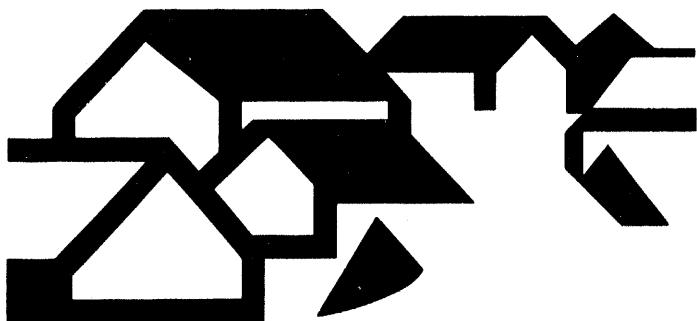


The 1992 Pacific Northwest Residential Energy Survey – Phase I

Book 5: Selected Crosstabulations

■ Volume F: Pacific Northwest Region

PNWRES92



*This document is a product of the
Energy Resources Development
and Implementation Process:*

Define Situation →

Identify Alternatives

Select Strategies

Implement Strategies

Evaluate Performance

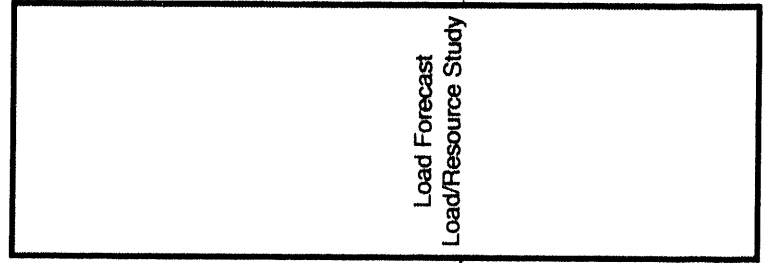
Energy Resources Development and Implementation Process

The Energy Resources Program contains all the steps needed to plan for and manage energy resources. This chart reflects that process, with major tasks for each step. Though we display a linear process, it is a simplification; many interactions among the stages take place. Throughout the process, Bonneville asks customers, the Northwest Power Planning Council, utility and environmental groups, the public and others for their advice and comment.

Customers
Northwest Power Planning Council
Utility and Environmental Groups
The Public

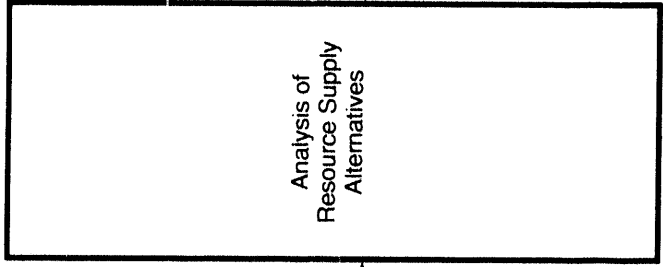
Defining the Resource Picture

To define the resource picture, Bonneville assesses its customers' power requirements for the next 20 years and the supply of existing resources. Bonneville and the Northwest Power Planning Council publish energy demand forecasts, and analysts forecast how much power from existing resources will be available to meet projected uses. The difference must be met by new resources.



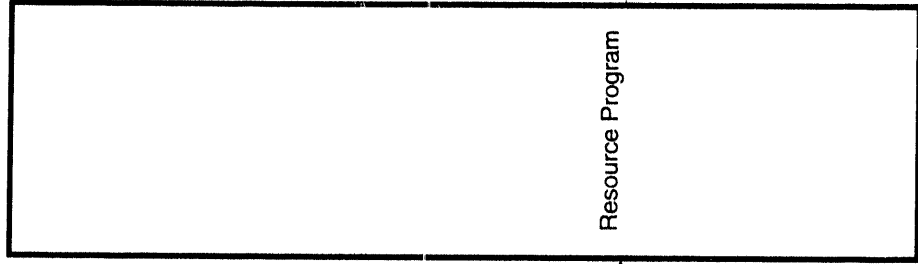
Identifying Alternatives

Analysts track potential resources and predict future supplies of conservation and generation resources, including imports and power exchanges. Analysts study all aspects of a resource: reliability, public opinion, cost, environmental impact, regulatory transmission and fuel constraints, and development time. Alternatives considered include opportunities for coordinating hydro system operations with Canada and for power purchases and transfers with Canadian and Southwest utilities.



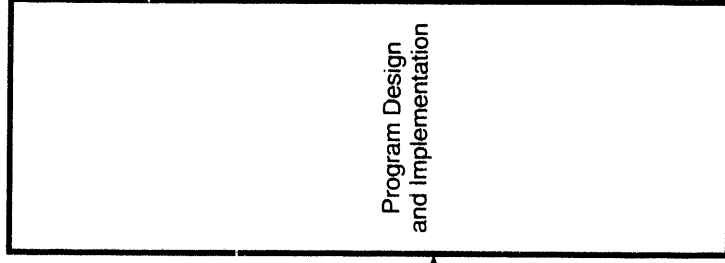
Selecting Strategies

Using information on loads and resources, Bonneville weighs combinations of resources, their consequences, and public comment to choose the most appropriate and cost-effective resource strategy. The Resource Program documents this strategy.



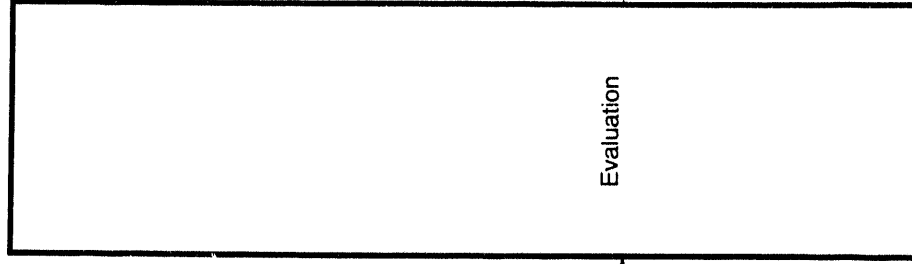
Implementing Strategies

Fulfilling the plans in the Resource Program is the next step. Working with utilities, resource developers, interest groups, the public, and others, Bonneville sponsors conservation and generation programs and projects. BPA conducts environmental reviews of programs and projects and also provides oversight for generation projects. The result: megawatts of electricity generated or saved for the region.



Evaluating Performance

How well did actions meet BPA's objectives? Answering this question through program evaluation provides information on energy savings, energy production, costs and other measures of program quality. It is BPA's policy to evaluate all energy resource acquisitions.



The 1992 Pacific Northwest Residential Energy Survey - Phase I

(PNWRES92-I)

Book 5: Selected Crosstabulations

■ Volume F: Pacific Northwest Region

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MASTER

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PREFACE

This book constitutes a portion of the *primary documentation* for the **1992 Pacific Northwest Residential Energy Survey, Phase I (PNWRES92-I)**.¹ The complete 33-volume set of primary documentation provides information needed by energy analysts and interpreters with respect to planning, execution, data collection, and data management of the PNWRES92-I process. Thirty of these volumes are devoted to different "views" of the data themselves, with each view having a special purpose or interest as its focus. Analyses and interpretations of these data will be the subjects of forthcoming publications.

Conducted during the late summer and fall months of 1992, PNWRES92-I had the over-arching goal of satisfying basic requirements for a variety of information about the stock of residential units in Bonneville's service region. Surveys with a similar goal were conducted in 1979 and 1983 and were respectively designated PNWRES79 and PNWRES83.

¹ From its planning stages, PNWRES92 was conceived as and intended to be a two-phase study: Phase I, the Telephone Survey, was to provide a modest amount of data on a large number (some 20,000) of Pacific Northwest households; Phase II, the On-Site Survey, was to provide a great deal of data on relatively few (perhaps 2,000-3,000) of the households interviewed in Phase I. Phase I households were intended also to provide a "surrogate population" of the region's households for specially focused future surveys.

PNWRES92-I differed from its two predecessors in several ways. It was designed to ...

... be conducted as a telephone survey—in contrast to an on-site/in-person interview.

.... include all classes of housing units in the Pacific Northwest—in contrast to those that could be reached only through cooperating electric utilities.

... assure coverage of six geographic sub-regions² and three utility types³—in contrast, again, to depending upon the cooperation and effort of a selection of electric utilities.

... provide data on some 20,000 housing units—in contrast to some 4,000-5,000 housing units interviewed in PNWRES79 and PNWRES83.

... provide a surrogate population of Pacific Northwest households as a basis for future, fine-tuned surveys aimed at specific issues or limited data needs.

In order to provide a record of intention and achievement, the 33 coordinated volumes—designated **Volume A through Volume AG**—were prepared by PNWRES92-I's principal contractor, the Applied Management & Planning Group of Los Angeles, CA. These volumes are collected and published in a series of 12 "books," each of which contains a particular subgroup of the 33 volumes:

Book 1: Volumes A and B. The Executive Summary, the Concordance, and the Glossary (A) and the Report on Methodology and the Technical Appendix (B).

Book 2: Volume C. Item-by-item crosstabulations⁴ for the Pacific Northwest Region.

Book 3: Volume D. Item-by-item crosstabulations for the four Bonneville Area Offices (Puget Sound, Lower Columbia, Upper Columbia, and Snake River).

² Western Montana, Idaho, Eastern Washington, Western Washington, Eastern Oregon, and Western Oregon.

³ Publicly-Owned Generating Utilities, Publicly-Owned Non-Generating Utilities, and Investor-Owned Utilities.

⁴ Item-by-item crosstabulations display all responses to each of 80 survey items (excepting confidential/sensitive items like names and addresses) for each of the 15 survey domains and for the Region (Volume C), Bonneville's four Area Offices (Volume D), and the four Pacific Northwest states (Volume E).

- Book 4: Volume E.** Item-by-item crosstabulations for the four Pacific Northwest states served by Bonneville (Western Montana, Idaho, Washington, and Oregon).
- Book 5: Volume F.** Selected crosstabulations⁵ for the Pacific Northwest Region.
- Book 6: Volumes G, H, and I.** Selected crosstabulations for the three publicly-owned *generating* utility domains: Eastern Washington (G), Western Washington (H), and Western Oregon (I).
- Book 7: Volumes J, K, L, M, N, and O.** Selected crosstabulations for the six publicly-owned *non-generating* utility domains: Western Montana (J), Idaho (K), Eastern Washington (L), Western Washington (M), Eastern Oregon (N), and Western Oregon (O).
- Book 8: Volumes P, Q, R, S, T, and U.** Selected crosstabulations for the six investor-owned utility domains: Western Montana (P), Idaho (Q), Eastern Washington (R), Western Washington (S), Eastern Oregon (T), and Western Oregon (U).
- Book 9: Volumes V, W, X, and Y.** Selected crosstabulations for Bonneville's four Area Offices: Puget Sound (V), Lower Columbia (W), Upper Columbia (X), and Snake River (Y).
- Book 10: Volumes Z, AA, AB, and AC.** Selected crosstabulations for the four states served by Bonneville: Washington (Z), Oregon (AA), Idaho (AB), and Western Montana (AC).
- Book 11: Volumes AD, AE, and AF.** Selected crosstabulations for the three categories of utilities in the Pacific Northwest: Public Generating (AD), Public Non-Generating (AE), and Investor-Owned (AF).
- Book 12: Volume AG.** A report of a post-survey study of PNWRES92-I non-respondents (conducted in late Spring 1993) and their reason(s) for not completing the original survey.

For additional information, comments, or data requests, contact David Mills: 503-230-7505.

To obtain copies of the reports, contact Kim Andersen, End-Use Research Section (RPEE), Bonneville Power Administration, P.O. Box 3621, Portland, OR 97208-3621: 503-230-5712.

Individually-bound copies of Volume A (Executive Summary, Concordance, and Glossary) may be obtained from Bonneville's Public Information Office: 503-230-3055.

⁵ "Selected crosstabulations" refers to a set of nine survey items of wide interest (Dwelling Type, Ownership Type, Year-of-Construction, Dwelling Size, Primary Space-Heating Fuel, Primary Water-Heating Fuel, Household Income for 1991, Utility Type, and Space-Heating Fuels: Systems and Equipment) that were crosstabulated among themselves and thus yielded 36 two-way tables for each of the several views displayed in Volumes F through AF.

1992 Pacific Northwest Residential Energy Survey Phase I

VOLUME F Pacific Northwest Region Crosstabulations

**Prepared for
Bonneville Power Administration
Portland, Oregon**

**by
Applied Management & Planning Group
Los Angeles**

Contract No.: DE-AC79-92BP25174

OVERVIEW OF 1992 PACIFIC NORTHWEST RESIDENTIAL ENERGY SURVEY

Phase I of the 1992 Pacific Northwest Residential Energy Survey (PNWRES92-I) was the third comprehensive survey of the region to provide data on energy usage, conservation awareness/behaviors and associated consumer characteristics for use in forecasting and planning by the Bonneville Power Administration.

Energy-use data from residential surveys conducted in 1979 and 1983 have been used extensively by Bonneville, the Pacific Northwest Utilities Conference Committee, the Northwest Power Planning Council, and by several of the utilities in the region. Since 1983, both increased fuel prices and conservation programs have impacted consumer behavior and have made it necessary to update the data base used for forecasting. In order to improve the accuracy of these forecasts, more detailed information was required concerning the use of residential energy in the Pacific Northwest. Thus, Bonneville contracted its third regional residential survey, PNWRES92-I.

A team of staff members, representing several constituencies within Bonneville's Office of Energy Resources, designed the data collection as a telephone survey. The Applied Management & Planning Group (AMPG), Los Angeles, California, was selected to carry out the survey, to summarize the data, and to prepare the initial documentation. Interviewing Services of America (ISA), Van Nuys, California, was subcontracted by AMPG to conduct the telephone interviews.

PNWRES92-I used random digit dialing (RDD) and computer-assisted telephone interviewing (CATI). The sample was stratified into 15 sampling domains defined by geographic area and utility type. A total of 20,170 interviews were completed from September 3, 1992, to December 9, 1992.

The survey's full documentation is divided among 33 volumes, which are displayed in the Project Concordance in the next section. All volumes are available both in printed form and on personal computers using **Bonneville Power Plus**. Volumes A and B provide detailed documentation. Volume C shows all survey items for each sampling domain, for the entire region. Each of the data tables in Volumes C through AF show both the sample counts and the weighted population counts, as well as a chart for the population counts.

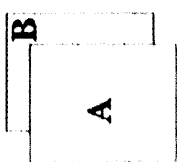
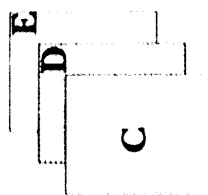

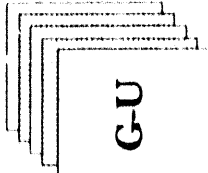
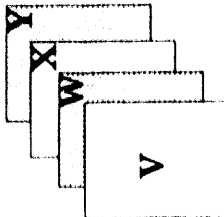
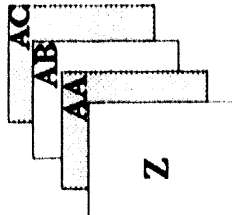
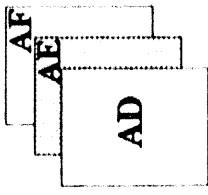

Volume F presents selected crosstabulations for the Pacific Northwest Region.

For additional information, comments, or data requests, contact David Mills: (503)230-7505. To obtain copies of the reports, contact Kim Andersen, End-Use Research Section (RPEE), Bonneville Power Administration, P.O. Box 3621, Portland, OR 97208-3621; (503)230-5712.

Project Concordance Tables

Text

Tables

<p>↓</p> <p>A-B</p> 	<p>↓</p> <p>C-E (Item-by-Item)</p> 	<p>↓</p> <p>F (Region)</p> 	<p>↓</p> <p>G-U (Domains)</p> 	<p>↓</p> <p>V-Y (Area Offices)</p> 	<p>↓</p> <p>Z-AC (States)</p> 	<p>↓</p> <p>AD-AF (Utilities)</p> 	<p>↓</p> <p>AG (Non-Respondent Survey)</p> 
<p>Volume A: Executive Summary Project Concordance Glossary</p>	<p>Item-by-Item Cross-tabulations</p> <p>Volume C: Pacific Northwest Region by Domain</p> <p>Volume D: Pacific Northwest Region by Area Office</p> <p>Volume E: Pacific Northwest Region by State</p>	<p>Selected Cross-tabulations for Domains:</p> <p>G: Eastern Washington (PG) H: Western Washington (PG) I: Western Oregon (PG) J: Western Montana (PN) K: Idaho (PN) L: Eastern Washington (PN) M: Western Washington (PN) N: Eastern Oregon (PN) O: Western Oregon (PN) P: Western Montana (IO) Q: Idaho (IO) R: Eastern Washington (IO) S: Western Washington (IO) T: Eastern Oregon (IO) U: Western Oregon (IO)</p>	<p>Selected Cross-tabulations for States:</p> <p>Z: Washington AA: Oregon AB: Idaho AC: Montana</p>	<p>Selected Cross-tabulations for Area Offices:</p> <p>V: Puget Sound W: Lower Columbia X: Upper Columbia Y: Snake River</p>	<p>Selected Cross-tabulations for Utility Types:</p> <p>Z: Washington AD: Public Generating AE: Public Non-Generating AF: Investor Owned</p>	<p>Volume AG: Study of Non-Respondents</p>	

Book 1: Volumes A and B
 Book 2: Volume C
 Book 3: Volume D
 Book 4: Volume E
 Book 5: Volume F
 Book 6: Volumes G, H, and I
 Book 7: Volumes J, K, L, M, N, and O
 Book 8: Volumes P, Q, R, S, T, and U
 Book 9: Volumes V, W, X, and Y
 Book 10: Volumes Z, AA, AB, and AC
 Book 11: Volumes AD, AE, and AF
 Book 12: Volume AG

Key: PG = Public Generating Utility PN = Public Nongenerating Utility IO = Investor-Owned

Listing of Tables and Charts

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- F-1:** Ownership Type by Dwelling Type
- F-2:** Year of Construction by Dwelling Type
- F-3:** Dwelling Size in Square Feet by Dwelling Type
- F-4:** Primary Space-Heating Fuel Type by Dwelling Type
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- F-6:** Household Income by Dwelling Type
- F-7:** Utility Type by Dwelling Type
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- F-10:** Dwelling Size in Square Feet by Ownership Type
- F-11:** Primary Space-Heating Fuel Type by Ownership Type
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- F-13:** Household Income by Ownership Type
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- F-16:** Dwelling Size in Square Feet by Year of Construction
- F-17:** Primary Space-Heating Fuel Type by Year of Construction
- F-18:** Primary Water-Heating Fuel Type by Year of Construction
- F-19:** Household Income by Year of Construction
- F-20:** Utility Type by Year of Construction
- F-21:** Space-Heating Fuels: Systems and Equipment by Year of Construction
- F-22:** Primary Space-Heating Fuel Type by Dwelling Size in Square Feet
- F-23:** Primary Water-Heating Fuel Type by Dwelling Size in Square Feet
- F-24:** Household Income by Dwelling Size in Square Feet
- F-25:** Utility Type by Dwelling Size in Square Feet
- F-26:** Space-Heating Fuels: Systems and Equipment by Dwelling Size in Square Feet
- F-27:** Primary Water-Heating Fuel Type by Primary Space-Heating Fuel Type
- F-28:** Household Income by Primary Space-Heating Fuel Type
- F-29:** Utility Type by Primary Space-Heating Fuel Type
- F-30:** Space-Heating Fuels: Systems and Equipment by Primary Space-Heating Fuel Type
- F-31:** Household Income by Primary Water-Heating Fuel Type
- F-32:** Utility Type by Primary Water-Heating Fuel Type
- F-33:** Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type
- F-34:** Utility Type by Household Income
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- F-36:** Space-Heating Fuels: Systems and Equipment by Utility Type

Tables and Charts Survey Questions
Volume F: Pacific Northwest Region Crosstabulations

- F-1: Ownership Type by Dwelling Type**
Q18: Do you own your home, rent it, or occupy it under some other arrangement?
Q16: Which of the following best describes your dwelling?
- F-2: Year of Construction by Dwelling Type**
Q20: In what year was your home constructed?
Q16: Which of the following best describes your dwelling?
- F-3: Dwelling Size in Square Feet by Dwelling Type**
Q24: What is the square footage of your home?
Q16: Which of the following best describes your dwelling?
- F-4: Primary Space-Heating Fuel Type by Dwelling Type**
Q46: What fuel do you use most to heat your home?
Q16: Which of the following best describes your dwelling?
- F-5: Primary Water-Heating Fuel Type by Dwelling Type**
Q102: What fuel do you use most for heating water in your home?
Q16: Which of the following best describes your dwelling?
- F-6: Household Income by Dwelling Type**
Q186: Was your total household income before taxes for 1991 above or below \$25,000?
Q188&
Q189: What is your household income?
Q16: Which of the following best describes your dwelling?
- F-7: Utility Type by Dwelling Type**
Q16: Which of the following best describes your dwelling?
- F-8: Space-Heating Fuels: Systems and Equipment by Dwelling Type**
Q16: Which of the following best describes your dwelling?
- F-9: Year of Construction by Ownership Type**
Q20: In what year was your home constructed?
Q18: Do you own your home, rent it, or occupy it under some other arrangement?
- F-10: Dwelling Size in Square Feet by Ownership Type**
Q24: What is the square footage of your home?
Q18: Do you own your home, rent it, or occupy it under some other arrangement?

Tables and Charts Survey Questions

Volume F: Pacific Northwest Region Crosstabulations

- F-11:** Primary Space-Heating Fuel Type by Ownership Type
Q46: What fuel do you use most to heat your home?
Q18: Do you own your home, rent it, or occupy it under some other arrangement?
- F-12:** Primary Water-Heating Fuel Type by Ownership Type
Q102: What fuel do you use most for heating water in your home?
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- F-13:** Household Income by Ownership Type
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- F-14:** Utility Type by Ownership Type
Q18: Do you own your home, rent it, or occupy it under some other arrangement?
- F-15:** Space-Heating Fuels: Systems and Equipment by Ownership Type
Q18: Do you own your home, rent it, or occupy it under some other arrangement?
- F-16:** Dwelling Size in Square Feet by Year of Construction
Q24: What is the square footage of your home?
Q20: In what year was your home constructed?
- F-17:** Primary Space-Heating Fuel Type by Year of Construction
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- F-18:** Primary Water-Heating Fuel Type by Year of Construction
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Q189: What is your household income?
Q20: In what year was your home constructed?

Tables and Charts Survey Questions
Volume F: Pacific Northwest Region Crosstabulations

- F-20:** Utility Type by Year of Construction
Q20: In what year was your home constructed?
- F-21:** Space-Heating Fuels: Systems and Equipment by Year of Construction
Q20: In what year was your home constructed?
- F-22:** Primary Space-Heating Fuel Type by Dwelling Size in Square Feet
Q46: What fuel do you use most to heat your home?
Q24: What is the square footage of your home?
- F-23:** Primary Water-Heating Fuel Type by Dwelling Size in Square Feet
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Q24: What is the square footage of your home?
- F-25:** Utility Type by Dwelling Size in Square Feet
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- F-26:** Space-Heating Fuels: Systems and Equipment by Dwelling Size in Square Feet
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- F-28:** Household Income by Primary Space-Heating Fuel Type
Q186: Was your total household income before taxes for 1991 above or below \$25,000?
Q188&
Q189: What is your household income?
Q46: What fuel do you use most to heat your home?
- F-29:** Utility Type by Primary Space-Heating Fuel Type
Q46: What fuel do you use most to heat your home?
- F-30:** Space-Heating Fuels: Systems and Equipment by Primary Space-Heating Fuel Type
Q46: What fuel do you use most to heat your home?

Tables and Charts Survey Questions
Volume F: Pacific Northwest Region Crosstabulations

- F-31:** Household Income by Primary Water-Heating Fuel Type
Q186: Was your total household income before taxes for 1991 above or below \$25,000?
Q188&
Q189: What is your household income?
Q102: What fuel do you use most for heating water in your home?
- F-32:** Utility Type by Primary Water-Heating Fuel Type
Q102: What fuel do you use most for heating water in your home?
- F-33:** Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type
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- F-35:** Space-Heating Fuels: Systems and Equipment by Household Income
Q186: Was your total household income before taxes for 1991 above or below \$25,000?
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Q189: What is your household income?
- F-36:** Space-Heating Fuels: Systems and Equipment by Utility Type

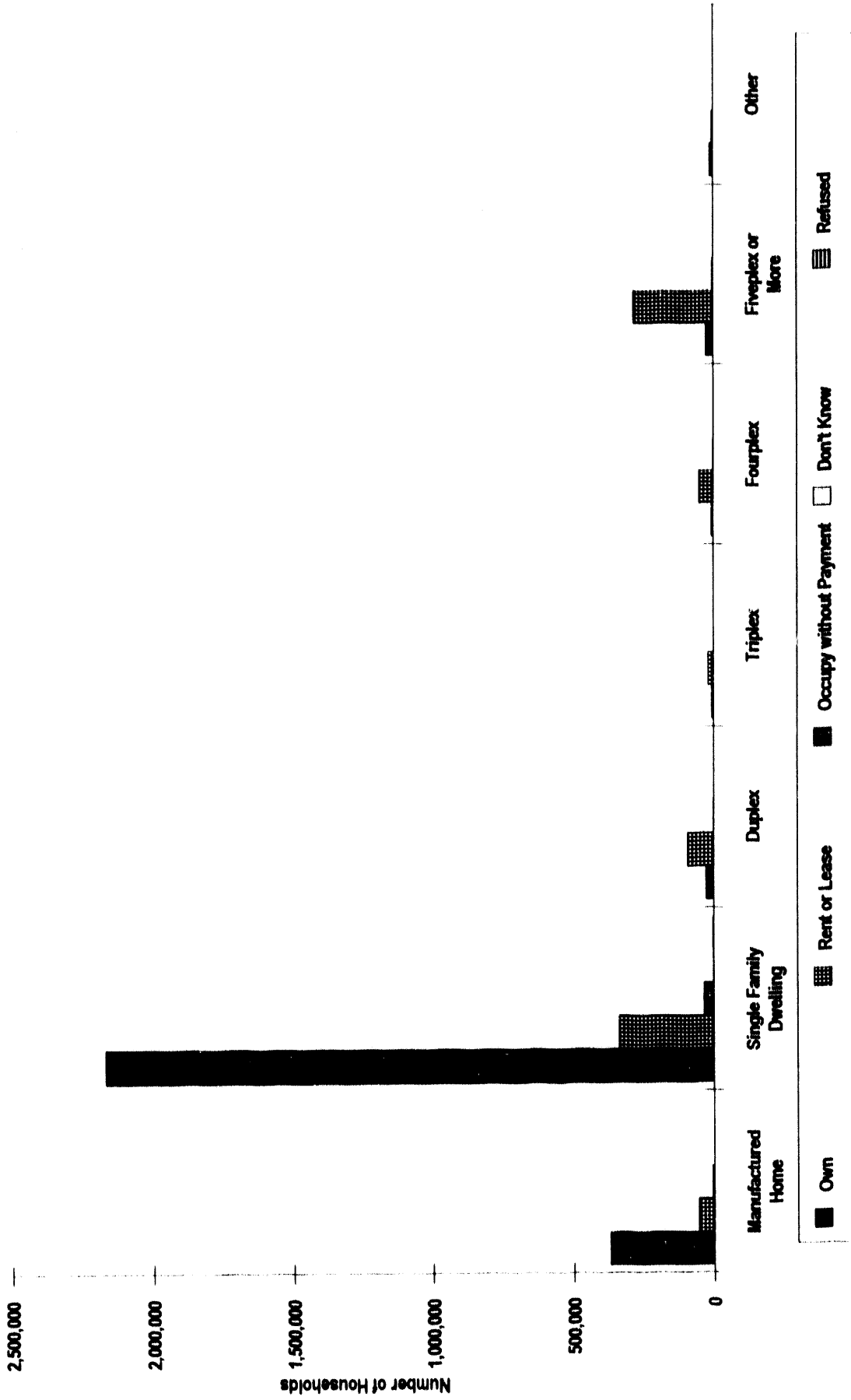
Table F-1: Ownership Type by Dwelling Type
Q18 by Q16

OWNERSHIP TYPE	DWELLING TYPE							TOTAL		
	Manufactured Home		Single Family Dwelling		Duplex	Triplex	Fourplex		Fiveplex or More	Other
	Home	Dwelling								
Own	2,497	12,216	155	28	40	133	51	15,120		
Rent or Lease	413	2,040	558	85	286	1,234	24	4,640		
Occupy without Payment	77	257	15	0	4	25	2	300		
Don't Know	1	7	0	0	0	0	1	9		
Refused	4	16	0	0	0	0	1	21		
TOTAL	2,992	14,536	728	113	330	1,362	79	20,170		

OWNERSHIP TYPE	DWELLING TYPE							TOTAL		
	Manufactured Home		Single Family Dwelling		Duplex	Triplex	Fourplex		Fiveplex or More	Other
	Home	Dwelling								
Own	373,129	2,170,644	28,673	8,210	8,260	27,001	12,567	2,628,483		
Rent or Lease	59,086	339,525	96,518	21,193	53,377	286,145	5,438	861,282		
Occupy without Payment	7,731	36,982	3,228	0	446	3,956	199	52,541		
Don't Know	54	1,794	0	0	0	0	54	1,902		
Refused	323	4,208	0	0	0	0	70	4,601		
TOTAL	440,324	2,553,152	128,418	29,403	62,082	317,101	18,329	3,548,809		

Chart F-1: Ownership Type by Dwelling Type
Q18 by Q16

Weighted Data



Ownership Type

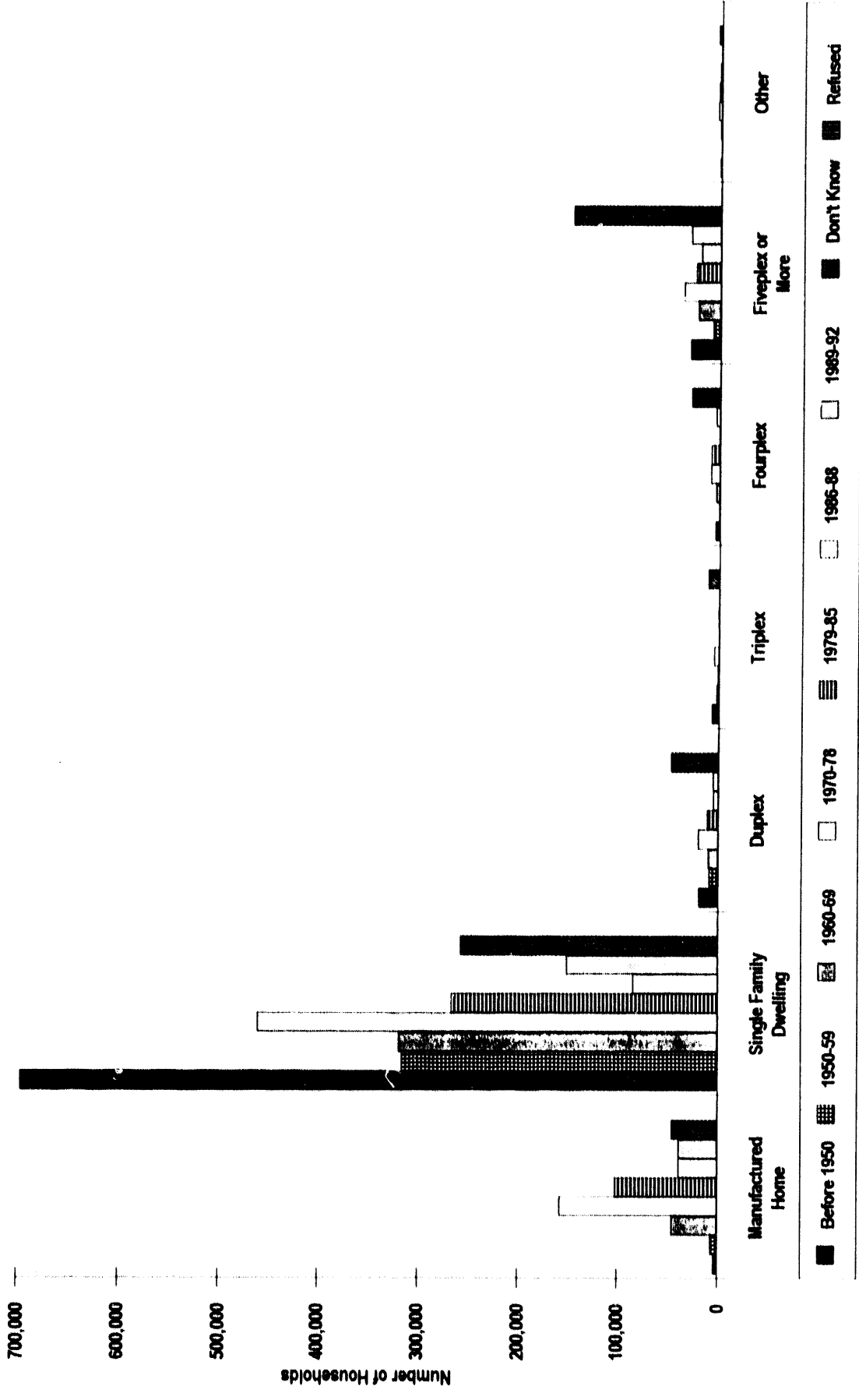
Table F-2: Year of Construction by Dwelling Type
Q20 by Q16

Raw Data	YEAR OF CONSTRUCTION	DWELLING TYPE							TOTAL	
		Manufactured Home		Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More		Other
		Home	Dwelling							
	Before 1950	37	3,872	106	25	28	11	4,207		
	1950-59	71	1,872	57	7	10	3	2,055		
	1960-69	280	1,840	62	7	19	7	2,324		
	1970-78	1,101	2,545	107	13	50	17	4,017		
	1979-85	688	1,517	65	6	43	16	2,452		
	1986-88	222	493	23	4	9	5	822		
	1989-92	278	773	33	4	18	8	1,220		
	Don't Know	313	1,619	274	47	152	12	3,061		
	Refused	2	5	1	0	1	0	12		
	TOTAL	2,992	14,536	728	113	330	1,382	20,170		

Weighted Data	YEAR OF CONSTRUCTION	DWELLING TYPE							TOTAL	
		Manufactured Home		Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More		Other
		Home	Dwelling							
	Before 1950	4,083	697,182	19,443	7,012	4,818	1,608	763,878		
	1950-59	7,275	315,781	9,219	2,682	1,405	432	344,585		
	1960-69	45,743	318,833	10,307	1,715	4,162	1,562	404,725		
	1970-78	157,724	461,086	19,582	5,302	9,101	3,884	693,140		
	1979-85	101,727	266,668	11,383	245	8,707	3,450	416,640		
	1986-88	39,003	84,796	5,427	1,003	1,213	2,001	152,806		
	1989-92	38,843	151,063	5,572	194	4,227	1,451	230,829		
	Don't Know	45,787	257,268	47,341	11,249	28,117	3,941	540,867		
	Refused	138	476	142	0	333	0	1,319		
	TOTAL	440,324	2,553,152	128,418	29,403	62,082	18,329	3,548,809		

Weighted Data

Chart F-2: Year of Construction by Dwelling Type Q20 by Q16



Year of Construction

Table F-3: Dwelling Size in Square Feet by Dwelling Type

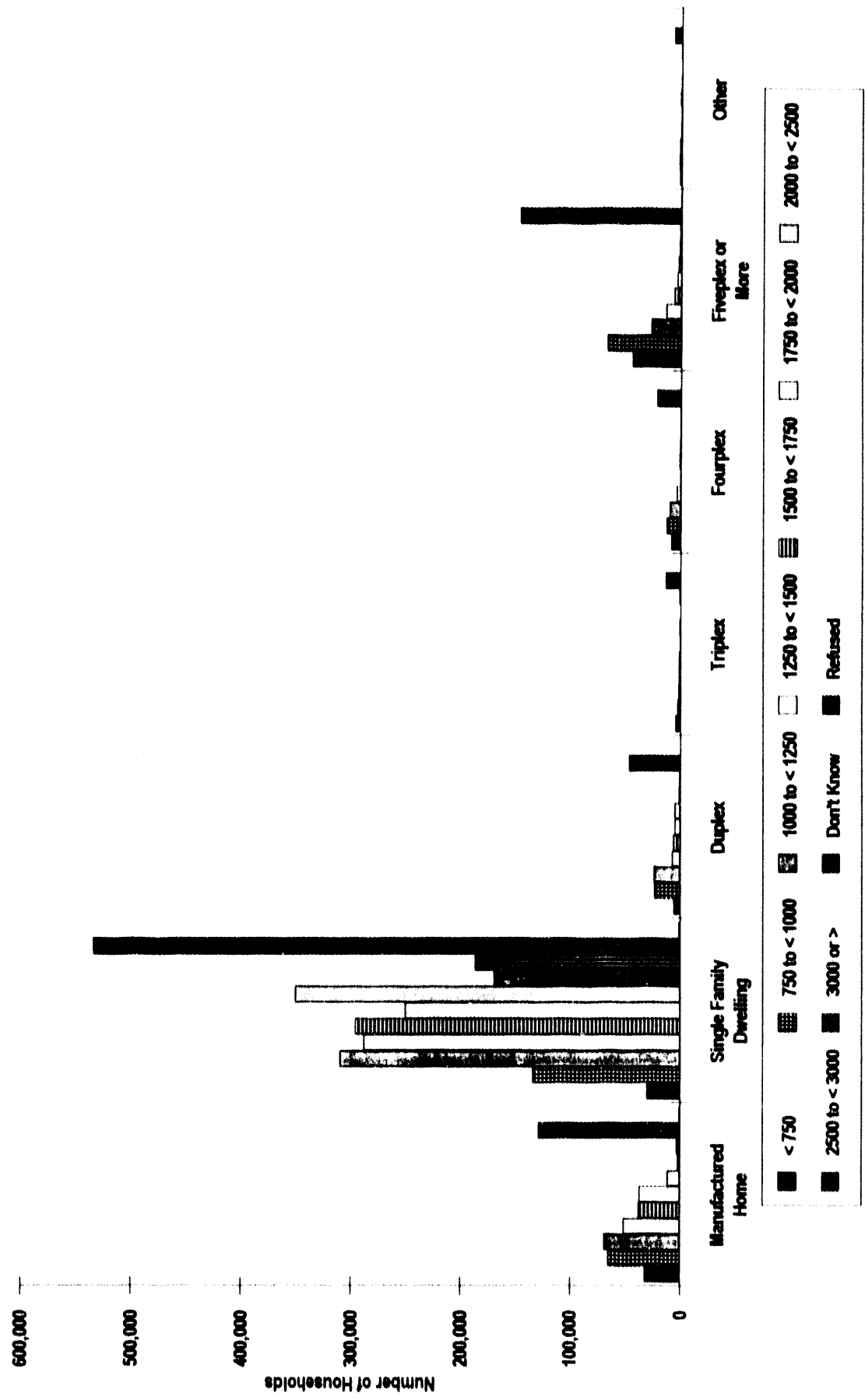
Q24 by Q16

Raw Data	DWELLING SIZE IN SQUARE FEET	DWELLING TYPE							TOTAL
		Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
		213	207	34	14	36	193	14	
	750 to < 1000	467	863	114	14	73	275	12	1,818
	1000 to < 1250	422	1,847	120	10	41	138	6	2,584
	1250 to < 1500	348	1,576	43	5	19	49	5	2,045
	1500 to < 1750	273	1,558	41	5	5	24	4	1,910
	1750 to < 2000	210	1,323	32	4	9	16	5	1,599
	2000 to < 2500	83	1,828	25	3	3	11	2	1,955
	2500 to < 3000	27	900	10	0	2	7	0	946
	3000 or >	39	1,050	12	4	3	10	5	1,123
	Don't Know	907	3,367	297	54	138	667	26	5,456
	Refused	3	17	0	0	1	2	0	23
	TOTAL	2,992	14,536	728	113	330	1,392	79	20,170

Weighted Data	DWELLING SIZE IN SQUARE FEET	DWELLING TYPE							TOTAL
		Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
		32,181	30,417	6,253	4,851	9,077	44,495	2,022	
	750 to < 1000	65,441	134,222	23,779	2,884	12,940	67,106	2,509	308,880
	1000 to < 1250	69,167	309,998	24,265	2,123	10,481	27,307	2,143	445,484
	1250 to < 1500	51,101	288,120	7,725	1,534	3,770	14,092	1,432	367,773
	1500 to < 1750	37,943	296,067	6,647	1,501	628	6,603	169	349,577
	1750 to < 2000	36,979	250,604	5,074	512	1,450	4,150	1,905	300,673
	2000 to < 2500	11,617	351,141	5,146	1,189	1,033	2,883	524	373,534
	2500 to < 3000	2,683	169,255	1,819	0	145	1,993	0	175,894
	3000 or >	3,608	186,680	1,265	1,429	529	1,532	721	195,764
	Don't Know	128,619	534,770	46,446	13,381	22,000	146,834	6,905	898,954
	Refused	966	1,857	0	0	30	106	0	2,979
	TOTAL	440,324	2,553,152	128,418	29,403	62,082	317,101	18,329	3,548,809

Chart F-3: Dwelling Size in Square Feet by Dwelling Type
Q24 by Q16

Weighted Data



Dwelling Size in Square Feet

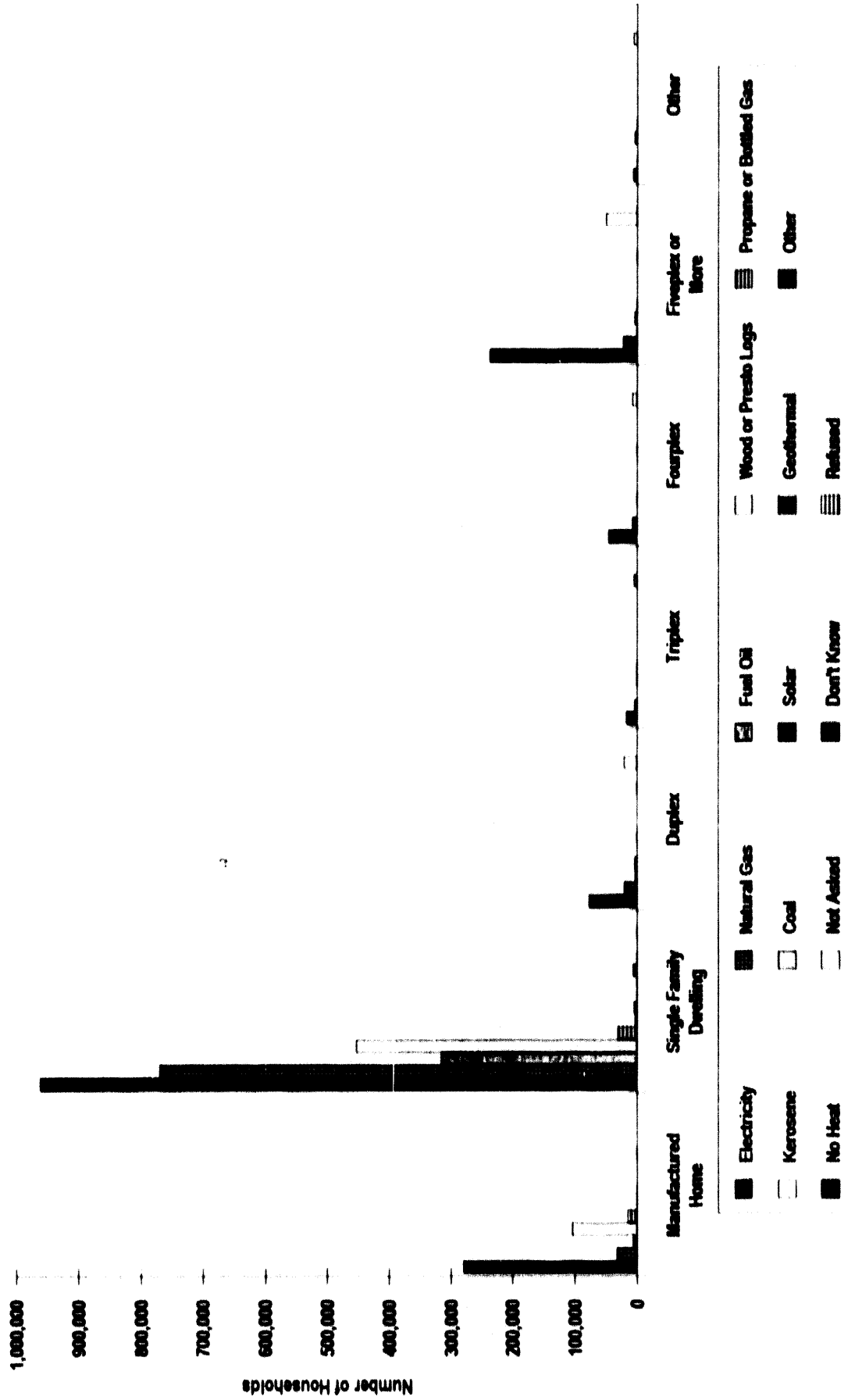
Table F-4: Primary Space-Heating Fuel Type by Dwelling Type
Q46 by Q16

Raw Data	PRIMARY SPACE-HEATING FUEL TYPE	DWELLING TYPE							TOTAL
		Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
	Electricity	1,846	6,901	461	73	244	1,064	32	10,621
	Natural Gas	166	2,686	91	14	24	68	4	3,053
	Fuel Oil	58	1,348	12	1	3	4	0	1,426
	Wood or Presto Logs	768	3,254	34	5	3	13	16	4,083
	Propane or Bottled Gas	138	226	0	1	1	6	7	379
	Kerosene	4	12	2	0	0	0	0	18
	Coal	2	32	1	0	0	0	0	35
	Solar	1	14	0	0	1	0	0	16
	Geothermal	1	6	0	0	0	1	0	8
	Other	7	42	1	0	0	0	0	50
	No Heat	1	3	0	0	0	0	0	4
	Not Asked	0	0	125	19	53	232	20	449
	Don't Know	0	11	1	0	1	4	0	17
	Refused	0	1	0	0	0	0	0	1
	TOTAL	2,992	14,536	728	113	330	1,382	79	20,170

Table F-4: Primary Space-Heating Fuel Type by Dwelling Type
Q46 by Q16

PRIMARY SPACE-HEATING FUEL TYPE	DWELLING TYPE										TOTAL
	Manufactured Home		Single Family Dwelling		Duplex	Triplex	Fourplex	Fiveplex or More		Other	
Electricity	279,988	963,206	77,424	17,488	46,928	237,943	6,788				1,629,765
Natural Gas	32,626	770,267	20,884	4,724	7,228	22,188	196				858,134
Fuel Oil	6,438	315,998	3,155	15	115	475	0				326,196
Wood or Presto Logs	104,789	453,596	4,625	966	178	4,054	4,638				572,866
Propane or Bottled Gas	14,589	31,354	0	964	15	212	1,173				48,317
Kerosene	514	3,204	1,174	0	0	0	0				4,892
Coal	196	5,011	70	0	0	0	0				5,277
Solar	70	1,099	0	0	415	0	0				1,584
Geothermal	142	753	0	0	0	0	0				1,075
Other	913	7,118	333	0	0	0	0				8,363
No Heat	70	516	0	0	0	0	0				585
Not Asked	0	0	20,738	5,226	7,148	50,682	5,533				80,338
Don't Know	0	981	15	0	54	1,356	0				2,407
Refused	0	30	0	0	0	0	0				30
TOTAL	440,324	2,553,152	128,418	29,483	62,082	317,101	18,329				3,548,809

Chart F-4: Primary Space-Heating Fuel Type by Dwelling Type
Q46 by Q16



Primary Space-Heating Fuel Type

Table F-5: Primary Water-Heating Fuel Type by Dwelling Type
Q102 by Q16

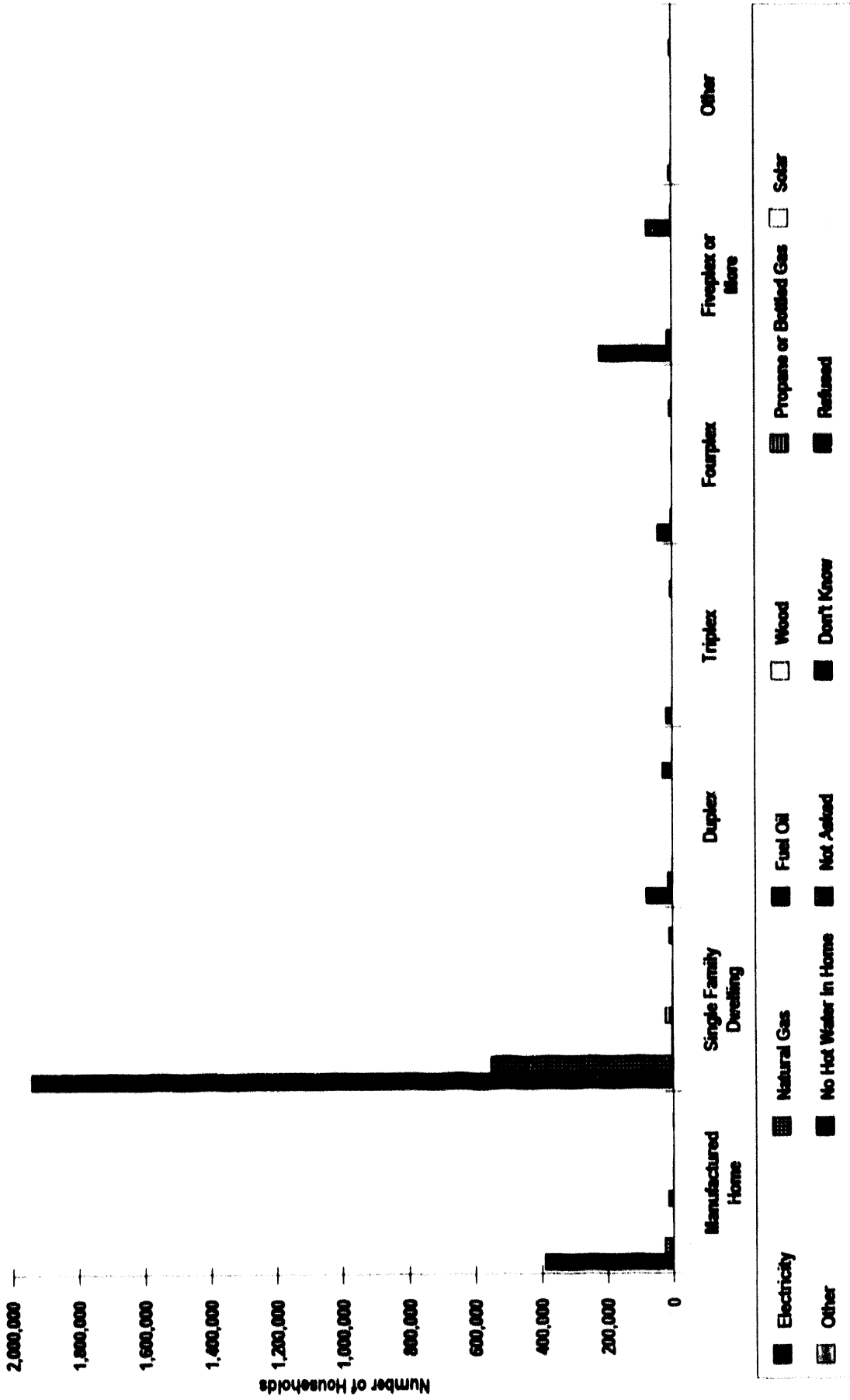
PRIMARY WATER-HEATING FUEL TYPE	DWELLING TYPE							TOTAL	
	Manufactured Home		Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More		Other
	Home	Dwelling							
Electricity	2,667	12,268	498	75	247	938	42	16,735	
Natural Gas	149	1,902	66	5	15	48	3	2,189	
Fuel Oil	1	26	3	0	0	0	0	30	
Wood	14	57	0	0	0	0	3	74	
Propane or Bottled Gas	147	188	0	0	0	4	7	346	
Solar	3	32	1	0	1	0	0	37	
Other	2	7	0	0	0	1	0	10	
No Hot Water in Home	2	2	0	0	0	0	0	4	
Not Asked	0	0	154	31	63	386	24	658	
Don't Know	7	54	6	2	4	15	0	88	
Refused	0	0	0	0	0	0	0	0	
TOTAL	2,982	14,536	778	113	338	1,382	79	28,176	

Weighted Data

PRIMARY WATER-HEATING FUEL TYPE	DWELLING TYPE							TOTAL	
	Manufactured Home		Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More		Other
	Home	Dwelling							
Electricity	392,297	1,944,125	80,382	20,332	45,201	228,473	9,968	2,712,779	
Natural Gas	28,242	553,864	15,404	863	4,892	16,229	1,001	628,486	
Fuel Oil	15	6,317	511	0	0	0	0	6,843	
Wood	1,157	5,382	0	0	0	0	179	6,718	
Propane or Bottled Gas	17,002	25,512	0	0	0	232	314	43,058	
Solar	397	3,995	54	0	415	0	0	4,863	
Other	452	790	0	0	0	54	0	1,206	
No Hot Water in Home	145	473	0	0	0	0	0	618	
Not Asked	0	0	30,799	8,033	10,825	76,163	6,867	132,686	
Don't Know	616	12,783	1,268	175	749	3,950	0	19,541	
Refused	0	0	0	0	0	0	0	0	
TOTAL	440,324	2,553,152	128,418	29,483	62,882	317,161	18,329	3,548,809	

Chart F-5: Primary Water-Heating Fuel Type by Dwelling Type
Q102 by Q16

Weighted Data



Primary Water-Heating Fuel Type

Table F-6: Household Income by Dwelling Type
 Q186, Q188, Q189 by Q16

Raw Data	DWELLING TYPE							TOTAL
	Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
HOUSEHOLD INCOME	85	217	33	7	25	116	8	491
Below \$5,000	245	606	59	13	42	190	9	1,164
\$5,000 to < \$10,000	307	888	80	14	28	191	9	1,517
\$10,000 to < \$15,000	303	925	74	11	35	134	9	1,491
\$15,000 to < \$20,000	351	1,181	91	9	36	121	7	1,796
\$20,000 to < \$25,000	355	1,555	73	9	47	124	10	2,173
\$25,000 to < \$30,000	424	2,182	85	17	32	124	6	2,870
\$30,000 to < \$40,000	198	1,524	41	6	19	65	4	1,857
\$40,000 to < \$50,000	82	955	23	5	14	26	2	1,107
\$50,000 to < \$60,000	42	775	19	3	3	19	0	861
\$60,000 to < \$80,000	15	305	11	2	2	10	2	347
\$80,000 to < \$100,000	19	316	4	1	1	6	1	348
\$100,000 or More	241	1,149	57	9	24	134	5	1,619
Don't Know	325	1,958	78	7	22	132	7	2,529
Refused								
TOTAL	2,992	14,536	728	113	330	1,362	79	20,170

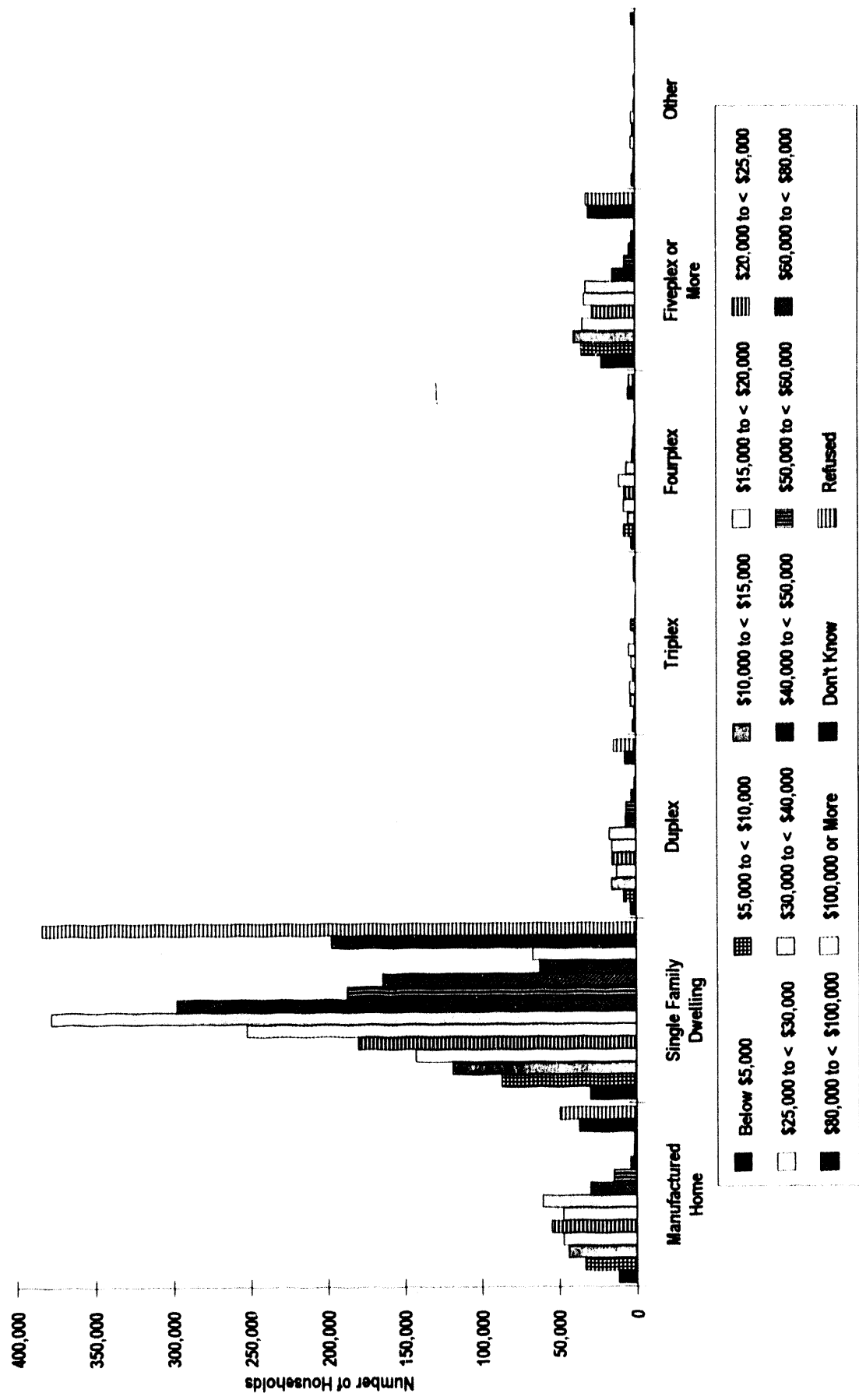
Table F-6: Household Income by Dwelling Type

Q186, Q188, Q189 by Q16

Weighted Data	DWELLING TYPE								TOTAL		
	Manufactured		Single Family		Duplex	Triplex	Fourplex	Fiveplex or More		Other	
	Home	Dwelling	Dwelling	Dwelling							
HOUSEHOLD INCOME											
Below \$5,000	11,770	30,191			3,887	2,298	3,163	21,759	2,287	75,357	
\$5,000 to < \$10,000	33,480	87,598			8,192	1,396	7,421	35,085	1,378	174,349	
\$10,000 to < \$15,000	44,252	118,729			15,803	3,738	4,869	39,771	1,114	228,275	
\$15,000 to < \$20,000	47,437	142,717			12,616	3,993	7,582	34,430	3,133	251,909	
\$20,000 to < \$25,000	55,148	180,290			15,411	2,086	7,347	28,179	2,140	290,603	
\$25,000 to < \$30,000	47,511	252,606			15,364	3,133	10,437	33,285	2,553	364,887	
\$30,000 to < \$40,000	60,992	378,632			17,010	4,736	6,052	32,239	961	500,622	
\$40,000 to < \$50,000	30,048	297,881			6,939	1,069	2,308	14,756	318	353,319	
\$50,000 to < \$60,000	14,613	187,842			6,600	3,254	1,826	7,255	950	222,339	
\$60,000 to < \$80,000	4,367	164,648			3,277	417	1,088	4,256	0	178,054	
\$80,000 to < \$100,000	1,943	62,728			1,434	387	84	2,704	175	69,456	
\$100,000 or More	1,833	66,730			447	30	841	872	415	71,169	
Don't Know	37,319	197,910			7,324	1,447	4,836	30,623	366	279,825	
Refused	49,610	384,850			14,114	1,418	4,228	31,887	2,537	488,644	
TOTAL	440,324	2,553,152			128,418	29,403	62,082	317,101	18,329	3,548,809	

Chart F-6: Household Income by Dwelling Type
 Q186, Q188, Q189 by Q16

Weighted Data



Household Income

Table F-7: Utility Type by Dwelling Type
TYPE by Q16

UTILITY TYPE	DWELLING TYPE							TOTAL
	Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
Public Generating	570	3,998	277	31	117	624	12	5,629
Public Non-Generating	1,853	7,558	334	51	156	510	44	10,506
Investor Owned	569	2,980	117	31	57	258	23	4,035
TOTAL	2,992	14,536	728	113	330	1,392	79	20,170

Weighted Data

UTILITY TYPE	DWELLING TYPE							TOTAL
	Manufactured Home	Single Family Dwelling	Duplex	Triplex	Fourplex	Fiveplex or More	Other	
Public Generating	50,715	505,802	30,085	5,773	17,428	107,391	965	718,158
Public Non-Generating	124,629	527,220	28,592	3,427	11,383	39,275	2,641	735,166
Investor Owned	264,980	1,520,130	71,741	20,203	33,271	170,436	14,724	2,095,485
TOTAL	440,324	2,553,152	128,418	29,403	62,082	317,101	18,329	3,548,809

Chart F-7: Utility Type by Dwelling Type
 TYPE by Q16

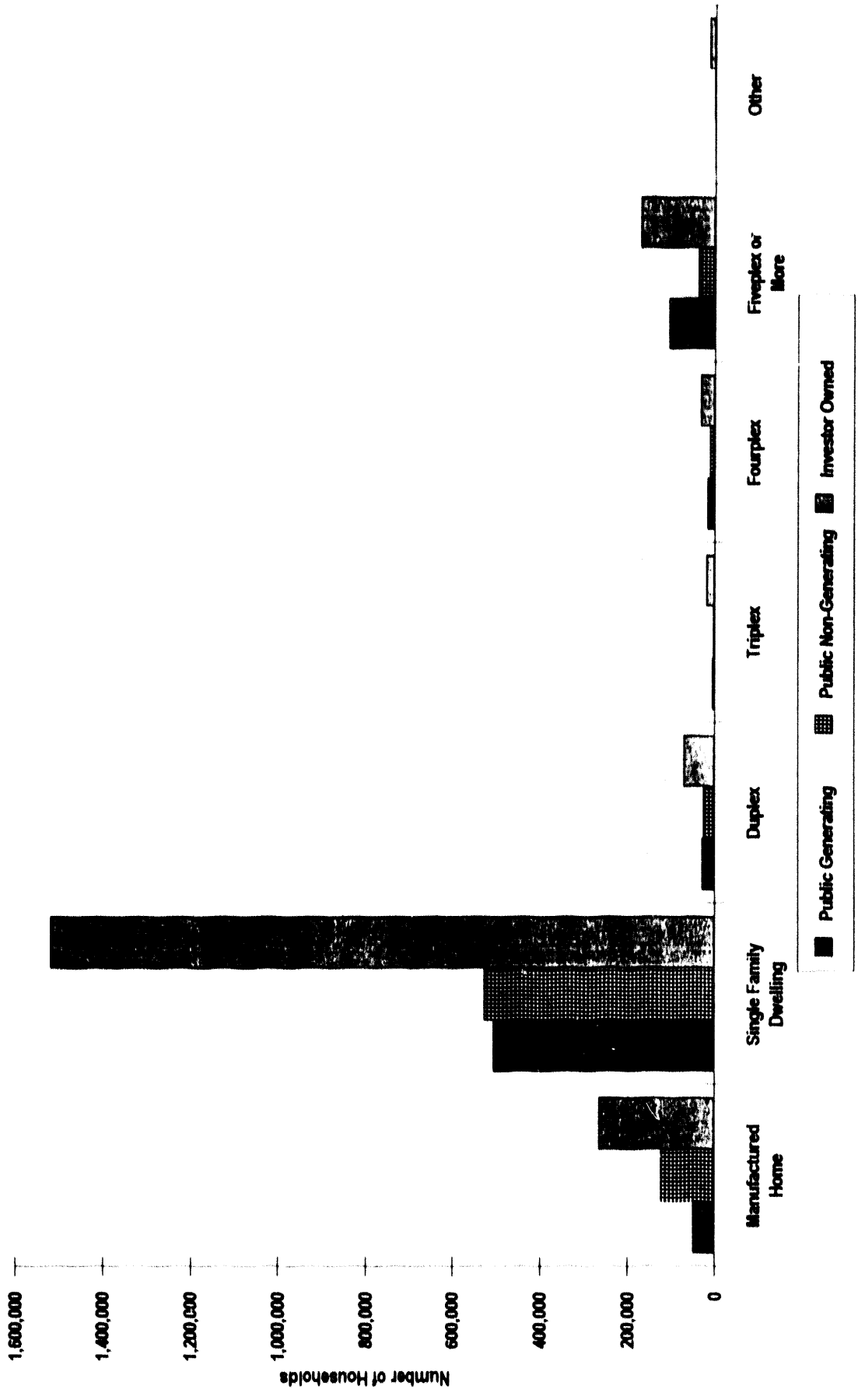
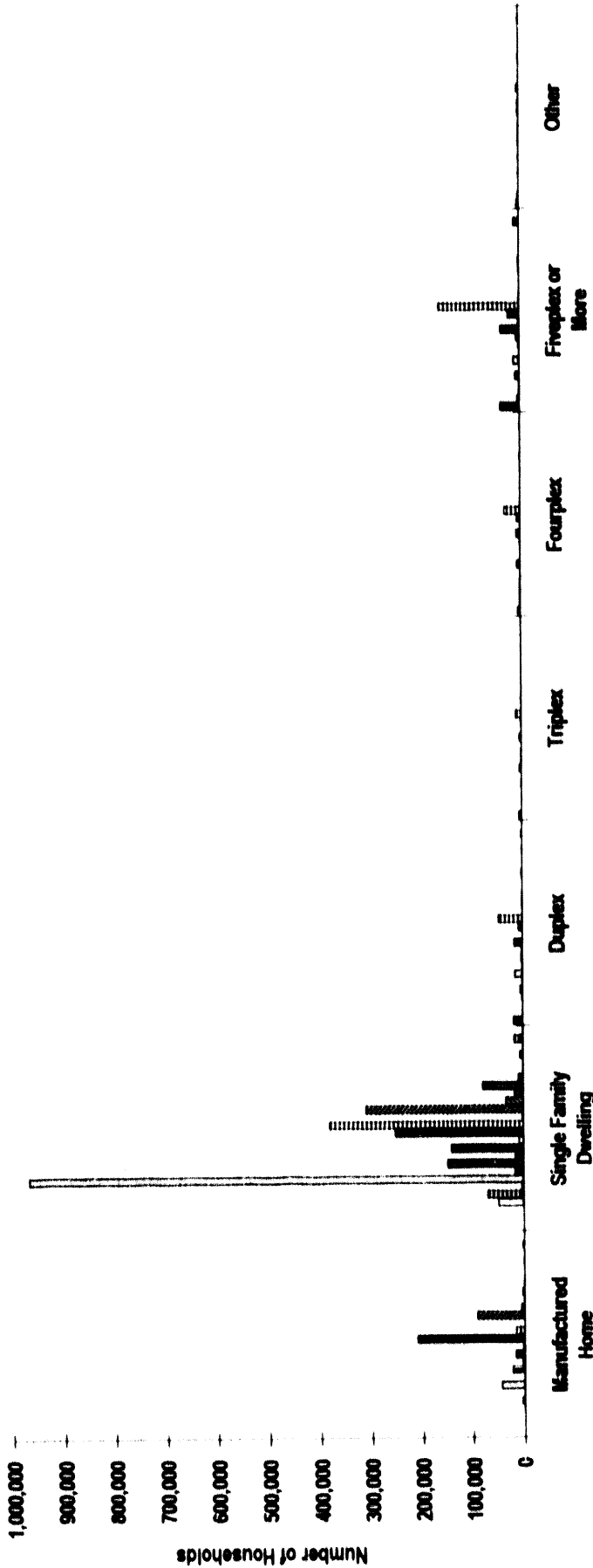


Table F-8: Space-Heating Fuels: Systems and Equipment by Dwelling Type
HEAT_EQP by Q16

Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	DWELLING TYPE										TOTAL										
			Manufactured Single Family					Fiveplex or More															
			Home	Dwelling	Duplex	Triplex	Fourplex	Other	Other	Other	Other	Other											
	Multi-Unit:	Central Heat - All Units	0	0	100	14	38	166	16														354
		Central Heat - Several Units	0	0	16	5	8	22	3														54
		Unit Not Heated	0	0	2	0	2	7	0														11
	Fossil:	Steam or Hot Water Radiators	8	229	6	0	2	4	0														249
		Wall, Floor, or Ceiling Units	24	274	16	3	4	30	1														352
		Portable Units	8	32	1	0	0	1	0														42
		Central Furnace	318	3,630	75	11	21	41	9														4,105
		Other	5	99	4	2	1	1	1														112
	Electricity:	Heat Pump	157	961	17	3	1	19	2														1,169
		Portable Room Heaters	41	128	11	2	4	21	3														210
		Radiant Panels	98	1,167	131	13	63	244	6														1,722
		Steam or Hot Water Radiators	8	47	0	1	0	10	0														66
		Central Furnace	1,414	1,863	65	9	28	115	11														3,505
		Baseboard or Wall Units	115	2,678	231	43	145	632	9														3,853
		Other	1	31	1	0	0	4	0														37
	Wood:	Free-Standing Stove	676	2,329	22	3	2	3	13														3,048
		Free-Standing Pellet Stove	47	211	3	2	0	1	0														264
		Central Furnace	10	176	0	0	0	0	1														187
		Fireplace with an Insert	26	460	3	0	1	6	1														497
		Fireplace without an Insert	6	69	5	0	0	3	1														84
	Other:	Solar	1	14	0	0	0	0	0														16
		Geothermal	1	6	0	0	0	1	0														8
		Other	7	42	1	0	0	0	0														50
		No Heat	1	3	0	0	0	0	0														4
		Don't Know	20	84	18	2	10	41	2														177
		Refused	0	3	0	0	0	0	0														3
		TOTAL	2,992	14,536	728	113	330	1,362	79														20,170

Chart F-8: Space-Heating Fuels: Systems and Equipment by Dwelling Type

HEAT_EQP by Q16



■ M: Central Heat - All Units	▨ M: Central Heat - Several Units	□ M: Unit Not Heated	□ F: Steam or Hot Water Radiators
▨ F: Wall, Floor, or Ceiling Units	□ F: Portable Units	□ F: Central Furnace	■ F: Other
■ E: Heat Pump	■ E: Portable Room Heaters	■ E: Radiant Panels	□ E: Steam or Hot Water Radiators
■ E: Central Furnace	▨ E: Baseboard or Wall Units	▨ E: Other	■ W: Free-Standing Stove
▨ W: Free-Standing Pellet Stove	■ W: Central Furnace	■ W: Fireplace with an Insert	■ W: Fireplace without an Insert
■ O: Solar	□ O: Geothermal	□ O: Other	□ O: No Heat
▨ Don't Know	■ Refused		

Space-Heating Fuels: Systems and Equipment

Table F-9: Year of Construction by Ownership Type
Q20 by Q18

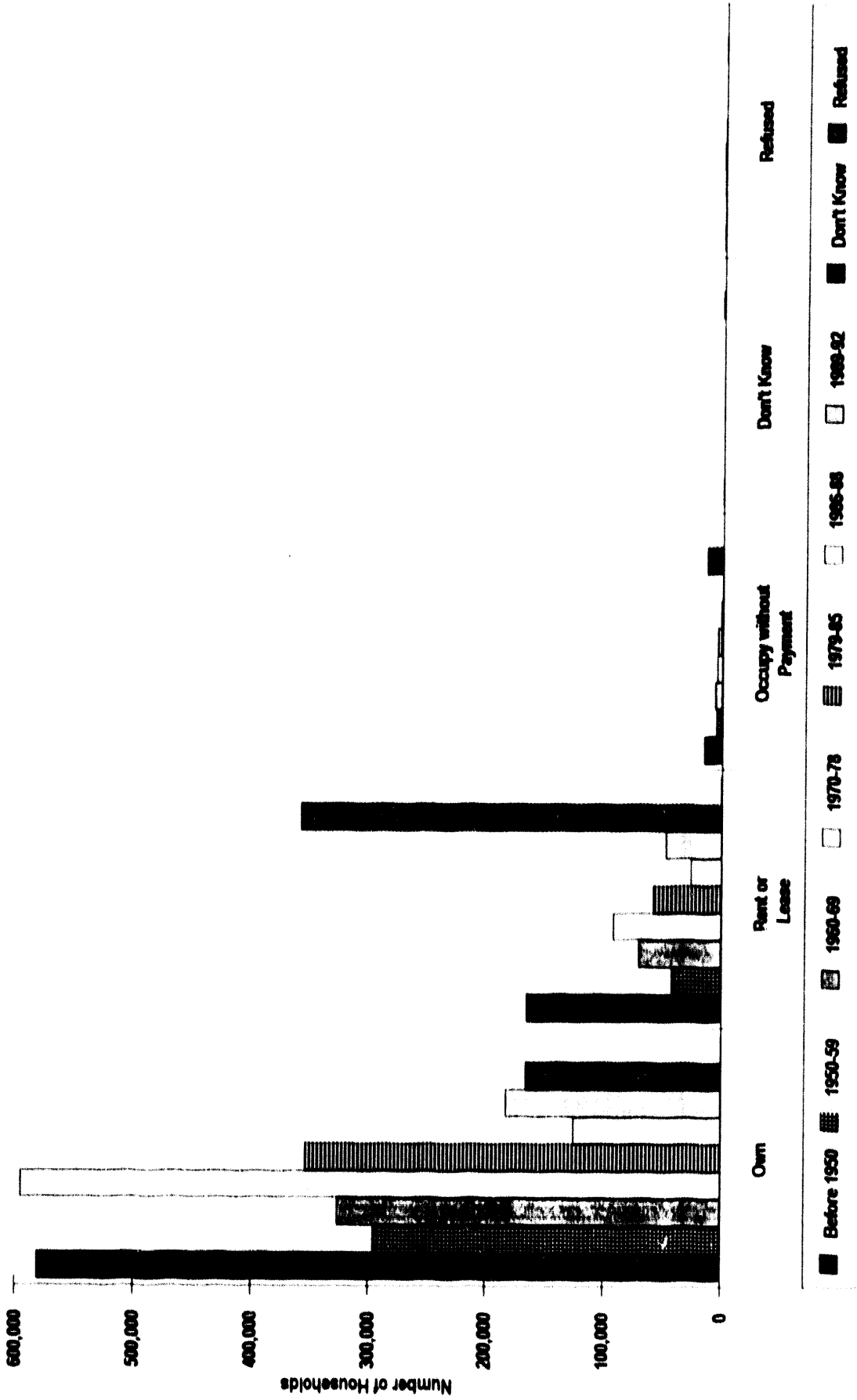
Raw Data	YEAR OF CONSTRUCTION	OWNERSHIP TYPE					TOTAL
		Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
	Before 1950	3,235	863	103	3	3	4,207
	1950-59	1,713	303	37	0	2	2,655
	1960-69	1,883	387	42	0	2	2,324
	1970-78	3,410	560	40	1	6	4,017
	1979-85	2,104	306	40	0	2	2,652
	1986-88	704	109	9	0	0	822
	1989-92	1,023	186	10	1	0	1,220
	Don't Know	1,032	1,920	99	4	6	3,081
	Refused	6	6	0	0	0	12
	TOTAL	15,120	4,640	380	9	21	20,170

Weighted Data	YEAR OF CONSTRUCTION	OWNERSHIP TYPE					TOTAL
		Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
	Before 1950	581,361	165,715	15,271	477	1,053	763,878
	1950-59	296,445	42,388	5,284	0	478	344,585
	1960-69	326,383	70,646	6,825	0	871	404,725
	1970-78	585,137	91,877	4,771	54	1,301	683,140
	1979-85	354,027	57,829	4,639	0	145	416,640
	1986-88	124,977	25,955	1,874	0	0	152,806
	1989-92	183,198	47,033	588	30	0	230,829
	Don't Know	166,451	359,014	13,329	1,340	753	540,887
	Refused	506	813	0	0	0	1,319
	TOTAL	2,628,483	681,282	52,541	1,982	4,681	3,548,888

Chart F-9: Year of Construction by Ownership Type

Q20 by Q18

Weighted Data



Year of Construction

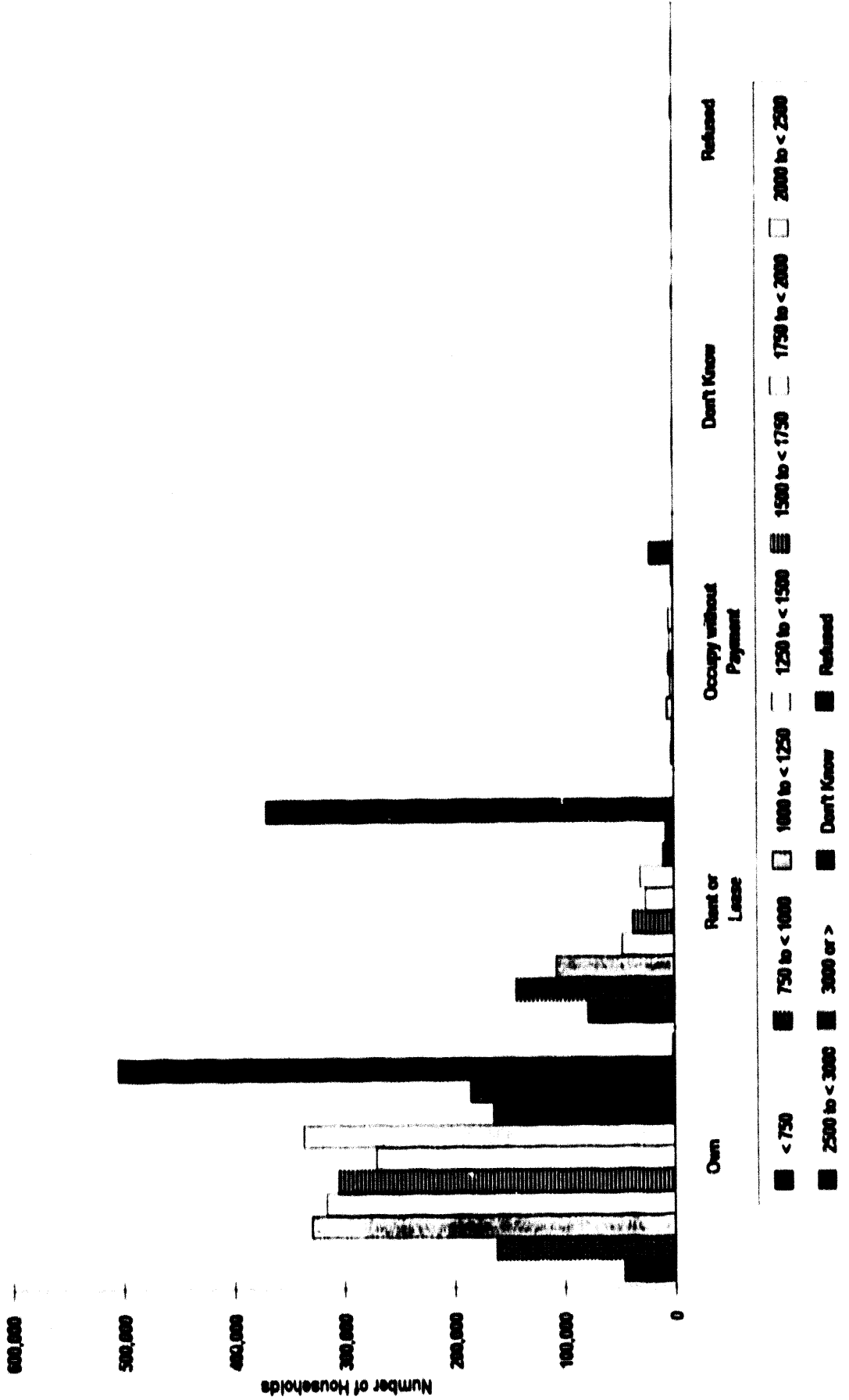
Table F-10: Dwelling Size in Square Feet by Ownership Type
Q24 by Q18

Raw Data	OWNERSHIP TYPE							TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused			
DWELLING SIZE IN SQUARE FEET								
< 750	306	389	14	1	1		711	
750 to < 1000	1,067	711	39	0	1		1,818	
1000 to < 1250	1,959	589	50	2	4		2,594	
1250 to < 1500	1,733	283	25	1	3		2,045	
1500 to < 1750	1,675	209	25	0	1		1,910	
1750 to < 2000	1,428	140	22	0	0		1,590	
2000 to < 2500	1,777	147	26	0	5		1,955	
2500 to < 3000	873	65	8	0	0		946	
3000 or >	1,047	62	12	0	2		1,123	
Don't Know	3,238	2,051	158	5	4		5,456	
Refused	17	5	1	0	0		23	
TOTAL	15,120	4,640	300	9	21		20,170	

Table F-10: Dwelling Size in Square Feet by Ownership Type
Q24 by Q18

Weighted Data	OWNERSHIP TYPE							TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused			
OWELLING SIZE IN SQUARE FEET								
< 750	47,001	79,324	2,000	54	36		128,266	
750 to < 1000	162,760	143,783	2,153	0	145		308,800	
1000 to < 1250	329,846	107,353	6,576	513	1,105		445,393	
1250 to < 1500	316,578	47,430	3,260	108	300		367,773	
1500 to < 1750	305,726	37,771	5,238	0	841		348,577	
1750 to < 2000	271,394	25,523	3,758	0	0		300,673	
2000 to < 2500	336,646	30,736	4,624	0	1,528		373,534	
2500 to < 3000	164,867	10,408	529	0	0		175,804	
3000 or >	185,402	8,301	1,954	0	106		195,764	
Don't Know	505,635	370,240	21,404	1,226	350		898,854	
Refused	2,628	314	36	0	0		2,978	
TOTAL	2,628,483	891,282	52,541	1,982	4,091		3,548,380	

Chart F-10: Dwelling Size in Square Feet by Ownership Type
Q24 by Q18



Dwelling Size in Square Feet

Table F-11: Primary Space-Heating Fuel Type by Ownership Type
Q46 by Q18

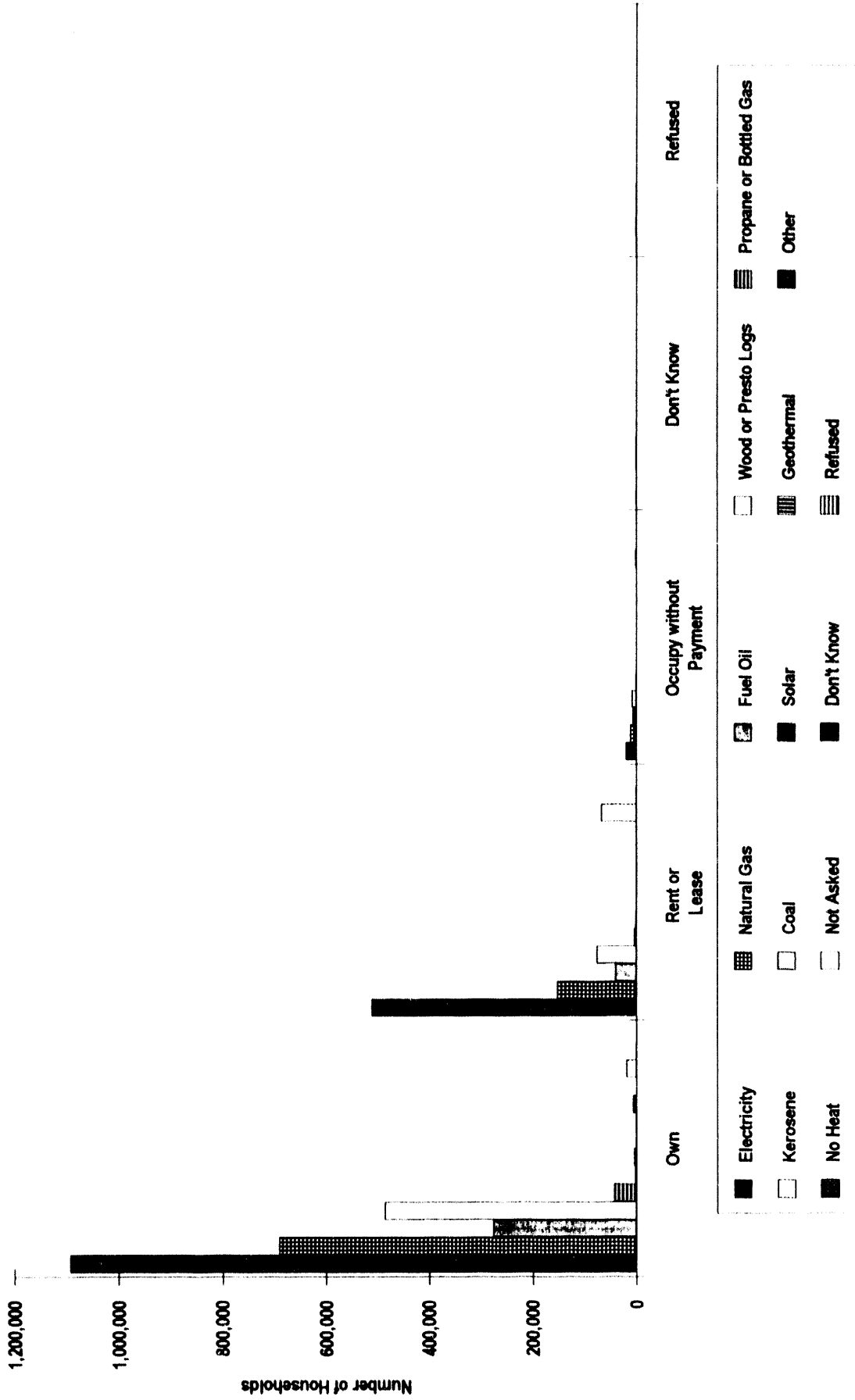
Raw Data	PRIMARY SPACE-HEATING FUEL TYPE	OWNERSHIP TYPE						TOTAL
		Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	TOTAL	
	Electricity	7,551	2,888	187	3	12	10,621	
	Natural Gas	2,387	610	41	1	4	3,653	
	Fuel Oil	1,188	201	35	1	1	1,426	
	Wood or Presto Logs	3,451	547	88	3	4	4,483	
	Propane or Bottled Gas	314	52	13	0	0	379	
	Kerosene	12	5	1	0	0	18	
	Coal	33	2	0	0	0	35	
	Solar	15	1	0	0	0	16	
	Geothermal	6	2	0	0	0	8	
	Other	44	4	2	0	0	50	
	No Heat	1	3	0	0	0	4	
	Not Asked	99	336	13	1	0	449	
	Don't Know	8	9	0	0	0	17	
	Refused	1	0	0	0	0	1	
	TOTAL	15,120	4,640	390	9	21	20,179	

Table F-11: Primary Space-Heating Fuel Type by Ownership Type
Q46 by Q18

PRIMARY SPACE-HEATING FUEL TYPE	OWNERSHIP TYPE						TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	TOTAL	
Electricity	1,094,114	512,772	21,105	226	1,577	1,628,745	
Natural Gas	691,521	152,417	12,295	36	1,864	858,134	
Fuel Oil	275,945	41,257	7,190	964	841	326,196	
Wood or Presto Logs	485,766	76,909	9,251	622	318	572,866	
Propane or Bottled Gas	42,786	5,098	433	0	0	48,317	
Kerosene	2,966	1,876	30	0	0	4,882	
Coal	5,066	212	0	0	0	5,277	
Solar	1,168	415	0	0	0	1,584	
Geothermal	714	361	0	0	0	1,075	
Other	7,478	689	196	0	0	8,363	
No Heat	70	516	0	0	0	585	
Not Asked	19,793	67,444	2,042	54	0	89,338	
Don't Know	1,042	1,365	0	0	0	2,407	
Refused	30	0	0	0	0	30	
TOTAL	2,628,483	861,262	52,541	1,902	4,601	3,548,809	

Chart F-11: Primary Space-Heating Fuel Type by Ownership Type
Q46 by Q18

Weighted Data



Primary Space-Heating Fuel Type

Table F-12: Primary Water-Heating Fuel Type by Ownership Type

Q102 by Q18

Raw Data

PRIMARY WATER-HEATING FUEL TYPE	OWNERSHIP TYPE					TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
Electricity	12,775	3,616	321	7	16	16,735
Natural Gas	1,774	389	21	1	3	2,188
Fuel Oil	22	5	3	0	0	30
Wood	65	6	2	0	1	74
Propane or Bottled Gas	298	34	14	0	0	346
Solar	33	4	0	0	0	37
Other	8	2	0	0	0	10
No Hot Water In Home	3	0	0	0	1	4
Not Asked	111	532	14	1	0	658
Don't Know	31	52	5	0	0	88
Refused	0	0	0	0	0	0
TOTAL	15,120	4,640	380	9	21	20,170

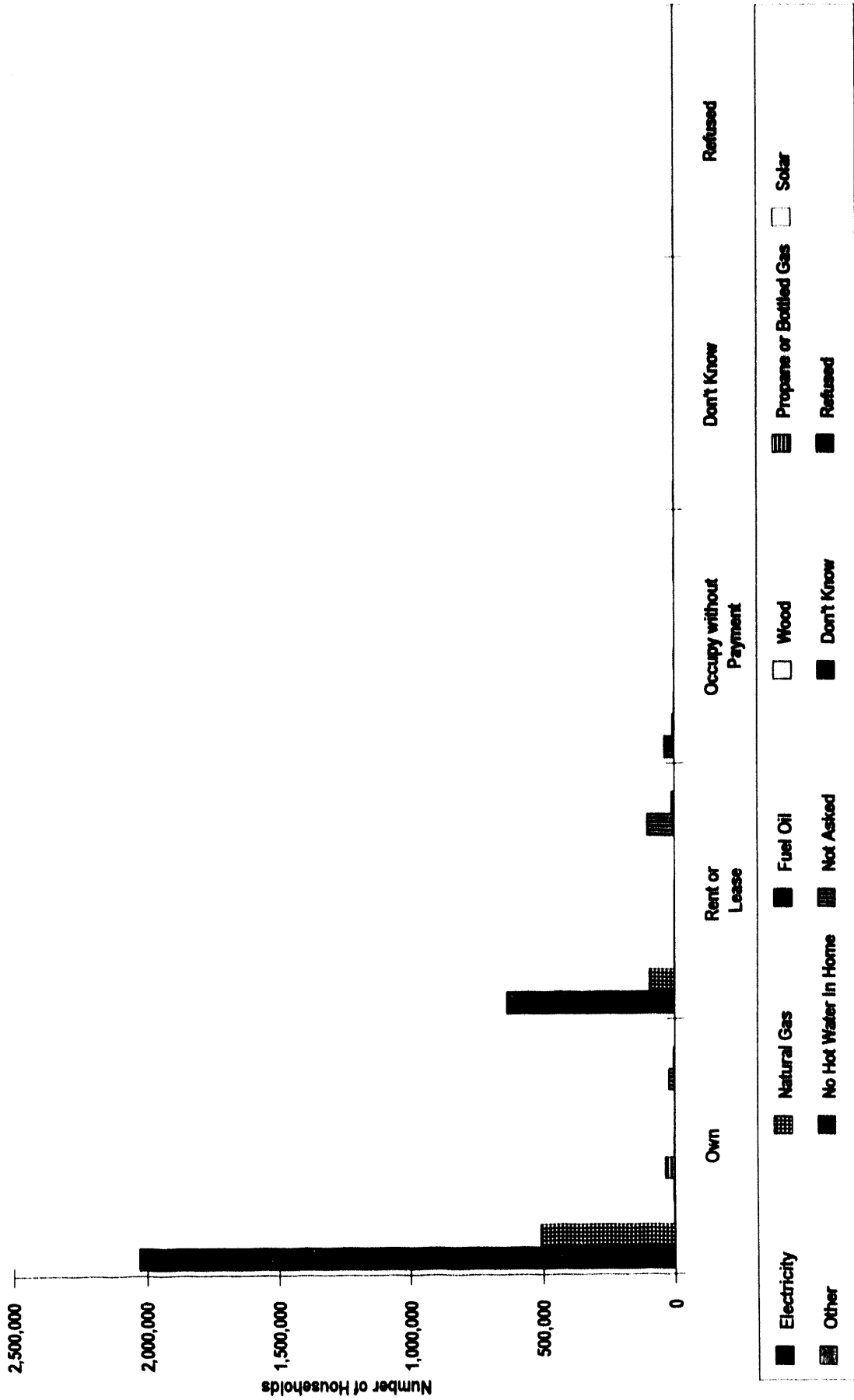
Weighted Data

PRIMARY WATER-HEATING FUEL TYPE	OWNERSHIP TYPE					TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
Electricity	2,030,768	638,356	39,283	1,812	2,561	2,712,779
Natural Gas	511,960	98,500	8,172	36	1,828	620,496
Fuel Oil	4,533	1,576	734	0	0	6,843
Wood	6,012	420	215	0	70	6,718
Propane or Bottled Gas	37,905	3,679	1,476	0	0	43,059
Solar	4,104	759	0	0	0	4,863
Other	1,082	124	0	0	0	1,206
No Hot Water In Home	476	0	0	0	142	618
Not Asked	24,425	106,046	2,161	54	0	132,686
Don't Know	7,219	11,822	500	0	0	19,541
Refused	0	0	0	0	0	0
TOTAL	2,628,483	861,282	52,541	1,902	4,601	3,548,809

Chart F-12: Primary Water-Heating Fuel Type by Ownership Type

Q102 by Q18

Weighted Data



Primary Water-Heating Fuel Type

Table F-13: Household Income by Ownership Type
 Q186, Q188, Q189 by Q18

Raw Data	OWNERSHIP TYPE						TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused		
HOUSEHOLD INCOME							
Below \$5,000	215	261	15	0	0	491	
\$5,000 to < \$10,000	609	515	38	2	0	1,164	
\$10,000 to < \$15,000	916	549	51	1	0	1,517	
\$15,000 to < \$20,000	948	505	38	0	0	1,491	
\$20,000 to < \$25,000	1,252	502	40	2	0	1,796	
\$25,000 to < \$30,000	1,614	518	40	0	1	2,173	
\$30,000 to < \$40,000	2,309	523	37	0	1	2,870	
\$40,000 to < \$50,000	1,574	252	30	0	1	1,857	
\$50,000 to < \$60,000	975	122	10	0	0	1,107	
\$60,000 to < \$80,000	780	72	9	0	0	861	
\$80,000 to < \$100,000	315	29	3	0	0	347	
\$100,000 or More	338	10	0	0	0	348	
Don't Know	1,179	401	36	2	1	1,619	
Refused	2,096	381	33	2	17	2,529	
TOTAL	15,120	4,640	380	9	21	20,170	

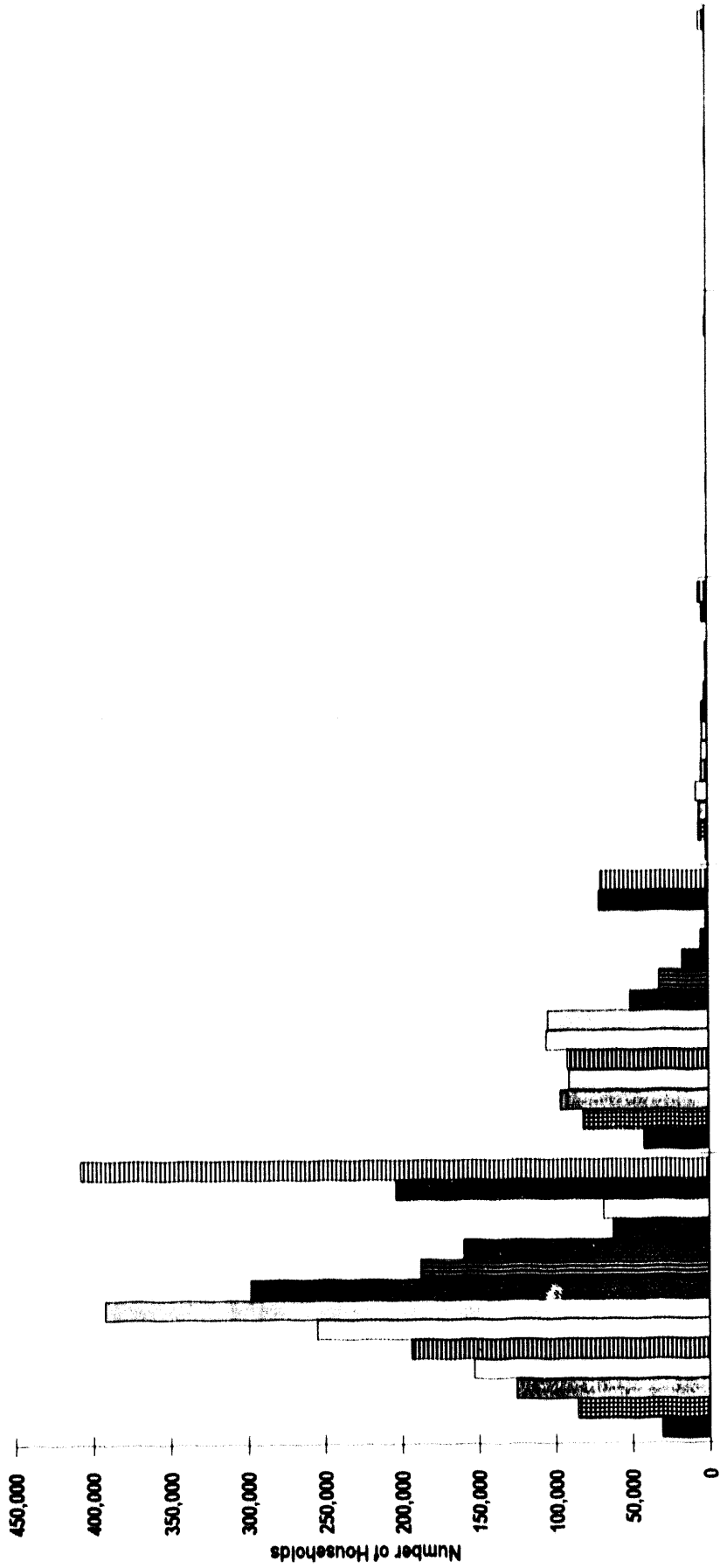
Table F-13: Household Income by Ownership Type
 Q186, Q188, Q189 by Q18

Weighted Data	OWNERSHIP TYPE						TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	TOTAL	
HOUSEHOLD INCOME							
Below \$5,000	31,579	42,305	1,472	0	0	75,357	
\$5,000 to < \$10,000	85,799	82,012	6,169	369	0	174,349	
\$10,000 to < \$15,000	125,991	96,369	5,885	30	0	228,275	
\$15,000 to < \$20,000	153,321	90,663	7,924	0	0	251,908	
\$20,000 to < \$25,000	193,989	91,744	4,635	235	0	290,603	
\$25,000 to < \$30,000	255,259	105,618	3,974	0	36	364,887	
\$30,000 to < \$40,000	392,409	104,410	3,662	0	142	500,622	
\$40,000 to < \$50,000	298,448	50,576	4,154	0	142	353,319	
\$50,000 to < \$60,000	187,833	32,153	2,353	0	0	222,339	
\$60,000 to < \$80,000	159,993	16,827	1,233	0	0	178,054	
\$80,000 to < \$100,000	62,825	5,042	1,590	0	0	69,456	
\$100,000 or More	69,112	2,057	0	0	0	71,169	
Don't Know	203,629	71,344	3,672	1,072	108	279,825	
Refused	408,295	70,162	5,820	196	4,172	488,644	
TOTAL	2,628,483	861,282	52,541	1,902	4,601	3,548,809	

Chart F-13: Household Income by Ownership Type

Q186, Q188, Q189 by Q18

Weighted Data



Own	Rent or Lease	Occupy without Payment	Don't Know	Refused
■ Below \$5,000	▨ \$5,000 to < \$10,000	□ \$10,000 to < \$15,000	□ \$15,000 to < \$20,000	▨ \$20,000 to < \$25,000
□ \$25,000 to < \$30,000	□ \$30,000 to < \$40,000	▨ \$40,000 to < \$50,000	▨ \$50,000 to < \$60,000	▨ \$60,000 to < \$80,000
▨ \$80,000 to < \$100,000 or More	□ \$100,000 or More	▨ Don't Know	▨ Refused	

Household Income

Table F-14: Utility Type by Ownership Type
TYPE by Q18

UTILITY TYPE	OWNERSHIP TYPE					TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
Public Generating	3,931	1,596	96	2	4	5,629
Public Non-Generating	8,085	2,179	224	5	13	10,506
Investor Owned	3,104	865	60	2	4	4,035
TOTAL	15,120	4,640	380	9	21	20,170

UTILITY TYPE	OWNERSHIP TYPE					TOTAL
	Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
Public Generating	485,047	220,664	11,359	363	725	718,158
Public Non-Generating	564,127	156,218	13,219	395	1,207	735,166
Investor Owned	1,579,309	484,400	27,963	1,144	2,689	2,095,485
TOTAL	2,628,483	861,282	52,541	1,902	4,601	3,548,809

Chart F-14: Utility Type by Ownership Type
 TYPE by Q18

Weighted Data

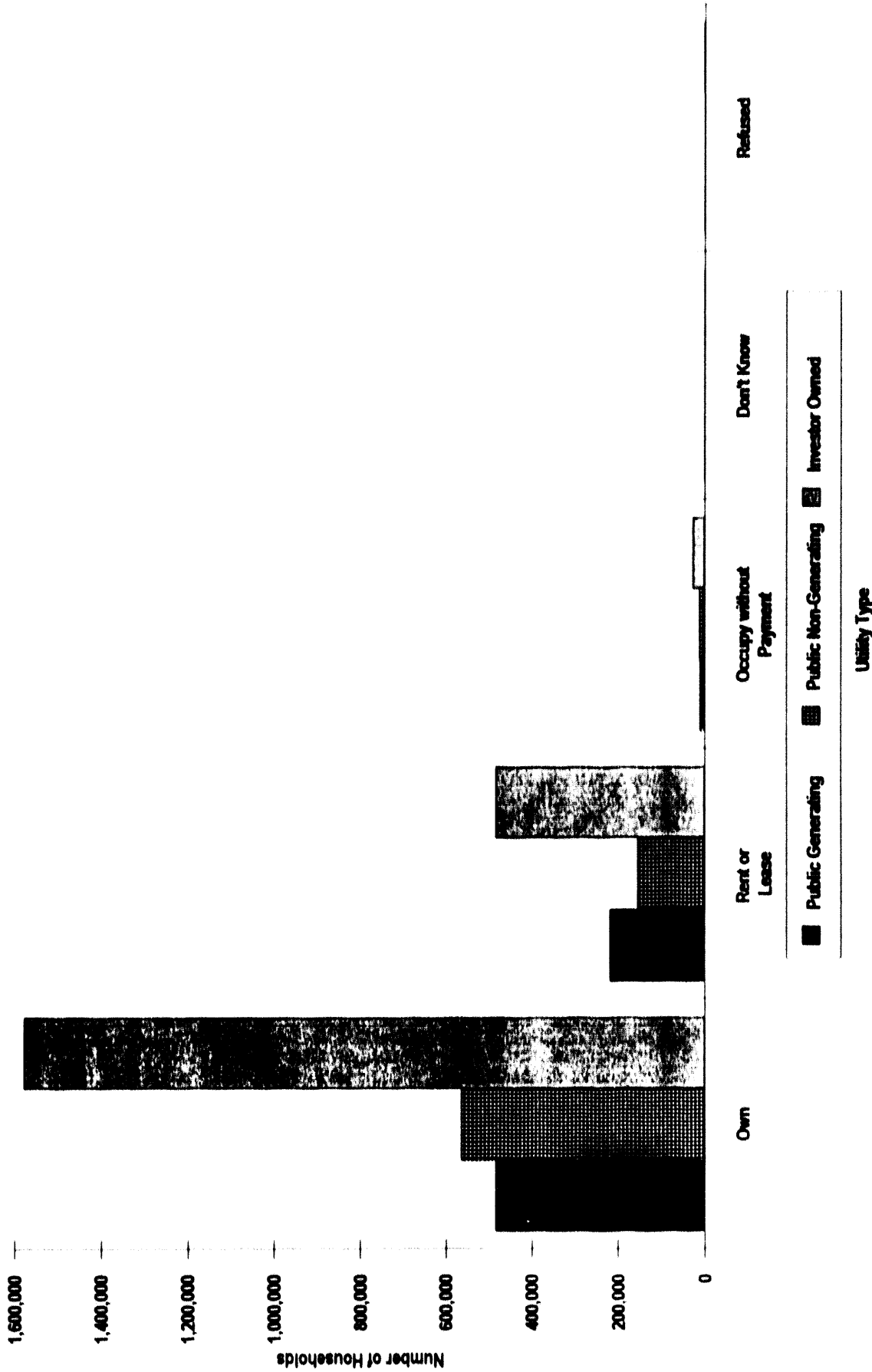


Table F-15: Space-Heating Fuels: Systems and Equipment by Ownership Type
HEAT_EQP by Q18

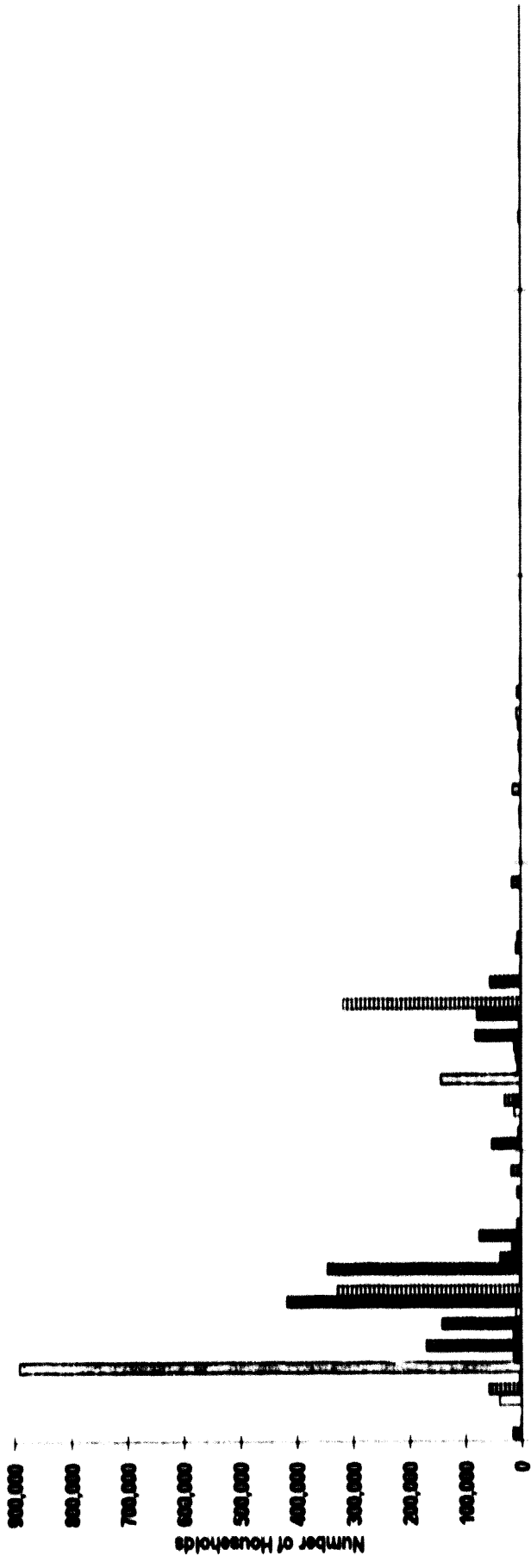
SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	OWNERSHIP TYPE					TOTAL
		Own	Rent or Lease	Occupy without Payment	Don't Know	Refused	
Multi-Unit:	Central Heat - All Units	83	259	11	1	0	354
	Central Heat - Several Units	11	43	0	0	0	54
	Unit Not Heated	2	8	1	0	0	11
		191	53	5	0	0	249
Fossil:	Steam or Hot Water Radiators	225	120	7	0	0	352
	Wall, Floor, or Ceiling Units	32	8	2	0	0	42
	Portable Units	3,300	646	72	2	5	4,105
	Central Furnace	85	24	3	0	0	112
Electricity:	Heat Pump	1,074	69	15	0	2	1,160
	Portable Room Heaters	120	83	7	0	0	210
	Radiant Panels	1,116	577	27	0	2	1,722
	Steam or Hot Water Radiators	46	15	4	1	0	66
	Central Furnace	2,909	535	56	2	3	3,505
	Baseboard or Wall Units	2,228	1,544	76	0	5	3,853
	Other	26	10	1	0	0	37
	Free-Standing Stove	2,528	445	70	2	3	3,048
	Free-Standing Pellet Stove	249	10	4	1	0	264
	Central Furnace	172	13	2	0	0	187
Other:	Fireplace with an Insert	433	55	9	0	0	497
	Fireplace without an Insert	58	23	3	0	0	84
	Solar	15	1	0	0	0	16
	Geothermal	6	2	0	0	0	8
	Other	44	4	2	0	0	50
	No Heat	1	3	0	0	0	4
	Don't Know	83	90	3	0	1	177
	Refused	3	0	0	0	0	3
	TOTAL	15,120	4,640	300	9	21	20,170

Table F-15: Space-Heating Fuels: Systems and Equipment by Ownership Type
HEAT_EOP by Q18

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	OWNERSHIP TYPE						TOTAL
		Own	Rent or Lease	Occupy without Payment	Don't Know	Refused		
Multi-Unit:	Central Heat - All Units	17,189	53,940	1,863	54	0	0	72,746
	Central Heat - Several Units	1,765	6,172	0	0	0	0	7,937
	Unit Not Heated	109	1,677	70	0	0	0	1,856
Fossil:	Steam or Hot Water Radiators	40,924	12,576	2,059	0	0	0	55,559
	Wall, Floor, or Ceiling Units	60,100	30,684	2,826	0	0	0	93,611
	Portable Units	3,631	2,107	138	0	0	0	5,876
	Central Furnace	891,982	144,094	14,486	1,000	2,705	0	1,054,267
	Other	14,565	6,540	106	0	0	0	21,211
Electricity:	Heat Pump	169,902	9,778	1,719	0	106	0	181,506
	Portable Room Heaters	14,926	12,904	1,443	0	0	0	29,273
	Radiant Panels	142,070	82,509	3,930	0	60	0	228,569
	Steam or Hot Water Radiators	10,292	3,672	738	30	0	0	14,732
	Central Furnace	417,309	79,756	5,375	196	382	0	503,620
	Baseboard or Wall Units	326,853	317,788	7,611	0	1,019	0	653,271
	Other	3,194	1,266	181	0	0	0	4,641
Wood:	Free-Standing Stove	344,990	56,757	7,030	441	176	0	409,395
	Free-Standing Pellet Stove	38,972	1,915	559	181	0	0	41,627
	Central Furnace	17,220	859	347	0	0	0	18,426
	Fireplace with an Insert	75,459	9,926	1,156	0	0	0	86,541
	Fireplace without an Insert	8,041	7,389	160	0	0	0	15,511
Other:	Solar	1,168	415	0	0	0	0	1,583
	Geothermal	714	361	0	0	0	0	1,075
	Other	7,478	689	196	0	0	0	8,363
	No Heat	70	516	0	0	0	0	586
	Don't Know	18,536	17,371	549	0	142	0	36,598
	Refused	1,024	0	0	0	0	0	1,024
	TOTAL	2,528,483	861,282	52,541	1,982	4,891	0	3,548,089

Chart F-15: Space-Heating Fuels: Systems and Equipment by Ownership Type
HEAT_EQP by Q18

Weighted Data



Own	Rent or Lease	Occupy without Payment	Don't Know	Refused
■ M: Central Heat - All Units	■ M: Central Heat - Several Units	■ M: Unit Not Heated	□ F: Steam or Hot Water Radiators	
▨ F: Wall, Floor, or Ceiling Units	□ F: Portable Units	▨ F: Central Furnace	■ F: Other	
■ E: Heat Pump	■ E: Portable Room Heaters	■ E: Radiant Panels	□ E: Steam or Hot Water Radiators	
▨ E: Central Furnace	▨ E: Baseboard or Wall Units	▨ E: Other	■ W: Free-Standing Stove	
■ W: Free-Standing Pellet Stove	■ W: Central Furnace	■ W: Fireplace with an Insert	■ W: Fireplace without an Insert	
■ O: Solar	□ O: Geothermal	■ O: Other	■ O: No Heat	
▨ Don't Know	■ Refused			

Space-Heating Fuels: Systems and Equipment

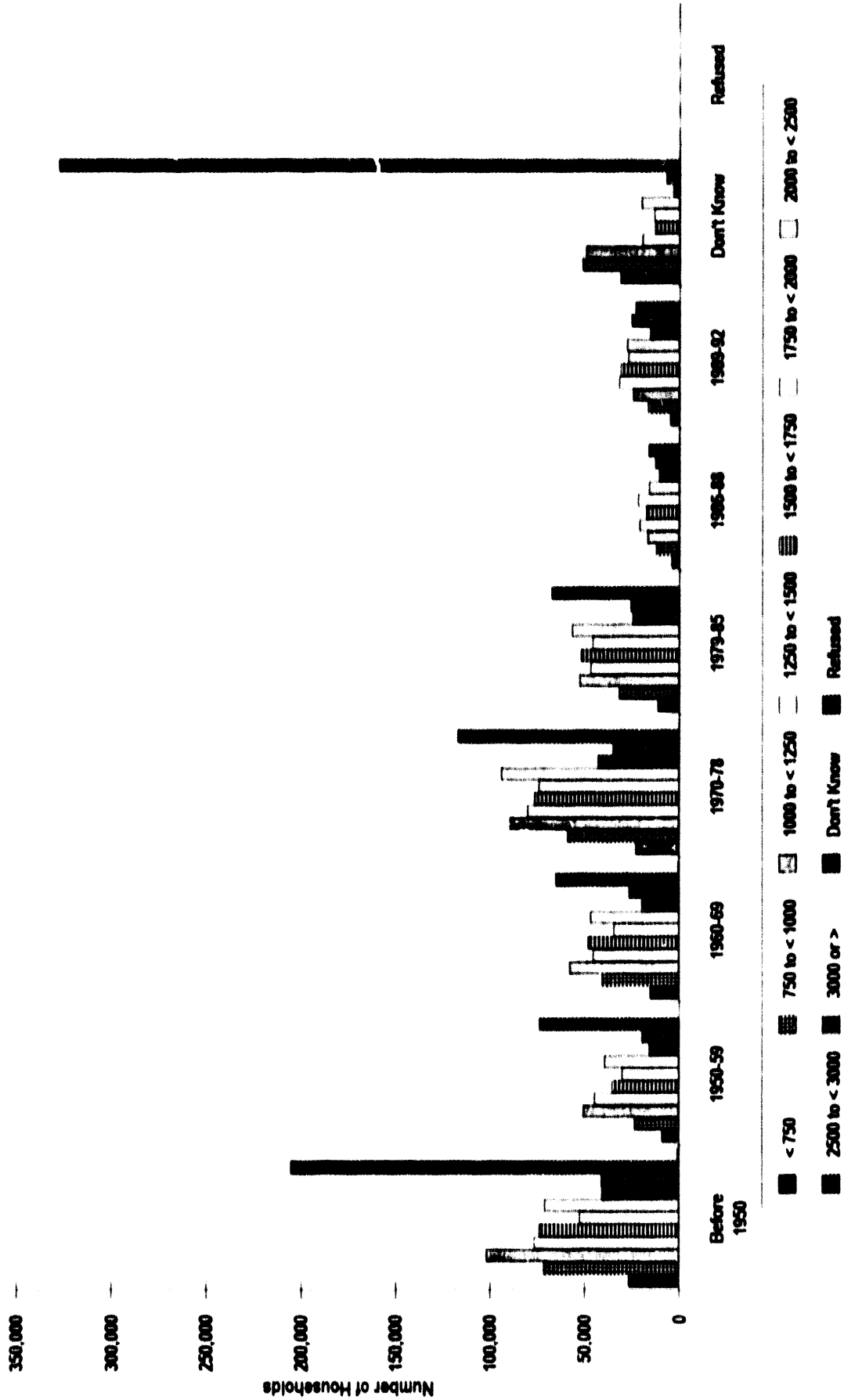
Table F-16: Dwelling Size in Square Feet by Year of Construction
Q24 by Q20

Raw Data	Dwelling Size in Square Feet	Year of Construction											TOTAL
		Before	1950-59	1960-69	1970-79	1979-85	1980-89	1990-92	Don't Know	Refused			
		1950	1960	1969	1979	1985	1989	1992					
< 750	124	60	98	141	68	25	22	172	1	711			
750 to < 1000	407	174	198	308	210	74	79	288	0	1,918			
1000 to < 1250	543	353	344	551	310	92	124	285	2	2,904			
1250 to < 1500	387	262	270	484	278	84	146	134	0	2,945			
1500 to < 1750	365	208	259	431	247	110	189	100	1	1,978			
1750 to < 2000	304	165	187	357	283	98	138	67	0	1,588			
2000 to < 2500	348	214	258	483	315	93	164	98	2	1,955			
2500 to < 3000	193	88	125	229	131	57	93	30	0	948			
3000 or >	239	92	145	216	181	88	138	34	0	1,123			
Don't Know	1,290	438	435	756	428	101	135	1,870	3	5,458			
Refused	7	1	5	1	1	2	0	3	3	23			
TOTAL	4,287	2,855	2,324	4,917	2,452	822	1,228	3,061	12	28,178			

Table F-16: Dwelling Size in Square Feet by Year of Construction
Q24 by Q20

Dwelling Size in Square Feet	Year of Construction											TOTAL
	Before 1950	1950-59	1960-69	1970-79	1979-85	1986-89	1990-92	Don't Know	Refused			
< 750	27,022	9,440	16,033	23,277	11,881	4,314	5,280	31,735	333			128,296
750 to < 1000	71,527	23,599	41,023	59,280	32,167	12,677	17,101	51,527	0			388,889
1000 to < 1250	102,109	50,798	58,339	89,476	52,049	17,230	24,771	49,737	175			445,494
1250 to < 1500	76,718	44,959	45,638	80,290	46,813	21,196	32,141	20,018	0			367,773
1500 to < 1750	73,871	35,854	48,406	76,514	52,079	17,818	31,489	13,425	142			349,577
1750 to < 2000	52,444	30,289	35,010	74,355	45,751	21,957	27,174	13,683	0			389,673
2000 to < 2500	70,964	39,658	47,002	94,049	56,868	16,333	27,894	20,580	196			373,534
2500 to < 3000	41,181	16,067	20,056	43,142	24,658	11,082	15,983	3,686	0			175,894
3000 or >	41,450	19,916	26,670	35,486	25,939	13,325	25,485	7,481	0			195,764
Don't Know	205,457	73,954	65,438	117,219	67,591	16,688	23,551	328,888	187			889,954
Refused	1,135	30	1,110	70	54	196	0	96	287			2,979
TOTAL	763,878	344,585	404,725	693,149	416,640	152,896	239,829	549,887	1,319			3,548,889

Chart F-16: Dwelling Size in Square Feet by Year of Construction
Q24 by Q20



Dwelling Size in Square Feet

Table F-17: Primary Space-Heating Fuel Type by Year of Construction
Q46 by Q20

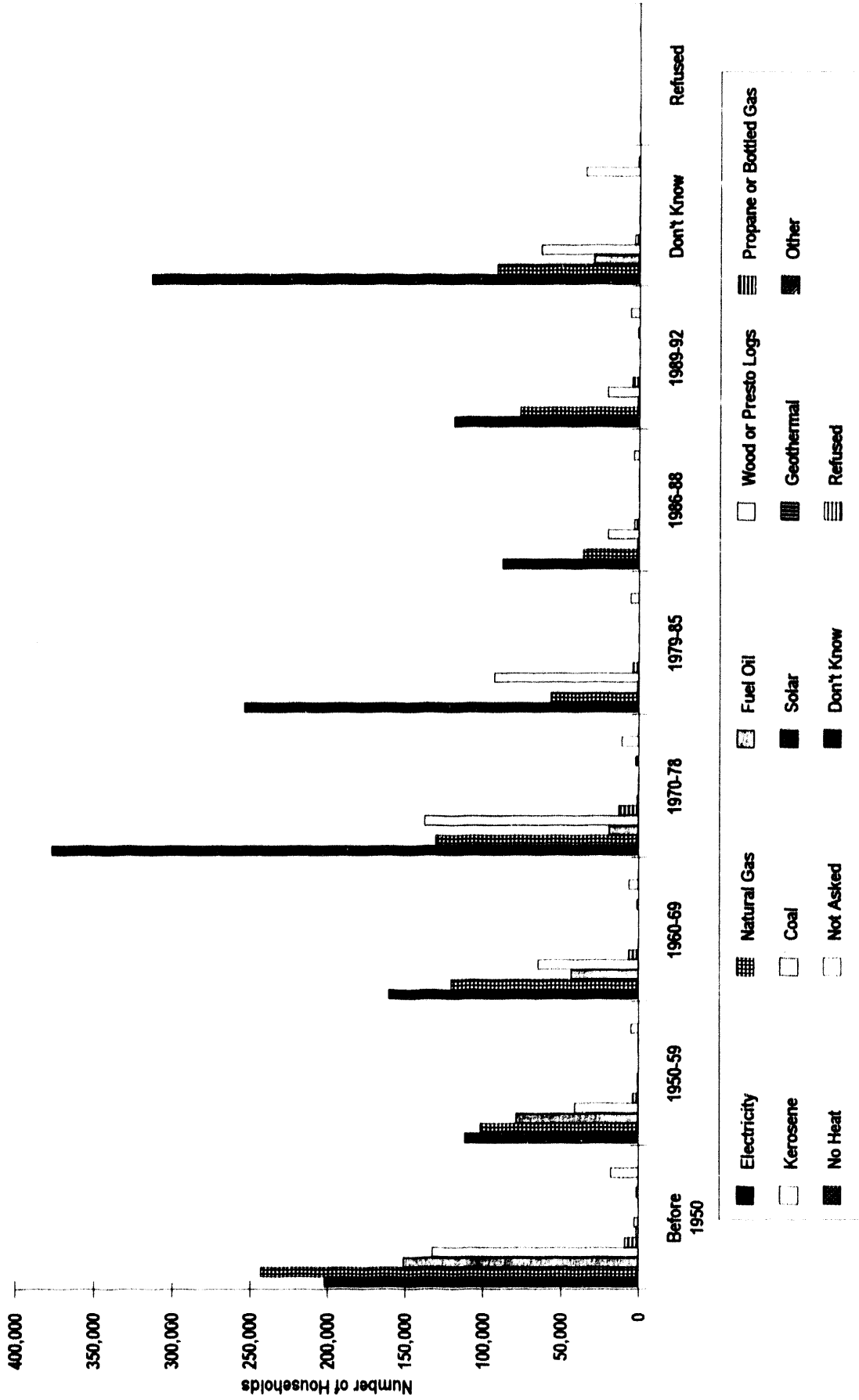
Raw Data	YEAR OF CONSTRUCTION											TOTAL
	Before 1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
PRIMARY SPACE-HEATING FUEL TYPE	1,465	972	1,169	2,414	1,493	507	786	1,807	8			10,621
Electricity	966	381	451	400	159	91	210	395	0			3,053
Natural Gas	605	331	196	115	13	5	4	156	1			1,426
Fuel Oil	961	311	418	933	696	175	143	454	2			4,093
Wood or Presto Logs	73	28	36	84	40	26	43	49	0			379
Propane or Bottled Gas	4	2	3	4	2	0	1	2	0			18
Kerosene	24	4	0	2	1	0	0	4	0			35
Coal	0	1	0	1	7	2	3	2	0			16
Solar	3	0	0	1	1	1	0	2	0			8
Geothermal	10	5	10	13	4	2	4	2	0			50
Other	2	1	0	0	0	0	0	1	0			4
No Heat	92	18	38	49	36	13	26	176	1			449
Not Asked	1	1	3	1	0	0	0	11	0			17
Don't Know	1	0	0	0	0	0	0	0	0			1
Refused												
TOTAL	4,207	2,055	2,324	4,017	2,452	822	1,220	3,061	12			20,170

Table F-17: Primary Space-Heating Fuel Type by Year of Construction
Q46 by Q20

PRIMARY SPACE-HEATING FUEL TYPE	YEAR OF CONSTRUCTION												TOTAL
	Weighted Data												
	Before 1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused				
Electricity	202,243	111,721	160,975	377,637	254,363	88,102	119,394	314,474	836				1,629,745
Natural Gas	243,514	101,820	120,742	130,825	56,831	35,715	76,673	92,014	0				858,134
Fuel Oil	151,166	78,701	43,483	18,957	1,235	1,485	1,449	29,540	181				326,196
Wood or Presto Logs	132,668	40,959	64,442	137,901	93,172	19,921	20,390	63,255	157				572,866
Propane or Bottled Gas	8,888	3,960	6,568	12,727	4,198	3,528	5,069	3,378	0				48,317
Kerosene	1,728	666	405	1,247	145	0	333	369	0				4,892
Coal	3,119	1,049	0	196	54	0	0	859	0				5,277
Solar	0	36	0	70	453	196	359	470	0				1,584
Geothermal	542	0	0	15	15	142	0	361	0				1,075
Other	1,827	502	1,398	2,353	507	175	1,319	284	0				8,363
No Heat	485	70	0	0	0	0	0	30	0				585
Not Asked	17,639	5,072	6,201	10,878	5,668	3,541	5,843	34,350	145				89,338
Don't Know	30	30	511	333	0	0	0	1,503	0				2,407
Refused	30	0	0	0	0	0	0	0	0				30
TOTAL	763,878	344,585	404,725	693,140	416,640	152,806	230,829	540,887	1,319				3,548,809

Chart F-17: Primary Space-Heating Fuel Type by Year of Construction
 Q46 by Q20

Weighted Data



Primary Space-Heating Fuel Type

Table F-18: Primary Water-Heating Fuel Type by Year of Construction
Q102 by Q20

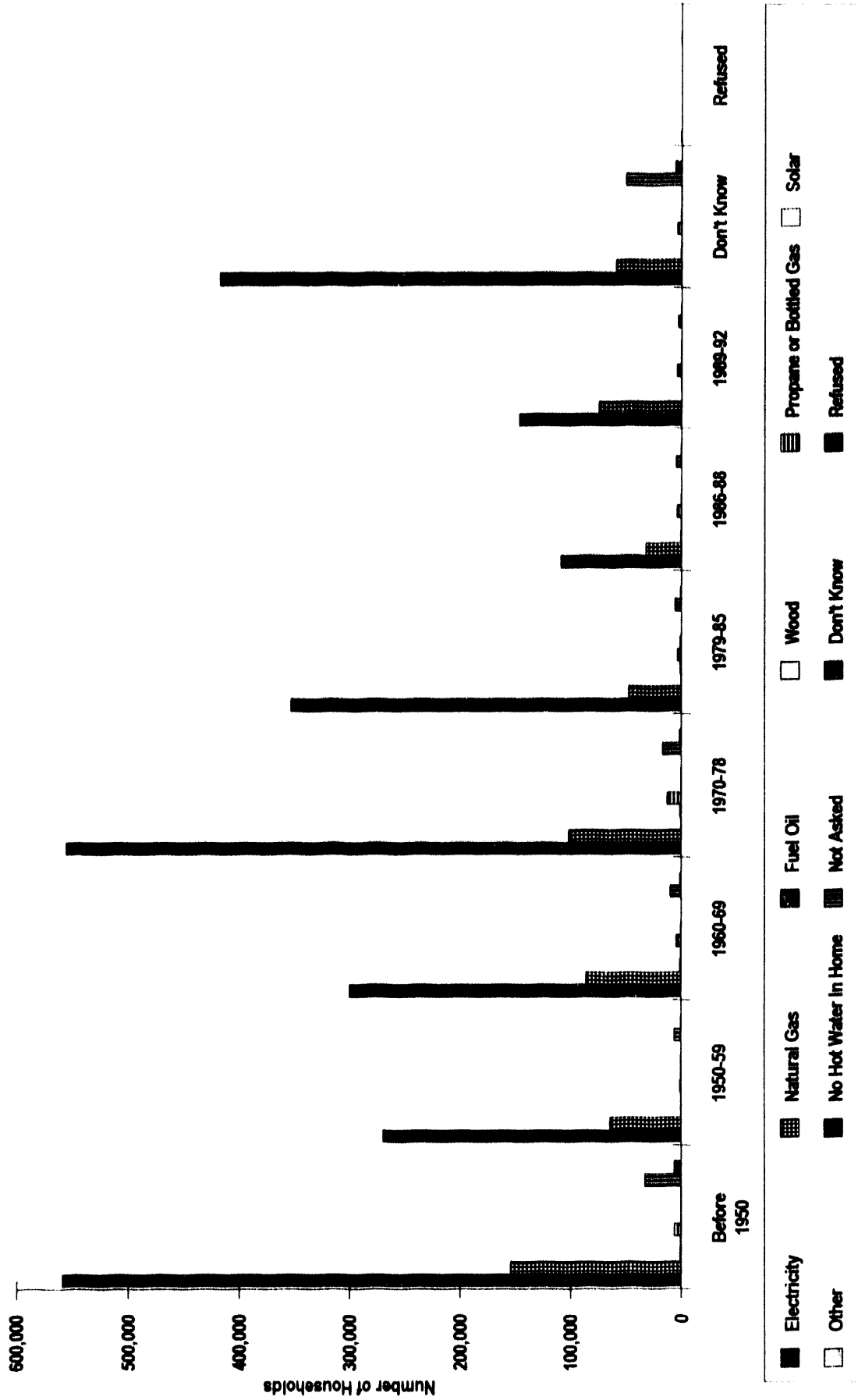
PRIMARY WATER-HEATING FUEL TYPE	YEAR OF CONSTRUCTION											TOTAL
	Before	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
	1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
Electricity	3,370	1,726	1,883	3,482	2,189	683	948	2,444	10			16,735
Natural Gas	587	253	342	338	134	80	199	255	0			2,188
Fuel Oil	8	8	6	2	1	1	0	4	0			30
Wood	11	6	2	19	20	5	5	6	0			74
Propane or Bottled Gas	53	19	31	93	46	31	40	32	1			346
Solar	5	5	5	5	8	1	2	6	0			37
Other	2	1	0	1	3	0	1	2	0			10
No Hot Water In Home	2	1	0	0	0	0	0	1	0			4
Not Asked	150	33	49	70	46	18	20	271	1			658
Don't Know	19	3	6	7	5	3	5	40	0			88
Refused	0	0	0	0	0	0	0	0	0			0
TOTAL	4,207	2,055	2,324	4,017	2,452	822	1,220	3,061	12			20,170

Weighted Data

PRIMARY WATER-HEATING FUEL TYPE	YEAR OF CONSTRUCTION											TOTAL
	Before	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
	1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
Electricity	559,165	270,026	299,960	555,976	353,487	109,044	146,596	417,365	1,159			2,712,779
Natural Gas	154,155	64,270	86,116	101,711	47,841	32,452	74,675	59,276	0			620,486
Fuel Oil	1,600	818	1,508	431	333	964	0	1,191	0			6,843
Wood	1,378	311	287	1,781	1,511	425	447	577	0			6,718
Propane or Bottled Gas	6,558	1,748	4,763	12,965	4,152	4,271	4,222	4,365	15			43,059
Solar	497	268	491	549	1,744	142	124	1,048	0			4,863
Other	362	108	0	415	88	0	108	124	0			1,206
No Hot Water In Home	440	36	0	0	0	0	0	142	0			618
Not Asked	33,198	6,530	10,145	17,145	6,195	5,145	3,706	50,478	145			132,686
Don't Know	6,525	470	1,454	2,167	1,289	363	950	6,322	0			19,541
Refused	0	0	0	0	0	0	0	0	0			0
TOTAL	763,878	344,585	404,725	693,140	416,640	152,806	230,829	540,887	1,319			3,548,809

Chart F-18: Primary Water-Heating Fuel Type by Year of Construction
 Q102 by Q20

Weighted Data



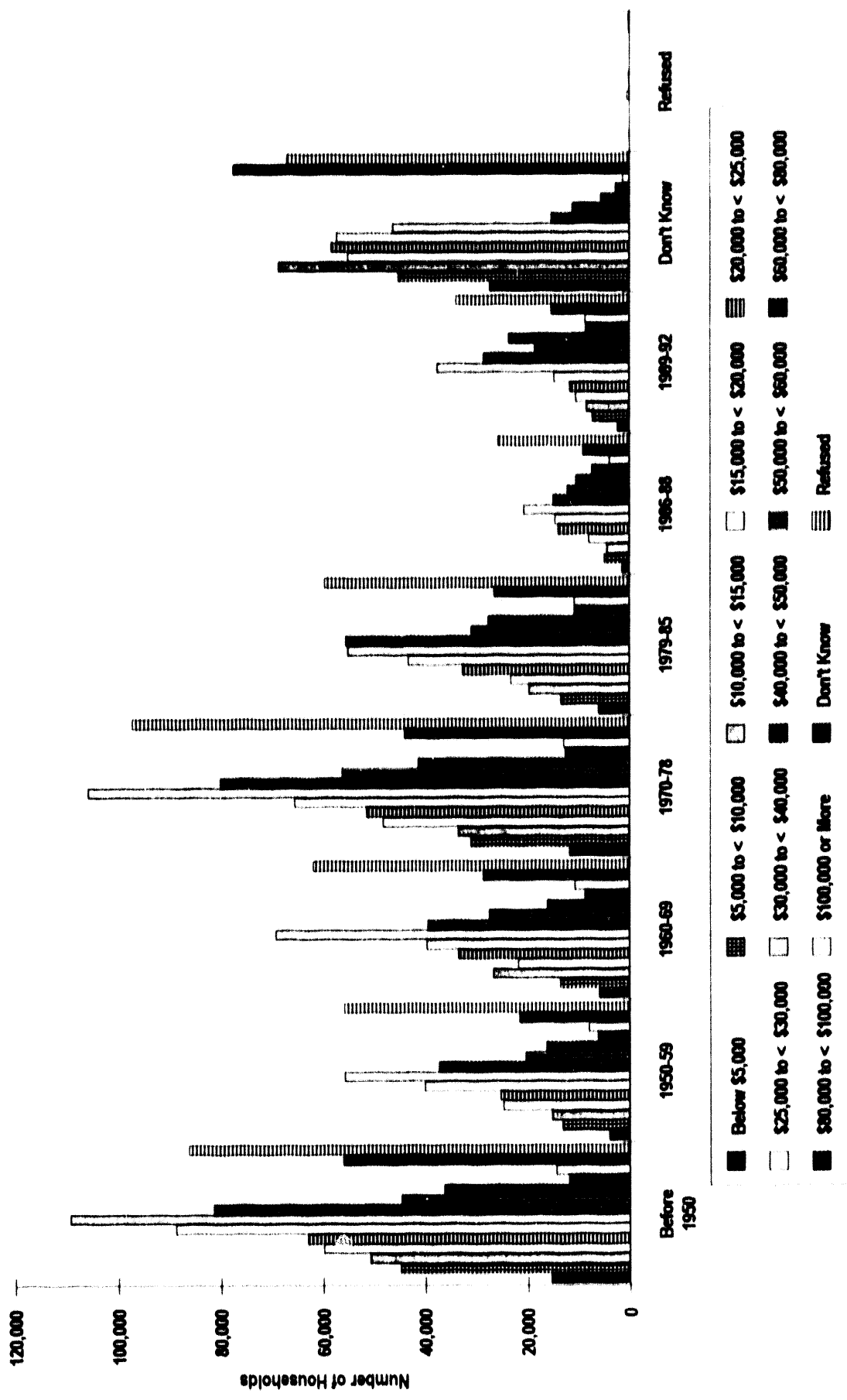
Primary Water-Heating Fuel Type

Table F-19: Household Income by Year of Construction
 Q186, Q188, Q189 by Q20

Weighted Data	HOUSEHOLD INCOME	YEAR OF CONSTRUCTION											TOTAL
		Before	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused	TOTAL		
		1950	4,166	6,088	11,886	6,154	1,627	2,506	27,480	0		75,357	
Below \$5,000	15,439	4,166	6,088	11,886	6,154	1,627	2,506	27,480	0	75,357			
\$5,000 to < \$10,000	45,002	13,257	13,646	31,122	13,495	5,007	7,316	45,396	108	174,349			
\$10,000 to < \$15,000	50,944	15,241	26,774	33,691	19,721	4,489	8,566	68,848	0	228,275			
\$15,000 to < \$20,000	59,927	24,736	21,813	48,305	23,253	8,046	10,543	55,270	15	251,909			
\$20,000 to < \$25,000	63,030	25,291	33,652	51,621	32,777	14,012	11,737	58,482	0	290,603			
\$25,000 to < \$30,000	88,810	40,088	39,735	65,580	43,464	14,555	14,808	57,372	475	364,867			
\$30,000 to < \$40,000	109,352	55,874	69,280	105,989	55,216	20,738	37,681	46,462	30	590,622			
\$40,000 to < \$50,000	81,409	37,344	39,502	80,165	55,651	15,013	28,649	15,405	181	353,319			
\$50,000 to < \$60,000	44,829	20,450	27,618	56,293	30,999	12,265	18,589	11,262	15	222,339			
\$60,000 to < \$80,000	36,351	16,319	16,174	41,420	27,817	10,586	23,672	5,716	0	178,054			
\$80,000 to < \$100,000	11,985	6,242	8,878	12,624	10,859	7,450	8,582	2,837	0	69,456			
\$100,000 or More	14,408	8,010	10,758	12,890	10,869	4,045	8,775	1,415	0	71,169			
Don't Know	56,095	21,590	28,795	44,201	26,646	9,174	15,382	77,759	175	279,825			
Refused	86,295	55,976	62,012	97,355	59,719	25,781	34,014	67,172	320	488,644			
TOTAL	763,878	344,585	404,725	693,140	416,640	152,806	230,829	540,887	1,319	3,548,809			

Chart F-19: Household Income by Year of Construction
 Q186, Q188, Q189 by Q20

Weighted Data



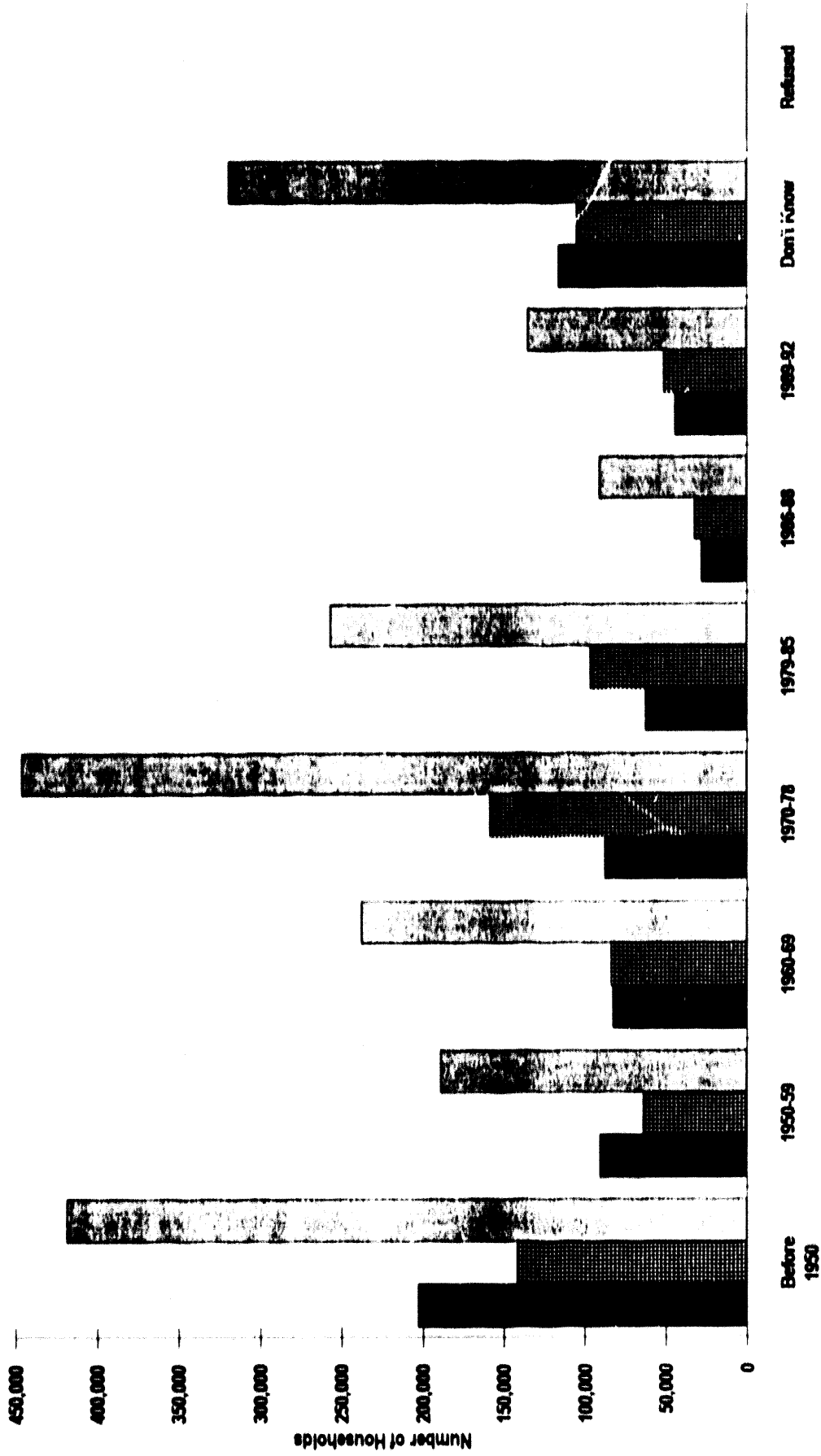
Household Income

Table F-20: Utility Type by Year of Construction
TYPE by Q20

UTILITY TYPE	YEAR OF CONSTRUCTION											TOTAL
	Before											
	1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
Public Generating	1,222	761	748	885	528	210	323	940	3			5,629
Public Non-Generating	2,136	929	1,137	2,241	1,435	453	886	1,502	7			10,506
Investor Owned	849	365	438	881	491	159	231	619	2			4,035
TOTAL	4,207	2,055	2,324	4,017	2,452	822	1,229	3,061	12			20,179

UTILITY TYPE	YEAR OF CONSTRUCTION											TOTAL
	Before											
	1950	1950-59	1960-69	1970-78	1979-85	1986-88	1989-92	Don't Know	Refused			
Public Generating	203,146	91,227	82,962	87,959	63,003	28,704	44,502	116,283	383			748,159
Public Non-Generating	141,898	64,469	84,069	158,378	96,646	32,889	51,133	105,074	601			735,166
Investor Owned	418,834	188,889	237,695	446,804	256,991	91,203	135,194	319,550	325			2,095,485
TOTAL	763,878	344,585	404,725	693,140	416,640	152,896	230,829	540,907	1,319			3,548,809

Chart F-20: Utility Type by Year of Construction
 TYPE by Q20



Public Generating
 Public Non-Generating
 Investor Owned

Utility Type

Table F-21: Space-Heating Fuels: Systems and Equipment by Year of Construction
HEAT_EOP by Q20

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	YEAR OF CONSTRUCTION												TOTAL				
		Before																
		1950	1950-59	1960-69	1970-79	1979-85	1985-88	1989-92	Don't Know	Refused								
Multi-Unit:	Central Heat - All Units	14,444	4,506	5,026	9,191	4,072	3,209	4,026	27,524	145								
	Central Heat - Several Units	1,828	430	378	453	1,000	0	559	3,279	0								
	Unit Not Heated	333	54	0	818	85	0	54	511	0								
		20,574	8,336	8,234	5,146	1,992	2,804	2,801	6,438	0								
Fossil:	Steam or Hot Water Radiators	35,100	10,807	9,555	6,014	2,194	2,437	9,705	17,708	0								
	Wall, Floor, or Ceiling Units	1,564	828	886	1,575	353	0	348	401	0								
	Portable Units	332,530	162,717	151,536	148,277	57,884	34,927	70,770	95,635	181								
	Central Furnace	12,886	3,053	734	1,261	214	212	284	2,537	0								
	Other	18,216	15,711	12,983	39,419	42,923	16,641	25,535	10,067	0								
Electricity:	Heat Pump	7,797	2,338	1,213	2,084	543	889	1,031	13,376	0								
	Portable Room Heaters	24,018	16,758	25,389	64,591	28,382	15,386	8,259	45,261	613								
	Radiant Panels	1,527	1,539	463	3,544	1,189	538	2,051	3,901	0								
	Steam or Hot Water Radiators	33,102	22,389	46,356	162,307	115,086	31,194	42,336	59,040	208								
	Central Furnace	115,979	51,853	72,440	102,961	63,748	22,274	38,115	185,885	15								
	Baseboard or Wall Units	825	138	440	1,364	329	84	583	886	0								
	Other	94,965	24,837	40,484	97,656	73,796	17,119	14,379	45,701	157								
Wood:	Free-Standing Stove	8,777	2,487	4,051	10,447	7,955	1,080	3,824	2,985	0								
	Free-Standing Pellet Stove	7,165	3,121	1,811	1,982	2,454	814	641	439	0								
	Central Furnace	19,988	9,979	16,227	24,125	7,187	372	583	8,080	0								
	Fireplace with an Insert	1,345	534	1,854	3,054	1,602	418	964	5,741	0								
	Fireplace without an Insert	0	36	0	70	453	196	359	470	0								
Other:	Solar	542	0	0	15	15	142	0	361	0								
	Geothermal	1,827	502	1,388	2,353	507	175	1,319	284	0								
	Other	485	70	0	0	0	0	0	30	0								
	No Heat	7,056	1,426	2,737	4,192	2,875	1,885	3,063	13,335	0								
	Don't Know	994	30	0	0	0	0	0	0	0								
Refused																		
	TOTAL	763,878	344,585	604,725	683,148	418,648	152,886	239,829	549,887	1,319								

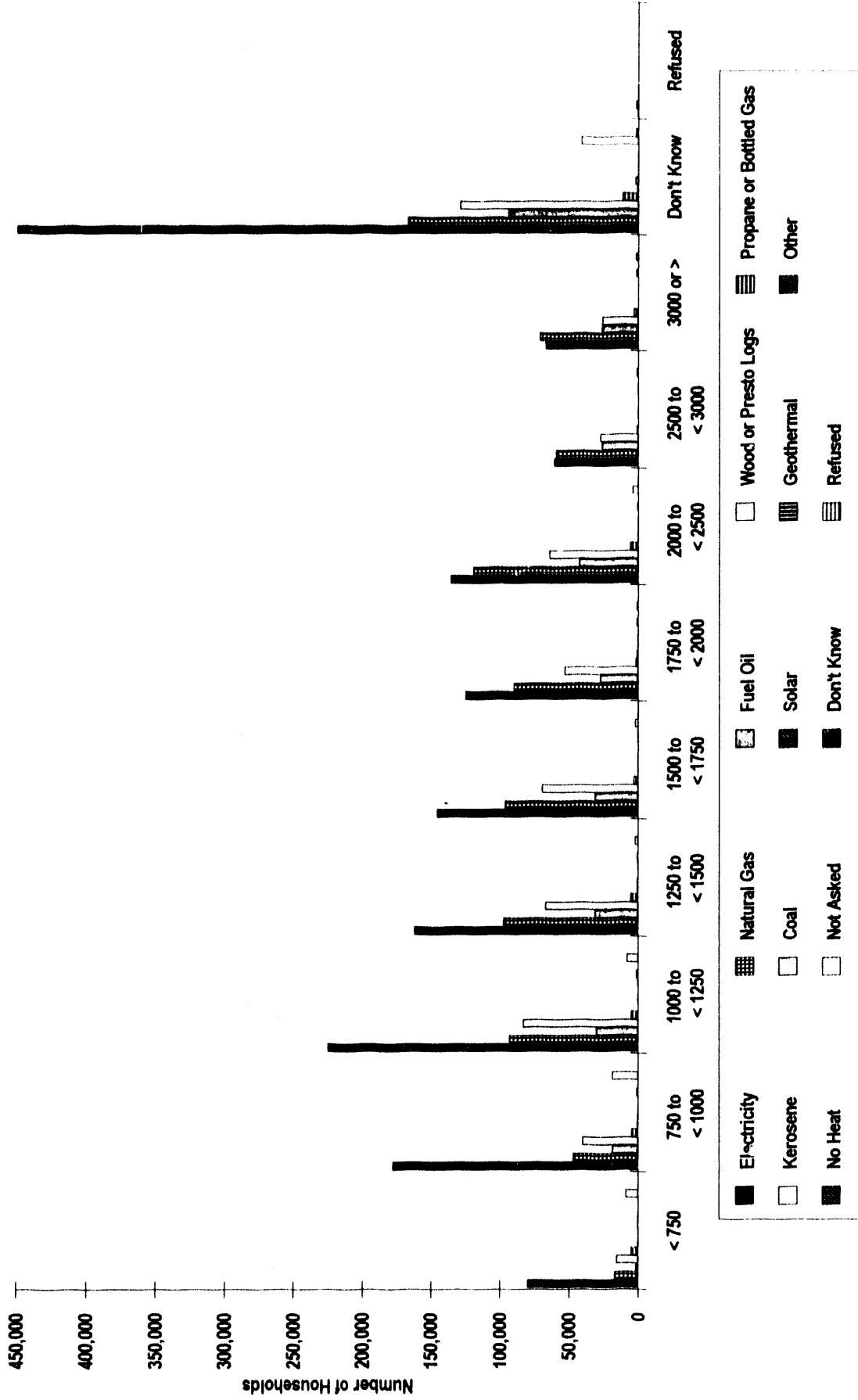
Table F-22: Primary Space-Heating Fuel Type by Dwelling Size in Square Feet
 Q46 by Q24

Raw Data	DWELLING SIZE IN SQUARE FEET											TOTAL
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	Refused	
Electricity	435	1,067	1,370	1,107	988	823	982	495	531	2,813	10	10,621
Natural Gas	64	200	381	308	302	261	367	168	217	777	8	3,053
Fuel Oil	13	90	138	134	117	124	156	96	108	449	1	1,426
Wood or Presto Logs	116	328	587	438	451	351	388	164	219	1,047	4	4,053
Propane or Bottled Gas	35	51	43	28	28	15	31	11	28	109	0	379
Kerosene	2	2	0	4	3	2	1	0	0	4	0	18
Coal	0	1	4	4	4	1	3	2	0	16	0	35
Solar	1	0	0	1	5	3	3	0	1	2	0	16
Geothermal	1	0	4	1	0	0	0	0	0	2	0	8
Other	1	7	8	5	3	6	5	2	6	7	0	50
No Heat	1	0	0	0	1	0	1	0	0	1	0	4
Not Asked	42	70	49	15	7	12	17	7	12	218	0	449
Don't Know	0	1	0	0	1	1	1	1	1	11	0	17
Refused	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL	711	1,818	2,594	2,045	1,910	1,599	1,955	946	1,123	5,456	23	20,170

Table F-22: Primary Space-Heating Fuel Type by Dwelling Size in Square Feet
Q46 by Q24

PRIMARY SPACE-HEATING FUEL TYPE	DWELLING SIZE IN SQUARE FEET											TOTAL
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	Refused	
Electricity	79,997	177,879	225,057	162,190	145,588	125,218	135,870	60,640	66,852	449,703	751	1,629,745
Natural Gas	17,081	47,043	92,629	97,161	96,012	89,667	119,235	59,150	71,051	167,267	1,838	858,134
Fuel Oil	1,810	18,415	29,703	30,801	30,746	26,793	42,719	25,642	25,589	93,837	142	326,196
Wood or Presto Logs	15,440	40,054	82,814	66,810	69,315	52,875	63,959	27,013	25,202	129,135	248	572,866
Propane or Bottled Gas	5,298	4,755	5,102	5,781	3,265	1,963	5,930	1,321	3,563	11,339	0	48,317
Kerosene	145	871	0	717	405	1,174	333	0	0	1,247	0	4,892
Coal	0	142	344	754	492	332	440	386	0	2,388	0	5,277
Solar	415	0	0	36	477	362	100	0	70	124	0	1,584
Geothermal	181	0	392	142	0	0	0	0	0	361	0	1,075
Other	15	1,257	1,501	989	194	1,131	759	403	1,634	481	0	8,363
No Heat	70	0	0	0	415	0	70	0	0	30	0	585
Not Asked	8,845	18,379	7,944	2,391	2,336	1,129	4,011	1,310	1,774	41,220	0	8,338
Don't Know	0	54	0	0	333	30	108	30	30	1,822	0	2,407
Refused	0	30	0	0	0	0	0	0	0	0	0	30
TOTAL	129,296	308,880	445,484	367,773	349,577	300,673	373,534	175,894	195,764	898,954	2,979	3,548,809

Chart F-22: Primary Space-Heating Fuel Type by Dwelling Size in Square Feet
Q46 by Q24



Primary Space-Heating Fuel Type

Table F-23: Primary Water-Heating Fuel Type by Dwelling Size in Square Feet
Q102 by Q24

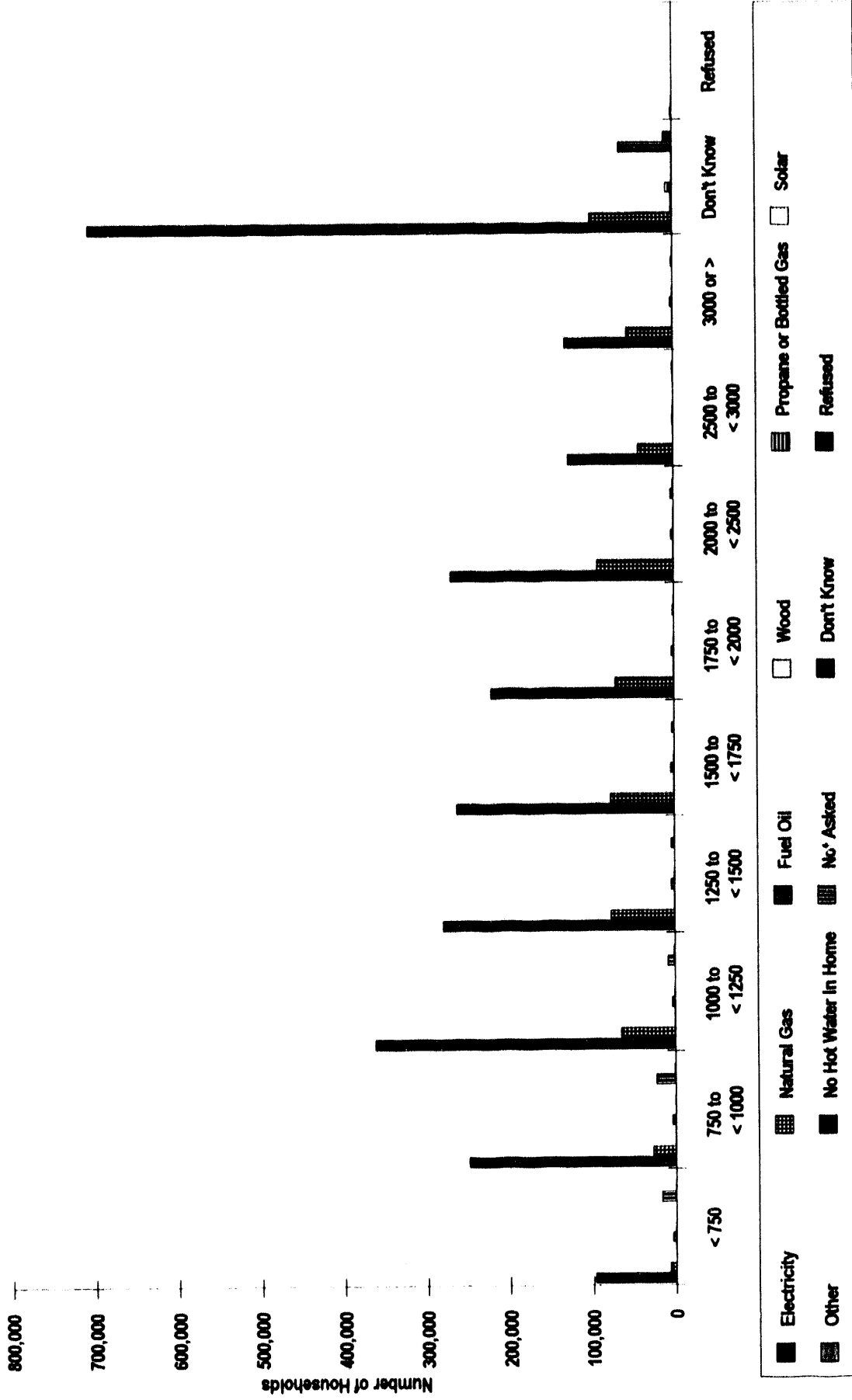
PRIMARY WATER-HEATING FUEL TYPE	DWELLING SIZE IN SQUARE FEET											TOTAL								
	750 to < 750		1000 to < 1000		1250 to < 1250		1500 to < 1500		1750 to < 1750		2000 to < 2000		2500 to < 3000		3000 or >		Refused	Don't Know		
Electricity	529	1,528	2,201	1,750	1,619	1,344	1,610	794	882	4,461	17	16,735								
Natural Gas	37	135	265	239	234	206	290	131	174	471	6	2,188								
Fuel Oil	0	1	3	1	3	4	3	0	3	12	0	30								
Wood	9	8	8	5	4	2	6	2	10	20	0	74								
Propane or Bottled Gas	39	40	47	26	28	22	25	8	28	83	0	346								
Solar	2	1	6	4	3	5	4	3	4	5	0	37								
Other	0	1	0	0	2	1	1	0	1	4	0	10								
No Hot Water In Home	1	0	0	0	0	0	0	0	0	3	0	4								
Not Asked	89	99	49	18	15	11	12	6	15	344	0	658								
Don't Know	5	5	5	2	2	4	4	2	6	53	0	88								
Refused	0	0	0	0	0	0	0	0	0	0	0	0								
TOTAL	711	1,818	2,584	2,045	1,910	1,599	1,955	946	1,123	5,456	23	20,170								

Weighted Data

PRIMARY WATER-HEATING FUEL TYPE	DWELLING SIZE IN SQUARE FEET											TOTAL								
	750 to < 750		1000 to < 1000		1250 to < 1250		1500 to < 1500		1750 to < 1750		2000 to < 2000		2500 to < 3000		3000 or >		Refused	Don't Know		
Electricity	97,560	249,607	362,778	280,082	263,512	221,314	269,931	127,377	130,939	707,633	2,046	2,712,779								
Natural Gas	7,554	27,614	65,904	77,551	77,224	71,409	92,514	42,901	56,300	100,593	933	620,496								
Fuel Oil	0	964	242	181	181	837	817	0	1,087	2,535	0	6,843								
Wood	611	510	904	299	269	440	480	178	983	2,044	0	6,718								
Propane or Bottled Gas	4,771	4,662	4,309	4,615	4,855	3,110	3,559	1,480	3,223	8,476	0	43,059								
Solar	470	36	669	244	201	536	657	980	350	720	0	4,863								
Other	0	415	0	0	124	36	332	0	30	269	0	1,206								
No Hot Water In Home	36	0	0	0	0	0	0	0	0	582	0	618								
Not Asked	17,398	23,783	9,115	4,399	3,152	2,188	3,943	1,173	2,155	65,381	0	132,686								
Don't Know	896	1,289	1,565	403	60	804	1,301	1,805	697	10,721	0	19,541								
Refused	0	0	0	0	0	0	0	0	0	0	0	0								
TOTAL	129,296	308,880	445,484	367,773	349,577	300,673	373,534	175,894	195,764	898,954	2,979	3,548,809								

Chart F-23: Primary Water-Heating Fuel Type by Dwelling Size in Square Feet
Q102 by Q24

Weighted Data



Primary Water-Heating Fuel Type

Table F-24: Household Income by Dwelling Size in Square Feet
 Q186, Q188, Q189 by Q24

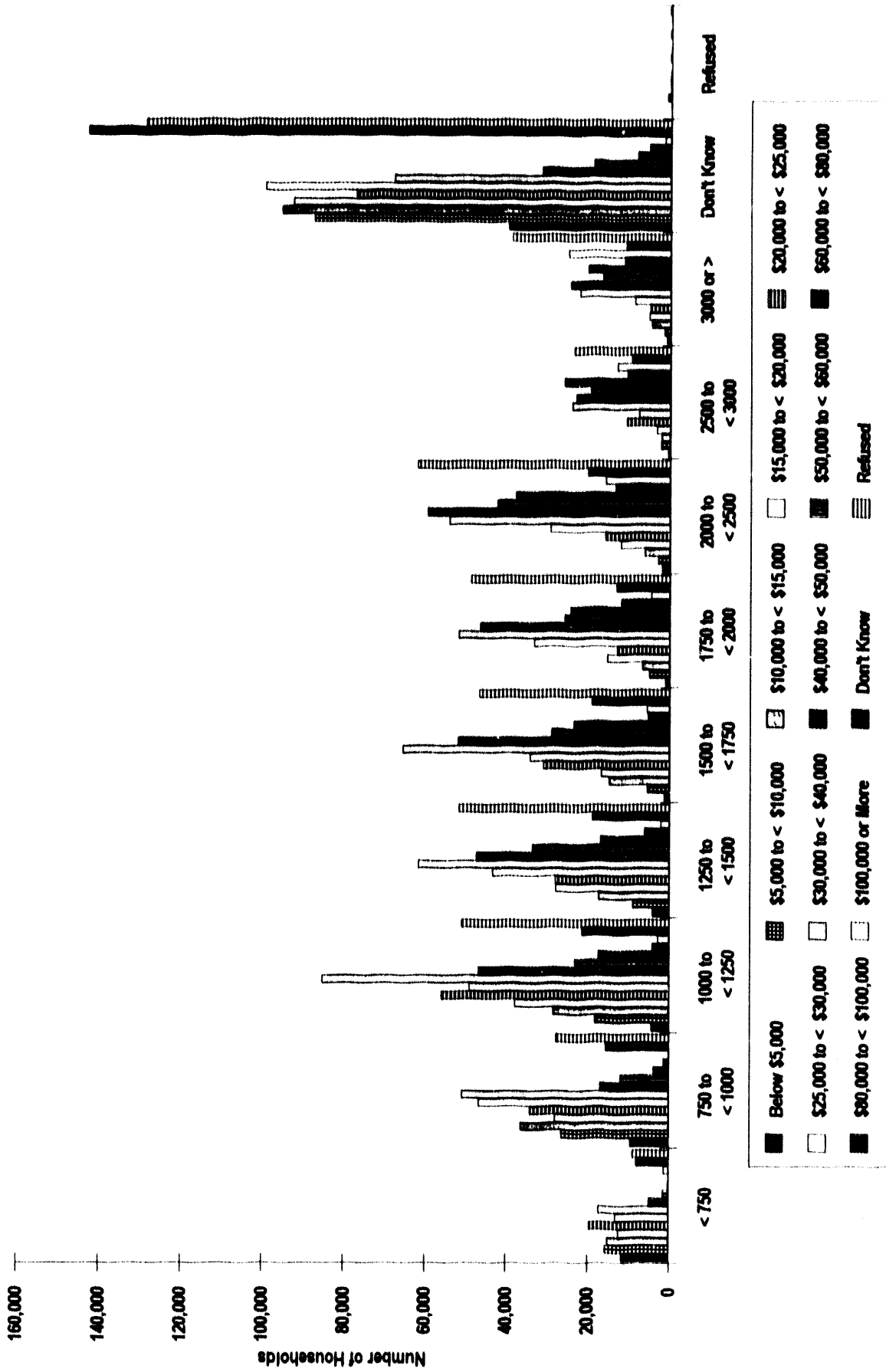
Raw Data	DWELLING SIZE IN SQUARE FEET											TOTAL
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	Refused	
Below \$5,000	50	56	38	20	19	11	12	6	6	273	0	491
\$5,000 to < \$10,000	106	171	109	71	42	32	23	19	14	576	1	1,164
\$10,000 to < \$15,000	94	224	212	118	80	51	57	20	31	625	5	1,517
\$15,000 to < \$20,000	75	185	208	140	104	89	76	26	30	556	2	1,491
\$20,000 to < \$25,000	98	207	293	203	181	89	113	51	49	510	2	1,796
\$25,000 to < \$30,000	73	260	364	252	219	166	171	68	55	543	2	2,173
\$30,000 to < \$40,000	60	261	483	374	344	307	309	148	134	450	0	2,870
\$40,000 to < \$50,000	26	111	250	240	276	232	288	114	136	183	1	1,857
\$50,000 to < \$60,000	6	53	117	72	132	140	213	119	105	92	1	1,107
\$60,000 to < \$80,000	7	20	73	35	119	113	178	114	117	48	0	861
\$80,000 to < \$100,000	2	8	20	10	26	50	73	41	69	22	1	347
\$100,000 or More	6	2	17	10	21	25	81	61	113	12	0	348
Don't Know	46	91	134	117	104	72	94	35	68	857	1	1,619
Refused	62	169	266	264	243	222	267	124	196	709	7	2,529
TOTAL	711	1,818	2,584	2,045	1,910	1,599	1,955	946	1,123	5,456	23	20,170

Table F-24: Household Income by Dwelling Size in Square Feet
 Q186, Q188, Q189 by Q24

Weighted Data	DWELLING SIZE IN SQUARE FEET										TOTAL		
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know		Refused	
HOUSEHOLD INCOME													
Below \$5,000	11,705	9,475	4,313	4,151	1,287	1,060	1,958	604	947	39,857	0	75,357	
\$5,000 to < \$10,000	15,733	26,344	18,229	9,048	5,444	4,965	2,953	2,273	1,552	87,699	108	174,349	
\$10,000 to < \$15,000	15,059	36,329	28,515	17,325	14,759	6,629	6,217	2,162	4,581	95,687	1,011	228,275	
\$15,000 to < \$20,000	12,407	28,010	37,873	27,837	16,741	15,340	11,986	3,311	5,216	93,015	172	251,909	
\$20,000 to < \$25,000	19,554	34,080	55,861	28,012	30,880	12,885	15,884	10,654	4,990	77,518	284	290,603	
\$25,000 to < \$30,000	13,065	46,609	49,034	43,277	34,174	33,157	29,278	7,674	8,744	99,698	178	364,887	
\$30,000 to < \$40,000	17,194	50,837	85,221	61,621	65,452	51,836	54,168	24,039	22,254	68,000	0	500,622	
\$40,000 to < \$50,000	4,876	16,870	46,746	47,298	51,963	46,521	59,563	23,050	24,529	31,571	332	353,319	
\$50,000 to < \$60,000	1,450	11,953	23,060	33,601	28,958	25,770	42,282	19,575	16,637	18,999	54	222,339	
\$60,000 to < \$80,000	197	3,742	17,345	16,898	23,434	24,312	37,822	25,989	20,234	8,080	0	178,054	
\$80,000 to < \$100,000	45	1,247	4,162	6,076	5,255	11,916	13,343	10,581	11,235	5,263	333	69,456	
\$100,000 or More	1,185	52	2,735	2,032	5,495	4,416	15,830	12,980	25,002	1,443	0	71,169	
Don't Know	7,955	15,580	21,361	18,938	19,125	13,161	20,169	9,441	10,885	143,173	36	279,825	
Refused	8,870	27,752	51,028	51,659	46,610	48,704	62,080	23,562	38,959	128,949	471	488,644	
TOTAL	129,296	308,680	445,484	367,773	349,577	300,673	373,534	175,894	195,764	898,954	2,979	3,548,809	

Chart F-24: Household Income by Dwelling Size in Square Feet
 Q186, Q188, Q189 by Q24

Weighted Data



Household Income

Table F-25: Utility Type by Dwelling Size in Square Feet
TYPE by Q24

UTILITY TYPE	DWELLING SIZE IN SQUARE FEET										TOTAL
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	
Public Generating	219	534	714	608	532	483	536	264	294	1,440	5
Public Non-Generating	354	958	1,327	1,023	992	786	1,007	485	612	2,936	16
Investor Owned	128	326	543	414	386	330	412	197	217	1,060	2
TOTAL	711	1,818	2,584	2,045	1,910	1,599	1,955	946	1,123	5,456	23

Weighted Data

UTILITY TYPE	DWELLING SIZE IN SQUARE FEET										TOTAL
	< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	
Public Generating	35,017	68,978	82,226	71,492	67,404	58,666	68,444	36,072	45,152	184,256	453
Public Non-Generating	24,481	66,508	94,939	73,212	72,012	59,360	74,081	34,381	42,915	191,924	1,353
Investor Owned	69,798	173,394	268,319	223,069	210,162	182,647	231,009	105,441	107,697	522,775	1,173
TOTAL	129,296	308,880	445,484	367,773	349,577	300,673	373,534	175,894	195,764	898,954	2,979

Chart F-25: Utility Type by Dwelling Size in Square Feet
 TYPE by Q24

Weighted Data



Public Generating
 Public Non-Generating
 Investor Owned

Utility Type

Table F-26: Space-Heating Fuels: Systems and Equipment by Dwelling Size in Square Feet
HEAT_EQP by Q24

Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	DWELLING SIZE IN SQUARE FEET											TOTAL
			< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know	Refused	
	Multi-Unit:	Central Heat - All Units	36	54	36	14	5	11	13	4	10	171	0	354
		Central Heat - Several Units	4	9	6	0	1	3	3	1	1	28	0	54
		Unit Not Heated	1	0	0	0	0	1	1	2	1	6	0	11
	Fossil:	Steam or Hot Water Radiators	3	13	24	15	18	25	21	20	42	67	1	249
		Wall, Floor, or Ceiling Units	16	39	40	29	24	12	28	19	15	129	1	352
		Portable Units	6	4	6	5	3	2	2	0	3	11	0	42
		Central Furnace	84	277	481	416	386	358	501	236	282	1,067	7	4,185
		Other	2	10	12	13	11	6	6	2	6	44	0	112
	Electricity:	Heat Pump	4	44	100	106	124	152	218	122	155	134	1	1,169
		Portable Room Heaters	32	23	22	10	7	7	6	3	2	98	0	210
		Radiant Panels	67	180	269	205	163	116	133	66	83	439	1	1,722
		Steam or Hot Water Radiators	2	2	1	8	3	6	7	2	9	26	0	66
		Central Furnace	116	336	414	383	389	326	356	193	163	826	3	3,585
		Baseboard or Wall Units	211	475	561	388	298	210	256	109	111	1,229	5	3,853
		Other	1	5	3	4	3	3	3	0	5	10	0	37
	Wood:	Free-Standing Stove	106	272	447	327	322	254	266	107	128	817	2	3,048
		Free-Standing Pellet Stove	0	13	40	27	40	26	34	15	19	50	0	264
		Central Furnace	1	8	18	17	12	16	31	14	24	45	1	187
		Fireplace with an Insert	5	31	70	51	70	45	50	22	43	109	1	497
		Fireplace without an Insert	4	4	10	15	4	10	5	5	4	23	0	84
	Other:	Solar	1	0	0	1	5	3	3	0	1	2	0	16
		Geothermal	1	0	4	1	0	0	0	0	0	2	0	8
		Other	1	7	8	5	3	6	5	2	6	7	0	50
		No Heat	1	0	0	0	1	0	1	0	0	1	0	4
		Don't Know	6	11	12	5	8	3	6	2	9	115	0	177
		Refused	0	1	0	0	0	1	0	0	1	0	0	3
		TOTAL	711	1,818	2,584	2,045	1,910	1,589	1,955	946	1,123	5,456	23	20,170

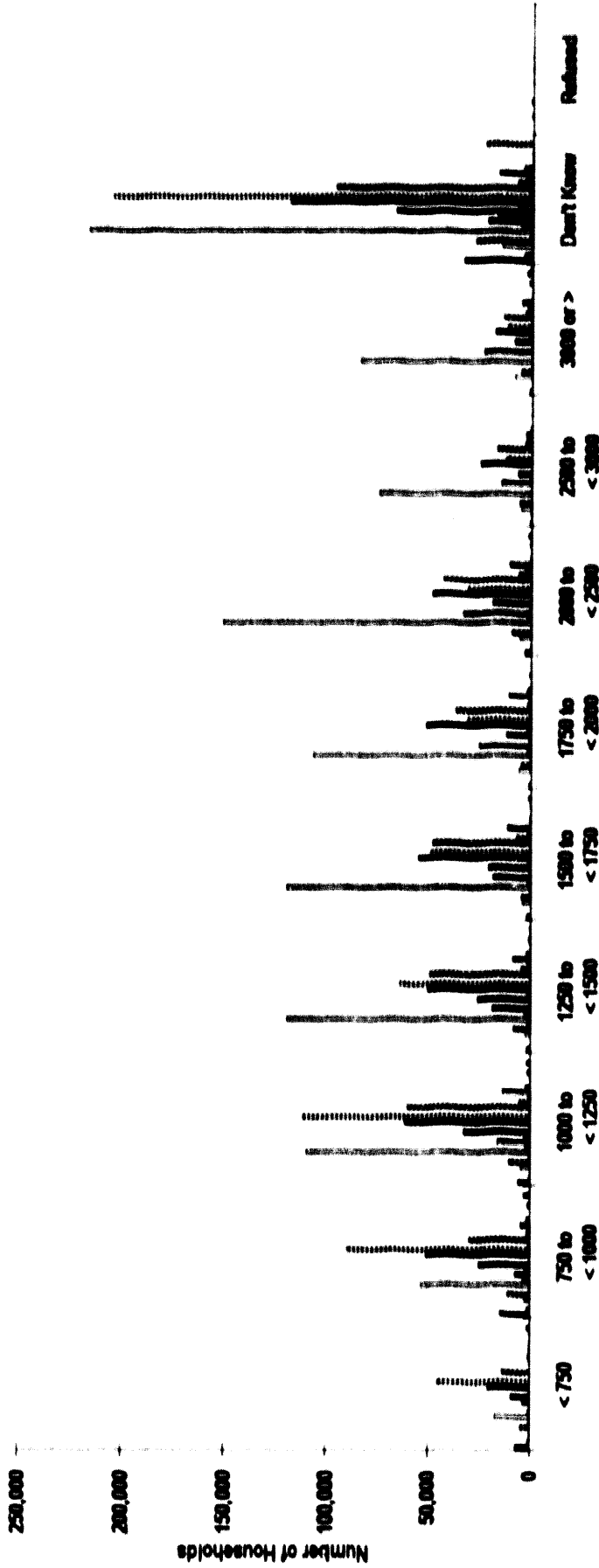
Table F-26: Space-Heating Fuels: Systems and Equipment by Dwelling Size in Square Feet
HEAT_EQP by Q24

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	DWELLING SIZE IN SQUARE FEET										TOTAL	
		< 750	750 to < 1000	1000 to < 1250	1250 to < 1500	1500 to < 1750	1750 to < 2000	2000 to < 2500	2500 to < 3000	3000 or >	Don't Know		Refused
Multi-Unit:	Central Heat - All Units	7,077	14,614	6,124	2,050	2,157	1,074	3,441	804	1,411	33,965	0	72,748
	Central Heat - Several Units	1,102	1,545	510	0	36	54	515	36	30	4,107	0	7,937
	Unit Not Heated	333	0	0	0	0	0	54	470	333	666	0	1,959
		211	2,808	4,674	2,321	4,170	6,201	5,648	5,320	8,548	14,887	841	55,558
Fossil:	Wall, Floor, or Ceiling Units	4,748	11,060	10,506	8,478	4,663	4,852	9,527	6,179	5,423	28,144	30	83,811
	Portable Units	522	371	485	1,629	304	363	347	0	211	1,585	0	5,876
	Central Furnace	16,999	53,467	109,435	119,749	119,639	106,482	151,248	74,945	83,945	217,248	1,108	1,054,287
	Other	986	3,467	2,321	3,037	1,590	2,031	1,885	45	374	5,475	0	21,211
Electricity:	Heat Pump	388	7,441	15,952	18,862	18,643	25,785	33,880	14,937	23,623	21,985	30	181,586
	Portable Room Heaters	3,486	2,312	3,060	401	558	1,030	604	782	85	16,955	0	28,273
	Radiant Panels	9,408	25,518	32,801	26,173	20,667	12,285	19,010	6,810	8,728	67,079	108	228,588
	Steam or Hot Water Radiators	160	124	108	1,723	1,244	2,060	603	45	1,623	7,043	0	14,732
Wood:	Central Furnace	20,772	51,162	61,728	50,489	55,167	51,506	48,771	25,524	18,182	119,472	215	583,828
	Baseboard or Wall Units	45,391	89,685	111,332	64,006	40,053	31,470	31,461	12,821	12,088	205,764	388	683,271
	Other	30	766	75	310	114	778	365	0	686	1,588	0	4,641
	Free-Standing Stove	13,391	30,211	60,230	49,514	48,060	36,903	43,078	17,231	14,001	96,588	196	488,385
Other:	Free-Standing Pellet Stove	0	1,888	5,451	4,639	7,088	1,993	6,252	3,326	3,486	7,582	0	41,826
	Central Furnace	333	1,263	988	1,583	1,748	1,148	3,083	2,385	2,235	3,063	15	18,426
	Fireplace with an Insert	1,181	4,714	13,539	8,714	11,604	11,024	10,883	3,084	5,322	16,629	36	86,541
	Fireplace without an Insert	535	1,968	2,340	2,289	691	1,887	600	879	97	4,385	0	15,911
Solar:	Geothermal	415	0	0	36	477	382	100	0	70	124	0	1,594
	Other	181	0	382	142	0	0	0	0	0	361	0	1,075
	No Heat	15	1,257	1,501	989	194	1,131	759	483	1,634	481	0	8,363
	Don't Know	70	0	0	0	415	0	70	0	0	30	0	585
Refused		1,561	3,200	1,973	630	1,303	265	1,534	138	2,785	23,210	0	38,388
		0	30	0	0	0	30	0	0	964	0	0	1,824
TOTAL		129,296	308,880	445,484	367,773	348,517	388,673	373,534	175,884	195,764	888,954	2,979	3,548,889

Chart F-26: Space-Heating Fuels: Systems and Equipment by Dwelling Size in Square Feet

HEAT_EQP by Q24

Weighted Data



Space-Heating Fuels: Systems and Equipment

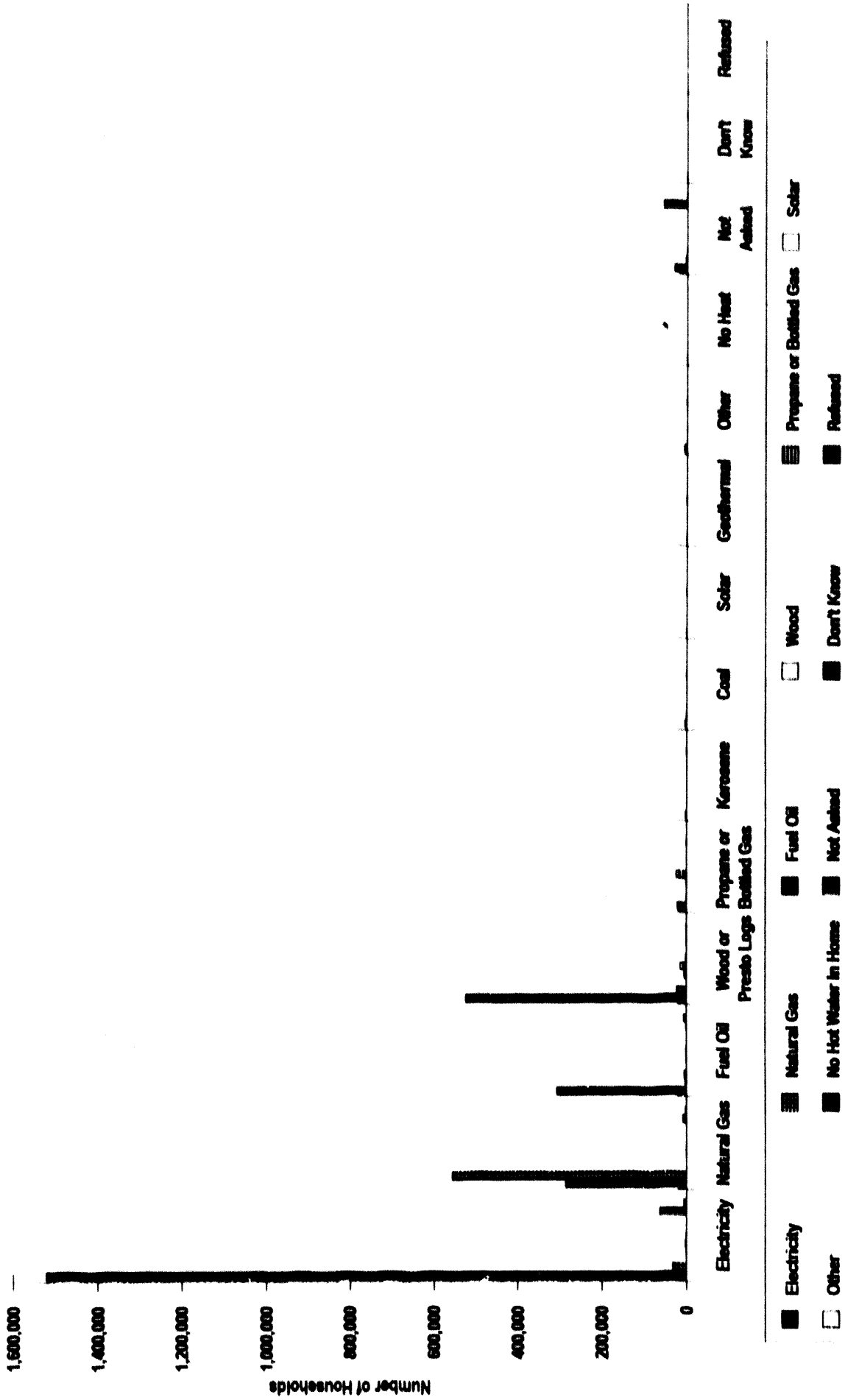
Table F-27: Primary Water-Heating Fuel Type by Primary Space-Heating Fuel Type
Q102 by Q46

Raw Data	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL
	PRIMARY WATER-HEATING FUEL TYPE														
	Electricity	Natural Gas	Fuel Oil	Propane or Bottled Gas	Wood or Pseudo Logs	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Not Asked	Don't Know	Refused	
Electricity	10,062	1,112	1,358	198	3,724	16	33	10	4	44	3	160	10	1	16,735
Natural Gas	135	1,800	13	8	127	0	1	0	1	3	1	19	0	0	2,188
Fuel Oil	0	0	26	0	2	0	0	0	0	0	0	2	0	0	30
Wood	7	0	1	1	65	0	0	0	0	0	0	0	0	0	74
Propane or Bottled Gas	32	2	4	164	140	1	0	1	0	1	0	1	0	0	345
Solar	13	0	4	13	13	0	0	5	2	0	0	0	0	0	37
Other	3	0	0	1	1	0	1	0	0	2	0	1	1	0	10
No Hot Water in Home	0	1	0	3	3	0	0	0	0	0	0	0	0	0	4
Not Asked	330	36	4	6	15	1	0	0	1	0	0	262	3	0	630
Don't Know	39	22	16	3	3	0	0	0	0	0	0	4	3	0	88
Refused	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	10,621	3,053	1,426	4,093	4,093	18	35	16	8	50	4	448	17	1	20,179

Weighted Data

Weighted Data	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL
	PRIMARY WATER-HEATING FUEL TYPE														
	Electricity	Natural Gas	Fuel Oil	Propane or Bottled Gas	Wood or Pseudo Logs	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Not Asked	Don't Know	Refused	
Electricity	1,522,726	286,941	308,265	22,354	524,090	4,014	4,614	704	353	7,722	555	29,628	783	30	2,712,779
Natural Gas	32,091	557,182	3,625	375	23,142	0	332	0	181	174	30	3,385	0	0	628,486
Fuel Oil	0	0	6,190	0	178	0	0	0	0	0	0	475	0	0	6,843
Wood	430	0	15	332	5,941	0	0	0	0	0	0	0	0	0	6,718
Propane or Bottled Gas	3,137	386	525	24,066	14,710	36	0	108	0	36	0	54	0	0	43,059
Solar	985	0	301	0	2,444	0	0	772	361	0	0	0	0	0	4,863
Other	175	0	0	36	108	0	332	0	0	431	0	54	70	0	1,286
No Hot Water in Home	0	108	0	0	510	0	0	0	0	0	0	0	0	0	618
Not Asked	63,121	9,436	526	1,139	1,387	841	0	0	181	0	0	54,728	1,326	0	132,886
Don't Know	7,081	4,080	6,749	15	355	0	0	0	0	0	0	1,033	227	0	19,541
Refused	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1,629,745	658,134	326,196	48,317	572,866	4,882	5,217	1,584	1,675	8,363	565	88,338	2,487	30	3,548,889

Chart F-27: Primary Water-Heating Fuel Type by Primary Space-Heating Fuel Type
 Q102 by Q46



Primary Water-Heating Fuel Type

Table F-28: Household Income by Primary Space-Heating Fuel Type
 Q186, Q188, Q189 by Q46

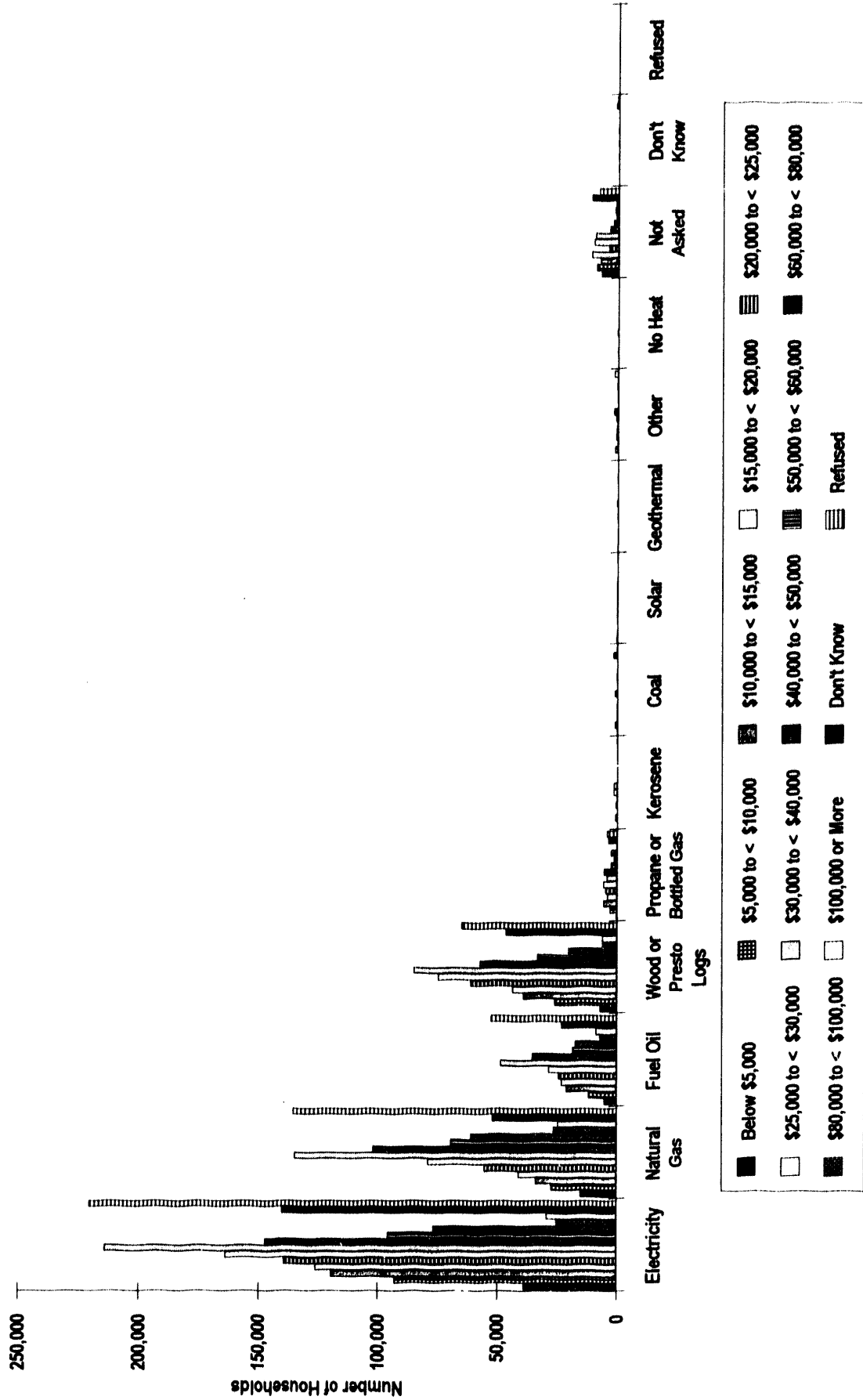
Raw Data	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL
	Electricity	Natural Gas	Fuel Oil	Presto Logs	Wood or Propane or Bottled Gas	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Asked	Not Know	Refused	
HOUSEHOLD INCOME	268	65	26	80	8	0	2	1	1	0	0	0	40	0	491
Below \$5,000	645	140	64	221	28	2	5	2	0	5	0	0	51	1	1,164
\$5,000 to < \$10,000	773	200	116	320	46	1	3	0	1	1	2	2	52	2	1,517
\$10,000 to < \$15,000	775	180	98	344	40	4	2	2	0	2	0	0	44	0	1,491
\$15,000 to < \$20,000	913	220	125	446	49	1	3	1	1	4	0	0	30	3	1,796
\$20,000 to < \$25,000	1,081	325	121	541	43	3	1	2	1	6	2	2	47	0	2,173
\$25,000 to < \$30,000	1,461	453	217	631	49	5	5	2	0	7	0	0	39	1	2,870
\$30,000 to < \$40,000	983	333	131	356	20	0	0	1	3	9	0	0	21	0	1,857
\$40,000 to < \$50,000	630	195	73	182	12	0	2	1	0	0	0	0	10	2	1,107
\$50,000 to < \$60,000	493	168	56	123	6	0	2	1	0	2	0	0	9	1	861
\$60,000 to < \$80,000	192	79	28	34	6	0	0	0	0	1	0	0	7	0	347
\$80,000 to < \$100,000	201	70	33	34	4	0	0	0	1	2	0	0	3	0	348
\$100,000 or More	857	208	129	333	28	0	9	0	0	2	0	0	50	3	1,619
Don't Know	1,349	417	209	448	40	2	1	3	0	9	0	0	46	4	2,529
Refused	10,621	3,053	1,426	4,093	379	18	35	16	8	50	4	449	17	1	20,170
TOTAL															

Table F-28: Household Income by Primary Space-Heating Fuel Type
 Q186, Q188, Q189 by Q46

Weighted Data	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL		
	Electricity	Natural Gas	Fuel Oil	Presto Logs	Wood or Propane or Bottled Gas	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Not Asked	Don't Know	Refused			
HOUSEHOLD INCOME																	
Below \$5,000	39,247	15,292	5,279	7,213	390	0	109	415	181	0	0	7,232	0	0	0	0	75,357
\$5,000 to < \$10,000	92,978	27,602	12,033	26,059	2,988	878	1,103	178	0	1,240	0	9,260	30	0	0	0	174,349
\$10,000 to < \$15,000	119,649	34,069	20,911	39,456	5,706	30	250	0	15	142	100	7,734	212	0	0	0	228,275
\$15,000 to < \$20,000	126,238	41,183	23,043	43,823	4,166	738	109	157	0	896	0	11,555	0	0	0	0	251,909
\$20,000 to < \$25,000	139,351	55,464	24,318	61,400	4,921	108	163	54	15	642	0	4,050	114	0	0	0	290,603
\$25,000 to < \$30,000	163,614	78,829	28,561	74,761	5,814	1,507	36	181	181	531	485	10,387	0	0	0	0	364,887
\$30,000 to < \$40,000	214,099	134,701	48,644	85,015	4,270	1,580	1,119	235	0	938	0	9,689	333	0	0	0	500,622
\$40,000 to < \$50,000	147,121	101,870	35,452	57,258	5,621	0	0	54	503	1,793	0	3,646	0	0	0	0	353,319
\$50,000 to < \$60,000	95,827	69,552	18,490	33,438	2,646	0	91	70	0	0	0	2,180	45	0	0	0	222,339
\$60,000 to < \$80,000	76,575	61,081	17,337	20,086	1,260	0	284	108	0	60	0	1,233	30	0	0	0	178,054
\$80,000 to < \$100,000	25,182	26,490	7,342	6,272	2,470	0	0	0	0	70	0	1,629	0	0	0	0	69,456
\$100,000 or More	29,427	24,535	8,879	6,276	281	0	0	0	181	387	0	1,204	0	0	0	0	71,169
Don't Know	140,243	52,059	23,107	46,622	3,546	0	1,682	0	0	52	0	11,451	1,064	0	0	0	279,825
Refused	220,193	135,406	52,799	65,185	4,238	52	332	130	0	1,613	0	8,088	580	30	0	0	488,644
TOTAL	1,629,745	858,134	326,196	572,866	48,317	4,892	5,277	1,584	1,075	8,363	585	89,338	2,407	30	30	30	3,548,809

Chart F-28: Household Income by Primary Space-Heating Fuel Type
 Q186, Q188, Q189 by Q46

Weighted Data



Household Income

Table F-29: Utility Type by Primary Space-Heating Fuel Type
TYPE by Q46

UTILITY TYPE	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL
	Electricity	Natural Gas	Fuel Oil	Presto Logs	Wood or Propane or Bottled Gas	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Not Asked	Don't Know	Refused	
Public Generating	3,856	738	376	419	12	7	0	2	0	11	1	197	9	1	
Public Non-Generating	5,325	1,117	661	2,869	281	8	23	11	3	29	2	170	7	0	
Investor Owned	1,440	1,198	389	805	86	3	12	3	5	10	1	82	1	0	
TOTAL	10,621	3,053	1,426	4,093	379	18	35	16	8	50	4	449	17	1	20,170

Weighted Data

UTILITY TYPE	PRIMARY SPACE-HEATING FUEL TYPE														TOTAL
	Electricity	Natural Gas	Fuel Oil	Presto Logs	Wood or Propane or Bottled Gas	Kerosene	Coal	Solar	Geothermal	Other	No Heat	Not Asked	Don't Know	Refused	
Public Generating	386,520	156,825	85,141	48,879	2,177	2,026	0	60	0	2,146	30	33,450	875	30	
Public Non-Generating	422,552	68,175	37,414	178,296	11,330	341	1,366	783	172	1,964	140	12,063	568	0	
Investor Owned	820,673	633,134	203,641	345,691	34,810	2,524	3,911	741	903	4,253	415	43,826	964	0	
TOTAL	1,629,745	858,134	326,196	572,866	48,317	4,892	5,277	1,584	1,075	8,363	585	89,338	2,407	30	3,548,809

Chart F-29: Utility Type by Primary Space-Heating Fuel Type
 TYPE by Q46

Weighted Data

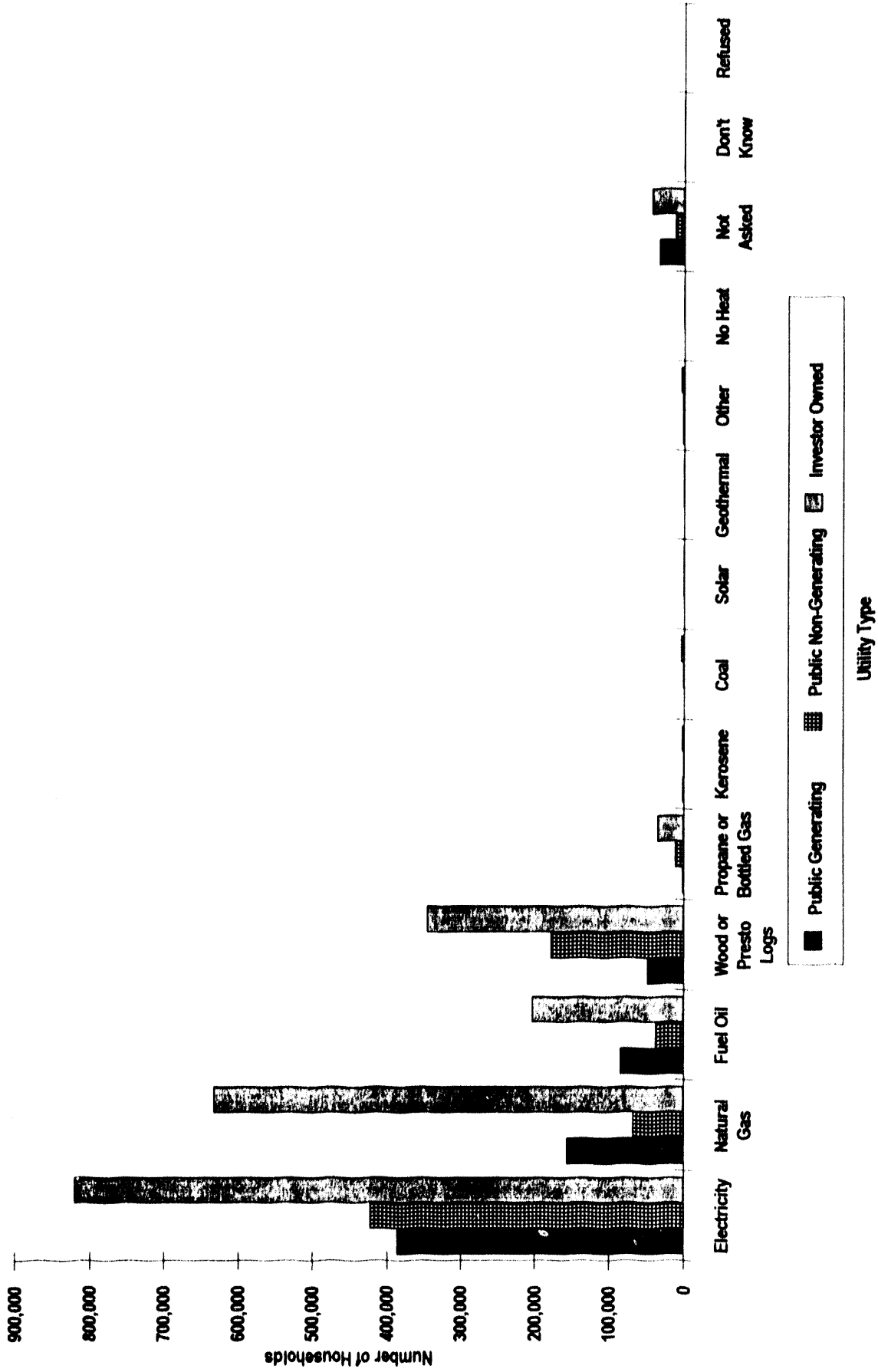
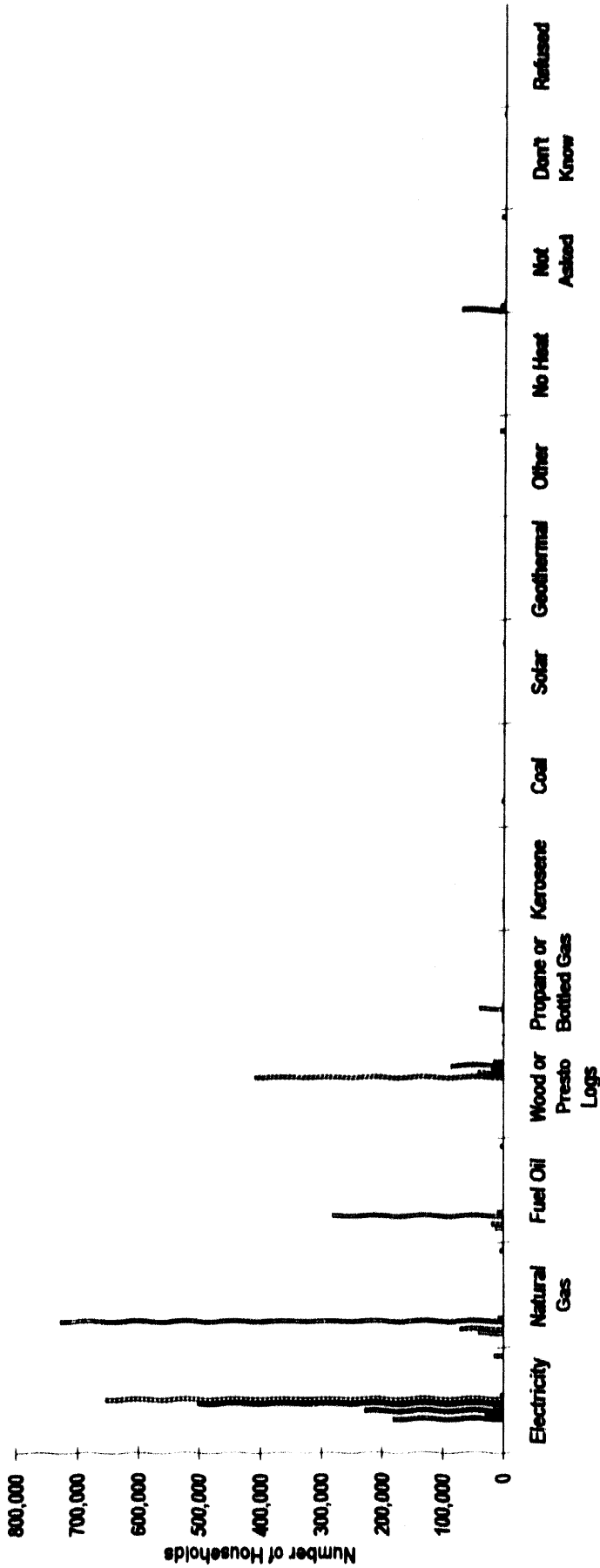


Chart F-30: Space-Heating Fuels: Systems and Equipment by Primary Space-Heating Fuel Type

HEAT_EQP by C46

Weighted Data



Legend	System/Equipment
■	M: Central Heat - All Units
■	M: Central Heat - Several Units
■	M: Unit Not Heated
■	F: Steam or Hot Water Radiators
▨	F: Wall, Floor, or Ceiling Units
▨	F: Portable Units
▨	F: Central Furnace
▨	F: Other
▨	E: Heat Pump
▨	E: Portable Room Heaters
▨	E: Radiant Panels
▨	E: Steam or Hot Water Radiators
▨	E: Central Furnace
▨	E: Baseboard or Wall Units
▨	E: Other
▨	W: Free-Standing Stove
▨	W: Central Furnace
▨	W: Fireplace with an Insert
▨	W: Fireplace without an Insert
▨	O: Solar
▨	O: Geothermal
▨	O: Other
▨	O: No Heat
▨	Don't Know
▨	Refused

Space-Heating Fuels: Systems and Equipment

Table F-31: Household Income by Primary Water-Heating Fuel Type
 Q186, Q188, Q189 by Q102

Raw Data	PRIMARY WATER-HEATING FUEL TYPE											TOTAL
	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water in Home	Not Asked	Don't Know	Refused	
Below \$5,000	378	42	1	6	6	2	0	1	53	2	0	481
\$5,000 to < \$10,000	934	84	2	10	24	1	0	0	98	11	0	1,164
\$10,000 to < \$15,000	1,243	131	5	8	35	4	1	0	81	9	0	1,517
\$15,000 to < \$20,000	1,260	122	1	2	26	1	3	1	72	3	0	1,481
\$20,000 to < \$25,000	1,553	139	0	5	46	1	1	0	43	8	0	1,796
\$25,000 to < \$30,000	1,831	217	3	6	37	2	0	1	71	5	0	2,173
\$30,000 to < \$40,000	2,404	343	3	6	49	4	2	0	52	7	0	2,870
\$40,000 to < \$50,000	1,532	261	2	5	23	7	1	0	22	4	0	1,857
\$50,000 to < \$60,000	911	151	3	3	15	4	0	0	16	4	0	1,107
\$60,000 to < \$80,000	687	143	2	2	7	6	0	0	11	3	0	861
\$80,000 to < \$100,000	272	63	1	1	4	0	0	0	5	1	0	347
\$100,000 or More	266	69	0	0	6	1	0	0	4	2	0	348
Don't Know	1,346	142	0	7	35	1	0	0	72	16	0	1,619
Refused	2,118	281	7	13	33	3	2	1	58	13	0	2,529
TOTAL	16,735	2,188	30	74	346	37	10	4	658	88	0	20,170

Table F-31: Household Income by Primary Water-Heating Fuel Type
 Q186, Q188, Q189 by Q102

Weighted Data	PRIMARY WATER-HEATING FUEL TYPE													TOTAL
	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Ashland	Don't Know	Refused	TOTAL		
HOUSEHOLD INCOME														
Below \$5,000	51,833	11,119	54	238	1,107	524	0	36	9,588	857	0	75,357		
\$5,000 to < \$10,000	138,457	15,727	369	843	1,502	54	0	0	15,339	2,056	0	174,346		
\$10,000 to < \$15,000	182,033	22,313	1,353	552	6,216	461	70	0	12,980	2,287	0	228,775		
\$15,000 to < \$20,000	201,955	26,750	333	157	2,285	142	199	332	18,351	1,405	0	251,909		
\$20,000 to < \$25,000	240,952	36,405	0	332	3,320	36	415	0	7,534	1,808	0	298,883		
\$25,000 to < \$30,000	286,514	52,643	168	728	4,901	878	0	108	18,153	794	0	364,887		
\$30,000 to < \$40,000	379,044	102,449	376	535	4,711	301	368	0	11,954	865	0	500,622		
\$40,000 to < \$50,000	263,793	78,324	212	338	4,162	680	15	0	5,346	448	0	353,319		
\$50,000 to < \$60,000	158,824	53,992	846	439	2,487	618	0	0	3,942	1,191	0	222,338		
\$60,000 to < \$80,000	122,364	51,355	1,000	250	1,423	297	0	0	932	433	0	178,654		
\$80,000 to < \$100,000	46,585	18,545	142	333	1,365	0	0	0	2,154	333	0	69,456		
\$100,000 or More	47,677	21,159	0	0	405	181	0	0	1,537	210	0	71,189		
Don't Know	223,676	34,986	0	814	5,074	181	0	0	11,936	3,159	0	279,825		
Refused	369,071	94,728	1,980	1,157	4,101	510	138	142	12,941	3,877	0	488,644		
TOTAL	2,712,779	620,686	6,843	6,718	43,059	4,863	1,206	613	132,686	19,541	0	3,548,809		

Weighted Data

Chart F-31: Household Income by Primary Water-Heating Fuel Type
 Q186, Q188, Q189 by Q102

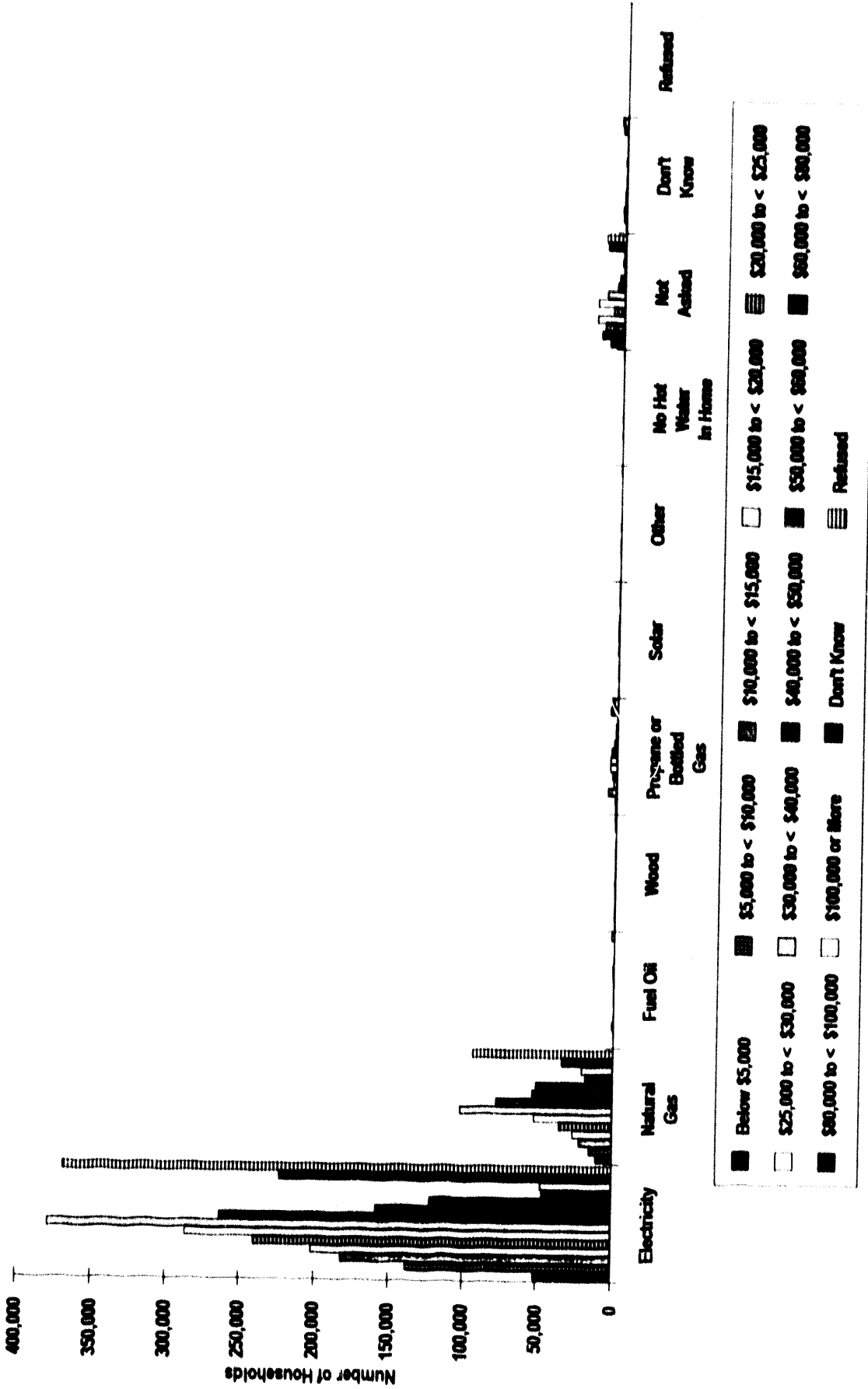


Table F-32: Utility Type by Primary Water-Heating Fuel Type
TYPE by Q102

UTILITY TYPE	PRIMARY WATER-HEATING FUEL TYPE											TOTAL
	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Assembled	Don't Know	Refused	
Public Generating	4,717	529	9	4	21	7	1	0	307	34	0	5,629
Public Non-Generating	9,080	791	15	62	248	19	7	3	239	32	0	10,396
Investor Owned	2,928	868	6	8	77	11	2	1	112	22	0	4,035
TOTAL	16,735	2,188	30	74	346	37	10	4	658	88	0	20,178

Weighted Data

UTILITY TYPE	PRIMARY WATER-HEATING FUEL TYPE											TOTAL
	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Assembled	Don't Know	Refused	
Public Generating	543,108	112,718	2,066	1,028	2,750	208	30	0	50,063	6,166	0	718,159
Public Non-Generating	650,216	47,511	1,061	3,387	12,029	1,470	429	287	16,197	2,079	0	735,186
Investor Owned	1,519,455	480,266	3,696	1,803	28,280	3,184	747	332	88,428	11,297	0	2,095,685
TOTAL	2,712,779	620,495	6,843	6,718	43,059	4,863	1,206	618	132,688	19,541	0	3,548,889

Chart F-32: Utility Type by Primary Water-Heating Fuel Type
 TYPE by Q102

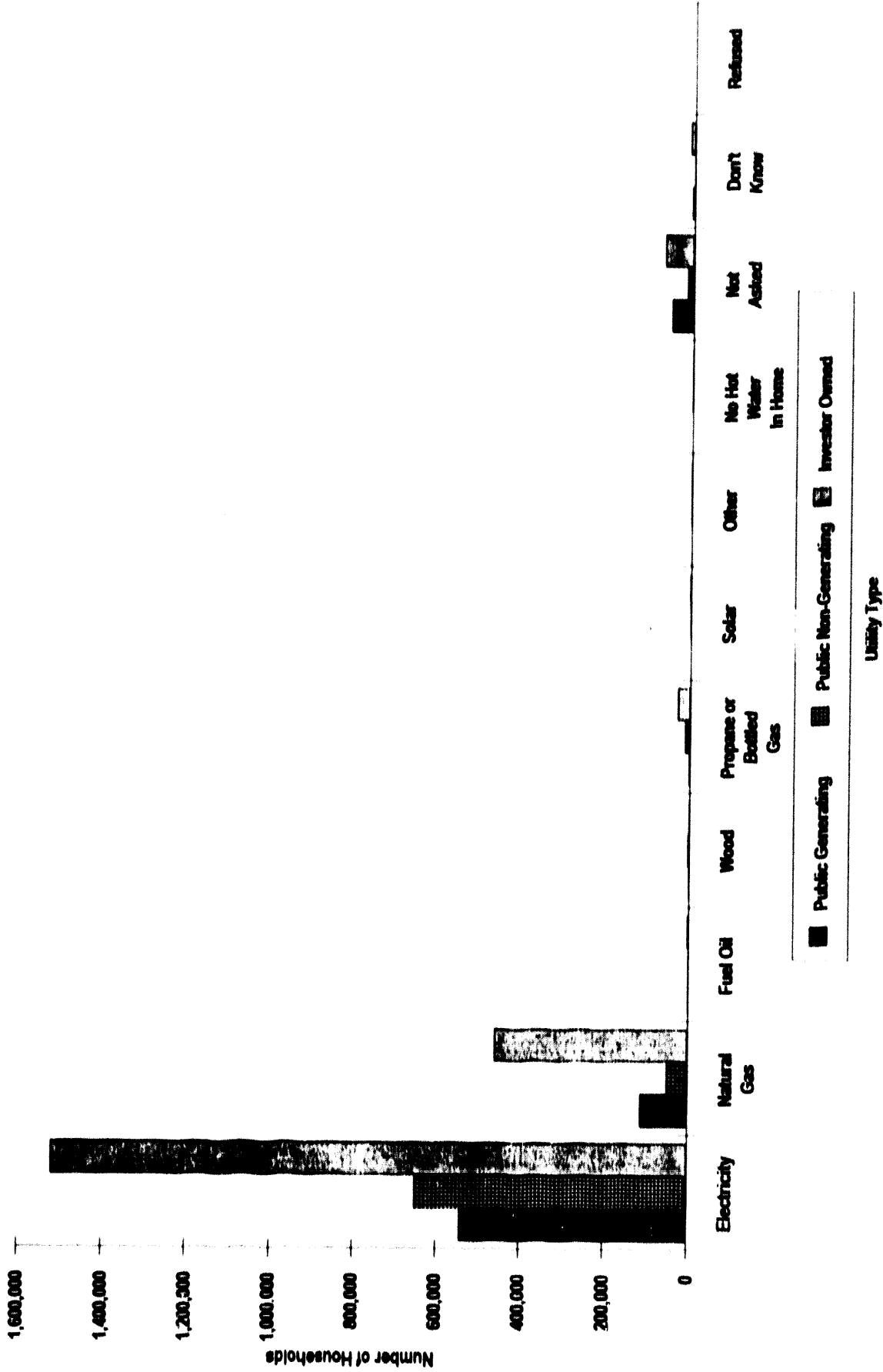


Table F-33: Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type
HEAT_EOP by Q102

Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	PRIMARY WATER-HEATING FUEL TYPE											TOTAL				
			Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Asked	Don't Know	Refused					
	Multi-Unit:	Central Heat - All Units	111	17	2	0	0	1	0	0	0	0	0	219	3	0	0	354
		Central Heat - Several Units	26	1	0	0	0	0	0	0	0	0	0	27	0	0	0	54
		Unit Not Heated	8	0	0	0	0	0	0	0	0	0	0	3	0	0	0	11
	Fossil:	Steam or Hot Water Radiators	115	108	7	0	0	12	1	0	0	0	0	4	2	0	0	248
		Wall, Floor, or Ceiling Units	200	127	3	0	0	7	0	0	0	0	0	10	5	0	0	352
		Portable Units	32	4	0	0	0	5	0	0	0	0	0	1	0	0	0	42
		Central Furnace	2,262	1,635	15	0	0	136	3	2	1	0	0	29	22	0	0	4,105
		Other	85	13	0	2	0	8	0	0	0	0	0	3	1	0	0	112
	Electricity:	Heat Pump	1,114	31	0	2	0	1	4	2	0	0	0	6	0	0	0	1,168
		Portable Room Heaters	177	6	0	1	0	12	2	0	0	0	0	9	3	0	0	210
		Radiant Panels	1,622	17	0	1	0	4	4	0	0	0	0	65	9	0	0	1,722
		Steam or Hot Water Radiators	60	2	0	0	0	0	0	0	0	0	0	2	2	0	0	66
		Central Furnace	3,419	41	0	2	0	7	2	0	0	0	0	27	7	0	0	3,505
		Baseboard or Wall Units	3,574	36	0	1	0	8	1	1	0	0	0	217	15	0	0	3,853
		Other	36	1	0	0	0	0	0	0	0	0	0	0	0	0	0	37
	Wood:	Free-Standing Stove	2,758	93	0	52	0	125	8	0	0	2	0	9	1	0	0	3,048
		Free-Standing Pellet Stove	250	7	1	2	0	1	1	0	0	0	0	1	1	0	0	264
		Central Furnace	172	4	0	7	0	3	1	0	0	0	0	0	0	0	0	187
		Fireplace with an Insert	458	20	1	3	0	6	3	1	0	0	0	4	1	0	0	497
		Fireplace without an Insert	78	2	0	0	0	3	0	0	0	0	0	1	0	0	0	84
	Other:	Solar	10	0	0	0	0	1	5	0	0	0	0	0	0	0	0	16
		Geothermal	4	1	0	0	0	0	2	0	0	0	0	1	0	0	0	8
		Other	44	3	0	0	0	1	0	2	0	0	0	0	0	0	0	50
		No Heat	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
		Don't Know	115	17	1	1	1	5	0	1	1	1	0	20	16	0	0	177
		Refused	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
		TOTAL	16,735	2,188	30	74	346	37	10	4	658	88	0	20,170	0	0	0	20,170

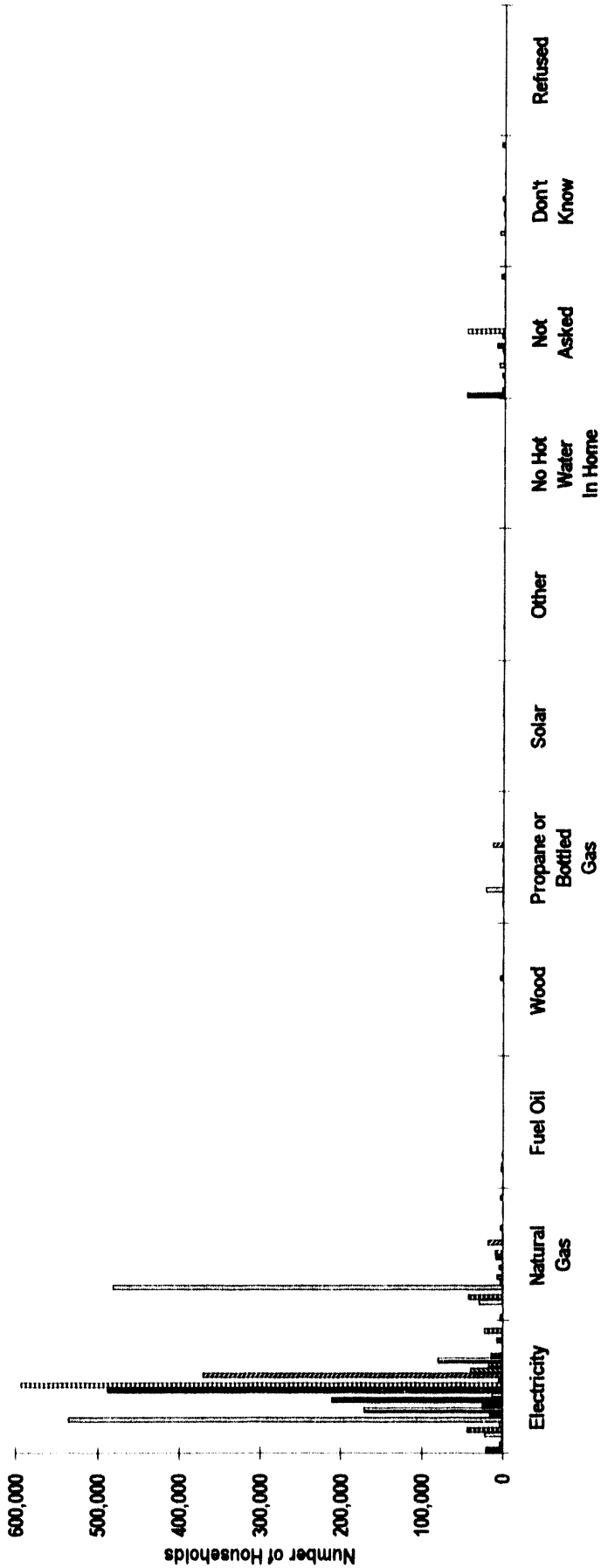
Table F-33: Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type
HEAT_EQP by Q102

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	PRIMARY WATER-HEATING FUEL TYPE											TOTAL
		Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Asked	Don't Know	Refused	
Multi-Unit:	Central Heat - All Units	21,212	3,241	475	0	0	0	54	0	47,010	701	0	72,746
	Central Heat - Several Units	4,471	15	0	0	0	0	0	0	3,450	0	0	7,937
	Unit Not Heated	1,175	0	0	0	0	0	0	0	681	0	0	1,856
Fossil:	Steam or Hot Water Radiators	21,993	28,984	2,399	0	1,126	108	0	0	810	138	0	55,558
	Wall, Floor, or Ceiling Units	44,033	42,318	2,260	0	842	0	0	0	3,242	916	0	93,611
	Portable Units	3,857	1,002	0	0	962	0	0	0	54	0	0	5,876
	Central Furnace	536,267	481,325	1,478	0	21,575	193	368	108	6,669	6,284	0	1,054,267
	Other	15,726	3,371	0	347	420	0	0	0	1,167	181	0	21,211
Electricity:	Heat Pump	171,867	7,645	0	106	108	362	145	0	1,274	0	0	181,506
	Portable Room Heaters	24,805	347	0	54	823	66	0	0	2,673	503	0	29,273
	Radiant Panels	211,287	4,612	0	54	534	421	0	0	9,719	1,941	0	228,568
	Steam or Hot Water Radiators	13,430	979	0	0	0	0	0	0	124	199	0	14,732
	Central Furnace	488,629	8,793	0	178	1,197	106	0	0	3,189	936	0	503,028
	Baseboard or Wall Units	593,960	9,616	0	36	474	30	30	0	46,022	3,103	0	653,271
	Other	4,611	30	0	0	0	0	0	0	0	0	0	4,641
	Free-Standing Stove	370,879	18,554	0	4,354	13,287	1,024	0	368	784	145	0	409,395
	Free-Standing Pellet Stove	39,591	585	36	473	54	841	0	0	15	30	0	41,626
	Central Furnace	17,523	245	0	516	106	36	0	0	0	0	0	18,426
Other:	Fireplace with an Insert	80,441	3,653	142	490	728	542	108	0	256	181	0	86,541
	Fireplace without an Insert	14,838	91	0	0	250	0	0	0	332	0	0	15,511
Geothermal	Solar	704	0	0	0	108	772	0	0	0	0	0	1,584
	Geothermal	353	181	0	0	0	361	0	0	181	0	0	1,075
	Other	7,722	174	0	0	36	0	431	0	0	0	0	8,363
	No Heat	555	30	0	0	0	0	0	0	0	0	0	585
Don't Know	Don't Know	22,791	3,744	54	108	372	0	70	142	5,034	4,284	0	36,598
	Refused	60	964	0	0	0	0	0	0	0	0	0	1,024
TOTAL		2,712,779	620,496	6,843	6,718	43,059	4,863	1,206	618	132,686	19,541	0	3,548,809

Chart F-33: Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type

HEAT_EQP by Q102

Weighted Data



Equipment Type	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Asked	Don't Know	Refused
M: Central Heat - All Units	█	█	█	█	█	█	█	█	█	█	█
F: Wall, Floor, or Ceiling Units	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
E: Heat Pump	▩	▩	▩	▩	▩	▩	▩	▩	▩	▩	▩
E: Central Furnace	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
W: Free-Standing Pellet Stove	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
O: Solar	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
Don't Know	▭	▭	▭	▭	▭	▭	▭	▭	▭	▭	▭
M: Central Heat - Several Units	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮
F: Portable Units	▯	▯	▯	▯	▯	▯	▯	▯	▯	▯	▯
E: Portable Room Heaters	▰	▰	▰	▰	▰	▰	▰	▰	▰	▰	▰
E: Baseboard or Wall Units	▱	▱	▱	▱	▱	▱	▱	▱	▱	▱	▱
W: Central Furnace	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
O: Geothermal	△	△	△	△	△	△	△	△	△	△	△
Refused	▴	▴	▴	▴	▴	▴	▴	▴	▴	▴	▴
M: Unit Not Heated	▵	▵	▵	▵	▵	▵	▵	▵	▵	▵	▵
F: Central Furnace	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
E: Radiant Panels	▷	▷	▷	▷	▷	▷	▷	▷	▷	▷	▷
E: Other	▸	▸	▸	▸	▸	▸	▸	▸	▸	▸	▸
W: Fireplace with an Insert	▹	▹	▹	▹	▹	▹	▹	▹	▹	▹	▹
O: Other	►	►	►	►	►	►	►	►	►	►	►
F: Steam or Hot Water Radiators	▻	▻	▻	▻	▻	▻	▻	▻	▻	▻	▻
F: Other	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
E: Steam or Hot Water Radiators	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽
W: Free-Standing Stove	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾
W: Fireplace without an Insert	▿	▿	▿	▿	▿	▿	▿	▿	▿	▿	▿
O: No Heat	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾

Space-Heating Fuels: Systems and Equipment

Table F-34: Utility Type by Household Income

TYPE by Q186, Q188, Q189

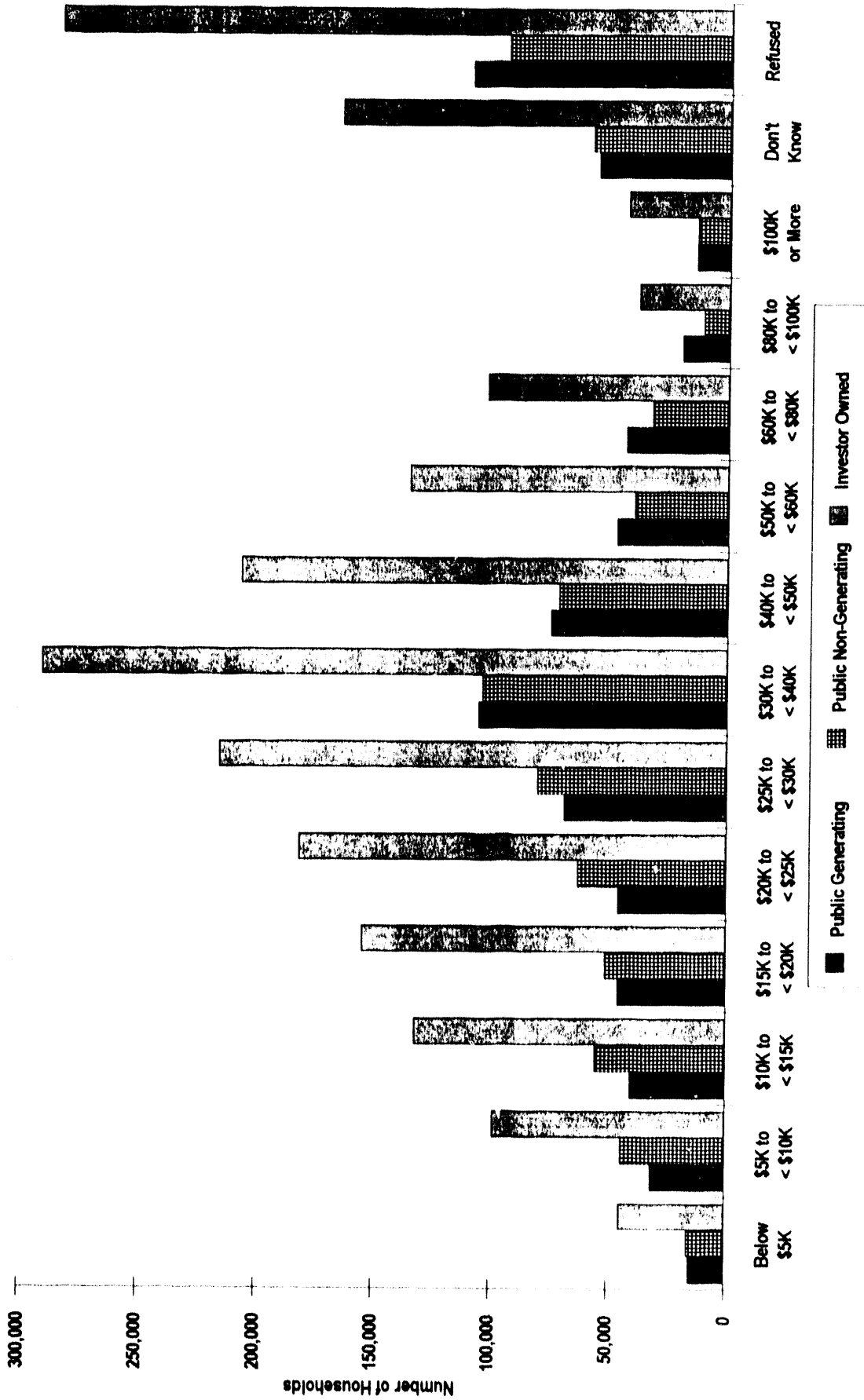
UTILITY TYPE	HOUSEHOLD INCOME														TOTAL									
	Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$35K	\$35K to < \$40K	\$40K to < \$45K	\$45K to < \$50K	\$50K to < \$55K	\$55K to < \$60K	\$60K to < \$65K	\$65K to < \$70K		\$70K to < \$75K	\$75K to < \$80K	\$80K to < \$85K	\$85K to < \$90K	\$90K to < \$95K	\$95K to < \$100K	Don't Know	Refused	
Public Generating	142	293	393	358	456	578	827	535	330	275	130	106	450	756										
Public Non-Generating	256	658	845	801	959	1,168	1,483	943	544	419	151	166	842	1,271										
Investor Owned	93	213	279	332	381	427	560	379	233	167	66	76	327	502										
TOTAL	491	1,164	1,517	1,491	1,796	2,173	2,870	1,857	1,107	861	347	348	1,619	2,529										

Weighted Data

UTILITY TYPE	HOUSEHOLD INCOME														TOTAL									
	Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$35K	\$35K to < \$40K	\$40K to < \$45K	\$45K to < \$50K	\$50K to < \$55K	\$55K to < \$60K	\$60K to < \$65K	\$65K to < \$70K		\$70K to < \$75K	\$75K to < \$80K	\$80K to < \$85K	\$85K to < \$90K	\$90K to < \$95K	\$95K to < \$100K	Don't Know	Refused	
Public Generating	14,846	31,483	40,533	45,844	45,759	68,788	105,614	75,067	47,128	43,357	19,941	14,074	55,873	109,851										
Public Non-Generating	15,799	44,060	55,335	51,225	62,952	80,271	103,894	71,419	39,852	32,399	10,988	13,849	58,663	94,460										
Investor Owned	44,712	98,805	132,407	154,840	181,891	215,829	291,114	206,833	135,360	102,298	38,528	43,246	165,289	284,334										
TOTAL	75,357	174,349	228,275	251,909	290,603	364,887	500,622	353,319	222,339	178,054	69,456	71,169	279,825	488,644										

Chart F-34: Utility Type by Household Income
 TYPE by Q186, Q188, Q189

Weighted Data



Utility Type

Table F-35: Space-Heating Fuels: Systems and Equipment by Household Income
 HEAT_EQP by Q186, Q188, Q189

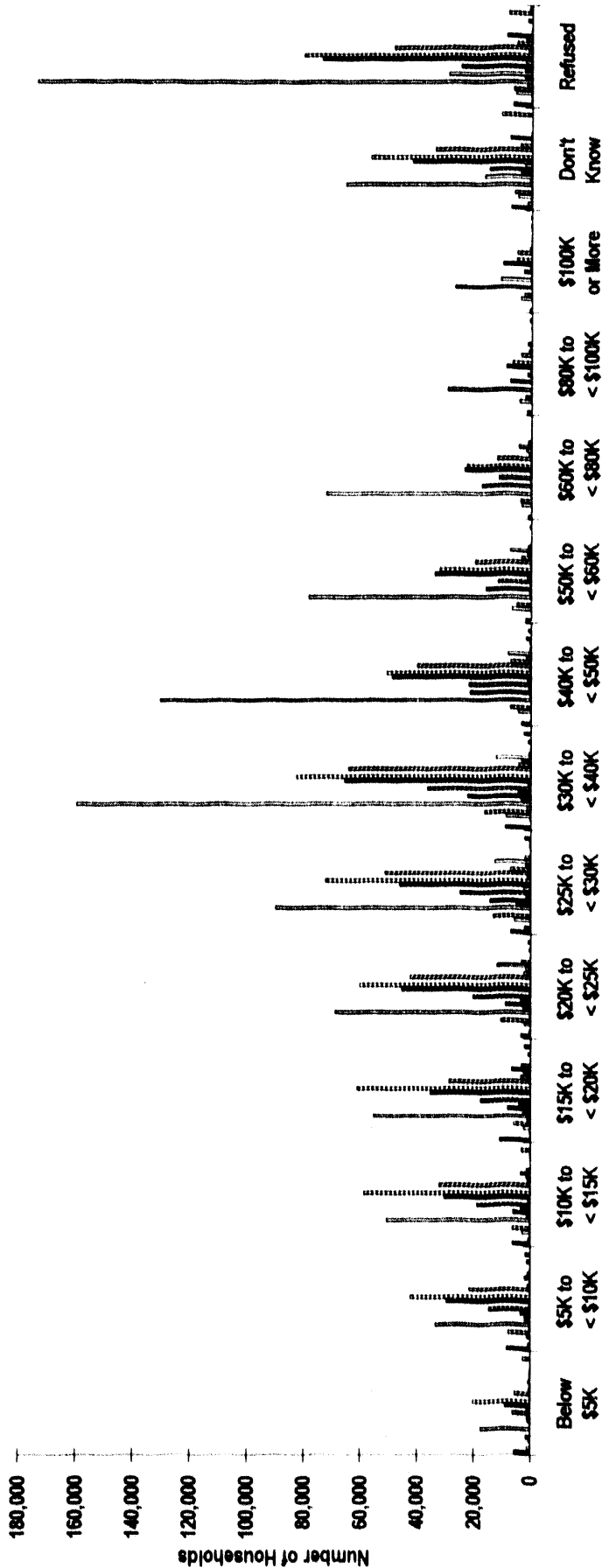
Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	HOUSEHOLD INCOME													TOTAL				
			Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$40K	\$40K to < \$50K	\$50K to < \$60K	\$60K to < \$80K	\$80K to < \$100K or More	Don't Know	Refused					
			33	38	42	37	21	34	35	17	9	8	7	1	36		36			
	Multi-Unit:	Central Heat - All Units	5	10	5	4	6	9	1	3	0	1	0	0	1	0	1	6	3	54
		Central Heat - Several Units Not Heated	0	0	2	2	0	1	1	0	0	0	0	0	0	0	0	3	2	11
	Fossil:	Steam or Hot Water Radiators	6	13	11	18	11	24	39	21	19	15	13	9	24	26	249			
		Wall, Floor, or Ceiling Units	7	35	40	23	39	43	47	25	10	10	6	6	26	35	352			
		Portable Units	0	6	3	5	7	4	9	0	0	1	1	0	2	4	42			
		Central Furnace	79	171	296	264	325	404	620	432	249	205	92	90	302	576	4,105			
		Other	4	8	13	11	14	15	11	5	4	1	0	1	6	19	112			
	Electricity:	Heat Pump	8	16	28	54	57	91	146	151	115	101	50	74	82	187	1,160			
		Portable Room Heaters	12	30	21	27	23	16	24	9	2	3	1	3	23	16	210			
		Radiant Panels	60	95	127	124	138	195	255	172	102	79	28	23	127	197	1,722			
		Steam or Hot Water Radiators	4	5	4	0	2	6	6	6	4	4	4	2	11	8	66			
		Central Furnace	57	189	220	228	297	342	524	341	232	179	68	69	275	484	3,505			
		Baseboard or Wall Units	123	303	364	337	389	422	498	296	169	122	40	30	323	437	3,853			
		Other	1	2	1	3	3	8	2	4	2	5	0	0	0	6	37			
	Wood:	Free-Standing Stove	62	189	257	250	351	390	474	249	119	76	18	23	244	346	3,048			
		Free-Standing Pellet Stove	4	6	10	22	21	39	36	37	15	12	4	4	28	26	264			
		Central Furnace	5	9	20	16	16	23	26	18	13	7	5	3	8	18	187			
		Fireplace with an Insert	8	12	24	49	44	74	86	46	28	23	6	3	44	50	497			
		Fireplace without an Insert	1	4	7	6	12	14	9	6	6	4	1	1	6	7	84			
	Other:	Solar	1	2	0	2	1	2	2	1	1	1	0	0	0	3	16			
		Geothermal	1	0	1	0	1	1	0	3	0	0	0	1	0	0	8			
		Other	0	5	1	2	4	6	7	9	0	2	1	2	2	9	50			
		No Heat	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4			
		Don't Know	10	16	18	7	14	8	11	6	8	2	2	2	41	32	177			
		Refused	0	0	0	0	0	0	1	0	0	0	0	0	0	2	3			
		TOTAL	491	1,164	1,517	1,491	1,796	2,173	2,870	1,857	1,107	861	347	348	1,619	2,529	20,170			

Table F-35: Space-Heating Fuels: Systems and Equipment by Household Income
HEAT_EQP by Q186, Q188, Q189

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	HOUSEHOLD INCOME												TOTAL				
		Below \$5K < \$10K	\$5K to \$10K < \$15K	\$15K to \$20K < \$25K	\$25K to \$30K < \$30K	\$30K to \$40K < \$40K	\$40K to \$50K < \$50K	\$50K to \$60K < \$60K	\$60K to \$80K < \$80K	\$80K to \$100K or More	Don't Know	Refused						
Multi-Unit:	Central Heat - All Units	5,527	8,127	6,207	10,822	3,349	7,020	8,834	3,452	2,038	0	54	1,178	1,629	841	7,178	6,543	72,746
	Central Heat - Several Units	1,219	740	761	263	571	2,122	36	140	0	0	0	0	0	30	1,524	476	7,937
	Unit Not Heated	0	0	70	441	0	70	415	0	0	0	0	0	0	0	473	387	1,856
Fossil:	Steam or Hot Water Radiators	596	1,155	2,691	2,387	2,164	5,590	8,562	4,283	6,531	3,412	3,412	4,137	3,683	4,832	4,832	5,534	55,558
	Wall, Floor, or Ceiling Units	1,567	7,540	6,057	5,730	10,319	13,157	16,232	7,103	5,045	3,850	2,143	2,143	2,638	5,923	5,923	6,308	93,611
	Portable Units	0	332	168	1,157	368	230	1,455	0	0	142	181	181	0	91	91	1,752	5,876
	Central Furnace	17,419	33,247	50,727	55,383	69,132	90,062	160,050	130,838	78,675	72,416	29,509	29,509	27,139	65,665	174,004	1,054,267	1,054,267
	Other	233	1,858	1,131	2,640	2,606	4,903	3,280	386	528	142	142	0	181	760	2,565	2,565	21,211
Electricity:	Heat Pump	1,041	1,978	5,919	7,850	8,780	14,426	22,488	21,612	15,931	17,575	7,382	10,723	16,456	29,345	16,456	29,345	181,506
	Portable Room Heaters	1,113	3,379	3,187	3,900	3,351	1,571	4,467	833	475	399	70	227	3,788	2,513	3,788	2,513	29,273
	Radiant Panels	6,157	14,542	18,866	17,682	20,469	25,084	36,473	22,109	11,577	11,331	1,628	2,701	14,947	25,000	14,947	25,000	228,568
	Steam or Hot Water Radiators	1,138	408	711	0	441	2,448	931	1,235	1,380	368	422	560	2,466	2,224	2,466	2,224	14,732
	Central Furnace	8,773	29,359	30,152	35,231	45,565	46,390	65,909	49,238	33,752	23,728	8,757	10,025	42,151	73,999	42,151	73,999	503,028
	Baseboard or Wall Units	20,197	42,428	58,784	61,337	60,293	72,507	82,810	50,922	32,000	22,888	6,590	6,590	5,191	56,651	80,673	80,673	653,271
	Other	54	250	54	100	280	1,079	100	612	441	286	0	0	0	0	1,384	1,384	4,641
Wood:	Free-Standing Stove	5,448	21,671	32,105	28,577	42,530	51,450	64,552	40,196	19,953	11,819	3,644	4,973	33,834	48,644	33,834	48,644	409,395
	Free-Standing Pellet Stove	499	1,031	1,032	3,334	2,470	7,029	4,192	6,879	3,387	927	911	735	4,011	5,189	4,011	5,189	41,626
	Central Furnace	211	267	1,409	2,296	1,517	1,727	3,275	1,535	1,349	1,739	371	178	477	2,076	477	2,076	18,426
	Fireplace with an Insert	722	2,001	3,452	6,526	11,612	12,482	12,157	8,019	7,421	4,389	1,310	248	7,506	8,696	7,506	8,696	86,541
	Fireplace without an Insert	333	947	1,301	3,075	3,109	1,931	840	630	1,184	1,104	36	142	441	437	441	437	15,511
Other:	Solar	415	178	0	157	54	181	235	54	70	108	0	0	0	0	0	130	1,584
	Geothermal	181	0	15	0	15	181	0	503	0	0	0	181	0	0	0	0	1,075
	Other	0	1,240	142	896	642	531	938	1,793	0	60	70	387	52	1,613	52	1,613	8,363
Don't Know	No Heat	0	0	100	0	0	485	0	0	0	0	0	0	0	0	0	0	585
	Don't Know	2,512	1,669	3,234	2,126	965	2,232	2,360	947	603	138	666	387	10,600	8,160	10,600	8,160	36,598
Refused	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	994	994	1,024
TOTAL	TOTAL	75,357	174,349	228,275	251,909	290,603	364,887	500,622	353,319	222,339	178,054	69,456	71,169	279,825	488,644	279,825	488,644	3,548,809

Chart F-35: Space-Heating Fuels: Systems and Equipment by Household Income
 HEAT_EQP by Q186, Q188, Q189

Weighted Data



- | | | | |
|------------------------------------|-----------------------------------|-------------------------------|-----------------------------------|
| ■ M: Central Heat - All Units | ■ M: Central Heat - Several Units | ■ M: Unit Not Heated | □ F: Steam or Hot Water Radiators |
| ▨ F: Wall, Floor, or Ceiling Units | □ F: Portable Units | □ F: Central Furnace | ■ F: Other |
| ▨ E: Heat Pump | ■ E: Portable Room Heaters | ■ E: Radiant Panels | □ E: Steam or Hot Water Radiators |
| ▨ E: Central Furnace | ▨ E: Baseboard or Wall Units | ▨ E: Other | ▨ W: Free-Standing Stove |
| ▨ W: Free-Standing Pellet Stove | ▨ W: Central Furnace | ▨ W: Fireplace with an Insert | ▨ W: Fireplace without an Insert |
| ■ O: Solar | □ O: Geothermal | □ O: Other | □ O: No Heat |
| ▨ Don't Know | ■ Refused | | |

Space-Heating Fuels: Systems and Equipment

Table F-36: Space-Heating Fuels: Systems and Equipment by Utility Type
HEAT_EQP by TYPE

Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	UTILITY TYPE			TOTAL
			Public Generating	Non-Generating	Public Investor Owned	
	Multi-Unit:	Central Heat - All Units	159	125	70	354
		Central Heat - Several Units	20	27	7	54
		Unit Not Heated	3	7	1	11
	Fossil:	Steam or Hot Water Radiators	65	109	75	249
		Wall, Floor, or Ceiling Units	90	140	122	352
		Portable Units	8	25	9	42
		Central Furnace	951	1,729	1,425	4,105
		Other	6	62	44	112
	Electricity:	Heat Pump	363	622	175	1,160
		Portable Room Heaters	74	109	27	210
		Radiant Panels	755	756	211	1,722
		Steam or Hot Water Radiators	22	27	17	66
		Central Furnace	1,185	1,854	466	3,505
		Baseboard or Wall Units	1,415	1,914	524	3,853
		Other	14	18	5	37
	Wood:	Free-Standing Stove	266	2,193	589	3,048
		Free-Standing Pellet Stove	30	173	61	264
		Central Furnace	16	145	26	187
		Fireplace with an Insert	91	298	108	497
		Fireplace without an Insert	16	48	20	84
	Other:	Solar	2	11	3	16
		Geothermal	0	3	5	8
		Other	11	29	10	50
		No Heat	1	2	1	4
		Don't Know	64	80	33	177
		Refused	2	0	1	3
		TOTAL	5,629	10,506	4,035	20,170

Table F-36: Space-Heating Fuels: Systems and Equipment by Utility Type
HEAT_EQP by TYPE

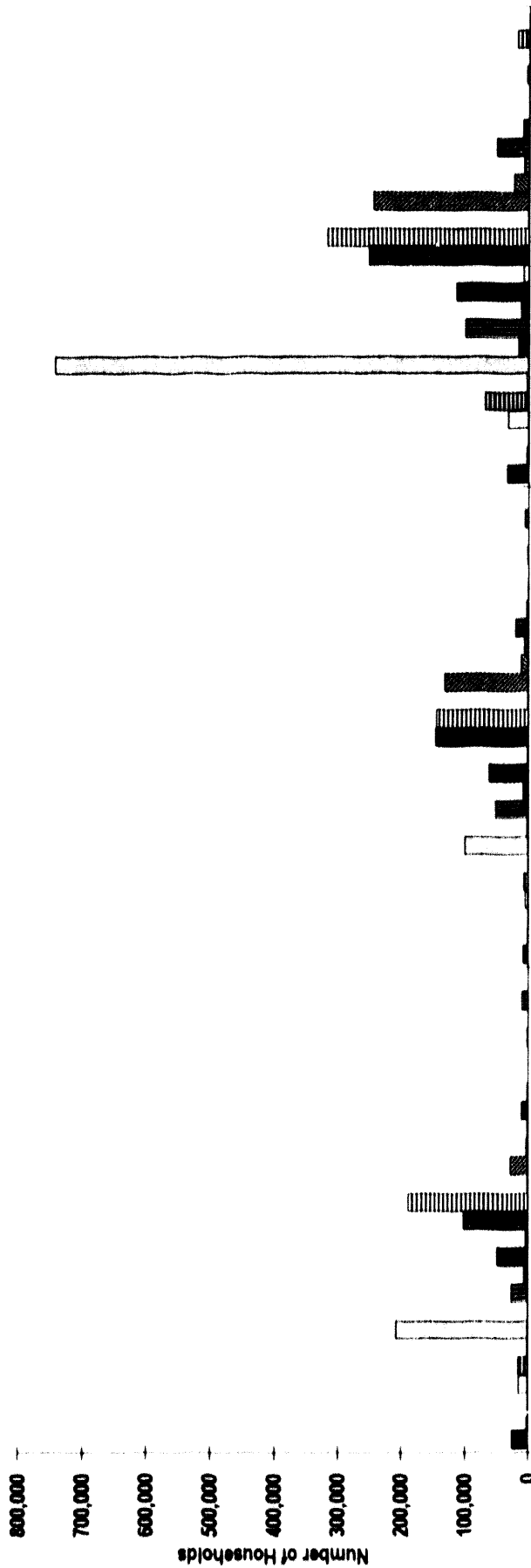
Weighted Data

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	UTILITY TYPE			TOTAL
		Public Generating	Public Non-Generating	Investor Owned	
Multi-Unit:	Central Heat - All Units	27,467	8,856	36,423	72,746
	Central Heat - Several Units	2,416	1,718	3,803	7,937
	Unit Not Heated	998	442	415	1,856
		15,572	5,533	34,453	55,558
Fossil:	Steam or Hot Water Radiators	16,621	7,526	69,464	93,611
	Wall, Floor, or Ceiling Units	1,450	1,265	3,141	5,876
	Portable Units	208,021	100,368	745,878	1,054,267
	Central Furnace	785	2,819	17,607	21,211
	Other	28,128	52,812	100,566	181,506
Electricity:	Heat Pump	7,364	8,620	13,289	29,273
	Portable Room Heaters	50,392	62,818	115,357	228,568
	Radiant Panels	4,294	1,958	8,480	14,732
	Steam or Hot Water Radiators	102,176	147,249	253,803	503,028
	Central Furnace	189,579	145,521	318,172	653,271
	Baseboard or Wall Units	1,327	1,640	1,674	4,641
	Other	30,375	132,474	246,546	409,395
	Free-Standing Stove	3,622	12,020	25,984	41,626
	Free-Standing Pellet Stove	1,994	7,220	9,211	18,426
	Central Furnace	11,137	22,024	53,320	86,541
Other:	Fireplace with an Insert	1,691	3,336	10,484	15,511
	Fireplace without an Insert	60	783	741	1,584
	Solar	0	172	903	1,075
	Geothermal	2,146	1,964	4,253	8,363
	Other	30	140	415	585
	No Heat	10,393	5,867	20,338	36,598
	Don't Know Refused	60	0	964	1,024
TOTAL	718,158	735,166	2,095,485	3,548,809	

Chart F-36: Space-Heating Fuels: Systems and Equipment by Utility Type

HEAT_EQP by TYPE

Weighted Data



Public Generating		Public Non-Generating		Investor Owned	
■	M: Central Heat - All Units	■	M: Central Heat - Several Units	□	F: Steam or Hot Water Radiators
▨	F: Wall, Floor, or Ceiling Units	□	F: Portable Units	■	F: Other
▩	E: Heat Pump	■	E: Portable Room Heaters	□	E: Steam or Hot Water Radiators
▧	E: Central Furnace	▨	E: Baseboard or Wall Units	▩	W: Free-Standing Stove
▦	W: Free-Standing Pellet Stove	▧	W: Central Furnace	■	W: Fireplace without an Insert
■	O: Solar	□	O: Geothermal	□	O: No Heat
▨	Don't Know	■	Refused		

Space-Heating Fuels: Systems and Equipment

PNWRES92-I Primary Documentation Series

- Book 1: Volumes A and B.** The Executive Summary, the Concordance, and the Glossary (A) and the Report on Methodology and the Technical Appendix (B).
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- Book 3: Volume D.** Item-by-item crosstabulations for the four Bonneville Area Offices (Puget Sound, Lower Columbia, Upper Columbia, and Snake River).
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- Book 10: Volumes Z, AA, AB, and AC.** Selected crosstabulations for the four states served by Bonneville: Washington (Z), Oregon (AA), Idaho (AB), and Western Montana (AC).
- Book 11: Volumes AD, AE, and AF.** Selected crosstabulations for the three categories of utilities in the Pacific Northwest: Public Generating (AD), Public Non-Generating (AE), and Investor-Owned (AF).
- Book 12: Volume AG.** A report of a post-survey of PNWRES92-I non-respondents (conducted in late Spring 1993) and their reason(s) for not completing the original survey.

END

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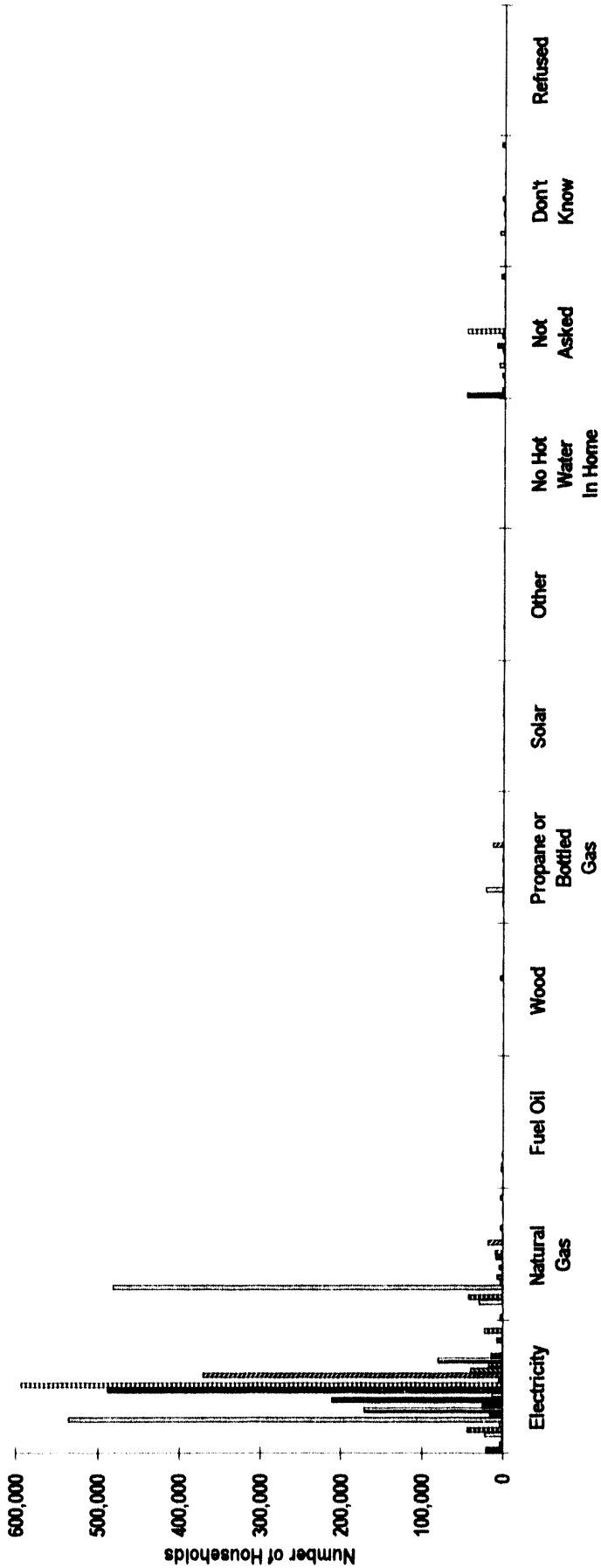
Table F-33: Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type
HEAT_EQP by Q102

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	PRIMARY WATER-HEATING FUEL TYPE											TOTAL
		Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Asked	Don't Know	Refused	
Multi-Unit:	Central Heat - All Units	21,212	3,241	475	0	54	0	54	0	47,010	701	0	72,746
	Central Heat - Several Units	4,471	15	0	0	0	0	0	0	3,450	0	0	7,937
	Unit Not Heated	1,175	0	0	0	0	0	0	0	681	0	0	1,856
Fossil:	Steam or Hot Water Radiators	21,993	28,984	2,399	0	1,126	108	0	0	810	138	0	55,558
	Wall, Floor, or Ceiling Units	44,033	42,318	2,260	0	842	0	0	0	3,242	916	0	93,611
	Portable Units	3,857	1,002	0	0	962	0	0	0	54	0	0	5,876
	Central Furnace	536,267	481,325	1,478	0	21,575	193	368	108	6,669	6,284	0	1,054,267
	Other	15,726	3,371	0	347	420	0	0	0	1,167	181	0	21,211
Electricity:	Heat Pump	171,867	7,645	0	106	108	362	145	0	1,274	0	0	181,506
	Portable Room Heaters	24,805	347	0	54	823	66	0	0	2,673	503	0	29,273
	Radiant Panels	211,287	4,612	0	54	534	421	0	0	9,719	1,941	0	228,568
	Steam or Hot Water Radiators	13,430	979	0	0	0	0	0	0	124	199	0	14,732
	Central Furnace	488,629	8,793	0	178	1,197	106	0	0	3,189	936	0	503,028
	Baseboard or Wall Units	593,960	9,616	0	36	474	30	30	0	46,022	3,103	0	653,271
	Other	4,611	30	0	0	0	0	0	0	0	0	0	4,641
	Free-Standing Stove	370,879	18,554	0	4,354	13,287	1,024	0	368	784	145	0	409,395
	Free-Standing Pellet Stove	39,591	585	36	473	54	841	0	0	15	30	0	41,626
	Central Furnace	17,523	245	0	516	106	36	0	0	0	0	0	18,426
Other:	Fireplace with an Insert	80,441	3,653	142	490	728	542	108	0	256	181	0	86,541
	Fireplace without an Insert	14,838	91	0	0	250	0	0	0	332	0	0	15,511
Geothermal	Solar	704	0	0	0	108	772	0	0	0	0	0	1,584
	Geothermal	353	181	0	0	0	361	0	0	181	0	0	1,075
	Other	7,722	174	0	0	36	0	431	0	0	0	0	8,363
	No Heat	555	30	0	0	0	0	0	0	0	0	0	585
Don't Know	Don't Know	22,791	3,744	54	108	372	0	70	142	5,034	4,284	0	36,598
	Refused	60	964	0	0	0	0	0	0	0	0	0	1,024
TOTAL		2,712,779	620,496	6,843	6,718	43,059	4,863	1,206	618	132,686	19,541	0	3,548,809

Chart F-33: Space-Heating Fuels: Systems and Equipment by Primary Water-Heating Fuel Type

HEAT_EQP by Q102

Weighted Data



Equipment Type	Electricity	Natural Gas	Fuel Oil	Wood	Propane or Bottled Gas	Solar	Other	No Hot Water In Home	Not Asked	Don't Know	Refused
M: Central Heat - All Units	█	█	█	█	█	█	█	█	█	█	█
F: Wall, Floor, or Ceiling Units	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
E: Heat Pump	▩	▩	▩	▩	▩	▩	▩	▩	▩	▩	▩
E: Central Furnace	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
W: Free-Standing Pellet Stove	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
O: Solar	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
Don't Know	▭	▭	▭	▭	▭	▭	▭	▭	▭	▭	▭
M: Central Heat - Several Units	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮
F: Portable Units	▯	▯	▯	▯	▯	▯	▯	▯	▯	▯	▯
E: Portable Room Heaters	▰	▰	▰	▰	▰	▰	▰	▰	▰	▰	▰
E: Baseboard or Wall Units	▱	▱	▱	▱	▱	▱	▱	▱	▱	▱	▱
W: Central Furnace	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
O: Geothermal	△	△	△	△	△	△	△	△	△	△	△
Refused	▴	▴	▴	▴	▴	▴	▴	▴	▴	▴	▴
M: Unit Not Heated	▵	▵	▵	▵	▵	▵	▵	▵	▵	▵	▵
F: Central Furnace	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
E: Radiant Panels	▷	▷	▷	▷	▷	▷	▷	▷	▷	▷	▷
E: Other	▸	▸	▸	▸	▸	▸	▸	▸	▸	▸	▸
W: Fireplace with an Insert	▹	▹	▹	▹	▹	▹	▹	▹	▹	▹	▹
O: Other	►	►	►	►	►	►	►	►	►	►	►
F: Steam or Hot Water Radiators	▻	▻	▻	▻	▻	▻	▻	▻	▻	▻	▻
F: Other	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
E: Steam or Hot Water Radiators	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽
W: Free-Standing Stove	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾
W: Fireplace without an Insert	▿	▿	▿	▿	▿	▿	▿	▿	▿	▿	▿
O: No Heat	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾	▾

Space-Heating Fuels: Systems and Equipment

Table F-34: Utility Type by Household Income

TYPE by Q186, Q188, Q189

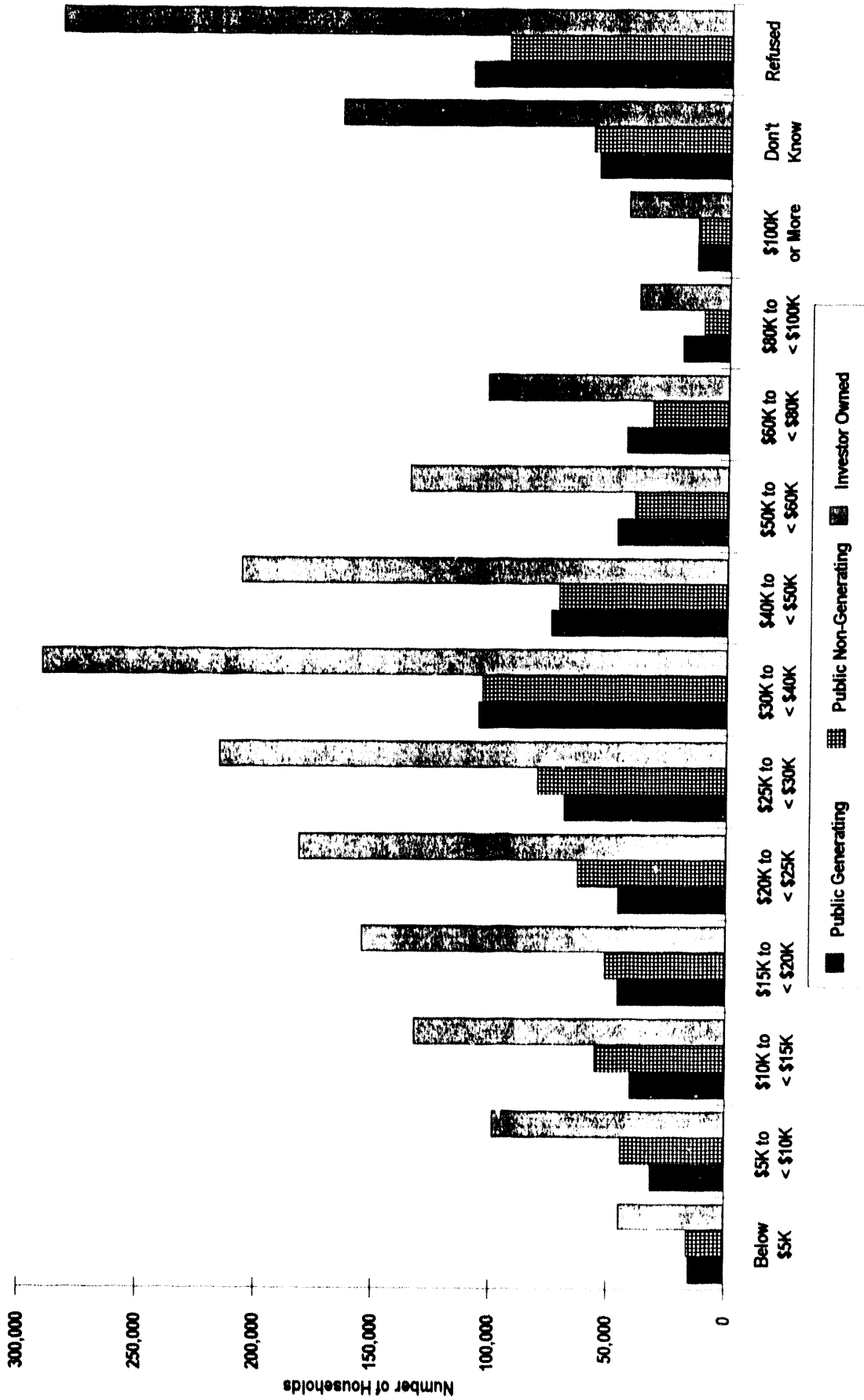
UTILITY TYPE	HOUSEHOLD INCOME													TOTAL	
	Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$40K	\$40K to < \$50K	\$50K to < \$60K	\$60K to < \$80K	\$80K to < \$100K or More	Don't Know	Refused		
Public Generating	142	293	393	358	456	578	827	535	330	275	130	106	450	756	
Public Non-Generating	256	658	845	801	959	1,168	1,483	943	544	419	151	166	842	1,271	
Investor Owned	93	213	279	332	381	427	560	379	233	167	66	76	327	502	
TOTAL	491	1,164	1,517	1,491	1,796	2,173	2,870	1,857	1,107	861	347	348	1,619	2,529	20,170

Weighted Data

UTILITY TYPE	HOUSEHOLD INCOME													TOTAL	
	Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$40K	\$40K to < \$50K	\$50K to < \$60K	\$60K to < \$80K	\$80K to < \$100K or More	Don't Know	Refused		
Public Generating	14,846	31,483	40,533	45,844	45,759	68,788	105,614	75,067	47,128	43,357	19,941	14,074	55,873	109,851	
Public Non-Generating	15,799	44,060	55,335	51,225	62,952	80,271	103,894	71,419	39,852	32,399	10,988	13,849	58,663	94,460	
Investor Owned	44,712	98,805	132,407	154,840	181,891	215,829	291,114	206,833	135,360	102,298	38,528	43,246	165,289	284,334	
TOTAL	75,357	174,349	228,275	251,909	290,603	364,887	500,622	353,319	222,339	178,054	69,456	71,169	279,825	488,644	3,548,809

Chart F-34: Utility Type by Household Income
 TYPE by Q186, Q188, Q189

Weighted Data



Utility Type

Table F-35: Space-Heating Fuels: Systems and Equipment by Household Income
 HEAT_EQP by Q186, Q188, Q189

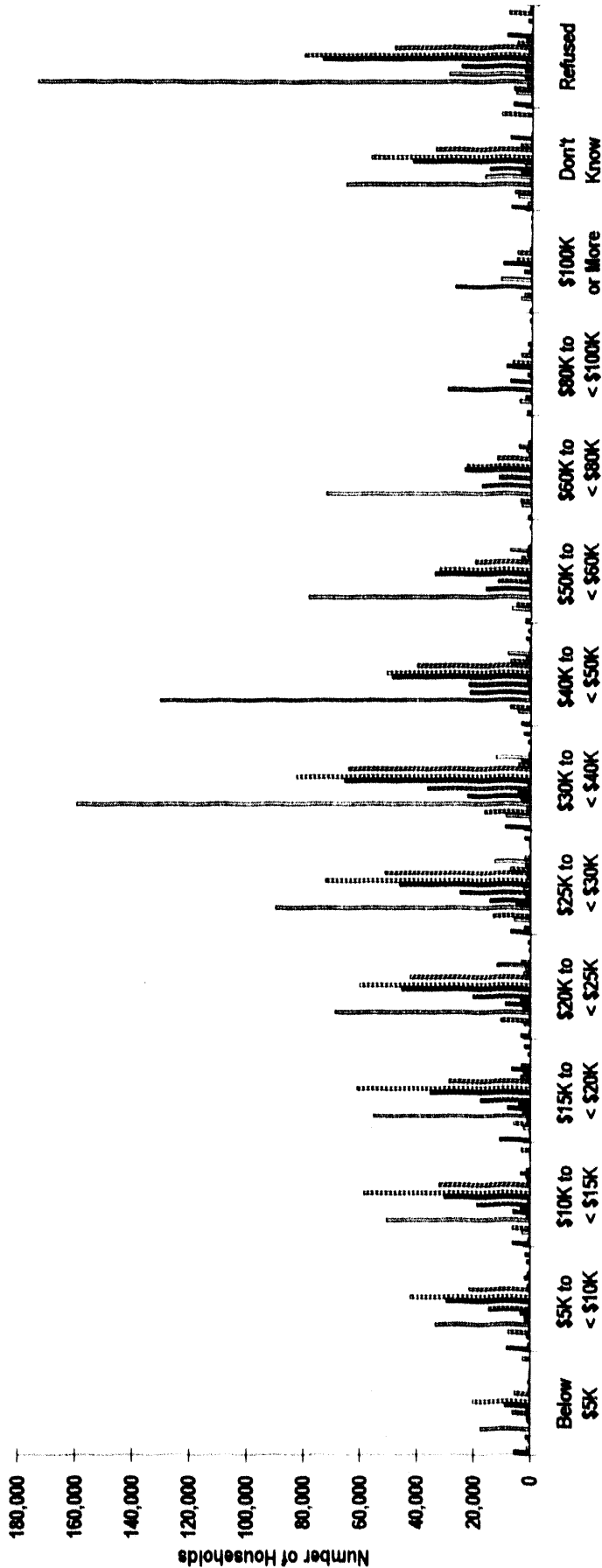
Raw Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	HOUSEHOLD INCOME													TOTAL				
			Below \$5K	\$5K to < \$10K	\$10K to < \$15K	\$15K to < \$20K	\$20K to < \$25K	\$25K to < \$30K	\$30K to < \$40K	\$40K to < \$50K	\$50K to < \$60K	\$60K to < \$80K	\$80K to < \$100K or More	Don't Know	Refused					
			33	38	42	37	21	34	35	17	9	8	7	1	36		36			
	Multi-Unit:	Central Heat - All Units	5	10	5	4	6	9	1	3	0	1	0	0	1	0	1	6	3	54
		Central Heat - Several Units Not Heated	0	0	2	2	0	1	1	0	0	0	0	0	0	0	0	3	2	11
	Fossil:	Steam or Hot Water Radiators	6	13	11	18	11	24	39	21	19	15	13	9	24	26	249	249	249	
		Wall, Floor, or Ceiling Units	7	35	40	23	39	43	47	25	10	10	6	6	26	35	352	352	352	
		Portable Units	0	6	3	5	7	4	9	0	0	1	1	0	2	4	42	42	42	
		Central Furnace	79	171	296	264	325	404	620	432	249	205	92	90	302	576	4,105	4,105	4,105	
		Other	4	8	13	11	14	15	11	5	4	1	0	1	6	19	112	112	112	
	Electricity:	Heat Pump	8	16	28	54	57	91	146	151	115	101	50	74	82	187	1,160	1,160	1,160	
		Portable Room Heaters	12	30	21	27	23	16	24	9	2	3	1	3	23	16	210	210	210	
		Radiant Panels	60	95	127	124	138	195	255	172	102	79	28	23	127	197	1,722	1,722	1,722	
		Steam or Hot Water Radiators	4	5	4	0	2	6	6	6	4	4	4	2	11	8	66	66	66	
		Central Furnace	57	189	220	228	297	342	524	341	232	179	68	69	275	484	3,505	3,505	3,505	
		Baseboard or Wall Units	123	303	364	337	389	422	498	296	169	122	40	30	323	437	3,853	3,853	3,853	
		Other	1	2	1	3	3	8	2	4	2	5	0	0	0	6	37	37	37	
	Wood:	Free-Standing Stove	62	189	257	250	351	390	474	249	119	76	18	23	244	346	3,048	3,048	3,048	
		Free-Standing Pellet Stove	4	6	10	22	21	39	36	37	15	12	4	4	28	26	264	264	264	
		Central Furnace	5	9	20	16	16	23	26	18	13	7	5	3	8	18	187	187	187	
		Fireplace with an Insert	8	12	24	49	44	74	86	46	28	23	6	3	44	50	497	497	497	
		Fireplace without an Insert	1	4	7	6	12	14	9	6	6	4	1	1	6	7	84	84	84	
	Other:	Solar	1	2	0	2	1	2	2	1	1	1	0	0	0	3	16	16	16	
		Geothermal	1	0	1	0	1	1	0	3	0	0	0	1	0	0	8	8	8	
		Other	0	5	1	2	4	6	7	9	0	2	1	2	2	9	50	50	50	
		No Heat	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	4	4	
		Don't Know	10	16	18	7	14	8	11	6	8	2	2	2	41	32	177	177	177	
		Refused	0	0	0	0	0	0	1	0	0	0	0	0	0	2	3	3	3	
		TOTAL	491	1,164	1,517	1,491	1,796	2,173	2,870	1,857	1,107	861	347	348	1,619	2,529	20,170	20,170	20,170	

Table F-35: Space-Heating Fuels: Systems and Equipment by Household Income
HEAT_EQP by Q186, Q188, Q189

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	HOUSEHOLD INCOME													TOTAL	
		Below \$5K < \$10K	\$5K to \$10K < \$15K	\$15K to \$20K < \$25K	\$25K to \$30K < \$40K	\$40K to \$50K < \$60K	\$60K to \$80K < \$100K	\$80K to \$100K or More	Don't Know	Refused						
Multi-Unit:	Central Heat - All Units	5,527	8,127	6,207	10,822	3,349	7,020	8,834	3,452	2,038	1,178	1,629	841	7,178	6,543	72,746
	Central Heat - Several Units	1,219	740	761	263	571	2,122	36	140	0	54	0	30	1,524	476	7,937
	Unit Not Heated	0	0	70	441	0	70	415	0	0	0	0	0	473	387	1,856
Fossil:	Steam or Hot Water Radiators	596	1,155	2,691	2,387	2,164	5,590	8,562	4,283	6,531	3,412	4,137	3,683	4,832	5,534	55,558
	Wall, Floor, or Ceiling Units	1,567	7,540	6,057	5,730	10,319	13,157	16,232	7,103	5,045	3,850	2,143	2,638	5,923	6,308	93,611
	Portable Units	0	332	168	1,157	368	230	1,455	0	0	142	181	0	91	1,752	5,876
	Central Furnace	17,419	33,247	50,727	55,383	69,132	90,062	160,050	130,838	78,675	72,416	29,509	27,139	65,665	174,004	1,054,267
	Other	233	1,858	1,131	2,640	2,606	4,903	3,280	386	528	142	0	181	760	2,565	21,211
Electricity:	Heat Pump	1,041	1,978	5,919	7,850	8,780	14,426	22,488	21,612	15,931	17,575	7,382	10,723	16,456	29,345	181,506
	Portable Room Heaters	1,113	3,379	3,187	3,900	3,351	1,571	4,467	833	475	399	70	227	3,788	2,513	29,273
	Radiant Panels	6,157	14,542	18,866	17,682	20,469	25,084	36,473	22,109	11,577	11,331	1,628	2,701	14,947	25,000	228,568
	Steam or Hot Water Radiators	1,138	408	711	0	441	2,448	931	1,235	1,380	368	422	560	2,466	2,224	14,732
	Central Furnace	8,773	29,359	30,152	35,231	45,565	46,390	65,909	49,238	33,752	23,728	8,757	10,025	42,151	73,999	503,028
	Baseboard or Wall Units	20,197	42,428	58,784	61,337	60,293	72,507	82,810	50,922	32,000	22,888	6,590	5,191	56,651	80,673	653,271
	Other	54	250	54	100	280	1,079	100	612	441	286	0	0	0	1,384	4,641
Wood:	Free-Standing Stove	5,448	21,671	32,105	28,577	42,530	51,450	64,552	40,196	19,953	11,819	3,644	4,973	33,834	48,644	409,395
	Free-Standing Pellet Stove	499	1,031	1,032	3,334	2,470	7,029	4,192	6,879	3,387	927	911	735	4,011	5,189	41,626
	Central Furnace	211	267	1,409	2,296	1,517	1,727	3,275	1,535	1,349	1,739	371	178	477	2,076	18,426
	Fireplace with an Insert	722	2,001	3,452	6,526	11,612	12,482	12,157	8,019	7,421	4,389	1,310	248	7,506	8,696	86,541
	Fireplace without an Insert	333	947	1,301	3,075	3,109	1,931	840	630	1,184	1,104	36	142	441	437	15,511
Other:	Solar	415	178	0	157	54	181	235	54	70	108	0	0	0	130	1,584
	Geothermal	181	0	15	0	15	181	0	503	0	0	0	181	0	0	1,075
	Other	0	1,240	142	896	642	531	938	1,793	0	60	70	387	52	1,613	8,363
	No Heat	0	0	100	0	0	485	0	0	0	0	0	0	0	0	585
Don't Know Refused	Don't Know	2,512	1,669	3,234	2,126	965	2,232	2,360	947	603	138	666	387	10,600	8,160	36,598
	Refused	0	0	0	0	0	0	30	0	0	0	0	0	0	994	1,024
TOTAL		75,357	174,349	228,275	251,909	290,603	364,887	500,622	353,319	222,339	178,054	69,456	71,169	279,825	488,644	3,548,809

Chart F-35: Space-Heating Fuels: Systems and Equipment by Household Income
 HEAT_EQP by Q186, Q188, Q189

Weighted Data



■ M: Central Heat - All Units	■ M: Central Heat - Several Units	■ M: Unit Not Heated	□ F: Steam or Hot Water Radiators
▨ F: Wall, Floor, or Ceiling Units	□ F: Portable Units	□ F: Central Furnace	■ F: Other
▨ E: Heat Pump	■ E: Portable Room Heaters	■ E: Radiant Panels	□ E: Steam or Hot Water Radiators
▨ E: Central Furnace	▨ E: Baseboard or Wall Units	▨ E: Other	▨ W: Free-Standing Stove
▨ W: Free-Standing Pellet Stove	▨ W: Central Furnace	▨ W: Fireplace with an Insert	▨ W: Fireplace without an Insert
■ O: Solar	□ O: Geothermal	□ O: Other	□ O: No Heat
▨ Don't Know	■ Refused		

Space-Heating Fuels: Systems and Equipment

Table F-36: Space-Heating Fuels: Systems and Equipment by Utility Type
HEAT_EQP by TYPE

SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	UTILITY TYPE			TOTAL
		Public Generating	Public Non-Generating	Investor Owned	
Multi-Unit:	Central Heat - All Units	159	125	70	354
	Central Heat - Several Units	20	27	7	54
	Unit Not Heated	3	7	1	11
Fossil:	Steam or Hot Water Radiators	65	109	75	249
	Wall, Floor, or Ceiling Units	90	140	122	352
	Portable Units	8	25	9	42
	Central Furnace	951	1,729	1,425	4,105
	Other	6	62	44	112
Electricity:	Heat Pump	363	622	175	1,160
	Portable Room Heaters	74	109	27	210
	Radiant Panels	755	756	211	1,722
	Steam or Hot Water Radiators	22	27	17	66
	Central Furnace	1,185	1,854	466	3,505
	Baseboard or Wall Units	1,415	1,914	524	3,853
	Other	14	18	5	37
	Free-Standing Stove	266	2,193	589	3,048
	Free-Standing Pellet Stove	30	173	61	264
	Central Furnace	16	145	26	187
Other:	Fireplace with an Insert	91	298	108	497
	Fireplace without an Insert	16	48	20	84
	Solar	2	11	3	16
	Geothermal	0	3	5	8
	Other	11	29	10	50
	No Heat	1	2	1	4
	Don't Know	64	80	33	177
	Refused	2	0	1	3
	TOTAL	5,629	10,506	4,035	20,170

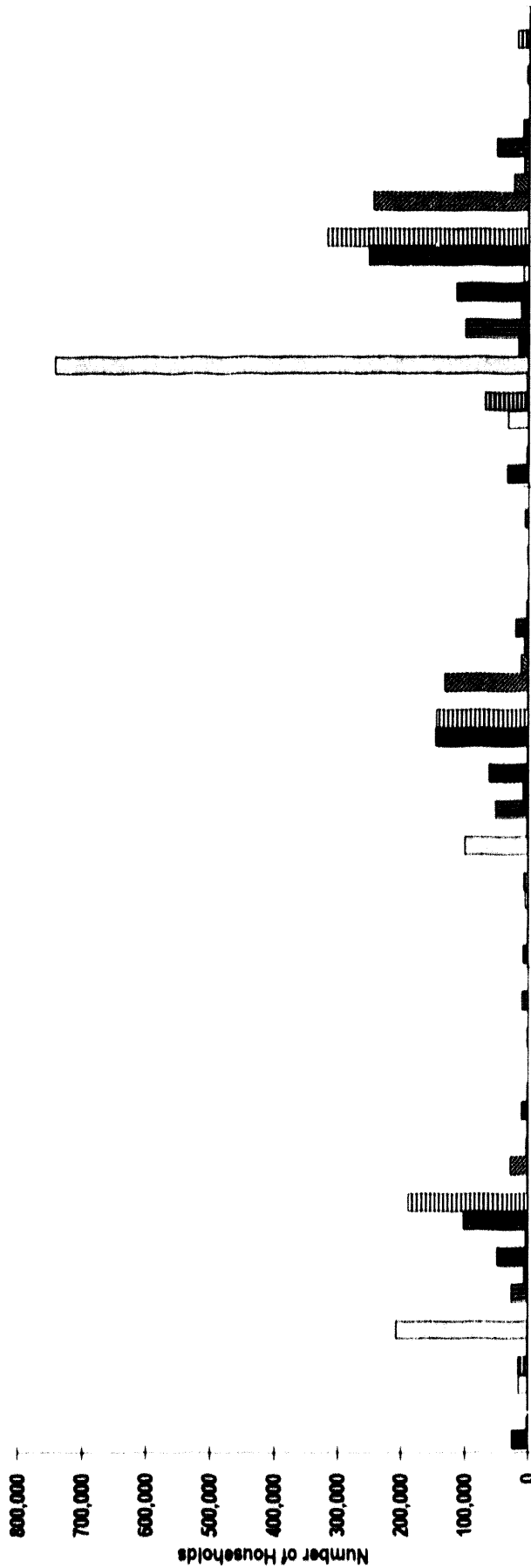
Table F-36: Space-Heating Fuels: Systems and Equipment by Utility Type
HEAT_EQP by TYPE

Weighted Data	SPACE-HEATING FUELS:	SYSTEMS AND EQUIPMENT	UTILITY TYPE				TOTAL
			Public		Investor Owned		
			Generating	Non-Generating	Generating	Owned	
	Multi-Unit:	Central Heat - All Units	27,467	8,856	36,423	72,746	
		Central Heat - Several Units Unit Not Heated	2,416	1,718	3,803	7,937	
			998	442	415	1,856	
	Fossil:	Steam or Hot Water Radiators	15,572	5,533	34,453	55,558	
		Wall, Floor, or Ceiling Units	16,621	7,526	69,464	93,611	
		Portable Units	1,450	1,265	3,141	5,876	
		Central Furnace	208,021	100,368	745,878	1,054,267	
		Other	785	2,819	17,607	21,211	
	Electricity:	Heat Pump	28,128	52,812	100,566	181,506	
		Portable Room Heaters	7,364	8,620	13,289	29,273	
		Radiant Panels	50,392	62,818	115,357	228,568	
		Steam or Hot Water Radiators	4,294	1,958	8,480	14,732	
		Central Furnace	102,176	147,249	253,803	503,028	
		Baseboard or Wall Units	189,579	145,521	318,172	653,271	
		Other	1,327	1,640	1,674	4,641	
	Wood:	Free-Standing Stove	30,375	132,474	246,546	409,395	
		Free-Standing Pellet Stove	3,622	12,020	25,984	41,626	
		Central Furnace	1,994	7,220	9,211	18,426	
		Fireplace with an Insert	11,137	22,024	53,320	86,541	
		Fireplace without an Insert	1,691	3,336	10,484	15,511	
	Other:	Solar	60	783	741	1,584	
		Geothermal	0	172	903	1,075	
		Other	2,146	1,964	4,253	8,363	
		No Heat	30	140	415	585	
		Don't Know	10,393	5,867	20,338	36,598	
		Refused	60	0	964	1,024	
		TOTAL	718,158	735,166	2,095,485	3,548,809	

Chart F-36: Space-Heating Fuels: Systems and Equipment by Utility Type

HEAT_EQP by TYPE

Weighted Data



Public Generating		Public Non-Generating		Investor Owned	
■	M: Central Heat - All Units	■	M: Central Heat - Several Units	□	F: Steam or Hot Water Radiators
▨	F: Wall, Floor, or Ceiling Units	□	F: Portable Units	■	F: Other
▩	E: Heat Pump	■	E: Portable Room Heaters	□	E: Steam or Hot Water Radiators
▧	E: Central Furnace	▨	E: Baseboard or Wall Units	▩	W: Free-Standing Stove
▦	W: Free-Standing Pellet Stove	▧	W: Central Furnace	■	W: Fireplace without an Insert
■	O: Solar	□	O: Geothermal	□	O: No Heat
▨	Don't Know	■	Refused		

Space-Heating Fuels: Systems and Equipment

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