Residential Energy Consumption Survey: Conservation

February 1980

U.S. Department of Energy Energy Information Adminstration Assistant Administrater for Program Development



Other NEICS Reports

Preliminary Conservation Tables from the National Interim Energy Consumption Survey, August 1979, DOE/EIA-0193/P

Characteristics of the Housing Stocks and Households: Preliminary Findings from the National Interim Energy Consumption Survey, October 1979, DOE/EIA-0199/P

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Released for Printing: March 20, 1980

DOE/EIA-0207/3

Residential Energy Consumption Survey: **Conservation**

February 1980

U.S. Department of Energy Energy Information Administration Assistant Administrater for Program Development Office of the Consumption Data System



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PREFACE

This is the fourth report of the Office of the Consumption Data System, Office of Program Development, Energy Information Administration, presenting final data from the National Interim Energy Consumption Survey (NIECS). The focus of this report is the conservation activities performed by households between January 1977 and December 1978, and the status of households with respect to insulation, storm windows, and other energy conserving characteristics. These tables are from the final data file that contains imputations for missing data and includes data from the mailed questionnaires.

Included in the report is a summary of findings, a description of how the survey was conducted, a copy of the questionnaire, generalized sampling errors, and a glossary of terms. This report supersedes the preliminary report (DOE/EIA-0193/P) dated August 1, 1979, for most purposes except where the user is interested in the extent of missing data.

The following EIA staff members have contributed to this project: Kenneth Vagts--Director, Office of the Consumption Data System; Lynda Carlson--manager for the residential sector; Wendel Thompson--NIECS survey manager; Lynn P. Handler--analysis; Bruce Egan and Leigh Carleton--table design and generation; Mike Maloney--systems design and data processing; Tom Woteki and Stuart Cohen--statistics; Diane M. Good, Cheryl D. Kozak, and Dotty Tate--secretarial and clerical work. The survey fieldwork was conducted by Response Analysis Corporation under the direction of Reuben Cohen and Dawn Day. The statistical design support was provided by Joseph Steinberg of Survey Design, Inc.

Final Conservation Findings

This report consists of four sets of conservation-related tables. The first set presents statistics on the presence of storm windows and doors and insulation in the housing inventory for the winter of 1978-79. The remaining three sets of tables are concerned with conservation additions made during three time periods: April 1977 through December 1978 (the period of eligibility for a 1978 energy tax credit), and the two calendar years of 1977 and 1978.

Each set consists of 16 tables. Conservation inventories and additions crossed by: census region (plus rural/urban), type of heating fuel, weather zones, type of building structure, year house built, type and presence of air conditioning, family income, and selected demographic characteristics. Each table is presented in two ways. The "A" series tables are given in weighted counts of housing units rounded to the nearest thousand. Series "B" tables are given in weighted column percentages. (Since each housing unit appears in more than one row, each subtotal in each column sums to 100 percent). Column percentages can only be used in making relative comparisons. Table 1B shows that 64 percent of the units in the Northeast have insulation materials covering all windows as compared to 62 percent in the North Central region. However, Table 1A shows that there are over three million more units in the North Central region with complete storm windows than in the Northeast. To make absolute comparisons, therefore, it is necessary to use the "A" series of tables.

The sample base for this report is 3,637. This figure includes all occupied residential buildings containing between one and four housing units in the National Interim Energy Consumption Survey (NIECS). Although buildings with five or more housing units were included in the survey, residents of these buildings were not asked about conservation additions or about the presence or absence of insulation. Therefore, they have been omitted from this report, but statistics on these units will be presented in other reports.

A series of weights was applied to the sample units to allow estimates to be made of the entire population. After weighting, the estimated population was equal to 76.6 million housing units. After excluding households in buildings with five or more units, the estimated population equalled 67.5 million housing units. The 100 percent figure given in the upper left hand corner in the "B" series tables represents this weighted number. The results given in the preliminary version of this report¹ are slightly different from those presented here. The sample base has been increased by 189 households because data were obtained from a final follow-up effort using mail questionnaires. In addition, data items that were missing in the preliminary report have been imputed (see "How the Survey Was Conducted").

The first set of tables shows household inventories of conservation items. Displayed here are statistics on storm windows and doors; presence, type, and quantity of attic insulation; wall insulation; and whether or not rooms were closed off (left unheated) during the winter of 1977-78.

Forty-one percent $(+2.6)^2$ of the NIECS households had storm windows on all of their windows, 37 percent (+2.4) had storm doors, and 69 percent (+2.2) had some attic insulation. Approximately one-third of the households had closed off one or more rooms during the winter. Overall, 41 percent (+2.6) of the housing units had some or complete storm windows, storm doors, and attic insulation and 86 percent (+1.8) had_at least one of these three types of insulating materials.³ The proportion of housing units having all three types of insulating materials varies substantially by region (Tables 1A and 1B). Units in the North Central region were three times more likely to contain storm windows, storm doors, and attic insulation than were units in the South. The proportion of housing units in the West having all these types of insulating materials was less than one-guarter of that found in the North Central region.

In housing units that utilized fuel oil or kerosene as their primary heating fuel, insulating materials were found more frequently than in units using other fuels (Tables 2A and 2B). Fifty-one percent (+5.8) of the fuel oil households had all 3 types of insulating materials and 93 percent (+3) had at least 1 type.⁴ All three types of insulating items were found more frequently in detached single-family houses than in other types of housing units (Tables 4A and 4B). For

1Preliminary Conservation Tables From the National Interim Energy Consumption Survey, DOE/EIA-0193/P.

²Sampling errors are given for a 95 percent confidence level. For a discussion of sampling errors and a table for their computation, see page 189.

3Unless otherwise specified, for the purposes of this report, the terms "insulating items" and "insulating materials" refer to storm windows, storm doors, and attic insulation.

4For more detail on fuel oil households in the NIECS survey see <u>Single Family Households</u>: Fuel Oil Inventories and Expenditures, DOE/EIA-0207/1. detached houses, the overall prevalance of insulating materials increased with the number of rooms in the house. Units that were either totally or partially air conditioned also tended to have more of these items than units without any air conditioning (Tables 6A and 6B).

Table 7B shows that, generally speaking, the presence of insulation went up as family income increased. Fifty-five percent (+6) of the households earning \$25,000 or more had storm windows, storm doors, and attic insulation while only 20 percent (+6.2) of the poor households (see Glossary) had all 3 types of these insulating materials. White respondents were twice as likely as black respondents to have all 3 types of insulating items, 43 percent (+2.8) versus 21 percent (+7.6), Table 8B. Households headed by married couples had significantly better insulated homes (46 percent (+3) had all 3 types) than unmarried household heads. Among those who were unmarried, there were no significant differences in the summary statistics between male and female heads of households.

The second set of tables gives statistics on conservation additions for the period of eligibility for an energy tax credit on Federal income taxes. In order to qualify for an energy tax credit, two criteria must be met. First, to be eligible, an addition had to have been made between April 20, 1977 and December 31, 1978. Second, additions were only considered to be eligible if they were made to houses built (or substantially completed) before April 20, 1977. The 16 tables in the second section give three classifications of eligibility. For this report, "eligible" additions were defined as those made during the appropriate time frame and to houses built in 1976 or earlier. "Ineligible" additions were made during the right time, but to houses built in 1977 or later.

Some sort of conservation-related equipment or insulating material was added to half, 50 percent (+2.8) of the eligible housing units. Most additions were relatively inexpensive. The most frequent additions were: caulking (25 percent), plastic covering (16 percent), and weatherstripping 15 percent). Of the eligible housing units, 41 percent (+2.6) of the households made an addition of this type. Expensive additions of insulating materials or any kind of equipment additions were undertaken by smaller numbers of respondents. At least one of the following types of insulation: storm doors, storm windows, and attic insulation was added by 17 percent (+2) of the eligible housing units. Eighteen percent (+2) of the households added expensive insulating material and/or expensive equipment. Half of the households that added an expensive item also added an item from the category termed "inexpensive insulation."

The third and fourth sets of tables present statistics on conservation-related additions made during 1977 and 1978. In each of the two calendar years presented here, approximately one-third of the households added some sort of insulating material or equipment. Over two-thirds of the households making additions in each year added inexpensive items only. A large proportion of the additions made were in the category termed "inexpensive insulation". Twentynine percent (+2.4) of the households made an addition of this type in 1977 and 26 percent (+2.4) added "inexpensive insulation" in 1978. Within this category, the most popular additions included caulking, plastic coverings, and weatherstripping.

In each of the two years, approximately four percent (+1.2) of the households added either storm windows, storm doors, or attic insulation. In 1978, 10 percent (+1.6) of the households added at least one of these types of insulation and in 1977, the figure was 11 percent (+1.7). While there was some overlap, most of the households that added these types of insulating materials in 1978 were different households from those which added such items in 1977 (see the eligibility tables). In each of the two years, 11 percent (+1.7) added an expensive item of either equipment or insulation. While inexpensive modifications have predominated, approximately 10 percent of the households made at least one relatively expensive addition in each year.

TABLE 1A EXISTING ENERGY-RELATED CHARACTERISTICS BY CENSUS REGIONS (WINTER 1978-79) (Thousand Housing Units)

	1 					(CENSUS	REGIONS					
	TOTAL HOUSING UNITS	 N(DRTHEAST	r	NORTH CENTRAL			SOUTH			NEST		
	1	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
TOTAL HOUSING UNITS 1/	67,457	14.251	11,309	2 , 942	19+821	14,132	5,689	22,319	13,783	8,536	11,067	8,536	2,53
STORM WINDOWS		1	•							1			
ALL WINDOWS COVERED.	27,463	9.130	7,292	1.937	12.380	8.612	3.768	4.404	2.416	1.989	1.550	669	88
SOME WINDOWS COVERED													
NO WINDOWS COVERED				•		1,457	•		•	•	•	7,224	
TORM DOORS	1	1	1							1		1	1
ALL DOORS COVERED	1 25.003	1 6.810	5.254	1 1.556	12.094	8.566	1 3.520	1 4.960	1 2.480	1	1.247	740	50
SOME DOORS COVERED.	e									•		1,048	
NO DOORS COVERED	•					2,167						6,748	
TTTO THOM ATTOM	1	1	1	}		l	1					1	l
TTIC INSULATION		1 0 007									7 010		
HAVE INSULATION	46,216	9,297	69945 	29352	15:035	10,572	49465 	14+367	99095	5,771	/oU15 	4,633	2933
BATTS ONLY	21,724	5,391	3,755	1,636	6,980	4,986	1,994	6,553	3,746	2,303	2,800	1,506	1.29
LOOSE FILL ONLY	14,183	1,955	1 1 534	421	4,977	3,200	1,777	4,734	2,831	1,903	2,517	2,031	48
BATTS AND LOOSE	2,328	361	283	78	969	680	289	686	453	233	312	131	18
OTHER	750	61	31	31	181	93	88	293	205	88	215	115	10
TYPE UNKNOWN	7,231	1,528	1,342	187	1,930	1,613	317	2,601	1,861	740	1,172	901	į 27
QUANTITY	1	J	1		I	1	1	1	1	1	1]	
LESS THAN 3 INCHES		385	,			•	N			• • • • •			
3 TO 6 INCHES	•	4,095			,	•			, , , , , , , , , , , , , , , , , , ,			1,819	
MORE THAN 5 INCHES		1,365			•	1,736		• -	•		• • • • -		
QUANTITY UNKNOWN				•	, .	3,511	•		•	•	•	1,966	•
NO INSULATION		,	2,241			1,931		• •	•	•		2,378	1
DONT KNOW	09/10	2,203	29123	1 30	19985	1,530 	l apa l	2,491	1 19810	575	L 8 © 4 U -	1,475	6
AVE WALL INSULATION	•	I	1	I	•	l	Ì	1	1	Ì	1	Í	
YESononsanananananananananan		•		•	,			•	1 .	•			•
NO	1	3,586		•		•	•	•	•	•	-	1 3,207	-
DONT KNOW	14,904	3,504	1 3,153	351	4,104	3,461	613	4.709	3,580	1,129	2,588	2,460	12
DOM(S) CLOSED OFF WINTER 1978-79		e e	1		ļ	ब में ह	1		9		9	1	
YES====================================	20,958	3:085	2,402	684	6,427	4,222	2,205	8,397	4,591	3,806	2,947	2,048	89
ND	39,186	1 9,337	1 7.286	2,051	11,445	8,493	2,952	11,486	7,375	4,111	6,918	5,531	1,38
DID NOT LIVE HERE LAST WINTER	1 7,414	1 1.827	1,521	205	1,949	1 1,417	533	2,436	1,816	619	1,202	957	24

σ

	1	1				6	CENSUS	REGIONS					
	TOTAL HOUSING UNITS	NORTHEAST			NORTH CENTRAL			I SOUTH				WEST	
	 	ITOTAL	I IURBAN	RURAL	 TOTAL 	URBAN	I I RUR AL L	TOTAL	I URHAN L	I IRURAL	TOTAL	I URBAN L	IRURAL
UNITS WITH SOME OR ALL Storn Windows, and Some Or all Storn Doors, and Attic or Roof Insulation	27,469	 7.793	 	2,194	 13,107	9,327	 3+780	4•958	 2+755	 2,20?	L±610	748	 86
NITS WITH ONE OR MORE OF THESE TYPES OF Insulation	57+725	 13+630	 10+709 	2 , 921	 19,087 	 13,567	 5,519	17•407	 10+676	6,730	 7,601	 5,166 	 2,43
INITS WITH NONE OF THESE TYPES OF INSULATION	9+733	620	1 1 1 600	20	 734	564	1 170	 4,912	 3,107	 1,805	3,466	3,370	9

TABLE 1AEXISTING ENERGY-RELATED CHARACTERISTICS BY CENSUS REGIONS (WINTER 1978-79)-CONTINUED
(THOUSAND HOUSING UNITS)

SEE BLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, FNERGY INFORMATION ADMINISTRATION.

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TABLE 1BEXISTING ENERGY-RELATED CHARACTERISTICS BY CENSUS REGIONS (WINTER 1978-79)(PERCENTAGE OF HOUSING UNITS)

						CE	INSUS I	REGIONS	5				
	TOTAL Housing Units	NC	RTHEAS	ST	NOR	TH CENT	RAL		SOUTH			WEST	
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100;
TORM WINDOWS) .: 1												
ALL WINDOWS COVERED	41	64	64	52	62	61	66	20	18	23	14	1 8	35
SOME WINDOWS COVERED	20	27	24	35	27	29	23	14	14	• •	12	8	28
NO WINDOWS COVERED	39	9		3	10	10	10	56		62	e	85	
TORM DOORS				1				1					1
ALL DOORS COVERED	37	48	46	53	61	61	62	22	18	28	11	9	20
SOME DOORS COVERED	24	30	28	39	24	24	24	25	26	24	15	12	26
NO DOORS COVERED.	39	22	26	8	15	15	14	53	56	49		79	54
TTIC INSULATION	1							1					
	69	65	61	80	76	75	78	67	66	68	63	55 1	92
HAVE INSULATION	67	- 63	61	80	10	15	16		60	05	63	331	72
TYPE DATES ONLY	70	70							5.7		05		51
BATTS ONLY	32	38	33	56		35	35	29	27	•	25		
LOOSE FILL ONLY	21	14		14		23	31	21	21		23	24	19
BATTS AND LOOSE		r 97 1		3		5		3	3			2	1 7
0 THER	1			. 1	1	1	2	1	1	1	2		4
TYPE UNKNOWN	11	11	12	6	10	11	6	12	13	9	11	11	11
QUANTITY						1]					
LESS THAN 3 INCHES	3	3			2	3	-	2	3	2	4	3	8
3 TO 6 INCHES	4	29		42	,	35	42	33	29	39		21	52
MORE THAN & INCHES		10				12	20	7		5	9	• •	
QUANTITY UNKNOWN	•	24		23	,	25	16	25	4 2 1			23	,
NO INSULATION	1 19	1 19	20		14	14		22		24	23 14		•
			1		1			1					
AVE WALL INSULATION	l	1		1	2	1	ľ	1	1	1	B A		
¥ES	50	I 50		57		51	70	49			43	• • •	73
NO	27	25		21	1	25	1 19	30	29	•	¥.	38	22
DONT KNOW	22	25	28	12	21	24		21	26	13	1 23	29	5
OOM(S) CLOSED OFF WINTER 1978-79						-	1		3		ala anala		
ЧЕЅыныкааааааааааааааааааааааааа	31	22	21	23	32	30	39	38	33	45	27	24	36
ND	58	66	64	70	58	j 60	52	51	54	48	63	65	55
DID NOT LIVE HERE LAST WINTER	1 11	13	14	Î 7	10	1 10	9	1 11	13	i 7	I 11	1 11	I 10

	; ; ;					CI	ENSUS	REGION	s				
	TOTAL HOUSING	N	ORTHEA	ST	N07.	TH CEN	TRAL	 	SOUTH		 	WEST	
	1	TOTAL	URBAN	I RURAL	TOTAL	1 URBAN 	RURAL	TOTAL	URBAN	I RURAL	 ТОТАL 	URBAN	 RURAL
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	4 2	55	 50	 75	66	66	66	22	 	1 25		1	34
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	85	96	 95 	1 1 1 99	 96	96	37	78	 77	 79	69	61	96
UNITS WITH NONE OF THESE TYPES OF INSULATION	14	4	5		4	 4	 3	 22	23	51	51	39	+ 4

 TABLE 1B

 EXISTING ENERGY-RELATED CHARACTERISTICS BY CENSUS REGIONS (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	1	TYPE	E OF PRIMAR	Y HEATING FU	EL	
	HOUSING UNITS	NATURAL GAS	FUEL OIL, KEROSENE	LPG	ELECTRIC	MOOD	OTHER. NONE
TOTAL HOUSING UNITS 1/	67,457	37,418	14.392	3,102	9,568	1,885	592
STORM WINDOWS							
ALL WINDOWS COVERED	27 463	1 14.444	7 . 637	820	4,238	292	33
SOME WINDOWS COVERED	13,687	7,324	4,109	424	1,396	331	103
NO HINDOWS COVERED	26,307	15,650	3.146	1,858	3,935	1,262	456
STORM DOORS		9					
ALL DOORS COVERED	25,003	14,157	6,916	3 74	2,513	418	107
SOME DOORS COVERED	16,362	8.589	4,354	493	1 2,375	398	153
NO DOORS COVERED	26.092	14,672	3,622	1,715	4,681	1,069	332
ATTIC INSULATION	l						1
HAVE INSULATION	46 • 216	24,255	10,211	2,387	8,132	1.081	i 150
BATTS ONLY	21,724	11,231	5.323	1.250	3.059 1	779	83
LOOSE FILL ONLY		7,196	2.980	639	1 3.104 1	197	68
BATTS AND LOOSE	2,328	1 1,376	453	35	449 1	15	i –
OTHER	750	313	1 193	18	205	21	- 1
TYPE UNKNOWN	7,231	4+139	1 • 262	445	1 1.314	69	-
QUANTITY							
LESS THAN 3 INCHES		1,160	201	39	278	103	1 -
3 TO 6 INCHES		11.025	5,601	1,205	3,400	621	67
MORE THAN & INCHES		2,997	1,421	245	1,851	91	33
QUANTITY UNKNOWN		9,073	2,989	898	2,603	266	50
NO INSULATION	13+023 8+219	1 7,830 1 5,333	2,999	510 04	588 843	564 140	331 110
		1	1	201			1
HAVE WALL INSULATION		ŧ	1	1			1
YES	34,004	15,778	7,431	1,922	6,892	363	119
NO	18,549	11,075	4,220	311	1,211	894	337
DONT KNOW	14,904	9,565	3,241	1 370	1,465	128	136
ROOM(S) CLOSED OFF WINTER 1978-79		1	i i	1			
YE Somoonnessessessessessessessesses		1 10,895	4+337	1 • 135	3,358	935	146
ND	39:136	22,882	8,993	1,535	4,611	800	353
DID NOT LIVE HERE LAST WINTER	7,414	3,540	1,512	4 3 0	1 1,599	150	1 83

TABLE 2AEXISTING ENERGY-RELATED CHARACTERISTICS BY PRIMARY HEATING FUEL (WINTER 1978-79)(THOUSAND HOUSING UNITS)

1	TOTAL HOUSING UNITS 	TYPE OF PRIMARY HEATING FUEL										
		NATURAL GAS	FUEL OTL, KEROSENE	LPS	ELECTRIC	воов	OTHER, NONE					
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	27,469	15,128	7,636	793	S,474	355	<u>82</u>					
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	57,725	30 . 767	13,827	2 •648	8,823	1,350	310					
UNITS WITH NONE OF THESE Types of Insulation	9 ,73 3	6,651	1,065	454	745	536	281					

 TABLE 2A

 EXISTING ENERGY-RELATED CHARACTERISTICS BY PRIMARY HEATING FUEL (WINTER 1978-79)-CONTINUED (THOUSAND HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	1	TYPE	OF PRIMAR	Y HEATING FU	EL	
	HOUSING UNITS	NATURAL GAS	FUEL OIL, KEROSENE	LPG	ELECTRIC	NOOD	OTHER None
FOTAL HOUSING UNITS <u>1</u> /	100%	100%	100x	· 100%	1 109%	100%	100%
STORM VINDOUS		1	1 I				1
ALL WINDOWS COVERED	41	39	51	26	i 44 i	15	6
SOME WINDOWS COVERED		20	28	14	15	18	17
NO WINDOWS COVERED	39	42	21	60	41	67	77
STORM DOORS	i						***
ALL DOORS COVERED	37	38	1 46 1	29	1 26 1	22	1 19
SOME DONRS COVERED	24	23	29	16	1 25 1	21	25
NO DOORS COVERED	3.3	39	1 24	55	47	57	56
ATTIC INSULATION		1					1
HAVE INSULATION	69	65	69	77	85	57	25
TYPE	70	1 70		• •			
BATTS DNLY	32	30	36	40	32	41	14
LOOSE FILL ONLY	21	19	20	21	32	10	11
RATTS AND LOOSE	3	4	1 3 1	1	5 1	1	-
0THER	1	1	1 1	1	2	1	
TYPE UNKNOWN	11	1 11	8	14	14	4	
QUANTITY						_	1
LESS THAN 3 INCHES		1 3	1	1	3	5	-
3 TO 6 INCHES		29	38	39	36	33	11
MORE THAN 6 INCHES		8	10	8	19	5	6
QUANTITY UNKNOWN	24	24	50	29	27	14	8
NO INSULATION	19	21	50	20	6 1	35	56
DONT KNOW	12	14	11	.5	9	7	19
AVE WALL INSULATION		1					
YES	50	45	50	62	72	46	1 50
NO	27	1 30	28	2.6	1 13 1	47	57
90NT KNOW	22	26	22	12	1 15 1	7	23
COOM(S) CLOSED OFF WINTER 1978-79		1	ļ				1
YES	31	29	29	37	35	50	25
NO	58	61	50	50	48	42	51
DID NOT LIVE HERE LAST WINTER	11	1 10	1 10	14	i 17 i	8	1 14

TABLE 2BEXISTING ENERGY-RELATED CHARACTERISTICS BY PRIMARY HEATING FUEL (WINTER 1978-79)(PERCENTAGE OF HOUSING UNITS)

	TOTAL	TYPE OF PRIMARY HEATING FUEL										
	HOUSING	NATURAL GAS	FUFL OIL, KEROSENE	LPG	ELECTRIC	ษออว	OIHER, NONE					
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	41	1 1 1 1 4 0	51	25	36	19	14					
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	26	82	્વત્ર	85	92	72	52					
UNITS WITH NONE OF THESE TYPES OF INSULATION	14	1 18	 /	15	8	28	48					

TABLE 28 EXISTING ENERGY-RELATED CHARACTERISTICS BY PRIMARY HEATING FUEL (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSING UNITS)

Ξ.

NOTE: DATA MAY NOT SUM TO FOTALS DUE TO ROUNDING. A DASH -- REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

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TABLE 3A EXISTING ENERGY-RELATED CHARACTERISTICS BY DEGREE DAYS (WINTER 1978-79) (Thousand Housing Units)

Î	TOTAL		HEATING	AND COOLING DEGRE	E DAYS	
	HOUSING UNITS	<pre><?000 CDD AND >7000 HDD</pre>	<pre><2000 CDD AND 5500-7000 HDD</pre>	<pre><2000 CDD </pre>	<2000 COD AND <4000 HDD	>2000 CDD AND <4000 HDD
TOTAL HOUSING UNITS 1/	57,437	5,766	19+605	17.397	14,520	10,169
STORM WINDOWS		1	1			1
ALL WINDOWS COVERED	27,463	4,205	11,432	8.792	2.377	658
SOME WINDOWS COVERED	13+687	1 1,211	4,947	4.999		•
NO WINDOWS COVERED			•	•	1,799	731
- NO WINDOWS CONSECTABLE	26,307	1 350	3,226	3,606	10,344	1 8•780
STORM DOORS			1			
ALL DOORS COVERED	25,003	2,658	11+178	7,659	2,519	960
SOME DOORS COVERED	15.352	1,520	4.891	5,291	2,856	1,695
NO DOORS COVERED	25,072	1,488	3,517	4,437	9,136	7,514
		1	1	1		I
TTIC INSULATION		1				1
HAVE INSULATION	45+216	4,642	15,056	11.282	9,079	6,157
BATTS ONLY	21 # 724	1,749	8,062	5,976	3,363	2,575
LOOSE FILL ONLY	14.183	1 1,958	3,758	2,994	3,505	1,959
BATTS AND LOOSF	2,323	1 255	i 390	572 1	296	316
OTHER	750	27	215	154	275	78
TYPE UNKNOWN	7,231	1 643	1 2.130	1 1.587 1	1,641	1,223
QUANTITY		1 370	1		LACIT	1 1/22/
LESS THAN 3 INCHES	1.731	1 96	570	457 1	554	102
3 TO 6 INCHES	21,313	1 1,779	7,186	5,854	4,074	3,005
MORE THAN & INCHED	5.537	1 1,323	2,565	1 1,390 1	328	532
QUANTITY UNKNOWN	15,877	1 1.444	4,735	3,582	3,501	2,517
NO INSULATION	13,023	584	2.423	3,724 1	3,823	2,470
DONT KNOW	9,218	540	2.127	2,391	1.618	1,542
AVE WALL INSULATION		s	8	**** *********************************		8
YES YES YES	34 + 304	3.759	11+261	I 8.544 I	1.577	1 7.007
NO	18,549	,	1 3,979	•	5,537	3,903
		1,040		5,031	4,725	3,775
DONT KNOW	14, 904	966	4,365	3,822	3:259	1 2,491
OOM(S) CLOSED OFF WINTER 1978-79		1	t.	an and		1
ES	20,853	1 1.410	5,023	5+531	5.708	3+091
0	39,186	1 3.093	12,779	1 10,052	7+423	5,769
DID NOT LIVE HERE LAST WINTER	7,414	1 1,263	1 1,738	1 1,713 1	1,320	1,319

	TOTAL	HEATING AND COOLING DEGREE DAYS									
	HOUSING UNITS	<2000 CDD AND >7000 HDD	<2000 CDP AND 5500-7000 HDD 	<2000 CDD AND 4000-5499 HDD	<2000 CD0 AND <4000 H0D	>2000 CDD AND <4000 HDD					
UNITS WITH SOME OR ALL Storm Windows, and Some or all Storn Doors, and Attic or Roof Insulation	?7+450	3+314	12+213	a∳203	2,743	683					
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	57,725	5,710	 18,721	16,126	10,297	Ġ . 871					
UNITS WITH NONE OF THESE TYPES OF INSULATION	• 7 3 3 •	56	। । । ९८४	1,271	4,221	3•298					

TABLE 3A EXISTING ENERGY-RELATED CNARACTERISTICS BY DEGREE DAYS (WINTER 1978-79)-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

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NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR POUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS YABLE.

SOUPCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

HEATING AND COOLING DEGREE DAYS TOTAL -----والمنط بالجار ببييار مجاره ماريخ محاور مجاور فالبار بالجار الماري بمار HOUSING UNITS <2000 CDD <2000 CDD <2000 CDD <2000 CDD >2000 CDD AND AND AND AND AND >7000 HDD 5500-7000 HOD 1 4000-5499 HDD <4000 HDD <4000 HDD -----TOTAL HOUSING UNITS 1/..... 100% 100% 100% 100% 100% STORM WINDOWS ALL WINDOWS COVERED...... SOME WINDOWS COVERED....... NO WINDOWS COVERED....... STORM DOORS ALL DOORS COVERED...... SOME DOORS COVERED...... NO DOORS COVERED..... ATTIC INSULATION TYPE BATTS ONLY LOOSE FILL ONLY BATTS AND LOOSE CTHER.............. TYPE UNKNOWN QUANTITY LESS THAN 3 INCHES ft. .3 3 TO 6 INCHES...... MORE THAN 6 INCHES QUANTITY UNKNOWN NO INSULATION 1 7 HAVE WALL INSULATION YESanaanaanaanaanaanaanaanaa Nonsassessessessessessesses DONT KNOH ROOM(S) CLOSED OFF WINTER 1978-791 DID NOT LIVE HERE LAST WINTER |

TABLE 3BEXISTING ENERGY-RELATED CHARACTERISTICS BY DEGREE DAYS (WINTER 1978-79)(PERCENTAGE OF HOUSING UNITS)

	TOTAL	HEATING AND COOLING DEGREE DAYS									
	HOUSING (UNITS) I	<2000 CDD AND >7000 HDD	<2000 CDD AND 5500-7000 HDD	く2000 CDO AND 4000-5499 HDD	<2000 CDD AND <4000 HDD	>2000 CDD AND <4000 HDD					
JNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	4 <u>1</u>	1 	 52	4.9	I ct	 7					
UNITS WITH ONE OR HORE OF THESE TYPES OF INSULATION	કડ	 99	 95	73	71	68					
UNITS WITH NONE OF THESE Types of insulation	1 4		5] 7	20	32					

TABLE 3BEXISTING ENERGY-RELATED CHARACTERISTICS BY DEGREE DAYS (WINTER 1978-79)-CONTINUED
(PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

16

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO POUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 4A Existing Energy-related characteristics by type of housing structure (winter 1978-79)

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(THOUSAND HOUSING UNITS)

	TOTAL		SINGLE	FAMILY DET	ACHED		 SINGLE	BUILDING	NOBILE	
	HOUSING Units	TOTAL	1-4 Rooms	5 Rooms	6 Rooms	T OR MORE ROOMS		WITH 2-4 Units	HOME	OTHER
TOTAL HOUSING UNITS 1/	67:457	48,547	8 ,76 8	12,696	11,850	 15,233	3,128	10,749	4,805	228
STORM WINDOWS							1			
ALL WINDOWS COVERED	27,463	19,719	2,622	5.071	4,984	7,040	1.721	4,220	1,708	98
SOME WINDOWS COVERED		10,776	1,655	2,456	2,821	3,844	342	1,892	618	59
NO WINDOWS COVERED	26:307	18,053	4,491	5,169	4,045	4,349	1,066	4,637	2,478	73
STORM DOORS							1			
ALL DOORS COVERED.	25:003	19.379	3.486	5,238	4,984	1 5,666	1 1,535	I I 3∎043	988	6
SOME DOORS COVERED.		13,168	1,522	3,244	3,196	1 5.206	1 504	1,374	1.125	91
NO DOORS COVERED	26,092	15,999	3,760	4+214	3:665	4,360	992	6,332		78
ATTIC INSULATION						1	1	1		l
HAVE INSULATION	46,215	37,410	5,129	9,632	9,440	13,210	 1,648	3,775	3+242	141
BATTS ONLY	21,724	18,114	2,846	4,515	4,459	6,296	616	1,327	1,540	12
LOOSE FILL ONLY	14,133	12,007	1,295	3,080	3,087	4,545	•	1,214	274	14
BATTS AND LOOSE	2,328	2,265	199	677	591	798	15	31	17	-
0THER	750	674	123	136	214	200	i –	-	76	-
TYPE UNKNOWN	7,231	4:350	666	1,224	1,099	1,371	i 343 i	1,203	1,334	-
LESS THAN 3 INCHES	1,791	1,465	251	311	417	487	89	112	99	10
3 TO 6 INCHES	21,919	18,804	2,522	4,943	5,001	6,439	, 730	1 1,118	1,220	4
MORE THAN & INCHES	6,637	5+614	639	1,561	1,323	,		•		- 1
QUANTITY UNKNOWN	15,879	11,526	1,718	2,917	2,694	4,198	,	2,023	1,704	30
NO INSULATION	13.023 8.213	8+974 3+063	2,599 1,041	1,999 1,065	2,035	•	•	•	996 566	4(
DOM - Kumbeessessessessessesses	09217		19071	1 19083	L'1C	1 302	661 661	3•880 	000	
HAVE WALL INSULATION	l					I			1	1
YES	34,004	26,106	3,513	6,753	6.689	9,151	•		3,390	74
NO	18,549	13,950	3+586	3,419	3,380	3,564	866	• •	•	121
DONT KNOW	14,704	8,491	1,669	2,524	1,781	2,517	888	4 #755 1	736 	3.
ROOM(S) CLOSED OFF WINTER 1978-79						73 11111	1	1	1	
YES====================================	20,818	17,371	2,812	4,268	4,542	5,749	718	1,539	1,206	25
NO	39.185		5,133	7#425	6,776		2 143	5,696	2+614	14:
DID NOT LIVE HERE LAST WINTER	7.414	3.585	823	1,003	531	1,227	257	2,515	985	j 5:

See footnotes at end of table.

	TOTAL Housing		SINGLE	FAMILY DET	ACHED		SINGLE BUILDING	MOBILE	 		
	HOUSING Units	TOTAL	1-4 ROOMS	5 ROOMS	6 R00MS	I I OR MORF ROOMS	FAMILY	WITH 2-4	•	OTHER	
UNITS WITH SOME OR ALL STORH WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC DR ROOF INSULATION	27,467	23,462	2,705	5,799	6 9 3 8 7	3,572	1+225	1,413	1 • 2 7 2	95	
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	57,725	43,023	6 ,7 55	11,069	10,604	 14+596 	2,613	 	3,980	<u>5</u> 0. 3	
UNITS WITH NONE OF THESE TYPES OF INSULATION	91733	5,524	2,014	1,528	1,246	 636	 515 	2,350	824	20	

TABLE 4A EXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF HOUSING STRUCTURE (WINTER 1978-79)-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

18

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SPURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL		SINGLE	FAMILY DE	TACHED		SINGLE	BUILDING	MOBILÉ Home	
	HOUSING Units	TOTAL	1 1-4 ROOMS	5 ROOMS	6 Rodms	TOR MORE	• • • • • • •	WITH 2-4 UNITS		OTHER
TOTAL HOUSING UNITS 1/	100%	100%	100%	100×	100%	100%	100x	100%	100%	100%
STORM WINDOWS		-	1	1		1	f \$	1		
ALL WINDOWS COVERED	41	41	30	40	42	46	55	39	36	42
SOME WINDOWS COVERED	20	22	1 19	1 19	24	25	1 11	18	13	26
NO WINDOWS COVERED	39	37	51	41	34	29	34	43	52	32
STORM DOORS			Silver Silv			1				1
ALL DOORS COVERED	37	40	40	41	42	37	49	28	21	26
SOME DOORS COVERED	24	27	1 17	26	27	34	1 19	13	23	40
NO DOORS COVERED	39	33	43	33	31	29	32	59	56	34
ATTIC INSULATION			1	1			1			}
HAVE INSULATION	69	77	58	76	80	87	53	35	67	62
BATTS ONLY	32	37	32.	1 36	38	i 41	20	12	32	55
LOOSE FILL ONLY	21	25	1 15	24	26	30	22	1 11	6	1 5
BATTS AND LOOSE	3	5	1 2	5	5	5	-	1 -	-	i -
0THER	1	1	1 1	1 1	2	i i	i -	i -	2	i -
TYPE UNKNOWN	11	Ċ,	8	10	9	9	i 11	i 11	28	-
QUANTITY			1	1		1				i
LESS THAN 3 INCHES	3	- 3	; 3	2	, 4	3	i 3	i 1	2	5
3 TO 6 INCHES	32	37	29	38	42	42	23	1 10	25	20
MORE THAN 6 INCHES	10	12	7	1 12	1 11	14	9	5	5	-
QUANTITY UNKNOWN	24	24	1 20	23	23	28	17	1 19	35	i 35
NO INSULATION	19	17	1 30	1 16	17	9	26	23	21	1 17
DONT KNOW	12	6	12	8	3	4	21	36	12	21
HAVE HALL INSULATION			1	1) 	1	1	1	1	1 9
YES	50	54	40	53	, I 56	60	44	28	71	32
ND	27	29	41	27	29	23	28	27	14	53
DONT KNOW	22	17	1 19	20	15	1 17	28	44	15	14
ROOM(S) CLOSED OFF WINTER 1978-79		1	1	1	2007 24 20 20 20 20 20 20 20 20 20 20 20 20 20	1971 - 192	1		1	1
YESoonoonoonoonoonoonoonoonoo	31	35	1 32	34	38	1 38	23	1 19	1 25	i I 11
NOa	58	57	1 59	58	57	1 54	1 69	62	1 54	62
DID NOT LIVE HERE LAST WINTER	11	1 7	1 9	1 8	1 4	1 8	1 9	1 23	20	27

TABLE 4BEXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF HOUSING STRUCTURE (WINTER 1978-79)(PERCENTAGE OF HOUSING UNITS)

See footnotes at end of table.

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	TOTAL	SINGLE FAMILY DETACHED						BUILDING	 MOBILE	
	HOUSING Units	TOTAL	1-4 RCOMS	5 800MS 	6 RODMS	I OR MORE ROOMS		WITH 2-4 UNITS	і номе І І	I OTHER
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	41	48	 31	 45	54	 	39	13	26	 42
JNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	86	89	 77	1 1 1	89	96	1 1 1	73	83	 91
JNITS WITH NONE OF THESE TYPES OF INSULATION	14	11	23	1 13	11	4		27	17	 9

TABLE 4B EXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF HOUSING STRUCTURE (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ FXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

20

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO BOUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, UFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL			YEA	R HOUSE BU	IL T		
	HOUSING UNITS	1975	1970	1965	1960	1950	1940	1 1939
	UNITS	0R	TO 1	T0 1	10	T0	T0	I 0R
		LATER	1374	1969	1964	1959	1949	EARLIER
TOTAL HOUSING UNITS 1/	67,457	4,864	7,498	6,493	6,530	12,480	7,389	22,198
STORM WINDOWS	8			1	1			1
ALL WINDOWS COVERED	27+463	2.853	3,372	2,253	2,284	4.954	2,723	9,024
SOME WINDOWS COVERED.		374	890 1	971	1.302	2,617	1.525	5,009
NO WINDOWS COVERED.	26.307	1,641	3,237	3,269	2,944	4,919	3,141	7,165
STORM DOORS		1	line pro-					
ALL DOORS COVERED	25,003	1,050	1.954	1,475	2,129	5.766	3,159	9,460
SOME DOORS COVERED	16+352	999	1,943	1,726	1,738	3,230	1,723	4,953
NO DOORS COVERED	26+092	5,805	3,601	3,292	20614	3,484	2,507	7,785
ATTIC INSULATION		t I		1		1		1
HAVE INSULATION	46,215	4,209	5,525	4.641	5,358	10,032	4,823	11,628
BATTS UNLY	21+724	1,494	2+425	2,085	2,339	5+498	2 438	5,445
LOOSE FILL ONLY	14,193	1,713	1,594 1	1.409	1,546	2,909	1,315	1 3,698
BATTS AND LOOSF	2,328	1.26	131	146	343	591	336	545
0THER	750	74	62	75	1 38	118	65	217
TYPE UNKNOWN	7,231	742	1,262	926	991	915	570	1 1.723
LESS THAN 3 INCHES	1,791	126	104	117	307	505	168	453
3 TO 6 INCHES	21,913	1,264	2,375	2,216	2:239	5,295	2:567	1 5,362
MORE THAN & INCHES	6,637	1,402	1,120	548	720	1,374	354	1 1,119
QUANTITY UNKNOWN	15,879	1 1.417	1,925	1,760	2,091	2+857	1,635	4,194
NO INSULATION	13,023	250	777	906 	674	1,630	1,464	7,322
DONT KNOW	8,218	410	1,196	946	499	818	1,102	3,248
HAVE WALL INSULATION	1	1						
YESa,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	34,004	4,070	5,195	3,808	3,636	6,431	3,265	7,598
NO 	13,549	279	882 1	1.037	1,341	3 708	2,179	9+123
	14,304 	520 	1,422	1,548	1,553	2,341	1,943	5,477
ROOM(S) CLOSED OFF WINTER 1978-79	,	£ #		, i				5
YFSeascessaaqeecceccecesaaaa	1	1 1.016	2:325	1,442	2,318	1 4,030 1	2,453	1 7,213
NO	39,186 7,414	2,436	4,080 1,092	4,002 1,050	3,759 453	7,745 654	4 • 264 562	12,849

TABLE 5A EXISTING ENERGY-RELATED CHARACTERISTICS BY YEAR HOUSE BUILT (WINTER 1978-79) (Thousand Housing Units)

	TOTAL	1 } }		YEA	R HOUSE BUT	ILT		
	HOUSING UNITS	1975 OR LATER	1970 YO 1974	1965 TO 1969	1960 T0 1964	1950 TO 1959	1940 TO 1949	1939 0R EARLIER
NITS WITH SOME OR ALL Storm Windows, and some or all storm doors, and Attic or roof insulation	27,469	1.645	2,777	1,975	2,801	6+559	3+297	 B+415
NITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	57,125	4,482	6,350	5+582	5+853	11+099	6,092	 18,255
UNITS WITH NONE OF THESE TYPES OF INSULATION	J y 7 3 3	386	1,148	911	667	1,381	1+297	 3 9 74.3

TABLE 5AEXISTING ENERGY-RELATED CHARACTERISTICS BY YEAR HOUSE BUILT (WINTER 1978-79)-CONTINUED(THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO FOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS FABLE.

SPURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 5BEXISTING ENERGY-RELATED CHARACTERISTICS BY YEAR HOUSE BUILT (WINTER 1978-79)(PERCENTAGE OF HOUSING UNITS)

	TOTAL			YE A	R HOUSE BUI	LT		
	HOUSING UNITS	1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	109%	100%	100%	1 100%
STORM WINDOWS								1
ALL WINDOWS COVERED	41	59	45	35	35 1	40	37	i 1 41
SOME WINDOWS COVERED.		1 J7	12	15	20	•	21	1 27
NO WINDOWS COVERED	39	1 0 1 34		10 50	45	21 39	43	1 32
		j						
STORM DOORS		{		9		1		l.
ALL DOORS COVERED	37	22	26	23	33	46	43	43
SOME DOORS COVERED	24	21	26	27	27	25	23	22
NO DOORS COVERED	39	1 5R	48	51	40	28	34	1 35
ATTIC INSULATION		3						
HAVE INSULATION	69	86	74	71	82	90	65	1 52
TYPE	o -	1 no	1 74		50	50	29	1 52
BATTS ONLY	32	, I 31	32	32	36 1	44	33	25
LOOSE FILL ONLY	21	35	21	22	24	23	18	1 17
BATTS AND LOOSE	3	4	2	2	5	5	5	1 2
OTHER	ĩ	1 2	1 1	1 1	2	1	1	1 1
TYPE UNKNOWN	11	1 15	17	14	15	7	9	
QUANTITY		1 L.J	17	17	1.7	<i>,</i>	7	
LESS THAN 3 INCHES	*	, † 3		2	5	4	2	2
3 TO 6 INCHES.	32	26	32	34	34	42	36	1 26
MOPE THAN 6 INCHES		1 29	1 15	8	11	11	5	1 5
QUANTITY UNKNOWN	24	1 29		27			22	1 19
NO INSULATION	-	1 5	25		32	23		
DONT KNOW	17		10	14		13	20 15	1 33 1 15
				1 .7	, v	,	15	
HAVE WALL INSULATION		5	1					1
YES	50	84	69	59	56	52	44	34
NO	27	6	12	1`6	21	30	29	j 41
DONT KNOW	22	11	19	25	24	19	25	25
ROOM(S) CLOSED OFF WINTER 1978-79		diment to						
YES CRASS AND CONTRACT IN THE CASE OF CONTRACT OF CONTRACT.	31	1 21	31	22	36	33	33	1 32
1 - 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	58	1 51	1 54	62	58	52	58	1 58
DID NOT LIVE HERE LAST WINTER.			,	n∠ 16	1			•
HID MUT LIVE DERL LASE MINICK	11	58	1 15	Ih	7	5	9	1 10

	TOTAL			YE	AR HOUSE BUI	IL T		
	HOUSING UNITS	1975 OR LATER	1 1 7 0 F 0 1 9 7 4	1965 TO 1969	1960 10 1964	1950 TO 1953	1940 TO 1949	1939 09 EARLIER
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS: AND ATTIC OR ROOF INSULATION	4	54	37	30	43	1 	 4")	58
UNITS WITH ONE OR HORE OF THESE TYPES OF INSULATION	1 1 1	1 1 1 1	35	9.6	90	9 1 1 2 3 3 3 1	 32 	32
UNITS WITH NONE OF THESE TYPES OF INSULATION	 14	1 1 1 8	1 15	 14 	10		 18	18

 TABLE 5B

 EXISTING ENERGY-RELATED CHARACTERISTICS BY YEAR HOUSE BUILT (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROHNDING. A DASH "-" REPRESENTS OR POUNDS TO ZERO. See GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TABLE 6A											
EXISTING ENERGY-RELATED	CHARACTERISTICS	87	TYPE	OF	AIR	CONDITIONING	(WINTER	1978-79)				
	(THOUSAND	HO	USING	UN	TS)							

	TOTAL Housing		OF ROOMS WIT	TH AIR	 CENTRAL AIR CONDITIONING		ICENTRAL AZO
	UNITS	NONE	SOME	ALL	ONLY	ONLY	ROOM UNITS
TOTAL HOUSING UNITS 1/	67,457	29,936	17,775	19,747	15,012	22,274	235
STORM WINDOWS	1	1					1
ALL WINDOWS COVERED	27:463	11,300	8,246	7,909	6.484	9,589	1 81
SOME WINDOWS COVERED	13,697	6,218	4,249	3,220	2,317	5,067	1 85
NO WINDOWS COVERED	25,307	12,409	5,280	8,618	6+211	7,618	69
STORM DOORS							1
ALL DOORS COVERED	25,003	10,363	3,184	5,457	4,974	9+587	1 80
SOME DOORS COVERED	16,362	6.358	4,615	5,387	4.176	5,745	82
NO DUORS COVERED	26,092	13,214	4,975	7,903	5,863	6,942	74
TTIC INSULATION		1	1				1
HAVE INSULATION	46,215	18,058	12,215	15,943	12,854	15,069	235
BATTS ONLY	21,724	8,714	6,077	6,933	5,140	7,732	1 138
LOOSE FILL ONLY	14,183	5,022	3,497	5+664	4,897	4,167	98
BATTS AND LOOSE	2+328	871	539	918	804 1	653	1 -
0THER	750 1	332	179	240	149	269	-
TYPE UNKNOWN	7+231	3,119	1,923	2,188	1.864	2,247	-
LESS THAN 3 INCHES	1,781 1	777	532	472	324	642	38
3 TO 5 INCHES	21,919	8,663	5,726	7,530	6,031	7,113	112
MORE THAN 6 INCHES	6+537	2.738	1,375	2,525	2.260	1,574	65
QUANTITY UNKNOWN	15,879	5,880	4,583	5.416	4.239	5,740	1 19
NO INSULATION	13,023	7,904	3,559	1,561	1 756 1	4,364	-
DONT KNOW	8,218	3,974	2.001	2,243	1,402	2,842	-
IAVE WALL INSULATION	1	1			1		
YES	34 • 0 04	13,788	8,288	11,928	1 9,705 1	10,378	1 1 3 3
ND	19,549	9,237	5,490	3+322	2,588	6,689	35
DONT KNOW	14,904	6,910	3,996	3,997	2,718	5,208	68
OOM(S) CLOSED OFF WINTER 1978-79		1					1
YES	20,958	8,607	6,555	5:696	3,970	8:151	120
NPassossassossossossassassas	39,186	17,406	10,069	11,712	9,294	12,335	100
DID NOT LIVE HERE LAST WINTER	7,414	3,923	1+151	2,333	1 1,745	1,727	15

	TOTAL HOUSING		OF ROOMS WIT	H AIR	CENTRAL AIR	INDIVIDUAL ROOH UNITS ONLY	CENTRAL AZO
	UNITS	NONE	\$04E	۸٤L	ONLY		ROOM UNITS
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	27+450	10+657 	°, 610	3,201	6.873	9,315	1 127
UNITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	57,725	23+375	16,069 	17\$731	13.786	14•828	2 3 5
UNITS WITH NONE OF THESE TYPES OF INSULATION	7,733	6,060	1,706	1,956	1.226	2+445	-

TABLE 6A EXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF AIR CONDITIONING (WINTER 1978-79)-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DAYA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH M-# REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 68 EXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF AIR CONDITIONING (MINTER 1978-79) (PERCENTAGE OF HOUSING UNITS)

	TOTAL I Housing I		OF ROOMS WIT Conditioning	MAIR	CENTRAL AIR	INDIVIDUAL Room Units
	UNITS	NONE	SOME	ALL		ONLY
TOTAL HOUSING UNITS 1/	101%	100%	100%	100%	100%	100%
STORN WINDOWS	1	-		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		
ALL WINDOWS COVERED.	41	38	46	40	43	43
SOME WINDOWS COVERED	20	21	24	16	1 16 1	23
NO WINDOWS COVERED	39	41	30	44	41	34
STORM DOORS					0. St	
ALL DOORS COVERED	37 1	35	46	33	33 3	43
SOME DOORS COVERED	24	21	25	27	1 28	26
NO DODRS COVERED	37	44	23	40	39	31
ATTIC INSULATION			1		tone Hou	
HAVE INSULATION	69	60	69	81	86	6.8
BATTS ONLY	32	29	34	35	35	35
LOOSE FILL DNLY	21	17	20	29	33	19
BATTS AND LOOSE	3	3	3	5	5	3
OTHERssessessessessesses	1	ĩ	1 1	1	1 1 1	1
TYPE UNKNOWN	11 1	Ť Ő ľ		11	1 12	10.
QUANTITY						
LESS THAN 3 INCHES	٦	3	3 1	2	2 1	3
3 TO 5 INCHESOUNDOBOODERSS	32	29	32	38	1 40 1	32
MORE THAN & INCHES	10 1	9	8	13	1 15	ŗ
QUANTITY UNKNOWN	24	20	26	27	28	26
NO INSULATION	17	26	20	8	5	20
DONT KNOWcossessessessessesses	12	13	11	11	3	1.3
HAVE HALL INSULATION			1		NAME AND ADDRESS OF ADDRESS ADDRESS OF ADDRESS OF ADDRE	
YESeeneeeeeeeeeeeeeeeeeeeeeeeeee	50	45	47	60	65	47
NO	27	31	31	19	17	30
DONT KNOW	22	23	22	20	18	23
ROOM(S) CLOSED OFF WINTER 1978-791			1			
YES	31	23	37	29	27	37
NC	58 1	58	57	59	62	56
DID NOT LIVE HERE LAST WINTER	11	1.3	5	12	12	8

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9 1 1 1 1	TOTAL Housing Units		OF ROOMS WI	CENTRAL AIR		
		NONE	SOME	 ALL	۲ ۲ ۲ ۲ ۲ ۲	ONLY
UNITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC DR ROOF INSULATION	4 1	30	4 .8	42	45	4 4
UNITS WITH ONE OR MORE 5 OF THESE TYPES OF 1 INSULATION	85	80	90	1 1 1 90	92	89
UNITS WITH NONE OF THESE TYPES OF INSULATION	1 a	20	10	 10	8	11

TABLE 68 EXISTING ENERGY-RELATED CHARACTERISTICS BY TYPE OF AIR CONDITIONING (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSING UNITS)

<u>1</u>/ FX

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

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TABLE 7AEXISTING ENERGY-RELATED CHARACTERISTICS BY 1977 FAMILY INCOME (WINTER 1978-79)(THOUSAND HOUSEHOLDS)

	TOTAL HOUSEHOLDS	1977 FAMILY INCOME						
		LESS THAN \$5,000	\$5,000 TO \$9,999	\$10+000 TO \$14:999	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 OR More	TOTAL Poor
OTAL <u>1</u> /	67,457	9,106	12,357	12,573	10,491	9,063	13,868	8,414
TORM WINDOWS								
ALL WINDOWS COVERED	27.463	2.698	4,210	4.873	5,047	3,932	6.704	2,442
SOME WINDOWS COVERED		1.702	2,419	2,346	1,900	2,250	3,070	1,470
NO WINDOWS COVERED	• • • • •	4,705	5,728	5,354	3,544	2,381	4,094	4,502
TORM DOORS								
ALL DOORS COVERED	25.003	2,734	A (C7	4,576	1 4 7 7 5	3,537	5,168	2,434
SOME DOORS COVERED.		, , ,	4,653	•	4,335		•	-
NO DOORS COVERED.		1,624	2,578	2,694	2,598	2,400	4,369	1,373
WU DUUKS LUVCK", Usassessessesses	26,092	4,748	5,026	5,303	3,559	3,125	4,332	4,601
TTIC INSULATION		i i						
HAVE INSULATION	46,215	3,716	7.079	8+488	7,775	7,225	11,933	3,50
BATTS ONLY	21,724	1,541	3,246	4,354	3,538	3,323	5,723	1,505
LOOSE FILL ONLY		930	1,915	2,172	2,448	2,456	4,262	791
BATTS AND LOOSE		214	347	238	554	463	512	194
0THER		129	45	133	124	74	246	7:
TYPE UNKNOWN		902	1,527	1,590	1,112	909	1,190	93
QUANTITY			1,921			1	1	
LESS THAN 3 INCHES	1,781	69	258	298	260	435	460	6
3 TO 6 INCHES	21,919	1.480	3,315	4,346	3,798	3,555	5,425	1,56
MORE THAN & INCHES	6+637	122	743	879	1,199	1,194	2,500	16
QUANTITY UNKNOWN	15,379	2,044	2,763	2,964	2,519	2,040	3,547	1,70
NO INSULATION	13,023	3,386	3,628	2,334	1.612	854	1,209	3.20
DONT KNOW	8,218	2:004	1,649	1,752	1,104	983	726	1,70
AVE WALL INSULATION		9 1			1	1	9	
YES	34.004	2,591	5,126	6,407	5,915	5,178	8,787	2,59
NO		4.024	4,238	3,143	2,578	2,109	2,457	3,70
DONT KNOW	14,904	2,490	2,993	3,023	1,998	1,776	2,623	2,11
OOM(S) CLOSED OFF WINTER 1978-79				9. · · · · · · · · · · · · · · · · · · ·				
YES	•	2,509	4.114	3,914	3,270	2,929	4,123	2,20
- T" Saaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa					•	•		
DID NOT LIVE HERE LAST WINTER	39,186		6,808	7,085	6,379	5,178	8,333	5,18
ULT NUT LIVE HERE LAST WINTER.	7,414	1,194	1,435	1,574	843	956	1,411	1,03

	TOTAL HOUSEHOLDS	1977 FAMILY INCOME						
		LESS THAN \$5+000	\$5,000 T0 \$9,994	\$10,000 TO \$14,997	\$15,000 TO \$19,993	\$20,000 F9 \$24,999	\$25,000 98 . Mor <u>r</u>	TOTAL Poor
NITS WITH SOME OR ALL Storm Windows, and some or all storm doors, and Attic or roof insulation	27:469		59124	40) <i>14</i>	देन्द्र र इन्हे र	6912S	70653	1 - 5 8
NITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	51,25	6,297	10.179	10,607	9,511	8,226	15.110	5,,7(
NITS WITH NONE OF THESE Types of insulation	99733	2,809	20183	1,966	980	836	358	2,55

TABLE 7A EXISTING ENERGY RELATED CHARACTERISTICS BY 1977 FAMILY INCOME (WINTER 1978-79)-CONTINUED (THOUSAND HOUSEHOLDS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

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NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH H-H REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1979 NATIONAL INTERIM ENTROY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

				1977 FAMI	LY INCOME			,
	TOTAL HOUSEHOLDS	LESS THAN \$5,000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15.000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 OR MORE -	TOTAL POOR
OTAL 1/	100%	100%	100%	100%	1 100%	100%	100%	100 %
TORM WINDOWS					7	30 9		
ALL WINDOWS COVERED	41	30	34	39	48	43	48	29
SOME WINDOWS COVERED	20	19	20	1 19	1 18	25	22	17
NO WINDOWS COVERED	39	52	46	43	34	32	30	54
STORM DOORS		in the second se				1000-4 12133		
ALL DOORS COVEPED	37	30	38	36	41	i 39	37	27
SOME DOORS COVERED	24	18 1	22	1 21	25	25	31	16
NO DOORS COVERED	39	52	41	42	34	34	31	55
TTIC INSULATION								1
HAVE INSULATION	59	41	57	68	74	90	36	42
TYPE				1	1	1 ···-	1	
BATTS ONLY	32	17 1	26	1 35	34	37	41	18
LOOSE FILL ONLY	21	1 10 1	15	1 17	23	27	31	. 9
BATTS AND LOOSF	3	2	3	2	1 5	5	1 4	2
0THER	1	1 1	-	1 1	1 1	1	2	1
TYPE UNKNOWN	11		12	13	1 11	1 10	9	11
QUANTITY		1 ~ 1			1	*		
LESS THAN 3 INCHES	3	1 1	2	2	2	5	1 3	1
3 TO 6 INCHES	32	16	27	1 35	36	1 39	1 39 1	19
MORE THAN 6 INCHES.	10	1 1	6	1 7	1 11	1 13	18	2
QUANTITY UNKNOWN	24	22	22	24	24	23	25	20
NO INSULATION	19	1 37 1	29	19	15	9	9	38
DONT KNOWssessessessesses	12	22	13	14	11	11	5	20
AVE WALL INSULATION		9 3 2		1	Man wear		1	
YESoosoooooaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	50	28	41	51	56	57	63	31
NO	27	1 44 1	34	1 25	25	23	1 18	44
DONT KNOW	22	27	24	24	19	20	19	25
00M(S) CLOSED OFF WINTER 1978-791		1		Ser .		ere vill		9
YESaceassessaceassessaces	31	28	5.3	1 31	31	1 52	30	25
NO a canada a	53	1 59 1	55	1 55	1 61	57	i 60	62
DID NOT LIVE HERE LAST WINTER.	11	1 13	12	13	1 8	1 11	1 10	12

TABLE 7BEXISTING ENERGY-RELATED CHARACTERISTICS BY 1977 FABILY INCOME (WINTER 1978-79)(PERCENTAGE OF HOUSEHOLDS)

See footnotes at end of table.

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		1 1 1		1977 FAMIL	Y INCOME			
	TOTAL HOUSEHOLDS	LESS THAN \$4,000	\$5,000 T) \$9,999	510,000 TO 514,999	\$15;000 TO \$19;999	\$20.000 FO \$24.999	\$25∳000 UR MORF	TOTAL Poor
NITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION	31	22	.5 0	36	45	52	55	20
NITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	36	69 1	82	 84	71	91	33	68
NITS WITH NONE OF THESE Types of insulation	14	31	18	16	9	9	7	32

TABLE 7B EXISTING ENERGY-RELATED CHARACTERISTICS BY 1977 FAMILY INCOME (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSEHOLDS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

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NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF YERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 8A EXISTING ENERGY-RELATED CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (WINTER 1978-79) (THOUSAND HOUSEHOLDS)

		1 AG	E OF HE	AD .	RA	CE		TION OF En years		MARITAL	STATUS O	F HEAD
<i>,</i>	TOTAL	35	36	60			8	ġ	13		NOT MA	RRIED
		OR LESS	TO 59	•	WHITE, OTHER	BLACK	OR LESS	T0 12	AND OVER	MARRIED	FEMALE HEAD	MALE HEAD
TOTAL 1/	. 67,457	20,712	27,552	18+994	61,060	6,398	11,510	31,755	24,193	47,696	13,965	5,79
STORM WINDOWS	-	1	1				1	t P				
ALL WINDOWS COVERED	. 27,463	1 7.992	111.604	7.968	25.966	1.497	3.756	13.753	9,955	20,614	4,790	2,05
SOME WINDOWS COVERED										9,950		1,08
NO WINDOWS COVERED										17,131		•
STORM DOORS	1	1	1	1		1	1	1	1	1		
ALL DOORS COVERED	25,003	1 6.220	10.373	1 8.410	23.315	1 1.688	4.312	112.745	7.947	18,239	4,762	2,0
SOME DOORS COVERED				4,166						12,216		-
NO DOORS COVERED	• • •						•	•	*	17.240	•	
ATTIC INSULATION	1	1		1	1	l · · · ·	1	546 84	1	1		
HAVE INSULATION	. 46,216	112.813	21.109	12.294	43.681	, 2.535	5.132	22.007	18.077	35,879	7,075	3,2
TYPE	1 109210	1	1	1		1 29000	I SYLOL	1 1001	1	1	1	• • •
BATTS ONLY	. 21,724	1 5.927	1 9,905	5,893	1 120-840	1 884	3.007	1	7.683	17,042	3,164	15
LOOSE FILL ONLY	•			3,657				•		11,566	•	
BATTS AND LOOSE			1,242		2,295	•	•	•	1.040	•	•	
OTHER	· ·	253			•	•	•		• •	•	• •	
TYPE UNKNOWN	-			1.844	,		•	3.277		•		
QUANTITY	1	1	1	1	I	1		1	1	1	1	
LESS THAN 3 INCHES	. 1,721	1 710	668	403	1,719	61	1 150	749	882	1,354	251	1
3 TO 6 INCHES	•	•		6 429	•			• • •		17,828	•	
MORE THAN 6 INCHES	,	•		1 1,417		•		2,894			•	
QUANTITY UNKNOWN				•		•			, .	10,869		
NO INSULATION				•		1 2.798	•	•	•			
DONT KNOW			•	•	• •	1,064	•		•	•		
HAVE WALL INSULATION					1	1			1			
Y.S	· 34 v 0 0 4	9+630	115,421	8, 353	132.292	1 1,712	4.776	16,209	13,920	26,822	4,749	2,4
NO										1 12,102		1.99
DONT KNON	. 14,704		•	•	•				* .	8,772		194
ROOM(S) CLOSED OFF WINTER 1978-79		•	1	1			1 1	anta - era	1	146 C		
YESangaseseseseseseseseseses		5,366	8,632	6,860	19,261	1 1,597	3,541	9+552	7,765	1 14,911	4,007	1,
N)			, .	•				•	•	27,993	•	
DID NOT LIVE HERE LAST WINTER.		,	1 1.935	,	•	574	•	1 3.281			1,538	

	1	AGI	E OF HEA	ND.	I RAC	CΕ		TION OF		MARITAL	STATUS C	DF HEAD
	I TOTAL HOUSEHOLDS	ł c'	36	60	! !			9	13		NOT M4	ARTED
		DR LESS			WHITE: OTH⊆R 				ANÐ OVER	MARRIED 	FEMALĖ HEAD	MALE HEAD
UNITS WITH SOME OR ALL Storm Windows, and Some Or all Storm Doors, and Attic or Roof Insulation	1 1 1 27,459	6.638	129823	7,758	 26,144	1,325	5=604	13,712	10,152	21,310	3:760	1+69*
INITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	 57,725	17,139	24•400	16,186	 53+761 	1 3,964	8,583	27,780	21,362	; 42,324	10,870	4051
UNITS WITH NONE OF THESE Types of insulation		3,773	3,152	2,809	7+299	2,434	2,927	3,974	2,332	5,371	3.075	1 ,286

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TABLE 8A EXISTING ENERGY-RELATED CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (WINTER 1978-79)-CONTINUED (THOUSAND HOUSEHOLDS)

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 8B EXISTING ENERGY-RELATED CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (WINTER 1978-79) (PERCENTAGE OF HOUSEHOLDS)

		AGE	OF HE	D	RA	CE		ION OF		MARITAL	STATUS	DF HEAD
	TOTAL HOUSEHOLDS	35	36	50		 	8 1	9	13		I NOTM I	ARRIED
		OR LESS	TO 59		WHITE, OTHER	BLACK	OR LESS	TO 12	AND OVER	MARRIED	FEMALE HEAD	I MALE I HEAD
TOTAL 1/	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100X	1002
STORM WINDOWS					1			1		1	8	1
ALL WINDOWS COVERED	41	38	42	41	43	23	33	43	41	1 43	34	1 36
SOME WINDOWS COVERED.		19	21	21		•	191	21		•	1 19	1 19
NO WINDOWS COVERED		13	37	r	4	•	48	36			47	46
STORM DOORS	1				1		1		1	1	1	1
ALL DOORS COVERED	37		74.0	44	1 38	26	37	40	33	38	34	35
SOME DOORS COVERED	, ,	30	38	,	,	• •	•	40 25	27	26	23	1 17
NO DOORS COVERED		23 47	27 36	22 34	25	15 58	17 45	20 35		36	43	49
			1		1	•		1		1	ļ	ļ
ATTIC INSULATION					1 70	1		69	1 75	1 75	1 ~1	1 56
HAVE INSULATION	67	61	77	65	72	40	53	67	1 10	1 70	1 .	1 .00
TYPE			34		1	1		75	. 70		0.7	1 20
BATTS ONLY	32	28	36	31	34	14	26	35			23	26
LOOSE FILL ONLY		18	25	19	22	•	14	20	25	4	11	1 18
BATTS AND LOOSE	3	2			4	•			•	4	2	3
OTHER.	1	1			•	-			•	1	1	1 1
	11	12	10	10	1 10	14	9	10	12	10	1 14	9
QUANTITY]			1
LESS THAN 3 INCHES			-	2	3	1				3	2	3
3 TO 6 INCHES	•	25	37				28	34		37	17	30
MORE THAN 6 INCHES		10	11		•	•		9	•		3	6
QUANTITY UNKNOWN	, –	22	26			•	,	24	•	23	59	17
NO INSULATION	•		14	26	,	•	•			• -	27	27 1 17
						1			1		1	
HAVE WALL INSULATION	1	1		1	1	1			1	1	1	1
YES====================================	1 50	46	56	47	53	27	41	51	54	•	34	42
NOuzesessessessessessessessessesses	27	25	24	36	•	,	39		22	•	32	1 33
DONT KNOW	2?	29	20	17	21	29	20	22	24	18	34	25
ROOM(S) CLOSED OFF WINTER 1978-79	1	1		1		1	T T		ĺ	1	r 9	1
YES\$***************************	31	26	31	36	32	25	31	30	32	1 31	29	33
NO	58	51	62	61	57	66	55	60	53	59	50	50
DID NOT LIVE HERE LAST WINTER	1 11	24	7	1 3	1 11	1 9	1 5	10	15	10	1 12	1 17

SOURCE: THE 1979 NATIONAL INTERIMENTERY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM. OFFIC: OF PROGRAM URVELOPMENT: EVENT INTERMATION AUMINISTRATION.

SEC GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

NOTE: DATA MAY NOT SUM TO TOTALS DUF TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD.

	, 1 1	AGE	OF HE	AD	I RA	CE		FION OF IN YEAR:		MARITAL	STATUS	OF HEAT
	TOTAL TOTAL HOUSEHOLDS	35	36	1 50	! !	1	 	a	13		I I NOT M	ARRIED
		7522 - 08	TO 59		WHITE, TOTHER 1	13LACK 1 1	0R LESS 	T0 12	ANO OVER	MARRIED	FEMALE HEAD	1 MALE HEAD
MITS WITH SOME OR ALL STORM WINDOWS, AND SOME OR ALL STORM DOORS, AND ATTIC OR ROOF INSULATION		12	41			1		43	42 1	46	28	29
NITS WITH ONE OR MORE OF THESE TYPES OF INSULATION	 	82	84	 95	 88	62	 75	 87	 88	 89	 78	1
NITS WITH NONE OF THESE TYPES OF INSULATION	i 14	19	11	1 15	12	33	25	1 1.5	1 12		1	22

TABLE 88 EXISTING ENERGY-RELATED CHARACTERISTICS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (WINTER 1978-79)-CONTINUED (PERCENTAGE OF HOUSEHOLDS)

TABLE 9A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 And Eligibility for 1978 Tax credit by census regions (Thousand Housing Units)

							CENSUS	REGION					
	TOTAL Housing Units	NOF	TH EAST		NORI	H CENT	AL		SOUTH			WEST	
and a second second Second second		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	I RURAL
TOTAL HOUSING UNITS 1/	67.4571	14,251	11,309	2.942	19,821	14:132	5,689	22,319	13,783	8,536	11,067	8,536	2,53
TOTAL ELIGIBLE HOUSING UNITS	64,357	13+663	10,776	2,887	19,232	13,751	5,432	21,453	13,388	8,064	10,608	8,324	2,28
INSULATION ADDED (INEXPENSIVE)	1 I											1	1
YES, ELIGIBLE	27.522	5,604	5,012	1.592	9,569	6,765	2,805	8,500	4,966	3,634	2,749	2,034	71
WEATHERSTRIPPING	10,1951	2.234	1,695	5991	4,030	2+887	1,143	2,754	1,724	1,030	1,117	799	1 31
AROUND HOT WATER PIPES	2,390	351	267	841	812	494	318	972	505	468	244	93	15
AROUND HOT WATER HEATER	797	115	80	361	211	154	57	333	209	124	138	80	1 5
CAULKING	17,048	4,774	3,757	1,017	6,631	4,956	1,775	4,049	2,428	1.1.620	1,594	1,186	40
PLASTIC COVERING	10,656	2,469	1,744	7251	3,411	2,173	1,238	3,669	1.884	1,785	1,107	736	37
0THER	1 1,176	267	159	103	430	285	145	368	253	115	110	67	4
YES, INELIGIBLE	3741	79	25	541	367	239	128	265	97	168	163	31	j 13
ND	39.061	7.567	6+272	1.295	9.884	7,128	2,757	13,454	8,720	4 . 7 3 4	8,155	6,471	1,68
INSULATION ADDED (EXPENSIVE)	1 1 1 1					}			1				1
YES, ELIGIBLE	7,373	1,965	1,410	554	2.674	1,789	885	1,760	874	886	974	770	50
ROOF OR ATTIC	4,934	1,151	854	287	1,902	1,265	536	1,254	677	587	518	543	1 7
BASEMENT OR CRAWL SPACE	1 1.771	622	349	273	671	436	235	316	115	200	162	83	1 7
OUTSIDE WALLS	2,711	623	499	184	1,139	689	450	575	1 227	[348]	314	242	1 7
YES, INELIGIBLE	5751	25	25	-	240	151	89	170	j 39	132	139	1 12	1 1 2
NO	59,510	12,261	9,874	2#387	16,907	12,192	4.715	20,389	12,970	7.518	9,953	7,755	1 2,19
EQUIPMENT ADDED (INEXPENSIVE)			1 I	1 1		1		8		1		1	1
YES, ELIGIBLE	8,577	1,580	1.369	312]	3,090	2.423	657	3,027	2,032	996	879	665	21
CLOSEABLE SHUTTERS	460	25	25	-	180	148	32	118	103	15	139	121	1
STORM DOORS	4 • 584	880	658	2221	1,726	1,305	420	1.647	1,021	625	332	204	
AUTOMATIC OR CLOCK THERMOSTAT.	1,258	332	236	96	455	384	71	355	246	107	125	112	1 1
NEW WATER HEATING EQUIPMENT	3.153	597	552	45	1,052	821	231	1,088	784	304	916	323	1 7
YES, INELIGIBLE	5831	57	25	321	204	129	75	1.83	1 13	170	144	12	1 13
NO	58+1+3	12,513	9.916	2,597	16,527	11,580	4 948	19,109	111,738	7,371	10,043] 7,860	1 2,18
EQUIPMENT ADDED (EXPENSIVE)			ł			1	1	1 4 1		1			-
YES, ELIGIBLE		- /	1,234	402	2:097	1,453	F43		1,204	1			
STORM WINDOWS/INSULATING GLASS	4,374	1,354	1.038	315	1,566	1,072	494	1,688	898			193	1 17
ELECTRIC HEAT PUMP	1 96	19	1 10	-	32	32		.35	35	- 1		1	
NEW FURNACF	1 1.737	327	242	86	659	450	199	519	330	188	232	196	
YES, INELIGIALE	453	41	25	16	207	123	84	128	ļ -	129	82	12	1
NO	1 60,5151	12,524	110,000	1 2.524	17,517	12,556	4,961	20,088	112,579	1 7,509	10,386	1 8,135	1 2+2

See footnotes at end of table.

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TABLE 9ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY CENSUS REGIONS-CONTINUED(THOUSAND HOUSING UNITS)

	1						CENSUS	REGION					
	TOTAL Housing Units	NO 4	RTH EAS	r	NOR	TH CENT	RAL		SOUTH			WEST	
	 	TOTAL	I URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	I Iurban 1	I IRURAL
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units	gavan, kasar diyar (yar				I							 	
YE Saacooo oo	33+779 31+178	8:072 5:572	6+242 4+534	1.330 1.059	11 +400 7 +832	3,080 5,671	3,521 2,161	10,650 10,803	6•335 7•050	4,311 3,753	5+657 6+951	2,755 5,569	902 902 1.382
ELIGIBLE UNITS THAT ADDED Expensive insulation but not expensive equipment	5,5351	1,484	1 1 1 1.045	i i 440	2 9 0 46	1,410	6.57	1,174	591	582	831	 663	 168
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4,647[1•205	 918	287	1,470	1.074	395	1,517	921	596	455	 282	 173
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,337	480	 366	1 115	627	379	248	586	283	304	145	 107	 36
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	4,902	 3,913	988	7,257	5,216	2.041	7,372	4,543	2,830	2,228	 1,703	 524
ELIGIBLE UNITS THAT ADDED STORM HINDOWS, OR STORM DOORS, OR ATTIC OR ROOF INSULATION	11,369	2,115	2 2 0 8 9	686	3•995	2,827	1,168	3,399	2,015	1,384	1,200	i 869	 351

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

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> SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 98 CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 And Eligibility for 1978 Tax credit by census regions (percentage of Housing Units)

							CENSUS	REGION					
	TOTAL	N	ORTH EA	ST	NOR	TH CENT	RAL		SOUTH			WEST	
	i I	TOTAL	JURBAN	RURAL	TOTAL	URBAN	I I RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	I IRURAL
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100
TOTAL ELIGIBLE HOUSING UNITS	96	96	95	98	97	97	96	96	97	94	96	98	90
INSULATION ADDED (INEXPENSIVE)			1	1	1	1	1			1		1	P
YES, ELIGIBLE	41	46	1 44	54	48	48	, 1 49	39	36	1 43	25	24	28
WEATHERSTRIPPING		16		•					•	1		•	
AROUND HOT WATER PIPES.			•	•	•		•	•	1 4		•	a	•
AROUND HOT WATER HEATER.				-	•	1	•	•	1 2	•	3	•	1 2
CAULKING	1 25	34	,	•				•	18		• •	•	•
PLASTIC COVERING.	16	17	•	,	•	,	22	• -	14			*	1 15
				•	•	,	1 3		•		•	•	1 2
	1			1 2	•	•		• •••	•	•		•	1 5
YES, INELIGIBLE	•		,			•	•	•	63	•	•	•	67
NO	58	53	55	44	50	1 30	1 48	1 60	50	1 33	1 14		1 07
INSULATION ADDED (EXPENSIVE)	1		1	1	1	1	1	1	1	ĺ	1		1
YES, ELIGIBLE	i 11	14	1 12	1 19	1 13	1 13	1 16	8	6	1 10	9	9	8
ROOF OR ATTIC	1 7	8	1 9	1 10	1 10	9	1 11	6	5	1 7	6	6	1 3
BASEMENT OR CRAWL SPACE		4	1 3	1 9	1 3	i 3	4	1 1	1 1	1 2	1 1	1 1	j 3
OUTSIDE WALLS	4	5	4	i 6	6	1 5	8	1 3	2	j 4	3	1 3	1 3
YES, INELIGIBLE	i ı	-	i -	i –	i 1	i 1	2	1 1	- 1	2	1 1	1 -	1 5
NO	88	-15	1 87	81	85	86	83	91	93	88	90	j 91	j 87
	1		1	1	1		1		1	ļ	1	1	ļ
EQUIPMENT ADDED (INEXPENSIVE)	1		I	1			!		1				1
YES, ELIGIBLE					•		•			•	8	8	8
CLOSEABLE SHUTTERS	•	-	,	1	1 -	•	•			•	1		*
STORM DOORS			1			· ·	1 7	,	1 7	•	,	•	•
AUTOMATIC OR CLOCK THERMOSTAT.	•	2	•	•	4	*	1		2	1 1	• -	•	1
NEW WATER HEATING EQUIPMENT		4				•	4	· -	• -	4	•	1 .	4
YES, INELIGIBLE		- 1	1	1			,		-	2		*	5
NO	96	88	1 88	1 88	83	82	87	86	85	86	91	92	86
EQUIPMENT ADDED (EXPENSIVE)	1	1	1	1	₹ 1	1	1	1	1	1	1	1	1
YES, ELIGIPLE,	1 10	1 12	1 11	1 14	1 11	1 10	1 11	19	1 9	1 11	5	1 5	1 8
STORM WINDOWS/INSULATING GLASS		1 10		1 11		•	1 9	•	1 7		v	• •	1 7
ELECTRIC HEAT PUMP *********		LU 	•	1 1	1	· ·	1 -	1 1	1 -	-	•	-	1 -
NEW FURNACE	•	2	1 2		,	,	1 3	,	1 2	•	,	•	1 1
NEW FUMNACE	4	1 2 1 -				• -			-	1 1		•	1 3
		3	1		, –	•	•	,	1 91	1 88	•	95	
NO	1 10	88	88	86	88	89	1 87	1 90	1 21	1 58	1 29	1 70	1 0.3

TABLE 98 CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY CENSUS REGIONS~CONTINUED (PERCENTAGE OF HOUSING UNITS)

	1	, 1					CENSUS	REGION					
	TOTAL HOUSING UNITS	,	או אזפר	s 1	NOR	TH CONT	RAL	 	SOUTH		 	₩EST	
		TOTAL	I IURBAN I	I IPURAL	TOTAL	URHAN	I Rural	I TOTAL	UR BAN	I RURAL	 TOTAL 	I JURBAN	I RURAL
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units		i i											
YF S	1 00 1 45	57			1					•		(· · · ·	•
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT				15	i i i 10	i 10	i 11	 5	i i i 4	 7	8	 8	7
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	1 7	1 I I 8	8			 8	7	7	1	7		 3	 7
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT			3	4	3	3	 	 5	2	4	† ¶ ¶ 1.	1	
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	1 52	1 34	1 1 1 35	34	57	 57	36	 33	1 1 1 3 3 3	33	1 20	20	 21
ELIGIBLE UNITS THAT ADDED STORM WINDOWS, OR STORM DOORS, OR ATTIC OR ROOF INSULATION		1.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23	20	1 20	11 11 11 11 11 11 11 11 11 11 11 11 11	 15		15		; ; ; 10	1 1.5

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE SLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM INTERSY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

		TABLE	10A				
CONSERVATION	EFFORTS	UNDERTAKEN	DURING	1978	BΥ	CENSUS	REGIONS
	()	THOUSAND HOL	JSING UI	VITS)			

							CENSUS	REGION					
	TOTAL Housing Units	NO	RTH EAST		NOR	TH CENT	RAL		SOUTH			WEST	
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RUR
TOTAL HOUSING UNITS 1/	67,457	14,251	11,309	2,942	19,821	14,132	5,689	22,319	13,783	8,536	11,067	8,536	2,
INSULATION ADDED (INEXPENSIVE)			1						1			1	1
YES++++++++++++++++++++++++++++++++++++	17,632	4+348	3,223	1,125	6,561	4+595	1,967	5,137	3,022	2,116	1,585	1,082	Ì
WEATHERSTRIPPING		1,190	925	266	1,928	1,349	579	1,308	835	473	480	300	ł
AROUND HOT WATER PIPES	1,286	177	158	19	423	242	181	545	335	209	141	1 52	1
AROUND HOT WATER HEATER	458	80	60	19	82	40	42	226	159	. 68	70	33	1
CAULKING			2,277	573	4,563	3,259	1,304	2,653	1,571	1,082	1,012	691	ł
PLASTIC COVERING	5,456	1,561	1,054	507	1,743	1 1 1 1 1 7	625	1,654	907	747	498	277	1
0THER	855	210	148	61	301	225	76	302	214	88	4.3	43	1
NO	49,826	9,903	3,087	1,816	13,260	9,537	3,723	17,181	10,761	6,420	9+482	1 7,454	21
INSULATION ADDED (EXPENSIVE)	/ 1 1					l						l	1
YESsacceoodeaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa		922	656	266	1,592	1,102	490	1:029	505	524	682	549	1
ROOF OR ATTIC		574	428	146	1,039	716	323	766	421	345	464	352	1
BASEMENT OR CRAWL SPACE			263	173	4 3 2	328			72			•	•
OUTSIDE WALLS			e · ·	,		•			•				•
NO	63+232	13,329	10,654	2,6751	18,229	13,030	5,199	21,289	13,278	3,011	10,384	7,987	1 5
EQUIPMENT ADDED (INEXPENSIVE)		-) }			1 1				
Y55466666666666666666666666666666666666	5,274	997	804	193	1,771	1,309	463	1,851	1,182	679	545	430	1
CLOSEABLE SHUTTERS	300	25	25	- 1	61	61	-	74	74	-	140	115	1
STORM DOORS	2 • 680]			126	1,059	767	2321		,	388		•	1
AUTOMATIC OR CLOCK THERMOSTAT.	388	229	182	47	280	202	77	232	125.	106	143	123	1
NEW WATER HEATING EQUIPMENT			•			•			,			•	•
NO	62,184	13,254	10,505	2,748	18,050	12,823	5,227	20,458	12,601	7:357	10,422	8,106	2
EQUIPMENT ADDED (EXPENSIVE)				1		1 5							1
YFS	3,504	948	714	234	1+269	872	397	7 08	436	472	379	268	ł
STORM WINDOWS/INSULATING GLASS				•		700	295		•	• •		,	•
ELECTRIC HEAT PUMP	•			•		4			•	, - ,		•	
NEW FURNACE	1,048		•			4						•	
NO	63,953	13,303	10,596	2,707	18,552	13,260	5,292	21,411	13,347	8,064	10.589	8,268	2

	 			<u>-</u> <u>-</u>			CENSUS	REGION					
	TOTAL HOUSING Units	NO	RTH EAS	r	NOR	TH CENT	RAL I	· -	SUTH			WEST	
	 1	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	I URBAN	I IRURAL
ADDED ANY INSULATION OR EQUIPMENT			l l									1 1 5	1
YESuprocessossossossossesses	22.578	5,303	 4.049	1.2541	8.050	5.657	1 2.3941	6.737	4.037	1 2.7001	2.488	1 1.790	1 697
NO	44,377	8,948	7,261	1,687	11.771	8,475	3,296	15,582	9.746	5,8361	8,577	6,746	1.933
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,212	677	441	236	1 • 261	876	386	140	379	361	534	 447	 37
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2+490	703	499	204	938	646	293	619	310	309	231	1 166	65
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,014	245	215	30	331	226	104	290	125	163	148	103	46
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15,362	3,578	2,894	784	5,520	3,909	1,611	5,089	3.222	1,867	1.575	 1+075	499
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION		1,441	1,047	394	2.361	1,667	674	1+822	976	846	804	532	271
1/ FXCLUDES BUILDINGS WITH FIVE	E OR MORE	UNITS.	L	L1		L	LI		L	L1		L	1

TABLE 10A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY CENSUS REGIONS-CONTINUED (THOUSAND HOUSING UNITS)

NOTE: DATA NAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 10B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY CENSUS REGIONS (PERCENTAGE OF HOUSING UNITS)

							CENSUS	REGION					
	TOTAL Housing Units	N	ORTH FA	ST	NOR1	TH CENT	RAL		SOUTH			WEST	
	-	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1 100
INSULATION ADDED (INEXPENSIVE)	1		ļ	1						1	1 1	1	
YES	26	31	28	38	33	33	35	23	1 22	25	14	13	1 50
WEATHERSTRIPPING	j 7	8	8	9	10	10	10	6	5	6	4	4	1 7
AROUND HOT WATER PIPES	1 2	1	1			2	3	2	2	2	1	•	
AROUND HOT WATER HEATER	•	1 1	l 1	1	- 1	-	1				3	•	1
CAULKING	1	20	,	• -	23					•	•	8	1 1 3
PLASTIC COVERING	•	1 11	,	•	s				•		f .		e :
OTHER	•	1	•	•			,		-	·	•	1 1	
N0	74	69	1 72	62	67	67	65	77	78	75	86	87	80
INSULATION ADDED (EXPENSIVE)		l I	1	1 7			1		1	1	1	1	1
YES		6	6	9	8	8	9		4	6	5	•	1 5
ROOF OR ATTIC	1 4	1 4	4	1 5	5	5	6	3	3	4	4] 4	1 4
BASEMENT OR CRAWL SPACE	•	3	4		2	-		-	1	-		•	3
OUTSIDE WALLS	•	2		4	1 -	•	•		• -	• -	-		
N0	94	94	94	91	92	92	91	95	96	94	34	94	95
EQUIPMENT ADDED (INEXPENSIVE)	1		1			1		l	1	1	1	1	1
YES	1 8	7	j 7	7	ј Э	9	8	8	9	1 8	6	5	1 8
CLOSEABLE SHUTTERS	1 -	- 1	- 1		- 1	1 -	-	-	1	- 1	1	•	1 1
STORM DOORS	4	4	1 3	4	5	5	1 5	4	1 3	5	• •	• -	6
AUTOMATIC OR CLOCK THERMOSTAT.	•	1 5	2	2	1	1	1	1	1 1	• -		• -	•
NEW WATER HEATING EQUIPMENT	,	2	•	•		-	•				•	•	4
N9	92	93	93	93	91	91	92	92	91	92	94	95	35
EQUIPMENT ADDED (EXPENSIVE)		1 I]		1	1	1	l			ł		1
YES	Í 5	7	6	3	6	6	7	4	1 3	6	3	1 3	1 4
STORM WINDOWS/INSULATING GLASS		1 5	5	6	5	5	5	3	1 2	5	2	1	1 3
ELECTRIC HEAT PUMP		- 1	-	-	i -	-	-	1		- 1	•	1 -	i -
NEW FURNACE		1	,						,				•
Nasacceeseseseseseseseseseses	75	93	94	92	94	74	93	95	97	94	17	1 77	96

	1	 					CENSUS	REGION		_			
	TOTAL Housing Units	 N	09TH *A	ST	NOR	TH CONT	RAL	 	SOUTH		 	WEST	
	{ 1	 TOTAL 	I I URBAN I	I I RURAL	I TOTAL	I I URBAN	I I RURAL	I I TOTAL	I URBAN	I IRURAL	ITOTAL	 URBAN	IRURAL
	1	1 !	1	1	1	 	 	 		1 	1 i	 	1
ADDED ANY INSULATION OR EQUIPMENT	İ	1	ł	i	I	l	i	İ		i	i	Ĩ	1
, . 127222299999999999999999999999999999999	3 3 5	37					• • •	,			•	• •	
\}	67	5 63	64	57	59	60	1 58	1 70	71	58	78	79	1 12
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	1 5		t t j q	8	6	1 6		1	1 5		1 5		1 3
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4	5	 4	1	i I 5	 5	i 1 5	 3	2	4	2	2	3
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	 2	 2	2			 2	2	 1	 1	2			2
ADDED ONLY INEXPENSIVE Insulation or equipment	 24	 25	26	27	28	28	 28	23	23	22	 14	 13	1 20
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION		10	1 5			12	 12	f 8	 7	10	 7	 6	11
1/ EXCLUDES BUILDINGS WITH FIVE	E OR MOR	L F UNITS	•	+	1	L	L	1	L	ł	L	L	L

TABLE 10B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY CENSUS REGIONS-CONTINUED (PERCENTAGE OF HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO FOTALS DUE TO ROUNDING. A DACH M-M REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCLE THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 11A Conservation efforts undertaken during 1977 by census regions (Thousand Housing Units)

							CENSUS	REGION					
	TOTAL HOUSING UNITS	NOF	RTH EAST	r	NOR	TH CENT	RAL		SOUTH			WEST	
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
TOTAL HOUSING UNITS 1/	67:457	14,251	11,309	2,942	19,821	14,132	5,689	22,319	13,783	8,536	11,067	8,536	2,531
INSULATION ADDED (INEXPENSIVE)									1				
YES====================================	19,579	4.738	3,432	1,306	6,618	4,646	1,972	5,919	3,346	2,574	2,304	1,657	547
WEATHERSTRIPPING				• • •		1,796			1,092			•	•
AROUND HOT WATER PIPES	•		, .						•		176	65	112
AROUND HOT WATER HEATER	594	60	44	16	175	146	30	211	1 77	134	147	101	46
CAULKING	9,852	2,901	2,209	693	3,590	2,618	972	2,277	1,383	894	1,093	773	310
PLASTIC COVERING	8,683	1,940	1,271	669	2 + 810	1,817	993	2,904	1,458	1,447	1,028	707	322
9THER	504	83	36	47	198	105	93	131	91	40	93	24	68
NO	47,878	9,513	7,877	1,636	13+203	9,486	3,717	16,400	10,437	5,962	8,762	6,879	1,883
INSULATION ADDED (EXPENSIVE)			! [1	-		l I		1				
YE S	4,545	1,232	897	334	1,624	1,039	584	1,149	566	582	542	320	222
ROOF OR ATTIC	3,921	729	541	188	1,124	751	373	810	410	400	358	266	92
BASEMENT OR CRAWL SPACE	959	288	188	100	377	212	165	204	60	144	91	11	79
OUTSIDE WALLS	1,729	4 32	335	97	701	428	273	414	160	254	183	85	98
NO	62,912	13,019	10.412	2,607	18,197	13:093	5,105	21,170	13,217	7,954	10,525	8,217	2.308
EQUIPMENT ADDED (INEXPENSIVE)			1						1			1	
YES	4,956	1,009	755	254	1,841	1,508	333	1,492	926	566	614	414	200
CLOSEABLE SHUTTERS		-	- 1	- 1	135	103	32	44	29	15	58	42	1 17
STORM DOORS	2,751	502	342	159	905	668	237	1,046	608	438	298	155	143
AUTOMATIC OR CLOCK THERMOSTAT.	736	145	96	49	392	358	34	171	121	50	29	14	15
NEW WATER HEATING EQUIPMENT	1,624	410	334	76	591	520	71	338	217	120	286	221	65
NO	62,502	13,242	10,554	2,688	17,980	12,624	5,356	20,827	12,857	7,970	10,453	8,122	2,331
EQUIPMENT ADDED (EXPENSIVE)			1			1			1			1	1
YES	4,002	923	674	249	1,261	844	417	1,411	j 812	599	403	173	234
STORM WINDOWS/INSULATING GLASS	3,078	709	-			•	352	1,125	636	490	348	128	220
ELECTRIC HEAT PUMP	144	31	i -	31	64	64	i -	49	1 35	14	- 1	- 1	-
NEW FURNACE	1,151	243	178	65	485	332	154	348	177	171	85	45	40
NO	63,455	13,328	10,635	2,693	18,561	13,288	5,272	20,908	12,971	7,937	10,659	8,363	2,296
See footnotes at end of table.	II		1	1	L	L	1	!	1	1	L	L	1

		5					CENSUS	REGION					
	TOTAL HOUSING UNITS	NOF	TH EAS	r	NOR	TH CENT	RAL		SOUTH	 		WEST	
	i i I I	TOTAL	URBAN	RURAL	TOTAL	URBAN	IRURAL I	TOTAL	I URBAN	RURAL	TOTAL	I URBAN	I IRURAL
ADDED ANY INSULATION OR EQUIPMENT Y ^F Soccosting to the second se													
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3+663	1,032	767	1 265	1,291	i 874	417	838	 439	1 399	<u> 69</u> 2	 320	182
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	5,120	723	544	179	928	679	249	1.101	685	416	369	 173	1 195
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	885	200	130	70	333	165	168	511	 127	183	40	1 -	40
ADDED ONLY INEXPENSIVE Insulation or equipment	16,513	3,818	2+801	1,017	5.611	4,091	1,520	5,201	2,993	2 • 2 0 8	1,882	 1,445	437
ADDED STORM WINDOWS, STORM DOORS, Or attic or roof insulation	7.236	1,679	1,253	í 1 427	2,342	1,630	112	2:352	1,292	1,061	863	491	372

TABLE 11A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY CENSUS REGIONS-CONTINUED (Thousand Housing Units)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUF TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GENSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCES THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 11BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY CENSUS REGIONS(PERCENTAGE OF HOUSING UNITS)

		7 					CENSUS	REGION					
	TOTAL Housing Units		DRTH EA	st	NORI	TH CENT	RAL	1	SOUTH			WEST	
		TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
TOTAL HOUSING UNITS 1/	100%	100%	1 100%	100%	100%	100%	100%	100%	100%	100%	190 x	100%	100
INSULATION ADDED (INEXPENSIVE)		ļ	1	}			l 	1	1	t E	1		1
YES====================================	5.0	1 33	1 30	44	33	33	35	27	1 24	50	21	19	56
WEATHERSTRIPPING	10	9	8	15	12	13	12	8	8	1 7	j 9	9	11
AROUND HOT WATER PIPES	2	2	1 1	1 2	1 3	3	1 3	1 3	2	4	2	1	1 4
AROUND HOT WATER HEATER	Í 1	1 -	-	j 1	1 1	1	1 1	1	1	2	1 1	1 1	1 2
CAULKING	15	20	20	24	18	19	17	10	10	10	1 10	9	12
PLASTIC COVERING	13	14	1 11	23	14	13	j 17	13	11	17	9	1 8	13
OTHER	1	1	- 1	2	1	1	2	1	1 1	- 1	1 1	1 -	3
ND	71	57	70	56	67	67	65	73	76	70	79	81	74
INSULATION ADDED (EXPENSIVE)	1	1	t F	1	1		1	1	f 1	1	I	1	1
YES	7	9	1 8	11	1 8	7	1 10	5	4	1 7	1 5	4	9
ROOF OR ATTIC	4	5	5	6	6	5	7	4	3	1 5	1 3	3	ŧ 4
BASEMENT OR CRAWL SPACE	1	2	2	1 3	1 2	1	3	1 1	-	1 2	1 1	1 -	3
OUTSIDE WALLS	3	1 3	1 3	3	4	1 3	1 5	2	1 1	1 3	1 ?	1	4
NO	93	91	92	89	92	93	90	95	96	75	95	96	91
EQUIPMENT ADDED (INEXPENSIVE)	1	1	Ŧ	1	9		1	1		1	1	1	1
YES	7	1 7	1 7	9	9	11	6	1 7	7	1 7	6	5	8
CLOSFABLE SHUTTERS	- 1	. –	- 1	- 1	1	1	1 1	1 -	1 -	1 -	1		1 1
STORM DOORS	4	4	1 3	5	5	5	4	5	4	5	3	2	5
AUTOMATIC OR CLOCK THERMOSTAT.	j L	1	1 1	2	2	3	1	1 1	1	1	1 -	1 -	1 1
NEW WATER HEATING EQUIPMENT	2	3	1 3	3	3	4	1 1	2	1 2	1	3	3	3
N9	93	1 93	93	91	91	89	94	93	93	93	94	95	92
EQUIPMENT ADDED (EXPENSIVE)		1	ł	1	1	1	1	1		1		1	1
YE S	6	6	6	8	6	6	1 7	6	6	1 7	1 4	•	
STORM WINDOWS/INSULATING GLASS	5	5	5	6	5	4	6	5	5	6	3	2	1 9
ELECTRIC HEAT PUMP	i -	í -		1	Í -	- 1	- 1	1 -	-	- 1	,		1 -
NEW FURNACE	1 2	2	2	2	2	2	3	1 2	1	2] 1	1	2
N7	94	1 74	94	92	94	j 94	93	94	94	93	1 95	98	1 91

	*	, 1 1					CENSUS	REGION					
	TOTAL HOUSING UNITS		ORTH EA	st	 NOR 	TH CENT	RAL	 	SOUTH			WEST	
	 1	TOTAL	I IURBAN L	I RURAL	I ITOTAL L	URBAN	I I RURAL	TUTAL	URBAN	I IRURAL	TOTAL	I JURBAN	RURAL
	ł	 	1	1	1	† 1	1		 		1	1	1
ADDED ANY INSULATION OR EQUIPMENT	1	Ť	I	1	1	1	İ	ļ	1	Į		1	ł
YF 5 		41	-			• –			31	1 38	25	1 23	1 34
NO atettettettettettettettettettettettettet	,4	59	52	; <u>49</u>	53	1 57	50	67	69	; 62	7.5	17	4 56
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	1 1 5	i i i i	1 7	-	t 1 1 7	 5	1 7	 1	1 1 3	1	- -	4	 7
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION		5		6	1	5	1 4		í i i ;	1 5	1 5	2	8
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT		1	1	2	2	 1	3		 1	2	 -	-	2
ADDED ONLY INEXPENSIVE Insulation or equipment	 4	1 27	25	35	28	 29	1 21	 23	 22	1 26	 17	1 17	17
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION		12	1	1 15	 	 12		 11	9	1 12	1 1 1 3	6	1 15

TABLE 11BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY CENSUS REGIONS-CONTINUED(PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO FOTALS OUF TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCES IN 1978 NATIONAL INTERIMENTRY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 12ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY PRIMARY HEATING FUEL(THOUSAND HOUSING UNITS)

	TOTAL		TYP	E OF PRIM	ARY HEATING FUE	:L	
	HOUSING Units	I NATURAL GAS	FUEL OIL, KEROSENE	LPG	ELECTRICITY	W00D	OTHER NONE
TOTAL HOUSING UNITS 1/	67,457	37,418	14,892	3,102	9,568	1,885	592
TOTAL ELIGIBLE HOUSING UNITS	64,957	36,462	14,810	2,930	8,377	1,785	592
(NSULATION ADDED (INEXPENSIVE)		State					
YES, ELIGIBLE	27,522	14,431	7,130	1 :540	3 9 4 5 8	820	283
WEATHERSTRIPPING	10,195	5,618	2,650	334	1,283	275	3
AROUND HOT WATER PIPES	2,380	1,082	575	151	442	130	- 1
AROUND HOT WATER HEATER	797	386	217	34	124	36	-
CAULKING	17,048	9,357	4.820	691	1,790	287	10
PLASTIC COVERING	10,656	4,896	2,965	792	1,251	554	19
0THER	1,176	1 777	96 1	63	183	32	1
YES, INELIGIBLE	874	292	70	72	404	36	-
N0	39,061	22,694	7.633	1,690	5,706	1,030	30
NSULATION ADDED (EXPENSIVE)		1					
YES, ELIGIBLE	7,373	1 3,927	2,050	415	708	206	6
ROOF OR ATTIC	4,934	2,564	1 1.389	338	494	82	6
BASEMENT OR CRAWL SPACE	1,771	942	481 1	55	219	73	- 1
OUTSIDE WALLS	-	1,415	808	181	190	84	3
YES, INELIGIBLE		152	- 1	71	284	68	
NO000000000000000000000000000000000000	59,510	33,339	12,843	2,616	8+576	1,612	52
QUIPMENT ADDED (INEXPENSIVE)		1			Have boye		
YES, ELIGIBLE	8,677	5,167	1 1,886	345	1,138	141	- 1
CLOSEABLE SHUTTERS	460	338	60	-	62	-	- 1
STORM DOORS	4,584	2,759	1,030	105	579	109	- 1
AUTOMATIC OR CLOCK THERMOSTAT.	1,268	574	449	37	191	17	- 1
NEW WATER HEATING EQUIPMENT	3,153	1,855	670	201	411	15	- 1
YES, INELIGIBLE	588	1 115	45	37	359	32	
NO•••••••••••••••	58,193	32,136	12,961	2,721	8,071	1,712	59
QUIPMENT ADDED (EXPENSIVE)		and all the second seco	ana Cite				
YES, ELIGIBLE	69484	3,444	1 1.761	355	779	95	5
STORM WINDOWS/INSULATING GLASS	4,1974	2,552	1.434	266	632	57] 3
ELECTRIC HEAT PUMP	86		19		67		
NEW FURNACE	1,737	1,032	341	105	205	38	1
YES, INELIGIBLE	458	127	41	37	254	-	- 1
NO	60,515	33,847	1 13,090 1	2,711	8,536	1,790	54

	TOTAL Housing Units	1	TYP	E OF PRIM	ARY HEATING FUE	L	
	HOUSING	NATURAL GAS	FUEL OIL, 1 KEROSENE	LPG	ELECTRICITY	WOOD	OTHER, NONE
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units							
YES		18+315 18+147	, , ,	1+656 1+274	4 7 7 4	→41 844	300 291
ELIGIBLE UNITS THAT ADDED Expensive insulation but not Expensive Equipment	5,535	3 • 0 2 0	1+535	322		184	34
ELIGIBLE UNITS THAT ADDED Expensive equipment but not Expensive insulation	4 •647	2 • 537	1,247	262	511	74	17
LIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1 • 837	1 1 1 907	514	93	268	21	33
LIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	11,850	5•126	979	2,926	662	216
LIGIBLE UNITS THAT ADDED STORN WINDOWS, OR STORN DOORS, OR ATTIC OR ROOF INSULATION	 11+369	6.213	3,091	533	1.237	227	67

TABLE 12A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY PRIMARY HEATING FUEL-CONTINUED (THOUSAND HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 12BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY PRIMARY HEATING FUEL(PERCENTAGE OF HOUSING UNITS)

٠

	TOTAL		TYP	E OF PRIMA	RY HEATING FU	EL	
	HOUSING	NATURAL GAS	FUEL OIL, FUEL OIL, KEROSENE	LPG	ELECTRICITY	WOOD	OTHER, NONE
OTAL HOUSING UNITS <u>1</u> /	100%	100%	100%	100%	100%	100%	100%
OTAL ELIGIBLE HOUSING UNITS	96	97	99	94	88	95	100
NSULATION ADDED (INEXPENSIVE)							
YES, ELIGIBLE	41	39	48 1	43	36	43	48
WEATHERSTRIPPING	15	15	18	11	13	15	6
AROUND HOT WATER PIPES	4	1 3	4	5	1 5 1	7	- 1
AROUND HOT WATER HEATER	1	1 1	L	1	1 1	2	-
CAULKING	25	1 25	32	22	i 19 i	15	17
PLASTIC COVERING	16	1 13	20 1	25	i 13 i	29	33
OTHERssssssssssssssssssssss	2	2	1 1	2	2 1	2	3
YES, INELIGIBLE	1	1 1	1 - 1	2	4	2	- 1
NG	58	61	51	54	60	55	52
NAM ATTEN ADDED CENOENCE		1	1]
INSULATION ADDED (EXPENSIVE)		1					1 1 11
YES, ELIGIBLE		10	14	13		11	
ROOF OR ATTIC	7	1 7	9	11	5	4	
BASEMENT OR CRAWL SPACE		1 3	3	2	5 1	4	8
OUTSIDE HALLS	4	4	5 1	5	2 1	4	6
YES, INELIGIBLE	1	-		2	1 3 1	4	-
NO	88	89	86	84	90	85	89
QUIPMENT ADDED (INEXPENSIVE)		1					*
YES, ELIGIBLE	13	14	1 13	11	1 12 1	7	
CLOSEABLE SHUTTERS	1	1	1 - 1	-164	1 1	-	
STORM DOORS	7	1 7	1 7 1	3	6	5	
AUTOMATIC OR CLOCK THERMOSTAT.	2	1 2	3	1	2	1	
NEW WATER HEATING EQUIPMENT	5	5	1 4 1	6	4 1	1	- 1
YES, INELIGIBLE	1	j -	1 - 1	1	4 1	2	- 1
NO••••••••••••••••••	86	86	87	88	84 [91	1 100
QUIPWENT ADDED (EXPENSIVE)							1
YES: ELIGIBLE	10	9	12	11	1 8	5	8
STORM WINDOWS/INSULATING GLASS		1 7	1 10 1	ĝ	1 7 1	3	6
ELECTRIC HEAT PUMP	-	· -	-	-	1 1 1	_	-
NEW FURNACE	3	1 3	2	3	2	2	3
Yes INELIGIBLE	1	-		1	1 3 1		-
NOn 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	90	1 30	88 1	37	1 89 1	95	92

TABLE 128CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY PRIMARY HEATING FUEL-CONTINUED(PERCENTAGE OF HOUSING UNITS)

	TOTAL	1	TYP	E OF PRIM	ARY HEATING FU	EL	
	HOUSING UNITS	I NATURAL I GAS	FUEL OIL; KEROSENE	LPG	ELECTRICITY	Acod	OTHER NONE
NY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units							
YES		į 49	57	53	43	50	51
N174 = = = = = = = = = = = = = = = = = = =	46	} 48	43	41	44	45	49
LIGIBLE UNITS THAT ADDED Expensive insulation but not Expensive equipment	R	ß		10	5	10	 5
LIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	7	3	8		4	 3
LIGIBLE UNITS THAT ADDED Expensive insulation and Expensive equipment	3	2		3	3	1	6
LIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	32	35	34	32	31	35	37
LIGIBLE UNITS THAT ADDED STORM WINDOWS: OR STORM DOORS: OR ATTIC OR ROOF INSULATION				1 F		12	1

1 - XCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	1 1	TYP	E OF PRIM	ARY HEATING FUE	:L	
	HOUSING	NATURAL GAS	FUEL OIL, KEROSENE	LPG	ELECTRICITY	MOOD	OTHER, NONE
TOTAL HOUSING UNITS 1/	67,457	37,418	14,892	3,102	9,568	1 .885	592
INSULATION ADDED (INEXPENSIVE)							
YES	17.632	9,438	4 # 366	870	2,391	433	134
WEATHERSTRIPPING	4 ,907	2,737	1 1,209 1	135	672	153	
AROUND HOT WATER PIPES	1,286	587	211	134	322	33	-
AROUND HOT WATER HEATER	458	179	63	51	150	15	-
CAULKING	11,078	6,141	2,873	426	1,385	168	86
PLASTIC COVERING	5,456	2,504	1 1,575	379	631 (301	65
OTHER	855	556	48	52	183	17	-
NO====================================	49,826	27,980	10,526	2 # 2 3 2	7,177	1+452	457
NSULATION ADDED (EXPENSIVE)							
YES	4 #226	2,390	879	207	618	99	33
ROOF OR ATTIC	2,843	1,423	613	173	515	85	33
BASEMENT OR CRAWL SPACE	1,271	691	308	34	239	-	- 1
OUTSIDE WALLS	1,478	783	321	90	203	47	33
NO	63,232	35,028	14,013	2,896	8,950	1,786	558
QUIPMENT ADDED (INEXPENSIVE)		1				1	
YES	5,274	2,932	1 1.103	248	893	98	-
CLOSEABLE SHUTTERS	300	219	1 29	-	52	-	-
STORM DOORS	2,680	1 1,631	503	56	440	50	-
AUTOMATIC OR CLOCK THERMOSTAT.	888	399	247	43	183	17	- 1
NEW WATER HEATING EQUIPMENT	2,132	1,034	437	188	442	31	-
N0	62:184	34+486	13,790	2+854	8,675	1,787	592
QUIPMENT ADDED (EXPENSIVE)			are and		neu tilitin neu tilitin		
YFS	3,504	1.950	855	164	463	21	50
STORM WINDOWS/INSULATING GLASS	2 +672	1 1,411	723	108	397		33
ELECTRIC HEAT PUMP	67	-	19	- .	48 1	-	-
NEW FURNACE	1,048	680	113	73	144]	21	1 17
NO	63,953	35,467	14,037	2,938	9,105	1,864	542
See footpoter at end of table.		1	l		L		

TABLE 13ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY PRIMARY HEATING FUEL(THOUSAND HOUSING UNITS)

	TOTAL	TYPE OF PRIMARY HEATING FUEL								
	HOUSING UNITS 1	I NATURAL I GAS	FUEL DIL. KEROSENE	LPG	ELECTRICITY	MOOD	OTHER. NONE			
ADDED ANY INSULATION OR EQUIPMENT YES		 12,475 24,942	50178 90714	1,166 1,736	1 3,091 1 5,477 1	. 517	151			
ADDED EXPENSIVE INSULATION But not expensive equipment	3 0 2 1 2	1 1,816	1 731	169		99	-			
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	29490	1 1,377	707	127	242	21	17			
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,014	574	1 148	37	221	-	53			
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15,862	8,709	3,593	833	2,231	396	101			
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	6,427	1 59494	1+530	262	972	135	33			

TABLE 13ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY PRIMARY HEATING FUEL-CONTINUED(THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUN TO TOTALS DUF TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL ENTERIN ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	1	TYP	E OF PRIM	ARY HEATING FU	EL	
	HOUSING Units	I NATURAL I GAS	FUEL DIL, KEROSENE	LPG	ELECTRICITY	WOOD	OTHER None
OTAL HOUSING UNITS <u>1</u> /	100%	100%	100%	100%	1002	100%	100%
INSULATION ADDED (INEXPENSIVE)		1					1
YES	26	25	29	28	25	23	23
WEATHERSTRIPPING	7	1 7	8	4	7 1	8	- 1
AROUND HOT WATER PIPES	2	2	1 1	4	3 1	2	- 1
AROUND HOT WATER HEATER	1	-	1 - 1	2	2	1	- 1
CAULKING	16	16	1 1 1	14	14	9	14
PLASTIC COVERING	8	1 7	1 11 1	12	1 7 1	16	11
OTHEReeneesessessessesses	1	1 1		2	2	1	- 1
NO	74	75	71	72	75	77	77
NSULATION ADDED (EXPENSIVE)		1					1
YES	6	i 6	6	7	i 6 i	5	i 5
ROOF OR ATTIC	4	4	4 1	6	5	4	6
BASEMENT DR CRAWL SPACE	2	1 2	2	1	2 1	-	j –
OUTSIDE WALLS	2	2	1 2 1	3	2	2	6
NO	94	94	94	93	94	95	94
QUIPMENT ADDED (INEXPENSIVE)		1					1
YESAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	8	1 8	1 7	8	9	5	i -
CLOSEABLE SHUTTERS	-	i 1	i - i	-	Í I Í	-	-
STORM DOORS	4	j 4	i 3 i	2	1 5	3	- 1
AUTOMATIC OR CLOCK THERMOSTAT.	1	1	2	1	2	1	-
NEW WATER HEATING EQUIPMENT	3	1 3	i 3 i	6	5	2	
NO	92	92	93	92	91	95	100
QUIPMENT ADDED (EXPENSIVE)		1					1
YES	5	5	6	5	5	1	1 8
STORM WINDOWS/INSULATING GLASS	4	i 4	5	3	4	-	6
ELECTRIC HEAT PUMP	-	-	i - i	-	1 1	-	- 1
NEW FURNACE	2	2	1 1	2	2	1	1 3
NO	95	95	94	95	95	99	92

TABLE 13B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY PRIMARY HEATING FUEL (PERCENTAGE OF HOUSING UNITS)

	TOTAL	TYPE OF PRIMARY HEATING FUEL								
	HOUSING UNITS 	NATURAL GAS	 FUEL OIL, KFROSENE	LPS	IELECTRICITY	ຟລວນ	I OTHER, I NONE			
ADDED ANY INSULATION OR EQUIPMENT		1					 			
¥FS « « » « » « » « » « » « » « » « » « »		1 33 1 67	35 65	38 52	32 63	27 73	26			
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	: : :	† 	1 1 1	5	4	1- ¹ 7				
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4		1 5	4	3	1	 3			
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	2	2			2	-17	6			
ADDED ONLY INEXPENSIVE Insulation or equipment	24	 2.3	24	27	23	21	1 17			
ADDED STORM WINDOWS. STORM DOORS. OR ATTIC OR ROOF INSULATION	10	9 	10	8 	10	7	1 5 			

TABLE 13B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY PRIMARY HEATING FUEL-CONTINUED (PERCENTAGE OF MOUSING UNITS)

1/ FXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO FOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF T-RMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL		TYP	E OF PRIN	ARY HEATING FUE	EL	
	HOUSING	I NATURAL I GAS	FUEL OIL, KEROSENE	LPG	ELECTRICITY	WOOD	OTHER.
TOTAL HOUSING UNITS 1/	67,457	 37,418	14+892	3,102	9,568	1 :885	592
INSULATION ADDED (INEXPENSIVE)							1
YES	19,579	9.897	5,195	985	2,580	705	. 218
WEATHERSTRIPPING		3,552	1,606	219	948 1	158	33
AROUND HOT WATER PIPES	1,502	686	382	17	304	98	1 15
AROUND HOT WATER HEATER	594	266	154	17	137	21	j -
CAULKING	9,852	5,180	2,847	4 2 2	1,131	239	33
PLASTIC COVERING	8,683	3,880	1 2,373 1	631	1 1 1 4 4	473	j 182
OTHERooosssssssssssssssssssss	504	265	1 101 1	16	86	15	19
NO••••••••••	47+878	27,521	9,698	2,117	6,988	1,181	373
INSULATION ADDED (EXPENSIVE)							1
YES	4,545	2,120	1 1.464 1	279	456	192	j 34
ROOF OR ATTIC	3,021	1,453	978	235	237	83	į 34
BASEMENT OR CRAWL SPACE	959	408	227	55	196	73	i –
OUTSIDE WALLS	1,729	750	591	127	209	52	-
NO	62,912	35,298	13,428	2,823	9,112	1,693	558
EQUIPMENT ADDED (INEXPENSIVE)							1
YES	4,956	2,815	1 1,142	205	718	75	-
CLOSEABLE SHUTTERS	237	144	1 31		62	-	
STORM DOORS	2,751	1,367	624	142	559	58	
AUTOMATIC OR CLOCK THERMOSTAT.	736	334	219	14	153	17	- 1
NEW WATER HEATING EQUIPMENT	1,624	1,066	361	49	148		
NQ + + + + + + + + + + + + + + + + + + +	62,502	34+602	13,751	2,897	8,850	1,810	592
EQUIPMENT ADDED (EXPENSIVE)		1	1				
YESuunaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	4.002	1,892	1,106	266	647	91	
STORM WINDOWS/INSULATING GLASS	3,078	1,436	824	215	546	57	
ELECTRIC HEAT PUMP	144	16	j 31 j		97	-	- 1
NEW FURNACE	1,161	505	315	87	220	34	
NO++++++++++++++++++++++++++++++++++++	53,455	35,526	13,786	2,836	8,921	1,794	592

TABLE 14A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY PRIMARY HEATING FUEL (THOUSAND HOUSING UNITS)

	TOTAL	TYPE OF PRIMARY HEATING FUEL								
	HOUSING UNITS	NATURAL GAS	FUEL OIL, KEROSENE	LPG		woon	IOTHER, NONE			
ADDED ANY INSULATION OR EQUIPMENT							1			
YES		12,403	6,395	1,222 1,880	3.113	827 1,058	218			
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT		1.834	1,163	24 <u>1</u>	199	192	34			
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	3,120	1:606	804	223	390	91				
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	883	286	302	38	257		i i 9 -			
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	16,513	8.677	4+127	715	2,266	544				
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	7 •236	3.590	2,021	486	927	178	 34			

TABLE 14A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY PRIMARY HEATING FUEL-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	TYPE OF PRIMARY HEATING FUEL								
	HOUSING UNITS	NATURAL GAS	FUEL OIL.	LPG	ELECTRICITY	AOOD	OTHER, NONE			
OTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%	100%			
INSULATION ADDED (INEXPENSIVE)			1				1			
YES	29	26	1 35	32	27	37	37			
WEATHERSTRIPPING	10	9	11	7	10	8	6			
AROUND HOT WATER PIPES	2	2	1 3	1	1 3 1	5	3			
AROUND HOT WATER HEATER	1	1 1	1 1	1	1 1 1	1				
CAULKING	15	14	19	14	1 12	13	5			
PLASTIC COVERING	13	1 10	16	20	12	25	31			
0 THER	1	1 1	1 1	1	1 1	1	3			
NO	71	74	65	63	73 1	63	53			
INSULATION ADDED (EXPENSIVE)		1					l			
YES	7	6	10	9	5	10	6			
ROOF OR ATTIC		4	1 7	8	2 1	4	6			
BASEMENT OF CRAVE SPACE		1 1	2	2	2	4	-			
OUTSIDE WALLS		2	4	4	2 1		-			
		1 94	90	91	95	90	94			
QUIPMENT ADDED (INEXPENSIVE)							1			
YESosoosososososososososososososos	7	1 8	9,	7	1 8 1	4	-			
CLOSEABLE SHUTTERS	-	-	i -	-	1 1 1	-	- 1			
STORM DOORS	•	4	4	I 5	6 1	3	1 -			
AUTOMATIC OR CLOCK THERMOSTAT.	•	1 1	1 1	-	2	1				
NEW WATER HEATING EQUIPMENT		1 3	1 2	2	1 2 1	-				
NO		92	92	93	92 1	96	100			
QUIPMENT ADDED (EXPENSIVE)	1		And Transfer	1			No.			
YESaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	5	5	7	9	1 7 1	5	-			
STORM WINDOWS/INSULATING GLASS		4	1 6	7	6 1	5	i -			
ELECTRIC HEAT PUMP		1 -	1 -	-		-				
NEW FURNACE.		1 1	1 2	1 3	2	2	i			
NQasasseseseseseseseseseseseseseseses	,	95	93	91	93	95	1 1 0 0			

TABLE 14B CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY PRIMARY HEATING FUEL (PERCENTAGE OF HOUSING UNITS)

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See footnotes at end of table.

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	TOTAL	TYPE OF PRIMARY HEATING FUEL								
	HOUSING Units	NATURAL GAS	FUEL DIL, KEROSENE	LPG		w000	OTHER, NONE			
ADDED ANY INSULATION OR EQUIPMENT YES		 33 67	+3 57	30) 61	33	44 56	37 53			
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	5		8	2	10	6			
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	د,	4	1 5	7		5	-			
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1	1	2	1	3	-				
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	24	23	28	23	24	29	31			
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	11	1 10	14	16		7	6			

 TABLE 14B

 CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY PRIMARY HEATING FUEL-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF TORMS USED IN THIS TABLE.

SOUPCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM D-VELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 15A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 And Eligibility for 1978 TAX credit by degree days (Thousand Housing Units)

Ĩ	TOTAL	1	HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING UNITS	<2000 CDD AND >7000 HDD	2000 CDD AND 5500-7000 HDD	<pre><2000 COD AND 4000-5499 HDD</pre>	<2000 CDD AND <4000 HDD	>2000 CDD AND <4000 HDD
TOTAL HOUSING UNITS 1/	67,457	5,766	19,605	17,397	14,520	10,169
TOTAL ELIGIBLE HOUSING UNITS	64,957	5+030	18,978	17,084	14,119	9,745
INSULATION ADDED (INEXPENSIVE)		1				1
YES, ELIGIBLE	27,522	1 2.314	9,265	7,984	4,805	3,155
WEATHERSTRIPPING	10,195	1,022	3,664	2,991	1,254	1,264
AROUND HOT WATER PIPES	2,380	159	816	534	514	357
AROUND HOT WATER HEATER	797	63	208	215	167	145
CAULKING	17,048	1 1,474	6,290	5,483	2,339	1,462
PLASTIC COVERING	10,656	888	3,019	3,588	2,270	891
OTHER	1,176	1 119	445	258	241	112
YES, INELIGIBLE	874	1 145	234	274	148	73
NO	39,061	3,307	10,107	9,138	9,567	6,941
(NSULATION ADDED (EXPENSIVE)		1				1
YES, ELIGIBLE	7,373	875	2.787	1.992	1.181	539
ROOF OR ATTIC	4,934	540	1,855	1,292	727	521
BASEMENT OR CRAWL SPACE	1,771	250	823	473 1	191	34
OUTSIDE WALLS	2,711	376	875	896	477	86
YES, INELIGIBLE	575	62	176	212	52	73
N0	59,510	4,829	16,642	15,193	13,287	9,558
GUIPMENT ADDED (INEXPENSIVE)						
YES, ELIGIBLE	8 • 677	621	2,972	2,202	1,621	1,261
CLOSEABLE SHUTTERS	460	-	226	30 1	130	74
STORM DOORS	4,584	474	1,613	1,271	787	439
AUTOMATIC OR CLOCK THERMOSTAT.	1,268	68	490	362	151	197
NEW WATER HEATING EQUIPMENT	3,153	1 1 3 4	979	797	648	594
YES. INELIGIBLE	588	66	188	180	137	17
NOcoeseeeeeeeeeeeeeeeeeeeeeeee	58,193	5,079	16,444	15,014	12,763	8,892
QUIPMENT ADDED (EXPENSIVE)		NI GAT	There we are a second at the s	unite desce		1994 W.S.
YES, ELIGIBLE	5 - 484	604	2,009	2,128	1,201	543
STORM WINDOWS/INSULATING GLASSI	4,974	479	1,585	1,727	876	307
ELECTRIC HEAT PUMP	86	-	-	51	-	35
NEW FURNACE	1,737	1 174	487	430	408	239
YES, INELIGIBLE	458	54	136	144	114	-
NOaccecoccececececececececece	60,515	5.098	17,460	15,125	13,206	9,626

TABLE 15A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY DEGREE DAYS-CONTINUED (THOUSAND HOUSING UNITS)

	TOTAL	····· · · · · · · · · · · · · · · · ·								
	HOUSING UNITS I	<pre>< 2000 C9D</pre>	AND	<pre><2000 CDD </pre>	<2000 CDD AND <4000 HDD	>2000 CDD AND <4000 HDD				
ANY EQUIPHENT OR INSULATION ADDED By Eligible Housing Units										
YES	33,779	2 909	11,229	9,671	6,177	3,994				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	31,178	2,9222	7,749	7,513	7,942	5,751				
ELIGIBLE UNITS THAT ADDED Expensive insulation but not Expensive equipment	5+535	673	2,200	٤•385	849	423				
ELIGIBLE UNITS THAT ADDED Expensive equipment but not Expensive insulation	4,647	402	1,423	1,521	868	432				
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1 y 837	201	586	607	332	111				
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	1,531	7,020	6,058	4,127	ĭ ∘ 023				
ELIGIBLE UNITS THAT ADDED STORM WINDOWS, OR STORM DOORS, OR ATTIC OR RDDF INSULATION	11,369	1,243	<i>1</i> 771 و د	5,524	1,800	1.051				

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 158CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY DEGREE DAYS(PERCENTAGE OF HOUSING UNITS)

	TOTAL	1	HEATING AN	ID COOLING DEGR	EE DAYS	
	HOUSING UNITS 	<2000 CDD AND >7000 HDD	<pre><2000 CDD AND 5500-7000 HDD</pre>	2000 CDD AND 4000-5499 HDD	<2000 CDD AND <4000 HDD	>2000 CDD And <4000 HDD
OTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%
DTAL ELIGIBLE HOUSING UNITS	96	87	97	98	97	96
NSULATION ADDED (INEXPENSIVE)						
YESE ELIGIBLE	41	40	47	46	33	31
WEATHERSTRIPPING	15	1 18	19	17	9	12
AROUND HOT WATER PIPES	4	3	4	3	4	4
AROUND HOT WATER HEATER	- 1	1 1	1 1		1	I 1
CAULKING	25	26	32	32	16	I 14
PLASTIC COVERING.	16	1 15	1 15	21 1	16	9
OTHER	2	1 2	2	1 1	2	. 1
YESS INELIGIBLE	1	1 3	1 1		ĩ	ī
NO and a second a s	58	57	52	53 1	66	68
······································			1 22			
NSULATION ADDED (EXPENSIVE)		1	I	1		
YES, ELIGIBLE	11	1 15	14		8	5
ROOF OR ATTIC	7	9	9	7	5	5
BASEMENT OR CRAWL SPACE	3	4	4	3	1	-
OUTSIDE HALLS	4	1 7	4	5	5	1
YES, INELIGIBLE	1	1 1	1	1		1
NO	88	84	85	87	92	94
QUIPMENT ADDED (INEXPENSIVE)		10 m m m m m m m m m m m m m m m m m m m	1	news (the		
YESS ELIGIBLE	13	, 11	1 15	13 1	11	I 12
CLOSEABLE SHUTTERS	1	-	1 1	- 1	1	1
STORM 700RS	7	1 8	8	7	5	: : 4
AUTOMATIC OR CLOCK THERMOSTAT.	2	i i	1 3	2	1	2
NEW WATER HEATING EQUIPMENT	5	2	1 5	, - I 5 I	4	6
YES INELIGIBLE	1	1 1	1 1	1 1	1	-
NOesessassassassassassassassassassassassas	86	88	84	86	88	87
	50	1 00	j .			
QUIPMENT ADDED (EXPENSIVE)		1	1	1		1
YES, ELIGIBLE	10	10	10	12	3	5
STORM WINDOWS/INSULATING GLASS	7	8	8	1 10	6	1 3
ELECTRIC HEAT PUMP		-		- 1	***	-
NEW FURNACE	3	1 3	2	2	3	2
YES, INELIGIBLE	1	1 1	1	1 1	1	
NOcacacacacacacacacacacacacacaca	90	88	89	87 1	91	95

TABLE 158CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY DEGREE DAYS-CONTINUED(PERCENTAGE OF HOUSING UNITS)

	TOTAL		HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING UNITS	AND	<2000 CDD AND 5500-7000 HDO	AND I	AND	AND
אין Any Equipment or insulation added אל kligible Housing Units						
YESueeuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuu	10 45	49 39	; 57 } 40	55	43 54	39 57
ELIGIBLE UNITS THAY ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	¢,	12	11	8	\$	4
EXPENSIVE EQUIPMENT BUT NOT	7	7	1 7	9	4	4
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	7	3	3	3	?	1
ELIGIBLE UNITS THAY ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	30	27	36	35	28	30
ELIGIBLE UNITS THAT ADDED Storm Hindows, or Storm Doors, or Attic or Roof Insulation	17	22	20	19	12	1.0

1/ EXCLUDES BUILDINGS HITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH THE REPRESENTS OR ROUNDS TO ZIRO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 16ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY DEGREE DAYS(Thousand Housing Units)

	TOTAL	1 1 1	HEATING AP	ND COOLING DEGR	EE DAYS	۲۰۰۰ میک نواز وی زیر
	HOUSING Units	<pre><2000 CDD AND >7000 HDD</pre>	<pre><2000 CDD</pre>	<2000 CDD AND 4000-5499 HDD	<2000 CDD AND <4000 HDD	>2000 CDD AND <4000 HDD
TOTAL HOUSING UNITS 1/	67,457	5,766	19,605	17,397	14,520	10-169
INSULATION ADDED (INEXPENSIVE)		1	1			
YES	17,632	1,490	6,217	5,230	2,875	1,820
WEATHERSTRIPPING	4,907	451	1,830	1,463	592	571
AROUND HOT WATER PTPES	1.286	i 76	424	281	280	224
AROUND HOT WATER HEATER	458	31	125	109 1	48	144
CAULKING	11,078	976	4,240	3,461	1,571	830
PLASTIC COVERING	5,456	381	1,496	2,052	1,093	434
0THER	855	90	273	205 1	168	118
NO	49,826	4,276	13,388	12,167	11,645	8,350
INSULATION ADDED (EXPENSIVE)		1				1
YES	4,226	393	1 1,684	1,070	728	350
ROOF OR ATTIC	2,843	222	1 1,047	767	494	313
BASEMENT OR CRAWL SPACE	1,271	1 167	555	372	127	51
OUTSIDE WALLS	1,478	157	624	385	276	36
NO	63,232	5,373	17,921	16,327	13,792	9,820
QUIPMENT ADDED (INEXPENSIVE)						
YES	5 # 27 4	411	1,768	1,320	976	799
CLOSEABLE SHUTTERS	300		117	25	84	1 74
STORM DOORS	2,680	301	1,090	688	384	216
AUTOMATIC OR CLOCK THERMOSTAT.	888	68	270	309	154	87
NEW WATER HEATING EQUIPMENT	2,132	128	573	573	393	465
NO	62,184	5,355	17,837	16,077	13,544	9,370
QUIPMENT ADDED (EXPENSIVE)			1			
YES===============================	3,504	347	1,069	1,248	668	172
STORM WINDOWS/INSULATING GLASS	2,672	287	815	1,024	446	99
ELECTRIC HEAT PUMP	67		31	19	17	-
NEW FURNACE	1,048	60	1 324	311	261	92
NO	63,953	5.418	18,537	16,149	13,852	9,997

	TOTAL Housing Units	HEATING AND COOLING DEGREE DAYS				
		<pre><2000 CDD AND >7000 HDD</pre>	 <2000 CDD AND 5500-7000 HUD		ANO	ANO
I DDED ANY INSULATION OR EQUIPMENT I		1				
YF. Seconssononeneeeeeeeeeeee	22.578	1 954	7+631	6+430	3,036	i 2∉408
NO000000000000000000000000000000000000	44,879	3.812	11,974	10,967	10,655	7,552
DDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3:212	i 35∓	1,350	699	÷10	294
DDED EXPENSIVE EQUIPMENT	5* \$ 30	 313	734	877	4.50	116
DDED EXPENSIVE INSULATION	1,014	 34 '	334	371	218	56
DDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15,862	1,248	5+212	4.482	2,777	2.142
DDED STORM WINDOWS, STORM DOORS, T OR ATTIC OR ROOF INSULATION	6+427	 736	2,289	1.819	1,010	572

TABLE 16A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY DEGREE DAYS-CONTINUED (THOUSAND HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH F-F REPRESENTS OR ROUNDS TO ZERU. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	1	HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING UNITS	<2000 CDD AND >7000 HDD	<2000 CDD AND 5500-7000 HDD	<2000 CDD AND 14000-5499 HDD	<2000 CDD AND <4000 HDD	>2000 CDD And <4000 HDD
OTAL HOUSING UNITS 1/	109%	100 x	100%	100%	100%	100%
INSULATION ADDED (INEXPENSIVE)		1	1			
YES	26	26	32	30	20	18
WEATHERSTRIPPING	7	8	9	8	4	6
AROUND HOT WATER PIPES	2	1	2	2	2	2
AROUND HOT WATER HEATER	1	1 1	1 1	1 1	-	1
CAULKING	16	17	22	20	11	8
PLASTIC COVERING	8	7	8	12	8	4
0THER	1	2	1 1	1 1	1	1
NO	7 4	74	68	70	80	82
INSULATION ADDED (EXPENSIVE)			1	1		
YES	5	7	1 9	6	5	3
ROOF OR ATTIC	4	4	5	4	3	1 3
BASEMENT OR CRAWL SPACE	2	3	3	1 2 1	1	1
OUTSIDE WALLS	2	1 3	1 3	2	2	- 1
NO	94	93	91	94	95	97
QUIPMENT ADDED (INEXPENSIVE)			1			1
YES	8	1 7	1 9	8	7	8
CLOSEABLE SHUTTERS	-	-	1 1	1 - 1	1	1
STORM DOORS	4	1 5	6	4	. 3	1 <u>2</u>
AUTOMATIC OR CLOCK THERMOSTAT.	1	1	1 1	2	1	1
NEW WATER HEATING EQUIPMENT	3	2	1 3	3	3	5
NO	92	93	1 91	92	93	92
QUIPMENT ADDED (EXPENSIVE)		l l	r I			1
YES	5	6	1 5	7	5	2
STORM WINDOWS/INSULATING GLASS	4	5	1 4	6	3] 1
ELECTRIC HEAT PUMP	-	-		1 - 1	-	- 1
NEW FURNACE	2	1 1	1 2	2	2	1
NO	95	94	95	1 93 1	95	98

TABLE 16BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY DEGREE DAYS(PERCENTAGE OF HOUSING UNITS)

See footnotes at end of table.

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	TOTAL	HEATING AND COOLING DEGREE DAYS									
	HOUSING UNITS	AND	AND	<2000 CDD AND 4000-5499 HDD	AND	AND					
DDED ANY INSULATION OR EQUIPMENT											
YES====================================	3 S 5 7	i 34 i 66	i 39 i 61	57 63	27 75	26 74					
DDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT		- 	7	de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la La companya de la comp	ą	i ő					
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	۵	5	4	5	5	1					
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	•		2	2	2	1					
DDED ONLY INEXPENSIVE Insulation or equipment	24	22	27	26	÷	21					
DDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	10	1 1 3	12	10	7	6					

TABLE 168 CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY DEGREE DAYS-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERG. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURC'L THE 1978 NATIONAL INTERIM FNERCY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL	r 1	HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING UNITS	<2000 CD0 AND >7000 HDD	AND	<pre>< 2000 CDD </pre>	<2000 CDB AND <4000 HDD	>2000 CD0 AND <4900 HD1
TOTAL HOUSING UNITS 1/	67,457	5,766	19,605	17.397	14,520	10,169
INSULATION ADDED (INEXPENSIVE)		*	1			
YES	19,579	1 1.855	6,307	5,917	3,446	2,055
WEATHER STRIPPING	6,515	721	2,221	1,898	924	753
AROUND HOT WATER PIPES	1,502	122	492	383	338	167
ABOUND HOT WATER HEATER	594	32	134	181	213	34
CAULKING	9,852	988	3,380	3,343	1,344	796
PLASTIC COVERING	8.683	850	2,465	2,841	1,783	745
OTHER	504	73	222	79 1	99	j 31
NO	47.878	3,911	13,299	11,480	11,075	8,114
INSULATION ADDED (EXPENSIVE)						1
YES	4,545	592	1,558	1 1,374	686	336
ROOF OR ATTIC	3.021	385	1,061	853 1	386	336
BASEMENT OR CRAWL SPACE	959	1 125	433	242	143	1 17
OUTSIDE WALLS	1,729	239	424	743	273	50
N0	62,912	5,174	18,047	16,023	13,834	9.833
EQUIPMENT ADDED (INEXPENSIVE)		1				1
YES	4,356	358	1 1,764	1,378	943	512
CLOSEABLE SHUTTERS	237	-	121	46	71	
STORM DOORS	2,751	282	797	818	597	257
AUTOMATIC OR CLOCK THERMOSTAT.	736	34	324	224	28	126
NEW WATER HEATING EQUIPMENT	1,624	42	640	485	310	1 146
NO	62,502	5,408	17,841	16,019	13,578	9,657
EQUIPMENT ADDED (EXPENSIVE)						
YES	4,002	352	1,238	1,334	708	372
STORM WINDOWS/INSULATING GLASS	3,078	259	989	1,037	586	208
ELECTRIC HEAT PUMP	144	1 -	31	78 1	-	35
NEW FURNACE	1,161	162	298	354	182	165
NO	63,455	5,414	18,367	16,063	13,813	3,798

TABLE 17ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY DEGREE DAYS(THOUSAND HOUSING UNITS)

, , , ,	TOTAL	; ; [HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING Units	<2000 COD AND >7000 HOD	<pre><2000 CDD AND 5500-7000 HDD</pre>	<2000 CDD AND 4000-5499 HDD	<2000 CD0 AND <4000 HD0	>2000 CDD AND <4000 HDD
DDED ANY INSULATION OR EQUIPMENT					_	
YES	24,178 33,280	2,170	7,893	7+259	4,536	2,520
j oo oo saasaaaaaaaaaaaaaaaaaaaaaaaaaaaa	ት ንቶ ረጥ በ	1 3,596	11,712	10,138	10,134	7,649
DDED EXPENSIVE INSULATION		2 -				1
BUT NOT EXPENSIVE EQUIPMENT	3.663	457	1 1,313	1,057	557	298
DDED EXPENSIVE EQUIPMENT		1				
BUT NOT EXPENSIVE INSULATION	3,120	217	993	997	579	339
DDED EXPENSIVE INSULATION		l F	f I			1
AND EXPENSIVE EQUIPMENT	883	134	245	337	129	, J 38
ODED ONLY INEXPENSIVE		1	1			1
INSULATION OR EQUIPMENT	16,513	1,361	5,342	4,888	3.071	1,950
LODED STORM UTNORUS STORM DOODS			!	i i		l
DDED STORM HINDOWS, STORM DOORS, ! OR ATTIC OR ROOF INSULATION!	7,236	1 754	2.361	2+195	1,270	l 656
		i			1,210	l 0.50

TABLE 17A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY DEGREE DAYS-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

1	TOTAL	1 1	HEATING A	ND COOLING DEGR	EE DAYS	
	HOUSING UNITS	<pre><2000 CDD AND >7000 HDD</pre>	<pre><2000 CD0 AND 5500-7000 HD0</pre>	<2000 CDD AND 4000-5499 HDD	<2000 CDD AND <4000 HDD	>2000 CDO 4ND <4000 HDD
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%
INSULATION ADDED (INEXPENSIVE)						
YES	29	32	32	34	24	20
WEATHERSTRIPPING	10	1 12	1 11	11	6	7
ARGUND HOT WATER PIPES	2	2	3	2 1	2	2
AROUND HOT WATER HEATER	1	1 1	1	1	1	-
CAULKING	15	1.7	17	19 1	Э	8
PLASFIC COVERING	13	1 15	1 13	16	12	7
01HER	1	1 1	1	- 1	1	-
NO	71	68	68	66	76	80
INSULATION ADDED (EXPENSIVE)		1				
YES	7	1 10	8	8	5	3
ROOF OR ATTIC	4	7	1 5	1 5 1	3	3
HASEMENT OR CRANL SPACE	1	1 2	2	1 1	1	-
OUTSIDE WALLS	3	4	2	1 4 1	2	-
N0	া 3	90	92	92	95	97
EQUIPMENT ADDED (INEXPENSIVE)		2000 Jan	1			1
YES	7	6	9	8	5	5
CLOSEABLE SHUTTERS		-	1 1	- 1	-	- 1
STORM DOORS	4	5	i 4	5	4	1 3
AUTOMATIC OR CLOCK THERMOSTAT.	1	1 1	2	1 1	-	1 1
NEW WATER HEATING EQUIPMENT	2	1 1	1 3	1 3 1	?	1 1
NO	<u>٦</u> ٦	<u></u>	91	92	94	95
EQUIPMENT ADDED (EXPENSIVE)		1				
YES	5	6	5	8	5	4
STORM WINDOWS/INSULATING GLASS	5	4	5	6	4	1 2
ELECTRIC HEAT PUMP	-	-	i –	- 1	-	-
NEW FURNACE	2	3	2	2	1	2
NO	17 12	94	34	92	95	96

TABLE 17B Conservation efforts undertaken during 1977 by degree days (Percentage of Housing Units)

 	TOTAL	HEATING AND COOLING DEGREE DAYS									
	HOUSING Units I	AND AND	<2000 CDO AND 5500-7000 HDD	AND I	AND	>2000 CDD AND <4000 HDD					
ADDED ANY INSULATION OR EQUIPMENT		9 9									
YESLARE AREA AREA AREA AREA AREA AREA AREA	36	1 38	: 4	42 1	50	25					
NO	6.4	62	60	58 1	70	1 75					
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	۰.	 8 		6	4	i i :					
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	ä	, , ,	, 	6	4	.5					
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1	2	1	2	1	-					
ADDED ONLY INEXPENSIVE Insulation or equipment	24	24	27	28	21	18					
ADDED STORM WINDOWS, STORM DOORS, A OR ATTIC OR ROOF INSULATION	11	1 13	12	13	Ŀ	5					

TABLE 17B CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY DEGREE DAYS-CONTINUED (PERCENTAGE OF HOUSING UNITS)

-

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OF ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, DIFICE OF THE CONSUMPTION DATA SYSTEM, Defice of program development, energy information administration.

TABLE 18ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF HOUSING STRUCTURE(THOUSAND HOUSING UNITS)

	TOTAL		SINGLE	FAMILY DET	TACHED		SINGLE	BUILDING		
	HOUSING Units	TOTAL	1-4 Rooms	5 ROOMS	6 Rooms	7 OR MORE ROOMS	FANILY ATTACHED	WITH 2-4 UNITS	NOBILE Home	OTHER
TOTAL HOUSING UNITS <u>1</u> /	67,457	48,547	8,768	12,696	11,850	15,233	3,128	10,749	4,805	228
TOTAL ELIGIBLE HOUSING UNITS	64,957	47,159	8,558	12,319	11,675	14,607	3,095	10,104	4+370	228
INSULATION ADDED (INEXPENSIVE)			1	1		1	and a second	**		
YES, ELIGIBLE	27,522	21,183	3,518	5,553	5,357	5,655	1,233	2,976	2.021	110
WEATHERSTRIPPING		8,076		•	1,880	2,921	286	1,307	526	-
AROUND HOT WATER PIPES	2,380	1,610	296	460	391	462	92	49	623	
AROUND HOT WATER HEATER	797	676	105	155	135	280	i -	i -	121	-
CAULKING	17,048	13,815	1,999	3,656	3,755	4,405	906	1,629	634	50
PLASTIC COVERING	10,656	7,765	1,591	2,144	1,738	2,292	403	1 1,304	1,137	4
0THER	1,176	958	158	305	•	310	•	1 33	90	5
YES, INELIGIBLE	874	728	125	142	77	385	i -	20	126	-
NO	39,061	26+636	5,126	6,902	6,416	8,172	1,896	7.754	2,657	11
INSULATION ADDED (EXPENSIVE)				1	1	1			1	
YES, ELIGIBLE	7,373	6,324	757	1,682	1,632	2.254	232	422	395	
ROOF OR ATTIC	4,934	4,461	529	1 1,137	1,255	1,540	93	208	173	~
BASEMENT OR CRANL SPACE	1,771	1,409	-	395	260	644	75	1 52	236	-
OUTSIDE WALLS	2.711	2,306	397	496	716	697	65	227	113	-
YSS INELIGIBLE	575	526		I 56	I 34	298	-	i –	49	-
NO	59,510	41,697	7,873	10,959	10,184	12,681	2,396	10,327	4,361	22
EQUIPMENT ADDED (INEXPENSIVE)			1	1	1		l			
YES, ELIGIBLE	8,677	6,819	1,002	1 1.847	1,828	2,142	332	1.090	405	3
CLOSEABLE SHUTTERS	460	396	27	80	142	147	20	29	15	
STORM DOORS		3,862	551	1,269	848	1,194	1 134	410	178	-
AUTOMATIC OR CLOCK THERMOSTAT.	1,268	950	101	220	357	272	-	212	76	3
NEW WATER HEATING EQUIPMENT	3,153	2,211	416	410	597	787	198	548	196	-
YES, INELIGIBLE	588	562	102	111	94	255	14	-	13	-
NO	58,193	41,166	7,664	10,738	9,928	12,835	2 \$ 783	9,659	4,387	19
EQUIPMENT ADDED (EXPENSIVE)			11- 40mm	4000B	10. 10.		-	1	1	
YES, ELIGIBLE	6,484	5,088	593	1,231	1,453	1,811	290	813	293	
STORM WINDOWS/INSULATING GLASS	4,974	3,923	508	928	1,115	1,373	189	601	261	- 1
ELECTRIC HEAT PUMP	86	73	-	-	51	22	14	- 1	-	-
NEW FURNACE	1,737	1,375	85	367	401	522	87	212	63	-
YES, INELIGIBLE	458	458	70	20	78	291	1 -	1 -	1 -	-
ND	60,515	43,001	9.105	1 11.445	1 10. 319	1 13.131	1 2,839	9,936	4,512	22

TABLE 18ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF HOUSING STRUCTURE-CONTINUED(THOUSAND HOUSING UNITS)

	TOTAL		SINGLE	FAMILY DET	ACHED		SINGLE	 BUILDING		
	HOUSING Units	TOTAL	1-4 700MS	5 ROOMS	6 Rooms	7 OR MORE ROOMS	FAMILY ATTACHED 	WITH 2-4 UNITS 	HOBILE HOME 	OTHER
NY EQUIPHENT OR INSULATION ADDED By Eligible Housing Units								 		
YES====================================	33,779 31,175	25∉089 21¢070	4,255 4,303	6,793 5,526		8,368 6,239		, .	•	11 11/
LIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5,535	4,710	607	12270	1,154	1.680	178	327	321	-
LIGIBLE UNITS THAT ADDED Expensive equipment but not Expensive insulation	4,647	3,474	443	819	975	1,237	235	719	219	
LIGIBLE UNITS THAT ADDED Expensive insulation and Expensive equipment	1,937	1,614	150	412	478	 574	55	95	1	-
LIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	16,290	3,055	4,292	4,067	 4,878	1.004	2,652	1,702	11
LIGIBLE UNITS THAT ADDED Storm Windows, or Storm Doors, or Attic or Roof Insulation	11,367	9 ∉ 485	10196	 2,507	2:517	 3,269	376	1 1 017	486	-

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 18BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF HOUSING STRUCTURE(PERCENTAGE OF HOUSING UNITS)

	TOTAL	1	SINGLE	FAMILY D	ETACHED		SINGLE	BUILDING		
	HOUSING	TOTAL	1-4 Rooms	5 Rooms	6 Rooms	7 OR More Rooms		WITH 2-4	MOBILE Hone	OTHER
TOTAL HOUSING UNITS 1/	100%	100%	100%	100 x	100%	100%	1 100x	100%	100%	1 100×
TOTAL ELIGIBLE HOUSING UNITS	96	97	98	97	99	96	39	94	91	100
INSULATION ADDED (INEXPENSIVE)	1	1				1				1
YES, ELIGIBLE	1 41	44	• 0	45	45	44	1 39	i 28 i	42	48
WEATHERSTRIPPING	•	17	13	17	1 16	19	9	12	11	- 1
AROUND HOT WATER PIPES		1 3	3	1 4	3	1 3	1 3	1 - 1	1.5	i –
AROUND HOT WATER HEATER	•	1 1	1 1	1	1	2	-	- 1	3	. –
CAULKING		28	23	29	32	29	29	1 15	13	28
PLASTIC COVERING		1 15	18	17	1 15	15	13	12	24	20
OTHER		2	1 2	2	2	2	1	- 1	2	22
YES, INELIGIBLE	•			1 1	ĩ	3	1 -	- 1	3	-
NQ		55	58	54	54	54	61	72	55	52
INSULATION ADDED (EXPENSIVE)			 9			1	1 7		8	1
YES, ELIGIALE		1 13		13	14	15				
ROOF OR ATTIC		9	6	1 1	11	1 10	3	2	4	
BASEMENT OR CRAWL SPACE	•	3	1 1	3	2	4	2		5	-
OUTSIDE WALLS	•	5	5	4	6	5	2	2	2	-
YES, INELIGIBLE	4	1 1	2	-	-	2		-	1	-
NO	88	86	1 70	86	86	83	93	96	91	
EQUIPMENT ADDED (INEXPENSIVE)]	1	1]	ļ	1	1			l
YES, ELIGIBLE		1 14	1 11	15	15	14	11	10	8	1 13
CLOSEABLE SHUTTERS		1 1	- 1	1	1	1 1	1	-	-	- 1
STORM DOORS		1 8	6	1 10	1 7	8	1 4	4	4	1 -
AUTOMATIC OR CLOCK THERMOSTAT.		2	1 1	1 2	1 3	2	1 -	2	2	13
NEW WATER HEATING EQUIPMENT		1 5	1 5	3	5	1 5	6	5 1	4	- 1
YES, INFLIGIBLE	1	1 1	1 1	1	1	2	1 -	1 - İ	-	- 1
NO	86	85	87	85	84	84	89	90	91	87
EQUIPMENT ADDED (EXPENSIVE)	1	1	1	1	1	1	1			1
YES, ELIGIBLE	10	i 10	7	10	12	12	9	8	5	i –
STORM WINDOWS/INSULATING GLASS		8	6	7	9	9	6	6	5	i –
ELECTRIC HEAT PUMP		-	-	-	-	-	i -	i - 1	-	i -
NEW FURNACE	,	1 3	1	1 3	1 3	1 3	1.3	2	1	i –
YESS INELIGIBLE		1 1	1	-	1 1	2	-		-	i -
	1 90	1 89	1 92	90	1 87	1 86	91	92	94	100
	1 2 2 2	*		1 / *			1	1 1 1 1		

TABLE 18BCONSERVATION EFFORTS UNDERTAKEN BETHEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF HOUSING STRUCTURE-CONTINUED(PERCENTAGE OF HOUSING UNITS)

	TOTAL		SINGLE	FAMILY D	ETACHED		I SINGLE	BUILDING		1 1 1
	HOUSING UNITS	TOTAL) -4 ROCMS	5 ROOMS	6 R00MS	I 7 OR MORE ROOMS		WITH 2-4		I OTHER I I I
NY EQUIPNENT OR INSULATION ADDED By Eligible Housing Units					55		4 T	10	4.K	
NO.,	46	43	49	1 44	42		52	59	45	1 52 1 52
LIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	ан төөр алан ал				1 10	, , , ,	6		1	-
LIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	7	1 5	6	8	1 8	8	7	ī	
LIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT		1	2	1		1 7 1 1 4	2	Ī	2	
LIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	1 37	 34	1 1 1 35	34	1 34	 32	1	25	35	 46
LIGIBLE UNITS THAT ADDED Storm Windows, or storm doors, or attic or roof insulation	17	٦n	1	2-0-0 	21		1.2		10	

NOTE: DATA MAY NOT SUM TO TOTALS DUL TO ROUNDING. A DASH H-H REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF FERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE DE PROGRAM DEVELOPMENT. ENERGY INFORMATION ADMINISTRATION.

	TOTAL		SINGLE	FAMILY DET	ACHED		SINGLE	BUILDING		
	HOUSING Units	TOTAL	1-4 Rooms	5 Rooms	6 Rooms	7 OR Nore Rooms	FAMILY	WITH 2-4 UNITS	NOBILE HOME	OTHER
OTAL HOUSING UNITS 1/	67,457	48,547	8,768	12,696	11,850	15,233	3,128	10,749	4,805	22
NSULATION ADDED (INEXPENSIVE)				 			1	1		
YES	17,632	13,552	2,003	3,737	3,447	4,366	811	1,826	1,333	11
WFATHERSTRIPPING	4,907	3,737	•			1,270	166	708	296	-
AROUND HOT WATER PIPES	1,286	810	132	197	164	317	33	17	427	-
AROUND HOT WATER HEATER	458	370	17	113	50	190	-	1 -	88	
CAULKING	11,078	9:057	1,116	2,515	2,513	2,913	576	946	436	
PLASTIC COVERING	5,456	3,796	757	1,119	902	1,018	235	756	622	4
OTHER	855	679	101	184		256	22	33	91	
NO	49,826	34,995	6,765	8,959	8,403	10,867	2,318	8,923	3,472	1
NSULATION ADDED (EXPENSIVE)				1				1 		
YES	4,226	3,683	476	1,020	858	1,329	1 127	184	232	-
ROOF OR ATTIC	2,843	2,568	312	731	665	861	46	150	79	-
BASEMENT OR CRAWL SPACE	1,271	1,015	79	276	111	549	63	21	172	-
OUTSIDE WALLS	1,478	1,350					18	65	45	-
NO	63,232	44,864	8,292	11,676	10,991	13,904	3,001	10,565	4,573	2:
QUIPMENT ADDED (INEXPENSIVE)			ł	1		1	1	1		
YES	5,274	4,066	654	1,032	1,034	1,346	170	1 737	270	
CLOSEABLE SHUTTERS	300	250	37	17	70	126	20	29		-
STORM DOORS	2,680	2,234	369	756	391	717	60	261	125	-
AUTOMATIC OR CLOCK THERMOSTAT.	888	717	75	179	276	186	1 -	110	30	
NEW WATER HEATING EQUIPMENT	2,132	1,476	304	227	313	632	110	416	1.30	
NO	62,184	44,481	8,114	11,664	10,816	13,887	2,959	10,012	4.534	1
QUIPMENT ADDED (EXPENSIVE)			1	1		l	1			
YES,	3,504	2,755	282	605	711	1,158	1 152	466	131	
STORM WINDOWS/INSULATING GLASS	2,672	2,127	244	426	555	902	94	338	113	- 1
ELECTRIC HEAT PUMP	67	67	20	-	36	12	i –	1 -		- 1
NEW FURNACE		843	63	197	170	414	59	•	17	
N7	63,953	45,792	8,486	12,092	11,139	14,075	2,976	10,283	4.674	2

TABLE 19ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF HOUSING STRUCTURE(THOUSAND HOUSING UNITS)

	TOTAL		SINGLE	FAMILY DE	TACHED		I SINGLE	BUILDING		OTHER
	HOUSING Units	TOTAL	1-4 POOMS	5 ROOMS 	6 Rooms	7 OR MORT ROOMS	FANILY	WITH 2-4 UNITS 	MOBILE Home I	
ADDED ANY INSULATION OR EQUIPMENT			e F	7 1 1	F 			3		
YFS==========================	22,578	17.409	20634	4,741	4,420	5,613	1,041	2,515	1,504	111
NO + • * • • • • • • • • • • • • • • • • •	44,979	31-138	6,134	1 7,955	7.429	1.620	1 29087			11
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT,	3+212	2:786	366	 //1	\$15	19035	107	 101	217	
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2,490	1#357	i 172	i 355	467	864	1 134	383	116	-
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,014	898	, 110	249	244	294	18	83	15	-
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15,962	11,968	1,987	 3,365	3:095	3,420	 780	1+948	1,155	110
ADDED STORM WINDOWS, STORM DOORS: OR ATTIC OR ROOF INSULATION	6:427	5,540	 650	1,477	1,305	1,908	 181	617	287	_

TABLE 19A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF HOUSING STRUCTURE-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEETNITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	SINGLE FAMILY DETACHED						SINGLE	SINGLE BUILDING		 1 OTHER
	HOUSING UNITS	 TOTAL 	1-4 Rooms	5 Rooms	6 Rooms	7 OR More Rooms	FAMILY ATTACHED		NOBILE Home	OTHER
TOTAL HOUSING UNITS 1/	[100x	 100%	100%	1 1 LOOX	100%	100X	1 100x	1005	100%	100%
INSULATION ADDED (INEXPENSIVE)		1		6		1	1			
YES++++++++++++++++++++++++++++++++++++		28	23	29	1 29	29	26	17	28	48
WEATHERSTRIPPING	1	8	6	1 7	9	8	5	17	5	-
AROUND HOT WATER PIPES		1 2	2	2	1	2	1	- 1	9	
AROUND HOT WATER HEATER	•	1	-	1		1	-	- 1	2	~~
CAULKING		19	13	20	21	19	18	9	b.	28
PLASTIC COVERING		8	9	9	8	7	8	1 7	13	20
OTHER		1 1	1 1	1	1	2	1	-	2	13
N9	74	72	77	71	71	71	74	83	72	52
INSULATION ADDED (EXPENSIVE)		1	ļ]	1)	•			1
YES	6	1 8	5	8	i 7	9	i 4	2	5	-
ROOF OR ATTIC	. j 4	j 5] 4)	İ 6	j 6	6	j 1	1 1	2	-
BASEMENT OR CRAHL SPACE	i z	2	I 1	1 2	I 1	4	2	1 - 1	4	- 1
OUTSIDE WALLS	1 2	3	j 3	2	1 3	1 3	i 1	1 1	1	-
ND==================================	94	92	95	92	93	91	96	98	95	100
EQUIPMENT ADDED (INEXPENSIVE)								1		
YES	8	8	7	8	9	9	5	7	6	13
CLOSEABLE SHUTTERS	- 1	1	- 1		1	1	1 1	- 1	- 1	-
STORM DOORS	4	5	4	6	1 3	5	2	2	3	- 1
AUTOMATIC OR CLOCK THERMOSTAT.	i L	1 1	1	i L	2	1	-	1 1	1	13
NEW WATER HEATING EQUIPMENT	7	j 3	3	2	j 3	4	4	4	3	1 -
NO	92	92	93	92	91	91	95	93	94	87
EQUIPMENT ADDED (EXPENSIVE)	1	1	9	1	1	1	1	f		5
YES		6	3	5	6	8	5	4	3	- 1
STORM WINDOWS/INSULATING GLASS		1 4	3	3	5	6	1 3	3	2	- 1
ELECTRIC HEAT PUMP		- 1	1 -	-	- 1	1 -	- 1	- 1	- 1	- 1
NEW FURNACE	2	1 2	1	2	1	3	1 5	1	- 1	1 -
NO 	95	1 94	97	95	94	92	95	96	97	100

TABLE 19BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF HOUSING STRUCTURE(PERCENTAGE OF HOUSING UNITS)

	 TOTAL		SINGLE	FAMILY D	ETACHED		I I SINGLE	BUILDING WITH 2-4 UNITS		i t
	HOUSING UNITS	TOTAL	 1-4 ROOMS !	5 800MS 	6 ROOMS 	7 OR MORE ROOMS	FAMILY ATTACHED		HONE Home	OTHER
ADDED ANY INSULATION OR EQUIPMENT	 		1 7 7	} 1	1 	ŧ 1	l T			
YES	5 3	र रह	30	37	37	37	3.5	23	31	48
NO	67	54	70	63	63	‡ 63	67	77	62	52
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT		Г. Г.	1 1 1	6					1 3	
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION			2	1	1 4		ġ ġ	4	2	 –
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	2	2		2	2	2	1		_	-
ADDED ONLY INEXPENSIVE Insulation or equipment	24	24	23	27	 26	22	25	1 18	24	 48
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	1 1 10	1 1 1	7	12	i 1 1	1 13	6	6	6	-

TABLE 19B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF HOUSING STRUCTURE-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, DEFICE DE PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL		SINGLE I	FAMILY DE	TACHED		SINGLE	BUILDING		
	HOUSING Units	TOTAL	1-4 Rooms	5 Rooms	6 Rooms	7 OR More Rooms	FAMILY ATTACHED 	WITH 2-4 UNITS 	NOBILE Home	OTHER
TOTAL HOUSING UNITS 1/	67+457	48#5 47	8,768	12,696	11,850	15,233	3,128	10,749	4 • 805	22
INSULATION ADDED (INEXPENSIVE)						1	1	1		I
YES	19,579	15,308	2,731	3,698	3,811	5,068	950	1,987	1,268	6
WEATHERSTRIPPING	6,516	5,399				2,203	• • • •	•		·
AROUND HOT WATER PIPES	1,502	1,161	•	382	278		,	32		-
AROUND HOT WATER HEATER	594	527	113	87	102	226	-		67	
CAULKING	9,852	7,896	1,187	1,905	2,209	2,595	592	986	377	-
PLASTIC COVERING	8,683	6,628	1,456	1,700	1,424	2,048	355	869	784	
0THER	504	448	82	143	62	•	23	i -	13	
NO	47,879	33,239	6,037	8,999	8,039	10,164	2,178	8,762	3,537	1
INSULATION ADDED (EXPENSIVE)								1		1
YESeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee	4,545	3,935	590	881	994	1.470	114	284	212	- 1
ROOF OR ATTIC	3,021	2:733	•			• • • •	• • •	•	128	
BASEMENT OR CRAWL SPACE	959	796	•	164			•	•		-
OUTSIDE WALLS	1,729	1,437	271			•		•		-
NO	62,912	44+612	8,178	11,815	10,855	13,763	3,014	10,465	4,592	2
EQUIPMENT ADDED (INEXPENSIVE)						1)
YES	4,956	4,091	543	1,044	1,047	1,456	304	400	162	-
CLOSEABLE SHUTTERS	237	222	14	63	72		-		15	- 1
STORM DOORS	2,751	2,369	301	659	559	850	167	1 148	i 67 i	
AUTOMATIC OR CLOCK THERMOSTAT.	736	575	67	111	114	283	-	1 102	60	. –
NEW WATER HEATING EQUIPMENT	1,624	1,272	198	256	399	419	1 136	150	65	. –
ND	62,502	44+456	8,225	11,652	10,802	13,777	2,825	10,349	4,643	2
QUIPNENT ADDED (EXPENSIVE)			1			1	1	1		l
YES	4,002	3,279	426	717	934	1,201	1 191	370	162	
STORM WINDOWS/INSULATING GLASS	3.078	2,496	•			•	149	286	148	
ELECTRIC HEAT PUMP	144	130	-	-	32	• • • • •	•		- 1	
NEW FURNACE	1,161	1,003	72	221	328	381	•	•	45	j
NO	63,455	45,268	•	11,979		•	,	10,379	4,642	2

TABLE 20 ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF HOUSING STRUCTURE(THOUSAND HOUSING UNITS)

	TOTAL		SINGLE	FAMILY DET	TACHED		 SINGLE	 BUILDING		
	HOUSING UNITS	TOTAL	1-4 ROOMS 	5 ROOMS 	6 Rooms	7 OR MORE ROOMS	I FAMILY	WITH 2-4 UNITS	NOBILE HOME 	OTHER
ADDED ANY INSULATION OR EQUIPMENT		1	1 1 1	1] }	 			
YESquaraureeeeeeeeeeeeeeeeeeeeeee	24,178	19,165	3,294	4,525	4,881	6,466	1,122	2.329	1,496	60
NDeccessessessessessesses	43,280	29+382	5.474	8,172	6,969	8,767	2 0 0 7	8,420	3,309	16
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	 3≠663	3,123	480	687	774	1 1,182	114	272	1 153	1
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	3,∎120	2+467	316	i 524	714	 913	191	 358	103	-
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	883	812	1 110	 193	220	288	-	12	59	-
ADDED ONLY INEXPENSIVE Insulation or equipment	16,513	12,763	 2,388	 3,120	3.172	 4,083	817	1,687	1+180	6
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	7,236	6.171	 939	1.432	1,575	2,224	332	487	245	_
1/ EXCLUDES BUTIDINGS WITH ETVE		1	i	1	L	L	1	L	L	

TABLE 20ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF HOUSING STRUCTURE-CONTINUED(THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	I I TOTAL	1 	SINGLE	FAMILY D	ETACHED		SINGLE	BUILDING		
	HOUSING UNITS	ГОТАЦ	1-4 R00MS	5 ROOMS	I 6 ROOMS	T OR MORE ROOMS	FAMILY ATTACHED	WITH 2-4 Units	MOBILE Home	OTHER I
TOTAL HOUSING UNITS 1/	[100%	109¥	100%	100%	1 100%	100%	1 100%	100%	100%	100
INSULATION ADDED (INEXPENSIVE)	Į	1				ł	1			l I
YES	1 22	1 12	31	29	32	33	1 30	18	25	29
WEATHERSTRIPPING	1 10	11	9	1 11	9	14	5	6	5	1 -
AROUND HOT WATER PIPES	2	2	1 2	1 3	1 2	1 2	1 2	1 - İ	5	- 1
ARCUND HOT WATER HEATER	1 1	i 1	1	1 1	1 1	1 1	i -	1 - 1	1	- 1
CAULKING	1 15	1 15	1 14	1 15	j 1)	1 17	1 19	9	8	j –
PLASTIC COVERING	1 13	1 14	17	1 13	1 12	1 13	1 11	8	15	1 20
0THER	1 1	1 1	, I 1	I 1	I L	1 1	1 1	i - i	_	9
NO	71	ા ૬૫	59	71	68	67	70	82	74	71
INSULATION ADDED (EXPENSIVE)	1	1	\$ 9	1	1	1	1			1
YES	1 7	3	1 7	1 7	3	1 10	4	1 3	4	1 -
ROOF OR ATTIC	4	6	5	4	5	1 7	1 2	1 1	3	- 1
BASEMENT OR CRAWL SPACT	i ı	2	1 1	1 1	1 1	1 3	-	i - i	2	i -
OUTSIDE WALLS		1 3	1 3	2	1 3	í 5	1 1	1 2 1	2	í -
ND	93	92	93	93	92	90	96	97	96	100
EQUIPMENT ADDED (INEXPENSIVE)	1	1	1	1		1				1
YFS	i ,	0	6	. 8	i 9	1 10	1 10	4	.3	i -
CLOSEABLE SHUTTERS		1 -	-	-	1 1	1 ~	-	i –		i -
STORM DOORS		1 5	1 3	. 5	5	i 5	5	1	1	i -
AUTOMATIC OR CLOCK THERMOSTAT.		1 1	1	1	1	2	-	1 1	1	i –
NEW WATER HEATING EQUIPMENT		1 3	1 2	2	3	3	4	1 1	1	i -
NO	1 .	1 92	94	92	91	90	90	96	97	100
EQUIPMENT ADDED (EXPENSIVE)	1	1	ł	1	1	1	1			1
YES	1 5	7	5	1 5	I A	8	6	1 3	5	i -
STORM WINDOWS/INSULATING GLASS	•	1 5	4	4	1 5	5	1 5	1 3	3	i -
ELECTRIC HEAT PUMP		-	t –	1 -	-	1 1	1 -	-	-	- 1
NEW FURNACE		1 9	1 1	1 2	1 3	1 3	1 1	1 1	1	i -
MOzzeessessessessessessessessessessessesse	•	1 5	1 95	1 94	1 32	1 92	1 74	1 97	97	1 100
10.7 5 6 4 6 9 6 6 9 6 8 6 8 8 6 8 6 6 8 6 6 9 6 8 6 6 6 6	1	1 1	4	1 77	1 23	1 12	1 / 7	1 21		1 100

TABLE 20BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF HOUSING STRUCTURE(PERCENTAGE OF HOUSING UNITS)

	TOTAL	, 	SINGLE	FAMILY D	ETACHED	ISINGLE	 BUILDING		1	
	HOUSING UNITS	FOTAL	1-4 ROOMS 	I 5 I ROOMS I	6 ROOMS 	7 OR MORE ROOMS		WITH 2-4		OTHER
ADDED ANY INSULATION OR EQUIPMENT	۲. ۲.	 =================================	 70	 36		42	56	22	31	 29
NO	64	51	52	64	I 59	58	64	78	69	71
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT			1	1	1	i i 8	 4		.5	-
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION		47	4	i 1 1 4	н њ	5	6		·)	i I I –
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT			 I		2	2 	-		1) -
ADDED ONLY INEXPENSIVE Insulation or fourpment	24	26	27	 25	27	27	26	16	25	29
ADDED STORM WINDOWS: STORM DOORS; OR ATTIC OR ROOF INSULATION	11	1.5		1		1 1 5	11	5	ډ،	-

TABLE 208 CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF HOUSING STRUCTURE-CONTINUED (PERCENTAGE OF HOUSING UNITS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERG. SET GLOSSARY FOR DEFINITIONS OF YIRMS USED IN THIS TARKED.

SOURCE: THE 1979 NATIONAL INTERIM ENCROY CONCUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 21A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 And Eligibility for 1978 TAX credit by year house built (Thousand Housing Units)

	TOTAL			YEAF	HOUSE BUI	LT		
	HOUSING UNITS	1975 OR LATER	1970 To 1974	19 65 To 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR Earlier
TOTAL HOUSING UNITS 1/	67+457	4,869	7,498	6,493	6,530	12,480	7,389	22,198
TOTAL ELIGIBLE HOUSING UNITS	64,957	2,368	7,498	6,493	6,530	12,480	7,389	2,198
INSULATION ADDED (INEXPENSIVE)								l
YES, ELIGIBLE	27,522	735	3,012	1,933	3,202	5,688	3,275	9,677
WEATHERSTRIPPING	10,195	381			1,050	2,190	1,142	•
AROUND HOT WATER PIPES	2,390	85	554	144	353	353	256	. 634
AROUND HOT WATER HEATER	797	30	198	38	80	186	59	205
CAULKING	17,048	275	1,567	1.089	2,043	3,716	2,230	6,127
PLASTIC COVERING	10,656	255	1,060	728	1,002	1,729	1,295	4,587
OTHER	1,176	99	135	130	157	219	121	315
YES. INELIGIBLE	874	874	- 1	-	-		-	í –
NO	39,061	3,259	4•487	4,561	3,328	6,792	4,114	12,521
INSULATION ADDED (EXPENSIVE)			8]
YES, ELIGIBLE	7,373	280	741	462	698	1,942	836	2,413
ROOF OR ATTIC	4,934	124	362	275	521	1,469	566	1,617
BASEMENT OR CRAWL SPACE	1,771	155	372	123	123	268	202	527
OUTSIDE WALLS	2,711	48	188	81	274	656	379	1,085
YES, INELIGIBLE	575	575		I	-	-	-	- 1
NO	59,510	4,014	6,757	6,032	5,832	10,538	6,553	19,785
EQUIPMENT ADDED (INEXPENSIVE)								
YES, ELIGIBLE	8,577	417	1,026	687	967	1,827	1,042	2,710
CLOSEABLE SHUTTERS	460	15	134	75	30	58	73	1 74
STORM DOORS	4,584	326	580	240	384	1,077	573	1,405
AUTOMATIC OR CLOCK THERMOSTAT.	1,268	74	136	115	108	231	220	384
NEW WATER HEATING EQUIPMENT	3,153	64	257	296	507	547	293	1,188
YES, INELIGIBLE	588	588	-	-	-	-	- 1	- 1
NO	58,193	3,863	6,473	5,806	5,563	10,653	6,347	19,487
EQUIPMENT ADDED (EXPENSIVE)	1 						1 9 1	
YES, ELIGIBLE	6,484	187	587	395	748	2,346	714	2,507
STORM WINDOWS/INSULATING GLASS	4,974	153	451	168	626	951	•	, -,
ELECTRIC HEAT PUMP	86	-	I -	- 1	i 46	22		1 19
NEW FURNACE	1,737	65	136	227	172	409	113	617
YES, INELIGIBLE	45%	458	1 -	- 1	-	-	-	- 1
N9	60,515	4,224.	6,912	6,098	5,782	11,134	6.675	1 19,691

TABLE 21ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY YEAR HOUSE BUILT-CONTINUED(THOUSAND HOUSING UNITS)

	TOTAL			YEAF	R HOUSE BUI	LT		
	HOUSING Units	1975 0R LATER	1970 TO 1974	1365 TO 1969	1960 10 1964	1950 TO 1959	1940 TO 1949	 1939 OR EARLIER
								<u> </u>
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units		-						
BE ELIDIALE MUCAINE UNITA VESconcoaceaneeroeeroeeroeero	33,779	920 i	3,663 1	2,414	3.921	7,295	4.974	i i 11.502
NO accase coordene a besser errors as the	510178	1,449						10,606
ELIGIBLE UNITS THAT ADDED	1	Ī						1
EXPENSIVE INSULATION BUT NOT		i	1	i				i
EXPENSIVE EQUIPMENT	5,535 1	218	563	299	619	1,612	558	1.667
ELIGIBLE UNITS THAT ADDED		1	1					1
EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4.647 1	125 1	40A 1	235	668	1=016		!
· · · · · · · · · · · · · · · · · · ·	1000	1 2 1	906	201	658	1,016	436	19761
ELIGIBLE UNITS THAT ADDED Expensive insulation and	ł	ł	1		1			1
EXPENSIVE EQUIPMENT	1,837	62	178	163	80 1	330	278	l 1 746
CITATALE INTRA THAT ADDED ON T	1	l						1
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR	Î	1	Ĺ	1		l		5
EQUIPMENT	21,759	5 14 į	2,513	10713	2,454	4 = 3.37	2:303	7.418
LISINLE UNITS THAT ADDED	8	1 1 1	Ē			I		
STORM WINDOWS, OR STORM DOORS,			Ĩ	1		1		1
OR ATTIC OR ROOF INSULATION	11,360	448	1.036	520	1,235	2 ₉ 811	1 = 363	5,856

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF T'RMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 21BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY YEAR HOUSE BUILT(PERCENTAGE OF HOUSING UNITS)

	TOTAL	ł		YEA	R HOUSE BU	ILT		
	HOUSING UNITS 	1975 OR LATER	1970 T0 1974	1965 TO 1969	1960 T0 1964	1950 TO 1959	1940 TO 1949	1937 OR EARLIEF
TOTAL HOUSING UNITS 1/	100%	100%	100%	1 100%	100%	100x	100%	1 100%
TOTAL ELIGIBLE HOUSING UNITS	96	49	100	100	100	100	100	1 100
INSULATION ADDED (INEXPENSIVE)					an litera			l
YES, ELIGIBLE	41	15	40	30	49	46	44	44
WEATHERSTRIPPING	15	8	1 17	9	16	1.8	15	1 16
AROUND HOT WATER PIPES	4	2	7	2	5	3	1 3	1 3
AROUND HOT WATER HEATER	1	1	1 3	1 1	i 1	1 1	1 1	1
CAULKING	25	6	21	i 17	i 31	30	30	28
PLASTIC COVERING	16	5	1 14	11	i 15	1 14	18	i 21
OTHERsadeseesseesseesseesse	2	2	2	2	2	1 2	2	i 1
YES, INELIGIBLE	1	18	· ·	1 -	-	-	í –	-
Nouseeseeseeseeseeseeseeseeseeseeseeseesee	5 A	67	60	70	51	54	56	56
INSULATION ADDED (EXPENSIVE)	1		1	ł	Ĩ			
YES. ELIGIBLE	11	6	10	1 7	i 11	16	1 11	1 11
ROOF OR ATTIC	7	3	5	4	1 8	1 12	8	1. 7
BASEMENT OR CRAWL SPACE	3	3	1 5	2	2	2	1 3	1 2
OUTSIDE WALLS	4	1	1 3	1 1	4	1 5	1 5	i 5
YES, INELIGIBLE	1	12	-	-	-	-	-	-
N0	88	82	90	93	89	84	89	89
EQUIPMENT ADDED (INEXPENSIVE)			1	ł				1
YES, ELIGIBLE	13	9	14	11	1 15	15	14	12
CLOSEABLE SHUTTERS	1 (-	1 2	1 1	1 -	- 1	1 1	1 -
STORM DODRS	7	7	8	4	6	9	8	6
AUTOMATIC OR CLOCK THERMOSTAT.	2	2	2	2	1 2	2	3	2
NEW WATER HEATING EQUIPMENT 1	5	1	1 3	5	1 8	4	1 4	5
YES. INELIGIBLE	1	12	i	i -	-	-	-	-
NO	86	79	86	89	85	85	85	88
EQUIPMENT ADDED (EXPENSIVE)			and the second se	ar unitar	1	Yee Guina	ethurus refe	
YES& ELIGIBLE	10	4	8	6	11	11	1 10	11
STORM WINDOWS/INSULATING GLASS	7	3	i 6	1 3	10	8	9	9
ELECTRIC HEAT PUMP	- 1	-	-		1 1	1 -	1 -	•
NEW FURNACE	3	1	1 2	1 3	3	3	1 2	3
YES, INELIGIBLE	1	9	j -	j –	-	-	į –	I –
NO	90	87	92	94	89	1 89	i 90	1 89

	TABLE 218	
CONSERVATION EFFORTS	UNDERTAKEN BETWEEN APRIL 1977	AND DECEMBER 1978
AND ELIGIBILITY FOR	1978 TAX CREDIT BY YEAR HOUSE	BUILT-CONTINUED
(PERCENTAGE OF HOUSING UNITS)	

	TOTAL I			YEA	R HOUSE BU	ILT		
	HOUSING Units	1975 OR LATER	 1970 10 1974 	1965 1 TO 1 369	1960 1 TO 1964	1950 TO 1953	1940 TO 1949	1939 DR EARLIER
			1	1	1	1	1	-+
ANY EQUIPMENT OR INSULATION ADDED By fligible housing units	Ĩ							
*. See e e e e e e e e e e e e e e e e e	50	19	43	37	59	5.8	55	52
Nneetreereereereereereeree	4 F,	5.0	51	63	41	42	45	48
ELIGIBLE UNITS THAT ADDED Expensive insulation but not Expensive equipment	8	4	1 1 1 8	5	 	13	8	1 8
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	3	1	4	10	8	5	 8
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	3	1	1			1 3	4	3
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	32	11	 34	26	38	35	38	35
ELIGIBLE UNITS THAT ADDED Storm Windows, or Storm Doors, or Attic or roof insulation	17	9	 14	10	1	23	18	1

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF I RMS USED IN THIS TABLE.

SOURCE: THE 1979 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT. ENERGY INFORMATION ADMINISTRATION.

	TOTAL			YEAF	R HOUSE BUT	LT		
	HOUSING Units	1975 OR LATER	1970 To 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 To 1949	1939 OR EARLIER
TOTAL HOUSING UNITS 1/	67,457	4,869	7,498	6,493	6,530	12,480	7,389	22,19
INSULATION ADDED (INEXPENSIVE)								
YES	17,632	1,152	1,914	1,065	1,865	3,334	2,123	6,18
WEATHERSTRIPPING	4,907	464	648	207	499	944	573	1,57
AROUND HOT WATER PIPES	1,286	186	369	79	212	112	83	24
AROUND HOT WATER HEATER	458	87	66	21	56	126	30	7
CAULKING	11,078	614	998	632	1,225	2,272	1,389	3+94
PLASTIC COVERING	5,456	119	513	289	452	825	689	2,56
OTHER	855	184	78	107	75	149	84	17
N0	49,826	3,717	5,585	5,428	4,666	9:146	5,266	16,01
INSULATION ADDED (EXPENSIVE)	· · · · · · · · · · · · · · · · · · ·							1
YES	4,226	551	412	209	279	1,034	500	1,24
ROOF OR ATTIC	2,843	406	172	128	169	847	333	78
BASEMENT OR CRAWL SPACE	1,271	328	208	17	44	175	114	38
OUTSIDE WALLS	1 478	282	58	65	106	297	187	48
NO	63,232	4,318	7,086	6,284	6,251	11,446	6,889	20,95
QUIPMENT ADDED (INEXPENSIVE)	1							
YES====================================	5,274	685	592	378	526	823	696	1,57
CLOSEABLE SHUTTERS	300	37	86	33	- 1	29	41	i 7
STORM DOORS	2,680	489	303	143	186	413	364	78
AUTOMATIC OR CLOCK THERMOSTAT.	888	271	15	81	59	145	156	16
NEW WATER HEATING EQUIPMENT	2,132	283	207	148	281	251	203	75
NO	62,184	4,183	6,907	6,115	6.004	11,657	6.693	20,62
QUIPMENT ADDED (EXPENSIVE)								I
YES	3,504	414	300	247	250	629	338	1,32
STORM WINDOWS/INSULATING GLASS	2,672	393	241	78	209	437	294	1,01
ELECTRIC HEAT PUMP	67	48	- 1	-	-	- 1	-	1 1
NEW FURNACE	1,048	163	59	169	41	208	83	i 32
NO	63,953	4,455	7,198	6,247	6,280	11,851	7,051	1 20,87

TABLE 22ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY YEAR HOUSE BUILT(THOUSAND HOUSING UNITS)

	TOTAL			YEAF	R HOUSE BUI	LT		
	HOUSING Units 	1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER
ADDED ANY INSULATION OR EQUIPMENT	1							1
	22,578	1,553	2,480	1,466	29262	4,450	2+698	, 1 7+670
NO	44,879	3,316	5,018	5,028	4,268	9.030	4,591	14,528
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,212	317	352	81	279	948	363	 871
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2,490	180	240	113	250	543	202	 956
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,014	233	60	123	-	86	137	1 370
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15:862	822	1•828	1,138	1,732	2 9 8 7 4	1,995	i 5,473
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	6,427	862	56 8	306	550	1,,445	736	1,960

TABLE 22A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY YEAR HOUSE BUILT-CONTINUED (THOUSAND HOUSING UNITS)

1/ FXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL			YEA	R HOUSE BU	ILT		
, , , , , , , , , , , , , , , , , , ,	HOUSING UNITS 	1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1 1750 T0 1959	1940 TO 1949	1939 OR EARLIEF
TOTAL HOUSING UNITS 1/	100#	100%	100%	100%	100%	100%	100%	100%
INSULATION ADDED (INEXPENSIVE)			1	1	1	1	1	1 9
YES	26	24	26	16	29	27	29	28
WEATHERSTRIPPING	7	10	1 9	1 3	8	8	8	7
AROUND HOT WATER PIPES	2	4	1 5	1 1	1 3	1 1	j 1	1 1
ARDUND HOT WATER HEATER	1	2	1	i -	i 1	i 1	-	i -
CAULKING	16	13	13	1 10	1 19	1 18	1 19	1 18
PLASTIC COVERING	8	2	1 7	4	1 7	7	1 4	1 12
OTHER	1	4	1 1	1 2	1 1	1 1	1 1	1 1
NO	74	76	1 74	84	71	73	71	72
INSULATION ADDED (EXPENSIVE)					1			
YES	6	11	5	1 3	4	1 8	7	1 5
ROOF OR ATTICASSASSASSASSASSAS	4	8	1 2	1 2	1 3	1 7	1 5	4
BASEMENT OR CRAWL SPACE		1 7	1 3			1 1	1 2	1 2
	.: 9		1 1	-	1 2	1 2		
OUTSIDE WALLS	34	6	1 95	1 1	1 96	, -	93	34
NO	. + 4	89	1 95	97	1 40	1 92	93	34
EQUIPMENT ADDED (INEXPENSIVE)			1					
YF S	9	14	9	6	1 8	1 7	3	1 1
CLOSEABLE SHUTTERS	-	1	1 1	1 1	1 -	-	1 1	l –
STORM DOORS	4	10	4	2	1 3	3	5	4
AUTOMATIC OR CLOCK THERMOSTAT.	1	6	-	1	1 1	1 1	2	1
NEW WATER HEATING EQUIPMENT	3	6	3	2	4	2	3	1 3
NO	92	86	92	94	92	1 93	91	1 93
EQUIPMENT ADDED (EXPENSIVE)		1	1	1	1	1	1	1
YES	5	8	4	. 4	4	1 5	5	6
STORM WINDOWS/INSULATING GLASSI	4	8	3	1 1	1 3	4	4	j 5
ELECTRIC HEAT PUMP	_	1 1	-	-	1 -	-	i -	1 -
NEW FURNACE	2	3	1 1	1 3	1 1	2	1 1	1 1
NDasaasaasaasaasaasaasaasaasaasaasaa	35	92	1 95	1 76	1 96	1 95	95	1 94

TABLE 22B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY YEAR HOUSE BUILT (PERCENTAGE OF HOUSING UNITS)

	TOTAL			YEA	R HOUSE BU	ILT		
	HOUSING UNITS	1 9 7 5 OR LATTR	1770 TO 1974	1965 TO 1969 	1960 TO 1964 	 1950 T0 1959 	1940 TO 1949	1939 0R EARLIER
ADDED ANY INSULATION OR EQUIPMENT					9 	1		
YF Saeaeaeaeaeaeaeaeaeaeaeaeaeaeaeaea		32	1 33	1 25	1 35	36	37	35
Ni) = = = = = = = = = = = = = = = = = = =	67	42	67	1 77	57	54	1 53	65
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	7		i j 1	į à	 	5	i 1 4
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4	4	1 3	2	4	: 3	1	 4
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	· · ·	5		2	-	 		1 2
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	24	17	24	1 1 9	27	 23	27	 25
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	10	1 8		5	1 8	1 12	 10)

TABLE 22BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY YEAR HOUSE BUILT-CONTINUED(PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOT: : DATA MAY NOT SUM TO TOTALS OUT TO ROUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERO, SEE GLOSSARY FOR DEFINITIONS OF TIRMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INFERIMENTERY CONSUMPTION SUPPLY, DEFICE UP THE CONSUMPTION DATA SYSTEM, DEFICE OF PROGRAM DEVELORMINI, INFERY INFORMATION ADMINISTRATION.

	TOTAL			YEAF	HOUSE BUT	(LT		
	HOUSING UNITS	1975 OR Later	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 To 1949	1939 OR EARLIER
TOTAL HOUSING UNITS 1/	67,457	4,869	7,498	6,493	6,530	12,480	7,389	22,198
INSULATION ADDED (INEXPENSIVE)								
YES		833	2,076	1,192	2,347	3,708	2,307	7,119
WEATHERSTRIPPING		456			687	1,433	618	2,175
AROUND HOT WATER PIPES	1,502	101	202	92	210	240	172	484
AROUND HOT WATER HEATER		102	131	69	50	60	48	135
CAULKING					1,340			
PLASTIC COVERING	8,683	313	854	509	839	1,349	1,079	3,74
0THER	504	54	57	23	82			15:
N0	47,878	4,035	5,422	5,301	4,183	8,772	5,082	15,08
INSULATION ADDED (EXPENSIVE)								1
YE S	4,545	335	400	290	533	1,115	477	1,39
ROOF OR ATTIC	3,021	155	248	171	417	752	283	99
BASEMENT OR CRAWL SPACE	959	198	165	105	79	143	88	1 18
OUTSIDE WALLS	1,729	91	146	54	168	372	205	69
NO	62,912	4,534	7,098	6,204	5,997	11,365	6,912	20,80
EQUIPMENT ADDED (INEXPENSIVE)			,					1
YF S	4,956	428	587	417	470	1,169	424	1,46
CLOSEABLE SHUTTERS	237	31	48	67	30	29	32	-
STORM DOORS	2,751	374	335	137	198	722	256	72
AUTOMATIC OR CLOCK THERMOSTAT.	736	66	1 137	34	78	103	64	25
NEW WATER HEATING EQUIPMENT	1,624	84	99	179	244	392	120	50
N0	62,502	4,441	6,911	6,077	6,060	11,311	6,965	20,73
EQUIPMENT ADDED (EXPENSIVE)				1		; 		1
YES	4,002	248	397	174	510	825	421	1,42
STORM WINDOWS/INSULATING GLASS	3,078	169	320			578	360	1 1,13
ELECTRIC HEAT PUMP	144	46	i -	-	46	22	-	j 3
NEH FURNACE	1,161	174	77	71	143	262	61	1 37
N0	63,455	4,621	7,101	6,319	6,020	11,655	6,968	20,77

TABLE 23ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY YEAR HOUSE BUILT(THOUSAND HOUSING UNITS)

	TOTAL			YEAF	HOUSE BUT	ILT.		
	HOUSING UNITS	1975 OR LATER	1970 TO 1974	1965 TO 1969	1960 TO 1964	1950 TO 1959	1940 TO 1949	1939 OR EARLIER
ADDED ANY INSULATION OR EQUIPMENT	1							Bar 200 -
YE Saaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	24,178 43,280]	1,113 3,756	2,440 5,058	1+517 4+976	2•707 3•823	4,801 7,679	2,859 4,530	8,740 13,458
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,663	230	294	257	458	934	383	1,10
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	3,120	143	291	142	435	644	327	1,13
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	883	105	107	32	75	181	94	28
NDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	16,513	635	1,749	1,086	1,739	3,042	2,055	6,20
DDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	7,236	531	661	379	786	1,622	775	?,48

TABLE 23ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY YEAR HOUSE BUILT-CONTINUED(THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 23BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY YEAR HOUSE BUILT(PERCENTAGE OF HOUSING UNITS)

	TOTAL			YEA	R HOUSE BU	ILT		
	HOUSING UNITS 	1975 OR Later	1970 TO 1974	1965 TO 1969	1960 T0 1964	1950 TO 1959	 1940 TO 1949	1939 OR EARLIER
TOTAL HOUSING UNITS 1/	100%	100%	 100x	1 100x	100%	100%	100%	1 100%
INSULATION ADDED (INEXPENSIVE)				1		1	1	
YESausecosoponnovennovennovennovenno	29	17	28	1 18	36	30	31	32
WEATHERSTRIPPING		9	10	6	11	1 11	8	1 10
AROUND HOT HATER PIPES		2	1 3	i i	1 3	2	2	2
AROUND HOT WATER HEATER		2	1 2	1	1	j	1 1	1 1
CAULKINGausessessessessessessesses	15 1	5	12	8	21	16	16	16
PLASTIC COVERING.	13	6	. 11	1 8	1 13	11	1 15	1 17
OTHER	1	1	1 1	i –	1 1	1	1	1
NO o o o o o o o o o o o o o o o o o o o	71	83	72	82	64	70	69	68
INSULATION ADDED (EXPENSIVE)	' P		eren eren eren eren eren eren eren eren		1			
YES====================================	7	7	1 5	4	8	9	6	1 6
ROOF OR ATTIC	4	3	j 3	1 3	6	6	1 4	4
BASEMENT OR CRAWL SPACE	1	4	2	1 2	1	1	1	1
OUTSIDE WALLS	3	2	2	1 1	1 3	1 3	3	3
NO	93	93	95	96	92] 91	94	94
EQUIPMENT ADDED (INEXPENSIVE)	1					1		Africa Contraction
YESopeoooseeseeseeseeseeseeseeseesee	7	9	8	6	1 7	9	6	1 7
CLOSEABLE SHUTTERS	- 1	1	1	1	-	- 1		
STORM DOORS	4	8	4	2] 3	6	3	j 3
AUTOMATIC OR CLOCK THERMOSTAT.	1	1	2	1	1	1	1	1
NEW WATER HEATING EQUIPMENT	2	2	1	3	1 4	1 3	2	1 2
MO	93	91	92	94	93	91	94	93
EQUIPMENT ADDED (EXPENSIVE)			2144	You Upper	1		i I	
YESeqeaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa		5	5	1 3	8	1 7	6	6
STORM WINDOWS/INSULATING GLASS		3	4	2	6	1 5	5	5
ELECTRIC HEAT PUMP		1	-	-	L	-	1 -	-
NEH FURNACE++++++++++++++++++++++++++++++++++++	2	Ą	1	1	1 2	2	1 1	2
NOseasasasasasasasasasasasasasa	94	95	95	97	92	93	94	94

See footnotes at end of table.

95

	TOTAL			YEA	R HOUSE BU	ILT		
	HOUSING UNITS	1975 OR Later	 1970 T0 1974	 1965 T0 1969 	то	1950 1950 TO 1959 	 1940 T0 1949 	1939 0R EARLIER
ADDED ANY INSULATION OR EQUIPMENT								
YES:	36	23	33	23	41	38	39	39
N0	64	77	67	77	59	62	61	j 61
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	5	1944 - 19	4	7	1 1 1 1	5	1
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	5	3	4	2	7	1 5	 4	5
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1	2	1	1				1
ADDED ONLY INEXPENSIVE Insulation or equipment	24	13	23	17	27	24	29	28
ADDED STORN WINDOWS, STORN DOORS, Or Attic or Roof Insulation	11	11	9	6	12	13	10	11

TABLE 23B CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY YEAR HOUSE BUILT-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 24A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF AIR CONDITIONING (THOUSAND HOUSING UNITS)

	TOTAL Housing	NUMBER OF RO	ONS WITH AIR	CONDITIONING	CENTRAL AIR	ROOM UNITS	
	UNITS	NONE	SOME	I ALL	I ONLY I	ONLY	ROOM UNITS
TOTAL HOUSING UNITS 1/	67,457	29,936	17,775	19,747	15,012	22,274	235
TOTAL ELIGIBLE HOUSING UNITS	6 4, 957	28,720	17,652	18,585	13,818	22,183	235
INSULATION ADDED (INEXPENSIVE)		1	1	1			1
YES. ELIGIBLE	27,522	11,671	8,426	7:425	1 5,311	10,404	136
WEATHERSTRIPPING	10,195	3,866	3,321	3,007	2,336	3,937	1 56
AROUND HOT WATER PIPES	2:330	1,139	565	676	424	817	-
AROUND HOT WATER HEATER	797	346	284	167	144	307	-
CAULKING	17,048	6,933	5,406	4,709	3 ,449	6,566	100
PLASTIC COVERING	10,656	5,263	3,138	2,255	1,284	4,062	46
OTHER	1,176	I 434	405	1 337	329	413	-
YES. INELIGIBLE	874	336	44	4 95	510	29	i -
NO	39,061	17,928	9,305	11.827	9,192	11,842	99
INSULATION ADDED (EXPENSIVE)		1	1				1
YES, ELIGIBLE	7,373	3,315	1,925	2,133	1,750	2,259	48
ROOF OR ATTIC	4,934	2,247	1,160	1,527	1,253	1,386	48
BASEMENT OR CRAWL SPACE	1,771	864	453	453	344	562	1 -
OUTSIDE WALLS	2,711	1,320	735	656	569	822	-
YES, INELIGIBLE	575	247	15	1 313	328	-	
NO	59,510	26,373	15,835	17,302	12,935	20,015	187
EQUIPMENT ADDED (INEXPENSIVE)			1	76. Dec			1
YES, ELIGIALE	8,677	3,230	2,562	2,885	2,316	3,095	36
CLOSEABLE SHUTTERS	450	141	70	249	210	109	-
STORM DOORS	4,584	1,873	1,280	1 • 4 31	1,108	1,567	36
AUTOMATIC OR CLOCK THERMOSTAT.	1,268	453	326	489	479	336	
NEW WATER HEATING EQUIPMENT	3,153	1,125	1,058	970	773	1,255	
VES, INELIGIBLE	588	257	43	289	317	14	
N0	58,193	26,449	15,170	16,574	12,379	19,165	199
EQUIPMENT ADDED (EXPENSIVE)		F Ģ	5 1	1			
YES, ELIGIBLE	6,484	2,530	2,017	1,937	1,749	2:166	40
STORM WINDOWS/INSULATING GLASS	4,974	2,019	1,537	1,418	1,188	1,728	\$ 40
ELECTRIC HEAT PUMP	86	-	19	67	67	19	I -
NEW FURNACE	1,737	573	508	656	663	483	1 18
YES, INELIGIBLE	458	146	-	312	312	-	
NOqoqaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	60,515	27,259	15,758	17,498	12,952	20,108	196

TABLE 24ACONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF AIR CONDITIONING-CONTINUED(THOUSAND HOUSING UNITS)

	TOTAL Housing	NUMBER OF RO	OMS WITH AIR (CENTRAL AIR		CENTRAL A/C
	UNITS	NONE	SOME	 ALL 	I ONLY	! ONLY ! !	I ROOM UNITS
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units		F F 1					
YES	33•779 31•178	13•949 14•771	10,336	9+494 9+091	7,136 6,683	12,525 9,658	170
ELIGIBLE UNITS THAT ADDED Expensive insulation but not Expensive equipment	5,535	2,459	1,511	 1,565	1,249	` 1 , 797	 30
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4,647	1.674	1,603	1,370	1,248	1,703	22
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1+837	856	414	567	500	463	18
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	8,960	6,809	1 5,991	4,137	8,562	100
ELIGIBLE UNITS THAT ADDED Storm Windows, or Storm Doors, or Attic or Roof Insulation	11.369	4,9754	3,258	i 3,358	2.690	3,838	88

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 24BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF AIR CONDITIONING(PERCENTAGE OF HOUSING UNITS)

	TOTAL Housing	NUMBER DF ROC	DMS WITH AIR (ONDITIONING	CENTRAL AIR	INDIVIDUAL Room Units
	UNITS	NONE	SOME	ALL	CONDITIONING	ONLY
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100x	100%
TOTAL ELIGIBLE HOUSING UNITS	96	96	99	94	92	100
(INSULATION ADDED (INEXPENSIVE)						
YES+ ELIGIBLE	41	39	47	38	36	47
WEATHERSTRIPPING	15	1 13	19	15		18
AROUND HOT WATER PIPES	4	1 4	3	3	1 3 1	4
AROUND HOT WATER HEATER.	1	1 1	2	1		1
CAULKING	25	23	30	24	23	29
PLASTIC COVERING	16	1 18	18	1 11	9	19
OIHER	2	1 1		2		2
YESS INELIGIBLE	1		6	2		٤.
NOccessossessessessessessessessesses	58	60	52	1 60		53
INSULATION ADDED (EXPENSIVE) YES, ELIGIBLE ROOF OR ATTIC BASEMENT OR CRAWL SPACE OUTSIDE WALLS YES, INELIGIBLE	11 7 3 4 1		11 7 3 4	11 8 2 3 2	12 9 2 4 2	10 6 3 4
NO	88	88	89	88	86	90
EQUIPMENT ADDED (INEXPENSIVE)						
YES, ELIGIBLE	13	11	14	15	1 15	14
CLOSEABLE SHUTTERS	1	-	-	1		-
STORM DOORS	7	5	7	7	8	7
AUTOMATIC OR CLOCK THERMOSTAT.	2	1 2	2	2	1 3 1	2
NEW WATER HEATING EQUIPMENT]	5	4	6	5	1 5 1	6
YES, INELIGIBLE	1	1 1	-	1	2	-
N0	86	88	85	84	82	86
EQUIPMENT ADDED (EXPENSIVE)		-	f			
YES, ELIGIBLE	10	8	11	10	1 12	10
STORM WINDOWS/INSULATING GLASS	7	7	9	7	8	8
ELECTRIC HEAT PUMP	-	1 -	-			
NEW FURNACE	3	2	3	3	4	2
YES, INELIGIBLE	1	-	-	2	2	
NOsessessessessessessessesses	90	91	89	89	86	90

TABLE 24BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY TYPE OF AIR CONDITIONING-CONTINUED(PERCENTAGE OF HOUSING UNITS)

	TOTAL Housing	NUMBER OF ROO	HS WITH AIR		I I I CENTRAL AIR	INDIVIDUAL Room Units
۱ ۱	UNITS	NONE	SOME	 ALL 	CONDITIONING	ONLY
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units						
YES		47	58	48	48	56
N() • • • • • • • • • • • • • • • • • • •	46	49	41	46	44	43
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	8	8	9	8	8	8
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	6	9	7	8	8
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	3	3	2	3	3	2
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR Equipment	32	30	38	30	28	38
ELIGIBLE UNITS THAT ADDED STORM WINDOWS, OR STORM DOORS, OR ATTIC OR ROOF INSULATION	17	16	18		18	17

17 EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL Housing	NUMBER OF RO	OMS WITH AIR	CONDITIONING	CENTRAL AIR	INDIVIDUAL Room Units	CENTRAL A/C
	UNITS	NONE	SOME	I ALL	I ONLY I	I ONLY I 1	ROOM UNITS 1
TOTAL HOUSING UNITS 1/	67,457	29,936	17,775	19,747	15,012	22,274	235
INSULATION ADDED (INEXPENSIVE)		1					1
YES	17,632	7,465	5.200	4,967	3,779	6,317	1 70
WEATHERSTRIPPING	4 • 907	1,980	1 • 473	1,454	1,076	1,810	41
AROUND HOT WATER PIPES	1,286	508	330	448	327	451	1 -
AROUND HOT WATER HEATER	458	205	1 117	1 1 35	114	1 3 9	-
CAULKING	11,078	4,469	3 . 479	3,131	2,431	4,128	51
PLASTIC COVERING	5,456	2,707	1,628	1,121	656	2,078	14
0THER	355	249	240	365	354	252	-
NO	49,826	22,471	12,575	14.780	11.233	15,757	165
INSULATION ADDED (EXPENSIVE)			910 1				inen Dett
YES	4,226	1.889	829	1,508	1,303	1,020	15
ROOF OR ATTIC	2,843	1,235	549	1,059	968	625	1 15
BASEMENT OR CRAHL SPACE	1,271	693	231	348	300	278	-
OUTSIDE WALLS	1,473	769	160	549	464	244	-
NO	63,232	28,047	15,945	18,239	1 13,710	21.254	220
EQUIPMENT ADDED (INEXPENSIVE)							1
YE S	5,274	1,961	1.476	1 + 837	1,603	1,692	18
CLOSEABLE SHUTTERS	300	58	54	188	149	93	i -
STORM DOORS	2,690	1,174	636	870	753	735	18
AUTOMATIC OR CLOCK THERMOSTAT.	888	320	200	369	345	223	-
NEW WATER HEATING EQUIPMENT	2,132	719	658	755	699	714	-
NO	62,184	27,975	16.299	17,910	13,410	20 + 582	217
EQUIPMENT ADDED (EXPENSIVE)		1		*** ***			1
YES	3,504	1,420	869	1,215	1,097	966	22
STORM WINDOWS/INSULATING GLASS	2,672	1,077	671	924	791	783	22
ELECTRIC HEAT PUMP	67	-	19	48	48	19	-
NEW FURNACE	1,048	393	179	476	474	1 81	i -
NO	63,953	28,516	16,905	1 18,532	1 13,916	21,308	214

TABLE 25ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF AIR CONDITIONING(THOUSAND HOUSING UNITS)

	TOTAL HOUSING UNITS	NUMBER OF ROOMS WITH AIR CONDITIONING			CENTRAL AIR		CENTRAL A/C
		NONE	SOME	 ALL 	ONLY I	0NLY	ROOM UNITS
NDDED ANY INSULATION OR EQUIPMENT							
YE S	22+578 44+879	9,297 20,638	5,510 11,265	6,771 12,976	5,396 9,616	7,781 14,493	104 132
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3+212	1,475	692	1,045	888	833	15
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2,490	1,006	732	752	682	780	22
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1+014	413	138	463	414	186	-
DDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	15,862	6,403	4 • 949	4,511	3,411	5,982	67
DDED STORN WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	6,427	2,726	1,551	2,149	1,855	1,791	55

TABLE 25ACONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF AIR CONDITIONING-CONTINUED(THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OF ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

, I	TOTAL Housing	INUMBER OF ROC	DMS WITH AIR		CENTRAL AIR	INDIVIDUAL Room Unit:	
1	UNITS	NONE	SOME	ALL	CONDITIONING	I ONLY	
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	109%	100%	
INSULATION ADDED (INEXPENSIVE)							
YES====================================	26	25	29	25	25	28	
WEATHERSTRIPPING	7	1 7	8	7	7 1	8	
AROUND HOT WATER PIPES	2	1 2	2	2	2 1	2	
AROUND HOT WATER HEATER	1	1 1	1	1	1 1	1	
CAULKING	16	1 15	20	i 16	1 16 1	19	
PLASTIC COVERING	2	3	9	6	1 4	9	
01428	1	1 1	1	2	1 2 1	٩	
NO40020022222222222222222222	74	75	71	75	1 75 1	72	
INSULATION ADDED (EXPENSIVE)		1					
Y5500000000000000000000000000000000000	6	5	5	I B	9	5	
ROOF OR ATTIC	4	, ,	3	5	i s i	3	
BASEMENT OR CRAWL SPACE	2	2	1	2	1 2 1	1	
OUTSIDE WALLS	2	1 3	1	1 3		Î	
NDaeeeeeeeeeeeeeeeeeeeeeeee	94	94	95	92	91	95	
EQUIPMENT ADDED (INEXPENSIVE)							
YESeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee	13	7	8	9	1 11 1	8	
CLOSEABLE SHUTTERS		-	***	1 1	1 1		
STORM DOORS	4	4	4	4.	1 5	3	
AUTOMATIC OR CLOCK THERMOSTAT.	1	1	1	2	1 2 1	1	
NEW WATER HEATING EQUIPMENT		2	4	4		3	
NO	, c c	93	92	91	1 89 1	92	
QUIPMENT ADDED (EXPENSIVE)		El la companya de la companya de la companya de la companya de la companya de la companya de la companya de la		[9	No. 1		
VES	c,	1 5	5	6	1 7 1	4	
STJRM WINDOWS/INSULATING GLASSI	4	4	1 4	1 5	5	4	
ELECTRIC HEAT PUMP	-	-	, , I	1	1	-	
NEW FURNACE	2	1	1	1 2	1 3 1	1	
NOeconeessessessessessessesses	95	1 95	1 75	94	93	96	

TABLE 25B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF AIR CONDITIONING (PERCENTAGE OF HOUSING UNITS)

	TOTAL Housing Units	NUMBER OF ROI	CENTRAL AIR			
		NONE	SOME	ALL	CONDITIONING	ONLY
ADDED ANY INSULATION OR EQUIPMENT			 	7 7 1	1 1 1	
YES ************************************		31	37	34	36	35
NO	67	69	63	66	64	65
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	1	 4	5	6	4
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4	3	1 1 1 4	1 1 4	5	Ŷ
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	2	1	1	2	3	1
ADDED ONLY INEXPENSIVE Insulation or equipment	24	21	28	23	23	27
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION		-	ġ		13	Ŗ

TABLE 25B CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY TYPE OF AIR CONDITIONING-CONTINUED (PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

1	TOTAL Housing	NUMBER OF RO	OMS WITH AIR	CONDITIONING	CENTRAL AIR	ROOM UNITS	CENTRAL A/C
	UNITS	NONE	SOME	ALL	ONLY	ONLY	ROOM UNITS
TOTAL HOUSING UNITS 1/	57,457	29,936	17,775	19,747	15,012	22,274	235
INSULATION ADDED (INEXPENSIVE)		1	1				1
YES	19,579	8,428	5,923	5.229	3,900 1	7,149	102
WEATHERSTRIPPING	6,516	2,400	2,109	2,007	1,716	2,385	1 15
AROUND HOT WATER PIPES	1,502	776	304	421	279	447	- 1
AROUND HOT WATER HEATER	5 94	233	182	179	1 193	168	1 -
CAULKING	3,852	4.008	3 • 1 3 4	2,710	2.062	3,711	1 71
PLASTIC COVERING	8,583	4:435	2,394	1,853	1,053	3,148	46
0THER	504	235	181	88	95	175	
NO	47,878	21,508	11,852	14,518	11,112	15,125	1 134
INSULATION ADDED (EXPENSIVE)				ann alltha			1
YES	4,545	1,972	1.211	1,363	1 1,018	1,523	33
ROOF OR ATTIC	3,021	1,376	661	984	709	902	33
BASEMENT OR CRAWL SPACE	959	367	273	320	260	333	1 -
OUTSIDE WALLS	1,729	770	602	357	315	645	-
N9	62,712	27,964	16,564	1 18,384	13,995	20,751	202
EQUIPMENT ADDED (INEXPENSIVE)			1				
YES	4,956	1,934	1,509	1,512	1 1,194	1,810	19
CLOSEABLE SHUTTERS	237	1 133	16	89	89	16	-
STORM DOORS	2,751	1.027	842	882	691	1,014	18
AUTOMATIC OR CLOCK THERMOSTAT.	7 3 5	235	171	330	344	158	-
NEW WATER HEATING EQUIPMENT	1,524	669	550	404	262	692	-
NO	52,592	28,001	16,266	18,235	13,817	20,464	217
EQUIPMENT ADDED (EXPENSIVE)		1	1	ale a			1
YES	4,002	1,454	1.378	1,161	1,075	1,445	18
STORM WINDOWS/INSULATING GLASS	3:078	1,174	1 1.015	889	776	1,110	1 18
ELECTRIC HEAT PUMP	144	-	31	113	113	31	-
NEH FURNACE	1,161	382	424	355	364	396	1 18
NO	63,455	28,472	16,397	18,586	1 13,937	20,829	217

TABLE 26A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF AIR CONDITIONING (THOUSAND HOUSING UNITS)

See footnotes at end of table.

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	TOTAL Housing	NUMBER OF RO	OMS WITH AIR (CONDITIONING	CENTRAL AIR		CENTRAL A/C
	UNITS	NONE	SOME	 ALL 	I ONLY I		ROOM UNIT
DDED ANY INSULATION OR EQUIPMENT							
¥ናS	24 ,1 78 43,280	10,094 19,842	7,499 10,275	6,585 13,162	5,064 9,949	8,919 13,355	102 134
DDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3+663	1,575	988	1,100	799	1+274	15
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	3,120	1,067	1,155	898	857	1,197	-
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	883	397	223	263	219	249	18
DDED ONLY INEXPENSIVE Insulation or equipment	16+513	7,055	5 • 134	4•324	3:199	6+200	68
DDED STORM WINDOWS, STORM DOORS, Or Attic or Roof Insulation	7 + 236	2,878	2,199	2,159	1,720	2,605	33

TABLE 26A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF AIR CONDITIONING-CONTINUED (THOUSAND HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	TOTAL Housing	NUMBER OF ROC	CENTRAL AIR			
	UNITS	NONE	SOME	I ALL	CONDITIONING	ONLY
TOTAL HOUSING UNITS 1/	100%	100%	100%	100%	100%	100%
INSULATION ADDED (INEXPENSIVE)		1		4		
YES	29	28	33	26	26	32
WEATHERSTRIPPING	10	8	12	10	1 11	11
AROUND HOT WATER PIPES	2	3	2	2	1 2 1	2
AROUND HOT WATER HEATER	1	1	1	1 1	1 1	1
CAULKING	15	13	18	14	14	17
PLASTIC COVERING	13	15	13	9	1 7 1	14
0THER	t	1 1	1	-	1 1	1
NO	71	72	67	74	74	68
INSULATION ADDED (EXPENSIVE)						
YES	7	1 7 1	7	7	7	7
ROOF OR ATTIC	4	1 5	4	5	5	4
BASEMENT OR CRAHL SPACE	1	1 1	2	2	2	1
OUTSIDE WALLS	3	3	3	2	2	3
NO	9 3	93	93	93	93	93
EQUIPMENT ADDED (INEXPENSIVE)		9 J		1 }		
YES	٦	5	8	8	8	8
CLOSEABLE SHUTTERS	-		-	-	1 1	
STORM DOORS	4	3	5	4	1 5	5
AUTOMATIC OR CLOCK THERMOSTAT.	1	1	1	2	2	1
NEW WATER HEATING EQUIPMENT	5	2	3	2	2	3
N0	93	94	92	92	92	92
EQUIPMENT ADDED (EXPENSIVE)		1 9		1		
YES	6	5	8	6	7	6
STORM WINDOWS/INSULATING GLASS	5	4	6	5	5	5
ELECTRIC HEAT PUNP	-	1 -	-	1 1	1 1	-
NEW FURNACE	2	1 1	2	2	3	2
NO	94	1 95	92	94	1 93	94

TABLE 26B Conservation efforts undertaken during 1977 by type of Air conditioning (percentage of housing units)

	TOTAL Housing	NUMBER OF RO	CENTRAL AIR				
	UNITS	NONE	SOME	 ALL 1	CONDITIONING	0NL Y	
ADDED ANY INSULATION OR EQUIPMENT Yes		 34 66	42 58	33	34 56	40 60	
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	1 1 5	6	6	5	ĥ	
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	Ľ,	4	6	1 1 7 5	6	5	
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	<u>1</u>	1	1	1	2	1	
ADDED ONLY INEXPENSIVE Insulation or equipment	24	24	 29	22	21	28	
ADDED STORN WINDOWS, STORM DOORS, or attic or roof insulation	11	10	12	1 11	11	12	

TABLE 26BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY TYPE OF AIR CONDITIONING-CONTINUED(PERCENTAGE OF HOUSING UNITS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 27A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY 1977 FAMILY INCOME (THOUSAND HOUSEHOLDS)

	, F			1977 FAMIL	Y INCOME		1	
	TOTAL Households	LESS THAN \$5+000	\$5+000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20,000 TO \$24,9999	\$25,000 OR MORE	TOTAL Poor
TOTAL 1/	67:457	9,105	12,357	12+573	10,491	9,053	13,863	3.414
TOTAL ELIGIBLE HOUSING UNITS	64,957	8,923	1 11,926	12+274	10,098	8,744	12,993	8,174
INSULATION ADDED (INEXPENSIVE)			ŧ					
YES. ELIGIBLE	27,522	2,771	4.583	5,371	4,918	4.270	5,600	2,753
WEATHERSTRIPPING	10,195 1	765	1 1:203	2,192	1,741	1 1,685	2,505	979
AROUND HOT WATER PIPES	2,380	150	409	554	452	354	451	196
AROUND HOT WATER HEATER	797 1	18	1 116	108	128	166	261	58
CAULKING	17,048	1,214	2,563	3.148	3,255	2,971	3,895	1,165
PLASTIC COVERING	10,656	1,624	2,458	2,317	1,615	1.191	1.450	1.78
OTHER	1,176	190	76	206	237	261	205	70
YES. INELIGIBLE	874	1.0.0	1 155	44	225	86	364	20
NO	39,061	6,335	7,619	7,158	5,347	4,707	7,894	5+635
INSULATION ADDED (EXPENSIVE)	 			1				
YFS. ELIGIBLE	7.373	492	982	1.380	1.268	1,197	2,051	501
POOF OR ATTIC	4,934	304	671	855	826	753	1 1,525	31
BASEMENT OR CRAWL SPACE	1,771	63	1 171	351	294	1 514	379	83
OUTSIDE HALLS.	2.711	271	311	623	478	357	672	24
YES INELIGIBLE	575	2,1	87	32	145	, 337 I 79	232	-
NO	59,510	8,613	11,288	11,162	9,078	7,784	11,584	7,91
NUc ee pe be e be e be be be be be be be be be b	379310	73 B L J	1 119200	119102	01016	()/am 	1 114 304	(97)
EQUIPHENT ADDED (INEXPENSIVE)				1		1	1	
YES, ELIGIBLE	8,677	510	1.179	1,560	1,531	1,368	2,528	53
CLOSEABLE SHUTTERS	450	-	47	59	77	115	161	1
STORM DOORS		288	572	931	810	631	1,352	59
AUTOMATIC OR CLOCK THERMOSTAT.		86	189	205	209	183	397	81
NEW WATER HEATING EQUIPMENT		172	409	484	617	1 641	831	18
YES . INELIGIBLE	, , , , , , , , , , , , , , , , , , ,	41	1 17	15	181	42	292	4
NO	58,173	8 ,55 5	11,161	10,997	8,779	7,552	11,043	7,83
QUIPMENT ADDED (EXPENSIVE)			₽ Uteran	1	j V		3 1	
YES, ELIGIBLE	6,494	447	906	1,156	1,201	991	1,784	51
STORM WINDOWS/INSULATING GLASS	4,774	382	593	919	983	1 797	1,299	45
ELECTRIC HEAT PUMP	96	-	1 17	-	14		54	1
NEW FURNACE	1,737	55	308	309	251	230	575	4
YES, INELIGIBLE	453	-	-		1 131	67	560	
NO	60,515	3,659	1 11,451	11,418	9,159	3,005	11,823	7,89

TABLE 27A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY 1977 FAMILY INCOME~CONTINUED (THOUSAND HOUSEHOLDS)

				1977 FAMIL	Y INCOME			
	TOTAL HOUSEHOLDS	LTSS THAN \$5,000	 \$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15+000 TO \$19+999	\$20,000 TO \$24,999	\$25,000 OR MORE	TOTAL Poor
ANY EQUIPMENT OR INSULATION ADDED BY ELIGIBLE HOUSING UNITS YES	33,779 31,178	3+244 5≠678	5+762 6+164	6∎475 5∎799	6+048 4,050	4,923 3,821	7,327	3∎194 4⊎980
ELIGIBLE UNITS THAT ADDED Expensive insulation but not expensive equipment	5,,535	350	957	1.048	950	885	1.435	348
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4.647	304	790	۶25	383	677	1	364
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,937	143		331	318	314	616	153
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21.759	2,447	1 1 3;970	¢+271	3+897	3 y ដឹ≜ភំ	i 4,103	2:329
ELIGIBLE UNITS THAT ADDED STORM WINDOWS, OR STORM DOORS, OR ATTIC OR ROOF INSULATION		738	1 1+631	2,140	1+979	1,578	5=207	756

1/ FXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING, A DASH "-" REPRESENTS OF ROUNDS TO ZERD. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, DEFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 27BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY 1977 FAMILY INCOME(PERCENTAGE OF HOUSEHOLDS)

				1977 FAMI	LY INCOME			
	TOTAL Households	LFSS THAN \$5+000	\$5,000 5,000 50 \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20.000 TO \$24.999	\$25,000 OR MORE	I TOTAL POOR I I
TOTAL <u>1</u> /	100%	100%	 100%	100%	100%	100 x	100%	100%
FOTAL ELIGIBLE HOUSING UNITS	76	98	97	98	96	96	94	97
INSULATION ADDED (INEXPENSIVE)				1				
YES, ELIGIBLE	41	30	37	43	47	, I 47	40	33
HEATHERSTRIPPING		8	1 10	1 17	1 17	1 19	1 19	12
AROUND HOT WATER PIPES	,	2	1 3	4	4	1 4	1 3	2
AROUND HOT WATER HEATER		/- 		1 1	1 1	2	2	1
CAULKING	25	13	21	25	31	1 33	28	14
PLASTIC COVERING.		13	20	18	1 15	1 13	1 10	21
	,		a	,		,		
07HER	2	2	1	2	2	1 5		
YES. INELIGIBLE	1	-	1 1	-	2	1 1	3	-
N0	58	70	62	57	51	1 52	57	67
INSULATION ADDED (EXPENSIVE)	1 9 1		1	1	*	, I	1	l
YES, ELIGIBLE	11	5	8	11	12	13	15	6
ROOF OR ATTIC	7 1	3	5	1 7	8	В	11	4
BASEMENT OR CRAWL SPACE	3 1	1	1	1 3	1 3	5	3	1 1
OUTSIDE WALLS	4 1	3	3	5	i 5	4	5	j 3
YES, INELIGIBLE	1 1	-	1 1	-	1	1	i 2	i –
NO	1 38	95	91	89	87	86	84	94
							1	1
QUIPMENT ADDED (INEXPENSIVE)		I	l	1	1	1]	5
YES, ELIGIBLE		6	10	12	15	15	18	6
CLOSFABLE SHUTTERS		-	-	1 -	1 1	j L	1	I –
STORM DODRS		3	5	7	8	1 7	10	4
AUTOMATIC OR CLOCK THERMOSTAT.		1	2	2	2	2	3	1
NEW WATER HEATING EQUIPMENT	5	2	3	4	6	1 7	6	1 5
YES. INELIGIBLE	1	-			2	1 -	2	1 -
NO	- 36	ዓላ	90	87	84	84	80	93
QUIPMENT ADDED (EXPENSIVE)			1	-	1	1		1
YES, ELIGIBLE	10	5	7	9	1 11	11	1 13	6
STORM WINDOWS/INSULATING GLASS	•	4	5	1 7	1 9	1 7	9	
	• •	4	J _	I -			-	1 J
ELECTRIC HEAT PUMP	•	-	- 2	- 2		1 3	4	
NEW FURNACE		1		1 2	, -	, ÷	• •	
YES, INELIGIBLE			1	-	1	1	1 2	-
NO	1)0	95	93	91	87		85	94

See footnotes at end of table.

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TABLE 27BCONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978AND ELIGIBILITY FOR 1978 TAX CREDIT BY 1977 FAMILY INCOME-CONTINUED(PERCENTAGE OF HOUSEHOLDS)

				1977 FAMIL	Y INCOME			
	TOTAL HOUSEHOLDS	LFSS THAN \$5,000	\$5+000 TO \$9+999	\$10,000 TO \$14,999	\$15+000 TO \$19+999	\$20,000 TO \$24,999	\$25+000 08 MOR5	TOTAL Poor
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units Yes.		36 52	47 50	 51 46	58 39	54 42	53 41	38 59
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	8	4	1 7	8	9	10	 10	4
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	3	6	1 1 1 1 1	8	7	1 1 1 1	4
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	3	5		t t 1	3	3		2
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	 52	27	52	34	37	34	1 1 1 30	28
LIGIBLE UNITS THAT ADDED STORM WINDOWS, OR STORM DOORS, OR ATTIC OR ROOF INSULATION	17	8 1	 13	1 17	19	1 1	1 1 1	, , , ,

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS QUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TARLE.

SOURCE: THE 1978 NATIONAL INTERIM ENFRGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

		7 { }		1977 FAMIL	Y INCOME		a 19 19	
	TOTAL HOUSEHOLDS	LESS THAN \$5+000	\$5+000 TO \$9+999	\$10,000 TO \$14,999	\$15+000 TO \$19,999	\$20+000 TO \$24+999	\$25,000 OR MORE	TOTAL POOR
TOTAL 1/	67,457	9,106	12,357	12,573	10,491	9,063	13,868	8,414
INSULATION ADDED (INEXPENSIVE)			2017					
YESuaanooonoonneenoon	17:532	1.610	2,795	3.302	3,381	2 • 301	3,744	1,703
WEATHERSTRIPPING	4,307	337	535	1,114	614	928	1,379	476
ARDUNG HOT WATER PIPES	1,285	1 1 3 2	119	301	225	174	337	13
AROUND HOT WATER HEATER	453	19	1 1 37	44	96	1 19	1 144 1	5
CAULKING	11,078	729	1+621	1.835	2,273	2,032	2,589	81
PLASTIC COVERING	5,455	887	1.253	1,161	914	507	734 1	92
01458	355	104	47	116	191	223	173	5
N7	470325	7+496	9,563	9,271	7.110	6.262	10,124	6,71
(NSULATION ADDED (EXPENSIVE)				1		l i		
YES	4,226	305	418	784	677	752	1,290	33
ROOF OR ATTIC	2+843	158	284	544	465	481	910	19
BASEMENT OR CRAWL SPACE	1,271	4.0	91	273	203	1 335	324	7
OUTSIDE WALLS	1.478	176	1 128	256	224	237	457	16
NO	63,232	9,801	11,939	11,789	9,814	8,310	12,578	8:08
EQUIPMENT ADDED (INEXPENSIVE)		4 1					, I 1 1	
- YES	5,274	380	449	874	884	993	1:693	42
CLOSEABLE SHUTTERS	500	- 1	17	-	62	93	127	1
STORM DOORS	2:580	189	246	527	411	414	893	24
AUTOMATIC OF CLOCK THERMOSTAT.	888	67	08	130	174	1 129	307	8
NEW WATER HEATING EQUIPMENT	2,132	124	129	277	405	540	656	10
N9	62 • 1 8 4	8,726	11,908	11.693	9,607	8,069	12,174	7,98
QUIPMENT ADDED (EXPENSIVE)		1	1 f					
YES	3+504	250	393	657	477	671	1.047	33
STORM WINDOWS/INSULATING GLASS	2 # 5 7 2	208	505	570	404	554	735	27
ELECTRIC HEAT PUMP	67	i -	19	-	48		- 1	1
NEW EURNACES	1,343	51	173	128	84	195	419	4
NO	63,953	8,847	1 11,964	11,916	10,014	8+392	12+920	8,08

TABLE 28A Conservation efforts undertaken during 1978 by 1977 Family Income (Thousand Households)

		1977 FAMILY INCOME								
	TOTAL HOUSEHOLDS	LESS THAN \$5+000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20+000 TO \$24+999	\$25,000 OR MORE	TOTAL Poor		
DDED ANY INSULATION OR EQUIPMENT		0.000	 							
YES	22+578 44+879	2+009 7+097	3,465 8,892	4+184 8+389	4.122 6,369	3•543 5•519	5,255 8,613	2+133 6+281		
DDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,212	194	1 	623	489	545	963	205		
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2.190	148	371	495	289	463	723	213		
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1,914	111	22	161	187	203	325	121		
DDED ONLY INEXPENSIVE Insulation or equipment	15,362	1,556	2,676	2,904	3,156	2,328	3,242	1,590		
DDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	• •	398	656	 1+350	967	 1+115	1,940	491		

TABLE 28A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY 1977 FAMILY INCOME-CONTINUED (THOUSAND HOUSEHOLDS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT. ENERGY INFORMATION ADMINISTRATION.

				1977 FAMI	LY INCOME			
	TOTAL HOUSEHOLDS	L=SS THAN \$5.000	1 \$5.000 TO \$9.997	\$10.000 TO \$14.999	\$15,800 TO \$19,999	\$20+000 TO \$24+9999	\$25+000 OR MORE	TOTAL POOR
TOTAL <u>1</u> /	109%	100%	1 100x	100%	100%	100%	1 100%	100%
INSULATION ADDED (INEXPENSIVE)								
YES	26	18	23	26	32	31	27	20
WEATHERSTRIPPING	7	4	4	9	6	10	1 10	6
AROUND HOT WATER PIPES	2	1	j 1	2	2	2	2	2
AROUND HOT WATER HEATER	1	-	1	- 1	1 1	-	1 1	1
CAULKING	16	я	1 1 3	15	22	22	1 19	10
PLASTIC COVERING	8	10	1 10	9	1 9	6	5	1 11
0THER	1 1	1	-	1	2	2	1 1	1
NO	74	92	77	74	68	69	73	80
INSULATION ADDED (EXPENSIVE)				1				1
YES	6	3	3	6	6	9	1 7	i 4
ROOF OR ATTIC		2	2	1 4	4	, I 5	· 7	1 2
BASEMENT OR CRANL SPACE		1	1	2	2	4	2	1 1
OUTSIDE WALLS	-	2	1 1	2	1 2	3	1 3	1 2
NO	94	9 7	37	94	94	32	91	96
QUIPMENT ADDED (INEXPENSIVE)		1		1	ļ	1 A		1
YESLARDONNANANANANANANANANANANANANANANANANANAN	8	4	4	7	1 8	1 11	1 12	1 5
CLOSEABLE SHUTTERS		· · ·	1 -	· ·	1 1		1 1	1 -
STORM DOORS	1 A	2		ι 1 Δ	4	1 L	1 6	1 1 X
AUTOMATIC OR CLOCK THERMOSTAT.	,			1 1	1 2	1	1 2	, J 1 1
NEW WATER HEATING EQUIPMENT		ι 1	1 I 1 1	1 2	1 4		1 5	
		9 6	96	93	92	1 39	88	35
QUIPMENT ADDED (EXPENSIVE)					1	1 E	1	1
YES	5	3	1 3	5	1 5	17	1 8	1 1 A
STORM WINDOWS/INSULATING GLASS	,	2	1 2	1 5	1 3	1 5	1 5	1 7 1 7
ELECTRIC HEAT PUMP		2	1 2		1 1		1 J	(. p
			-	-	-	1 -	- 3	
NEW FURNACE		1	1 1	1		2	1 32	
NO 200800000000000000000000000	1 35	97	7 - 1	95	95	93	1 72	96

TABLE 28BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY 1977 FAMILY INCOME(PERCENTAGE OF HOUSEHOLDS)

See fnotnotes at end of table.

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	1			1977 FAMII	Y INCOME			
	TOTAL HOUSEHOLDS	LESS THAN \$7,000	\$5,000 TO \$9,997	\$10,000 TO \$14,997	\$15,000 TO \$19,999	\$20,000 TO \$24,999	\$25,000 OR More	I TOTAL I POOR I I
DDED ANY INSULATION OR EQUIPMENT				ļ 1				
YES	55	22	28	33	39	39	38	25
NO	57	78	72	57	61	51	52	75
DDED EXPENSIVE INSULATION				1				
BUT NOT EXPENSIVE EQUIPMENT	5	2	3	5	5	6	7	5
DDED EXPENSIVE EQUIPMENT			1 T	1 1				
BUT NOT EXPENSIVE INSULATION	4	2	3	4	3	5	5	3
DDED EXPENSIVE INSULATION	 		1	l .				
AND EXPENSIVE EQUIPMENT	2	1	-	1	2	2	2	1
DDED ONLY INEXPENSIVE			1	1	1			1
INSULATION OR EQUIPMENT	24	17	22	23	30	25	23	19
DDED STORM WINDOWS, STORM DOORS,			1	1				1
OR ATTIC OR ROOF INSULATION	1 10 1	4	1 5	1 11	9	12	1 14	6

TABLE 28BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY 1977 FAMILY INCOME-CONTINUED(PERCENTAGE OF HOUSEHOLDS)

1/ FXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A PASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENTRGY CONSUMPTION SURVEY, DEFICE OF THE CONSUMPTION DATA SYSTEM, DEFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADDINISTRATION.

				1977 FAMIL	Y INCOME		1	
	TOTAL HOUSEHOLDS	LFSS THAN \$5,000	\$5,000 T0 \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20+000 TO \$24+393	\$25+000 OR . MORE	TOTAL POOR
TOTAL <u>1</u> /	67,457	9,106	12,357	12,573	10+491	9,063	13,863	8+414
(NSULATION ADDED (INEXPENSIVE)	1		1 1	1				
YES	19,579 1	1,987	3,299	3,780	3,525	2,941	4.047 1	1,921
VTATHERSTRIPPING	6,515	449	811	1+131	1,458	946	1,721	545
AROUND HOT WATER PIPER	1,702	29	359	355	256	219	284	96
AROUND HOT WATER HEATER	574 1	-	14	91	78	147	265 1	
CAULKING	9.352 1	722	1,525	1.838	1,688	1,599	2,478	635
PLASTIC COVERING	8,583	1,343	1.320	1,878	1,474	1,007	1,161	1+434
0THER	504	86	27	104	75	114	98	23
NO	47,378	7+119	9.058	8,793	5+966	5,122	9,821	6+492
INSULATION ADDED (EXPENSIVE)			2	1				
YES	4+545	223	717	753	840	793	1,219	187
ROOF OR ATTIC	3,021	146	510	412	550	\$74	923	126
BASEMENT OR CRAWL SPACE	759	15	1 137	97	216	241	254	15
OUTSIDE WALLS	1,727	95	198	427	387	233	389	79
NO	62,112	R, 883	11,640	11,820	9+651	8,259	12,642	8,221
EQUIPMENT ADDED (INEXPENSIVE)	1		1	1				
YES+2+0+0+0+0++0++0++00000++0000	4,756	235	782	894	1,029	588	1 1,327	191
CLOSEARLE SHUTTERS	237 1	-	30	59	26	48	74	-
STORM DOORS	2.751	140	326	486	655	320	923	91
AUTOMATIC OR CLOCK THERMOSTAT.	7.35	19	141	74	131	139	231	-
NEW WATER HEATING EQUIPMENT	1+624	89	300	305	313	230	383	109
N 0	62,502	9.871	11,575	11,679	9,462	8,374	12,540	8,21
EQUIPMENT ADDED (EXPENSIVE)			1 1	Î	1	t §		
YES		188	593	588	924	490	1,219	182
STORM WINDOWS/INSULATING GLASS		174	422	376	717	413	976	18
FLECTRIC HEAT PUMP	•	-	-	-	27	-	116	-
NFN FURNACE		14	185	231	278	77	376	-
NO \bullet n a no e coord a second secon	63,453	8+918	11,754	11.985	9.567	8,573	12,648	8,23

TABLE 29ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY 1977 FAMILY INCOME(THOUSAND HOUSEHOLDS)

See footnotes at end of table.

117

	1			1977 FAMIL	Y INCOME			
	TOTAL HOUSEHOLOS	LESS THAN \$5.000	 \$5+000 T0 \$9+994	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$28,000 TO \$24,999	\$25+000 09 More	TOTAL Poor
DDED ANY INSULATION OR EQUIPMENT								
YES	24,178	2,229	4,216	4,568	4,315	3,511	5,338	2,135
NO	43,230	5 ∎876	8.141	8,005	6,176	5,552	8,529	6,278
DDED FXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,653	191	50×	613	690	665	890	15
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	3,1?0	157	4 84	453	774	362	391	15
DOED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	883	52	1 109	135	150	128	329	3
DDED ONLY INEXPENSIVE Insulation or equipment	16,513	1 • 859	3,015	3,362	2,700	2+356	3,229	1 • 7 98
DDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	7.236	381	1,165	1:042	1+511	979	2+15 8	32

TABLE 29A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY 1977 FAMILY INCOME-CONTINUED (THOUSAND HOUSEHOLDS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH #-# REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION BURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

	Ĩ			1977 FAMI	LY INCOME			
	TOTAL HOUSEHOLDS	LESS THAN \$5+000	\$5,000 TO \$9,999	\$10,000 TO \$14,999	 \$15+000 TO \$19,999	\$20+000 TO \$24,999	\$25+000 OR MORE	TOTAL Poor
TOTAL <u>1</u> /	193%	100%	l 100%	1 100%	100%	100%	100%	100%
INSULATION ADDED (INEXPENSIVE)	Į.		1	1	1		1	
YES	29 1	22	27	1 30	34	32	29	2.3
WEATHERSTRIPPING	10 1	5	7	9	1 14	10	12	6
AROUND HOT WATER PIPES	2	-	1 3	3) 2	2	2	1
AROUND HOT WATER HEATER	1	-	-	1 1	1	2	2	-
CAULKING	15	8	1 12	1 15	16	18	18	9
PLASTIC COVERING	13	15	1 15	1 15	i 14	1 11	1 8	17
0 THER	1 1	1	-	1 1	1	1	1 1	-
N 🔿 • • • • • • • • • • • • • • • • • •	71	78	73	70	66	68	71	77
INSULATION ADDED (EXPENSIVE)	1		1	1	1	9	9	
YES	7	2	6	6	8	9	9	2
ROOF OR ATTIC	4 1	2	4	1 3	1 5	I 5	7	2
BASEMENT OR CRAWL SPACE	1	-	i i	i 1	i 2	i 3	2	-
OUTSIDE WALLS	3 1	1	2	1 3	4	1 3	1 3	1
NO	23	78	94	94	92	91	91	98
QUIPMENT ADDED (INEXPENSIVE)			Change anther					
YF. 5	7 1	3	6	1 7	1 10	8	10	2
CLOSEABLE SHUTTERS	- 1	-	i -	-	-	1 1	1 1	-
STORM DOORS	4	2	1 3	4	6	4	6	1 1
AUTOMATIC OF CLOCK THERMOSTAT.	1	-	1 1	1 1	1 1	2	2	- -
NEW WATER HEATING EQUIPMENT	2 1	1	2	2	3	1 3	3	1
NO	13	97	94	93	90	32	90	98
QUIPMENT ADDED (EXPENSIVE)	, , , , , , , , , , , , , , , , , , ,		1		ł		3	
YES	5	2	i 5	5	9	5	9	2
STORM WINDOWS/INSULATING GLASS	5 1	2	5	1 3	7	5	1 7	1 2
ELECTRIC HEAT PUMP	- 1	-	-	-	-	-	1 1	i –
NEW FURNACE	2	-	2	2	3	1	3	i -
NOasaasaasaasaasaasaasaasaasaa	14 1	38	1 95	25	91	95	91	98

TABLE 29BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY 1977 FAMILY INCOME(PERCENTAGE OF HOUSEHOLDS)

See footnotes at end of table.

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	1			1977 FAMII	LY INCOME			
	TOTAL HOUSEHOLDS	LESS THAN \$5.000	\$5,000 F0 \$9,999	\$10,000 TO \$14,999	\$15,000 TO \$19,999	\$20+000 FD \$24,799	\$25+000 OR MORE	TOTAL Poor
DDED ANY INSULATION OR EQUIPMENT			and Year		f F		f F	
¥F So o o o o o o o o o o o o o o o o o o	36 54	24 76	1 34 1 66	36	41 59	39 61	38 52	25 75
DDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	1 1 1 3	2		 5	 7	, , ,	 5	2
DDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	5 I	2	4	4	7	4	6	2
DDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1	-	I	1			2	
DDFD ONLY INEXPENSIVE Insulation or equipment	?4	0 °	24	27	25	25	23	21
DDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	11	4	1 9	8	1	11	1 16	4

TABLE 29B CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY 1977 FAMILY INCOME-CONTINUED (PERCENTAGE OF HOUSEHOLDS)

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSAPY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

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TABLE 30A CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY SELECTED DEMOGRAPHIC CHARACTERISTICS (THOUSAND HOUSEHOLDS)

	5 F 1	AGE I	E OF HEA	ND	RAI	CE		TION OF		MARITAL	STATUS O	F HEAD
	TOTAL HOUSEHOLDS	35	36	60		 	8	9	13		NOT MA	RRIED
		03 L589	TO. 59	AND OVER	WHITE. OTHER	BLACK	OR LESS	T0 12	AND OVER	MARRIED	FEMALE HEAD	MALE HEAD
TOTAL 1/	47,457	20,912	27.552	18, 994	61.960	6,398	11,510	31,755	24,193	47,696	13,965	5,797
TOTAL ELIGIBLE HOUSING UNITS	1 54,957	19,687	26,507	18,662	58,689	6,258	11,237	30,963	22,757	45,723	13,621	5,613
INSULATION ADDED (INEXPENSIVE)	1	1			l I				1 1			
YES, ELIGIBLE										21,333		
WEATHERSTRIPPING		•			9,609	•		5,227	•	•	, . ,	
AROUND HOT WATER PIPES			1,035		2.308			1,305		1	· ·	
AROUND HOT WATER HEATER	,	267				•	•				, .	
CAULKING	17,048				16,251		•		•	14,047	, .	
PLASTIC COVERING	10,656					1 1,074						
OTHER	1 1,176	398	,		1 1.134	•			•	•	• •	
YES. INELIGIBLE	874	445				,			•		; •	
NO • • • • • • • • • • • • • • • • • • •	37,061	12,101	14,791	12,169	34,691	4,370	7,539	17,392	14.130	25,578	9,379	4,104
INSULATION ADDED (EXPENSIVE)	l.	1		1]	1	1		! 	1		
YES, ELIGIBLE	7,373	2,220	3.522	1,631	7,206	167	899	3,806	2,568	6,113	860	400
ROOF OR ATTIC		1 • • 10	2+349	1,175	4,408	126	607	2,385	1.943	4,067	646	
BASEMENT OR CRAVE SPACE	1 1,771	598	828	244	1,750	11	163	963	645	1,519	157	95
OUTSIDE WALLS	2,711	777	1,309	625	2,630	31	327	1,553	832	2,314	286	111
YES: INELIGIBLE	575	249	266	59	575	- 1	67	232	276	544	15	16
N0	59,510	18,442	23,764	17,304	53,279	6,231	10,544	27,717	21,249	41,039	13,070	5+381
EQUIPMENT ADDED (INEXPENSIVE)		1		1	1	1	1		} †	1		
YES. ELIGIBLE	3,677	2,533	4.447	1,697	7,944	733	1,077	4,061	3,539	7,071	1,207	398
CLOSEABLE SHUTTERS	450	218	190	52	413	47	i – I	206	254	428	17	15
STORM DOORS	4.584	1,416	2:334	833	4,269	i 314	489	2,432	1,663	3,775	644	165
AUTOMATIC OR CLOCK THERMOSTAT.		405	604	259	1.140	128	127	555	587	994	212	52
NEW WATER HEATING EQUIPMENT	3.153	752	1,669	732	2,869	283	461	1.205	1,487	2,507	450	196
YES, INELIGIBLE	583	253	268	66	544	44	74	205	309	528	44	16
NO	1 53,193	18.125	22,837	17.231	52,572	5,621	10,359	27,489	20,345	40,096	12,714	5,383
EQUIPMENT ADDED (EXPENSIVE)	t.	ł	7	4	1	1	1	1	: 1	1		
YES, ELIGIBLE	5.434	1,813	3,170	1,502	6,068	415	685	3,473	2,327	5,186	1,024	275
STORM WINDOWS/INSULATING GLASS	4,974	1 1,451	2,467	1,055	4,705	i 269	502	2+636	1,836	4,009	753	212
ELECTRIC HEAT PUMP	1 95	33	32	22	67	1 19	i –	65	22	86	-	- 1
NEW FURNACE	1 1,737	439	-	•	1,609	1 128	197	1,031	510	1,382	292	6
YES, INELIGIBLE	453	196	237	25	414	44	17	141	300	398	44	1
NO									121.566	42,112	1 11.007	5+500

								TABLE 30	A					
		CONSER	VATIO	N EFI	FORTS	UNDERT	TAKE	N BETWEEN	N APRIL	1977	AND	DECEMBER	1978	
AND	ELIGI	BILITY	FOR	1978	TAX	CREDIT	8Y	SELECTED	DEMOGRA	APHIC	CHAF	ACTERIST	ICS-CONT	INUED
						(1)	40US	AND HOUSE	EHOLDS)					

	TOTAL	AGE OF HEAD			RACE EDU		EDUCATION OF HEAD			MARITAL STATUS OF HEAD		
7	TOTAL HOUSEHOLDS			60	 	 ! !	8		13	1 1	 NOT M# 	RRIED
		OR LESS			₩HITE• OTHER 	IBLACK 	OR LESS		AND OVER	7	FEMALE HEAD	
ANY EQUIPMENT OR INSULATION ADDED BY ELIGIBLE HOUSING UNITS YFS												
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5+535	1,000	2•437	1,298	 5,424	112	775	2,773	1.988	4,468	667	400
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	4,647	1,393	2•034	1,170	 4,286	361	560	2,439	1,648	3,541	 831	275
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1+337	420	1,086	3 32	 1,782	55	125	1,033	679	1,644	193	-
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	21,759	6*?85	10,006	5+468	 19•733	2.026	3,583	10.690	7+486	16,306	3,979	1 • 4 7 3
ELIGIBLE UNITS THAT ADDED Storm Windows, or storm doors, or attic or roof insulation	11,35?	3,373	5,553	2,442	 10,751				t 1	 9.144	 1.566	559

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

TABLE 30B CONSERVATION EFFORTS UNDERTAKEN BETWEEN APRIL 1977 AND DECEMBER 1978 AND ELIGIBILITY FOR 1978 TAX CREDIT BY SELECTED DEMOGRAPHIC CHARACTERISTICS (PERCENTAGE OF HOUSEHOLDS)

		AGE	OF HE	D	1 RA1 	CE I		ION OF		MARITAL	STATUS (DF HEAD
	TOTAL Households		36	60			8	9 -	13		NDT M	ARRIED
		OR LESS	10 59		WHITE; OTHER 	BLALK	OR LESS	T0 12	ANU OVER	MARRIED 	•	MALE HEAD
TOTAL <u>1</u> /	199X	100%	109%	100%	1 100%	100%	100%	100%	100%	100%	100%	 100x
TOTAL ELIGIBLE HOUSING UNITS	16	94	97	98	1 96	1 98	98	3 8	94	96	1 98	97
INSULATION ADDED (INEXPENSIVE)	1	1			1			1			1	
YES, ELIGIBLE	41	40	45	35	42	31	34	44	39	45	1 32	1 29
WEATHERSTRIPPING	1 15	17	17	11	16	9	9	15	15	1 17	11	11
AROUND HOT WATER PIPES	4	5	4	2	4	1 1	1	4	4	4	1 3	1 3
AROUND HOT WATER HEATER	1 1	1	2	1	1	1		1	2	1	1	1
CAULKING	25	21	30	24	27	1 12	18	2.8	25	29	16	14
PLASTIC COVERING	1 15	19	16	13	1 16	17	18	18	12	1 16	15	1 12
OTHER	1 2	2	2	1 2	1 2	1 1	1 1	2	2	1 2	1 2	i 1
YES. INELIGIBLE	1 1	2	1	i 1	1 1	1 1	- 1	1	2	1 2	i 1	i -
NO	59	59		64		• •	• •	55	58	54	67	71
INSULATION ADDED (EXPENSIVE)												
YES, ELIGIBLE	1 L1 4	11	13	9	1 12	3	6	12	11	13	i G	7
ROOF OR ATTIC	7	7	9	6	1 8	2	5	8	3	1 3	1 5	4
BASEMENT OR CRAWL SPACE	1 3	3	3	. 1	1 3	- 1	1	3	1 3	1 3	1 1	1 2
OUTSIDE HALLS		4		•	4	1 1	• •		3	1 5	1 2	2
YES, INELIGIBLE		1 1			1	- 1	,		1	, [1	1	1 ···
NO		38	86	91	•	1 1		87	· -	•	94	9.3
EQUIPMENT ADDED (INEXPENSIVE)	1				1							1
YES ELIGIBLE	1 13	12	16	9	1 13	11	9	13	115	1 15	1 9	7
CLOSEABLE SHUTTERS		1		-	1 1			1			-	-
STORM DOORS	•	1 7	-		-	ŧ			17	• •	1 5	1 3
				•	, .	*			4	1 2	2	P
AUTOMATIC OR CLOCK THERMOSTAT. MEW WATER HEATING EQUIPMENT		2	2	•	•	-	,,		2	1 2		
	1			•	t					1 .	1 3	. J
YES; INELIGIBLE	•	1		•			•	1	,	•	1	-
ИО	86	87	83	91	96	83	90	87	84	1 84	1 71	93
EQUIPMENT ADDED (EXPENSIVE)	İ		l	1	1	1				1	1	1
YES, ELIGIBLE	•	9		9	,	7	• ,	11		11	1 7	5
STORM WINDOWS/INSULATING GLASS	•	7	9	-		4	4	8	•	1 3	1 5	4
ELECTRIC HEAT PUMP	•	-		- 1	1 -	- 1	1 - 1	-	•		1 –	- 1
NEW FURNACT	1 3	2	3	2	1 3	2	2	3	2	1 3	1 2	1
YES, INELIGIBLE	1 1	1	1	-	1 1	1	- 1	-	1	1 1	-	- 1
NO	i ng i	90	33	92	89	93	94	89	89	38	92	i 95

	TABLE 308	3
CONSERVATIO	N EFFORTS UNDERTAKEN BETWEEN	N APRIL 1977 AND DECEMBER 1978
AND ELIGIBILITY FOR	1978 TAX CREDIT BY SELECTED	DEMOGRAPHIC CHARACTERISTICS-CONTINUED
	(PERCENTAGE OF HOL	JSEHOLDS)

		AGE OF HEAD			I RA	CE		TION OF		MARITAL	STATUS	OF HEAD
	TOTAL Households	35	36	60	۹ ۱ ۱	! ! !	8	9	13	1 9 1	I Notm.	ARRIED
		OR LESS		AND OVER	WHITE, OTHER	•	DR LESS		AND OVER		FEMALE HEAD	I MALE HEAD
ANY EQUIPMENT OR INSULATION ADDED By Eligible Housing Units			 		! ! !	1				 	 	
YE S * * * * * * * * * * * * * * * * * *	50 50	47 47		44 55	51 51	40 58	1 44 1 54	•		•	41	1 37 1 60
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	 4	9	9	7	 9		 7	9	8	 9	5	 7
ELIGIBLE UNITS THAT ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	7	7	8	6	 7	6	 5	8	 7	 7	6	
ELIGIBLE UNITS THAT ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	.3	2	4	2				3	 3	1 3		-
ELIGIBLE UNITS THAT ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	32	30	36	5 ġ	32	32	 31	 34	 31	34	28	25
ELIGIBLE UNITS THAT ADDED Storn Windows, or storm doors, or attic or roof insulation	17	16	20	13	18	1.0	 11	18	13	19	12	10

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH *-* REPRESENTS OR ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

AGE OF HEAD RACE EDUCATION OF HEAD IMARITAL STATUS OF HEAD (IN YEARS) ____ NOT MARRIED TOTAL HOUSEHOLDST 35 35 5.0 я 9 13 . ------03 τo IWHITE, IBLACK I 08 τэ AND IMARRIEDI AND 1 1 1535 1 59 OVER LOTHER OVER IFEMALE 1 MALE LESS I 12 I HEAD I HEAD 5,797 57.457 120.712127.552118.994161.9601 6.378111.510131.755124.1931 47.6961 13.7651 INSULATION ADDED (INEXPENSIVE) 17,532 1 5,8681 7,9001 3,964116,4351 1,1961 2,3171 8,7271 6,5881 13,8351 2,6641 1,132 WFATHERSTRIPPING....... 4.997 1 2,0381 2,1821 5871 4,6161 2001 3661 2,4081 2.1331 3.9311 7231 243 AROUND HOT WATER PIPES 1.236 6871 4541 1351 1,2861 - 1 511 6781 5581 9231 2281 131 2091 AROUND HOT WATER HEATER..... 1721 181 3871 371 33 458 2101 771 441 171 681 9,197i 1.3941 11,978 3, 332 5, 261 2, 735 10, 6471 4311 1,2641 5,4701 4,3451 487 CAULKING 1,0351 475 PLASTIC COVERING....... 5,455 1 2,011 2,155 1,290 4,873 533 1,130 2,846 1,480 3.9461 355 1 3751 3521 1281 8281 271 361 4891 3301 6891 1351 31 5,201 9,193 23,028 17,605 33,860 11,301 49,826 115,044119,652115,130144,6251 4,665 INSULATION ADDED (EXPENSIVE) 4.226 1 1,5481 1,9401 7331 4.1191 1071 4431 2,0951 1,6881 3.5211 4851 221 POOF OF ATTIC 2+843 2501 1.3991 4941 2.7361 3031 1.3331 1.2081 2.3901 3311 123 1071 1,271 BASEMENT OR CRAWL SPACE 5281 - 1 7051 1091 82 5491 1941 1,2711 1101 4561 1.0801 8471 OUTSIDE WALLS 1 + 479 5201 6981 260 1,426 521 1751 456 1,255 1751 48 119,364125,611118,256156,3411 6,291111,067129,660122,5051 44,1751 13,4801 5,576 53.232 EQUIPMENT ADDED (INEXPENSIVE) 5,274 1,7941 2,6691 3111 4,872 4021 662 2,291 2,321 4.3531 6731 228 CLOSFAHLE SHUTTERS 551 831 2161 283 171 300 1451 133 2831 171 - 1 2.530 9931 1,3731 2971 1,3291 1,0551 2.2871 2311 112 3141 2.5501 1301 AUTOMATIC OR CLOCK THERMOSTAT. 383 3931 3831 1221 8381 511 501 3671 4711 6461 1931 49 3141 NEW WATER HEATING EQUIPMENT 2,132 5441 1,1241 4641 1,9281 2041 7971 1,0201 1 + / 121 2951 125 52,184 | 19,118|24,883|18,183|56,1831 5,936|13,848|29,464|21,872| 43,343| 13,272| 5.569 EQUIPMENT ADDED (EXPENSIVE) 193 3,504 | 1,300| 1,773| 431 3,254 2:01 337 1,826 1,341 2.6991 \$12 STORM WINDOWS/INSULATING GLASSI 2,672 | 1,063| 1,386] 223 2,498 174 258 1,301 1,113 2.081 4231 163 - 1 - 1 FLECTRIC HEAT PUMP...... 67 1 551 121 48 191 55 f 121 67 -----1,049 1 2051 NEW FURNAC 2931 5471 2091 9903 581 961 6271 3251 7961 46 MO 63,953 119,612125,779118,562157,8061 6,147111,173129,929122,8521 44,9971 13,3531 5 \$604 ______

TABLE 31A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY SELECTED DEMOGRAPHIC CHARACTERISTICS (THOUSAND HOUSEHOLDS)

		AGE OF HEAD			RAI	CE		ION OF		MARITAL STATUS		F HEAD
	TOTAL	35	36	60] 	8	5	1.5		NOT MA	RRIED
		08 LESS 	T0 59		WHITE. OTHER		OR LESS	T0 12	ANO OVER	MARRIED 	FEMALE HEAD	MALE HEAD
ADDED ANY INSULATION OR EQUIPMENT										1		,
YE 8	1 1 1 1 1 1 1										3+525 10+440	
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3+212	1,230	1.343	633	3,131	 81	377	1•496	1,339	2,663	344	205
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	2,490	982	1,182	527	2.266	225	270	1 +227	993	1,841	472	177
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1.014	318	591	105	988	26	66	599	348	858	140	16
ADDED ONLY INEXPENSIVE Insulation or equipment	15,362	4,945	7,211	3#705	14,569	1+273	2,327	7•751	5,735	12.204	2,559	1,090
ADDED STORM WINDOWS, STORM DOORS, or attic or roof insulation	5,427	2+400	3,191	346	6.368	359	701	3,031	2,694	5,227	834	355
1/ EXCLUDES BUILDINGS WITH FIV		ITTS.	L	L	L	L		L	L	L	LI	

TABLE 31A CONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY SELECTED DEMOGRAPHIC CHARACTERISTICS-CONTINUED (THOUSAND HOUSEHOLDS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORT UNITS.

NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "+" REPRESENTS OR ROUNDS TO ZERO. SEE BLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

		AGE	OF HE	D	 RAI	CE		TION OF		MARITAL	STATUS	DF HEAD
	I TOTAL	35	36	50		1		9	13		NOT M	ARRIED
		DR LFSS	T0 59		WHITE. OTHER		OR LESS	TO 12 	AND OVER	MARRIED 	 FEMALE HEAD 	MALE HEAD
TOTAL <u>1</u> /	100%	100%	100%	107%	100%	100%	100%	100%	100%	190%	100%	100%
INSULATION ADDED (INEXPENSIVE)	1					1			1		1	ł
YESammaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	25 1	28	29	20	27	1 1 9	20	27	27	29	19	20
HEATHERSTRIPPING		10	8	4	, .	5	3	8	9	, R	i 5	4
AROUND HOT WATER PIPES	•	3			6	1 -		2	2	2	2	2
AROUND HOT WATER HEATER		1	1] 1	-	1	1	1	1	i -	1 1
CAULKING	1 15	15	19	14	1 17	7	11	17	18	j 19	1 10	1 8
PLASTIC COVERING		10	я	7	8	1 9	1 10	9	6	8	1 7	8
0THER		2	1	1	1 1	-		2	1 1	1 1	1 1	i 1
NO	74	72	71	80	s .		80	73	73	71	31	80
INSULATION ADDED (EXPENSIVE)					1	1	1			1		1
YES	5	7	7	4	7	1 2	4	7	7	i 7	1 3	. 4
ROOF OR ATTIC		5	-		1		3	4	, . I 5	1 5	2	2
BASEMENT OR CRAWL SPACE		3			,	•	, -	•	1 2	1 2	1 1	I 1
OUTSIDE WALLS.		2		-		1 1				4	1 1	1 1
NO	1 .	93		-			•			•	97	96
EQUIPMENT ADDED (INEXPENSIVE)					ŧ							1
YES	1 7	1 7	10	4	1 8	1 6	6	1 7	1 10	19	1 5	4
CLOSEABLE CHUTTERS	•	1 1			•	1 -	•	-		•	-	i -
STORM DOORSessessessessesses	,			2	1	1 2	1	1 1 4	-	1	2	2
AUTOMATIC OR CLOCK THERMOSTAT.	• •	2		1		,	•	4		, .	1 1	, –
NEW WATER HEATING EQUIPMENT	,	<i>د</i> . ج		•	•		•		,	•	i 2	1 2
	•			95		•	•			•	75	96
EQUIPMENT ADDED (EXPENSIVE)	1		2	1		I	1		1	1	1	1
YES	1 5	6	6	1 2	1 5	4	3	1 5	1 6	1 5	1 4	1 3
STORM WINDOWS/INSULATING GLASS	a	1 5		1		1 3			•	•	1 3	1 3
ELECTRIC HEAT PUMP		; · · ·	- U		*	· ·	,	1 -		1	1 -	1 -
		1 – I 1	1	1 1	1	4	1	\$	1	1 2	1	1
	1	1 1	1	1 78	,			1	1 24	1 94	1 26	1 97
N0 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	1 74	74	20	1 20	1 11	1 71	1 74	1 2.19	4 / T	1 .7 17	1 //

TABLE 31B Conservation efforts undertaken during 1978 by selected demographic characteristics (percentage of HouseHolds)

	TOTAL HOUSEHOLDS 	AGE OF HEAD			RACE		EDUCATION OF HEAD			MARITAL STATUS OF H		
			34	50	 1	 	8	9	1 13		NƏT MI	ARRIED
		OR LESS	TO 59 1		WHITE+ OTHER 		08 LESS 		I AND I OVER	IMARRIED	FEMALE HEAD	MALE HEAD
ADDED ANY INSULATION OR EQUIPMENT				1 1	9 1 5	1]] []] 1			
TECassossassasaaaaaaaaaaaaaaaaaaaaaaaaaaa	33	55	3.8	25	34	25	26	35	35	37	25	26
NU **** ********************************	67	54	62	75	66	1 75	74	65	65	63	/5	74
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	6	5	1	 5		3	1 5	5	6	5	4
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	1 1 1 1	5	4	2	4	4	2	4	 4	4	3	1 3
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT		2	2		2	1 1 –			! 1	2	1	-
ADDED ONLY INEXPENSIVE Insulation or equipment	24	24	25	20	24	1 20	20	24	1 24	26	18	1
ADDED STORM WINDOWS, STORM DOORS, OR ATTIC OR ROOF INSULATION	10	11	12	4	1	6	6	10	1 11	11	6	6

TABLE 31BCONSERVATION EFFORTS UNDERTAKEN DURING 1978 BY SELECTED DEMOGRAPHIC CHARACTERISTICS-CONTINUED
(PERCENTAGE OF HOUSEHOLDS)

1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

NOTE: DATA MAY NOT SUM TO FOTALS OF TO ROUNDING. A DASH "-" REPRESENTS OF ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM INCRUST CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

		AGE	OF HE	A D	RA	CE		TION OF		MARITAL	STATUS O	F HEAD
	TOTAL HOUSEHOLDS	35	36	60		1	8	9	13	1	NOTMA	RRIED
		OR LESS	10 59		WHITE+ OTHER 		OR LESS	10 12	AND OVER	MARRIED 1	FEMALE HEAD	MA LE HE AD
OTAL 1/	67+457	20,912	27,552	18,994	61,060	6,398	11,510	31,753	24,193	47,696	13,965	5,79
NSULATION ADDED (INEXPENSIVE)]	1			1	1						
YES# ************************************	17,574	5.492	9,080	5,017	18,185	1,392	2,987	9,946	6,546	15,113	3,249	1,21
WEATHERSTRIPPING	6,516	2,122	2,881	1.514	6.206	310	676	3,326	2,514	5,256	842	41
AROUND HOT WATER PIPES	1 1.502	460	728	313	1,397	1 105	197	724	581	1,183	212	10
AROUND HOT WATER HEATER	594	201	308		552	43	38	184	372	511	56	1
CAULKING	9,852	2,325	4.915	2.612	9.364	487	1,239	5,196	3,416	8.184	1.201	46
PLASTIC COVERING	8 683	3,071	3,634	1,977	7.920	853	1,784	4,410	2,489	5,468	1,695	52
9THER	514	128	138	238	489	1 15	77	214	214	318	151	3
NO	47+878	15,429	18,471	13,977	42.372	5,006	8,523	21,809	17,547	32+583	10,716	4,57
NSULATION ADDED (EXPENSIVE)	1	l			1	1			1	1		
YES	4 + 545	1,297	2.133	1.116	4,468	77	664	2.227	1,655	3,877	457	21
ROOF OR ATTIC	3,021	852	1,327	842	2,984	1 36	448	1,375	1,197	2,543	347	13
BASEMENT OR CRAWL SPACE	959	354	498	107	348	1 11	109	452	398	884	1 47	2
OUTSIDE WALLS	1 1.729	480	813	435	1,700	29	198	958	573	1,492	157	9
N9	62,112	19+614	25,419	17,878	56,592	6,320	10,846	27 • 528	22,538	43,819	13,507	5,58
QUIPMENT ADDED (INEXPENSIVE)		1		5 1	1	1				1	1	1
, YES	4,955	1 .310	2+581	1 1.064	4,507	448	574	2,383	1,999	4.064	673	21
CLOSEABLE SHUTTERS	237	74	133	j 30	1 208	29	- 1	148	89	222	1 - 1	1
STORM DOORS	2 . 751	708	1,446	596	2,522	228	262	1,440	1,048	2,237	445	6
AUTOMATIC OR CLOCK THERMOSTAT.	736	212	372	152	659	78	92	336	309	673	1 19	4
NEW WATER HEATING EQUIPMENT	1 1,524	391	878	355	1,431	143	220	659	1 745	1,311	208	10
NO	62.502	19,601	24.970	17,930	56,553	5,949	10,936	29.372	22,194	43.632	13,292	5.5
QUIPMENT ADDED (EXPENSIVE)	1	i I	1	1	1	1	1	1	1 	1	1	1
YES	4:002	935	1,901	1.166	3,774	229	421	2,162	1,419	3,382	477	1 14
STORM WINDOWS/INSULATING GLASS	3,078	705	1,464	910	2,939	1 139	285	1,682	1,111	2,594	389	
ELECTRIC HEAT PUMP	144	58	1 4	22	144	j –	j -	59	84	1 128	1 -	
NEW FURNACE		297			1,071							
NO	63,455	119,077	25.650	117.828	157,286	6,159	111,088	29,593	22,774	44,314	13,488	5,5

TABLE 32ACONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY SELECTED DEMOGRAPHIC CHARACTERISTICS(THOUSAND HOUSEHOLDS)

	1 1 1	AGE OF HEAD			RACE		EDUCATION OF HEAD (IN YEARS)			MARITAL	STATUS O	F HEAD
	TOTAL HOUSEHOLDSI	35	35	50	·	 	8	9	13		NOT MA	RRIED
		0R 1 555	10 59	• •	WHITE+ OTHER 	,	OR LESS	TO 12 	AND OVER	MARR IED 	FEMALE HEAD	MALE HEAD
ADDED ANY INSULATION DR EQUIPHENT Yes	,	-								18,636 29,010	3,973 9,972	
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	3,663	 1+063	1.722	879	3,615	48	620	1+730	1,313	ʻ 3 •026	426	21
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	1 3+120	1 700	1.491	923	2,720	199	377	1,665	1+078	2,531	445	14
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	893	235	 411	237	853	29	44	497	342	851	32	_
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	16+513	 4,459	7,707	1 4+347	15,020	1,472	2,661	8,285	5,566	12,278	3,071	1,15
ADDED STORM WINDOWS, STORM DOORS, or attic or roof insulation		1+896	3.420	 1,921	 6,873	353	887	3,639	2,710	5,928	1.032	27

TABLE 32A CONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY SELECTED DEMOGRAPHIC CHARACTERISTICS-CONTINUED (THOUSAND HOUSEHOLDS)

NOTE: DATA MAY NOT SUM TO FOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OR ROUNDS TO ZERD. SEE PLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM ENERGY CONSUMPTION SURVEY. OFFICE OF THE CONSUMPTION DATA SYSTEM. OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

		AGE	OF HEA	D	RA	CE I		ION OF		MARITAL	STATUS	OF HEAD
	I TOTAL	35	36 I	50	 	 	8	3	13	1 	NOTM	ARRIED
		OR LESS	T0 59		WHITE, OTHER	• •	OP LESS	10 12	IAND IOVER	MARRIED 	FEMALE HEAD	I MALE HEAD
TOTAL <u>1</u> /	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1 100%
INSULATION ADDED (INEXPENSIVE)		ľ								1	1	1
755	1 27	26 1	33 1	26	30	i 22 i	26 1	31	27	32	j 23	1 21
WEATHERSTRIPPING		10	10							•	6	7
AROUND HOT WATER PIPES		2	3 1							•	2	2
AROUND HOT WATER HEATER		1	ĩ	-	-	•	- 1	1		1	-	-
CAULKING	•	11	18		· -	,			•	•	9	8
PLASTIC COVERING	1	15	13	10					-		1 12	9
OTHER										. –	1 1	
	71	,	•	-	, –	, .		57	73		1 77	1 79
N9		74	67	74	1 70 1	78 	74	59	15) 54 1		19
INSULATION ADDED (EXPENSIVE)					l	1				1	i	1
YES	•	6	8	6	1 7	1 1	5	7	7	8	3	4
ROOF OF ATTIC	4	4	5	4	1 5	1 1	4	4	5	5	1 2	5
BASEMENT OR CRAWL SPACE	1 1	2	2	1	2		1	1	2	2	- 1	1 -
OUTSIDE WALLS	3	21	3	2	3	-	2	3	2	1 3	1 1	1 1
N0	93	94	92	94	32	97	94	93	93	92	97	95
EQUIPMENT ADDED (INEXPENSIVE)	1	1								1	\$ 1	1
YES	1 7	5	9	6	1 7	1 7	5	8	8	1 9	1 5	4
CLOSEABLE SHUTTERS	1	-	-	- -	-			- -		1 -	1 -	1 -
	•				4	1	-	5	-	1 5	1 3	
STORM DOORS STORM DOORS	, ·	3		-		4			4	1 0	-	1 1
AUTOMATIC OR CLOCK THERMOSTAT.	•	1				1 .			•	•	-	1 1
NEW WATER HEATING EQUIPMENT	•	2				,	,		1 3		1	2
NO	93	94	91	94	93	9.3	95	92	92	91	95	96
QUIPMENT ADDED (EXPENSIVE)	1				1	1						1
YES	5	4	7	6	6	4	4	7	6	1 7	1 3	2
STORM WINDOWS/INSULATING GLASS	1 5	3	5	5	5	1 2	2	5	5	1 5	1 3	1 2
ELECTRIC HEAT PUMP	•	- 1	_	-	-	-		-	-	i -	1 -	i -
NEW FURNACE	,	1	2	2	4	1 1	, ,		2	2	1 1	i 1
NO 2002		95	93	34	1 94	1 96	96	93	94	1 93	1 97	1 98
:fi) D C C C C A B B B B B B B B B B B B B B C C C C	1		1.3	1.4	1 /7	1 10		1 10	1 77	1 · · · ·	1	1 20

TABLE 32BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY SELECTED DEMOGRAPHIC CHARACTERISTICS(PERCENTAGE OF HOUSEHOLDS)

		AGE	OF HE	AD.	1 RAI	CE		TION OF		HARITAL STATUS OF HEAD		
	TOTAL		36	50	 	 		9	13		I INDEM.	ARRIED
		0R T0 LESS 59		INHITE IOTHER I	• •	OR LESS 	•	AND DV=R 	IMARRIED	FEMALE HEAD	I MALE I HEAD	
ADDED ANY INSULATION OR EQUIPMENT YES	 36 64	31 69	41 59	•	e	1					28	 26 74
ADDED EXPENSIVE INSULATION BUT NOT EXPENSIVE EQUIPMENT	5	5	5	5	6		5	5	5	6	i i 3	 4
ADDED EXPENSIVE EQUIPMENT BUT NOT EXPENSIVE INSULATION	5	3	5	5	5		3	5	1 4	5	 3	2
ADDED EXPENSIVE INSULATION AND EXPENSIVE EQUIPMENT	1	1	1			-	-	2		2	i i –	 -
ADDED ONLY INEXPENSIVE INSULATION OR EQUIPMENT	24	21	28	23	25	23	23	26	23	26	22	20
ADDED STORM WINDOWS, STORM DOORS, Or attic or roof insulation		o			1	6	 8	11		12	 7	5

TABLE 32BCONSERVATION EFFORTS UNDERTAKEN DURING 1977 BY SELECTED DEMOGRAPHIC CHARACTERISTICS-CONTINUED(PERCENTAGE OF HOUSEHOLDS)

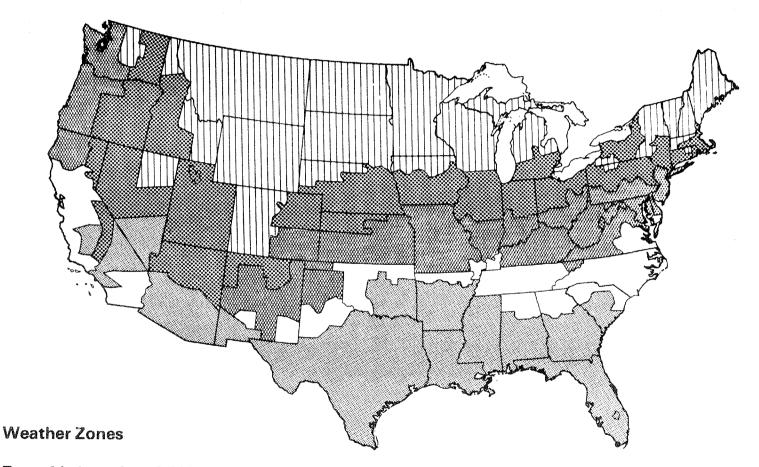
1/ EXCLUDES BUILDINGS WITH FIVE OR MORE UNITS.

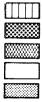
NOTE: DATA MAY NOT SUM TO TOTALS DUE TO ROUNDING. A DASH "-" REPRESENTS OF ROUNDS TO ZERO. SEE GLOSSARY FOR DEFINITIONS OF TERMS USED IN THIS TABLE.

SOURCE: THE 1978 NATIONAL INTERIM (NERGY CONSUMPTION SURVEY, OFFICE OF THE CONSUMPTION DATA SYSTEM, OFFICE OF PROGRAM DEVELOPMENT, ENERGY INFORMATION ADMINISTRATION.

United States Weather Zone Map of

Heating Degree Days (HDD) and Cooling Degree Days (CDD)





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

NATIONAL INTERIM ENERGY CONSUMPTION SURVEY: HOW THE SURVEY WAS CONDUCTED

Introduction

The National Interim Energy Consumption Survey (NIECS)¹ was designed by the Energy Information Administration (EIA) to provide information related to energy consumption by the residential sector.² This survey, along with analogous studies for the commercial and industrial sectors, will enable the analysis of comprehensive consumption patterns for the United States.

Information on energy use in the residential sector was collected at the household level. A representative (national) sample of households was selected in the 48 contiguous States plus the District of Columbia. The data on actual energy consumption was obtained from fuel records maintained by the household's fuel suppliers. An inventory of motor vehicles used by the household was also included in the survey.

Data Collection

Response Analysis Corporation (RAC), of Princeton, New Jersey conducted the interviews. A total of 4,849 housing units were drawn in the original sample. Of these, 342 were ineligible for this survey because they were either vacant or seasonal units (the occupants did not live in them for more than half of the year). Of the 4,507 eligible units, interviews were obtained from 3,842 households, yielding an initial response rate of 85.2 percent. Subsequently, mail questionnaires were sent to the 665 households that were not interviewed. Completed mail questionnaires were received from 239 of the households. This additional effort increased the response rate by 5.3 percent.

Initial household contacts were begun in October 1978. The 44-minute interview covered: structural features related to energy, such as size, insulation, and openings; the heating and cooling systems and the fuels used in these systems; energy conservation efforts; information on household appliances and vehicles; and demographic data on household members. At the conclusion of the interview, respondents were asked to sign waivers authorizing Response Analysis Corporation (RAC) to obtain their records of fuel consumption from their fuel supplier.

INot to be confused with NEIC--the National Energy Information Center which is EIA's public information office. ²Form Number EIA-84; OMB 38S-780028 Most of the 327 interviewers employed by RAC had had previous survey experience. Training for NIECS was done by mail, using a 59-page instruction booklet. The booklet included specific procedures for conducting this survey and provided guidelines on how to handle various interpretations of guestions. A practice interview and a guiz on the instructions were also parts of the training. An interviewer conducted about 12 interviews on the average. The most interviews conducted by a single interviewer was 47 while several interviewers completed as few as one. Twenty percent of the interviews were verified to insure that interviews were conducted in person.

Sample Design

The NIECS sample is a representative area probability sample consisting of 103 primary sampling units (PSU's). These PSU's were selected from approximately 1,140 PSU's that collectively form a mutually exclusive and exhaustive division of the contiguous United States. Each PSU is a well-defined geographic unit, usually consisting of one or more counties. Based on the 1970 Census, PSU sizes range from a population of 50,000 to approximately 3,300,000. Region, metropolitan status, and size classification were the primary considerations in the selection of the sampled PSU's.

Within each PSU, secondary sampling units (SSU's) were defined. Based upon 1970 Census counts, 400 SSU's were selected from the 103 PSU's. Each of these SSU's contained approximately 2,500 persons and consisted of one or more blocks in urban areas and one or more enumeration districts in the nonurban areas. An additional 56 SSU's were selected independently. These 56 SSU's comprised a probability selection of areas that had undergone substantial new construction since 1970. Independent sources (Reuben H. Donnelley address lists and county data) were used to update the population for these SSU's. This effort to locate areas of new construction was undertaken to control the variation in cluster size.

Within each SSU, subdivisions were made. Census block statistics and rough field counts were used to break up each SSU into segments. Interviewers listed all housing units in the segment, completing this phase of the survey in the summer of 1978. The segments were formed so that they ultimately contained about 25 households. Finally, a sample of 10 or 11 households was selected to be visited. Thus, within each SSU 10 or 11 households were sampled, within each PSU an average of 40 to 45 households were sampled, and nationally, about 4,500 units were sampled.

Survey Estimates

Weights were calculated for each sample household to: 1) compensate for differences in probabilities of selection, 2) adjust for differences in interview completion rate in individual sampling locations, and 3) expand data for sample households to estimates for the total universe (all households in the contiguous 48 States plus the District of Columbia).

In order to increase the precision of our estimates, a technique called ratio estimation was employed. Ratio estimation uses known distributions of the population. These adjustments took place in two stages for the NIECS. The first stage factor was a ratio of the total number of households in each region by fuel type to an estimate of the number of households in each category. Only the PSU's in our sample and their appropriate weights were used. The figures used in both the numerator and denominator were based on the 1970 Census. The implementation of this factor reduced the amount of variance due to the sampling of PSU's. The second stage factor adjusted data from the survey to independently derived current estimates of the number of households for specified groups. The ratio adjustment was calculated for each region by type of community. The second stage factor reduced both the between PSU variance, as in the first stage, and the within PSU variance.

Estimation for Nonresponse

When data was unattainable from a nonresponding household, the weights from the households in the final cluster were increased to make up for the nonresponding household.

Item nonresponse required a customized procedure for each data element. The data elements were divided into two categories: those with minimum nonresponse (about one percent), and those with more substantial nonresponse. The basic procedure attributed the most common response (modal value) to the first class of variables. In the second group where nonresponse was significant, a "hot deck" procedure was implemented. There were variations to this procedure depending on the importance of the data element, the interrelationship of data elements, and the consistency of data. Some elements such as amount of attic insulation were not imputed at all and a "don't know" response was accepted. Square footage and transportation data were not imputed.

Minimizing Nonresponse

The Office of Federal Statistical Policy and Standards (OFSPS) encouraged an analysis of the effect of nonsampling error in the NIECS. An intensive effort to minimize nonresponse was the outcome of several meetings and memoranda dealing with the nonsampling error issue. Many of the following procedures were used to test the feasibility of a multi-wave, multicontact approach and may or may not be used in the larger Residential Energy Consumption Surveys (RECS). Most households received two letters in October 1978, prior to the interview. An EIA letter stressed the importance of the survey and a RAC letter announced the upcoming arrival of the interviewer.

To elicit rapport and cooperation, a \$2 incentive was given to the respondent before the interview. Over 99 percent of the respondents accepted the incentive. Interviewers made up to eight call-backs at different times of the day and week. They also queried neighbors as to the most opportune time to contact the respondent.

A second wave was conducted in December 1978 to contact households that were not available during the first wave and to convince the first-wave refusals to reconsider. A new set of letters preceded the second-wave interview. For the second wave, a different interviewer was assigned who endeav--ored to complete the interview by making up to five contacts.

A third wave followed in January 1979. This was an effort to reach nonrespondents in 14 sample locations that had low interview completion rates.

In a final attempt to complete an interview, an abbreviated version of the questionnaire, adapted for self-administration, was mailed to nonrespondents in February 1979. The \$2 incentive was included in the mailing.

In an attempt to evaluate the effects of a multi-wave, multicontact approach the following was noted:

- Eighty-seven percent of all responding households cooperated on the first wave, 12 percent on the second wave, and 1 percent were picked up at the third wave.
- Household and family characteristics such as income, age of head of household, education, and geographical location had little relation to the wave in which the respondent completed the interview.
- Thirty-seven percent of all responding households required only one contact.

Evaluation of Nonresponse

Basic information on all 4,507 households was obtained from the listing procedure. It was, therefore, possible to compare the responding households to the non-responding households.

Table 1 gives a percentage breakdown of respondents and nonrespondents by structure type and SMSA classification.

TABLE 1

	Respondents	Nonrespondents
Single-Family Detached	66	57
Structures Having		
5 or More units	11	16
Other	23	27
Large SMSA	39	54
Small SMSA	27	23
Outside SMSA	34	23

Response rates in large urban areas (where apartment buildings with five or more units are more common) were somewhat lower than in other geographic locations.

Our nonrespondents were classified into eight sub-categories including "not-at-home," "refused," "illness," "language barrier," "interview of wrong household," "security building," "moved after initial contact," and "other." Of the 426 nonrespondents, 21 percent were not at home, 75 percent refused, and 4 percent were in the remaining categories.

TABLE 2

	Nonrespor	ndents	Respondents
	Not-at-home	Refusals	Annual des and an and a second descent de second de la desta de la desta de la desta de la desta de la desta d
Single-Family		<u> </u>	
Detached	43	62	66
Structures Having 5			
or More Units	23	14	11
Other	34	24	23
Large SMSA	58	53	39

Table 2 shows that the distribution of structure type for refusals was more similar to the respondents than the notat-home households. On the other hand, the geographic distribution indicated a somewhat different trend. Refusals and not-at-home households were distributed more like each other than to responding households.

Additional Survey Components

One purpose of the NIECS was to test the procedures and methodology for RECS. Three studies, in addition to the basic NIECS survey, are also being conducted. These studies will be used to determine what additions and modifications should be made for RECS.

When renters did not pay directly for their fuel costs, an interviewer contacted the apartment manager by telephone to ask what space and water heating fuels were used in the apartment building. These data have been incorporated into the NIECS data set, resulting in more accurate information about rental housing units.

A transportation panel consisting of a subset of the NIECS sample began in June 1979. Participating households are asked to keep a log of their fuel purchases and odometer readings for a two-month period. The panel consists of 500 to 1,000 households reporting each month. Separate tabulations of these data are planned.

Fifty NIECS households were selected to be part of an energy assessment study. Trained technicians analyzed the energy-related components of a house. Exact square footage, temperature distribution in various parts of the house, presence of insulation, and features of major appliances (including heating and cooling equipment) were surveyed. Detailed evaluations of this pretest are being developed.

Data From Non-household Sources (Fuel Suppliers)

Respondents in 95 percent of the interviewed households signed waivers to permit fuel suppliers to give Response Analysis Corporation the monthly record of their past year's fuel purchases. The data contained both the amount sold and the price of the fuel. The suppliers were contacted between March and May 1979 and were asked to supply fuel billing information for the previous 12-month period.

In order to attain the highest response rate possible, the following procedures were used:

• Letters were sent to each company after RAC located the person who would act on the request for fuel bills. Follow up telephone calls were made to insure the receipt of the letter and to help with any problems that may have arisen. Response Analysis Corporation also personally visited several companies to offer assistance. • Some fuel oil and liquid petroleum gas (LPG) suppliers provided the fuel purchase information over the telephone. The telephone was adequate for these types of suppliers because each company supplied data for only a few customers and the fuel records were not as detailed as records for electricity and natural gas sales. About 600 of the approximately 800 fuel suppliers contacted in this survey were fuel oil or LPG distributors.

One unique aspect of this survey was the opportunity to obtain electricity and natural gas data for households that did not complete the interview or did not sign the waiver. Utilities would not supply individual household data without a waiver, but did supply aggregate data for groups of nonrespondents. This information provides the ability to analyze the potential bias introduced by nonresponse and to improve the accuracy of consumption estimates in the residential sector.

Weather Data

The first type of temperature data used was the 45-year annual average heating degree days (HDD) and cooling degree days (CDD) for the National Oceanic and Atmospheric Administration (NOAA) weather division in which the household was located.

These data will aid in analyzing the effects of weather on personal decisions to make changes in basic housing structure or equipment. The second type of data used were HDD and CDD totals for each billing period. These data will allow more complete analysis of fuel consumption.

Weather conditions will be calculated for the appropriate billing period. For example, one household may be billed on the 1st of every month, while another may be billed on the 5th. Obviously, there will be different 30-day averages of HDD and CDD for each billing period.

Editing Completed Questionnaires

Interviewers mailed the completed questionnaires to Princeton, New Jersey, where they were reviewed for completeness and correct identifying information. This manual edit was segmented and each part was worked on separately.

A machine edit checked for reasonable values, proper skip patterns, and logical consistencies.

Telephone calls were made to individual households to clarify ambiguities in the data. Additional editing resolved discrepancies among the household interview, the rental agent survey, and the information from fuel suppliers. For example, information on the fuel used in apartment buildings was taken from the rental agent survey to correct the data from the household. In other cases, a fuel supplier reported supplying kerosene to a household not fuel oil as was reported by the household. The data, therefore, do not always represent the respondents' reports, exclusively.

All key punching was verified.

Response Analysis Corporation Princeton, New Jersey RAC 3993 101278 C

HOUSING UNIT RECORD SHEET

Location #	Housing Unit #	
Address (or description)		
Post Office (city or town)		
State		Zip code

INTRODUCTION

Hello, I'm from Response Analysis, a survey organization in Princeton, New Jersey. We are working on a national survey for the U.S. Department of Energy. May I speak to the head of the household?

CONTINUE WITH HEAD OF HOUSEHOLD, OR ONE OF HOUSEHOLD HEADS, OR SPOUSE

We would like to ask some questions about your home, about heating and air-conditioning, appliances, and related topics.

HAND PRIVACY ACT NOTICE TO RESPONDENT: This notice explains that information about your household is protected by the Privacy Act of 1974 and will remain confidential.

HAND PACKET OF TWO DOLLAR COINS TO RESPONDENT: As Response Analysis mentioned in the letter to your household, these coins are a token of appreciation for your participation in the survey.

CONTINUE WITH INTERVIEW

	E OF LIVING QUARTERS
01 [] MOBILE HOME OR TRAILER 02 [] ONE-FAMILY HOUSE] DETACHED] ATTACHED ON ONE SIDE (SEMI-DETACHED)] ATTACHED ON TWO SIDES
03 [] HOUSE OR BUILDING WITH 2 - 4 HOUSING UNITS	[] DETACHED [] ATTACHED ON ONE SIDE (SEMI-DETACHED) [] ATTACHED ON TWO SIDES
04 [] BUILDING WITH 5 OR MORE	NUMBER OF UNITS:
21 [] OTHER DESCRIBE IN DETAIL ANY STR	JCTURE THAT DOES NOT FIT ONE OF THE ABOVE.

COMPLETE RECORD OF CONTACTS AND ADDITIONAL INFORMATION ON BACK OF THIS RECORD SHFET.

2 T	YPE OF OCCUPA	NCY OF H	OUSING UNIT						
	1 [] YEAR-ROUND UNIT 2 [] SEASONAL UNIT 3 [] MIGRATORY UNIT MARK ANSWER WHETHER HOUSING UNIT IS OCCUPIED OR VACANT SEE P. 10 OF INSTRUCTION BOOKLET FOR INTERVIEWERS.								
3 R	ECORD OF VISI	ТS ТО НО	USING UNIT						
Visit number	Time of day (include AM or PM)	Date	Day of week	Result or comments					
	(4) USE THIS SPACE FOR ADDITIONAL NOTES OR COMMENTS ABOUT VISITS TO THIS HOUSEHOLD. DESCRIBE FULLY IF REFUSAL OR OTHER NONINTERVIEW.								
	IFT TO HOUSEH		······································						
M/	MARK TO SHOW WHETHER TWO DOLLAR COIN PACKET WAS ACCEPTED 1 [] TWO DOLLAR COIN PACKET ACCEPTED BY HOUSEHOLD 0 [] NOT ACCEPTED								
6 N/	ME AND PHONE	NUMBER (OF HEAD OF HOU	JSEHOLD (OR ONE OF HOUSEHOLD HEADS)					
<u>Name</u>				<u>Phone number</u> Area code ()					
II (7)	ITERVIEWER'S N	NAME AND	I.D. NUMBER						
Interviewer I.D. number									

Response Analysis Corporation Princeton, New Jersey RAC 3993 C 101078

UTILITY ROOM, LAUNDRY ROOM, ETC.

1978 - 79

RESIDENTIAL ENERGY CONSUMPTION SURVEY

HOUSING TIME INTERVIEW STARTED: LOCATION # UNIT # 111-115 116-117 1. In what year did your family move into 01 [] BEFORE 1940 121this house (apartment)? 12202 [] 1940-1949 03 [] 1950-1959 04 [] 1960-1964 05 [] 1965-1969 06 [] 1970-1974 07 [] 1975 08 [] 1976 09 [] 1977 10 [] 1978 11 [] 1979 IF "1977," "1978," OR "1979," ASK: 123-1242. In which month did you move in? MONTH: (SPECIFY MONTH AND ENTER LAST DIGIT OF YEAR.) YEAR: 197 3. In what year was this house (building) built? 01 [] BEFORE 1940 125-Just your estimate. 12602 [] 1940-1949 03 [] 1950-1959 04 [] 1960-1964 05 [] 1965-1969 06 [] 1970-1974 07 [] 1975 08 [] 1976 09 [] 1977 10 [] 1978 11 [] 1979 4. How many floors do you use as year-round living 1271 [] ONE FLOOR space here in your house (apartment)? 2 [] 1-1/2 FLOORS AREAS USED AS REGULAR YEAR-ROUND LIVING SPACE (FOR 3 [] TWO FLOORS BEDROOM, KITCHEN, STUDY, ETC.) IN BASEMENT OR ATTIC 4 [] 2-1/2 FLOORS SHOULD BE COUNTED. 5 [] THREE OR MORE FLOORS DO NOT COUNT UNFINISHED AREAS USED FOR WORKROOMS,

106-107:01

- round living space), how many rooms do you have in your living quarters? Do not count bathrooms, un-NUMBER 128heated porches, foyers, or hallways. OF ROOMS: 129 1 [] YES 130 living quarters, that is, hot and cold running water, 2 [] NO, HAVE SOME BUT NOT ALL a flush toilet, and a bathtub or shower? PLUMBING FACILITIES 3 [] NO PLUMBING FACILITIES IN LIVING QUARTERS IF "YES," ASK: 7. Are they for this household only or are they 1 [] FOR THIS HOUSEHOLD ONLY 131 also used by another household? 2 [] ALSO USED BY ANOTHER HOUSEHOLD 8. How many complete bathrooms and how many half-NUMBER OF bathrooms do you have? (A complete bathroom is 132 COMPLETE BATHROOMS: a room with a flush toilet, bathtub or shower, and a sink/washbasin with running water. A half-NUMBER OF bath has at least a flush toilet or bathtub or 133 HALF-BATHROOMS: shower, but does not have all the facilities for a complete bathroom.) IF NONE, ENTER "O." 9. Do you happen to know how many square feet of living space you have here in your house (apartment)? 1 [] YES ----- How many square feet, just NUMBER OF 135-SQUARE FEET: approximately? 133134
 - 0 [] NO ----- What would be your best guess about the number of square feet?

[] HAVE NO IDEA

- 5. Altogether (counting all areas that are used as year-
- 6. Do you have complete plumbing facilities in your

10. How about the largest room (living or family room) of your house (apartment) -- what is your estimate of the length and width in feet?

INTERVIEWER: PUT RESPONDENT'S ESTIMATE IN BOXES IN RECTANGULAR OR L-SHAPED SKETCH AT RIGHT, AS APPROPRIATE. IF RESPONDENT IS UNABLE TO MAKE ESTIMATE, PUT IN YOUR OWN BEST ESTIMATE.

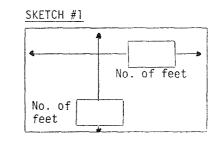
NOTE BELOW WHETHER LARGEST ROOM IS RECTANGULAR OR L-SHAPED, AND HOW ESTIMATE WAS MADE.

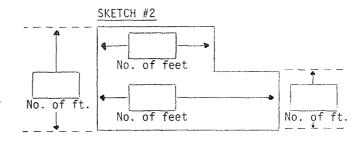
- 2 [] LARGEST ROOM IS RECTANGULAR: ENTER DIMENSIONS IN SKETCH #1
- 2 [] LARGEST ROOM IS L-SHAPED: ENTER DIMENSIONS IN SKETCH #2
 - SOURCE OF ESTIMATE

139

- 1 [] ESTIMATE MADE BY RESPONDENT
- 140 2 [] ESTIMATE MADE BY INTERVIEWER

3 [] RESPONDENT/INTERVIEWER MEASURED





HAND RESPONDENT EXHIBIT 11

11. What is the main heating equipment for your home?

CENTRAL HEATING SYSTEM

- 01 [] HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING)
- 02 [] STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS
- 03 [] CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (DO NOT COUNT ELECTRIC HEAT PUMP HERE)
- 04 [] ELECTRIC HEAT PUMP
- 05 [] BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)
- 06 [] FLOOR, WALL, OR PIPELESS FURNACE

HEAT ONLY IN INDIVIDUAL ROOMS

- 11 [] ROOM HEATERS WITH FLUE OR VENT, BURNING GAS, OIL, OR KEROSENE
- 12 [] ROOM HEATERS WITHOUT FLUE OR VENT, BURNING GAS, OIL, OR KEROSENE (NOT PORTABLE)
- 13 [] FIREPLACES OR HEATING STOVES
- 14 [] PORTABLE ROOM OR SPACE HEATERS
- 21 [] OTHER (SPECIFY): ____
- 96 [] DON'T KNOW
- 00 [] NO HEATING EQUIPMENT USED -- SKIP TO Q. 19

TAKE BACK EXHIBIT 11

IF ONE-FAMILY HOUSE, MOBILE HOME, OR TRAILER, SKIP TO Q. 13.

12. Is your home heated by a central system for your building (or group of buildings) or is the main heating equipment for your living quarters only?

HAND RESPONDENT EXHIBIT 13

- 13. Which fuel is used by the main heating equipment for your house (apartment)?
- 1 [] CENTRAL SYSTEM FOR BUILDING 2 [] MAIN HEATING EQUIPMENT FOR THESE LIVING QUARTERS ONLY

153-156

156--

- *OI* [] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
- 02 [] GAS, LPG (BOTTLED OR TANK GAS)
- оз[] FUEL OIL
- 04 [] KEROSENE OR COAL OIL 157
- 05 [] ELECTRICITY
- 06 [] COAL OR COKE
- 07 [] WOOD
- 08 [] SOLAR COLLECTORS
- 21 [] OTHER (SPECIFY): _____

TAKE BACK EXHIBIT 13

14.	Do you have a thermostat, radiator valve, or other control to adjust the temperature in your house (apartment) in the winter?	1 [] YES 18 0 [] NO 18	58
	IF "YES,"_ASK:		
	15. Which do you have? (MARK ALL THAT APPLY.)		59
		[] KADIATOK ANEAE(3)	60 01
		[] OTHER CONTROL(S) 2. (SPECIFY):	61
HAND	RESPONDENT EXHIBIT 16		
16.	You have already mentioned your main heating equipment. Are any of these types of equip- ment used in your home <u>in addition to your</u> main equipment?	1 [] YES 1 0 [] NO TAKE BACK EXHIBIT 16	62
	IF "YES," ASK:		
	17. What type do you use? (IF MORE THAN ONE TYPE	E IS MENTIONED, MARK ONLY THE ONE USED MOST	·.)
	CENTRAL HEATING SYSTEM		
	01 [] HOT WATER PIPES RUNNING THROUGH A SLA	B FLOOR (RADIANT HEATING)	
	02 [] STEAM OR HOT WATER SYSTEM WITH RADIAT		
	03 [] CENTRAL WARM-AIR FURNACE WITH DUCTS T (DO NOT COUNT ELECTRIC HEAT PUMP HERE	O INDIVIDUAL ROOMS	
	04 [] ELECTRIC HEAT PUMP		
	05 [] BUILT-IN ELECTRIC UNITS (PERMANENTLY	INSTALLED IN WALL, CEILING, OR BASEBOARD)	
	06 [] FLOOR, WALL, OR PIPELESS FURNACE	I.	163- 164
	HEAT ONLY IN INDIVIDUAL ROOMS 11 [] ROOM HEATERS WITH FLUE OR VENT, BURNI 12 [] ROOM HEATERS WITHOUT FLUE OR VENT, BU 13 [] FIREPLACES OR HEATING STOVES 14 [] PORTABLE ROOM OR SPACE HEATERS 21 [] OTHER (SPECIFY):	NG GAS, OIL, OR KEROSENE RNING GAS, OIL, OR KEROSENE (NOT PORTABLE)	
	96 [] DON'T KNOW		
	TAKE BACK EXHIBIT 16; HAND RESPONDENT EXHIBIT 18		
	18. Which fuel is used by this additional equip- ment? (MARK ONLY ONE FUEL FOR THE TYPE OF	SERVING THE NEIGHBURHOUD	
	ADDITIONAL EQUIPMENT USED MOST.)	02 [] GAS, LPG (BOTTLED OR TANK GAS)	
		03 [] FUEL OIL	105
		of LI KENODERE ON COME OFE	165- 166
		05 [] ELECTRICITY	
		06 [] COAL OR COKE	
		08 [] SOLAR COLLECTORS	
		21 [] OTHER (SPECIFY):	
	TAKE BACK EXHIBIT 18		

19.	syst	you have air-conditioning, either a central em or individual window or wall units? KALL THAT APPLY.)	[]	YES, CENTRAL SYSTEM YES, INDIVIDUAL (WINDOW/WALL) UNITS NO SKIP TO Q. 26	167 168
20.		many rooms in your house (apartment) are conditioned?		MBER OF ROOMS:	169. 170
	IF " 21.	INDIVIDUAL (WINDOW/WALL) UNITS" ON Q. 19, ASK: How many window or wall units do you have in your house (apartment)?		MBER OF INDOW/WALL) UNITS:	171- 172
		CENTRAL SYSTEM" ON Q. 19, ASK: Does the central air-conditioning system use gas or electricity?		GAS ELECTRICITY DON'T KNOW	178
	IF O	NE-FAMILY HOUSE, MOBILE HOME, OR TRAILER, SKIP TO	Q. 24	•	
	23.	Is it a central air-conditioning system for your building (or group of buildings) or is the main air-conditioning equipment for your living quarters only?		CENTRAL SYSTEM FOR BUILDING AIR-CONDITIONING IS FOR THESE LIVING QUARTERS ONLY	27 4
	24.	Do you have a thermostat, high-low switch, or other control to adjust the air condi- tioning level in the summer?	1 [] 0 []		1 7 5
		IF "YES," ASK:			
·		25. Which do you have? (MARK ALL THAT APPLY.)	[]	THERMOSTAT(S) HIGH-LOW SWITCH(ES) OTHER CONTROL(S) (SPECIFY):	178 178 178 -

HAND RESPONDENT EXHIBIT 26

26. Please look at this diagram of different kinds of windows and sliding glass doors. How many of each of these types of windows or doors are there in your home?

Please include basement, attic, garage, and porch windows <u>only if those areas are heated</u>. (EACH WINDOW THAT OPENS SEPARATELY SHOULD BE COUNTED AS ONE WINDOW. ALSO COUNT WINDOWS THAT ARE FIXED IN PLACE. IF NO WINDOWS OF A PARTICULAR TYPE, ENTER "OO.")

		NUMBER OF WINDOWS	NUMBER WITH STORM WINDOWS OR INSULATING GLASS	
S	INGLE OR DOUBLE HUNG			211-214
C	ASEMENT			215-218
ŀ	ORIZONTAL SLIDING			219-222
F	ICTURE (FIXED IN PLACE)			223-226
Т	ILTING OR AWNING TYPE			227-230
	ALOUSIE			231-234
S	LIDING GLASS DOOR			235-238
C	THER (SPECIFY TYPE BELOW): .			239-242
(WINDOWS [AND SLIDIN AND OTHER TYPES OF I THE SAME AS STORM WI	N THE HOME, ASK: windows (and sliding glass and storm doors) or insulating G GLASS DOORS] MADE OF DOUBLE NSULATING GLASS SHOULD BE COUN NDOWS. IF NO STORM WINDOWS OR A PARTICULAR TYPE, ENTER "OO.	GLASS TED		
	lass doors you mentioned)			
How many doors do you hav unheated area? (INCLUDE	that go outside or to an DOORS THAT GO TO AN UNHEATED INCLUDE DOORS TO A HEATED	NUMBER OF D OPENING OUT		243- 244
	UILDING OR DOORS THAT ARE	<i>00</i> [] NONE		

IF ONE OR MORE, ASK:

PERMANENTLY SEALED SHUT.)

29.	How many of your doors to the outside have storm doors or double glass, or some other kind of insulating glass?	NUMBER OF OUTSIDE DOORS WITH PROTECTION:	245- 246
		00 [] NONE	

30.	Last winter, in the winter of 1977-78, did you	1	[]	YES	
	completely close off one or more rooms for a week or longer?	0	[]	NO SKIP TO Q. 32	247
	of fonget:	5	[]	DID NOT LIVE HERE	
	IF "YES," ASK:			LAST WINTER SKIP TO Q. 32	
	HAND RESPONDENT EXHIBIT 31				
	31. Why was the room closed off? (MARK ALL THAT		[]	TO SAVE ON FUEL COSTS	248
	APPLY.)		[]	FUEL UNAVAILABLE IN THIS AREA	848
			[]	COULD NOT KEEP ROOM(S) WARM	250
			[]	ROOM(S) NOT BEING USED	851
			[]	OTHER (SPECIFY):	252
	TAKE BACK EXHIBIT 31				-
	'				
	RESPONDENT EXHIBIT 32	~ 1	r 1		
32.	Which fuel is used <u>most</u> for heating water?	01	[]	GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD	
		02	[]	GAS, LPG (BOTTLED OR TANK)	
		03	[]	FUEL OIL	
		04	[]	KEROSENE OR COAL OIL	858
		05	[]	ELECTRICITY	254
		06	[]	COAL OR COKE	
		07	[]	WOOD	
		08	[]	SOLAR COLLECTORS	
		21	[]	OTHER (SPECIFY):	-
TAKE	BACK EXHIBIT 32	00	[]	NO FUEL USED SKIP TC Q. 36	-
22	De vou hous hat a maine vater is vous home?	,	٢٦	VEC	
33.	Do you have hot running water in your home?			YES	255
		U	ĹIJ	NO SKIP TO Q. 36	
IF	ONE-FAMILY HOUSE, MOBILE HOME, OR TRAILER, SKIP TO Q.	35.]		
34.	Is your hot water supplied by a central system for	1	[]	CENTRAL SYSTEM FOR BUILDING	
	your building (or group of buildings) or is the water heater for your living quarters only?	2	гл	SKIP TO Q. 36 FOR THESE LIVING QUARTERS	256
		2	Lj	ONLY ASK Q. 35	
35.	Is the water heater part of the furnace that heats	1	[]	PART OF FURNACE	
	your home, or is the water heater separate?			SEPARATE	267
		6	[]	DON'T KNOW	

. Do you have attic or roof insulation?	2 [] YES	
		25
	6 [] DON'T KNOW	
IF "YES," ASK:		
37. How many inches of insulation do you have in the attic (roof)?	4	25 26
	96 [] DON'T KNOW	
HAND RESPONDENT EXHIBIT 38		
38. Do you happen to know what type of insulation you have in the attic (roof)? Is it listed	<pre>[] BLANKETS OR BATTS ROLLS OR PIECES</pre>	26
on this exhibit or is it some other type of insulation? (MARK ALL THAT APPLY.)	[] LOOSE FILL OR BLOWN MATERIAL	26
	[] PLASTIC FOAM BOARDS	26
	[] FOAM	26
	[] OTHER (SPECIFY):	26
	[] DON'T KNOW	
IF "LOOSE FILL OR BLOWN MATERIAL," ASK:		
39. Was fiberglass, cellulose, or some-	1 [] FIBERGLASS	
thing else used for the loose fill?	2 [] CELLULOSE	26
	5 [] OTHER (SPECIFY):	
TAKE BACK EXHIBIT 38	6 [] DON'T KNOW	
. Do you have insulation in the outside walls	2 [] YES	
of your home?		26
	- L]	

6 [] DON'T KNOW

HAND RESPONDENT EXHIBIT 41

41. Please look at this list and tell me which items, if any, you have added or installed in your home since January 1, 1977.

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.

			ED OR INST PAST TWO Y				
		YES	IN PROCE			398-3	107 : 93
a.	Storm windows or windows with insulating glass (double glazed)	1[]	2 []	0 []	MONTH: YE	AR: 197	327-33
b.	Closeable shutters	1[]	2 []	0 []	MONTH: YE	AR: 197	326-33
c.	Storm doors on doors to the out- side or doors with insulating glass	1[]	2 []	0 []	MONTH:YE	AR: 197	
d.	Weatherstripping around outside doors or windows	1[]	2 []	0 []	MONTH:YE		
e.	An automatic or clock thermostat	1 []	2 []	0 []	MONTH:YE		
f.	Roof or attic insulation	1[]	2 []	0 []	MONTH: YE	AR: 197	331-33
g.	Insulation in the outside walls	1[]	2 []	0 []	MONTH:YE	AR: 197	387-38
h.	Insulation in basement or crawl space below floor of house	1[]	2 []	0[]	MONTH: YE	AR: 197	388-76
i.	Insulation around hot water pipes	1[]	2 []	0[]	MONTH: YE	AR: 197	343-84
j.	Insulation around the hot water heater	1 []	2 []	0[]	MONTH: YE	AR: 197	347-25
k.	Any insulation other than already mentioned: (SPECIFY)	ı []	2 []	0[]	MONTH: YE	AR: 197	-1
1.	Electric heat pump	[] נ	2 []	0[]	MONTH: YE	AR: 197	368-08
m.	New water heating equipment	1[]	2 []	0[]	MONTH: YE [] IN PROCESS	AR: 197	369-20
n.	New furnace	1[]	2 []	0[]	MONTH: YE	AR: 197	383-28

FOR EACH "YES" ANSWER TO Q. 41, ASK:

42. In what month and year was that completed? (ENTER MONTH AND LAST DIGIT OF YEAR.)

TAKE BACK EXHIBIT 41

406-407:04 11

423

43. Since January 1, 1977, have you added any caulking around your windows or doors that lead to the outside?

IF "YES," ASK:

- 44. Have you done this on one occasion, or on more than one occasion since January 1, 1977?
- 45. In what month(s) and year(s) was that done? (LIST MONTH AND ENTER LAST DIGIT OF YEAR FOR EACH OCCASION.)
- 46. Since January 1, 1977, have you put plastic coverings over your windows or doors?

IF "YES," ASK:

- 47. Have you done this on one occasion, or on more than one occasion since January 1, 1977?
- 48. In what month(s) and year(s) was that done? (LIST MONTH AND ENTER LAST DIGIT OF YEAR FOR EACH OCCASION.)

- 1 [] YES 411 0 [] NO -- SKIP TO Q. 46 1 [] ONE OCCASION 412 2 [] MORE THAN ONE OCCASION 412
- MONTH:
 YEAR:
 197_____413

 MONTH:
 YEAR:
 197_____416

 MONTH:
 YEAR:
 197_____418

 MONTH:
 YEAR:
 197_____421

[] IN PROCESS

- 1 [] YES 0 [] NO -- SKIP TO Q. 49
- 1 [] ONE OCCASION
- 2 [] MORE THAN ONE OCCASION

[] IN PROCESS			
MONTH:	YEAR:	197	424- 426
MONTH:	YEAR:	197	427- 429
MONTH:] YEAR:	197	430- 432

- 12
- 49. Do you have a refrigerator in your home?

IF "YES," ASK:

50. Do you have one refrigerator, or more than one that is presently in use?

	1 [] YES 0 [] NO SKIP TO Q. 55	433
than	1 [] ONE 2 [] TWO	434

3 [] THREE OR MORE

ASK FOR EACH REFRIGERATOR							
ASK F	IRST ABOUT REFRIGERATOR USED MOST:	REFRIGERATOR #1	REFRIGERATOR #2				
51.	Is it electric or gas?	435 1 [] ELECTRIC 2 [] GAS	443 1 [] ELECTRIC 2 [] GAS				
HAND	RESPONDENT EXHIBIT 52						
52.	Which of these best describes your refrigerator?	436	444				
	 Freezer section (or ice cube section) must be defrosted periodically 	1 []	1[]				
	 Freezer section defrosts automatically after frost builds up (catch pan must be emptied) 	2 []	2 []				
TAKE	 Full frost-free (frost does not build up) BACK EXHIBIT 52 	3 []	3 []				
53.	Can the freezer compartment be opened without opening the refrigerator section?	1 [] YES 437 0 [] NO	1 [] YES 445 0 [] NO				
54.	Which of the following features does your refrigerator have? (MARK "YES" OR "NO" FOR EACH ONE.)						
	• Temperature control	1 [] YES 438	1 [] YES 446				
		O [] NO 6 [] DON'T KNOW	0 [] NO 6 [] DON'T KNOW				
	• Automatic ice-maker	⊥ [] YES 0 [] NO 6 [] DON'T K NOW	1 [] YES 0 [] NO 6 [] DON'T KNOW				
	 Automatic ice-water dispenser 	1 [] YES 0 [] NO 6 [] DON'T KNOW	1 [] YES 0 [] NO 6 [] DON'T KNOW				
	 Energy saver switch (anti-sweat) 	1 [] YES 0 [] NO 6 [] DON'T KNOW	2 [] YES 0 [] NO 6 [] DON'T KNOW				
	• Extra insulation in walls or doors	1 [] YES 442 0 [] NO 6 [] DON'T KNOW	1 [] YES 450 0 [] NO 6 [] DON'T KNOW				

HAND RESPONDENT EXHIBIT 55

TAKE BACK EXHIBIT 55

- 55. Please look at this list, and tell me which is used at least occasionally for cooking in your household. (MARK ALL THAT APPLY.)
- [] SMALL ELECTRIC APPLIANCES SUCH
AS TOASTER OVEN OR FRY PAN451[] MICROWAVE OVEN452[] ELECTRIC OVEN453[] GAS OVEN454[] ELECTRIC RANGE (STOVE-TOP OR
BURNERS)455[] GAS RANGE (STOVE-TOP OR BURNERS)456457
- [] NONE -- SKIP TO Q. 6]
- IF "ELECTRIC OVEN" OTHER THAN MICROWAVE OVEN, ASK:
- 56. Do you use one electric oven or more than one?

ASK ABOUT MOST-USED ELECTRIC OVEN FIRST:

- 57. Does your oven have a self-cleaning or continuous cleaning feature?
- SELF-CLEANING CONTINUOUS CLEANING NEITHER OF THESE

1 [] ONE OVEN

2 [] MORE THAN ONE

OVEN #1	OVEN #2
459	460
1 []	נ] נ
2 []	2 []
0 []	0[]

- IF "GAS OVEN," ASK:
- 58. Do you use one gas oven or more than one?
- 1 [] ONE OVEN
 2 [] MORE THAN ONE

ASK ABOUT MOST-USED GAS OVEN FIRST:

59. Does your oven have a self-cleaning or continuous cleaning feature?

HAND RESPONDENT EXHIBIT 60

60. Thinking of all the different kinds of cooking done here, which fuel is used most?

TAKE BACK EXHIBIT 60

SELF-CLEANING1 []1 []CONTINUOUSCLEANING2 []2 []NEITHER OFTHESE0 []0 []

OVEN #1

482

OVEN #2

463

01 [] GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD 02 [] GAS, LPG (BOTTLED OR TANK GAS) 03 [] FUEL OIL 04 [] KEROSENE OR COAL OIL 464-05 [] ELECTRICITY 465 06 [] COAL OR COKE 07 [] WOOD OR CHARCOAL 21 [] OTHER (SPECIFY): ______

458

HAND RESPONDENT EXHIBIT 61

61.	Which of these do you use here in your home?			
	AUTOMATIC WASHING MACHINE	1 [] YES	0 [] NO	463
	WRINGER WASHING MACHINE (ELECTRIC)	1 [] YES	0 [] NO	46 ²
	ELECTRIC DISHWASHER	I [] YES	0 [] NO	4 8 .3
	FOOD FREEZER SEPARATE FROM REFRIGERATOR	1 [] YES	0 [] NO	48.2
	ELECTRIC CLOTHES DRYER	1 [] YES	0 [] NO	∉ 2 .)
	GAS CLOTHES DRYER	1 [] YES	0 [] NO	<i>47.</i> 1
	OUTDOOR GAS LIGHT	1 [] YES	0 [] NO	#Z7

TAKE BACK EXHIBIT 61

Now let's talk about transportation ...

HAND RESPONDENT EXHIBIT 62/64

- 62. Do you or other members of your household own or have the regular use of any cars, trucks, vans, motorcycles, mopeds, or similar vehicles?
- 63. How many do you have?

- 506-507:05
- 2 [] YES 511 0 [] NO -- SKIP TO Q. 85 --TAKE BACK EXHIBIT 62/64 01 [] ONE 02 [] TWO 03 [] THREE 04 [] FOUR 512-513 05 [] FIVE
 - 06 [] SIX
 - 07 [] SEVEN
 - 08 [] EIGHT OR MORE

				000-007.00	100-107.07	000-001.00
			<u>V E</u>	HICLE	NUMBE	R
	·		٦	2	3	4
64.	Which type(s) do you have? (IF HOUSE-		514-515	614-615	714-715	814-815
	HOLD HAS MORE THAN	STATION WAGON	<i>oi</i> []	01 []	01 []	01 []
	FOUR VEHICLES, MARK ANSWERS FOR THE	AUTOMOBILE	02 []	02 []	02 []	02 []
	FOUR VEHICLES USED	JEEP OR SIMILAR VEHICLE	o3 []	03[]	03 []	03[]
	MOST.)	PASSENGER VAN OR MINIBUS	04 []	04 []	04 []	04 []
		CARGO VAN	05 []	05 []	05 []	05 []
		PICKUP TRUCK	<i>06</i> []	<i>06</i> []	06 []	06 []
		OTHER TRUCK	07 []	07 []	07 []	07 []
		MOTOR HOME	08 []	08 []	08 []	08 []
		MOTORCYCLE	09 []	09 []	09 []	09 []
		MOPED/MOTORIZED BICYCLE	10 []	10 []	10 []	10 []
		OTHER (SPECIFY):	21 []	21 []	21 []	21 []
		X				
			516-517	616-617	716-717	816-817
65.	Please tell me the m (of each one). (ENT	ER LAST TWO DIGITS				
	OF MODEL YEAR.)	MAKE				
			518-519	618-619	718-719	818-813
		MODEL YEAR	19	19	19	19
			520 - 521	620-621	720-721	820-821
66.	What is the model na each one)?	me (of MODEL NAME				

606-607:06 706-707:07 806-807:08

TAKE BACK EXHIBIT 62/64

ALL	HOUS	SEHOLDS WITH ONE OR MORE VEHICLES ON Q'S	. 62-63				
		67-84 FIRST ABOUT FIRST VEHICLE, THEN THIRD, AND FOURTH.					
		kt questions are about your (first/		VEH	ICLE	NUM	BER
seco	nd/tł	nird/fourth) vehicle.		1	2	3	4
67.	Did 12 n	you get this vehicle within the past nonths or did you have it before that?		522	622	722	888
		итній и	PAST 12 MONTHS	1 []	1[]	1 []	1 []
		HAD IT MORE THAN Skip to Q. 73	N 12 MONTHS	2 []	2 []	2 []	2]]
	IF "	WITHIN PAST 12 MONTHS," ASK:		523-525	623-625	723-725	823-885
	68.	In what month and year did you get	MONTH				:
	it?	YEAR	197	197	197	197	
			. 	528-530	626-630	726-730	526230
	69.	How many miles has it been driven since you have had it?	MILES				
			DON'T KNOW	[] 531-535	[] <i>631-635</i>	[] 731-735	[] 883835
	70.	on a highway (that is, with rela-	MILES				
		tively little "stop and go" NOT US driving)?	SED ON HIGHWAY	[]	[]	[]	[]
			DON'T KNOW	[]	[]	[]	! []
				536	636	736	386
	71.	Is it used on-the-job, that is, for any reason other than for going to or from	Y YES	1 []	1[]]] []	1 []
		work, by anyone in your household?	NO	0 []	0[]	0[]	0[]
		IF "YES," ASK:		537-541	637-641	737-741	837-841
		72. About how many miles were driven on-the-job since you have had it?	MILES				
			DON'T KNOW	[]	[]	[]	[]

ALL HOUSEHOLDS WITH ONE OR MORE VEHICLES ON Q's. 62-63

		1				
		,	VEH	ICLE	NUM	BER
			1	2	3	4
IF "	HAD IT MORE THAN 12 MONTHS" ON Q. 67, ASK		542-543	642-643	742-743	842-843
73.	In what year did you get it?	YEAR	19	19	19	19
			544-548	644-648	744-748	844-848
74.	How many miles was it driven during the past 12 months, just approxi- mately?	MILES				
		DON'T KNOW	[]	[]	[]	[]
			549-553	649-653	749-753	849-853
75.	In the past 12 months, about how many miles were driven on a highway (that is, with relatively little "stop and go" driving)? NOT USE	MILES D ON HIGHWAY	[]	[]	[]	[]
76.	Is it used on-the-job, that is, for any reason other than for going to or from work, by anyone in your house- hold?	YES NO	554 1 [] 0 []	654 1 [] 0 []	754 1 [] 0 []	854 1 [] 0 []
	IF "YES," ASK:		555-559	655-659	755-759	855-859
	77. About how many miles were driven on-the-job in the past 12 months?	MILES				
		DON'T KNOW	[]	[]	[]	[]

ALL HOUSEHOLDS WITH ONE OR MORE VEHICLES ON Q'S. 62-63

			V E H	ICLE	NUM	BFK
			1	2	3	4
IF U	SED FOR HIGHWAY DRIVING ON Q. 70 OR Q. 75,	ASK:	560-561	660-661	760-761	860-85
78.	How many miles per gallon does it get in highway driving, just MILES	PER GALLON				
	approximately?	DON'T KNOW	[.]	[]	[]	[]
			562-563	662-663	762-763	862-86
79.	How many miles per gallon does it get in local driving, just approximately? MILES	PER GALLON				
		DON'T KNOW	[]	[]	[]	[]
	IF MILES PER GALLON GIVEN, ASK: 80. Has someone actually figured out the miles per gallon, or is it more a general impression?	ACTUAL IMPRESSION	564 1 [] 2 []	664 1 [] 2 []	764 1 [] 2 []	864 1 [] 2 []
IF N	OT USED FOR HIGHWAY DRIVING ON Q. 70 OR Q.	75, ASK:	565-566	665-666	765-766	865- 83
81.	For the kind of driving for which MILES it is used, how many miles per gallon does it get, just approxi- mately?	PER GALLON DON'T KNOW	[]	[]	[]	[]
r	IF MILES PER GALLON GIVEN, ASK:		5.00	227	6.47	0.00
	82. Has someone actually figured out	ACTUAL	567 1[]	667 1 []	767 1 []	867 1[]
	the miles per gallon, or is it more a general impression?	IMPRESSION	2[]	2 []	2[]	2 []

18

		VЕН	ICLE	NUM	BER
		1	2	3	4
HAND RESPONDENT EXHIBIT 83		568-569	668-669	768-769	868-869
83. What kind of fuel is used most					
frequently? UNLEAR	DED REGULAR GASOLINE	[] IO	01 []	01 []	01 []
UNLEAD	DED PREMIUM GASOLINE	02 []	02 []	02 []	02 []
	REGULAR GASOLINE	03 []	03 []	03 []	03 []
PREMIUM OF	R HIGH TEST GASOLINE	04 []	04 []	04 []	04 []
	DIESEL	05 []	05 []	05 []	05 []
	ELECTRICITY	06 []	06 []	06 []	06 []
	OTHER (SPECIFY):	21 []	21 []	21 []	21 []
	à				
TAKE BACK EXHIBIT 83	DON'T KNOW	96 []	96 []	96 []	96 []
TAKE DIOK EMILDIT 03	bon i man				20 LJ
HAND RESPONDENT EXHIBIT 84		570-571	670-671	770-771	870-871
84. What type of engine does it have?	1-CYLINDER	01 []	01 []	01 []	01 []
	2-CYLINDER	02 []	02 []	02 []	02 []
	3-CYLINDER	03 []	03 []	03 []	03 []
	4-CYLINDER	04 []	04 []	04 []	04 []
	5-CYLINDER	05 []	05 []	05 []	05 []
	6-CYLINDER	06 []	06 []	06 []	06 []
	8-CYLINDER	08 []	08 []	08 []	08 []
	ROTARY	11 []	11 []	11 []	11 []
	ELECTRIC	12 []	12 []	12 []	12 []
	OTHER (SPECIFY):	21 []	21 []	21 []	21 []
TAKE BACK EXHIBIT 84	DON'T KNOW	96 []	96 []	96 []	96 []

ALL HOUSEHOLDS WITH ONE OR MORE VEHICLES ON Q's. 62-63

ASK EVERYONE

HAND RESPONDENT EXHIBIT 85/87

85. Did you or other members of your household own or have the regular use of any vehicles a year ago -- or anytime in the past 12 months -- that you <u>don't</u> have now (that you traded or sold or disposed of in some other way) -- such as cars, trucks, vans, motorcycles, mopeds, or similar vehicles?

IF "YES," ASK:

86. How many vehicles did you or other members of your household have in the past 12 months that you don't have now?

906-907:09

1 [] YES 9 [] NO -- SKIP TO Q. 95 ---TAKE BACK EXHIBIT 85/87

1	[]	ONE			
2	[]	TWO			918
3	[]	THREE	OR	MORE	

VEHICLE NUMBER

				1	2
87.	Which type(s) did you have?			913-914	943-946
	(IF HOUSEHOLD HAD MORE THAN		STATION WAGON	01 []	01 []
	TWO VEHICLES, MARK ANSWERS FOR THE TWO USED MOST.)		AUTOMOBILE	02 []	02 []
		JEEP OR	SIMILAR VEHICLE	03 []	03[]
		PASSENGE	R VAN OR MINIBUS	04 []	04 []
			CARGC VAN	05 []	05 []
			PICKUP TRUCK	06 []	06 []
			OTHER TRUCK	07 []	07 []
			MOTOR HOME	08 []	08 []
1			MOTORCYCLE	09 []	09 []
		-	OTORIZED BICYCLE	10 []	10 []
			OTHER (SPECIFY):	21 []	21 []
}			2		
				915-916	945-946
				010 010	0100,0
88.	Please tell me the make and model yea		MAKE		
	one). (ENTER LAST TWO DIGITS OF MODE	L YEAR.)		917-918	347-948
			MODEL YEAR	19	19
				919-920	949-950
89.	What was the model name?		MODEL NAME		
TAKE	BACK EXHIBIT 85/87		<u>l</u>		

			VEHICLE	NUMBER
			1	2
	<u>YES" ON Q. 85 (CONTINUED)</u> : Q's. 90-94 FIRST ABOUT FIRST VEHICLE, THEN ND.		921-922	951~952
90.	How many miles per gallon did it get in local driving, just approximately?	MILES PER GALLON DON'T KNOW	[] 923-925	[] 953-955
91.	In what month and year did you dispose of it?	MONTH YEAR	197 926-930	197 956-960
92.	Just approximately, how many miles was it driven between this time a year ago and the time you disposed of it?	MILES DON'T KNOW	[]	[]
93.	Was it used on-the-job, that is, for any reason other than for going to or from work by anyone in your household?	YES NO	931 1 [] 0 [] 932-936	1 [] 0 [] 962-966
	IF "YES," ASK:		006-000	302-300
	94. About how many miles were driven on-the-job between this time a year ago and the time you dis- posed of it?	MILES DON'T KNOW	[]	[]

95. Now I have some questions about the people who live here. Please tell me who they are, just in relation to you (if they are related to you), and their ages on their last birthdays. Please begin with yourself.

1006-1007:20

							1000-	1007.20
	RELATIONSHIP	0			Q.100-	EMPLOYMENT	(AGE 14+)	
	TO RESPONDENT	SEX FEMALE	MALE	AGE	FULL TIME	PART TIME	NOT EMPLOYED	
	RESPONDENT	1[]	2 []		1 []	2 []	0 []	1011-1016
		1[]	2 []		נ] נ	2 []	o []	1021-1928
		1 []	2 []		ı []	2 []	0 []	1031-1038
		1[]	2 []		1 []	2 []	0[]	1041-1048
		1 []	2 []		1[]	2 []	0[]	1051- 1058
		1 []	2 []		1 []	2 []	o []	1061-1 068
		1 []	2 []		1[]	2 []	0 []	1071-1079
		1[]	2 []		1 []	2 []	o []	1106-1107: 11 1111-111 C
		1 []	2 []		1[]	2 []	0 []	1121-1780
		1[]	2 []		1[]	2 []	o []	1131- 1130
		1 []	2 []		1[]	2 []	0 []	1141-2148
		1[]	2 []		1[]	2 []	0[]	1151-1158
	Any lodgers, boarders, or persons in your employ who live here?	[] YES [] NO [] YES [] NO	(ADD T (ADD T	O LISTING O LISTING	;)			
98.	Anyone who usually lives here but is away traveling or in the hospi- tal? (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.)	[] YES [] NO	(ADD T	O LISTING	;)			
99.	Anyone else staying here who does not have a regular residence else- where?	[] YES [] NO	(ADD T	O LISTING	i)			
	FOR EACH PERSON 14 YEARS OLD OR OLDE 100. Is he/she employed full time (per week), part time, or not e	30 hours		e				

MARK ANSWER; ASK IF NECESSARY.

101.		you now married you never been	, widowed, divorced, separated, a married?			NOW MARRIED WIDOWED	
				3	[]	DIVORCED OR SEPARATED	1159
						NEVER MARRIED	
102.	What	: is your race?		1	[]	WHITE	
				2	[]	BLACK OR NEGRO	1160
				5	[]	OTHER (SPECIFY):	
]							
103.	Does	another family	share your home here with you?	1	[]	YES	1161
				0	[]	NO	
		INTERVIEWER:	IF ANOTHER FAMILY SHARES THE SAU LISTED IN HOUSEHOLD COMPOSITION				
	I		IF ANOTHER FAMILY HAS A SEPARAT RULES AS A <u>SEPARATE HOUSING UNI</u> SHOULD BE LISTED ON YOUR HOUSING TION. SEE SAMPLING INSTRUCTION	T, THE ADDI G UNIT ADDR	ITIC RESS	ONAL HOUSING UNIT 5 LIST FOR THIS LOCA-	
			INTERVIEW SHOULD BE COMPLETED.				

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

NUMBER OF 1162-DRIVERS: 1163

00 [] NONE

~>	Λ
۴.	4

I have just a few questions for background statistical purposes.

105.	What is the highest grade (or year)	00	[] NEVER ATTE	NDED SCHOOL
	you attended in school?	01	[] FIRST	07 [] SEVENTH
			[] SECOND	OB [] EIGHTH
		03	[] THIRD	09 [] NINTH
		04	[] FOURTH	10 [] TENTH
		05	[] FIFTH	11 [] ELEVENTH
		06	[] SIXTH	12 [] TWELFTH
			COLLEGE (ACAD	<u>1184-</u> EMIC YEARS) 1185
		13	[] []	16 [] C4
		14	[] C2	17 [] C5
		15	[] C3	18 [] C6 OR MORE
106.	Did you finish that grade (or year)?		[] YES	1 1 4 4
		0	[] NO	1166
<u>IF RE</u>	SPONDENT IS MARRIED, ASK:			
107.	What is the highest grade (or year) that your (husband/wife) attended in school?	00] NEVER ATTE	NDED SCHOOL
	that your (husband/write) attended in schools	01	[] FIRST	07 [] SEVENTH
		02	[] SECOND	08 [] EIGHTH
		03	[] THIRD	09 [] NINTH
		04	[] FOURTH	10 [] TENTH
		05	[] FIFTH	11 [] ELEVENTH
		06	[] SIXTH	12 [] TWELFTH
		(COLLEGE (ACADI	1167- EMIC YEARS) 1167-
		13	[] []	16 [] C4
		14	[] C2	17 [] C5
		15	[] C3	18 [] C6 OR MORE
100		_		
108.	Did (he/she) finish that grade (or year)?	-	[] YES	1169
		0	[] NO	

HAND RESPONDENT 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 1977 of all members of your <u>family</u> living here, from all sources -wages, dividends, social security, and so forth -- before taxes and deductions.

CIRCLE LETTER FOR INCOME GROUP

01 - A	UNDER \$3,000	<i>09</i> - I \$25,000 - \$29,999	
02 - B	\$3,000 - \$4,999	10 - J \$30,000 - \$34,999	
03 - C	\$5,000 - \$7,999	11 - K \$35,000 - \$39,999	1100
04 - D	\$8,000 - \$9,999	12 - L \$40,000 - \$44,999	1170– 1171
05 - E	\$10,000 - \$1 1,999	13 - M \$45,000 - \$49,999	
06 - F	\$12,000 - \$14,999	14 - N \$50,000 OR OVER	
07 - G	\$15,000 - \$19,999	96 [] DON'T KNOW	
<i>08</i> - H	\$20,000 - \$24,999	97 [] REFUSED	

TAKE BACK EXHIBIT 109

110.	Do you or members of your household own your home	⊥ [] OWN (BUYING)	
	here or do you rent?	2 [] RENT	1172
		3 [] OCCUPIED WITHOUT PAYMENT OF RENT	

IF "OWN (BUYING)," ASK:

Is this house (apartment) part of a condominium	<pre>1 [] YES, CONDOMINIUM</pre>	
or cooperative building or development?	2 [] YES, COOPERATIVE	1173
	0 [] NO	

HAND RESPONDENT EXHIBIT 112

112. How much do you think this property, that is, (house and lot/condominium/cooperative) would sell for on today's market? Just give me the letter.

 CIRCLE LETTER FOR GROUP

 01 - A LESS THAN \$10,000
 07 - G \$80,000 - \$99,999

 02 - B \$10,000 - \$19,999
 08 - H \$100,000 - \$149,999

 1174

 03 - C \$20,000 - \$29,999

03 - C \$20,000 - \$29,999	<i>09</i> - I \$150,000 - \$199,999	1175
04 - D \$30,000 - \$39,999	10 - J \$200,000 - \$249,999	
05 - E \$40,000 - \$59,999	11 - K \$250,000 OR MORE	
<i>06</i> - F \$60,000 - \$79,999	96 [] DON'T KNOW	
TAKE BACK EXHIBIT 112	97 [] REFUSED	

IF "RENT" ON Q. 110, ASK:

113.	What	is	the	monthly	rent	of	your	house/apartment?	\$.00 PER MONTH	1179
									[] OCCUPIE PAYMENT	D WITHOUT	

IF RENT IS NOT PAID BY THE MONTH, NOTE IN THE SPACE BELOW THE TIME PERIOD COVERED, AND THE AMOUNT PAID PER TIME PERIOD.

TIME PERIOD COVERED:

AMOUNT PAID PER TIME PERIOD: \$____.00

1176-

HAND RESPONDENT EXHIBIT 114

26

114. 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 here in your household.

			NOT	PAID BY	INCLUDED	OTHER	
	ELECTRICITY	USED	USED	HOUSEHOLD	IN RENT	(SPECIFY)	_ }
a.	FOR LIGHTING AND OTHER APPLIANCES	1 []	0[]	1 []	2 []	5 []	- 1211-1212
ь.	FOR COOKING	1 []	0 []	1 []	2 []	5 []	- 1813-1824
с.	FOR HOT WATER	1 []	o []	1 []	2 []	5 []	- 1215-1833
d.	FOR HEATING YOUR HOME	[] נ	o []	1[]	2 []	5 []	_ 1812-1818
e.	FOR AIR-CONDITIONING (CENTRAL OR WINDOW/WALL UNITS)	1[]	0 []	1 []	2 []	5 []	_ 1218-1280
	GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD						
f.	FOR COOKING	1[]	0[]		2 []	5 []	1221-1388
g.	FOR OTHER APPLIANCES (INCLUDE		° LJ			~ L J	-
5.	OUTSIDE GAS LIGHT HERE)	1[]	o []	1[]	2 []	5 []	1223-132d
h.	FOR HOT WATER	1 []	ο []	1 []	2 []	5 []	_ 1225-1228
i.	FOR HEATING YOUR HOME	1[]	0[]	1 []	2 []	5 []	1237-1328
j.	FOR CENTRAL AIR-CONDITIONING	ı []	0 []	[]	2 []	5 []	1229-1736
	GAS, LPG (BOTTLED OR TANK GAS)						
k.	FOR COOKING	1[]	0[]	[]	2 []	5 []	1231-11888
1.	FOR OTHER APPLIANCES	1[]	0 []	[]	2 []	5 []	- 1233-1236
m.	FOR HOT WATER	_ []	0[]	[]	2 []	5 []	1235-1486
n.	FOR HEATING YOUR HOME	1[]	0[]	1 []	2 []	5 []	- 1237-1238
ο.	FOR CENTRAL AIR-CONDITIONING	ı[]	0[]	1 []	2 []	5 []	- 1239-1840
	<u>FUEL OIL</u> FOR HOT WATER	- F7	- Г Т		о ГЛ	с Г.)	1041 5645
р. С	FOR HEATING YOUR HOME	1 [] 1 []		1[]	2 []	5 []	- 1241-1849
q.	FOR HEATING FOUR HOME	1[]	o []	1[]	2 []	5 []	- 1243-1246
	FOR EACH USE OF EACH FUEL, ASK: 115. Is that paid for by your hou in your rent, or do you get				A		
	IF ANY FUEL BILLS ARE PAID BY HOUS	ם וחוי	222.				
Ī							
	116. Do any of your household fue fuel used for purposes other quarters? For example, do an	than	for your	own living		1 [] YES	1245
	clude fuel used for farm equ of any kind, or for the livin	ipment	, or for	a business	hold?	0 [] NO	
	IF "YES," ASK:						
	117. What is included in the	e house	ehold bi	lls? (DESCRIB	E IN DETAIL	.)	
							1040
							1246- 1257

IF HC	USEHOLD PAYS FOR FUEL OIL, ASK:	
118.	About how many deliveries of fuel oil does your household usually get in a year?	NUMBER OF FUEL OIL 1258- DELIVERIES: 1259 [] LIVED HERE LESS THAN 1 YEAR
119.	Did you buy fuel oil for this house (apartment) in the past 12 months from one company, or from more than one company?	<pre>1 [] ONE COMPANY 2 [] MORE THAN ONE COMPANY </pre>
	IF "MORE THAN ONE," ASK:	
	120. How many different companies?	2 [] TWO
		3 [] THREE 1261
		4 [] FOUR OR MORE
IF HC	DUSEHOLD PAYS FOR LPG, ASK:	
1	DUSEHOLD PAYS FOR LPG, ASK: About how many deliveries of LPG does your household usually get in a year?	NUMBER OF 1262- LPG DELIVERIES: 1263
1	About how many deliveries of LPG does your	
1	About how many deliveries of LPG does your household usually get in a year?	LPG DELIVERIES: 1263
121.	About how many deliveries of LPG does your household usually get in a year? Did you buy LPG for this house (apartment) in the past 12 months from one company, or from	LPG DELIVERIES: 1263 [] LIVED HERE LESS THAN 1 YEAR 1 [] ONE COMPANY 1264
121.	About how many deliveries of LPG does your household usually get in a year? Did you buy LPG for this house (apartment) in the past 12 months from one company, or from more than one company?	LPG DELIVERIES: 1263 [] LIVED HERE LESS THAN 1 YEAR 1 [] ONE COMPANY 1264
121.	About how many deliveries of LPG does your household usually get in a year? Did you buy LPG for this house (apartment) in the past 12 months from one company, or from more than one company? IF "MORE THAN ONE," ASK:	LPG DELIVERIES: 1263 [] LIVED HERE LESS THAN 1 YEAR 1 [] ONE COMPANY 1264 2 [] MORE THAN ONE COMPANY
121.	About how many deliveries of LPG does your household usually get in a year? Did you buy LPG for this house (apartment) in the past 12 months from one company, or from more than one company? IF "MORE THAN ONE," ASK:	LPG DELIVERIES: 1263 [] LIVED HERE LESS THAN 1 YEAR 1 [] ONE COMPANY 1 [] ONE COMPANY 1264 2 [] TWO

IF HOUSEHOLD PAYS FOR ELECTRICITY AND/OR GAS AND/OR FUEL OIL

	124.	and in the am	to the types of fuel you use, we are interested in the quantities used, nount that people pay for electricity, gas, and fuel oil in different United States.	
			that would authorize the companies that supply your household to pro- formation to Response Analysis Corporation.	
		ferences in f	udy is being done nationwide, it will give a good picture of the dif- uel cost and use all over the country. The information is needed to h important national energy policies.	
		INTERVIEWER:	REMOVE PERFORATED FORM AND HAND TO RESPONDENT. EITHER YOU OR RESPON- DENT SHOULD FILL IN THE NAMES OF COMPANIES. IF MORE THAN ONE LPG OR FUEL OIL COMPANY HAS BEEN USED SINCE OCTOBER 1, 1977, FILL IN ADDI- TIONAL COMPANY NAMES ON OTHER SIDE OF FORM. PLEASE PRINT.	
			2 [] AUTHORIZATION FORM COMPLETED	
			<pre>o [] AUTHORIZATION FORM NOT COMPLETED ~- INTERVIEWER, EXPLAIN BELOW:</pre>	1266
and the second se				

CONTINUE ON INSIDE BACK COVER TO COMPLETE INTERVIEW.



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U.S. DEPARTMENT OF ENERGY SURVEY

Authorization Form for Residential Energy Consumption Survey

I hereby give permission to the company (companies) below to provide information to Response Analysis Corporation for confidential use in connection with their survey for the U.S. Department of Energy.

This authorization covers use of fuels (electricity, natural gas or LPG, or fuel oil) by my household from October 1, 1977 through March 31, 1979, including:

- 1) the total amount of fuels used by my household.
- 2) the total price charged for fuels used by my household.

Companies are authorized to provide this information by monthly periods or by delivery date, whichever applies.

A photocopy of this authorization may be accepted with the same authority as the original.

Signature: _____ Date: YOUR NAME PLEASE | PRINT ADDRESS APT. NO. ZIP CODE CITY OR POST OFFICE STATE TELEPHONE AREA CODE:_____NUMBER:___ PLEASE COMPLETE ONE BLOCK BELOW FOR EACH FUEL USED BY YOUR HOUSEHOLD (IF MORE THAN ONE SUPPLIER OF A PARTICULAR FUEL. USE THE OTHER SIDE OF THIS SHEET) PRINT FULL NAME OF ELECTRIC COMPANY ELECTRICITY -LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE TELEPHONE AREA CODE:___ ____NUMBER:__ PRINT FULL NAME OF GAS COMPANY GAS from underground pipes LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE or LPG (bottled or tank gas) TELEPHONE AREA CODE:__ _____NUMBER:___ PRINT FULL NAME OF OIL COMPANY FUEL OIL ----LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE TELEPHONE AREA CODE: NUMBER:

SECOND GAS COMPANY

PRINT FULL NAME OF GAS COMPANY

LPG (bottled or tank gas)

GAS -

LOCATION OF COMPANY (IF KNOWN) -- CITY AND STATE

_NUMBER:__

TELEPHONE AREA CODE:_

THIRD GAS COMPANY

PRINT FULL NAME O		
LOCATION OF COMPA	NY (IF KNOWN) - CITY AND STATE	
TELEPHONE		

SECOND FUEL OIL COMPANY

PRINT FULL NAME OF OIL COMPANY FUEL OIL ---LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE TELEPHONE AREA CODE:_ _NUMBER:_

THIRD FUEL OIL COMPANY

PRINT FULL NAME OF OIL COMPANY

LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE

_NUMBER:

TELEPHONE

AREA CODE:_

INTERVIEWER: SEE Q's. 114-115. IF COST OF ANY FUEL(S) USED BY HOUSEHOLD IS INCLUDED IN RENT, ASK Q. 125.

125. We may be getting 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?

NAME:	
TELEPHONE NUMBER: (AREA CODE	:)
STREET ADDRESS:	
CITY OR TOWN/STATE/ZIP CODE:	

ASK EVERYONE

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

RESPONDENT'S NAME:

TELEPHONE NUMBER:	(AREA	CODE:)

Thank you very much for your help.

TIME INTERVIEW COMPLETED:	LENGTH OF INTERVIEW:	MINUTES
INTERVIEWER'S SIGNATURE:	DATE:	
INTENTEMEN 3 STUNNTORE.		

GLOSSARY

Air Conditioning is cooling air by a refrigeration unit. It does not include fans, blowers, or evaporative cooling systems which are not connected to a refrigeration unit.

Air conditioning units which are not currently in working condition or not used, but are in place in the housing unit, are included.

Billing Period refers to the time between meter readings. It does not refer to the time the bill was sent or when the payment was to have been received. In some cases, the billing period is the same as the billing cycle which corresponds closely (within several days) to meter reading dates. For fuel oil and LPG, the billing period is the number of days between fuel deliveries.

Building with 5 or More Housing Units contains living quarters for 5 or more separate households or families.

Built-in Electric Units. Individual resistance electric heating units are permanently installed in the floors, walls, ceilings, or baseboards, and are part of the electrical installation of the building. Electric heating devices that are plugged into an electric socket or outlet are not considered built-in.

Caulking around windows or doors whether in a heated part of the house or an unheated part, such as an attic or basement. Caulking can be done from the inside or outside of the house. Caulking done by the previous owner or caulking done to the respondent's previous home is not included.

Central Warm Air Furnace with Ducts to Individual Rooms. A central furnace provides warm forced air through ducts leading to various rooms. Electric heat pumps are not included in this category.

Condominium Ownership. A condominium is a type of ownership that enables a person to own an apartment or house in a project of similar units. The owner has his or her own deed and, very likely, has a mortgage on the unit. The owner also holds common or joint ownership in all common areas such as hallways, entrances, and elevators.

Condominium ownership may cover single-family houses, row houses, townhouses, as well as apartments.

Conservation Efforts undertaken by respondents or respondent's family in the housing unit the family occupies. Efforts undertaken by a landlord are not included. Changes made before the respondent moved in are not included.

Continuous Cleaning Oven has a system that automatically dissolves any buildup as it occurs.

<u>Cooling Degree Days</u> are the number of degrees the daily average temperature is above 65 degrees Fahrenheit. Normally cooling is not required in a building when the outdoor average daily temperature is below 65 degrees. Cooling degree days are determined by subtracting the base of 65 from the daily average temperature. For example, a day with an average temperature of 85 degrees has 20 cooling degree days (85-65=20), while one with an average temperature of 65 degrees or lower has none.

Doors that go outside or to an unheated area, such as an unheated porch, garage, attic, or basement, are included. Doors to a heated hallway in an apartment building or permanently sealed doors are not included. Double doors are counted as one door.

Education--Highest Grade Attended includes attendance at graded public, private, or parochial schools, colleges, universities, or professional schools, whether day or night school. Only schooling which advances a person toward an elementary or high school diploma, or a college, university, or professional school degree is included. Other schooling is included only if the credits obtained are acceptable in the regular school system.

Persons who have attended "post graduate" high school courses after completing high school, but have not attended college, are considered to be "Twelfth" grade graduates.

Persons who have attended more than four years of college, or who have attended professional schools (law, medicine, or dentistry, for example) are considered to have a college education plus graduate or professional schooling after completion of four years of college.

The equivalent grade of the regular American school system is assumed for a person who obtained his formal education through other systems.

For persons who skip or repeat grades, the highest grade attended is accepted.

Electric Heat Pump (Reverse Cycle System). A heat pump is a year-round heating-air-conditioning system in which refrigeration equipment supplies both heating and cooling through ducts leading to individual rooms. It generally consists of a compressor, both indoor and outdoor coils, and a thermostat. Heat pumps using any fuel other than electricity are excluded.

Electricity refers to electric power supplied by a central utility to a residence via underground or above ground power lines. It does not refer to electricity generated on site for the exclusive use of the residence. In this case, the fuel used for the generator will be indicated.

Eligibility for Tax Credit. A household was eligible if the house was substantially completed prior to April 20, 1977, and the items were installed on or after April 20, 1977.

Estimated Bill is calculated by the fuel supplier when the meter is not read. The estimate may be based on one or more of the following factors: past usage of the household, usage of similar households, weather data.

Family Income includes wages, salaries, tips, commissions, social security, pensions, interest, dividends, rent, public assistance, unemployment insurance benefits, and the like. Income is calculated before taxes and deductions. Income is obtained for all members of the family who lived in the household in 1977, regardless of whether they were living there at the time of the interview. Income of nonfamily members of the household is not included.

Fireplaces or Heating Stoves that burn wood or coal are included.

Floor, Wall, or Pipeless Furnace. A floor furnace is located below the floor and delivers heated air to the room immediately above or, if under a partition, to the room on each side.

A wall furnace is installed in a partition or in an outside wall and delivers heated air to the rooms on one or both sides of the wall.

A pipeless furnace is installed in a basement and delivers heated air through a large register in the floor of the room or hallway immediately above.

Fuels refers to primary delivered fuel at the residential site. It may be converted at the site to some other energy form.

Fuel Oil is any grade fuel oil which might be burned by the dwelling for space heating or water heating purposes.

<u>Head of Household</u>. If the respondent was married and living with his or her spouse, the male was considered to be the head of the household. Otherwise, the respondent was the head of the household.

<u>Heating Degree Days</u> are the number of degrees the daily average temperature is below 65 degrees Fahrenheit. Normally, heating is not required in a building when the outdoor average daily temperature is above 65 degrees. Heating degree days are determined by subtracting the average daily temperature below 65 degrees from the base 65. For example, a day with an average temperature of 50 degrees has 15 heating degree days (65-50=15), while one with an average temperature of 65 or higher has none.

Home-Owner/Renter. Own means the owner or co-owner is a household member of the unit, even if the unit is mortgaged or not fully paid for. Own/rent refers to the structure itself, not the land on which it is located.

Hot Water Pipes Running Through a Slab Floor. A central radiant system supplies hot water to pipes inlaid in concrete.

House or Building with Two to Four Housing Units is divided into living quarters for two, three, or four families or households. This category also includes houses originally intended for occupancy by one family or for some other use, but have since been converted to a separate dwelling for two to four families. Typical arrangements in these types of living quarters are separate apartments, downstairs and upstairs, or one apartment on each of three or four floors.

Household includes all persons who occupy a housing unit. By definition, the count of households is the same as the count of occupied housing units.

Household Appliances. The following appliances are included if they are used in the home: refrigerator, cooking appliances (small electric appliances, oven, range, or grill), washing machine, dishwasher, freezer, dryer, outdoor gaslight. Air conditioning units are included whether or not they are used or are in working order.

Housing Unit is a structure or part of a structure where a household (family or individual) lives or could live. It has a separate entrance from the outside or from a common hall or lobby, or it has cooking facilities for the exclusive use of the occupants. Housing units do not include group quarters such as prisons, hospitals, dormitories, nursing homes, fraternity houses or convents. Hotel rooms, motel, mobile homes, or trailers are considered housing units if occupied. Insulation is any material which, when placed between the interior of the dwelling and the outdoor environment, reduces the rate of heat (cold) loss to the environment.

Blankets or Batts--Rolls or Pieces are nailed or stapled between the roof rafters.

Foam is initially a liquid that solidifies after being sprayed on a surface or poured into a cavity to be insulated.

Loose Fill or Blown Material is loose insulation which is poured between the attic floor joists (beams) or blown into open spaces.

Plastic Foam Boards are rigid boards (such as styrofoam), that can be cut to size and either edged, nailed, or glued in place.

Insulation Added, Equipment Added does not include additions that were in the process of being completed but were not completed at the time of the survey.

Kerosene is a distilled product of oil or coal with the generic name kerosene and used for space heating, water heating, cooking, or lighting.

LPG or Liquid Petroleum Gas is any fuel gas supplied to a residence in liquid form. It is usually delivered by tank truck and stored near the residence in a tank or cylinder until used. Propane and butane are liquified petroleum gases.

Metropolitan refers to locations within Standard Metropolitan Statistical Areas as defined in the 1970 Census.

Migratory Housing Unit is intended for occupancy by migratory workers employed in farm work during the crop season.

Mobile Home or Trailer is a structure which has all the facilities of a dwelling unit, but is built on a movable chassis. It may be placed on a permanent or temporary foundation and contain one or more rooms. Even if additional rooms are added to the structure, it is still considered a mobile home.

Monthly Rent is rent paid for the sample unit only. If the rent actually paid by the household includes rent for a business unit or for living quarters occupied by others, that part of the total rent which the respondent estimates to be for his/her own unit only is reported. The rent paid or scheduled to be paid to the landlord or rental agent is reported, without deduction for any payments received from lodgers or roomers, or for the cost of any furniture, utilities, or service provided by the landlord. Any part of the rent that may be paid by friends or relatives living elsewhere, a church, Government agency, or similar organizations is not deducted.

Natural Gas is utility gas supplied by pipeline to individual housing units by a central utility company. It does not refer to privately owned gas wells operated by the household.

Number of Floors includes floors for all areas used as yearround living space. Unfinished areas used for workrooms, utility rooms, or laundry rooms are not included. Finished attics or basements are included. If the attic or basement is partially finished and the finished part is used as living space on a year-round basis, the area is counted as one-half floor. The basement level of an apartment building is not counted. Any level of a house that is more than onehalf the length and width of the house is one floor. Any level that is less, is one-half floor.

Number of Rooms. Whole rooms are rooms such as living rooms, dining rooms, bedrooms, kitchens, lodger's rooms, finished basements, or attic rooms, recreation rooms, and permanently enclosed sun porches which are used year-round. Rooms used for offices by a person living in the unit are included.

Bathrooms, halls, foyers, or vestibules, balconies, closets, alcoves, pantries, strip or pullman kitchens, laundry or furnace rooms, unfinished attics or basements, open porches and unfinished space used for storage are not included.

A partially divided room, such as a dinette next to a kitchen or living room, is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets. If a room is used by occupants of more than one unit, the room is included with the unit from which it is most easily reached.

Rooms are counted as year-round living space if they are completely enclosed from the outside with permanently installed walls, windows, and roof and can be heated.

Occupied Housing Unit is occupied if someone was living in it as his or her usual or permanent place of residence at the time of the first field contact. Plastic Coverings are placed over the doors or windows on either the outside or inside of the house. Plastic coverings installed by previous occupants of the housing unit or installed in the respondent's previous home are not included.

Poon. The following definition of poor was used based on family income and the number of persons in the household.

Household Size	Income Range				
1	less than \$ 3,000				
2	less than \$ 4,999				
3	less than \$ 4,999				
4	less than \$ 7,999				
5	less than \$ 7,999				
6	less than \$ 9,999				
7 or more	less than \$11,999				

Portable Room or Space Heaters can be picked up and moved. Included are electric heaters that get current through a cord plugged into an electrical wall outlet.

Property Value for Owned Property consists of the entire building in which the owner lives, the land on which it stands, and any additional buildings such as garages on the same plot of land. The value of the land is included whether or not the land is on the same plot owned or owned jointly.

Race. The interviewer determines the race of the respondent by observation only.

<u>Refrigerator</u>. A "temperature control" is usually a dial with a range such as 1 to 10 which designates the temperature range one can select inside the refrigerator.

Automatic Defrost--defrosts automatically after the frost builds up (catch pan must be emptied).

Automatic Ice Maker is a device in the freezer section of the refrigerator which is connected to the household water supply. It has a valve which regulates the amount of water taken in to be made into ice cubes.

Automatic Ice-Water Dispenser is connected to the household water supply. It has a valve which regulates the amount of water taken in for a constant supply of cold water.

Energy Saver Switch (anti-sweat) is a control which raises the temperature inside the refrigerator. It saves energy when the humidity is high and water is condensing on the inside walls of the refrigerator. Extra Insulation in Walls or Doors is featured in some new refrigerators. The extra insulation retains the cold air and makes the refrigerator more energy efficient.

Full Frost-Free--frost does not build up.

Manual Defrost--freezer section or ice cube section must be defrosted periodically.

Room Heaters with Flue or Vent. Circulating heaters, convectors, radiant gas heaters, other nonportable room heaters that burn gas, cil, kerosene, or other liquid fuel, and are connected to a flue, vent, or chimney to remove smoke and fumes.

Room Heaters without Flue. Nonportable room heaters that burn gas, cil, or kerosene which are not connected to a flue, vent, or chimney.

<u>Room(s) Closed Off During Winter</u> includes households that completely close off one or more rooms for a week or longer. A room is closed off if the door to the room is closed and the heat in that room is turned down, regardless of whether any heat from surrounding rooms can be felt.

Rural refers to nonurban areas.

<u>Seasonal Housing Unit</u> is intended for occupancy only at certain seasons of the year. Seasonal units include those intended for recreational use, for example, beach cottages and hunting cabins that have not been converted to yearround use.

<u>Self-Cleaning Oven</u> has a cleaning cycle that can be turned on when desired.

<u>Single Family Housing Unit</u> provides living space for one household or family. The structure may be detached, attached on one side (semi-detached), or attached on two sides. Attached houses are considered single family houses as long as the house itself is not divided into more than one housing unit and has an independent, outside entrance.

Solar Collectors refer to active, thermal, concentrating collectors using either air or liquid as the working fluid. They do not refer to passive collection of solar thermal energy.

Square Feet refers to the living space in the housing unit. If the respondent does not know the square footage of living space, the respondent is asked for his/her best guess. If the respondent is unable to answer, an answer is obtained, when possible, from any knowledgeable household member present at the time of the interview. Living space includes living rooms, dining rooms, bedrooms, kitchens, lodger's rooms, finished basement and attic rooms, recreation rooms, permanently enclosed sun porches which are used year-round, bathrooms, hallways, and closets located in the living quarters. The living space does not include hallways connecting one housing unit to another or unfinished areas used for work rooms, or laundries. Rooms used by occupants of more than one unit are included in the square footage of the unit from which the room(s) is most easily reached.

Steam or Hot Water System with Radiators or Convectors. A central heating system supplying steam or hot water to conventional radiators, baseboard radiators, heating pipes embedded in the walls or ceilings, or heating coils or equipment which are part of a combined heating-ventilating or heating-air-conditioning system.

Storm Doors are made of double glass or insulating glass such as thermopane. Glass or plexiglass placed over a sliding glass door on either the exterior or interior is counted as a storm door. A plastic sheet covering the door is not a storm door.

Storm Windows are windows added to the exterior of existing windows. Windows made of double glass or insulating glass, such as thermopane, are storm windows. Glass or plexiglass placed over windows on either the exterior or interior side are included. Plastic sheets covering windows are not included.

Urban includes housing in areas of 2,500 inhabitants or more as defined in the 1970 Census.

Vacant Housing Unit is vacant if it was not occupied at the time of the first field contact. An occupied seasonal or migratory housing unit is classified as vacant at the time of the first field contact when all persons had a usual place of residence elsewhere.

Vehicles are automobiles, station wagons, passenger vans, cargo vans, motor homes, pickup trucks, other trucks, jeeps or similar vehicles, motorcycles, mopeds, and motorized bicycles.

Any motorized vehicle which is owned (being bought) by one or more members of the household is included. Company cars, trucks, taxicabs, and other motorized vehicles which are not owned by household members, but are regularly available to household members for their personal use and are ordinarily kept at home are included. Vehicles of all members of the household, including lodgers or other nonrelatives living in the house (apartment) are included. Cars rented or leased for one month or more are included.

Not included are motorized vehicles used solely for business purposes, such as police cars or other Government-owned vehicles. Dismantled or dilapidated vehicles in an early stage or being junked, or immobile vehicles used only as a source of power for some piece of machinery are not included. Vehicles used primarily for competition or display purposes such as racing cars, stock cars, or antique cars not used as passenger automobiles are not included.

Vehicle Types. Passenger vans or minibuses which are equipped for carrying passengers and have a seating capacity of from 5 to 15 passengers.

Pickup trucks include cars with an open load area (for example, a Ford El Rancho).

A jeep or similar vehicle has 4-wheel drive and is capable of off-road operation.

The miscellaneous category contains vehicles that do not fit into any of the designated categories.

Weatherstripping around outside doors or windows.

Windows to the Outside. All windows to the outside found in year-round living space are included. Windows in the basement, attic, garage, or porch are included if those areas are heated. Each window that opens separately is counted as one window. Windows fixed in place are included. Windows in doors are not included.

Year-Round Housing Unit is occupied or intended for occupancy at any time during the year. Mobile homes or trailers are considered year-round units if they also satisfy this condition.

USE OF THE GENERALIZED VARIANCE TABLES

The following tables allow the user to estimate the standard error of estimates calculated on the National Interim Energy Consumption Survey (NIECS) data.

Standard Error of Estimated Percentages. (To be used with the "B" series of tables.) The estimated standard error or reliability of a percentage depends upon both the percentage and the base upon which the percent was calculated.

In order to use Table 1:

- o Determine how many households in the sample belong to the base that are to be considered for the characteristic. (This will be illustrated in the second example.) The appropriate row in the table is now available.
- Using the table of estimates, determine what percentage was estimated for this characteristic. The appropriate entry in the table is now located.
- Since these tables are based on one standard deviation, a 95 percent confidence interval (two standard deviations) would equal twice the value in the table.

Two examples follow:

Suppose that of the 67.5 million households, 37 percent have all doors covered with storm doors. Using the Standard Error of Percentages Table (see Table 1), the 67.5 row and 50 percent column yield a table value of 1.3 (which is an overestimate since our percent is less than 50).¹ This means that the 95 percent confidence interval is 34.4 to 39.6 (37 +2(1.3)).

 $\frac{(37-25)}{(50-25)} (1.3-1.1) + 1.1 = 1.2$

¹If one wishes to obtain a more precise estimate of sampling error, interpolation of table values can be employed. The following method would be used to interpolate a value for 37 percent on a base of 67.5 million which would be between 1.1 and 1.3

Now, suppose that an estimate of the percent of households in the South that have all the doors covered with storm doors is desired. The base is all households in the South, 22.3 million, and the estimated percentage is 22 percent. The proper entry in the table is 1.8 which belongs in the 25.0 million row and the 25 percent column. Our 95 percent confidence interval now is 18.4 to 25.6 (22 + 2(1.8)).

			5.0	10.6	4.7	з • З	2.1	1.5	1.3
			25 or 75 50	9.2	4.1	2.9	1.8	1.3	1.1
		entage	15 or 85	7.5	3.4	2.4	1.5		6.
	of 100)	Estimated Percentage	5 or 95 10 or 90 15 or 85	6.3	2.8	2.0	1.3	6.	8.
	(68 Chances Out of 100)	£sti	5 or 95	4.6	2.1	1.5	6.	.7	.6
	(68 Cł	:	2 or 98	3.0	1•3	6.	• 6	. 4	• 4
		centage	1 or 99 2 or 98	2.1	6.	. 7	. 4	٣ .	.3
		Base of Percentage	(000)	1,000	5,000	10,000	25,000	50,000	67,500

Table 1. Standard Error of Percentages Table

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Standard Error of Estimated Counts. Linear interpolation should be used for counts not specifically shown in Table 2. An example follows:

• If the estimated count is 48,000,000, then the estimate of the standard error can be computed by linear interpolation as follows:

$$\frac{(48-45)}{(50-45)} (.76-.81) + .81 = .78$$

Standard Errors of Ratio. For ratios of the form (100) (x/y) where x is not a subclass of y, an approximation to the standard error of the ratio is given by:

$$\frac{100}{(\frac{x}{y})}\sqrt{(\frac{\sigma x^2}{x})^+(\frac{\sigma y^2}{y})}$$

Where

x = the numerator of the ratio
y = the denominator of the ratio

 $\sigma x =$ the standard error of the numerator

 $\sigma y =$ the standard error of the denominator

Standard Errors of Differences. The standard error of a difference between estimates is approximately equal to the square root of the sum of the squares of the standard errors considered separately.

-		- · · ·	(68	Chances Ou	t of 100)		
Size	of	Estimate	(in	millions)	Standard	Error	(in millions)
		1				.20	
		5				.44	
		10				.62	
		15				.71	
		20				.79	
		25				.83	
		30				.86	
		35				.86	
		40				.85	
		45				.81	
		50				.76	
		55				.67	
		60				.54	
		65				.30	
		67.5				.20	

Table 2. Standard Error of Estimated Counts

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