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A POPULATION ESTIMATION METHOD

The CPUC is interested in obtaining estimates of the number of households eligible for the CARE and LIEE programs, at the state level, for individual utility company service territories, and for smaller geographic areas. These estimates are needed to measure the progress of individual utility companies in enrolling all eligible households for the CARE and LIEE programs.

In this Appendix, we furnish detailed information on the procedures for developing the population estimates presented in Section 5. In addition, we compare the estimates in this report with other estimates, including estimates developed from the Current Population Survey (CPS) and estimates developed by Athens Research for the Joint Utilities.

While the estimation procedure used in this study is different from that used by the Joint Utilities, it is important to acknowledge that the procedure borrows heavily from the work done by Athens Research for the Joint Utilities. It is our assessment that the Athens Research procedure is a well designed and carefully implemented estimation procedure that meets the requirements set by the CPUC.

Our method attempts to enhance the procedure designed by Athens Research in a way that we believe can furnish better estimates for geographic areas independent of utility boundaries and that we believe can furnish better estimates for certain customer types and areas within utility boundaries.

A.1 CARE AND LIEE PROGRAM ELIGIBILITY

The following conditions must be met for an individual household to be eligible for the CARE program:

- The household must have income at or below the CARE income standard for its household size. [Income Eligibility]
- The household must have an account with a regulated utility or the household must pay an energy bill based on submetering to an entity that has an account with a regulated utility. [Program Eligibility]

Table A-1 shows the CARE income eligibility guidelines for program year 2003-2004.

Table A-1
Care Income Limits by Household Size
Program Year 2003–2004

Household Size	Income Limit	Percent of Poverty*
1	$23,000	250%
2	$23,000	190%
3	$27,000	175%
4	$32,500	175%
5	$38,000	175%
6+	$43,500	175%

* The percent of poverty goal for the CARE income guideline is 250% for 1-person households, 190% for 2-person households, and 175% for households with 3 or more members. However, the CARE income limits are rounded and may represent a higher percentage of poverty.

The following conditions must be met for an individual household to be eligible for LIEE:

- The household must have income at or below the LIEE income standard for its household size and age/disability status. [Note: LIEE income standards are higher than CARE income standards for households with an elderly or disabled head.]
- The household must have an account with a regulated utility, must pay an energy bill based on submetering to an entity that has an account with a regulated utility, or must live in a master-metered housing unit where more than a certain share of the households have incomes below the LIEE standard. [Program Eligibility]

Table A-2 shows the LIEE income eligibility guidelines for elderly and disabled households for program year 2003-2004. The LIEE income eligibility guidelines for other households are the same as the CARE income eligibility guidelines.

Table A-2
LIEE Income Limits by Household Size for Elderly and Disabled Households
Program Year 2003 – 2004

Household Size	Income Limit	Percent of Poverty*
1	$26,300	290%
2	$26,300	215%
3	$30,900	200%
4	$37,200	200%
5	$43,500	200%
6+	$49,800	200%

* The percent of poverty goal for the LIEE income guideline for elderly and disabled households is 290% for 1-person households, 215% for 2-person households, and 200% for households with 3 or more members. However, the LIEE income limits are rounded and may represent a higher percentage of poverty.

A.2 DATA SOURCES

A.2.1 Data Needed for CARE Estimates for the 2003-2004 Program Year

To make estimates of the number of households that are eligible for the CARE program, we need two pieces of information. First, we need to know the number of households that have income at or below the CARE income limits. Second, we need to know the number of households that pay a utility bill, either directly to the utility or based on submetering.

Utility companies have information on the number of residential customers in their service territories. However, they do not have information on customers that would allow them to determine the number of residential customers that are income-eligible for their programs. So, other data sources must be used to make those estimates.

The 2000 Census furnishes the best source of information for making estimates of the CARE eligible population for the 1999 - 2000 program year. The Census has the following data for each household that completed the Census long form: income for 1999, the type of energy bills the household paid, and the amount the household paid for energy.

However, the Census data will not updated until 2010. Therefore, another data source is needed to update these estimates to 2003. There are no public data sources that update the Census information at the geographic level required for this analysis. Therefore, one must use data from a commercial data vendor. For purposes of this study, data was purchased from Claritas.

A.2.2 Data Needed for LIEE Estimates for the 2003-2004 Program Year

To make estimates of the number of households that are eligible for the LIEE program, we need two pieces of information for elderly households, disabled households, and households that are not elderly or disabled. First, we need to know the number of households that have income at or below the LIEE income limits. Second, we need to know the number of households that pay a utility bill, either directly to the utility or based on submetering, or that live in a master-metered building where more than a certain percentage of the households are LIEE eligible.

Utility companies have information on the number of direct residential and master-metered residential customers in their service territories. However, they do not have information on customers that would allow them to determine the number of these customers that are income-eligible for their programs. So, other data sources must be used to make those estimates.

The 2000 Census furnishes the best source of information for making estimates of the LIEE eligible population for the 1999 - 2000 program year. The Census has the following data for each household that completed the Census long form: income for 1999, age of the householder, disability status of the householder, the type of energy bills the household paid, the amount the household paid for energy, and the fuel used for the household's main heat.

With that information, one can assess whether a household is income eligible for LIEE (accounting for age and disability status) and whether the household paid an electric or gas bill. For those households that do not pay an electric bill, we can safely assume that the household used electricity and therefore lived in a master-metered building. For those households that do not pay a gas bill, we can usually determine if they used gas by checking the household main heating fuel. If they used gas, but did not pay a gas bill, we can assume that they lived in a master-metered building. However, it is impossible to assess whether the household lived in a master-metered building where a certain percentage of the households had incomes at or below the LIEE income standard. Therefore, the Census data can estimate the number of households with energy bills that are LIEE income eligible or the number of households that use a certain fuel that are LIEE income eligible, but cannot precisely determine the number of LIEE income eligible households. For purposes of this study, LIEE estimates represent all households that use the fuel and are income eligible.

However, the Census data will not updated until 2010. Therefore, another data source is needed to update these estimates to 2003. There are no public data sources that update the Census information at the geographic level required for this analysis. Therefore, one must use data from a commercial data vendor. For purposes of this study, data was purchased from Claritas.

A.2.3 Geographic Requirements for CARE and LIEE Estimates

The CPUC is interested in statewide, utility level, and local level estimates of CARE eligibility. Three different Census data sources are available to furnish the required estimates:

- PUMS Data - The Census releases a 5% sample of the Census long form in the Public Use Microdata Sample file. The PUMS file allows the analyst to develop tables for any of the data elements in the PUMS file. However, the lowest geographic level that can be identified ia PUMA (public use microdata area). PUMAs are areas with population about 100,000 households and can be parts of counties, whole counties, or several counties, depending on the population in the county.
- Census Standard Tables - The Census furnishes predefined tables at all geographic levels from the state down to the Census block level. However, only those tables that have been defined by the Census bureau can be developed.
- Census Custom Tables - The Census Bureau will furnish custom tables for geographic areas as small as Census Block Groups. Tables can be developed for any of the data elements on the Census long form. However, rules about data suppression can affect the reliability of the data at the Block Group level.

The PUMS files furnish excellent information for the state and for counties and county groups. However, to make estimates for utilities or for smaller geographic areas, one needs to use either Census standard tables or Census custom tables. The standard Census tables do not furnish the information needed on presence of a utility bill required for CARE estimates, or a combined table on age, income, and disability status required for LIEE estimates. For the estimates furnished in this report, we made use of custom tables at the Block Group level furnish by the Census Bureau.

A.3 CARE ESTIMATION PROCEDURES

There are four steps in the process for developing estimates of the number of CARE eligible households:

- Special Census Tabulations - We requested special tabulations from the Census Bureau that furnish information on number households that were CARE eligible in 2000 for each Census Block Group in California. These data were cumulated to the ZCTA level.
- Claritas Updates - We obtained Block Group updates for the number of households and the distribution of household income and household size from Claritas for 2003. These data were cumulated to the ZCTA level. We used an iterative proportional fitting procedure to update the special Census tabulations to match the Claritas statistics for 2003.
- PUMS Eligibility Ratios - We used updated PUMS files to assess the share of households that are income eligible in tabulation cells that include the income standard for the target household size.
- Calibration - For utility estimates, we used data from the utility companies to calibrate the number of program eligible households to actual counts of utility customers.

For any year, the procedures can be further updated using the current year data from Claritas, and for utility estimates, updated counts of utility customers.

A.3.1 Special Census Tabulations

The purpose of the CARE special census tabulations was to obtain information on the number of CARE program eligible households in each Census Block Group by energy usage type. We obtained the following tables:

- Income by household size - The total number of households by income and household size.
- Households with bills - The number of households with an electric bill by income and household size, the number of households with a gas bill by income and household size, and the number of households with either bill by income and household size.
- Income eligible households - The number of income eligible households with an electric bill by household size, the number of income eligible households with a gas bill by household size, and the number of households with both bills by income and household size.

Using these tables, for each cell in the income by household size table, we are able to compute the percent of households that have bills and, for the households that have bills, the percent that are income eligible for CARE for the 1999-2000 program year.

A.3.2 Claritas Updates

Claritas uses data from a number of sources to estimate the number of households by income group and the number of households by family size for each Block Group for 2003. We use this data in the following way:

- Update income by household size table - We use an iterative proportionate fitting routine to update the Census income by household size table to 2003.
- Update energy bill tables - For each table cell, we multiply the 2000 ratio of households with bills by the 2003 table of income by household size for each block group to estimate the number of households will bills in 2003.

This updates the number of households with bills (i.e., technically eligible), but does not update the number of households that are program eligible.

A.3.3 PUMS Update

We now need to estimate the share of technically eligible households that are income eligible for the program. We cannot use the 2000 ratios, since, as household incomes increase, the ratio of households in each cell that are income eligible is expected to change. To estimate the income eligible households, we use PUMS data in the following way:

- Update PUMS - We use the California CPI-U to update the incomes of households in the PUMS file from 1999 to 2003.
- For each PUMA, we develop a 2003 matrix of income by household size for all households and a 2003 matrix of income by household size for CARE income eligible households.
- We compute a ratio of income eligible households to all households for each cell.
- We multiply the cell ratios for each PUMA by the cells for all ZCTA tables that are within that PUMA.

This furnishes a table of the number of households that are both technically and income eligible for CARE. By comparing the number of income eligible households to the number of technically eligible households, we find an eligibility ratio for each type of household (i.e., electric only, gas only, combination) for each ZCTA.

The outputs of this step, then, are the number of eligible households at the ZCTA level and the percent of households at the ZCTA level that are eligible. These data can be used to furnish estimates for ZCTAs, counties, and the state.

A.3.4 Calibration to Utility Counts

There are two different types of calibration:

- Major IOU - For the four major IOU's, the calibration was done at the ZCTA level. Athens Research had previously worked with the major IOUs to develop estimates of

the number of customers that were technically eligible for CARE at the ZCTA level. For those utilities, the ZCTA ratios developed above were multiplied by utility count of customers in the ZCTA to develop estimates of CARE eligible customers.

- SMJU - For the SMJU regulated utilities the calibration was done at the utility level. KEMA obtained customers counts at the utility level, along with information on the ZIP codes covered by each SMJU service territory. We estimated the share of utility customers in each SMJU service territory that were CARE eligible and multiplied that percentage by the KEMA supplied customer estimate.

Calibration helps to improve the population estimate for a utility service territory because it helps to control for imprecision in the Claritas projection procedures.

A.4 LIEE Estimation Procedures

There are four steps in the process for developing estimates of the number of LIEE eligible households:

- Special Census Tabulations - We requested special tabulations from the Census Bureau that furnish information on the number households by income, household size, and age and disability status that were LIEE eligible in 2000 for each Census Block Group in California. These data were cumulated to ZCTA level.
- Claritas Updates - We obtained Block Group updates for the number of households and the distribution household income, household size, and the number of elderly households from Claritas for 2003. These data were cumulated to the ZCTA level. We used an iterative proportional fitting procedure to update the special Census tabulations to match the Claritas statistics for 2003.
- PUMS Eligibility Ratios - We used updated PUMS files to assess the share of households that are income eligible in tabulation cells that include the income standard for the target household size, age, and disability status.
- Calibration - For utility estimates, we used data from the utility companies to calibrate the number of program eligible households to actual counts of utility customers.

For any year, the procedures can be further updated using the current year data from Claritas, and for utility estimates, updated counts of utility customers.

A.4.1 Special Census Tabulations

The purpose of the LIEE special census tabulations was to obtain information on the number of LIEE program eligible households in each Census Block Group by energy usage type. We obtained the following tables:

- Income by household size - The total number of households by income and household size for elderly households, nonelderly disabled households, and households that are not elderly and not disabled.

- Households that use each fuel - The number of households that use electricity (assumed to be all households) and the number of households that use utility gas (assumed to be all households with utility gas main heat) by income and household size for elderly households, nonelderly disabled households, and households that are not elderly and not disabled.
- Income eligible households - The number of income eligible households that use electricity by household size, the number of income eligible households that use gas, and the number of households that use either electric or gas by household size, for elderly households, nonelderly disabled households, and households that are not elderly and not disabled.

Using these tables, for each cell in the income by household size table, we are able to compute the percent of households that use each fuel and, for the households that use the fuel, the percent that are income eligible for LIEE for the 1999-2000 program year.

A.4.2 Claritas Updates

Claritas uses data from a number of sources to estimate the number of households by income group, the number of households by family size, and the number of households by age for each Block Group for 2003. We use this data in the following way:

- Update income by household size table for each age/disability status group - We use an iterative proportionate fitting routine to update the Census income by household table to 2003.
- Update energy bill tables - For each table cell, we multiply the 2000 ratio of households with bills by the 2003 table of income by household size for each block group to estimate the number of households that are technically eligible for LIEE in 2003.

This updates the number of households technically eligible, but does not update the number of households that are program eligible.

A.4.3 PUMS Update

We now need to estimate the share of technically eligible households that are income eligible for the program. We cannot use the 2000 ratios, since, as household incomes increase, the ratio of households in each cell that are income eligible is expected to change. To estimate the number of income eligible households, we use PUMS data in the following way:

- Update PUMS - We use the California CPI-U to update the incomes of households in the PUMS file from 1999 to 2003.
- For each PUMA, we develop a 2003 matrix of income by household size for all households and a 2003 matrix of income by household size for LIEE income eligible households, for elderly households, nonelderly disabled households, and households that are not elderly and not disabled.

- We compute a ratio of income eligible households to all households for each cell.
- We multiply the cell ratios for each PUMA by the cells for all ZCTA tables that are within that PUMA.

This furnishes a table of the number of households that are both technically and income eligible for LIEE. By comparing the number of income eligible households to the number of technically eligible households, we find an eligibility ratio for each type of household (i.e., electric only, electric and gas) for each ZCTA.

The outputs of this step, then, are the number of eligible households at the ZCTA level and the percent of households at the ZCTA level that are eligible. These data can be used to furnish estimates for ZCTAs, counties, and the state.

A.4.4 Calibration to Utility Counts

There are two different types of calibration:

- Major IOU - For the four major IOU's, the calibration was done at the ZCTA level. Athens Research had previously worked with the major IOUs to develop estimates of the number of customers that were technically eligible for LIEE at the ZCTA level. For those utilities, the ZCTA ratios developed above were multiplied by utility count of customers in the ZCTA to develop estimates of LIEE eligible customers.
- SMJU - For the SMJU regulated utilities, the calibration was done at the utility level. KEMA obtained customers counts at the utility level, along with information on the ZIP codes covered by each SMJU service territory. We estimated the share of utility customers in each SMJU service territory that were CARE eligible and multiplied that percentage by the KEMA supplied customer estimate.

Calibration helps to improve the population estimate for a utility service territory because it helps to control for imprecision in the Claritas projection procedures.

A.5 QUALITY OF ESTIMATES

A.5.1 Current Population Survey Estimates

The Current Population Survey (CPS) can furnish information on the change in the number of households that are income eligible for CARE and LIEE from 2000 through 2003. The CPS cannot furnish information on the number of customers that are program eligible (i.e., income eligible and technically eligible). However, it is useful to compare the CPS statistics to those developed from the estimation procedure.

Table A-3 shows the number of households that are estimated to be income eligible for CARE by the CPS for program years 1999-2000 through 2003-2004, the number households that are estimated to be income eligible for the 1999-2000 program year from Census, and the number of households that are estimated to be income eligible for CARE from the Claritas updates for the 2003-2004 program year. The table shows that there is inconsistency among the CPS estimates

for each program year, between the Census and CPS estimates for the 1999-2000 program year, and between the Claritas and CPS estimates for the 2003-2004 program year. For the 1999-2000 program year, the difference is 9.8 percent and for the 2003-2004 program year, the difference is 20.4 percent.

Table A-3
Comparison of CPS and Census Estimates
CARE Income-Eligible Households Statewide

Program Year	CPS	Census/Claritas	% Difference
1999-2000	3,308,815	3,014,815	9.8%
2000-2001	3,182,911		
2001-2002	3,240,477		
2002-2003	3,609,632		
2003-2004	3,724,253	3,092,656	20.4%

The difference between the CPS estimate and the Census estimate results, in large part, from a difference in the estimate of the total population. The 2000 Census estimated that the population of California was 11.507 million households, while the 2000 CPS furnishes an estimate of 11.840 million households, a difference of almost 3 percent. The 2003 Claritas file estimated that there were 11.978 million households, while the 2003 CPS estimated that there were 12.664 million households, a difference of about 5 percent.

In general, the CPS data is expected to furnish more reliable estimates of the population and of the distribution of income than the Census. There are coverage issues with the Census and the income questions on the Census long form are rudimentary. This might suggest that the CPS data should be used in the analysis procedure. However, the CPS has no information on energy bills and the CPS does not furnish the substate estimates that are required to develop estimates at the utility level.

In general, however, this comparison suggests that any estimation procedure is subject to some uncertainty resulting from uncertainty in the overall quality of the data being used. The statistics presented here suggest that the Census based estimates of eligibility may underestimate the CARE eligible population by as much as 10 percent. In part, the calibration of the estimates to the actual number of utility customers in an area accounts for the undercount in the overall population. However, the CPS data suggest that CARE income eligible households are undercounted by a greater percentage than the undercount for the total population.

A.5.2 Peer Review

An expert in the field of small area estimation reviewed the estimation procedures. Alan Zaslavsky, PhD, a professor at Harvard who served on the National Panel on Estimates of Poverty for Small Geographic Areas for the Committee on National Statistics, conducted a peer

review of the estimation methodology used in this report. His review suggests that the estimation methodology makes use of the available resources in an appropriate way. He identified several data sources that could be used to improve the method. However, those data sources are either restricted in use to the federal government (e.g., small area IRS tax records and Food Stamp participation data) or are not yet available (e.g., the American Community Survey).

A.6 COMPARISON TO JOINT UTILITY ESTIMATES

There are a number of data sources and procedures that could be used to estimate the number of CARE and LIEE program eligible households in California. Athens Research has used one such procedure to develop estimates for SCE, SoCal Gas, SDGE, and PGE. The procedure used for this study builds on that basic method designed by Athens Research, but makes use of special tabulations of CARE and LIEE eligible households from the Census Bureau that were not available to Athens Research. The method used in this study offers three advantages over the Athens Research approach:

- Estimates for All California Households - Because the method used in this study accounts for a households' utility bill status (i.e., does the household pay an electric and/or gas bill), the method can furnish eligibility for any geographic area (even in areas without regulated utilities) and can furnish an unduplicated count of households that are program eligible (even when they are served by more than one utility).
- Accounting for Disability Status - The Athens Research method accounts for age in its LIEE estimates, but does not account for nonelderly disabled households. The Special Census tabulations allow us to include nonelderly disabled households in our eligibility estimates.
- Small Bias in Athens Research Method - Our review of the Athens Research method suggests that there is a small bias in the approach that results from a failure to account for differential rates of utility payment patterns by income that causes the Athens Research method to slightly overestimate the eligible population and thereby underestimate the CARE and LIEE penetration rates.

The approach used in this study better serves the needs of the study and makes a modest improvement in the quality of the estimates. However, it is important to note that the Athens Research procedure furnished the foundation on which the procedure for this study was built and that the estimates furnished by Athens Research have served the CPUC effectively in furnishing good quality information on the number of program eligible customers for each of the four major regulated utilities.

Table A-4 compares the Athens Research estimates of CARE eligible households by utility to the estimates developed by this study. At the utility level, the difference between CARE estimates from the two methods is very small. However, for customer types, the differences are larger. We believe that the customer type differences result from accounting for the share of households in each customer type that is income eligible for CARE. We find that a greater share of electric only and gas only customers are likely to be CARE eligible, since low income households are more likely to live in master-metered buildings.

Table A-4
CARE Estimates
Comparison of Athens Research Estimates to LIMA Study Estimates by Utility

Utility/Fuel	LINA Study	Athens Research	Ratio
PG&E			
Electric Only	373,426	338,588	1.10
Gas Only	217,894	200,289	1.09
Combination	577,968	649,823	0.89
TOTAL PG&E	1,169,288	1,188,700	0.98
SCE	1,023,995	1,042,099	0.98
SCG	1,277,144	1,327,694	0.96
SDGE			
Electric Only	97,272	92,025	1.06
Gas Only	*	*	*
Combination	151,210	176,849	0.86
TOTAL SDGE	248,482	268,874	0.92

Table A-5 compares the Athens Research estimates of LIEE eligible households by utility to the estimates developed by this study. At the utility level, the LINA study estimates are slightly larger than the Athens Research estimates. We believe that this difference results from accounting for the higher LIEE standards for disabled households. For customer types, the differences are inconsistent. We expect that procedures for defining customer type vary between the two methods, making it difficult to compare the estimates.

Table A-5
LIEE Estimates
Comparison of Athens Research Estimates to LINA Study Estimates By Utility

Utility/Fuel	LINA Study	Athens Research	Ratio
PG&E			
Electric Only	468,520	398,967	1.23
Gas Only	351,043	406,671	0.91
Combination	663,762	694,890	1.01
TOTAL PG&E	1,483,325	1,500,528	1.04
SCE	1,195,815	1,165,114	1.08
SCG	1,614,131	1,615,181	1.05
SDGE			
Electric Only	45,418	33,185	1.37
Gas Only	3,260	*	N/A
Combination	229,001	260,073	0.88
TOTAL SDGE	277,679	293,258	0.95

B

ON-SITE SURVEY MATERIALS

B.1 HENS SURVEY FORM

Site ID Number

Interviewer's name

Household Energy Needs

Survey

December 8, 2003

Start time ____ ____ : ____ ____

[Introduction]
I am going to start by asking you some questions about this household. They will help me better understand your answers to later questions.

d1. **For how long have you lived in this** *(read:* **house, apartment, mobile home***)***?** *(If less than one year, circle 0)*

0. Less than one year

___ ___ years at *current* address

98. [Don't know]

99. [Refused]

d2. **How long did you live at your previous address?** *(Fill in the blank, if less than one year, circle 0)*

0. Less than one year

___ ___ years at *last* address

98. [Don't know]

99. [Refused]

d3. **Do you or someone else in your household own this** *(read:* **house, apartment, mobile home***)* **or do you rent?** *(Circle one answer)*

1. Own
2. Rent
3. [Other] (Please describe: _____

_____)

8. [Don't know]
9. [Refused]

d4. **Do you pay your electric bill directly to the utility company** (or is it included in your rent or condominium fee)**?** *(Circle one answer)*

1. Pay to utility
2. Included in rent
3. [Other] (describe: _____

_____)

8. [Don't know]
9. [Refused]

d5. **Do you pay your natural gas bill directly to the utility company** (or is it included in your rent or condominium fee)**?** *(Circle one answer)*

1. Pay to utility
2. Included in rent
3. No natural gas service
4. [Other] (describe: _____

_____)

8. [Don't know]
9. [Refused]

d6. **How many members of your household, including yourself, fit into the following age groups?** *(Fill in the number of persons in each age group.)*

_____ Less than 6 years old

_____ 6 to 17 years old

_____ 18 to 34

_____ 35 to 59

_____ 60 to 90

_____ Older than 90

_____ **Total**

(*Confirm)* **So there are a total of ___ people living in this household.**
(If only 1 person household, skip to Next Section)

d7. What is your marital status? *(Circle one answer)*

1. Now married
2. Widowed
3. Divorced
4. Separated
5. Never married
8. [Don't know]
9. [Refused]

(Ask only if there are children under 18.)

d8. Which best describes your household? *(Circle one answer)*

1. Single-parent household
2. Two-parent household
8. [Don't know]
9. [Refused]

	d9. **[Interview conducted in. . .]** *(Circle one number)*	**d10.** **What other languages, if any, are spoken in this home?** *(Circle all that apply)*	**d11.** **What is the primary language spoken in this home (the language used the most)?** *(Circle one number)*
None		1 → ***GO TO i3 – next page***	
English	2	2	2 → ***GO TO i3***
Spanish	3	3	3
Mandarin	4	4	4
Cantonese	5	5	5
Tagalog	6	6	6
Korean	7	7	7
Vietnamese	8	8	8
Other (_____)	9	9	9
Other (_____)	10	10	10
Other (_____)	11	11	11
[Don't know]	98	98	98
[Refused]	99	99	99

[Information Sources]

i1. Do you watch television that is broadcast in a language other than English? *(Circle one response)*

1. Yes
2. No
3. [Don't watch television]
8. [Don't know]
9. [Refused]

i2. Do you listen to a radio station that is broadcast in a language other than English? *(Circle one response)*

1. Yes
2. No
3. [Don't listen to radio]
8. [Don't know]
9. [Refused]

i3. Approximately how many days per week do you read a DAILY newspaper? Would you say it is approximately…? *(Read response categories. Circle one response)*

1. 0 times → ***GO TO i5***
2. Once per week
3. 2 to 4 days per week
4. 5 days
5. 6 days
6. 7 days per week
8. [Don't know]
9. [Refused]

i4. **Do you read a DAILY newspaper that is in a language other than English?** *(Circle one response)*

1. Yes
2. No
8. [Don't know]
9. [Refused]

i5. **How often do you read a weekly local or community newspaper? Would you say it is approximately…?** *(Circle one response)*

1. 0 → ***GO TO i7***
2. 1 time per month
3. 2 to 4 times per month
4. More than 4 times per month
8. [Don't know]
9. [Refused]

i6. **Are any of the weekly local or community newspapers you read in a language other than English?** *(Circle one response)*

1. Yes
2. No
8. [Don't know]
9. [Refused]

i7. **Do you have a computer in this household?** *(Circle one response)*

1. Yes
2. No → ***GO TO i9***
8. [Don't know] → ***GO TO i9***
9. [Refused] → ***GO TO i9***

i8. **Does your computer have Internet access?** *[Read, if necessary]* By Internet access, I mean that you have a modem, DSL, or cable connection that allows you to get on the Internet using the home computer. *(Circle one response)*

1. Yes → ***GO TO i10***
2. No
8. [Don't know]
9. [Refused] → ***GO TO i10***

i9. **Do *you* access the Internet on a computer outside of your home (for example, at work, a friend's house or the library)?** *(Circle one response)*

1. Yes
2. No → ***GO TO i11***
8. [Don't know] → ***GO TO i11***
9 [Refused] → ***GO TO i11***

i10. **Approximately how many hours per week do you access the Internet? Would you say *you* access the Internet…?** *(Read response categories. Circle one response)*

1. Less than 1 hour per week
2. 1 to 7 hours per week
3. 8 to 14 hours per week
4. More than 15 hours per week
8. [Don't know]
9. [Refused]

[CUE CARD]

Next, I want to find out how many times in the past *six months* you have done some activities, if at all. What I've found, from talking to others, is that some people haven't done any of these things and others have done a lot. It really varies.

For each of the activities I am going to list, please tell me if you have never done this, done it once, two to six times, seven to 12 times or more than 12 times.

How many times in the last six months, that is, since [month], have you...? *(Circle one answer per statement)*

		1	2	3	4	5	8	9
i11.	Attended a local athletic event, including school sports?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]
i12.	Visited a local community center?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]
i13.	Gone to a religious service?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]
i14.	Attended a meeting – such as a church, political, community or trade meeting?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]
i15.	Volunteered your time at an event or to an organization?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]
i16.	Visited your local library?	Never	Once	2-6x	7-12x	>12x	[DK]	[REF]

Now, I want to ask you some questions about your energy bill.

i17. If you were looking for information on energy conservation or ways to lower your energy bill, where would you look or who would you talk to? Anywhere else? *(Circle all that apply)*

1. [Utility bill or utility bill flyer/insert]
2. [Call utility]
3. [GO TO utility office]
4. [Utility website]
5. [Other website] *(Specify: _____)*
6. [Friend or relative]
7. [Trades person (contractor, electrician, builder)]
8. [Other] *(Specify: _____*

   _____

   _____)

9. [Don't pay energy bills]

98. [Don't know]
99. [Refused]

i18. How often, if at all, do you read the inserts or flyers that come with your utility bill? Would you say you read the inserts or flyers that come with your utility bill . . .? *(Read response categories. Circle one response)*

1. Never → ***GO TO i21***
2. Rarely
3. Often
4. Always

8. [Don't know]
9. [Refused]

i19. When was the last time you read the utility bill insert? *(Circle one response)*

1. Within the last month
2. Two or three months ago
3. Four or more months ago

8. [Don't know]
9. [Refused]

i20. What were the main messages in the utility insert you read most recently? Anything else? *(Circle all that apply)*

1. [CARE / Reduced rate, discount for income-eligible households]
2. [LIEE / Free energy efficiency measures for income-eligible households]
3. [Other energy conservation program information (non-low income)]
4. [Budget or levelized payment/bill program]
5. [Electric safety messages]
6. [General rate / tariff information]
7. [Other] *(Specify:* _____

_____

_____

_____)

98. [Don't know]
99. [Refused]

i21. If you had trouble paying your energy bill and needed help, where would you go or who would you talk to? Anywhere else? *(Circle all that apply)*

1. [Nowhere]
2. [Utility company]
3. [County assistance service/office]
4. [State assistance service/office]
5. [Community Action Program or CAP agency]
6. [Local community group]
7. [Church/religious organization]
8. [A relative/friend]
9. [Other] *(Specify:* _____

_____

_____

_____)

98. [Don't know]
99. [Refused]

GO TO Next Section

[Energy Programs]

Next, I want to ask you some questions about energy programs that you may or may not have heard of.

a1. Are you aware of any programs that help customers pay their energy bills by providing discounts or by paying part of the bill? *(Circle one answer)*

1. Yes
2. No → ***GO TO a3***
8. [Don't know] →***GO TO a3***
9. [Refused] →***GO TO a3***

a2. What programs have you heard of? Any others? ***(****Probe* ***– What's provided? Who offers it? What's it called?)***

_____

_____

_____ ***(if CARE named → GO TO a6)***

a3. Have you heard of the CARE Program, which stands for California Alternative Rates for Energy? *(Circle one answer)*

1. Yes
2. No → ***GO TO a5***
8. [Don't know] → ***GO TO a5***
9. [Refused] → ***GO TO a5***

a4. What have you heard about it? Anything else? ***(****Probe* ***– What does it offer? Who offers it?*** *Record verbatim and* ***→ GO TO a6)***

_____

_____ ***(if describe CARE → GO TO a6)***

_____ ***(if describe CARE → GO TO a6)***

a5. **Your local electric and gas utility offers a program called "CARE," which gives some customers a 20% discount on their gas or electric utility bill. Have you heard about this program?** *(Circle one answer)*

1. Yes
2. No → ***GO TO a12***
8. [Don't know] → ***GO TO a12***
9. [Refused] → ***GO TO a12***

a6. *(If CARE named above, lead in with* "Earlier you said you had heard of the CARE Program, which provides 20% discounts on utility bills.*")*

Is your household on the CARE program now? *(Circle one answer)*

1. Yes
2. No → ***GO TO a11***
8. [Don't know] → ***GO TO a11***
9. [Refused] → ***GO TO a11***

a7. **Were you involved in filling out the CARE application?** *(Circle one answer)*

1. Yes
2. No → ***GO TO a9***
8. [Don't know] → ***GO TO a9***
9. [Refused] → ***GO TO a9***

a8. **How difficult was it to complete the CARE application? Would you say it was…?** *(Circle one answer)*

1. Very difficult
2. Somewhat difficult
3. Not too difficult
4. Not at all difficult
8. [Don't know]
9. [Refused]

a9. Tell me how satisfied or dissatisfied you are with the CARE program? Would you say you are…? *(Circle one answer)*

1. Not at all satisfied
2. Not too satisfied
3. Somewhat satisfied → ***GO TO a16***
4. Very satisfied → ***GO TO a16***
8. [Don't know] → ***GO TO a16***
9. [Refused] → ***GO TO a16***

a10. Why do you say that? *(Record verbatim)* → ***GO TO a16***

_____ → ***GO TO a16***

_____ → ***GO TO a16***

_____ → ***GO TO a16***

a11. Did your household participate in CARE in prior years at this or at any other address? *(Circle one answer)*

1. Yes → ***GO TO a16***
2. No
8. [Don't know]
9. [Refused]

a12. Assuming your household were eligible, how willing would you be to participate in the CARE program now? Would you say you'd be…? *(Circle one answer)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing → ***GO TO a14***
4. Very willing → ***GO TO a14***
8. [Don't know] → ***GO TO a14***
9. [Refused] → ***GO TO a14***

a13. **Why do you say that?** *(Record verbatim)*

_____

_____

_____

a14. **While living at this address, have you ever received help in paying your energy bill** (besides the CARE discount) **from an agency, community group or other helping organization?** *(Circle one answer)*

1. Yes
2. No → ***GO TO a16***
8. [Don't know] → ***GO TO a16***
9. [Refused] → ***GO TO a16***

a15. **Who offered this help? What kind of help was it? What was the name of the program?** *(Record verbatim or circle 98 or 99)*

_____

_____

_____

_____

_____

98. [Don't know]
99. [Refused]

LIEE

a16. Are you aware of any programs that help customers cut back on their energy use by sealing air leaks, insulating attics, replacing appliances or changing lights, at no cost to the customer? *(Circle one answer)*

1. Yes
2. No → ***GO TO a18***
8. [Don't know] →***GO TO a18***
9. [Refused] →***GO TO a18***

a17. What programs have you heard of? Any others? (*Probe* **– *What's provided? Who offers it? What's it called?)*** *(Record verbatim)*

_____ ***(if LIEE → GO TO a19)***

_____ ***(if LIEE → GO TO a19)***

_____ ***(if LIEE → GO TO a19)***

a18. Your local electric and gas utilities offer a program that helps households use less energy. The program does this by sealing air leaks, insulating attics, and fixing or replacing some energy using equipment. Depending on the utility this can be replacing light bulbs, refrigerators, air conditioners, or fixing heating systems. Have you ever heard of this program? *(Circle one answer)*

1. Yes
2. No → ***GO TO a26***
8. [Don't know] → ***GO TO a26***
9. [Refused] → ***GO TO a26***

a19. ***(If LIEE program mentioned above lead with*** "You mentioned that you had heard of a program that provides some households with free measures to help households use less energy**"**

While living at this address, has your household ever participated in this program? *(Circle one answer)*

1. Yes
2. No → ***GO TO a26***
8. [Don't know] → ***GO TO a26***
9. [Refused] → ***GO TO a26***

a20. **In what year did you participate? (*Fill in blank or circle one answer)***

___ ___ ___ ___ Year of participation

8. [Don't know]
9. [Refused]

(If participated in 2000 or earlier, → ***GO TO a28)***

a21. **Did you help provide the documents to show you could be in the program?** *(Circle one answer)*

1. Yes
2. No → ***GO TO a23***
8. [Don't know] → ***GO TO a23***
9. [Refused] → ***GO TO a23***

a22. **Now tell me how difficult it was to provide these documents. Would you say it was…?** *(Circle one answer)*

1. Very difficult
2. Somewhat difficult
3. Not too difficult
4. Not at all difficult
8. [Don't know/Don't remember]
9. [Refused]

a23. And, tell me how difficult it was to schedule the appointments to have the energy efficiency measures installed? Would you say it was…? *(Circle one answer)*

1. Very difficult
2. Somewhat difficult
3. Not too difficult
4. Not at all difficult
5. I didn't make an appointment
8. [Don't know/Don't remember]
9. [Refused]

a24. How satisfied are you with this program? Would you say you are…? *(Circle one answer)*

1. Not at all satisfied
2. Not too satisfied
3. Somewhat satisfied → ***GO TO a28***
4. Very satisfied → ***GO TO a28***
8. [Don't know] → ***GO TO a28***
9. [Refused] → ***GO TO a28***

a25. Why do you say that? ***(****Record verbatim.* → ***GO TO a28)***

_____ → ***GO TO a28***

_____ → ***GO TO a28***

_____ → ***GO TO a28***

_____ → ***GO TO a28***

a26. Assuming your household were eligible, how willing would you be to participate in the program now? Would you say you'd be…? *(Circle one answer)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing → ***GO TO a28***
4. Very willing → ***GO TO a28***
8. [Don't know] → ***GO TO a28***
9. [Refused] → ***GO TO a28***

a27. Why do you say that? *(Record verbatim)*

_____

_____

_____

a28. Aside from the program we just discussed, while living at this address, have you been in any programs that help households reduce their energy bills by installing equipment or making repairs? *(Circle one answer)*

(Read if necessary: **A local agency or community group may have offered these programs.)**

1. Yes
2. No → ***GO TO a30***
8. [Don't know] → ***GO TO a30***
9. [Refused] → ***GO TO a30***

a29. What type of equipment was installed or repairs made? Who offered this program? What was the name of the program? *(Record verbatim)*

_____

_____

_____

a30. Now I want to briefly ask you about a few other assistance programs.

Are you or anyone else in your household currently participating in the Medi-Cal program?

(Clarify if necessary: **This program pays for a variety of medical services for children and adults with limited income and resources.)** *(Circle one answer)*

1. Yes → ***GO TO a33***
2. No
8. [Don't know]
9. [Refused] → ***GO TO a33***

a31. The Medi-Cal program pays for a variety of medical services for children and adults with limited income and resources. Assuming your household were eligible for this program, how willing would you be to participate? Would you say you are...? *(Circle one answer)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing → ***GO TO a33***
4. Very willing → ***GO TO a33***
8. [Don't know] → ***GO TO a33***
9. [Refused] → ***GO TO a33***

a32. Why do you say that? *(Record verbatim)*

_____

_____

_____

a33. Another program is Women, Infants, and Children—sometimes called WIC. (*Clarify if necessary***)** This is a supplemental nutrition program that provides food, nutrition counseling, and access to health care services for pregnant women, infants, and children under five.

Are you or anyone else in your household currently participating in the WIC program? *(Circle one answer)*

1. Yes → ***GO TO a36***
2. No
3. No children *under 5* → ***GO TO a36***
4. No children *under 20* → ***GO TO a39***
8. [Don't know]
9. [Refused] → ***GO TO a36***

a34. Women, Infants, and Children—WIC is a supplemental nutrition program that provides food, nutrition counseling, and access to health care services for low-income women, infants, and children.

Assuming your household were eligible for this program, how willing would you be to participate? Would you say you are...? *(Circle one answer)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing → ***GO TO a36***
4. Very willing → ***GO TO a36***
8. Don't know → ***GO TO a36***
9. [Refused] → ***GO TO a36***

a35. Why do you say that? *(Record verbatim)*

_____

_____

_____

a36. Another program is the Healthy Families Program or HFP. Are you or anyone else in your household currently participating in the Healthy Families Program?

(*Clarify if necessary****)*** The Healthy Families Program provides low cost health, dental and vision coverage to uninsured children through 19 years old in lower wage families. Families participating in the program choose their health, dental and vision plan and pay a maximum of $27 per month to participate. *(Circle one answer)*

1. Yes → ***GO TO a39***
2. No
8. [Don't know]
9. [Refused] → ***GO TO a39***

a37. The Healthy Families Program provides low cost health, dental and vision coverage to uninsured children. Families participating in the program choose their health, dental and vision plan and pay a maximum of $27 per month to participate.

Assuming your household were eligible for this program, how willing would you be to participate? Would you say you are...? *(Circle one answer)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing → ***GO TO a39***
4. Very willing → ***GO TO a39***
5. [Not applicable] → ***GO TO a39***
   [No children in household
   Have health insurance for our children]
8. [Don't know] → ***GO TO a39***
9. [Refused] → ***GO TO a39***

a38. Why do you say that? *(Record verbatim)*

_____

_____

a39. Which of the following programs, if any, do you or other members of your household currently participate in? ***(Circle all that apply)***

0. [None]
1. Food stamps
2. School breakfast or lunch program
3. Head Start (early childhood education)
4. Meals on Wheels
5. Food pantry or other food program
6. Medicare
98. [Don't know]
99. [Refused]

a40. What other programs, if any, are you or someone in your household currently participating in? *(Record verbatim.)* **Any others?**

0. [None]
1. (describe: _____

_____)

_____)

2. (describe: _____

_____)

_____)

3. (describe: _____

_____)

_____)

4. (describe: _____

_____)

_____)

5. (describe: _____

_____)

_____)

6. (describe: _____

_____)

_____)

98. [Don't know]
99. [Refused]

GO TO Next Section

[SECTION B]

b1. As you know, there are programs to help people pay for things like housing, food or healthcare.

(*If NO programs)*
Assuming you were eligible for a program and needed the services, how would you feel about participating in it? *(Record verbatim)*

(*If participating in programs)*
How do you feel about participating in these programs? *(Record verbatim)*

_____

_____

_____

_____

[Refer to Cue Card]

b2. I am going to read some statements other people have made about participating in assistance programs. Please tell me if you "strongly DISagree," "*somewhat* DISagree," "somewhat *agree*," or "*strongly* agree."

(Circle one response per statement)

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	[DK]	[REF]	
There are no programs to help households like mine.	1	2	3	4	8	9	
The forms they want me to fill out are confusing.	1	2	3	4	8	9	
It bothers me to have people from the government or utility in my home.	1	2	3	4	8	9	
It is difficult to gather the papers to prove my income.	1	2	3	4	8	9	
If I participate in these types of programs people will be able to tell me what to do and how to live my life.	1	2	3	4	8	9	
It is difficult to apply for most programs.	1	2	3	4	8	9	
It takes too long to get services from most programs.	1	2	3	4	8	9	
Someone *else* in this household is against participating in these programs.	1	2	3	4	8	9	NA

(Continue on next page)

(Circle one response per statement)

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	[DK]	[REF]
I would be embarrassed if my neighbors or friends knew I was participating in these types of programs.	1	2	3	4	8	9
I worry that my application information will be given to government agencies.	1	2	3	4	8	9
I don't like to use programs because there are other people who need them more than me.	1	2	3	4	8	9

GO TO Next Section

These next questions get at how difficult or easy it has been for you to meet your household's energy needs for the past 12 months.

x1. I am going read a list of things that may or may not have happened in your household. Please tell me if, in the past 12 months, they happened: almost every month, some months, one to two months, or not at all. *(If clarification needed:* By "almost every month" I mean 10 or more months in a 12-month period. Some months means 3 to 9 months.) *(Circle one response)*

In the past 12 months, how often…		**Almost every month**	**Some months**	**1 or 2 months**	**Never/ No**	**[Don't know]**	**[Refused]**
x1.	**did you worry that you wouldn't be able to pay your home energy bill?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x2.	**In the past 12 months, how often did you cut back on what you consider to be basic household necessities?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x3.	**In the past 12 months, how often did you borrow money from a friend or relative to pay your home energy bill?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x4.	**In the past 12 months, how often did you skip paying your home energy bill or pay less than the whole amount due?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x5.	In the past 12 months, **how often were you threatened with disconnection of electricity, natural gas or home heating fuel delivery?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x6.	In the past 12 months, **how often did you close off part of your home because you could not afford to heat or cool it?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x7.	In the past 12 months, **how often did you keep your home at a temperature that you felt was unsafe or unhealthy at any time of the year?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x8.	In the past 12 months, **how often did you leave your home for part of the day because it was too hot or too cold?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x9.	In the past 12 months, **how often did you use your kitchen stove or oven to provide heat?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]
x10.	In the past 12 months, **how often did you use a kerosene space heater to provide heat?**	Almost every month	Some months	1 or 2 months	Never/ No	[Don't know]	[Refused]

		1	**2**	**8**	**9**
x11.	**In the past 12 months, was your electricity ever shut off because you were unable to pay your electric bill?**	No	Yes	[Don't know]	[Refused]

SECTION L

(Hand respondent the CARE Application Form.)

L1. **Many** [utility name] **customers find the application for the CARE program to be unclear or confusing. I just handed you the form and would like you to tell me where on the form you are supposed to put your [utility name] account number.**

1. Yes
2. No

Notes:_____

_____

_____

L2. **How do you show on this form where your household gets its income?**

1. Yes
2. No

Notes:_____

_____

_____

Hand respondent the "incomplete application" letter.

L3. **Here is a letter that is sent out to people who submitted a CARE application that has missing information. Can you tell what information was missing from this household's application?**

1. Yes
2. No

Notes:_____

_____

_____

[L4. Interviewer assessment of respondent's ability to read the application and letter.]

1. *Definitely COULD read the materials*
2. *Uncertain*
3. *Definitely could NOT read the materials*

Notes:_____

_____

_____

SECTION C

Next I am going to ask you some questions about how comfortable or uncomfortable your home is during different times of the year. Let's start with winter.

c1. First, I'd like to know how comfortable you find your home during the winter. Would you say it is...? *(Circle one response)*

1. Not at all comfortable
2. Not too comfortable
3. Somewhat comfortable → ***GO TO c3***
4. Very comfortable → ***GO TO c3***
8. [Don't know] → ***GO TO c3***
9. [Refused] → ***GO TO c3***

c2. During those times when you find your home uncomfortable in the winter how often are you able to make yourself comfortable? Would you say you are able to make yourself comfortable...? *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

c3. How often do you find your home too cold during the winter? Would you say you find your home too cold . . . *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

c4. How often do you find your home *too drafty* during the winter? Would you say you find your home too drafty . . . *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

c5. How often do you find your home too hot during the winter? Would you say you find your home too hot . . . *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

c6. How often do you find your home too stuffy during the winter? Would you say you find your home too stuffy . . . *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

Now let's talk about the summer months.

c7. First, I'd like to know how comfortable you find your home during the summer. Would you say it is...? *(Circle one response)*

1. Not at all comfortable
2. Not too comfortable
3. Somewhat comfortable → ***GO TO c9***
4. Very comfortable → ***GO TO c9***
8. [Don't know]
9. [Refused]

c8. During those times when you find your home uncomfortable in the summer, how often are you able to make yourself comfortable? Would you say you are able to make yourself comfortable...? *(Circle one response)*

1. Never
2. Some of the time
3. Most of the time
4. Always
8. [Don't know]
9. [Refused]

In the past 12 months, has anyone in your household been sick or had a health problem because of...? *(Read list. Check one response per item)*

		Yes	No	[DK]	[Ref]
c9.	impurities in the water you drink	1	2	8	9
c10.	your home being too cold in the winter	1	2	8	9
c11.	your home being too hot in the summer	1	2	8	9
c12.	the quality of the air in your home	1	2	8	9
c13.	the way you heat your home (e.g., dirty furnace, fireplace, oven)	1	2	8	9

(If yes to any)
You said that someone got sick related to *(read items)*, **please describe these health problems.** *(Record verbatim)*

c14. Water impurities _____

_____

_____

c15. Too cold _____

_____

_____

c16. Too hot _____

_____

_____

c17. Air quality _____

_____

_____

c18. Heat source _____

_____

_____

c19. Now let's talk about how secure you feel in your home. Generally speaking, would you say that your home is . . . ? *(Circle one response)*

1. Not at all secure
2. Not too secure
3. Somewhat secure
4. Very secure → ***GO TO Next Section***
8. [Don't know] → ***GO TO Next Section***
9. [Refused] → ***GO TO Next Section***

c20. What are the main reasons you don't always feel your home is secure? *(Record verbatim)*

_____

_____

_____

c21. Is there anything you'd change about your home to make it more secure? *(Circle all that apply)*

1. Replace/repair broken windows
2. Replace/repair broken doors
3. Install/use security lighting outside the house
4. Install more/better locks on doors and windows
5. Add security bars or grills to windows and doors
6. [Other] (*Specify*: _____

   _____

   _____

   _____

   _____)
8. [Don't know]
9. [Refused]

Go to Next Section

SECTION D

This is the final set of questions I have for you. I want to remind you that your answers are confidential and will be used only for reporting about groups of people. (For example, 30% of respondents paid their electricity bill directly to the utility company.)

e1. Approximately what year was this building first built? *(Prompt with list if necessary. Circle one response)*

1. 2003
2. 2001 or 2002
2. 1999 or 2000
3. 1995 to 1998
4. 1990 to 1994
5. 1980 to 1989
6. 1970 to 1979
7. 1960 to 1969
8. 1950 to 1959
9. 1940 to 1949
10. 1939 or earlier
98. [Don't know]
99. [Refused]

e2. Are you Spanish/Hispanic/Latino? *(Circle one answer)*

1. Yes
2. No
98. [Don't know]
99. [Refused]

e3. Which of the following races do you consider yourself to be? I will read a list and you can choose one or more of the items on the list. *(Circle all that apply)*

1. White
2. Black, African American, or Negro
3. American Indian or Alaska Native
4. Asian Indian
5. Chinese
6. Filipino
7. Japanese
8. Korean
9. Vietnamese
10. Other Asian
11. Native Hawaiian
12. Guamanian or Chamorro
13. Samoan
14. Other Pacific Islander
15. Some other race

98. [Don’t know]
99. [Refused]

e4. **What is the highest degree or level of school that you completed?** *(Circle one response)*

1. No schooling through 6th grade
2. 7th grade through 11th grade
3. 12th grade, NO DIPLOMA
4. High school graduate – high school diploma or the equivalent (GED)
5. Some college credit, but no degree
6. Associate degree (for example: AA, AS)
7. Bachelor's degree (for example: BA, AB, BS)
8. Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
9. Professional degree (for example: MD, DDS, DVM, LLB, JD)
10. Doctorate degree (for example: PhD, EdD)
11. [Other] *(describe:* _____

    _____

    _____)

98. [Don't know]
99. [Refused]

e5. **Next I am going to read a list of possible employment situations. For each type of employment or unemployment, please tell me how many members of your household, 18 years or older, fit into each category.**

_____	Employed - working for pay
_____	Temporarily laid off from work
_____	On temporary disability
_____	On permanent disability
_____	Unemployed or looking for work
_____	Retired
_____	Helped without pay in a family business or farm for 15 hours or more
_____	[Other] *(Specify:* _____ _____
_____	**TOTAL (should equal number of adults 18+)**

e6. Do any of the people in this household 18 years or older have any of the following long-lasting conditions:

Blindness, deafness or a severe vision or hearing impairment – or

a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting or carrying.

1. Yes
2. No → ***GO TO e8***
8. [Don't know] → ***GO TO e8***
9. [Refused] → ***GO TO e8***

e7. Is the person with this condition (Are any of the people with these conditions) responsible for paying the energy bills or managing the household? *(Circle one response)*

1. Yes
2. No
8. [Don't know]
9. [Refused]

e8. Because of a physical, mental, or emotional condition lasting 6 months or more, does any person in this household 18 years or older have trouble:

Learning, remembering, or concentrating -

Dressing, bathing, or getting around inside the house – or

Going outside the home alone to shop or visit a doctor's office? *(Circle one response)*

1. Yes
2. No → ***GO TO e10***
8. [Don't know] → ***GO TO e10***
9. [Refused] → ***GO TO e10***

e9. **Is the person with this condition (Are any of the people with these conditions) responsible for paying the energy bills or managing the household?** *(Circle one response)*

1. Yes
2. No
8. [Don't know]
9. [Refused]

(Hand respondent sheet with list of income sources.)

e10. **Now I'd like to talk about your household's income. This card has a list of places that some households get money from. Income includes money from any of these sources.** *(If necessary, read sources to respondent from list.)*

Thinking about all the ways you and others in your household got money in the past 12 months, please tell me in which category your household's income falls. Would it be…? *(Circle one response)*

1. Less than $5,000
2. $5,000 to $9,999
3. $10,000 to $14,999
4. $15,000 to $19,999
5. $20,000 to $24,999
6. $25,000 to $29,999
7. $30,000 to $34,999
8. $35,000 to $39,999
9. $40,000 to $44,999
10. $45,000 to $49,999
11. $50,000 to $59,999
12. $60,000 to $74,999
13. $75,000 to $99,999
14. $100,000 to $124,999
15. $125,000 to $149,999
16. $150,000 or more
98. [Don't know]
99. [Refused]

e11. To participate in some of the energy programs we discussed earlier, you must provide documents that verify your household income. Knowing that you would need to provide copies of these documents, tell me how willing you would be to participate in these types of programs? Would you say you'd be…? *(Circle one response)*

1. Not at all willing
2. Only a little willing
3. Somewhat willing
4. Very willing
8. [Don't know]
9. [Refused]

e12. I have one final question about how comfortable this interview was for you. Would you say you were . . . ? *(Circle one response)*

1. Not at all comfortable
2. Only a little comfortable
3. Somewhat comfortable
4. Very comfortable
8. [Don't know]
9. [Refused]

e13. The interview was conducted with a . . . ? *(Circle one response)*

1. Male
2. Female
3. Other

End time ____ ____ : ____ ____

END OF SURVEY *(but don't forget thumbnail sketch)*
Thank them for their time.
Provide incentive.
Get receipt signed.
Provide any materials they requested

Thumbnail sketch

T1. Respondent's understanding of the questions was...?

1. excellent
2. good
3. fair
4. poor

T2. Respondent's interest in providing useful answers was...?

1. excellent
2. good
3. fair
4. poor

T3. Please provide a few words about this respondent (or household) that would help you remember the interview if you had to call back.

_____

_____

_____

T4. Please describe any ambiguous or conflicting situation that you want coding to know about?

_____

_____

_____

T5 Were there any serious problems with the interview (such as respondent's difficulty in hearing or understanding the question, etc.), which affected the quality of the interview?

_____

_____

_____

Don't forget to fill out the literacy section – Page 27

B.2 ENERGY AUDIT FORM

HOUSEHOLD ENERGY NEEDS SURVEY
Energy Audit Data Collection Form

Audit Date: _____

Site ID & Auditor's Name

Site ID _____

Auditor Name _____

BILLING INFORMATION:

Is home master metered? Y or N (Circle correct answer.) If "yes", answer the following:

E G B **A.** Master meter fuel (Elec, Gas, Both)?

_____**B.** Number of units?

NOTES TO AUDITORS:

Equipment that is a year old or less should be considered 1 year old

✍ **indicates to record actual findings; no code required**

HOME

_____**Q.1. Building type?**

1 = 1-story house
2 = 2-story house
3 = Split-level house
4 = Mobile home
5 = Other
6 = Duplex, triplex, or quadplex
7 = Apartment w/more than 4 apartments
8 = Condominium

_____**Q.2.** ✍ **Number of rooms?**

(Living space only; do not include bathrooms & halls)

_____**Q.3.a** ✍ **Square footage of home?**

(Living area only, do not include garage)

_____**Q.3.b** ✍ **Number of people living in the home?**

Notes (Sketch home):

Survey Tracking Information:

	Date	Performed by Initials
Field Survey Performed:	__/__/__	__ __ __
Quality Control Check:	__/__/__	__ __ __
Data Entry Complete:	__/__/__	__ __ __

HEATING (NOTE: Record portable heaters in this section)

_____**Q.4. Is Utility service used to heat home?**

1 = Yes 2 = No

Q.5. Heating System Type(s).

Utility fueled system(s) must be included as System #1 or #2 with the primary heating system listed as Heating System #1.

Type	Codes	Heating System #1	Heating System #2	Heating System #3
Electric	1 = Resistance/baseboard 2 = Heat Pump 3 = Hot air furnace 4 = Wall/floor heater(s) 5 = Portable heaters 6 = Other system types			
Natural Gas	7 = Hot Air Furnace 8 = Hot water radiator/baseboard 9 = Stove/stove insert 10 = Space heater(s)/Wall unit(s) 11 = Fireplace 12 = Steam 13 = Other system type			
Oil	14 = Hot air furnace 15 = Hot water radiator/baseboard 16 = Space heater(s) 17 = Steam 18 = Other system type			
Propane	19 = Hot air furnace 20 = Hot water radiator/baseboard 21 = Space heater(s) 22 = Fireplace 23 = Steam 24 = Other system type			
Wood or Coal	25 = Furnace 26 = Hot water radiator/baseboard 27 = Space heater(s) 28 = Fireplace 29 = Stove/stove insert 30 = Other system type 31 = NONE			

Q.6. Describe heating system details.

	Codes	Heating System #1	Heating System #2	Heating System #3
Shared w/another unit?	1 = Yes 2 = No			
Percent of total heat	(Note: total % should equal 100%) 1 = 10 4 = 40 7 = 70 9 = 90 2 = 20 5 = 50 8 = 80 10 = 100 3 = 30 6 = 60			
System Age	✍			
Condition of equipment	1 = Good 2 = Fair 3 = Needs repair/maintenance 4 = In need of replacement			
Condition of filter	1 = Good 2 = Fair 3 = In need of replacement 4 = Not applicable			

COOLING

_____**Q.7. Is utility service used for cooling?**

1 = Yes 3 = No, air conditioning
2 = No

*If answer to **Q.7.** is 3= No A/C, go to **Q.13.***

Q.8. Air conditioning systems used:

Central Cooling (These systems cool many rooms or all of the house through one connected system):

_____**Q8a. Central Cooling Type**

1 = Electric central system
2 = Electric heat pump
3 = Natural gas system

Q8b. Electric Room Cooling:

_____ **Window/Wall Unit** (Bedroom)
_____ **Window/Wall Unit** (Other Spaces)
_____ **Evaporative Window/Wall Unit** (Bedroom)
_____ **Evaporative Window/Wall Unit** (Other)
_____ **Evaporative Rooftop Unit**

1 = 1 unit
2 = 2 units
3 = 3 units or more

_____**Q.9. ✍ Age of oldest central air unit?**

_____**Q.10. Condition of the central air unit:**

1 = Good 3 = Needs repair/maintenance
2 = Fair 4 = In need of replacement

_____**Q.11. Condition of the filter on the central air unit:**

1 = Good 3 = In need of replacement
2 = Fair 4 = Not applicable

Q.12. How old are the window/wall air conditioners?

Q.12a. Condition of the window/wall air conditioners:

Q.12b. Condition of the filters:

	Q.12 – Age	Q.12a. – Condition	Q.12b. – Filter Cond.
Unit 1	_____ ✍	_____	_____
Unit 2	_____ ✍	_____	_____
Unit 3	_____ ✍	_____	_____
Unit 4	_____ ✍	_____	_____

1 = Good 3 = Needs repair/maintenance 5 = Not applicable
2 = Fair 4 = In need of replacement

WATER HEATING

✓Check here if shared: _____
✓Check here if customer does NOT pay for hot water: _____

_____**Q.13. Is Utility service used to heat water?**

1 = Yes 2 = No

_____**Q.14. ✍ Number of water heaters used?**

Q.15. Describe the type of water heaters:

_____ **#1**	1 = Elec. Standard	5 = N. Gas Standard	9 = Oil
_____ **#2**	2 = Elec. Heat Pump	6 = N. Gas Solar	10 = Wood
_____ **#3**	3 = Elec. Solar	7 = N. Gas Other	11 = Propane
	4 = Elec. Other	8 = N. Gas Integrated w/heat	12 = Solar w/no backup

Q.16. Describe water heater details.

	Codes	Water Heater #1	Water Heater #2	Water Heater #3
Age	1 = <1 yr 13 = 11 to 15 yrs 3 = 1 to 5 yrs 18 = 16 to 20 yrs 8 = 6 to 10 yrs 21 = more than 20			
Location	1 = Conditioned space 2 = Unconditioned space			
Existing tank wrap	1 = Yes 2 = No			
Is tank wrap feasible?	1 = Yes 2 = No			
Existing temperature	✍			
Condition of water heater	1 = Good 2 = Fair 3 = Needs repair/maintenance 4 = In need of replacement			

_____**Q.17. Are water heater pipes wrapped?**

1 = Yes 2 = No

_____**Q.18. Is pipe wrap feasible?**

1 = Yes 2 = No

_____**Q.19. ✍ Number of showers in the home?**

_____**Q.20. ✍ Number of showers with low-flow shower heads?**

_____**Q.21. ✍ Number of faucets in the home?**

_____**Q.22. ✍ Number of faucets with low-flow aerators?**

FOUNDATION/FLOORS

Q.23. Type of Foundation: (Enter "1" for all that apply)

_____ **Slab**
_____ **Basement**
_____ **Crawl**
_____ **Mobile Home Skirting (Skip to Walls Q.26)**
_____ **NA, not on ground floor (Skip to Walls Q.26)**

_____**Q.24. Condition of Foundation/Floors**

1. Good
2. Fair, in need of minor repairs
3. Poor, in need of significant repairs

_____**Q.25. Is foundation perimeter in need of caulking?**

1. No
2. Yes, moderate level
3. Yes, significant level

WALLS

Q.26. Describe wall types.

Description	Codes	Wall Type 1	Wall Type 2	Wall Type 3
Type	1 = Frame (full height) 2 = Frame (knee wall) 3 = Concrete 4 = Cinder block or masonry 5 = Other (describe)			
Description	✍			
Existing R-values	✍			

_____**Q.27. Condition of Walls**

1. Good
2. Fair, in need of minor repairs (minor cracks, few small holes, etc.)
3. Poor, in need of significant repairs

_____**Q.28. Are walls in need of caulking?**

1. No
2. Yes, moderate level
3. Yes, significant level

CEILINGS

Q.29. Describe the ceilings.

Description	Codes	Ceiling 1	Ceiling 2	Ceiling 3
Type	1 = Vaulted or sloped 2 = Vaulted with space above (scissor trusses, etc.) 3 = Flat; no attic above 4 = Flat; attic above 5 = Other (describe)			
Description	✍			
Area in square feet	✍			
Existing R-values	✍			
Proposed additional R-values	0 = Impractical to add insulation 7 = R7 30 = R30 11 = R11 38 = R38 19 = R19 25 = R25			
Attic ventilation	1 = Yes 2 = No 3 = Not applicable			
Proposed additional attic ventilation	1 = Yes 2 = No 3 = Not applicable			

INSULATION R-VALUES

	Material	R-Value/Inch	Description
Batt Insulation	Fiberglass	3.16	Layered fibers – pink or yellow
	Mineral Wool or Rock Wool	3.45	Grayish is color – resembles cotton
	Wood Fiber or Silva Wool	3.33	Wood fibers usually with black paper backing
Loose Fill	Fiberglass	2.45	Pink, yellow or white – usually shiny
	Mineral Wool or Rock Wool	2.91	Gray in color – resembles cotton
	Expanded Vermiculite	2.3	Silver/gray pebbles – lightweight and shiny
	Wood Fiber or Silva Wool	3.33	Thin wood shavings or fibers
	Cellulose	3.7	Gray or light brown in color – usually ground up newspaper

*** use these R-values unless otherwise stated on packaging or facing**

_____**Q.30. Condition of Ceilings**

1. Good
2. Fair, in need of minor repairs (minor cracks, few small holes, etc.)
3. Poor, in need of significant repairs

_____**Q.31. Are ceilings/perimeter in need of caulking?**

1. No
2. Yes, moderate level
3. Yes, significant level

_____**Q.32. Does attic access door need weather stripping?**

1. No
2. Yes, moderate level
3. Yes, significant level
4. N/A

Q.33. Are fan installations feasible?

_____ **Attic**

_____ **Whole-house**

1 = Yes 2 = No

DUCTS

Q.34. Describe ducts needing insulation. Ducts that pass through unconditioned areas (attics, garages, etc.)

*✓Check here if not applicable or if ducts are already insulated and go to **Q.35.** _____*

Description	Codes	Duct 1	Duct 2	Duct 3
Duct type	1 = Round 2 = Square			
Linear feet of ducts	1 = 10 feet or less 2 = 25 feet or less 3 = 25 feet or more			
Location	✍			

_____**Q.35. Are there any leaky ducts?**

1 = Yes, but no major duct sealing is required
2 = Yes, and duct sealing is necessary
3 = No

DOORS

Q.36. Describe the exterior doors.

Description	Codes	Door 1	Door 2	Door 3	Door 4
Type	1. Hollow core 2. Solid core 3. Insulated metal 4. Patio 5. Panel with glass				
Condition	1. Good 2. Fair 3. Needs repair 4. Needs replace				
Need weather stripping	1. No 2. Yes, moderate 3. Yes, significant				

WINDOWS

Q.37. Type (by percentage) of windows in home:

NOTE: The percentage should be of the total window area and the total of the percentage should equal 100%, i.e. add up to 6.

_____ **Single pane**
_____ **Single pane w/storm**
_____ **Double pane**
_____ **Triple pane**

0 = 0
1 = 20%
2 = 40%
3 = 50%
4 = 60%
5 = 80%
6 =100%

Q.38. Condition of Windows/Glass (by percent using codes for Q.37)

_____ **Good**
_____ **Fair, in need of minor repair**
_____ **Poor, in need of glass replacement**
_____ **Poor, in need of window replacement**

Q.39. Windows in need of caulking/weather stripping (by percent using codes for Q.37?

_____ **No**
_____ **Yes, moderate level**
_____ **Yes, significant level**

REFRIGERATORS

_____**Q.40.** ✍ **Number of refrigerators plugged in?**

		Codes	Main	Second	Third
Q41	Style	1 = Single door 2 = Top/bottom doors 3 = Side by side			
Q42	Size	12 = Very small (<13 cu ft) 15 = Small (13-16 cu ft) 19 = Medium (17-20 cu ft) 21 = Large (21-23 cu ft) 23 = Extra Large (>23 cu ft)			
Q43	Type of Defrost	1 = Frost-free 2 = Partial frost-free 3 = Manual			
Q44	Age	1 = <1 yr 13 = 11 to 15 yrs 3 = 1 to 5 yrs 18 = 16 to 20 yrs 8 = 6 to 10 yrs 21 = more than 20			
Q45a	Location	1 = Conditioned space 2 = Unconditioned space			
Q45b	Grounded	1 = Yes 2 = No			
Q46	Overall Condition	1 = Good 2 = Fair 3 = Needs repair/maintenance 4 = In need of replacement			

FREEZERS (Stand-Alone)

_____**Q.47.** ✍ **Number of stand-alone freezers plugged in?**

*If answer to **Q.47.** is 0 = none, go to **Q.54.***

		Codes	Main	Second
Q48	Style	1 = Chest 2 = Upright		
Q49	Size	12 = Small (< 13 cu ft) 15 = Medium (13 to 16 cu ft) 19 = Large (> 20 cu ft)		
Q50	Type of Defrost	1 = Manual 3 = Frost-free		
Q51	Age	1 = <1 yr 13 = 11 to 15 yrs 3 = 1 to 5 yrs 18 = 16 to 20 yrs 8 = 6 to 10 yrs 21 = more than 20		
Q52	Location	1 = Conditioned space 2 = Unconditioned space		
Q53	Overall Condition	1 = Good 2 = Fair 3 = Needs repair/maintenance 4 = In need of replacement		

POOLS & SPAS (Not including whirlpool tubs.)

_____**Q.54. Is there a swimming pool?**

0 = No pool
1 = Yes, pool is heated with **ELECTRICITY**
2 = Yes, pool is heated with **NATURAL GAS**
3 = Yes, customer does not pay energy use (multi-family)

_____**Q.55. Spa or hot tub present?**

0 = No spa nor tub
1 = Yes, spa is heated with **ELECTRICITY**
2 = Yes, spa is heated with **NATURAL GAS**
3 = Yes, customer does not pay energy use (multi-family)

THERMOSTAT SETTINGS

_____**Q.56. ✍ Number of programmable thermostats (heating systems):**

_____**Q.57. How are programmable thermostats used:**

1 = manually set 3 = No programmable thermostat
2 = program

Q.58. WINTER: At what temperature is the thermostat set?
Existing

_____ ✍ **Day**

_____ ✍ **Evening** Off = 55

_____ ✍ **Night**

_____ **Q.59. ✍ Number of programmable thermostats (cooling systems):**

_____**Q.60. How are programmable thermostats used (most often)?**

1 = manually set 3 = No programmable thermostat
2 = program

Q.61. SUMMER: At what temperature is the thermostat set?
Existing

_____ ✍ **Day**

_____ ✍ **Evening** Off = 85

_____ ✍ **Night**

Q.62. Mark the months during which the air conditioning is used:

_____**1 = January**	_____**4 = April**	_____**7 = July**	_____**10 = October**
_____**2 = February**	_____**5 = May**	_____**8 = August**	_____**11 = November**
_____**3 = March**	_____**6 = June**	_____**9 = September**	_____**12 = December**

_____**Q.63. Are room/wall air conditioner/evaporative cooler covers used in the winter?**

1 = Yes
2 = No
3 = Not applicable

WATER CONSUMPTION

_____**Q.64. ✍ Number of baths/showers taken in a typical day?**

_____**Q.65. Of the number of baths/showers taken in a typical day, what percentage are showers?**

1 = All (100%) 3 = Half (50%) 5 = None (all baths) (0%)
2 = More than half (75%)4 = Less than half

FOOD PREPARATION

_____**Q.66. Type of range/oven used?**

1 = Electric 4 = Other
2 = Natural gas 5 = Gas/Elec.
3 = Propane

_____**Q.67. Condition of range/oven used?**

1 = Good 3 = Needs repair/maintenance
2 = Fair 4 = In need of replacement

Q.68. Frequency of meals cooked at home?

_____ **Breakfast**
_____ **Lunch**
_____ **Dinner**

0 = Never
1 = Less than 33% of time
2 = 33% to 66% of time
3 = 66% to 100%

_____**Q.69. Microwave oven used?**

1 = Yes 2 = No

_____**Q.70. Frequency of Microwave use?**

0 = Never 2 = Sometimes
1 = Rarely 3 = Often

_____**Q.72. Automatic dishwasher used?**

1 = Yes 2 = No

_____**Q.73. ✍ If yes to Q.72., how many loads per week?**

LAUNDRY

_____**Q.74. Is there a clothes washing machine in the home?**

1 = Yes 2 = No

✓Check if machines are in common areas: _____

✓Check if indoor clothes rack is used: _____

Q.75. Number of loads of clothes washed during week using washing machine:

_____ ✍ **Hot**

_____ ✍ **Warm**

_____ ✍ **Cold**

_____**Q.76. How is the clothes dryer fueled?**

0 = No dryer 2 = Natural Gas
1 = Electricity 3 = Propane

_____**Q.77.** ✍ **WINTER: Number of loads dried in a week?**

_____**Q.78. Frequency of line-drying indoors and outdoors?**

0 = Never (but a clothesline is accessible)
1 = Rarely (5%)
2 = Sometimes (25%)
3 = Often (50% or more)
4 = Never (clothesline is not accessible)

MISCELLANEOUS APPLIANCES / EQUIPMENT

Q.79. ✍ **Appliances used in home.**

_____ **Color TV**
_____ **B & W TV**
_____ **VCRs / DVDs**
_____ **Humidifiers**
_____ **Dehumidifiers**
_____ **Stereo/tape/CD**
_____ **Heated aquariums**
_____ **Heated waterbed(s)**
_____ **Personal computers**
_____ **Well Pump**
_____ **Medical Equipment**
_____ **Smoke detectors**
_____ **Carbon Monoxide detectors**

Notes_____

Q.80. Number of fans used:

_____ ✍ **Attic**

_____ ✍ **Ceiling**

_____ ✍ **Portable**

_____ ✍ **Whole-house**

Q.81. Document fuel and use information/patterns of the following REGULARLY used appliances:

NOTE: 1 HP = 746 WATTS and AMPS X VOLTS = WATTS

DATA ENTRY: Enter only one "Other large appl."

Appliance	Fuel Codes 1 = Electric 2 = Natural gas 3 = Propane	Wattage ✍	Hrs/ Month ✍
Kiln			
Shop tools			
Welding equip			
1. Other large appl.			
2. Other large appl.			

Describe "other large appl."_____

_____**Q.82. Describe lighting use when someone is home:**

1 = Most lights are turned on
2 = Some lights are turned on
3 = Only lights in rooms used are turned on

Q.83. Which lighting equipment is present? Add?

Equipment	# Existing? ✍	# Feasible for CFLs? ✍
Incandescent bulbs		
Compact fluorescent lights		
Fluorescent fixtures		
Halogen lights		
Photo-electric sensors		
Incandescent porch lights		
CFL porch lights		

AUDITOR COMMENTS

B.3 HENS SURVEY DEBRIEFING MEMO

KEMA-XENERGY

memo

TO:	Karen DeGannes and Stephen Rutledge, CPUC	DATE:	May 17, 2004
FROM:	Kathleen Gaffney, KEMA-XENERGY		
COPY:	Bobbi Tannenbaum, KEMA-XENERGY		
SUBJECT:	Memo Summarizing Results of Low Income Needs Assessment Data Collection Debriefing Meeting on April 28, 2004		

The purpose of this memo is to summarize the results of the debriefing meeting held on April 28, 2004 with the staff involved in the data collection for the Phase 2 Low Income Needs Assessment Study. The objectives of this meeting were to:

- Share observations from the field research staff that may not necessarily have been captured on the data collection forms,
- Further explore some of the meaning and context underlying the open-ended question responses related to household needs and barriers to participation, and
- Identify “lessons learned” for planning and conducting future needs assessment studies.

The meeting was held in Pasadena, California from approximately 1:00pm to 6:00pm. Field staff who were involved in both the in-depth respondent interviews as well as the detailed energy audits were invited to participate. A total of 20 staff participated, 10 interviewers and 10 auditors. Also participating were KEMA-XENERGY’s Project Manager, scheduling supervisor, survey design and training manager, and lead data analyst. The supervisor of the field interviewers also participated in the meeting. Finally, a member of the CPUC staff attended the meeting as well.

The meeting agenda is shown in Exhibit 1. The following sections summarize the results from each of the main sessions.

Exhibit 1
Debriefing Meeting Agenda

Phase 2 Low Income Needs Assessment Study

Household Energy Needs Survey (HENS) Project Debriefing
April 28, 2004
Pasadena, California

1:00pm Hellos & Introductions, Overview of the Afternoon

1:15pm Memorable Experience

Format – Everyone is given 2 pieces of paper – one white, one yellow. For the first 5 minutes, they write down a household/experience that was memorable in a *positive* way and a household/experience that was memorable in a *negative* way, and why. Participants are encouraged to discuss the positive or negative experience, with some interaction with the group to keep it lively.

1:45pm Lessons Learned (Interviewers only)

Format – Interviewers will be asked the following "big picture" questions. Answers will be written on "sticky notes" and organized on flip charts. Similar responses will be grouped and prioritized. Individual responses as well as consensus among the group will be captured. The entire group will be engaged and interactive.

- Based on your experience, what are some of the major lessons learned about the low-income households' willingness to participate in the CARE and LIEE Programs?
- What have we learned about low-income households who are unwilling to participate in these programs?
- Drawing upon your field observations, are there issues that you believe are important to the purpose of this study that may not have been fully captured on the survey instrument?

1:45pm Auditor Feedback (Auditors only)

Format – Facilitator will focus the discussion on aspects of the energy audit forms that may not have fully captured the information required for the energy savings and needs assessment analyses.

3:30pm Break

3:45pm Surprises

Format – Both interviewers and auditors will participate. They will be asked to write down their initial responses to the question, *"Were you surprised by anything you learned about the low-income population as a result of conducting this study?"* A moderated discussion will follow with the facilitator writing on the flip chart some of the more common responses.

4:00pm Data Collection Process and Logistics

Format – Both interviewers and auditors will participate. At first, each participant will identify aspects of the process that worked well and those that were the most problematic (using dots on flip charts). The items with the most dots will be where we focus the group discussion. Issues to be discussed include training, scheduling, canvassing, two-person teams, incentives, data collection instruments, communications, and materials.

5:45pm Wrap-up

Lessons Learned from Field Interviewers

1 Introduction

In this session we had a facilitated discussion with the interviewers to discuss issues associated with willingness or unwillingness to participate in energy or other social service programs. The purpose of this session was to get interviewer perspectives on the reasons why some households do not or are unwilling to participate in the programs. We also wanted to see if the interviewers observed any systematic differences between those likely to participate and those not likely to participate.

We began by asking the interviewers:

> *"What are some of the major reasons low-income households are willing to participate in the CARE and LIEE Programs?"*

We discussed the answers and then moved on to discuss the more difficult issue of respondents' unwillingness to participate in the program. For this we posed the following two questions.

> *"What are some of the major reasons low-income households are not willing to participate in these programs? "*
>
> *"What differences, if any, did you observe between willing and unwilling households?"*

We asked the interviewers to individually answer each question by writing their responses on yellow post-it notes – one response per note. We then grouped common post-it notes and discussed what the interviewers meant in their responses. We completed this process with the first question before posing the second question.

Finally, we asked the interviewers:

> *"Are there issues that you believe are important to the purpose of this study that were not captured on the survey instrument?"*

The sections below summarize the results from this discussion, organized as follows:

- Willingness to participate
- Reasons for non-participation
- Observed differences between willing and unwilling households
- Important Issues not captured in the survey instrument

It is important to recognize that the results of this discussion are qualitative only. They are provided to give a reader a sense of the issues as perceived by the interviewers. Most interviewers are basing their observations on surveys conducted in a limited geographic area of the state. It is also important to keep in mind that due to interviewer language capabilities, some interviewers may have been limited to conducting surveys with only a few ethnic/racial groups. Finally, interviewer perceptions are likely to have been affected by their expectations

going into the study, past experiences on similar or related issues, and events that occurred most recently or were unique in one way or another. The results summarized in the sections below are not meant to replace the detailed analysis and results from the full, representative sample of 1,500 interviews.

2 Willingness to Participate

We asked the interviewers to discuss the reasons why respondents were willing to participate in energy or other social service programs. One thing that was obvious from the discussion with the interviewers is that most respondents (and presumably low-income households) do not make distinctions across programs in the same way that utility or government agencies may. For example, survey respondents, even if aware that the utility is offering the program, still may think of it as a "government" program.

Interviewers discussed the reasons they found that respondents were willing to participate in the energy or other social service programs. The main reasons they cited were:

- To save money – These responses were specific to the CARE program, which reduces household energy bills and is seen as a direct money saver.
- Good for the kids – The interviewers report that some households say they are participating in programs in order to help their children. What the respondents are implying is that they would be less likely to participate if they did not have children, we do not know if this is true..
- Need – Some people report participating in programs because they feel they have no other options for meeting their energy (or other) needs.
- Get something out of system. The interviewers reported that some (but not many) respondents participate to "get something out of the system."
- Easy to Apply – Again, this reason for participating seems specific to the CARE program and not social service programs in general.

3 Reasons for Non-Participation

The interviewers were asked to write down the reasons that households do not participate in "these programs." We grouped the answers given by the interviewers and discussed what they meant. The names for the groups were developed for the purposes of this report, not by the interviewers. The bullet points under the group name are the wording provided by the interviewers.

Lack of Awareness

- Don't bother looking into what programs exist
- Not aware that help was available
- Lack of knowledge
- Have not heard of program

Many respondents are simply unaware of one or more programs for which they are eligible. The interviewer responses suggest a range of awareness, from being unaware that any kind of help is available to a lack of awareness of a specific program. Some households may lack the skills, tools or motivation to find out about what services may be available.

Pride

Public

- Too proud to get government help
- Embarrass that neighbors will know

Personal

- Do not want to feel that they are not financially capable
- Self-perception

In discussing the "pride" responses with the interviewers we realized that there is a difference between public and personal pride. There are some respondents who would accept assistance if they believed that others (neighbors, friends, colleagues) would not be aware of their participation in the program. These non-participants have what we have termed "public pride." Messages to these non-participants need to emphasize the privacy of participation. Another group of non-participants have what we are calling "personal pride." They find it important to be self-sufficient and participating would affect their self-esteem.

Risk

- Jeopardize participation in other programs
- Think they cannot join other programs they have in mind
- Think the information they provide will get them in trouble or jeopardize other programs they are applying or are already enrolled in.
- Feared that participation in programs they didn't qualified for would put a lien on the house.
- Will jeopardize standing with INS

Residency Issues

- May have questionable residence status
- Not a legal resident
- Will jeopardize standing with INS

Altruism

- Felt other people need it more than they do.

Interviewers report many respondents saying that they do not participate because they think that other people need the program more than they do. These respondents are assuming that for all assistance programs there is a limited availability of funding, and that if they receive services than someone else (who is needier) will be denied the service.

Perception of Ineligibility

Income ineligible

- Think they will never qualify

Renter

- They don't own the residence
- Don't know if you have to be homeowners
- LIEE has to get landlords permission
- Utility included in rent
- No incentive

Some households have the perception that they are ineligible, either because the household income is too high or because they are renters. Often, when people feel that they are ineligible to participate in a program they avoid going through the process of applying. They feel it is simply not worth the effort if they are going to be turned down. They may think that they are ineligible because they were turned down for CARE, or some other program in the past, or because they have not researched the requirements for participation. Households may be unaware that the income requirements for participation change annually, and if the household income is remaining stable or declining that they may currently be eligible.

Low-income households living in rental property report several barriers. First, they may think they are not eligible because they are renters. Second, they may not want to discuss the program with their landlord, if this required by the program. Third, if the utility bills are included in the rent they see no incentive for participating in energy programs. Do not perceive that they would benefit from it.

Privacy

- Worried that info will be shared with other organizations
- Programs are too meddlesome (i.e. They micromanage every step and are constantly looking over your shoulders)

The interviewers raised two privacy issues (presumably raised by the respondents). First, some respondents fear that the fact that they are participating in the program will be shared with other organizations. For households seeking residency status, this is a concern because participation in some social service programs is a reason for denial.

Second, some households have found some social service programs to be "meddlesome." Based on the respondent comments we believe they are talking about programs that include a social worker or some other person that may make visits to the household. Some respondents who have been dissatisfied with this experience may not distinguish across programs. They are unwilling to participate in any programs because they see them as potentially all the same.

Application Processes Cumbersome

- Hard to apply for program
- They don't want the trouble to go thru with providing documents.
- Application too hard to understand.
- Intimidated by application process
- When they are many people in the same households, it becomes complicated to prove income or provide papers
- Some people had to reapply before getting services

The interviewers cited many reasons associated with the application process. They were not discussing a specific application (e.g. LIEE or CARE) but application processes for participating in programs. Respondents, especially those that have not participated in a particular program, will not make the distinction across the programs either. They tend to equate any past experience with or perceptions of program applications with other programs.

Other Reasons

- Just not willing – difficult to get a specific explanation from respondents
- It takes too long to get services
- Think there's a catch
- Bad experience – Already participated once and had a bad experience so they don't want to participate again
- Think there is not enough savings
- Don't know where to go
- Don't know where to get applications
- Language barrier

4 Observed Differences Between Participants and Non-participants

Participants or those willing to participate are more likely to have the following characteristics:

- Children in the household
- Enrolled in other social service programs
- Live in mobile homes[1]
- Read bill inserts
- Renters (true for CARE, not LIEE)
- Households with greater "need" (i.e., unemployed, single etc.)
- Regularly access information about programs (i.e., newspaper, TV, internet)
- Live in areas with highest density of low-income households (urban, multi-family) and more likely to be exposed to program materials
- Higher-income among the low income
- More educated
- Chinese-speaking households because of publicity and assistance filling out the forms
- Households with seniors
- Households with one or more disabled persons

[1] One interviewer who canvassed mobile home parks indicated that she observed property managers actively informing the residents of the programs and having applications on hand. In these circumstances, the interviewer remarked that mobile home residents are getting repeated exposure to the program directly from someone they know and trust.

Non-participants or those who were unwilling to participate are more likely to have the following characteristics.

- Non-English speakers (exception of Chinese noted above)
- Foreign cultures with different expectations
- Households that have not participated in other programs
- Renters (true for LIEE, not CARE)

5 Issues Not Captured in Interview Form and Miscellaneous

In this section, we asked the interviews to address the following question:

> *"Are there issues that you believe are important to the purpose of this study that were not captured on the survey instrument?"*

In general the interviewers felt that the survey instrument captured the issues associated with willingness and barriers to participation in energy and other social service programs. They could not think of anything associated with this topic that was not covered in the survey at least once. The interviewers, did however, discuss some other issues.

The literacy question did not accurately test the literacy level. At least one interviewer felt that the literacy questions were not effective at getting at literacy. Respondents may have difficulty providing a correct answer to the question, but that this does not mean that they cannot read. We asked them if they were able to determine if the respondent was literate or not, and all the interviewers present felt comfortable that they were able to assess literacy. We pointed out that it was their assessment of literacy that we would be using, and not the responses to individual questions, to determine literacy.

Respondents viewed KEMA as part of the utility company. Respondents sometimes equated KEMA (interview/auditing team) as working for the utility company. Some interviewers found that by identifying the CPUC as the sponsor of the research, and KEMA's client, the misunderstanding was cleared up. Others reported that even upon completing the interview the respondent was still equating them with the utility company.

Challenges when utility companies could not confirm project legitimacy. Interviewers tended to agree that in at least one instance respondents had called their utility company to confirm the legitimacy of the research and were told that the utility was unaware of the study. This led to cancelled appointments and refusals in some cases.

Respondents were unaware of CARE status. Interviewers noticed that some people on the CARE rate were unaware that they were, but when they showed the interviewer noted that on their utility bill it was clearly marked.

Auditor Feedback

- Heating System
  - Small number of sites without an space heating source and a significant number typically not using space heating very much

        - If heating needed, the use of oven or space heaters more common as heat source in these cases
        - Main heating source not used due to cost and poor air quality
    - Landlords not properly maintaining central heating systems in multi-family
    - Households not aware of how to use their furnace (pilot lights)
    - Some misperceptions about cost of gas vs. electric heating (e.g., portable electric heater vs. gas furnace)

- Cooling System
    - Very few CAC, many evaporative coolers
    - Cooling often used when absolutely necessary
    - Room AC in multi-family – typically comes with unit, not maintained, costly, only cools one room, only used on extremely hot days

- Water heating
    - Usually inaccessible in multi-family (central systems)
    - Typically in good shape, lots of aerators and low flow showerheads
    - No complaints about showerheads/aerators, but some complaints about water heater temperature (too high)

- Insulation
    - Often difficult to assess attic insulation - people don't know where the attic access is, barriers to entry
    - Many didn't have attics
    - Many without insulation

- Doors and windows
    - Windows need caulking, broken windows
    - Some doors off-hinges
    - Infiltration – often incongruity between interview results and physical conditions (e.g., say it's drafty but really in good condition, or home is leaky but they are used to drafts)

- Refrigerators
    - Looked for grounding evidence when refrigerator blocked plug (couldn't move refrigerator)
    - Evidence of LIEE refrigerators
    - Still many old refrigerators

- CFLs
    - Seems program installs bulbs in most convenient area as opposed to the higher-use fixtures that may be more difficult to reach or install

- Other energy savings opportunities
    - Laundry loads are frequent, should change water heater setting and do less hot-water washes
    - More emphasis on double-pane windows, attic insulation and duct sealing

Data Collection Process & Logistics

In this session we asked the auditors and interviewers to discuss process and logistical issues associated with implementing the project. The purpose of covering these issues was to inform KEMA staff of problem areas and suggest improvements for future projects. We worked hard to create an environment in which the field staff would feel comfortable openly expressing their views of the items. The project manager and the field supervisor were not present for the entire session. The trainer/survey designer left the room for the discussions on the training and the survey instruments.

The following process was used to facilitate the discussion. Each participant was given eight (8) red dots and eight (8) green dots. Flip charts were placed along the wall of the room. Each flip chart was labeled with one of the following areas:

- Training
- Scheduling process
- Canvassing process
- Two-person teams
- Incentive
- Data collection instruments – HENS and audit forms
- Communications process
- Materials flow/supply

Participants were instructed to place their dots on the flip charts – red dots to identify problem areas and green dots to identify positive aspects of the project. Participants could distribute dots as they wanted. In other words, if they felt that the scheduling process was exceptionally good (and nothing else was) they could put all eight (8) green dots on scheduling. Once all participants had placed their dots on the sheets, we discussed the items in descending order of red dots. Table 1 shows the distribution of red and green dots.

Table 1: Distribution of Dots for Process & Logistics Areas

	Red Dots as Percent of Total Dots for Area	Green Dots as Percent of Total Dots for Area	Total Number of Dots for Area
Scheduling	94%	6%	35
Materials Flow Supply	96%	4%	25
Communication	58%	42%	38
Canvassing	73%	27%	26
Data Collection Instruments	35%	65%	20
Incentive	29%	71%	14
Training	12%	88%	26
Two Person Team	0%	100%	40
Total			**224**

At this point, it becomes important to recognize a few things about this process. First, when we prepared the list of topic areas we focused on areas that we suspected were problematic. Second, we encouraged discussion of problems and potential solutions to these problems and minimized discussion of successful areas. Third, when things work well, people tend not to notice nor discuss them unless their expectation was that they would not work. (We did however, distribute an equal number of red and green dots and instructed the participants to use all the dots.) Fourth, this was a subset of the interviewers and auditors and the results could have been different with a different mix of participants.

Table 2 summarizes the key findings from this discussion. To help put some of the issues in perspective, we have added a column to help explain why things may have been particularly problematic for some field staff or how we attempted to deal with the issue during the course of the effort. In all, this was a useful exercise and all who participated learned a great deal about what we did well, what we did our best at, and what we should try to improve in the future.

Table 2

Summary of Findings from Process & Logistics Session

Process & Logistic Area	**Negative / Mixed / Positive**	**Management Perspective**
Scheduling Process		
Too much distance between scheduled sites, too much time between scheduled sites	Mixed	Because the sampling goals were set at 3 sites per zip code, it required travel between sites as all 3 sites weren't always scheduled back-to-back Inefficiencies or gaps in scheduling were sometimes necessary given the goal of 3/zip (next zip wasn't near enough to current zip)
Late appointments (>5pm)	Mixed	Schedulers wanted to accommodate working households; complaints/ concerns from field staff were addressed as they came up
Long days without breaks	Mixed	This was often due to the difficulties in canvassing and usually self-imposed by the teams (some wanted to increase their workload); complaints/concerns were addressed as they came up
Last minute scheduling	Negative	Field staff were aware they were working the next day and generally where, but may not have known the exact appointment time & site address until the night before; there are always last-minute changes to appointments or schedules, and we worked w/ teams to minimize uncertainty as much as possible
Customers not well-informed, cancellations	Mixed	Schedulers were well-trained to provide respondents w/ information about what to expect, respondents didn't always comprehend or recall; we sent post-cards when possible to remind respondents of their appointment times

Table 2

Summary of Findings from Process & Logistics Session

Process & Logistic Area	Negative / Mixed / Positive	Management Perspective
Core group of schedulers were very good, responsive and thorough	Positive	There were 5-6 core schedulers who stayed with the project throughout the study period, however there was some turn-over and problems due to ESL and inadequate motivation/skills
Materials Flow/Supply		
Materials should have been provided in a more timely manner	Mixed	Difficulties early on because needed to wait for final versions and translated versions; materials were often sent to crews as-needed, which could cause problems if not given enough lead-time; some materials were posted on website but required crews to make copies
Supply of gift cards was problematic	Mixed	Again, often not enough lead-time given; also, inefficiencies in ordering due to strike (didn't want to order them all at once in case we needed to change the incentive)
Supply of postage-paid envelopes problematic	Mixed	Inadequate lead-time; inefficiencies in ordering (USPS 5-6 week delivery turn-around for envelopes)
Communications		
KEMA very responsive	Positive	Very dedicated; spent considerable hours monitoring work flow
Website had many positive attributes	Positive	Access to real-time information; staff phone numbers; calendar
Good communication between auditor/interviewer	Positive	Most teams formed naturally; a few mismatches early on
Some schedulers could have been more responsive, turn-over was confusing	Mixed	Difficult to find/keep motivated staff, ESL issues were a problem
Canvassing		
Apartments difficult to access without property manager approval	Mixed	Property manager phone numbers not available
Canvassing logs not sorted in the best order for walking	Mixed	Each list was sorted using a mapping program designed to give most efficient route; detailed maps were provided
Flexibility of canvassing v. scheduled appointments was helpful	Positive	Giving crews the option of canvassing v. scheduling helped streamline work flow for schedulers and provided crews with flexibility in how/when they worked
Canvassing lists were sometimes too long, and inappropriate for canvassing	Mixed	This happened because near the end of the project we let crews decide how they wanted to work an area; some areas were originally intended for scheduling, but crews elected to canvass

Table 2 Summary of Findings from Process & Logistics Session		
Process & Logistic Area	**Negative / Mixed / Positive**	**Management Perspective**
Data Collection Instrument		
Well-organized, skip patterns worked	Positive	Early feedback from crews during training and pre-test helped improve the instruments
Open-ended barriers question was difficult, needed samples or probes	Mixed	Wanted to get verbatim responses to open-ended question; subsequent questions designed to probe
CARE question sequence was problematic	Mixed	Because respondents would often talk about their CARE awareness/experience early on in the interview, it was difficult to have to repeat the questions toward the middle of the interview (however, didn't want to bias rest of the survey by having CARE questions up front)
Incentive		
Safeway strike was unfortunate, but not particularly problematic	Mixed	Some interviewers were uncomfortable due to the strike, but most respondents did not have a problem accepting the cards
Safeway/Vons not always available in respondent's area	Mixed	Cash was used when Safeway cards weren't accepted by respondents
Safeway/Vons perceived as "high income" grocery store	Mixed	Difficult to give different options, needed to only use one or two options
Cash might not have been a bad option, although $35 is difficult amount due to number of bills	Mixed	Some felt that offering cash to everyone might not have been as bad as anticipated, although safety and logistics issues precluded using cash from a management perspective; when cash was given out, it would have been better to give $40 or $30 because only two bills are needed
Some respondents felt guilty taking the incentive	Mixed	Some respondents initially refused the card but were persuaded to take it as compensation for their time/effort; encouraged to give to someone who needed it if they felt they didn't
Training		
Comprehensive, role-playing was valuable	Positive	Training helped prepare crews for what to expect in the field
Auditors felt training was too long	Mixed	Most auditors were already trained on energy auditing, but needed to understand the full scope of the data collection

C DETAILED CHARACTERIZATION TABLES

This section presents tables showing characterization information for California's statewide low-income population. The following information is presented in the tables:

1. Household Composition (e.g., Household Size, Elderly/Disabled Household Status, Household Composition)
2. Employment Status of Householder and Spouse
3. Educational Attainment of Householder
4. Race/ethnicity
5. Language
6. Linguistic Isolation
7. Literacy of Head of Household
8. Participation in Non-Energy Low Income Programs (e.g., Medicare, Head Start)
9. Dwelling Type
10. Owner/Renter
11. Tenure in Current Home
12. Tenure in Previous Home
13. Dwelling Vintage
14. Size of Home
15. Space Heating Fuel Type
16. Presence of Air Conditioning (AC) Equipment
17. Water Heating Fuel Type
18. Incidence of Master Metered Households
19. Average Household Winter and Summer Energy Consumption (Gas, Electric)
20. Above Baseline Energy Consumption (Gas, Electric)
21. Annual Energy Costs (Gas and Electric Combined)
22. Energy Burden (Percent of Income Spent on Energy)

Some of the detailed characterization information was not included in the 2000 Census and, as such, we included questions in either the HENS survey or the energy audit to obtain the additional information. Sources for the information presented include:

- The 2000 U.S. Census
- The HENS Survey (HENS)
- The Energy Audit (Audit)
- Utility Billing Data

The detailed characterization tables presented in this section are organized as follows:

- **By investor-owned utility (IOU) service area**
  - PG&E
  - SCE
  - SCG
  - SDG&E

- **By small multi-jurisdictional utility (SMJU) service area**
  - Alpine Natural Gas
  - Avista
  - Bear Valley Electric
  - Mountain Electric
  - PacifiCorp
  - Sierra Pacific
  - Southwest Gas

- **By participation in CARE**
  - CARE participants
  - CARE non-participants

- **By race/ethnicity**
  - White (non-Hispanic)
  - Black
  - Asian
  - Hispanic
  - Other

- **By dwelling type**
  - Mobile home
  - Single family
  - 2-4 units
  - 5 or more units
  - Other

- **By housing density**
  - Very dense (greater than 3,000 households per square mile)
  - Dense (1,500 – 3,000 households per square mile)
  - Sprawl (500 – 1,500 households per square mile)
  - Sparse (200 – 500 households per square mile)
  - Very Sparse (less than 200 households per square mile)

C.1 CHARACTERIZATION OF LOW-INCOME POPULATION BY IOU SERVICE AREA

This section presents tables showing characterization information for California's low-income population ***by IOU service area.*** The information presented for SCE and SCG is not mutually exclusive. That is, the characteristics of low-income households living in the overlapping portions of the SCE and SCG service areas are reflected in the results for both service territories.

Sources for this information include the HENS survey, the energy audit, and utility billing data. Detailed characteristics of low-income households by IOU service territory were not available from the 2000 Census.

C.1.1 Household Composition

Table C-1
Household Size

Household Size	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
1 person	23%	19%	16%	25%	20%
2 persons	22%	19%	17%	20%	21%
3 persons	14%	13%	15%	13%	14%
4 persons	12%	16%	18%	20%	16%
5 or more persons	28%	33%	34%	22%	29%
Sample size	1,530				

Source: HENS

Table C-2
Elderly/Disabled Household Status

Elderly/Disabled Status of Householder or Spouse	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Non-Elderly and Not Disabled	44%	61%	63%	59%	54%
Non-elderly and Disabled	18%	9%	7%	15%	13%
Elderly and Not Disabled	21%	24%	24%	18%	22%
Elderly and Disabled	17%	6%	6%	9%	11%
Sample Size	1,511				

Source: HENS

Table C-3
Household Composition

Household Composition	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Single-parent	12%	13%	14%	8%	13%
Two-parent	35%	41%	43%	34%	37%
No kids	53%	46%	44%	58%	50%
Sample size	1,513				

Source: HENS

C.1.2 Employment

Table C-4
Employment Status

Employment Status of Householder and Spouse*	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Employed	55%	66%	71%	68%	64%
Temporarily laid off	8%	2%	3%	1%	4%
Temporary disability	7%	5%	4%	7%	5%
Permanent disability	20%	12%	9%	5%	14%
Unemployed	22%	13%	17%	11%	18%
Retired	24%	30%	26%	23%	26%
Family business (no pay)	1%	<1%	<1%	0%	<1%
Other	7%	21%	21%	8%	14%
Sample size	1,534				

Source: HENS

*Multiple responses allowed

C.1.3 Education

Table C-5
Education

Educational Attainment of Householder	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Less than high school	24%	36%	35%	30%	30%
High school graduate	29%	31%	24%	15%	27%
Some college	33%	23%	25%	40%	29%
Bachelors degree or higher	14%	10%	16%	15%	15%
Sample size	1,527				

Source: HENS

C.1.4 Race-Ethnicity

Table C-6
Race-Ethnicity

Race-Ethnicity	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
White non-Hispanic	35%	27%	26%	43%	31%
Black	11%	9%	10%	13%	10%
Asian	9%	8%	10%	5%	9%
Hispanic	37%	49%	48%	37%	42%
Other	8%	7%	6%	2%	7%
Sample size	1,517				

Source: HENS

Table C-7
Spanish-Hispanic-Latino Origin

Spanish/Hispanic/ Latino Origin	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Yes	35%	49%	44%	36%	41%
No	65%	51%	56%	64%	59%
Sample size	1,521				

Source: HENS

C.1.5 Language

Table C-8
Primary Language of Household

Primary Language of Household	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
English	68%	61%	49%	71%	62%
Spanish	23%	30%	37%	27%	28%
Mandarin	<1%	1%	<1%	1%	<1%
Cantonese	4%	<1%	1%	0%	2%
Tagalog	1%	<1%	2%	2%	1%
Korean	1%	1%	3%	0%	1%
Vietnamese	1%	3%	<1%	0%	1%
Other	2%	3%	8%	0%	3%
Sample size	1,525				

Source: HENS

Table C-9
Primary Language of Householder

Primary Language of Householder	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
English	66%	61%	52%	71%	62%
Spanish	23%	30%	36%	27%	28%
Mandarin	<1%	1%	1%	1%	<1%
Cantonese	4%	<1%	1%	0%	2%
Tagalog	1%	<1%	1%	2%	1%
Korean	1%	1%	2%	0%	1%
Vietnamese	1%	3%	1%	0%	1%
Other	3%	3%	6%	0%	3%
Sample size	1,525				

Source: HENS

C.1.6 Linguistic Isolation

Data on linguistic isolation was unavailable by IOU service territory.

C.1.7 Literacy

Table C-10
Literacy

Literacy	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Literate	89%	83%	81%	87%	85%
Illiterate	4%	10%	11%	4%	8%
Uncertain	7%	6%	7%	9%	7%
Sample size	1,196				

Source: HENS

C.1.8 Participation in Non-Energy Low-Income Programs

Table C-11
Participation in Non-Energy Low-Income Programs

Any Household Members Participating In…*	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Food stamps	12%	13%	12%	5%	12%
School breakfast or lunch program	26%	28%	26%	21%	26%
Head start (early childhood education)	5%	3%	4%	5%	4%
Meals on wheels	2%	<1%	1%	1%	1%
Food pantry or other food program	5%	2%	3%	3%	3%
Medicare	31%	28%	28%	21%	28%
None	35%	45%	43%	51%	43%
Sample size	1,531				

Source: HENS

*Multiple responses allowed

C.1.9 Dwelling Type

Table C-12
Dwelling Type

Dwelling Type	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Mobile home	6%	9%	0%	6%	6%
Single-family	55%	38%	28%	38%	43%
2 – 4 units	10%	6%	4%	6%	7%
5 or more units	28%	47%	66%	50%	43%
Other	1%	1%	2%	1%	1%
Sample size	1,533				

Source: Audit

C.1.10 Owner/Renter

Table C-13
Owner or Renter

Owner or Renter	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Own	44%	32%	21%	32%	35%
Rent	56%	68%	79%	68%	65%
Sample size	1,530				

Source: HENS

C.1.11 Tenure in Current Home

Table C-14
Tenure in Current Home

Years Lived at Current Address	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Less than 1 year	12%	12%	13%	18%	13%
1 – 2 years	29%	19%	20%	19%	24%
3 – 5 years	23%	29%	22%	25%	25%
6 – 10 years	12%	21%	22%	15%	16%
11 – 15 years	10%	9%	9%	8%	8%
16 – 20 years	4%	2%	3%	1%	3%
More than 20 years	10%	8%	11%	14%	10%
Sample size	1,529				

Source: HENS

C.1.12 Tenure in Previous Home

Table C-15
Tenure in Previous Home

Years Lived at Previous Address	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Less than 1 year	7%	6%	6%	24%	8%
1 – 2 years	20%	32%	30%	33%	27%
3 – 5 years	34%	35%	35%	22%	33%
6 – 10 years	20%	15%	16%	12%	17%
11 – 15 years	7%	6%	7%	2%	6%
16 – 20 years	5%	3%	3%	4%	4%
More than 20 years	6%	2%	3%	3%	4%
Sample size	1,461				

Source: HENS

C.1.13 Dwelling Vintage

Table C-16
Dwelling Vintage

Year Structure Was Built	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
2003	1%	<1%	<1%	1%	1%
2001 – 2002	11%	1%	1%	<1%	6%
1999 – 2000	2%	0%	<1%	4%	1%
1995 – 1998	3%	2%	2%	2%	3%
1990 – 1994	5%	8%	11%	2%	6%
1980 – 1989	14%	22%	12%	18%	16%
1970 – 1979	14%	20%	15%	32%	17%
1960 – 1969	16%	17%	17%	10%	15%
1950 – 1959	16%	18%	22%	10%	17%
1940 – 1949	3%	6%	7%	9%	5%
1939 or earlier	14%	7%	15%	11%	13%
Sample size	790				

Source: HENS

C.1.14Size of Home

Table C-17
Size of Home

Size of Home	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Less than 500 SF	11%	17%	12%	15%	14%
500-999 SF	46%	57%	61%	59%	53%
1000-1999 SF	33%	25%	25%	19%	28%
2000-2999 SF	6%	2%	2%	6%	4%
3000 or more SF	4%	0%	0%	1%	2%
Sample size	1,523				

Source: Audit

C.1.15 Space Heating Fuel Type

Table C-18
Space Heating Fuel Type

Space Heating Fuel Type	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Electric	14%	20%	14%	29%	17%
Natural gas	76%	62%	74%	54%	70%
Oil	<1%	0%	0%	0%	<1%
Propane	6%	1%	0%	4%	3%
Wood or coal	3%	1%	0%	2%	2%
Utility not used for space heating	1%	16%	12%	12%	9%
Sample size	1,527				

Source: Audit

C.1.16 Presence of Air Conditioning (AC) Equipment

Table C-19
Presence of Air Conditioning (AC) Equipment

Is AC present in home?	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Yes	61%	57%	51%	36%	56%
No	39%	43%	49%	64%	44%
Sample size	1,522				

Source: Audit

C.1.17 Water Heating Fuel Type

Table C-20
Water Heating Fuel Type

Water Heating Fuel Type	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Electric	10%	4%	<1%	1%	6%
Natural gas	66%	66%	68%	65%	67%
Propane	6%	2%	0%	4%	3%
Solar	1%	0%	1%	0%	<1%
Wood	<0%	0%	0%	0%	<1%
Utility not used for water heating	18%	27%	31%	30%	24%
Sample size	1,488				

Source: Audit

C.1.18 Incidence of Master Metered Households

Table C-21
Incidence of Master-Metered Households

Is Residence Master-Metered?	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
Yes	3%	5%	5%	9%	5%
No	97%	95%	95%	91%	95%
Sample size	1,534				

Source: Billing Data

C.1.19 Average Household Winter and Summer Energy Consumption

Table C-22
Average Household Winter Gas Usage (Therms)

Average Household Winter Gas Usage	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
0 THM	<1%	<1%	1%	0%	<1%
1 – 99 THM	24%	40%	55%	66%	42%
100 – 199 THM	42%	38%	30%	24%	36%
200 THM or more	34%	22%	13%	11%	22%
Sample size*	936				

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-23
Average Household Winter Electric Usage (kWh)

Average Household Winter Electric Usage	IOU Service Territory			
	PG&E	SCE	SDG&E	Total
Less than 750 kWh	22%	27%	31%	25%
750 – 1,499 kWh	30%	46%	47%	39%
1,500 kWh or more	48%	27%	22%	36%
Sample size*	988			

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

Table C-24
Average Household Summer Gas Usage (Therms)

Average Household Summer Gas Usage	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
0 THM	6%	2%	3%	1%	4%
1 – 49 THM	47%	46%	58%	56%	51%
50 –99 THM	36%	38%	30%	37%	35%
100 THM or more	11%	14%	9%	6%	11%
Sample size*	934				

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-25
Average Household Summer Electric Usage (kWh)

Average Household Summer Electric Usage	IOU Service Territory			
	PG&E	SCE	SDG&E	Total
Less than 750 kWh	21%	23%	34%	23%
750 – 1,499 kWh	32%	37%	50%	36%
1,500 kWh or more	47%	40%	16%	41%
Sample size*	988			

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.1.20 Above Baseline Energy Consumption

Table C-26
Percent Above Baseline – Average Household Gas Usage

Percent Above Baseline – Average Household Gas Usage	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
0 percent	37%	11%	20%	33%	23%
1 – 5 percent	15%	17%	8%	19%	14%
6 – 10 percent	11%	10%	7%	9%	9%
11 – 20 percent	14%	18%	23%	20%	18%
21 – 30 percent	8%	22%	21%	11%	16%
31 – 40 percent	5%	8%	11%	5%	8%
41 – 50 percent	4%	9%	6%	3%	6%
51 – 60 percent	3%	3%	2%	0%	3%
Greater than 60 percent	3%	3%	3%	0%	3%
Sample size*	932				

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-27
Percent Above Baseline – Average Household Electric Usage

Percent Above Baseline – Average Household Electric Usage	IOU Service Territory			
	PG&E	SCE	SDG&E	Total
0 percent	41%	50%	59%	47%
1 – 5 percent	11%	15%	16%	13%
6 – 10 percent	5%	8%	7%	6%
11 – 20 percent	15%	11%	6%	12%
21 – 30 percent	6%	5%	5%	5%
31 – 40 percent	12%	5%	1%	8%
41 – 50 percent	5%	3%	5%	5%
51 – 60 percent	5%	2%	2%	3%
Greater than 60 percent	1%	1%	0%	1%
Sample size*	988			

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.1.21 Annual Energy Costs

Table C-28
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
$1 – $249	15%	8%	48%	4%	18%
$250 – $499	25%	27%	33%	33%	28%
$500 – $749	15%	27%	6%	13%	17%
$750 – $999	9%	12%	2%	14%	9%
$1,000 – $1,249	12%	7%	1%	2%	8%
$1,250 – $1,499	7%	5%	1%	5%	5%
$1,500 – $1,999	7%	4%	1%	8%	5%
$2,000 or greater	9%	9%	8%	20%	10%
Sample size	1,434				

Source: HENS

C.1.22 Energy Burden

Table C-29
Energy Burden (Percent of Income Spent on Energy)

Percent of Income Spent on Energy (Electric and Gas Combined)	IOU Service Territory				
	PG&E	SCE	SCG	SDG&E	Total
0% – 4%	59%	65%	83%	60%	66%
5% – 9%	25%	22%	7%	21%	20%
10% – 14%	5%	5%	4%	2%	5%
15% – 19%	1%	1%	1%	3%	2%
20% – 24%	1%	<1%	1%	2%	1%
25% or greater	8%	7%	4%	12%	7%
Sample size	1,434				

Source: HENS

C.2 CHARACTERIZATION OF LOW-INCOME POPULATION BY SMJU

This section presents tables showing characterization information for California's low-income population by Small Municipal Utility Jurisdiction (SMJU). The seven SMJUs included in this assessment are:

- Alpine Natural Gas
- Avista
- Bear Valley Electric
- Mountain Electric
- PacifiCorp
- Sierra Pacific
- Southwest Gas

The source for this characterization information is the 2000 U.S. Census.

C.2.1 Household Composition

Table C-30
Household Size

Household Size	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
1 person	11%	12%	25%	20%	19%	15%	16%
2 persons	8%	13%	14%	8%	14%	11%	11%
3 persons	5%	19%	12%	28%	13%	12%	14%
4 persons	18%	16%	20%	20%	14%	17%	17%
5 or more persons	58%	41%	29%	24%	40%	46%	44%
Sample Size	190	1,293	562	125	5,493	6,164	5,792

Table C-31
Elderly/Disabled Household Status

Elderly/ Disabled Status of Householder or Spouse	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Non-elderly and Not Disabled	13%	19%	21%	12%	18%	15%	16%
Non-elderly and Disabled	79%	67%	61%	69%	67%	73%	71%
Elderly and Not Disabled	8%	9%	11%	12%	10%	8%	8%
Elderly and Disabled	0%	6%	7%	8%	6%	4%	5%
Sample Size	190	1,207	606	130	5,498	6,182	5706

Table C-32
Household Composition

Household Composition	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Family, no kids	-%	28%	26%	-%	29%	27%	24%
Two parents w/kids	-%	22%	31%	-%	22%	25%	24%
One parent w/kids	-%	24%	10%	-%	25%	29%	29%
Non-family	-%	27%	33%	-%	23%	19%	24%
Sample Size	-	2,109	350	-	5,945	6,950	5,601

C.2.2 Employment

Data on employment was unavailable by SMJU.

C.2.3 Education

Table C-33
Education

Educational Attainment of Householder	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Less than high school	61%	78%	74%	76%	64%	68%	70%
High school graduate	37%	12%	17%	12%	20%	16%	19%
Some college	2%	10%	10%	12%	15%	14%	9%
Bachelors degree or higher	0%	0%	0%	0%	1%	1%	2%
Sample Size	189	1,187	597	125	5,479	6,196	5,707

C.2.4 Race-Ethnicity

Table C-34
Race-Ethnicity

Race and Ethnicity	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
White Non-Hispanic	16%	19%	11%	27%	13%	18%	22%
Black	5%	31%	37%	42%	49%	36%	27%
Asian	0%	0%	0%	0%	0%	0%	0%
Other	77%	50%	52%	31%	38%	45%	51%
Sample Size	189	1,210	594	130	5,474	6,164	5,692

Table C-35
Spanish-Hispanic-Latino Origin

Spanish-Hispanic-Latino Origin	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Not Latino	5%	36%	38%	42%	50%	37%	30%
Mexican	82%	47%	44%	42%	37%	46%	54%
Other Latino	13%	17%	18%	15%	13%	16%	15%
Sample Size	190	1,215	605	130	5,494	6,201	5,731

C.2.5 Language

Table C-36
Primary Language of Household

Primary Language of Household	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
English only	5%	38%	43%	68%	54%	40%	34%
Spanish	95%	62%	57%	32%	46%	59%	66%
Other Indo-European	0%	0%	0%	0%	0%	0%	0%
Asian	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	1%
Sample Size	190	1,214	600	125	5,487	6,192	5,727

Table C-37
Primary Language of Householder

Primary Language of Householder	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
English	5%	38%	43%	68%	54%	40%	34%
German	0%	0%	0%	0%	0%	0%	0%
Spanish	95%	62%	57%	32%	46%	59%	66%
Russian	0%	0%	0%	0%	0%	0%	0%
Armenian	0%	0%	0%	0%	0%	0%	0%
Persian	0%	0%	0%	0%	0%	0%	0%
Chinese or Cantonese	0%	0%	0%	0%	0%	0%	0%
Japanese	0%	0%	0%	0%	0%	0%	0%
Korean	0%	0%	0%	0%	0%	0%	0%
Vietnamese	0%	0%	0%	0%	0%	0%	0%
Tagalog	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	1%
Sample Size	190	1,214	600	125	5,487	6,192	5,727

C.2.6 Linguistic Isolation

Table C-38
Linguistic Isolation

Linguistic Isolation	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Not isolated	71%	72%	75%	84%	84%	76%	70%
Spanish isolation	29%	28%	25%	16%	16%	24%	30%
Indo-European isolation	0%	0%	0%	0%	0%	0%	0%
Asian isolation	0%	0%	0%	0%	0%	0%	0%
Other isolation	0%	0%	0%	0%	0%	0%	0%
Sample Size	190	1,205	595	125	5,492	6,183	5,718

C.2.7 Literacy

Data on literacy was unavailable by SMJU.

C.2.8 Participation in Non-Energy Low-Income Programs

Data on participation in non-energy low-income programs was unavailable by SMJU.

C.2.9 Dwelling Type

Table C-39
Dwelling Type

Dwelling Type	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Mobile home	0%	1%	1%	0%	0%	0%	1%
Single-family	95%	70%	62%	81%	64%	71%	69%
Multi-family 2 – 4 units	5%	16%	16%	3%	15%	18%	19%
Multi-family 5 or more units	0%	13%	21%	16%	21%	11%	11%
Sample Size	190	1,282	564	124	5,508	6,178	5,784

C.2.10 Owner/Renter

Table C-40
Owner or Renter

Owner or Renter	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Own	42%	36%	24%	24%	33%	30%	27%
Rent	58%	64%	76%	76%	67%	69%	73%
Sample Size	190	1,285	557	125	5,522	6,184	5,765

C.2.11 Tenure in Current Home

Data on tenure in current home unavailable by SMJU.

C.2.12 Tenure in Previous Home

Data on tenure in previous home unavailable by SMJU.

C.2.13 Dwelling Vintage

Table C-41
Dwelling Vintage

Year Structure Was Built	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
1999 – 2000	0%	0%	1%	0%	0%	1%	1%
1995 – 1998	0%	0%	1%	0%	2%	3%	2%
1990 – 1994	0%	3%	3%	0%	5%	3%	2%
1980 – 1989	11%	8%	6%	0%	8%	6%	6%
1970 – 1979	16%	11%	10%	8%	12%	13%	13%
1960 – 1969	27%	18%	16%	27%	15%	19%	19%
1950 – 1959	38%	20%	17%	19%	24%	21%	19%
1940 – 1949	2%	14%	24%	31%	18%	17%	16%
1939 or earlier	5%	26%	22%	15%	16%	18%	22%
Sample Size	184	1,279	555	130	5,482	6,123	5,786

C.2.14 Size of Home

Data on size of home unavailable by SMJU.

C.2.15 Space Heating Fuel Type

Table C-42
Space Heating Fuel Type

Space Heating Fuel	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
Natural gas	62%	69%	67%	80%	79%	73%	73%
Electricity	11%	13%	11%	12%	12%	14%	11%
Other fuel	0%	7%	10%	0%	2%	2%	4%
No heating fuel	27%	10%	12%	8%	8%	11%	12%
Sample Size	185	1,289	575	125	5,482	6,146	5,769

C.2.16 Presence of Air Conditioning (AC) Equipment

Data on presence of AC equipment unavailable by SMJU.

C.2.17 Water Heating Fuel Type

Data on water heating fuel type unavailable by SMJU.

C.2.18 Incidence of Master Metered Households

Data on incidence of master metered households unavailable by SMJU.

C.2.19 Average Household Winter and Summer Energy Consumption

Data on average household winter and summer energy consumption unavailable by SMJU.

C.2.20 Above Baseline Energy Consumption

Data on above baseline energy consumption unavailable by SMJU.

C.2.21 Annual Energy Costs

Table C-43
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
$1 – $249	8%	8%	13%	16%	11%	8%	11%
$250 – $499	11%	13%	17%	12%	15%	13%	15%
$500 – $749	14%	21%	31%	32%	16%	21%	27%
$750 – $999	30%	21%	17%	20%	16%	18%	17%
$1,000 – $1,249	22%	9%	7%	16%	11%	11%	9%
$1,250 – $1,499	0%	5%	8%	0%	8%	10%	5%
$1,500 – $1,999	8%	10%	2%	3%	9%	7%	6%
$2,000 or greater	8%	12%	4%	0%	14%	13%	9%
Sample Size	185	1,275	562	124	5,459	6,147	5,798

C.2.22 Energy Burden

Table C-44
Energy Burden (Percent of Income Spent on Energy)

Energy Burden (Electric and Gas Combined)	Alpine Natural Gas	Avista	Bear Valley Electric	Mountain Electric	PacifiCorp	Sierra Pacific	Southwest Gas
0% – 4%	47%	39%	43%	32%	42%	46%	53%
5% – 9%	33%	30%	26%	52%	26%	27%	23%
10% – 14%	12%	8%	16%	12%	13%	9%	9%
15% – 19%	6%	5%	4%	0%	5%	5%	3%
20% – 24%	0%	4%	2%	0%	3%	2%	3%
25% or greater	2%	13%	8%	3%	11%	11%	9%
Sample Size	169	1,214	545	124	4,995	5,678	5,474

C.3 CHARACTERIZATION OF LOW-INCOME POPULATION BY PARTICIPATION IN CARE

This section presents tables showing characterization information for California's low-income population ***by participation in CARE.*** Sources for this information include the HENS survey, the energy audit, and utility billing data.

C.3.1 Household Composition

Table C-45
Household Size

Household Size	CARE Participation		
	Participants	Non-Participants	Total
1 person	21%	19%	20%
2 persons	18%	24%	21%
3 persons	12%	16%	14%
4 persons	16%	15%	16%
5 or more persons	33%	25%	29%
Sample size	1,530		

Source: HENS

Table C-46
Elderly/Disabled Household Status

Elderly/Disabled Status of Householder or Spouse	CARE Participation		
	Participants	Non-Participants	Total
Non-Elderly and Not Disabled	53%	55%	54%
Non-elderly and Disabled	14%	12%	13%
Elderly and Not Disabled	21%	24%	22%
Elderly and Disabled	12%	9%	11%
Sample Size	1,511		

Source: HENS

Table C-47
Household Composition

Household Composition	CARE Participation		
	Participants	Non-Participants	Total
Single-parent	15%	10%	13%
Two-parent	38%	37%	37%
No kids	47%	53%	50%
Sample size	1,513		

Source: HENS

C.3.2 Employment

Table C-48
Employment Status

Employment Status of Householder and Spouse*	CARE Participation		
	Participants	Non-Participants	Total
Employed	63%	64%	64%
Temporarily laid off	5%	3%	4%
Temporary disability	5%	6%	5%
Permanent disability	16%	11%	14%
Unemployed	20%	15%	18%
Retired	25%	27%	26%
Family business (no pay)	<1%	1%	<1%
Other	13%	14%	14%
Sample size	1,534		

Source: HENS

*Multiple responses allowed

C.3.3 Education

Table C-49
Education

Educational Attainment of Householder	CARE Participation		
	Participants	Non-Participants	Total
Less than high school	36%	23%	30%
High school graduate	28%	25%	27%
Some college	25%	33%	29%
Bachelors degree or higher	11%	19%	15%
Sample size	1,527		

Source: HENS

C.3.4 Race-Ethnicity

Table C-50
Race-Ethnicity

Race-Ethnicity	CARE Participation		
	Participants	Non-Participants	Total
White non-Hispanic	27%	36%	31%
Black	10%	11%	10%
Asian	9%	10%	9%
Hispanic	47%	36%	42%
Other	6%	8%	7%
Sample size	1,517		

Source: HENS

Table C-51
Spanish-Hispanic-Latino Origin

Spanish/Hispanic/ Latino Origin	CARE Participation		
	Participants	Non-Participants	Total
Yes	47%	35%	41%
No	53%	65%	59%
Sample size	1,521		

Source: HENS

C.3.5 Language

Table C-52
Primary Language of Household

Primary Language of Household	CARE Participation		
	Participants	Non-Participants	Total
English	55%	70%	62%
Spanish	34%	22%	28%
Mandarin	1%	<1%	<1%
Cantonese	2%	1%	2%
Tagalog	1%	1%	1%
Korean	1%	2%	1%
Vietnamese	2%	<1%	1%
Other	4%	2%	3%
Sample size	1,525		

Source: HENS

Table C-53
Primary Language of Householder

Primary Language of Householder	CARE Participation		
	Participants	Non-Participants	Total
English	55%	70%	62%
Spanish	34%	22%	28%
Mandarin	1%	<1%	<1%
Cantonese	2%	1%	2%
Tagalog	1%	1%	1%
Korean	1%	2%	1%
Vietnamese	2%	<1%	1%
Other	4%	2%	3%
Sample size	1,525		

Source: HENS

C.3.6 Linguistic Isolation

Data on linguistic isolation was unavailable for CARE participants and non-participants.

C.3.7 Literacy

Table C-54
Literacy

Literacy	CARE Participation		
	Participants	Non-Participants	Total
Literate	83%	86%	85%
Illiterate	9%	7%	8%
Uncertain	7%	7%	7%
Sample size	1,196		

Source: HENS

C.3.8 Participation in Non-Energy Low-Income Programs

Table C-55
Participation in Non-Energy Low-Income Programs

Any Household Members Participating In…*	CARE Participation		
	Participants	Non-Participants	Total
Food stamps	14%	9%	12%
School breakfast or lunch program	29%	22%	26%
Head start (early childhood education)	5%	3%	4%
Meals on wheels	1%	<1%	1%
Food pantry or other food program	4%	2%	3%
Medicare	30%	25%	28%
None	37%	50%	43%
Sample size	1,531		

Source: HENS

*Multiple responses allowed

C.3.9 Dwelling Type

Table C-56
Dwelling Type

Dwelling Type	CARE Participation		
	Participants	Non-Participants	Total
Mobile home	4%	8%	6%
Single-family	45%	42%	43%
2 – 4 units	9%	5%	7%
5 or more units	42%	45%	43%
Other	1%	1%	1%
Sample size	1,533		

Source: Audit

C.3.10 Owner/Renter

Table C-57
Owner or Renter

Owner or Renter	CARE Participation		
	Participants	Non-Participants	Total
Own	33%	38%	35%
Rent	67%	62%	65%
Sample size	1,530		

Source: HENS

C.3.11 Tenure in Current Home

Table C-58
Tenure in Current Home

Years Lived at Current Address	CARE Participation		
	Participants	Non-Participants	Total
Less than 1 year	9%	18%	13%
1 – 2 years	25%	23%	24%
3 – 5 years	28%	22%	25%
6 – 10 years	20%	12%	16%
11 – 15 years	10%	7%	8%
16 – 20 years	2%	5%	3%
More than 20 years	8%	12%	10%
Sample size	1,529		

Source: HENS

C.3.12 Tenure in Previous Home

Table C-59
Tenure in Previous Home

Years Lived at Previous Address	CARE Participation		
	Participants	Non-Participants	Total
Less than 1 year	10%	10%	10%
1 – 2 years	33%	33%	33%
3 – 5 years	45%	47%	46%
6 – 10 years	9%	5%	7%
11 – 15 years	2%	3%	2%
16 – 20 years	<1%	1%	1%
More than 20 years	1%	1%	1%
Sample size	1,461		

Source: HENS

C.3.13 Dwelling Vintage

Table C-60
Dwelling Vintage

Year Structure Was Built	CARE Participation		
	Participants	Non-Participants	Total
2003	1%	1%	1%
2001 – 2002	5%	7%	6%
1999 – 2000	1%	2%	1%
1995 – 1998	5%	1%	3%
1990 – 1994	7%	5%	6%
1980 – 1989	15%	16%	16%
1970 – 1979	13%	21%	17%
1960 – 1969	14%	16%	15%
1950 – 1959	22%	11%	17%
1940 – 1949	6%	4%	5%
1939 or earlier	10%	16%	13%
Sample size	790		

Source: HENS

C.3.14 Size of Home

Table C-61
Size of Home

Size of Home	CARE Participation		
	Participants	Non-Participants	Total
Less than 500 SF	16%	10%	14%
500-999 SF	54%	52%	53%
1000-1999 SF	25%	31%	28%
2000-2999 SF	4%	3%	4%
3000 or more SF	<1%	4%	2%
Sample size	1,523		

Source: Audit

C.3.15 Space Heating Fuel Type

Table C-62
Space Heating Fuel Type

Space Heating Fuel Type	CARE Participation		
	Participants	Non-Participants	Total
Electric	18%	16%	17%
Natural gas	71%	68%	70%
Oil	0%	<1%	<1%
Propane	1%	6%	3%
Wood or coal	1%	2%	2%
Utility not used for space heating	9%	8%	9%
Sample size	1,527		

Source: Audit

C.3.16 Presence of Air Conditioning (AC) Equipment

Table C-63
Presence of Air Conditioning (AC) Equipment

Is AC Present in Home?	CARE Participation		
	Participants	Non-Participants	Total
Yes	53%	59%	56%
No	47%	41%	44%
Sample size	1,522		

Source: Audit

C.3.17 Water Heating Fuel Type

Table C-64
Water Heating Fuel Type

Water Heating Fuel Type	CARE Participation		
	Participants	Non-Participants	Total
Electric	5%	6%	6%
Natural gas	70%	62%	67%
Propane	1%	6%	3%
Solar	0%	1%	<1%
Wood	0%	<1%	<1%
Doesn't pay for water heating	23%	25%	24%
Sample size	1,488		

Source: Audit

C.3.18 Incidence of Master Metered Households

Table C-65
Incidence of Master-Metered Households

Is Residence Master-Metered?	CARE Participation		
	Participants	Non-Participants	Total
Yes	0%	11%	5%
No	100%	89%	95%
Sample size	1,534		

Source: HENS

C.3.19 Average Household Winter and Summer Energy Consumption

Table C-66
Average Household Winter Gas Usage (Therms)

Average Household Winter Gas Usage	CARE Participation		
	Participants	Non-Participants	Total
0 THM	<1%	1%	<1%
1 – 99 THM	42%	41%	42%
100 – 199 THM	37%	35%	36%
200 THM or more	21%	24%	22%
Sample size*	936		

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-67
Average Household Winter Electric Usage (kWh)

Average Household Winter Electric Usage	CARE Participation		
	Participants	Non-Participants	Total
Less than 750 kWh	28%	19%	25%
750 – 1,499 kWh	39%	39%	39%
1,500 kWh or more	32%	43%	36%
Sample size*	988		

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

Table C-68
Average Household Summer Gas Usage (Therms)

Average Household Summer Gas Usage	CARE Participation		
	Participants	Non-Participants	Total
0 THM	1%	7%	4%
1 – 49 THM	51%	50%	51%
50 –99 THM	35%	34%	35%
100 THM or more	13%	9%	11%
Sample size*	934		

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-69
Average Household Summer Electric Usage (kWh)

Average Household Summer Electric Usage	CARE Participation		
	Participants	Non-Participants	Total
Less than 750 kWh	22%	24%	23%
750 – 1,499 kWh	39%	32%	36%
1,500 kWh or more	39%	44%	41%
Sample size*	988		

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.3.20 Above Baseline Energy Consumption

Table C-70
Percent Above Baseline – Average Household Gas Usage

Percent Above Baseline – Average Household Gas Usage	CARE Participation		
	Participants	Non-Participants	Total
0 percent	24%	23%	23%
1 – 5 percent	15%	12%	14%
6 – 10 percent	10%	8%	9%
11 – 20 percent	17%	20%	18%
21 – 30 percent	16%	16%	16%
31 – 40 percent	8%	7%	8%
41 – 50 percent	5%	7%	6%
51 – 60 percent	2%	4%	3%
Greater than 60 percent	2%	3%	3%
Sample size*	932		

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-71
Percent Above Baseline – Average Household Electric Usage

Percent Above Baseline – Average Household Electric Usage	CARE Participation		
	Participants	Non-Participants	Total
0 percent	51%	40%	47%
1 – 5 percent	12%	14%	13%
6 – 10 percent	8%	3%	6%
11 – 20 percent	11%	14%	12%
21 – 30 percent	5%	6%	5%
31 – 40 percent	5%	12%	8%
41 – 50 percent	4%	5%	5%
51 – 60 percent	2%	4%	3%
Greater than 60 percent	1%	1%	1%
Sample size*	988		

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.3.21 Annual Energy Costs

Table C-72
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	CARE Participation		
	Participants	Non-Participants	Total
$1 – $249	18%	18%	18%
$250 – $499	34%	31%	28%
$500 – $749	20%	13%	17%
$750 – $999	10%	9%	9%
$1,000 – $1,249	9%	6%	8%
$1,250 – $1,499	4%	7%	5%
$1,500 – $1,999	2%	9%	5%
$2,000 or greater	3%	17%	10%
Sample size	1,434		

Source: HENS

Table C-73
Energy Burden (Percent of Income Spent on Energy)

Percent of Income Spent on Energy (Electric and Gas Combined)	CARE Participation		
	Participants	Non-Participants	Total
0% – 4%	69%	62%	66%
5% – 9%	24%	16%	20%
10% – 14%	4%	6%	5%
15% – 19%	1%	2%	2%
20% – 24%	<1%	1%	1%
25% or greater	2%	14%	7%
Sample size	1,434		

Source: HENS

C.4 CHARACTERIZATION OF LOW-INCOME POPULATION BY RACE-ETHNICITY

This section presents tables showing characterization information for California's statewide low-income population crossed by ***Race-Ethnicity.*** Sources for this information include the 2000 U.S. Census, the HENS survey, the energy audit, and utility billing data.

C.4.1 Household Composition

Table C-74
Household Size

Household Size	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
1 person	54%	36%	27%	13%	33%	35%
2 persons	23%	21%	22%	12%	21%	19%
3 persons	9%	16%	14%	13%	14%	12%
4 persons	7%	12%	15%	18%	13%	12%
5 or more persons	7%	16%	22%	44%	19%	23%

Source: 2000 Census

Table C-75
Elderly/Disabled Household Status

Elderly/Disabled Status of Householder or Spouse	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Non-Elderly and Not Disabled	44%	37%	56%	68%	46%	55%
Non-elderly and Disabled	9%	24%	5%	13%	23%	13%
Elderly and Not Disabled	33%	15%	28%	13%	20%	21%
Elderly and Disabled	14%	24%	11%	5%	10%	11%
Sample Size	1,500					

Source: HENS

Table C-76
Household Composition

Household Composition	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Single-parent	12%	37%	12%	27%	22%	20%
Two-parent	11%	9%	30%	45%	21%	25%
No kids	76%	53%	58%	29%	57%	55%

Source: 2000 Census

C.4.2 Employment

Table C-77
Employment Status

Employment Status of Householder and Spouse	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Full-time	28%	33%	38%	63%	39%	42%
Part-time	17%	15%	17%	12%	17%	15%
Not employed	55%	52%	44%	26%	44%	43%

Source: 2000 Census

C.4.3 Education

Table C-78
Education

Educational Attainment of Householder	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than high school	22%	32%	32%	67%	29%	40%
High school graduate	28%	28%	18%	17%	25%	23%
Some college	34%	33%	25%	13%	32%	26%
Bachelors degree or higher	16%	7%	25%	3%	15%	11%

Source: 2000 Census

C.4.4 Race-Ethnicity

Results by race-ethnicity are presented throughout this section.

C.4.5 Language

Table C-79
Primary Language of Household

Primary Language of Household	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
English only	85%	92%	11%	11%	56%	52%
Spanish	4%	5%	1%	89%	8%	34%
Other Indo-European	9%	1%	6%	<1%	18%	5%
Asian	1%	<1%	83%	<1%	11%	8%
Other	1%	2%	<1%	<1%	7%	1%

Source: 2000 Census

Table C-80
Primary Language of Householder

Primary Language of Householder	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
English only	88%	96%	13%	15%	60%	55%
German	1%	<1%	<1%	<1%	1%	1%
Spanish	2%	2%	1%	85%	5%	31%
Russian	1%	0%	<1%	<1%	1%	1%
Armenian	1%	0%	0%	<1%	4%	1%
Persian	1%	<1%	<1%	<1%	4%	1%
Chinese	<1%	0%	17%	<1%	1%	2%
Cantonese	0%	0%	5%	<1%	<1%	<1%
Japanese	<1%	<1%	6%	<1%	<1%	1%
Korean	<1%	<1%	13%	<1%	<1%	1%
Vietnamese	<1%	<1%	14%	<1%	1%	1%
Tagalog	<1%	<1%	10%	<1%	1%	1%
Other	5%	2%	22%	<1%	21%	5%

Source: 2000 Census

C.4.6 Linguistic Isolation

Table C-81
Linguistic Isolation

Linguistic Isolation	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Not isolated	96%	99%	55%	63%	87%	81%
Spanish isolation	<1%	<1%	<1%	36%	1%	13%
Indo-European isolation	3%	<1%	1%	<1%	7%	2%
Asian isolation	<1%	<1%	43%	<1%	3%	4%
Other isolation	<1%	<1%	<1%	<1%	2%	<1%

Source: 2000 Census

C.4.7 Literacy

Table C-82
Literacy

Literacy	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Literate	90%	88%	66%	82%	86%	85%
Illiterate	3%	6%	19%	12%	7%	8%
Uncertain	7%	6%	15%	6%	7%	7%
Sample size	1,196					

Source: HENS

C.4.8 Participation in Non-Energy Low-Income Programs

Table C-83
Participation in Non-Energy Low-Income Programs

Any Household Members Participating In…*	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Medicare	41%	44%	28%	13%	20%	27%
School breakfast or lunch program	11%	17%	23%	40%	24%	26%
Food stamps	6%	25%	10%	13%	16%	12%
Head start (early childhood education)	2%	3%	2%	7%	<1%	4%
Food pantry or other food program	4%	0%	5%	2%	7%	3%
Meals on wheels	1%	1%	1%	1%	0%	1%
None	45%	33%	47%	43%	50%	43%
Sample size	1,531					

Source: HENS
*Multiple responses allowed

C.4.9 Dwelling Type

Table C-84
Dwelling Type

Dwelling Type	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Mobile home	11%	1%	1%	4%	6%	6%
Single-family	51%	41%	41%	49%	45%	48%
2 – 4 units	10%	17%	14%	14%	13%	12%
5 or more units	28%	41%	44%	33%	35%	33%
Other	<1%	<1%	<1%	<1%	<1%	<1%

Source: 2000 Census

C.4.10 Owner/Renter

Table C-85
Owner or Renter

Owner or Renter	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Own	45%	24%	27%	29%	40%	34%
Rent	55%	76%	73%	71%	60%	66%
Sample size	1,513					

Source: HENS

C.4.11 Tenure in Current Home

Table C-86
Tenure in Current Home

Years Lived at Current Address	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than 1 year	10%	12%	23%	13%	16%	13%
1 – 2 years	22%	14%	20%	29%	13%	23%
3 – 5 years	21%	39%	18%	27%	31%	25%
6 – 10 years	16%	10%	21%	17%	21%	16%
11 – 15 years	11%	6%	12%	7%	6%	9%
16 – 20 years	4%	3%	4%	3%	2%	3%
More than 20 years	17%	16%	2%	6%	10%	10%
Sample size	1,529					

Source: HENS

C.4.12 Tenure in Previous Home

Table C-87
Tenure in Previous Home

Years Lived at Previous Address	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than 1 year	9%	2%	12%	12%	12%	8%
1 – 2 years	31%	28%	46%	34%	32%	27%
3 – 5 years	47%	65%	27%	45%	41%	32%
6 – 10 years	7%	4%	12%	7%	10%	18%
11 – 15 years	4%	<1%	3%	2%	2%	6%
16 – 20 years	<1%	<1%	0%	1%	<1%	4%
More than 20 years	2%	<1%	0%	<1%	2%	4%
Sample size	1,461					

Source: HENS

C.4.13 Dwelling Vintage

Table C-88
Dwelling Vintage

Year Structure Was Built	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
1999 – 2000	1%	1%	1%	1%	1%	1%
1995 – 1998	3%	3%	4%	3%	3%	3%
1990 – 1994	5%	5%	8%	5%	6%	5%
1980 – 1989	16%	15%	18%	15%	15%	16%
1970 – 1979	23%	18%	23%	19%	22%	21%
1960 – 1969	17%	18%	17%	20%	18%	18%
1950 – 1959	16%	17%	12%	18%	15%	16%
1940 – 1949	8%	12%	7%	10%	9%	9%
1939 or earlier	10%	13%	10%	9%	11%	10%

Source: 2000 Census

C.4.14Size of Home

Table C-89
Size of Home

Size of Home	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than 500 SF	12%	7%	12%	18%	11%	12%
500-999 SF	50%	54%	47%	59%	46%	51%
1000-1999 SF	32%	34%	31%	22%	34%	31%
2000-2999 SF	4%	4%	10%	1%	8%	5%
3000 or more SF	2%	0%	0%	0%	1%	1%
Sample size	1,506					

Source: Audit

C.4.15Space Heating Fuel Type

Table C-90
Space Heating Fuel Type

Space Heating Fuel Type	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Utility gas	65%	71%	61%	65%	62%	65%
Bottled gas	6%	2%	3%	3%	5%	4%
Electricity	24%	26%	34%	25%	27%	25%
Oil, kerosene, etc.	1%	<1%	<1%	<1%	1%	<1%
Coal or coke	<1%	0%	0%	<1%	0%	<1%
Wood	3%	<1%	<1%	1%	4%	2%
Solar	<1%	<1%	<1%	<1%	<1%	<1%
Other fuel	<1%	<1%	<1%	<1%	<1%	<1%
No heating fuel	1%	1%	2%	6%	1%	3%

Source: 2000 Census

C.4.16 Presence of Air Conditioning (A/C) Equipment

Table C-91
Presence of Air Conditioning (AC) Equipment

Is AC present in home?	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Yes	71%	47%	47%	46%	61%	54%
No	29%	53%	53%	54%	39%	46%
Sample size	1,506					

Source: Audit

C.4.17 Water Heating Fuel Type

Table C-92
Water Heating Fuel Type

Water Heating Fuel Type	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Electric	13%	1%	2%	3%	3%	4%
Natural gas	61%	73%	60%	71%	75%	68%
Propane	5%	0%	0%	1%	5%	2%
Solar	1%	0%	0%	<1%	0%	<1%
Wood	0%	0%	<1%	0%	0%	<1%
Doesn't pay for water heating	21%	26%	38%	25%	16%	25%
Sample size	1,473					

Source: Audit

C.4.18 Incidence of Mater Metered Households

Table C-93
Incidence of Master-Metered Households

Is residence master-metered?	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Yes	5%	4%	8%	6%	4%	5%
No	95%	96%	92%	94%	96%	95%
Sample size	1,534					

Source: HENS

C.4.19 Average Household Winter and Summer Energy Consumption

Table C-94
Average Household Winter Gas Usage (Therms)

Average Household Winter Gas Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
0 THM	1%	<1%	1%	<1%	<1%	<1%
1 – 99 THM	28%	41%	55%	50%	30%	41%
100 – 199 THM	39%	28%	31%	37%	35%	36%
200 THM or more	32%	31%	13%	13%	34%	22%
Sample size*	929					

Source: Utility Billing Data

*Master-metered and households without IOU natural gas service were excluded.

Table C-95
Average Household Winter Electric Usage (KWh)

Average Household Winter Electric Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than 750 kWh	23%	25%	25%	26%	24%	25%
750 – 1,499 kWh	34%	32%	45%	46%	30%	40%
1,500 kWh or more	43%	43%	30%	27%	46%	35%
Sample size*	977					

Source: Utility Billing Data

*Master-metered and households without IOU natural gas service were excluded.

Table C-96
Average Household Summer Gas Usage (Therms)

Average Household Summer Gas Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
0 THM	6%	3%	2%	1%	6%	3%
1 – 49 THM	54%	51%	49%	51%	37%	51%
50 –99 THM	31%	39%	31%	35%	46%	35%
100 THM or more	9%	8%	18%	13%	11%	11%
Sample size*	927					

Source: Utility Billing Data
*Master-metered and households without IOU natural gas service were excluded.

Table C-97
Average Household Summer Electric Usage (kWh)

Average Household Summer Electric Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
Less than 750 kWh	18%	22%	25%	27%	28%	23%
750 – 1,499 kWh	33%	38%	56%	38%	21%	37%
1,500 kWh or more	50%	40%	19%	35%	51%	40%
Sample size*	977					

Source: Utility Billing Data
*Master-metered and households without IOU electric service were excluded.

C.4.20 Above Baseline Energy Consumption

Table C-98
Percent Above Baseline – Average Household Gas Usage

Percent Above Baseline – Average Household Gas Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
0 percent	32%	26%	20%	17%	24%	23%
1 – 5 percent	13%	7%	11%	17%	14%	14%
6 – 10 percent	5%	13%	13%	10%	9%	9%
11 – 20 percent	15%	14%	18%	22%	18%	18%
21 – 30 percent	12%	15%	22%	19%	16%	17%
31 – 40 percent	10%	5%	6%	7%	10%	8%
41 – 50 percent	8%	4%	5%	5%	6%	6%
51 – 60 percent	2%	11%	0%	2%	0%	3%
Greater than 60 percent	4%	4%	4%	1%	1%	3%
Sample size*	925					

Source: Utility Billing Data

*Master-metered, and households without IOU natural gas service were excluded.

Table C-99
Percent Above Baseline – Average Household Electric Usage

Percent Above Baseline – Average Household Electric Usage	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
0 percent	40%	44%	54%	54%	34%	47%
1 – 5 percent	14%	12%	16%	13%	15%	13%
6 – 10 percent	6%	11%	3%	6%	9%	6%

11 – 20 percent	13%	6%	17%	12%	14%	13%
21 – 30 percent	6%	3%	4%	5%	12%	6%
31 – 40 percent	7%	7%	1%	6%	9%	6%
41 – 50 percent	8%	9%	<1%	2%	2%	5%
51 – 60 percent	4%	7%	6%	1%	5%	3%
Greater than 60 percent	2%	1%	0%	<1%	<1%	1%
Sample size*	977					

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.4.21 Annual Energy Costs

Table C-100
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
$1 – $249	9%	12%	13%	9%	10%	10%
$250 – $499	16%	14%	20%	18%	16%	17%
$500 – $749	19%	17%	21%	22%	19%	20%
$750 – $999	14%	13%	14%	16%	14%	15%
$1,000 – $1,249	14%	13%	11%	13%	14%	13%
$1,250 – $1,499	7%	7%	5%	6%	7%	7%
$1,500 – $1,999	10%	9%	7%	8%	10%	9%
$2,000 or greater	11%	14%	7%	9%	10%	10%

Source: 2000 Census

C.4.22 Energy Burden

Table C-101
Energy Burden (Percent of Income Spent on Energy)

Energy Burden (Electric and Gas Combined)	Race-Ethnicity					
	White Non-Hispanic	Black	Asian	Hispanic	Other	Total
0% – 4%	36%	32%	46%	54%	37%	43%
5% – 9%	30%	26%	23%	24%	28%	27%
10% – 14%	12%	13%	8%	8%	12%	10%
15% – 19%	5%	6%	3%	3%	5%	5%
20% – 24%	3%	4%	2%	2%	3%	2%
25% or greater	13%	18%	18%	9%	15%	13%

Source: 2000 Census

C.5 CHARACTERIZATION OF LOW-INCOME POPULATION BY DWELLING TYPE

This section presents tables showing characterization information for California's statewide low-income population crossed by ***Dwelling Type.*** Sources for this information include the 2000 U.S. Census, the HENS survey, the energy audit, and utility billing data.

C.5.1 Household Composition

Table C-102
Household Size

Household Size	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
1 person	50%	30%	31%	39%	61%	35%
2 persons	22%	19%	17%	19%	26%	19%
3 persons	8%	11%	13%	13%	6%	12%
4 persons	8%	13%	14%	12%	4%	12%
5 or more persons	12%	28%	24%	17%	4%	23%

Source: 2000 Census

Table C-103
Elderly/Disabled Household Status

Elderly/Disabled Status of Householder or Spouse	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Non-Elderly and Not Disabled	43%	47%	54%	63%	63%	54%
Non-elderly and Disabled	15%	15%	24%	9%	5%	13%
Elderly and Not Disabled	23%	26%	8%	21%	19%	22%
Elderly and Disabled	19%	13%	15%	7%	13%	11%
Sample Size	1510					

Source: 2000 Census

Table C-104
Household Composition

Household Composition	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Family, no kids	20%	19%	12%	12%	16%	16%
Two parents w/kids	16%	29%	24%	20%	8%	25%
One parent w/kids	10%	19%	27%	22%	8%	20%
Non-family	54%	33%	37%	46%	68%	39%

Source: 2000 Census

C.5.2 Employment

Table C-105
Employment Status

Employment Status of Householder and Spouse	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Full-time	28%	42%	46%	43%	28%	42%
Part-time	11%	13%	17%	18%	19%	15%
Not employed	60%	45%	38%	39%	53%	43%

Source: 2000 Census

C.5.3 Education

Table C-106
Education

Educational Attainment of Householder	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than high school	40%	40%	43%	37%	35%	40%
High school graduate	29%	24%	22%	22%	26%	23%
Some college	25%	25%	26%	27%	32%	26%
Bachelors degree or higher	5%	11%	9%	14%	7%	11%

Source: 2000 Census

C.5.4 Race-Ethnicity

Table C-107
Race-Ethnicity

Race-Ethnicity	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
White non-Hispanic	71%	45%	34%	37%	80%	43%
Black	2%	8%	13%	12%	2%	9%
Asian	2%	8%	10%	12%	2%	9%
Hispanic	21%	36%	39%	36%	11%	35%
Other	4%	4%	4%	4%	5%	4%

Source: 2000 Census

Table C-108
Spanish-Hispanic-Latino Origin

Spanish-Hispanic-Latino Origin	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Not Latino	79%	64%	61%	64%	89%	65%
Mexican	17%	29%	30%	26%	8%	27%
Other	4%	7%	9%	10%	3%	8%

Source: 2000 Census

C.5.5 Language

Table C-109
Primary Language of Household

Primary Language of Household	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
English only	73%	53%	48%	47%	82%	52%
Spanish	21%	35%	37%	34%	11%	34%
Other Indo-European	3%	5%	4%	7%	4%	5%
Asian	2%	7%	9%	11%	2%	8%
Other	<1%	1%	1%	1%	<1%	1%

Source: 2000 Census

Table C-110
Primary Language of Householder

Primary Language of Householder	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
English only	76%	57%	52%	50%	86%	55%
German	1%	1%	<1%	<1%	1%	1%
Spanish	19%	32%	35%	32%	9%	31%
Russian	<1%	<1%	<1%	1%	0%	1%
Armenian	<1%	<1%	1%	2%	<1%	1%
Persian	<1%	<1%	<1%	1%	0%	1%
Chinese	<1%	1%	2%	2%	<1%	2%
Cantonese	<1%	<1%	<1%	1%	<1%	<1%
Japanese	<1%	1%	<1%	1%	<1%	1%
Korean	<1%	1%	1%	2%	1%	1%
Vietnamese	1%	1%	2%	1%	0%	1%
Tagalog	<1%	1%	1%	1%	<1%	1%
Other	2%	5%	6%	6%	2%	5%

Source: 2000 Census

C.5.6 Linguistic Isolation

Table C-111
Linguistic Isolation

Linguistic Isolation	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Not isolated	89%	84%	78%	75%	93%	81%
Spanish isolation	9%	11%	16%	16%	5%	13%
Indo-European isolation	1%	1%	2%	3%	<1%	2%
Asian isolation	1%	3%	5%	6%	1%	4%
Other isolation	<1%	<1%	<1%	1%	<1%	<1%

Source: 2000 Census

C.5.7 Literacy

Table C-112
Literacy

Literacy	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Literate	96%	85%	86%	83%	69%	85%
Illiterate	4%	7%	7%	10%	27%	8%
Uncertain	0%	8%	7%	7%	4%	7%
Sample size	1,196					

Source: HENS

C.5.8 Participation in Non-Energy Low-Income Programs

Table C-113
Participation in Non-Energy Low-Income Programs

Any Household Members Participating In…*	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Medicare	37%	29%	25%	26%	32%	28%
School breakfast or lunch program	35%	28%	27%	22%	43%	26%
Food stamps	8%	10%	31%	11%	14%	12%
Head start (early childhood education)	8%	4%	12%	2%	4%	4%
Food pantry or other food program	3%	3%	3%	3%	0%	3%
Meals on wheels	5%	<1%	0%	1%	6%	1%
None	31%	40%	39%	48%	24%	43%
Sample size	1,531					

Source: HENS

*Multiple responses allowed

C.5.9 Dwelling Type

Results by dwelling type are presented throughout this section.

C.5.10 Owner/Renter

Table C-114
Owner or Renter

Owner or Renter	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Own	77%	64%	12%	5%	19%	35%
Rent	23%	36%	88%	95%	81%	65%
Sample size	1,529					

Source: HENS

C.5.11 Tenure in Current Home

Table C-115
Tenure in Current Home

Years Lived at Current Address	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than 1 year	5%	10%	20%	16%	11%	13%
1 – 2 years	27%	20%	34%	27%	6%	24%
3 – 5 years	33%	20%	25%	30%	10%	25%
6 – 10 years	15%	16%	13%	17%	34%	16%
11 – 15 years	13%	12%	6%	5%	4%	8%
16 – 20 years	<1%	5%	2%	2%	0%	3%
More than 20 years	7%	17%	1%	4%	36%	10%
Sample size	1,529					

Source: HENS

C.5.12 Tenure in Previous Home

Table C-116
Tenure in Previous Home

Years Lived at Previous Address	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than 1 year	7%	5%	9%	12%	3%	8%
1 – 2 years	15%	21%	30%	34%	19%	27%
3 – 5 years	34%	37%	39%	28%	38%	33%
6 – 10 years	28%	20%	10%	15%	12%	17%
11 – 15 years	4%	8%	5%	5%	29%	6%
16 – 20 years	<1%	5%	4%	3%	0%	4%
More than 20 years	11%	4%	4%	3%	0%	4%
Sample size	1,461					

Source: HENS

C.5.13 Dwelling Vintage

Table C-117
Dwelling Vintage

Year Structure Was Built	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
1999 – 2000	1%	1%	1%	1%	3%	1%
1995 – 1998	3%	3%	3%	3%	5%	3%
1990 – 1994	5%	5%	5%	7%	8%	5%
1980 – 1989	20%	12%	14%	20%	27%	16%
1970 – 1979	43%	15%	21%	25%	39%	21%
1960 – 1969	19%	17%	19%	20%	8%	18%
1950 – 1959	5%	21%	15%	12%	7%	16%
1940 – 1949	1%	12%	10%	6%	1%	9%
1939 or earlier	2%	13%	12%	7%	2%	10%

Source: 2000 Census

C.5.14Size of Home

Table C-118
Size of Home

Size of Home	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than 500 SF	22%	5%	13%	21%	9%	14%
500-999 SF	35%	37%	70%	69%	66%	55%
1000-1999 SF	43%	46%	17%	10%	23%	28%
2000-2999 SF	0%	8%	<1%	<1%	2%	2%
3000 or more SF	0%	4%	0%	0%	0%	1%
Sample Size	1,522					

Source: Audit

C.5.15Space Heating Fuel Type

Table C-119
Space Heating Fuel Type

Space Heating Fuel Type	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Utility gas	63%	73%	67%	53%	10%	65%
Bottled gas	16%	4%	2%	2%	49%	4%
Electricity	13%	16%	26%	41%	32%	25%
Oil, kerosene, etc.	1%	1%	<1%	<1%	1%	<1%
Coal or coke	<1%	<1%	0%	<1%	0%	<1%
Wood	5%	3%	<1	<1%	4%	2%
Solar	<1%	<1%	<1%	<1%	<1%	<1%
Other fuel	1%	<1%	<1%	<1%	2%	<1%
No heating fuel	1%	2%	4%	3%	2%	3%

Source: 2000 Census

C.5.16 Presence of Air Conditioning (AC) Equipment

Table C-120
Presence of Air Conditioning (A/C) Equipment

Is AC present in home?	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Yes	78%	59%	48%	52%	24%	52%
No	22%	41%	52%	48%	76%	48%
Sample size	1,521					

Source: Audit

C.5.17 Water Heating Fuel Type

Table C-121
Water Heating Fuel

Water Heating Fuel	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Electric	4%	6%	<1%	6%	3%	4%
Natural gas	84%	87%	76%	41%	70%	72%
Propane	11%	6%	0%	<1%	0%	3%
Solar	0%	1%	0%	<1%	0%	<1%
Wood	0%	0%	1%	0%	0%	<1%
Doesn't pay for water heating	1%	<1%	23%	53%	27%	21%
Sample size	1,487					

Source: Audit

C.5.18 Incidence of Master-Metered Households

Table C-122
Incidence of Master-Metered Households

Is residence master-metered?	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Yes	28%	1%	0%	8%	0%	5%
No	72%	99%	100%	92%	100%	95%
Sample size	1,534					

Source: HENS

C.5.19 Average Household Winter and Summer Energy Consumption

Table C-123
Average Household Winter Gas Usage (Therms)

Average Household Winter Gas Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
0 THM	0%	<1%	0%	1%	0%	<1%
1-99 THM	0%	18%	31%	69%	50%	42%
100 – 199 THM	37%	41%	59%	26%	44%	36%
200 THM or more	63%	40%	10%	4%	6%	22%
Sample size*	936					

Source: Utility Billing Data
*Master-metered and households without IOU natural gas service were excluded.

Table C-124
Average Household Winter Electric Usage (kWh)

Average Household Winter Electric Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than 750 kWh	13%	13%	21%	42%	49%	25%
750 – 1,499 kWh	67%	31%	41%	45%	30%	39%
1,500 kWh or more	20%	56%	38%	13%	21%	36%
Sample size*	987					

Source: Utility Billing Data
*Master-metered and households without IOU electric service were excluded.

Table C-125
Average Household Summer Gas Usage (Therms)

Average Household Summer Gas Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
0 THM	0%	1%	0%	7%	0%	4%
1 – 49 THM	31%	32%	48%	72%	45%	51%
50 –99 THM	66%	49%	38%	18%	38%	35%
100 THM or more	3%	18%	14%	3%	17%	11%
Sample size*	934					

Source: Utility Billing Data
*Master-metered and households without IOU natural gas service were excluded.

Table C-126
Average Household Summer Electric Usage (kWh)

Average Household Summer Electric Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
Less than 750 kWh	12%	14%	24%	37%	17%	23%
750 – 1,499 kWh	26%	31%	29%	46%	73%	36%
1,500 kWh or more	63%	55%	47%	18%	10%	41%
Sample size*	987					

Source: Utility Billing Data
*Master-metered and households without IOU electric service were excluded.

C.5.20 Above Baseline Energy Consumption

Table C-127
Percent Above Baseline – Average Household Gas Usage

Percent Above Baseline – Average Household Gas Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
0 percent	0%	11%	22%	37%	34%	23%
1 – 5 percent	27%	14%	21%	12%	17%	14%
6 – 10 percent	0%	10%	11%	8%	2%	9%
11 – 20 percent	70%	17%	20%	18%	28%	18%
21 – 30 percent	0%	19%	18%	15%	6%	16%
31 – 40 percent	0%	9%	5%	7%	6%	8%
41 – 50 percent	3%	10%	2%	2%	0%	6%
51 – 60 percent	0%	5%	1%	1%	6%	3%
Greater than 60 percent	0%	5%	0%	1%	0%	3%
Sample size*	932					

Source: Utility Billing Data
*Master-metered and households without IOU natural gas service were excluded.

Table C-128
Percent Above Baseline – Average Household Electric Usage

Percent Above Baseline – Average Household Electric Usage	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
0 percent	43%	27%	41%	74%	71%	47%
1 – 5 percent	17%	12%	18%	13%	8%	13%
6 – 10 percent	5%	8%	4%	4%	10%	6%
11 – 20 percent	18%	18%	8%	5%	4%	12%
21 – 30 percent	<1%	9%	5%	1%	1%	5%
31 – 40 percent	12%	11%	14%	1%	0%	8%
41 – 50 percent	3%	8%	7%	<1%	0%	5%
51 – 60 percent	2%	6%	3%	<1%	0%	3%
Greater than 60 percent	0%	2%	1%	0%	6%	1%
Sample size*	987					

Source: Utility Billing Data
*Master-metered and households without IOU electric service were excluded.

C.5.21 Annual Energy Costs

Table C-129
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
No energy bill	0%	0%	0%	0%	0%	0%
$1 – $249	8%	5%	10%	16%	23%	10%
$250 – $499	15%	8%	19%	30%	30%	17%
$500 – $749	22%	16%	25%	25%	19%	20%
$750 – $999	17%	16%	17%	12%	8%	15%
$1,000 – $1,249	14%	17%	12%	8%	9%	13%
$1,250 – $1,499	7%	9%	5%	3%	2%	7%
$1,500 – $1,999	8%	14%	6%	3%	3%	9%
$2,000 or greater	9%	16%	6%	4%	5%	10%

Source: 2000 Census

C.5.22 Energy Burden

Table C-130
Energy Burden (Percent of Income Spent on Energy)

Percent of Income Spent on Energy (Electric and Gas Combined)	Dwelling Type					
	Mobile Home	Single Family	2-4 Units	5 or More Units	Other	Total
No energy bill	0%	0%	0%	0%	0%	0%
0% – 4%	38%	33%	47%	56%	52%	43%
5% – 9%	32%	31%	26%	21%	26%	27%
10% – 14%	11%	13%	9%	7%	5%	10%
15% – 19%	5%	6%	4%	3%	3%	5%
20% – 24%	2%	3%	2%	2%	2%	2%
25% or greater	11%	14%	12%	12%	13%	13%

Source: 2000 Census

C.6 CHARACTERIZATION OF LOW-INCOME POPULATION BY HOUSING DENSITY

This section presents tables showing characterization information for California's statewide low-income population crossed by ***Housing Density***. Five categories of housing density were established for this assessment:

- **Very dense:** greater than 3,000 households per square mile.
- **Dense:** 1,500 - 3,000 households per square mile.
- **Sprawl:** 500 - 1,500 households per square mile.
- **Sparse:** 200 - 500 households per square mile.
- **Very sparse:** less than 200 households per square mile.

Sources for this information include the HENS survey, the energy audit, and utility billing data.

C.6.1 Household Composition

Table C-131
Household Size

Household Size	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
1 person	21%	20%	18%	12%	25%	20%
2 persons	20%	18%	26%	23%	20%	21%
3 persons	15%	17%	12%	12%	11%	14%
4 persons	15%	17%	14%	20%	13%	16%
5 or more persons	28%	28%	29%	32%	31%	29%
Sample size	1,530					

Source: HENS

Table C-132
Elderly/Disabled Household Status

Elderly/Disabled Status of Householder or Spouse	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Non-Elderly and Not Disabled	59%	54%	59%	55%	45%	54%
Non-elderly and Disabled	8%	14%	9%	18%	17%	13%
Elderly and Not Disabled	23%	21%	22%	12%	26%	22%
Elderly and Disabled	9%	11%	11%	15%	12%	11%
Sample Size	1,511					

Source: HENS

Table C-133
Household Composition

Household Composition	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Single-parent	13%	11%	15%	20%	10%	13%
Two-parent	35%	41%	33%	42%	38%	37%
No kids	52%	48%	52%	38%	52%	50%
Sample size	1,513					

Source: HENS

C.6.2 Employment

Table C-134
Employment Status

Employment Status of Householder and Spouse*	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Employed	66%	68%	70%	64%	52%	64%
Temporarily laid off	2%	4%	5%	1%	7%	4%
Temporary disability	3%	4%	7%	11%	7%	5%
Permanent disability	9%	15%	14%	16%	15%	14%
Unemployed	19%	15%	16%	20%	22%	18%
Retired	26%	25%	28%	17%	29%	26%
Family business (no pay)	<1%	<1%	0%	0%	1%	<1%
Other	14%	17%	11%	16%	11%	14%
Sample size	1,534					

Source: HENS

*Multiple responses allowed

C.6.3 Education

Table C-135
Education

Educational Attainment of Householder	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Less than high school	31%	32%	27%	30%	26%	30%
High school graduate	21%	22%	34%	31%	30%	27%
Some college	27%	34%	21%	24%	34%	29%
Bachelors degree or higher	20%	12%	19%	15%	9%	15%
Sample size	1,527					

Source: HENS

C.6.4 Race-Ethnicity

Table C-136
Race-Ethnicity

Race-Ethnicity	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
White	20%	27%	29%	42%	45%	31%
Black	14%	12%	9%	4%	7%	10%
Asian	15%	11%	10%	1%	4%	9%
Hispanic	44%	41%	44%	50%	38%	42%
Other	8%	8%	8%	3%	6%	7%
Sample size	1,517					

Source: HENS

Table C-137
Spanish-Hispanic-Latino Origin

Spanish-Hispanic-Latino Origin	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Yes	44%	41%	43%	50%	36%	41%
No	56%	59%	57%	50%	64%	59%
Sample size	1,521					

Source: HENS

C.6.5 Language

Table C-138
Primary Language of Household

Primary Language of Household	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
English	49%	61%	72%	63%	71%	62%
Spanish	35%	29%	22%	31%	25%	28%
Mandarin	1%	<1%	1%	0%	0%	<1%
Cantonese	5%	1%	2%	0%	0%	2%
Tagalog	2%	<1%	1%	<1%	1%	1%
Korean	1%	1%	0%	0%	3%	1%
Vietnamese	1%	3%	1%	0%	0%	1%
Other	5%	6%	1%	5%	0%	3%
Sample size	1,525					

Source: HENS

Table C-139
Primary Language of Householder

Primary Language of Householder	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
English	49%	61%	72%	63%	71%	62%
Spanish	35%	29%	22%	31%	25%	28%
Mandarin	1%	<1%	1%	0%	0%	<1%
Cantonese	5%	1%	2%	0%	0%	2%
Tagalog	2%	<1%	1%	<1%	1%	1%
Korean	2%	1%	0%	0%	3%	1%
Vietnamese	1%	3%	1%	0%	0%	1%
Other	5%	6%	1%	5%	0%	3%
Sample size	1,525					

Source: HENS

C.6.6 Linguistic Isolation

Data on linguistic isolation was unavailable by household density.

C.6.7 Literacy

Table C-140
Literacy

Literacy	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Literate	84%	83%	93%	79%	82%	85%
Illiterate	9%	9%	3%	11%	11%	8%
Uncertain	7%	8%	5%	10%	7%	7%
Sample size	1,196					

Source: HENS

C.6.8 Participation in Non-Energy Low-Income Programs

Table C-141
Participation in Non-Energy Low-Income Programs

Any Household Members Participating In…*	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Food stamps	13%	11%	8%	10%	13%	12%
School breakfast or lunch program	23%	24%	21%	28%	33%	26%
Head start (early childhood education)	2%	3%	7%	<1%	5%	4%
Meals on wheels	<1%	<1%	1%	4%	<1%	1%
Food pantry or other food program	3%	3%	3%	1%	4%	3%
Medicare	25%	27%	23%	27%	35%	28%
None	47%	46%	49%	44%	29%	43%
Sample size	1,531					

Source: HENS

*Multiple responses allowed

C.6.9 Dwelling Type

Table C-142
Dwelling Type

Dwelling Type	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Mobile home	<1%	<1%	2%	17%	16%	6%
Single-family	30%	41%	41%	54%	58%	43%
2 – 4 units	8%	8%	7%	5%	6%	7%
5 or more units	60%	49%	49%	24%	21%	43%
Other	2%	1%	<1%	<1%	<1%	1%
Sample size	1,533					

Source: Audit

C.6.10 Owner/Renter

Table C-143
Owner or Renter

Owner or Renter	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Own	20%	31%	33%	49%	51%	35%
Rent	80%	69%	67%	51%	49%	65%
Sample size	1,530					

Source: HENS

C.6.11 Tenure in Current Home

Table C-144
Tenure in Current Home

Years Lived at Current Address	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Less than 1 year	13%	15%	14%	9%	10%	13%
1 – 2 years	21%	19%	24%	18%	35%	24%
3 – 5 years	21%	29%	26%	26%	25%	25%
6 – 10 years	19%	18%	18%	17%	10%	16%
11 – 15 years	8%	6%	7%	21%	9%	8%
16 – 20 years	4%	2%	5%	<1%	2%	3%
More than 20 years	14%	11%	6%	8%	8%	10%
Sample size	1,529					

Source: HENS

C.6.12 Tenure in Previous Home

Table C-145
Tenure in Previous Home

Years Lived at Previous Address	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Less than 1 year	8%	8%	8%	7%	9%	8%
1 – 2 years	29%	32%	29%	25%	18%	27%
3 – 5 years	34%	25%	35%	29%	42%	33%
6 – 10 years	17%	15%	16%	23%	20%	17%
11 – 15 years	6%	8%	6%	9%	4%	6%
16 – 20 years	3%	6%	3%	4%	2%	4%
More than 20 years	3%	5%	4%	2%	6%	4%
Sample size	1,461					

Source: HENS

C.6.13Dwelling Vintage

Table C-146
Dwelling Vintage

Year Structure Was Built	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
2003	<1%	0%	2%	4%	<1%	1%
2001 – 2002	0%	0%	3%	4%	18%	6%
1999 – 2000	0%	<1%	6%	1%	1%	1%
1995 – 1998	3%	3%	0%	2%	4%	3%
1990 – 1994	3%	7%	12%	9%	3%	6%
1980 – 1989	10%	12%	19%	9%	23%	16%
1970 – 1979	10%	17%	24%	28%	15%	17%
1960 – 1969	12%	19%	16%	14%	15%	15%
1950 – 1959	14%	24%	8%	21%	15%	17%
1940 – 1949	10%	9%	2%	4%	1%	5%
1939 or earlier	38%	10%	8%	6%	5%	13%
Sample size	790					

Source: HENS

C.6.14Size of Home

Table C-147
Size of Home

Size of Home	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Less than 500 SF	20%	13%	13%	6%	11%	14%
500-999 SF	57%	59%	53%	52%	43%	53%
1000-1999 SF	20%	24%	28%	37%	36%	28%
2000-2999 SF	3%	3%	6%	2%	4%	4%
3000 or more SF	<1%	1%	0%	3%	6%	2%
Sample size	1,523					

Source: Audit

C.6.15 Space Heating Fuel Type

Table C-148
Space Heating Fuel Type

Space Heating Fuel Type	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Electric	18%	18%	18%	12%	16%	17%
Natural gas	69%	73%	71%	76%	62%	70%
Oil	0%	0%	0%	0%	<1%	<1%
Propane	0%	<1%	0%	1%	14%	3%
Wood or coal	1%	<1%	0%	0%	6%	2%
Utility not used for space heating	12%	9%	11%	12%	2%	9%
Sample size	1,527					

Source: Audit

C.6.16 Presence of Air Conditioning (AC) Equipment

Table C-149
Presence of Air Conditioning (AC) Equipment

Is AC present in home?	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Yes	26%	56%	56%	67%	80%	56%
No	74%	44%	44%	33%	20%	44%
Sample size	1,522					

Source: Audit

C.6.17 Water Heating Fuel Type

Table C-150
Water Heating Fuel Type

Water Heating Fuel	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Electric	2%	5%	3%	5%	13%	6%
Natural gas	64%	68%	72%	78%	59%	67%
Propane	0%	0%	0%	1%	14%	3%
Solar	0%	2%	<1%	0%	<1%	<1%
Wood	0%	0%	0%	<1%	0%	<1%
Doesn't pay for water heating	34%	25%	25%	15%	15%	24%
Sample size	1,488					

Source: Audit

C.6.18 Incidence of Master-Metered Households

Table C-151
Incidence of Master-Metered Households

Is residence master-metered?	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Yes	5%	6%	5%	11%	4%	5%
No	95%	94%	95%	89%	96%	95%
Sample size	1,534					

Source: HENS

C.6.19 Average Household Winter and Summer Energy Consumption

Table C-152
Average Household Winter Gas Usage (Therms)

Average Household Winter Gas Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
0 THM	1%	<1%	0%	1%	0%	<1%
1 – 99 THM	55%	37%	48%	18%	27%	42%
100 – 199 THM	34%	38%	31%	41%	39%	36%
200 THM or more	10%	24%	21%	41%	34%	22%
Sample size*	936					

Source: Utility Billing Data
*Master-metered and households without IOU natural gas service were excluded.

Table C-153
Average Household Winter Electric Usage (kWh)

Average Household Winter Electric Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
Less than 750 kWh	40%	29%	23%	26%	13%	25%
750 – 1,499 kWh	41%	43%	45%	33%	32%	39%
1,500 kWh or more	19%	28%	33%	41%	55%	36%
Sample size*	988					

Source: Utility Billing Data
*Master-metered and households without IOU electric service were excluded.

Table C-154
Average Household Summer Gas Usage (Therms)

Average Household Summer Gas Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
0 THM	3%	7%	1%	0%	3%	4%
1 – 49 THM	54%	44%	57%	51%	49%	51%
50 –99 THM	31%	37%	27%	44%	42%	35%
100 THM or more	12%	12%	15%	5%	6%	11%
Sample size*	934					

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-155
Average Household Summer Electric Usage (kWh)

Average Household Summer Electric Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
100 – 749 kWh	41%	29%	17%	26%	10%	22%
750 – 1,499 kWh	46%	36%	43%	30%	27%	36%
1,500 – 10,000 kWh	13%	34%	40%	44%	63%	41%
Sample size*	988					

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.6.20 Above Baseline Energy Consumption

Table C-156
Percent Above Baseline – Average Household Gas Usage

Percent Above Baseline – Average Household Gas Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
0 percent	20%	26%	21%	12%	36%	23%
1 – 5 percent	10%	13%	18%	24%	11%	14%
6 – 10 percent	12%	4%	10%	10%	11%	9%
11 – 20 percent	22%	19%	15%	11%	17%	18%
21 – 30 percent	20%	19%	13%	17%	7%	16%
31 – 40 percent	8%	6%	10%	10%	6%	8%
41 – 50 percent	4%	5%	5%	13%	10%	6%
51 – 60 percent	2%	6%	1%	0%	1%	3%
Greater than 60 percent	2%	2%	7%	3%	0%	3%
Sample size*	932					

Source: Utility Billing Data
*Master-metered, and households without IOU natural gas service were excluded.

Table C-157
Percent Above Baseline – Average Household Electric Usage

Percent Above Baseline – Average Household Electric Usage	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
0 percent	66%	50%	48%	46%	31%	47%
1 – 5 percent	13%	12%	16%	11%	12%	13%
6 – 10 percent	4%	5%	8%	2%	9%	6%
11 – 20 percent	6%	14%	8%	9%	18%	12%
21 – 30 percent	3%	7%	7%	15%	3%	5%
31 – 40 percent	4%	6%	5%	3%	15%	8%
41 – 50 percent	2%	4%	2%	4%	8%	5%
51 – 60 percent	2%	2%	4%	7%	3%	3%
Greater than 60 percent	<1%	<1%	2%	2%	1%	1%
Sample size*	988					

Source: Utility Billing Data
*Master-metered, and households without IOU electric service were excluded.

C.6.21 Annual Energy Costs

Table C-158
Annual Energy Costs (Electric and Gas Combined)

Annual Energy Costs (Electric and Gas Combined)	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
$1 – $249	30%	21%	13%	15%	8%	18%
$250 – $499	33%	27%	30%	28%	23%	28%
$500 – $749	17%	17%	20%	17%	14%	17%
$750 – $999	9%	11%	9%	9%	8%	9%
$1,000 – $1,249	2%	9%	6%	2%	14%	8%
$1,250 – $1,499	3%	4%	7%	5%	8%	5%
$1,500 – $1,999	2%	3%	6%	2%	12%	5%
$2,000 or greater	5%	7%	9%	22%	13%	10%
Sample size	1,434					

Source: Utility Billing Data

C.6.22 Energy Burden

Table C-159
Energy Burden (Percent of Income Spent on Energy)

Percent of Income Spent on Energy (Electric and Gas Combined)	Housing Density					
	Very Dense	Dense	Sprawl	Sparse	Very Sparse	Total
0% – 4%	77%	75%	61%	61%	43%	66%
5% – 9%	14%	17%	22%	22%	29%	20%
10% – 14%	2%	3%	7%	7%	9%	5%
15% – 19%	1%	1%	2%	2%	2%	2%
20% – 24%	1%	<1%	0%	0%	1%	1%
25% or greater	5%	4%	9%	9%	15%	7%
Sample size	1,434					

Source: Utility Billing Data

D DETAILED NEEDS ASSESSMENT TABLES

This section presents tables showing needs assessment results for California's statewide low-income population. The following types of information is presented in the tables:

1. Program Awareness
2. Sources of Information
3. Willingness to Participate
4. Agreement with Statements about Barriers to Participation
5. Participation in Non-Energy Low-Income Programs
6. Energy Insecurity Issues
7. Health, Comfort and Safety Issues

Sources for the information presented include:

- The HENS Survey (HENS)
- The Energy Audit (Audit)
- Utility Billing Data

The tables presented in this section are organized as follows:

- **By participation in CARE**
    - CARE participants
    - CARE non-participants
- **By race/ethnicity**
    - White (non-Hispanic)
    - Black
    - Asian
    - Hispanic
    - Other
- **By housing density**
    - Very dense (greater than 3,000 households per square mile)
    - Dense (1,500 – 3,000 households per square mile)
    - Sprawl (500 – 1,500 households per square mile)
    - Sparse (200 – 500 households per square mile)
    - Very Sparse (less than 200 households per square mile)

D.1 NEEDS ASSESSMENT TABLES BY PARTICIPATION IN CARE

D.1.1 *Program Awareness*

Table D-1
Awareness of CARE Program

	CARE Participation	
	Participants (n = 769)	**Non-Participants** (n = 761)
Aware	56%	28%
Aided recall	9%	4%
Maybe aware	9%	7%
Not aware	26%	60%

D.1.2 *Sources of Information*

Table D-2
Sources of Information

	CARE Participation	
	Participants (n = 331)	**Non-Participants** (n = 285)
Watch TV not in English	90%	83%
Listen to radio not in English	77%	77%
Read daily paper not in English	35%	22%
Read weekly local/ community newspaper not in English	37%	26%

Note: "n" indicates lowest number of respondents to any question.

Table D-3
Days per Week Read Daily Newspaper

	CARE Participation	
	Participants (n = 766)	**Non-Participants** (n = 757)
0 times	51%	47%
Once per week	16%	17%
2-4 days per week	14%	12%
5 days	3%	2%
6 days	1%	2%
7 days	16%	18%

Table D-4
Days per Week Read Weekly Local/Community Newspaper

	CARE Participation	
	Participants (n = 770)	**Non-Participants** (n = 760)
0 times	51%	47%
Once per month	14%	16%
2-4 days per month	23%	22%
More than 4 times per month	12%	14%

Table D-5
Computer in Home

	CARE Participation	
	Participants (n = 768)	**Non-Participants** (n = 757)
Yes	54%	59%
No	46%	41%

Table D-6
Computer in Home has Internet Access

	CARE Participation	
	Participants (n = 418)	**Non-Participants** (n = 449)
Yes	73%	78%
No	27%	22%

Table D-7
Do you have Internet Access outside of Home

	CARE Participation	
	Participants (n = 462)	**Non-Participants** (n = 398)
Yes	13%	21%
No	87%	79%

Table D-8
Hours per week on Internet

	CARE Participation	
	Participants (n = 360)	**Non-Participants** (n = 427)
Less than 1 hour per week	22%	18%
1-7 hours per week	44%	39%
8-14 hours per week	21%	18%
Over 15 hours per week	14%	25%

Table D-9
Information Sources for Energy Conservation

	CARE Participation	
	Participants (n = 716)	**Non-Participants** (n = 707)
Utility bill insert/flyer	11%	13%
Call utility	73%	65%
Go to utility office	4%	5%
Utility website	6%	10%
Other website	3	6
Friend or relative	12	12
Tradesperson	2	4
Library	1	1
Media	6	2
Talk to other people	<1	2
Use common sense	1	1
Community organization	3	1
Yellow pages	<1	<1
Fairs	<1	<1
Nowhere	<1	<1
Utility rep	0	<1
HEAP	1	<1
School	<1	<1
Social worker	<1	1
Call the city	<1	<1
CARE program	<1	0
Local representative	1	0
Included in rent	<1	<1
Landlord	<1	<1
Don't' pay utility bill	<1	1

Table D-10
How often read utility bill insert/flyer

	CARE Participation	
	Participants (n = 768)	**Non-Participants** (n = 757)
Never	30%	43%
Rarely	23%	21%
Often	25%	20%
Always	23%	15%

Table D-11
If necessary, where would you go for help paying your electric bill

	CARE Participation	
	Participants (n = 698)	**Non-Participants** (n = 694)
Nowhere	11	7
Utility	59	62
County assistance office	5	3
State assistance office	2	3
Community action program	3	<1
Local community group	5	7
Church group	12	4
Friend or relative	22	30
HEAP, LIHEAP	3	1
No problem paying bill	<1	1
Landlord/owner	<1	<1
Included in rent	<1	<1
CARE program	1	<1
EOC	<1	<1
Get a loan	1	1
Non-profit at Fulton Mall	<1	0

D.1.3 *Willingness to Participate*

Table D-12
Feelings about Program Participation

Feelings about program participation	CARE Participation	
	Participants	Non-Participants
Sure I would	82%	75%
Want more information	4%	7%
These programs are good for those in need	3%	3%
If I had to, I would	2%	3%
No way	2%	3%
Negative process comment	2%	2%
Don't need it now	1%	3%
Hesitant	1%	2%
Not eligible	1%	2%
Somewhat willing	1%	1%
Don't like it, but I have to	1%	<1%
Others need it more	0%	1%
Housing and healthcare okay, but no food stamps	<1%	1%
Other	<1%	<1%

Table D-13
General Willingness to Participate

General willingness to participate	CARE Participation	
	Participants	Non-Participants
Very willing	84%	75%
Not needed	9%	16%
If necessary	5%	6%
Not willing	2%	3%

D.1.4 *Agreement with Statements about Barriers to Participation*

Table D-14
No Programs to Help a Household Like Mine

No programs to help a household like mine	CARE Participation	
	Participants	Non-Participants
Strongly disagree	44%	38%
Somewhat disagree	37%	32%
Somewhat agree	11%	17%
Strongly agree	7%	14%

Table D-15
Forms are Confusing

Forms are Confusing	CARE Participation	
	Participants	Non-Participants
Strongly disagree	43%	30%
Somewhat disagree	30%	32%
Somewhat agree	9%	14%
Strongly agree	2%	4%

Table D-16
Don't Want Government or Utility in Home

Don't want government or utility in home	CARE Participation	
	Participants	Non-Participants
Strongly disagree	58%	53%
Somewhat disagree	31%	29%
Somewhat agree	16%	22%
Strongly agree	11%	16%

Table D-17
Difficult to Prove Income

Difficult to prove income	CARE Participation	
	Participants	Non-Participants
Strongly disagree	52%	60%
Somewhat disagree	27%	21%
Somewhat agree	14%	13%
Strongly agree	7%	6%

Table D-18
Lose Independence

Lose independence	CARE Participation	
	Participants	Non-Participants
Strongly disagree	51%	50%
Somewhat disagree	27%	29%
Somewhat agree	12%	14%
Strongly agree	9%	6%

Table D-19
Difficult to Apply

Difficult to apply	CARE Participation	
	Participants	Non-Participants
Strongly disagree	33%	24%
Somewhat disagree	27%	27%
Somewhat agree	23%	27%
Strongly agree	18%	22%

Table D-20
Takes too Long to Get Services

Takes too long to get services	CARE Participation	
	Participants	Non-Participants
Strongly disagree	25%	17%
Somewhat disagree	31%	30%
Somewhat agree	22%	27%
Strongly agree	22%	25%

Table D-21
Someone Else in Household is Against Participating

Someone else in household is against participating	CARE Participation	
	Participants	Non-Participants
Strongly disagree	74%	67%
Somewhat disagree	19%	23%
Somewhat agree	4%	6%
Strongly agree	2%	5%

Table D-22
Embarrassed

Embarrassed	CARE Participation	
	Participants	Non-Participants
Strongly disagree	64%	60%
Somewhat disagree	24%	19%
Somewhat agree	10%	16%
Strongly agree	2%	5%

Table D-23
Worried the Information Will Be Shared with the Government

Worried the information will be shared with the government	CARE Participation	
	Participants	Non-Participants
Strongly disagree	45%	46%
Somewhat disagree	24%	21%
Somewhat agree	15%	19%
Strongly agree	15%	15%

Table D-24
Others Need it More

Others need it more	CARE Participation	
	Participants	Non-Participants
Strongly disagree	34%	30%
Somewhat disagree	26%	16%
Somewhat agree	26%	33%
Strongly agree	15%	21%

D.1.5 *Participation in Non-Energy Low-Income Programs*

Table D-25
Other Program Participation

Other program participation	CARE Participation	
	Participants	Non-Participants
Medicare	30%	25%
School lunch	29%	22%
Food stamps	14%	9%
Head start	5%	3%
Food pantry/other	4%	2%
Meals on wheels	1%	<1%
None	37%	50%

Table D-26
Participation in Other Programs

Participation in other programs	CARE Participation	
	Participants	Non-Participants
Medi-Cal	56%	37%
WIC	19%	15%
No	23%	27%
No children under 5	26%	23%
No children under 20	32%	35%

Table D-27
Participating in HFP

HFP	14%	9%
No	49%	51%
No children under 20	37%	41%

Table D-28
Participating in at Least One Program

Participating in at least one program	CARE Participation	
	Participants	Non-Participants
Yes	79%	63%
No	21%	37%

Table D-29
Number of Other Programs

Number of other programs	CARE Participation	
	Participants	Non-Participants
None	21%	37%
One	26%	29%
Two or more	53%	35%

Table D-30
Medi-Cal, WIC, and HFP

Medi-Cal, WIC, and HFP	CARE Participation	
	Participants	Non-Participants
None	37%	57%
One	44%	30%
Two	17%	12%
Three	2%	1%

D.1.6 *Energy Insecurity Issues*

Table D-31
Energy Insecurity Index

Energy Insecurity Index	CARE Participation	
	Participants	Non-Participants
Thriving	19%	27%
Capable	7%	6%
Stable	5%	5%
Vulnerable	38%	38%
In crisis	31%	24%

Table D-32
Worry about Paying Energy Bill

Worry about paying energy bill	CARE Participation	
	Participants	Non-Participants
Almost every month	17%	10%
Some months	18%	19%
One or two months	17%	17%
Never/no	48%	55%

Table D-33
Cut Back on Basic Necessities in Past 12 Months

Cut back on basic necessities in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	23%	13%
Some months	23%	25%
One or two months	16%	13%
Never/no	38%	49%

Table D-34
Borrowed Money to Pay Energy Bill in Past 12 Months

Borrowed money to pay energy bill in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	5%	1%
Some months	12%	10%
One or two months	16%	17%
Never/no	67%	72%

Table D-35
Did Not Pay Bill or Made Partial Payment in Past 12 Months

Did not pay bill or made partial payment in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	6%	4%
Some months	15%	14%
One or two months	19%	14%
Never/no	59%	68%

Table D-36
Threatened with Disconnection in Past 12 Months

Threatened with disconnection in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	3%	2%
Some months	8%	6%
One or two months	12%	13%
Never/no	77%	79%

Table D-37
Closed Off Part of Home in Past 12 Months

Closed off part of home in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	11%	5%
Some months	8%	8%
One or two months	3%	5%
Never/no	78%	82%

Table D-38
Kept Temperature at Unsafe Level in Past 12 Months

Kept temperature at unsafe level in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	2%	3%
Some months	11%	6%
One or two months	4%	4%
Never/no	83%	87%

Table D-39
Left Home for the Day in Past 12 Months (Too Hot/Cold)

Left home for the day in past 12 months (too hot or cold)	CARE Participation	
	Participants	Non-Participants
Almost every month	2%	2%
Some months	15%	8%
One or two months	8%	9%
Never/no	76%	82%

Table D-40
Used Kitchen Stove for Heat in Past 12 Months

Used kitchen stove for heat in past 12 months	CARE Participation	
	Participants	Non-Participants
Almost every month	1%	2%
Some months	6%	8%
One or two months	4%	5%
Never/no	89%	85%

Table D-41
Electricity Shut Off for Nonpayment in Past 12 Months

Electricity shut off for nonpayment in past 12 months	CARE Participation	
	Participants	Non-Participants
Yes	96%	95%
No	4%	5%

D.1.7 *Health, Comfort and Safety Issues*

Table D-42
Sicknesses in Past 12 Months

Sicknesses in past 12 months	CARE Participation	
	Participants	Non-Participants
Sick due being too cold	20%	16%
Sick due to being too hot	10%	6%
Sick due home air quality	8%	6%
Sick due to home heating method	3%	2%
Sick due to drinking water	2%	2%

Table D-43
How Comfortable is Your Home in the Winter

How comfortable is your home in the winter	CARE Participation	
	Participants	Non-Participants
Not at all comfortable	7%	7%
Not too comfortable	11%	11%
Somewhat comfortable	39%	33%
Very comfortable	43%	48%

Table D-44
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	CARE Participation	
	Participants	Non-Participants
Never	13%	7%
Sometimes	48%	39%
Most of the time	17%	25%
Always	22%	29%

Table D-45
Is Your Home too Cold in the Winter

Is your home too cold in the winter	CARE Participation	
	Participants	Non-Participants
Never	25%	35%
Sometimes	51%	39%
Most of the time	13%	13%
Always	11%	13%

Table D-46
Is Your Home too Drafty in the Winter

Is your home too drafty in the winter	CARE Participation	
	Participants	Non-Participants
Never	49%	51%
Sometimes	30%	28%
Most of the time	7%	7%
Always	14%	14%

Table D-47
Is Your Home too Hot in the Winter

Is your home too hot in the winter	CARE Participation	
	Participants	Non-Participants
Never	84%	90%
Sometimes	14%	9%
Most of the time	1%	<1%
Always	1%	<1%

Table D-48
Is Your Home too Stuffy in the Winter

Is your home too stuffy in the winter	CARE Participation	
	Participants	Non-Participants
Never	59%	64%
Sometimes	33%	30%
Most of the time	4%	4%
Always	4%	3%

Table D-49
How Comfortable is Your Home in the Summer

How comfortable is your home in the summer	CARE Participation	
	Participants	Non-Participants
Not at all comfortable	12%	10%
Not too comfortable	16%	14%
Somewhat comfortable	46%	38%
Very comfortable	27%	38%

Table D-50
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	CARE Participation	
	Participants	Non-Participants
Never	13%	9%
Sometimes	56%	58%
Most of the time	20%	22%
Always	11%	11%

Table D-51
How Secure Do You Feel in Your Home

How secure do you feel in your home	CARE Participation	
	Participants	Non-Participants
Not at all secure	3%	2%
Not too secure	6%	4%
Somewhat secure	25%	22%
Very secure	66%	72%

Table D-52
Main Reasons You Feel Home is not Secure

Main reasons you feel home is not secure	CARE Participation	
	Participants	Non-Participants
Burglarized or vandalized	28%	17%
Windows not secure	25%	22%
Neighborhood or location	20%	20%
Door not secure	16%	21%
Weapons/gangs/drugs/violence	11%	3%
Main gate/door not secure	9%	11%
Live alone/feel isolated	5%	2%
Old/unsafe apartment	4%	4%
No alarm system	2%	6%
Heavy traffic	2%	2%
Bad lighting	1%	2%
Other	3%	3%

Table D-53
Changes that Can Make Home More Secure

Changes that can make home more secure	CARE Participation	
	Participants	Non-Participants
Install more/better locks	47%	49%
Replace/repair broken windows	23%	19%
Install/use security lighting	22%	25%
Replace/repair broken door/lock	21%	15%
Add security bars/grills	16%	15%
Install alarm system	11%	9%
Install security gate/fence	11%	4%
Nothing	7%	5%
Move away	3%	5%
Install security cameras	3%	1%
Patrol more often	2%	2%
Get a dog	2%	1%
Make repairs to apartment	1%	2%
Put up (fake) alarm sign/sticker	1%	<1%
Other	9%	7%

D.2 NEEDS ASSESSMENT TABLES BY RACE/ETHNICITY

D.2.1 *Program Awareness*

Table D-54
Awareness of CARE Program

	Race/Ethnicity				
	White Non-Hispanic (n = 406)	**Black** (n = 170)	**Asian** (n = 160)	**Hispanic** (n = 637)	**Other** (n = 129)
Aware	47%	34%	38%	43%	40%
Aided recall	7%	11%	3%	7%	5%
Maybe aware	7%	13%	3%	8%	11%
Not aware	38%	42%	56%	42%	44%

D.2.2 *Sources of Information*

Table D-55
Sources of Information

	Race/Ethnicity				
	White Non-Hispanic (n = 406)	**Black** (n = 170)	**Asian** (n = 160)	**Hispanic** (n = 637)	**Other** (n = 129)
Watch TV not in English	76%	45%	71%	95%	59%
Listen to radio not in English	63%	45%	57%	87%	39%
Read daily paper not in English	5%	2%	69%	49%	18%
Read weekly local/ community newspaper not in English	7%	4%	55%	58%	21%

Table D-56
Days per Week Read Daily Newspaper

	Race/Ethnicity				
	White Non-Hispanic (n = 408)	**Black** (n = 17)	**Asian** (n = 163)	**Hispanic** (n = 641)	**Other** (n = 130)
0 times	45%	44%	46%	58%	34%
Once per week	15%	14%	12%	20%	13%
2-4 days per week	11%	18%	13%	11%	25%
5 days	3%	2%	4%	2%	5%
6 days	4%	1%	<1%	<1%	<1%
7 days	22%	21%	26%	8%	21%

Table D-57
Days per Week Read Weekly Local/Community Newspaper

	Race/Ethnicity				
	White Non-Hispanic (n = 406)	**Black** (n = 172)	**Asian** (n = 163)	**Hispanic** (n = 638)	**Other** (n = 130)
0 times	43%	51%	60%	53%	44%
Once per month	17%	16%	10%	15%	11%
2-4 days per month	25%	21%	19%	23%	25%
More than 4 times per month	15%	12%	11%	9%	20%

Table D-58
Computer in Home

	Race/Ethnicity				
	White Non-Hispanic (n = 407)	**Black** (n = 173)	**Asian** (n = 163)	**Hispanic** (n = 638)	**Other** (n = 130)
Yes	71%	52%	71%	45%	62%
No	29%	48%	29%	55%	38%

Table D-59
Computer in Home has Internet Access

	Race/Ethnicity				
	White Non-Hispanic (n = 266)	**Black** (n = 86)	**Asian** (n = 119)	**Hispanic** (n = 302)	**Other** (n = 88)
Yes	85%	73%	90%	56%	89%
No	15%	27%	10%	44%	11%

Table D-60
Do you have Internet Access outside of Home

	Race/Ethnicity				
	White Non-Hispanic (n = 181)	**Black** (n = 109)	**Asian** (n = 55)	**Hispanic** (n = 450)	**Other** (n = 56)
Yes	15%	24%	24%	13%	35%
No	85%	76%	76%	87%	65%

Table D-61
Hours per week on Internet

	Race/Ethnicity				
	White Non-Hispanic (n = 256)	**Black** (n = 84)	**Asian** (n = 112)	**Hispanic** (n = 237)	**Other** (n = 92)
Less than 1 hour per week	12%	20%	18%	32%	16%
1-7 hours per week	43%	44%	29%	44%	39%
8-14 hours per week	24%	13%	13%	18%	22%
Over 15 hours per week	20%	23%	40%	7%	23%

Table D-62
Information Sources for Energy Conservation

	Race/Ethnicity				
	White Non-Hispanic (n = 371)	**Black** (n = 163)	**Asian** (n = 142)	**Hispanic** (n = 609)	**Other** (n = 124)
Utility bill insert/flyer	14%	19%	8%	10%	9%
Call utility	64%	73%	53%	74%	71%
Go to utility office	2%	6%	1%	7%	2%
Utility website	14%	6%	12%	4%	13%
Other website	6%	3%	7%	2%	8%
Friend or relative	10%	8%	27%	12%	13%
Tradesperson	6%	0%	3%	1%	2%
Library	1%	1%	0%	1%	1%
Media	4%	2%	12%	4%	2%
Talk to other people	3%	<1%	1%	<1%	0%
Use common sense	3%	1%	0%	1%	<1%
Community organization	1%	1%	1%	3%	2%
Yellow pages	0%	1%	0%	<1%	1%
Fairs	0%	<1%	2%	0%	0%
Nowhere	<1%	<1%	0%	<1%	0%
Utility rep	0%	0%	0%	1%	0%
HEAP	<1%	1%	2%	<1%	0%
School	0%	0%	0%	<1%	0%
Social worker	1%	0%	1%	<1%	1%
Call the city	<1%	<1%	1%	0%	0%
CARE program	0%	0%	0%	<1%	0%
Local representative	1%	0%	<1%	0%	0%
Included in rent	<1%	1%	0%	0%	0%
Landlord	1%	0%	0%	<1%	1%
Don't' pay utility bill	<1%	2%	1%	<1%	2%

Table D-63
How often read utility bill insert/flyer

	Race/Ethnicity				
	White Non-Hispanic (n = 410)	**Black** (n = 173)	**Asian** (n = 160)	**Hispanic** (n = 637)	**Other** (n = 129)
Never	28%	26%	53%	40%	30%
Rarely	23%	26%	24%	20%	23%
Often	29%	25%	15%	18%	27%
Always	19%	23%	8%	22%	20%

Table D-64
If necessary, where would you go for help paying your electric bill

	Race/Ethnicity				
	White Non-Hispanic (n = 369)	**Black** (n = 161)	**Asian** (n = 144)	**Hispanic** (n = 593)	**Other** (n = 114)
Nowhere	8%	13%	10%	10%	5%
Utility	56%	51%	59%	64%	60%
County assistance office	6%	3%	1%	4%	0%
State assistance office	2%	2%	2%	3%	2%
Community action program	1%	1%	0%	3%	<1%
Local community group	6%	5%	4%	7%	9%
Church group	12%	7%	5%	6%	11%
Friend or relative	28%	24%	34%	23%	25%
HEAP, LIHEAP	1%	6%	2%	2%	5%
No problem paying bill	1%	<1%	2%	<1%	3%
Landlord/owner	<1%	0%	1%	<1%	0%
Included in rent	<1%	1%	0%	0%	0%
CARE program	1%	3%	0%	0%	0%
EOC	<1%	1%	0%	0%	0%
Get a loan	2%	<1%	0%	<1%	<1%
Non-profit at Fulton Mall	0%	0%	0%	<1%	0%

D.2.3 *Willingness to Participate*

Table D-65
Feelings about Program Participation

Feelings about program participation	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Sure I would	75%	77%	81%	82%	72%
Want more information	6%	4%	2%	6%	7%
If I had to, I would	4%	3%	2%	1%	6%
No way	3%	3%	3%	2%	3%
Don't need it now	3%	2%	1%	1%	2%
Not eligible	2%	2%	1%	<1%	1%
Somewhat willing	2%	<1%	0%	1%	3%
Negative process comment	1%	5%	2%	3%	2%
These programs are good for those in need	1%	4%	6%	2%	4%
Hesitant	1%	1%	0%	0%	0%
Housing and healthcare okay, but no food stamps	1%	1%	<1%	<1%	0%
Others need it more	1%	0%	0%	0%	0%
Don't like it, but I have to	<1%	0%	<1%	1%	0%
Other	<1%	1%	1%	<1%	1%

Table D-66
General Willingness to Participate

General willingness to participate	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Very willing	75%	79%	87%	83%	75%
Not needed	16%	10%	5%	11%	14%
If necessary	5%	8%	4%	5%	9%
Not willing	3%	3%	4%	2%	3%

D.2.4 *Agreement with Statements about Barriers to Participation*

Table D-67
No Programs to Help a Household Like Mine

No programs to help a household like mine	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	42%	49%	31%	43%	35%
Somewhat disagree	32%	29%	42%	38%	36%
Somewhat agree	12%	10%	23%	12%	16%
Strongly agree	11%	12%	4%	7%	14%

Table D-68
Forms are Confusing

Forms are Confusing	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	4%	36%	16%	37%	29%
Somewhat disagree	29%	29%	41%	30%	37%
Somewhat agree	16%	24%	27%	17%	19%
Strongly agree	9%	11%	15%	16%	15%

Table D-69
Don't Want Government or Utility in Home

Don't want government or utility in home	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	55%	59%	46%	55%	57%
Somewhat disagree	25%	28%	41%	33%	28%
Somewhat agree	17%	9%	12%	8%	13%
Strongly agree	3%	4%	2%	3%	3%

Table D-70
Difficult to Prove Income

Difficult to prove income	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	66%	57%	47%	48%	58%
Somewhat disagree	20%	26%	31%	28%	20%
Somewhat agree	11%	10%	19%	15%	14%
Strongly agree	3%	7%	4%	9%	8%

Table D-71
Lose Independence

Lose independence	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	56%	54%	34%	46%	60%
Somewhat disagree	24%	24%	34%	32%	24%
Somewhat agree	13%	14%	17%	14%	7%
Strongly agree	7%	8%	14%	8%	8%

Table D-72
Difficult to Apply

Difficult to apply	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	34%	29%	18%	28%	24%
Somewhat disagree	28%	32%	22%	27%	24%
Somewhat agree	21%	18%	37%	23%	37%
Strongly agree	17%	22%	22%	21%	15%

Table D-73
Takes too Long to Get Services

Takes too long to get services	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	24%	23%	19%	21%	17%
Somewhat disagree	34%	23%	20%	33%	28%
Somewhat agree	21%	19%	37%	24%	28%
Strongly agree	20%	34%	24%	22%	28%

Table D-74
Someone Else in Household is Against Participating

Someone else in household is against participating	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	83%	81%	53%	66%	72%
Somewhat disagree	11%	16%	34%	24%	22%
Somewhat agree	3%	2%	7%	6%	4%
Strongly agree	2%	1%	6%	4%	2%

Table D-75
Embarrassed

Embarrassed	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	60%	77%	45%	63%	64%
Somewhat disagree	20%	11%	39%	23%	16%
Somewhat agree	14%	10%	11%	13%	16%
Strongly agree	6%	2%	5%	2%	3%

Table D-76
Worried the Information Will Be Shared with the Government

Worried the information will be shared with the government	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	46%	64%	34%	40%	48%
Somewhat disagree	20%	13%	35%	24%	27%
Somewhat agree	18%	16%	18%	16%	17%
Strongly agree	16%	7%	13%	19%	8%

Table D-77
Others Need it More

Others need it more	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Strongly disagree	33%	42%	25%	32%	24%
Somewhat disagree	19%	20%	35%	20%	26%
Somewhat agree	26%	23%	29%	34%	31%
Strongly agree	22%	15%	10%	15%	19%

D.2.5 *Participation in Non-Energy Low-Income Programs*

Table D-78
Other Program Participation

Other program participation	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Medicare	41%	44%	28%	13%	20%
School lunch	11%	17%	23%	40%	24%
Food stamps	6%	25%	10%	13%	16%
Food pantry/other	4%	0%	5%	2%	7%
Head start	2%	3%	2%	7%	<1%
Meals on wheels	1%	1%	1%	1%	0%
None	45%	33%	47%	43%	50%

Table D-79
Participating in Medi-Cal

Participating in Medi-Cal	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Yes	35%	59%	49%	53%	47%
No	65%	41%	51%	47%	53%

Table D-80
Participating in WIC

Participating in WIC	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Yes	4%	5%	11%	32%	12%
No	24%	20%	23%	27%	22%
No children under 5	19%	37%	32%	23%	33%
No children under 20	53%	38%	34%	18%	33%

Table D-81
Participating in HFP

Participating in HFP	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Yes	7%	6%	10%	17%	6%
No	29%	49%	51%	64%	51%
No children under 20	64%	46%	38%	20%	42%

Table D-82
Participating in at Least One Program

Participating in at least one program	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Yes	66%	77%	68%	77%	64%
No	34%	23%	32%	23%	36%

Table D-83
Number of Other Programs

Number of other programs	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
None	34%	23%	32%	23%	36%
One	35%	20%	25%	23%	21%
Two or more	31%	56%	42%	54%	43%

Table D-84
Medi-Cal, WIC, and HFP

Medi-Cal, WIC, and HFP	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
None	62%	38%	45%	34%	48%
One	32%	56%	43%	37%	43%
Two	5%	5%	11%	26%	10%
Three	1%	<1%	1%	3%	0%

D.2.6 *Energy Insecurity Issues*

Table D-85
Energy Insecurity Index

Energy Insecurity Index	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Thriving	25%	18%	43%	18%	17%
Capable	6%	2%	2%	9%	4%
Stable	4%	6%	6%	5%	6%
Vulnerable	42%	29%	30%	40%	31%
In crisis	22%	45%	20%	28%	42%

Table D-86
Worry about Paying Energy Bill

Worry about paying energy bill	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	12%	13%	7%	16%	18%
Some months	10%	31%	14%	23%	18%
One or two months	20%	15%	10%	18%	11%
Never/no	58%	41%	70%	43%	54%

Table D-87
Cut Back on Basic Necessities in Past 12 Months

Cut back on basic necessities in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	19%	26%	14%	16%	28%
Some months	22%	20%	18%	29%	23%
One or two months	16%	14%	9%	15%	12%
Never/no	43%	40%	59%	40%	36%

Table D-88
Borrowed Money to Pay Energy Bill in Past 12 Months

Borrowed money to pay energy bill in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	3%	8%	1%	2%	8%
Some months	8%	8%	3%	16%	15%
One or two months	10%	27%	13%	21%	13%
Never/no	79%	58%	84%	62%	63%

Table D-89
Did Not Pay Bill or Made Partial Payment in Past 12 Months

Did not pay bill or made partial payment in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	4%	14%	1%	5%	7%
Some months	11%	21%	8%	16%	22%
One or two months	18%	17%	7%	19%	12%
Never/no	67%	48%	85%	59%	59%

Table D-90
Threatened with Disconnection in Past 12 Months

Threatened with disconnection in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	3%	5%	1%	2%	1%
Some months	5%	17%	3%	7%	11%
One or two months	9%	15%	5%	15%	20%
Never/no	84%	63%	91%	76%	67%

Table D-91
Closed Off Part of Home in Past 12 Months

Closed off part of home in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	15%	8%	1%	4%	13%
Some months	8%	8%	4%	10%	6%
One or two months	3%	8%	1%	3%	7%
Never/no	74%	76%	94%	83%	73%

Table D-92
Kept Temperature at Unsafe Level in Past 12 Months

Kept temperature at unsafe level in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	2%	4%	0%	2%	2%
Some months	10%	2%	8%	10%	11%
One or two months	4%	7%	5%	4%	4%
Never/no	84%	87%	86%	84%	83%

Table D-93
Left Home for the Day in Past 12 Months (Too Hot/Cold)

Left home for the day in past 12 months (too hot or cold)	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	0%	7%	3%	2%	0%
Some months	9%	5%	11%	15%	12%
One or two months	7%	13%	7%	7%	19%
Never/no	84%	75%	79%	76%	69%

Table D-94
Used Kitchen Stove for Heat in Past 12 Months

Used kitchen stove for heat in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Almost every month	1%	6%	1%	1%	3%
Some months	3%	16%	3%	7%	11%
One or two months	4%	7%	5%	4%	6%
Never/no	91%	71%	90%	88%	80%

Table D-95
Electricity Shut Off for Nonpayment in Past 12 Months

Electricity shut off for nonpayment in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Yes	98%	93%	97%	94%	97%
No	2%	7%	3%	6%	3%

D.2.7 *Health, Comfort and Safety Issues*

Table D-96
Sicknesses in Past 12 Months

Sicknesses in past 12 months	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Sick due to being too cold	13%	22%	24%	19%	19%
Sick due to home air quality	7%	7%	8%	6%	7%
Sick due to being too hot	6%	16%	10%	8%	9%
Sick due to drinking water	2%	3%	1%	1%	9%
Sick due to home heating method	1%	3%	2%	3%	4%

Table D-97
How Comfortable is Your Home in the Winter

How comfortable is your home in the winter	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Not at all comfortable	5%	6%	6%	9%	10%
Not too comfortable	6%	15%	18%	12%	12%
Somewhat comfortable	39%	26%	35%	40%	29%
Very comfortable	49%	54%	40%	39%	49%

Table D-98
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	5%	0%	3%	16%	16%
Sometimes	45%	58%	43%	43%	31%
Most of the time	21%	32%	20%	17%	29%
Always	30%	10%	34%	25%	24%

Table D-99
Is Your Home too Cold in the Winter

Is your home too cold in the winter	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	38%	24%	24%	26%	24%
Sometimes	44%	39%	59%	47%	40%
Most of the time	11%	18%	7%	14%	15%
Always	7%	20%	9%	14%	21%

Table D-100
Is Your Home too Drafty in the Winter

Is your home too drafty in the winter	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	55%	41%	53%	47%	48%
Sometimes	27%	21%	39%	31%	28%
Most of the time	6%	9%	4%	9%	6%
Always	12%	29%	5%	13%	18%

Table D-101
Is Your Home too Hot in the Winter

Is your home too hot in the winter	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	89%	82%	91%	86%	85%
Sometimes	10%	17%	9%	12%	15%
Most of the time	1%	1%	0%	1%	<1%
Always	1%	<1%	0%	1%	0%

Table D-102
Is Your Home too Stuffy in the Winter

Is your home too stuffy in the winter	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	68%	59%	66%	54%	59%
Sometimes	26%	28%	32%	37%	35%
Most of the time	4%	4%	2%	5%	1%
Always	2%	9%	1%	3%	5%

Table D-103
How Comfortable is Your Home in the Summer

How comfortable is your home in the summer	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Not at all comfortable	7%	16%	12%	13%	11%
Not too comfortable	17%	13%	18%	14%	7%
Somewhat comfortable	42%	33%	35%	47%	50%
Very comfortable	34%	38%	35%	26%	32%

Table D-104
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Never	9%	21%	6%	13%	2%
Sometimes	45%	57%	51%	66%	56%
Most of the time	32%	11%	30%	13%	22%
Always	14%	11%	13%	8%	20%

Table D-105
How Secure Do You Feel in Your Home

How secure do you feel in your home	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Not at all secure	2%	2%	3%	3%	1%
Not too secure	3%	6%	4%	6%	7%
Somewhat secure	26%	18%	27%	24%	26%
Very secure	68%	74%	66%	67%	67%

Table D-106
Main Reasons You Feel Home is not Secure

Main reasons you feel home is not secure	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Door not secure	25%	17%	16%	14%	18%
Burglarized or vandalized	19%	10%	27%	28%	24%
Windows not secure	18%	33%	12%	24%	45%
Neighborhood or location	14%	25%	28%	23%	10%
Live alone/feel isolated	9%	<1%	0%	1%	11%
No alarm system	8%	4%	1%	2%	2%
Main gate/door not secure	5%	10%	30%	8%	12%
Heavy traffic	4%	1%	2%	2%	0%
Weapons/gangs/drugs/violence	2%	8%	7%	11%	3%
Old/unsafe apartment	1%	2%	3%	7%	0%
Bad lighting	0%	6%	0%	2%	0%
Other	6%	5%	<1%	1%	2%

Table D-107
Changes that Can Make Home More Secure

Changes that can make home more secure	Race/Ethnicity				
	White Non-Hispanic	Black	Asian	Hispanic	Other
Install more/better locks	54%	43%	46%	45%	49%
Replace/repair broken windows	28%	7%	12%	23%	17%
Replace/repair broken door/lock	19%	17%	6%	22%	11%
Install/use security lighting	15%	8%	50%	28%	12%
Install alarm system	9%	15%	14%	9%	11%
Nothing	8%	0%	4%	6%	2%
Add security bars/grills	7%	28%	20%	19%	18%
Install security gate/fence	3%	25%	0%	11%	7%
Move away	3%	7%	4%	5%	3%
Get a dog	3%	2%	1%	1%	0%
Patrol more often	2%	6%	0%	2%	0%
Put up (fake) alarm sign/sticker	1%	5%	0%	0%	0%
Make repairs to apartment	0%	2%	2%	2%	0%
Install security cameras	<1%	2%	0%	3%	2%
Other	5%	3%	3%	8%	30%

D.3 NEEDS ASSESSMENT TABLES BY HOUSING DENSITY

D.3.1 *Program Awareness*

Table D-108
Awareness of Program

	Household Density				
	Very Dense (n = 616)	**Dense** (n = 439)	**Sprawl** (n = 189)	**Sparse** (n = 84)	**Very Sparse** (n = 190)
Aware	37%	42%	48%	44%	48%
Aided recall	5%	7%	6%	7%	9%
Maybe aware	6%	9%	6%	4%	12%
Not aware	52%	42%	39%	45%	32%

D.3.2 *Sources of Information*

Table D-109
Sources of Information

	Household Density				
	Very Dense (n = 257)	**Dense** (n = 171)	**Sprawl** (n = 70)	**Sparse** (n = 21)	**Very Sparse** (n = 33)
Watch TV not in English	92%	86%	82%	91%	84%
Listen to radio not in English	79%	78%	75%	92%	68%
Read daily paper not in English	47%	34%	18%	15%	14%
Read weekly local/ community newspaper not in English	49%	33%	25%	32%	21%

Table D-110
Days per Week Read Daily Newspaper

	Household Density				
	Very Dense (n = 624)	**Dense** (n = 441)	**Sprawl** (n = 190)	**Sparse** (n = 85)	**Very Sparse** (n = 190)
0 times	49%	49%	41%	54%	54%
Once per week	20%	16%	15%	21%	13%
2-4 days per week	14%	13%	13%	5%	15%
5 days	3%	2%	4%	2%	1%
6 days	<1%	1%	2%	5%	2%
7 days	14%	19%	25%	13%	15%

Table D-111
Days per Week Read Weekly Local/Community Newspaper

	Household Density				
	Very Dense (n = 622)	**Dense** (n = 440)	**Sprawl** (n = 187)	**Sparse** (n = 85)	**Very Sparse** (n = 189)
0 times	55%	56%	47%	52%	35%
Once per month	15%	11%	13%	22%	19%
2-4 days per month	20%	25%	28%	17%	20%
More than 4 times per month	10%	8%	11%	8%	27%

Table D-112
Computer in Home

	Household Density				
	Very Dense (n = 626)	**Dense** (n = 437)	**Sprawl** (n = 187)	**Sparse** (n = 85)	**Very Sparse** (n = 190)
Yes	54%	58%	54%	60%	59%
No	46%	42%	46%	40%	41%

Table D-113
Computer in Home has Internet Access

	Household Density				
	Very Dense (n = 341)	**Dense** (n = 255)	**Sprawl** (n = 113)	**Sparse** (n = 52)	**Very Sparse** (n = 106)
Yes	79%	77%	81%	66%	71%
No	21%	23%	19%	34%	29%

Table D-114
Do you have Internet Access outside of Home

	Household Density				
	Very Dense (n = 341)	**Dense** (n = 255)	**Sprawl** (n = 113)	**Sparse** (n = 52)	**Very Sparse** (n = 106)
Yes	17%	17%	17%	29%	10%
No	83%	83%	83%	71%	90%

Table D-115
Hours per week on Internet

	Household Density				
	Very Dense (n = 314)	**Dense** (n = 223)	**Sprawl** (n = 105)	**Sparse** (n = 52)	**Very Sparse** (n = 93)
Less than 1 hour per week	25%	23%	12%	22%	14%
1-7 hours per week	39%	40%	44%	47%	41%
8-14 hours per week	19%	16%	22%	19%	24%
Over 15 hours per week	17%	21%	22%	12%	21%

Table D-116
Information Sources for Energy Conservation

	Household Density				
	Very Dense (n = 586)	**Dense** (n = 409)	**Sprawl** (n = 177)	**Sparse** (n = 77)	**Very Sparse** (n = 174)
Utility bill insert/flyer	7%	12%	13%	12%	16%
Call utility	75%	69%	73%	64%	60%
Go to utility office	7%	6%	1%	4%	3%
Utility website	8%	10%	11%	5%	5%
Other website	4%	6%	3%	8%	2%
Friend or relative	18%	12%	6%	4%	15%
Tradesperson	2%	2%	1%	2%	5%
Library	1%	2%	<1%	0%	1%
Media	4%	6%	2%	7%	5%
Talk to other people	<1%	<1%	0%	0%	4%
Use common sense	<1%	1%	<1%	3%	3%
Community organization	<1%	1%	6%	1%	1%
Yellow pages	<1%	1%	<1%	0%	0%
Fairs	1%	<1%	0%	0%	0%
Nowhere	<1%	<1%	<1%	0%	0%
Utility rep	0%	0%	<1%	3%	0%
HEAP	<1%	1%	1%	0%	0%
School	<1%	<1%	0%	0%	0%
Social worker	1%	0%	1%	1%	0%
Call the city	<1%	1%	<1%	0%	0%
CARE program	0%	<1%	0%	0%	0%
Local representative	<1%	0%	2%	0%	0%
Included in rent	0%	<1%	0%	0%	<1%
Landlord	<1%	1%	0%	0%	0%
Don't' pay utility bill	2%	1%	1%	0%	0%

Table D-117
How often read utility bill insert/flyer

	Household Density				
	Very Dense (n = 623)	**Dense** (n = 438)	**Sprawl** (n = 188)	**Sparse** (n = 85)	**Very Sparse** (n = 191)
Never	45%	36%	28%	31%	36%
Rarely	24%	20%	30%	26%	15%
Often	16%	23%	22%	20%	29%
Always	16%	21%	20%	23%	20%

Table D-118
If necessary, where would you go for help paying your electric bill

	Household Density				
	Very Dense (n = 568)	**Dense** (n = 393)	**Sprawl** (n = 180)	**Sparse** (n = 81)	**Very Sparse** (n = 170)
Nowhere	7%	9%	13%	11%	7%
Utility	68%	62%	52%	67%	54%
County assistance office	2%	4%	5%	8%	3%
State assistance office	1%	2%	4%	5%	2%
Community action program	<1%	1%	6%	1%	2%
Local community group	2%	6%	4%	6%	12%
Church group	4%	7%	5%	4%	17%
Friend or relative	35%	29%	24%	18%	16%
HEAP, LIHEAP	1%	3%	4%	0%	2%
No problem paying bill	1%	1%	0%	0%	2%
Landlord/owner	1%	<1%	<1%	0%	<1%
Included in rent	0%	<1%	0%	0%	0%
CARE program	1%	<1%	1%	0%	0%
EOC	0%	<1%	0%	0%	0%
Get a loan	1%	1%	0%	0%	<1%
Non-profit at Fulton Mall	0%	<1%	0%	0%	0%

D.3.3 *Willingness to Participate*

Table D-119
Feelings about Program Participation

Feelings about program participation	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Sure I would	77%	80%	71%	82%	83%
Want more information	7%	5%	8%	4%	4%
No way	5%	3%	2%	1%	<1%
These programs are good for those in need	3%	2%	5%	2%	1%
Don't need it now	2%	3%	1%	<1%	1%
If I had to, I would	1%	3%	6%	3%	1%
Negative process comment	1%	2%	2%	2%	3%
Hesitant	1%	2%	0%	0%	2%
Not eligible	1%	1%	1%	0%	2%
Somewhat willing	1%	1%	1%	0%	2%
Housing and healthcare okay, but no food stamps	1%	<1%	0%	2%	0%
Others need it more	0%	0%	0%	2%	<1%
Don't like it, but I have to	<1%	<1%	1%	3%	<1%
Other	<1%	1%	1%	0%	<1%

Table D-120
General Willingness to Participate

General willingness to participate	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Very willing	79%	80%	76%	81%	83%
Not needed	14%	11%	13%	9%	13%
Not willing	5%	3%	2%	1%	1%
If necessary	3%	6%	9%	9%	4%

D.3.4 *Agreement with Statements about Barriers to Participation*

Table D-121
No Programs to Help a Household Like Mine

No programs to help a household like mine	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	28%	45%	48%	43%	43%
Somewhat disagree	48%	34%	34%	32%	24%
Somewhat agree	14%	13%	12%	14%	16%
Strongly agree	9%	8%	5%	11%	17%

Table D-122
Forms are Confusing

Forms are Confusing	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	25%	36%	40%	43%	48%
Somewhat disagree	43%	36%	27%	27%	16%
Somewhat agree	21%	17%	19%	10%	20%
Strongly agree	11%	11%	13%	20%	17%

Table D-123
Don't Want Government or Utility in Home

Don't want government or utility in home	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	34%	58%	49%	64%	76%
Somewhat disagree	46%	30%	36%	22%	12%
Somewhat agree	14%	10%	10%	13%	11%
Strongly agree	5%	2%	5%	1%	1%

Table D-124
Difficult to Prove Income

Difficult to prove income	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	38%	60%	55%	65%	65%
Somewhat disagree	34%	25%	21%	23%	17%
Somewhat agree	20%	9%	15%	8%	14%
Strongly agree	9%	6%	8%	4%	4%

Table D-125
Lose Independence

Lose independence	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	34%	48%	64%	51%	60%
Somewhat disagree	38%	31%	26%	29%	17%
Somewhat agree	18%	13%	7%	6%	16%
Strongly agree	10%	8%	3%	14%	8%

Table D-126
Difficult to Apply

Difficult to apply	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	21%	28%	35%	37%	31%
Somewhat disagree	26%	27%	25%	32%	29%
Somewhat agree	34%	25%	19%	14%	22%
Strongly agree	19%	20%	22%	17%	18%

Table D-127
Takes too Long to Get Services

Takes too long to get services	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	16%	24%	19%	29%	26%
Somewhat disagree	26%	29%	36%	33%	33%
Somewhat agree	37%	24%	21%	15%	17%
Strongly agree	22%	23%	24%	24%	24%

Table D-128
Someone Else in Household is Against Participating

Someone else in household is against participating	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	53%	70%	70%	72%	93%
Somewhat disagree	34%	22%	25%	19%	2%
Somewhat agree	9%	4%	2%	7%	2%
Strongly agree	4%	4%	3%	3%	3%

Table D-129
Embarrassed

Embarrassed	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	46%	60%	69%	69%	73%
Somewhat disagree	29%	19%	22%	21%	17%
Somewhat agree	21%	16%	4%	9%	9%
Strongly agree	4%	5%	5%	<1%	1%

Table D-130
Worried the Information Will Be Shared with the Government

Worried the information will be shared with the government	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	33%	42%	47%	47%	60%
Somewhat disagree	27%	25%	28%	25%	11%
Somewhat agree	26%	17%	14%	16%	10%
Strongly agree	14%	16%	12%	12%	19%

Table D-131
Others Need it More

Others need it more	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Strongly disagree	22%	29%	34%	48%	37%
Somewhat disagree	30%	24%	17%	17%	14%
Somewhat agree	35%	28%	34%	18%	25%
Strongly agree	13%	19%	14%	17%	24%

D.3.5 *Participation in Non-Energy Low-Income Programs*

Table D-132
Other Program Participation

Other program participation	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Medicare	25%	27%	23%	27%	35%
School lunch	23%	24%	21%	28%	33%
Food stamps	13%	11%	8%	10%	13%
Food pantry/other	3%	3%	3%	1%	4%
Head start	2%	3%	7%	<1%	5%
Meals on wheels	<1%	<1%	1%	4%	<1%
None	47%	46%	49%	44%	29%

Table D-133
Participating in Medi-Cal

Participating in Medi-Cal	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Yes	47%	41%	44%	54%	52%
No	53%	59%	56%	46%	48%

Table D-134
Participating in WIC

Participating in WIC	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Yes	18%	14%	17%	18%	20%
No	26%	27%	25%	25%	20%
No children under 5	21%	25%	23%	37%	25%
No children under 20	35%	33%	36%	20%	36%

Table D-135
Participating in HFP

Participating in HFP	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Yes	8%	14%	17%	15%	6%
No	51%	48%	42%	62%	53%
No children under 20	41%	38%	41%	23%	41%

Table D-136
Participating in at Least One Program

Participating in at least one program	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Yes	71%	66%	68%	77%	81%
No	29%	34%	32%	23%	19%

Table D-137
Number of Other Programs

Number of other programs	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
None	29%	34%	32%	23%	19%
One	29%	24%	26%	25%	32%
Two or more	42%	42%	42%	52%	49%

Table D-138
Medi-Cal, WIC, and HFP

Medi-Cal, WIC, and HFP	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
None	46%	51%	47%	35%	43%
One	38%	36%	35%	47%	38%
Two	15%	10%	16%	16%	19%
Three	1%	3%	3%	1%	0%

D.3.6 *Energy Insecurity Issues*

Table D-139
Energy Insecurity Index

Energy Insecurity Index	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Thriving	29%	23%	25%	15%	17%
Capable	6%	5%	12%	10%	3%
Stable	9%	5%	1%	4%	4%
Vulnerable	34%	37%	33%	35%	49%
In crisis	21%	30%	29%	37%	28%

Table D-140
Worry about Paying Energy Bill

Worry about paying energy bill	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	8%	13%	9%	27%	18%
Some months	18%	22%	15%	19%	17%
One or two months	14%	18%	23%	18%	13%
Never/no	59%	47%	53%	37%	52%

Table D-141
Cut Back on Basic Necessities in Past 12 Months

Cut back on basic necessities in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	11%	11%	19%	34%	17%
Some months	19%	23%	20%	20%	35%
One or two months	13%	17%	18%	16%	10%
Never/no	57%	41%	44%	31%	37%

Table D-142
Borrowed Money to Pay Energy Bill in Past 12 Months

Borrowed money to pay energy bill in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	4%	2%	1%	7%	3%
Some months	10%	8%	9%	22%	13%
One or two months	14%	19%	19%	16%	14%
Never/no	72%	70%	72%	55%	70%

Table D-143
Did Not Pay Bill or Made Partial Payment in Past 12 Months

Did not pay bill or made partial payment in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	3%	7%	7%	11%	3%
Some months	12%	13%	13%	12%	21%
One or two months	17%	17%	14%	20%	18%
Never/no	69%	64%	66%	57%	58%

Table D-144
Threatened with Disconnection in Past 12 Months

Threatened with disconnection in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	1%	3%	2%	6%	3%
Some months	6%	6%	8%	1%	11%
One or two months	12%	14%	8%	13%	13%
Never/no	81%	77%	82%	80%	73%

Table D-145
Closed Off Part of Home in Past 12 Months

Closed off part of home in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	3%	6%	5%	13%	17%
Some months	5%	9%	5%	9%	11%
One or two months	2%	6%	5%	3%	3%
Never/no	90%	79%	85%	76%	69%

Table D-146
Kept Temperature at Unsafe Level in Past 12 Months

Kept temperature at unsafe level in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	2%	2%	2%	3%	2%
Some months	7%	6%	4%	17%	16%
One or two months	5%	2%	5%	5%	4%
Never/no	87%	89%	88%	76%	78%

Table D-147
Left Home for the Day in Past 12 Months (Too Hot/Cold)

Left home for the day in past 12 months (too hot or cold)	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	1%	1%	1%	4%	2%
Some months	10%	12%	11%	8%	14%
One or two months	11%	7%	8%	7%	6%
Never/no	77%	79%	79%	82%	78%

Table D-148
Used Kitchen Stove for Heat in Past 12 Months

Used kitchen stove for heat in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Almost every month	2%	1%	3%	2%	1%
Some months	6%	6%	8%	6%	8%
One or two months	5%	4%	4%	4%	5%
Never/no	87%	89%	85%	87%	87%

Table D-149
Electricity Shut Off for Nonpayment in Past 12 Months

Electricity shut off for nonpayment in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Yes	96%	94%	96%	96%	95%
No	4%	6%	4%	4%	5%

D.3.7 *Health, Comfort and Safety Issues*

Table D-150
Sicknesses in Past 12 Months

Sicknesses in past 12 months	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Sick due to being too cold	23%	18%	11%	15%	19%
Sick due to being too hot	8%	8%	6%	11%	9%
Sick due to home air quality	7%	8%	6%	8%	6%
Sick due to home heating method	2%	3%	2%	2%	2%
Sick due to drinking water	2%	1%	2%	0%	3%

Table D-151
How Comfortable is Your Home in the Winter

How comfortable is your home in the winter	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Not at all comfortable	4%	7%	3%	15%	10%
Not too comfortable	13%	8%	10%	5%	16%
Somewhat comfortable	37%	41%	34%	41%	32%
Very comfortable	46%	44%	53%	40%	42%

Table D-152
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	9%	7%	0%	41%	8%
Sometimes	55%	45%	57%	21%	36%
Most of the time	21%	25%	19%	1%	24%
Always	16%	23%	24%	37%	32%

Table D-153
Is Your Home too Cold in the Winter

Is your home too cold in the winter	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	31%	27%	30%	29%	32%
Sometimes	43%	49%	51%	46%	38%
Most of the time	16%	8%	13%	11%	16%
Always	10%	16%	6%	14%	14%

Table D-154
Is Your Home too Drafty in the Winter

Is your home too drafty in the winter	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	51%	51%	49%	39%	53%
Sometimes	34%	29%	35%	26%	21%
Most of the time	7%	9%	5%	9%	5%
Always	7%	11%	11%	26%	21%

Table D-155
Is Your Home too Hot in the Winter

Is your home too hot in the winter	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	87%	88%	84%	84%	90%
Sometimes	12%	11%	14%	13%	9%
Most of the time	<1%	<1%	<1%	0%	1%
Always	1%	1%	1%	3%	0%

Table D-156
Is Your Home too Stuffy in the Winter

Is your home too stuffy in the winter	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	66%	62%	50%	62%	63%
Sometimes	26%	33%	41%	28%	30%
Most of the time	4%	3%	5%	4%	4%
Always	4%	2%	3%	5%	4%

Table D-157
How Comfortable is Your Home in the Summer

How comfortable is your home in the summer	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Not at all comfortable	8%	11%	14%	10%	12%
Not too comfortable	14%	12%	12%	25%	18%
Somewhat comfortable	43%	44%	46%	44%	37%
Very comfortable	35%	33%	29%	22%	33%

Table D-158
If Uncomfortable, Can You Make it Comfortable

If uncomfortable, can you make it comfortable	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Never	13%	14%	15%	13%	5%
Sometimes	62%	57%	44%	64%	58%
Most of the time	17%	15%	31%	15%	24%
Always	8%	14%	10%	8%	14%

Table D-159
How Secure Do You Feel in Your Home

How secure do you feel in your home	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Not at all secure	2%	1%	4%	5%	2%
Not too secure	4%	4%	6%	8%	6%
Somewhat secure	24%	25%	18%	24%	26%
Very secure	69%	70%	72%	63%	66%

Table D-160
Main Reasons You Feel Home is not Secure

Main reasons you feel home is not secure	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Windows not secure	25%	23%	27%	30%	17%
Main gate/door not secure	24%	6%	6%	1%	8%
Neighborhood or location	23%	22%	26%	7%	17%
Burglarized or vandalized	18%	19%	32%	35%	23%
Door not secure	12%	12%	33%	30%	16%
Weapons/gangs/drugs/violence	6%	7%	2%	4%	15%
Old/unsafe apartment	4%	3%	4%	12%	2%
No alarm system	2%	11%	1%	0%	2%
Heavy traffic	1%	7%	0%	0%	1%
Live alone/feel isolated	1%	3%	0%	1%	13%
Bad lighting	1%	1%	4%	0%	0%
Other	2%	3%	1%	8%	3%

Table D-161
Changes that Can Make Home More Secure

Changes that can make home more secure	Household Density				
	Very Dense	Dense	Sprawl	Sparse	Very Sparse
Install more/better locks	38%	41%	51%	66%	55%
Add security bars/grills	37%	14%	11%	5%	5%
Install/use security lighting	19%	25%	30%	11%	26%
Replace/repair broken door/lock	17%	11%	19%	31%	22%
Replace/repair broken windows	16%	18%	22%	34%	26%
Nothing	11%	7%	3%	9%	1%
Install security gate/fence	10%	5%	3%	4%	15%
Install alarm system	8%	17%	13%	9%	4%
Move away	4%	3%	8%	0%	5%
Get a dog	3%	1%	2%	1%	2%
Patrol more often	2%	4%	3%	0%	0%
Make repairs to apartment	2%	2%	2%	0%	0%
Install security cameras	1%	1%	1%	0%	4%
Put up (fake) alarm sign/sticker	1%	1%	0%	0%	0%
Other	6%	4%	17%	12%	5%