This survey is voluntary and authorized under the Federal Energy Administration Act of 1974 (Public Law 93-275) as amended. Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

1987 Residential Energy Consumption Survey

Energy Information Administration
U.S. Department of Energy

Location # 111–116
Housing Unit # 117–118
1. In what year did your family move into this (house/apartment)?

   01[ ] Before 1940  07[ ] 1980-1983
   02[ ] 1940-1949  08[ ] 1984
   03[ ] 1950-1959  09[ ] 1985
   04[ ] 1960-1969  10[ ] 1986
   05[ ] 1970-1974  11[ ] 1987
   06[ ] 1975-1979  12[ ] 1988

   IF "1985" OR LATER, ASK:
   2. In which month did you move in?
      (SPECIFY MONTH AND ENTER LAST DIGIT OF YEAR.)

   MONTH:  
   YEAR: 198 __

3. In what year was this (house/building) built?
   Just your estimate.

   01[ ] BEFORE 1940  07[ ] 1980-1983
   02[ ] 1940-1949  08[ ] 1984
   03[ ] 1950-1959  09[ ] 1985
   04[ ] 1960-1969  10[ ] 1986
   05[ ] 1970-1974  11[ ] 1987
   06[ ] 1975-1979  12[ ] 1988

4. Altogether (counting all areas that are used as year-round living space), how many rooms do you have in your living quarters? Do not count bathrooms, unheated porches, foyers, or hallways. (SEE INSTRUCTION BELOW.)

   NUMBER OF ROOMS:  

5. How many complete bathrooms and how many half-bathrooms do you have? (A complete bathroom is a room with a flush toilet, bathtub or shower, and a sink/washbasin with running water. A half-bath has at least a flush toilet or bathtub or shower, but does not have all the facilities for a complete bathroom.)

   NUMBER OF COMPLETE BATHROOMS:  [] NONE
   NUMBER OF HALF BATHROOMS:  [] NONE

INTERVIEWER INSTRUCTIONS:
Q. 4 -- Generally count any room as long as it is a comfortable place to rest, read, study, etc., year-round.

Do not count laundry rooms, unfinished attics or basements, open porches, or unfinished space used for storage.
6. What is the main fuel used for heating your home?  
(SEE INSTRUCTIONS BELOW.)

<table>
<thead>
<tr>
<th>Q. 6 MAIN FUEL MARK</th>
<th>Q. 7 MARK ALL THAT APPLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAS FROM UNDERGROUND PIPES</td>
<td>01 [] [] 133</td>
</tr>
<tr>
<td>SERVING THE NEIGHBORHOOD</td>
<td></td>
</tr>
<tr>
<td>LPG GAS (BOTTLED OR TANK GAS)</td>
<td>02 [] [] 134</td>
</tr>
<tr>
<td>FUEL OIL</td>
<td>03 [] [] 135</td>
</tr>
<tr>
<td>KEROSENE OR COAL OIL</td>
<td>04 [] [] 136</td>
</tr>
<tr>
<td>ELECTRICITY</td>
<td>05 [] [] 137</td>
</tr>
<tr>
<td>COAL OR COKE</td>
<td>06 [] [] 138</td>
</tr>
<tr>
<td>WOOD</td>
<td>07 [] [] 139</td>
</tr>
<tr>
<td>SOLAR COLLECTORS</td>
<td>08 [] [] 140</td>
</tr>
<tr>
<td>OTHER (SPECIFY):</td>
<td>______________</td>
</tr>
<tr>
<td></td>
<td>______________</td>
</tr>
<tr>
<td>DON'T KNOW</td>
<td>96 [] [] 142</td>
</tr>
<tr>
<td>NO HEATING FUEL USED -- TAKE BACK EXHIBIT 6/7/10; SKIP TO Q. 32</td>
<td>00 []</td>
</tr>
<tr>
<td>NO ADDITIONAL FUEL -- SKIP TO Q. 9</td>
<td></td>
</tr>
</tbody>
</table>

7. What other fuels, if any, are used to heat your home -- including those that are used to provide heat just occasionally?  
MARK ALL THAT APPLY (IF NONE, MARK "NO ADDITIONAL FUEL")

IF ONE OR MORE ADDITIONAL FUELS MENTIONED IN Q. 7, ASK:

8. Does your main heating fuel -- (FUEL NAMED IN Q. 6) -- provide almost all of the heat for your home, about three-fourths, or closer to half of the heat for your home?  

| 1 [] ALMOST ALL (MORE THAN 95%) |
| 2 [] ABOUT THREE-FOURTHS (67-94%) |
| 3 [] CLOSER TO HALF (66% OR LESS) |

INTERVIEWER INSTRUCTIONS:

Q. 6 -- If two or more heating fuels are used, the main heating fuel is the one that provides most of the heat for the home.

Q. 6-7 -- If household recently converted to a different fuel, or is in the process of conversion, mark answer for fuel(s) in use during January of 1987.
9. In November of 1984 was the main fuel used to heat this (house/apartment) the same as it is now?

   [ ] YES -- SKIP TO Q. 12

   [ ] NO -- ASK Q. 10

   [5] NO FUEL USED IN 1984 -- SKIP TO Q. 12

   [6] DON'T KNOW -- SKIP TO Q. 12

IF "NO," ASK:

10. What was the main fuel used to heat this (house/apartment) in November of 1984?

   [01] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD

   [02] LPG GAS (BOTTLED OR TANK GAS)

   [03] FUEL OIL

   [04] KEROSENE OR COAL OIL

   [05] ELECTRICITY

   [06] COAL OR COKE

   [07] WOOD

   [08] SOLAR COLLECTORS

   [21] OTHER (SPECIFY): __________________

   [95] NO FUEL USED

   [96] DON'T KNOW

11. In what month and year was the main heating fuel changed?

   MONTH: ____________________

   YEAR: 198 _______

   148-149

   150-151
### Question 12
What is the main heating equipment used with your main heating fuel?

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Code</th>
<th>Q.12 Main Equipment Mark All That Apply</th>
<th>Q.13 Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Water Pipes running through a slab floor (Radiant Heating)</td>
<td>01</td>
<td>[ ]</td>
<td>154</td>
</tr>
<tr>
<td>Steam or Hot Water System with Radiators or Conectors</td>
<td>02</td>
<td>[ ]</td>
<td>155</td>
</tr>
<tr>
<td>Central Warm-Air Furnace with Ducts to Individual Rooms (Do not count Heat Pump here)</td>
<td>03</td>
<td>[ ]</td>
<td>156</td>
</tr>
<tr>
<td>Heat Pump</td>
<td>04</td>
<td>[ ]</td>
<td>157</td>
</tr>
<tr>
<td>Built-in Electric Units (Permanently installed in wall, ceiling, or baseboard)</td>
<td>05</td>
<td>[ ]</td>
<td>158</td>
</tr>
<tr>
<td>Floor, Wall, or Pipeless Furnace</td>
<td>06</td>
<td>[ ]</td>
<td>159</td>
</tr>
<tr>
<td>Room Heater Burning Gas, Oil, Kerosene (Not Portable)</td>
<td>07</td>
<td>[ ]</td>
<td>160</td>
</tr>
<tr>
<td>Heating Stove Burning Wood, Coal, Coke</td>
<td>08</td>
<td>[ ]</td>
<td>161</td>
</tr>
<tr>
<td>Fireplace(S)</td>
<td>09</td>
<td>[ ]</td>
<td>162</td>
</tr>
<tr>
<td>Portable Electric Heater(S)</td>
<td>10</td>
<td>[ ]</td>
<td>163</td>
</tr>
<tr>
<td>Portable Kerosene Heater(S)</td>
<td>11</td>
<td>[ ]</td>
<td>164</td>
</tr>
<tr>
<td>Cooking Stove, Range, or Oven (Used to heat home, as well as for cooking)</td>
<td>12</td>
<td>[ ]</td>
<td>165</td>
</tr>
<tr>
<td>Other (Specify):</td>
<td>21</td>
<td>[ ]</td>
<td>166</td>
</tr>
<tr>
<td>Don't Know</td>
<td>96</td>
<td>[ ]</td>
<td>167</td>
</tr>
<tr>
<td>No Additional Equipment</td>
<td></td>
<td>[ ]</td>
<td>168</td>
</tr>
</tbody>
</table>

### Question 13
What other types of equipment, if any, are used to heat your home -- including those that are used to provide heat just occasionally? Mark all that apply.

(If none, mark "No Additional Equipment".)

### Take Back Exhibit 12/13

#### If "Central Warm-Air Furnace" Mentioned in Q. 12 or Q. 13, Ask:

<table>
<thead>
<tr>
<th>Question 14: For the central warm-air furnace, is the warm air forced through the ducts by a fan?</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Don't Know</td>
<td>6</td>
</tr>
</tbody>
</table>

#### If "Heating Stove Burning Wood, Coal, Coke" Mentioned in Q. 12 or Q. 13, Ask:

<table>
<thead>
<tr>
<th>Question 15: Is the heating stove airtight?</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Don't Know</td>
<td>6</td>
</tr>
</tbody>
</table>

#### If Single Family Home or Mobile Home, Ask Q. 16. Otherwise Skip to Q. 17.

<table>
<thead>
<tr>
<th>Question 16: How old is your main heating equipment, just approximately? (Interviewer: Probe for best guess.)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years old</td>
<td>1</td>
</tr>
<tr>
<td>2-4 years old</td>
<td>2</td>
</tr>
<tr>
<td>5-9 years old</td>
<td>3</td>
</tr>
<tr>
<td>10-14 years old</td>
<td>4</td>
</tr>
<tr>
<td>15 years old or older</td>
<td>5</td>
</tr>
<tr>
<td>Don't Know</td>
<td>6</td>
</tr>
</tbody>
</table>

#### If 2 or More Housing Units in Building, Ask Q. 17. Otherwise Skip to Q. 18.

<table>
<thead>
<tr>
<th>Question 17: Does the main equipment for heating your home also heat one or more other apartments, households or businesses?</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, Home Heating Equipment is for Respondent's Home Only</td>
<td>0</td>
</tr>
<tr>
<td>Yes, Home Heating Equipment is for one or more other apartments, houses, or businesses</td>
<td>1</td>
</tr>
<tr>
<td>Don't Know</td>
<td>6</td>
</tr>
</tbody>
</table>
18. At what temperature do you usually keep your home during the day in the wintertime when someone is at home? (SEE INSTRUCTION BELOW.)

19. At what temperature do you usually keep your home during the day in the wintertime when no one is at home? (SEE INSTRUCTION BELOW.)

20. At what temperature do you usually keep your home during sleeping hours in the wintertime? (SEE INSTRUCTION BELOW.)

DEGREES FAHRENHEIT: 173-174

[ ] HEAT TURNED OFF

DEGREES FAHRENHEIT: 175-176

[ ] HEAT TURNED OFF

DEGREES FAHRENHEIT: 177-178

[ ] HEAT TURNED OFF

HAND RESPONDENT EXHIBIT 21

21. Please look at this list and tell me the ways, if any, you use to adjust the temperature in your home during the heating season. (MARK ALL THAT APPLY.)

- THERMOSTAT FOR MAIN HEATING EQUIPMENT .......
- THERMOSTAT FOR SUPPLEMENTAL HEATING EQUIPMENT ...
- OPENING AND CLOSING WINDOWS OR DOORS ........
- OPENING AND CLOSING HOT AIR VENTS ............
- TURN HEATER ON OR OFF (UP OR DOWN) ...........
- TURN RADIATORS OR CONVECTORS ON OR OFF ..... 
- ADJUST DRAFT OR AMOUNT OF FUEL FOR WOOD OR COAL FIRE ................
- USE COOKING STOVE, OVEN, OR RANGE TO HEAT HOME ................
- OTHER (SPECIFY): _____________________ 
- NO WAY TO ADJUST THE TEMPERATURE ...........

INTERVIEWER INSTRUCTIONS:

Q. 18-20 -- If respondent keeps different sections of the house at different temperatures, we want to know the temperature in the part of the house where the people are. If, for example, the heat is turned off upstairs during the day because the family is downstairs, we want the downstairs temperature.

If the respondent doesn't know temperature, but does know thermostat setting, record thermostat setting. Otherwise, probe for best estimate.
22. During the last winter -- from October 1986 to April 1987 -- was there any period of 2 hours or more when you wanted to use your main source of heat but could not use it for any of these reasons?

(INTEVIEWER: READ AND MARK "YES" OR "NO" FOR EACH ITEM. SEE INSTRUCTION BELOW IF RESPONDENT REPORTS LIVING AT ANOTHER ADDRESS DURING ALL OR PART OF THE OCTOBER 1986 TO APRIL 1987 PERIOD.

22a. A utility company shut off either your heating fuel or electricity needed to run your heating system. [ ] YES [ ] NO -- GO TO Q. 23a

IF "YES," ON Q. 22a. ASK:

22b. Was this because you forgot to pay, you could not pay, or was there some other reason? (CHOOSE MOST IMPORTANT REASON IF MORE THAN ONE APPLIES.)

[ ] FORGOT TO PAY [ ] COULD NOT PAY [ ] OTHER: (SPECIFY):

22c. Thinking of all the times you were without heat because your fuel or electricity was shut off, altogether about how many hours or days were you without heat? [ ] HOURS __________ OR [ ] DAYS __________

22d. If "YES," on Q. 22a. Ask:

22i. IF "YES." ON Q. 22a. ASK:

22b. Was this because you forgot to pay, you could not pay, or was there some other reason? (CHOOSE MOST IMPORTANT REASON IF MORE THAN ONE APPLIES.)

[ ] FORGOT TO PAY [ ] COULD NOT PAY [ ] OTHER: (SPECIFY): _______

22c. Thinking of all the times you were without heat because your fuel or electricity was shut off, altogether about how many hours or days were you without heat? [ ] HOURS __________ OR [ ] DAYS __________

23a. You ran out of coal, wood, fuel oil or other bulk fuel. [ ] YES [ ] NO -- GO TO Q. 24a

IF "YES," ON Q. 23a. ASK:

23b. Was this because you forgot to pay for or order fuel, because you could not pay for the fuel, or was there some other reason? (CHOOSE MOST IMPORTANT REASON IF MORE THAN ONE APPLIES.)

[ ] FORGOT TO PAY [ ] COULD NOT PAY [ ] OTHER: (SPECIFY): _______

23c. Thinking of all the times you were without heat because you ran out of coal, fuel oil, or other bulk fuel, altogether about how many hours or days were you without heat? [ ] HOURS __________ OR [ ] DAYS __________

24a. Your landlord did not provide heat. [ ] YES [ ] NO -- GO TO Q. 25a

IF "YES," ON Q. 24a. ASK:

24b. Did the landlord fail to provide heat because you forgot to pay the rent, because you could not pay the rent, or was there some other reason? (CHOOSE MOST IMPORTANT REASON IF MORE THAN ONE APPLIES.)

[ ] FORGOT TO PAY [ ] COULD NOT PAY [ ] OTHER: (SPECIFY): _______

24c. Thinking of all the times you were without heat because the landlord did not provide heat, altogether about how many hours or days were you without heat? [ ] HOURS __________ OR [ ] DAYS __________

25a. Your heating system was broken. [ ] YES [ ] NO -- GO TO Q. 26a

IF "YES," ON Q. 25a. ASK:

25b. Did you have to delay repairing or replacing your heating system because you could not pay for the repair or replacement? [ ] YES [ ] NO

25c. Thinking of all the times you were without heat because your heating system was broken, altogether about how many hours or days were you without heat? [ ] HOURS __________ OR [ ] DAYS __________

INTERVIEWER INSTRUCTIONS:

All questions on this page -- Assure the respondent that these questions apply to all permanent residences of the household from October 1986 to April 1987.
IF "YES." TO 22a OR 23a OR 24a OR 25a, ASK:

26a. How many different times were you without your main source of heat during the last winter -- from October 1986 to April 1987?

<table>
<thead>
<tr>
<th>TIMES WITHOUT MAIN SOURCE OF HEAT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 [ ] YES</td>
</tr>
<tr>
<td>2 [ ] NO -- SKIP TO Q. 27</td>
</tr>
<tr>
<td>5 [ ] OTHER (SPECIFY:)</td>
</tr>
</tbody>
</table>

IF "YES." OR "OTHER." TO 26b, ASK:

26b. During the time your home was without your main source of heat, were you able to heat your home in some other way?

TIMES WITHOUT MAIN SOURCE OF HEAT:

1 [ ] YES
2 [ ] NO -- SKIP TO Q. 27
5 [ ] OTHER (SPECIFY:)

26c. How were you able to heat your home?

(INTERVIEWER: WRITE DOWN WHATEVER RESPONDENT REPORTS.)

27. Has any wood been burned in your home in the past 12 months?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO -- SKIP TO Q. 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

IF "YES" HAND RESPONDENT EXHIBIT 28, AND ASK:

28. This exhibit illustrates about one cord of wood. Did your household burn less than this amount, or about this amount or more?

<table>
<thead>
<tr>
<th>LESS THAN ONE CORD</th>
<th>ONE CORD OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 [ ]</td>
<td>2 [ ]</td>
</tr>
</tbody>
</table>

IF "LESS THAN ONE CORD," ON Q. 28, TURN TO EXHIBIT 29 AND ASK:

29. Which of these is most nearly the amount of wood burned in your household in the past 12 months?

<table>
<thead>
<tr>
<th>A FEW LOGS OR SCRAPS OF WOOD</th>
<th>1/4 TO 1/3 OF A CORD</th>
<th>1/2 CORD (ABOUT ONE PICK-UP TRUCK OF WOOD)</th>
<th>OVER 1/2 CORD BUT LESS THAN A FULL CORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
<td>4 [ ]</td>
</tr>
</tbody>
</table>

TAKE BACK EXHIBIT 29; SKIP TO Q. 31

IF "ONE CORD OR MORE" ON Q. 28, TURN TO EXHIBIT 30 AND ASK:

30. This exhibit shows wood piles of different sizes. Just using these as general reference points, about how many cords of wood did you burn in your household in the past 12 months? (SEE INSTRUCTION BELOW.)

<table>
<thead>
<tr>
<th>NUMBER OF CORDS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 [ ]</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

TAKE BACK EXHIBIT 30; ASK Q. 31

31. Did you purchase any wood to burn in your home in the last 12 months?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

INTERVIEWER INSTRUCTIONS:

Q. 30 -- Exhibit 30 is intended only for general reference. Probe for respondent's best estimate of number of cords burned -- this, of course, will ordinarily be a number different from the specific quantities shown on the exhibit. Record answer to nearest cord, or cord plus fraction, as given by respondent (for example: 1, 1-1/2, 4, 10, 12, and so on).
32. Which fuel is used most for heating water (other than just for cooking purposes)?

01 [ ] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
02 [ ] LPG GAS (BOTTLED OR TANK GAS)
03 [ ] FUEL OIL
04 [ ] KEROSENE OR COAL OIL
05 [ ] ELECTRICITY
06 [ ] COAL OR COKE
07 [ ] WOOD
08 [ ] SOLAR COLLECTORS
21 [ ] OTHER (SPECIFY): ____________________________

00 [ ] NO FUEL USED -- TAKE BACK EXHIBIT 32/34 SKIP TO Q. 38
96 [ ] DON'T KNOW

33. In addition to your main fuel, do you use any other fuel for heating water (other than just for cooking purposes)?

IF "YES," ASK:

34. What is the additional fuel?

01 [ ] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
02 [ ] LPG GAS (BOTTLED OR TANK GAS)
03 [ ] FUEL OIL
04 [ ] KEROSENE OR COAL OIL
05 [ ] ELECTRICITY
06 [ ] COAL OR COKE
07 [ ] WOOD
08 [ ] SOLAR COLLECTORS
21 [ ] OTHER (SPECIFY): ____________________________

96 [ ] DON'T KNOW

35. Do you have hot running water in your home?

1[ ] YES
0[ ] NO
IF ONE-FAMILY HOUSE OR MOBILE HOME, ASK:

36. About how old is your water heater, just approximately? (INTERVIEWER: PROBE FOR BEST GUESS.)

1 [ ] LESS THAN 2 YEARS
2 [ ] 2 - 4 YEARS
3 [ ] 5 - 9 YEARS
4 [ ] 10 - 14 YEARS
5 [ ] 15 YEARS OR MORE
6 [ ] DON'T KNOW
0 [ ] DO NOT HAVE A HOT WATER HEATER

IF 2 OR MORE UNITS IN BUILDING, ASK Q. 37. OTHERWISE SKIP TO Q. 38

37. Does the equipment for heating water for your home also heat water for one or more other apartments, houses, or businesses?

0 [ ] NO, HOT WATER EQUIPMENT IS FOR RESPONDENT'S HOME ONLY
1 [ ] YES, HOT WATER EQUIPMENT HEATS WATER FOR ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES
6 [ ] DON'T KNOW
38. Do you have air-conditioning equipment, either a central system or individual window or wall units? (MARK ALL THAT APPLY.)

[ ] YES, CENTRAL SYSTEM
[ ] YES, INDIVIDUAL (WINDOW/WALL) UNITS
[ ] NO -- SKIP TO Q. 45

IF "INDIVIDUAL (WINDOW/WALL) UNITS" ON Q. 38, ASK:

39. How many individual window or wall units do you have?

NUMBER OF UNITS:

IF "CENTRAL SYSTEM" ON Q. 38, ASK:

40. Does the central air-conditioning system use electricity, gas from underground pipes, or LPG?

[ ] ELECTRICITY
[ ] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
[ ] LPG GAS (BOTTLED OR TANK GAS)
[ ] DON'T KNOW

IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q. 41, OTHERWISE SKIP TO Q. 42

41. Does the air-conditioning equipment that cools your home also cool other apartments, houses, or businesses?

[ ] NO, A/C IS FOR RESPONDENT'S HOME ONLY
[ ] YES, A/C COOLS ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES
[ ] DON'T KNOW

42. How many rooms in your (house/apartment) can be cooled by your air conditioning? Do not count bathrooms, hallways, foyers, or enclosed porches.

NUMBER OF ROOMS:

95 [ ] ENTIRE HOUSE OR APARTMENT

HAND RESPONDENT EXHIBIT 43

43. Which of the statements on this exhibit best describes the way you used your air conditioner(s) last summer? (MARK ONLY ONE.)

[ ] DID NOT USE AT ALL
[ ] TURNED ON ONLY A FEW DAYS OR NIGHTS WHEN REALLY NEEDED
[ ] TURNED ON QUITE A BIT
[ ] TURNED ON JUST ABOUT ALL SUMMER
[ ] OTHER (SPECIFY):

TAKE BACK EXHIBIT 43

44. When you are using your air conditioning, about what temperature do you usually keep the cooled area? (SEE INSTRUCTION BELOW.)

DEGREES FARENHEIT:

INTERVIEWER INSTRUCTIONS:

Q. 44 -- If respondent keeps different sections of the house at different temperatures, we want to know the temperature in the part of the house where the people are. If, for example, the air conditioning is turned off upstairs during the day because the family is downstairs, we want the downstairs temperature.

If the respondent doesn't know temperature, but does know thermostat setting, record thermostat setting. Otherwise, probe for best estimate.
45. How many doors do you have in your home that go from a heated area to the outside or to an unheated area? (SEE INSTRUCTION BELOW.)

   NUMBER
  OF DOORS:
   [ ] NONE -- SKIP TO Q. 50

HAND RESPONDENT EXHIBIT 46

46. Please look at this exhibit of different kinds of doors. How many of each of these types of doors do you have?

<table>
<thead>
<tr>
<th>Q. 46 NUMBER OF DOORS</th>
<th>Q. 47 NUMBER WITH STORM DOOR OR INSULATING GLASS</th>
<th>Q. 48 NUMBER OF STORM/INSULATING DOORS PUT IN SINCE SEPT. 1, 1985</th>
<th>Q. 49</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sliding glass doors</td>
<td>[ ] NONE 313</td>
<td>[ ] NONE 314</td>
<td></td>
</tr>
<tr>
<td>b. Other doors to the outside</td>
<td>[ ] NONE 320</td>
<td>[ ] NONE 321</td>
<td>[ ] IN PROCESS 322</td>
</tr>
</tbody>
</table>

TAKE BACK EXHIBIT 46

FOR EACH TYPE OF DOOR FOR WHICH ANSWER IS "ONE OR MORE," ASK:

47. (Does/How many of) the door(s) have a storm door/storm doors) or insulating glass?

FOR EACH TYPE OF STORM DOOR OR DOOR WITH INSULATING GLASS, ASK:

48. How many of the (storm/insulated glass) doors were put in your home since September 1, 1985? IF ONE OR MORE, ASK:

49. In what month and year (was it/were they) installed?

INTERVIEWER INSTRUCTIONS:

Q. 45-46 -- Count each pair of sliding glass doors as one door. Include doors that go to an unheated porch or garage. Do not include doors to a heated hallway in an apartment building, doors that are permanently sealed shut, or doors to an unheated attic or basement.

Q. 48 -- Count as "In Process" any work started but not yet completed. Do not count work done before this household moved in.
50. How many windows do you have in your home? Please include basement, attic, garage, and porch windows only if these areas are heated. (SEE INSTRUCTION BELOW.)

<table>
<thead>
<tr>
<th>Q. 50</th>
<th>Q. 51</th>
<th>Q. 52</th>
<th>Q. 53</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF WINDOWS</td>
<td>NUMBER WITH STORM WINDOWS OR INSULATING GLASS</td>
<td>NUMBER STORM WINDOWS PUT IN SINCE SEPT. 1, 1985</td>
<td>MONTH:</td>
</tr>
<tr>
<td>[] NONE</td>
<td>[] NONE</td>
<td>[] NONE</td>
<td>331-332</td>
</tr>
</tbody>
</table>

51. How many of the windows have storm windows or insulating glass? (SEE INSTRUCTION BELOW.)

IF ONE OR MORE WINDOWS WITH STORM WINDOWS OR INSULATING GLASS, ASK:

52. How many of the storm windows or windows with insulating glass were put in your home since September 1, 1985?

IF ONE OR MORE ASK:

53. In what month and year were they put in?

IF THE NUMBER OF WINDOWS IN Q. 50 IS GREATER THAN THE NUMBER OF WINDOWS WITH STORM WINDOWS OR INSULATING GLASS IN Q. 51, ASK:

54. You have mentioned that one or more of your windows does not have a storm window or insulating glass. For any of these windows without storm windows or insulating glass, do you use insulating drapes, plastic sheets or other protection?

IF "YES," ASK:

55. Thinking now only of your windows without storm windows or insulating glass, about how many windows have insulating drapes, plastic sheets or other protection?

INTERVIEWER INSTRUCTIONS:

Q. 50 -- Each window that opens separately should be counted as one window. Also count windows that are fixed in place. Do not include windows (glass panels) in doors.

Q. 51 -- Windows made of double glass and other types of insulating glass count the same as storm windows.

Q. 52 -- Count as "In Process" any work started but not yet completed. Do not count work done before this household moved in.
56. Do you have roof or ceiling insulation in your home?

1] YES
0] NO -- SKIP TO Q. 62
6] DON'T KNOW -- SKIP TO Q. 62

IF "YES," HAND RESPONDENT EXHIBIT 57 AND ASK:

57. About how much of the roof or ceiling area is insulated?

0] VERY LITTLE (LESS THAN 5%)
1] 1/4 (5 - 33%)
2] 1/2 (34 - 66%)
3] 3/4 (67 - 95%)
4] ALL (96 - 100%)

TURN TO EXHIBIT 58

58. This exhibit shows different kinds of insulation. Please tell me whether or not you have each one in your roof or ceiling area.

a. BATT/BLANKET
1] YES
0] NO
6] DON'T KNOW

b. LOOSE PARTICLES/LOOSE FILL
1] YES
0] NO
6] DON'T KNOW

c. FIRM FOAM/FIRM PLASTIC
1] YES
0] NO
6] DON'T KNOW

d. SPRAYED-IN FOAM
1] YES
0] NO
6] DON'T KNOW

e. OTHER (SPECIFY):
1] YES
0] NO
6] DON'T KNOW

FOR EACH "YES," ASK:

59. About how many inches of (INSULATION TYPE) do you have in your roof or ceiling area? ——————————————————————————

TAKE BACK EXHIBIT 58

60. Was any of the roof or ceiling insulation added or installed in your home since September 1, 1985?

INTERVIEWER: COUNT AS "IN PROCESS" ANY WORK STARTED BUT NOT YET COMPLETED. DO NOT COUNT ANY CHANGES MADE BEFORE THIS HOUSEHOLD MOVED IN.

1] YES
0] NO -- SKIP TO Q. 62
2] IN PROCESS -- SKIP TO Q. 62

IF "YES," ASK:

61. In what month and year was the work completed?

MONTH: _________
YEAR: 198

EIA 457B • 1987 Residential Energy Consumption Survey
62. Do you have insulation in all, some, or none of the outside walls of your home?  

<table>
<thead>
<tr>
<th></th>
<th>ALL</th>
<th>SOME</th>
<th>NONE</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2</td>
<td>[]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

IF "ALL" OR "SOME," ASK:

63. Was any of the insulation in the outside walls added or installed in your home since September 1, 1985?  

(SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>IN PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2</td>
<td>[]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

IF "YES," ASK:

64. In what month and year was the work completed?  

(SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)

<table>
<thead>
<tr>
<th>MONTH:</th>
<th>YEAR:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>198</td>
</tr>
</tbody>
</table>

HAND RESPONDENT EXHIBIT 65

65. Please look at this list and as I read each item, tell me which, if any, you have in your home:

<table>
<thead>
<tr>
<th>Q. 65 HAVE SOME IN HOME</th>
<th>Q. 66 INSTALLED SINCE SEPTEMBER 1, 1986</th>
<th>Q. 67 MONTH/YEAR INSTALLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Insulation in the basement or crawl space below the floor of your home</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
<tr>
<td>b. Insulation around heating and/or cooling ducts</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
<tr>
<td>c. Insulation around the hot water and/or cooling pipes</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
<tr>
<td>d. Insulation around the hot water heater</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
<tr>
<td>e. Caulking</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
<tr>
<td>f. Weather stripping around any windows or doors to the outside</td>
<td>1 [ ] YES</td>
<td>1 [ ] YES</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td>0 [ ] NO</td>
</tr>
<tr>
<td></td>
<td>6 [ ] DON'T KNOW</td>
<td>2 [ ] IN PROCESS</td>
</tr>
</tbody>
</table>

FOR EACH "YES" ON Q. 65, ASK:

66. Was any of the -- (SPECIFIED ITEM) -- added or installed since September 1, 1985?  

(SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)

IF "YES, ADDED OR INSTALLED SINCE SEPTEMBER 1, 1985," ASK:

67. In what month and year was the work completed?  

(SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)
68. Please look at this list and as I read each item tell me which, if any, have been added or installed in your home since September 1, 1985. (SEE INSTRUCTION AT BOTTOM OF PAGE.)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Q. 68</th>
<th>Q. 69</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. An automatic set-back or clock thermostat</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>b. Flame retention head burner for furnace (fuel oil)</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>c. Automatic flue door (vent damper)</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>d. Electrical or mechanical furnace ignition system (spark ignition)</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>e. Closeable shutters, insulating drapes, reflective film</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>f. Plastic sheets (over windows or other openings)</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>g. Heat pump</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
<tr>
<td>h. Wood-burning stove</td>
<td>1 [ ] YES</td>
<td>MONTH:</td>
</tr>
<tr>
<td></td>
<td>0 [ ] NO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 [ ] IN PROCESS</td>
<td></td>
</tr>
</tbody>
</table>

FOR EACH "YES," ASK:

69. In what month and year was the work completed? (SEE INSTRUCTION BELOW.)

TAKE BACK EXHIBIT 68

INTERVIEWER INSTRUCTIONS:

Was item added or installed since September 1, 1985 (Q. 63, 66, 68) -- Mark "Yes," "No," or "In Process" for each item. Count as "In Process" any work started but not yet completed. Do not count any changes made before this household moved in.

Month/year installed (Q. 64, 67, 69) -- If household has done item more than once, write down the most recent date.
70. Do you have a heated swimming pool, hot tub or Jacuzzi? (Do not count a children's wading pool as a swimming pool.)

If "yes" on heated swimming pool, hot tub or Jacuzzi, ask:

Hand respondent Exhibit 71

71. What fuel is used to heat the water?
(If more than one fuel is used, check fuel used most.)

Take back Exhibit 71
INTERVIEWER:
THIS IS A BLANK PAGE.
THERE ARE NO QUESTIONS 72-85.
GO TO NEXT PAGE.
These next questions are about household appliances.

86. Do you have a refrigerator in your home that you use regularly or occasionally?  
  1 [ ] YES  
  0 [ ] NO -- SKIP TO Q. 89

IF "YES," ASK:

87. Do you have one refrigerator or more than one that is presently in use? (How many altogether?)  
  1 [ ] ONE  
  2 [ ] TWO  
  3 [ ] THREE OR MORE

ASK ABOUT EACH REFRIGERATOR -- FIRST ASK ABOUT REFRIGERATOR USED MOST: (SEE INSTRUCTION BELOW.)

HAND RESPONDENT EXHIBIT 88

88. Which of these best describes your refrigerator? (MARK ONE)

- Freezer section (or ice cube section) must be defrosted periodically
- Freezer section defrosts automatically after frost builds up (catch pan must be emptied)
- Full frost-free (frost does not build up)
- No working freezer section

TAKE BACK EXHIBIT 88

INTERVIEWER INSTRUCTIONS:

Q. 88 -- If respondent has more than two refrigerators, ask about two used most.
89. Thinking of all the different kinds of cooking done here, including cooking in the oven, on a range, and with small appliances, which fuel is used most?

- 01 [ ] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
- 02 [ ] LPG GAS (BOTTLED OR TANK GAS)
- 03 [ ] FUEL OIL
- 04 [ ] KEROSENE OR COAL OIL
- 05 [ ] ELECTRICITY
- 06 [ ] COAL OR COKE
- 07 [ ] WOOD
- 21 [ ] OTHER (SPECIFY): ________

00 [ ] NO COOKING DONE -- SKIP TO Q. 91

TURN TO EXHIBIT 90

90. Which of these are used for cooking here in your (house/apartment)?

- ELECTRIC STOVE-TOP OR ELECTRIC BURNERS
  - 1 [ ] YES  0 [ ] NO  663
- GAS STOVE-TOP OR GAS BURNERS
  - 1 [ ] YES  0 [ ] NO  664
- MICROWAVE OVEN
  - 1 [ ] YES  0 [ ] NO  665
- ELECTRIC OVEN OTHER THAN MICROWAVE
  - 1 [ ] YES  0 [ ] NO  666
- GAS OVEN
  - 1 [ ] YES  0 [ ] NO  667
- OUTDOOR GAS GRILL (USING GAS FROM UNDERGROUND PIPES)
  - 1 [ ] YES  0 [ ] NO  668
- OUTDOOR GAS GRILL (USING LPG-BOTTLED OR TANK GAS)
  - 1 [ ] YES  0 [ ] NO  669
91. Please look at this list and, as I read each item, tell me which of these you use here in your (house/apartment)? (INTERVIEWER: READ AND MARK “YES” or “NO” FOR EACH ITEM).

- AUTOMATIC CLOTHES WASHER
- WRINGER WASHING MACHINE (ELECTRIC)
- ELECTRIC DISHWASHER
- ELECTRIC CLOTHES DRYER
- GAS CLOTHES DRYER
- OUTDOOR GAS LIGHT
- ELECTRIC DEHUMIDIFIER
- ELECTRIC HUMIDIFIER
- EVAPORATIVE COOLER (SWAMP COOLER)
- "WHOLE HOUSE" COOLING FAN (IN ATTIC OR ENTRANCE TO ATTIC)
- WINDOW OR CEILING FAN
- ELECTRIC BLANKET
- WATER BED WITH HEATER
- FROST FREE FREEZER (SEPARATE APPLIANCE FROM REFRIGERATOR)
- MANUAL DEFROST FREEZER (SEPARATE APPLIANCE FROM REFRIGERATOR)
- BLACK AND WHITE TELEVISION SET
- COLOR TELEVISION SET

IF "YES," FOR BLACK AND WHITE TV SET, ASK:
92. How many black and white television sets do you use here in your home?

IF "YES," FOR COLOR TV SET, ASK:
93. How many color television sets do you use here in your home?

TAKE BACK EXHIBIT 91. HAND RESPONDENT EXHIBIT 94.

94. Do you have any other kinds of equipment that use a lot of energy that we have not mentioned?

IF "YES" ON Q. 94, ASK:
95. Please describe the equipment and how you use it.

TAKE BACK EXHIBIT 94
96. Now I have some questions about the people who live here. Please tell me who they are, just in relation to (HOUSEHOLDER). I would also like to know their ages on their last birthdays. Please begin with (HOUSEHOLDER). (SEE INSTRUCTIONS BELOW.)

<table>
<thead>
<tr>
<th>PERSON NUMBER</th>
<th>WHO IS RESPONDENT?</th>
<th>RELATIONSHIP TO HOUSEHOLDER</th>
<th>SEX</th>
<th>AGE</th>
<th>Q. 101 - EMPLOYMENT (AGE 14+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOUSEHOLDER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>3</td>
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<td>5</td>
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<td>11</td>
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</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I have listed (READ RELATIONSHIPS FROM Q. 96 ABOVE). Have I missed . . . . . .

97. Any babies or small children?  [ ] YES (ADD TO LISTING)  [ ] NO

98. Any lodgers, boarders, or persons in your employ who live here?  [ ] YES (ADD TO LISTING)  [ ] NO

99. Anyone who usually lives here but is away traveling or in the hospital? (SEE INSTRUCTION BELOW.)  [ ] YES (ADD TO LISTING)  [ ] NO

100. Anyone else staying here who does not have a regular residence elsewhere?  [ ] YES (ADD TO LISTING)  [ ] NO

FOR OFFICE USE ONLY:

INTERVIEWER INSTRUCTIONS:

In general, the householder is the person (or one of the persons) in whose name the home is owned or rented.

For questions on this and the following pages, where the term "HOUSEHOLDER" is inserted, use the appropriate designation -- you, your husband, wife, partner -- depending on who is the householder and whom you are interviewing.

Q. 96 -- Be sure to list relationships, not names. Include members of a second family that share the housing unit. Check box to indicate which household member is the respondent.

Q. 99 -- Persons who are normally members of the household but who are now living away from home (e.g., college students or members of the Armed Forces) should not be listed.
102. Does another family share your home with you? 1 [] YES (SEE INSTRUCTION BELOW.) 0 [] NO

INTERVIEWER: MARK ANSWER. ASK, IF NECESSARY.

HOUSEHOLDER'S MARITAL STATUS 103. Which of the following best describes (HOUSEHOLDER): now married, widowed, divorced or separated, or never married? 1 [] NOW MARRIED 2 [] WIDOWED 3 [] DIVORCED OR SEPARATED 4 [] NEVER MARRIED

HAND RESPONDENT EXHIBIT 104

104. Which of the groups on this exhibit best describes (HOUSEHOLDER)? 1 [] WHITE 2 [] BLACK OR NEGRO 3 [] AMERICAN INDIAN, ALASKAN NATIVE 4 [] ASIAN, PACIFIC ISLANDER 5 [] OTHER (SPECIFY): 

TAKE BACK EXHIBIT 104

105. Is (HOUSEHOLDER) of Spanish or Hispanic origin or descent? 1 [] YES 0 [] NO

INTERVIEWER INSTRUCTIONS:

Q.102 -- If answer is "YES," check whether the additional family (or unrelated individual) has a separate room or apartment that is defined by our rules as separate living quarters. Separate living quarters are those in which the occupants (1) live and eat separately from other persons in building, and (2) have direct access from outside the building or through a common hall.

Separate living quarters should be listed separately on your housing unit address list for this location. See sampling instructions as to whether an additional interview should be completed.

If the second family's space does meet the rules for separate living quarters, that space should be excluded from the information obtained in this interview. Go back over this interview to make corrections if necessary.

If the second family's space does not meet the definition of separate living quarters, be sure that the members of the second family are included in the list of household members in Q. 96
I have just a few questions for background statistical purposes.

106. What is the highest grade (or year) (HOUSEHOLDER) attended in school?

- 00 [ ] NEVER ATTENDED SCHOOL
- 01 [ ] FIRST
- 02 [ ] SECOND
- 03 [ ] THIRD
- 04 [ ] FOURTH
- 05 [ ] FIFTH
- 06 [ ] SIXTH
- 07 [ ] SEVENTH
- 08 [ ] EIGHTH
- 09 [ ] NINTH
- 10 [ ] TENTH
- 11 [ ] ELEVENTH
- 12 [ ] TWELFTH

SKIP TO Q. 108

COLLEGE (ACADEMIC YEARS)

- 13 [ ] C1
- 14 [ ] C2
- 15 [ ] C3
- 16 [ ] C4
- 17 [ ] C5
- 18 [ ] C6 OR MORE

107. Did (HOUSEHOLDER) finish that grade (or year)?

- 1 [ ] YES
- 0 [ ] NO

HAND RESPONDENT EXHIBIT 108

108. In the past 12 months, did you or any member of your family living here receive any income or benefits from: (INTERVIEWER: READ AND MARK "YES" OR "NO" FOR EACH ITEM.)

a. Wages or salaries.................. 1 [ ] YES 0 [ ] NO
b. Self-employment from business or farm...... 1 [ ] YES 0 [ ] NO
c. Aid to Families with Dependent Children (AFDC).................. 1 [ ] YES 0 [ ] NO
d. Supplemental Security Income (SSI)...... 1 [ ] YES 0 [ ] NO
e. General Assistance or other public assistance.......................... 1 [ ] YES 0 [ ] NO
f. Food Stamps.................................. 1 [ ] YES 0 [ ] NO
g. Social Security or Railroad Retirement... 1 [ ] YES 0 [ ] NO
h. Unemployment compensation.............. 1 [ ] YES 0 [ ] NO
24

TURN TO EXHIBIT 109

109. Now let's look at this list of income groups. Please tell me which group letter best describes the total combined income in the last 12 months of all members of your family living here, from all sources -- wages, dividends, Social Security, and so forth -- before taxes and deductions. (Family includes all related persons living in this household.)

CIRCLE LETTER FOR INCOME GROUP

<table>
<thead>
<tr>
<th>Group Letter</th>
<th>Income Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Less than $3,000</td>
</tr>
<tr>
<td>B</td>
<td>$3,000 - $3,999</td>
</tr>
<tr>
<td>C</td>
<td>$4,000 - $4,999</td>
</tr>
<tr>
<td>D</td>
<td>$5,000 - $5,999</td>
</tr>
<tr>
<td>E</td>
<td>$6,000 - $7,499</td>
</tr>
<tr>
<td>F</td>
<td>$7,500 - $8,999</td>
</tr>
<tr>
<td>G</td>
<td>$9,000 - $9,999</td>
</tr>
<tr>
<td>H</td>
<td>$10,000 - $10,999</td>
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<tr>
<td>I</td>
<td>$11,000 - $12,499</td>
</tr>
<tr>
<td>J</td>
<td>$12,500 - $13,999</td>
</tr>
<tr>
<td>K</td>
<td>$14,000 - $14,999</td>
</tr>
<tr>
<td>L</td>
<td>$15,000 - $17,499</td>
</tr>
<tr>
<td>M</td>
<td>$17,500 - $19,999</td>
</tr>
<tr>
<td>N</td>
<td>$20,000 - $22,499</td>
</tr>
<tr>
<td>O</td>
<td>$22,500 - $24,999</td>
</tr>
<tr>
<td>P</td>
<td>$25,000 - $27,499</td>
</tr>
<tr>
<td>Q</td>
<td>$27,500 - $29,999</td>
</tr>
<tr>
<td>R</td>
<td>$30,000 - $32,499</td>
</tr>
<tr>
<td>S</td>
<td>$32,500 - $34,999</td>
</tr>
<tr>
<td>T</td>
<td>$35,000 - $39,999</td>
</tr>
<tr>
<td>U</td>
<td>$40,000 - $49,999</td>
</tr>
<tr>
<td>V</td>
<td>$50,000 - $57,499</td>
</tr>
<tr>
<td>W</td>
<td>$60,000 - $69,999</td>
</tr>
</tbody>
</table>

TAKE BACK EXHIBIT 109

IF ANSWER TO Q.109 IS GROUP R THROUGH W (INCOME $30,000 OR OVER), SKIP TO Q. 115 ON PAGE 26.
IF ANSWER TO Q.109 IS GROUP A THROUGH Q (INCOME UNDER $30,000), "DON'T KNOW", OR "REFUSED", CONTINUE WITH Q. 110.

HAND RESPONDENT EXHIBIT 110

110. Between October 1, 1986, and September 30, 1987, did your household receive any of the following services free or at reduced cost from the federal, state, or local government? (INTERVIEWER: READ AND MARK "YES" OR "NO" FOR EACH ITEM.)

a. Insulation in the attic, outside wall, or basement/crawl space below the floor of the house 1 [ ] YES 0 [ ] NO 921
b. Insulation around the hot water heater 1 [ ] YES 0 [ ] NO 922
c. Repair of broken windows or doors to keep out the cold or hot weather 1 [ ] YES 0 [ ] NO 923
d. Weather stripping or caulking around any windows or doors to the outside 1 [ ] YES 0 [ ] NO 924
e. Storm doors or windows added 1 [ ] YES 0 [ ] NO 925
f. Repair of broken furnace 1 [ ] YES 0 [ ] NO 926
g. Furnace tuneup and/or modifications 1 [ ] YES 0 [ ] NO 927
h. Other home energy-saving devices (Specify): 1 [ ] YES 0 [ ] NO 928
TURN TO EXHIBIT 111

111. The government has a home energy assistance program that helps pay heating and cooling costs. This assistance can be received directly by the household or it can be paid directly to the electric or gas company or fuel dealer.

Between October 1, 1986 and September 30, 1987 did your household receive government energy assistance (either directly or through the utility company or fuel dealer) for any of the following: (INTERVIEWER: READ AND MARK "YES" OR "NO" FOR EACH ITEM).

111a. Help in paying home heating costs .............. [ ] YES 0 [ ] NO

111b. Help in paying home cooling costs .............. [ ] YES 0 [ ] NO

111c. Help in paying other home energy costs. ........ [ ] YES 0 [ ] NO

IF "YES" ON Q. 111c, ASK:
112. Please describe this other assistance.

IF "YES" ON Q. 111a (ASSISTANCE TO HELP PAY HOME HEATING COSTS), TURN TO EXHIBIT 113 AND ASK:

113. Were heating assistance payments made in the form of checks, coupons, or vouchers sent to this household or were the payments sent directly to the utility company or fuel dealer? (INTERVIEWER: READ AND MARK "YES" OR "NO" FOR EACH ITEM).

a. Check to household .............. [ ] YES 0 [ ] NO

b. Coupon/voucher to household. .............. [ ] YES 0 [ ] NO

c. Assistance sent directly to electric or gas company, or fuel dealer .............. [ ] YES 0 [ ] NO

114. Altogether, how much government energy assistance to help pay heating costs has been provided directly to this household and/or provided on behalf of this household to a utility company or fuel dealer, between October 1, 1986 and September 30, 1987? (PROBE FOR BEST ESTIMATE). DOLLARS $________.00

TAKE BACK EXHIBITS
115. Do you or members of your household own your home or do you rent?

1 [ ] OWN (BUYING)
2 [ ] RENT -- SKIP TO Q. 118
3 [ ] OCCUPIED WITHOUT PAYMENT OF RENT -- SKIP TO Q. 120

IF "OWN (BUYING)," ASK:

116. Is this (house/apartment) part of a condominium or cooperative?

1 [ ] YES, CONDOMINIUM
2 [ ] YES, COOPERATIVE
3 [ ] NO

INTERVIEWER: THERE IS NO QUESTION 117

IF "RENT," ASK:

118. Is this residence in a public housing project -- that is, is it owned by a local housing authority?

1 [ ] YES -- SKIP TO Q. 120
2 [ ] NO
3 [ ] DON'T KNOW

IF "NO" OR "DON'T KNOW," ASK:

119. Are you paying lower rent because the federal, state, or local government is paying part of the cost?

1 [ ] YES
2 [ ] NO
3 [ ] DON'T KNOW
HAND RESPONDENT EXHIBIT 120

120. We may have covered some of these points before, but just to be sure, please look at this exhibit and tell me whether these fuels are used for these purposes in your household.

<table>
<thead>
<tr>
<th></th>
<th>USED</th>
<th>NOT USED</th>
<th>PAID BY HOUSEHOLD</th>
<th>INCLUDED IN RENT</th>
<th>OTHER (SPECIFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRICITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. FOR HOT WATER</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>947-948</td>
</tr>
<tr>
<td>b. FOR HEATING YOUR HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>949-950</td>
</tr>
<tr>
<td>c. FOR AIR-CONDITIONING (CENTRAL OR WINDOW/WALL UNITS)</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>951-952</td>
</tr>
<tr>
<td>d. FOR COOKING</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>953-954</td>
</tr>
<tr>
<td>e. FOR LIGHTING AND OTHER APPLIANCES</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>955-956</td>
</tr>
<tr>
<td><strong>GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. FOR HOT WATER</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>957-958</td>
</tr>
<tr>
<td>g. FOR HEATING YOUR HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>959-960</td>
</tr>
<tr>
<td>h. FOR CENTRAL AIR-CONDITIONING</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>961-962</td>
</tr>
<tr>
<td>i. FOR COOKING INSIDE HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>963-964</td>
</tr>
<tr>
<td>j. FOR COOKING ON OUTDOOR GRILL</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>965-966</td>
</tr>
<tr>
<td>k. FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>967-968</td>
</tr>
<tr>
<td><strong>LPG GAS (BOTTLED OR TANK GAS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. FOR HOT WATER</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>969-970</td>
</tr>
<tr>
<td>m. FOR HEATING YOUR HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>971-972</td>
</tr>
<tr>
<td>n. FOR CENTRAL AIR-CONDITIONING</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>973-974</td>
</tr>
<tr>
<td>o. FOR COOKING INSIDE HOME</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>975-976</td>
</tr>
<tr>
<td>p. FOR COOKING ON OUTDOOR GRILL</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>977-978</td>
</tr>
<tr>
<td>q. FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>979-980</td>
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<tr>
<td><strong>FUEL OIL</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>r. FOR HOT WATER</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1007-1008:10</td>
</tr>
<tr>
<td>s. FOR HEATING YOUR HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1011-1012</td>
</tr>
<tr>
<td>t. FOR COOKING AND OTHER USES</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1013-1014</td>
</tr>
<tr>
<td><strong>KEROSENE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>u. FOR HOT WATER</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1015-1016</td>
</tr>
<tr>
<td>v. FOR HEATING YOUR HOME</td>
<td>2 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1017-1018</td>
</tr>
<tr>
<td>w. FOR COOKING AND OTHER USES</td>
<td>1 []</td>
<td>0 []</td>
<td>1 []</td>
<td>2 [] 5 []</td>
<td>1019-1020</td>
</tr>
</tbody>
</table>

FOR EACH USE OF EACH FUEL, ASK:

121. Is that paid for by your household, included in your rent, or do you get it some other way?

TAKE BACK EXHIBIT 120

IF GAS FROM UNDERGROUND PIPES IS NOT USED, ASK Q. 122. OTHERWISE, SKIP TO INSTRUCTION AT TOP OF NEXT PAGE.

122. Is gas from underground pipes available in this neighborhood?  1 [] YES  0 [] NO  6 [] DON'T KNOW
123. A budget plan is a plan under which the utility company or fuel dealer and household agree that the household will pay the same amount for fuel each month for a number of months. Is your household on a budget plan for the main fuel used to heat your home?

[ ] YES
[ ] NO

(INTERVIEWER: THERE IS NO QUESTION 124.)

TURN TO EXHIBIT 125/126

125. Do any of your household fuel bills include costs of fuel used for purposes other than for your own living quarters, such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

[ ] YES
[ ] NO

IF "YES," ASK:

126. For which of the purposes listed on the exhibit are costs of fuel included in your household fuel bills?

(INTERVIEWER: MARK ALL THAT APPLY.)

[ ] FARM BUILDINGS OR MACHINERY
[ ] THE HOUSE OR APARTMENT OF ANOTHER HOUSEHOLD
[ ] A BUSINESS OR OFFICE
[ ] OTHER PURPOSES (SPECIFY): _______________
IF "YES" ON Q. 125, CONTINUE BELOW

127. Which fuel bills include costs of fuel used for purposes other than your own living quarters? (MARK AS MANY AS APPLY.)

TURN TO EXHIBIT 128/132

IF "ELECTRICITY" ON Q. 127, ASK:

128. Over the period of a year, about how much of your household's electricity bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "GAS FROM UNDERGROUND PIPES" ON Q. 127, ASK:

129. Over the period of a year, about how much of your household's gas bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "LPG GAS" ON Q. 127, ASK:

130. Over the period of a year, about how much of your household's LPG bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "FUEL OIL" ON Q. 127, ASK:

131. Over the period of a year, about how much of your household's fuel oil bill is used for non-household uses such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "KEROSENE" ON Q. 127, ASK:

132. Over the period of a year, about how much of your household's kerosene bill is used for non-household uses, such as farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

TAKE BACK EXHIBIT 128/132
IF HOUSEHOLD USES AND PAYS FOR LP6 GAS (SEE QUESTIONS 120-121 PARTS 1-q), ASK Q. 133ff., OTHERWISE, SKIP TO INSTRUCTION FOR Q. 136.

133. About how many deliveries of LP6 does your household usually get in a year?

NUMBER OF DELIVERIES: \[1045-1046\]

94[ ] CASH AND CARRY, PICK UP AT STORE
95[ ] LIVED HERE LESS THAN 1 YEAR

134. Did you buy LP6 for this (house/apartment) in the past 12 months from one company or from more than one company?

1[ ] ONE COMPANY
2[ ] MORE THAN ONE COMPANY

IF "MORE THAN ONE COMPANY," ASK:

135. How many different companies?

2[ ] TWO
3[ ] THREE
4[ ] FOUR OR MORE

IF HOUSEHOLD USES AND PAYS FOR FUEL OIL (SEE QUESTIONS 120-121 PARTS r-t), ASK Q. 136, OTHERWISE, SKIP TO INSTRUCTION FOR Q. 140.

136. About how many deliveries of fuel oil does your household usually get in a year?

NUMBER OF DELIVERIES: \[1049-1050\]

94[ ] CASH AND CARRY, PICK UP AT STORE
95[ ] LIVED HERE LESS THAN 1 YEAR

137. Did you buy fuel oil for this (house/apartment) in the past 12 months from one company or from more than one company?

1[ ] ONE COMPANY
2[ ] MORE THAN ONE COMPANY

IF "MORE THAN ONE," ASK:

138. How many different companies?

2[ ] TWO
3[ ] THREE
4[ ] FOUR OR MORE

HAND RESPONDENT EXHIBIT 139

139. About how much fuel oil does household use in a year -- which of these groups would it be, just approximately? PROBE FOR BEST ESTIMATE.

1[ ] LESS THAN 100 GALLONS PER YEAR
2[ ] 100-499 GALLONS PER YEAR
3[ ] 500-999 GALLONS PER YEAR
4[ ] 1000 OR MORE GALLONS PER YEAR

TAKE BACK EXHIBIT 139
IF HOUSEHOLD USES AND PAYS FOR KEROSENE (SEE QUESTIONS 120-121 PARTS u-w), ASK Q. 140ff. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 144.

140. During the past 12 months, did you have kerosene delivered to your home, did you buy it and bring it home, or did you get kerosene both ways? (MARK ALL THAT APPLY).

140a. How many different companies or stores delivered kerosene to your home in the past 12 months?

140b. About how much per gallon did you pay for kerosene, on the average?

141. How many times in the past 12 months did you (have kerosene delivered/buy kerosene)?

142. On the average, about how many gallons of kerosene did you (have delivered/buy) each time?

143. Altogether, about how many gallons of kerosene did you (have delivered/buy) during the past 12 months?

143a. Using this card, can you tell me which group best describes the amount of kerosene your household used in the past 12 months? PROBE FOR BEST ESTIMATE.

TAKE BACK EXHIBIT 143
CONTINUE IF ANY ELECTRIC, GAS (FROM UNDERGROUND PIPES OR LPG), FUEL OIL, OR KEROSENE BILLS ARE PAID BY HOUSEHOLD. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 147.

144. In addition to the types of fuel you use, we are interested in the quantities used and in the amount that people pay for electricity, gas, fuel oil, or kerosene in different parts of the United States.

I have a form that would authorize the companies that supply your household to provide that information to Response Analysis Corporation. The authorization applies to the period from September 1986 through December 1990.

Since this study is being done nationwide, it will give a good picture of the differences in fuel cost and usage all over the country. The information is needed to help establish important national energy policies.

INTERVIEWER: REMOVE THE AUTHORIZATION FORM FROM THE QUESTIONNAIRE AND HAND TO RESPONDENT. EITHER YOU OR RESPONDENT SHOULD FILL IN THE NAME(S) OF COMPANIES. IF MORE THAN ONE LPG OR FUEL OIL OR KEROSENE COMPANY HAS BEEN USED SINCE SEPTEMBER 1, 1986, FILL IN ADDITIONAL COMPANY NAMES ON OTHER SIDE OF FORM. PLEASE PRINT.

1. [ ] AUTHORIZATION FORM SIGNED
0. [ ] AUTHORIZATION FORM NOT SIGNED -- INTERVIEWER, EXPLAIN BELOW:

1. [ ] AUTHORIZATION FORM SIGNED
0. [ ] AUTHORIZATION FORM NOT SIGNED -- INTERVIEWER, EXPLAIN BELOW:

145. Do your fuel bills come addressed to (NAME OF SAME NAME -- SKIP TO Q. 146 SIGNATURE ON AUTHORIZATION FORM), or are they in another name?

IF BILL IS IN ANOTHER NAME, ASK:

145a. What is that name and address:

BILLING NAME: __________
STREET ADDRESS: __________
CITY AND STATE: __________
ZIP CODE: __________

146. Would it be possible for you to give me your customer number at your electric/gas company? This number is on your bills from the company.

ELECTRIC COMPANY -- CUSTOMER NUMBER: ______________________________
[ ] NOT AVAILABLE/REFUSED

GAS (FROM UNDERGROUND PIPES) -- CUSTOMER NUMBER: ______________________________
[ ] NOT AVAILABLE/REFUSED
THE AUTHORIZATION FORM IS TO BE FILLED OUT AT THIS POINT IN THE INTERVIEW. USE THE SEPARATE FORM THAT IS INSERTED IN THE QUESTIONNAIRE.
147. We may be needing some additional information about fuels used in this building (house). May I have the name of the person or company to whom you pay rent or who is responsible for paying the fuel bills for this building (house)?

NAME: _________________________________________________________________

TELEPHONE NUMBER: (AREA CODE: ______) ___________________________

STREET ADDRESS: __________________________________________________

CITY OR TOWN/STATE/ZIP CODE: ________________________________

148. For interview verification purposes, may I have your name, phone number, and mailing address please?

RESPONDENT'S NAME: ____________________________

TELEPHONE NUMBER: (AREA CODE: ______) ___________________________

STREET ADDRESS: _________________________________

CITY OR TOWN/STATE/ZIP CODE: ________________________________

IF APARTMENT, MOBILE HOME/TRAILER COMPLEX AND THE NAME OF THE COMPLEX IS NOT INCLUDED IN THE ADDRESS ABOVE, ASK:

149. Does this (building/development/complex/park) have a name? [] YES [] NO

IF "YES," ASK:

150. What is the name?

NAME: ________________________________
ASK EVERYONE

Now some questions about cars.

151. How many members of your household can drive a car?

HAND RESPONDENT EXHIBIT 152

152. Do you or other members of your household own or have the regular use of any cars, trucks, vans, or similar vehicles? (DO NOT INCLUDE MOTORCYCLES OR MOPEDS. SEE INSTRUCTION BELOW.)

IF "YES," ASK:

153. How many do you have?

ASK ABOUT EACH VEHICLE.

154. Which type(s) do you have? (SEE INSTRUCTION BELOW.)

<table>
<thead>
<tr>
<th>VEHICLE NUMBER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD PASSENGER CAR</td>
<td>01 []</td>
<td>01</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>2-SEAT CAR</td>
<td>02 []</td>
<td>02</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>STATION WAGON</td>
<td>03 []</td>
<td>03</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>LARGE VAN</td>
<td>04 []</td>
<td>04</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>MINI VAN</td>
<td>05 []</td>
<td>05</td>
<td>05</td>
<td>05</td>
</tr>
<tr>
<td>PICKUP TRUCK</td>
<td>06 []</td>
<td>06</td>
<td>06</td>
<td>06</td>
</tr>
<tr>
<td>JEEP OR SIMILAR VEHICLE</td>
<td>07 []</td>
<td>07</td>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td>OTHER (SPECIFY:)</td>
<td>21 []</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

TAKE BACK EXHIBIT 152

155. Please tell me the make and model name (of each one). (SEE INSTRUCTION BELOW.)

<table>
<thead>
<tr>
<th>MAKE</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL NAME</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

156. What is the model year (of each one)? (ENTER LAST 2 DIGITS OF MODEL YEAR)

| MODEL YEAR | 19 | 19 | 19 | 19 |

INTERVIEWER INSTRUCTIONS:

Q.152 -- "Regular use" means keeping the vehicle at home.

Q.154 -- If household has more than four vehicles, mark answers for the four vehicles used most.

Q.155 -- A model name may consist of several parts -- be sure to get the complete model name. Here are some examples, where the complete model name is in parentheses: Ford (Galaxie), Chevrolet (V10 Suburban), GMC (V15 Jimmy), Toyota (2WD Cargo Van). If respondent does not know the model name of a truck, probe for size (1/2 ton, 3/4 ton, etc.)
CONTINUE IF ONE OR MORE VEHICLES ON Q. 153; OTHERWISE SKIP TO Q. 165

ASK Q's. 157-164 FIRST ABOUT FIRST VEHICLE, THEN SECOND VEHICLE, THIRD, AND FOURTH; REPEAT MAKE AND MODEL OF EACH VEHICLE.

USE COLUMNS FOR VEHICLE NUMBERS CORRESPONDING TO THOSE ON PRECEDING PAGE

These next questions are about your (MAKE & MODEL 1/ MAKE & MODEL 2/ MAKE & MODEL 3/ MAKE & MODEL 4.)

<table>
<thead>
<tr>
<th>Vehicle Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>538</td>
<td></td>
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<td>561</td>
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</tr>
<tr>
<td>642</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

157. Did you get this vehicle within the past 12 months or did you have it before that?

- WITHIN PAST 12 MONTHS
  - Ask Q. 158
  - YES: [ ]
  - NO: [ ]

- HAD IT MORE THAN 12 MONTHS
  - Skip to Q. 160
  - YES: [ ]
  - NO: [ ]

158. In what month and year did you get it?

- MONTH
  - 198

- YEAR
  - 198

159. Approximately how many miles has it been driven since you have had it?

- MILES
  - 543-547
  - 566-570
  - 624-628
  - 647-651
  - DON'T KNOW: [ ]

160. Approximately how many miles was it driven during the past 12 months?

- MILES
  - 548-552
  - 571-575
  - 629-633
  - 652-656
  - DON'T KNOW: [ ]

161. I would like to obtain the odometer reading and Vehicle Identification Number for this vehicle -- directly from the vehicle. Is the vehicle available right now so that we may get this information?

- YES
  - [ ]

- CHECK HERE AND ASK Q. 164
  - [ ]

- NO
  - [ ]

GO TO NEXT PAGE AND ASK Q's 162-163

INSPECT EACH VEHICLE MARKED "YES" ON Q. 161 AFTER YOU COMPLETE HOUSE MEASUREMENTS IN Q's 180-184.
162. Do you know approximately what the odometer reading is for this vehicle?  
HAND RESPONDENT EXHIBIT 163.

163. I would still like to record the Vehicle Identification Number for this vehicle. Do you know what a Vehicle Identification Number is? (IF DON'T KNOW, EXPLAIN VIN.) What is the Vehicle Identification Number for this vehicle? (SEE INSTRUCTIONS BELOW.)

INTERVIEWER: REPORT HERE IF VIN REFUSED FOR ONE OR MORE VEHICLES. EXPLAIN RESPONDENT REACTION OR REASON FOR REFUSING VIN.

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
<th>ODOMETER KNOWN (ESTIMATED ODOMETER READING)</th>
<th>VIN:</th>
<th>VIN OBTAINED</th>
<th>VIN NOT OBTAINED</th>
<th>VIN REFUSED</th>
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INTERVIEWER INSTRUCTIONS:

Q. 163 -- Explain what the VIN is if respondent does not know.

If respondent questions need for VIN, say:
"The VIN is a set of codes assigned to a vehicle at the factory that, when decoded, describes several of the vehicle's characteristics. These characteristics may then be used to calculate an estimated miles per gallon for that specific type of vehicle."

Review the exhibit card of possible VIN locations. Record the VIN and verify for correctness.
RECORD VEHICLE INSPECTION(S) BELOW.

If "YES" on Q. 161, skip this page (Q. 164) for now. Ask Q. 157 for next vehicle (if no other vehicles, skip to Q. 165).
After completing Qs. 165-179 and the measurement procedure in Qs. 180-184, inspect all vehicles marked "YES" on Q. 161. Record vehicle inspection(s) below.

### InterViewer Instructions:

Q. 164 -- If respondent questions need for VIN, say:

"The VIN is a set of codes assigned to a vehicle at the factory that, when decoded, describes several of the vehicle's characteristics. These characteristics may then be used to calculate an estimated miles per gallon for that specific type of vehicle."

Record VIN from the vehicle itself whenever possible. If VIN cannot be found on the vehicle, show Exhibit 163 (VIN LOCATIONS CARD), and attempt to secure VIN from one of these document sources.
165. INTERVIEWER: MARK TYPE OF HOUSING UNIT

1 [ ] MOBILE HOME OR TRAILER -- SKIP TO Q. 169
2 [ ] ONE-FAMILY HOUSE
   1 [ ] ONE STORY - IF ONE-FAMILY HOUSE, MARK STYLE BASED ON GENERAL APPEARANCE FROM OUTSIDE
   2 [ ] TWO STORY
   3 [ ] THREE STORY
   4 [ ] SPLIT-LEVEL
   5 [ ] OTHER (SPECIFY):
3 [ ] HOUSE OR BUILDING WITH 2 TO 4 UNITS -- SKIP TO Q. 172
4 [ ] APARTMENT BUILDING OR OTHER STRUCTURE WITH 5 OR MORE UNITS -- SKIP TO Q. 175

CONTINUE IF ONE-FAMILY HOUSE

166. Do you have a garage attached to your living space or under your house?

IF "YES" ON Q. 166, ASK:

167. Can the garage be heated during the winter months?

IF "YES" ON Q. 167, HAND RESPONDENT EXHIBIT 168 AND ASK:

168. How frequently is the garage heated during the winter months?

1 [ ] YES
0 [ ] NO -- SKIP TO Q. 169

4 [ ] ALWAYS
3 [ ] USUALLY
2 [ ] OCCASIONALLY
1 [ ] ALMOST NEVER
0 [ ] NEVER
5 [ ] OTHER (SPECIFY):

TAKE BACK EXHIBIT 168

CONTINUE WITH Q. 169 ON NEXT PAGE
IF ONE-FAMILY HOUSE OR MOBILE HOME, ASK Q. 169.

HAND RESPONDENT EXHIBIT 169

169. Does your home have a basement, an enclosed crawl space, a crawl space open to the outside, a concrete slab, or a combination of these?

1 [] BASEMENT
2 [] CRAWL SPACE -- ENCLOSED
3 [] CRAWL SPACE -- OPEN TO THE OUTSIDE
4 [] CONCRETE SLAB -- SKIP TO Q. 175
5 [] COMBINATION (MARK ALL THAT APPLY.)

[] BASEMENT
[] CRAWL SPACE -- ENCLOSED
[] CRAWL SPACE -- OPEN TO THE OUTSIDE
[] CONCRETE SLAB

TAKE BACK EXHIBIT 169

IF "BASEMENT," "CRAWL SPACE," OR "COMBINATION," ASK:

170. About how much of the basement or crawl space would you say is warm enough to sit, work or play in during the winter months -- all, part, or none?

1 [] ALL -- SKIP TO Q. 175
2 [] PART
0 [] NONE

IF "PART," OR "NONE," HAND RESPONDENT EXHIBIT 171 AND ASK:

171. About how much of the floor area above the unheated basement or crawl space is insulated?

0 [] NONE, VERY LITTLE (LESS THAN 5%)
1 [] 1/4 (5 - 33%)
2 [] 1/2 (34 - 66%)
3 [] 3/4 (67 - 95%)
4 [] ALL (96 - 100%)
6 [] DON'T KNOW

TAKE BACK EXHIBIT 171 -- SKIP TO Q. 175
IF THIS IS A BUILDING WITH 2 TO 4 HOUSING UNITS, ASK Q. 172 OTHERWISE, SKIP TO Q. 175.

172. Does this building have a basement?

   1[ ] YES
   0[ ] NO -- SKIP TO Q. 175

   IF "YES," ASK:

173. Is any part of the basement for the exclusive or primary use of your household?

   1[ ] YES
   0[ ] NO -- SKIP TO Q. 175

   IF "YES," ASK:

174. Thinking of the basement space used by your household -- about how much of that space is warm enough to sit, work or play in during the winter months -- all, part, or none?

   1[ ] ALL
   2[ ] PART
   0[ ] NONE

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HAND RESPONDENT EXHIBIT 175

175. Since September 1984, have any of the kinds of things listed on this exhibit been done to your home -- that is, anything that has either increased or decreased the total number of square feet of space, or that has changed the number of square feet of heated space?

IF "YES", ON Q. 175 ASK:

176. Did the total number of square feet of space increase, decrease, or remain the same?

1 [] INCREASED
2 [] DECREASED
3 [] REMAINED THE SAME

177. Did the amount of heated space increase, decrease, or remain the same?

1 [] INCREASED
2 [] DECREASED
3 [] REMAINED THE SAME

178. Please give me a description of the work that was done.

179. In what month and year was the work completed?

MONTH: __________
YEAR: 19__

TAKE BACK EXHIBIT 175
180. So far, we've been talking about things in your household that affect your energy use. What we need also is a measure of your year-round living space.

With your permission, I would like to measure your home. I can do it from the inside or the outside. With your home, I think it would be most accurate to do it on the (inside/outside).

**INTERVIEWER INSTRUCTIONS:**

In general, measure all parts of the housing unit enclosed from the weather.

**Basements or cellars**

Include basements or cellars in one-family houses.

Include basement space in buildings with 2 to 4 housing units, if it is for the exclusive or primary use of household for this interview. See Q. 173.

Exclude basements and cellars in buildings with 5 or more units.

Exclude crawl spaces.

**Attics**

Include attics if heated or finished.

Exclude attics if unheated and also unfinished.

**Garages, sheds, or barns**

Include garages if attached to house and enclosed from the weather.

Exclude garages, sheds, or barns if not attached to house or if open to the weather.

**Porches**

Include porches if enclosed from the weather.

Exclude porches if open to the weather.

**Buildings with 2 or more housing units:** Measure only the space used by household for this interview (do not measure the entire building).

**Unheated areas:** Within the housing unit that you measure, indicate unheated area(s) in the diagrams with lines. Give dimensions of unheated area(s).

---

USE BACKS OF MEASUREMENT PAGES FOR ADDITIONAL SPACE AS NEEDED, FOR SKETCHES AND MEASUREMENTS.
RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

[Diagram showing rectangular shape with options for full or half basement]

INTERVIEWER: HAVE YOU MARKED WITH LINES AND GIVEN DIMENSIONS OF UNHEATED AREAS IN DIAGRAM ABOVE?

[Diagram showing rectangular shape with options for full or half story]

INTERVIEWER: HAVE YOU MARKED WITH LINES AND GIVEN DIMENSIONS OF UNHEATED AREAS IN DIAGRAM ABOVE?

CONTINUE ON PAGE 47 FOR SECOND AND THIRD STORIES

FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>Fir Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
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</tbody>
</table>

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IF NO SECOND OR THIRD STORY TO MEASURE, GO TO Q. 181

RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

SECOND STORY MEASUREMENTS
- [ ] FULL STORY
- [ ] HALF STORY

RECTANGULAR SHAPE
DRAW DIAGRAM, IF OTHER THAN RECTANGULAR

INTERVIEWER: HAVE YOU MARKED WITH LINES AND GIVEN DIMENSIONS OF UNHEATED AREAS IN DIAGRAM ABOVE?

THIRD STORY MEASUREMENTS
- [ ] FULL STORY
- [ ] HALF STORY

RECTANGULAR SHAPE
DRAW DIAGRAM, IF OTHER THAN RECTANGULAR

INTERVIEWER: HAVE YOU MARKED WITH LINES AND GIVEN DIMENSIONS OF UNHEATED AREAS IN DIAGRAM ABOVE?

FOR OFFICE USE ONLY

<table>
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<th>Fir Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
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<td>3</td>
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</table>

Heated | Unheated | DK Htd/Unhtd
-------|----------|-----------------|
1246-1250 | 1251-1255 | 1256-1259

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181. One part of my task is to mark on my diagram any parts of your home that are not heated during the heating season.

TELL RESPONDENT WHAT PARTS OF HOME, IF ANY, YOU HAVE MARKED AS NOT HEATED DURING HEATING SEASON. THEN ASK:

Is that correct -- have I missed any unheated areas?

REVISE SKETCHES AS NECESSARY; THEN MARK APPROPRIATE BOX AT RIGHT.

INTERVIEWER INSTRUCTIONS:
DOUBLE-CHECK BASEMENTS AND GARAGES
- If the respondent reported an unheated basement (Q. 170 or 174), is it shaded in the drawing?
- If the respondent reported an unheated attached garage (Q. 167), is it shaded in the drawing?

182. INTERVIEWER: MARK BOX TO INDICATE HOW MEASUREMENTS WERE OBTAINED FOR (HOUSE/APARTMENT).

INTERVIEWER INSTRUCTIONS:
DOUBLE-CHECK MEASUREMENTS OBTAINED FROM PLANS OR FROM RESPONDENT ESTIMATES.
ESTIMATES SHOULD INCLUDE:
- Basements
- Attached garages
- Finished or heated attics
- Enclosed porches

ESTIMATES SHOULD EXCLUDE:
- Detached garages
- Attics that are unfinished and unheated
- Porches that are not permanently enclosed
- Areas under construction

0[] NO UNHEATED AREAS
1[] ALL UNHEATED AREAS HAVE BEEN MARKED WITH LINES
2[] ENTIRE UNIT IS UNHEATED (NO HEATING EQUIPMENT)

01[] MEASURED INSIDE
02[] MEASURED OUTSIDE
03[] COMBINATION OF INSIDE AND OUTSIDE MEASUREMENTS
04[] RESPONDENT GAVE TOTAL SQUARE FEET FROM PLAN
05[] RESPONDENT'S ESTIMATES
21[] OTHER MEASUREMENT PROCEDURE (SPECIFY): ___________

TURN PAGE TO COMPLETE INTERVIEW
INTERVIEWER REPORT ON MEASUREMENT OF YEAR-ROUND LIVING SPACE

183. WHAT PROBLEMS, IF ANY, DID YOU HAVE IN MEASURING THIS (HOUSE/APARTMENT)?

184. WHAT EFFECT, IF ANY, DID THESE PROBLEMS HAVE ON THE ACCURACY OF YOUR MEASUREMENTS?

PLEASE REMEMBER TO INSPECT VEHICLES FOR VIN NUMBERS

---

TIME INTERVIEW COMPLETED: AM PM LENGTH OF INTERVIEW: MINUTES

INTERVIEWER'S SIGNATURE DATE: 

INTERVIEWER'S I.D. #: 

1266-1268

1269-1274