--	13.7	15.5	20.3	24.8	25.9
\$25,000 - \$34,999.....	--	68.6	16.1	18.5	39.0	27.1
\$35,000 or More.....	--	44.3	17.7	9.8	14.8	11.8
Number of Drivers (Fall 1984)						
1.....	--	6.7	5.2	14.8	17.5	18.6
2.....	--	10.0	5.5	3.9	6.2	6.6
3 or More.....	--	42.2	15.8	11.4	9.7	4.7
None/No Answer.....	--	43.5	46.5	43.6	107.3	46.9

See notes at the end of the table.

Table B5. Consumption Categories for Household Motor Fuel, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Motor Fuel Consumption (gallons per household)				
		400 or Less	401 to 800	801 to 1,200	1,201 to 1,600	1,601 or More
Average Number of Vehicles per Household per Year						
Fewer than 1.....	--	22.1	15.5	46.1	100.5	76.9
1.....	--	5.6	4.7	9.9	28.3	24.3
Between 1 and 2.....	--	19.8	8.2	7.5	11.9	12.5
2.....	--	20.2	9.1	6.2	7.9	8.4
More than 2.....	--	68.3	19.7	11.2	8.4	5.1

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Total.....	--	6.8	5.0	4.3	5.0	6.6	5.5
Census Region and Division							
Northeast.....	--	14.7	13.2	12.3	11.5	14.0	15.4
New England.....	--	24.3	20.9	16.5	10.6	20.9	25.8
Middle Atlantic.....	--	17.9	16.6	14.4	16.6	16.2	21.0
North Central.....	--	12.4	11.1	9.1	10.8	10.8	11.8
East North Central.....	--	16.0	15.7	8.3	14.5	14.5	15.5
West North Central.....	--	17.2	15.5	24.4	14.5	20.2	13.6
South.....	--	10.1	7.8	6.3	8.9	11.5	8.5
South Atlantic.....	--	11.6	12.1	8.6	13.1	15.4	11.6
East South Central.....	--	28.9	15.5	14.0	15.9	16.5	12.9
West South Central.....	--	22.3	14.3	14.5	15.7	23.7	19.9
West.....	--	16.1	10.4	7.7	10.5	12.1	10.3
Mountain.....	--	24.2	12.7	17.4	18.1	22.6	16.4
Pacific.....	--	18.5	13.8	9.3	12.1	14.0	11.5
Metropolitan Status							
Metropolitan.....	--	8.4	5.9	5.3	5.8	7.2	6.5
Central City.....	--	10.0	6.9	9.0	12.7	14.4	11.2
Outside Central City.....	--	12.6	9.6	5.7	7.1	8.9	7.0
Nonmetropolitan.....	--	11.9	9.7	7.2	10.4	14.4	9.7
Origin of Householder							
White.....	--	7.1	5.1	4.1	5.0	6.1	5.6
Black.....	--	27.4	14.8	23.3	23.3	31.6	16.5
Other.....	--	26.9	28.7	31.8	33.7	44.7	35.4
Hispanic Descent							
Yes.....	--	39.0	25.2	22.5	23.6	35.8	28.9
No.....	--	6.8	5.4	4.4	5.1	6.9	5.6

See notes at the end of the table.

Table B6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Age of Householder							
24 Years and Under.....	--	50.3	21.4	11.3	29.8	28.9	29.5
25 to 34 Years.....	--	21.8	8.9	8.2	10.1	10.5	10.5
35 to 44 Years.....	--	23.4	11.9	8.2	8.4	11.8	8.6
45 to 59 Years.....	--	13.5	11.9	11.4	10.1	12.4	10.0
60 Years and Over.....	--	6.6	7.3	11.7	12.1	17.6	18.2
Household Size							
1 Person.....	--	8.3	9.4	15.9	24.3	29.1	27.5
2 Persons.....	--	12.2	8.0	6.7	7.4	13.1	12.1
3 Persons.....	--	16.5	13.0	8.4	10.5	11.0	9.3
4 Persons.....	--	26.4	17.0	12.0	8.7	11.8	9.5
5 or More Persons.....	--	45.0	19.0	13.5	13.5	16.4	7.7
Weather Zone							
Fewer than 2,000 CDD and--							
More than 7,000 HDD.....	--	20.5	14.6	16.5	12.1	20.4	14.1
5,500 to 7,000 HDD.....	--	11.0	10.2	7.1	9.1	13.2	13.2
4,000 to 5,499 HDD.....	--	12.4	11.6	9.6	11.3	13.1	11.1
Fewer than 4,000 HDD.....	--	13.8	11.1	8.3	10.5	12.5	8.9
More than 2,000 CDD and							
Fewer than 4,000 HDD.....	--	20.3	11.1	13.4	13.2	16.5	12.8
Family Income 1985							
Less than \$ 5,000.....	--	14.9	32.3	35.8	77.0	59.2	46.1
\$ 5,000 - \$ 9,999.....	--	10.4	10.3	17.2	25.4	53.0	28.0
\$10,000 - \$14,999.....	--	13.0	12.0	14.1	20.7	20.1	16.2
\$15,000 - \$19,999.....	--	13.4	13.7	12.4	18.3	20.0	20.9
\$20,000 - \$24,999.....	--	27.2	12.0	10.5	14.7	20.5	16.6
\$25,000 - \$34,999.....	--	19.2	9.7	7.5	8.2	14.8	8.6
\$35,000 or More.....	--	28.7	13.3	8.5	7.0	9.9	6.8
Below 100% of Poverty.....	--	15.5	19.4	15.3	22.2	29.8	24.3
Below 125% of Poverty.....	--	11.8	12.4	11.3	18.7	24.3	17.5

See notes at the end of the table.

Table B6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Census Region by Family Income 1985							
Northeast							
Less than \$9,999.....	--	22.8	28.8	26.5	33.2	106.1	85.6
\$10,000 - \$14,999.....	--	28.3	30.5	34.8	46.4	48.3	46.3
\$15,000 - \$24,999.....	--	21.4	13.8	24.9	28.8	28.1	29.1
\$25,000 - \$34,999.....	--	59.8	25.8	13.9	16.1	31.9	18.4
\$35,000 or More.....	--	45.0	27.5	20.8	14.1	17.9	19.1
North Central							
Less than \$9,999.....	--	18.7	21.8	32.1	57.0	110.7	31.3
\$10,000 - \$14,999.....	--	15.5	27.1	26.0	49.8	29.5	50.2
\$15,000 - \$24,999.....	--	24.6	19.3	20.6	26.3	33.2	25.1
\$25,000 - \$34,999.....	--	28.9	16.9	19.3	15.1	28.9	16.1
\$35,000 or More.....	--	79.0	33.4	21.5	17.1	19.9	13.9
South							
Less than \$9,999.....	--	13.3	16.9	28.6	43.4	29.4	48.4
\$10,000 - \$14,999.....	--	28.3	16.8	23.3	31.4	57.3	27.3
\$15,000 - \$24,999.....	--	34.1	19.7	16.1	15.8	20.5	17.5
\$25,000 - \$34,999.....	--	34.3	14.0	13.4	14.7	21.8	12.6
\$35,000 or More.....	--	54.7	20.4	14.4	14.4	18.7	11.8
West							
Less than \$9,999.....	--	15.9	28.6	30.6	45.2	117.2	53.6
\$10,000 - \$14,999.....	--	30.5	22.0	30.4	39.3	43.1	27.4
\$15,000 - \$24,999.....	--	23.5	19.9	21.2	27.6	36.4	17.3
\$25,000 - \$34,999.....	--	94.8	25.0	12.9	15.5	44.2	29.3
\$35,000 or More.....	--	65.8	18.3	14.0	12.3	15.2	13.8
Number of Drivers (Fall 1984)							
1.....	--	7.4	7.0	11.0	16.1	23.9	22.7
2.....	--	12.1	8.2	4.3	5.1	8.4	7.5
3 or More.....	--	40.6	19.9	14.5	11.6	14.0	6.0
None/No Answer.....	--	39.0	57.2	49.5	92.1	111.9	44.4

See notes at the end of the table.

Table B6. Annual Mileage Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Annual Mileage (miles driven per household)					
		6,000 or Less	6,001 to 12,000	12,001 to 18,000	18,001 to 24,000	24,001 to 30,000	30,001 or More
Average Number of Vehicles per Household per Year							
Fewer than 1.....	--	25.0	23.5	27.1	66.6	99.5	76.3
1.....	--	6.4	6.9	10.2	17.8	36.6	31.3
Between 1 and 2.....	--	30.8	9.5	9.0	12.8	18.0	18.5
2.....	--	20.7	11.0	6.4	7.0	11.9	9.4
More than 2.....	--	70.4	18.9	14.0	7.8	7.6	6.5

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Total.....	--	4.9	4.8	4.5	5.2	5.9	8.8
Census Region and Division							
Northeast.....	--	11.6	12.7	10.5	11.2	10.1	14.2
New England.....	--	22.3	19.8	21.2	10.0	14.3	13.7
Middle Atlantic.....	--	12.9	13.8	12.5	13.4	12.1	19.2
North Central.....	--	9.5	10.2	9.2	10.6	12.5	20.7
East North Central.....	--	10.5	12.3	11.5	12.1	14.2	25.4
West North Central.....	--	15.1	15.1	15.8	24.3	27.1	24.1
South.....	--	7.8	6.5	7.3	10.8	13.6	17.5
South Atlantic.....	--	15.6	7.8	6.8	17.7	17.7	23.7
East South Central.....	--	11.6	20.2	26.3	12.3	23.2	24.7
West South Central.....	--	8.9	10.3	13.0	23.3	29.1	39.0
West.....	--	8.7	11.4	6.9	12.0	12.2	15.9
Mountain.....	--	15.3	19.1	8.4	12.8	19.6	33.8
Pacific.....	--	9.9	13.4	9.1	15.1	13.5	17.8
Metropolitan Status							
Metropolitan.....	--	5.8	6.3	4.6	6.0	6.3	9.2
Central City.....	--	6.7	10.2	6.5	9.9	9.8	16.1
Outside Central City.....	--	10.1	6.6	6.3	6.2	9.7	11.0
Nonmetropolitan.....	--	8.4	7.8	9.8	11.2	16.6	17.7
Origin of Householder							
White.....	--	5.4	5.1	4.6	5.2	6.3	8.7
Black.....	--	18.8	18.7	16.2	21.9	27.9	32.4
Other.....	--	35.7	32.7	26.7	33.2	34.9	48.2
Hispanic Descent							
Yes.....	--	27.2	27.6	19.5	23.3	42.0	40.6
No.....	--	5.4	4.7	4.5	5.5	6.0	8.9
Age of Householder							
24 Years and Under.....	--	25.7	23.4	22.4	26.1	28.3	31.1
25 to 34 Years.....	--	12.0	9.3	10.1	9.5	15.9	13.8
35 to 44 Years.....	--	14.2	10.0	8.5	10.5	14.6	15.7
45 to 59 Years.....	--	9.4	7.0	9.2	11.5	17.3	17.2
60 Years and Over.....	--	7.6	8.1	7.7	11.8	15.8	16.7

See notes at the end of the table.

Table B7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Household Size							
1 Person.....	--	11.9	12.4	10.5	14.6	12.5	16.5
2 Persons.....	--	8.2	7.9	8.6	10.5	12.4	11.7
3 Persons.....	--	10.8	8.3	9.0	13.3	13.7	20.0
4 Persons.....	--	11.8	9.5	9.6	11.9	15.3	20.2
5 or More Persons.....	--	14.1	14.9	11.3	16.3	22.0	23.5
Weather Zone							
Fewer than 2,000 CDD and--							
More than 7,000 HDD.....	--	14.4	15.0	15.2	16.9	22.8	26.6
5,500 to 7,000 HDD.....	--	9.7	11.8	8.3	7.5	10.1	17.6
4,000 to 5,499 HDD.....	--	11.9	8.2	8.0	14.5	11.5	17.3
Fewer than 4,000 HDD.....	--	11.4	8.5	8.5	13.5	16.4	17.0
More than 2,000 CDD and							
Fewer than 4,000 HDD.....	--	10.7	10.8	9.4	13.5	19.8	21.3
Family Income 1985							
Less than \$ 5,000.....	--	22.6	38.8	29.6	46.6	62.6	104.6
\$ 5,000 - \$ 9,999.....	--	12.6	14.1	15.0	22.5	32.5	25.8
\$10,000 - \$14,999.....	--	14.1	10.3	16.1	15.4	18.3	22.8
\$15,000 - \$19,999.....	--	16.2	11.5	10.0	16.8	19.8	25.5
\$20,000 - \$24,999.....	--	15.5	13.6	15.8	16.3	27.5	21.8
\$25,000 - \$34,999.....	--	13.1	9.1	9.9	13.7	15.0	11.5
\$35,000 or More.....	--	15.8	8.4	6.9	9.8	12.4	16.5
Below 100% of Poverty.....	--	13.0	15.8	15.5	30.4	28.5	30.2
Below 125% of Poverty.....	--	10.1	12.2	13.7	21.3	21.7	21.4
Census Region by Family Income 1985							
Northeast							
Less than \$9,999.....	--	19.8	49.1	43.6	44.1	51.4	80.6
\$10,000 - \$14,999.....	--	30.0	22.0	25.9	37.3	47.8	59.7
\$15,000 - \$24,999.....	--	33.5	11.4	15.4	23.2	22.6	29.0

See notes at the end of the table.

Table B7. Fuel Efficiency Categories for Household Vehicles, 1985
(Percent of Households in Each Category)--Relative Standard Errors (Continued)

Household Characteristics	Total Households	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Census Region by Family Income 1985							
Northeast							
\$25,000 - \$34,999.....	--	26.1	23.6	27.0	45.3	15.9	21.2
\$35,000 or More.....	--	27.0	17.8	11.5	16.9	26.7	26.5
North Central							
Less than \$9,999.....	--	24.2	22.9	28.5	40.6	63.2	46.9
\$10,000 - \$14,999.....	--	20.2	20.2	39.7	28.9	52.6	46.1
\$15,000 - \$24,999.....	--	18.8	24.3	19.3	22.3	37.9	37.9
\$25,000 - \$34,999.....	--	20.8	18.0	22.6	18.9	20.4	16.6
\$35,000 or More.....	--	24.8	17.3	10.6	22.7	27.5	33.5
South							
Less than \$9,999.....	--	16.6	27.9	19.6	39.7	37.9	37.0
\$10,000 - \$14,999.....	--	27.5	22.4	32.0	28.5	36.1	41.4
\$15,000 - \$24,999.....	--	18.2	13.5	15.7	22.7	24.0	34.5
\$25,000 - \$34,999.....	--	24.9	11.7	12.4	22.3	43.3	28.4
\$35,000 or More.....	--	26.2	16.5	10.9	16.1	29.7	39.4
West							
Less than \$9,999.....	--	25.3	28.9	35.7	36.9	99.1	47.8
\$10,000 - \$14,999.....	--	35.4	20.5	36.1	39.6	31.7	42.6
\$15,000 - \$24,999.....	--	25.7	20.7	20.3	27.2	51.4	25.9
\$25,000 - \$34,999.....	--	26.5	23.4	14.4	34.3	54.5	31.8
\$35,000 or More.....	--	40.4	17.2	15.4	22.4	20.9	33.3
Number of Drivers (Fall 1984)							
1.....	--	8.5	10.3	8.0	12.7	10.1	13.3
2.....	--	6.7	6.6	6.8	7.6	9.0	12.0
3 or More.....	--	11.5	9.3	9.8	14.5	15.1	25.8
None/No Answer.....	--	65.8	36.1	45.2	66.6	106.7	51.8
Average Number of Vehicles per Household per Year							
Fewer than 1.....	--	43.3	28.1	36.3	36.2	54.5	43.1
1.....	--	9.2	7.5	8.8	11.4	12.5	11.5
Between 1 and 2.....	--	17.8	12.3	10.5	14.0	15.4	21.9
2.....	--	7.7	9.1	7.7	8.8	12.1	14.1
More than 2.....	--	11.2	7.4	9.2	10.4	15.7	20.1

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B8. Fuel Consumption and Expenditures per Vehicle, 1985--Relative Standard Errors

Household and Vehicle Characteristics	Number of Vehicles (millions)	Averages per Vehicle			Price per Gallon (dollars)	Miles per Gallon
		Gallons Consumed	Miles Driven	Expenditures (dollars)		
Total.....	1.2	1.3	1.4	1.3	0.2	1.0
Average Number of Vehicles per Household per Year						
Fewer than 1.....	11.1	16.6	12.9	16.7	1.5	6.2
1.....	3.2	4.5	4.7	4.3	.6	2.1
Between 1 and 2.....	5.0	4.1	3.6	4.1	.5	2.9
2.....	3.7	2.7	2.1	2.7	.4	1.5
More than 2.....	3.6	2.3	2.3	2.3	.4	1.5
Type of Fuel						
Leaded.....	2.7	3.1	3.4	3.2	.3	1.6
Unleaded.....	1.6	1.4	1.5	1.4	.2	1.0
Other.....	11.8	11.0	6.1	11.0	.8	7.7
Model Year						
1973 or Earlier.....	3.6	6.2	6.3	6.0	.5	2.1
1974 to 1978.....	2.1	2.3	2.3	2.3	.3	1.4
1979 to 1980.....	3.3	2.5	2.5	2.5	.5	1.7
1981 to 1982.....	3.5	2.6	2.5	2.6	.4	1.4
1983 to 1984.....	3.6	3.0	3.0	3.0	.4	2.0
1985 or Later.....	5.4	5.2	4.0	5.0	.6	3.8
No Answer.....	23.6	70.7	70.7	70.7	70.7	70.7
Type of Vehicle						
Automobile.....	1.3	1.4	1.6	1.4	.2	.9
Jeep-like Vehicle.....	7.9	7.2	6.5	7.3	1.0	2.8
Van.....	8.6	5.5	6.3	5.3	.8	3.9
Pickup Truck.....	3.2	3.6	3.3	3.5	.4	2.0
Other/No Answer.....	13.8	24.0	20.6	23.9	3.3	6.7
Number of Cylinders						
4.....	2.9	2.2	2.5	2.2	.3	1.1
6.....	3.0	2.8	2.8	2.9	.4	1.4
8.....	2.0	2.2	2.2	2.1	.4	1.0
Other.....	21.1	20.8	17.2	20.4	2.1	10.5

See notes at the end of the table.

Table B8. Fuel Consumption and Expenditures per Vehicle, 1985--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Number of Vehicles (millions)	Averages per Vehicle			Price per Gallon (dollars)	Miles per Gallon
		Gallons Consumed	Miles Driven	Expenditures (dollars)		
Air Conditioning						
Yes.....	2.2	1.6	1.7	1.6	0.3	1.1
No.....	2.5	2.5	2.4	2.5	.3	1.6
Type of Transmission						
Automatic.....	1.6	1.5	1.6	1.3	.3	1.0
Manual.....	2.9	2.8	2.9	2.9	.3	2.3
Vehicle Used on the Job						
Yes.....	4.3	2.7	2.8	2.7	.5	1.8
No.....	1.2	1.4	1.5	1.5	.2	1.1

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B9. Expenditure Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Expenditures (dollars per vehicle)				
		300 or Less	301 to 600	601 to 900	901 to 1,200	1,200 or More
Total.....	--	3.6	2.5	2.7	4.4	4.2
Average Number of Vehicles per Household per Year						
Fewer than 1.....	--	36.8	36.8	23.8	38.7	29.0
1.....	--	7.8	7.0	8.1	9.7	13.5
Between 1 and 2.....	--	11.6	8.4	7.9	10.6	10.4
2.....	--	7.2	4.1	5.0	7.0	7.7
More than 2.....	--	6.3	3.7	4.7	7.8	6.9
Type of Fuel						
Leaded.....	--	5.6	5.8	6.4	10.2	8.5
Unleaded.....	--	5.0	2.9	3.7	4.9	4.5
Other.....	--	34.3	16.6	18.2	36.3	26.0
Model Year						
1973 or Earlier.....	--	5.8	8.9	10.1	15.5	12.9
1974 to 1978.....	--	5.3	5.4	5.7	6.9	7.2
1979 to 1980.....	--	8.5	5.6	9.1	11.4	12.3
1981 to 1982.....	--	14.5	6.6	7.1	9.9	12.2
1983 to 1984.....	--	12.2	7.3	6.0	11.0	9.3
1985 or Later.....	--	22.9	10.8	10.5	16.3	13.7
No Answer.....	--	NA	70.7	NA	NA	NA
Type of Vehicle						
Automobile.....	--	3.9	2.7	3.2	4.8	5.0
Jeep-Like Vehicle.....	--	23.6	19.7	15.1	18.6	14.0
Van.....	--	22.0	17.4	13.5	16.7	12.7
Pickup Truck.....	--	7.9	6.6	6.6	11.7	8.6
Other/No Answer.....	--	39.9	34.9	40.1	63.4	75.8
Number of Cylinders						
4.....	--	5.3	3.5	5.1	8.0	10.7
6.....	--	7.9	5.4	4.8	8.3	7.2
8.....	--	5.5	4.5	4.9	6.6	5.8
Other.....	--	35.8	42.3	44.0	61.9	66.9

See notes at the end of the table.

Table B9. Expenditure Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Expenditures (dollars per vehicle)				
		300 or Less	301 to 600	601 to 900	901 to 1,200	1,200 or More
Air Conditioning						
Yes.....	--	4.9	3.0	3.5	5.0	4.8
No.....	--	4.9	3.6	5.8	6.3	7.9
Type of Transmission						
Automatic.....	--	4.6	2.7	3.4	4.6	4.3
Manual.....	--	6.6	4.6	5.3	8.6	7.7
Vehicle Used on the Job						
Yes.....	--	17.0	9.2	8.5	10.0	7.5
No.....	--	3.6	2.8	2.8	5.0	4.8

NA/ Relative Standard Error is not available due to a small number of observations and a prevalence of imputed data.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B10. Consumption Categories for Motor Fuel, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Consumption (gallons per vehicle)			
		400 or Less	401 to 800	801 to 1,200	1,201 or More
Total.....	--	2.4	1.9	3.9	5.6
Average Number of Vehicles per Household per Year					
Fewer than 1.....	--	27.2	19.2	34.3	44.1
1.....	--	5.4	4.8	9.6	20.4
Between 1 and 2.....	--	7.1	6.1	13.3	12.8
2.....	--	5.5	4.1	5.4	9.7
More than 2.....	--	4.1	3.3	7.2	8.2
Type of Fuel					
Leaded.....	--	3.9	4.8	8.7	9.9
Unleaded.....	--	3.2	2.4	4.4	7.0
Other.....	--	19.5	16.5	34.8	35.5
Model Year					
1973 or Earlier.....	--	4.1	6.6	14.1	13.1
1974 to 1978.....	--	4.0	3.4	6.0	7.3
1979 to 1980.....	--	5.3	4.6	13.7	16.9
1981 to 1982.....	--	6.7	4.1	10.7	17.3
1983 to 1984.....	--	8.4	4.2	7.7	13.2
1985 or Later.....	--	13.2	6.5	15.0	17.9
No Answer.....	--	70.7	NA	NA	NA
Type of Vehicle					
Automobile.....	--	2.6	2.3	4.3	6.9
Jeep-Like Vehicle.....	--	16.9	12.2	20.2	17.7
Van.....	--	18.0	9.3	14.5	15.6
Pickup Truck.....	--	6.1	4.2	9.3	11.5
Other/No Answer.....	--	36.1	25.6	84.0	75.8
Number of Cylinders					
4.....	--	3.9	2.5	7.6	17.3
6.....	--	5.0	3.5	8.9	9.1
8.....	--	4.0	3.6	5.1	8.1
Other.....	--	25.2	29.3	89.8	66.9

See notes at the end of the table.

Table B10. Consumption Categories for Motor Fuel, 1985
 (Percent of Vehicles in Each Category)--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Total Vehicles	Motor Fuel Consumption (gallons per vehicle)			
		400 or Less	401 to 800	801 to 1,200	1,201 or More
Air Conditioning					
Yes.....	--	3.2	2.2	4.4	7.7
No.....	--	3.1	3.7	5.8	8.5
Type of Transmission					
Automatic.....	--	2.9	2.5	4.1	6.0
Manual.....	--	4.4	3.6	9.3	12.4
Vehicle Used on the Job					
Yes.....	--	10.7	5.0	9.4	11.7
No.....	--	2.4	2.0	4.6	6.3

NA/ Relative Standard Error is not available due to a small number of observations and a prevalence of imputed data.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B11. Annual Mileage Categories, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors

Household and Vehicle Characteristics	Total Vehicles	Annual Mileage (miles driven per vehicle)						
		3,000 or Less	3,001 to 6,000	6,001 to 9,000	9,001 to 12,000	12,001 to 15,000	15,001 to 18,000	18,001 or More
Total.....	--	4.7	3.5	3.0	3.6	4.4	5.9	5.0
Average Number of Vehicles per Household per Year								
Fewer than 1.....	--	41.0	76.7	26.9	38.0	46.1	39.5	32.2
1.....	--	8.5	9.6	8.3	9.4	12.0	16.8	15.6
Between 1 and 2.....	--	15.9	12.1	9.4	9.9	13.1	16.3	9.2
2.....	--	8.9	6.0	4.8	6.3	7.7	11.3	7.9
More than 2.....	--	6.2	5.2	5.0	6.5	5.6	8.3	8.0
Type of Fuel								
Leaded.....	--	5.8	5.0	5.5	7.0	11.7	13.8	10.2
Unleaded.....	--	6.9	4.5	4.0	4.1	4.6	6.7	5.6
Other.....	--	81.7	55.0	29.4	25.6	37.2	24.9	23.9
Model Year								
1973 or Earlier.....	--	5.8	8.3	8.8	11.3	21.9	21.6	14.2
1974 to 1978.....	--	6.4	4.8	5.3	8.9	9.2	12.6	10.8
1979 to 1980.....	--	12.3	7.4	6.7	9.1	10.2	13.9	12.1
1981 to 1982.....	--	24.4	11.3	10.4	9.0	7.6	16.5	12.4
1983 to 1984.....	--	20.1	13.5	9.0	9.4	8.2	11.5	9.4
1985 or Later.....	--	45.3	29.3	12.6	13.8	17.2	14.6	12.3
No Answer.....	--	NC	NA	70.7	NA	NA	NC	NC
Type of Vehicle								
Automobile.....	--	5.7	4.6	3.8	4.1	4.6	6.8	5.6
Jeep-Like Vehicle.....	--	27.5	18.5	24.0	20.1	20.4	31.3	22.0
Van.....	--	22.0	24.9	17.1	22.0	21.8	26.4	17.6
Pickup Truck.....	--	10.1	7.0	8.2	12.7	13.2	13.8	10.3
Other/No Answer.....	--	12.9	32.1	44.6	100.1	NA	75.8	NC
Number of Cylinders								
4.....	--	8.0	9.2	6.0	6.3	7.5	8.8	8.5
6.....	--	8.8	7.3	5.4	6.5	8.1	11.7	8.4
8.....	--	5.5	4.3	4.7	6.5	7.0	9.8	8.2
Other.....	--	44.3	53.4	40.3	NA	53.1	40.4	57.4

See notes at the end of the table.

Table B11. Annual Mileage Categories, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Total Vehicles	Annual Mileage (miles driven per vehicle)						
		3,000 or Less	3,001 to 6,000	6,001 to 9,000	9,001 to 12,000	12,001 to 15,000	15,001 to 18,000	18,001 or More
Air Conditioning								
Yes.....	--	6.1	5.1	4.0	3.9	5.4	6.4	6.3
No.....	--	5.7	5.5	6.1	5.8	7.1	8.8	7.7
Type of Transmission								
Automatic.....	--	5.7	4.1	3.3	4.2	5.7	7.0	6.1
Manual.....	--	8.9	7.6	7.0	6.3	9.1	7.5	8.3
Vehicle Used on the Job								
Yes.....	--	18.5	11.6	9.5	9.5	10.7	15.1	8.3
No.....	--	4.7	4.0	3.0	3.8	4.6	6.6	5.6

NC/ No cases in sample.

NA/ Relative Standard Error is not available due to a small number of observations and a prevalence of imputed data.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B12. Fuel Efficiency Categories, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors

Household and Vehicle Characteristics	Total Vehicles	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Total.....	--	3.3	3.6	3.6	4.5	5.5	5.6
Average Number of Vehicles per Household per Year							
Fewer than 1.....	--	37.7	27.2	39.3	38.2	40.2	35.1
1.....	--	9.0	7.6	8.1	10.5	12.5	10.9
Between 1 and 2.....	--	11.2	9.3	11.8	11.8	18.6	13.6
2.....	--	6.1	5.6	6.1	7.0	8.8	7.0
More than 2.....	--	5.0	6.0	5.9	7.4	9.1	8.1
Type of Fuel							
Leaded.....	--	3.4	6.0	7.3	10.4	14.2	11.1
Unleaded.....	--	4.7	4.0	4.1	4.5	5.8	6.0
Other.....	--	39.1	78.5	27.0	37.4	34.4	12.5
Model Year							
1973 or Earlier.....	--	4.7	7.8	10.0	17.9	19.7	19.4
1974 to 1978.....	--	3.9	5.5	6.8	10.5	13.9	11.1
1979 to 1980.....	--	11.0	7.6	9.4	10.5	10.2	9.4
1981 to 1982.....	--	14.8	12.1	7.8	9.3	7.7	9.1
1983 to 1984.....	--	15.0	12.1	8.6	6.6	9.6	7.4
1985 or Later.....	--	23.8	18.3	14.3	12.9	16.5	11.2
No Answer.....	--	NA	NA	NA	NA	70.7	NA
Type of Vehicle							
Automobile.....	--	4.7	4.5	4.0	4.8	5.5	5.4
Jeep-Like Vehicle.....	--	9.7	14.3	24.5	26.7	44.4	NC
Van.....	--	9.8	14.6	22.5	23.4	29.7	56.1
Pickup Truck.....	--	4.7	8.5	9.2	14.4	16.3	19.1
Other/No Answer.....	--	9.4	85.5	NA	103.1	NC	NA
Number of Cylinders							
4.....	--	22.1	14.1	7.8	6.8	6.7	4.4
6.....	--	7.6	5.5	5.1	7.7	10.2	14.4
8.....	--	3.2	3.9	5.3	9.9	15.6	18.0
Other.....	--	51.3	NA	44.3	70.3	45.5	38.2

See notes at the end of the table.

Table B12. Fuel Efficiency Categories, 1985
(Percent of Vehicles in Each Category)--Relative Standard Errors (Continued)

Household and Vehicle Characteristics	Total Vehicles	Fuel Efficiency (miles per gallon)					
		12 or Less	13 to 15	16 to 18	19 to 21	22 to 24	25 or More
Air Conditioning							
Yes.....	--	4.0	3.8	4.3	5.3	6.2	6.9
No.....	--	5.1	7.0	6.2	9.0	9.8	6.7
Type of Transmission							
Automatic.....	--	3.5	3.7	4.0	4.8	6.5	8.4
Manual.....	--	10.0	10.6	8.1	8.0	7.8	6.3
Vehicle Used on the Job							
Yes.....	--	7.6	8.7	9.7	12.0	16.8	11.4
No.....	--	3.7	3.7	3.8	5.2	6.3	6.0

NA/ Relative Standard Error is not available due to a small number of observations and a prevalence of imputed data.

NC/ No cases in sample.

Note: Data in this table are for households with vehicles for personal transportation. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
--Relative Standard Errors

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Total.....	*	1.3	5.6	2.5	0.7	1.2	1.3	1.7
Expenditures for Energy Used in The Home--April 1984 through March 1985 (dollars per household)								
600 or Less.....	6.5	4.3	11.6	2.6	7.3	3.8	1.2	5.5
601 to 800.....	3.8	2.7	13.4	1.0	4.4	2.4	.4	3.7
801 to 1,000.....	4.7	2.8	11.9	.9	5.3	2.5	.3	4.4
1,001 to 1,200.....	4.2	2.6	17.8	1.0	4.5	2.3	.2	4.1
1,201 to 1,600.....	3.5	1.9	13.7	.9	3.8	1.6	.3	3.1
1,601 or Over.....	4.5	1.5	15.7	3.9	4.6	1.4	1.1	3.0
Energy Used in The Home--April 1984 through March 1985 (million Btu per household)								
50 or Less.....	6.1	2.6	14.5	4.7	6.2	2.5	2.3	3.9
51 to 75.....	5.3	2.1	14.5	3.7	5.4	2.0	2.9	3.3
76 to 100.....	4.2	3.3	15.7	2.3	4.5	3.0	1.8	4.4
101 to 125.....	3.5	3.3	12.0	4.8	4.6	3.3	1.6	5.4
126 to 150.....	4.8	2.9	16.0	3.1	5.1	2.6	1.7	4.2
151 or Over.....	4.4	2.0	15.4	3.9	4.2	1.9	1.6	3.3
Census Region and Division								
Northeast.....	*	2.8	6.4	2.8	1.5	2.8	2.5	4.3
New England.....	7.0	4.6	20.9	7.4	8.7	4.7	2.8	8.8
Middle Atlantic.....	2.1	3.5	6.4	2.9	3.2	3.6	2.9	5.3
North Central.....	*	3.0	15.6	5.6	1.7	2.3	2.6	3.1
East North Central.....	2.8	4.2	16.5	6.1	4.1	3.2	3.5	4.4
West North Central.....	6.5	3.6	42.6	16.0	6.6	3.7	3.1	4.5

See notes at the end of the table.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
 --Relative Standard Errors (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Census Region and Division								
South.....	x	2.8	12.0	5.5	1.3	2.2	2.8	2.7
South Atlantic.....	3.2	3.5	17.6	7.5	3.6	2.4	2.7	3.2
East South Central.....	6.0	5.9	21.6	10.3	7.0	4.7	5.6	4.5
West South Central.....	4.3	5.2	20.3	9.6	5.4	5.0	6.6	6.1
West.....	x	2.8	13.7	8.0	1.0	2.8	3.0	3.9
Mountain.....	7.1	4.7	31.7	14.1	7.0	4.8	4.0	6.0
Pacific.....	2.6	3.4	16.0	10.0	3.0	3.2	3.9	4.5
Metropolitan Status								
Metropolitan.....	1.7	1.7	6.2	2.7	2.0	1.5	1.4	2.1
Central City.....	2.5	2.7	6.9	3.0	3.0	2.2	2.2	3.1
Outside Central City.....	3.5	2.2	11.6	5.1	3.6	2.0	1.8	2.6
Nonmetropolitan.....	5.5	2.0	14.9	6.1	5.5	2.3	2.6	2.9
Origin of Householder								
White.....	1.2	1.4	7.8	3.7	1.3	1.3	1.3	1.8
Black.....	8.5	6.0	10.8	5.9	9.2	4.5	4.0	6.2
Other.....	12.7	6.5	21.1	9.8	13.6	7.7	6.7	12.0
Hispanic Descent								
Yes.....	10.5	6.6	22.6	7.4	12.0	3.7	7.0	8.0
No.....	.6	1.4	6.0	2.8	.8	1.3	1.3	1.8
Age of Householder								
24 Years and Under.....	8.6	5.3	25.7	7.4	8.8	4.6	4.9	5.5
25 to 34 Years.....	2.9	2.3	12.7	7.1	3.0	2.1	1.8	2.8
35 to 44 Years.....	3.8	2.4	16.3	10.1	4.0	2.1	1.5	3.1
45 to 59 Years.....	3.4	2.3	14.8	6.8	3.3	2.4	2.2	3.5
60 Years and Over.....	3.6	2.2	8.2	3.9	4.4	2.1	1.9	3.8

See notes at the end of the table.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
--Relative Standard Errors (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Household Size								
1 Person.....	3.8	2.8	8.1	3.3	4.3	3.2	2.2	6.8
2 Persons.....	3.5	1.9	12.3	4.5	3.5	1.8	1.9	2.9
3 Persons.....	4.3	1.8	16.6	8.9	4.4	1.6	1.8	2.7
4 Persons.....	4.2	2.1	16.8	6.9	4.3	2.0	2.0	3.0
5 or More Persons.....	5.3	3.0	21.1	11.7	5.5	2.6	3.2	3.6
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	14.3	2.7	30.2	11.2	14.5	2.0	3.2	4.4
5,500 to 7,000 HDD.....	6.3	2.9	15.8	5.7	6.4	2.3	2.2	3.3
4,000 to 5,499 HDD.....	7.8	3.4	10.5	3.7	8.4	3.0	2.8	4.1
Fewer than 4,000 HDD.....	8.5	2.3	18.6	7.3	8.0	1.8	2.6	3.0
More than 2,000 CDD and								
Fewer than 4,000 HDD.....	7.0	3.8	19.9	9.8	6.5	3.6	4.5	4.8
Family Income 1985								
Less than \$ 5,000.....	6.9	6.4	11.5	5.0	11.5	10.9	5.9	17.2
\$ 5,000 - \$ 9,999.....	4.4	3.2	9.9	3.7	4.9	3.4	2.4	8.3
\$10,000 - \$14,999.....	5.1	3.1	16.7	7.3	5.1	3.1	2.4	4.5
\$15,000 - \$19,999.....	4.9	3.0	17.7	4.8	5.3	2.9	2.3	4.6
\$20,000 - \$24,999.....	4.6	3.9	21.7	7.7	4.7	3.9	3.2	5.5
\$25,000 - \$34,999.....	4.2	2.1	23.8	18.4	4.3	2.1	1.7	2.9
\$35,000 or More.....	4.3	1.5	16.6	6.9	4.6	1.4	1.4	2.3
Below 100% of Poverty.....	4.0	4.0	9.4	5.1	5.2	4.6	3.3	7.9
Below 125% of Poverty.....	3.9	3.2	7.9	3.7	4.7	3.6	2.5	6.5

See notes at the end of the table.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
 --Relative Standard Errors (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Census Region by Family Income 1985								
Northeast								
Less than \$9,999.....	7.6	7.0	16.6	6.2	12.5	10.8	6.7	15.7
\$10,000 - \$14,999.....	12.9	6.1	36.8	6.2	11.5	6.1	3.8	12.8
\$15,000 - \$24,999.....	6.1	3.1	16.2	3.4	6.9	3.7	2.9	7.2
\$25,000 - \$34,999.....	10.5	4.4	12.3	14.0	10.8	4.5	4.8	5.1
\$35,000 or More.....	6.2	3.5	17.3	9.2	7.1	2.9	2.9	6.8
North Central								
Less than \$9,999.....	8.8	5.8	19.4	6.8	8.6	6.4	4.6	16.1
\$10,000 - \$14,999.....	8.5	5.0	24.1	18.1	9.3	5.3	4.5	7.8
\$15,000 - \$24,999.....	7.8	5.9	65.2	56.3	7.8	5.7	5.1	7.7
\$25,000 - \$34,999.....	8.5	4.2	77.8	53.8	8.9	4.3	3.0	6.8
\$35,000 or More.....	10.8	2.1	106.9	70.7	10.7	2.1	2.6	2.6
South								
Less than \$9,999.....	8.0	5.3	13.1	6.5	10.5	6.2	5.0	12.9
\$10,000 - \$14,999.....	5.5	6.1	24.6	12.4	6.2	5.7	3.8	8.3
\$15,000 - \$24,999.....	6.1	4.2	40.9	14.0	5.7	3.5	3.8	5.0
\$25,000 - \$34,999.....	7.1	3.7	82.1	52.3	7.3	3.6	2.8	4.9
\$35,000 or More.....	9.3	2.7	34.9	9.7	9.9	2.6	1.8	4.1
West								
Less than \$9,999.....	7.0	7.5	27.3	6.6	6.4	10.4	5.4	16.8
\$10,000 - \$14,999.....	12.6	9.9	32.0	9.8	12.5	9.8	8.4	12.8
\$15,000 - \$24,999.....	8.0	6.4	40.3	34.3	7.4	6.9	3.6	8.7
\$25,000 - \$34,999.....	7.6	6.8	19.7	20.8	8.3	7.3	4.6	8.8
\$35,000 or More.....	8.0	3.7	NC	NC	8.1	3.7	3.2	5.1

See notes at the end of the table.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
--Relative Standard Errors (Continued)

Household Characteristics	All Households		Households Without Vehicles		Households With Vehicles			
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Number of Drivers (Fall 1984)								
1.....	2.9	2.5	10.4	4.9	3.1	2.6	1.8	5.1
2.....	2.1	1.4	22.6	11.8	2.2	1.4	1.4	1.9
3 or More.....	5.4	1.8	60.6	48.4	5.5	1.6	2.1	2.7
None/No Answer.....	6.3	3.2	7.2	2.8	13.9	12.2	6.8	17.4
Average Number of Vehicles per Household per Year								
None.....	5.6	2.5	5.6	2.5	--	--	--	--
Fewer than 1.....	10.6	8.5	--	--	11.7	8.5	4.0	16.6
1.....	3.3	2.3	--	--	3.3	2.3	2.1	4.3
Between 1 and 2.....	5.1	2.7	--	--	5.2	2.7	2.7	4.0
2.....	3.7	2.0	--	--	3.7	2.0	1.9	2.6
More than 2.....	3.4	1.8	--	--	3.5	1.8	1.8	2.3
Weather Zone								
Fewer than 2,000 CDD and--								
More than 7,000 HDD.....	14.3	2.7	30.2	11.2	14.5	2.0	3.2	4.4
5,500 to 7,000 HDD.....	6.3	2.9	15.8	5.7	6.4	2.3	2.2	3.3
4,000 to 5,499 HDD.....	7.8	3.4	10.5	3.7	8.4	3.0	2.8	4.1
Fewer than 4,000 HDD.....	8.5	2.3	18.6	7.3	8.0	1.8	2.6	3.0
More than 2,000 CDD and								
Fewer than 4,000 HDD.....	7.0	3.8	19.9	9.8	6.5	3.6	4.5	4.8

See notes at the end of the table.

Table B13. Average Household Energy Expenditures for Households With and Without Vehicles, 1985
 --Relative Standard Errors (Continued)

Household Characteristics	All Households		Households Without Vehicles	Households With Vehicles				
	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Number of Households (millions)	Expenditures for Energy Used in the Home (dollars)	Number of Households (millions)	Combined Household Energy Expenditures (dollars)	Expenditures for Energy Used in the Home (dollars)	Expenditures for Motor Fuel (dollars)
Measured Heated Area of Residence (square feet)								
Fewer than 600.....	7.1	5.2	12.0	4.9	8.2	5.3	3.4	8.7
600 to 999.....	3.5	2.4	8.4	3.8	4.0	2.5	1.7	4.4
1,000 to 1,599.....	3.1	2.8	10.7	5.3	3.5	2.5	1.9	3.7
1,600 to 1,999.....	5.9	3.0	24.0	10.8	6.1	2.7	1.9	3.9
2,000 to 2,399.....	5.7	2.6	44.6	21.8	5.8	2.6	1.9	4.3
2,400 to 2,999.....	7.4	4.1	50.4	22.4	7.6	4.0	3.4	5.9
3,000 or More.....	6.6	2.6	31.2	16.8	7.0	2.7	2.8	4.4
Main Heating Fuel								
Natural Gas.....	2.8	1.9	7.8	3.3	2.9	1.7	1.7	2.4
Electricity.....	6.8	3.6	20.3	7.3	6.8	2.9	3.8	3.9
Fuel Oil or Kerosene.....	5.1	3.2	9.7	2.5	6.3	2.9	2.2	4.9
Wood.....	9.0	3.3	45.0	11.5	10.0	3.4	3.7	4.9
Liquefied Petroleum Gas.....	12.0	6.2	37.0	12.6	12.6	5.4	4.9	7.2
Other/None.....	28.0	13.8	79.3	36.7	23.8	8.7	8.3	11.4

* RTECS sampling error is 0. The number of households was based on results of the Current Population Survey (CPS) compiled by the U.S. Bureau of Census. The CPS surveys are subject to their own sampling variances.

NC/ No cases in sample.

Note: Data in this table are for households with and without vehicles for personal transportation. Data may differ slightly from the Residential Energy Consumption Survey (RECS) reports. See Glossary for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division. Household data: Form EIA-457, 1984 Residential Energy Consumption Survey. Transportation data: Forms EIA-141 and EIA-429, 1985 Residential Transportation Energy Consumption Survey.

} Background Questionnaire to update household's vehicle stock information administered via telephone calls. }

*F4739-38
Form: Yellow

OMB NO. 1905-0086
EIA 429

NATIONAL SURVEY OF FUEL PURCHASES FOR VEHICLES
FIRST CALL - PRECEDING ODOMETER READINGS

HOUSEHOLDS WITH ONE OR MORE VEHICLES
AT TIME OF MOST RECENT CONTACT

HH#

This household had one or more vehicles at time of personal interview.

B1. I have a description of the vehicle(s) mentioned at the time of our interview with your household --

HOUSEHOLD ADDRESS

INSTRUCTIONS IF THIS HOUSEHOLD NOW HAS ONE OR MORE VEHICLES

- We will ask for total mileage (odometer readings) early in January.
- Gift: Household will be sent \$1 with odometer reading cards.
- We will phone in January to get information.

CALLS START DECEMBER 11, 1984

	CALL RECORD			COMPLETE BUSY SIGNAL NO ANSWER RESPONDENT NOT AVAILABLE REFUSAL OTHER	INTER- VIEWER	NOTES (EXPLAIN OTHER RESULT)	AT...
	DAY OF WEEK	DATE	TIME				
1				C B NA X R O			
2				C B NA X R O			
3				C B NA X R O			
4				C B NA X R O			
5				C B NA X R O			
6				C B NA X R O			
7				C B NA X R O			
8				C B NA X R O			

Notes below on: Contact person Best time for contact Moving Other

VEHICLE NUMBER	01	02	03	
TYPE*	AUTOMOBILE	PICKUP TRUCK	AUTOMOBILE	
MAKE	OLDSMOBILE	TOYOTA	MERCURY	
MODEL YEAR	73	81	79	
MODEL NAME	DELTA 88	SRS 4WHEELDR	COUGAR	
Do you still have (VEHICLE LISTED ABOVE)?	<input type="checkbox"/> YES <input type="checkbox"/> NO			
IF YES Have I described it correctly?	<input type="checkbox"/> YES <input type="checkbox"/> NO			

MAKE CORRECTIONS ABOVE AS NECESSARY

*IF VEHICLE IS PICK-UP OR OTHER TRUCK

About how many tons capacity does the truck have?	<input type="checkbox"/> 1/4 TON	<input type="checkbox"/> 1/2 TON	<input type="checkbox"/> 3/4 TON	<input type="checkbox"/> 1 TON
	<input type="checkbox"/> 1/2 TON	<input type="checkbox"/> 3/4 TON	<input type="checkbox"/> 1 TON	<input type="checkbox"/> 1 1/2 TON
	<input type="checkbox"/> 3/4 TON	<input type="checkbox"/> 1 TON	<input type="checkbox"/> 1 1/2 TON	<input type="checkbox"/> 2 TON
	<input type="checkbox"/> 1 TON	<input type="checkbox"/> 1 1/2 TON	<input type="checkbox"/> 2 TON	<input type="checkbox"/> 3 TON

IF HOUSEHOLD STILL HAS ONE OR MORE VEHICLES LISTED ABOVE, CONTINUE WITH QUESTION B5.

IF HOUSEHOLD NO LONGER HAS ANY OF THE VEHICLES LISTED ABOVE, SKIP TO QUESTION B15.

RTECS: Consumption Patterns of Household Vehicles 1985
Energy Information Administration

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CONTINUE WITH COMPUTER-PRINTED PAGE.

CONTINUE HERE IF HOUSEHOLD STILL HAS ONE OR MORE OF VEHICLES LISTED ON COMPUTER-PRINTED PAGE.

B5. Do you or other members of your household own or have the regular use of any cars, trucks, vans, or similar vehicles, in addition to (MAKE AND MODEL YEAR FROM COMPUTER PAGE)?

1 YES
0 NO -- SKIP TO Q. B38

IF "YES," ASK:

B6. How many additional vehicles do you have?

1 ONE
2 TWO
3 THREE
4 FOUR OR MORE

} SKIP TO Q. B17

IF HOUSEHOLD NO LONGER HAS ANY OF THE VEHICLES LISTED ON COMPUTER PAGE, ASK:

B15. Do you or other members of your household now own or have the regular use of any cars, trucks, vans, or similar vehicles:

1 YES
0 NO -- SKIP TO Q. B31

IF "YES," ASK:

B16. How many vehicles do you have?

1 ONE
2 TWO
3 THREE
4 FOUR OR MORE

} ASK Q. B17

IF "ONE OR MORE VEHICLES" ON Q. B6 or B16, ASK:

B17. What type(s) of vehicle(s) is it (are they)?

	A	B	C	D
STATION WAGON	01[]	01[]	01[]	01[]
AUTOMOBILE	02[]	02[]	02[]	02[]
JEEP OR SIMILAR VEHICLE	03[]	03[]	03[]	03[]
PASSENGER VAN OR MINIMUS	04[]	04[]	04[]	04[]
CARGO VAN	05[]	05[]	05[]	05[]
PICKUP TRUCK	06[]	06[]	06[]	06[]
OTHER TRUCK	07[]	07[]	07[]	07[]
MOTOR HOME	08[]	08[]	08[]	08[]
OTHER (SPECIFY):	21[]	21[]	21[]	21[]

IF "PICKUP TRUCK" OR "OTHER TRUCK," ASK:

B18. About how many tons capacity does the truck have -- quarter-ton, half-ton, three-quarter ton, or more?

	A	B	C	D
[] 1/4	[] 1/4	[] 1/4	[] 1/4	[] 1/4
[] 1/2	[] 1/2	[] 1/2	[] 1/2	[] 1/2
[] 3/4	[] 3/4	[] 3/4	[] 3/4	[] 3/4

TONS
DON'T KNOW

B19. Please tell me the make and model year (of each vehicle). (ENTER LAST TWO DIGITS OF MODEL YEAR.)

MAKE	MODEL YEAR	A	B	C	D
_____	_____	19 _____	19 _____	19 _____	19 _____

B20. What is the model name (of each one)?

MODEL NAME	A	B	C	D
_____	_____	_____	_____	_____

SKIP TO QUESTION B38.

IF HOUSEHOLD DOES NOT NOW HAVE A VEHICLE, ASK QUESTIONS ON THIS PAGE.

B31. Does anyone who was a member of your household on November 1, 1984 live somewhere else now?
 0[] NO -- SKIP TO Q. B34.
 1[] YES

IF "YES," ASK:

B32. Who is that? DESCRIBE PERSON OR PERSONS BELOW

	RELATIONSHIP	SEX		AGE
		FEMALE	MALE	
A				
B				
C				
D				
E				

B33. FOR EACH PERSON MENTIONED WHO IS AGE 16 OR OVER, ASK:

We may need to be in touch with (him/her/each of them) about this survey, also. Could you tell me where I can reach (him/her/them)?

PERSON _____ NAME: _____
STREET: _____
CITY AND STATE: _____ ZIP: _____
PHONE: _____ (Area code)
PERSON _____ NAME: _____
STREET: _____
CITY AND STATE: _____ ZIP: _____
PHONE: _____ (Area code)

CONTINUE WITH QUESTION B34.

IF HOUSEHOLD DOES NOT NOW HAVE A VEHICLE, ASK QUESTIONS ON THIS PAGE.

- B34. Is there a possibility your household will move any time within the next six months?
- 1 YES
2 POSSIBLY
0 NO -- SKIP TO Q. B39

IF "YES," OR POSSIBLY," ASK:

B35. Do you know when you (are/might be) moving: MONTH/DAY _____
 DON'T KNOW

B36. Do you know what your new address will be?

NAME: _____
STREET: _____
CITY/STATE: _____
PHONE: () _____

IF THE NEW ADDRESS IS UNKNOWN, ASK:

B37. Would you please give me the names, addresses, and telephone numbers, of two friends or relatives who will know where you can be reached after you move?

NAME: _____
STREET: _____
CITY AND STATE: _____
PHONE: () _____
RELATIONSHIP TO RESPONDENT: _____

NAME: _____
STREET: _____
CITY AND STATE: _____
PHONE: () _____
RELATIONSHIP TO RESPONDENT: _____

SKIP TO QUESTION B39.

IF HOUSEHOLD NOW HAS ONE OR MORE VEHICLES, SAY:

B38. Thank you. In the next week or two we will be mailing card(s) to you to ask you to mark down the total mileage of your vehicle(s) after the last use of the vehicle on the day mentioned on the card. We will be calling you again early in January to find out what the mileage is. Generally, when is a good time to reach you? (MARK AS MANY AS APPLY).

- EVENING
- DAYTIME
- WEEKEND
- OTHER (SPECIFY): _____

Have a nice (evening/day).

IF HOUSEHOLD DOES NOT NOW HAVE A VEHICLE, SAY:

B39. Thank you. We will be sending a card to you and asking you to mail it to us if you acquire a vehicle for use by your household. We appreciate your help.

Have a nice (evening/day)

Interviewer: _____ Date Completed: _____ Time Completed: _____



**RESIDENTIAL
ENERGY
CONSUMPTION
SURVEY**

EIA-141
OMB No. 1905-0068 (Expires 8/3)

THIS CARD IS FOR YOUR

VEHICLE IDENTIFICATION

{ Beginning-of-Year Odometer Reading }
{ Card--mailed to respondents. }

Please put this card in your vehicle and write down the total mileage (odometer reading) after the last use of this vehicle on **MONDAY, DECEMBER 31, 1984**

MILES

After you have filled in the information requested, please keep this card near your telephone. We will be calling to get the information. Or, if you will be difficult to reach by phone, call collect to Maria DiMaggio at (609) 921-3333.

Please see the other side of card for additional instructions.

THANK YOU FOR YOUR HELP!

Form T-1231

PLEASE READ THE OTHER SIDE OF THIS CARD FIRST

Additional instructions:

If your mileage meter (odometer) registers tenths of miles, please record the whole number of miles only.

If vehicle is not used on the day and date given on the other side of this card, please record the total mileage (odometer reading) as of that day.

If the mileage meter (odometer) does not work, just let us know that.

If you, or other members of your household, now own or have the regular use of any replacement or additional vehicles (not described on a yellow card) please complete the green card.

This survey is being conducted by Response Analysis Corporation, P.O. Box 158, Princeton, New Jersey 08542 under contract to the U.S. Department of Energy.

T

F4739-40
Form: Yellow

OMB NO. 1905-0086
EIA 429

NATIONAL SURVEY OF FUEL PURCHASES FOR
VEHICLES - ODOMETER READING CALLS

HOUSEHOLD ADDRESS

RESPONDENT RECEIVED \$1.00 IN
MAILING WITH ODOMETER READING
CARDS.

Odometer Reading Telephone Calls--collects beginning-of-year odometer readings, updates household's vehicle stock information, and obtains additional vehicle information.

RTES: Consumption Patterns of Household Vehicles 1985
Energy Information Administration

CALLS START JANUARY 2, 1985

	CALL RECORD			COMPLETE	BUSY SIGNAL	NO ANSWER	RESPONDENT NOT AVAILABLE	REFUSAL	OTHER	INTERVIEWER	NOTES (EXPLAIN OTHER RESULT)	AT . . .
	DAY OF WEEK	DATE	TIME									
1				C	B	NA	X	R	O			
2				C	B	NA	X	R	O			
3				C	B	NA	X	R	O			
4				C	B	NA	X	R	O			
5				C	B	NA	X	R	O			
6				C	B	NA	X	R	O			
7				C	B	NA	X	R	O			
8				C	B	NA	X	R	O			
*EXPLAIN												

ASK FIRST TO SPEAK WITH THE PERSON WHOSE NAME APPEARS ON THE LABEL. IF HE/SHE IS NOT AVAILABLE, THE INTERVIEW MAY BE COMPLETED WITH HUSBAND OR WIFE.

Hello, this is _____ . I'm calling from Response Analysis in Princeton, New Jersey, about the Department of Energy survey on vehicles.

Do you have the total mileage (odometer) reading(s) for your vehicle(s)?

IF RESPONDENT HAS CARD(S) OR GETS COMPLETED CARD(S) WHILE YOU WAIT, CONTINUE WITH ODOMETER READING(S) ON COMPUTER PAGE.

IF RESPONDENT CANNOT GET CARD(S) WHILE YOU WAIT, ARRANGE DATE AND TIME TO CALL BACK. MARK RESULT AS "OTHER."

Date specified for odometer readings:
 After last use on Monday, December 31, 1984

12
 HH#

I have a description of the vehicles mentioned at the time of our most recent contact with your household --

VEHICLE #	01	02	03	
TYPE	AUTOMOBILE	PICKUP TRUCK	PICKUP TRUCK	
MAKE	DODGE	FORD	GMC	
MODEL YEAR	85	82	81	
MODEL NAME	DAYTONA	F-150 PICKUP	C-2500	
Do you still have (VEHICLE LISTED ABOVE)?	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE
IF HOUSEHOLD STILL HAS VEHICLE: Have I described it correctly?	() YES () CHANGED ABOVE			
What was the total mileage?				
Was the mileage recorded on (DATE SPECIFIED ABOVE)?	() YES () NO			
IF NO: On what date was it recorded?	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____

USE THIS PAGE ONLY IF HOUSEHOLD NO LONGER HAS
ONE OR MORE OF VEHICLES LISTED ON COMPUTER PAGE(S)

Form green

<p>VEHICLE # <input type="text"/> RECORD VEHICLE # EXACTLY AS SHOWN ON COMPUTER PAGE</p> <p>In what month and year did you dispose of this vehicle? _____ MONTH _____ YEAR</p> <p>Do you happen to know the total mileage (odometer) reading of the vehicle at the time that you disposed of it? (Just approximately.) _____ MILES () DON'T KNOW</p>
<p>VEHICLE # <input type="text"/> RECORD VEHICLE # EXACTLY AS SHOWN ON COMPUTER PAGE</p> <p>In what month and year did you dispose of this vehicle? _____ MONTH _____ YEAR</p> <p>Do you happen to know the total mileage (odometer) reading of the vehicle at the time that you disposed of it? (Just approximately.) _____ MILES () DON'T KNOW</p>
<p>VEHICLE # <input type="text"/> RECORD VEHICLE # EXACTLY AS SHOWN ON COMPUTER PAGE</p> <p>In what month and year did you dispose of this vehicle? _____ MONTH _____ YEAR</p> <p>Do you happen to know the total mileage (odometer) reading of the vehicle at the time that you disposed of it? (Just approximately.) _____ MILES () DON'T KNOW</p>
<p>VEHICLE # <input type="text"/> RECORD VEHICLE # EXACTLY AS SHOWN ON COMPUTER PAGE</p> <p>In what month and year did you dispose of this vehicle? _____ MONTH _____ YEAR</p> <p>Do you happen to know the total mileage (odometer) reading of the vehicle at the time that you disposed of it? (Just approximately.) _____ MILES () DON'T KNOW</p>

IF HOUSEHOLD HAS ONE OR MORE VEHICLES LISTED ON COMPUTER-PRINTED PAGE, CONTINUE WITH Q. 85.

IF HOUSEHOLD HAS NONE OF THE VEHICLES LISTED ON COMPUTER-PRINTED PAGE, SKIP TO Q. B15.

MATCH VEHICLE NUMBERS TO THOSE ON
COMPUTER-PRINTED PAGE

B5. How many cylinders does
the engine have, or is it
a rotary engine?

	VEHICLE NUMBER			
1-CYLINDER	01 []	01 []	02 []	02 []
2-CYLINDER	02 []	02 []	02 []	02 []
3-CYLINDER	03 []	03 []	03 []	03 []
4-CYLINDER	04 []	04 []	04 []	04 []
5-CYLINDER	05 []	05 []	05 []	05 []
6-CYLINDER	06 []	06 []	06 []	06 []
8-CYLINDER	08 []	08 []	08 []	08 []
ROTARY	09 []	09 []	09 []	09 []
ELECTRIC	10 []	10 []	10 []	10 []
OTHER (SPECIFY):	21 []	21 []	21 []	21 []

66-67

DON'T KNOW 98 [] 98 [] 98 [] 98 []

B6. Does the vehicle have
air conditioning?

YES	1 []	1 []	1 []	1 []
NO	0 []	0 []	0 []	0 []

69

B7. Does it have an automatic
transmission or a manual
shift?

AUTOMATIC	1 []	1 []	1 []	1 []
MANUAL SHIFT	2 []	2 []	2 []	2 []

70

IF AUTOMOBILE OR STATION
WAGON, ASK:

B8. Is it a 2-door or
4-door or what?

2-DOOR	2 []	2 []	2 []	2 []
3-DOOR	3 []	3 []	3 []	3 []
4-DOOR	4 []	4 []	4 []	4 []
5-DOOR	5 []	5 []	5 []	5 []

71

B9. Is this vehicle used on the
job by anyone in your house-
hold, not counting going to
and from work?

YES	1 []	1 []	1 []	1 []
NO	0 []	0 []	0 []	0 []

73

IF "YES", ASK:

B10. Is it also used for non-
business (personal) purposes?

YES	1 []	1 []	1 []	1 []
NO	0 []	0 []	0 []	0 []

74

B11. About how many people
drive this vehicle on
a regular basis?

NUMBER OF REGULAR DRIVERS				

75

B12. About how many miles per gallon do
you usually get with this vehicle?
(IF RESPONDENT GIVES MPG FOR BOTH
IN-TOWN AND HIGHWAY DRIVING, WRITE
DOWN [IN-TOWN MPG ONLY].)

MPG				

77-78

B13. Do you or other members of your household own or have the regular use of any cars, trucks, vans, or similar vehicles, in addition to (MAKE AND MODEL YEAR FROM COMPUTER-PRINTED PAGE)?

- 1 YES
 0 NO -- SKIP TO Q. B 31.

IF "YES," ASK:

B14. How many additional vehicles do you have?

- 1 ONE
 2 TWO
 3 THREE
 4 FOUR OR MORE
- } SKIP TO Q. B17.

IF HOUSEHOLD NO LONGER HAS ANY OF THE VEHICLES LISTED ON COMPUTER-PRINTED PAGE, ASK:

B15. Do you or other members of your household now own or have the regular use of any cars, trucks, vans, or similar vehicles?

- 1 YES
 0 NO -- SKIP TO Q. B 31.

IF "YES," ASK:

B16. How many vehicles do you have?

- 1 ONE
 2 TWO
 3 THREE
 4 FOUR OR MORE
- } ASK Q. B17.

{ See B17 - B20--vehicle stock updates }
 { and B5 - B12 on this form. }

B31. Does anyone who was a member of your household on November 1, 1984 live somewhere else now?

- 0 NO -- SKIP TO Q. B34.
 1 YES

IF "YES," ASK:

B32. Who is that? DESCRIBE PERSON OR PERSONS BELOW

	RELATIONSHIP	SEX		AGE
		FEMALE	MALE	
A				
B				
C				
D				
E				

B33. FOR EACH PERSON MENTIONED WHO IS AGE 16 OR OVER, ASK:

We may need to be in touch with (him/her/each of them) about this survey, also. Could you tell me where I can reach (him/her/them)?

PERSON _____	NAME: _____
STREET: _____	
CITY AND STATE: _____	ZIP: _____
PHONE: _____ (Area code)	
PERSON _____	NAME: _____
STREET: _____	
CITY AND STATE: _____	ZIP: _____
PHONE: _____ (Area code)	

ASK EVERYONE

P-7

P-8
Odometer Reading CallsB34. Is there a possibility your household will
move any time within the next six months?

- 1 YES
 2 POSSIBLY
 0 NO -- SKIP TO Q. B38.

IF "YES," OR POSSIBLY," ASK:

B35. Do you know when you (are/might be) moving: MONTH/DAY _____
 DON'T KNOW

B36. Do you know what your new address will be?

NAME: _____
 STREET: _____
 CITY/STATE: _____
 PHONE: _____
 (Area code)

IF THE NEW ADDRESS IS UNKNOWN, ASK:

B37. Would you please give me the names, addresses, and telephone numbers, of
two friends or relatives who will know where you can be reached after you
move?

NAME:	_____
STREET:	_____
CITY AND STATE:	_____
PHONE:	_____
(Area code)	
RELATIONSHIP TO RESPONDENT:	_____

NAME:	_____
STREET:	_____
CITY AND STATE:	_____
PHONE:	_____
(Area code)	
RELATIONSHIP TO RESPONDENT:	_____

B38. Thank you very much. We will be sending a note to you soon to tell
you about the next phase of our study.

Have a nice (day/evening).

(Interviewer) (Date Completed) (Time Completed)

{ Fuel Purchase Log--mailed to respondents. }

This voluntary survey is authorized by Public Law No. 93-275. All information will be used only in statistical summaries and will be held confidential in accordance with the provisions of the Privacy Act.



**Energy Information Administration
U.S. Department of Energy**

NATIONAL SURVEY OF FUEL PURCHASES FOR VEHICLES

JANUARY 1985

Conducted by Response Analysis Corporation • P.O. Box 158 • Princeton, New Jersey 08542

Vehicle Fuel Purchase Log

EIA-111
GMB No. 1905-0748 (E-Prints 8-31-85)

VEHICLE IDENTIFICATION

JANUARY
S M T W T F S
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

Please keep this log in your vehicle
and write down every fuel purchase
during the month of January.

Please fill out this box before first use of vehicle in January

A. What is the total mileage (odometer reading) for this vehicle? _____ Miles

B. After starting the engine, draw a line showing how full the fuel tank is before first use of the vehicle in January. 

C. About how many gallons does the fuel tank of this vehicle hold? _____ Gallons

Purchase Number	Fuel Purchase Date	Total Vehicle Mileage	Number of Gallons Purchased	Total Cost of Fuel	Price Per Gallon	Was the Tank Filled?	Complete the Line Showing How Full Tank is After Fuel Purchase	Type of Fuel Used?	Was Gas Leaded or Unleaded?	Was Gas Regular or Premium?	Please note any problems related to this purchase
1						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
2						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
3						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
4						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
5						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
6						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
7						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
8						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
9						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
10						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	

Purchase Number	Fuel Purchase Date	Total Vehicle Mileage	Number of Gallons Purchased	Total Cost of Fuel	Price Per Gallon	Was the Tank Filled?	Complete the Line Showing How Full Tank is After Fuel Purchase	Type of Fuel Used?	Was Gas Leaded or Unleaded?	Was Gas Regular or Premium?	Please note any problems related to this purchase
11						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
12						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
13						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
14						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
15						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
16						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
17						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
18						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
19						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	
20						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Gasohol	<input type="checkbox"/> Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/> Does not apply	<input type="checkbox"/> Regular <input type="checkbox"/> Premium <input type="checkbox"/> Does not apply	

Please fill out this box just after last use of this vehicle in January

D. What is the total mileage (odometer reading) for this vehicle? _____ Miles

E. While the engine is running, draw a line showing about how full the tank is after last use of the vehicle in January



F. Does this log include all fuel purchases made for this vehicle in the past month or is one or more purchases missing?

All included
 One or more missing

After the last use in January 1985, please keep this log near your telephone. We will be calling to obtain the information. Or, if you will be difficult to reach by telephone, call collect to Maria DiMaggio at (609) 921-3333.

Thank you very much for your help!



**RESIDENTIAL
ENERGY
CONSUMPTION
SURVEY**

THIS CARD IS FOR YOUR

EIA-141
OMB No. 1905-0068 (Expires 8/31/86)

VEHICLE IDENTIFICATION

Please put this card in your vehicle and write down the total mileage (odometer reading) after the last use of this vehicle on **TUESDAY, DECEMBER 31, 1985**

_____ MILES

{ End-of-Year Odometer Reading }
{ Card--mailed to respondents. }

Please answer questions in this box only if you have disposed of the vehicle described above before **TUESDAY, DECEMBER 31, 1985**.

Approximate date that your household disposed of this vehicle _____ Month _____ Year

Total mileage (odometer reading) of the vehicle on date of disposition _____ MILES

Don't know

After you have filled in the information requested, please keep this card near your telephone. We will be calling you to get the information. Or, if you will be difficult to reach by phone, call collect to Jim Devlin at (609) 921-3333.

Please see other side of card for additional instructions.

Form T 12/31/85

THANK YOU FOR YOUR HELP!

PLEASE READ THE OTHER SIDE OF THIS CARD FIRST

Additional instructions:

If your mileage meter (odometer) registers tenths of miles, please record the whole number of miles only.

If vehicle is not used on the day and date given on the other side of this card, please record the total mileage (odometer reading) as of that day.

If the mileage meter (odometer) does not work, just let us know that.

If your household has disposed of the vehicle, please give us your best estimate of the date and total mileage (odometer reading) of the vehicle at that time.

If you, or other members of your household, now own or have the regular use of any replacement or additional vehicles (not described on a yellow card) please complete the green card.

NATIONAL SURVEY OF FUEL PURCHASES FOR VEHICLES

HOUSEHOLD ADDRESS:

END-OF-YEAR CALLS

This household had one or more vehicles at
time of most recent contact.

CALL JANUARY 2-5, 1986

	CALL RECORD			BUSY-REGULAR	BUSY-FTS	NO ANSWER	RESPONDENT N.A.	LANGUAGE	DISCONNECT	OTHER	REFUSAL	COMPLETE	INTERVIEWER	NOTES
	DAY OF WEEK	DATE	TIME											
1				0	1	2	3	4	5	6	8	9		
2				0	1	2	3	4	5	6	8	9		
3				0	1	2	3	4	5	6	8	9		
4				0	1	2	3	4	5	6	8	9		
5				0	1	2	3	4	5	6	8	9		
6				0	1	2	3	4	5	6	8	9		

*NOTES BELOW ON: [] Contact person [] Best time for contact [] Moving [] Other

End-of-Year Telephone Calls--collects end-or-year odometer readings, updates vehicle stock information, and obtains family income data.

ASK FIRST TO SPEAK WITH THE PERSON WHOSE NAME APPEARS ON THE LABEL. IF HE/SHE IS UNAVAILABLE, THE INTERVIEW MAY BE COMPLETED WITH HUSBAND OR WIFE.

Hello, this is _____. I'm calling from Response Analysis in Princeton, New Jersey about the Department of Energy study on use of household vehicles. May I speak to _____.

Your participation is very important to the success of the research and is totally voluntary.

A1. First, I would like to check that we have your correct mailing address. Is it . . . (READ ADDRESS SHOWN ON LABEL). . . ?

[] YES

[] NO

A2. IF ADDRESS IS INCORRECT, NOTE CORRECT ADDRESS BELOW:

Street address: _____

City, State: _____ Zip: _____

A3. When did you move to (ADDRESS NOTED ABOVE)?

Month and year: _____

A4. Do you have handy the total mileage (odometer) reading(s) for your vehicle(s)?

IF RESPONDENT HAS CARD(S) OR CAN GET COMPLETED CARD(S) WHILE YOU WAIT, CONTINUE WITH COMPUTER PAGE.

IF RESPONDENT CANNOT GET CARD(S) WHILE YOU WAIT, ARRANGE DATE AND TIME TO CALL BACK. MARK RESULT AS "OTHER."

Date specified for odometer readings:
 After last use on Monday, December 31, 1985

12
 HH#

I have a description of the vehicles mentioned at the time of our most recent contact with your household --

VEHICLE #	01	02		
TYPE	AUTOMOBILE	AUTOMOBILE		
MAKE	FORD	DODGE		
MODEL YEAR	78	84		
MODEL NAME	FUTURA	DAYTONA		
Do you still have (VEHICLE LISTED ABOVE)?	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE	() YES () NO -- USE GREEN PAGE
IF HOUSEHOLD STILL HAS VEHICLE: Have I described it correctly?	() YES () CHANGED ABOVE			
What was the total mileage?				
Was the mileage recorded on (DATE SPECIFIED ABOVE)?	() YES () NO			
IF NO: On what date was it recorded?	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____	MONTH: _____ DAY: _____

B19. Please tell me which of the following three income groups best describes the total combined income in 1985 for all members of your family living in your home, from all sources -- wages, dividends, Social Security, etc. -- before taxes and deductions.

Was it . . .

- A Less than \$10,000 x DON'T KNOW 133
B \$10,000 to just under \$20,000 y REFUSED
C \$20,000 or more

IF "A" ON Q. S7 ASK:

B20a. I have just one more question. Was your total family income in 1985 . . .

- 01 Less than \$5,000
02 \$5,000 to just under \$7,500
03 \$7,500 or more

IF "B" ON Q. S7 ASK:

B20b. I have just one more question. Was your total family income in 1985 . . .

- 04 Less than \$12,500
05 \$12,500 to just under \$15,000
06 \$15,000 to just under \$17,500
07 \$17,500 or more

134-
135

IF "C" ON Q. S7 ASK:

B20c. I have just one more question. Was your total family income in 1985 . . .

- 08 Less than \$25,000
09 \$25,000 to just under \$35,000
10 \$35,000 or more

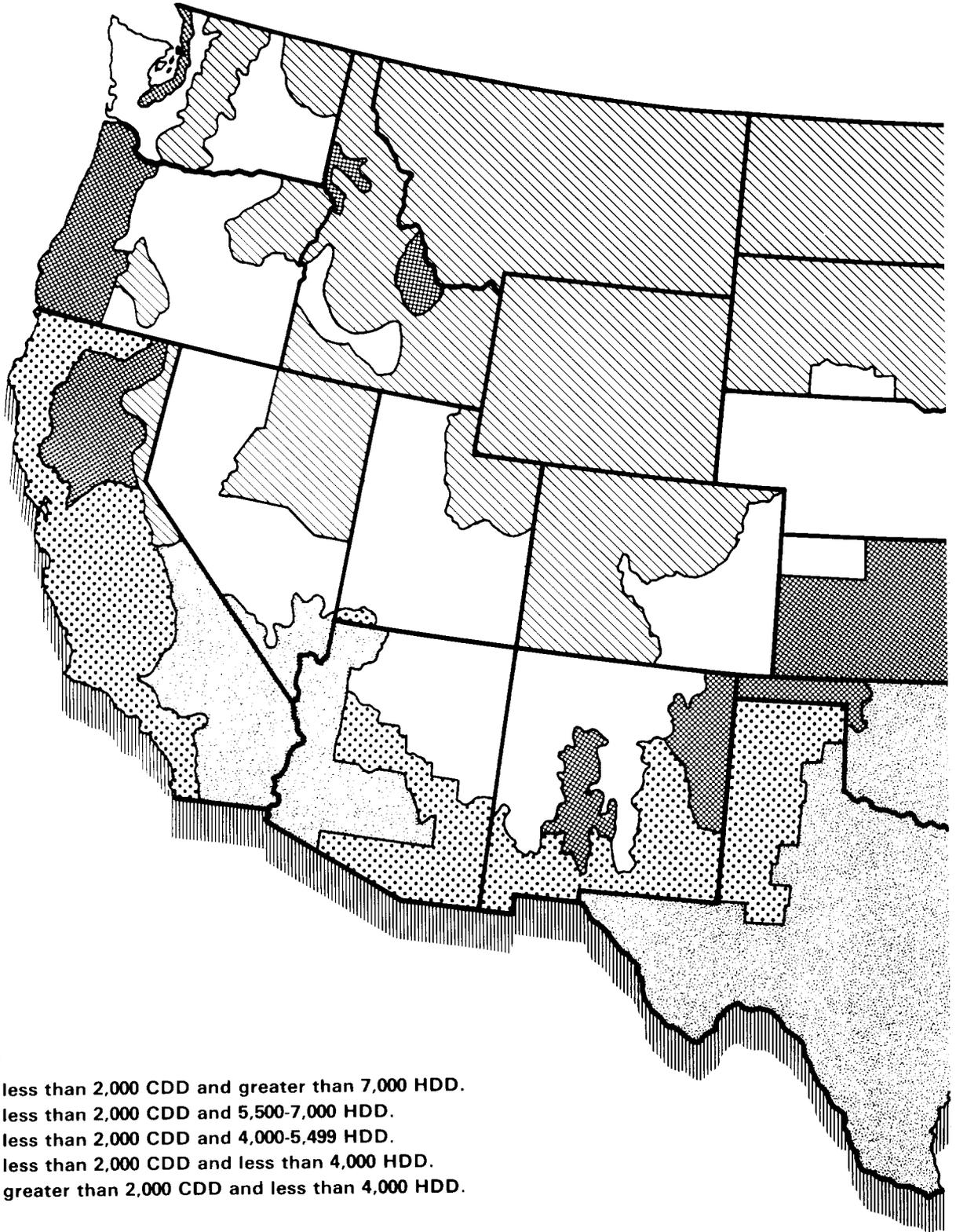
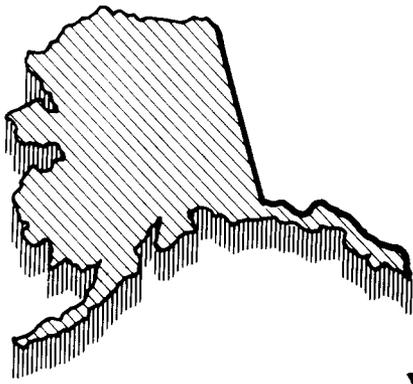
THANKS VERY MUCH FOR YOUR HELP, AND HAPPY NEW YEAR!

Interviewer:	Date:	Time Completed:
_____	_____	_____

Appendix D

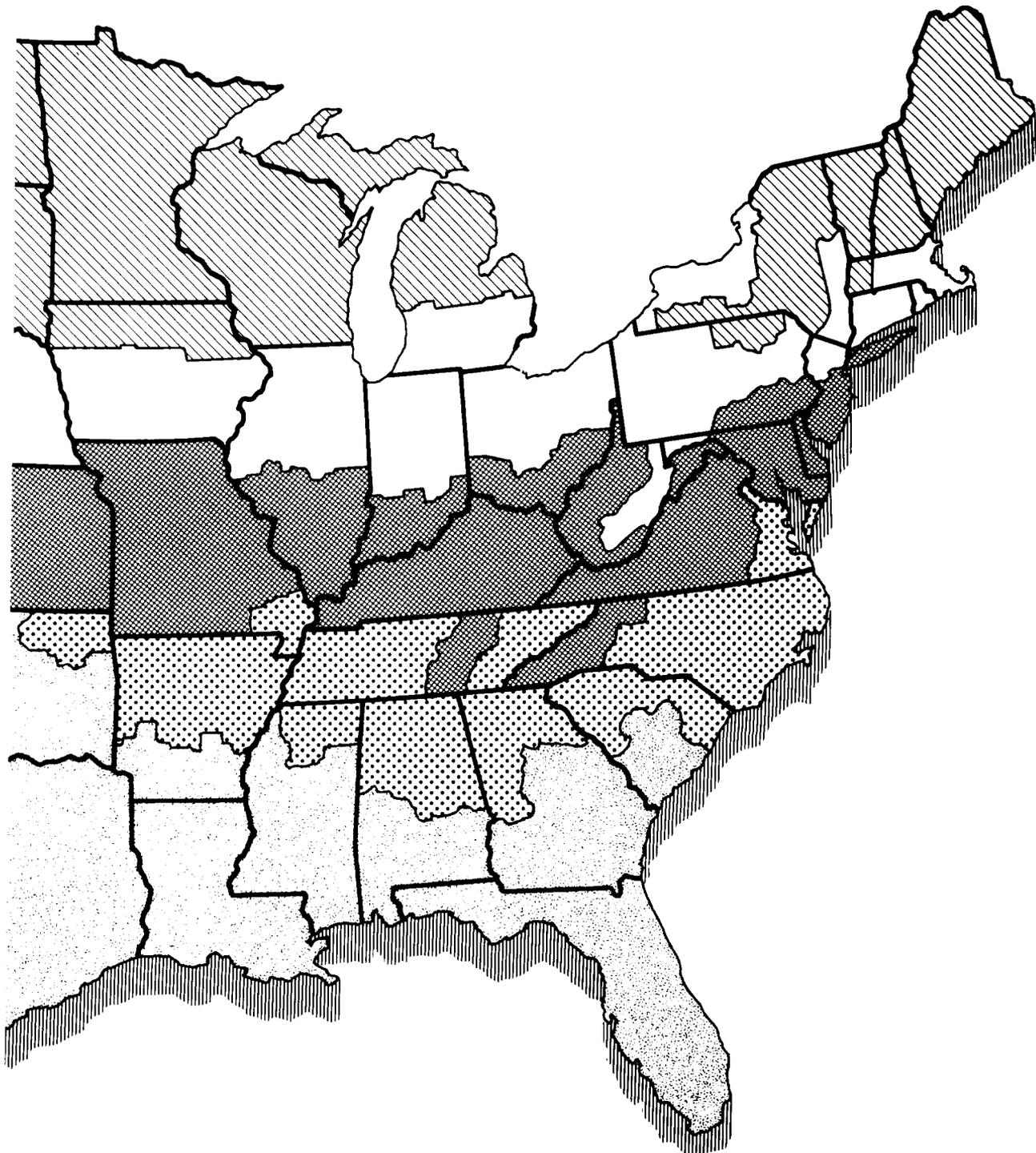
U.S. Weather Zone Map

Weather Zone Map of Heating Degree-Days (HDD) and Cooling Degree-Days (CDD)



Weather Zones

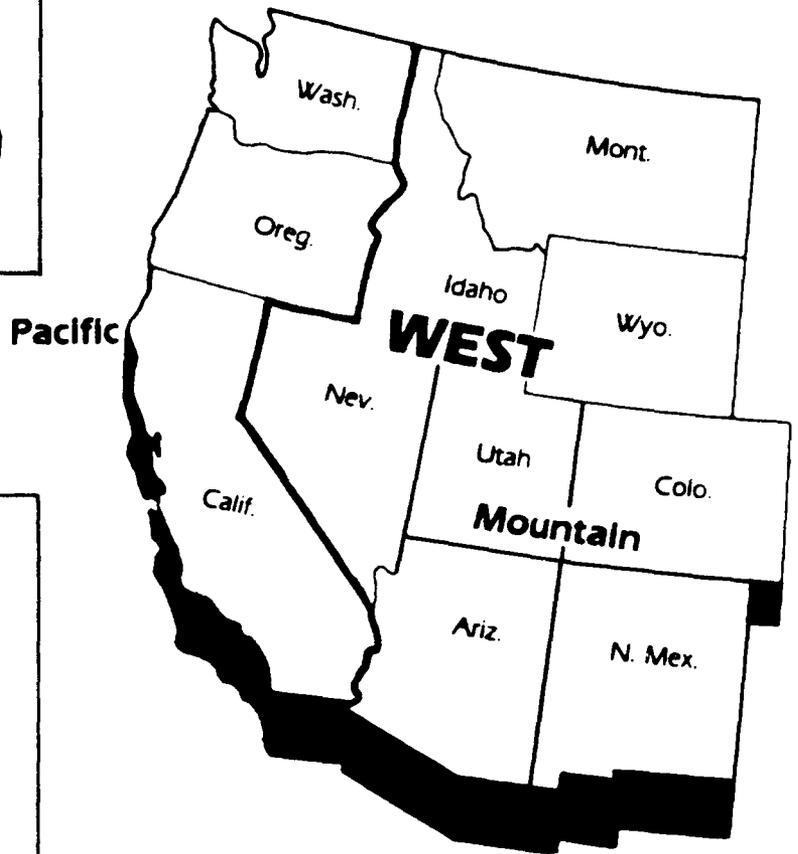
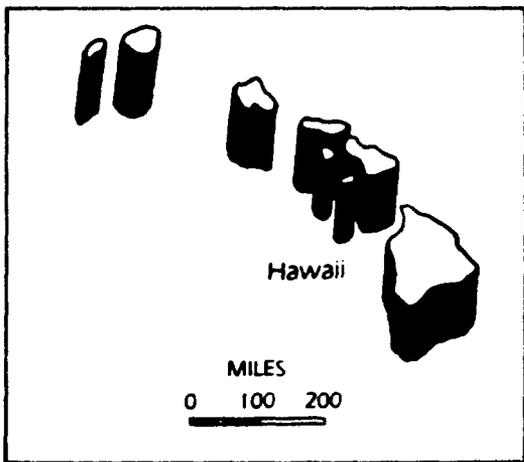
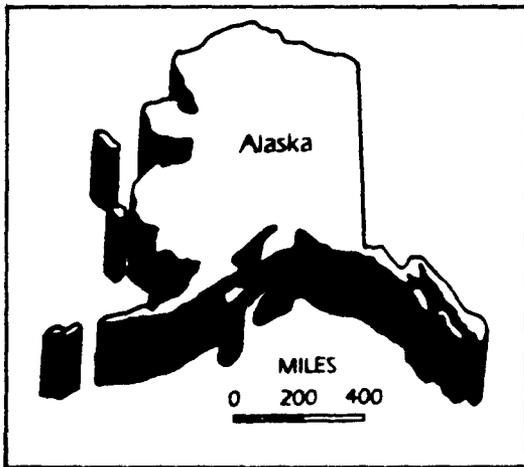
-  Zone 1 is less than 2,000 CDD and greater than 7,000 HDD.
-  Zone 2 is less than 2,000 CDD and 5,500-7,000 HDD.
-  Zone 3 is less than 2,000 CDD and 4,000-5,499 HDD.
-  Zone 4 is less than 2,000 CDD and less than 4,000 HDD.
-  Zone 5 is greater than 2,000 CDD and less than 4,000 HDD.

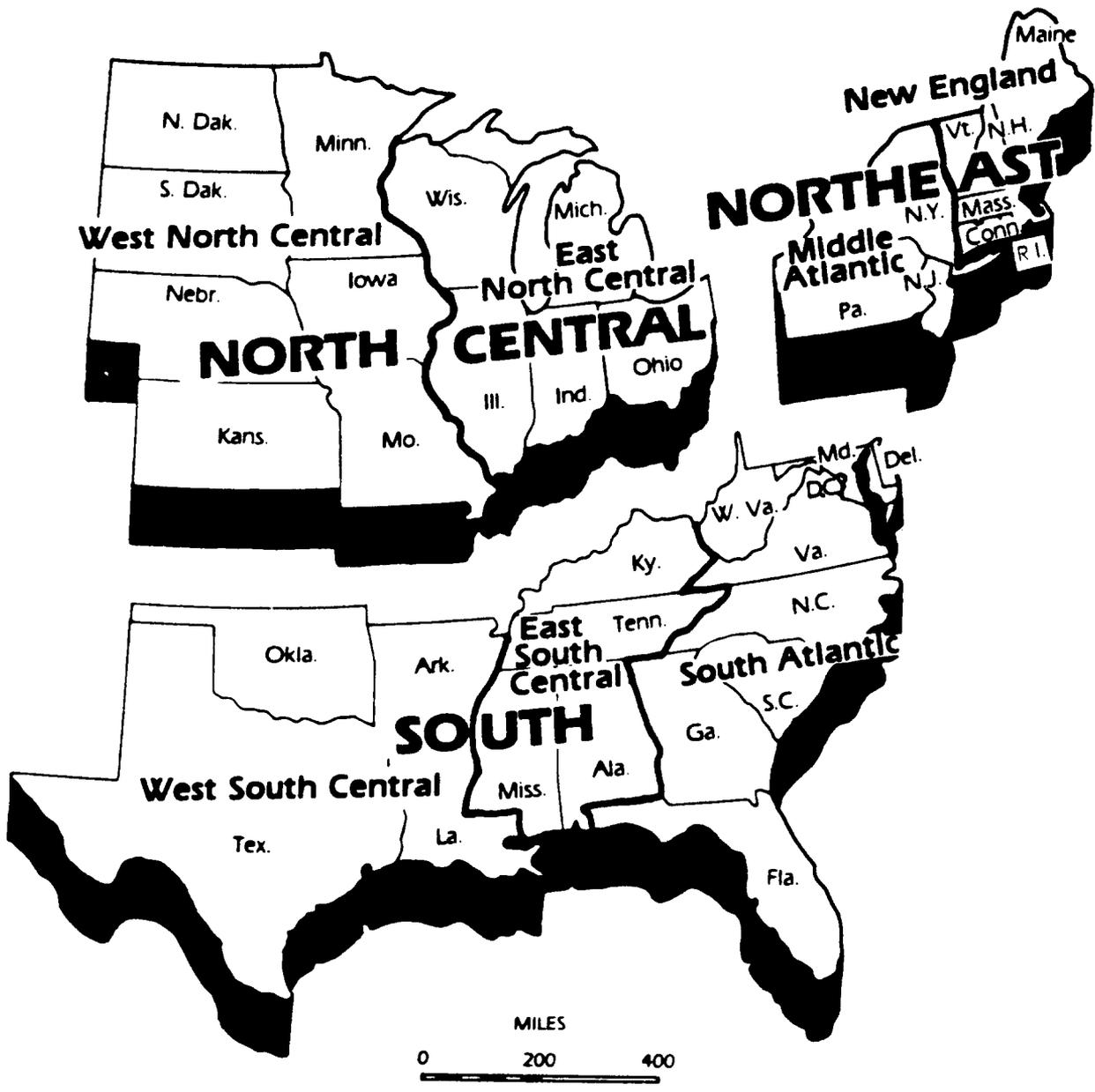


Appendix E

U.S. Census Regions and Divisions

U.S. Census Regions and Divisions





Appendix F

Related Publications on Energy Consumption



Related Publications on Energy Consumption

Residential Transportation Sector

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles 1985; March 1987, DOE/EIA-0464(85).

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles, 1983; January 1985, DOE/EIA-0464(83), GPO Stock No. 061-003-00420-2, \$4.50.

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, Supplement: January 1981 to September 1981; February 1983, DOE/EIA-0328, GPO Stock No. 061-003-00297-8, \$4.75.

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, June 1979 to December 1980; April 1982, DOE/EIA-0319 (no GPO Stock No.).

Residential Sector

Housing Characteristics

Residential Energy Consumption Survey: Housing Characteristics 1984; October 1986, DOE/EIA-0314(84), GPO Stock No. 061-003-00499-7, \$12.00.

Residential Energy Consumption Survey: Housing Characteristics, 1982; August 1984, DOE/EIA-0314(82), GPO Stock No. 061-003-00393-1, \$7.00.

Residential Energy Consumption Survey: Housing Characteristics, 1981; August 1983, DOE/EIA-0314(81), GPO Stock No. 061-003-00330-3, \$6.50.

Residential Energy Consumption Survey: Housing Characteristics, 1980; June 1982, DOE/EIA-0314, GPO Stock No. 061-003-00256-1, \$11.00.

Residential Energy Consumption Survey: Characteristics of the Housing Stock and Households, 1978; February 1980, DOE/EIA-0207/2, GPO Stock No. 061-003-00093-2, \$4.25.

Residential Energy Consumption Survey: Conservation; February 1980, DOE/EIA-0207/3, GPO Stock No. 061-003-00087-8, \$6.00.

Preliminary Conservation Tables from the National Interim Energy Consumption Survey; August 1979, DOE/EIA-0193/P (no GPO Stock No.).

Characteristics of the Housing Stock and Households: Preliminary Findings from the National Interim Energy Consumption Survey; October 1979, DOE/EIA-0199/P (no GPO Stock No.).

Consumption and Expenditures

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data ; March 1987, DOE/EIA-0321/1(84).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data ; June 1987, DOE/EIA-0321/2(84).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 1: National Data ; November 1984, DOE/EIA-0321/1(82), GPO Stock No. 061-003-00411-3, \$7.00.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 2: Regional Data ; December 1984, DOE/EIA-0321/2(82), GPO Stock No. 061-003-00414-8, \$9.50.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 1: National Data ; September 1983, DOE/EIA-0321/1(81), GPO Stock No. 061-003-00340-1, \$6.00.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 2: Regional Data ; October 1983, DOE/EIA-0321/2(81), GPO Stock No. 061-003-00357-5, \$8.00.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 1: National Data ; September 1982, DOE/EIA-0321/1(80), GPO Stock No. 061-003-00278-1, \$7.50.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 2: Regional Data ; June 1983, DOE/EIA-0321/2(80), GPO Stock No. 061-003-00319-2, \$7.00.

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part I: National Data (Including Conservation); April 1981, DOE/EIA-0262/1, GPO Stock No. 061-003-00191-2, \$6.50.

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part II: Regional Data; May 1981, DOE/EIA-0262/2, GPO Stock No. 061-003-00189-1, \$8.50.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1978 Through March 1979; July 1980, DOE/EIA-0207/5, GPO Stock No. 061-003-00131-9, \$7.50.

Single-Family Households: Fuel Oil Inventories and Expenditures: National Interim Energy Consumption Survey; December 1979, DOE/EIA-0207/1, GPO Stock No. 061-003-00075-4, \$3.50.

Other Publications on the Residential Sector

Residential Energy Consumption Survey: Trends in Consumption and Expenditures 1978-1984 (Forthcoming).

Residential Conservation Measures; July 1986, SR/EEUD/86/01 (no GPO Stock No.).

An Economic Evaluation of Energy Conservation and Renewable Energy Tax Credits; October 1985, Service Report (no GPO Stock No.).

Residential Energy Consumption and Expenditures by End Use for 1978, 1980, and 1981; December 1984, DOE/EIA-0458, GPO Stock No. 061-003-00415-6, \$4.50.

Weatherization Program Evaluation, SR-EEUD-84-1; August 1984 (available from the Office of the Assistant Secretary for Conservation and Renewable Energy, Department of Energy).

Residential Energy Consumption Survey: Regression Analysis of Energy Consumption by End Use; October 1983, DOE/EIA-0431, GPO Stock No. 061-003-00347-8, \$5.00.

National Interim Energy Consumption Survey: Exploring the Variability In Energy Consumption; July 1981, DOE/EIA-0272, GPO Stock No. 061-003-00205-6, \$5.00.

National Interim Energy Consumption Survey: Exploring the Variability in Energy Consumption--A Supplement; October 1981, DOE/EIA-0272/S, GPO Stock No. 061-003-00217-0, \$4.50.

Energy Use by U.S. Households; November 1980, DOE/EIA-0248 (brochure, no GPO Stock No.).

Commercial Sector

Characteristics of Buildings

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1983; July 1985, DOE/EIA-0246(83), GPO Stock No. 061-003-00439-3, \$7.50.

Nonresidential Buildings Energy Consumption Survey: Fuel Characteristics and Conservation Practices; June 1981, DOE/EIA-0278, GPO Stock No. 061-003-00200-5, \$9.00.

Nonresidential Buildings Energy Consumption Survey: Building Characteristics; March 1981, DOE/EIA-0246, GPO Stock No. 061-003-00171-8, \$6.50.

Consumption and Expenditures

Nonresidential Building Energy Consumption Survey: Commercial Buildings, Consumption and Expenditures 1983; October 1986, DOE/EIA-0318(83), GPO Stock No. 061-003-00496-2, \$13.00.

Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 1: Natural Gas and Electricity; March 1983, DOE/EIA-0318/1, GPO Stock No. 061-003-00298-6, \$9.50.

Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 2: Steam, Coal, Fuel Oil, LPG, and Total Fuels; December 1983, DOE/EIA-0318(79)/2, GPO Stock No. 061-003-00366-4, \$6.00.

Industrial Sector

Report on the 1980 Manufacturing Industries' Energy Consumption Study and Survey of Large Combustors; February 1983, DOE/EIA-0358, GPO Stock No. 061-003-00293-5, \$5.00.

Industrial Energy Consumption, "Survey of Large Combustors: Report on Alternate Fuel-Burning Capabilities of Large Boilers in 1979"; February 1982, DOE/EIA-0304, GPO Stock No. 061-003-0233-1, \$2.50.

Methodological Report of the 1980 Manufacturing Industries Survey of Large Combustors (EIA-463); March 1982, DOE/EIA-0306 (no GPO Stock No.).

Cross-Sector

Natural Gas: Use and Expenditures; April 1983, DOE/EIA-0382, GPO Stock No. 061-003-00307-9, \$5.50.

See inside front cover for information concerning copies of these publications.

Glossary



Passenger vans, along with automobiles, station wagons, cargo vans, motor homes, pickup trucks, and jeeps, were the household vehicles surveyed in the 1985 EIA transportation survey.

Glossary

Annual Mileage: See Miles Driven.

Automobile: Includes cars and station wagons; excludes passenger vans, cargo vans, motor homes, pickup trucks, and jeeps or similar vehicles. See Vehicles.

Average Number of Vehicles Per Household: The average number of vehicles used by a household for personal transportation during 1985. For this report, the average number of vehicles per household is computed as the ratio of the total number of vehicles to the total number of households within any subgroup or "table cell." The total number of vehicles used by a household is based on the number of days each vehicle is used. For example, a total of one vehicle may represent two vehicles, each used for half of the year. See Vehicles.

Btu Conversion Factors: Conversion factors used in this report are:

Motor Gasoline	5.253 million Btu per barrel
Diesel Fuel	5.825 million Btu per barrel
Propane	3.836 million Btu per barrel
Casohol	5.081 million Btu per barrel

Gasohol = 90 percent motor gasoline and 10 percent ethanol
1 barrel = 42 gallons

CDD: See Cooling Degree-Days.

Census Division: An area within each of the four Census regions consisting of various States selected by the United States Bureau of the Census, according to population, area, and physical location. The States are grouped into nine divisions.

New England:

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Middle Atlantic:

New Jersey, New York, and Pennsylvania.

East North Central:

Illinois, Indiana, Michigan, Ohio, and Wisconsin.

West North Central:

Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

South Atlantic:

Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

East South Central:

Alabama, Kentucky, Tennessee, and Mississippi.

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.

See Appendix E for map.

Census Region: An area consisting of various States selected by the U.S. Bureau of the Census according to population, area, and physical location. The States are grouped into four regions:

Northeast:

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

North Central:

Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South:

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

West:

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

See Appendix E for map.

Consumption: See Fuel Consumption.

Cooling Degree-Days(CDD): A quantity used to estimate the need for cooling systems in buildings. Normally, cooling is not required in a building when the outdoor average daily temperature is below 65 degrees. (The average daily temperature is the mean of the maximum and minimum temperatures for a 24-hour period.) Cooling degree-days are determined by subtracting 65 from the average daily temperature. For example, a day with an average temperature of 85 degrees has 20 cooling degree-days ($85 - 65 = 20$), while a day with an average temperature of 65 degrees or lower has none. After being calculated for each day, the number of cooling degree-days can be summed over a larger unit of time (a month, a year).

Cooling degree-days for RTECS households in the 48 contiguous States and the District of Columbia were assigned according to the NOAA division in which each household was located. For Alaskan and Hawaiian households, cooling degree-days were assigned by appropriate nearby weather stations. See NOAA Division and Weather Zone.

Cylinders: The number of cylinders in the vehicle engine. In a reciprocating engine, a cylinder is the chamber in which combustion occurs and the piston moves.

Drivers: Household members who drove a given vehicle on a regular basis at the time of the household interview.

Electricity: See Main Heating Fuel.

Energy Used in the Home: For electricity or natural gas, the quantity used by the household during the 365-day period. For fuel oil, kerosene, and liquefied petroleum gas (LPG), the quantity of fuel purchased, not fuel consumed. If the level of fuel in the storage tank was the same at the beginning and end of the annual period, then the quantity consumed would be the same as the quantity purchased. The level of fuel in the storage tank was not included in the data collection. The time period for household energy consumption for energy used in the home is April 1984 through March 1985.

Expenditures for Energy Used in the Home: For electricity and natural gas, the cost of electricity or natural gas consumed during the 365-day period. For households on a budget plan, the expenditures are for actual consumption. Fuel oil, kerosene, and LPG expenditures are for the amount of fuel purchased, which may differ from the amount of fuel consumed. For households that do not pay directly to their fuel supplier, the expenditures for fuels are estimated and included in the tables. Expenditures include State and local taxes, but exclude merchandise, repairs, or special service charges. The time period for expenditures for energy used in the home is April 1984 through March 1985.

Family Income: The total combined income in 1985 of all members of the family from all sources before taxes and deductions. It includes wages, salaries, tips, commissions, and income from Social Security, pensions, interest, dividends, rent, public assistance, and unemployment insurance. This includes the total income for all family members who lived in the household in 1985. Income of nonfamily members of the household is not included. "Family" includes the following types of relationships: mother, father, sister, brother, son, daughter, father-in-law, uncle, aunt, niece, grandchild, foster child, and similar relationships.

Fuel Consumption: The quantity of fuel used by vehicles during a 365-day period. See Appendix A for explanation of procedures used to convert the monthly fuel purchase log data to annualized motor fuel consumption.

Fuel Efficiency: See Miles per Gallon.

Fuel Expenditures: The cost, including taxes, of the gasoline, gasohol or diesel fuel added to the vehicle's tank. Expenditures do not include the cost of oil or other items that may have been purchased at the same time as the fuel.

Fuel Oil: See Main Heating Fuel.

Fuel Type: The predominant type of fuel purchased and reported during the period in which the respondent was completing a fuel purchase log. Data categories are leaded and unleaded gasoline, and "other" which includes diesel motor fuel, propane, and gasohol. See Gasoline, Gasohol, Unleaded Gasoline and Leaded Gasoline.

Gallons Consumed: The estimated number of gallons of fuel used during the year, based upon miles-per-gallon data derived from a 1-month fuel purchase log and odometer readings for the beginning of the year and the end of the year.

Gasohol: A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent alcohol by volume. See Gasoline.

Gasoline: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline includes leaded gasoline and unleaded gasoline. See Leaded Gasoline and Unleaded Gasoline.

HDD: See Heating Degree-Days.

Head of Household: See Householder.

Heating Degree-Days(HDD): A quantity used to estimate the need for heating systems in buildings. Normally, heating is not required in a building when the outdoor average daily temperature is above 65 degrees. (The average daily temperature is the mean of the maximum and minimum temperature for a 24-hour period.) Heating degree-days are determined by subtracting the average daily temperature below 65 degrees from the base 65. For example, a day with an average temperature of 50 degrees has 15 heating degree-days ($65 - 50 = 15$), while one with an average temperature of 65 or higher has none.

The heating degree-days for RTECS households in the 48 contiguous States and the District of Columbia were assigned according to the NOAA division in which each household is located. Heating degree-days for Alaskan and Hawaiian households were assigned by appropriate nearby weather stations. See NOAA Division and Weather Zone.

Hispanic Descent: A householder of either Spanish or Portuguese origin or ancestry. See Origin.

Hot-Deck Imputation: A statistical procedure for deriving a probable response to a questionnaire item concerning a household or vehicle, where no response was given during the survey. To perform the procedure, an analyst sorts the households or vehicles by variables related to the missing item. Thus, a series of sort categories are formed, which are internally homogeneous with respect to the sort variables. Within each category, households or vehicles for which the questionnaire item is not missing are randomly selected to serve as "donors" to supply values for the missing item of "recipient" households or vehicles. See Appendix A for more details. See Imputation.

Household: A family, an individual, or a group of up to nine unrelated persons occupying the same housing unit. "Occupy" means the housing unit was the person's usual or permanent place of residence at the time of the first field contact. The household includes babies, lodgers, boarders, employed persons who live in the housing unit, and persons who usually live in the household but are away traveling or in a hospital. The household does not include persons who are normally members of the household but who were away from home as college students or members of the armed forces at the time of the contact. The household does not include persons temporarily visiting with the household if they have a place of residence elsewhere, persons who take their meals with the household but usually lodge or sleep elsewhere, domestic employees or other persons employed by the household who do not sleep in the same housing unit, or persons who are former members of the household, but have since become inmates of correction or penal institutions, mental institutions, homes for the aged or needy, homes or hospitals for the chronically ill or handicapped, nursing homes, convents or monasteries, or other places in which residents may remain for long periods of time. By definition, the number of households is the same as the number of occupied housing units.

Householder: The head of household or the person (or one of the persons) in whose name the home is owned or rented. If there is no lease or similar agreement, or if the person who owns the home or pays the rent does not live in the housing unit, the householder is the person responsible for paying the household bills or generally in charge.

Housing Unit: A structure or part of a structure where a household lives. It has direct access from the outside of the building or through a common hall. Housing units do not include group quarters such as prisons or nursing homes.

Imputation: A group of statistical techniques for estimating probable responses to questionnaire items concerning households or vehicles, where no responses or poor quality responses were given during the survey. The two most common techniques employed in this survey were "hot-deck" and "regression." See Appendix A for more details. See also Hot-Deck Imputation and Regression Imputation.

Jeep-like Vehicles: Include light trucks which are similar to jeeps. Other common terms for these vehicles are special purpose, utility or off-the-road vehicles. They may have 4-or-2 wheel drive.

Kerosene: See Main Heating Fuel.

Leaded Gasoline: Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included. See Gasoline and Unleaded Gasoline.

Liquefied Petroleum Gas or LPG: See Main Heating Fuel.

Main Heating Fuel: The primary fuel delivered to a residential site. It may be converted to some other form of energy at the site. In this report, electricity is included. The following are defined as primary fuels for this report:

Electricity: metered electric power supplied by a central utility company to a residence via underground or above-ground power lines. It does not refer to electricity generated on site for the exclusive use of a residence. When a residence has its own generating capability, the fuel used for the generator will be specified. The Btu equivalent for electricity is the energy value of electricity as received by the household (3,412 Btu per kilowatthour). For this report, energy losses that occur in generating and transmitting electricity are not included in the conversion of electricity into Btu. If these losses were to be included, the conversion rate would generally be about 10,353 Btu per kilowatthour.

Fuel oil: No. 1, No. 2, or No. 4 grade fuel oil or residual oil that is burned for space- or water-heating purposes. No. 1 distillate fuel oil is a form of heating oil used mostly as a blending stock to assure that heavier grades of fuel flow under severe cold weather conditions. No. 2 distillate refers to both No. 2 heating oil and No. 2 diesel fuel. Although these products are not identical, they are essentially interchangeable for most applications. No. 2 fuel oil is the most common form of heating oil. No. 4 distillate is a blend of No. 2 and No. 5 or No. 6 residual fuel oil, used in large stationary diesel engines and boilers equipped with fuel preheating equipment. Residual fuel oil refers to the heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations.

Kerosene: the generic name for a distilled product of oil or coal, having properties similar to those of No. 1 fuel oil. Kerosene is used for cooking stoves, for space heating or water heating, or for lighting equipment that uses wicks. It is sometimes sold under the names "range oil," "stove oil," or "coal oil."

LPG or liquefied petroleum gas: any fuel gas supplied to a residence in liquid form, such as propane or butane. It is usually delivered by tank truck and stored near the residence in a tank or cylinder until used. Propane was the most common liquefied petroleum gas supplied to RECS households. Household use of LPG solely for outdoor gas grills is not considered sufficient use to mark the household as a user of LPG.

Natural gas: utility gas supplied by underground pipeline to individual housing units by a central utility company. It does not refer to privately owned gas wells operated by the household, nor to LPG.

Measured Heated Area of Residence: The floor area of the housing unit that is enclosed from the weather. Basements are included whether or not they contain finished space. Garages are included if they have a wall in common with the house. Attics that have finished space and attics that have some heated space

are included. Crawl spaces are not included even if they are enclosed from the weather. Sheds and other buildings that are not attached to the house are not included. "Measured" area means that the measurement of the dimensions of the home did not rely on the respondent's reports but was an actual measurement by the interviewer using a metallic, retractable, 50-foot tape measure. "Heated area" is that portion of the measured area that is heated during most of the season. Rooms that are shut off during the heating season to save on fuel use are not counted as heated area. Attached garages that are unheated and unheated areas in basements and attics are not counted as heated area.

Metropolitan: A group of households located within Metropolitan Statistical Areas (MSA's) as defined in the 1980 Census. Except in New England, an MSA is a county or group of contiguous counties that contain at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. The contiguous counties are included in an MSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, MSA's consist of towns and cities, rather than counties. See Nonmetropolitan.

Metropolitan Status: Refers to geographic location of the households in relationship to Metropolitan Statistical Areas (MSA's). See Metropolitan and Nonmetropolitan.

Miles Driven: The total number of miles driven during 1985.

Miles per Gallon or MPG: A measure of vehicle efficiency. Miles per gallon or MPG as presented in this report represents "Fleet Miles per Gallon." For each subgroup or "table cell," MPG is computed as the ratio of the total number of miles traveled to the total number of gallons consumed. The MPG value reported for a given vehicle on a monthly fuel purchase log was used with annual odometer readings to compute the total number of gallons consumed annually for that vehicle. See Appendix A for more details.

Model Year: The year in which the particular style or design of vehicle was introduced or manufactured.

Motor Fuel Consumption: See Fuel Consumption.

Motor Fuel: See Fuel Type.

Motor Fuel Expenditures: See Fuel Expenditures.

MPG: See Miles per Gallon.

MSA: See Metropolitan.

Natural Gas: See Main Heating Fuel.

NOAA Division: One of the 344 weather divisions designated by the National Oceanic and Atmospheric Administration (NOAA) encompassing the 48 contiguous States. These divisions usually follow county borders to encompass counties

with similar weather conditions. The NOAA division does not follow county borders when weather conditions vary considerably within a county such as is likely to happen when the county borders the ocean or contains high mountains. A State contains an average of seven NOAA divisions; a NOAA division contains an average of nine counties.

Nonmetropolitan: Households not located within Metropolitan Statistical Areas as defined in the 1980 Census. See Metropolitan.

Origin: The primary ethnic background of the person considered to be the householder. Each respondent was asked, "Which of the groups on this exhibit best describes the householder?" The groups included: white, black or Negro, American Indian, Alaskan native, Asian, and Pacific Islander. The word "race" was not used in either the questionnaire or the instructions.

Pickup Truck: Includes compact and full size pickup trucks.

Poverty: Low-income classifications to which certain households are assigned. "Below 100 percent of poverty" encompasses a group of households with incomes below the poverty level as defined by the U.S. Bureau of the Census. "Below 125 percent of poverty" includes a group of households with incomes below 125 percent of the poverty level; this represents an alternative level for defining poverty. The definitions of "poverty" are based on the number of family members in the household and the income of the entire family. The income levels used to define poverty in this report are shown below.

Number of Persons per Family	Below 100 Percent of Poverty		Below 125 Percent of Poverty	
	1984 RECS Income Range Less Than: ^a	Census Threshold ^b	1984 RECS Income Range Less Than: ^a	125 Percent Threshold
1 and- respondent is younger than 65	\$5,000	\$5,400	\$7,500	\$6,750
respondent is older than 64	5,000	4,979	6,000	6,224
2 and- householder is younger than 65	7,500	6,983	9,000	8,729
householder is older than 64	6,000	6,282	7,500	7,853
3	9,000	8,277	10,000	10,346
4	11,000	10,609	14,000	13,261
5	12,500	12,566	15,000	15,708
6	14,000	14,207	17,500	17,759
7	15,000	16,096	20,000	20,120
8	17,500	17,961	22,500	22,451
9 or more	20,000	21,247	27,500	26,559

^a The income category that contained the Census threshold was taken as the upper limit in defining poverty when the Census threshold was equal to or above the midpoint of the income category. For example, since the threshold of \$5,400 was not above the midpoint of the category \$5,000 to \$5,999, the next lower income category was used.

^b Figures from the U.S. Bureau of the Census, *Money Income and Poverty Status of Families and Persons in the United States: 1984* (Advance Data from the March 1985 Current Population Survey) (Current Population Reports, Series P-60, No. 149, August 1985), Table A1, p. 31.

Source: Energy Information Administration, Office of Energy Markets and End Use. The 1984 Residential Energy Consumption Survey.

Because RECS and RTECS income data were collected by using categories of income (for example, \$3,000 to \$3,999), Census thresholds for poverty could not be exactly matched. Furthermore, underreporting of income is a problem in surveys

of this type. Respondents may forget to mention some types of income or report them as less than they are. Underreporting may be a greater problem in the RECS and RTECS, which measures income by one question, than in the Current Population Survey (CPS), which asks questions regarding each source of income for each household member. For example, whereas for 1984 the RECS estimate for households below 100 percent of poverty was 13.680 million, the CPS estimate for the same year was 13.886 million.

Primary Sampling Unit (PSU): A sampling unit selected at the first stage in multistage area probability sampling. A PSU typically consists of one to several contiguous counties--for example, a metropolitan area with surrounding suburban counties. The approximately 3,100 counties and independent cities of the contiguous United States were grouped into about 1,800 PSU's by a procedure similar to the one used by the Census Bureau for its Current Population Survey. PSU's can be composed of one or more MSA's or can be composed of rural counties. See Metropolitan and Appendix A.

Quadrillion: The number 1,000,000,000,000 or 10^{15} .

Race: See Origin.

Regression Imputation: A statistical procedure that was used to estimate annual mileage for vehicles where little or no mileage data were available. The procedure involved the least-squares derivation of mathematical equations that expressed mileage as a function of such variables as number of drivers, household income, age of household head, and others. See Appendix B for more details. See Imputation and Hot-Deck Imputation.

Residential: Refers to occupied housing units, including mobile homes, single-family housing units (attached and detached), and apartments. The definition of housing units is the same as that used by the U.S. Bureau of the Census. See Household.

Residential Energy Expenditures: See Expenditures for Energy Used in the Home.

Transmission Type: The householder was asked if each vehicle had an automatic or manual shift transmission. The transmission is the part of a vehicle that transmits motive force from the engine to the wheels, usually by means of gears and either a hydraulic "torque-converter" (automatic) or clutch assembly (manual).

Transportation Energy Expenditures: See Fuel Expenditures.

Unleaded Gasoline: Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. See Gasoline and Leaded Gasoline.

Vehicle Used on the Job: Refers to a vehicle used by anyone in the household for job-related activities, excluding commuting to and from work.

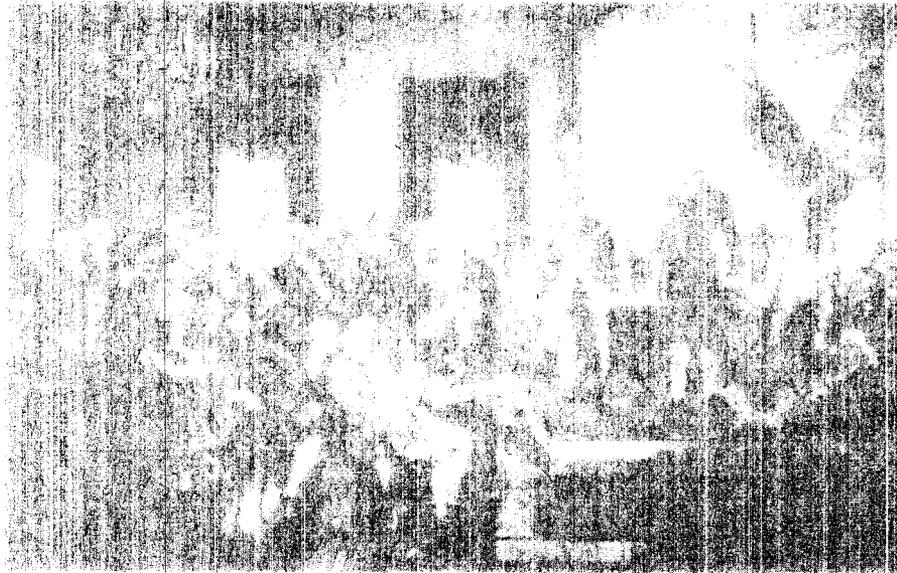
Vehicles: Motorized vehicles used by U.S. households for personal transportation. Excluded are: motorcycles, mopeds, large trucks, and buses. Included are: automobiles, station wagons, passenger vans, cargo vans, motor homes, pickup trucks, and jeeps or similar vehicles. In order to be included, vehicles must be: (1) owned by members of the household, or (2) company cars not owned by household members but regularly available to household members for their personal use and ordinarily kept at home, or (3) rented or leased for 1 month or more. See Vehicle Used on the Job.

Weather Zone: One of seven distinct areas, designated by the American Institute of Architects (AIA) for the U.S. Department of Energy and the U.S. Department of Housing and Urban Development, that are used to classify housing units or buildings by long-term weather conditions. The zones are defined by the annual sums of heating degree-days (HDD) and cooling degree-days (CDD) averaged over 45 years, as follows:

- Zone 1 has fewer than 2,000 CDD and more than 7,000 HDD.
- Zone 2 has fewer than 2,000 CDD and 5,500 to 7,000 HDD.
- Zone 3 has fewer than 2,000 CDD and 4,000 to 5,499 HDD.
- Zone 4 has fewer than 2,000 CDD and 2,000 to 3,999 HDD.
- Zone 5 has fewer than 2,000 CDD and fewer than 2,000 HDD.
- Zone 6 has more than 2,000 CDD and fewer than 2,000 HDD.
- Zone 7 has more than 2,000 CDD and 2,000 to 3,999 HDD.

Zones 4 and 5 and Zones 6 and 7 were combined for this report. A building was assigned to a weather zone on the basis of its geographic location. See Heating Degree-Days, Cooling Degree-Days, and NOAA Division.

AFTER THE DECLARATION OF INDEPENDENCE OUR FOUNDING FATHERS WROTE SOMETHING EVEN MORE IMPORTANT



After the signing of the Declaration of Independence in 1776, the Founding Fathers spent the next two years debating the principles of the new nation. They agreed on a form of government, but they disagreed on the details. It wasn't until 1787 that the delegates to the Constitutional Convention in Philadelphia agreed on a plan for a new government. The Constitution was signed on September 17, 1787, and it has since become the foundation of our nation.

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