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 yo this (house/apartmo		01[] Before 1940 02[] 1940-1949 03[] 1950-1959 04[] 1960-1969 05[] 1970-1974 06[] 1975-1979	07[] 1980-198 08[] 1984 09[] 1985 10[] 1986 11[] 1987 12[] 1988	3 121- 122 SK Q. 2
	ASK: did you move in? AND ENTER LAST DIGIT	MONTH: YEAR: 198		123-124
3. In what year was th Just your estimate.	nis (house/building) built?	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	3 125- 126
as year-round living do you have in your	ng all areas that are used ng space), how many rooms r living quarters? Do not nheated porches, foyers, or STRUCTION BELOW.)	NUMBER OF ROOMS:		127-128
room with a flush 1	athrooms and how many half-bathr coilet, bathtub or shower, and a sh toilet <u>or</u> bathtub <u>or</u> shower, b	sink/washbasin with runni	ing water. A hal	s a f-bath
	NUMBER OF COMPLETE BATHROOMS:  [] NONE		NONE 130	
ł	ER INSTRUCTIONS:  / count any room as long as it is ar-round.	a comfortable place to r	rest, read, study	,

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 (SEE INSTRUCTIONS BELOW.)	for <u>heating</u> your home?	Q. 6 MAIN FUEL (MARK ONLY ONE)	Q. 7 MARK ALL THAT APPLY
		GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD	01 []	[]
		LPG GAS (BOTTLED OR TANK GAS)	02 []	[]
		FUEL OIL	03 []	[]
		KEROSENE OR COAL OIL	04 []	[]
		ELECTRICITY	05 []	[]
		COAL OR COKE	06 []	[].
		WOOD	07 []	[]
		SOLAR COLLECTORS	08 []	[]
			21 []	[]
		DON'T KNOW	96 []	[]
		NO HEATING FUEL USED TAKE BACK EXHIBIT 6/7/10; SKIP TO Q. 32	00 []	
		NO ADDITIONAL FUEL SKIP TO Q. 9		[]
7.	What other fuels, if any, home including those th heat just occasionally?			
	8. Does your main heating	FUELS MENTIONED IN Q. 7, ASK:  fuel (FUEL NAMED IN Q. 6) provide a	lmost all of t	he heat
	•	nree-fourths, or closer to half of the hea	c for your non	c:
		Z [] ALMOST ALL (MORE THAN 95%)		
		P [] ABOUT THREE-FOURTHS (67-94%)		
	<u> </u>	B [] 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 <u>main</u> fuel used to heat this (house/apartment) the same as it is now?	1[] YES SKIP TO Q. 12  0[] NO ASK Q. 10  5[] NO FUEL USED IN 1984 SKIP TO Q. 1  6[] DON'T KNOW SKIP TO Q. 12	
	TE HAIO II ACV.	0 [ ] som v men som v (v 22	
	IF "NO," ASK:  10. What was the main fuel used to heat this (house/apartment) in November		
	of 1984?	<pre>01[] GAS FROM UNDERGROUND PIPES     SERVING THE NEIGHBORHOOD</pre>	
		02[] LPG GAS (BOTTLED OR TANK GAS)	
		03[] FUEL OIL	
		04[] KEROSENE OR COAL OIL	
		051   FIFCIPICITY	46 47
i		06[] COAL OR COKE	. 47
		07[] WOOD	
İ		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
	J. J. Sangan	YEAR: 198 150	151

TURN	TO EXHIBIT 12/	13			Q.12 MAIN	0 12	
12.	What is the ma your main heat	in heating equipment used ing fuel?	d with		EQUIPMENT (MARK ONLY ONE)	Q. 13 MARK ALL THAT APPLY	152~ 153
	HOT WATER	PIPES RUNNING THROUGH A	SLAB FLOOR (RADIANT HE	ATING)		[]	154
		HOT WATER SYSTEM WITH RAI				[]	155
		ARM-AIR FURNACE WITH DUC			67	6.3	
	•	NOT COUNT HEAT PUMP HERI				[]	156
		TI SOTO IO UNITE (DEDMANENT			04 []	[]	157
		ELECTRIC UNITS (PERMANEN ARD)			05 []	[]	158
	FLOOR, WAI	L, OR PIPELESS FURNACE			06 []	[]	159
	ROOM HEAT	ER BURNING GAS, OIL, KER	OSENE (NOT PORTABLE)		07 []	[]	160
	HEATING ST	TOVE BURNING WOOD, COAL,	COKE		08 []	[]	161
	FIREPLACE	(S)			09 []	[]	162
	PORTABLE (	ELECTRIC HEATER(S)			10 []	[]	163
	PORTABLE I	KEROSENE HEATER(S)		· • • • •	11 []	[]	164
		TOVE, RANGE, OR OVEN (USI			72 []	۲٦	165
		1G)			21 []	[]	165 166
		ECIFY):				[]	167
	DON I KNOI		ITIONAL EQUIPMENT			- <del>-</del>	168
		No noo.	THIOMRE EQUITIENT			. []	100
	BACK EXHIBIT 12	2/13	NE, MARK "NO ADDITIONAL	. EQUIPMENT	".)		
		R FURNACE" MENTIONED IN		==			
14.		l warm-air furnace, is though the ducts by a fan?		YES		169	
		,	0 []	•	11		
			٠ [	DON'T KNO	W		
IF "	HEATING STOVE B	JRNING WOOD, COAL, COKE"	MENTIONED IN Q. 12 OR	Q. 13, ASK	:		
15.	Is the heating	stove airtight?	1 []	] YES		170	
			0 []	) NO			
			6 []	] DON'T KNO	W		
IF S	INGLE FAMILY HOM	E OR MOBILE HOME, ASK Q.	16. OTHERWISE SKIP TO	) Q. 17			
16.		r main heating equipment PROBE FOR BEST GUESS.)	, just approximately?				
		1 [] LESS THAN	2 YEARS OLD 4 []	10-14 YEA	RS OLD	171	
		2 [] 2-4 YEARS	OLD 5 []	] 15 YEARS	OLD OR OLDER		
		3 [] 5-9 YEARS	OLD 6 [	] DON'T KNO	W		
IF 2	OR MORE HOUSING	G UNITS IN BUILDING, ASK	Q. 17. OTHERWISE SKIP	У ТО Q. 18			
17.	Does the main	equipment for heating	O [] NO, HOME HEATING	EQUIPMENT	IS FOR	172	
		heat one or more ts, households or	RESPONDENT'S HOM 1 [] YES, HOME HEATIN ONE OR MORE OTHE	G EQUIPMEN			
			HOUSES, OR BUSIN				
			6 [] DON'T KNOW				

18.	home during the	ure do you usually keep your day in the wintertime at home? (SEE INSTRUCTION	DEGREES FAHRENHEIT:	[] HEAT TURNED OFF	173- 174
19.	home during the	ure do you <u>usually</u> keep your day in the wintertime it home? (SEE INSTRUCTION	DEGREES FAHRENHEIT:	[] HEAT TURNED OFF	175 176
20.	At what temperat home during slee (SEE INSTRUCTION	cure do you <u>usually</u> keep your eping hours in the wintertime?	DEGREES FAHRENHEIT:	[] HEAT TURNED OFF	177 178
HAND	RESPONDENT EXHIB	IT 21			
21.	if any, you use	his list and tell me the ways, to adjust the temperature in the heating season. (MARK		207-	208:02
		THERMOSTAT FOR MAIN HEATING EQUIPMENT	[]		211
		THERMOSTAT FOR SUPPLEMENTAL HEATING E	QUIPMENT []		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 OF	F []		216
		ADJUST DRAFT OR AMOUNT OF FUEL FOR WOOR 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.

		YES, " UN 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.)	2 [	]	FORGOT TO PAY COULD NOT PAY OTHER: (SPECIFY):	222
	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.		an out of coal, wood, fuel oil or bulk fuel	.1[	]	YES o[] NO GO TO Q. 24a	226
	IF "Y	<u>ES," ON Q. 23a, ASK</u> :				
	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.)	2 [	]	FORGOT TO PAY COULD NOT PAY OTHER: (SPECIFY:)	227 - -
	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.		landlord did not provide heat	.1 [	]	YES o[] NO GO TO Q. 25a	231
		Did the landlord fail to provide heat because you forgot to pay the rent. because you could not	2 [	]	FORGOT TO PAY COULD NOT PAY OTHER: (SPECIFY:)	232
	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
	ĮF."	YES, " ON Q. 25a, ASK:				
		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 with	hout		uoune on filosyc	238-
,	l	heat?	٠ ١	J	HOURS OR [ ] DAYS	238-

# 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.

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:
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 5 [ ] OTHER (SPECIFY:)
_	IF "YES," OR "OTHER," TO 26b, ASK:	
	26c. How were you able to heat your home? (INTERVIEWER. WRITE DOWN WHATEVER R	
	wood been burned in your home in the	
ast 12	months:	o [] NO SKIP TO Q. 32
	HAND RESPONDENT EXHIBIT 28, AND ASK:	
woo	s exhibit illustrates about one cord of d. Did your household burn less than s amount, or about this amount or more?	1 [] LESS THAN ONE CORD ASK Q. 29 2 [] ONE CORD OR MORE SKIP TO Q. 30
	"LESS THAN ONE CORD," ON Q. 28, TURN EXHIBIT 29 AND ASK:	
	Which of these is most nearly the amount of wood burned in your household in the past 12 months?	<pre>1 [] A FEW LOGS OR SCRAPS OF WOOD 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</pre>
TAK	E BACK EXHIBIT 29; SKIP TO Q. 31	
	"ONE CORD OR MORE" ON Q. 28, TURN TO IBIT 30 AND ASK:	
	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	NUMBER OF CORDS:
	12 months? (SEE INSTRUCTION BELOW.)	
TAK	E BACK EXHIBIT 30; ASK Q. 31	

#### 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)?	<pre>o1 [] GAS FROM UNDERGROUND PIPES     SERVING THE NEIGHBORHOOD</pre>	
		02 [] LPG GAS (BOTTLED OR TANK GAS)	
		03 [] FUEL OIL	
		04 [] KEROSENE OR COAL OIL	
		05 [] ELECTRICITY	255 <del>-</del>
		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	2 [] YES	
	any other fuel for heating water (other than just for cooking purposes)?	o[] NO TAKE BACK EXHIBIT 32/34 SKIP TO Q. 35	257
	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	<del></del>	
35.	Do you have hot running water in your	1[] YES	
	home?	0[] NO	260

#### 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

261

5 [] 15 YEARS OR MORE

6 [] DON'T KNOW

o[] DO NOT HAVE A HOT WATER HEATER

262

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

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

- o[] 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) 264 UNITS [] NO SKIP TO Q. 45
	<ul><li>IF "INDIVIDUAL (WINDOW/WALL) UNITS" ON Q. 38, ASK:</li><li>39. How many individual window or wall units do you have?</li></ul>	NUMBER OF UNITS: 265-266
	<pre>IF "CENTRAL SYSTEM" ON Q. 38, ASK: 40. Does the central air-conditioning system use electricity, gas from underground pipes, or LPG?</pre>	3 [] ELECTRICITY 267 2 [] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD 2 [] LPG GAS (BOTTLED OR TANK GAS) 6 [] DON'T KNOW
	<ul><li>IF 2 OR MORE HOUSING UNITS IN BUILDING, ASK Q.</li><li>41. Does the air-conditioning equipment that cools your home also cool other apartments, houses, or businesses?</li></ul>	41, OTHERWISE SKIP TO Q. 42  O[] NO, A/C IS FOR RESPONDENT'S HOME ONLY  I[] YES, A/C COOLS ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES  G[] 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
43.	Which of the statements on this exhibit best describes the way you used your air conditioner(s) last summer? (MARK ONLY ONE.)  BACK EXHIBIT 43	O [] DID NOT USE AT ALL 271 2 [] 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):
44.	When you are using your air conditioning, about what temperature do you usually keep the cooled area? (SEE INSTRUCTION BELOW.)	DEGREES 272- FAHRENHEIT: 273
	Q. 44 If respondent keeps different sections of t	house where the people are. If, for example, during the day because the family is

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 unheate
	area? (SEE INSTRUCTION BELOW.)	

NUMBER OF DOORS:				
[] NONE	SKIP	TO	0.	50

311-312

#### HAND RESPONDENT EXHIBIT 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. <b>4</b> 9
a. Sliding glass doors			MONTH:
[] NONE 313	[] NONE 314	[] NONE 315	[] IN PROCESS 316-319
b. Other doors to the outside			MONTH: YEAR: 198
[] NONE 320	[] NONE 32.	[] NONE 322	[] IN PROCESS 323-326
IBIT 46	<b>1</b>	1	<b>1</b>
E OF DOOR FOR WHICH NE OR MORE," ASK:			

#### TAKE BACK EXH

FOR EACH TYP ANSWER IS "O

(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	e in your home?	Please include basement	i, attic, garage, and
	porch windows onl	y if these	areas are heate	1. (SEE INSTRUCTION BEI	.OW.)

Q. 51

		Q. 50 NUMBER OF WINDOWS	NUMBER WITH STORM WINDOWS OR INSULATING GLASS	Q. 52 NUMBER STORM WINDOWS PUT IN SINCE SEPT. 1, 1985	Q. 53
					MONTH:
		[] NONE 327-328	[] NONE 329-330	[] NONE 331-332	[] IN PROCESS 333-336
51.	windows or INSTRUCTION IF ONE OR N	the windows have st insulating glass? ( BELOW.) MORE WINDOWS WITH STO ING GLASS, ASK:	SEE		
	insula	any of the storm wind ating glass were put mber 1, 1985?			
		OR MORE ASK:	ar were they put in?		
	1 1	J	-3 P		

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:

337

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?

1

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 <u>not</u> 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.

ONE-FAMILY HOUSE OR MOBILE HOME, ASK	Q. 56ff. IF 2	OR MORE UNITS	IN BUILDING, SKIP TO	O Q. 86 ON PAGE 18.
Do you have roof or ceiling insulat in your home?	ion		SKIP TO Q. 62 T KNOW SKIP TO Q	340 . 62
IF "YES," HAND RESPONDENT EXHIBIT 57	7 AND ASK:			
57. About how much of the roof or o	ceiling	<i>I</i> [] 1/4 2[] 1/2 3[] 3/4	( LITTLE (LESS THAN ( ( 5 - 33%) (34 - 66%) (67 - 95%) (96 - 100%)	5%) 341
TURN TO EXHIBIT 58				
58. This exhibit shows different ker of insulation. Please tell me whether or not you have each or in your roof or ceiling area.	a.	BATT/BLANKET	2[] YES 0[] NO 6[] DON'T KNOW	INCHES [] DON'T KNOW
	b.	LOOSE PARTICLES/ LOOSE FILL	342 1[] YES 0[] NO 6[] DON'T KNOW 345	343-34 INCHES [] DON'T KNOW 346-34
	с.	FIRM FOAM/ FIRM PLASTIC	1[] YES 0[] NO 6[] DON'T KNOW 348	INCHES [] DON'T KNOW 349-35
	d.	SPRAYED-IN FOAM	1[] YES 0[] NO 6[] DON'T KNOW 351	INCHES  [] DON'T KNOW  352-35
	е.	OTHER (SPECIFY):	z[] YES o[] NO 6[] DON'T KNOW 354	INCHES [] DON'T KNOW 355-35
FOR EACH "YES," ASK:	1		1	
59. About how many inches of ( do you have in your roof o	(INSULATION TYPE			
TAKE BACK EXHIBIT 58				
60. Was any of the roof or ceiling	insulation adde	ed or installed	l in your home since	September 1, 1985?
INTERVIEWER: COUNT AS "IN PROC STARTED BUT NOT YET COMPLETED. ANY CHANGES MADE BEFORE THIS HO	CESS" ANY WORK DO NOT COUNT	1 [] YES N. 0 [] NO -	- SKIP TO Q. 62 PROCESS SKIP TO Q	3:
IF "YES," ASK:  61. In what month and year was completed?	s the work	MONTH: YEAR: [] IN P	198	358-30

	Do you have insulation in all, son of the outside walls of your home:	?	1 [] ALL 2 [] SOME 0 [] NONE SKIP TO 6 [] DON'T KNOW S	
Г	IF "ALL" OR "SOME," ASK:  63. Was any of the insulation in walls added or installed in yaince September 1, 1985?	your home	1 [] YES 0 [] NO SKIP TO (	
l	(SEE INSTRUCTION AT BOTTOM OF	F FACING PAGE.)	2 [] IN PROCESS S	SKIP 10 Q. 65
	IF "YES," ASK:  64. In what month and year work completed?  (SEE INSTRUCTION AT BOTT PAGE.)		MONTH: YEAR: 198 [] IN PROCESS	364
ł	RESPONDENT EXHBIT 65			
	Please look at this list and as I	read each item, tel	l me which, if any,	you have in your ho
		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 [] YES 0 [] NO 6 [] DON'T KNOW 368	1 [] YES 0 [] NO 2 [] IN PROCESS	MONTH: YEAR: 198 [] IN PROCESS
	b. Insulation around heating and/or cooling ducts	1 [] YES 0 [] NO 6 [] DON'T KNOW	1 [] YES 0 [] NO 2 [] IN PROCESS 375	MONTH:
	c. Insulation around the hot water and/or cooling pipes	1 [] YES 0 [] NO 6 [] DON'T KNOW	1 [] YES 0 [] NO 2 [] IN PROCESS	MONTH: YEAR: 198 [] IN PROCESS
	d. Insulation around the hot water heater	### ##################################	1 [] YES 0 [] NO 2 [] IN PROCESS	MONTH:  YEAR: 198  [] IN PROCESS
	e. Caulking	1 [] YES' 0 [] NO 6 [] DON'T KNOW	1 [] YES 0 [] NO 2 [] IN PROCESS	#19-422 MONTH:  YEAR: 198  [] IN PROCESS  #25-428
	f. Weather stripping around any windows or doors to the outside	6 [] DON'T KNOW	1 [] YES 0 [] NO 2 [] IN PROCESS	MONTH: YEAR: 198 [] IN PROCESS
	<u> </u>	429	430	431-434

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 <u>since</u> September 1, 1985. (SEE INSTRUCTION AT BOTTOM OF PAGE.)

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

# FOR E

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.

507-508:05

	Do you have a heated swimming pool, hot tub or	522 HEATED SWIMMING POOL 17 TYES 20 T NO
	jacuzzi? (DO NOT COUNT A CHILDREN'S WADING	HOT TUB I [] YES O [] NO
	POOL AS A SWIMMING POOL.)	JACUZZI 1 [] YES 0 [] 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.)	OI[] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
		02[] LPG GAS (BOTTLED OR TANK GAS)
		03[] FUEL OIL
		04[] KEROSENE OR COAL OIL
		05[] ELECTRICITY 514
		06[] COAL OR COKE
		07[] WOOD
		08[] SOLAR COLLECTORS
		21[] OTHER (SPECIFY):
		96[] DON'T KNOW

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 1 [] YES regularly or occasionally?

o[] NO -- SKIP TO Q. 89

#### IF "YES," ASK:

87. Do you have one refrigerator or more than one that is presently in use? (How many altogether?) 1 [] ONE 2 [] TWO 658

657

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[]	1[]
2 []	2 []
3 [] 4 []	3 [] 4 []

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?	O1 [] GAS FROM UNDERGROUND PIPE SERVING THE NEIGHBORHOOD O2 [] LPG GAS (BOTTLED OR TANK O3 [] FUEL OIL O4 [] KEROSENE OR COAL OIL O5 [] ELECTRICITY O6 [] COAL OR COKE O7 [] WOOD 21 [] OTHER (SPECIFY):	
		00 [] NO COOKING DONE SKIP T	O Q. 91
TURN	TO EXHIBIT 90		
90.	Which of these are used for cooking here in your	(house/apartment)?	
	ELECTRIC STOVE-TOP OR ELECTRIC BURNERS	1 [] YES 0 [] NO	663
	GAS STOVE-TOP OR GAS BURNERS	1 [] YES 0 [] NO	664
	MICROWAVE OVEN	1 [] YES 0 [] NO	665
	ELECTRIC OVEN OTHER THAN MICROWAVE	1 [] YES 0 [] NO	666
	GAS OVEN	1 [] YES 0 [] NO	667
	OUTDOOR GAS GRILL (USING GAS FROM UNDERGROUND PIPES)	1 [] YES	668
	OUTDOOR GAS GRILL (USING LPG-BOTTLED OR TANK GAS)	1 [] YES	669

## TURN TO EXHIBIT 91

91.	Please look at this list and, as I read each your (house/apartment)? (INTERVIEWER: READ						in
	AUTOMATIC CLOTHES WASHER	1 [	] YES	0[]	NO	670	
	WRINGER WASHING MACHINE (ELECTRIC)	1 [	] YES	0[]	NO	671	
	ELECTRIC DISHWASHER	1 [	] YES	0 []	NO	672	
	ELECTRIC CLOTHES DRYER	1 [	] YES	0[]	NO	673	
	GAS CLOTHES DRYER	1 [	] YES	0 []	NO	674	
	OUTDOOR GAS LIGHT	1 [	] YES	0 []	NO	675	
	ELECTRIC DEHUMIDIFIER	1 [	] YES	0[]	NO	676	
	ELECTRIC HUMIDIFIER	1 [	] YES	0 []	NO	677	
	EVAPORATIVE COOLER (SWAMP COOLER)	1 [	] YES	0 []	NO	678	
	"WHOLE HOUSE" COOLING FAN (IN ATTIC OR ENTRANCE TO ATTIC)	1 [	] YES	0 []	NO	679	
	WINDOW OR CEILING FAN	1 [	] YES	0 []	NO	680	
	ELECTRIC BLANKET	1 [	] YES	0 []	NO	707 <b>-</b> 708:07 711	
	WATER BED WITH HEATER	2 [	] YES	0 []	NO	712	
	(SEPARATE APPLIANCE FROM REFRIGERATOR)	2 [	] YES	0 []	NO	713	
	MANUAL DEFROST FREEZER (SEPARATE APPLIANCE FROM REFRIGERATOR)	1 []	] YES	0 []	NO	714	715
	BLACK AND WHITE TELEVISION SET		] YES	o []	NO	NUMBER:	
	COLOR TELEVISION SET	[]	] YES	o []	NO	NUMBER:	716
	IF "YES," FOR BLACK AND WHITE TV SET, ASK:						<b>^</b>
	92. How many black and white television sets do you use here in your home?						
1	IF "YES," FOR COLOR TV SET, ASK:						}
ſ	93. How many color television sets do you						
١	use here in your home?						
TAKE	BACK EXHIBIT 91. HAND RESPONDENT EXHIBIT 94.	<u>.</u>					
94.	Do you have any other kinds of equipment that use a lot of energy that we have not mentioned?	-	] YES ] NO			717	
	IF "YES" ON Q. 94, ASK:						
	95. Please describe the equipment and how you	u 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	WHO IS RESPON-	RELATIONSHIP TO	SE.	X		Q. 101 - FULL	EMPLOYMENT PART	(AGE 14+) NOT	
NUMBER	DENT?	HOUSEHOLDER	FEMALE	MALE	AGE	TIME	TIME	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 <b>-</b> 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	FOR OFFICE USE ONLY:
97.	Any babies or small children?	[] YES (ADD TO LISTING) [] NO	868-869
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	EACH PERSON AGED 14 YEARS OR OLDER, ASK:		
101.	Is he/she employed full-time (30 hours or more per		

#### INTERVIEWER INSTRUCTIONS:

week), part-time, or not employed?

In general, the <u>householder</u> is the person (or one of the persons) in whose name  $\frac{\text{the home is owned}}{\text{or rented.}}$ 

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.)  [] NO	870			
INTERVIEWER: MARK ANSWER. ASK, IF NECESSARY.					
HOUSEHOLDER'S MARITAL STATUS  One of the following best describes (HOUSEHOLDER): now married, widowed, divorced or separated, or never married?	1 [] NOW MARRIED 2 [] WIDOWED 3 [] DIVORCED OR SEPARATED 4 [] NEVER MARRIED	871			
HAND RESPONDENT EXHIBIT 104					
104. Which of the groups on this exhibit best describes (HOUSEHOLDER)?	1 [] WHITE 2 [] BLACK OR NEGRO 3 [] AMERICAN INDIAN, ALASKAN NATIVE 4 [] ASIAN, PACIFIC ISLANDER 5 [] OTHER (SPECIFY):	872			
TAKE BACK EXHIBIT 104					
105. Is (HOUSEHOLDER) of Spanish or Hispanic origin or descent?	1 [] YES 0 [] NO	873			
INTERVIEWER INSTRUCTIONS:					
Q.102 If answer is "YES," check whether the additional separate room or apartment that is defined by on Separate living quarters are those in which the from other persons in building, and (2) have dispersion or through a common hall.	ur rules as separate living quarters. coccupants (I) live and eat separately	à .			
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 rule should be excluded from the information obtaine interview to make corrections if necessary.	s for separate living quarters, that spa d in this interview. Go back over this	ice			
If the second family's space does not meet the sure that the members of the second family are in Q. 96	definition of separate living quarters, included in the list of household member	be `s			

I have just a few questions for background statistical purposes. 106. What is the highest grade (or year) (HOUSEHOLDER) oo [] NEVER ATTENDED SCHOOL attended in school? SKIP TO Q. 108 01[] FIRST 07 [] SEVENTH 02[] SECOND 08[] EIGHTH 03[] THIRD O9[] NINTH 04[] FOURTH 10[] TENTH 11[] ELEVENTH 05 [] FIFTH 874-06 [] SIXTH 12[] TWELFTH 875 COLLEGE (ACADEMIC YEARS) 13[] C1 16[] C4 14[] C2 17[] C5 18[] C6 OR MORE 15[] C3 107. Did (HOUSEHOLDER) finish that grade (or year)? 1[] YES 876 0[] NO HAND RESPONDENT EXHIBIT 108 907-908:09 108. 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.) 1[] YES 0[] NO 911 912 1[] YES 0[] NO b. Self-employment from business or farm. . . . c. Aid to Families with Dependent 913 1[] YES 0[] NO d. Supplemental Security Income (SSI) . . . . . 1[] YES 0[] NO 914 e. General Assistance or other public 915 1[] YES 0[] NO 7[] YES 0[] NO 916

1[] YES

1[] YES

g. Social Security or Railroad Retirement . . .

h. Unemployment compensation . . . . . . . .

917

918

o[] NO

o[] NO

#### TURN TO EXHIBIT 109

109. Now let's look at this list of income groups. Please tell me which group letter <u>best</u> 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
<i>02</i> B \$ 3,000 - \$ 3,999	12 J \$12,500 - \$13,999	20 R \$30,000 - \$32,499
<i>03</i> C	13 K \$14,000 - \$14,999	21 S \$32,500 - \$34,999
<i>04</i> D  \$ 5,000 - \$ 5,999	14 L \$15,000 - \$17,499	22 T \$35,000 - \$39,999
05 E \$ 6,000 - \$ 7,499	<sup>15</sup> M \$17,500 - \$19,999	23 U \$40,000 - \$49,999
<i>07</i> F	16 N \$20,000 - \$22,499	24 V \$50,000 - \$74,999
08 G \$ 9,000 - \$ 9,999	<i>17</i> 0 \$22,500 - \$24,999	25 W \$75,000 OR OVER
<i>09</i> H \$10,000 - \$10,999	18 P. \$25,000 - \$27,499	96 [] DON'T KNOW
TAKE BACK EXHIBIT 109		97 [] REFUSED

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	o[] NO	921
b.	Insulation around the hot water heater 1 [] YES	o[] NO	922
С.	Repair of broken windows or doors to keep out the cold or hot weather	o[] NO	923
d.	Weather stripping or caulking around any windows or doors to the outside	o [] NO	924
e.	Storm doors or windows added 1 [] YES	o[] NO	925
f.	Repair of broken furnace 1 [] YES	o[] NO	926
g.	Furnace tuneup and/or modifications 1 [] YES	o [] NO	927
h.	Other home energy-saving devices (Specify):	o [] NO	928

	) EXHIBIT 111	10	IUKN
--	---------------	----	------

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.
Potugan Ostaban 1 1006 and Santamban 20 1007 did yawa bayaabald gaasiya ayyaana bayaabald

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 <a href="heating">heating</a> costs	0[] NO	929
111b.	Help in paying home <u>cooling</u> costs	0[] NO	930
111c.	Help in paying other home energy costs 1[] YES	0[] NO	931

#### 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	e payments made in the	e form of checks,	coupons, or vouchers sent
	to this household or we	re the payments sent	directly to the	utility company or fuel
	dealer? (INTERVIEWER:	READ AND MARK "YES"	OR "NO" FOR EACH	I ITEM).

a.	Check to household	o[] NO	932
b.	Coupon/voucher to household 1[] YES	o[] NO	933
с.	Assistance sent directly to electric or gas company, or fuel dealer	o[] 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

 $(-1)^{-1}$  , which is the second of the se

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) 2 [] RENT SKIP TO Q. 118 3 [] OCCUPIED WITHOUT PAYMENT OF RENT SKIP TO	939 Q. 120
	<pre>IF "OWN (BUYING)," ASK: 116. Is this (house/apartment) part of a</pre>	1 [] YES, CONDOMINIUM 2 [] YES, COOPERATIVE 0 [] NO	<i>940</i> P T0 120
INTER	VIEWER: 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 6 [] DON'T KNOW	945
	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 6 [] DON'T KNOW	946

#### 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)	
	ELECTRICITY			Ì			
a.	FOR HOT WATER	1 []	0[]	1[]	2 []	5 []	947-948
b.	FOR HEATING YOUR HOME	1[]	o []	1[]	2 []	5 []	949-950
с.	FOR AIR-CONDITIONING (CENTRAL OR WINDOW/WALL UNITS)	1 []	o []	1[]	2 []	5 []	951-952
d.	FOR COOKING	1[]	0[]	1[]	2 []	5 []	953-954
e.	FOR LIGHTING AND OTHER APPLIANCES	1[]	o []	1 []	2 []	5 []	955-956
	GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD						
f.	FOR HOT WATER	1[]	o []	1[]	2 []	5 []	957-958
9.	FOR HEATING YOUR HOME	1 []	0 []	1[]	2 []	5 []	959-960
h.	FOR CENTRAL AIR-CONDITIONING	1 []	0 []	1 []	2 []	5 []	961-962
i.	FOR COOKING INSIDE HOME	1 []	0 []	1[]	2 []	5 []	963 <b>-</b> 964
j.	FOR COOKING ON OUTDOOR GRILL	1 []	0 []	1 []	2 []	5 []	965 <b>-</b> 966
k.	FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)	1 []	0 []	1 []	2 []	5 []	967-968
	LPG GAS (BOTTLED OR TANK GAS)						
1.	FOR HOT WATER	1 []	0 []	1 []	2 []	5 []	969-970
m.	FOR HEATING YOUR HOME	1 []	0 []	1 []	2 []	5 []	971 <b>-9<b>72</b></b>
n.	FOR CENTRAL AIR-CONDITIONING	1[]	0[]	1 []	2 []	5 []	973-974
٥.	FOR COOKING INSIDE HOME	1 []	o []	1 []	2 []	5 []	975-976
р.	FOR COOKING ON OUTDOOR GRILL	1[]	0[]	1 []	2 []	5 []	977-978
q.	FOR OTHER APPLIANCES (INCLUDE OUTSIDE GAS LIGHT HERE)	1 []	0 []	1[]	2 []	5 []	979-980
	FUEL OIL						1007- 1008:10
r.	FOR HOT WATER	1 []	o []	1 []	2 []	5 []	1011-1012
S.	FOR HEATING YOUR HOME	1 []	o []	1 []	2 []	5 []	1013-1014
t.	FOR COOKING AND OTHER USES	1[]	0 []	1 []	2 []	5 []	1015-1016
	KEROSENE						ļ
u.	FOR HOT WATER	1 []	0 []	1 []	2 []	5 []	1017-1018
٧.	FOR HEATING YOUR HOME	1 []	0 []	1 []	2 []	5 []	1019-1020
w.	FOR COOKING AND OTHER USES	1 []	0 []	1 []	2 []	5 []	1021-1022
	EACH USE OF EACH FUEL, ASK:				<u></u>		J
121	. Is that paid for by your househo your rent, or do you get it some			in 			

TAKE BACK EXHIBIT 120

IF GAS FROM UN	DERGROUND PIPES	IS NOT USED,	ASK Q. 122.	OTHERWISE,	SKIP TO	INSTRUCTION	AT
TOP OF NEXT PA	AGE.			,			

Is gas from underground pipes available in this neighborhood?	1 [] YES		
	o [] NO	1023	
	6[] DON'T KNOW		

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.

#### 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 1035 Which fuel bills include costs of fuel used [] ELECTRICITY for purposes other than your own living quarters? 1036 [] GAS FROM UNDERGROUND PIPES (MARK AS MANY AS APPLY.) [] LPG GAS (BOTTLED OR TANK GAS) 1037 1038 [] FUEL OIL 1039 [] KEROSENE TURN TO EXHIBIT 128/132 IF "ELECTRICITY" ON Q. 127, ASK: O[] VERY LITTLE (LESS THAN 5%) 128. Over the period of a year, about how much 1[] 1/4 ( 5 - 33%) of your household's electricity bill is 1040 2[] 1/2 (34 - 66%) used for non-household uses such as farm 3[] 3/4 (67 - 95%) buildings or machinery, the house or apartment of another household, a business or office, or anything else? IF "GAS FROM UNDERGROUND PIPES" ON Q. 127, ASK: 129. Over the period of a year, about how much o[] VERY LITTLE (LESS THAN 5%) of your household's gas bill is used for 1[] 1/4 ( 5 - 33%) non-household uses such as farm buildings 1041 2[] 1/2 (34 - 66%) or machinery, the house or apartment of another household, a business or office, *3*[] 3/4 (67 - 95%) or anything else? IF "LPG GAS" ON Q. 127, ASK: 130. Over the period of a year, about how much o[] VERY LITTLE (LESS THAN 5%) of your household's LPG bill is used for 1[] 1/4 ( 5 - 33%) non-household uses such as farm buildings 1042 2[] 1/2 (34 - 66%) or machinery, the house or apartment of another household, a business or office, 3[] 3/4 (67 - 95%) or anything else? IF "FUEL OIL" ON Q. 127, ASK: o[] VERY LITTLE (LESS THAN 5%) 131. Over the period of a year, about how much of your household's fuel oil bill is 1[] 1/4 ( 5 - 33%) used for non-household uses such as farm 1043 buildings or machinery, the house or 2 7 1/2 (34 - 66%) apartment of another household, a business 3[] 3/4 (67 - 95%) or office, or anything else? IF "KEROSENE" ON Q. 127, ASK: o[] VERY LITTLE (LESS THAN 5%) 132. Over the period of a year, about how much of your household's kerosene bill is used 1[] 1/4 ( 5 - 33%) for non-household uses, such as farm 1044 2[] 1/2 (34 - 66%) buildings or machinery, the house or apartment of another household, a business 3[] 3/4 (67 - 95%) or office, or anything else?

TAKE BACK EXHIBIT 128/132

IF HOUSEHOLD USES SKIP TO INSTRUCTI	AND PAYS FOR LPG GAS (SEE QUESTIONS I ON FOR Q. 136.	120-121 PARTS 1-q), ASK Q. 133ff., 0	THERWISE,
133. About how ma household us	ny deliveries of LPG does your ually get in a year?	NUMBER OF DELIVERIES:	1045 <b>-</b> 1046
		94[] CASH AND CARRY, PICK UP AT S	STORE
		95[] LIVED HERE LESS THAN 1 YEAR	
	LPG for this (house/apartment)	2[] ONE COMPANY	1047
	12 months from one company or an one company?	2[] MORE THAN ONE COMPANY	
IF "MORE THA	IN ONE COMPANY," ASK:		
135. How ma	nny different companies?	2[] TWO	
		3[] THREE	1048
		4[] FOUR OR MORE	
SKIP TO INSTRUCTI	many deliveries of fuel oil does	NUMBER OF	1049-
your house	chold <u>usually</u> get in a year?	DELIVERIES:	1050
		94[] CASH AND CARRY, PICK UP AT	STORE
		95[] LIVED HERE LESS THAN 1 YEAR	
137. Did you bu	y fuel oil for this (house/apartment)	I[] ONE COMPANY	1051
from more	than one company?	2[] MORE THAN ONE COMPANY	2002
IF "MORE T	HAN ONE," ASK:		
138. How	many different companies?	2[] TWO	
İ		3[] THREE	1052
l		4[] FOUR OR MORE	
HAND RESPONDENT	EXHIBIT 139		
	much fuel oil does	1[] LESS THAN 100 GALLONS PER Y	EAR
household	use in a year which of ps would it be, just	2[] 100-499 GALLONS PER YEAR	
approximat	ely? PROBE FOR BEST ESTIMATE.	3[] 500-999 GALLONS PER YEAR	1053
,		4[] 1000 OR MORE GALLONS PER YEA	AR .

TAKE BACK EXHIBIT 139

140.		z[] DELIVERED GO TO Q. 140a			
	delivered to your home, did you buy it and bring it home, or did you get kerosene both	2[] BOUGHT AND BROUGHT HOME GO TO Q.	2[] BOUGHT AND BROUGHT HOME GO TO Q. 140b		
	ways? (MARK ALL THAT APPLY).	<pre>o[] NO KEROSENE DELIVERED OR BOUGHT IN PAST 12 MONTHS SKIP TO INSTRUCTION FOR Q. 144</pre>	1562		
	IF "DELIVERED," ASK:				
	140a. How many different companies or stores	1[] ONE			
	delivered kerosene to your home in the past 12 months?	2[] TWO	1563		
	F	3[] THREE			
		4[] FOUR OR MORE			
	IF "BOUGHT AND BROUGHT HOME," ASK:				
i	140b. About how much per gallon did you pay for kerosene, on the average?	PRICE PER GALLON: \$	156 <b>4-</b>		
	IF "DON'T KNOW," PROBE: About how	[] bon I know	1566		
	much did you pay in total each time you bought kerosene?	PAYMENT: \$	1567- 1570		
41.	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	1571- 1572		
		FAST 12 MONTHS [] DON 1	KNUW		
i	IF TOTAL NUMBER GIVEN ON Q. 141, ASK:				
	142. On the average, about how many gallons of kerosene did you (have	NUMBER OF			
	delivered/buy) each time?	GALLONS: [] DON'T KNOW	1573-		
			1575		
	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 [] DON'T KNOW			
i	IF "DON'T KNOW" ON Q.143, HAND		1576- 1579		
	RESPONDENT EXHIBIT 143.				
	143a. Using this card, can you tell me	1[] LESS THAN 25 GALLONS	1580		
	which group best describes the amount of kerosene your household	2[] 25 - 49 GALLONS			
	used in the past 12 months? PROBE	3[] 50 - 99 GALLONS			
	FOR BEST ESTIMATE.	4[] 100 - 499 GALLONS			
		5[] 500 - 999 GALLONS			
		6[] 1,000 OR MORE GALLONS			

TAKE BACK EXHIBIT 143

PAI	INUE IF ANY ELECTRIC, GAS (FROM UNDERGROUND PIPES OR LPG), FUEL OIL, OR KEROSENE BIL BY HOUSEHOLD. OTHERWISE, SKIP TO INSTRUCTION FOR Q. 147.	LS ARE
144.	In addition to the types of fuel you use, we are interested in the quantities used the amount that people pay for electricity, gas, fuel oil, or kerosene in different of the United States.	and in parts
	I have a form that would authorize the companies that supply your household to prov that information to Response Analysis Corporation. The authorization applies to th from September 1986 through December 1990.	ide e period
	Since this study is being done nationwide, it will give a good picture of the diffe in fuel cost and usage all over the country. The information is needed to help est important national energy policies.	rences ablish
	INTERVIEWER: REMOVE THE AUTHORIZATION FORM FROM THE QUESTIONNAIRE AND HAND TO RESPECTIVE FOR THE PROPERTY OF T	MORE EMBER 1.
	1 [] AUTHORIZATION FORM SIGNED	
	○ [] AUTHORIZATION FORM NOT SIGNED INTERVIEWER, EXPLAIN BELOW:	1059
145.	THORIZATION FORM IS SIGNED, ASK Q. 145ff, OTHERWISE, SKIP TO INSTRUCTION FOR Q. 14  Do your fuel bills come addressed to (NAME OF SIGNATURE ON AUTHORIZATION FORM), or are they in another name?  1 ANOTHER NAME  1 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 c This number is on your bills from the company.	ompany?
	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 "COTHERWISE, SKIP TO Q. 148.	THER" (SEE Q. 121), ASK Q. 147
47. We may be needing some additional information about fu May I have the name of the person or company to whom y for paying the fuel bills for this building (house)?	ou pay rent or who is responsible
NAME :	106
TELEPHONE NUMBER: (AREA CODE:)	
STREET ADDRESS:	
CITY OR TOWN/STATE/ZIP CODE:	
ASK EVERYONE	
148. For interview verification purposes, may I have your naddress please?	ame, phone number, and mailing
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)	[] YES
have a name?	[] NO
_IF "YES," ASK:	
150. What is the name?	
NAME:	

ASK EVERYONE

Now	como	question	ne ahoi	it care
NOW	Some	uuestio	ns abou	il Lars.

151. How many members of your household can drive

NUMBER OF DRIVERS:		525· 526
,	[] NONE	•

# 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		5 <b>2</b>
o[] NO	TAKE BACK EXHIBIT AND SKIP TO Q. 165	

IF "YES," ASK:

153. How many do you have?

NUMBER OF	5 <b>2</b> 8
VEHICLES:	5 <b>2</b> 9

ASK ABOUT EACH VEHICLE.

154. Which type(s) do you have?

607-608:06

(SEE INSTRUCTION BELOW.)		VEHICLE	NUMBER	
	1	2	3	4
STANDARD PASSENGER CAR	01 [] 530- 531	01 [] 553- 554	01 [] 611- 612	01 [] 634- 635
2-SEAT CAR	02[]	02[]	02[]	02[]
STATION WAGON	оз []	оз []	03 []	03 []
LARGE VAN	04 []	04 []	04 []	04 []
MINI VAN	05 []	05 []	05 []	05 []
PICKUP TRUCK	06 []	06 []	06 []	06 []
JEEP OR SIMILAR VEHICLE	07 []	07 []	07 []	07 []
OTHER (SPECIFY:)	21 []	21 []	21 []	21 []
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
(SEE INSTRUCTION BELOW.) MAKE	534-535	557-558	615-616	638-639
MODEL NAME	536-537	559-560	617-618	640-641
156. What is the model year (of each one)? (ENTER LAST 2 DIGITS OF 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 Surburban), 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.)

AKE & MODEL 2/ MAKE & MODEL 3/ MAKE & MODEL 4.)				<del></del>
	V	EHICLE	NUMBER	
57. Did you get this vehicle within the past 12 months or did you have it before that?	1	2	3	4
	538	561	619	642
WITHIN PAST 12 MONTHS ASK Q.158	1[]	1[]	1[]	1[]
HAD IT MORE THAN 12 MONTHS SKIP TO Q.160	2 []	2 []	2 []	2 []
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	100	100	100	100
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	[]	[]	[]	[]
IF "HAD IT MORE THAN 12 MONTHS" ON Q.157, ASK:	548-552	571-575	629-633	652-656
160. Approximately how many miles MILES was it driven during the past 12 months? DON'T KNOW	[]	[]	[]	[]
1. 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?  CHECK HERE AND ASK Q. 164				
NO GO TO NEXT PAGE AND ASK Q's 162-163	[]	[]	[]	[]

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 ap- proximately what	П	Walter Walter	
	the odometer		Make Model	
	reading is for this vehicle?		[ ] ODOMETER KNOWN	1353-1358
	HAND RESPONDENT EXHIBIT 163.	V 1	[ ] ODOMETER NOT KNOWN	
163.	I would still like	E	VIN: 1362	
	to record the Vehicle Identifi- cation Number for	н	[] VIN OBTAINED [] VIN NOT OBTAINED [] VIN REFUSED	1378 1380
	this vehicle. Do you know what a Vehicle Identifi-		Make Model	
	cation Number is? (IF DON'T KNOW,		[ ] ODOMETER KNOWN	1411-1416
	ÈXPLAIN VIN.)	c	1418	
	What is the Vehicle Identifi-	2	[ ] ODOMETER NOT KNOWN	
	cation Number for this vehicle?		VIN:	<u> </u>
	(SEE INSTRUCTIONS BELOW.)	E	[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1438
	INTERVIEWER: REPORT		Make Model	
	HERE IF VIN REFUSED FOR ONE OR MORE		[ ], ODOMETER KNOWN	1440-1445
	VEHICLES.	N	[ ] ODOMETER KNOWN	
	EXPLAIN RESPONDENT REACTION OR REASON	3	[ ] ODOMETER NOT KNOWN	
	FOR REFUSING VIN.	บ	VIN:	1465
		M	[ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1467
		В	Make Model	
			[ ] ODOMETER KNOWN	1618-1623
		E	[ ] ODOMETER NOT KNOWN	
		R 4	VIN:	- —- —- <del></del>
			1627	1643 1645

# 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.

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.)

		Make Mode1	
v	}	[ ] ODOMETER OBTAINED (ODOMETER READING FROM VEHICLE)	1353-1358
E	1	[ ] ODOMETER NOT OBTAINED [ ] ODOMETER REFUSED	
H		VIN:  1362 [] VIN OBTAINED [] VIN NOT OBTAINED [] VIN REFUSED  2	1378 1380
ı		MakeModel	
С		[ ] ODOMETER OBTAINED  (ODOMETER READING FROM VEHICLE)  1418  [ ] ODOMETER NOT OBTAINED	1411-1416
L	2	[ ] ODOMETER NOT OBTAINED [ ] ODOMETER REFUSED  VIN:	
E		VIN:  1420 [] VIN OBTAINED [] VIN NOT OBTAINED [] VIN REFUSED  7	1436 1438
  N		Make Model	
U		[ ] ODOMETER OBTAINED  2 (ODOMETER READING FROM VEHICLE)  1447  [ ] ODOMETER NOT OBTAINED	1440-1445
M	3	[ ] ODOMETER REFUSED	
В		VIN:  1449 [] VIN OBTAINED [] VIN NOT OBTAINED [] VIN REFUSED  1 8	1465 14 <sub>0</sub> 7
E		Make Model	
R		[ ] ODOMETER OBTAINED  2 (ODOMETER READING FROM VEHICLE)  [ ] ODOMETER NOT OBTAINED	1618-1623
	4	[ ] ODOMETER REFUSED	
		VIN:  1627  [ ] VIN OBTAINED [ ] VIN NOT OBTAINED [ ] VIN REFUSED	1643 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.	INTERVI	IWER: MARK TYPE OF HOUSING UNIT	1 [] MOBILE HOME OR TRAILER 1064- SKIP TO Q. 169 1065 2 [] ONE-FAMILY HOUSE	
			I[] ONE STORY  2[] TWO STORY  3[] THREE STORY  4[] SPLIT-LEVEL  5[] OTHER (SPECIFY):	
			3 [] HOUSE OR BUILDING WITH 2 TO 4 UNITS SKIP TO Q. 172	
			4 [] APARTMENT BUILDING OR OTHER STRUCTURE WITH 5 OR MORE UNITS SKIP TO Q. 175	
CONT	INUE IF	ONE-FAMILY HOUSE		
166.		have a garage attached to your living or under your house?	1 [] YES 0 [] NO SKIP TO Q. 169 1066	
	IF "YES	5" ON Q. 166, ASK:		
		Can the garage be heated during the vinter months?	1 [] YES 0 [] NO SKIP TO Q. 169 1067	
		F "YES" ON Q. 167, HAND RESPONDENT EXHIBIT 168 AND ASK:		
		68. 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):	
	Ţ	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?

I[] BASEMENT 1069

2[] CRAWL SPACE -- ENCLOSED

3[] CRAWL SPACE -- OPEN TO THE OUTSIDE

4[] CONCRETE SLAB -- SKIP TO Q. 175

5 [] COMBINATION (MARK ALL THAT APPLY.)

[] BASEMENT

[] CRAWL SPACE -- ENCLOSED 1071

[] CRAWL SPACE -- OPEN TO THE OUTSIDE 1072

[] CONCRETE SLAB 1073

# TAKE BACK EXHIBIT 169

# IF "BASEMENT," "CRAWL SPACE," ON "COMBINATION," ASK:

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

1[] ALL -- SKIP TO Q. 175

2 [] PART

1074

1075

1070

o[] 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?

o[] NONE, VERY LITTLE (LESS THAN 5%)

1 [] 1/4 ( 5 - 33%)

2 [] 1/2 (34 - 66%)

3 [] 3/4 (67 - 95%)

4 [] ALL (96 - 100%)

6 [] DON'T KNOW

TAKE BACK EXHIBIT 171 -- SKIP TO Q. 175

IF T	HIS IS	A BUI	ILDING WITH 2 TO 4 HOUSING UNITS, ASK Q. 17	2 OTHERWISE, SKIP TO Q.175.	
.72.	Does	this t	building have a basement?	<i>I</i> [] YES <i>o</i> [] NO SKIP TO Q. 175	1
	IF "Y	ES," /	ASK:		
	173.		ny part of the basement for the	1[] YES	1
			usive or primary use of your Phold?	o[] NO SKIP TO Q. 175	
		IF "Y	YES," ASK:		
		174.	Thinking of the basement space used	1[] ALL	
			by your household about how much of that space is warm enough to sit.	2[] PART	1
			work or play in during the winter months all, part, or none?	O[] NONE	

ASK EVERYON	IE		
L			1107- 1108:11
HAND RESPOND	ENT EXHIBIT 175		1100:11
things home - or dec space,	September 1984, have any of the kinds of listed on this exhibit been done to your - that is, anything that has either increased reased the total number of square feet of or that has changed the number of square f heated space?	<i>1</i> [] YES <i>o</i> [] NO SKIP TO Q. 180	1111
IF "YE	S", ON Q. 175 ASK:		
i	Did the total number of square feet of space	<pre>1 [] INCREASED</pre>	1112
	increase, decrease, or remain the same?	2[] DECREASED	
		3 [] REMAINED THE SAME	
	Did the amount of <u>heated</u> space increase,	ı[] INCREASED	1113
İ	decrease, or remai <del>n the</del> same?	2[] DECREASED	
		3 [] REMAINED THE SAME	
	Please give me a description of the work that was done.		111 <b>4-</b> 1115
	In what month and year was the work completed?	MONTH: YEAR: 198 [] IN PROCESS	
I TAKE BACK EX	HIRIT 175		
TARE DACK LA	111041 1/0		1116-

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. <u>Include</u> basement space in <u>buildings</u> 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 [] FULL BASEMENT BASEMENT MEASUREMENTS if this [] HALF BASEMENT household has a base-RECTANGULAR SHAPE DRAW DIAGRAM, IF OTHER THAN RECTANGULAR ment or cellar (see instruction on facing page for basements and cellars) INTERVIEWER: HAVE YOU MARKED WITH LINES AND GIVEN DIMENSIONS OF UNHEATED AREAS IN DIAGRAM ABOVE?

if this household does not have a basement or cellar

START HERE

FIRS	T STORY MEASUREMENTS	[] FULI						
	RECTANGULAR SHAPE		DR	AW DIA	GRAM, I	F 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

Ftr Codes		des	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
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 STOR	Y MEASUREMENTS		JLL STO					
RI	ECTANGULAR SHAPE		DRA	W DIAGRAM,	IF OTH	IER T	HAN RECTANGU	_AR
INTERVIEW	ER: HAVE YOU MARKI AREAS IN DIAGR	ED WITH LINES	S AND (	GIVEN DIMEN	SIONS O	F UN	HEATED	
THIRD STORY	MEASUREMENTS		JLL STO					
RE	ECTANGULAR SHAPE		DR/	W DIAGRAM,	IF OTH	ER T	HAN RECTANGUL	.AR
	Γ							
	ľ							
	R: HAVE YOU MARKE AREAS IN DIAGR				SIONS O	F UNI	HEATED	
FOR OFFICE USE	ONLY	r	1207	-1208:12		Γ		T : :
Flr Codes	Unit A	 	.	Unit	c		Unit D	# of

Flr Codes		Unit A		Unit B		Unit C				Unit D		# of Units			
1168	69	70	71	72-73	74-75	76	77-78	79-80	1211	12-13	14-15	16	17-18	19-20	21
1222	23	24	25	26-27	28-29	30	31-32	33-34	35	36-37	38-39	40	41-42	43-44	45
	ļ						ļ								

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

2

181. One part of my task is to mark on my diagram any parts of your home that are <u>not heated</u> 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.

# O[] NO UNHEATED AREAS 1260 1[] ALL UNHEATED AREAS HAVE BEEN MARKED WITH LINES

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

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

### INTERVIEWER INSTRUCTIONS:

DOUBLE-CHECK MEASUREMENTS OBTAINED FROM PLANS OR FROM RESPONDENT ESTIMATES.

ESTIMATES SHOULD INCLUDE:

Basements Attached garages Finished or heated attics Enclosed porches

ESTIMATES SHOULD EXCLUDE:

Detached garages Attics that are unfinished <u>and</u> unheated Porches that are not permanently enclosed Areas under construction

01[]	MEASURED INSIDE	
02[]	MEASURED OUTSIDE	1261-
03[]	COMBINATION OF INSIDE AND OUTSIDE MEASUREMENTS	1262
04[]	RESPONDENT GAVE TOTAL SQUARE FEET FROM PLAN	
05 []	RESPONDENT'S ESTIMATES	
21 []	OTHER MEASUREMENT PROCEDURE (SPECIFY):	

# TURN PAGE TO COMPLETE INTERVIEW

FOR OFFICE
USE ONLY
FL LQT

1263-1265

INTERVIEWER R	REPORT O	N MEASUREMENT	0F	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	REMEM	BER 1	TO	INSPE	CT
	VEHICLE	S FOR	VIN	NU	MBERS	

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

E4802-02 BYC 4817/4905 • 062387

Survey Conducted for The Energy Information Administration by Response Analysis Corporation 377 Wall Street Post Office Box 158 Princeton, New Jersey 08542