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.

1990 Residential Energy Consumption Survey

Energy Information Administration
U.S. Department of Energy

Location # 111-116
Housing Unit # 117-118
Section A: Housing Type

A-1. INTERVIEWER: CIRCLE TYPE OF BUILDING IN WHICH RESPONDENT LIVES.

1. MOBILE HOME OR TRAILER -> [A-3]
2. ONE-FAMILY DETACHED
3. ONE-FAMILY ATTACHED (TOWNHOUSE, DUPLEX, OR ROWHOUSE)
4. HOUSE OR BUILDING WITH 2 TO 4 APARTMENT UNITS --> [A-3]
5. HOUSE OR BUILDING WITH 5 OR MORE APARTMENT UNITS --> [A-3]

INTERVIEWER: MARK FOLDOUT PAGE FOR TYPE OF BUILDING IN WHICH RESPONDENT LIVES.

IF ONE-FAMILY, RECORD

A-2. INTERVIEWER: CIRCLE

1. ONE STORY
2. TWO STORY
3. THREE STORY
4. SPLIT-LEVEL
5. OTHER (SPECIFY: ________________)

A-3. I'll ask a few questions about your household first so that I can better understand your responses to the home energy use questions that come next.

First, does any other family or unrelated person share this (house/apartment) with you?

1. YES
2. NO --> [A-5]

IF "YES" ON Q. A-3, ASK:

A-4. Does the additional family (or unrelated person) . . .

a. Live and eat separately from other persons in the apartment or building?

1. YES
2. NO

b. Have direct access from outside the building or through a common hall?

1. YES
2. NO

INTERVIEWER: IF THE ANSWERS IN A-4 ARE BOTH YES, THIS IS CONSIDERED SEPARATE LIVING QUARTERS. MAKE SURE THAT THE SPACE AND OCCUPANTS OF THE ADDITIONAL FAMILY ARE EXCLUDED FROM THIS INTERVIEW. SEPARATE LIVING QUARTERS SHOULD BE LISTED SEPARATELY ON YOUR HOUSING UNIT ADDRESS LIST. SEE SAMPLING INSTRUCTIONS AS TO WHETHER AN ADDITIONAL INTERVIEW SHOULD BE COMPLETED. IF NO ADDITIONAL INTERVIEW, BE SURE THAT THE MEMBERS OF THE SECOND FAMILY ARE INCLUDED IN THE LIST OF HOUSEHOLD MEMBERS IN Q. K-1.
A-5. Do you or members of your household own your home, or do you rent? 

1 OWN (BUYING) 124 
2 RENT 
3 OCCUPIED WITHOUT PAYMENT OF RENT 

INTERVIEWER: MARK FOLDOUT PAGE FOR TENURE 

INTERVIEWER: IF RESPONDENT HAS TROUBLE REMEMBERING DATES, PROBE FOR: 
• SEASON 
• MAJOR LIFE EVENT 
• MAJOR NEWS STORY OR POLITICAL EVENT HAPPENING AT THIS TIME. 
THEN, ASK FOR YEAR (AND MONTH) AGAIN. 

A-6. In what year was this (house/building) built? Just your estimate. 

01 BEFORE 1940 
02 1940-1949 
03 1950-1959 
04 1960-1969 
05 1970-1979 
06 1980-1984 
07 1985-1986 
08 1987 
09 1988 
10 1989 
11 1990 
12 1991 

A-7. In what year did your family move into this (house/apartment)? 

01 BEFORE 1940 
02 1940-1949 
03 1950-1959 
04 1960-1969 
05 1970-1979 
06 1980-1984 
07 1985-1986 

08 1987 
09 1988 
10 1989 
11 1990 
12 1991 

IF "1987" OR LATER, ASK: 

A-8. In which month did you move in? (SPECIFY MONTH) 

01 JAN 07 JUL 
02 FEB 08 AUG 
03 MAR 09 SEP 
04 APR 10 OCT 
05 MAY 11 NOV 
06 JUN 12 DEC 

INTERVIEWER: MARK FOLDOUT PAGE
**INTERVIEWER:** HAND RESPONDENT EXHIBIT BOOK AND SAY: Throughout this interview I am going to ask you to refer to different exhibits in this booklet to help you better answer my questions.

A-9. Please open the booklet to **Exhibit 1**. How much longer do you plan to live in **this** home?  

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>LESS THAN 1 YEAR</td>
</tr>
<tr>
<td>02</td>
<td>1-2 YEARS</td>
</tr>
<tr>
<td>03</td>
<td>3-5 YEARS</td>
</tr>
<tr>
<td>04</td>
<td>6-10 YEARS</td>
</tr>
<tr>
<td>05</td>
<td>MORE THAN 10 YEARS</td>
</tr>
<tr>
<td>06</td>
<td>REST OF MY LIFE/AS LONG AS I CAN</td>
</tr>
<tr>
<td>96</td>
<td>NOT SURE</td>
</tr>
</tbody>
</table>
Section B. Space Heating

B-1. Is gas from underground pipes (natural gas) available in this neighborhood?

B-2. Please turn to Exhibit 2. What is the one main heating fuel used for heating your home?

INTERVIEWER: CIRCLE ONLY ONE RESPONSE (IF TWO MAIN FUELS USED: THE MAIN ONE IS THE ONE THAT PROVIDES MOST OF THE HEAT FOR THE HOME.)

INTERVIEWER: MARK FOLD-OUT PAGE FOR MAIN HEATING FUEL

B-3. Thinking back to the winter three years ago -- about November of 1987 -- was the main heating fuel used to heat this (house/apartment) the same as it is now? (Even if you didn't live here then, make your best guess.)

IF "NO" ON Q. B-3, ASK:

B-4. Looking at Exhibit 2 again, what was the main fuel used to heat this (house/apartment) in November of 1987?

B-5. In what month and year was the main heating fuel changed?

MONTH: 

YEAR: 08 1987
09 1988
10 1989
11 1990
96 DON'T KNOW
### SUPPLEMENTARY HEATING FUELS

**B-6.** Please look at Exhibit 2 again. You mentioned that your main heating fuel is (FUEL FROM Q. B-2). What other fuels are used to heat your home -- including those used to provide heat just occasionally? Don't forget to include fuels that run portable heaters if you use them.

<table>
<thead>
<tr>
<th>NO.</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD</td>
</tr>
<tr>
<td>02</td>
<td>BOTTLED GAS (LPG OR PROPANE)</td>
</tr>
<tr>
<td>03</td>
<td>FUEL OIL</td>
</tr>
<tr>
<td>04</td>
<td>KEROSENE OR COAL OIL</td>
</tr>
<tr>
<td>05</td>
<td>ELECTRICITY</td>
</tr>
<tr>
<td>06</td>
<td>COAL OR COKE</td>
</tr>
<tr>
<td>07</td>
<td>WOOD</td>
</tr>
<tr>
<td>08</td>
<td>SOLAR COLLECTORS</td>
</tr>
<tr>
<td>21</td>
<td>OTHER (SPECIFY):__________</td>
</tr>
</tbody>
</table>

INTERVIEWER: CIRCLE ALL MENTIONED

IF ADDITIONAL FUELS MENTIONED IN Q. B-6, ASK:

<table>
<thead>
<tr>
<th>NO.</th>
<th>CLOSER TO HALF (66% OR LESS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>ALL OR ALMOST ALL (95% OR MORE)</td>
</tr>
<tr>
<td>02</td>
<td>ABOUT THREE-FOURTHS (67-94%)</td>
</tr>
</tbody>
</table>

**B-7.** Going back to your main heating fuel--(FUEL FROM Q. B-2)--does this fuel provide all or almost all of the heat for your home, about three-fourths, or closer to half of the heat for your home?

**B-8.** If your main space-heating fuel were not available, could you heat your home to the comfort level that you desire using (FUELS MENTIONED IN B-6)?

<table>
<thead>
<tr>
<th>NO.</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>NO</td>
</tr>
<tr>
<td>02</td>
<td>DON'T KNOW</td>
</tr>
</tbody>
</table>

149-159:b
B-9. Please look at Exhibit 3. What is the main heating equipment used with your main heating fuel?—that is (FUEL NAMED IN Q. B-2)?

01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) --> [B-13]
02 STEAM OR HOT WATER SYSTEM WITH RADIATORS/CONVECTORS
03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (NOT HEAT PUMP) --> [B-10]
04 HEAT PUMP --> [B-11]
05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)
06 FLOOR, WALL, OR PIPELESS FURNACE
07 ROOM HEATER BURNING GAS, OIL, KEROSENE -- NOT PORTABLE
08 HEATING STOVE BURNING WOOD, COAL, COKE
09 FIREPLACE(S)
10 PORTABLE ELECTRIC HEATER(S)
11 PORTABLE KEROSENE HEATER(S)
12 COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME AS WELL AS FOR COOKING) 162-163
21 OTHER (SPECIFY): ____________________________________________________________
96 DON'T KNOW EQUIPMENT

IF "CENTRAL WARM-AIR FURNACE" ("03" in B-9), ASK:

B-10. For the central warm-air furnace, is the warm air forced through the ducts by a fan?
1 YES
0 NO
6 DON'T KNOW

IF "HEAT PUMP" ("04" IN B-9), ASK:

B-11. Is the heat pump a central system, or is it a window or wall unit?
1 CENTRAL SYSTEM
2 WINDOW OR WALL UNIT --> [B-13]
3 OTHER (DESCRIBE): ______________________________________________________________

IF "CENTRAL SYSTEM" IN B-11, ASK:

B-12. Please look at Exhibit 4. What is the backup fuel used in the central heat pump system?
01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE)
03 FUEL OIL
04 KEROSENE OR COAL OIL 166-
05 ELECTRICITY 167
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): ____________________________________________________________
00 NO BACKUP FUEL
96 DON'T KNOW
B-13. Please look at Exhibit 5. How old is your main heating equipment, just approximately? (INTERVIEWER: PROBE FOR BEST GUESS.)

01 LESS THAN 2 YEARS OLD
02 2-4 YEARS OLD
03 5-9 YEARS OLD 168-
04 10-19 YEARS OLD 169
05 20 YEARS OLD OR OLDER
06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT
96 DON'T KNOW

B-14. Does the main equipment for heating your home also heat one or more other apartments, condos, households, businesses, or farm buildings?

B-15. If your main heating equipment had to be replaced, would you replace it with one that uses the same fuel?

1 YES --> [B-17]
0 NO, HOME HEATING EQUIPMENT IS FOR RESPONDENT'S HOME ONLY. [IF HOMEOWNER] --> [B-15]; [IF NOT HOMEOWNER] --> [B-17]
6 DON'T KNOW --> [B-17]

B-16. Please look at Exhibit 6. What new fuel would you choose?

IF "NO" ON Q. B-15, ASK:

01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE)
03 FUEL OIL
04 KEROSENE OR COAL OIL 172-
05 ELECTRICITY 173
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): __________________
96 DON'T KNOW
B-17. Please look at Exhibit 7.
What other kinds of
equipment if any, are used
to heat your home, including
those that are used to heat
your home just
occasionally?

01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) --> [B-21]
02 STEAM OR HOT WATER SYSTEM WITH RADIATORS/CONVECTORS
03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (NOT HEAT PUMP) --> [B-18]
04 HEAT PUMP --> [B-19]
05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)
06 FLOOR, WALL, OR PIPELESS FURNACE
07 ROOM HEATER BURNING GAS, OIL, KEROSENE -- NOT PORTABLE
08 HEATING STOVE BURNING WOOD, COAL, COKE
09 FIREPLACE(S)
10 PORTABLE ELECTRIC HEATER(S)
11 PORTABLE KEROSENE HEATER(S)
12 COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME AS WELL AS FOR COOKING)
21 OTHER (SPECIFY): ________________________
96 DON'T KNOW EQUIPMENT
00 NO ADDITIONAL EQUIPMENT

IF "CENTRAL WARM AIR FURNACE" ("03" IN B-17), ASK:

B-18. For the central warm-air furnace, is the warm air forced through the ducts by a fan?
1 YES
0 NO
6 DON'T KNOW

IF "HEAT PUMP" ("04" IN B-17), ASK:

B-19. Is the heat pump a central system, or is it a window or wall unit?
1 CENTRAL SYSTEM
2 WINDOW OR WALL UNIT --> [B-21]
3 OTHER (DESCRIBE): ____________________ --> [B-21]

IF "CENTRAL SYSTEM" IN B-19, ASK:

B-20. Please look at Exhibit 8. What is the backup fuel used in the central heat pump system?
01 GAS FROM UNDERGROUND PIPES
02 BOTTLED GAS (LPG OR PROPANE)
03 FUEL OIL
04 KEROSENE OR COAL OIL
05 ELECTRICITY
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): ____________________
00 NO BACKUP FUEL
96 DON'T KNOW
B-21. We may have covered this before, but please tell me -- Has **any** wood been burned in your home in the past 12 months?

IF "YES" ON Q. B-21, ASK:

B-22. Where was the wood burned -- in a wood heating stove, in a fireplace, or in a fireplace insert? (CIRCLE ALL THAT APPLY.)

B-23. Please turn to Exhibit 9. This exhibit illustrates amounts of wood. Using the pictures as general reference points, please tell me approximately how much wood your household burned in the past 12 months.

INTERVIEWER: Q. B-23 -- PROBE FOR RESPONDENT'S BEST ESTIMATE OF NUMBER OF CORDS BURNED. RECORD ANSWER TO NEAREST CORD, OR CORD PLUS FRACTION, (FOR EXAMPLE: 1, 1 1/3, 4, 10, 12, AND SO ON).

B-24. Which of the following best describes how many hours per day or per week you use your fireplace/ woodstove during the heating season (winter)?

B-25. Did you **purchase** any firewood for your home in the last 12 months?
TEMPERATURE

B-26. At what temperature do you usually keep your home in the wintertime...

DEGREES FAHRENHEIT: 247-248
95 HEAT TURNED OFF

a. During the day, when someone is at home?

b. During the day, when no one is at home?

DEGREES FAHRENHEIT: 249-250
95 HEAT TURNED OFF

c. During sleeping hours?

DEGREES FAHRENHEIT: 251-252
95 HEAT TURNED OFF


IF THE RESPONDENT DOESN'T KNOW TEMPERATURE, BUT DOES KNOW THERMOSTAT SETTING, RECORD THERMOSTAT SETTING. OTHERWISE, PROBE FOR BEST ESTIMATE.

B-27. Are the usual temperatures in your home during the winter the ones that you personally would prefer, or would you prefer it warmer or cooler?

1 TEMPERATURE PREFERRED --> [C-1]
2 WOULD LIKE WARMER
3 WOULD LIKE COOLER

IF "WARMER" OR "COOLER," ON Q. B-27, ASK:

B-28. Why can't you have your home the temperature you prefer? (CIRCLE ALL THAT APPLY.)

01 HEATING SYSTEM PROBLEM
02 LANDLORD CONTROLS THE TEMPERATURE
03 DIFFERENCE OF OPINION IN FAMILY
04 FUEL SHORTAGE
05 HIGH COST OF FUEL
06 POOR CONSTRUCTION
96 NOT SURE
21 OTHER (SPECIFY): ____________________
Section C. Water Heating

C-1. Do you have hot running water in your home?

1 YES —> [C-3] 0 NO

IF "NO," ON Q. C-1, ASK:

C-2. Do you have some way to heat water for washing or bathing?

1 YES 0 NO —> [D-1]

C-3. Please turn to Exhibit 10. Which fuel is used most for heating water for washing or bathing?

INTERVIEWER: HEATING WATER USED FOR WASHING, BATHING, ETC., NOT FOR HEATING TEA, COFFEE. CIRCLE ONLY ONE.

C-4. Does the main equipment for heating water for your home also heat water for other buildings or housing units?

1 YES —> [C-8] 0 NO, HOT WATER EQUIPMENT IS FOR RESPONDENT'S HOME ONLY 6 DON'T KNOW —> [C-8]

IF "NO" ON Q. C-4, ASK:

C-5. Please turn to Exhibit 11. About how old is your water heater, just approximately? (INTERVIEWER: PROBE FOR BEST GUESS.)

01 LESS THAN 2 YEARS 02 2-4 YEARS 03 5-9 YEARS 04 10-19 YEARS 05 20 YEARS OR MORE 06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT 96 DON'T KNOW

C-6. Please turn To Exhibit 12. How large is your water heater tank?

1 SMALL (30 GALLONS OR LESS) 2 MEDIUM (31 TO 49 GALLONS) 3 LARGE (50 GALLONS OR MORE) 6 DON'T KNOW

C-7. Is the water heater located in a place that is heated in the winter?

1 YES 0 NO 6 DON'T KNOW
C-8. Please look at Exhibit 13. In addition to (FUEL FROM C-3), do you use any other fuel for heating water for washing or bathing?

IF "YES" ON Q. C-8, ASK:

C-9. What is this additional fuel?

01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE)
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
Section D. Air Conditioning

D-1. Does your (house/apartment) have any air conditioning equipment (central and/or wall/window unit)?

1 YES
0 NO ---> [D-13]

D-2. How many rooms are usually cooled by your air conditioning (central or window/wall units) during the times you use it?

INTERVIEWER: SEE AIR-CONDITIONED ROOMS IN GLOSSARY

D-3. Does your (house/apartment) have central air conditioning equipment?

1 YES
0 NO ---> [D-8]

IF "YES" ON Q. D-3, ASK:

D-4. What kind of fuel does it use -- gas from underground pipes, bottled gas, or electricity?

01 GAS FROM UNDERGROUND PIPES
02 BOTTLED GAS, LPG, OR PROPANE
05 ELECTRICITY
96 DON'T KNOW

D-5. Please look at Exhibit 14. Which of the statements on this Exhibit best describes the way you used your central air conditioner(s) last summer?

01 DID NOT USE AT ALL
1 TURNED ON ONLY A FEW DAYS OR NIGHTS WHEN REALLY NEEDED
2 TURNED ON QUITE A BIT
3 TURNED ON JUST ABOUT ALL SUMMER
5 OTHER (SPECIFY):_________________

D-6. Does the air conditioning equipment that cools your home also cool other apartments, condos, houses, businesses, or farm buildings?

1 YES, A/C COOLS ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES ---> [D-8]
0 NO, A/C IS FOR RESPONDENT'S HOME ONLY
6 DON'T KNOW ---> [D-8]

IF "NO" ON Q. D-6, ASK:

D-7. Please turn to Exhibit 15. About how old is your central air conditioning equipment?

01 LESS THAN 2 YEARS OLD
02 2-4 YEARS OLD
03 5-9 YEARS OLD
04 10-19 YEARS OLD
05 20 YEARS OR OLDER
06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT
96 DON'T KNOW

INTERVIEWER: SEE FOLDOUT PAGE. IF CENTRAL AIR CONDITIONING AND ONE-FAMILY HOME, SAY: "At the end of the interview, with your permission, I will want to look at the central air conditioning unit that is outside your home." REMEMBER TO RECORD IN Q. P-14.
D-8. Do you have any wall or window unit air conditioners?

IF "YES" ON Q. D-8, ASK:

D-9. How many do you have?

The next three questions are about the window or wall air conditioning unit that you use the most.

D-10. Please turn to Exhibit 16. How would you describe the size of your most used window/wall unit?

D-11. Please turn to Exhibit 17. About how old is your most used unit?

D-12. Please look at Exhibit 18. Which of the statements on this exhibit best describes the way you used your most used unit last summer?

D-13. Please look at Exhibit 19. As I read each item from the list, tell me if you use it here in your (house/apartment).

D-14. Please look at Exhibit 20. Which of the following help to keep your home cool in the summer?
### Section E. Cooking and Lighting

**E-1.** Now turn to Exhibit 21. What fuel is used most for cooking in your house/apartment?

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas from underground pipes serving your neighborhood</td>
<td>01</td>
</tr>
<tr>
<td>Bottled gas (LPG or propane)</td>
<td>02</td>
</tr>
<tr>
<td>Fuel oil</td>
<td>03</td>
</tr>
<tr>
<td>Kerosene or coal oil</td>
<td>04</td>
</tr>
<tr>
<td>Electricity</td>
<td>05</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>06</td>
</tr>
<tr>
<td>Wood</td>
<td>07</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>21</td>
</tr>
<tr>
<td>No cooking done</td>
<td>00</td>
</tr>
</tbody>
</table>

**E-2.** Please look at Exhibit 22 and tell me which of these are used for cooking here in your (house/apartment):

**Interviewer:** For standard combination oven and stovetop units, record both as "YES."

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas stovetop or burners?</td>
<td>1 YES 0 NO</td>
</tr>
<tr>
<td>Gas oven?</td>
<td>1 YES 0 NO</td>
</tr>
<tr>
<td>Electric (conventional)</td>
<td></td>
</tr>
<tr>
<td>Electric stovetop or burners?</td>
<td>1 YES 0 NO</td>
</tr>
<tr>
<td>Electric oven (not microwave or toaster oven)</td>
<td>1 YES 0 NO</td>
</tr>
<tr>
<td>Outdoor grills</td>
<td></td>
</tr>
<tr>
<td>Gas grill that uses bottled gas, LPG, or propane?</td>
<td>1 YES 0 NO</td>
</tr>
<tr>
<td>Gas grill that uses gas from underground pipes?</td>
<td>1 YES 0 NO</td>
</tr>
</tbody>
</table>

**E-3.** Do you use a microwave oven?  
1 YES  
0 NO --> [E-5]  

**E-4.** Please turn to Exhibit 23. How much of your food is cooked in the microwave?  
1 Most or all  
2 About half  
3 Some or very little  
4 Used only for snacks or defrosting food  
6 Don't know
**LIGHTS**

**E-5.** How many lights do you usually have turned on more than 12 hours per day? Include lights inside and outside your home.

NUMBER OF LIGHTS: 346-347

00 NO LIGHTS --> [E-8]

IF LIGHTS ON MORE THAN 12 HOURS, ASK:

**E-6.** How many of these lights (Q. E-5) are floodlights?

FLOODLIGHTS: 348-349

**E-7.** How many of these lights (Q. E-5) are fluorescent?

FLUORESCENT LIGHTS: 350-351


**E-8.** How many lights do you usually have turned on from 4 to 12 hours per day inside or outside your home?

NUMBER OF LIGHTS: 352-353
Section F. Appliances

These next questions are about household appliances.

F-1. First, please tell me how many refrigerators in your home are used either regularly or occasionally? 0 NONE --> [F-9]

We would like to get some information about the refrigerator(s) you use.

(IF MORE THAN ONE IN Q. F-1, READ: Let's start with the one you use most often.) ASK F-2 THROUGH F-8 FOR EACH OF THE TWO MOST-USED REFRIGERATORS.

F-2. First, please look at Exhibit 24. Approximately how old is the refrigerator?

<table>
<thead>
<tr>
<th>INTERVIEWER:</th>
<th>MOST-USED REFRIGERATOR</th>
<th>SECOND REFRIGERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LESS THAN 2 YEARS</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2-4 YEARS</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5-9 YEARS</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>10-19 YEARS</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>20 YEARS OR MORE</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>DON'T KNOW</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

F-3. Please look at Exhibit 25 and tell me what type of refrigerator it is.

| HALF-SIZE OR QUARTER | 1 | 1 |
| REGULAR WITH SINGLE DOOR | 2 | 2 |
| TWO DOORS - TOP AND BOTTOM | 3 | 3 |
| TWO DOORS - SIDE BY SIDE | 4 | 4 |
| OTHER (SPECIFY:) | 5 | 5 |

F-4. Please look at Exhibit 26. What is the size of your refrigerator in cubic feet?

| 10 CUBIC FEET OR LESS | 1 | 1 |
| 11-14 CUBIC FEET      | 2 | 2 |
| 15-18 CUBIC FEET      | 3 | 3 |
| 19-22 CUBIC FEET      | 4 | 4 |
| 23 CUBIC FEET OR MORE | 5 | 5 |
| DON'T KNOW             | 6 | 6 |
F-5. Has the refrigeration unit (the cooling equipment) been repaired in the past year?

<table>
<thead>
<tr>
<th></th>
<th>MOST-USED REFRIGERATOR</th>
<th>SECOND MOST-USED REFRIGERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NOT SURE</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

F-6. Look at Exhibit 27. Which best describes the freezer or ice cube section, if any, in your refrigerator?

- MANUAL DEFROST ................................ 1 ........... 1
- FROST-FREE (AUTOMATIC DEFROST) ................. 2 ........... 2
- NO WORKING FREEZER SECTION ...................... 3 ........... 3

F-7. Do you use this refrigerator all year round?

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

IF "NO" ON Q. F-7, ASK:

F-8. How many months out of the year do you use it?

- 1-3 MONTHS ..................................... 1 ........... 1
- 4-6 MONTHS ..................................... 2 ........... 2
- 7-9 MONTHS ..................................... 3 ........... 3
- 10-12 MONTHS ................................... 4 ........... 4

INSTRUCTIONS: REPEAT SERIES FOR NEXT REFRIGERATOR OR, IF NO OTHER REFRIGERATOR, GO TO F-9.
F-9. Do you use a separate freezer unit, that is, a freezer that is not part of a refrigerator?

IF "YES" ON Q. F-9, ASK FOR THE MOST USED FREEZER:

F-10. Is that a manual-defrost or frost-free freezer?
1 MANUAL DEFROST
2 FROST-FREE

F-11. Is the freezer an upright or chest-type model?
1 UPRIGHT (VERTICAL CABINET)
2 CHEST-TYPE (HORIZONTAL CABINET)

F-12. Please turn to Exhibit 28. About how old is your freezer?
1 LESS THAN 2 YEARS OLD
2 2-4 YEARS
3 5-9 YEARS
4 10-19 YEARS
5 20 YEARS OR OLDER
6 DON'T KNOW

F-13. Now, I'd like to know about other appliances that you use here in your (house/apartment).

Please look at Exhibit 29. As I read each item from the list, tell me if you use it here in your (house/apartment).

ITEM YES NO
a. Clothes Washer.................... 1 0
b. Electric Dishwasher.............. 1 0
c. Electric Clothes Dryer.......... 1 0
d. Gas Clothes Dryer.............. 1 0
e. Outdoor Gas Light.............. 1 0
f. Electric Dehumidifier........... 1 0
g. Personal Computer.............. 1 0
h. Electric Pump For Well Water.. 1 0

INTERVIEWER: READ AND CIRCLE "YES" OR "NO" FOR EACH ITEM
In the past 2 years, have you purchased any of these items for yourself?

<table>
<thead>
<tr>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Refrigerator</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>b. Central Air Conditioner</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>c. Window Air Conditioner</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>d. Freezer</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>e. Heat Pump</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>f. Central Furnace (Other than Heat Pump)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>g. Water Heater</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>h. Automobile</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

F-15. How many black and white television sets do you use here in your home?

F-16. How many color television sets do you use here in your home?

F-17. Do you use any water bed heaters?

   IF "YES" ON Q. F-17, ASK:

F-18. How many water bed heaters do you use?

INTERVIEWER: READ EACH, CIRCLE "YES" OR "NO".

INTERVIEWER: IF NONE, WRITE IN "0" DO NOT LEAVE BLANK.

INSTRUCTION BEFORE [G-1]
**Section G. Pools and Other Equipment**

INTERVIEWER CHECK FOLD OUT PAGE: IF 2 OR MORE APARTMENT UNITS IN BUILDING, SKIP TO H-1. OTHERWISE, CONTINUE.

G-1. Do you have a swimming pool solely for the use of your household? (DO NOT COUNT CHILDREN'S WADING POOL AS A SWIMMING POOL).

IF "YES" ON Q. G-1, ASK:

G-2. Is it a heated pool?

IF HEATED, ASK:

G-3. Please look at Exhibit 31 and tell me the one fuel that is used most often to heat the water?

INTERVIEWER: IF MORE THAN ONE FUEL USED, CHECK FUEL USED MOST OFTEN.

G-4. Do you have a hot tub, spa, or jacuzzi?

IF "YES" ON Q. G-4, ASK:

G-5. Look at Exhibit 31 again and tell me the one fuel that is used most often to heat the water?
G-6. Do you have any other kinds of equipment that use a lot of energy that we have not mentioned? We don't mean VCRs or hair-dryers. We want you to think of equipment that uses a lot of energy.

IF "YES" ON Q. G-6, ASK:

G-7. Please describe the equipment and how you use it.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

429

1 YES
0 NO --> [H-1]

430-432
Section H. Fuel Summary

H-1. In the past 12 months, have you participated in any energy program sponsored by your gas or electric company?

IF "YES" ON Q. H-1, ASK:

H-2. Please look at Exhibit 32. Which of these types of programs did you participate in? (Circle all that apply.)

1 REBATE
2 LOAD CONTROL
3 ENERGY AUDIT
4 CONSERVATION
5 OTHER (Specify):

H-3. Please turn to Exhibit 33. We may have covered some of these points before, but just to be sure, I'm going to ask you about which fuels are used for certain purposes in your household.

FOR EACH FUEL USED IN Q. H-3, ASK:

H-4. Is that paid for by your household, included in your rent, or do you get it some other way?

INTERVIEWER: Check foldout page. If use of any fuel is "paid by household" in Q. H-4, continue to box below. If no fuels paid by household, skip to instruction before Q. J-1.

INTERVIEWER: See foldout page. If household lived here less than 1 year, skip to Q. I-1.

**FUEL OIL**

H-5. Is fuel oil delivered to your (home/apartment)?

1 YES
0 NO --> [H-8]
6 DON'T KNOW --> [H-8]

IF "YES" ON Q. H-5, ASK:

H-6. About how many deliveries does your household usually get in a year?

NUMBER OF DELIVERIES: ____________

H-7. How many different fuel companies delivered fuel oil to you in the last 12 months?

1 ONE
2 TWO
3 THREE OR MORE
6 DON'T KNOW

H-8. Please turn to Exhibit 34. About how much fuel oil does your household use in a year, just approximately? (PROBE FOR BEST ESTIMATE.)

1 LESS THAN 100 GALLONS
2 100-499 GALLONS PER YEAR
3 500-999 GALLONS PER YEAR
4 1,000 OR MORE GALLONS PER YEAR


**BOTTLED GAS/LPG/PROPANE**

H-9. Is LPG delivered to your (home/apartment)?

1 YES
0 NO --> INSTRUCTIONS BEFORE [H-12] 444
6 DON'T KNOW

IF "YES" ON Q. H-9, ASK:

H-10. About how many deliveries does your household usually get in a year?

NUMBER OF DELIVERIES: ____________

H-11. How many different companies delivered LPG to you in the last 12 months?

1 ONE
2 TWO
3 THREE OR MORE
6 DON'T KNOW
INTERVIEWER: SEE FOLDOUT PAGE. IF HOUSEHOLD PAYS FOR KEROSENE (SEE Q. H-4, ITEMS "U" THROUGH "W"), ASK Q. H-12. OTHERWISE, SKIP TO QUESTION I-1.

**KEROSENE**

H-12. Is kerosene **delivered** to your (home/apartment)?

1 YES
0 NO —> [H-15] 448
6 DON'T KNOW —> [H-15]

IF "YES" ON Q. H-12, ASK:

H-13. About how many deliveries does your household usually get in a year?

NUMBER OF DELIVERIES: 449-

H-14. How many different fuel companies or stores delivered kerosene to you in the last 12 months?

1 ONE
2 TWO
3 THREE OR MORE 451
6 DON'T KNOW

H-15. Do you buy kerosene and bring it home, that is, cash and carry?

1 YES
0 NO —> [I-1] 452

IF "YES" ON Q. H-15, ASK:

H-16. How many times in the past 12 months did you buy kerosene and bring it home?

NUMBER OF TIMES: 453-

H-17. Please look at Exhibit 35 -- it shows the most common sizes for kerosene containers. On average, how much kerosene did you buy and bring home each time?

1 1 GALLON
2 3 GALLONS
3 5 GALLONS
4 55 GALLONS 455
5 OTHER:____
6 NOT SURE

H-18. About how much per gallon did you pay for kerosene, on the average?

$________ PER GALLON —> [I-1] 456-

6 NOT SURE 458

IF "NOT SURE" ON Q. H-18, ASK:

H-19. About how much did you pay for kerosene each time you bought it?

$________ IN TOTAL 459-

6 NOT SURE 463
Section I: Fuel Bills

I-1. A budget plan is a plan under which the utility company or fuel dealer and household will 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?

I-2. Please turn to Exhibit 36. Do any of your household fuel bills include fuel used for purposes other than for your own living quarters, such as for farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

IF "YES" ON Q. I-2, ASK:

I-3. For which of the purposes listed on the exhibit are costs of fuel included in your household fuel bills? (INTERVIEWER: CIRCLE ALL THAT APPLY.)

I-4. Please turn to Exhibit 37. Which fuel bills include costs of fuel used for purposes other than your own living quarters? (INTERVIEWER: CIRCLE ALL THAT APPLY.)

INTERVIEWER: IF USE OF ANY FUEL IS PAID BY HOUSEHOLD (Q. H-4 ON FOLDOUT PAGE), CONTINUE WITH SECTION I.

INTERVIEWER: ASK THE FOLLOWING QUESTIONS FOR EACH FUEL CIRCLED IN Q. I-4.
### IF "GAS FROM UNDERGROUND PIPES" ON Q. I-4, ASK:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>VERY LITTLE</td>
<td>(LESS THAN 5%)</td>
<td>(5-33%)</td>
<td>(34-66%)</td>
</tr>
</tbody>
</table>

### IF "BOTTLED GAS" ON Q. I-4, ASK:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>VERY LITTLE</td>
<td>(LESS THAN 5%)</td>
<td>(5-33%)</td>
<td>(34-66%)</td>
</tr>
</tbody>
</table>

### IF "FUEL OIL" ON Q. I-4, ASK:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>VERY LITTLE</td>
<td>(LESS THAN 5%)</td>
<td>(5-33%)</td>
<td>(34-66%)</td>
</tr>
</tbody>
</table>

### IF "KEROSENE OR COAL OIL" ON Q. I-4, ASK:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>VERY LITTLE</td>
<td>(LESS THAN 5%)</td>
<td>(5-33%)</td>
<td>(34-66%)</td>
</tr>
</tbody>
</table>

### IF "ELECTRICITY" ON Q. I-4, ASK:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>VERY LITTLE</td>
<td>(LESS THAN 5%)</td>
<td>(5-33%)</td>
<td>(34-66%)</td>
</tr>
</tbody>
</table>
I-10. 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 fuel to your household to provide that information to Response Analysis Corporation, who is conducting this survey for the Department of Energy. The authorization applies to the period from September 1989 through December 1993.

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. All information is kept confidential.

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, 1989, FILL IN ADDITIONAL COMPANY NAMES ON OTHER SIDE OF FORM. PLEASE PRINT.

1 AUTHORIZATION FORM SIGNED 0 AUTHORIZATION FORM NOT SIGNED--INTERVIEWER, EXPLAIN BELOW:
INTerviewer

The Authorization form is to be filled out at this point in the interview. Use the separate form (yellow page) that is inserted in the questionnaire.

If authorization form is signed, continue with Q. I-11. Otherwise, skip to instruction before Q. J-1.
I-11. Do your fuel bills come addressed to (NAME OF SIGNATURE ON AUTHORIZATION FORM), or are they in another name?

IF BILL IS IN ANOTHER NAME, ASK:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SAME NAME  --&gt; [I-14] 516</td>
</tr>
<tr>
<td>2</td>
<td>ANOTHER NAME</td>
</tr>
</tbody>
</table>

BILLING NAME: __________________________

STREET ADDRESS:________________________

CITY AND STATE:________________________

ZIP CODE:______________________________

I-12. What is that name and address?

I-13. Just for our records, what is the relationship of this person to you?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SPOUSE</td>
</tr>
<tr>
<td>2</td>
<td>PARENT/GRANDPARENT</td>
</tr>
<tr>
<td>3</td>
<td>SIBLING</td>
</tr>
<tr>
<td>4</td>
<td>CHILD/GRANDCHILD</td>
</tr>
<tr>
<td>5</td>
<td>OTHER RELATED INDIVIDUAL (SPECIFY): __________</td>
</tr>
<tr>
<td>6</td>
<td>OTHER NONRELATED INDIVIDUAL OR COMPANY (SPECIFY): __________</td>
</tr>
<tr>
<td>7</td>
<td>REFUSED</td>
</tr>
</tbody>
</table>

INTERVIEWER: USE SPACE ABOVE TO EXPLAIN ANY UNUSUAL SITUATIONS (MORE THAN ONE OTHER BILLING NAME, DIFFERENT NAMES FOR DIFFERENT FUEL BILLS, ETC.)

I-14. Your account number helps the fuel suppliers to make sure they provide the data for the correct household. Would it be possible for you to give me your account number for each of your fuel companies? This number is on your bills from the company.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>REFUSED 7</td>
</tr>
<tr>
<td>2</td>
<td>NOT AVAILABLE 8</td>
</tr>
</tbody>
</table>

GAS (FROM UNDERGROUND PIPES)

ACCOUNT NUMBER: ________________________

ELECTRIC COMPANY

ACCOUNT NUMBER: ________________________

FUEL OIL

ACCOUNT NUMBER: ________________________

INTERVIEWER: IF QUESTIONED AS TO THE PURPOSE OF THIS INFORMATION, SAY: We need account numbers to get the information from your fuel suppliers.
Section J: Locating Information


J-1. 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:__________________________________________________________

STREET ADDRESS:________________________________________________

CITY OR TOWN/STATE/ZIP CODE:____________________________________

TELEPHONE NUMBER: (AREA CODE ______) ____________________________

ASK EVERYONE

J-2. My supervisor may want to call you to see if I really have talked to you. May I have your name, phone number, and mailing address please?

RESPONDENT'S NAME: _____________________________________________

STREET ADDRESS: _________________________________________________

CITY OR TOWN/STATE/ZIP CODE: ____________________________________

TELEPHONE NUMBER: (AREA CODE ______) ____________________________


J-3. Does this (building/development/complex/park) have a name?

1 YES

0 NO --> [K-1]

IF "YES" ON Q. J-3, ASK:

J-4. What is the name?

NAME: ________________________________
Section K. Background

K-1. Now I have some questions about the people who live here. Please tell me their relationship to (HOUSEHOLDER) and their ages on their last birthdays. First, I need to get this information for (HOUSEHOLDER).

<table>
<thead>
<tr>
<th>PERSON NUMBER</th>
<th>WHO IS RESPONDENT?</th>
<th>RELATIONSHIP TO HOUSEHOLDER</th>
<th>SEX</th>
<th>AGE</th>
<th>EMPLOYMENT (AGE 14+)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>FEMALE</td>
<td>MALE</td>
<td>FULL TIME</td>
</tr>
<tr>
<td>1</td>
<td>HOUSEHOLDER</td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
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<td></td>
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<td>1</td>
<td>2</td>
<td>1 2 0</td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1 2 0</td>
</tr>
</tbody>
</table>

INTERVIEWER: PLACE AN "X" ON THE LINE WHERE RESPONDENT IS DESCRIBED (ABOVE) BEFORE CONTINUING.
K-2. I have listed (READ RELATIONSHIPS FROM GRID ON FACING PAGE).
    Have I missed . . .

    a. Any babies or small children?       1 YES (ADD TO LISTING)
    0 NO

    b. Any lodgers, boarders, or persons in your employ who live here?       1 YES (ADD TO LISTING)
    0 NO

    c. Anyone who usually lives here but is away traveling or in the hospital?       1 YES (ADD TO LISTING)
    0 NO

    d. Anyone else staying here who does not have a regular residence elsewhere?       1 YES (ADD TO LISTING)
    0 NO

INTERVIEWER: CHECK GRID FOR EACH PERSON AGED 14 YEARS OR OLDER. FOR EACH, ASK:

K-3. Is (he/she) employed full-time, that is 30 hours or more per week, employed part-time, or not employed? (RECORD ON GRID.)
K-4. How many people in this household drive a car on a fairly regular basis -- that is, at least once a month?  

NUMBER OF REGULAR DRIVERS:  

00 NONE  
96 DON'T KNOW

I have a few questions about (HOUSEHOLDER) for background statistical purposes.

K-5. What is the highest grade or year (HOUSEHOLDER) completed in school or college?  

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

COLLEGE (ACADEMIC YEARS)  

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

INTERVIEWER: CIRCLE ANSWER. ASK, IF NECESSARY.

K-6. Which of the following best describes (HOUSEHOLDER): now married, widowed, divorced, separated, or never married?  

1 NOW MARRIED  
2 WIDOWED  
3 DIVORCED OR SEPARATED  
4 NEVER MARRIED

K-7. Please turn to Exhibit 39. Which of the groups on the exhibit best describes (HOUSEHOLDER)?  

1 WHITE  
2 BLACK  
3 AMERICAN INDIAN, ALASKAN NATIVE  
4 ASIAN, PACIFIC ISLANDER  
5 OTHER (SPECIFY): _______________

K-8. Is (HOUSEHOLDER) of Spanish or Hispanic origin or descent?  

1 YES  
0 NO
K-9. Please turn to Exhibit 40. In the past 12 months, did you or any member of your family living here receive any income or benefits from these sources: When we say "family," we mean all related persons living in this household.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Wages and/or salaries</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>b. Self-employment from a business or farm</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>c. Social Security or Railroad Retirement</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>d. Pensions and other retirement funds</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>e. Food Stamps</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>f. Aid to Families with Dependent Children (AFDC)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>g. Unemployment compensation</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>h. Supplemental Security Income (SSI)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>i. General Assistance or other public assistance</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
K-10. Now please look at EXHIBIT 41. This is a 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, interest, Social Security, and so forth -- before taxes and deductions.

**CIRCLE LETTER FOR INCOME GROUP**

<table>
<thead>
<tr>
<th>Income Group</th>
<th>CIRCLE LETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 A LESS THAN $3,000</td>
<td>22 T $35,000 - $39,999</td>
</tr>
<tr>
<td>02 B $3,000 - $3,999</td>
<td>23 U $40,000 - $49,999</td>
</tr>
<tr>
<td>03 C $4,000 - $4,999</td>
<td>24 V $50,000 - $74,999</td>
</tr>
<tr>
<td>04 D $5,000 - $5,999</td>
<td>25 W $75,000 OR OVER</td>
</tr>
<tr>
<td>05 E $6,000 - $7,499</td>
<td></td>
</tr>
<tr>
<td>07 F $7,500 - $8,999</td>
<td>96 DON'T KNOW</td>
</tr>
<tr>
<td>08 G $9,000 - $9,999</td>
<td>97 REFUSED</td>
</tr>
<tr>
<td>09 H $10,000 - $10,999</td>
<td></td>
</tr>
<tr>
<td>10 I $11,000 - $12,499</td>
<td></td>
</tr>
<tr>
<td>12 J $12,500 - $13,999</td>
<td></td>
</tr>
<tr>
<td>13 K $14,000 - $14,999</td>
<td></td>
</tr>
<tr>
<td>14 L $15,000 - $17,499</td>
<td></td>
</tr>
<tr>
<td>15 M $17,500 - $19,999</td>
<td></td>
</tr>
<tr>
<td>16 N $20,000 - $22,499</td>
<td></td>
</tr>
<tr>
<td>17 O $22,500 - $24,999</td>
<td></td>
</tr>
<tr>
<td>18 P $25,000 - $27,499</td>
<td></td>
</tr>
<tr>
<td>19 Q $27,500 - $29,999</td>
<td></td>
</tr>
<tr>
<td>20 R $30,000 - $32,499</td>
<td></td>
</tr>
<tr>
<td>21 S $32,500 - $34,999</td>
<td></td>
</tr>
</tbody>
</table>

**PROBE, IF "DON'T KNOW" OR "REFUSED."**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you tell me whether your household income in the last 12 months was under or over $35,000?</td>
<td>1 UNDER $35,000</td>
</tr>
<tr>
<td></td>
<td>2 OVER $35,000</td>
</tr>
<tr>
<td></td>
<td>6 DON'T KNOW</td>
</tr>
</tbody>
</table>
Section L. Family Income Under $35,000

L-1. There is an assistance program that helps people pay for their heating, cooling, and other home energy costs. Some names used for the program are HEAP, LIHEAP, and HEAT. It is run by state, county, or local government. The household receiving the assistance can be paid directly, or the assistance can be paid to the electric or gas company or fuel supplier. If heat is included in a household's rent, the payment can be used to help reduce the rent.

Were you aware of this energy assistance program? 1 YES 0 NO

INTERVIEWER: THESE QUESTIONS REFER TO ANY HOME THE RESPONDENT OCCUPIED IN THE LAST YEAR.

L-2. Now turn to Exhibit 42. During the last year -- from October 1989 through September 1990 -- did anyone in your household receive government assistance for any of the following:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Help in paying home heating costs?</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>b. Help in paying home cooling or air-conditioning costs?</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>c. Help with other home energy costs?</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>d. Emergency supplies, such as blankets, fans, portable heaters, or temporary emergency shelter?</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

INTERVIEWER: IF "NO" OR "DON'T KNOW" TO ALL ITEMS, SKIP TO Q. L-6.
IF "YES" FOR ANY ITEM IN Q. L-2, ASK:
L-3. Please describe this help.
DESCRIPTION: ________________________________

IF "YES" ON Q. L-2a (HOME HEATING COSTS), ASK:
L-4. Please look at Exhibit 43. You mentioned that your household got help in paying for home heating costs. How were these payments received? (READ EACH AND CIRCLE "YES" OR "NO").

<table>
<thead>
<tr>
<th>Option</th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sent directly to utility company or fuel dealer</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>b. Check to household</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>c. Coupon/voucher to household</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>d. Two-party check</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>e. OTHER SPECIFY:____________________________</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

L-5. About how much money did you receive from October 1989 to September 1990? $_____.00 6 NOT SURE 732-

L-6. Exhibit 44 shows some examples of how a person can weatherize a home; for example, insulating walls, insulating the hot water heater, weather stripping or caulking, and so on. During the last year -- from October 1989 to September 1990 -- did you receive any help from the government in paying the costs of weatherizing your home?

1 YES
0 NO
6 DON'T KNOW
L-7. I want you to think about the home or homes you lived in last year -- that is, the time period from October 1989 to September 1990.

Was there ever a time during that period when you wanted to use your main source of heat, but could not, for one or more of the following reasons? (CIRCLE YES OR NO FOR EACH ITEM.)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Your heating system was <strong>broken</strong> and you were <strong>unable</strong> to pay for the repair or replacement?</td>
<td>1</td>
</tr>
<tr>
<td>b. You <strong>ran out</strong> of fuel oil, LPG, coal, or wood because you were <strong>unable</strong> to pay for a delivery?</td>
<td>1</td>
</tr>
<tr>
<td>c. The utility company <strong>discontinued</strong> your gas or electric service because you were <strong>unable</strong> to pay your bill?</td>
<td>1</td>
</tr>
</tbody>
</table>

IF ALL "NO", INSTRUCT: IF "YES" TO Q. L-7 "a," "b," OR "c", ASK:

L-8. Thinking about these times that you went without heat -- how many **separate** times were there?

L-9. Altogether, how many hours or days were you without heat?

INTERVIEWER: IF ALL ITEMS MARKED "NO", SKIP TO INSTRUCTION BEFORE Q. L-12.
IF "YES" TO Q. L-7 "a", "b", OR "c", ASK:

<table>
<thead>
<tr>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT ('89)</td>
</tr>
<tr>
<td>NOV ('89)</td>
</tr>
<tr>
<td>DEC ('89)</td>
</tr>
<tr>
<td>JAN ('90)</td>
</tr>
<tr>
<td>FEB ('90)</td>
</tr>
<tr>
<td>MAR ('90)</td>
</tr>
<tr>
<td>APR ('90)</td>
</tr>
</tbody>
</table>

L-10. Please turn to Exhibit 45. During which month or months were you without heat?

INTERVIEWER: CIRCLE ALL THOSE APPLY.

L-11. During these times, were you able to heat your home in some other way?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

INTERVIEWER CHECK FOLD OUT PAGE: IF "OWN," SKIP TO Q. M-1; IF "RENT," CONTINUE.

IF "RENT," ASK:

L-12. Is this residence in a public housing project -- that is, is it owned by a housing authority?

<table>
<thead>
<tr>
<th></th>
<th>YES -&gt; [M-1]</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

IF NO" OR "DON'T KNOW" ON Q. L-12, ASK:

L-13. Are you paying lower rent because the federal, state, or local government is paying part of the cost?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>
Now, I'd like to spend a few minutes talking about the insulation in this home.

M-1. Overall, would you say that this (house/apartment) is well insulated, adequately insulated, or poorly insulated?

1 WELL INSULATED --> [M-3]  
2 ADEQUATELY INSULATED --> [M-3]  
3 POORLY INSULATED  
4 DON'T KNOW --> [M-3]  

IF "POORLY INSULATED" ON Q. M-1, ASK:

M-2. Please turn to Exhibit 46. Is this (house/apartment) "poorly insulated" due to one or more of these reasons? (READ LIST AND CIRCLE ALL THAT APPLY).

1 Leaky windows  
2 Doors not tight  
3 Inadequate wall insulation  
4 Inadequate ceiling insulation  
5 Inadequate caulking  
6 DON'T KNOW

INTERVIEWER CHECK FOLD OUT PAGE: IF ONE-FAMILY HOUSE OR MOBILE HOME, CONTINUE WITH REMAINDER OF SECTION M. IF 2 OR MORE APARTMENT UNITS IN BUILDING, SKIP TO Q. N-1b.

IF ONE-FAMILY HOUSE OR MOBILE HOME, ASK:

M-3. Do you have roof or ceiling insulation in your home?

1 YES  
0 NO --> [M-6]  
6 DON'T KNOW --> [M-6]

IF "YES" ON Q. M-3, ASK:

M-4. Please turn to Exhibit 47. 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%)  
6 DON'T KNOW

M-5. Was any of the roof or ceiling insulation added or installed in your home since September 1, 1987?

1 YES  
0 NO  
2 IN PROCESS  
6 DON'T KNOW

INTERVIEWER: COUNT AS "IN PROCESS" ANY WORK STARTED BUT NOT YET COMPLETED. DO NOT COUNT ANY CHANGES MADE BEFORE THIS HOUSEHOLD MOVED IN.
M-6. Do you have insulation in all, some, or none of the outside walls of your home?

1 ALL
2 SOME
0 NONE --> [M-8]
6 DON'T KNOW --> [M-8]

IF "ALL" OR "SOME," ON Q. M-6, ASK:

M-7. Was any of the insulation in the outside walls added or installed in your home since September, 1987?

1 YES
0 NO
2 IN PROCESS
6 DON'T KNOW

M-8. Please look at the list in Exhibit 48 and as I read each item, tell me which, if any, you have in this home.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Insulation around heating and/or cooling ducts.</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>b. Insulation around the hot water pipes.</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>c. Insulation around the hot water heater.</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>d. Weatherstripping around any windows or doors to the outside.</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>e. Caulking</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>
M-9. Does this building have a basement or crawl space?

1 YES
0 NO --> [M-12] 776

IF "YES" ON Q. M-9, ASK:

M-10. Do you have any insulation in the floor area above the basement or crawl space?

1 YES
0 NO --> [M-12] 777
6 DON'T KNOW --> [M-12]

IF "YES" ON Q. M-10, ASK:

M-11. Please turn to Exhibit 49. How much of the floor area above the basement or crawl space 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%)
6 DON'T KNOW

M-12. Please tell me which, if any, of the following items have been added or installed in your home since September 1, 1987.

<table>
<thead>
<tr>
<th>Item</th>
<th>YES</th>
<th>NO</th>
<th>IN PROCESS</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. An automatic set-back or clock thermostat?</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>b. Heat pump?</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>c. Wood-burning stove?</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>
M-13. Now, let's talk about your heating equipment.

Have you had a "tune-up" done on your heating equipment in the past year? By tune-up, we mean a cleaning and maintenance check.

1 YES
0 NO
6 DON'T KNOW

M-14. Have you replaced your main heating equipment since September 1, 1987?

1 YES, REPLACED AFTER 9/1/87
0 NO --> [N-1a]

IF "YES" ON Q. M-14, ASK:

M-15. Is the new equipment high-efficiency?

1 YES, HIGH EFFICIENCY
0 NO
6 DON'T KNOW
Section N: Doors and Windows

DOORS

INTERVIEWER: NUMBER OF DOORS: 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. N1: SEE FOLDOUT PAGE FOR STRUCTURE TYPE. ASK N1a OR N1b -- NOT BOTH.

IF SINGLE FAMILY/MOBILE HOME:
N-1a. Please refer to Exhibit 50. How many doors lead directly from your house to the outside?

NUMBER OF DOORS: 00 NONE --> [N-3]
816-817

IF BUILDING WITH 2 OR MORE UNITS:
N-1b. Please refer to Exhibit 50. How many doors here in your (apartment/home) lead either directly to the outside or open onto an unheated common hallway?

NUMBER OF DOORS: 00 NONE --> [N-3]

IF ANY DOORS TO THE OUTSIDE OR AN UNHEATED HALLWAY ON Q. N-1a OR N-1b, ASK:
N-2. How many of these doors have a storm door or insulated glass?

NUMBER OF DOORS: 00 NONE
818-819
N-3. Please look at Exhibit 51. How many windows do you have in your home? Each window that opens *separately* should be counted as one window. Include basement, attic, garage, and porch windows *only if these areas are heated.*

N-4. How many of these windows have storm windows or insulating glass?

INTERVIEWER:

Q. N-3 -- DOUBLE HUNG SLIDER WINDOWS COUNT AS ONE WINDOW. 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. N-4 -- WINDOWS MADE OF DOUBLE GLASS AND OTHER TYPES OF INSULATING GLASS COUNT THE SAME AS STORM WINDOWS.
Section O: Vehicles

ASK EVERYONE

Now some questions about cars.

O-1. 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.)

IF "YES" ON O. 0-1, ASK:
O-2. How many vehicles do you have?

READ BEFORE ASKING ABOUT FIRST VEHICLE:

I'd like you to describe each vehicle your household owns or uses. First, let's start with the vehicle you use most often.

INTERVIEWER: SEE BOX ON FACING PAGE FOR INSTRUCTIONS ABOUT VEHICLES SECTION.

INTERVIEWER: PLEASE GO TO BLUE VEHICLE PAGE AND ASK SERIES OF QUESTIONS FOR EACH VEHICLE. RECORD ON BLUE PAGE.
INTERVIEWER:

Q. 0-1 -- "REGULAR USE" MEANS THE VEHICLE IS KEPT AT HOME AND IS AVAILABLE FOR SOME PERSONAL USE.

Q. 0-2 -- IF HOUSEHOLD HAS MORE THAN FOUR VEHICLES, MARK ANSWERS FOR THE FOUR VEHICLES USED MOST.

Q. 0-4 -- MODEL NAME: 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.)

Q. 0-12 -- 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."

SHOW EXHIBIT 53 OF POSSIBLE VIN LOCATIONS. ATTEMPT TO SECURE VIN FROM ONE OF THESE DOCUMENT SOURCES. RECORD THE VIN AND VERIFY FOR CORRECTNESS.

IF VEHICLE AVAILABLE--RECORD VIN FROM VEHICLE ITSELF.
SECTION P: HOUSING CHARACTERISTICS

P-1. Please look at Exhibit 54. Since September 1987, have any of the changes listed on this exhibit been made to your home — that is, anything that has either increased or decreased the total number of square feet of space?

IF "YES" ON Q. P-1, ASK:

P-2. Did the total number of square feet of space increase, decrease, or remain the same?

P-3. Did the amount of heated space increase, decrease, or remain the same?

P-4. How many of each of the following rooms does this (house/apartment) have? (ASK EACH ITEM AND RECORD NUMBER FOR EACH.)

a. Bedrooms?................. NUMBER: 830

0 NONE

ROOMS CONTINUED ON NEXT PAGE.
b. Full bathrooms?........... NUMBER: 0 NONE 831

c. Half bathrooms?........... NUMBER: 0 NONE 832

d. All other rooms; do not count laundry rooms, foyers, or unfinished storage space. Only count porches if they are enclosed and used year-round.

NUMBER: 0 NONE 833

INTERVIEWER: CHECK FOLDOUT PAGE: IF SINGLE-FAMILY OR MOBILE HOME, CONTINUE. OTHERWISE, SKIP TO Q. P-13.

P-5. Is this house on more than one acre? 1 YES 0 NO 834

IF "YES" ON Q. P-5, ASK:

P-6. In the past 12 months, were there any sales of agricultural products from the property? 1 YES 0 NO 835

IF "YES" ON Q. P-6, ASK:

P-7. Please turn to Exhibit 55. What were the actual sales of all agricultural products from this property? 1 $1 TO $999 2 $1,000 TO $2,499 3 $2,500 TO $4,999 4 $5,000 TO $9,999 5 $10,000 OR MORE 6 DON'T KNOW 836
P-8. Do you have an attached garage?  

1 YES  
0 NO --> [P-11]  

IF "YES" ON Q. P-8, ASK:  

P-9. Can the garage be heated in the winter months?  

1 YES  
0 NO --> [P-11]  

IF "YES" ON Q. P-9, ASK:  

P-10. How often is it heated during the winter months -- always, usually, occasionally, almost never, or never?  

1 ALWAYS  
3 USUALLY  
2 OCCASIONALLY  
1 ALMOST NEVER  
0 NEVER  

BASEMENT  

P-11. Please turn to Exhibit 56. 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 A BASEMENT  
2 CRAWL SPACE -- ENCLOSED  
3 CRAWL SPACE -- OPEN TO THE OUTSIDE  
4 CONCRETE SLAB --> [P-13]  
5 COMBINATION (MARK ALL THAT APPLY)  
1 BASEMENT  
2 CRAWL SPACE -- ENCLOSED  
3 CRAWL SPACE -- OPEN TO THE OUTSIDE  
4 CONCRETE SLAB  

IF "BASEMENT," "CRAWL SPACE," OR "COMBINATION" ON Q. P-11, ASK:  

P-12. 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  
2 PART  
0 NONE
ASK EVERYONE

P-13. To understand the usage of energy in your (house/apartment), we need to know its size in square feet. With your permission, I would like to measure your home.

INTERVIEWER INSTRUCTIONS: ALWAYS DO MEASUREMENTS FROM THE OUTSIDE WHERE POSSIBLE. IF NOT POSSIBLE, READ: With your home, I think it would be most appropriate to measure the inside.

UNHEATED AREAS: WITHIN THE HOUSING UNIT THAT YOU MEASURE, INDICATE UNHEATED AREAS(S) IN THE DIAGRAMS WITH SHADING. GIVE DIMENSIONS OF UNHEATED AREA(S).

SHADE UNHEATED AREAS THIS WAY ———

USE BLANK PAGES FACING MEASUREMENT PAGES FOR ADDITIONAL SKETCHES, MEASUREMENTS, AND EXPLANATIONS.

RECORD MEASUREMENTS ON DIAGRAMS TO NEAREST FOOT
NOTES REGARDING BASEMENT MEASUREMENTS

FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>Flr. Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BASEMENT OF HOME/APARTMENT**

- [ ] SINGLE-FAMILY, MOBILE HOME, TOWNHOUSE
- [ ] BASEMENT
  - [ ] HEATED—>DRAW
  - [ ] UNHEATED—>SHADE
- [ ] APARTMENT IN 2-4 UNIT BUILDING
  - [ ] BASEMENT -- ONLY THAT PART THAT IS FOR EXCLUSIVE OR PRIMARY USE BY THE HOUSEHOLD.
  - [ ] HEATED—>DRAW
  - [ ] UNHEATED—>SHADE
- [ ] APARTMENT IN 5+ UNIT BUILDING
  - BASEMENT -- DO NOT INCLUDE

**CONSIDER BASEMENT HEATED IF (1) IT IS WARM ENOUGH TO SIT, WORK, OR PLAY IN DURING THE WINTER OR (2) IF ALL THE BASEMENT IS USED FOR LIVING SPACE WHERE A PERSON SLEEPS, WATCHES TV, OR READS.**

- [ ] GARAGE (BASEMENT LEVEL AND ATTACHED)
  - [ ] HEATED—>DRAW
  - [ ] UNHEATED—>SHADE
- GARAGE -- DO NOT INCLUDE
- GARAGE -- DO NOT INCLUDE

WRITE "1-CAR", "2-CAR", OR "3-CAR" ON DIAGRAM.

**RECTANGULAR SHAPE**

- [ ]

**DRAW DIAGRAM, IF OTHER THAN RECTANGULAR**

**INTERVIEWER: CHECK FINISHED DIAGRAM**

1. DID YOU BASE YOUR FIGURES ON OUTSIDE OR INSIDE MEASUREMENTS?
   - [ ] OUTSIDE
   - [ ] INSIDE
   - [ ] OTHER: (SPECIFY) ________________

2. DID YOU SHADE AND INCLUDE DIMENSIONS FOR UNHEATED AREAS?
   - [ ] YES
   - [ ] NO UNHEATED AREAS

3. DID YOU LABEL GARAGE 1-CAR, ETC.?
   - [ ] YES
   - [ ] NO GARAGE

**INTERVIEWER: IF BASEMENT IS THE ONLY FLOOR, GO TO INSTRUCTION BEFORE Q. P-14.**
NOTES REGARDING FIRST FLOOR MEASUREMENTS

FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>Flr. Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>870</td>
<td>71</td>
<td>72</td>
<td>73</td>
<td>74-75</td>
<td>76-77</td>
</tr>
</tbody>
</table>
INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON [ ] OUTSIDE OUTSIDE OR INSIDE MEASUREMENTS? [ ] INSIDE [ ] OTHER: (SPECIFY) __________________________

2. DID YOU SHADE AND INCLUDE [ ] YES DIMENSIONS FOR UNHEATED AREAS? [ ] NO UNHEATED AREAS

3. DID YOU LABEL GARAGE 1-CAR, [ ] YES ETC.? [ ] NO GARAGE

INTERVIEWER: IF NO ADDITIONAL FLOORS OR ATTIC, GO TO INSTRUCTION BEFORE Q. P-14.
### NOTES REGARDING SECOND FLOOR MEASUREMENTS

**FOR OFFICE USE ONLY**

<table>
<thead>
<tr>
<th>Flr. Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>926 27 28 29 30-31 32-33 34 35-36 37-38 39 40-41 42-43 44 45-46 47-48 49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECOND FLOOR OF HOME/APARTMENT

[ ] SINGLE-FAMILY, MOBILE HOME, TOWNHOUSE

[ ] APARTMENT IN 2-4 UNIT BUILDING

[ ] APARTMENT IN 5+ UNIT BUILDING

[ ] ENCLOSED PORCH

[ ] ENCLOSURE PORCH

[ ] ENCLOSURE PORCH

[ ] HEATED->DRAW

[ ] HEATED->DRAW

[ ] UNHEATED->SHADE

[ ] UNHEATED->SHADE

OPEN PORCH: DO NOT INCLUDE

[ ] APARTMENT IN 2-4 UNIT BUILDING

[ ] APARTMENT IN 5+ UNIT BUILDING

[ ] APARTMENT IN 2-4 UNIT BUILDING

[ ] APARTMENT IN 5+ UNIT BUILDING

[ ] GAREAGE (ATTACHED)

[ ] GAREAGE (ATTACHED)

[ ] GAREAGE -- DO NOT INCLUDE

[ ] GAREAGE -- DO NOT INCLUDE

[ ] HEATED->DRAW

[ ] HEATED->DRAW

[ ] UNHEATED->SHADE

[ ] UNHEATED->SHADE

WRITE "1-CAR", "2-CAR", OR "3-CAR" ON DIAGRAM.

<table>
<thead>
<tr>
<th>RECTANGULAR SHAPE</th>
<th>DRAW DIAGRAM, IF OTHER THAN RECTANGULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td></td>
</tr>
</tbody>
</table>

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON [ ] OUTSIDE OUTSIDE OR INSIDE MEASUREMENTS? [ ] INSIDE [ ] OTHER: (SPECIFY) ________________

2. DID YOU SHADE AND INCLUDE [ ] YES DIMENSIONS FOR UNHEATED AREAS? [ ] NO UNHEATED AREAS

3. DID YOU LABEL GARAGE 1-CAR, ETC.? [ ] YES [ ] NO GARAGE

INTERVIEWER: IF NO ADDITIONAL FLOORS OR ATTIC, GO TO INSTRUCTION BEFORE Q. P-14.
THIRD FLOOR OF HOME/APARTMENT

[ ] SINGLE-FAMILY, MOBILE HOME, TOWNHOUSE
[ ] APARTMENT IN 2-4 UNIT BUILDING
[ ] APARTMENT IN 5+ UNIT BUILDING

[ ] ENCLOSED PORCH
[ ] HEATED->DRAW
[ ] UNHEATED->SHADE
[ ] ENCLOSED PORCH
[ ] HEATED->DRAW
[ ] UNHEATED->DRAW

RECTANGULAR SHAPE

DRAW DIAGRAM, IF OTHER THAN RECTANGULAR

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON [ ] OUTSIDE
OUTSIDE OR INSIDE MEASUREMENTS? [ ] INSIDE
[ ] OTHER (SPECIFY): _______________________

2. DID YOU SHADE AND INCLUDE [ ] YES
DIMENSIONS FOR UNHEATED AREAS? [ ] NO UNHEATED AREAS

INTERVIEWER: IF NO ATTIC, GO TO INSTRUCTION BEFORE Q. P-14

FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>Flr. Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>950</td>
<td>51</td>
<td>52</td>
<td>53</td>
<td>54-55</td>
<td>56-57</td>
</tr>
<tr>
<td>58</td>
<td>59-60</td>
<td>61-62</td>
<td>63</td>
<td>64-65</td>
<td>66-67</td>
</tr>
<tr>
<td>68</td>
<td>69-70</td>
<td>71-72</td>
<td></td>
<td></td>
<td>73</td>
</tr>
</tbody>
</table>
ATTIC OF HOME

[ ] SINGLE-FAMILY MOBILE HOME, TOWNHOUSE

[ ] ATTIC

[ ] HEATED --> DRAW
[ ] FINISHED AND
[ ] UNHEATED --> DRAW
[ ] UNHEATED AND UNFINISHED -- DO NOT INCLUDE

[ ] APARTMENT IN 2-4 UNIT BUILDING

[ ] ATTIC

[ ] HEATED --> DRAW
[ ] FINISHED AND
[ ] UNHEATED --> DRAW
[ ] UNHEATED AND UNFINISHED -- DO NOT INCLUDE

[ ] APARTMENT IN 5+ UNIT BUILDING

ATTIC -- MUST BE FOR EXCLUSIVE USE OF THE HOUSEHOLD.

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON OUTSIDE OR INSIDE MEASUREMENTS?
[ ] OUTSIDE
[ ] INSIDE
[ ] OTHER (SPECIFY): __________

2. DID YOU INCLUDE SHADING AND DIMENSIONS FOR UNHEATED AREAS?
[ ] YES
[ ] NO UNHEATED AREAS

1007-1008:10
FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>Flr. Codes</th>
<th>Unit A</th>
<th>Unit B</th>
<th>Unit C</th>
<th>Unit D</th>
<th># of Units</th>
</tr>
</thead>
</table>
P-14. I'd like to look at your central air conditioning equipment -- just the unit that is outside -- and record some information from its nameplate.

**CENTRAL AIR CONDITIONER NAMEPLATE DATA**

a. MANUFACTURER: __________________________

b. MODEL NUMBER: __________________________

c. YEAR MANUFACTURED: ____________________

d. RATED COOLING CAPACITY: ________________ BTU/HR, LB/HR

e. COMPRESSOR POWER/AMPERAGE: ____________ HP, AMPS, WATTS

f. FAN POWER/AMPERAGE: ____________________ HP, AMPS, WATTS

**INTERVIEWER:** RECORD ALL INFORMATION VISIBLE ON AIR CONDITIONER NAMEPLATE. (SEE INSTRUCTIONS FOR INTERVIEWERS.) USE SPACE BELOW FOR ADDITIONAL NOTES AND COMMENTS.

---

**FOR OFFICE USE ONLY**

<table>
<thead>
<tr>
<th>ME</th>
<th>FL</th>
<th>LTC</th>
<th>Heated</th>
<th>Unheated</th>
<th>DK Htd/Unhtd</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>34-35</td>
<td>36</td>
<td>37-38</td>
<td>39-43</td>
<td>44-48</td>
</tr>
</tbody>
</table>
P-15. INTERVIEWER: DID YOU REMEMBER TO INSPECT VEHICLES FOR VIN NUMBERS AND ODOMETER READINGS? 1 YES 0 NO -- PLEASE DO SO NOW

RECORD VINS ON BLUE VEHICLE PAGE

P-16. INTERVIEWER: IF SINGLE-FAMILY AND CENTRAL AIR-CONDITIONING, DID YOU GET AIR CONDITIONER NAMEPLATE DATA? 1 YES 0 NO -- IF AVAILABLE, PLEASE DO SO NOW

RECORD NAMEPLATE DATA ON PREVIOUS PAGE

P-17. WHAT PROBLEMS, IF ANY, DID YOU HAVE IN MEASURING THIS (HOUSE/APARTMENT)?

P-18. WHAT EFFECT, IF ANY, DID THESE PROBLEMS HAVE ON THE ACCURACY OF YOUR MEASUREMENTS?

FILL IN AND CHECK THAT ALL INFORMATION IS COMPLETE:

AM 1056-1058

TIME INTERVIEW COMPLETED _____ PM LENGTH OF INTERVIEW: _____ MINUTES

INTERVIEWER'S SIGNATURE: ___________________________ DATE: _______

INTERVIEWER'S I.D. #: ___________ 1059-1064
FOLD OUT PAGE

Q. A-1  HOUSING STRUCTURE:  
[ ] SINGLE FAMILY HOME  
[ ] BUILDING WITH 2-4 UNITS  
[ ] MOBILE HOME/TRAILER  
[ ] BUILDING WITH 5+ UNITS

Q. A-5  TENURE:  
[ ] OWN (BUYING)  
[ ] RENT  
[ ] OCCUPIED WITHOUT PAYMENT OF RENT

Q. A-7,8  YEAR MOVED IN:  19 __ __  IF 1987 OR LATER, MONTH: ___________

Q. B-2  MAIN HEATING FUEL:  ___________  WRITE IN

<table>
<thead>
<tr>
<th>Q. H-3</th>
<th>Q. H-4 (ASK FOR EACH ITEM MARKED &quot;USED&quot; IN Q. H-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USED</td>
<td>NOT USED</td>
</tr>
<tr>
<td>a. For hot water</td>
<td>1 0</td>
</tr>
<tr>
<td>b. For heating your home</td>
<td>1 0</td>
</tr>
<tr>
<td>c. For air-conditioning (CENTRAL OR WINDOW/WALL UNITS)</td>
<td>1 0</td>
</tr>
<tr>
<td>d. For cooking (INCLUDES MICROWAVE)</td>
<td>1 0</td>
</tr>
<tr>
<td>e. For lighting and other appliance</td>
<td>1 0</td>
</tr>
<tr>
<td>f. For hot water</td>
<td>1 0</td>
</tr>
<tr>
<td>g. For heating your home</td>
<td>1 0</td>
</tr>
<tr>
<td>h. For central air-conditioning</td>
<td>1 0</td>
</tr>
<tr>
<td>i. For cooking inside home</td>
<td>1 0</td>
</tr>
<tr>
<td>j. For cooking on outdoor grill</td>
<td>1 0</td>
</tr>
<tr>
<td>k. For other appliances (INCLUDE GAS DRYER AND GAS LIGHT HERE)</td>
<td>1 0</td>
</tr>
<tr>
<td>l. For hot water</td>
<td>1 0</td>
</tr>
<tr>
<td>m. For heating your home</td>
<td>1 0</td>
</tr>
<tr>
<td>n. For central air-conditioning</td>
<td>1 0</td>
</tr>
<tr>
<td>o. For cooking inside home</td>
<td>1 0</td>
</tr>
<tr>
<td>p. For cooking on outdoor grill</td>
<td>1 0</td>
</tr>
<tr>
<td>q. For other appliances (INCLUDE OUTSIDE GAS LIGHT HERE)</td>
<td>1 0</td>
</tr>
<tr>
<td>r. For hot water</td>
<td>1 0</td>
</tr>
<tr>
<td>s. For heating your home</td>
<td>1 0</td>
</tr>
<tr>
<td>t. For cooking and other uses</td>
<td>1 0</td>
</tr>
<tr>
<td>u. For hot water</td>
<td>1 0</td>
</tr>
<tr>
<td>v. For heating your home</td>
<td>1 0</td>
</tr>
<tr>
<td>w. For cooking and other uses</td>
<td>1 0</td>
</tr>
</tbody>
</table>

![Electricity Table]

![Gas from underground pipes serving your neighborhood Table]

![Bottled Gas, LPG, or Propane Table]

![Fuel Oil Table]

![Kerosene Table]