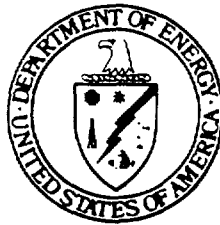


Form Approved  
OMB No. 1905-0092. EIA 457B  
(Expires May 31, 1990.)

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

TIME INTERVIEW STARTED  AM  
 PM

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

- 01 [ ] Before 1940
  - 02 [ ] 1940-1949
  - 03 [ ] 1950-1959
  - 04 [ ] 1960-1969
  - 05 [ ] 1970-1974
  - 06 [ ] 1975-1979
  - 07 [ ] 1980-1983
  - 08 [ ] 1984
  - 09 [ ] 1985
  - 10 [ ] 1986
  - 11 [ ] 1987
  - 12 [ ] 1988
- 121-122  
--ASK Q. 2

**IF "1985" OR LATER, ASK:**

2. In which month did you move in? (SPECIFY MONTH AND ENTER LAST DIGIT OF YEAR.)

MONTH:  123-124  
YEAR: 198

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

- 01 [ ] BEFORE 1940
  - 02 [ ] 1940-1949
  - 03 [ ] 1950-1959
  - 04 [ ] 1960-1969
  - 05 [ ] 1970-1974
  - 06 [ ] 1975-1979
  - 07 [ ] 1980-1983
  - 08 [ ] 1984
  - 09 [ ] 1985
  - 10 [ ] 1986
  - 11 [ ] 1987
  - 12 [ ] 1988
- 125-126

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:  127-128

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 129  
NUMBER OF HALF BATHROOMS:  [ ] NONE 130

**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.

HAND RESPONDENT EXHIBIT 6/7/10

6. What is the main fuel used for heating your home? (SEE INSTRUCTIONS BELOW.)	Q. 6 MAIN FUEL (MARK ONLY ONE)	Q. 7 MARK ALL THAT APPLY	131- 132
GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD . . . . .	01 <input type="checkbox"/>	<input type="checkbox"/>	133
LPG GAS (BOTTLED OR TANK GAS) . . . . .	02 <input type="checkbox"/>	<input type="checkbox"/>	134
FUEL OIL . . . . .	03 <input type="checkbox"/>	<input type="checkbox"/>	135
KEROSENE OR COAL OIL . . . . .	04 <input type="checkbox"/>	<input type="checkbox"/>	136
ELECTRICITY . . . . .	05 <input type="checkbox"/>	<input type="checkbox"/>	137
COAL OR COKE . . . . .	06 <input type="checkbox"/>	<input type="checkbox"/>	138
WOOD . . . . .	07 <input type="checkbox"/>	<input type="checkbox"/>	139
SOLAR COLLECTORS . . . . .	08 <input type="checkbox"/>	<input type="checkbox"/>	140
OTHER (SPECIFY): _____ _____	21 <input type="checkbox"/>	<input type="checkbox"/>	141
DON'T KNOW . . . . .	96 <input type="checkbox"/>	<input type="checkbox"/>	142
NO HEATING FUEL USED -- TAKE BACK EXHIBIT 6/7/10; SKIP TO Q. 32. . . . .	00 <input type="checkbox"/>		
NO ADDITIONAL FUEL -- SKIP TO Q. 9 . . . . .		<input type="checkbox"/>	143

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?

- 1  YES -- SKIP TO Q. 12 145  
 0  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 146-147  
 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: \_\_\_\_\_ 148-149  
 YEAR: 198 \_\_\_\_\_ 150-151

TURN TO EXHIBIT 12/13

	Q.12 MAIN EQUIPMENT (MARK ONLY ONE)	Q. 13 MARK ALL THAT APPLY	152- 153
12. What is the main heating equipment used with your main heating fuel?			
HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) . . .	01 <input type="checkbox"/>	<input type="checkbox"/>	154
STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS . . . . .	02 <input type="checkbox"/>	<input type="checkbox"/>	155
CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (DO NOT COUNT HEAT PUMP HERE). . . . .	03 <input type="checkbox"/>	<input type="checkbox"/>	156
HEAT PUMP. . . . .	04 <input type="checkbox"/>	<input type="checkbox"/>	157
BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD). . . . .	05 <input type="checkbox"/>	<input type="checkbox"/>	158
FLOOR, WALL, OR PIPELESS FURNACE . . . . .	06 <input type="checkbox"/>	<input type="checkbox"/>	159
ROOM HEATER BURNING GAS, OIL, KEROSENE (NOT PORTABLE). . . . .	07 <input type="checkbox"/>	<input type="checkbox"/>	160
HEATING STOVE BURNING WOOD, COAL, COKE . . . . .	08 <input type="checkbox"/>	<input type="checkbox"/>	161
FIREPLACE(S) . . . . .	09 <input type="checkbox"/>	<input type="checkbox"/>	162
PORTABLE ELECTRIC HEATER(S). . . . .	10 <input type="checkbox"/>	<input type="checkbox"/>	163
PORTABLE KEROSENE HEATER(S). . . . .	11 <input type="checkbox"/>	<input type="checkbox"/>	164
COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME, AS WELL AS FOR COOKING) . . . . .	12 <input type="checkbox"/>	<input type="checkbox"/>	165
OTHER (SPECIFY): _____	21 <input type="checkbox"/>	<input type="checkbox"/>	166
DON'T KNOW . . . . .	96 <input type="checkbox"/>	<input type="checkbox"/>	167
NO ADDITIONAL EQUIPMENT . . . . .		<input type="checkbox"/>	168

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:

14. For the central warm-air furnace, is the warm air forced through the ducts by a fan?	1 <input type="checkbox"/>	YES	169
	0 <input type="checkbox"/>	NO	
	6 <input type="checkbox"/>	DON'T KNOW	

IF "HEATING STOVE BURNING WOOD, COAL, COKE" MENTIONED IN Q. 12 OR Q. 13, ASK:

15. Is the heating stove airtight?	1 <input type="checkbox"/>	YES	170
	0 <input type="checkbox"/>	NO	
	6 <input type="checkbox"/>	DON'T KNOW	

IF SINGLE FAMILY HOME OR MOBILE HOME, ASK Q. 16. OTHERWISE SKIP TO Q. 17

16. How old is your main heating equipment, just approximately? (INTERVIEWER: PROBE FOR BEST GUESS.)			
	1 <input type="checkbox"/>	LESS THAN 2 YEARS OLD	4 <input type="checkbox"/>
	2 <input type="checkbox"/>	2-4 YEARS OLD	5 <input type="checkbox"/>
	3 <input type="checkbox"/>	5-9 YEARS OLD	6 <input type="checkbox"/>
			4 <input type="checkbox"/>
			5 <input type="checkbox"/>
			6 <input type="checkbox"/>
			171
			172

IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q. 17. OTHERWISE SKIP TO Q. 18

17. Does the main equipment for heating your home also heat one or more other apartments, households or businesses?	0 <input type="checkbox"/>	NO, HOME HEATING EQUIPMENT IS FOR RESPONDENT'S HOME ONLY	172
	1 <input type="checkbox"/>	YES, HOME HEATING EQUIPMENT IS FOR ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES	
	6 <input type="checkbox"/>	DON'T KNOW	

18. At what temperature do you usually keep your home during the day in the wintertime when someone is at home? (SEE INSTRUCTION BELOW.)
- DEGREES FAHRENHEIT:  173-174  
 HEAT TURNED OFF
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.)
- DEGREES FAHRENHEIT:  175-176  
 HEAT TURNED OFF
20. At what temperature do you usually keep your home during sleeping hours in the wintertime? (SEE INSTRUCTION BELOW.)
- 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.) 207-208:02
- THERMOSTAT FOR MAIN HEATING EQUIPMENT . . . . .  211
  - THERMOSTAT FOR SUPPLEMENTAL HEATING EQUIPMENT . .  212
  - OPENING AND CLOSING WINDOWS OR DOORS . . . . .  213
  - OPENING AND CLOSING HOT AIR VENTS . . . . .  214
  - TURN HEATER ON OR OFF (UP OR DOWN) . . . . .  215
  - TURN RADIATORS OR CONVECTORS ON OR OFF . . . . .  216
  - ADJUST DRAFT OR AMOUNT OF FUEL FOR WOOD OR COAL FIRE . . . . .  217
  - USE COOKING STOVE, OVEN, OR RANGE TO HEAT HOME . . . . .  218
  - OTHER (SPECIFY): \_\_\_\_\_  219
  - NO WAY TO ADJUST THE TEMPERATURE . . . . .  220

**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.

TURN TO EXHIBIT 22/25

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?

(INTERVIEWER: 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 . . . . . 1 [ ] YES 0 [ ] NO -- GO TO Q. 23a 222

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.) 1 [ ] FORGOT TO PAY 222  
2 [ ] COULD NOT PAY  
5 [ ] 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 \_\_\_\_\_ 223-225

23a. You ran out of coal, wood, fuel oil or other bulk fuel . . . . . 1 [ ] YES 0 [ ] NO -- GO TO Q. 24a 226

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.) 1 [ ] FORGOT TO PAY 227  
2 [ ] COULD NOT PAY  
5 [ ] 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 \_\_\_\_\_ 228-230

24a. Your landlord did not provide heat . . . . . 1 [ ] YES 0 [ ] NO -- GO TO Q. 25a 232

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.) 1 [ ] FORGOT TO PAY 232  
2 [ ] COULD NOT PAY  
5 [ ] 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 \_\_\_\_\_ 233-235

25a. Your heating system was broken . . . . . 1 [ ] YES 0 [ ] NO -- GO TO Q. 26a. 236

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? . . . . . 1 [ ] YES 0 [ ] NO 237

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 \_\_\_\_\_ 238-240

**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? TIMES WITHOUT MAIN SOURCE OF HEAT:  241-242
- 26b. During the time your home was without your main source of heat, were you able to heat your home in some other way? 1  YES  
2  NO -- SKIP TO Q. 27 243  
5  OTHER (SPECIFY:) \_\_\_\_\_

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

- 26c. How were you able to heat your home? (INTERVIEWER. WRITE DOWN WHATEVER RESPONDENT REPORTS.) 244-245  
246-247

27. Has any wood been burned in your home in the past 12 months? 1  YES 248  
0  NO -- SKIP TO Q. 32

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? 1  LESS THAN ONE CORD -- ASK Q. 29 249  
2  ONE CORD OR MORE -- SKIP TO Q. 30

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? 1  A FEW LOGS OR SCRAPS OF WOOD 250  
2  1/4 TO 1/3 OF A CORD  
3  1/2 CORD (ABOUT ONE PICK-UP TRUCK OF WOOD)  
4  OVER 1/2 CORD BUT LESS THAN A FULL CORD

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.) NUMBER OF CORDS:  251-253

TAKE BACK EXHIBIT 30; ASK Q. 31

31. Did you purchase any wood to burn in your home in the last 12 months? 1  YES 254  
0  NO

### 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).



HAND RESPONDENT EXHIBIT 32/34

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 255-
- 06  COAL OR COKE 256
- 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)?

- 1  YES 257
- 0  NO -- TAKE BACK EXHIBIT 32/34 SKIP TO Q. 35

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 258-
- 05  ELECTRICITY 259
- 06  COAL OR COKE
- 07  WOOD
- 08  SOLAR COLLECTORS
- 21  OTHER (SPECIFY): \_\_\_\_\_
- 96  DON'T KNOW

TAKE BACK EXHIBIT 32/34

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

- 1  YES 260
- 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

261

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

262

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 263
  - YES, INDIVIDUAL (WINDOW/WALL) UNITS 264
  - 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:  265-266

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

40. Does the central air-conditioning system use electricity, gas from underground pipes, or LPG?
- 3  ELECTRICITY 267
  - 1  GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
  - 2  LPG GAS (BOTTLED OR TANK GAS)
  - 6  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?
- 0  NO, A/C IS FOR RESPONDENT'S HOME ONLY
  - 1  YES, A/C COOLS ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES
  - 6  DON'T KNOW 268

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:  269-270
- 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.)
- 0  DID NOT USE AT ALL 271
  - 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): \_\_\_\_\_

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 FAHRENHEIT:  272-273

**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.

307-308:03

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

311-312

**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?

Q. 46 NUMBER OF DOORS	Q. 47 NUMBER WITH STORM DOOR OR INSULATING GLASS	Q. 48 NUMBER OF STORM/ INSULATING DOORS PUT IN SINCE SEPT. 1, 1985	Q. 49
a. Sliding glass doors  [ ] NONE 313	  [ ] NONE 314	  [ ] NONE 315	MONTH: _____ YEAR: 198 _____ [ ] IN PROCESS 316-319
b. Other doors to the outside  [ ] NONE 320	  [ ] NONE 321	  [ ] NONE 322	MONTH: _____ YEAR: 198 _____ [ ] IN PROCESS 323-326

**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.)

Q. 50 NUMBER OF WINDOWS	Q. 51 NUMBER WITH STORM WINDOWS OR INSULATING GLASS	Q. 52 NUMBER STORM WINDOWS PUT IN SINCE SEPT. 1, 1985	Q. 53
_____	_____	_____	MONTH: _____ YEAR: 198 _____
<input type="checkbox"/> NONE 327-328	<input type="checkbox"/> NONE 329-330	<input type="checkbox"/> NONE 331-332	<input type="checkbox"/> IN PROCESS 333-336

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?

1  YES  
0  NO -- SKIP TO Q. 56

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?

NUMBER WITH PROTECTION:

338-339

**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.

IF ONE-FAMILY HOUSE OR MOBILE HOME, ASK Q. 56ff. IF 2 OR MORE UNITS IN BUILDING, SKIP TO Q. 86 ON PAGE 13.

56. Do you have roof or ceiling insulation in your home? 1 [ ] YES  
0 [ ] NO -- SKIP TO Q. 62 340  
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%) 341  
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 342	_____ INCHES [ ] DON'T KNOW 343-344
b. LOOSE PARTICLES/ LOOSE FILL	1 [ ] YES 0 [ ] NO 6 [ ] DON'T KNOW 345	_____ INCHES [ ] DON'T KNOW 346-347
c. FIRM FOAM/ FIRM PLASTIC	1 [ ] YES 0 [ ] NO 6 [ ] DON'T KNOW 348	_____ INCHES [ ] DON'T KNOW 349-350
d. SPRAYED-IN FOAM	1 [ ] YES 0 [ ] NO 6 [ ] DON'T KNOW 351	_____ INCHES [ ] DON'T KNOW 352-353
e. OTHER (SPECIFY): _____ _____	1 [ ] YES 0 [ ] NO 6 [ ] DON'T KNOW 354	_____ INCHES [ ] DON'T KNOW 355-356

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? 1 [ ] YES  
0 [ ] NO -- SKIP TO Q. 62 357  
2 [ ] IN PROCESS -- SKIP TO Q. 62
- INTERVIEWER: COUNT AS "IN PROCESS" ANY WORK STARTED BUT NOT YET COMPLETED. DO NOT COUNT ANY CHANGES MADE BEFORE THIS HOUSEHOLD MOVED IN.

IF "YES," ASK:

61. In what month and year was the work completed? MONTH: \_\_\_\_\_  
YEAR: 198 358-361  
[ ] IN PROCESS

CONTINUE IF ONE-FAMILY HOUSE OR MOBILE HOME. IF 2 OR MORE UNITS IN BUILDING, SKIP TO Q. 86

62. Do you have insulation in all, some, or none of the outside walls of your home? 362
- 1  ALL  
 2  SOME  
 0  NONE -- SKIP TO Q. 65  
 6  DON'T KNOW -- SKIP TO Q. 65

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? 363  
 (SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)
- 1  YES  
 0  NO -- SKIP TO Q. 65  
 2  IN PROCESS -- SKIP TO Q. 65

IF "YES," ASK:

64. In what month and year was the work completed? 364-367  
 (SEE INSTRUCTION AT BOTTOM OF FACING PAGE.)
- MONTH: \_\_\_\_\_  
 YEAR: 198\_\_\_\_\_  
 IN PROCESS

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:

	Q. 65 HAVE SOME IN HOME	Q. 66 INSTALLED SINCE SEPTEMBER 1, 1985	Q. 67 MONTH/YEAR INSTALLED	
a. Insulation in the basement or crawl space below the floor of your home	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 368	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 369	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 370-373	
b. Insulation around heating and/or cooling ducts	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 374	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 375	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 376-379	
c. Insulation around the hot water and/or cooling pipes	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 411	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 412	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 413-416	407-408: 04
d. Insulation around the hot water heater	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 417	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 418	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 419-422	
e. Caulking	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 423	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 424	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 425-428	
f. Weather stripping around any windows or doors to the outside	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 6 <input type="checkbox"/> DON'T KNOW 429	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 430	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 431-434	

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.)

CONTINUE IF ONE-FAMILY HOUSE OR MOBILE HOME. IF 2 OR MORE UNITS IN BUILDING, SKIP TO Q. 86

TURN TO EXHIBIT 68

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.)

	Q. 68	Q. 69
a. An automatic set-back or clock thermostat	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 435	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 436-439
b. Flame retention head burner for furnace (fuel oil)	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 440	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 441-444
c. Automatic flue door (vent damper)	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 445	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 446-449
d. Electrical or mechanical furnace ignition system (spark ignition)	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 450	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 451-454
e. Closeable shutters, insulating drapes, reflective film	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 455	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 456-459
f. Plastic sheets (over windows or other openings)	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 460	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 461-464
g. Heat pump	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 465	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 466-469
h. Wood-burning stove	1 <input type="checkbox"/> YES 0 <input type="checkbox"/> NO 2 <input type="checkbox"/> IN PROCESS 470	MONTH: _____ YEAR: 198_____ <input type="checkbox"/> IN PROCESS 471-474

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.



CONTINUE IF ONE-FAMILY HOUSE OR MOBILE HOME. IF 2 OR MORE UNITS IN BUILDING, SKIP TO Q.86

511-513

70. Do you have a heated swimming pool, hot tub or jacuzzi? (DO NOT COUNT A CHILDREN'S WADING POOL AS A SWIMMING POOL.)
- |                      |   |                          |     |   |                          |    |
|----------------------|---|--------------------------|-----|---|--------------------------|----|
| HEATED SWIMMING POOL | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO |
| HOT TUB              | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO |
| JACUZZI              | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO |

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.)
- |    |                          |   |      |
|----|--------------------------|---|------|
| 01 | <input type="checkbox"/> | GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD |      |
| 02 | <input type="checkbox"/> | LPG GAS (BOTTLED OR TANK GAS)                       |      |
| 03 | <input type="checkbox"/> | FUEL OIL  |      |
| 04 | <input type="checkbox"/> | KEROSENE OR COAL OIL                                |      |
| 05 | <input type="checkbox"/> | ELECTRICITY   | 514- |
| 06 | <input type="checkbox"/> | COAL OR COKE  | 515  |
| 07 | <input type="checkbox"/> | WOOD  |      |
| 08 | <input type="checkbox"/> | SOLAR COLLECTORS                                    |      |
| 21 | <input type="checkbox"/> | OTHER (SPECIFY): _____                              |      |
| 96 | <input type="checkbox"/> | DON'T KNOW  |      |

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 657  
 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 658  
 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

REFRIGERATOR #1	REFRIGERATOR #2
659	660
1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>

TAKE BACK EXHIBIT 88

**INTERVIEWER INSTRUCTIONS:**  
 Q. 88-- If respondent has more than two refrigerators, ask about two used most.

**HAND RESPONDENT EXHIBIT 89**

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 661-
- 06  COAL OR COKE 662
- 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 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 663 |
| GAS STOVE-TOP OR GAS BURNERS                            | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 664 |
| MICROWAVE OVEN  | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 665 |
| ELECTRIC OVEN OTHER THAN MICROWAVE                      | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 666 |
| GAS OVEN  | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 667 |
| OUTDOOR GAS GRILL<br>(USING GAS FROM UNDERGROUND PIPES) | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 668 |
| OUTDOOR GAS GRILL<br>(USING LPG-BOTTLED OR TANK GAS)    | 1 <input type="checkbox"/> YES | 0 <input type="checkbox"/> NO | 669 |

TURN TO EXHIBIT 91.

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   | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 670                              |
| WRINGER WASHING MACHINE (ELECTRIC)                               | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 671                              |
| ELECTRIC DISHWASHER  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 672                              |
| ELECTRIC CLOTHES DRYER   | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 673                              |
| GAS CLOTHES DRYER  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 674                              |
| OUTDOOR GAS LIGHT  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 675                              |
| ELECTRIC DEHUMIDIFIER  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 676                              |
| ELECTRIC HUMIDIFIER  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 677                              |
| EVAPORATIVE COOLER (SWAMP COOLER)                                | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 678                              |
| "WHOLE HOUSE" COOLING FAN<br>(IN ATTIC OR ENTRANCE TO ATTIC)     | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 679                              |
| WINDOW OR CEILING FAN  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 680                              |
| ELECTRIC BLANKET   | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 707-708, 710, 711                |
| WATER BED WITH HEATER  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 712                              |
| FROST FREE FREEZER<br>(SEPARATE APPLIANCE FROM REFRIGERATOR)     | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 713                              |
| MANUAL DEFROST FREEZER<br>(SEPARATE APPLIANCE FROM REFRIGERATOR) | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 714                              |
| BLACK AND WHITE TELEVISION SET                                   |   | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | NUMBER: <input type="text"/> 715 |
| COLOR TELEVISION SET   |   | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | NUMBER: <input type="text"/> 716 |

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? 1  YES 717  
0  NO

IF "YES" ON Q. 94, ASK:

95. Please describe the equipment and how you use it.

TAKE BACK EXHIBIT 94

718-720

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.)

PERSON NUMBER	WHO IS RESPONDENT?	RELATIONSHIP TO HOUSEHOLDER	SEX		AGE	Q. 101 - EMPLOYMENT (AGE 14+)			
			FEMALE	MALE		FULL TIME	PART TIME	NOT EMPLOYED	
1		HOUSEHOLDER	1[]	2[]		1[]	2[]	0[]	721-727
2			1[]	2[]		1[]	2[]	0[]	731-737
3			1[]	2[]		1[]	2[]	0[]	741-747
4			1[]	2[]		1[]	2[]	0[]	751-757
5			1[]	2[]		1[]	2[]	0[]	761-767
6			1[]	2[]		1[]	2[]	0[]	771-777
7			1[]	2[]		1[]	2[]	0[]	807-808:08 811-817
8			1[]	2[]		1[]	2[]	0[]	821-827
9			1[]	2[]		1[]	2[]	0[]	831-837
10			1[]	2[]		1[]	2[]	0[]	841-847
11			1[]	2[]		1[]	2[]	0[]	851-857
12			1[]	2[]		1[]	2[]	0[]	861-867

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:

868-869

FOR EACH PERSON AGED 14 YEARS OR OLDER, ASK:

- 101. Is he/she employed full-time (30 hours or more per week), part-time, or not employed?

**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.) 870  
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 871  
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 872  
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 873  
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 | <input type="checkbox"/> | NEVER ATTENDED SCHOOL<br>SKIP TO Q. 108 |                                      |
| 01 | <input type="checkbox"/> | FIRST                                   | 07 <input type="checkbox"/> SEVENTH  |
| 02 | <input type="checkbox"/> | SECOND                                  | 08 <input type="checkbox"/> EIGHTH   |
| 03 | <input type="checkbox"/> | THIRD                                   | 09 <input type="checkbox"/> NINTH    |
| 04 | <input type="checkbox"/> | FOURTH                                  | 10 <input type="checkbox"/> TENTH    |
| 05 | <input type="checkbox"/> | FIFTH                                   | 11 <input type="checkbox"/> ELEVENTH |
| 06 | <input type="checkbox"/> | SIXTH                                   | 12 <input type="checkbox"/> TWELFTH  |

874-875

COLLEGE (ACADEMIC YEARS)

- |    |                          |    |    |                          |            |
|----|--------------------------|----|----|--------------------------|------------|
| 13 | <input type="checkbox"/> | C1 | 16 | <input type="checkbox"/> | C4         |
| 14 | <input type="checkbox"/> | C2 | 17 | <input type="checkbox"/> | C5         |
| 15 | <input type="checkbox"/> | C3 | 18 | <input type="checkbox"/> | C6 OR MORE |

107. Did (HOUSEHOLDER) finish that grade (or year)?
- |   |                          |     |     |
|---|--------------------------|-----|-----|
| 1 | <input type="checkbox"/> | YES |     |
| 0 | <input type="checkbox"/> | NO  | 876 |

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.)
- 907-908:09

- |   |   |                          |     |   |                          |    |     |
|---|---|--------------------------|-----|---|--------------------------|----|-----|
| a. Wages or salaries . . . . .                              | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 911 |
| b. Self-employment from business or farm . . . . .          | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 912 |
| c. Aid to Families with Dependent Children (AFDC) . . . . . | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 913 |
| d. Supplemental Security Income (SSI) . . . . .             | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 914 |
| e. General Assistance or other public assistance . . . . .  | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 915 |
| f. Food Stamps . . . . .                                    | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 916 |
| g. Social Security or Railroad Retirement . . . . .         | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 917 |
| h. Unemployment compensation . . . . .                      | 1 | <input type="checkbox"/> | YES | 0 | <input type="checkbox"/> | NO | 918 |



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

919-920

01 A LESS THAN \$ 3,000	10 I \$11,000 - \$12,499	19 Q \$27,500 - \$29,999
02 B \$ 3,000 - \$ 3,999	12 J \$12,500 - \$13,999	20 R \$30,000 - \$32,499
03 C \$ 4,000 - \$ 4,999	13 K \$14,000 - \$14,999	21 S \$32,500 - \$34,999
04 D \$ 5,000 - \$ 5,999	14 L \$15,000 - \$17,499	22 T \$35,000 - \$39,999
05 E \$ 6,000 - \$ 7,499	15 M \$17,500 - \$19,999	23 U \$40,000 - \$49,999
07 F \$ 7,500 - \$ 8,999	16 N \$20,000 - \$22,499	24 V \$50,000 - \$74,999
08 G \$ 9,000 - \$ 9,999	17 O \$22,500 - \$24,999	25 W \$75,000 OR OVER
09 H \$10,000 - \$10,999	18 P \$25,000 - \$27,499	

96  DON'T KNOW

97  REFUSED

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 . . . . . 1  YES 0  NO 929
- 111b. Help in paying home cooling costs . . . . . 1  YES 0  NO 930
- 111c. Help in paying other home energy costs. . . . . 1  YES 0  NO 932

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 . . . . . 1  YES 0  NO 932
- b. Coupon/voucher to household. . . . . 1  YES 0  NO 933
- c. Assistance sent directly to electric or gas company, or fuel dealer . . . . . 1  YES 0  NO 934

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). NUMBER OF DOLLARS \$ \_\_\_\_\_ .00

935-938

**TAKE BACK EXHIBITS**

ASK EVERYONE

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

- 1  OWN (BUYING) 939
- 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
  - 0  NO
- 940  
---- SKIP TO Q. 120

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
- 0  NO 945
- 6  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
- 0  NO 946
- 6  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.

	USED	NOT USED	PAID BY HOUSEHOLD	INCLUDED IN RENT	OTHER (SPECIFY)	
<u>ELECTRICITY</u>						
a. FOR HOT WATER	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	947-948
b. FOR HEATING YOUR HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	949-950
c. FOR AIR-CONDITIONING (CENTRAL OR WINDOW/WALL UNITS)	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	951-952
d. FOR COOKING	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	953-954
e. FOR LIGHTING AND OTHER APPLIANCES	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	955-956
<u>GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD</u>						
f. FOR HOT WATER	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	957-958
g. FOR HEATING YOUR HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	959-960
h. FOR CENTRAL AIR-CONDITIONING	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	961-962
i. FOR COOKING INSIDE HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	963-964
j. FOR COOKING ON OUTDOOR GRILL	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	965-966
k. FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	967-968
<u>LPG GAS (BOTTLED OR TANK GAS)</u>						
l. FOR HOT WATER	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	969-970
m. FOR HEATING YOUR HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	971-972
n. FOR CENTRAL AIR-CONDITIONING	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	973-974
o. FOR COOKING INSIDE HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	975-976
p. FOR COOKING ON OUTDOOR GRILL	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	977-978
q. FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	979-980
<u>FUEL OIL</u>						
r. FOR HOT WATER	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1007-1008:10 1011-1012
s. FOR HEATING YOUR HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1013-1014
t. FOR COOKING AND OTHER USES	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1015-1016
<u>KEROSENE</u>						
u. FOR HOT WATER	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1017-1018
v. FOR HEATING YOUR HOME	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1019-1020
w. FOR COOKING AND OTHER USES	1 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 <input type="checkbox"/>	1021-1022

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

1023

INTERVIEWER: IF USE OF ANY FUEL IS "PAID BY HOUSEHOLD" IN QUESTIONS ON PRECEDING PAGE, CONTINUE BELOW. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 147 ON PAGE 35.

1024

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?
- 1  YES  
0  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?
- 1  YES  
0  NO -- TAKE BACK EXHIBIT 125/126 --  
SKIP TO INSTRUCTIONS FOR Q. 133 ON PAGE 30.

1030

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 1031  
 THE HOUSE OR APARTMENT OF ANOTHER HOUSEHOLD 1032  
 A BUSINESS OR OFFICE 1033  
 OTHER PURPOSES (SPECIFY): \_\_\_\_\_ 1034
-

## 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.)

- ELECTRICITY 1035  
 GAS FROM UNDERGROUND PIPES 1036  
 LPG GAS (BOTTLED OR TANK GAS) 1037  
 FUEL OIL 1038  
 KEROSENE 1039

## 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?

- 0  VERY LITTLE (LESS THAN 5%)  
 1  1/4 ( 5 - 33%)  
 2  1/2 (34 - 66%) 1040  
 3  3/4 (67 - 95%)

## 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?

- 0  VERY LITTLE (LESS THAN 5%)  
 1  1/4 ( 5 - 33%)  
 2  1/2 (34 - 66%) 1041  
 3  3/4 (67 - 95%)

## 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?

- 0  VERY LITTLE (LESS THAN 5%)  
 1  1/4 ( 5 - 33%)  
 2  1/2 (34 - 66%) 1042  
 3  3/4 (67 - 95%)

## 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?

- 0  VERY LITTLE (LESS THAN 5%)  
 1  1/4 ( 5 - 33%)  
 2  1/2 (34 - 66%) 1043  
 3  3/4 (67 - 95%)

## 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?

- 0  VERY LITTLE (LESS THAN 5%)  
 1  1/4 ( 5 - 33%)  
 2  1/2 (34 - 66%) 1044  
 3  3/4 (67 - 95%)

## TAKE BACK EXHIBIT 128/132

IF HOUSEHOLD USES AND PAYS FOR LPG GAS (SEE QUESTIONS 120-121 PARTS 1-q), ASK Q. 133ff., OTHERWISE, SKIP TO INSTRUCTION FOR Q. 136.

133. About how many deliveries of LPG 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 LPG for this (house/apartment) in the past 12 months from one company or from more than one company?
- 1  ONE COMPANY 1047
- 2  MORE THAN ONE COMPANY
- IF "MORE THAN ONE COMPANY," ASK:
135. How many different companies?
- 2  TWO
- 3  THREE 1048
- 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 1051
- 2  MORE THAN ONE COMPANY
- IF "MORE THAN ONE," ASK:
138. How many different companies?
- 2  TWO
- 3  THREE 1052
- 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 1053
- 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).

- 1  DELIVERED -- GO TO Q. 140a  
 2  BOUGHT AND BROUGHT HOME -- GO TO Q. 140b  
 0  NO KEROSENE DELIVERED OR BOUGHT IN PAST 12 MONTHS -- SKIP TO INSTRUCTION FOR Q. 144

IF "DELIVERED," ASK:

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

- 1  ONE  
 2  TWO  
 3  THREE  
 4  FOUR OR MORE

IF "BOUGHT AND BROUGHT HOME," ASK:

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

PRICE PER GALLON: \$ \_\_\_\_\_  
 DON'T KNOW

IF "DON'T KNOW," PROBE: About how much did you pay in total each time you bought kerosene?

PAYMENT: \$ \_\_\_\_\_

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

TOTAL NUMBER OF DELIVERIES/PURCHASES FOR PAST 12 MONTHS:   DON'T KNOW

IF TOTAL NUMBER GIVEN ON Q. 141, ASK:

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

NUMBER OF GALLONS:   DON'T KNOW

IF "DON'T KNOW" ON Q. 141, ASK:

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

NUMBER OF GALLONS:   DON'T KNOW

IF "DON'T KNOW" ON Q. 143, HAND RESPONDENT EXHIBIT 143.

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.

- 1  LESS THAN 25 GALLONS  
 2  25 - 49 GALLONS  
 3  50 - 99 GALLONS  
 4  100 - 499 GALLONS  
 5  500 - 999 GALLONS  
 6  1,000 OR MORE GALLONS

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:

1059

IF AUTHORIZATION FORM IS SIGNED, ASK Q. 145ff, OTHERWISE, SKIP TO INSTRUCTION FOR Q. 147

145. Do your fuel bills come addressed to (NAME OF SIGNATURE ON AUTHORIZATION FORM), or are they in another name? 1  SAME NAME -- SKIP TO Q. 146 1060  
2  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: \_\_\_\_\_ 1061

NOT AVAILABLE/REFUSED

GAS (FROM UNDERGROUND PIPES) -- CUSTOMER NUMBER: \_\_\_\_\_ 1062

NOT AVAILABLE/REFUSED

INTERVIEWER

THE AUTHORIZATION FORM IS TO BE FILLED OUT AT THIS POINT IN THE INTERVIEW. USE THE SEPARATE FORM THAT IS INSERTED IN THE QUESTIONNAIRE.



IF HOUSEHOLD HAS ONE OR MORE FUELS "INCLUDED IN RENT" OR "OTHER" (SEE Q. 121), ASK Q. 147 OTHERWISE, SKIP TO Q. 148.

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)?

1063

NAME: \_\_\_\_\_

TELEPHONE NUMBER: (AREA CODE: \_\_\_\_\_) \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY OR TOWN/STATE/ZIP CODE: \_\_\_\_\_

**ASK EVERYONE**

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?

NUMBER OF DRIVERS:   
 NONE

525-526

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.)

1  YES 527  
 0  NO -- TAKE BACK EXHIBIT 152 AND SKIP TO Q. 165

IF "YES," ASK:

153. How many do you have?

NUMBER OF VEHICLES:

528-529

ASK ABOUT EACH VEHICLE.

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

607-608:06

	VEHICLE NUMBER			
	1	2	3	4
STANDARD PASSENGER CAR	01 <input type="checkbox"/> 530-532	01 <input type="checkbox"/> 553-554	01 <input type="checkbox"/> 611-612	01 <input type="checkbox"/> 634-635
2-SEAT CAR	02 <input type="checkbox"/>	02 <input type="checkbox"/>	02 <input type="checkbox"/>	02 <input type="checkbox"/>
STATION WAGON	03 <input type="checkbox"/>	03 <input type="checkbox"/>	03 <input type="checkbox"/>	03 <input type="checkbox"/>
LARGE VAN	04 <input type="checkbox"/>	04 <input type="checkbox"/>	04 <input type="checkbox"/>	04 <input type="checkbox"/>
MINI VAN	05 <input type="checkbox"/>	05 <input type="checkbox"/>	05 <input type="checkbox"/>	05 <input type="checkbox"/>
PICKUP TRUCK	06 <input type="checkbox"/>	06 <input type="checkbox"/>	06 <input type="checkbox"/>	06 <input type="checkbox"/>
JEEP OR SIMILAR VEHICLE	07 <input type="checkbox"/>	07 <input type="checkbox"/>	07 <input type="checkbox"/>	07 <input type="checkbox"/>
OTHER (SPECIFY:)	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>

TAKE BACK EXHIBIT 152

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

MAKE

532-533 555-556 613-614 636-637

MODEL NAME

534-535 557-558 615-616 638-639

MODEL YEAR

536-537 559-560 617-618 640-641

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 Gimmy), 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.)

		VEHICLE NUMBER			
		1	2	3	4
157. Did you get this vehicle within the past 12 months or did you have it before that?					
		538	561	619	642
WITHIN PAST 12 MONTHS ASK Q. 158		1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
HAD IT MORE THAN 12 MONTHS SKIP TO Q. 160		2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
IF "WITHIN PAST 12 MONTHS," ASK:		539-542	562-565	620-623	643-646
158. In what month and year did you get it?					
MONTH					
YEAR		198	198	198	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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IF "HAD IT MORE THAN 12 MONTHS" ON Q. 157, ASK:		548-552	571-575	629-633	652-656
160. Approximately how many miles was it driven during the past 12 months?					
MILES					
DON'T KNOW		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CHECK HERE AND ASK Q. 164					
NO		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.

IF "NO" ON Q. 161 (THIS CAR IS NOT AVAILABLE) ASK Q. 162. IF "YES" ON Q. 161, ASK Q. 157 FOR NEXT VEHICLE; IF NO OTHER VEHICLES, SKIP TO Q. 165.

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.

V	1	Make _____ Model _____	
		[ ] ODOMETER KNOWN _____ (ESTIMATED ODOMETER READING) _____	1350-1359
E	1	[ ] ODOMETER NOT KNOWN _____	1360
		VIN: _____	1362
H	1	[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1370 1380
		Make _____ Model _____	
I	2	[ ] ODOMETER KNOWN _____ (ESTIMATED ODOMETER READING) _____	1412-1419
		[ ] ODOMETER NOT KNOWN _____	1418
C	2	VIN: _____	1420
		[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1430 1438
L	2	Make _____ Model _____	
		[ ] ODOMETER KNOWN _____ (ESTIMATED ODOMETER READING) _____	1440-1449
E	3	[ ] ODOMETER NOT KNOWN _____	1447
		VIN: _____	1449
N	3	[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1450 1460 1467
		Make _____ Model _____	
U	3	[ ] ODOMETER KNOWN _____ (ESTIMATED ODOMETER READING) _____	1618-1625
		[ ] ODOMETER NOT KNOWN _____	1625
M	4	VIN: _____	1627
		[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1630 1640
B	4	Make _____ Model _____	
		[ ] ODOMETER KNOWN _____ (ESTIMATED ODOMETER READING) _____	1618-1625
E	4	[ ] ODOMETER NOT KNOWN _____	1625
		VIN: _____	1627
R	4	[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1630 1640

**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.

164. (SEE INSTRUCTIONS BELOW.)

V	Make _____ Model _____		
	<input type="checkbox"/> ODOMETER OBTAINED 2	1360 (ODOMETER READING FROM VEHICLE)	1353-1358
	<input type="checkbox"/> ODOMETER NOT OBTAINED 8		
	<input type="checkbox"/> ODOMETER REFUSED 7		
H	VIN: _____		1378
	<input type="checkbox"/> VIN OBTAINED 2	<input type="checkbox"/> VIN NOT OBTAINED 8	<input type="checkbox"/> VIN REFUSED 7
			1380
C	Make _____ Model _____		
	<input type="checkbox"/> ODOMETER OBTAINED 2	1418 (ODOMETER READING FROM VEHICLE)	1421-1426
	<input type="checkbox"/> ODOMETER NOT OBTAINED 8		
	<input type="checkbox"/> ODOMETER REFUSED 7		
E	VIN: _____		1436
	<input type="checkbox"/> VIN OBTAINED 2	<input type="checkbox"/> VIN NOT OBTAINED 8	<input type="checkbox"/> VIN REFUSED 7
			1438
U	Make _____ Model _____		
	<input type="checkbox"/> ODOMETER OBTAINED 2	1447 (ODOMETER READING FROM VEHICLE)	1440-1445
	<input type="checkbox"/> ODOMETER NOT OBTAINED 8		
	<input type="checkbox"/> ODOMETER REFUSED 7		
B	VIN: _____		1465
	<input type="checkbox"/> VIN OBTAINED 2	<input type="checkbox"/> VIN NOT OBTAINED 8	<input type="checkbox"/> VIN REFUSED 7
			1467
R	Make _____ Model _____		
	<input type="checkbox"/> ODOMETER OBTAINED 2	1625 (ODOMETER READING FROM VEHICLE)	1618-1623
	<input type="checkbox"/> ODOMETER NOT OBTAINED 8		
	<input type="checkbox"/> ODOMETER REFUSED 7		
E	VIN: _____		1643
	<input type="checkbox"/> VIN OBTAINED 2	<input type="checkbox"/> VIN NOT OBTAINED 8	<input type="checkbox"/> VIN REFUSED 7
			1645

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

**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 -- 1064-  
SKIP TO Q. 169 1065
  - 2  ONE-FAMILY HOUSE
    - 1  ONE STORY
    - 2  TWO STORY
    - 3  THREE STORY
    - 4  SPLIT-LEVEL
    - 5  OTHER (SPECIFY): \_\_\_\_\_
- } IF ONE-FAMILY HOUSE, MARK STYLE BASED ON GENERAL APPEARANCE FROM OUTSIDE
- 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?

- 1  YES
- 0  NO -- SKIP TO Q. 169 1066

IF "YES" ON Q. 166, ASK:

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

- 1  YES
- 0  NO -- SKIP TO Q. 169 1067

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

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

- 4  ALWAYS
- 3  USUALLY
- 2  OCCASIONALLY 1068
- 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 | <input type="checkbox"/> | BASEMENT                           | 1069 |
| 2 | <input type="checkbox"/> | CRAWL SPACE -- ENCLOSED            |      |
| 3 | <input type="checkbox"/> | CRAWL SPACE -- OPEN TO THE OUTSIDE |      |
| 4 | <input type="checkbox"/> | CONCRETE SLAB -- SKIP TO Q. 175    |      |
| 5 | <input type="checkbox"/> | COMBINATION (MARK ALL THAT APPLY.) |      |
|   | <input type="checkbox"/> | BASEMENT                           | 1070 |
|   | <input type="checkbox"/> | CRAWL SPACE -- ENCLOSED            | 1071 |
|   | <input type="checkbox"/> | CRAWL SPACE -- OPEN TO THE OUTSIDE | 1072 |
|   | <input type="checkbox"/> | CONCRETE SLAB                      | 1073 |

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 | <input type="checkbox"/> | ALL -- SKIP TO Q. 175 |      |
| 2 | <input type="checkbox"/> | PART                  | 1074 |
| 0 | <input type="checkbox"/> | 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 | <input type="checkbox"/> | NONE, VERY LITTLE (LESS THAN 5%) |      |
| 1 | <input type="checkbox"/> | 1/4 ( 5 - 33%)                   |      |
| 2 | <input type="checkbox"/> | 1/2 (34 - 66%)                   |      |
| 3 | <input type="checkbox"/> | 3/4 (67 - 95%)                   | 1075 |
| 4 | <input type="checkbox"/> | ALL (96 - 100%)                  |      |
| 6 | <input type="checkbox"/> | 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?  YES 1076  
 NO -- SKIP TO Q. 175

IF "YES," ASK:

173. Is any part of the basement for the exclusive or primary use of your household?  YES 1077  
 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?  ALL 1078  
 PART  
 NONE

## ASK EVERYONE

## 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?

- 1  YES  
0  NO -- SKIP TO Q. 180

1107-  
1108:11

1111

## 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

1112

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

- 1  INCREASED  
2  DECREASED  
3  REMAINED THE SAME

1113

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

1114-  
1115

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

MONTH: \_\_\_\_\_  
YEAR: 198 \_\_\_\_\_  
 IN PROCESS

## TAKE BACK EXHIBIT 175

1116-  
1119

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

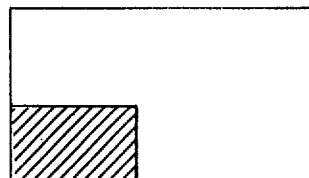
Include porches if enclosed from the weather.

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).

Indicate unheated areas this way →



USE BACKS OF MEASUREMENT PAGES FOR ADDITIONAL SPACE AS NEEDED, FOR SKETCHES AND MEASUREMENTS.

RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

START HERE

if this household has a basement or cellar (see instruction on facing page for basements and cellars)

**BASEMENT MEASUREMENTS**  FULL BASEMENT  HALF BASEMENT

RECTANGULAR SHAPE DRAW DIAGRAM, IF OTHER THAN RECTANGULAR

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

START HERE

if this household does not have a basement or cellar

**FIRST 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?

CONTINUE ON PAGE 47 FOR SECOND AND THIRD STORIES

FOR OFFICE USE ONLY

FIR Codes		Unit A			Unit B			Unit C			Unit D			# of Units	
1120	21	22	23	24-25	26-27	28	29-30	31-32	33	34-35	36-37	38	39-40	41-42	43
B															
1144	45	46	47	48-49	50-51	52	53-54	55-56	57	58-59	60-61	62	63-64	65-66	67
1															



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

RECORD MEASUREMENTS ON DIAGRAM TO NEAREST FOOT

SECOND STORY MEASUREMENTS	<input type="checkbox"/> FULL STORY <input type="checkbox"/> 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	<input type="checkbox"/> FULL STORY <input type="checkbox"/> 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

1207-1208:12

Flr Codes		Unit A			Unit B			Unit C			Unit D			# of Units		
		69	70	71	72-73	74-75	76	77-78	79-80	1211	12-13	14-15	16		17-18	19-20
2	1168															
	1222															
3																

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





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.

0 [ ] NO UNHEATED AREAS 1260

1 [ ] ALL UNHEATED AREAS HAVE BEEN  
MARKED WITH LINES



2 [ ] ENTIRE UNIT IS UNHEATED (NO  
HEATING EQUIPMENT)

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).

01 [ ] MEASURED INSIDE 1261-

02 [ ] MEASURED OUTSIDE 1262

03 [ ] COMBINATION OF INSIDE AND  
OUTSIDE MEASUREMENTS

04 [ ] RESPONDENT GAVE TOTAL  
SQUARE FEET FROM PLAN

05 [ ] RESPONDENT'S ESTIMATES

21 [ ] OTHER MEASUREMENT  
PROCEDURE (SPECIFY): \_\_\_\_\_

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

TURN PAGE TO COMPLETE INTERVIEW

FOR OFFICE  
USE ONLY

FL	LQT

1263-1265

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

1266-1268	
TIME INTERVIEW COMPLETED: _____	AM _____ PM
LENGTH OF INTERVIEW: _____	MINUTES
INTERVIEWER'S SIGNATURE _____	DATE: _____
INTERVIEWER'S I.D. #: _____	1269-1274

**1987 RESIDENTIAL ENERGY CONSUMPTION SURVEY**  
**RENTAL AGENTS, LANDLORDS, AND APARTMENT MANAGERS**

Time Started
AM
PM

Hello, This is \_\_\_\_\_ from Response Analysis Corporation in Princeton, NJ. I'm calling about the Department of Energy study on residential energy uses that we wrote you about. Your answers are strictly confidential.

IF LETTER NOT RECEIVED: We will send you another copy and call back in a few days. 01-04  
VERIFY ADDRESS ON CONTROL CARD. 05

1. I would like to get a brief description of the building at (GIVE ADDRESS, NOT NAME) as it was as of November 1987. 06-7
- 07-08
- 10-15
- 16-17
- 18-19

2. Was there a group of five or more housing units in the same building, a group of two to four units in the same building, a single unit in a building by itself, or would you describe it in some other way?

- 5 OR MORE UNITS IN BUILDING -- ASK Q. 3a and Q. 3b
- 2 TO 4 UNITS IN BUILDING -- ASK Q. 3a
- SINGLE UNIT IN BUILDING BY ITSELF -- NO INTERVIEW ON THIS UNIT: CHECK FOR OTHER UNITS ON CONTROL CARD.
- OTHER (DESCRIBE) \_\_\_\_\_ 22

IF "2-4 UNITS" OR "5 OR MORE UNITS", ASK:

3a. How many residential units were in the building? NUMBER OF UNITS: \_\_\_\_\_ 23-25

IF "5 OR MORE UNITS," ASK:

3b. How many floors (stories) were in the building? NUMBER OF FLOORS: \_\_\_\_\_ 26-27

4. About when was the (house/building) built? (IF NOT KNOWN, ASK FOR "BEST ESTIMATE.")

- |   |   |       |
|---|---|-------|
| 01 <input type="checkbox"/> BEFORE 1940 | 07 <input type="checkbox"/> 1980 - 1983 |       |
| 02 <input type="checkbox"/> 1940 - 1949 | 08 <input type="checkbox"/> 1984        | 28-29 |
| 03 <input type="checkbox"/> 1950 - 1959 | 09 <input type="checkbox"/> 1985        |       |
| 04 <input type="checkbox"/> 1960 - 1969 | 10 <input type="checkbox"/> 1986        |       |
| 05 <input type="checkbox"/> 1970 - 1974 | 11 <input type="checkbox"/> 1987        |       |
| 06 <input type="checkbox"/> 1975 - 1979 | 12 <input type="checkbox"/> 1988        |       |

5. These next questions are about (IDENTIFY SPECIFIC HOUSING UNIT). As of November 1987, what was the main fuel used for home heating?

- 01 [ ] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD -- SKIP TO Q. 7
- 02 [ ] LP GAS (BOTTLED OR TANK GAS) -- SKIP TO Q. 7
- 03 [ ] FUEL OIL -- SKIP TO Q. 7
- 04 [ ] KEROSENE OR COAL OIL -- SKIP TO Q. 7
- 05 [ ] ELECTRICITY -- GO TO Q. 6
- 06 [ ] COAL OR COKE -- SKIP TO Q. 8
- 07 [ ] WOOD -- SKIP TO Q. 8
- 08 [ ] SOLAR COLLECTORS -- SKIP TO Q. 10
- 21 [ ] OTHER (SPECIFY): \_\_\_\_\_ SKIP TO Q. 9
- 00 [ ] NO SPACE HEATING FUEL USED -- SKIP TO Q. 12

IF ELECTRICITY USED FOR HOME HEATING, ASK:

6. What was the main heating equipment? Was it built-in electric units, heat pump, central warm-air furnace, portable heaters, or what?

- 05 [ ] BUILT-IN ELECTRIC UNITS
- 04 [ ] HEAT PUMP(S)
- 03 [ ] CENTRAL WARM AIR-FURNACE (WITH DUCTS)
- 10 [ ] PORTABLE HEATERS
- 21 [ ] OTHER (SPECIFY): \_\_\_\_\_

SKIP TO Q. 9

IF UNDERGROUND GAS, LP GAS, FUEL OIL, KEROSENE OR COAL OIL USED FOR HOME HEATING, ASK:

32-33

7. What was the main heating equipment? Was it radiant heating (hot water running through a slab floor), steam or hot water system with radiators, a central warm-air furnace, a floor, wall or pipeless furnace, room heaters, or what?

- 01 [ ] HOT WATER PIPES IN SLAB FLOOR (RADIANT HEATING)
- 02 [ ] STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS
- 03 [ ] CENTRAL WARM-AIR FURNACE (WITH DUCTS)
- 06 [ ] FLOOR, WALL, OR PIPELESS FURNACE
- 07 [ ] ROOM HEATERS BURNING GAS, OIL, KEROSENE (NON-PORTABLE)
- 11 [ ] PORTABLE KEROSENE HEATER(S)
- 12 [ ] COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME, AS WELL AS FOR COOKING)
- 21 [ ] OTHER (SPECIFY): \_\_\_\_\_

SKIP TO Q. 9

IF WOOD, COAL, OR COKE USED FOR HOME HEATING, ASK:

8. What was the main heating equipment? Was it a steam or hot water system with radiators, a heating stove, a fireplace, or what?

- 02 [ ] STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS
- 08 [ ] HEATING STOVE
- 09 [ ] FIREPLACE(S)
- 21 [ ] OTHER (SPECIFY): \_\_\_\_\_

9. As of November 1987, was the main heating fuel paid for by the tenant or by the landlord?

- 1 [ ] TENANT
- 2 [ ] LANDLORD
- 5 [ ] OTHER (SPECIFY): \_\_\_\_\_

34

10. You say that (SEE Q. 5) was the main fuel used for home heating. Was any other fuel used for heating at this apartment? 1 [ ] YES  
 0 [ ] NO -- SKIP TO Q. 12 35

IF "YES," ASK:

11. What was the other fuel used? 01 [ ] GAS FROM UNDERGROUND PIPES  
 02 [ ] LP GAS (BOTTLED OR TANK GAS)  
 03 [ ] FUEL OIL  
 04 [ ] KEROSENE OR COAL OIL  
 05 [ ] ELECTRICITY 36-37  
 06 [ ] COAL OR COKE  
 07 [ ] WOOD  
 08 [ ] SOLAR COLLECTORS  
 21 [ ] OTHER (SPECIFY): \_\_\_\_\_

12. As of November 1987, what was the main fuel used for heating water? 01 [ ] GAS FROM UNDERGROUND PIPES  
 02 [ ] LP GAS (BOTTLED OR TANK GAS)  
 03 [ ] FUEL OIL  
 04 [ ] KEROSENE OR COAL OIL  
 05 [ ] ELECTRICITY 38-39  
 06 [ ] COAL OR COKE  
 07 [ ] WOOD  
 08 [ ] SOLAR COLLECTORS  
 21 [ ] OTHER (SPECIFY): \_\_\_\_\_  
 00 [ ] NO WATER HEATING FUEL -- SKIP TO Q. 14

13. Was the main water heating fuel paid for by the tenant or by the landlord? 1 [ ] TENANT  
 2 [ ] LANDLORD 40  
 5 [ ] OTHER (SPECIFY): \_\_\_\_\_

14. As of November 1987, what was the main fuel used for cooking? 01 [ ] GAS FROM UNDERGROUND PIPES  
 02 [ ] LP GAS (BOTTLED OR TANK GAS)  
 03 [ ] FUEL OIL  
 04 [ ] KEROSENE OR COAL OIL  
 05 [ ] ELECTRICITY 41-42  
 06 [ ] COAL OR COKE  
 07 [ ] WOOD  
 21 [ ] OTHER (SPECIFY): \_\_\_\_\_  
 00 [ ] NO COOKING EQUIPMENT -- SKIP TO Q. 16

15. Was the main cooking fuel paid for by the tenant or by the landlord? 1 [ ] TENANT  
 2 [ ] LANDLORD 43  
 5 [ ] OTHER (SPECIFY): \_\_\_\_\_

16. Last summer (1987), did the (apartment/other unit) have air conditioning, either from a central system for the whole building or housing unit, or from individual window or wall units? (MARK ALL THAT APPLY.)
- [ ] YES, CENTRAL SYSTEM -- ASK Qs. 17 & 18 44  
 [ ] YES, INDIVIDUAL (WINDOW/WALL) UNITS -- SKIP TO Q. 19 45  
 [ ] NO -- SKIP TO Q. 20

IF CENTRAL SYSTEM AIR CONDITIONING, ASK:

17. Did the central air-conditioning system use gas from underground pipes, LPG, or electricity?
- 1 [ ] GAS FROM UNDERGROUND PIPES  
 2 [ ] LP GAS (BOTTLED OR TANK GAS) 46  
 3 [ ] ELECTRICITY
18. Was the air-conditioning fuel paid for by the tenant or by the landlord?
- 1 [ ] TENANT  
 2 [ ] LANDLORD  
 5 [ ] OTHER (SPECIFY): \_\_\_\_\_ 47

IF WINDOW AIR CONDITIONING, ASK:

19. Was the air conditioning paid for by the tenant or the landlord?
- 1 [ ] TENANT  
 2 [ ] LANDLORD  
 5 [ ] OTHER (SPECIFY): \_\_\_\_\_ 48
20. Was electricity for lighting within the apartment paid for by the tenant or by the landlord?
- 1 [ ] TENANT  
 2 [ ] LANDLORD  
 5 [ ] OTHER (SPECIFY): \_\_\_\_\_ 49

IF OTHER UNITS ARE ON CONTROL CARD LIST, ASK ABOUT NEXT UNIT WITH NEXT QUESTIONNAIRE.

IF NOT --

Thank you very much for your time and help. We may be in touch with you again. Have a nice day!

NAME OF PERSON INTERVIEWED: \_\_\_\_\_

TITLE OR RELATION TO RENTAL AGENT: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_

TIME COMPLETED: \_\_\_\_\_ AM PM

DATE COMPLETED: \_\_\_\_\_ 51-54

LENGTH OF INTERVIEW: \_\_\_\_\_ MINUTES 56-57