

Contract F112002

Statewide Residential Customer Needs Assessment Study

A Report Prepared for
Southern California Edison Company
and
Other California Investor Owned Utilities

July 2001

John H. Reed
Andrew Oh
Tom Talerico
Jeff Riggert
Katherine Johnson

TecMRKT Works

2308 N. Van Buren Ct.
Arlington, VA 22205
703 241-3771
703 276-7785
jreed@tecmrktworks.com

827 Shady Oaks Lane
Oregon, WI 53575
608 835-8855
608 835-9490
nphall@tecmrkt.com

Acknowledgements

This is one of those projects that seems to know no bounds. The topic is broad. There are reams of data. The right information is often difficult to find and verify, and more than just “some assembly” is required.

What we have tried to do is to design a powerful and useful resource for our program implementation colleagues. They know that the social world is a complex place with many segments and submarkets. They often tell us that they could design even better programs if they had more and better information and more time. Hopefully this document will provide a starting place for understanding some of that complexity. More importantly, we hope that this report helps program planners and implementers rapidly find additional information and sources that they need to do their jobs.

Throughout this document we have referenced the work of other scholars. Without their efforts this document would not be possible. We have tried to select and summarize from their work for our purposes while being faithful to their intent and meaning. Any errors of commission or omission are likely ours.

We would especially like to thank Shahana Samiullah, Southern California Edison, the project manager for this effort. We are most grateful for her inquiring, quiet, kind and gentle spirit. Her patience, guidance, openness and willingness to try new approaches are much appreciated.

In addition to Shahana, we acknowledge the efforts of her utility colleagues who took the time to provide guidance and to help us locate data from their utilities. This has not been an easy task especially in the “high summer” of the California energy crisis. Our thanks to Mary Dimit, PG&E, Dennis Guido, PG&E, Valerie Richardson, PG&E, Mary Anderson, SDG&E, and Jim Green of SoCalGas.

The staff at
TecMRKT Works
July 2001

Executive Summary

Overview of the study

The goals of this assessment are to:

- Locate and summarize existing data on residential customer segments particularly those customers that are hard-to-reach: tenants in small multifamily housing units, tenants who pay their own energy costs, customers with limited English speaking ability, moderate-income customers, rural customers and others as may be identified.
- Use the information that is gathered to suggest outreach strategies and program designs that will foster greater participation among hard-to-reach groups in residential energy efficiency programs.
- Use the needs information to suggest program design features that can increase customer adoption of measures and behaviors promoted through the residential programs.

How to use this report

This document is designed as both a report and a resource document. As a report, program planners and policy makers can read the document to obtain a better understanding of:

- The size of hard-to-reach populations
- The location of hard-to-reach populations
- The cultural and social characteristics of hard-to-reach populations
- Message channels and content appropriate to hard-to-reach populations
- A profile of energy use characteristics and appliance holdings
- Possible strategies for reaching hard-to-reach groups including community-based strategies

Program planners may want to use the document as a resource guide. Program planners interested in a specific ethnic group might:

- Read the introduction to the chapter on ethnic groups to determine the size of the ethnic population.
- Read the section describing the ethnic population to understand more about the cultural and social characteristics of the group and its location in California.
- Examine the maps, if appropriate, to get an idea about the location of the ethnic population.
- Review the information in the energy use and needs chapter to get an idea of energy use and needs characteristics of the group.
- Follow the footnote indicating the source of information for the ethnic group in order to locate more detailed information.

- If using a community-based approach, review the chapter on community-based organizations.
- Examine Appendix B to find web sites, telephone numbers, and community groups that might provide information or be partners in a program.

Program planners interested in hard-to-reach populations as defined in other ways might:

- Read the section of the report describing the hard-to-reach group paying special attention to the various sub-markets.
- Consider the cultural, social, message channel, and message content for the various sub-markets within the group.
- Compare the maps for the various sub-markets to get an idea of the locational differences in the sub-markets.
- Examine the information in the energy use and needs section to get an idea of the energy profiles and appliances holdings of the group.
- Use the accompanying database to obtain an explicit listing of zip codes for the hard-to-reach population.
- Use PRIZM segment information to implement certain types of program strategies such as direct mail or mass media.

Program planners interested in using community-based approaches who have a specific geographic area in mind might:

- Read the section on community-based programs.
- Using the information in Appendix B and other sources of information, especially Internet searches, identify community organizations working in the area. If the target audience is a specific ethnic group, review the suggestions for using this document for ethnic groups provided above.
- Based on the available resources, the goal of the project, the existing community-based organizations, and the criteria for choosing ethnic groups, choose one of the general approaches to community-based programming.
- Examine the checklists to get ideas as to how to develop a sound community based program.
- Revisit the checklists often during the early stages of the project and less frequently as the program develops and matures.
- Analyze existing community-based programs using the checklist to see how they could be made more effective.

Strategies for reaching ethnic groups

Based on our examination of the ethnic groups, we identified five potential strategies for approaching these groups: through churches and religious associations, through ethnic associations, through community events such as festivals and athletic events, through local media, and through business and trade associations.

For both Asian and Hispanic groups, religious organizations are potentially important paths (Table E1 and Table E2). The Chinese and Chinese-Vietnamese have a number of

associations that are potential paths for reaching these groups. Likewise, Chinese, the Lao, and Mien have community events that offer opportunities for reaching these groups. The Chinese, Hmong, and Vietnamese can be reached through local ethnic media such as newspapers and cable. The Chinese have a number of business associations that are potential paths for communicating with Chinese households. The reader may want to refer to the earlier sections for the details.

Table E1 Potential outreach strategies for Asian groups

Ethnic Group	Outreach Strategy				
	Churches/ Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Cambodians	✓				
Chinese	✓	✓	✓	✓	✓
Chinese-Vietnamese	✓	✓			
Hmong	✓			✓	
Indonesians	✓				
Indos					
Lao	✓		✓		
Mien	✓				
Vietnamese	✓		✓	✓	

Within the Hispanic community, the Catholic Church and Catholic social services are important. Ecuadorians and Salvadorians have associations, especially soccer associations that are a potential way to reach these groups. Colombians and Ecuadorians can be reached through local media. Business associations are important within the Salvadorean community.

Table E2 Potential outreach strategies for Hispanic groups

Cultural Group	Outreach Strategy				
	Churches/ Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Mexicans	✓		✓		
Salvadorans	✓	✓	✓		✓
Brazilians	✓				
Nicaraguans	✓	✓	✓		
Colombians	✓			✓	
Peruvians	✓	✓	✓	✓	✓
Guatemalan Maya	✓		✓		
Ecuadorians	✓	✓	✓	✓	

Outreach Strategy					
Cultural Group	Churches Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Argentineans	✓		✓		
Punjabi Mexicans					
Californios			✓		

Hard-to-reach segments

PRIZM segmentation data was used to examine the location and characteristics of various hard-to-reach groups: renters, tenants in small multifamily complexes, households in large complexes, households living in mobile homes, and nonmetropolitan households. A series of maps showing the location of the various market segments was constructed. An important finding is that most hard-to-reach groups are comprised of several distinctive sub-markets. Knowing this makes it possible to more directly target customers of interest.

- The segment maps can be used to identify the location of groups of interest by zip code and utility service territories.
- The PRIZM segment numbers (Microvision codes can be linked to the segment PRIZM numbers) can be used to identify households at the address level when used with an appropriate database.
- The descriptive information can be used to develop communication paths and content for channeling communication and information to households.

Renter clusters

Within the renter group, we have identified five major clusters or groupings. The rental market should be viewed as a series of markets rather than a single homogeneous market.

Coastal single urban professionals are affluent and well educated singles and married couples living in major cities along the coast. This group is mostly White with a strong Asian presence.

Urban middle-income singles are similar to the coastal single urban professionals but not as affluent and not so numerous.

Ethnic blue-collar renters live in central urban areas. These households are in blue-collar and service occupations and tend to be Hispanic and African-American. These singles and single parents with children have incomes below \$25,000.

Ethnic new arrivals are blue-collar and service workers who are often foreign-born and among the most recent immigrants. These households generally have incomes under \$50,000.

Ethnic middle-income singles are younger well-educated minorities who are making fresh starts or young White professionals in public service or private industries. They have incomes between \$25,000 and \$50,000.

Small apartment complexes

We can examine the multifamily market in terms of the characteristics of households in small and large apartment complexes. Again, for the small complexes there are five main clusters. Two of these clusters, ethnic new arrivals and ethnic middle-income singles, are identical to the renter segments of the same name.

Young single urban professionals are like the coastal urban single professionals without the older professionals. The older professionals are found in large multifamily complexes.

Hispanic families are low-income Hispanic families whose breadwinners are in blue-collar and service industries. There are many children in this cluster. This segment contains high percentages of foreign-born individuals.

City apartments are mainly African-American households and some Hispanic households. They show up in cities where they work in blue-collar and service jobs.

Large apartment complexes

Upscale coastal couples and singles are very affluent coastal urban professionals. It appears that older and very affluent professionals live in large multifamily complexes rather than smaller ones. This group is largely White with a substantial proportion of Asians.

Smaller city out-of-city renters are White and Hispanic singles with modest incomes who primarily live in large complexes in inland cities.

Urban blue-collar is a subset of the ethnic blue-collar renter group who live in large complexes in the city. This cluster is made up of Hispanics, Asians and African-Americans, a third to a half of whom have less than a high school education.

Mobile home clusters

We have also examined mobile home clusters. Mobile homes are more likely to be found in nonmetropolitan areas and, thus, the characteristics of people living in mobile homes are much like those of households in nonmetropolitan areas in general.

Mid-scale traditionals are working middle Americans living in lightly populated areas on the outskirts of larger metropolitan areas. Mid-scale traditional households are made up of married couples with and without children who typically have a high school education with one or more household members employed in a blue-collar job.

Rural blue-collar and farming mobile home households are married couple households with children still at home who work in traditional blue-collar jobs or agricultural occupations and have moderate incomes.

Small town communities are households living in or near small towns. This group has high concentrations of African-Americans, Hispanics, Whites, and Native Americans. These tend to be married couples that earn less than \$35,000 per year.

Rural seniors are older retired workers living in remote areas around Redding, Stockton, and east of Fresno to Bakersfield. These are married couples with incomes under \$20,000.

Nonmetropolitan clusters

PRIZM data were also used to define nonmetropolitan clusters. We also used census and economic data to identify nonmetropolitan areas (see below). As might be expected, there is substantial overlap between these two approaches. The PRIZM based nonmetropolitan clusters have a larger geographic base than the nonmetropolitan areas defined by census and economic data

Working towns are found outside metropolitan areas and second cities. They typically have incomes under \$35,000. This group is largely White although there are some Hispanics and African-Americans.

Farming country represents those households most directly involved with farming. These households have incomes under \$35,000. They are found in the Central Valley and the northern part of the state.

Country living households are found along the eastern edge of California. These households are made up of married couples and married couples with children. The educational level of these households is high school or less.

The location of hard-to-reach groups based on census and other data

Other types of data, mostly census and economic data were used to identify the location of Hispanic, Asian, rural and moderate-income households.

Asian households

About a quarter of all California census tracts have Asian populations of more than 14 percent. Asian populations are highly concentrated in San Diego and south to Chula Vista, in Central Los Angeles, in and around Pasadena, over to San Bernardino, around Indio and El Centro. There is a substantial cluster from Salina south and from Bakersfield to Stockton. There are large groups at various locations around the Bay and near Yuba City.

Hispanic households

About 25 percent of all California census tracts have populations that are 47 percent or more Hispanic. About half of all tracts have 22 percent or more Hispanic households. Major concentrations of Hispanic households are found in San Diego, Los Angeles, San Bernardino, Indio, El Centro, South of Salinas, and from Bakersfield through Stockton. There are concentrations south of San Jose, and in selected areas around the Bay.

Rural households

Nonmetropolitan counties are counties that do not have central areas with a population greater than 50,000 and which are not economically integrated with a large central area in an adjacent county. For purposes of certain social policy issues, health, for example, residents of nonmetropolitan areas are assumed to be at a disadvantage with respect to the availability and quality of services that are available to them. The problem with this definition is that there are areas within metropolitan counties that are more like nonmetropolitan areas and that are economically and socially isolated from central areas. Even though such areas may be “rural” in character they are defined as urban because they are within a metropolitan area. To remedy this definitional problem, we have applied some criteria developed by Goldsmith¹ that identify the “rural” parts of metropolitan counties.

Moderate-income households

About a fifth of all zip codes have 49 percent or more of moderate-income households. Another fifth of zip codes have 27 percent or fewer moderate-income households. The remaining zip codes have percentages of moderate-income households ranging from 28 to 48 percent.

The zip codes with the highest percentages of moderate-income households are found outside the large coastal metropolitan areas in the central and eastern parts of the state. There are only a small number of zip codes in large urban areas along the coast that have high percentages of moderate-income households.

Energy efficiency characterization and needs

By reanalyzing saturation surveys, we were able to examine the energy efficiency issues and needs of a number of the hard-to-reach groups. Table E3 indicates areas where there may be particular opportunities for particular groups.

Table E3 Summary of energy efficient issues and need for the hard-to-reach

Energy efficient issues and needs	Hispanics	Asians	Moderate-income	Housing type multifamily/mobile home	Renter	Rural
Electric space heat is in use				+	+	+
Space heating systems is old					+	-

¹ Goldsmith, Harold F., Dena S. Puskin, and Dianne J. Stiles, *Improving the Operational Definition of “Rural Areas” for Federal Programs*, Washington, D. C.: U. S. Department of Health and Human Services Health Resources and Service Administration, 1993. (<http://www.nal.usda.gov/orhp/Goldsmith.htm>).

Energy efficient issues and needs	Hispanics	Asians	Moderate-income	Housing type multifamily/mobile home	Renter	Rural
Central air conditioning (CAC) is present						
Window air conditioning (AC) is present					+	-
Main AC System is old				+		
Decrease ceiling fan usage				-	-	+
Replace electric water heaters				+	+	+
Disconnect extra refrigerators/freezers				- mf + mh	-	+
Clothes washer replacement					-	+
Clothes dryer replacement					-	+
Dishwasher replacement				-	-	
Replace reduce usage of laser printers	-			-	-	+
Lighting /CFL usage	+	+			+	
Convert/reduce electric water pumping	-	-	-	-	-	+
Reduce heated swimming pools	-	-		-	-	+
Reduce heated Jacuzzis, spas, or hot tubs	-	-		-	-	+
High Heating Degree Day opportunities						+
High Cooling Degree Day opportunities					+	
Insulation of thermal envelope				+ mh	+	
High occupancy issues	+	+	+			
Increase awareness of Energy Star	-	+		+	+	
Increase awareness of appliance yellow energy info label	-	+		+	+	

A plus indicates more opportunity and a minus less opportunity. An "mh" means mobile home while "mf" means multifamily.

Asian and Hispanic households are more likely to be found in multifamily settings in urban areas. On average, these households have more occupants than the average household. They use less electricity and natural gas than other groups. This may be attributable to the fact that Asian and Hispanic households are in areas with more cooling but fewer heating degree days. Asian and Hispanic households also tend to have lower incomes and fewer energy using appliances than other groups. The opportunities to achieve savings with these groups are smaller than with other groups.

For the most part moderate-income customers are like other customers although there are some differences. There may be some opportunities for the removal of second refrigerators.

Mobile home households use a higher than average amount of energy for heating. A very high percentage of mobile home households have central air conditioning. There may be opportunities to improve the efficiency of air conditioning and to reduce heating energy use in mobile homes. About a sixth of mobile homes have a second refrigerator and there may be opportunities to remove those. Mobile home households lack awareness of the Energy Star logo.

Rural households have higher energy consumption than most other groups, in part because of their geographic location and the associated climate and probably in part because some electricity may be used for farm production needs. Rural households typically have large numbers of appliances and about a third of rural households have pumps. Appliances and pumps are potentially targets for efficiency programs. Rural households are among those who are most aware of the Energy Star logo.

We also examined the characteristics of multifamily households. Their energy consumption is about two-thirds that of all households. Renters in multifamily housing have little control over the characteristics of the heating and cooling systems and appliances. Portable efficient lighting is potentially something that might interest renters. Owners of rental property obtain appliances through manufacturer contracts, pricing agreements with local distributors, and through major retailers. There is potential for improving appliance efficiency by an upstream targeting of vendors.

Community-based organizations

This report discusses Community-Based Organizations (CBOs); how they relate to community-targeted programs; and how community programs deliver service and build-up community capacity. Community-based strategies are most appropriate to geographical areas that have existing community-based organizations.

There are several strategies for working with community-based organizations: campaigns, developing new community organizations, establishing a store front operation using a local advisory committee, partnering with an existing community-based organization, and becoming involved with a comprehensive community initiative (CCI). In terms of delivering energy efficiency, partnering with a community-based organization and/or becoming involved with a CCI is likely to be the most effective community-based strategies for delivering energy efficiency services. Other community-based strategies may work but they may not be as effective and the effects may be less likely to be sustained in the future.

There are some key conditions that will result in more rather than less successful partnership arrangements with community organizations.

The sponsoring agency should:

- Choose a partner that is well connected in the community and with the whole target audience.
- Establish clear project goals that have the support of the agency and the community.
- Have sufficient funding and ample time to develop a sustainable program.
- Give the program high visibility and promote early results.

The partnering agency should:

- Have a long and reasonably stable history and a broad range of experience in delivering a variety of services.
- Have good management.
- Be able to commit itself and its staff to the program and have a champion within the agency.
- Use staff and volunteers who have connections within the community to implement the program.
- Provide training and recognition to those involved.

Lessons from attempting to implement definitions of hard-to-reach

In implementing the definitions of hard-to-reach in this study, we learned several things.

- Information about having a primary spoken language other than English is not typically collected in surveys and on forms. If a primary language other than English is to be used to define hard-to-reach populations, appropriate questions need to be placed on surveys and data collection forms.
- For a variety of reasons, survey data collection procedures often result in people with a primary language other than English not being included in the sample. This makes it difficult to analyze the characteristics of these populations.
- If moderate-income is to be used to define a hard-to-reach population, the income categories on surveys and data forms need to be standardized and the range of the categories at the low end of the income scale need to be \$10,000 or \$15,000.
- There is a need for a standard definition of small and large multifamily complexes. The break point can be at five (more than five units) or ten without much loss of information.
- Rural can be defined using the Office of Management and Budget's definition for metropolitan and nonmetropolitan and assigning rural to be nonmetropolitan counties. Including areas of metropolitan counties that are not in central areas and that are not economically or socially linked to central areas enhances the

- definition of rural. These areas can be identified using the Goldsmith modifications.
- The Office of Management and Budget may be changing its definitions to metropolitan areas, micropolitan areas, and areas outside core based statistical areas. The latter is close to what many people consider to be rural.
 - The California Energy Commission should particularly consider these recommendations as it conducts its current residential appliance saturation survey.

Table of Contents

ACKNOWLEDGEMENTS	I
EXECUTIVE SUMMARY	III
Overview of the study	iii
How to use this report	iii
Strategies for reaching ethnic groups	iv
Hard-to-reach segments.....	vi
Renter clusters	vi
Small apartment complexes	vii
Large apartment complexes	vii
Mobile home clusters	vii
Nonmetropolitan clusters	viii
The location of hard-to-reach groups based on census and other data	viii
Asian households.....	viii
Hispanic households.....	viii
Rural households	ix
Moderate-income households	ix
Energy efficiency characterization and needs	ix
Community-based organizations	xi
Lessons from attempting to implement definitions of hard-to-reach.....	xii
TABLE OF CONTENTS	XV
LIST OF FIGURES	XXIII
LIST OF TABLES.....	XXV
CHAPTER 1: INTRODUCTION.....	1
Analysis framework	2
Overview of the report	6
CHAPTER 2: HARD-TO-REACH POPULATIONS.....	7
Introduction.....	7
Hard-to-reach populations defined.....	7
A primary household language other than English	7
Moderate-income households	8
Multifamily dwellings	10
Renter.....	10
Rural	10

Summary of findings about definitions of hard-to-reach populations	12
CHAPTER 3 METHODS USED IN THIS REPORT.....	15
Introduction.....	15
Search for relevant literature	15
Information about the location and characteristics of hard-to-reach groups	16
Analysis of existing data	17
CHAPTER 4: HARD-TO-REACH GROUPS: WHERE ARE THEY?	19
Introduction.....	19
Renters as an example of how we performed our analysis	20
Renter segments	21
Coastal single urban professionals	21
Urban middle-income singles	22
Ethnic blue-collar renters.....	22
Ethnic new arrivals.....	23
Ethnic middle-income singles.....	23
Other renter segments.....	24
Renters in small apartment complexes.....	25
Young single urban professionals	25
Ethnic new arrivals and ethnic middle-income singles	25
Hispanic families.....	26
City apartments	26
Other small apartment segments	26
Large apartment complex segments.....	27
Upscale coastal couples and singles.....	27
Smaller city out-of-city.....	27
Urban blue-collar.....	28
Mobile home ownership segments.....	28
Mid-scale traditionals	29
Rural blue-collar and farming	29
Small town communities	30
Rural seniors	30
Other mobile home segments.....	31
Nonmetropolitan households	32
Working towns	32
Farming country	33
Country living	33

Location of Asian households	34
Location of Hispanic households.....	34
Moderate-income households	35
Summary.....	35
Renter clusters	35
Small apartment complexes	36
Large apartment complexes	36
Mobile home clusters	36
Nonmetropolitan clusters.....	37
Asian households.....	37
Hispanic households.....	37
Moderate-income households	37
CHAPTER 5: THE SOCIAL AND CULTURAL CHARACTERISTICS OF ETHNIC GROUPS	39
Introduction.....	39
Asian, Central and South American ethnic populations	40
Descriptions of major ethnic groups living in California.....	44
Asian ethnic groups	44
Cambodians.....	44
Chinese.....	44
Chinese-Vietnamese	46
Filipinos	46
Guamanians	47
Hmong	48
Indonesians.....	49
Indos	49
Japanese	50
Koreans	51
Lao	52
Mien	53
Taiwanese.....	53
Thai	54
Vietnamese	54
Summary of characteristics of Asian ethnic groups	55
Hispanic/Latin American groups	56
Argentineans	56
Brazilians	57
Californios.....	57
Colombians	58
Ecuadorians	58
Guatemalan Mayans	59

Mexicans	60
Nicaraguans	61
Peruvians	61
Punjabi Mexicans	62
Salvadorans	62
European/Eastern European groups	64
Armenians	64
Croatians	65
Georgians	66
Russians	66
Native American Indians in California	68
African-Americans	70
Summary and outreach strategies	72
The location of ethnic groups in California	72
Strategies for reaching ethnic groups	75
Churches/religious organizations	75
Ethnic associations	75
Community events	75
Local media	76
Chambers of commerce and business trade groups	76
CHAPTER 6: THE ENERGY EFFICIENCY CHARACTERISTICS AND NEEDS OF HARD-TO-REACH GROUPS	79
Introduction	79
Ethnicity/race and language	79
Housing type	80
Home ownership	81
Location	81
Income level	82
Heating fuel	83
Cooling system and fans	84
Water heating system	86
Refrigerators and freezers	86
Lighting	88
Other end-uses	88
Swimming pools and Jacuzzis	89
Insulation and residence shading	90
Residence size and age	91
Household characteristics	92
Energy usage and degree days	93
Bill payment	94

Awareness of Energy Star and other energy labels	94
Summary of key findings for Asians and Hispanics	95
Moderate-income	96
Primary language.....	96
Housing type	97
Location	97
Home ownership	98
Heating system	98
Cooling system and fans	100
Water heating system	101
Refrigerators and freezers	102
Lighting.....	103
Other end-uses.....	104
Swimming pools and Jacuzzis	105
Insulation and residence shading	105
Residence size and age	106
Household characteristics	107
Energy usage and degree days	109
Bill payment.....	109
Awareness of Energy Star and other energy labels.....	110
Summary of key findings for moderate-income customers.....	111
Multifamily housing and mobile homes.....	112
The location of multifamily housing	112
Home ownership	113
Heating system	113
Cooling system and fans	115
Water heating system	117
Refrigerators and freezers	118
Lighting.....	119
Other end-uses.....	120
Insulation and residence shading	122
Residence size and age	122
Household characteristics	123
Energy usage and degree days	126
Bill payment.....	126
Awareness of Energy Star and other energy labels.....	127

Summary of key findings for multifamily households.....	128
Rural	130
Heating system.....	130
Cooling systems and fans	131
Water heating system	131
Refrigerators and freezers.....	132
Other end-uses.....	132
Swimming pools and Jacuzzis	133
Residence characteristics	133
Household characteristics	134
Number of occupants.....	134
Energy use and degree days	134
Bill payment.....	135
Awareness of Energy Star and other energy labels.....	135
Summary of key findings for rural households.....	136
Summary of key findings for the energy efficiency needs of hard-to-reach groups	137
CHAPTER 7: COMMUNITY-BASED ORGANIZATIONS	143
Community-based organizations	143
What are community-based organizations	143
Working effectively with community-based organizations	147
From the ground-up or using what is on the ground: alternative strategies for working with communities	148
Partnering with a community-based organization	150
Choosing a partner organization	150
Relationship between the partner and the target audience.....	151
Relationship between the sponsoring agency and the partner	152
Important characteristics of community-based organizations	153
Partnering agency support for the program	154
Program implementation	154
Delivering services	155
Summary.....	156
CHAPTER 8 PROGRAM STRATEGIES FOR REACHING THE HARD-TO- REACH POPULATIONS IN CALIFORNIA.....	159
California ethnic groups	159
Community-based organizations	161
Locating hard-to-reach groups.....	162

Renter clusters	163
Small apartment complexes	163
Large apartment complexes	164
Mobile home clusters	164
Nonmetropolitan clusters	164
Energy needs	165
APPENDIX A: WORKS CONSULTED.....	167
APPENDIX B: COMMUNITY-BASED ORGANIZATIONS.....	175
Asian organizations and links	175
Community organizations	177
Governmental organizations	181
Hispanic organizations	192
Native American tribes in California	192
APPENDIX C: LIST OF THE 62 PRIZM CLUSTERS.....	199

List of Figures

Figure 1	Asian ethnic populations	41
Figure 2	Hispanic/Latin American ethnic populations	42

List of Tables

Table 1	Market segment/audience analysis matrix	3
Table 2	The poverty level and the lower and upper income limits for moderate-income	9
Table 3	Market segments and their submarkets.....	20
Table 4	Estimate of immigrant populations (1990 Census)	40
Table 5	Language facility for selected Asian ethnic groups	43
Table 6	Language facility with Spanish or English among Hispanics and other Latin American immigrant groups	43
Table 7	Summary of the cultural and social characteristics of Asian ethnic groups ...	55
Table 8	Summary of key cultural and social characteristics for Hispanic groups.....	63
Table 9	Summary of key cultural and social characteristics for European and East European groups.....	67
Table 10	Location of ethnic and racial groups by geographical area of California.....	73
Table 11	Potential program strategies for Asian groups	76
Table 12	Potential program strategies for Hispanic groups	77
Table 13	Primary language (SCE and SDG&E only).....	80
Table 14	Percent of housing type by ethnicity/race	80
Table 15	Percent of home ownership by ethnicity/race	81
Table 16	Percent of location (RECS) by ethnicity/race	82
Table 17	Percent income level by ethnicity/race	82
Table 18	Percent primary heating system fuel by ethnicity/race.....	83
Table 19	Percent age of primary heating system by ethnicity/race	83
Table 20	Percent with cooling systems by ethnicity/race.....	84
Table 21	Percent of fan ownership by ethnicity/race.....	85
Table 22	Percent with water heating system fuel by ethnicity/race.....	86
Table 23	Percent of households with refrigerator and freezer characteristics by ethnicity/race	87
Table 24	Percent with size of main refrigerator by ethnicity/race.....	87
Table 25	Percent ownership of CFLs by ethnicity/race	88
Table 26	Percent ownership of other end-uses by ethnicity/race	89
Table 27	Percent swimming pools and Jacuzzis by ethnicity/race	90
Table 28	Percent with type of insulation and residence shading by ethnicity/race	90
Table 29	Residence size and age by ethnicity/race.....	91
Table 30	Percent head of household characteristics by ethnicity/race.....	92
Table 31	Number of occupants by ethnicity/race	92
Table 32	Percent with family characteristics by ethnicity/race	93
Table 33	Energy usage and degree days by ethnicity/race	94
Table 34	Percent method of bill payment.....	94
Table 35	Percent awareness of Energy Star and other energy labels by ethnicity/race.	95
Table 36	Percent income by primary language	96
Table 37	Percent in housing type by income.....	97
Table 38	Percent urban/rural location by income	98
Table 39	Percent home ownership by income type	98

Table 40	Percent with primary heating system fuel by income type	99
Table 41	Percent with primary heating system age by income type.....	99
Table 42	Percent with cooling system characteristics by income type	100
Table 43	Percent fan ownership by income type	101
Table 44	Percent with water heating system fuel by income type.....	101
Table 45	Percent with refrigerator and freezer characteristics by income type	102
Table 46	Percent of household by size of main refrigerator and income type	103
Table 47	Percent ownership of CFLs by income type	103
Table 48	Percent ownership of other end-uses by income type	104
Table 49	Percent with swimming pools and Jacuzzis by income type	105
Table 50	Percent with type of insulation and residence shading by income type	106
Table 51	Residence size and age by income type	106
Table 52	Percent head of household characteristics by income type.....	107
Table 53	Average numbers of occupants by income type.....	107
Table 54	Percent of family characteristics by income type.....	108
Table 55	Energy usage by income type.....	109
Table 56	Percent of bill payment by income type	110
Table 57	Percent awareness of Energy Star and other energy labels by income type .	110
Table 58	Housing type by urban/rural location	112
Table 59	Home ownership by housing type	113
Table 60	Primary heating system fuel by housing type	114
Table 61	Primary heating system age by housing type.....	114
Table 62	Cooling system characteristics by housing type	115
Table 63	Fan ownership by housing type.....	116
Table 64	Water heating system fuel by housing type	117
Table 65	Refrigerator and freezer characteristics by housing type.....	118
Table 66	Size of main refrigerator by housing type.....	119
Table 67	Ownership of CFLs by housing type	120
Table 68	Ownership of other end-uses by housing type	121
Table 69	Type of insulation and residence shading by housing type	122
Table 70	Residence size and age by housing type	123
Table 71	Head of household characteristics by housing type	123
Table 72	Average numbers of occupants by housing type.....	124
Table 73	Family characteristics by housing type.....	125
Table 74	Energy usage and degree days by housing type	126
Table 75	Bill payment by housing type	126
Table 76	Awareness of Energy Star and other energy labels by housing type	127
Table 77	Primary heating system fuel by urban/rural location.....	130
Table 78	Primary heating system age by urban/rural location	130
Table 79	Cooling system characteristics by urban/rural location.....	131
Table 80	Fan ownership by urban/rural location	131
Table 81	Water heating system fuel by urban/rural location.....	132
Table 82	Refrigerator and freezer characteristics by urban/rural location	132
Table 83	Household appliances by urban/rural location	133
Table 84	Swimming pools and jacuzzis by urban/rural location.....	133
Table 85	Residence characteristics by urban/rural location	134

Table 86	Head of household characteristics by urban/rural location	134
Table 87	Occupant characteristics by urban/rural location	134
Table 88	Energy use and degree days by urban/rural location	135
Table 89	Bill payments by urban/rural location	135
Table 90	Awareness of Energy Star and other energy labels by urban/rural location.	136
Table 91	Summary of energy efficient issues and need for the hard-to-reach	141
Table 92	Screening information for community-based programs	151
Table 93	Potential outreach strategies for Asian groups	160
Table 94	Potential outreach strategies for Hispanic groups	161

Chapter 1: Introduction

In Decision D.99-08-021, the California Utility Commission (CPUC) directed Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), Southern California Edison (SCE), and Southern California Gas (SCG) to consider examining program offerings that are available to the “under-served communities and customer groups” and to consider increased funding for activities that benefit under-served communities. The term under-served was not defined in this decision but in a CBEE Advice Letter IG/IE filed with the Commission on October 15, 1998, it was suggested that the term should include renters, low-income, rural, and small businesses.

In a subsequent decision D.00-07-017, the CPUC ordered the utilities to: 1) work together to develop common working definitions for different communities and customer groups in the residential sector; 2) assess the size and characteristics of these communities and customer groups; and 3) begin monitoring the availability and delivery of program services and participation in the programs according to these definitions. The utilities were directed to consider characteristics such as income, language, ethnicity, homeownership versus renter, and rural versus urban or suburban.

On October 4, 2000, the utilities conducted a residential workshop at which the definitions were discussed. It was agreed that the term “underserved” would be replaced with “hard-to-reach”. In addition, it was agreed that hard-to-reach customers would be customers with a primary language other than English, a moderate-income level, persons living in multi-family housing or mobile homes, and renters.

As a next response to the Commission, the investor-owned utilities initiated this residential needs assessment study. The goal of this assessment is to:

- Locate and summarize existing data on residential customer segments particularly those customers that are hard-to-reach: tenants in small multifamily housing units, tenants who pay their own energy costs, customers with limited English speaking ability, moderate-income customers, rural customers and others as may be identified.
- Use the information that is gathered to suggest outreach strategies and program designs that will foster greater participation among hard-to-reach groups in residential energy efficiency programs.
- Use the needs information to suggest program design features that can increase customer adoption of measures and behaviors promoted through the residential programs.

These general goals suggest a number of more specific researchable questions:

1. What are the residential segments that are currently hard-to-reach and how are they defined?
2. How large are these segments?
3. Where are these segments located in California?
4. What are the characteristics of these segments?

5. Through what communication channels might these segments be reached?
6. How can community-based organizations be effectively used to reach these segments?
7. To what extent can community-based organizations be used to reach and deliver services to these groups?
8. What types of products and services are appropriate to the needs of these segments?
9. What are the important characteristics of the products and services that will meet the needs of hard-to-reach audiences?
10. How can hard-to-reach audiences be made aware of these products and services?
11. What message content is important to hard-to-reach customers?
12. Through what channels might messages best be delivered?
13. How best might these products and services be delivered?

The above questions require that a large amount of data be brought to bear on most of these issues. A major challenge for this study is to locate and analyze data that provides useful and insightful answers to these questions. In order to respond to these questions, TecMRKT Works undertook to:

1. identify and review relevant library literature
2. locate, gather and reanalyze previously collected energy efficiency related data
3. collect and analyze secondary data from public and private sources
4. use a market segmentation/analysis matrix to organize the information and identify gaps
5. analyze the information to produce program theories and develop program designs

Analysis framework

A key problem in an endeavor such as this is to identify important information about hard-to-reach groups and then impose an organization on the material that will aid in its analysis, interpretation, and presentation. Upon reflection, it was clear that any analysis framework has to have at least two dimensions.

Clearly, one dimension of the framework has to define or identify hard-to-reach groups. Based on the outcome of the residential workshop, these include populations whose primary language is a language other than English, primarily Chinese or Hispanic, households in small multifamily units, households in large multifamily units, renters, rural households, and households with moderate-income.

A second dimension is the categories of information that are needed to be able to make program recommendations. Program recommendations require that we know something about the size and location of populations, their culture and social organization, their beliefs and values, their energy needs, products and services that could be used to meet their energy needs efficiently, appropriate messages, and communication paths.

Table 1 illustrates our initial attempt at a framework. The hard-to-reach populations are listed at the side of the matrix and the important categories of information that are needed

Table 1 Market segment/audience analysis matrix

Information to be collected and analyzed							
	Size and location	Culture and organizational structure	Relevant values, beliefs and attitudes	Communications paths to the segment	Energy efficiency needs	Products and services that meet needs	Effective service delivery methods
Hard-to-reach populations	Primary household language other than English						
	Moderate-income						
	Housing type multi-family/mobile home						
	Renter						
	Rural						
Others to be defined							

to understand these populations so that programs can be developed are listed across the top. The rationale for the information we are collecting is as follows.

Size and location: In order to make efficient use of program resources, it is important to know where target populations are located. The first category of information that is needed is the size and location of hard-to-reach populations. Target populations can be highly localized or widely spread. They can be small or large. A population that is spread across a landscape requires a much different program strategy than one that is highly localized. Knowing the size and distribution of populations can help us make better choices about program strategies and where to implement them.

Culture and social organization: At least some of the populations of interest are likely to have very different cultures and patterns of social organization. These patterns of culture and social organization can present barriers or opportunities. Language and culture can make it difficult to reach and communicate with people in certain segments among ethnic groups. Traditional family and social networks may make it easier to reach high percentages of households once the barriers of language and culture are overcome. Affiliation with religious and social groups may represent important communication paths for reaching certain groups.

We also need to keep in mind that ethnic populations are varied in and of themselves. For example, Chinese whose origins are in Northern China have different cultural traditions than those with origins in Southern China or the Chinese from the Chinese Diaspora in such places as Vietnam, Cambodia, or Malaysia. Further, there are significant linguistic differences even among Chinese from Guangdong with the many variants of Chinese that are cousins of Cantonese, as well as ChiuChau and Hakka speaking groups. These populations have arrived in California for different reasons at different times and have assimilated to different degrees within the English speaking culture. As we shall see a bit later, much the same situation applies to Hispanic populations. Some families of Hispanic origins arrived early and have largely been assimilated while others are recent and are making their way.

Values and beliefs: Persons within a population may hold similar beliefs and attitudes that influence their interest in and participation in energy efficiency programs. Programs may need to address these attitudes and beliefs leveraging them or attempting to change them.

Communication patterns: Understanding communication paths is also important. There are two general categories of methods for reaching target audiences, broadcast and contagion. In a broadcast method a single source reaches many people at the same time. Examples of broadcast methods are radio spots, mailers, brochures, bill stuffers, etc. Contagion is the spread of information from one person to another and then through social networks. Rumors are an example of contagion.

Communication through social networks is generally more effective than communication through broadcast or media paths although they tend to be used less frequently than broadcast channels. Channeling information through social and organizational networks is a particularly effective way of increasing participation. Thus, identifying and using such networks can be particularly effective in reaching certain audiences.

This has implications for program. Renters within a building or complex may have little interaction with each other making communication using social networks within a complex difficult. If a program is using such an approach, it is likely to fail. However, renters in the complex may belong to social networks that extend outside the complex in which case it may be possible to communicate with renters by acting through those networks.

If one is dealing with an ethnic community, the community may have a very diverse and active set of organizations and social networks that may be tapped to communicate with members of the population. On the other hand, the ethnic community may have very weak social ties that make using social networks difficult. There may be schisms within the community, which mean that if one works with one segment of the community it may be difficult to work with another.

Energy use characteristics and needs: The energy needs of different populations vary. A renter may be interested in information about efficient lighting and may be a good target for an efficient torchiere program. They may also be interested in ways to make an apartment more comfortable. They may need or want information about fans or ways to reduce air infiltration at windows. They may be little interested in information about central air conditioning or refrigeration since the property owner may provide those appliances. However, that may not always be the case. We know that it is the habit in Los Angeles for some tenants to own their own refrigerators; a refrigerator rebate program or an efficient refrigerator rental program might be of major interest.

Persons living in mobile homes have different energy needs. For example, they may be interested in insulation, cooling, and heating.

Products and services that meet needs: A corollary to understanding a population's energy needs is providing products and services that have practical value. Thus, it is important to tailor programs to the needs of residents.

Effective delivery strategies: Finally, programs need effective delivery strategies. An effective delivery strategy means:

- providing the right message
- delivering the message through the right channels
- reinforcing and supporting the message with additional messages
- making it easy for the target audiences to act on the message.

Many programs are less effective than they could be because they do not adequately deal with these issues. For example, messages are often off target missing the interests of the audience. Messages are not placed in the right channel and/or they are not reinforced. The procedures for participating in the program or the availability of staff to implement the program do not meet the needs of the audience. This is why we often find that direct install programs recruit high numbers of households with retired members and fail to reach households with heads in the age range of 45 to 60 who are less often at home.

The point of the analysis framework is to provide a systematic method for identifying and organizing key information so that we can develop reasonable program theories. Program theories are descriptions of causally linked behaviors that explain how people

come to adopt ideas and technologies and engage in new behaviors. The data collected in the matrix should provide the information needed to develop good practical theories. It may also tell us what activities to avoid. In turn, the theories are translated into a set of activities that become the program design. The final important activity in this study will be to translate the data in the matrix to the program theory and then to convert that to good program designs.

Overview of the report

The main body of this report is organized around the key issues identified in the preceding matrix. Before describing what we have learned about these populations, we provide an in-depth discussion of the definitions of hard-to-reach in Chapter 2. Because there is no descriptive data about who is receiving services for current and prior energy efficiency programs, we do not know if the groups defined as hard-to-reach are in fact hard-to-reach and/or if there are groups with other characteristics that should be included in the definition of hard-to-reach. Historically, programs have not tracked the information needed to identify hard to reach populations. Requiring programs to do so in the future is likely to add an intrusive element in the program process which might increase the barriers to program participation. The goal of the discussion in Chapter 2 is to give the reader a better understanding of the definitions of hard-to-reach and the problems encountered in implementing them in this study.

In Chapter 3, we describe the data that we collected and how it is analyzed. Chapter 4 describes the location of hard-to-reach populations in California. In this chapter, we use market data, to identify zip codes that have high proportions of people in hard-to-reach categories. In addition, this chapter contains a fair amount of information about the characteristics of these groups including their tastes and interests.

Chapter 5 describes in detail the social and cultural characteristics of some of the larger ethnic groups that may potentially be hard-to-reach. It provides an overview of the heterogeneous nature of California's ethnic populations. This chapter focuses on the basic issue of the degree of assimilation of ethnic groups into California culture. Equally important, it focuses on the social organization and networks within the ethnic communities that may potentially be entry points to the community.

Chapter 6 examines the appliance holdings and energy use patterns of hard-to-reach groups. In this Chapter, we attempt to identify the targets of opportunity for energy efficiency programs for the hard-to-reach.

Chapter 7 discusses community-based organizations and the role of community-based organizations in communicating with hard-to-reach groups. This chapter attempts to define community-based organizations and describes some generic types of services that are frequently offered by community-based organizations. The remainder of the chapter is given over to describing conditions that are important to successful partnering and sustaining programs with community-based organizations. In an appendix, we provide some lists of organizations or methods for contacting organizations.

In Chapter 8, we attempt to bring this material together and summarize what some potentially successful program strategies might be.

Chapter 2: Hard-to-Reach Populations

Introduction

As defined by participants in the October 4, 2000 residential workshop, hard-to-reach customers are those customers “who do not have easy access to program information or generally do not participate in energy efficiency programs due to language, income, housing type or home ownership (split incentives) barriers.” In this chapter we discuss the specifics of these definitions and how the definitions were implemented in this study. While the definitions seem straightforward they are often difficult to implement.

Hard-to-reach populations defined

Hard-to-serve populations have been identified as households with:

1. a primary language other than English
2. a moderate-income level
3. a housing type that is multifamily or mobile home tenants
4. an occupancy status of renter

A primary household language other than English

It is sometimes assumed that language is a barrier to participating in energy efficiency programs for populations where the members of the household primarily speak a language other than English. The use of a language other than English may make it difficult for the household to obtain and understand information. A corollary is that households that do not primarily use English may not be fully aware of organizations and institutions in the larger culture, or may misunderstand or misperceive the nature of these organizations and institutions. As a result, it is argued that such populations may not be aware of or avail themselves of opportunities such as energy efficiency programs. There is some question as to the validity of this hypothesis. As we shall see in our discussion of ethnic groups, some groups have been quite successful in using the resources that are available to them. Thus, these observations should probably be treated as hypotheses until there is quantitative data to support the assumptions.

The guidance for this project was that the focus on hard-to-reach groups with a primary language other than English should be Chinese and Hispanics because they are the largest language groups in California after speakers of English. As we shall see later, there are a number of other language/ethnic groups for example, Korean, Hmong and Vietnamese, for whom there are language issues. Also, we will see that, the Chinese and Hispanic segments are multicultural and multiple approaches rather than a single language strategy may be required.

There is very little quantitative data that allows one to identify and describe households whose primary language is something other than English. Currently, the main data sources do not capture information about the language spoken in the home. For example,

only one of the utility survey asked about spoken language and then for only one language. The long form of the Census captures language spoken in the home but the most recent data are for 1990. The 2000 Census information is not yet available.

Even if one drops the requirement that the hard-to-reach populations be identified through spoken language and use ethnicity as a proxy for it, it is still difficult to find specific detailed information. For example, many statistical sources and surveys group Asians, Koreans, Hmong, Filipinos, and Chinese, into a single category called *Asian and Pacific Islander*. Thus, for much of the analysis in this project, we have based our analysis on the category “Asian” or “Asian and Pacific Islander” rather than Chinese. Based on data we will report later, as few as 30 percent of Asians are Chinese. Statistically and analytically, this is far removed from people whose primary language is other than English and principally Chinese.

We would recommend that if there is an interest in using *a primary household language other than English* as a way of defining hard-to-reach households, that studies such as the Residential Saturation Survey being undertaken by the California Energy Commission incorporate appropriate questions. At least two questions are needed. Does the household primarily communicate in a language other than English? If so, what language?

Further, we suspect that the households that do not use English as the primary household language are not likely to participate in the CEC saturation survey without special recruitment efforts thereby defeating the purpose of the language questions. For instance, in one of the surveys reported in this document, 80 percent of those in the *other language category*, which is the category in which Asians would fall, are Chinese. The ethnicity data we report in Chapter 4 suggests that Chinese should be about 30 percent of Asians. This means that other Asian groups are significantly underrepresented in saturation surveys. The key point is that, if language or ethnicity information is needed, special efforts above and beyond normal survey procedures may be required to gather those data.

Moderate-income households

A second hard-to-reach group on which we were asked to focus is moderate-income households. The residential workshop defined moderate-income households as those households without seniors with incomes between 150 and 400 percent of the poverty level and households with seniors with incomes between 200 and 400 percent of the poverty level. For a non-senior single person household, the moderate-income range is between \$12,525 and \$33,400. For a family of four the range is 25,575 to \$68,200. For a senior single household the moderate-income range is between \$16,677 and 33,400. Table 2 shows the definition of moderate-income for households without seniors. The reader may observe that the upper limits can be quite large if the size of the family is large.

Table 2 The poverty level and the lower and upper income limits for moderate-income

Size of Family Unit	Poverty Level	Moderate-income	
		Lower Limit	Upper Limit
1	8,350	12,525	33,400
2	11,250	16,875	45,000
3	14,150	21,225	56,600
4	17,050	25,575	68,200
5	19,950	29,925	79,800
6	22,850	34,275	91,400
7	25,750	38,625	103,000
8	28,650	42,975	114,600
9	31,550	47,325	126,200
10	34,450	51,675	137,800
11	37,350	56,025	149,400
12	40,250	60,375	161,000
13	43,150	64,725	172,600

Because most surveys collect income information in categories rather than as a specific dollar estimates, accurately determining which households are moderate-income is a challenge. In order to deal with categorical income data, we assigned each household an income equal to the midpoint of the income category into which respondents placed themselves. For example, a household reporting its total income in the range of \$25,000 and \$49,999 was assigned a household income of \$37,500. We then divided this value by the poverty level for the correct number of people in the household as determined from Table 2. If the resulting value was less than 1.5, we assigned the household to the low-income category. If it was between 1.5 and four, the household was assigned to the moderate-income category. If it was more than 4, it was assigned to an upper middle-income category.

We used Claritas' 2001 estimates of households in incremental income categories to develop the map showing moderate-income areas. The procedure for estimate the proportion of moderate-income households varies slightly from the procedure outlined in the preceding paragraph. The average household size for the zip code was obtained by dividing the population of the zip code by the number of households in the zip code. Using the average household size and Table 2, we interpolated to find the average poverty level for the zip code. The lower and upper dollar limits for moderate-income households were obtain by multiplying these values by 1.5 and 4 respectively. We then summed the number of households in the relevant income ranges in the Claritas data. Because the lower and upper limits of the moderate-income categories do not exactly match the end points of the income ranges from the Claritas data, we interpolated the data in the first and last range to obtain the relevant number of households in those ranges. These data were summed to determine the number of moderate-income households and then divided by the total number of households and multiplied by 100 to obtain the percent of moderate-income households.

The accuracy of the determination of income status declines with the width of the income categories. An important lesson from this exercise is that income categories at the lower end of the income distribution should have ranges of \$10,000 or less to increase the accuracy of determining moderate-income status.

Multifamily dwellings

We were also asked to examine the differences in households residing in small and large apartment complexes. The Residential Workshop defined small complexes as two to five units and large complexes as having more than five units. Most of the data with which we worked made some distinction between small and large complexes just not the same distinction. Some times we were able to code data into categories of complexes of two to five and complexes five and larger and sometimes we had to use two to ten and more than ten. Based on the experience we had with the analysis, the choice of the cutting point probably does not make a great deal of difference. What is important is to standardize the response categories in survey efforts so that the data can be compared. In order to maximize the potential for analysis, we would recommend that the response categories be two to five, five to ten, and more than ten. This will provide maximum flexibility for matching with categories that are associated with data collected in non-energy fields.

Renter

We were also asked to examine *renter* as a hard-to-reach category. Single-family dwellings and mobile homes may be rental units. Later on we will report that approximately 20 percent of the mobile homes in certain parts of California may be rental units. Conversely, condominiums can be multifamily complexes occupied by their owners. Owners can, and often do, occupy a unit in a duplex or triplex. There is a high correlation between renting and multifamily housing and ownership and single-family housing but they are not the same.

In our analysis we uncovered some differences between renters and people living in multifamily units but the differences are subtle and somewhat elusive given the nature of the data that is available to us at this time. For the most part, renter households are like multifamily households with some of the exceptions that we have just noted.

Rural

Rural households are also identified as a hard-to-reach group. We think we know what we mean by *rural*, but to define rural involves us in an intellectual debate that has been ongoing among philosophers since the dawn of cities and with sociologists and demographers for 150 years.

One can draw the boundaries between rural and urban based on population density but such boundaries are rarely well correlated with behaviors and patterns of social interaction that we define as urban or rural. We often find people, who spend their days in urban settings who we would identify as urbane, who live in low-density areas that we would define, at least by observation, as rural or pastoral.

Rural is often defined as the absence of certain types of social, institutional, and cultural amenities and as the presence of certain patterns of intense interpersonal interactions. These distinctions fade with increasing penetration of population in the countryside and the presence of electronic media and modern communication and transportation that reduce the differences in accessibility to economic, social and cultural institutions. Fundamentally, the definition of rural has two basic elements: geographical areas that have low population density and areas that are somewhat isolated from urban areas.

At least for the moment, the definition of “rural” that we are using is based on a modification of the Office of Management and Budget definitions of metropolitan and nonmetropolitan counties. The Office of Management and Budget designates all U.S. counties as falling into one of these two categories. A metropolitan county is a county containing a central area with a population greater than 50,000 and/or a county closely tied to a large central area. Nonmetropolitan counties are counties that do not have central areas with a population greater than 50,000 and which are not economically integrated with a large central area in an adjacent county. For purposes of certain social policy issues, health, for example, residents of nonmetropolitan areas are assumed to be at a disadvantage with respect to the availability and quality of services that are available to them. Thus as a start, we are defining rural as equivalent to nonmetropolitan. This definition is consistent with the way that the California Energy Commission discussed the consequences of restructuring in relation to California’s rural counties.²

The problem with this definition is that there are areas within metropolitan counties that are more like nonmetropolitan areas and that are economically and socially isolated from central areas. Even though such areas may be “rural” in character they are defined as urban because they are within a metropolitan area.

To remedy this definitional problem, Goldsmith³ has introduced some additional criteria that can be used to identify the “rural” parts of metropolitan counties. The problem arises mostly in large metropolitan counties where it is physically possible to have areas that are socially and economically isolated from central areas. Large metropolitan counties are defined as counties with at least 1225 square miles, roughly an area 30 by 40 miles. Within these counties, small areas are classified as open-country or rural neighborhoods or small towns, if 1) there are no persons who are living in a city of 50,000 or more persons or in the surrounding densely settled suburbs; or 2) in cities of 25,000 or more persons. These “rural” areas are then assessed with respect to whether or not they are economically linked to central areas. This is determined by whether 15 percent or less of the work force in these areas commute to work in central areas. If less than 15 percent of the work force commutes, these areas in large metropolitan counties are considered rural isolated areas.

As an example, San Bernardino County stretches from the city of San Bernardino to the Nevada border 150 miles away. Most of the population lives in or near San Bernardino,

² *What Electricity Restructuring Means for Rural California Counties*, Publication Number P300-98-011, Sacramento: California Public Utilities Commission, 1998.

³ Goldsmith, Harold F., Dena S. Puskin, and Dianne J. Stiles, *Improving the Operational Definition of “Rural Areas” for Federal Programs*, Washington, D. C.: U. S. Department of Health and Human Services Health Resources and Service Administration, 1993. (<http://www.nal.usda.gov/orhp/Goldsmith.htm>).

which is in the southwestern part of the county. The county is a metropolitan county and without this definition all areas in it would be defined as “urban”. Commuting patterns in the sparsely settled eastern desert areas are not sufficient to link them economically with central areas and therefore they are classified as rural.

This is a standard definition that is now being widely used especially in the medical health field. Data to support this definition is widely available from vendors.⁴

Currently, there is movement a foot to change the definitions.⁵ It has been recommended that the new definitions be built around the concept of a *core based statistical area* (CBSA). An area with a minimum population of 10,000 is defined as a CBSA. Cores associated with at least one CBSA with a population of 50,000 or more are defined as *metropolitan areas*. *Micropolitan areas* are cores with a population between 10,000 and 49,999 people not associated with a core of 50,000 people or more. Territories outside of CBSAs, essentially rural areas, will be defined as *outside CBSAs*. With the advent of the 2000 Census reporting, we may begin to see these definitions or definitions similar to them.

Summary of findings about definitions of hard-to-reach populations

In this chapter we have presented the basic definition for hard-to-reach populations. Based on our attempts to implement these definitions, we have several findings and recommendations.

- Information about having a primary spoken language other than English is not typically collected in surveys and on forms. If a primary language other than English is to be used to define hard-to-reach populations, appropriate questions need to be added to surveys and data collection forms in the future.
- Survey data collection procedures, for example, lack of interviewers who speak a language or the reluctance of respondents to answer questions, often result in people with a primary language other than English not being included in samples. This makes it difficult to analyze the characteristics of these populations.
- If moderate-income is to be used to define a hard-to-reach population, the income categories on surveys and data forms need to be standardized and the width of the categories at the low end of the income scale need to be \$10,000 or less.
- There is need for a standard definition of small and large multifamily complexes. The break point can be at five (more than five units) or ten without much loss of information.
- Conceptually, the difference between a renter and residents of multifamily housing is substantial. Analytically, they appear to be quite similar.

⁴ For example, from the ZIPINFO corporation.

⁵ Office of Management and Budget, *Final Report and Recommendations from the Metropolitan Standards Review Committee to the Office of Management and Budget Concerning Changes to the Standards for Defining Metropolitan Areas*, Washington, D. C. Office of Management and Budget, October 6, 2000. (<http://www.whitehouse.gov/omb/inforeg/metro2000.pdf>)

- Rural can be defined using the Office of Management and Budget's definition for metropolitan and nonmetropolitan and assigning rural to be nonmetropolitan counties. The definition of rural is enhanced by including those areas of metropolitan counties that are not in central areas and that are not economically or socially linked to central areas. These areas can be identified using the Goldsmith modifications.
- The Office of Management and Budget may be changing its definitions to metropolitan areas, micropolitan areas, and areas outside core based statistical areas. The latter is close to what many people think of as rural.
- The California Energy Commission should particularly consider these definitional issues as it conducts its current residential appliance saturation survey.

Chapter 3 Methods Used in This Report

Introduction

The issues being addressed in this report are very broad. The best possible method to address these issues is the secondary analysis of existing data. The use of secondary data allows us to use many sources and many types of data and provides a much richer characterization of these populations than would be possible through the use primary data collection methods. The use of secondary data does impose some limitations. For example, there are gaps in coverage and incompatible definitions that make it difficult to relate information from different data sources. Still, the analysis of secondary data is the only approach that makes it possible to complete a study that is as ambitious as this one.

This study involved three major activities:

- A library and internet literature search
- The analysis of data sets that provide information about the location of hard-to-reach populations
- The secondary analysis of previously collected survey data, particularly residential appliance saturation data

Search for relevant literature

The literature search, which was library and Internet-based, was primarily focused on finding information on four sets of information about:

- the cultural and organizational characteristics of ethnic groups in California
- community-based organizations and the effective use of community-based organizations
- existing community-based organizations
- definitions of rural

We relied heavily on Levinson and Ember, *American Immigrant Culture*, a two-volume work describing California ethnic groups. This work is relatively recent, 1997. It was written by experts in the field and then edited and reviewed by a large community of scholars. We completed a secondary analysis of this information using a simple categorization scheme to help us summarize the pertinent, and a few not so pertinent, points for this work. For readers of this report who are interested in this topic or who wish to learn more about a particular ethnic group, we commend this volume to you.

Appendix A provides references to some of the literature on community-based organizations and defining rural that was located as a result of these searches.

We have included an appendix identifying websites where more contact information about ethnic groups may be found.

Information about the location and characteristics of hard-to-reach groups

An obvious source of information about hard-to-reach groups is the Census. At the time this report is being prepared, only the 1990 census data and some year 2000 redistricting files are available. While the 1990 Census is a rich source of information for analysis that would allow us to examine the location of hard-to-reach groups in some detail, the information is eleven years old and the results are likely to be somewhat misleading given the changes that have taken place in the last eleven years.

After exploring several alternatives, we decided to use a data set produced by Claritas called PRIZM to locate and analyze populations of interest. PRIZM defines the American population in terms of 62 segments. Estimates of the number of households in each of the 62 segments are available for each zip code.

Segments are defined on the basis of a broad set of social and demographic characteristics, location within the country, purchasing patterns, and media use. For example, there is information about median income, family composition, age, education, occupation, housing type, race and ethnicity, lifestyle, product and service usage, radio and television habits, and the use of print media.

The segments are based on the analysis and updating of census information, a survey, and purchasing data. Based on the analysis, the characteristics of each segment are then clearly defined. The information in PRIZM is not more than four years old and the estimates of populations are updated annually.

An example of a segment is “Kids and Cul-de-Sacs.” As described by Claritas, this segment “ranks high” on all affluence measures. Although married couples with children still dominate this cluster, some married couples without children are moving into Kids and Cul-de-Sacs. These suburban folks lead busy lives centered around family activities.”

Nationally, this segment includes about three percent of households. The segment is predominately White but also has a disproportionate number of Asians. Members of this segment have a median income of approximately \$70,000 and are college graduates in white-collar or professional positions who own single family homes.

After selecting segments that have higher than average percentages of households with a characteristic in which we are interested, for example, mobile homes, we combined the counts for the segments at the zip code level and then percentaged them based on the total number of households in a zip code. We then took this information and presented it on maps showing the concentrations of households with characteristics of interest. We also present written descriptions of the audiences. There is some additional detail describing this process at the beginning of Chapter 6.

We also obtained other data, for example, data identifying whether zip codes are rural or urban according to the definition that we presented in the previous chapter. A map of that information is presented in Chapter 6.

Analysis of existing data

To get a better understanding of energy needs of hard-to-reach populations, we obtained the most recent saturation survey data from some of the utilities as well as survey data from the United State Department of Energy, Energy Information Administration. We qualitatively and statistically reanalyzed these data. In order to do this, we developed a standard data-reporting matrix that we used to guide the analysis and to summarize the data in a standardized way. This matrix allowed us to link the results of the analysis of the various data sets so that we could draw a larger set of conclusions.

The three main datasets were:

RECS (Residential Energy Consumption Survey): This is a survey that was completed by the Energy Information Administration (EIA), a part of the U. S. Department of Energy. It is a national survey of appliance holdings, energy use, and demographic characteristics that EIA completes approximately every five years. The most recent survey was completed in 1997. The survey has a very large number of questions on household characteristics and demographics and is supplemented with actual consumption data from fuel suppliers. EIA provides a public use sample so that users can analyze the data to their own specifications. Because of the size of the California population, EIA provides a California sub sample of approximately 600 households.

While a sample of 600 households is of good size, many of the characteristics in which we are most interested only occur for a small proportion of the population. Thus, our ability to make inferences about the population and to do detailed multivariate analysis was limited.

PG&E Residential Appliance Saturation Survey (PG&ERASS): PG&E completed a survey of 25,293 of its residential customers in 1995. The survey had a large number of questions on household appliances and characteristics and basic demographics. The data in this survey are weighted so that the results reflect the size of the general population of households in the PG&E service territory.

SCE Residential Appliance Saturation Survey (RASS): SCE completed a similar appliance saturation survey of 10,626 residential customers in 1995. Like the PG&E survey it contained a large number of questions on household appliances and characteristics and basic demographics. The data in this survey is weighted so that the results reflect the SCE residential customer population.

We note that the data from the saturation surveys are now nearly five years old. It should be self evident that things have changed since then. These data are best treated as indicators of what might be.

Miracle XIII Home Energy Survey for SDG&E (SDG&ERASS): SDG&E completed a survey of 5,596 of its residential customers in 1998. The survey is similar in scope to the PG&E and SCE surveys. The information that was available for this study was a copy of the report. The information from the SDG&E survey is only reported when the information displayed in the report corresponds to the categories being used in this study.

Energy Star Survey: In 2000, The Center for Energy Efficiency organized a national market survey of the Environmental Protection Agency's Energy Star Program.

Individual utilities could participate in the study by purchasing sub samples for their territories. Opinion Dynamics conducted the survey. SCE and PG&E chose to participate in the study. The goal of the survey was to get a better understanding of people's awareness of the Energy Star Program and logo and to assess the degree to which the Energy Star Program may be influencing consumer choices. Because the utility level samples were relatively small, we combined the PG&E and SCE sub-samples to form a larger sample that includes much of California. The demographic information in this survey allowed us to examine the awareness, appliance choices and influence that the Energy Star program is having on certain hard-to-reach groups.

Chapter 4: Hard-to-Reach Groups: Where Are They?

Introduction

In this chapter we explore where hard-to-reach groups are located and some of their social characteristics. We examine the location and characteristic for renters, households in small apartment complexes, households in large apartment complexes, mobile home households, nonmetropolitan households, and the location of Asian and Hispanic households. Within the renter, small apartment, large apartment, mobile home and nonmetropolitan groups, we examine five renter sub-markets, five sub-markets for the small apartment group, three sub-markets for the large apartment group, four sub-markets for mobile homes, and three sub-markets for nonmetropolitan households. Table 5 shows the market segments and their sub-market segments.

The obvious data source for completing this description is the decennial Census. However, at the time of the writing of this report, the most recent data available was from the 1990 Census. The information from the 1990 Census is considerably out of date. Thus, we used an alternative to help us understand hard-to-reach segments and their location.

A commercial vendor, Claritas, provides the alternative. The Claritas data are available in the form of PRIZM segments. Their 62 segments describe American society. An example of a segment is the “urban gold coast” which consists of affluent, highly educated singles and married couples, few of who have children or who own cars, and who live in urban apartment complexes in populated areas along the coasts. Claritas has classified most U.S. households into one of the 62 segments. A list of the 62 segments is found in Appendix C.

It is possible to analyze the Claritas data at the household level for California but that is a monumental project especially given the timeframe for this project. Claritas has summary data in the form of the number of households in each segment at the zip code level. We chose zip code level data for this analysis.

The value of using segmentation data is that the segments represent a crossing of a large number of characteristics. Thus, if you have a segment with a high percentage of renters like the “urban gold coast,” you also have a large amount of information about other characteristics associated with people in the segment. A potential problem with the segments is that you cannot pinpoint the precise number of households with a specific characteristic, for example, householders who rent. Rather, you know that 65 percent of “urban gold coasters” are renters compared to 35 percent in the general population.⁶ For any given location such as a zip code, the probability is that 65 percent of urban gold coasters will be renters but the percentage may be higher or lower. This limitation aside,

⁶ Claritas has assigned names to each of the 62 segments. For a complete listing and brief description of the Claritas segments see Appendix C.

the data are relatively up-to-date and come with a wealth of information that makes them useful for this analysis.

Table 3 Market segments and their sub-markets

Market Segments					
	Renter	Small multi-family complexes	Large multi-family complex segments	Mobile home ownership	Nonmetropolitan households
Sub-markets	Coastal single urban professionals	Young single urban professionals	Upscale coastal couples and singles	Mid-scale traditionals	Working towns
	Urban middle-income singles	Hispanic families	Smaller city out-of-city	Rural blue-collar and farming	Farming Country
	Ethnic blue-collar renters	City apartments	Urban blue-collar	Small town communities	Country living
	Ethnic new arrivals	Ethnic new arrivals (Identical to renter segments)	Other sub-markets	Rural seniors	
	Ethnic middle-income singles	Ethnic middle-income singles (Identical to renter segments)			
	Other sub-markets	Other sub-markets			

For this analysis we have focused on several characteristics, renters, residents of small apartment complexes (2 to 9 units), residents of large apartment complexes (10+ units), residents of mobile homes, rural residents and residents with moderate-incomes. We will start our analysis with renters.

Renters as an example of how we performed our analysis

We performed the analysis by first inspecting each of the 62 PRIZM segments to see which segments had above average percentages of renters. We then classified any of the 62 segments as renter segments if the percentage of renters in the segment was 125 percent or more of the average number of renters in the U.S. population. When we did this, nineteen of the 62 segments were identified as renter segments. We then summed the numbers of households in these 19 segments across each of the 1,912 zip code areas

for which we have segmentation data to form a total of households in the zip code that are in the rental segment. We then divided by the total number of households in the zip code and multiplied by 100 to obtain the percentage of households in renter segments. There are 1,065 Zip code areas where one or more of the 18 renter segments had at least 125 percent of the average number of renters.

We then produced a map of renter segment zip codes. We divided the zip codes into five groups: zip codes with no households in renter segments, zip codes with up to 11 percent of households in renter segments, zip codes with 11 to 28 percent of households in renter segments, zip codes with 28 to 62 percent of households in renter segments, and zip codes with more than 62 percent of households in renter segments. A zip code with no households in renter segments does not mean that there are no renters in that zip code. It means that there are no households in segments with above average proportions of renters.

Renter segments

Map 1 shows the distribution of zip codes by percent of households in renter segments. As one might expect the zip codes with high proportions of renter segments are located in the major urban areas. San Diego, Los Angeles, San Jose, San Francisco, Oakland, Sacramento, Yuba City, Modesto, Fresno, Twenty-Nine Palms, and San Bernardino all have high proportions of renter segments.

In general, renter segments have higher than expected percentages of Asian, Hispanic, and African-American households. High proportions of people in renter segments are either single or single with children. Renter segments tend to be young, in the age range of 18 - 34. With respect to occupation, renters tend to fall into two distinct categories, professionals or blue-collar and service workers. Likewise, renters also tend to fall at the ends of the income spectrum. There is a well-to-do group of renters who have incomes greater than \$75,000 and another substantial group with incomes under \$25,000.

The fact that these differences exist suggests that there are groupings of segments, or clusters, within the renter segments. We explored this by comparing the renter segments to each other on key variables. Indeed, 14 of the 18 renter segments can be combined to form four larger segments or clusters.

Coastal single urban professionals

The first of these larger clusters are *coastal single urban professionals* and *aspiring professionals* (PRIZM segments 6, 8, and 18). These households are predominantly single although they also have a good percentage of married and live-together couples. A larger than expected percentage of these households is in the 25 to 44 age range but there are older professionals as well. These renter segments are found (See Map 2) in San Diego, Newport Beach, Santa Barbara, Santa Cruz, San Jose, San Francisco, Fremont, Oakland and Sacramento. This group is affluent. Depending on the segment, between 25 and 50 percent of the households have incomes greater than \$75,000. More than a third of the households in one of the three segments forming this cluster have incomes greater than \$100,000. They are typically professionals with four or more years of college. They are slightly more mobile than the population in general. These segments are primarily

White although Asians show up in all segments in greater numbers than would be expected based on their percentage of the general population.

The lifestyle of coastal urban singles includes physical activity that may take the form of skiing and exercising at health clubs. They bank on-line. They shop at higher end department stores such as Macy's, Lord & Taylor and Ann Taylor. They listen to classical radio and contemporary urban radio. They have a propensity to view news and political shows like *Face the Nation*, *Frontline*, *American Journal* or *This Week with David Brinkley*. They watch late night shows such as *Late Night with Conan O'Brian* and *Letterman*. They read newspapers such as the *New York Times* and the *Wall Street Journal*. They read magazines such as *Audubon*, *Elle*, *GQ*, *Vanity Fair*, and *Spin*.

Urban middle-income singles

The urban middle-income singles cluster is made up of two PRIZM segments (10 and 27). This cluster has many of the same characteristics as the coastal urban group although they are not as affluent. The income in these households tends to fall between \$25,000 and \$75,000. These are ethnically diverse segments with Hispanics, African-Americans and twice the average number of Asian households. Members of these households are primarily single with a modest number of married couples. They tend to be professionals between 25 and 44 with college educations.

This is not a large cluster. Members of this group are primarily found in and around Los Angeles, San Francisco, Oakland, San Jose, Fremont, Sacramento, Fresno and Bakersfield (See Map 3).

Members of this group are physically active, exercising at health clubs, going downhill skiing or using a stair walker. They shop at Nordstrom, Banana Republic, and the GAP. They listen to news radio, political and economic news shows such as *Face the Nation* and *Nightline*. They watch late night television. They read the *New York Times*, *Spin*, and *Vanity Fair*.

Ethnic blue-collar renters

The characteristics of *ethnic blue-collar renter* segments (PRIZM segments 45, 46, 47, 50, and 51) are quite different than for the young urban professional renters. Map 4 shows that these segments are located in San Diego, Chula Vista, downtown Los Angeles, San Bernardino, the Central Valley, Oakland, South of Market Street in San Francisco, San Jose and Lompoc.

These renter segments disproportionately include lower income people (incomes below \$25,000) and people with high school educations or less. People in these segments tend to be in blue-collar or service oriented occupations. These segments include Hispanics and African-Americans and at least one segment contains a disproportionately larger than average number of Asians. Three of these segments have a greater than average number of singles. Four of the five segments have a greater than average number of households represented by single parents with children. The households have a smaller than average number of females in the labor force.

Households in these segments tend to experiment with brands and buy things of which their friends approve. They tend to use telephone services such as call waiting and call

blocking. They tend to have pagers. They tend to use tobacco or are attempting to stop using it. They shop at moderately priced stores such as Causal Corner, Woolworth, Lane Bryant, Sears, and Montgomery Ward. They tend to do things like buy vinyl floor tile and may repair their own cars. They listen to urban contemporary radio, Spanish or African-American radio. They watch sports on TV along with the NAACP Image Awards, Montel Williams and Jerry Springer. They read magazines such as *Ebony*, *Entertainment Weekly*, *Family Handyman*, *Hunting*, *True Story*, *Esquire*, and *GQ*.

From a programmatic perspective people in these segments might be reached through radio. They clearly influence each other with respect to purchases. A “pass it along” component in programs oriented to this group might substantially increase program participation in these segments. One path for reaching this group may be getting efficiency information into stores such as Sears, Kmart, and Woolworth’s. People in these segments are willing to install something for themselves.

Ethnic new arrivals

A third cluster of renter segments we call the ethnic new arrivals (PRIZM segments 29 and 31). These segments are disproportionately Hispanic and Asian. These zip codes have the highest percentages of foreign-born individuals. Many of these people in these renter segments are among the most recent immigrants.

Map 5 shows that these groups tend to be located in the southern parts of San Diego, East Central Los Angeles, Ontario, Bakersfield, Fremont, South San Jose, Stockton and Sacramento.

Ethnic new arrivals are predominantly single with a substantial proportion of single parents. They tend to be blue-collar or service workers. They tend to have less than a high school education and generally have incomes less than \$50,000.

They buy things their friends approve of and tend to believe advertising. They listen to Spanish and urban contemporary radio. They watch Pay-Per-View sports and movies. They tend to watch soccer and bowling. They may do such things such as install their own carpet. They shop at lower end stores. They may read magazines such as *Allure*, *Metropolitan Home*, *Muscle and Fitness*, *Soap Opera Weekly*, *GQ*, *Bicycling*, and *Spin*.

Because people in these segments believe advertising, advertising on Spanish and urban contemporary radio is potentially an effective communication path to reach these individuals. Advertising associated with Pay-Per-View sports on cable networks is also a possibility. Because these people buy things their friends approve, one might use a seeding strategy within a community to create buzz about energy efficiency.

Ethnic middle-income singles

There are two renter segments (PRIZM segments 24 and 33) in this cluster. These are younger well-educated minorities (African-Americans and Asians) who are making fresh starts or young White professionals and technically trained individuals in public service or private industries. They tend to have incomes between \$25,000 and \$50,000 and tend to be in professional or white-collar jobs. They are college educated or have some college.

As we can see from Map 6, these renter segments fall outside of the major urban areas. A number of them are found along the coast around Oceanside. There is a sprinkling of them at the outer edge of Los Angeles. There is a cluster around San Bernardino and Rosamond. There are also pockets near Santa Barbara and Lompoc and in the area south of Monterey and North of Santa Cruz. Bakersfield, Fresno and Merced have pockets. These renter segments are also found around Napa, Santa Rosa, Vacaville, the outskirts of Sacramento, Yuba City, Chico and Redding.

This group is physically active. They play racquetball and go cross-country skiing. They smoke cigarettes and cigars. They shop at such places as The Limited, Burlington Coat Factory, and Ann Taylor.

They listen to progressive rock radio, soft contemporary radio, variety radio, and all sports radio. They watch the *Late Late Show* with Tom Snyder, *Frontline* and the *News Hour with Jim Lehrer*. They read *Byte*, *Harper's Bazaar*, *Cosmopolitan*, *Rolling Stone* and *Traditional Home*.

Other renter segments

There are other renter single segments that are somewhat different than the preceding and do not easily fit our five clusters. One of these is a military segment. They show up around defense installations. For instance, there is a cluster of these around Lompoc and another around San Diego. There is a group around Twenty-nine Palms, Fort Irwin and China Lake. Households in this segment are highly transient. More than half of householders have moved into their housing unit within the last year. This group is married with children. Many are African-American and Asian. They are active, jogging, running, doing aerobics, and belonging to a health club. They are on-line a great deal. They buy greater than the average number of software programs. They may have purchased a new pick-up or convertible. People in this segment watch BET and listen to African-American and urban contemporary radio. They read *Car and Driver*, *Eating Well*, *Popular Science*, *Parents Magazine* and *The New York Times*.

A second group are young people on limited budgets who live around university campuses. These people are highly educated but not well paid. Asians show up in above average numbers in this segment. They are overwhelmingly single and like their military counter parts, about half have moved to their housing unit within the last year. They are physically active. They listen to progressive and/or classic rock radio. They watch TV sports, MTV, Comedy Central, and Letterman. They read *Skiing*, *Rolling Stone*, *Shape*, and *Glamour*.

There is also a better-off suburban renter segment that tends to be single with incomes in the range of \$35,000 to \$100,000. Asians show up more often in this segment than would be expected on the basis of their occurrence in the general population. People in this group shop at Eddie Bauer and they own high-end cars such as an Acura, Infiniti, Lexus or Oldsmobile bought new. They listen to jazz and urban contemporary radio. They watch Pay-Per-View sports. They read *Harper's Bazaar*, *The Wall Street Journal*, *GQ* and *Working Woman*.

A final segment is young people who live near colleges and work in low-level white-collar sales and technical jobs. They tend to have incomes under \$35,000. Among

renters they appear to have slightly longer tenures in their apartments. They are physically active, for example, practicing karate or the martial arts. They listen to progressive and classical rock. They watch MTV and Fox Night at the Movies. They watch late night with Conan O'Brien. They read *Byte*, *Bicycling*, *Muscle and Fitness*, *Runner's World*, and *Us*.

Renters in small apartment complexes

There are three types of renters: renters who rent in small complexes consisting of 2 to 9 units, renters in large complexes consisting of 10 or more units, and renters in other types of dwellings, for example single family units and mobile homes. As part of this project we briefly explored the characteristics of renters in small and large complexes. This section focuses on the characteristics of renters in small complexes.

Map 7 shows the percent of households in small apartment segments for California. A casual comparison of this map with Map 1, which is the map for renter segments, indicates that the two maps are quite similar. This is not surprising. However, there are some differences. Not all small apartment segments are the same as the renter segments and there are two more small apartment segments than renter segments (20 PRIZM segments instead of 18). If one inspects the maps closely one can see that the small apartment segments are in many but not all of the same zip codes as renters in general. The intensity of the color varies indicating more or fewer households in small apartment segments than in renter segments.

We combined the small apartment segments into six clusters compared to five for renters as a whole. These clusters include young urban singles who are slightly different than coastal single urban professionals, the immigrant and Ethnic middle-income single clusters are the same as for renters, Hispanic families and city apartments which are a different cut on the blue collar segment described above.

Young single urban professionals

The young single urban professionals (PRIZM segments 8 and 18) are almost identical to the coastal single urban professional cluster that we identified in the renter segments with a key difference. Older very affluent single professionals are less a part of this group. Without the older professionals, this group tends to have a slightly higher percentage of married people and tends to be slightly more mobile as judged by the percentages for those who had moved into their unit within a year of being surveyed. If you compare Map 8 with Map 2 you can see that there are almost no differences in location between the Coastal single urban professionals and the young single urban professionals.

Ethnic new arrivals and ethnic middle-income singles

We discussed these two clusters above. The households in the ethnic new arrival cluster tend to live in smaller complexes. The households in the ethnic middle-income single group appear in both smaller and larger complexes. The reader is referred to the preceding renter section for a discussion of the characteristics and preferences of these clusters.

Hispanic families

When we described renters we talked about ethnic blue-collar renters. In the small apartment complex clusters, the blue-collar cluster divides into two. Further, one of the blue-collar renter segments does not appear in the small apartment segment and a new segment that was not among the renter segments is added.

What we see when we look at Map 9 is that there is a Hispanic family small apartment cluster (PRIZM segments 46 and 50) that follows the Central Valley. There are also pockets of the Hispanic family cluster in Los Angeles, San Diego, Chula Vista, San Bernardino and El Centro.

There are many small children in these households that are often headed by a single parent. Singles, single parents and married with children all appear in these segments. Incomes tend to be less than \$25,000. Employment is primarily in blue-collar and service industries. Householders in this small apartment cluster tend to have less than a high school education. Many of the households in these segments contain high percentages of foreign-born individuals.

Members of these households used advanced telephone features and are somewhat hands on. They believe advertising. They will make improvements to their households. They shop at department stores like Sears. They are sports fans and will watch Pay-Per-View sports, soccer and professional wrestling. They will watch awards programs on TV and such shows as *Maury Povich*, *Rescue 911*, and *New York Undercover*. They read publications such as *Entertainment Weekly*, *Seventeen*, *Family Handyman*, *Woman's World*, *Star*, and *Parenting*.

City apartments

There is a small apartment cluster comprised of three segments (PRIZM segments) comprised mainly of African-American households with some Hispanic households. This cluster (see Map 10) shows up around San Diego, Los Angeles, San Bernardino, Bakersfield, Fresno, Stockton, Oakland, and Sacramento. This segment tends to have incomes below \$75,000 with a fair concentration below \$25,000. The preponderance have high school educations or less. People are employed in blue-collar and service jobs. Between 40 and 50 percent are single.

These economically minded consumers are style conscious, believe in advertising, and buy things of which their friends approve. They may own a car that was purchased new, a Mazda or Pontiac. They shop at places like Lane Bryant, T. J. Maxx, or the Burlington Coat Factory.

They listen to urban contemporary and African-American radio. They watch the BET network. They watch professional boxing, the track and field championships, and the NAACP Image Awards. Their reading preferences include *Esquire*, *Soap Opera Weekly* or *Soap Opera Digest*, *True Story*, *Baby Talk*, and *GQ*.

Other small apartment segments

There are several individual small apartment segments. They are identical to the individual renter segments, the military, pre-professionals near colleges and universities,

and technical workers near colleges and universities. These segments were previously discussed with respect to renters in general and will not be discussed here. A renter segment that does not show up in the small apartment segment is suburban renters.

Large apartment complex segments

Map 11 shows the overall location of large apartment complex segments. There are several striking differences when you compare this map to the map for renter segments (Map 1) and the map for small apartment segments (Map 6). First, large apartment segments do not show up around Twenty-Nine Palms, Fort Irwin, and China Lake Naval Station like small apartment segments do. Again, that doesn't mean that there are not any large apartment complexes but it means that their numbers are small. It also means that military personnel are typically not in these segments. Second, the proportions of households in large apartment segments are not so high in the Central Valley as for the small apartment segments.

Upscale coastal couples and singles

This cluster (PRIZM segments 3, 6, 8, and 18) differs from the young urban and coastal urban professionals in the renter and small apartment clusters in some important respects. The cluster is made up of singles but has a good number of couples without children as well. Asians are present in these segments in greater numbers than their percentages in the population would indicate. The median age of heads of households is 35 – 44. With the exception of an upwardly mobile segment, 25 percent or more of the households have incomes in excess of \$100,000. People in this cluster are well-educated professionals and managers or are in other types of white-collar occupations.

Map 12 shows that these people live in and north of San Diego, in and around Newport Beach and Irvine, west and north of Los Angeles, around Burbank and Pasadena, around Santa Cruz, in Silicon Valley around Palo Alto, around Point Reyes, Pleasant Hill, Concord, and in major urban centers in the Central Valley, Sacramento, Stockton, Fresno, and Bakersfield.

Households in these segments belong to health clubs. They shop at upscale stores such as Nordstrom, Macy's, and Lord & Taylor. They listen to classical radio. They watch late night TV and television political and economic news programs. They read *Elle*, *Audubon* and computer magazines such as *Byte* or *PC Computing*.

Smaller city out-of-city

Earlier we noted that large apartment segments were more prominent along the coast. The households in this segment primarily live in the inland cities. Neither of the segments making up this cluster (PRIZM segments 48 and 49) shows up in any number in Los Angeles or San Francisco. The segments are found in the Central Valley (see Map 13) and not in very large numbers. They tend to be White with some Hispanic.

Members of these segments have high school education and some college. More than half have household incomes under \$25,000. More than half of those in these segments are single with between a sixth and quarter being married with no children. These segments have younger heads of households, 18 to 44 and households over 65.

Members of this segment may own a Plymouth automobile or Dodge truck. They shop at Target and similar stores. They do hands-on repair. They may practice karate or the martial arts and possibly belong to a veterans club.

Their radio listening tastes range across a broad spectrum from nostalgia radio to progressive rock radio. Some watch *The 700 Club* and *Faith and Values*. Some prefer MTV and *Fox Night at the Movies*.

They read *Hunting* as well as *Field and Stream*, and *Audubon*. Some prefer *True Story* and *Soap Opera Weekly*, while others are more likely to pick-up a copy of *Runner's World* or *Bicycling*.

Urban blue-collar

This group is a subset (PRIZM segments 45, 46, 47) of the ethnic blue-collar renter group identified above. Households in these segments live in the city, for example Central Los Angeles, San Diego and Oakland (See Map 14) with some groupings in Stockton, Fresno and Bakersfield. This cluster includes Hispanics, Asians and African-Americans, a third to a half of whom have less than a high school education. Half work in blue collar and service jobs. Some in these segments are underemployed or frequently unemployed. Upwards of 60 percent of households in these segments are single or single parents. These segments have people between the ages of 18 and 34 in greater numbers than would be expected.

These are consumers who buy things that their friends approve and they may experiment with brands. They smoke cigarettes or use pipe tobacco.

Consumers in this segment will shop at the Casual Corner, Woolworth or Lane Bryant. They listen to African-American or Hispanic radio. They watch the BET network. They will also watch Pay-Per-View sports and movies. For reading they might choose *Esquire*.

Mobile home ownership segments

Map 15 displays the distribution of zip codes by the percent of households in the mobile home ownership segments. Mobile home ownership is concentrated in several specific areas around the state, the rural areas bordering Nevada in the South in the Indio region running through San Joaquin valley. Areas with the highest concentration of mobile home ownership include rural areas from Bakersfield to Fresno, and most of Northern California surrounding Redding.

Overall, the mobile homeowners are:

- predominately White or Hispanic households
- equally divided between married couples with children and singles
- with a high proportion of seniors aged 65 or older
- equally divided between those working in agricultural occupations and those working in either blue-collar or service jobs

- high school graduates, although, there are subgroups who have not completed high school

There is a heavy concentration of mobile homeowners who earn less than \$25,000 annually and a sizable number reporting household incomes of \$25,000 to \$50,000. A smaller percentage of mobile homeowners have household incomes above \$50,000.

These differences point to more general clusters within the mobile home ownership group. These groups were compared across key variables such as age, occupation, and income level to create four distinct mobile home ownership clusters.

Mid-scale traditionals

The first mobile homeowner cluster is comprised of working middle Americans (PRIZM segments 38 and 39) living in lightly populated areas on the outskirts of larger metropolitan areas, such as the small and midsize towns surrounding Modesto, Salinas and Merced in Northern California and El Centro in Southern California (See Map 16).

This cluster consists of predominately White married couples, who may or may not have children, with an annual income between \$39,000 and \$41,500. Most are high school graduates working in blue-collar jobs such as milling, mining, and construction. Their homes are valued in the \$50,000 to \$99,000 range.

The lifestyle characteristics reveal an active and “hands-on” attitude within the All-American cluster. Their hobbies include woodworking and gardening, and they probably own a garden tiller or tractor. This cluster is comprised heavily of “do-it-yourselfers” who can remodel their own family rooms. They enjoy watching auto racing and tractor racing/tractor pulls. They also enjoy the outdoors including riding motorcycles and going hunting.

Individuals in this cluster enjoy watching sporting events on television, especially auto racing. They like listening to country radio and watching television shows such as *Another World*. This group tends to shop at stores like the Home Depot and Sears. This is potentially a target audience who can be reached through energy efficiency displays at the Home Depot. Their reading interests reflect their outdoor and active lifestyle and they are likely to subscribe to such magazines as *Outdoor Life*, *Road and Track*, *Modern Bride* and *Good Housekeeping*.

Rural blue-collar and farming

This cluster of mobile homeowners is split between those working in traditional blue-collar jobs and those working in agricultural occupations such as farming, forestry, fishing, ranching and mining (PRIZM segments 43, 44, and 56). In California, households in this cluster live in the Redding, Chico and Yuba City areas coastland areas north of Napa Valley, Modesto and Salinas, and in Southern California the rural areas bordering Nevada east of Bakersfield (Map 17).

This demographic cluster is comprised primarily of White (94 percent) rural middle class families. Most are married couples between 45 and 64, with children under 18 still living at home. About one-third (42 percent) are high school graduates and approximately 40% of households in this cluster report annual incomes between \$35,000 and \$50,000.

The rural blue-collar and farming lifestyle reflects traditional rural roots and family values. Members of this cluster are likely to own household pets, including cats, dogs, and horses, and tend to grow some of their own food. Women in this group, for example, are more likely to bake their own bread while men are likely to enjoy hunting and fishing. They also tend to have higher ownership rates of gas chain saws, pickup trucks, and satellite dishes.

For entertainment, this group enjoys listening to country western music and watching country music television shows. They also enjoy auto racing events such as the *Daytona 500* and college and professional basketball or volleyball games. Their favorite television shows include sports entertainment, animal shows, and news magazine shows such as *Dateline* or *48 Hours*.

They also tend to join fraternal organizations and thus read the publications produced by organizations such as the Elks, Moose Lodge, Kiwanis, and others. Their reading interests include magazines such as *Motor Trend*, *Popular Photography* and *Outdoor Life*, as well as specialty magazines devoted to guns, cars, motorcycles and gardening.

Small town communities

This cluster (PRIZM segments 53, 57, 58, 60, and 61) consists primarily of rural families living in small towns (Map 18). This group is the most racially diverse of any mobile home ownership groups with high concentrations of African-Americans, Hispanics, Whites, and Native Americans. Educational levels within this cluster are relatively low, with a high percentage not having graduated from high school and 20 percent or more not having completed 8th grade.

The small town communities are typically lower income couples with or without children, who earn less than \$35,000 annually. A significant proportion of these households earn less than \$25,000 a year (between 40 and 47 percent). The group is nearly evenly split between those working as farmers and those working in blue-collar occupations.

Like other segments within the mobile home ownership group, this cluster enjoys hunting, auto racing, and country music. Small town communities are more likely to own motorcycles, fix up their homes, including remodeling and refinishing, and shop at Wal-Mart. They also tend to own dogs and many belong to fraternal orders.

For entertainment, small town communities prefer country, religious and gospel radio, and enjoy watching auto racing, sports and television shows such as *Faith and Values*, *NBC News at Sunrise*, and *The Family Channel*.

The most popular periodicals for readers in this cluster are *Hunting*, *Outdoor Life*, and *Country Living*. This group also tends to read publications from fraternal organizations and specialized magazines on topics including parenting, cars, fishing, and guns.

Rural seniors

Mobile homeowners in this cluster (PRIZM segments 49, 55, 59, and 62) are predominately older retired workers living around Redding, Stockton, and east of Fresno

to Bakersfield. These rural seniors tend to live in rustic and rural mill and mining towns in fairly remote areas of Northern and Central California (Map 19).

This cluster is dominated by older singles and couples with a notable percentage 55 and older (26-38 percent). This group is also dominated by lower-income households, with most having a household income of \$15,000 or less (26-41 percent). Their average household income is approximately \$20,000. This cluster is predominately White with enclaves of Native Americans as well. Most are retired from service or blue-collar jobs or retired farmers/ranchers.

These Rural seniors enjoy a variety of hobbies and activities including hunting, woodworking, and belong to fraternal and veterans groups. These individuals also enjoy activities such as hunting, target shooting, and golf. Members in this group tend to shop at Wal-Mart and Woolworth.

Favorite publications among this cluster include *True Story*, *Field and Stream*, *Woman's World*, and other women's magazines. For entertainment, they enjoy easy listening and country music radio stations. Favorite television shows include *The CBS Morning Show*, *Faith & Values*, and sports broadcasts of professional wrestling and bowling. This group also watches some family-oriented programming such as *The Cartoon Network*, *The Macy's Day Thanksgiving Parade*, *Dr. Quinn*, *Medicine Woman*, and *Nature*.

Other mobile home segments

This analysis also revealed several other pockets with high concentrations of mobile home ownership that are not easily classified in the previously described clusters.

One component of this cluster (PRIZM segment 41) is comprised of upper middle class White couples with children living in remote and scenic locations. Their average household income is \$51,600 and they work in skilled blue-collar occupations as farmers, builders, craftsmen, and machinists. Most are high school graduates with some college education (46 percent). They are generally between the ages of 35 and 64, and have children under 18 at home. Their activities and interests include rodeos, fishing, bowling and golf. They enjoy county and classic rock radio stations and The Family Channel. They have diverse reading habits from *Inc.* to *Country Living*.

Another subgroup (PRIZM segment 42) of this cluster includes slightly older predominately White married couples with a higher educational level but lower than average income compared to PRIZM segment 41. This subgroup consists primarily of farmers with household incomes between \$35,000 and \$49,000 annually. Approximately one-third (37 percent) is 45 or older. Members of this subgroup have sophisticated interests, including buying and listening to classical music, watching public television, and buying such luxury items as sailboats, Mount Blanc/Watermen pens and cross-country skis. Members of this group enjoy reading periodicals such as *Organic Gardening*, *Prevention*, and *The Saturday Evening Post*.

A third grouping is less-affluent retirees (PRIZM segment 52) living near coastal, mountain, valley and lake areas. This grouping is best described as retirement community seniors; most are White and most are 65 or older. These individuals are generally retired service workers and have an average household income of \$28,300. These older citizens enjoy needlework, bowling, and watching rodeos. Most shop at

hardware stores and Wal-Mart. Members of this group are more likely to watch golf, swimming, and diving championships on television, as well as shows like *Live with Regis*, and *Wall Street Week*.

The last distinctive grouping of mobile homeowners is young bi-racial families (PRIZM segment 54). Members in this category work in coastal areas in blue-collar and service jobs. This group predominately single parent African-American households with nearly one-quarter (23%) having children 6 or under. More than one-third (38%) have household incomes less than \$15,000 and another 20% have household incomes between \$15,000 and \$25,000. Members enjoy rap music and pro wrestling, buying grits and canned hashes, and listening to African-American radio shows. They are likely to watch *The Oprah Winfrey Show*, *Faith and Values*, and professional wrestling. Most common reading material in this group includes *Ebony*, *Seventeen*, *Parenting*, and *Soap Opera Digest*.

Nonmetropolitan households

We have adopted the term nonmetropolitan as a substitute for rural because it better characterizes the populations outside large central cities. Earlier, we described how we defined “rural” for this study (See Chapter 2). Map 20 shows the location of these “rural” populations mapped by metropolitan and nonmetropolitan counties with adjustments for “rural portions of metropolitan areas. These rural areas are the areas as defined by Goldsmith.

There is not good recent social and demographic data to describe the areas identified as rural by Goldsmith. However, the Claritas data can be used to define three nonmetropolitan clusters totaling 11 segments. Map 21 shows the locations of the PRIZM nonmetropolitan segments. The red and orange areas in this map correspond quite well with the areas identified as rural by Goldsmith. There are additional areas defined by Claritas that are not identified by the Goldsmith data. Keep in mind that the PRIZM segments are based on demographic and social data rather than population and commuting distances.

We have defined three nonmetropolitan clusters: working towns, farming country and country living. One characteristic common to all three of these clusters is modest income.

Working towns

The working towns (PRIZM segments 52, 53, 54, and 55) are found outside the major metropolitan areas and second cities. As the reader will see from examining Map 22, the segments are for the most part located away from the coasts and away from the major cities. Householders in these segments typically have less than a high school education and are employed in the blue-collar and service sectors. Almost two-thirds of households have annual incomes under \$35,000. There is a slight tendency for people in this group to be single or single parents.

At least some of those in this segment are seniors who have retired to live in smaller homes with the country neighbors. Another group of these folks are primarily blue-collar workers working in non-union jobs. Yet another group are blue-collar workers employed

in extraction industries. This group is largely White although there are some African-Americans and a few Hispanics.

Households in these segments are likely to repair and maintain their own homes. They may do woodworking, needle stitch, and repair their own cars. They are part of the group that we typically call do-it-yourselfers.

They may own a Chevrolet or Dodge bought new. They tend to shop at Wal-Mart.

They listen to country radio, watch country music television, *QVC* and *Faith and Values*. They watch CBS and NBC morning news and *Live with Regis and Kelly*. They watch professional wrestling and programs such as *As the World Turns* and *The Price Is Right*.

You will find *Field and Stream*, *Hunting*, *Organic Gardening*, *Popular Science*, *True Story* and *Southern Living* on their coffee tables.

Farming country

There are no pure farm segments but there are two segments where the percentage of farmers is about 25 percent. Many of the remainder of these households have occupations that are related to farming and extraction industries. As one might expect, these households are located in the southeastern part of California, the Central Valley, and the North.

A good percentage of these households are composed of married couples or married couples with children. High school, some college, or college educations are typical for members of these households. Half or more of the households have annual incomes under \$35,000. The households tend to be White. There is some Hispanic presence.

These households go hunting or participate in other outdoor sports such as snowmobiling or horseback riding. They travel by car and sometimes by railroad.

They own a four-wheel drive or an all-terrain vehicle. They own satellite dishes, garden tractors, chain saws and powerboats. They will fix their own car and remodel their kitchen. They shop at Wal-Mart.

They listen to country radio and watch the evening news, *America's Most Wanted*, *Faith and Values*, and *Walker, Texas Ranger*. Their reading choices include fraternal magazines, *Organic Gardening*, the *Star*, *Country Living*, *USA Today*, *Field and Stream* and *Popular Photography*.

Country living

The third nonmetropolitan cluster is made up of five segments (PRIZM segments 58, 59, 60, 61, and 62). These folks live in country towns, villages, and on reservations. Sixty percent or more of these households have incomes less than \$35,000. Education levels are predominantly high school or less. A majority of these households are comprised of married couples and married couples with children.

As the reader will note from observing Map 24, the country living segments are found along the border with Nevada and in the northern part of California.

People in these households go hunting, do woodworking, and target shooting. They own things like chain saws, motorcycles, and satellite dishes. They are hands-on and will remodel their homes.

Location of Asian households

The redistricting data for the 2000 Census for California was released at the beginning of April 2001. The redistricting files contain selected data, including ethnicity and race, that are used in realigning congressional districts. At this juncture, the data describe populations in terms of their being Asian or Hispanic. No further breakdown by ethnicity is available.

The data are available at the block, block group, and tract levels but not at the zip code level. In order to provide some current information about the location of ethnic groups, we have produced color-coded maps of ethnic population densities for tracts and then overlaid the Zip code boundaries. The boundaries of the zip codes do not always correspond with the tract boundaries. A tract may contain several zip codes. A zip code may be a part of two or more tracts with different population densities. Nonetheless, it is instructive to examine the maps for these two populations. The reader should keep in mind that these maps reflect the percent of population and not the percent of population that are a part of selected segments (See the section entitled “Renters as an example of how we performed the analysis” located at the beginning of this chapter).

Map 25 shows the distribution of the Asian population throughout California. Tracts that are orange or yellow have Asian populations that are 14 percent or less of the total population. This represents 75 percent of all California census tracts. The bright red tracts, which are a quarter of all tracks, have Asian populations of more than 14 percent.

Asian populations are highly concentrated in San Diego and South to Chula Vista, in Central Los Angeles, in and around Pasadena, over to San Bernardino, around Indio and El Centro. There is a substantial cluster from Salina south and from Bakersfield to Stockton. There are large groups at various locations around the Bay and near Yuba City. With some exceptions the percentage of Asian households is less than three percent along eastern borders of California and in the Northern most parts of the state. It is important to keep in mind that these are percentages of the population in a tract and that the density of Asians per square mile will be much higher in Los Angeles than in a tract west of Tulare.

Location of Hispanic households

The patterns of population for Hispanic households are very similar to those for Asian households but the concentrations are much higher. The brightest orange and red tracts, which represent 50 percent of all tracts on Map 26, are tracts where more than 22 percent of the population is Hispanic. Three quarters of the tracts within California have populations that are 10 percent or more Hispanic.

The major concentrations are in San Diego, Los Angeles, San Bernardino, Indio, El Centro, South of Salinas, and from Bakersfield through Stockton. There are concentrations south of San Jose, and in selected areas around the Bay.

Moderate-income households

Map 27 displays the categories of percentages of moderate-income households by zip code for all of California. About a fifth of all zip codes have 49 percent or more of moderate-income households. Another fifth of zip codes have 27 percent or fewer moderate-income households. The remaining zip codes have percentages of moderate-income households ranging from 28 to 48 percent.

Map 27 shows that the zip codes with the highest percentages of moderate-income households are found outside the large coastal metropolitan areas in the central and eastern parts of the state. There is a small number of zip codes in the large coastal urban areas that have high percentages of moderate-income households.

Summary

In this chapter we have examined the location and characteristics of various hard-to-reach groups: renters, households in small apartment complexes, households in large apartment complexes, households living in mobile homes, and nonmetropolitan households. An important finding is that these groups are comprised of a series of sub-markets that are very different. Knowing this allows us to more directly and effectively target customers.

- The location information in the maps can be used to identify groups of interest within utility service territories and the zip codes of interest.
- The PRIZM segment numbers (Microvision codes can be linked to the segment PRIZM numbers) can be used to identify households at the address level.
- The descriptive information can be used to develop communication paths and content for channeling communication and information to households.

Renter clusters

Within the renter group, we have identified five major clusters or groupings. The fact that we can identify these clusters points to the need to view renters as a series of markets rather than a single homogeneous market.

Coastal single urban professionals are affluent and well educated singles and married couples living in major cities along the coast. This group is mostly White with a strong Asian presence.

Urban middle-income singles are similar to the coastal single urban professionals but not as affluent and not so numerous.

Ethnic blue-collar renters live in central urban areas. These households are in blue-collar and service occupations and tend to be Hispanic and African-American. These singles and single parents with children have incomes below \$25,000.

Ethnic new arrivals are blue-collar and service workers who are often foreign-born and among the most recent immigrants. These households generally have incomes under \$50,000.

Ethnic middle-income singles are younger well-educated minorities who are making fresh starts or young White professionals in public service or private industries. They have incomes between \$25,000 and \$50,000.

Small apartment complexes

We can examine the multifamily market in terms of the characteristics of households in small apartment complexes. Again, there are five main clusters. Two of these clusters, ethnic new arrivals and ethnic middle-income singles, are identical to the renter segments of the same name.

Young single urban professionals are like coastal urban single professionals without the older professionals. The older, affluent professionals are found in large multifamily complexes.

Hispanic families are low-income Hispanic families whose breadwinners are in blue-collar and service industries. There are many children in this cluster. This segment contains high percentages of foreign-born individuals.

City apartments are mainly African-American households and some Hispanic households. They show up in cities where they work in blue-collar and service jobs.

Large apartment complexes

Upscale coastal couples and singles are very affluent coastal urban professionals. Older and very affluent professionals live in large multifamily complexes rather than smaller ones. This group is largely White and with a substantial proportion of Asians.

Smaller city out-of-city are White and Hispanic singles with modest incomes who live primarily in large complexes in inland cities.

Urban blue-collar is a subset of the ethnic blue-collar renter group who live in large complexes in the city. This cluster is made up of Hispanics, Asians and African-Americans, a third to a half of whom have less than a high school education.

Mobile home clusters

Mobile homes are more likely to be found in nonmetropolitan areas and, thus, the characteristics of people living in mobile homes are much like households in nonmetropolitan areas in general.

Mid-scale traditionals are working middle Americans living in lightly populated areas on the outskirts of larger metropolitan areas. Mid-scale traditional households are made up of married couples with and without children who typically have a high school education and work in a blue-collar job.

Rural blue-collar and farming households are married couple households with children still at home who work in traditional blue-collar jobs or agricultural occupations and have moderate-incomes.

Small town communities are households living in small towns. This group has high concentrations of African-Americans, Hispanics, Whites, and Native Americans. These tend to be married couples who earn less than \$35,000 per year.

Rural seniors are older retired workers living in remote areas around Redding, Stockton, and east of Fresno to Bakersfield. These are married couples with incomes under \$20,000.

Nonmetropolitan clusters

There are three nonmetropolitan clusters that are mostly differentiated by where they live:

Working towns are found outside metropolitan areas and second cities. They typically have incomes under \$35,000. This group is largely White although there are some Hispanics and African-Americans.

Farming country represents those households most directly involved with farming. These households have incomes under \$35,000. They are found in the Central Valley and the northern part of the state.

Country living households are found along the eastern edge of California. These households are made up of married couples and married couples with children. The educational level of these households is high school or less.

Asian households

About a quarter of all California census tracts have Asian populations of more than 14 percent with the remainder being less than that. Asian populations are highly concentrated in San Diego and South to Chula Vista, in Central Los Angeles, in and around Pasadena, over to San Bernardino, around Indio and El Centro. There is a substantial cluster from Salina south and from Bakersfield to Stockton. There are large groups at various locations around the Bay and near Yuba City.

Hispanic households

About 25 percent of all California Census tracts have populations that are 47 percent or more Hispanic. About half of the tracts have 22 percent or more Hispanic households. Major concentrations of Hispanic households are found in San Diego, Los Angeles, San Bernardino, Indio, El Centro, South of Salinas, and from Bakersfield through Stockton. There are concentrations south of San Jose, and in selected areas around the Bay.

Moderate-income households

About a fifth of all zip codes have 49 percent or more of moderate-income households. The zip codes with the highest percentages of moderate-income households are found outside the large coastal metropolitan areas in the central and eastern parts of the state. There is a small number of zip codes in the large coastal urban areas that have high percentages of moderate-income households.

Chapter 5: The Social and Cultural Characteristics of Ethnic Groups

Introduction

In this Chapter we deal exclusively with the social and cultural characteristics of ethnic groups who may be hard-to-reach. While much of the focus is on Chinese and Hispanic households, we also deal with selected other ethnic groups who are fairly recent to the California scene.⁷

Historically, immigration into California have been dominated by the Chinese, who tended to settle in Northern California and the Mexican and Mexican-American community, who tended to settle in Southern California. While immigrants from Mexico, China, and Taiwan still constitute a large majority of California's ethnic groups, California is experiencing a dramatic increase in the number of people from other parts of the world. These immigrants are coming to the U.S. for the same reasons that immigrants have come in the past: to seek economic opportunities, to flee religious and political oppression, and to provide a better life for their children.

The experience of immigrants after arrival has not been uniform. Immigrants from neighboring countries and regions have had different migration and settlement experiences. For example, the early waves of Vietnamese immigrants were well educated, had English language skills and were able to quickly accommodate themselves to American culture. The Vietnamese boat people arrived later, had less education and language skills, and found it more difficult to make their way. To a large degree this has influenced their rate of adaptation to California society. Some of the groups can be reached through existing program channels while others are hard-to-reach and may require alternative marketing strategies to help them make use of available programs.

Using the Residential Workshop definition, that those whose primary language is other than English are hard-to-reach, greatly oversimplifies the situation. While at least some members of nearly all the ethnic groups within California speak a language other than English, there are wide disparities within and among groups with respect to their income level, fluency in English, and ability to access the energy efficiency products and services.

This analysis examines the various ethnic groups currently living in California. To the degree possible, this discussion includes the demographic indicators defined by the ALJ and the Residential Workshop. In addition, this analysis examines the culture, beliefs, attitudes and social organization of the ethnic groups. We believe that it is through the social organizations and social networks of the ethnic communities that California

⁷ Most of the material for this chapter was drawn from the work of the many contributors to Levinson, David, and Melvin Ember, eds. *American Immigrant Cultures – Builders of a Nation*. Vols. 1 and 2. New York: Simon & Schuster, N.Y. and Prentice Hall, International, 1997.

utilities will be able to identify, develop, and maintain relationships with hard-to-reach customers that are required to deliver energy efficiency services.

Asian, Central and South American ethnic populations

Table 4 summarizes the estimated population of the different ethnic groups based on the 1990 U.S. Census. The 1990 Census contains the most recently available figures for estimating distinct ethnic minorities within the broader Asian/Pacific Islander and Hispanic Latin American groups. Our understanding of the relative size of the populations will change shortly when the 2000 Census data become available. For example, we know that the Hispanic population has grown substantially.

Table 4 Estimate of immigrant populations (1990 Census)

Ethnic Group	Estimated Total US Population	Estimated Percent Living in California	Estimated California Population
Asian Groups			
Cambodians	150,000	46	70,000
Chinese	1,645,472	43	704,850
Chinese-Vietnamese	135,000	68	91,800
Filipinos	1,409,362	52	732,868
Guamanians	49,345	51	25,049
Hmong	200,000	25	50,000
Indonesians	30,000	46	14,485
Indos	2,500	100	2,500
Japanese	847,562	37	312,989
Koreans	800,000	33	264,000
Lao	250,000	45	112,500
Mien	20,000	60	12,000
Taiwanese	1,250,000	21	266,971
Thai	91,275	84	100,000 ¹
Vietnamese	1,250,000	22	275,000
Hispanic/Latin American Groups			
Argentineans	78,000	31	24,180
Brazilians	350,000	30	105,000
Californios	NA	NA	NA
Colombians	378,726	11	41,660
Ecuadorians	191,000	16	29,953
Guatemalan Mayans	150,000	20	30,000
Mexicans	7,750,000	50	3,875,000
Nicaraguans	168,659	35	59,031

Ethnic Group	Estimated Total US Population	Estimated Percent Living in California	Estimated California Population
Peruvians	175,000	22	38,000
Punjabi Mexicans	800	100	800
Salvadorans	1,000,000	58	580,000
Total	18,657,701		7,898,636

¹Includes those on work permits, students, and registered aliens.

If the populations in Table 4 are combined into Hispanic and Asian groups, the Hispanic group, which includes immigrants from Central and South America such as Brazil and Peru, is about 60 percent of the total while the Asian group, which includes Pacific Islanders, is about 40 percent.

Figure 1 shows the relative size of the Asian populations. They have been ordered by size, except for Chinese-Vietnamese and Taiwanese, which have been placed following the Chinese. If these Chinese-Vietnamese and the Taiwanese are combined with the Chinese, then Chinese is the largest Asian ethnic population in California. Filipinos are second, followed by Japanese, Vietnamese, and Koreans. If the Chinese-Vietnamese are combined with the Vietnamese, then the Vietnamese and Japanese trade places in terms of the size of the population.

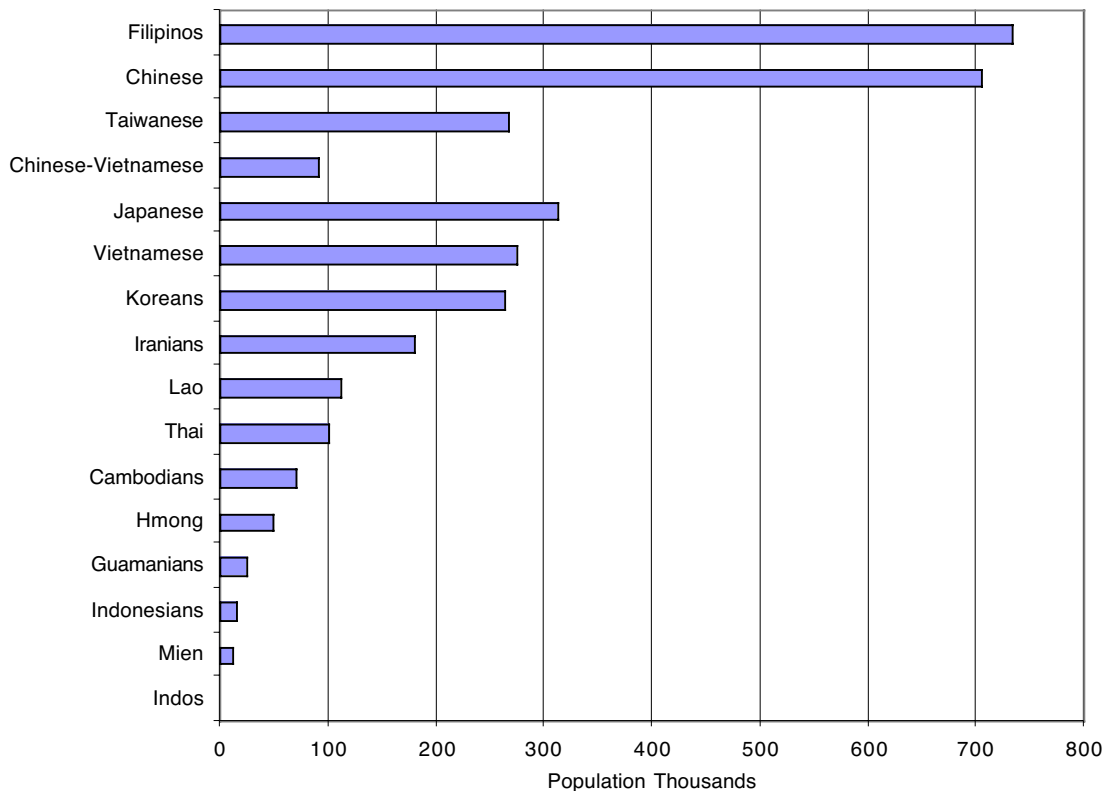


Figure 1 Asian ethnic populations

Similarly, we can examine the origins of the Hispanic populations (Figure 2). Mexicans are the largest group by far followed by Salvadorans and Brazilians. Although Brazilians speak Portuguese, they are included in this group because they are from South America. However, technically they are not Hispanics.

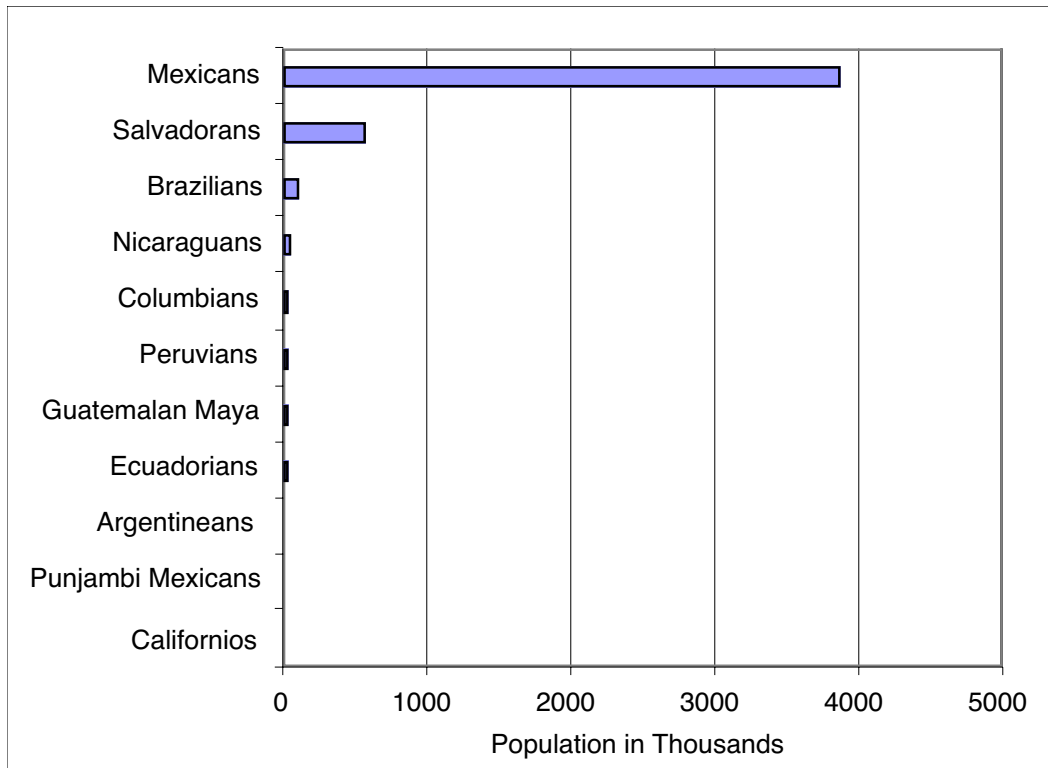


Figure 2 Hispanic/Latin American ethnic populations

Language remains one of the major barriers to reaching these ethnic populations. Table 5 shows the estimated facility with Chinese and/or English within Asian populations. At the present time, the utilities do provide some literature in Chinese although it is not extensive. This is appropriate because there is low literacy in English for Chinese who may have come from China or Vietnam. Chinese and Taiwanese from Taiwan have facility in both Chinese and English. Some groups, including the Thai, Taiwanese, Filipino, Japanese and Korean, have higher rates of fluency with English. However, as educational levels decline, so does English fluency. Guamanians are considered citizens of the US and are usually fluent in English prior to migrating to the mainland U.S. There are, however, several groups for whom language is likely to be a barrier. These include Cambodians, Hmong, Indonesians, Indos, Lao, Mien, and Vietnamese.

Some of these Asian groups are “pre-literate” meaning that their native language does not have any recognizable literate form. Therefore, they have often been taught to communicate in a second tongue, such as Laotian or Vietnamese, and may not be fluent in either reading or writing that second language. This suggests that reaching non-Chinese ethnic Asians may require efforts in multiple languages, including English, Vietnamese, Laotian, and the dialects spoken by the Mien and Hmong.

Table 5 Language facility for selected Asian ethnic groups

Ethnic Group	Chinese Language Skill	English Language Skill
Cambodians	No	No
Chinese	Yes	No
Chinese-Vietnamese	Yes	No
Filipinos	No	Yes
Guamanians	No	Yes
Hmong	No	No
Indonesians	No	No
Indos	No	No
Japanese	No	Yes
Koreans	No	Yes
Lao	No	No
Mien	No	No
Taiwanese	Yes	Yes
Thai	No	Yes
Vietnamese	No	No

The language barrier is easier to address among the Central and South American ethnic groups. Most groups speak either English or Spanish although there are dialects of Spanish. We have already noted Brazilians speak Portuguese, not Spanish, but they have high rates of fluency in English. Furthermore, most members of these ethnic groups understand either Spanish or English (or both). Table 6 summarizes the language differences among ethnic communities in the Hispanic/Latin American groups.

Table 6 Language facility with Spanish or English among Hispanics and other Latin American immigrant groups

Ethnic Group	Spanish language skill	English language skill
Argentineans	Yes	Yes
Brazilians	No	Yes
Californios	No	Yes
Colombians	Yes	No
Ecuadorians	Yes	No
Guatemalan Mayans	Yes	No
Mexicans	Yes	No
Nicaraguans	Yes	Yes
Peruvians	Yes	Yes
Punjabi Mexicans	No	Yes
Salvadorans	Yes	No

Descriptions of major ethnic groups living in California

This section provides a snapshot of the major ethnic communities in California. Each description describes the groups' overall composition, degree of fluency in English, degree of assimilation into the general U.S. population, religious and cultural values, social and organizational networks, and the importance of family and kinship.

Asian ethnic groups

Cambodians⁸

There are more than one million Cambodian refugees in the United States. They arrived as the United States pulled out of the Vietnam War. This is one of the most “linguistically isolated” ethnic groups in the U.S.

Location: The largest Cambodian community is in Long Beach with sizable communities in Santa Ana, San Diego, and Stockton.

Educational level: Most are poorly educated and have low levels of English fluency.

Income: The average income among Cambodian families is \$18,126. Forty-two percent of Cambodians live below the poverty line and 51% receive public assistance. Fewer than 20 percent own their own home.

Family/kinship relationships: Most Cambodians suffer from some type of demoralization as they try to adjust to life in America. There are a high percentage of Cambodian widows in the US and many were severely traumatized because of Vietnam War experiences. Nearly one-third of all Cambodians residing in the United States (29 percent) fled their homeland without family members. More than two-thirds (62 percent) are unable to contact family members still living in Cambodia.

Religion: The majority of all Cambodians (67 percent) are Buddhist. Twenty percent are Christian. The Christian religious groups have more organizational and institutional structure than the Buddhists.

Community Organizations: This group is highly dependent on public assistance and charitable organizations for support and guidance.

Chinese⁹

The Chinese are one of the oldest and most successful immigrant groups in the United States. Because they have been immigrating to the United States for more than a century, Chinese-Americans have established strong support networks for new arrivals, called

⁸ Rumbaut, Ruben G., “Cambodians,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 123-131.

⁹ Wong, Bernard P., “Chinese,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 123-131.

family associations, within Chinatowns or Chinese communities throughout the United States.

Location: San Francisco is home of one of the largest groups of Chinese-Americans in the United States.

Educational Level: Approximately 20 percent of Chinese immigrants have a high school diploma. Most work in service jobs.

Income: Incomes in the Chinese community are difficult to characterize. Many of the most recent immigrants are highly trained and are found in the professions. As we saw in the previous chapter, there are many second generation Chinese young people who are found in the most affluent segments of American society. At the other end of the scale, there are still many Chinese who have low and moderate incomes. Thus, Chinese are found throughout the income scale.

Family/kinship relationships: Another type of association within the Chinese community is based on common surnames. The largest are the Lee, Chan and Wong associations. Within each of the family name associations are the *Fongs* that are clan organizations that group people by common surname and place of origin. Thus, you might have a *Fong* for the Lee family from Siu Kau. A *Fong* also refers to the living quarters associated with the family name headquarters.

Religion: The majority (57 percent) are Buddhist. Twenty percent practice ancestor worship and five percent are Christian.

Community organizations: The Chinese have established several different associations designed to promote business contacts and family ties, and to provide various services. In San Francisco, the most active associations include the Chinese American Citizens Alliance, Chinese Newcomers Service Center, the Chinatown Youth Center, and On Lok Health Services for the elderly.

The oldest and most respected association is the Six Companies. It has served as a voice for the Chinese community in San Francisco since 1869. This organization is responsible for handling various community needs ranging from celebrations to assisting in family burial rites. This organization also operates as an informal banking or lending association and offers support and assistance to newly arriving Chinese immigrants.

There are also regional associations that provide assistance to members from particular regions of China within the Chinese community. Furthermore, there are numerous business-related associations within the Chinatown communities including the Chinese Chamber of Commerce in San Francisco. Some “newer” associations recruit members from different backgrounds, for example, the Taiwan Association, the Hong Kong Student Association, and the Organization of the Chinese Americans.

Chinese-Vietnamese¹⁰

This group consists of people of Chinese descent who emigrated from Vietnam. They are Vietnam's largest ethnic minority.

Location: Many came as “boat people” arriving in the US during the 1980s and 1990s. More than two-thirds of the estimated population of 250,000 settled in the Los Angeles, Orange, Riverside, and San Francisco Bay areas.

Educational level: Even though the Chinese-Vietnamese are successful small business owners, most have less formal education than either the Chinese or the Vietnamese. Many do not speak English very well.

Income: The household incomes of this group are less than for the Vietnamese. The average household income is \$43,563 for a household. However, these figures may be misleading since there are both very poor and very prosperous members within this community. Chinese-Vietnamese report fairly high levels of home ownership (46 percent). This group also reports a higher dependence on public assistance benefits than do the Vietnamese. Approximately 28 percent are below the poverty line and eight percent are unemployed. This group has not been as successful as either the Chinese or the Vietnamese in increasing their earning power or establishing economic self-sufficiency.

Family/kinship relationships: Chinese-Vietnamese view themselves as “conservative” and “traditional” compared to other Chinese or Vietnamese groups. They place a high degree of emphasis on helping the extended family.

Religion: Their religious beliefs are primarily Buddhism and Confucianism. These immigrants have funded several Buddhist temples. Confucianism places a high degree of importance on traditional family roles and education. Therefore, the Chinese-Vietnamese push their children toward educational success. The second and third generations of Chinese-Vietnamese are likely to be much better educated than their parents.

Community Organizations: There are several mutual assistance groups that offer services to Chinese-Vietnamese immigrants. However, Vietnamese or Taiwanese often run them. In this situation, some Chinese-Vietnamese feel discriminated against. As a result, they have formed their own associations to provide financial and emotional support.

Filipinos¹¹

This group has its origins from people speaking Malayo-Polynesian languages who lived on the agricultural lowlands of the Philippines. The Philippines was united by the Spanish and later by Americans. Thus, the Filipino culture is influenced by both Asian (Chinese) and European (Spanish) cultures.

¹⁰ Gold, Steven J., “Chinese-Vietnamese,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 168-175.

¹¹ Szanton-Blanc, Cristina, “Filipinos,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp 271-278.

Location: This is the fastest growing segment of the Asian population. The majority live in the Los Angeles and San Francisco areas. Filipinos live in predominately urban areas.

Educational level: This group is extremely well educated. Two-thirds of foreign-born Filipinos speak English as well as their native language. Since they are highly educated, most work in technical/service occupations such as nursing.

Income: The median family income is higher than for the general population but there are usually more employed persons per family.

Family/kinship relationships: Compared to other Asian cultures, Filipino women have a strong presence; have some economic and political independence; and make decisions. Relatedness extends to a wide circle of relatives on both the father and mother's side. The family structure remains close knit. Filipino society is highly segmented and there are distinct class differences between the wealthy few and the numerous poor. Most Filipino-Americans are from the middle-class. Although there are class differences, Filipinos all subscribe to similar customs with respect to courtship, honor, and appropriate behavior.

Community/religious activities: Filipinos are active in various social organizations including strong participation in the Christian church (predominantly Catholic), social clubs, political clubs, civic organizations, alumni networks, and philanthropic groups. The church is a major force in their weekly lives and is the basis for their social networks. Marriage within the ethnic community is encouraged.

Guamanians¹²

This term refers to the peoples residing on the Western Pacific Island of Guam, as well as descendants of the original inhabitants of the island. Descendants of the indigenous people of Guam refer to themselves as Chamorros.

Location: As citizens of a U.S. Commonwealth, they are free to migrate to the "mainland" U.S. California has the highest number of residents that consider themselves Chamorros (about 25,000). The heaviest concentrations are in San Diego, Los Angeles, and Long Beach, CA.

Educational Level/Income: Most Chamorros hold unskilled or semiskilled positions. Their median annual income in the U.S. West is \$33,843.

Family/Kinship Relationship: The Chamorros' culture includes obedience to and respect for elders, the importance of unity and support among family and friends, extending generosity and hospitality, and adherence to the Chamorro language.

Religion: The Catholic church is very important to this group.

Community Organizations: Chamorros are fluent in English and accustomed to American culture and lifestyle. They are also interested in preserving their own cultural heritage and identity. The Chamorros have recreated a support network of clubs in U. S.

¹² Mayo, Larry W., "Guamanians," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 347-350.

Mainland communities. These clubs, including the Sons and Daughters of Guam Club, Inc. in San Diego, provide an avenue for maintaining traditional customs, values, and communication. The clubs also publish newsletters and sponsor floats in their annual Liberation Day Parade.

Hmong¹³

These people are one of several refugee groups from Southeast Asia that immigrated at the end of the Vietnam War. There are two subgroups among the Hmong, the White and Green Hmong from Laos. There are also Hmong who live in Thailand and China.

Location: The Hmong view themselves historically as separate from other Asian minorities. They have their own distinct language and culture. Because of these differences, they are attached to their ethnic identity. The Hmong were uprooted from the villages in Laos and had to leave after the Vietnam War because of their support and aid to the CIA and American forces. The Hmong continue to increase their number in the United States due to continued immigration as well as high birth rates. The Hmong are concentrated in Central California, near Fresno, and in the Midwest.

Educational level: Although there is no written Hmong language, about two-thirds of the adults speak English and one study estimates that 60 percent of Hmong adults can read, write, and speak English and 65 percent can speak Laotian. However, most Hmong rely on their children to translate documents and act as intermediaries in communicating with the English-speaking population. Hmong children have high rates of high school graduation and attendance at vocational and technical colleges.

Income: The Hmong report higher than average rates of poverty and unemployment, compared to other Asian groups. The majority of the Hmong is unemployed and receives public assistance, especially households with older parents (aged 50 or more). Most Hmong work in semi-skilled or low-paying service and clerical jobs.

Family/kinship relationships: Hmong households often consist of three generations and may include several nuclear families of siblings (usually brothers). This large household unit provides a viable resource base. Family groups will often rent or buy adjacent housing units so they can share chores while increasing living space. Family lineage is also important in financial matters. There are informal banking associations to provide loans for family members.

Religion: Several Christian churches have been active in refugee aid to the Hmong. About half of the Hmong are Christians. They tend to have their own congregations and hold separate services. Since Christian beliefs conflict with traditional beliefs there is some tension between Christian and non-Christian Hmong and that may make it difficult to reach the broader community through Christian faith-based organizations.

Community organizations: There are several newspapers serving the Hmong including one in California that is bilingual. There are also some Hmong radio and television shows on public access stations. The Hmong have been able to retain their traditional family

¹³ Hutchison, Ray, "Hmong," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 384-393.

and social organization despite their resettlement in refugee camps and in the United States. Their society is organized in a patrilineal clan system where common descent results in the establishment of obligations. Marriages occur only between persons of different clans. Leadership roles within the Hmong community are divided between the clan elders and the bureaucratic leaders such as leaders of the Mutual Assistance Associations (MMAs). It is important to work with both clan elders and bureaucratic leaders to reach this group.

Indonesians¹⁴

There are more than 200 ethno linguistic groups in Indonesia. There is currently no information available regarding the demographic composition of Indonesian immigrants in the U.S.

Location: About two-thirds of all Indonesian immigrants (61 percent) live in the West, mostly in seven counties in Southern California, Los Angeles, San Bernardino, Orange, San Diego, Riverside, Fresno, and Ventura.

Educational Level: Most Indonesians in California are middle-class businessmen or professionals. The educational level is quite high among Indonesians with more than one half having completed college or post-graduate work.

Income: Their median income ranges from \$25,355 to \$43,438 depending on when they immigrated to the United States. Generally, income is correlated with length of residence.

Family/kinship relationships: The Indonesians maintain strong ties with their relatives in Indonesia and travel easily between the countries.

Religion: Most are Christian.

Community Organizations: They are not active in any formal ethnic or cultural groups.

Indos¹⁵

This group is nearly assimilated into United States culture and it is virtually impossible to differentiate members of this ethnic group from other settlers. They are descendants of Dutch-Indonesian ancestry, and speak both Dutch and a Malaysian dialect called Petjoh.

Location: The Indo Club in Southern California closed in 1988. It is estimated that there are about 2,500 Indos in Southern California.

Educational Level/income: Barely 60,000 immigrated to the United States. Most were high school graduates and were able to find good employment.

Family/Kinship Relationships: They have been completely assimilated into American Culture.

¹⁴ Cunningham, Clark E., "Indonesians," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 433-441.

¹⁵ Kwik, Greta, "Indos," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 438-441.

Religion: Most are Protestant Christians.

Community Organizations: This group has lost much of their sense of ethnic identity since they began emigrating after World War II.

Japanese¹⁶

The Japanese have been a major ethnic group in the Western United States and Hawaii for decades. This long assimilation process has resulted in higher than average levels of employment, household income, and intermarriages.

Location: There are approximately 847,000 Japanese-Americans living in the United States with most in California (312,000) and Hawaii (247,000). There is some tension between Japanese-Americans living in Hawaii who have had more political and economic power and are more at ease with their ethnicity and acculturation, and mainland Japanese who have endured more discrimination.

Educational level: More than one-third has a college education. Seven percent live below the poverty level.

Income: The average family income is \$60,300.

Family/kinship relationships: The Japanese have created their own names for the generations that have immigrated to the US. The first generation, called the Issei, maintained strong ties to Japan. The Nisei are the second generation of Japanese immigrants and are the first-born American citizens. The Sansi are the third generation. The Nisei found limited opportunities because of the intense racial discrimination that existed up to and during World War II. This generation was also caught in the middle, because they were viewed as “too American” by their parents and “too Japanese” by their children. The third generation of Japanese-Americans, Sansi, is finding good prospects for success in America.

Religion: The Japanese practice a variety of religions including Buddhism and Christianity.

Social Norms/Community Organizations: Japanese-Americans still face some types of institutional racism. To combat this, the Japanese-Americans have five key values: *enryo*, *amae*, filial piety, *gaman*, and fatalism.

Enryo describes an expected set of behaviors for ambiguous situations and ways to avoid embarrassment, confusion, and anxiety. This includes deference, obsequiousness, modesty, and a keen awareness and avoidance of behavior that may be ridiculed.

Amae refers to the need to be loved and cherished and is part of the *Enryo* norm.

Filial piety means having an obligation to one’s family. In more modern times this has changed from a reciprocal to unilateral obligation from parent to child.

¹⁶ Maki, Mitchell T., “Japanese,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 496-505.

Gaman describes emotional restraint, which includes the internalization and suppression of anger.

Fatalism is the view that “it cannot be helped” and has been used as a defense against racism.

Koreans¹⁷

Korean-Americans constitute the fourth largest Asian ethnic group in the United States with an estimated population of one million. About 27 percent of Korean-Americans were born in the US.

Location: Korean immigration has been concentrated in the West, especially in San Francisco and Los Angeles. California has the largest percentage of Koreans in the US, and the Los Angeles area has the largest concentration of Korean-Americans with a population of about 200,000.

Educational level: Koreans also place an enormous emphasis on and respect for education. Parents often measure their success based upon their children’s educational attainment. Korean immigrants may relocate to suburban middle class areas where there are good public schools.

Income: About half of Korean workers in Los Angeles are self-employed and another thirty percent are partners in co-ethnic businesses. The main economic engine in the Korean community is small businesses. Immigrants in the 1970s lacked capital when they arrived and were fairly slow in establishing businesses but that situation has changed in recent years as immigrants have brought capital with them from Korea. Korean businesses are highly economically segregated. Because of the economic segregation there has been a fair amount of tension between the Korean businesses and other ethnic and racial communities that has led to violence. This has generated a fair amount of solidarity within the Korean community. We do not have good information about the income of Korean families.

Family/kinship relationships: Confucianism plays a powerful role in Korean culture. It assigns a lower status to women and emphasizes clear gender roles between the husband and wife. In traditional Korean society, the husband has complete authority over his wife and children. Within Korean immigrant communities, wives exercise greater power because of their increased economic contributions and opportunities.

Religion: Many immigrant Koreans are also Christians, and approximately 75 percent attend Korean churches. These churches provide social and cultural links and also help to maintain cultural traditions. Korean churches also provide a variety of services including job referral, information, health clinics, language classes, etc.

Community organizations: The Korean community has more ethnic organizations than any other Asian immigrant group. Koreans are actively involved in ethnic networks. These include Korean churches, alumni associations, business associations, sports and

¹⁷ Min, Pyong-Gap, “Koreans,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 554-563.

recreational organizations, social service agencies, cultural organizations, and political organizations. Alumni associations also play an important role within the Korean community, and there are more than 160 alumni groups listed in the Korean Directory of Southern California. There are also three Korean-language daily newspapers in Southern California and several Korean television and radio stations. There are about 3,500 Korean-owned establishments in the Los Angeles area. This is also home to the Los Angeles Korean Association, as well as several other Korean business associations, social service agencies, and social and cultural organizations.

Koreans have experienced racial tensions with African-Americans (African-Americans) in urban areas. Moreover, since Japan occupied Korea for several decades, there is lingering racial tension with the Japanese as well. These are sensitivities that may need to be taken into account in program development.

Lao¹⁸

There are both Laotian immigrants, those born in Laos who may not be ethnically identified as Lao, and the Lao, who comprise the majority of the population of Laos. The Lao also live in Thailand. There are 40 different ethno linguistic groups can be described as Lao-American immigrants.

Location: There are approximately 250,000 immigrants from Laos, with half being Lao and the other half from one of the various Laotian subgroups. This does not include the Hmong who have established a separate identity. The Lao are far less likely than other immigrant groups, such as the Vietnamese, to become naturalized U.S. citizens.

About 45 percent of the Laotian immigrants live in California, mostly in the Santa Rosa, Visalia, and Stockton areas. There are also pockets of other Laotian minorities in the San Joaquin Valley and Santa Anna. The Lao are found throughout California as well as in other states.

Educational level/income: There is much economic diversity among Laotian-Americans. Some are college educated while others work in unskilled or semi-skilled occupations.

Family/Kinship Relationships: Among this group, ethnic identity is more important than national identity. As a result, some Laotians are more closely tied to Vietnamese or Cambodian-Americans than to people from Laos.

Religion: Buddhist temples serve as classrooms for language instruction, religious ceremonies and teachings. As such, Buddhism is central to the Lao-American community and serves as a force to unite the community during religious festivals and celebrations. However, some Lao-Americans have converted to Christianity, which has created a tension across generational lines and within communities. This could limit the effectiveness of using faith-based organizations in this community.

Community Organizations: Laotians tend to live in rented garden apartments or homes in suburban and urban areas. They also tend to live in ethnically mixed communities.

¹⁸ Proschan, Frank, "Lao," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 565-573.

Mien¹⁹

These are immigrants from a tribal group living in the mountains of China. They have been on the edges of Chinese culture for centuries, but retain their own language, rituals, and social structures.

Location: The Mien initially resettled in the United States after the Vietnam War. However, the change from their simple agrarian way of life to life in America has been difficult. The Mien are most heavily concentrated in California with the largest groups living in Sacramento, the San Francisco Bay area, and Redding. There are also large groups in California central valley towns near Stockton.

Educational Level: The Mien have low literacy rates in both Lao and English.

Income: Most Mien depend heavily on social service programs including welfare and other domestic transfer payments. As many as 70 percent of Mien adults depend on some type of public assistance.

Family/Kinship Relationships: The Mien settle in poor urban neighborhoods. There is also a relatively high drop out rate among Mien students.

Religion: Though some practice traditional religions, there are growing tensions between the Mien who practice their traditional religion and recent converts to Protestantism. This may limit the effectiveness of partnering with faith-based organizations in this community.

Community Organizations: The Mien do not have any formalized community organizations, but rely heavily on social service agencies and church missions.

Taiwanese²⁰

While this term commonly refers to refugees from China, there were other ethnic cultures native to Taiwan prior to the 1949 exodus from China. To avoid confusion, these indigenous peoples sometimes refer to themselves as Formosans.

Location: Given their conflicts with China, the Taiwanese avoid Chinese communities in the United States. Rather, they prefer to settle in places such as the San Gabriel Valley in Southern California and the Bay Area in Northern California. There are an estimated one to one and a half million immigrants in the United States, most of whom are Taiwanese rather than Formosan.

Educational level/income: Many Taiwanese came to the U.S. as students or educated professionals. Most enjoy a relatively high standard of living. The Taiwanese place a high value on education. Children's academic success confers prestige on the family within this community.

¹⁹ Crystal, Eric, "Mien," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 635-639.

²⁰ Huang, Shu-min, "Taiwanese," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 867-874.

Family/kinship relationships: Many Taiwanese immigrants arrive with their families. They often settle in suburban locations in apartments or condominiums. As the Taiwanese become more “Americanized” there is some weakening of family and social ties.

Community Organizations: Traditionally, the Taiwanese do not have particularly strong religious affiliations or institutions. However, with their arrival to the U.S., churches and Buddhist temples have increased in importance among new immigrants. The religious centers provide a wealth of community services, including English instruction, medical care, and social gatherings.

Thai²¹

This is the 10th largest Asian group in the U.S.

Location: About 100,000 Thais live in California, especially in Southern California.

Educational level/income: This group is comprised mainly of well-educated professionals. Unfortunately, some are not able to obtain work in their area of training resulting in lower wages than their skill level. Overall, the Thais are literate in both Thai and English. The Thai are educated to speak one common language as well as their native dialect.

Family/Kinship Relationships: The family remains the most important unit in Thai culture. The family extends to in-laws, relatives, and cousins who share the same family tree. In some immigrant neighborhoods, everyone is related and ties extend to brothers and sisters in Thailand. This extends the sense of community and the obligation to provide food, clothing, shelter, support, and financial assistance to new arrivals.

Religion: Thais view themselves as Buddhists first although they may be practicing Christians as well. There are numerous Buddhist temples within Thai communities. There are at least 6 Buddhist temples in Southern California. These temples serve as the focus point for activities within the Thai community. They are centers for spiritual, social, and cultural activities and also provide counseling and assistance to members of the Thai community.

Community Organizations: There are several Thai newspapers published in Los Angeles and San Francisco.

Vietnamese

The Vietnamese retain close links to the Chinese, even though they have their own culture, traditions, and language.

Location: Most Vietnamese are concentrated in California with the largest groups living in Santa Ana and Westminster. Orange County has 12 percent of all Vietnamese in the United States. Los Angeles County has another 10 percent. There are also high concentrations of Vietnamese immigrants in San Jose and San Francisco.

²¹ Lewis, Natawan Boonprasat, “Thai,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 883-887.

Educational Level: Vietnamese immigration came in waves with the most educated immigrants fleeing during the Vietnam War and the poorer refugees coming several years later. It is the later group of refugees, and Amerasians (children of American and Vietnamese parentage), especially African-American Amerasians, that have the most difficulty adapting to life in the United States. Nearly half of the latter group of immigrants (47 percent) graduated from high school and 40 percent are fluent in English).

Income: The Vietnamese operate more than 3,500 businesses in California, more than any other Asian group. Economically, they appear to be more successful compared to other Asian groups.

Family/Kinship Relationships: The Vietnamese family structure is closely aligned with the Chinese view. This is reflected in its male-oriented Confucius family system with an emphasis on traditional gender roles, devotion to family, and ancestor worship.

Religion: Most Vietnamese are Buddhist and some Buddhists are also Confucians. Some Vietnamese have converted to Christianity, predominately Catholicism.

Community Organizations: The Vietnamese are struggling to maintain their cultural links through Vietnamese newspapers, literature, and music imported from Vietnam. Churches, community centers, parks, and shopping malls provide the setting for many holiday celebrations including the New Year (Tet).

Summary of characteristics of Asian ethnic groups

Table 7 summarizes some of the main cultural and social characteristics of Asian ethnic groups. Groups have been rated as high, medium and low on each of the characteristics. Two key findings are:

- Community organizations would be a good target for ethnic groups with high degrees of community ties but not for those with low community ties.
- Likewise, religious organizations might be a good entry point for ethnic communities who express their beliefs in an institutionalized religious setting.

Table 7 Summary of the cultural and social characteristics of Asian ethnic groups

Cultural Group	Characteristic				
	Ethnic Identity	Community Ties	Role of family in everyday life	Role of religion in everyday life	Economic Status (compared to other groups)
Cambodians	High	High	High	High	Low
Chinese	High	High	High	Medium	High
Chinese-Vietnamese	High	High	High	High	Low
Filipinos	Medium	Medium	High	High	High
Hmong	High	High	High	High	Low
Indonesians	Medium	Medium	High	Medium	High

Cultural Group	Characteristic				
	Ethic Identity	Community Ties	Role of family in everyday life	Role of religion in everyday life	Economic Status (compared to other groups)
Indos	Low	Low	High	Medium	High
Japanese	Low	Low	Medium	Low	High
Koreans	High	High	High	High	Medium
Lao	High (within their own subgroup)	Low	High	High	Low to Medium
Mien	High	Low	Medium	Mixed	Low
Taiwanese	Low	Low	Low	Low	Medium to High
Thai	High	High	High	High	Mixed
Vietnamese	Medium	Medium	Medium	Low	Medium

Hispanic/Latin American groups

In this section we provide an overview of the major Hispanic/Latin American Groups.

Argentineans²²

Most contemporary Argentineans trace their descent to a mix of native populations with the Spaniards or later contingents of Europeans. Argentineans are immigrating to the United States because of political and economic instability and lack of opportunities for the highly educated groups such as technicians, civil servants, and professionals.

Location: This group is historically undercounted, because they are grouped with other South American immigrants. The actual number of Argentineans currently living in the United States is unclear. The largest group of Argentineans in the United States (31 percent) lives in urban and suburban areas of California.

Educational Level: Argentineans report a high fluency rate in English. Argentineans tend to have higher skill levels than other Latino immigrant groups and come from mostly middle class backgrounds.

Income: Median household income is \$39,000. About eight percent of the population have incomes below the poverty level.

Family/Kinship Relationships: Family life is important and there are extended family networks. The group speaks Castilian Spanish and has unique dances and music. They have been easily assimilated into American culture perhaps in part because they often have non-Spanish last names.

Religion: They are predominately Catholic.

²² Fredienberg, Judith and Edith Masuelli, "Argentineans," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 38-42.

Community Organizations: Argentines are classified as Hispanic, South American, or Latino. Although they share a national culture, they are more culturally diverse than other Spanish communities. They also speak a distinctive Argentinean Spanish, which they seek to preserve through special schools. They seek to maintain their own ethnic identity apart from other Hispanic groups.

Brazilians²³

Brazilians are sometimes called Brazucas, which refers to Portuguese-speaking immigrants as well as inhabitants of Brazil.

Location: Although we have included this group with Hispanics, they actually speak Portuguese. They view themselves as temporary residents in the United States coming to improve their economic lot before returning to Brazil. They do much to try to distance themselves from other South American cultures. Even though they are growing in numbers, especially in San Francisco, Los Angeles, and San Diego, they are still a relatively small part of the immigrant community.

Educational Level: Most Brazilian immigrants are from the middle and lower-middle class and are generally well educated. The majority of Brazilians are also White (80 percent).

Income: Generally, Brazilians earn moderate to high incomes but they can be found in a variety of occupations ranging from low paid restaurant workers to professionals.

Family/Kinship Relationship: More Brazilians are emigrating to the U.S. with their families. However, they too view their stay in America as temporary.

Religion/Community Organizations: They have few community institutions except for the ethnic churches that are the focus for religious and social life. About three-quarters are Catholic and the remainder are either Protestant or Spiritist.

Because of the language barrier, they tend to stay within their own community and rely on other Brazilians or extended-family members for help. They do not traditionally mix with other South American immigrants. They are also reluctant to invest in any real “community-building” since they are focused on earning money and returning to Brazil as quickly as possible.

Californios²⁴

This term describes the early settlers on the West Coast that consisted of Indian, African-American and Mestizo (racially mixed) farmers, artisans, missionaries, and soldiers. Although they were a dominant political force before California became a state, this group has now been nearly completely assimilated into the culture.

²³ Margolis, Maxine L., “Brazilians,” in David Levinson and Melvin Ember, eds. *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 99-104.

²⁴ Colarusso, John, “Californios,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 119-122.

Colombians²⁵

Individuals whose national origins can be traced to Colombia are a part of the broader ethnic group of Hispanics. They are the sixth largest Hispanic group in the U.S. but represent more than one-third of current Hispanic immigrants.

Location: Colombians come from urban areas and tend to settle in large urban areas. About 11 percent of the current Colombian immigrant population lives in California.

Educational Level: Colombians are reasonably well educated with more than 67 percent having earned a high-school diploma. Compared to other Hispanic groups, Colombians have a much higher educational level and 40 percent have earned a college degree.

Income: Colombians are economically better off compared to other Hispanic groups. The median income among Colombians is \$29,171. Approximately 13 percent of Colombian-Americans fall below the poverty line.

Family/Kinship Relationship: Most Colombians are generally younger with fewer than four percent aged 65 or older. The average household size is 3.3 persons compared with a 1990 California average of 2.7 – 3.15. Most are comprised of married couples. They also tend to have large families, which puts them at an economic disadvantage.

Religion: Colombians are predominately Catholic with strong family ties.

Community Organizations: Los Angeles is one of the largest Colombian immigrant communities in the U.S. These areas also foster a sense of Colombian identity with Colombian grocery stores, pastry shops, and nightclubs. There are also numerous Colombian-American newspapers including *El Colombiano* in Los Angeles. Overall, Colombian assimilation into American life has been slow due to their relatively recent arrival and their strong ties to their native land.

Ecuadorians²⁶

This is a relatively small group of Hispanic immigrants.

Location: Ecuadorians emigrate primarily for economic reasons and most come from Ecuador's largest city, Quito. The second largest group of Ecuadorians in the United States lives in California, primarily in the Los Angeles area.

Educational level: Ecuadorians report high literacy rates (85 percent) and most are well educated. Most work in service occupations including jewelry making, real estate, insurance, car repair, and musical and artistic productions.

Income: Since there are large numbers of undocumented Ecuadorians working in the U.S., it is difficult to estimate their average income level. Some estimates suggest that the average income is as low as \$12,000.

²⁵ Espino, Maria Dolores, "Colombians," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 183-186.

²⁶ McKee, Lauris, "Ecuadorians," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 239-244.

Family/kinship relationship: Most immigrants are Spanish-speaking middle- or lower-class Mestizos. Family ties are very important. The husband and father dominate families. Ecuadorians maintain traditional gender roles.

Religion: This community is predominately Catholic. The community enjoys celebrating various distinctive and unique religious festivals throughout the year. Festivals tied to families and cultural identity, such as Mother's Day, are very important. February's celebration of Carnival is also an important time for community members. Some aspects of these celebrations involve neighborhoods.

Community Organizations: There are three ethnic categories within this community: the Blancos (Spanish-speaking Whites who are 10-15 percent of the population), the Runas (Quichua-speakers who are about 40 percent of the population), and the Mestizos (Spanish-speaking of mixed Hispanic and Runa heritage-40 percent). These ethnic identities have created sharp class distinctions within Ecuador, with Blancos at the higher end of the social strata and Runas at the lower end.

Ecuadorian immigrants have strong cultural communities. Clubs play a significant role in immigrant social life. Clubs are known for their generous support of various causes. Athletic clubs are important social venues for men including Club Atletico Guayaquil in Los Angeles. The Ecuadorian United Front (Frente Unido Ecuatoriano FUE) in Los Angeles has ties with 11 other groups. An Ecuadorian newsletter is published in Los Angeles.

Guatemalan Mayans²⁷

The Guatemalan Mayans are Native Americans from a Spanish-speaking country. They are descendants of the ancient Mayans and speak their native language as well as Spanish.

Location: There are more than 31 native languages spoken among members of this ethnic group. Moreover, Mayans also live in Mexico, Belize, El Salvador, Guatemala, and Honduras. Most Guatemalan Mayans live in Los Angeles and West Palm Beach.

There are two distinct groups within the Mayan community, a community of farm laborers living in camps and traveling as migrant workers and a more stable and involved community.

Educational level/income: Traditionally, the Mayans have relatively low levels of education, and also relatively low-income levels. Most work in agriculture related occupations.

Family/Kinship Relationship: Extended families are not as common among the Guatemalan Mayans because most immigrants are young men. Children born in the U.S. are often sent to Guatemala to be raised by their grandparents.

Religion: About half of the Guatemalans are Catholic and the remainder are Protestant.

²⁷ Burns, Allan F., "Guatemalan Maya," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 351-356

Community organizations: This group maintains its strong cultural ties with music, weaving, and its religious traditions and festivals. They are often trilingual, speaking their native language, Spanish, and English. However, they have less facility with Spanish compared to other Latino groups. They live in separate neighborhoods but close to the larger Hispanic community. Soccer is another important element of this community. Teams are organized along the lines of home communities in Guatemala. These matches provide opportunities to interact with other Hispanic and Latino groups.

Mexicans²⁸

Mexicans have been to what is now the United States since 1595. Currently, there are approximately 7.75 million Mexicans in the U.S.

Location: California receives at least half the total flow of legal Mexican immigrants. Almost all (90 percent) live in metropolitan areas. The Mexican population is concentrated in the Los Angeles, Anaheim, and Riverside areas within Southern California, and in the San Francisco, Oakland, San Jose areas within Northern California. There are also substantial levels of illegal or undocumented immigration from Mexico. Approximately one-half of all undocumented immigrants live in California. Current estimates indicate that Mexicans make up 70 percent of the total undocumented immigration, about 100,000 persons annually. In California, Mexican immigrants account for 41 percent of the Mexican-American population.

Educational level/income: The per capita income of Mexicans is half that of Whites. Twenty-seven percent of all Mexican families were living in poverty in 1992. The median income of Mexican families is \$22,447. Most Mexicans work in unskilled or low-paying jobs. Mexicans tend to have larger than average numbers of children in their households, which create further demands on limited resources. School dropout rates are 50 percent or more, which also may limit economic prospects.

Family/kinship relationship: Families are important within the Mexican community and family networks extend beyond the immediate household to include ties across the border. Families are integral to the immigration process, as one member will emigrate and then other members of the family and community will follow.

Mexican families tend to live in clusters based on the idea of reciprocity and mutual trust.

A Mexican family may have various levels of citizenship, including legal or naturalized citizens, members without citizenship, and children born in the U.S.

Religion: More than 70 percent of Mexican-Americans are Catholic, especially first-generation Mexican-Americans. Mexican-Americans are also attracted to Protestant and other religions including Mormonism. Mexican-Americans participate in religious rituals including Christmas, Easter, as well as weddings, baptisms, funerals, etc. These events form “a cultural glue” for the community and provide a context for addressing community concerns.

²⁸ Chavez, Leo R., “Mexicans,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 617-634.

Community organizations: Family social networks extend to other families within the community encompassing siblings and their children. These networks eventually radiate into non-neighborhood and non-family settings such as schools, businesses, and churches. These extended networks create a “friends of friends” network that may encompass large numbers of connections that can be used for help and support.

Nicaraguans²⁹

This community is concentrated in urban areas. About a third of the community is concentrated in Los Angeles.

Location: This community is comprised of three cultural groups: the Creole of the Southern Atlantic coast, the Mestizos of the Pacific Coast, and the Miskit of the Rio Coco area.

Educational level: There is a range of educational levels within the community with the oldest and more established Nicaraguan groups (The Creole) having the most education and working primarily as professionals. Most are small business owners. The Miskitos are the most recent arrivals and mostly work in service trades.

Income: Nicaraguans are financially better off than most other Central American ethnic groups with a median income of \$25,171.

Family/kinship relationship: This ethnic group is divided between those members of the “exile” community waiting to return to Nicaragua when the country becomes more politically stable and those wanting to naturalize quickly and assimilate into American life. Nicaraguans maintain traditional family roles but also exhibit divided loyalties between the homeland and the U.S.

Religion/Community Organizations: The Catholic church is the dominant social force in this community. It influences most of the festivals and artistic practices in the community. Nicaraguans have established several cultural organizations that celebrate traditional music, festivals, and folk life.

Peruvians³⁰

This is a relatively new immigrant group most of whom have arrived since 1980. Peruvians have a class hierarchy based on skin color with individuals with lighter skin and more European features occupying higher social strata. Individuals with darker skin and Indian or African features occupy lower social strata.

Location: The largest concentrations of Peruvians are in New York and Los Angeles (27,000). Another 9,000 live in San Francisco.

Educational Level: Peruvians are generally more educated than other immigrant groups. Spanish is the dominant language spoken in Peru and among recent immigrants. Most learn English in school.

²⁹ Grenier, Guillermo J., “Nicaraguans,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 651-654.

³⁰ Mahler, Sarah J., and Alejandro F. Loarte” “Peruvians,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 690-695.

Income: Despite their educational gains, they still tend to work in low-paying jobs in the sales, administrative support and service sectors. Their overall income, unemployment and poverty levels are comparable to the general United States population.

Family/kinship relationship: Family ties are very strong with most Peruvians living in a traditional nuclear family. The extended family is also very important and siblings live in the same or neighboring communities. There is much socializing on weekends and holidays involving large family get-togethers.

Godparents are important to the family unit. People may ask a couple to serve as wedding attendants and later as godparents to their first child. In Peru, godparents are responsible for providing for the children if anything happens to the parents. This relationship also links several groups of families into bonds of mutual assistance.

Religion: The majority of Peruvians are Roman Catholic. They celebrate religious festivals honoring patron saints throughout the year. The important ones include the Celebration of El Senor de los Milagros, St. Martin of Porras, and St. Rose of Lima.

Community Organizations: Peruvian restaurants are popular gathering spots within the community. Local businesses and organizations sponsor teams in various soccer leagues. Peruvians also have an extensive network of clubs, newspapers, and other cultural societies such as the Solidaridad Peruana and the Peruvian-American Association for Cultural Promotion. There is also a national convention of Peruvian organizations held annually since 1984.

Punjabi Mexicans³¹

This is a bi-ethnic group created by immigrant men from Punjab India and women of Mexican and Mexican-American ancestry. They were formally referred to as “Mexican Hindus.” They are clustered within the farming regions of Stockton and the San Joaquin Valley. This group constitutes less than 1,000 families. This group resulted from mixed marriages resulting in the women being ostracized from their traditional Mexican-American communities.

Salvadorans³²

There are an estimated 500,000 to 1 million Salvadorans in the U.S. Most are still linked very closely to their homeland.

Location: Salvadorans are concentrated in a few urban areas, with 50 percent living in the Los Angeles area and another eight percent in San Francisco.

Educational level/income: Most Salvadoran immigrants have low levels of education and work in low paying jobs. Since most are in the U.S. illegally, they work in low paying jobs and are considered part of the “working poor” population. Their average per capita

³¹ Leonard, Karen Isaken, “Punjabi Mexicans,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 723-728.

³² Mahler, Sarah J., “Salvadorans,” in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 755-769.

income is \$7,200, 50 percent less than the average for the overall US income. Furthermore, 22 percent of Salvadorans live below the poverty level.

Family/kinship relationship: During the past 30 years, Salvadorans have undergone a severe generational transformation. Many of the close social ties that bound them as a community in El Salvador were lost when they immigrated to the United States. Families are often separated because of the legal status making it impossible for children left behind in El Salvador to be reunited with their parents in the United States. This separation creates high levels of stress. Community resources needed to provide emotional and medical support are often lacking. Salvadorans often work several jobs to earn enough money to support family members both in the United States and in their homeland.

Religion: Churches are the primary institution in Salvadoran communities. The Catholic Church provides an array of social services. The church also operates outreach centers and refugee centers.

Community Organizations: Other key social groups are soccer clubs and federations. Teams link players from the same hometown and region and provide a social network for players and their families. There are also hometown associations that raise funds for civic projects back in El Salvador.

Summary of important characteristics

Table 8 summarizes some of the main cultural and social characteristics for Hispanic groups. As with the Asian groups, the characteristics have been rated as high, medium and low. Community organizations would be a good target for ethnic groups with high degrees of community ties but not for those with few community ties. Likewise, religious organizations might be a good entry point for ethnic communities who express their religious beliefs in an institutional setting.

Table 8 Summary of key cultural and social characteristics for Hispanic groups

Cultural Group	Characteristic				
	Ethnic Identity	Community Ties	Role of family in everyday life	Role of religion in everyday life	Economic Status (compared to other groups)
Argentineans	Strong	Weak	Strong	Strong	High
Brazilians	Strong	Weak	Strong	Strong	Medium
Californios	Weak	Weak	Strong	Strong	High
Colombians	Strong	Strong	Strong	Strong	Medium
Ecuadorians	Strong	Strong	Strong	Strong	Low
Guatemalan Mayans	Strong	Strong	Strong	Strong	Low
Mexicans	Strong	Strong	Strong	Strong	Low
Nicaragua	Strong	Medium	Strong	Strong	High

Cultural Group	Characteristic				
	Ethic Identity	Community Ties	Role of family in everyday life	Role of religion in everyday life	Economic Status (compared to other groups)
Peruvians	Strong	Strong	Strong	Strong	Medium
Punjabi Mexicans	Weak	Weak	Strong	Strong	Weak
Salvadorans	Strong	Medium	Medium	Medium	Low

European/Eastern European groups

Armenians³³

Armenians trace their origins to a distinct culture and people dating to the 9th century. Armenians first came to the US after the 1915 genocide by the Turkish government. The resulting antipathy for the Turkish government remains a unifying force within the Armenian community in the US. While Armenians continued to immigrate over the years, the change in immigration standards in the 1980s sparked a recent influx.

Location: Los Angeles has been a favorite destination for Armenian immigrants since 1965. Most immigrants from Lebanon, Iran, Turkey, and Soviet Armenia have migrated to the Los Angeles area. There are an estimated 200,000 to 300,000 Armenians in the Los Angeles area.

Educational Level: Armenian immigrants that have arrived since World War II are generally well educated, fluent in several languages, and have sizable savings. According to a survey of Armenian-Americans, about 47 percent have a college degree, 24 percent are business owners, and 22 percent work in traditional professions such as medicine, law, and engineering.

Income: Most Armenian Americans are solidly middle class with a significant percentage having upper-middle class status. More than 45 percent of Armenian Americans have household incomes above \$50,000.

Family/Kinship Relationships: Armenians embrace a conservative family view that places family above individual needs. They maintain close family ties. However only 14 percent of second-generation immigrants live in extended families. The traditional Armenian culture is a patriarchy. Women still work hard to maintain traditional Armenian cultural ties and practices among the young.

Religion: The Armenian Apostolic Church, also known as the Mother Church, plays a central role in the Armenian community. There is a schism in the Armenian church with two separate administrative orders: the Diocese, which closely follows Catholic doctrine, and the Prelacy, whose members are more militant and follow a more socialist and nationalist ideology.

³³ Bakalian, Anny, "Armenians", in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 42-51.

Community Organizations: The Los Angeles area has more than a dozen Armenian schools, 28 churches, and a large network of clubs and associations. There are more than 40,000 telephone listings of Armenian residences in the Los Angeles area.

Armenians are proud of their heritage and they display their ethnic affiliations on store fronts throughout the downtown Los Angeles business district. There are Armenian newspapers, academic journals, magazines and newsletters printed throughout the U.S. There are also 22 radio programs, and three LA television stations that broadcast Armenian music, shows, and news.

There is also the Armenian General Benevolent Union (AGBU) that was established in 1906 to assist Armenian refugees. Currently, it has about 22,000 members, located mostly in the US.

Armenian organizations sponsor a variety of social events including dinner dances, lectures, concerts, bazaars, and picnics. There is also the Armenian Network of America that sponsors seminars and mixers for young Armenian professionals.

Croatians³⁴

Croatians are a South Slavic people who live in one of the republics of the former Yugoslavia. Croatia declared its independence in 1991. While there are some immigrants from Croatia, many lived in Bosnia-Herzegovina before being displaced due to the internal conflicts.

Location: Approximately 1.5 to 2.5 million Croatians live in the US. Croatians first came to California during the Gold Rush in 1849. They have also settled in California's farming regions, including Santa Clara, Pajaro and San Joaquin valleys, the San Francisco area, and in the Los Angeles area.

Income/Educational Level: Most (95 percent) are unskilled, and 36 percent are illiterate. Many are employed in agricultural operations such as farming, wine growing, fishing, and oyster harvesting.

Family/Kinship Relationships: Historically, Croatians have maintained strong ties to their villages. When they first migrated to the US, they tended to join cooperative households, like boardinghouses.

Religion: The Catholic church is very important to this ethnic group and forms the basis for their core beliefs and traditional values. Despite their assimilation into the US mainstream, religion remains an important form of cultural expression. Devotion to their church includes building shrines, religious schools, and developing ethnic parishes.

Community Organizations: To preserve their national identity, the Croatians founded benevolent associations, sports and music clubs. The Croatian Fraternal Union, founded in 1925, publishes Croatian language newspapers (*Zajednicar*), which is distributed to 40,000 households. Other Croatian-language newspapers include *Croatian Catholic Union*, the *Morning Star*, and several others.

³⁴ Cetinich, Daniel, "Croatians", in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 191- 195.

Music and folk dances are essential parts of the Croatian community. The organization also sponsors many youth orchestras to foster Croatian culture among the younger generation.

Georgians³⁵

Georgians view themselves as a distinct ethnic group. Their name may have derived from the Greek word for farmers or from the patron saint, St. George.

Accurate estimates of the number of Georgians in the United States are difficult to ascertain, since they are often classified as Russian. Moreover, since Georgia declared itself an independent state in 1991, some immigrants from that region do not classify themselves in this ethnic group.

Location: There are approximately 3,000 to 4,000 Georgians in the United States. About one quarter of these Georgians have relocated to California.

Educational Level: The most recent wave of immigrants from 1991 are generally well-educated. Many immigrated to the United States as exchange students, scholars, or professionals. Others are concentrating on their education in the professions in the United States.

Income: Most younger Georgians are professionals who enjoy a comfortable lifestyle.

Family/Kinship Relationships: Georgians speak their own distinctive language and are part of a multicultural society. The small size of the Georgian community within the United States has further isolated this ethnic group. They tend to marry outside their ethnic group. Their strong ties to Georgia unite the community during Georgia national holidays, such as St. Nino's Day (Jan. 26), and Independence Day (May 26).

Religion: Most Georgians belong to the Georgian Orthodox Church, a branch of Eastern Orthodoxy. The church has always been a symbol of national unity.

Community Organizations: The Georgian-American community lacks the financial resources to establish many of their own community organizations. For example, the Georgians have not been able to establish their own churches. There is a Georgian Association in San Francisco and the Georgian Foundation, Inc. There are also several Georgian newspapers.

Russians³⁶

Russians have been immigrating to the United States since the purchase of Alaska in 1867. Prior to that, Russian trappers and traders had immigrated to California to seek their fortunes.

³⁵ Jones, Stephen, "Georgians," in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 310-315.

³⁶ Alexandrov, Eugene A., "Russians", in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 748-754.

Location: There are between 750,000 and 2,000,000 Russians in the United States. Historically, Russians settled in Northern California. There are approximately 500,000 Russians currently living in California.

Educational Level: Russians have excelled in the fields of science and engineering. There are Russian professors at more than 200 American universities and colleges.

Income: Most Russians enjoy a middle class income and a comparable to the American middle class lifestyle. Less than one percent are on welfare.

Family/Kinship Relationships: Russians-American families have comparatively low divorce rates. Russian-Americans are also starting to marry outside their ethnic backgrounds. The importance of kinship ties has diminished somewhat among the more recent arrivals. However, the church celebrations continue to bind the families together and foster the passing of ethnic traditions.

Religion: There are three dioceses within the Orthodox Church operating in America: the Russian Orthodox Church Outside Russia, the Russian Orthodox Church, and the Orthodox Church in America. All three operate seminaries and schools. The churches are the principal centers of religious, social, and cultural life of Russian Americans. However, because of religious beliefs, groups of “Old Believers” live separately from the larger Russian-American communities.

There are 12 important religious holidays celebrated within the Russian community, including Easter, birthdays, and other religious holidays. These holidays are accompanied by lavish feasts and ethnic celebrations.

Community Organizations: Russians have started many social organizations to support their resettlement within American society. These organizations, some of which date back to the 1890s, include the Russian Brotherhood Society, the Ivan Koulaeff Foundation in San Francisco, and the Association of Russian-American Scholars.

There have been as many as 200 separate Russian publications in the United States, including *Russian Life (Russkaya Zhizn)*, published in San Francisco.

Table 9 Summary of key cultural and social characteristics for European and East European groups

Cultural Group	Characteristic				
	Ethic Identity	Community Ties	Role of family in everyday life	Role of religion in everyday life	Economic Status (compared to other groups)
Armenians	High	High	High		High
Croatians	High	Medium	Medium	Medium	Medium
Georgians	Medium	Medium	High		High
Russians	High	Medium	Medium		High

Other GroupsIn this section, we briefly describe two additional groups, American Indians and Afro-Americans.

Native American Indians in California³⁷

The history of California Indians is different than other ethnic groups living in California. California is their homeland and their history spans more than 10,000 years of occupation.

After the arrival of the Europeans, the Native Indian population in California decreased from 310,000 to 100,000. As California became more populous, the native tribes were forced off their lands onto reservations losing their ties to their traditional homelands and way of life. When California became a state, laws were passed that infringed on the rights of Indian peoples to occupy their homelands. It was not until the enactment of the 14th Amendment that these rights were restored.

After World War I, people who had not previously identified themselves as Indians began to do so thereby increasing the number of Indians reported in the census. In World War II, many men and women left the reservation to join the services or find employment. Many remained in California. In the 1960s and 1970s, the Indian Self Determination movement led Indians to develop policies that met their needs as they defined them.

Location: The Native American population in the United States has increased steadily in the 20th century. By 1990 the number of Native Americans, including Aleuts and Inuits, was almost two million, or 0.8 percent of the total U.S. population. Slightly more than one-third of these people live on reservations and about half live in urban areas in proximity to the reservations.

By 1980, California had the largest Indian population, 201,000. Probably a little more than half of these are the descendents of aboriginal Californians. The largest Indian tribes in California are the: Paiute, [Ute](#), and Shoshone in the mountain areas; the [Klamath](#), the [Modoc](#), and [Yurok](#) in the north; the Pomo, Maidu, Miwok, Patwin, and Wintun in the central region; and the “mission tribes” of the south.

Education and Culture: In 1881 an elementary school system for Indians was established in California. However, the Indians soon recognized that the schools were potentially a threat to their culture and tribal political units and they resisted sending their children to public or reservation schools.

In the 1900s, Indians began to view education differently. While many Indians continued to attend boarding schools and day schools, more Indians began to attend public school. Indians won the right to attend public schools in 1924.

Education became even more important in the late 1960s. In 1967, the California Indian Education Association was founded. This association emphasized the role of the Indian family and community in the education of children and advocated the development of Indian-directed out-of-school educational projects. Stress was placed upon the value of

³⁷ Reference material from online book, “A History of American Indians in California,” accessed May 28, 2001. Native Americans," Microsoft® Encarta® Online Encyclopedia 2001.

<http://encarta.msn.com>, Seattle: Microsoft Corporation,1997-2001 1993-2001

the native heritage. This helped to encourage Native Americans to attend schools and receive an education.

More recently Native American Studies departments have been created at major universities in California. After demands by Indian students, the University of California at Berkeley, Los Angeles, and Davis and at Sacramento State University began programs and offered courses in Indian culture and history.

Approximately two-thirds of Native Americans have a high school education (66 percent). Less than 10 percent have earned a four-year college degree.³⁸

Income: Compared to the general population, Native Americans are at a relative disadvantage with respect to health, education, unemployment rates, and income levels. In the 1980s, US government policies led to budget cuts for social and welfare services on the reservations. According to the 1990 US Census, the average household income for Native Americans was \$21,619. More than 25 percent of Native American families live below the poverty level. Historically, the Native American Indians have been at the lowest economic levels in American society.

Family and Kinship: Social organization is based largely on the family. Some Native American societies emphasize the economic cooperation of husband and wife while others emphasize cooperation among adult brothers and sisters. Men's work has been largely separate from women's. Women usually took responsibility for the care of young children, the home, and the cultivation of plants while men hunted, traveled for trade, or worked as laborers.

In most of what is now the United States, native peoples lived in villages and formed loosely organized alliances with nearby villages. Councils govern the alliances and villages. Village councils usually consisted of representatives from each family and the alliance councils were composed of representatives from the villages. The council selected a man or, in some areas especially the North American Southeast, sometimes a woman, to act as chief presiding over the council and acting as the principal liaison in dealing with other groups. Often the chief was selected from a family that trained its children for leadership. In many areas, families in the villages were linked together in *clans*, that is, groups believed to be descended from one ancestral couple. Clans usually owned resources such as agricultural plots and fishing stations. They allotted these as needed to member families and protected their members.

In recent years, pride in Native American heritage has enjoyed a resurgence. On many reservations, tribal languages and religious ceremonies are enjoying renewed vigor. Traditional arts and crafts, such as Pueblo pottery and Navajo weaving, continue to be practiced, and some contemporary Native American artists have adapted European styles to their paintings and prints of Native American subjects.

Religion: Native American religious beliefs and practices display great diversity. Most Native Americans believe that in the universe there exists an Almighty, a spiritual force that is the source of all life. The Almighty of Native American belief is not pictured as a man in the sky; rather, it is believed to be formless and to exist throughout the universe.

³⁸ Statistical Abstract of the United States 1998, The National Data Book, US Dept. of Commerce, Economics and Statistics Administration, Bureau of the Census, p. 53.

Unlike many Europeans, Native Americans tend not to consider humans entirely different from animals and plants. Instead, they often believe that other beings are like humans and that all are dependent on the life-giving power of the Almighty. Some Native American myths, describe a wise leader who teaches the arts of life to the people.

Both private prayer and public rituals are common among Native Americans. Individuals regularly give thanks to the Almighty. Communities gather for symbolic dances, processions, and feasts. Various tribes used certain ritual objects (such as the long-stemmed pipe used by priests in North America to blow tobacco-smoke incense) to symbolize the power of the Almighty. When displayed, these objects reminded people to cease quarrels and remember moral obligations

Community Organizations: Toward the end of World War II and immediately thereafter, Indians began to establish new organizations. The major difference between these and earlier organizations was that Indians governed them. Three important organizations that were established were the Native American Church, the National Congress of American Indians, and the Federated Indians of California.

In the 1960s, additional Indian organizations were also established. The American Indian Historical Society was founded by Rupert Costo, a Southern California Indian in 1964. Since its formation, the society has published *The Indian Historian*, and from 1973 until recently, it published the *Wassaja*, an Indian newspaper. The Congress of American Indians was established "to enlighten the public toward a better understanding of the Indian people; to preserve Indian cultural values; to seek an equitable adjustment to tribal affairs and tribal claims; to secure and to preserve rights under Indian treaties or agreements with the United States; to promote the common welfare of the American Indian; and to foster the continued loyalty and allegiance of the American Indians to the flag of the United States. . . ."

African-Americans³⁹

African-Americans share a common history of slavery dating back several centuries. Although slavery in the United States was abolished 150 years ago, African-Americans continued to encounter social structural and cultural barriers that limited their ability to fully participate in economic and social life of American society. Some of these barriers still exist.

Like other immigrant cultures, African-American culture is composed of many different elements including: cuisine, worship style, music, interpersonal relationships, dance, and more. African-American culture has been influenced by and has influenced the larger culture.

Location: In California, there are an estimated 1.7 million residents that claim African-American ancestry. The majority, 83 percent, live in metropolitan areas. The rise of the Black-middle class led to an increased number of African-Americans living in the

³⁹ Walker, Lewis, and Benjamin C. Wilson, "African Americans" in David Levinson and Melvin Ember eds., *American Immigrant Cultures: Builders of a Nation*. New York: Simon and Schuster and Prentice Hall International, 1997, pp. 10-20.

suburbs, 27 percent in 1990 compared to 16 percent in 1980. This change continued in the 1990s.

Educational Level: The educational level of Blacks has increased since the 1950s. The high school drop out rate among Black youth decreased from 22 percent in 1968 to 12 percent in 1986. However, fewer Blacks still enter or complete college relative to Whites.

Income: Afro-Americans have never had a sizeable wealthy upper class or upper middle class when compared to other segments of American society. Blacks are working in education, civil service, counseling, management positions or professional positions. About 70 to 75 percent of Blacks are employed in either production or service-related jobs. In 1990, African-Americans had income levels that were about 58 percent of that of Whites. According to the US Census, the overall poverty rate for African-Americans is 33 percent compared to 14.7 percent for all other Americans. There are six million Blacks who comprise the largest segment of Americans currently living at or below the poverty line.

Family/Kinship Relationships: Like many other ethnic and social segments, the number of African-American families headed by married couples has declined since 1960. Within the African-American culture, there is a concept of the “African extended family” and the concept and belief that children are sacred and should be the objects of family adoration, love, and affection.

Religion: The Black church is at the core of African-American culture. It is the important social institution within the Black community. It has been the most reliable change agent because it has not been dependent on White society for its existence. Black churches have played a powerful role in financing Black colleges and universities and acting as a training ground for some of its strongest leaders.

Community Organizations: Within this community, the church has been a unifying force and is often been the centerpiece for social and community relations and providing social services. A number of local community social and cultural organizations have developed in the last thirty years.

Relationships with other Black Groups: From the 1960 to 1995, 1.6 million people immigrated from Africa and the Caribbean. The number of African immigrants has increased dramatically in the past few decades with the largest increases from Nigeria, South Africa and Ethiopia. Many of these immigrant groups prefer to be identified as Africans rather than as African-Americans. There is a wide cultural gap between African-Americans and African immigrants. Many of these immigrants were economically and educationally better off than their African-American counterparts.

Some immigrant groups have tended not to mix with other people of African ancestry. For example, Haitians have tended to hold onto their ethnic culture and identities although Jamaicans have been more willing to associate with African-Americans.

There are weak or nonexistent ties between the various other ethnic groups and African-Americans. In some localities there have been serious tensions between African-Americans and Korean-Americans, Vietnamese-Americans, Hispanics and Jewish-Americans.

Summary and outreach strategies

One of the important findings in this chapter is that ethnic groups are very diverse. If we use language as an indicator of hard-to-reach, there are a number of Asian ethnic groups in addition to the Chinese who should be addressed as hard-to-reach. The tables presented below can be used to identify these groups.

It is important to recognize that some groups are well integrated into California culture while others maintain their ethnic identities. Second generation Chinese, unlike their parents, are often fluent in English and fluent but not necessarily literate in Chinese, and are well represented in the coastal urban single professions and some of the other renter clusters. They are probably hard-to-reach for lifestyle reasons but not for reasons of language.

The location of ethnic groups in California

Using information provided in the sources that we used to describe the various ethnic groups, we have constructed Table 10, which shows some of the principal locations of the various groups. This tabulation is by no means complete. However, it is more detailed than may be found from other sources. There are likely enclaves of these groups in or near most of the listed cities. This table is useful in making an initial assessment of ethnic groups in various locations.

Table 10 Location of ethnic and racial groups by geographical area of California

Ethnic/Racial Group	Location									
	Redding /Chico	San Francisco/ East Bay	Sacramento	Stockton/ Modesto	Fresno/ Bakersfield	Los Angeles	San Bernardino/ Riverside	El Centro	San Diego	
African-Americans	X	X	X	X	X	X	X	X	X	X
Native Americans										
Asian ethnic groups										
Filipinos		X				X		X		
Chinese		X				X		X		
Japanese						X		X		
Vietnamese						X		X		
Taiwanese						X		X		
Koreans						X		X		
Lao	X	X		X	X		X	X		X
Thai						X		X		
Chinese-Vietnamese		X				X		X		
Cambodians				X	X	X		X		X
Hmong				X	X	X		X		X
Guamanians					X	X				
Indonesians						X				
Mien	X	X		X	X		X	X		X
Indos			X							
Hispanic and South American Groups										
Mexicans		X				X		X		X
Salvadorans		X				X		X		X
Brazilians		X				X		X		X
Nicaraguans						X				
Colombians		X				X				X
Peruvians		X				X				

	Location									
	San Francisco/ East Bay		Stockton/ Modesto	Fresno/ Bakersfield		Los Angeles	San Bernardino/ Riverside		San Diego	San Diego
Ethnic/Racial Group	Redding / Chico									
Guatemalan Mayans						X				
Ecuadorians		X						X		
Argentines										
Punjabi Mexicans										
Californios										
European and Eastern European Groups										
Armenians		X				X		X		
Croatians			X			X			X	
Georgians				X						
Russians	X	X								

Strategies for reaching ethnic groups

One of the purposes of this document is to suggest potential strategies for delivering energy efficiency to hard-to-reach groups. The analysis of ethnic groups indicates that these groups may be reached through a variety of strategies aimed at the individual communities. Using appropriate strategies can lead to developing an effective and lasting relationship with the leaders of each group. Possible strategies are described briefly followed by a table summarizing workable approaches for each ethnic group.

Churches/religious organizations

Religion is a unifying force in many of these ethnic communities. Often churches and other religious organizations provide a comforting and reassuring presence. They also serve as a source for information gathering, job placement, and act as a link to other social service organizations and the immigrant community. Many ethnic groups received refugee assistance from large Catholic and Christian relief organizations. Religious organizations represent a way to spread information at a one-to-one level. In light of rising energy costs, many local churches are concerned about the costs of maintaining their houses of worship. Many in the congregations are concerned as well for their own households. Some congregations are interested in helping their membership with these issues. The congregational setting may be an appropriate place to deliver energy information. Religious organizations that provide or are linked to social service providers are potential partners for delivering energy efficiency information and services.

Many Asian religions are less formalized and/or less institutionalized. There may be temple associations but they do not necessarily function in the same way as Christian churches. Thus, they may or may not provide an avenue for approaching communities as the more formalized protestant and catholic churches.

We also note that there are religious schisms within some ethnic communities, which means that only part of the community may be reached through religious organizations.

Ethnic associations

Ethnic associations play an important role in many communities performing a variety of roles. Their services range from providing loans to offering job placement assistance to newly arriving immigrants. Ethnic associations also offer a link from the smaller ethnic group to the larger community. Often these associations are formed based on family relationships, regional ties, and common interests including alumnae groups and political affiliations. Ethnic associations are potential partners who have the experience and knowledge to reach into ethnic communities.

Community events

Many ethnic groups have an active calendar of community events such as local soccer competitions, religious and community festivals. These activities reinforce traditional ties, strengthen bonds within the immigrant community, and provide ways to educate their children about their heritage and culture. These events provide opportunities to promote energy efficiency programs. For example, energy efficiency programs might want to co-sponsor soccer teams with ethnic businesses. Community festivals represent

an opportunity to promote energy efficiency through the use of information booths and handouts.

Local media

Several of the larger and more concentrated ethnic groups have developed their own language media services including newspapers, cable television shows, and radio programs. These outlets provide a wealth of information about both local affairs as well as keeping audiences informed about news in their native lands. These media sources provide links to businesses, trade groups, and associations active within the ethnic community. These media outlets present opportunities to communicate with ethnic communities through paid advertising, stories and productions. Financial and technical support to local cable television to produce shows on energy efficiency might be an excellent way to reach certain ethnic audiences.

Chambers of commerce and business trade groups

A few of the more entrepreneurial ethnic groups have also organized business trade groups and local Chambers of Commerce. These organizations provide the same services as traditional business trade groups. However, their activities and functions are designed to meet the unique needs of their community members. Some of the members of these associations may have business interests that coincide with energy efficiency, for example, hardware stores or heating and plumbing contractors. These groups may be important in terms of reaching energy related businesses and in promoting energy efficiency.

In Table 11 and Table 12 we have listed these strategies in the columns. The ethnic groups are identified in the rows according to their estimated population size. We have placed a check in those cells where we believe that there are opportunities to deliver service to an ethnic group using one of the listed strategies. Depending on whether you treat Chinese as one or three groups, Chinese, Taiwanese, and Vietnamese-Chinese, the Chinese population may be more or less prominent.

Table 11 Potential program strategies for Asian groups

Ethnic Group	Outreach Strategy				
	Churches/ Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Filipinos	✓	✓			✓
Chinese	✓	✓	✓	✓	✓
Japanese	✓	✓	✓	✓	
Vietnamese	✓		✓	✓	
Taiwanese	✓	✓			
Koreans	✓	✓		✓	✓
Lao	✓		✓		
Thai	✓			✓	
Chinese- Vietnamese	✓	✓			

Outreach Strategy					
Ethnic Group	Churches/ Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Cambodians	✓				
Hmong	✓			✓	
Guamanians	✓	✓	✓	✓	
Indonesians	✓				
Mien	✓				
Indos					

Table 12 Potential program strategies for Hispanic groups

Outreach Strategy					
Cultural Group	Churches Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Mexicans	✓		✓		
Salvadorans	✓	✓	✓		✓
Brazilians	✓				
Nicaraguans	✓	✓	✓		
Colombians	✓			✓	
Peruvians	✓	✓	✓	✓	✓
Guatemalan Maya	✓		✓		
Ecuadorians	✓	✓	✓	✓	
Argentineans	✓		✓		
Punjabi					
Mexicans					
Californios			✓		

Chapter 6: The Energy Efficiency Characteristics and Needs Of Hard-to-Reach Groups

Introduction

In this chapter we explore the energy efficiency needs of hard-to-reach populations. We do this by examining appliance holding, purchasing patterns, and other information and then using that information to infer the energy efficiency needs of hard-to-reach populations. The goal of this chapter is to identify energy efficiency measures and energy services that are most appropriate to each group. We have organized the discussion in this chapter by hard-to-reach groups:

- Ethnicity/race and language
- Moderate-income
- Multifamily
- Renters
- Rural

The information in this chapter is primarily based on four sets of data:

- Southern California Edison's Residential Appliance Saturation Study, 1995 (SCERASS)
- Pacific Gas and Electric's Residential Appliance Saturation Study, 1995 (PG&ERASS)
- Miracle XIII, San Diego Gas and Electric's residential appliance saturation study, 1998 (SDG&ERASS)⁴⁰
- United States Department of Energy, Energy Information Administration's REC Residential Energy Consumption Survey, 1997 (RECS)

Most of the data in this chapter are presented in tables. Because we are interested in differences between service territories, we have presented each set of information in a row in the table. In cases where data was only available from one source we have presented data for just one source. Unless otherwise indicated the numbers in the tables are percentages. The N's for each of the tables are presented in the appendices.

Ethnicity/race and language

There were only two studies (SCERASS and SDG&ERASS) that asked directly about household language (English, Spanish, or "Other"). Between 86 and 90 percent of the households in these two territories claim English as a primary language. Spanish is

⁴⁰ This report was only available in report format which limited the number of comparisons that could be included.

claimed as a primary language in ten percent of SCE and five percent of SDG&E households. Between four and five percent claim another primary language. The majority of these are an Asian language.

In SCE's service territory, 44 percent of Hispanics use Spanish as their primary language while forty-eight percent of Asians in SCE's service territory speak languages other than English or Spanish (Table 13). In the SCE service territory we also examined this relationship from the perspective of language. Ninety-eight percent of those who speak Spanish identify themselves as Hispanic and 82 percent of those who speak a language other than English or Spanish identify themselves as Asian.

Table 13 Primary language (SCE and SDG&E only)

Language	Overall		Southern California Edison Service Territory					
	SCE	SDG&E	Native American	Asian	African-American	Hispanic	Other	White
English	86	90		50	100	56	91	99
Spanish	10	5		2	0	44	0	0
Other	4	4.5		48	0	0	9	1

Housing type

Asians and Hispanics are more likely to live in multifamily units than Whites (Table 14). If we combine the data for multifamily units in small complexes (2 – 5 units) and multifamily units in large complexes (5+ units), we find that the PG&E data show that about 35 percent of Asians, 20 percent of Hispanics and 24 percent of Whites live in multifamily units. The RECS data show a more disproportionate pattern with 55 percent of Asians, 35 percent of Hispanics and 15 percent of Whites living in multifamily units. For the SCE service territory, 31 percent of Asians, 34 percent of Hispanics and 24 percent of Whites live in multifamily units. These data show that Asians and Hispanics are more likely to live in multifamily units. Programs directed at these populations need to take into account differences in housing type. The data also show that in the PG&E service territory, households in multifamily complexes are more likely to live in larger complexes (5+ units) than smaller complexes by a two to one margin (16 percent versus 9 percent).

Table 14 Percent of housing type by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Mobile Home							
PG&E RASS	3		1	1	2	3	3
SCE RASS	6		1	1	2	5	9
REC	4				6		6
Single-family							
PG&E RASS	73		64	57	68	70	75
SCE RASS	66		68	65	64	57	67
REC	68	59	44	43	59	72	79

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Multifamily (2-5 units)							
PG&E RASS	9		11	11	10	13	8
SCE RASS							
REC	4		5	11	9	13	2
Multifamily (5 or more units)							
PG&E RASS	16		24	30	20	15	14
SCE RASS							
REC	23	41	51	46	26	16	13
Multifamily (2 or more units)							
PG&E RASS							
SCE RASS	28		31	34	34	39	24
REC							

Home ownership

Home ownership is less prevalent among Hispanic households (40 to 51 percent) when compared to White households (67 to 72 percent). Asian home ownership ranges from 34-65 percent compared to 67 to 72 percent for White households. This data indicates that Hispanics and Asians are more likely to be renters than Whites or the overall population (See Table 15 below).

Table 15 Percent of home ownership by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Own/Buying							
PG&E RASS	68		62	48	51	60	72
SCE RASS	64		65	45	50	49	71
REC	54	28	34	28	40	55	67
Rent							
PG&E RASS	32		38	52	49	40	28
SCE RASS	36		35	55	50	51	29
REC	46	72	67	72	60	45	32

Location

Only the REC data provided a location variable. Location was self-reported by category. Asians and Hispanics are concentrated in urban areas (85 percent and 83 percent, respectively) compared to 59 percent of Whites who also live in urban areas (Table 16). Whites are more likely to report living in suburban or rural areas.

Table 16 Percent of location (RECS) by ethnicity/race

	Overall	Native American	Asian	African-American or African American	Hispanic	Other	White
City/Urban	70	74	86	85	83	82	59
Rural	6	7		4	5		9
Suburban	11		8	6	4	7	14
Town	13	19	6	5	8	11	18

* RECS data only

Income level

We examined income in terms of low, moderate, and middle-upper income categories. Low-income is defined as 150 percent of the poverty level or less. Moderate is defined as 150 to 400 percent and upper-middle is defined as 400 percent of the poverty level or more. Hispanic families (Table 17) have the highest percentage of low-income households, about 50 percent. Whites have the lowest percentage of low-income households, 15 percent. The percentage of Asians is between the two groups. Asian and Hispanic households have about the same percentage of moderate-income households that is one to four percent less than White households. Thus the percentage of moderate income households is nearly the same for these three groups.

Table 17 Percent income level by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Low-income							
PG&E RASS	19		25	39	49	29	14
SCE RASS	26		26	39	51	24	16
REC	33	47	45	36	58	36	22
Moderate-income							
PG&E RASS	37		34	33	34	37	38
SCE RASS	34		34	36	33	40	35
REC	39	46	32	49	33	25	41
Upper middle-income and above							
PG&E RASS	44		41	28	18	34	48
SCE RASS	39		40	25	17	36	49
REC	28	7	24	15	10	40	37
Households as average percent of poverty level							
PG&E RASS	396		365	286	222	323	428
SCE RASS	348		330	263	217	337	406
REC	341	219	297	266	193	367	409

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Mean Annual Household Income							
PG&E RASS	\$45,354		\$46,356	\$32,261	\$29,029	\$39,036	\$47,921
SCE RASS	\$41,942		\$46,037	\$30,574	\$30,044	\$38,463	\$47,080
REC	\$41,350	\$26,086	\$38,116	\$31,381	\$27,833	\$41,590	\$47,909

Heating fuel

We found only small differences in heating fuel types among the ethnic groups (Table 18 and Table 19).

Table 18 Percent primary heating system fuel by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Natural Gas							
PG&E RASS	78		79	78	73	79	78
SCE RASS	81		81	78	77	76	83
REC	68	86	57	62	72	71	69
Electricity							
PG&E RASS	15		17	18	18	13	15
SCE RASS	14		17	19	20	16	12
REC	25	7	40	36	22	23	22
Other							
PG&E RASS	7		5	4	9	8	7
SCE RASS	5		2	2	4	8	5
REC	7	6	3	2	6	6	11

Analysis of the three datasets indicates that the age of the main heating system does vary some. Households in the SCE territory appear to have newer units than households in the PG&E service territory. Hispanics seem to have newer units than Whites in the PG&E service territory. Asians, African-Americans and Hispanics appear to have new units in the SCE territory (See Table 19 below).

Table 19 Percent age of primary heating system by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Installed in 1990s							
PG&E RASS	26		25	33	35	26	25
SCE RASS	37		44	47	39	30	36
REC	30	37	22	20	31	14	33

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Installed in 1980s							
PG&E RASS	29		33	33	30	22	28
SCE RASS	30		30	23	28	34	30
REC	25	22	20	25	24	7	27
Installed before 1980							
PG&E RASS	45		42	34	35	52	28
SCE RASS	33		26	30	33	36	30
REC	55	41	58	55	45	79	40
Mean age of main heating system							
PG&E RASS	13.5		13.2	11.7	11.7	14.2	13.7
SCE RASS	16.3		14.8	15.0	15.8	16.4	16.6
REC	16.00	17.05	17.66	17.86	15.54	21.30	15.30

Cooling system and fans

About two-thirds of all households in the SCE and PG&E service territories have air conditioning. Overall in the PG&E service territory, Asians (57 percent with air conditioning) and African-Americans (53 percent with air conditioning) are less likely to have any type of air-conditioner (Table 20) than Whites, Hispanics or others. In the SCE service territory, African-Americans (62 percent), Hispanics (62 percent) and others (58 percent) are less likely to have air-conditioning than Asians and Whites (70 percent each) and others. Households with central air conditioning follow roughly the same patterns. Hispanics are more likely to have window air conditioning in both service territories. Hispanics also have newer units than do other households.

Table 20 Percent with cooling systems by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have some type of air conditioner							
PG&E RASS	68		57	53	68	70	70
SCE RASS	67		70	62	62	58	70
REC	41	36	47	41	35	25	43
Have central air conditioner							
PG&E RASS	54		47	42	51	51	56
SCE RASS	41		46	33	29	37	46
REC	29	23	29	41	18	14	31
Have window air conditioner							
PG&E RASS	16		11	12	20	23	17
SCE RASS	18		27	20	27	17	14
REC	13	12	17	0	16	11	12

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have more than one window air conditioner							
PG&E RASS	2		1.6	1.2	1.9	1.8	2.0
SCE RASS	4		8.1	5.3	5.8	2.7	2.8
REC	1	0	0	0	1	11	1
Have both central and window air conditioner							
PG&E RASS	2		1	2	3	3	2
SCE RASS	1		5	1	2	1	1
REC	1	0	0	0	1	0	1
Mean age of primary air conditioner (years)							
PG&E RASS	10.9		10.2	9.6	9.1	11.3	11.1
SCE RASS	11.1		10.4	11.4	9.7	12.0	11.4
REC	12	8.2	14.6	13.8	11.5	13.8	10.8

Ceiling fans are found in roughly half of all households. Whites are most likely to have them. Hispanics are likely to have them in the PG&E service territory. Asians are least likely to have them in either service territory. Ceiling house fans are less numerous in Asian (0.36 fans per home) and Hispanic homes (0.52) than in White households (1.05). The frequency of whole house fans among Asian and Hispanic groups is comparable to those of White households (Table 21).

Table 21 Percent of fan ownership by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have ceiling fan(s)							
PG&E RASS	52		33	41	48	53	55
SCE RASS	46		35	44	39	40	51
REC	41	28	27	31	29	13	51
Mean Number of ceiling fans							
PG&E RASS							
SCE RASS							
REC	0.81	0.48	0.36	0.67	0.52	0.29	1.05
Have whole house fan							
PG&E RASS	8		9	5	8	7	8
SCE RASS	8		8	10	10	9	8
REC							

Water heating system

Both the REC and PG&E RASS data indicate that nearly 100 percent of homes have water heaters. The SCE RASS data indicate that 89 percent of households have water heaters and show that the likelihood of having a water heater is slightly higher in White households (92 percent) than in Asian (83 percent) or Hispanic households (87 percent).

The predominate water heating fuel in 85 percent of households, is gas (Table 22). There is slightly more electric water heating among Asians, African-Americans and Hispanics in the SCE service territory than in the PG&E service territory.

Table 22 Percent with water heating system fuel by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Natural Gas							
PG&E RASS	85		93	94	91	81	83
SCE RASS	86		88	86	87	80	86
REC	81	93	76	77	90	95	79
Electricity							
PG&E RASS	8		4	4	5	10	9
SCE RASS	11		11	12	10	10	11
REC	16	7	23	19	8	0	17
Solar							
PG&E RASS	1		1	1	1	1	2
SCE RASS	0		0	1	1	0	0
REC	0	0	0	2	0	5	0
Other							
PG&E RASS	5		1	2	3	8	6
SCE RASS	3		1	1	2	10	3
REC	3	0	2	2	2	0	4

Refrigerators and freezers

Table 23 and Table 24 show refrigerator and freezer characteristics across ethnic/racial groups. About 15 percent of households have two refrigerators. About the same percentage have water and ice through the door. About 75 percent have installed a refrigerator since 1990, which means that a high percentage of refrigerators are of the more efficient type.

With respect to differences among the ethnic groups, Hispanic, African-American and other households in both PG&E and SCE's service territory are less likely to have two or more refrigerators. In PG&E's service territory they are less likely to have refrigerators with water and ice through the door. Asians, African-Americans and Hispanics are more likely than Whites to have a refrigerator newer than 1990. African-American households are most likely to have a separate freezer in the SCE service territory and African-

Americans and Whites are more likely to have a separate freezer in the PG&E service territory.

Table 23 Percent of households with refrigerator and freezer characteristics by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Have two or more refrigerators							
PG&E RASS	17		17	10	11	16	19
SCE RASS	15		19	11	12	15	17
REC	16	14	9	6	7	14	21
Main refrigerator has water and ice through the door							
PG&E RASS	16		17	12	14	12	17
SCE RASS							
REC	18	16	14	8	10	16	22
Main refrigerator installed since 1990							
PG&E RASS	77		83	81	85	81	75
SCE RASS	78		87	81	86	80	74
REC	65	71	56	63	78	52	64
Have separate freezer							
PG&E RASS	29		21	31	17	27	31
SCE RASS	16		10	22	11	17	18
REC	14	12	10	14	6	11	18

There is a tendency for Asians, African-Americans and Hispanics to have slightly smaller refrigerators in the PG&E service territory and Asians and Whites to have slightly larger ones (Table 24). It also appears that refrigerator sizes are slightly smaller in the SCE service territory than in the PG&E service territory.

Table 24 Percent with size of main refrigerator by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Less than 17 cubic feet							
PG&E RASS	13		15	19	17	13	11
SCE RASS	10		9	9	14	10	9
REC							
17 to 22 cubic feet							
PG&E RASS	68		64	65	69	69	69
SCE RASS	81		81	86	80	86	81
REC							

	Overall	Native American	Asian	African-American	Hispanic	Other	White
More than 22 cubic feet							
PG&E RASS	20		22	16	15	19	20
SCE RASS	9		10	5	6	3	10
REC	2	7	1	0	2	9	1

Lighting

Asians households are most likely to own CFLs in both PG&E (35 percent) and SCE's service territory (27 percent). Although more Asian households have these bulbs, they do not on average own more than other groups within their service territories. Hispanics are least likely to own CFLs in PG&E's service territory. All ethnic/racial groups use a similar number of CFLs per household. The mean number of indoor lights on for 12 or more hours per day (per household) is 0.42 for Hispanics, 0.49 for Asians, and 0.87 for Whites (See Table 25 below).

Table 25 Percent ownership of CFLs by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Have CFLs (Percent)							
PG&E RASS	30		35	27	25	35	30
SCE RASS	19		27	19	19	13	19
REC							
Number of CFLs used							
PG&E RASS	2.7		2.6	2.2	2.7	3.2	2.7
SCE RASS	1.9		2.0	1.8	2.0	2.2	1.9
REC							
Number of indoor lights on 12 hours per day or more							
PG&E RASS							
SCE RASS							
REC	0.71	0.77	0.49	0.39	0.42	1.07	0.87

Other end-uses

Other end-use appliances, for the ethnic/racial groups, are presented in Table 26. African-Americans, Asians, Hispanics and others are less likely than White households to have clothes washers. The same holds true for clothes dryers, except that African-American and Hispanic households are least likely to have them. Dishwashers are 25 percent less likely to be present in Hispanic households than households in general. African-American, Asian and other households are less likely than White households to have dishwashers. There is little difference among the ethnic/racial groups in household

appliances such as de-humidifiers and electric water pumps. Asian households are more likely to have laser printers than other households. Hispanics and African-Americans are least likely to have them. Waterbeds are not widespread but are slightly more likely to show up in African-American households than in other households.

Table 26 Percent ownership of other end-uses by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Have clothes washer							
PG&E RASS	80		70	64	72	71	83
SCE RASS	76		73	63	70	64	80
REC	61	50	44	41	46	58	72
Have clothes dryer							
PG&E RASS	76		64	60	59	68	80
SCE RASS	70		67	58	55	61	77
REC	57	50	38	40	37	65	69
Have dishwasher							
PG&E RASS	67		60	49	40	57	72
SCE RASS	58		60	48	30	60	69
REC	48	23	43	44	26	46	56
Have a heated waterbed							
PG&E RASS	8		4	7	6	8	9
SCE RASS	7		4	7	4	6	8
REC	3	0	1	1	1	0	5
Have a laser printer							
PG&E RASS	12		14	8	5	10	12
SCE RASS	13		19	6	6	14	15
REC	13	0	9	11	11	11	15
Have a dehumidifier							
PG&E RASS							
SCE RASS	2		3	3	2	1	2
REC							
Have an electric water pump							
PG&E RASS	9		5	2	7	9	10
SCE RASS	2		4	3	3	1	2
REC	3	0	1	2	2	0	5

Swimming pools and Jacuzzis

Between five and ten percent of households have swimming pools (Table 27). They are most common among Asians and Whites in SCE's service territory. About 30 percent of the swimming pools are heated in PG&E's service territory. Pools at Asian and Hispanic

households are less likely to be heated in PG&E's service territory. Hispanic homes are less likely to have their pools on time clocks.

On average, about 10 percent of households have Jacuzzis or hot tubs. Hispanic, African-American and Asian homes are less likely to have them than the average household.

Table 27 Percent swimming pools and Jacuzzis by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have a swimming pool							
PG&E RASS	8		4	3	5	4	9
SCE RASS	10		11	5	7	10	11
REC	4	7	1	0	4	0	6
Swimming pool is heated							
PG&E RASS	28		13	26	10	22	30
SCE RASS							
REC	42	0	100		22		61
Swimming pool on time clock							
PG&E RASS	85		95	100	77	69	85
SCE RASS	84		91	68	59	99	89
REC							
Have a Jacuzzi or hot tub							
PG&E RASS	10		6	3	4	7	12
SCE RASS	11		10	5	5	7	14
REC							

Insulation and residence shading

Table 28 presents information about the type of insulation and shading. About 80 percent of homes have ceiling insulation and about 65 percent have wall insulation. The homes of Asians, Hispanics and African-Americans are slightly less than likely to insulate than the average home. African-Americans and Hispanics are somewhat less likely to have wall insulation than the average home. Summertime shading from trees and other objects is slightly less available for Hispanic and Asian homes when compared to White households.

Table 28 Percent with type of insulation and residence shading by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have ceiling insulation							
PG&E RASS	82		76	65	73	81	85
SCE RASS	78		75	75	68	69	83
REC							

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Have wall insulation							
PG&E RASS	67		65	51	60	61	68
SCE RASS	63		62	53	57	54	67
REC							
Have both ceiling and wall insulation							
PG&E RASS	59		55	38	48	55	62
SCE RASS	55		52	47	47	46	59
REC							
Residence is shaded during the summer (or shade trees)							
PG&E RASS	71		65	66	64	72	73
SCE RASS							
REC (shade trees only)	41	27	34	25	28	41	49

Residence size and age

The size and age of renters' residences are presented in Table 29. In PG&E and SCE's service territory, Asians have residences that are close to the average size of all residences. African-Americans and Hispanics live in smaller residences. In PG&E's service territory, Chinese tend to have larger residences compared to Asians overall (1,585 vs. 1,423). In SCE's service territory, Spanish-speaking customers tend to have smaller residences compared to Hispanics who primarily speak English (992 vs. 1,145). The average age of residences is comparable across the groups. Residences in the SCE service territory appear to be slightly newer than in the PG&E service territory.

Table 29 Residence size and age by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
Square feet of heated space							
PG&E RASS	1,447		1,423	1,217	1,161	1,356	1,488
SCE RASS	1,444		1,498	1,397	1,145	1,357	1,546
REC	1,337	905	1,087	1,061	1,100	1,537	1,493
Mean Age of residence (Years)							
PG&E RASS	31		29	30	29	32	31
SCE RASS	27		23	27	28	26	27
REC	32	30	30	34	33	36	32

Household characteristics

The household characteristics of renters are presented in Table 30, Table 31, and Table 32. Statewide (REC data), Asians are least likely to have a head of household who is female while Hispanics are more likely to have a head of household who is female. Both Asians and Hispanics are more likely than other ethnic groups to have a head of household who is employed full-time and less likely to have a head of household who is not employed.

Table 30 Percent head of household characteristics by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Head of household is female	50	38	41	55	55	66	49
Head of household is employed full-time	49	46	54	54	55	25	46
Head of household is employed part-time	11	23	11	4	6	29	13
Head of household is not employed (unemployed/retired/disabled)	40	31	36	42	39	46	41

* REC data only

The average household size is 2.6 in the PG&E service territory and 3.0 in the SCE service territory. Asian and Hispanic households have between 3.6 and 4.0 persons per household. Households are a trifle larger in the SCE service territory. In SCE's service territory, Spanish-speaking customers tend to live in households with more occupants than those of English speaking Hispanics (4.8 vs. 4.0).

Table 31 Number of occupants by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Number of total occupants							
PG&E RASS	2.6		3.4	2.6	3.6	2.8	2.4
SCE RASS	3.0		3.7	2.9	4.0	2.6	2.5
REC	2.8	2.9	3.2	2.6	3.9	2.8	2.4
Number of occupants 18 years old and younger							
PG&E RASS	0.7		0.9	0.7	1.4	0.8	0.6
SCE RASS	0.9		1.1	1.0	1.6	0.6	0.6
REC							
Number of occupants 18 or older							
PG&E RASS	2.0		2.4	1.8	2.2	2.0	1.9
SCE RASS	1.7		2.4	1.6	2.3	1.6	1.4
REC							
Number of occupants 65 or older							
PG&E RASS	0.4		0.3	0.3	0.2	0.3	0.4
SCE RASS	0.4		0.3	0.3	0.2	0.4	0.5

Compared to other ethnic groups, Asians and Hispanics in both PG&E and SCE's service territory are most likely to have households with more than one adult (any age) and children and least likely to have households with one adult (between 19-64) and no children. In SCE's service territory, Spanish-speaking customers are more likely than Hispanics who speak English to have households with more than one adult (any age) and children (75 vs. 61 percent).

Table 32 Percent with family characteristics by ethnicity/race

	Overall	Native American	Asian	African- American	Hispanic	Other	White
1 adult (any age) and children							
PG&E RASS	4		3	14	8	5	4
SCE RASS	8		5	19	9	8	7
REC							
2+ adults (any age) and children							
PG&E RASS	30		43	30	54	34	26
SCE RASS	43		53	38	61	34	36
REC							
1 adult (19-64) and no children							
PG&E RASS	13		9	20	9	14	14
SCE RASS	12		7	12	4	20	16
REC							
2+ adults (all 19-64) and no children							
PG&E RASS	28		28	20	19	30	29
SCE RASS	26		28	23	19	31	29
REC							
1 adult (65+) and no children							
PG&E RASS	8		3	6	2	2	10
SCE RASS	7		3	4	4	4	9
REC							
2+ adults (at least 1 is 65+) and no children							
PG&E RASS	16		14	10	9	14	17
SCE RASS	3		4	3	3	3	3
REC							

Energy usage and degree days

In 1995, the average household used 6,078 kWh and 486 therms (Table 33). In both PG&E and SCE's service territory, Asians and Hispanics, compared to other groups, used the least kWh and therms. Asian and Hispanic households are located in areas with more cooling degree days (CDD) than other groups. Hispanic households are located in areas with the fewest heating degree days (HDD).

Table 33 Energy usage and degree days by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Annual kWh use	6,078	5,325	5,000	6,337	4,898	4,798	6,775
Annual therm use	486	397	421	525	421	474	521
Mean Annual HDD	1,918	1,659	1,651	2,019	1,352	1,656	2,154
HDD - below 1200	40	48	41	42	59	57	32
HDD - from 1200 to 3000	52	46	56	47	40	37	56
HDD - over 3000	8	7	2	12	1	6	12
Mean Annual CDD	1,136	1,232	1,325	1,067	1,306	1,017	1,055
CDD - less than 1200	51	43	38	51	44	50	56
CDD - over 1200	49	57	62	49	56	50	44

* RECs data only

Bill payment

Compared to other groups, Asians are most likely and Hispanics the next least likely to live in situations where the household pays for all of the utility bills (Table 34).

Table 34 Percent method of bill payment

	Overall	Native American	Asian	African-American	Hispanic	Other	White
All energy utilities paid by household	84	57	83	83	75	93	87
Some energy utilities paid by household	8	26	5	14	14	7	5
All energy utilities paid by landlord	7	16	10	1	10	0	6

* REC data only

Awareness of Energy Star and other energy labels

We also have information about the awareness of Energy Star labels among these groups. Overall about 34 percent of all respondents are aware of the Energy Star. Whites and Asians are most aware. Hispanics and others are least aware, about half of the average number of households being aware (Table 35). In general, very low percentages of households reported seeing Energy Star labels on key appliances.

On average, 60 percent of households reported seeing a yellow energy efficiency information label on a home appliance. African-American, Hispanic, Asian, and other households reported lower levels of awareness of the yellow labels. The same groups also reported that they were less likely to have read the label than the overall population. Hispanics are the least likely to have actually read the information on a yellow energy information label. Overall, about a third of households report that the yellow label influenced a purchase, but for African-Americans, Hispanics and Asians, the proportion was closer to a fifth.

Table 35 Percent awareness of Energy Star and other energy labels by ethnicity/race

	Overall	Native American	Asian	African-American	Hispanic	Other	White
Aware of the Energy Star logo/label	34	7	35	29	17	18	42
Has seen Energy Star on a computer monitor	14	0	18	10	8	11	17
Has seen Energy Star on a dishwasher	4	7	2	2	1	0	5
Has seen Energy Star on a refrigerator	11	7	6	3	6	0	14
Has seen Energy Star on a room/window AC	2	0	4	0	0	0	2
Ever seen yellow-colored energy info label on home appliance?	62	44	47	54	54	47	70
Ever actually read the info on a yellow energy info label?	41	34	33	30	21	23	51
Has info on yellow energy info label ever influenced a purchase decision?	30	24	23	20	22	27	36

* REC data only

Summary of key findings for Asians and Hispanics

- Asians and Hispanics are more likely to live in multifamily units than Whites.
- Asians and Hispanics are more highly concentrated in urban areas.
- Hispanic families have lower annual household incomes than racial or ethnic groups in California that were compared in this study. Average Asian household income is also below the overall average and that of Whites.
- Asians and Hispanics are more likely to be renters than Whites or the overall population.
- Hispanics are somewhat more likely to have window air conditioners and somewhat less likely to have central air conditioning units.
- Data indicate that ceiling fans are less frequently used in Asian and Hispanic households than households in general.
- Hispanic households in both PG&E and SCE's service territory are somewhat less likely to have two or more refrigerators or an extra freezer. In general, refrigerators appear to be relatively new and this appears to be the case across all of the ethnic groups.
- Asians and Hispanics leave their indoor lights on for less time than Whites.
- Laser printers are less prevalent in Hispanic households when compared to Asian or White households.

- Both Asian and Hispanic households are less likely than White households to have clothes washers. This may reflect the fact that more of them are renters.
- Hispanic and Asian households are less likely than the average household to have swimming pools, Jacuzzis or hot tubs.
- Asian and Hispanic households tend to have more occupants overall and by age group, than other ethnic groups.
- Asians and Hispanics tend to use less energy, both in terms of kWh and therms, than other ethnic groups. They have smaller dwellings although Chinese, who primarily speak English, as opposed to those who primarily speak Chinese, have larger dwellings. Chinese and Hispanics live in climates with more cooling degree days and fewer heating degree days. The size of the dwelling and the climate areas may help to explain some of the reduced energy use.
- Compared to the average household, Asians are more likely and Hispanics less likely to have all energy utilities paid by the household than other groups.
- In general, African-Americans, Hispanics, and Asians are less aware of the Energy Star logo than the average household although Asians tend to be more aware than Hispanics.

Moderate-income

In this section we examine the characteristics of moderate-income households. A moderate-income household is defined as a household with an income between 150 and 400 percent of the poverty level. As described in the definitions section, the size of the household influences what is considered to be moderate-income. In the following section, we provide three income levels, low-income, moderate-income, and upper middle-income and above.

Primary language

Table 36 is based only on the SCE data. It shows that moderate-income households are less likely than high income households to have English as a primary language and (2) less likely than low-income households and more likely than high income households to have Spanish as a primary language.

Table 36 Percent income by primary language

	Overall	Low-income	Moderate-income	Upper middle-income and above
English	86	69	90	95
Spanish	10	25	6	2
Other	4	6	4	3

* SCE data only

Housing type

The housing type of moderate-income customers is presented in Table 37 below. Moderate-income customers are more likely than low-income customers and less likely than high-income customers to live in single-family housing. They are also less likely than low-income customers and more likely than high-income customers to live in multifamily housing.

Table 37 Percent in housing type by income

	Overall	Low-income	Moderate-income	Upper middle-income and above
Mobile home				
PG&E RASS	3	5	3	1
SCE RASS	6	9	9	3
REC	4	7	5	1
Single-family				
PG&E RASS	73	58	72	79
SCE RASS	66	53	64	75
REC	68	52	70	84
Multifamily (2-5 units)				
PG&E RASS	9	14	8	7
SCE RASS				
REC	4	7	4	2
Multifamily (5 or more units)				
PG&E RASS	16	24	16	13
SCE RASS				
REC	23	35	21	13
Multifamily (2 or more units)				
PG&E RASS				
SCE RASS	28	38	27	22
REC				

Location

The location of moderate-income customers is presented in Table 38 below. Moderate-income customers are more likely than high-income customers to live in city/urban areas and towns and less likely than high-income customers to live in suburban areas.

Table 38 Percent urban/rural location by income

	Overall	Low-income	Moderate-income	Upper middle-income and above
City/Urban	70	76	73	58
Rural	6	6	6	8
Suburban	11	4	6	24
Town	13	14	16	10

* REC data only

Home ownership

Whether moderate-income customers own or rent is presented in Table 39 below. The likelihood of a customer owning increases with income. Among households with upper-middle-incomes and above, homeownership is about seventy percent compared to low-income families where ownership is about 40 percent. Home ownership rates appear to be about the same in the PG&E and SCE service territory across the three income groups.

Table 39 Percent home ownership by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Own				
PG&E RASS	68	40	67	78
SCE RASS	64	40	64	77
REC	54	32	60	72
Rent				
PG&E RASS	32	60	33	22
SCE RASS	36	60	36	23
REC	46	68	40	28

Heating system

Table 40 and Table 41 present the relationship between income and heating system fuel. On average, about 80 percent of customers used natural gas. The use of natural gas increases with household income. Low-income customers are more likely to use electricity as a heating fuel than moderate and upper-middle-income customers. Also, in the PG&E service territory, low-income customers are more likely to use other fuels such as liquid propane, kerosene, or wood. This reflects a higher incidence of rural customers in this service territory.

Table 40 Percent with primary heating system fuel by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Gas				
PG&E RASS	78	73	79	80
SCE RASS	81	78	81	84
REC	68	56	71	79
Electricity				
PG&E RASS	15	18	14	15
SCE RASS	14	18	15	11
REC	25	34	23	17
Other				
PG&E RASS	7	10	7	5
SCE RASS	5	4	4	5
REC	7	10	6	4

Table 41 shows that about half of the heating systems in the PG&E service territory were installed before 1980. This is true for about a third of those in the SCE service territory. Compared to other groups, moderate-income customers in PG&E and SCE's service territory are more likely to have heating systems that were installed before 1980. It appears that low-income customers are more likely to have a furnace of recent vintage although about the same number of households in low-income and upper-middle-income brackets have had furnaces installed since 1990 in the SCE service territory.

Table 41 Percent with primary heating system age by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Installed in 1990s				
PG&E RASS	26	31	25	26
SCE RASS	37	40	33	40
REC	30	24	25	43
Installed in 1980s				
PG&E RASS	29	26	27	30
SCE RASS	30	31	30	31
REC	25	23	25	26
Installed before 1980				
PG&E RASS	46	43	48	44
SCE RASS	33	30	37	30
REC	45	53	50	31

Cooling system and fans

Based on Table 42 and Table 43, the likelihood of a household having some kind of air conditioning is about the same (68 percent) across income groups. However in both service territories, the likelihood of having central air conditioning increases with income while the likelihood of having window air conditioning decreases with income. Most households that have window air conditioning have just one. The age of the primary air conditioning system is comparable (about 11 years) across income groups both in PG&E and SCE's service territory.

Table 42 Percent with cooling system characteristics by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have some type of air conditioning				
PG&E RASS	68	69	70	68
SCE RASS	67	66	68	70
REC	41	38	44	42
Have central air conditioning				
PG&E RASS	54	46	54	58
SCE RASS	41	29	41	52
REC	29	20	31	35
Have window air conditioning				
PG&E RASS	16	25	18	11
SCE RASS	18	23	19	14
REC	13	17	13	6
Have more than one window air conditioning				
PG&E RASS	2	2	2	1
SCE RASS	4	6	3	3
REC	1	2	1	1
Have both central and window air conditioning				
PG&E RASS	2	3	2	2
SCE RASS	1	2	2	1
REC	1	1	0	0
Average age of air conditioning				
PG&E RASS	11	11	11	10
SCE RASS	11	11	11	11
REC	12	14	12	9

Moderate-income and upper middle-income customers are more likely than low-income customers to have ceiling fans in both PG&E and SCE's service territories. Moderate and upper-middle-income customers are about equally likely to have ceiling fans, 55 percent in PG&E's territory and 49 percent in SCE's territory. Whole house fan ownership is comparable across income groups.

Table 43 Percent fan ownership by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have ceiling fan(s)				
PG&E RASS	52	41	55	55
SCE RASS	46	38	49	51
REC	41	29	43	53
Have whole house fan				
PG&E RASS	8	7	7	10
SCE RASS	8	9	9	8
REC				

Water heating system

Table 44 shows that the water heating fuel is primarily natural gas in both service territories (85 percent). This does not vary by income category.

Table 44 Percent with water heating system fuel by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Gas				
PG&E RASS	85	85	85	88
SCE RASS	86	87	87	87
REC	81	77	82	84
Electricity				
PG&E RASS	8	9	8	7
SCE RASS	11	10	11	10
REC	16	18	16	13
Solar				
PG&E RASS	1	1	1	2
SCE RASS	0	1	0	0
REC	0	0	0	1
Other				
PG&E RASS	5	6	6	4
SCE RASS	3	3	2	3
REC	3	5	2	2

Refrigerators and freezers

The likelihood of having two or more refrigerators and of having water and ice through the door of the main refrigerator increases with income (Table 45). An average of 15 to 17 percent of moderate-income customers have more than one refrigerator. Thirteen percent have ice and water through the door. In PG&E's service territory and in the statewide REC data, moderate-income customers were least likely to have refrigerators that were installed since 1990 and most likely to have a separate freezer. It appears that PG&E customers are more likely to have separate freezers than SCE customers. In the SCE territory, there are only small variations by income in the age of refrigerators and having a separate freezer.

Table 45 Percent with refrigerator and freezer characteristics by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have two or more refrigerators				
PG&E RASS	17	10	17	20
SCE RASS	15	9	15	20
REC	16	9	12	29
Main refrigerator has water and ice through the door				
PG&E RASS	16	9	13	22
SCE RASS				
REC	18	9	17	28
Main refrigerator installed since 1990				
PG&E RASS	77	79	75	79
SCE RASS	78	80	78	77
REC	65	65	62	70
Have separate freezer				
PG&E RASS	29	25	31	27
SCE RASS	16	14	15	18
REC	14	9	18	16

Refrigerator sizes increase with income (Table 46). Moderate-income customers, 71 percent in PG&E's and 85 percent in SCE's service territory, are most likely to have refrigerators between 17 and 22 cubic feet. It appears that the SCE territory has fewer refrigerators over 22 cubic feet.

Table 46 Percent of household by size of main refrigerator and income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Less than 17 cubic feet				
PG&E RASS	13	23	12	8
SCE RASS	10	17	10	7
REC				
17 to 22 cubic feet				
PG&E RASS	68	65	71	67
SCE RASS	81	77	85	81
REC				
More than 22 cubic feet				
PG&E RASS	20	12	17	25
SCE RASS	9	6	5	13
REC				

Lighting

Households having a compact fluorescent bulb and the number of compact fluorescent bulbs per household increases slightly with income but the differences are very small (Table 47). Between 17 and 31 percent of households report having an average of between 2.4 and 2.7 compact fluorescent bulbs.

Table 47 Percent ownership of CFLs by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have CFLs				
PG&E RASS	30	28	31	31
SCE RASS	19	17	19	22
REC				
Number of CFLs used				
PG&E RASS	2.7	2.4	2.7	2.8
SCE RASS	1.9	1.8	1.9	2.1
REC				

Other end-uses

When we examine other end-uses such as having a clothes washer, clothes dryer, dishwasher, laser printer, heated waterbed, and water pump, we see a number of differences between moderate-income and upper middle and lower income households (Table 48). With respect to clothes washers, dryers, and dishwashers, roughly 78, 75 and 60 percent of moderate-income customers have these appliances respectively. Modestly higher percentages of upper-middle-income households have these appliances. Substantially fewer low-income households have these appliances. Ownership of laser printers increases with income. Ownership of waterbed heaters, dehumidifiers and electric water pumps is comparable across income groups.

Table 48 Percent ownership of other end-uses by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have clothes washer				
PG&E RASS	80	63	80	85
SCE RASS	76	63	76	84
REC	61	41	63	81
Have clothes dryer				
PG&E RASS	76	54	77	84
SCE RASS	70	50	71	83
REC	57	36	59	80
Have dishwasher				
PG&E RASS	67	36	63	83
SCE RASS	58	31	55	79
REC	48	25	47	75
Have a heated waterbed				
PG&E RASS	8	7	8	8
SCE RASS	7	5	7	8
REC	3	1	4	4
Have a laser printer				
PG&E RASS	12	3	7	18
SCE RASS	13	4	9	23
REC	13	5	9	27
Have a dehumidifier				
PG&E RASS				
SCE RASS	2	3	2	3
REC				
Have an electric water pump				
PG&E RASS	9	9	10	8
SCE RASS	2	3	2	3
REC	3	3	4	3

Swimming pools and Jacuzzis

The likelihood of having swimming pools and Jacuzzis increases with income (Table 49). About seven percent of moderate-income households report having a swimming pool or Jacuzzi. About 75 percent of these households report having their pool on a time clock compared with 91 percent of upper-middle-income households.

Table 49 Percent with swimming pools and Jacuzzis by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have a swimming pool				
PG&E RASS	8	3	6	12
SCE RASS	10	5	8	16
REC	4	2	4	6
Swimming pool is heated (w/pool)				
PG&E RASS	28	13	17	32
SCE RASS				
REC	41	43	31	48
Swimming pool on time clock (w/pool)				
PG&E RASS	85	59	73	91
SCE RASS	84	74	74	91
REC				
Have a Jacuzzi or hot tub				
PG&E RASS	10	2	7	17
SCE RASS	11	4	7	19
REC	7	1	7	13

Insulation and residence shading

The number of households reporting having ceiling and wall insulation increases with income (Table 50). About 80 percent of moderate-income households report ceiling insulation while slightly more upper income households report having insulation in the ceiling. The same pattern holds true for wall insulation. Based on these data, it would appear that continued emphasis on insulation is appropriate in moderate and low-income sectors. About the same percent of households at each income level, 70 percent, report having shaded homes during the summer.

Table 50 Percent with type of insulation and residence shading by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Have ceiling insulation				
PG&E RASS	82	70	83	86
SCE RASS	78	67	80	84
REC				
Have wall insulation				
PG&E RASS	67	53	64	74
SCE RASS	63	57	60	72
REC				
Have both ceiling and wall insulation				
PG&E RASS	59	42	56	67
SCE RASS	55	46	52	64
REC				
Residence is shaded during the summer				
PG&E RASS	71	68	73	71
SCE RASS				
REC	41	35	39	50

Residence size and age

The size and age of moderate-income customers' residences are presented in Table 51. Residence size increases with income while the age of the residence tends to decrease somewhat with income. Moderate-income households report residences that are about 1350 square feet and an average of 29 years old. It appears that residences in the SCE territory are slightly newer than those in the PG&E territory.

Table 51 Residence size and age by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Square feet of heated space				
PG&E RASS	1,447	1,064	1,336	1,660
SCE RASS	1,444	1,115	1,359	1,707
REC	1,337	982	1,311	1,754
Age of residence				
PG&E RASS	31	32	31	29
SCE RASS	27	28	28	25
RECs	32	34	35	27

Household characteristics

The likelihood of having a head of household who is female decreases with income (Table 52). About 58 percent of low-income, 53 percent of moderate-income households, and 36 percent of upper-middle and upper-middle-income households are likely to be headed by a female. The likelihood of having a head of household who is employed full-time increases with income while the likelihood of having a head of household who is employed part-time or not employed decreases with income. Female household heads may respond differently to energy efficiency programs than households with male heads. This may need to be considered in program design.

Table 52 Percent head of household characteristics by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Head of household is female	50	58	53	36
Head of household is employed full-time	49	29	48	73
Head of household is employed part-time	11	17	12	4
Head of household is not employed (unemployed/retired/disabled)	40	54	41	23

* REC data only

The number of overall occupants and occupants by age group decreases with income except for the number of occupants 65 and older (Table 53).

Table 53 Average numbers of occupants by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Number of total occupants				
PG&E RASS	2.6	3.2	2.6	2.4
SCE RASS	3.0	3.6	3.0	2.6
REC	2.8	3.3	2.6	2.5
Number of occupants 18 and younger				
PG&E RASS	0.7	1.2	0.7	0.5
SCE RASS	0.9	1.3	0.9	0.6
REC				

	Overall	Low-income	Moderate-income	Upper middle-income and above
Number of occupants 18 or older				
PG&E RASS	2.0	2.0	2.0	1.9
SCE RASS	1.7	1.9	1.6	1.7
REC				
Number of occupants 65 and older				
PG&E RASS	0.4	0.4	0.5	0.2
SCE RASS	0.4	0.4	0.5	0.3
REC	0.4	0.3	0.5	0.3

The likelihood of having a household with one adult (any age) and children and a household with more than one adult (any age) and children decreases with income (Table 54). The likelihood of having a household with one adult (between 19-64) and no children and a household with more than one adult (between 19-64) and no children increases with income. Compared to other income groups in PG&E's service territory, moderate-income customers are most likely to have households with more than one adult (where at least one is 65+) and no children.

Table 54 Percent of family characteristics by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
1 adult (any age) and children				
PG&E RASS	4	12	5	2
SCE RASS	8	14	9	5
REC				
2+ adults (any age) and children				
PG&E RASS	30	38	32	28
SCE RASS	43	52	48	35
REC				
1 adult (19-64) and no children				
PG&E RASS	13	10	11	17
SCE RASS	12	7	12	15
REC				
2+ adults (all 19-64) and no children				
PG&E RASS	28	14	22	39
SCE RASS	26	17	21	37
REC				

	Overall	Low-income	Moderate-income	Upper middle-income and above
1 adult (65+) and no children				
PG&E RASS	8	12	12	3
SCE RASS	7	6	7	6
REC				
2+ adults (at least 1 is 65+) and no children				
PG&E RASS	16	15	20	11
SCE RASS	3	4	3	3
REC				

Energy usage and degree days

Energy usage in kWh and therms increases with income (Table 55). According to the REC data, moderate-income households use about 6,000 kWh and 500 therms per year. In addition, moderate-income households tend to be located in areas with fewer heating degree days (HDD) than low-income households and more heating degree days than high-income households (Table 56).

Table 55 Energy usage by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Annual kWh use	6,078	5,202	5,981	7,238
Annual therm use	486	428	490	542
Mean Annual HDD	1,918	2,017	1,910	1,814
HDD - below 1200	40	44	36	40
HDD - from 1200 to 3000	52	44	57	54
HDD - over 3000	8	12	7	6
Mean Annual CDD	1,136	1,128	1,126	1,157
CDD - less than 1200	51	50	52	51
CDD - over 1200	49	50	48	49

* REC data only HDD stands for heating degree days and CDD for cooling degree days. Although definitions of heating and cooling degree days vary, a heating degree day is usually calculated as the difference between 65°F and any average daily outdoor temperature less than 65° F. A CDD is usually calculated as the difference between the outdoor temperature and any average daily temperature of 75°F or greater.

Bill payment

Moderate and upper-middle-income households (90 percent) are likely to pay for their own utilities (Table 56). Low-income households are more likely than other income groups to have some or all of their utility bill paid by the landlord (13 percent). Thus, at least in the moderate-income group, split incentives are not an issue.

Table 56 Percent of bill payment by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
All energy utilities paid by household	84	71	90	91
Some energy utilities paid by household	8	13	4	6
All energy utilities paid by landlord	7	14	4	3

* REC data only

Awareness of Energy Star and other energy labels

The level of Energy Star logo/label awareness increases with income (Table 57). Awareness is highest among upper-middle-income customers (50 percent) and about 36 percent among moderate-income customers. The likelihood of having seen Energy Star on a computer, room/window air conditioner, or central air conditioner also increases with income. About a fifth of the moderate-income population report having seen a label on a computer monitor or air conditioner. In addition, familiarity with and the influence of yellow energy information appliance labels increases with income. These data suggest that awareness of Energy Star increased from the 1997 REC survey to the 2000 Energy Star survey but that moderate and low-income customers are much less aware than upper middle-income customers and that there is substantial room for improvement among all customers.

Table 57 Percent awareness of Energy Star and other energy labels by income type

	Overall	Low-income	Moderate-income	Upper middle-income and above
Aware of the Energy Star logo/label				
REC	34	18	36	50
National Energy Star Survey		31	37	56
Has seen Energy Star on a computer monitor				
REC	14	5	13	27
National Energy Star Survey		13	19	42
Has seen Energy Star on a dishwasher				
REC	4	0	4	8
National Energy Star Survey		16	15	26
Has seen Energy Star on a refrigerator				
REC	11	5	14	12
National Energy Star Survey		16	19	24

	Overall	Low-income	Moderate-income	Upper middle-income and above
Has seen Energy Star on a room/window AC				
REC	2	1	2	2
National Energy Star Survey		0	11	17
Has seen Energy Star on a central AC				
REC				
National Energy Star Survey		10	11	22
Has seen yellow energy information label on home appliances				
REC	62	44	65	78
National Energy Star Survey				
Has read the yellow energy information label				
REC	41	21	44	60
National Energy Star Survey				
Yellow energy information label has influenced a purchase decision				
REC	30	14	32	47
National Energy Star Survey				

Summary of key findings for moderate-income customers

- Moderate-income customers are more likely than high-income customers to live in city/urban areas and towns and less likely than high-income customers to live in suburban areas.
- The likelihood of having gas as the primary heating fuel increases with income while the likelihood of having electricity as the primary heating fuel decreases with income.
- The likelihood of having central air conditioning increases with income while the likelihood of having window air conditioning decreases with income.
- About 20 percent of moderate-income customers do not own a washer or dryer and about 35 percent do not own a dishwasher.
- Moderate-income customers are most likely to have refrigerators of average size (between 17 and 22 cubic feet). Only modest percentages have water and ice through the door. A fairly substantial proportion of refrigerators have been purchased since 1990, which means that the refrigerator stock is relatively efficient.
- The number of occupants, overall and by age group, decreases with income, except for the number of occupants 65 and older, which is highest among moderate-income customers.

Compared to other income groups in PG&E's service territory, moderate-income customers are most likely to have households with more than one adult (where at least one is 65+) and no children.

Multifamily housing and mobile homes

About a third of the households in California live in multifamily housing units. In this chapter we examine the characteristics of these housing units as well as the characteristics of mobile homes. The PG&E data allow us to examine multifamily units in large and small complexes to see what differences there might be. The SCE data only allow us to examine complexes as two or more units.

In the earlier chapter on the location of hard-to-reach groups we noted some differences in the types of people who might live in small and large complexes. Because of data constraints, the definition of what is a small and large complex has shifted. In this chapter, small complexes are defined as complexes with two to five units. Large complexes are five and more units.

Also, because we are dealing with housing in this section, we can discuss mobile homes at the same time we discuss small and large apartment complexes.

The location of multifamily housing

As one might expect, multifamily dwellings are concentrated in urban areas. Multifamily dwellings can include condominiums. According to the RECS data, 91 percent of multifamily units in small complexes and 78 percent of multifamily units in large complexes are located in city/urban areas (Table 58). Larger multifamily complexes are also located in suburban areas and towns while the smaller complexes are located in city and urban centers. This is consistent with the idea of duplexes/triplexes being in older parts of cities and large older homes being converted to apartments.

The percentage of mobile homes in city and urban locations is higher than we expected. In the survey from which this data is reported, location was self-reported by the respondents. The high percentage of mobile homes in city/urban areas may reflect respondents having interpreted city/urban to mean small city. Suburban areas have the fewest mobile homes.

Table 58 Housing type by urban/rural location

	Overall	Mobile	Single Family	Multifamily (2-5 units)	Multifamily (5 or more units)
City/Urban	70	49	67	91	78
Rural	6	20	8	3	1
Suburban	11	5	13		7
Town	13	26	13	6	14

* REC data only

Home ownership

The PG&E service territory appears to have the most single family dwellings, followed by the SCE service territory, and then by SDG&E. The high percentage of multifamily dwellings in the SDG&E service territory is probably influenced by the very substantial military presence, which is a mobile population.

Home ownership in the form of condominium ownership is far less prevalent in multifamily dwellings (4-26 percent) than it is in single family (72-85 percent) or mobile home (80-87 percent) settings (See Table 59 below). These data suggest that when there is ownership in multifamily units such as condominiums, the condominiums are in smaller rather than larger complexes although in absolute terms the number of owned units in large multifamily complexes may be larger than the number in small complexes. Note that between 10 and 20 percent of mobile homes are rental units and that a higher percentage of mobile homes are being rented in the PG&E services territory. About 15 percent of single-family units are rented.

Table 59 Home ownership by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Own/Buying						
PG&E RASS	68	80	85	26	14	
SCE RASS	64	89	81			19
SDG&E	53	97	78	29	11	
REC	54	87	72	4	4	
Rent						
PG&E RASS	32	20	15	74	86	
SCE RASS	36	11	19			81
SDG&E	47	3	22	71	89	
REC	46	9	27	97	96	

Heating system

Heating system characteristics vary by the type of housing (Table 60 and Table 61). In the PG&E and SDG&E service territories, multifamily units in larger complexes are more likely to report having electricity as their primary heating fuel than other household types. Multifamily housing in the smaller complexes are more likely to report having natural gas. In the SCE service territory, the percentage of mobile home households reporting that they use natural gas is about the same as for single-family households. In the PG&E service territory, higher percentages of mobile home users report using electricity or some other fuel for heating than do households in either the SCE or SDG&E service territories.

Table 60 Primary heating system fuel by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Natural Gas						
PG&E RASS	78	56	81	84	62	
SCE RASS	81	88	86			68
SDG&E	62	77	79	66	29	
REC	68	63	76	78	44	
Electricity						
PG&E RASS	15	18	11	13	35	
SCE RASS	14	5	9			31
SDG&E	26	8	12	18	48	
REC	25	18	17	22	51	
Other/no system						
PG&E RASS	7	26	8	3	4	
SCE RASS	5	7	5			2
SDG&E	12	15	9	16	23	
REC	7	19	7	0	5	

Heating systems are most likely to have been installed in homes (about 50 percent) in the PG&E service territory prior to 1980. Heating systems in the SCE territory appear to be more recent (Table 61) judging from when households say heating systems were installed. However, the average age of heating systems in the SCE service territory is greater than that for the PG&E service territory suggesting that the oldest heating systems in the SCE territory are older than those in the PG&E service territory. Within service territories the age of heating systems does not vary by housing type.

Table 61 Primary heating system age by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Installed in 1990s						
PG&E RASS	26	23	26	22	25	
SCE RASS	37	28	38			35
REC	30	39	32	31	20	
Installed in 1980s						
PG&E RASS	29	27	28	29	32	
SCE RASS	30	38	29			30
REC	25	37	25	13	25	
Installed before 1980						
PG&E RASS	55	50		54	43	
SCE RASS	34	34	33			34
REC	45	24	43	56	55	

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Age of main heating system						
PG&E RASS	13.5	14.2	13.4	14.1	13.3	
SCE RASS	16.3	16.0	16.2			16.6
REC	16.00	13.13	15.68	16.04	17.58	

Cooling system and fans

Mobile homes are more likely to have air conditioning than other types of housing units (Table 62). Multifamily units are slightly less likely to have air conditioning (68 percent) than units in general (63- 67 percent). The PG&E, SCE, and SDG&E data indicate that multifamily units are somewhat more likely to have window air conditioning (20 and 25 percent, respectively, than housing in general (16 and 18 percent, respectively). In relative terms, the SDG&E service territory has less air conditioning than the other service territories. This may reflect the percentage of the population living in the moderate coastal climate areas. Only a small percentage of housing units, around one to two percent, have more than one window air conditioning unit.

Table 62 Cooling system characteristics by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Have some type of air conditioning						
PG&E RASS	68	82	68	63	67	
SCE RASS	67	87	68			61
SDG&E						
REC	41	42	39	21	51	
Have central air conditioning						
PG&E RASS	54	65	55	45	49	
SCE RASS	41	47	45			33
SDG&E	29	63	31	21	27	
REC	29	28	29	7	31	
Have window air conditioning						
PG&E RASS	16	20	15	20	20	
SCE RASS	18	5	16			25
SDG&E	15	15	12	9	22	
REC	13	14	10	15	19	
Have more than one window air conditioning						
PG&E RASS	2	3	2	1	1	
SCE RASS	4	1	5			3

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
SDG&E						
REC	1	0	2	0	0	
Have both central and window air conditioning						
PG&E RASS	2	3	3	1	1	
SCE RASS	1	0	1			1
SDG&E						
REC	1	0	0	0	1	
Age of primary air conditioning						
PG&E RASS	10.9	12.2	11.0	10.4	9.8	
SCE RASS	11.1	13.6	10.9			11.1
SDG&E	9.9	11	9.8	9.6	11.2	
REC	12	12.43	9.98	9.00	15.89	

Ceiling fans are far less common in multifamily settings than in single-family housing. RECS indicates an average 0.15 and 0.17 ceiling fans (per dwelling) in the two multifamily housing types, compared to an average 1.09 ceiling fans per single family dwelling. In the PG&E service territory, the percentage of multifamily units having ceiling fans is about half that of single-family dwellings. In the SCE territory, the percentage of households with ceiling fans is about 60 percent of that of single-family households. Ceiling fans are found less often in households in the SCE territory than in the PG&E service territory and most often in the SDG&E service territory. It appears that there is a higher penetration of ceiling fans in the mobile homes and multifamily housing in the SDG&E service territory than in the other service territories. This may be a function of climate. Depending on the service territory, between 45 and 40 percent of mobile homes have ceiling fans.

Whole house fans are present in five percent of multifamily households and nine percent of single-family households (See Table 63 below).

Table 63 Fan ownership by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Have ceiling fan(s)						
PG&E RASS	52	46	60	28	24	
SCE RASS	46	43	52			32
SDG&E	60	59	60	47	42	
REC	41	36	51	15	17	
Mean Number of ceiling fans						
PG&E RASS						
SCE RASS						

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
SDG&E						
REC	0.81	0.57	1.09	0.15	0.17	
Have whole house fan						
PG&E RASS	8	5	9	5	5	
SCE RASS	8	10	9			8
SDG&E	9	3	12	5	5	
REC						

Water heating system

Table 64 shows that high percentages (85 – 95 percent) of multifamily units in the PG&E service territory use natural gas for their water heating fuel. These percentages appear to be much lower in the SDG&E service territory. However, a high percentage of the SDG&E multifamily households report a common hot water source than individual units. Only about 75 percent of multifamily units use gas for water heating in the SCE service territory. It appears that larger multifamily complexes are more likely to use electric units to heat water than smaller complexes.

Nearly the same percent of mobile homes as single-family homes heat water with natural gas in the SCE territory. However, in the SDG&E and PG&E service territory between 20 and 30 percent of mobile home households report using other fuels.

Table 64 Water heating system fuel by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Natural Gas						
PG&E RASS	85	58	85	94	85	
SCE RASS	86	86	89			74
SDG&E	61	65	77	65	32	
REC	81	63	83	89	76	
Electricity						
PG&E RASS	8	14	8	5	13	
SCE RASS	11	7	8			24
SDG&E	10	10	8	13	17	
REC	16	15	14	11	22	
Solar						
PG&E RASS	1	0	2	1	1	
SCE RASS	0	0	0			1
SDG&E	<1		<1	<1		
REC	0	0	0	0	1	

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Other / no response						
PG&E RASS	5	29	5	1	1	
SCE RASS	3	8	2			2
SDG&E	26	18	12	16	51	
REC	3	22	3	0	1	

Refrigerators and freezers

As one might expect, most multifamily units do not have more than one refrigerator (Table 65). However, if there is more than one refrigerator in a multifamily unit, the unit is likely to be in a smaller complex in the PG&E service territory and a larger complex in the SDG&E service territory. The same is true of households that have a separate freezer. Between 10 and 16 percent of mobile homes have a second refrigerator and 16 and 33 percent have a freezer.

On average, single-family households have larger refrigerators (Table 66) and are more likely to have units with ice and water through the door. At least in the SCE and PG&E service territories, mobile homes tend to have the smallest refrigerators and are not very likely to have ice and water through the door. This appears not to be the case in the SDG&E service territory.

Table 65 Refrigerator and freezer characteristics by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multi-family (2 or more units)
Have two or more refrigerators						
PG&E RASS	17	16	22	9	2	
SCE RASS	15	10	21			4
SDG&E	14	13	21	3	7	
REC	16	2	22	0	3	
Main refrigerator has ice through the door						
PG&E RASS	16	7	21	6	3	
SCE RASS						
SDG&E						
REC	18	7	25	0	1	
Main refrigerator installed since 1990						
PG&E RASS	77	70	77	76	83	
SCE RASS	78	65	77			83
SDG&E						
REC	65	56	67	59	64	

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multi-family (2 or more units)
Have separate freezer						
PG&E RASS	29	33	35	14	7	
SCE RASS	16	16	20			6
SDG&E	18	20	26	6	9	
REC	14	8	21	0	0	

It appears that the refrigerators in rental complexes are newer than in single family and mobile homes. The largest complexes appear to have the highest percentage of units with new refrigerators. More than other housing types, multifamily units tend to have refrigerators that are the less efficient pre-1990 units.

Table 66 Size of main refrigerator by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multi-family (2 or more units)
Less than 17 cubic feet						
PG&E RASS	13	22	9	19	26	
SCE RASS	10	16	7			17
SDG&E	8	10	4	12	14	
REC						
17 to 22 cubic feet						
PG&E RASS	68	67	68	72	69	
SCE RASS	81	80	82			79
SDG&E (17 to 20 cubic feet)	57	69	52	66	71	
REC						
More than 22 cubic feet						
PG&E RASS	20	11	24	10	6	
SCE RASS	9	3	11			4
SDG&E (> 20 cubic feet)	30	22	43	22	15	
REC	2	0	2	0	1	

Lighting

Multifamily households in PG&E and SDG&E's service territory are slightly less likely to have CFLs than are PG&E and SDG&E single-family households (Table 67). PG&E households with CFLs that are located in large multifamily complexes have fewer bulbs, 2.1 per household, than households in smaller complexes which have 2.4 bulbs per household, than do single family households which have 2.8 bulbs per household. In general, fewer SCE households have CFLs. The percentage of mobile home households that have bulbs is about the same as for single-family households. The number of bulbs per household in mobile homes is about the same as for single-family households.

The RECS data show that multifamily dwellings have an average 0.42 to 0.45 indoor lights on more than 12 hours per day, while single family households have an average 0.81 lights on.

Table 67 Ownership of CFLs by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Have CFLs						
PG&E RASS	30	30	33	24	23	
SCE RASS	19	22	20			19
SDG&E	23	17	28	20	15	
REC						
Number of CFLs used						
PG&E RASS	2.7	3.0	2.8	2.4	2.1	
SCE RASS	1.9	1.8	1.9			1.9
SDG&E						
REC						
Number of indoor lights on 12 hours per day or more						
PG&E RASS						
SCE RASS						
SDG&E						
REC	0.71	0.87	0.81	0.42	0.45	

Other end-uses

When it comes to other end use appliances, 90 to 95 percent of single family dwellings have clothes washers and dryers. About a quarter to more than a third of multifamily units in large complexes and half to two thirds of multifamily units in small complexes have clothes washers and dryers (Table 68). We do know that developers of multifamily complexes are increasingly installing washers and dryers in dwelling units and that renters do more loads of wash when they do not have to go to a public machine. About 80 percent of mobile home households have washers and dryers and therefore are more like single family households.

Multifamily households in California are less likely to have dishwashers than single family households although this disparity is not quite as large as for clothes washers. Mobile homes and to a lesser extent, single family homes, are likely to have water pumps.

More single-family households (about 13 percent) than multifamily households report having a laser printer (about 5 percent). There is little difference in the presence of waterbeds and dehumidifiers among the housing types.

Table 68 Ownership of other end-uses by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Have clothes washer						
PG&E RASS	80	79	95	52	26	
SCE RASS	76	80	94			34
SDG&E	73	89	94	68	37	
REC	61	49	83	17	7	
Have clothes dryer						
PG&E RASS	76	72	90	46	25	
SCE RASS	70	76	88			30
SDG&E	72	80	84	52	39	
REC	57	49	78	11	7	
Have dishwasher						
PG&E RASS	67	49	73	46	52	
SCE RASS	58	53	64			48
SDG&E	63	65	72	49	59	
REC	48	17	56	24	34	
Have a heated waterbed						
PG&E RASS	8	6	9	6	3	
SCE RASS	7	2	8			5
SDG&E						
REC	3	0	5	2	0	
Have a laser printer						
PG&E RASS	12	5	13	6	9	
SCE RASS	13	5	16			7
REC	13	3	15	10	9	
Have a dehumidifier						
PG&E RASS						
SCE RASS	2	2	2			3
SDG&E						
REC						
Have an electric water pump						
PG&E RASS	9	24	11	2	2	
SCE RASS	2	2	2			3
SDG&E	2	6	2	<1	<1	
REC	3	13	4	3	0	

Insulation and residence shading

Multifamily dwellings in California are somewhat less likely to have ceiling and wall insulation than single family or mobile dwellings (Table 69). Mobile homes may be slightly less well insulated in the PG&E service territory and as well or slightly better insulated in the SCE service territory.

The RECS data indicate that afternoon shade trees are less prevalent in multifamily settings (20-23 percent) than in single family (48 percent) or mobile home (39 percent) settings.

Table 69 Type of insulation and residence shading by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multi-family (5 or more units)	Multi-family (2 or more units)
Have ceiling insulation						
PG&E RASS	82	81	87	62	54	
SCE RASS	78	72	84			59
REC						
Have wall insulation						
PG&E RASS	67	78	68	50	58	
SCE RASS	63	66	65			58
REC						
Have both ceiling and wall insulation						
PG&E RASS	59	69	63	38	36	
SCE RASS	55	54	59			43
REC						
Residence is shaded during the summer (or shade trees)						
PG&E RASS	71	72	71	69	72	
SCE RASS						
RECS (shade trees only)	41	39	48	20	23	

Residence size and age

As might be expected, multifamily dwellings throughout California are smaller, with estimated average sizes ranging between 711-1,079 square feet depending on the data source, size of complex and service territory, than single-family residences with estimated sizes ranging between 1,591-1,747 square feet (Table 70). These data suggest that households in large multifamily complexes typically have between 700 and 950 square feet. In the PG&E and SDG&E service territories, it appears that units in small complexes are larger, about 1,100 square feet, than units in large complexes, about 870 square feet. The larger sized units in smaller complexes may reflect units in larger older

buildings. In the SCE service territory, multifamily dwellings in smaller complexes are about the same size as those in larger complexes. Mobile homes in the SCE and PG&E service territories are 1,100 square feet but those in the SDG&E are about 200 square feet larger.

These data also show that in the PG&E service territory the multifamily units in small complexes are much older than multi family units in larger complexes. Multifamily units in the SCE territory appear to be much newer than units in the PG&E service territory. On average, mobile homes appear to be the newest housing stock with an average age of about 21 years.

Table 70 Residence size and age by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Square feet of heated space						
PG&E RASS	1,447	1,137	1,619	1,079	879	
SCE RASS	1,444	1,137	1,696			933
SDG&E	1395	1303	1747	1082	857	
REC	1,337	844	1,591	711	725	
Age of residence						
PG&E RASS	30.5	21.7	31.3	36.2	25.2	
SCE RASS	26.9	21.4	29.1			22.8
SDG&E	26	22.8	30.1	27.4	19.5	
REC	32.3	24.2	34.0	34.6	28.5	

Household characteristics

The household characteristics of renters are presented in Table 71, Table 72, and Table 73. Multifamily households in California are more likely to have a head of household who is female (53-67 percent of the households). Part-time employment is less prevalent in larger complexes (11 percent) when compared to smaller complexes (20 percent). Also, large multi-family units have a higher percent of heads of households who are unemployed/retired/disabled (42 percent) than smaller multifamily units (33 percent). Full-time employment for heads of households is around 50 percent for all housing types except mobile homes where it is 27 percent.

Table 71 Head of household characteristics by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Head of household is female	50	56	47	67	53	
Head of household is employed full-time	49	27	51	47	47	

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Head of household is employed part-time	11	20	10	20	11	
Head of household is not employed (unemployed/retired/disabled)	40	54	39	33	42	

* RECS data only

In general, mobile homes have the fewest occupants, about 2.0 persons per household. Single-family dwellings have the most, about 3.0 persons per household. At least in the PG&E service territory, large complexes have fewer occupants per unit than smaller complexes. This is consistent with some of the information from the segmentation data in Chapter 6 that shows large complexes have many singles while smaller complexes often have a single with children or a married couple.

Single-family housing has slightly more occupants and children less than 18 years of age per unit. Senior citizens (over 65 years old) are somewhat more prevalent in single-family housing (0.4-0.42 individuals per unit) as they are in multifamily (0.2-0.3).

Table 72 Average numbers of occupants by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Average number of occupants						
PG&E RASS	2.6	2.1	2.8	2.4	2.0	
SCE RASS	3.0	1.9	3.2			2.6
REC	2.78	2.25	2.97	2.65	2.35	
Average number of occupants less than 18 years old						
PG&E RASS	0.7	0.4	0.7	0.6	0.4	
SCE RASS	0.9	0.3	1.0			0.8
REC						
Average number of occupants 18 and older						
PG&E RASS	2.0	1.8	2.1	1.8	1.6	
SCE RASS	1.7	0.8	1.9			1.6
REC						
Average number of occupants 65 and older						
PG&E RASS	0.4	0.7	0.4	0.2	0.2	
SCE RASS	0.4	0.9	0.4			0.2
REC	0.38	0.55	0.42	0.03	0.25	

Multifamily units in large complexes are most likely to have one or two adults with no children (75 percent of units). Multifamily units in smaller complexes are more likely to

have children than units in larger complexes (32 percent versus 35 percent). Single-family units are most likely to have adults and children.

With respect to mobile homes, the mobile homes in the SCE service territory are more likely to be occupied by singles than those in the PG&E service territory (43 percent versus 27 percent). Further, the singles tend to be less than 65 years of age. Compared to the SCE service territory, the mobile homes in the PG&E service territory are more likely to be occupied by couples (48 to 33 percent) and many of the occupants in the PG&E territory tend to be over 65 years of age and probably retired.

Table 73 Family characteristics by housing type

	Overall	Mobile	Single family	Multi family (2-5 units)	Multi family (5 or more units)	Multi family (2 or more units)
1 adult (any age) and children						
PG&E RASS	4	3	3	8	8	
SCE RASS	8	11	7			11
REC						
2+ adults (any age) and children						
PG&E RASS	30	16	34	24	17	
SCE RASS	43	20	49			34
REC						
1 adult (19-64) and no children						
PG&E RASS	13	14	8	23	33	
SCE RASS	12	23	6			25
REC						
2+ adults (all 19-64) and no children						
PG&E RASS	28	21	29	28	24	
SCE RASS	26	24	27			27
REC						
1 adult (65+) and no children						
PG&E RASS	8	19	7	10	12	
SCE RASS	7	20	8			3
REC						
2+ adults (at least 1 is 65+) and no children						
PG&E RASS	16	27	19	7	6	
SCE RASS	3	3	4			1
REC						

Energy usage and degree days

Energy use and climatic conditions of multifamily housing in California are presented in Table 74. Households in multifamily dwellings use less energy, both in terms of kWh and therms than households in other housing types. This is undoubtedly a function of the size of the units, the fact that they have fewer occupants, the connectivity of units which reduces thermal losses, perhaps their location, and perhaps fewer hours of occupation. Multifamily housing is located in areas with fewer heating degree days (HDD). Cooling degree days are comparable between single and multifamily.

Households in mobile homes use less electricity but more gas. This reflects the fact they tend to be located in colder climate zones with more heating degree days and fewer cooling degree days.

Table 74 Energy usage and degree days by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Annual kWh use	6,078	5,112	7,001	3,764	3,992	
Annual therm use	486	611	553	352	277	
Mean Annual HDD	1,918	3,484	1,929	1,494	1,673	
HDD - below 1200	40	10	37	61	50	
HDD - from 1200 to 3000	52	52	56	36	44	
HDD - over 3000	8	38	8	3	5	
Mean Annual CDD	1,136	647	1,141	1,051	1,228	
CDD - less than 1200	51	78	52	63	39	
CDD - over 1200	49	22	48	38	61	

* RECS data only

Bill payment

Landlords are more likely to pay at least some of the energy bills in larger multifamily complexes than in smaller multifamily complexes. About 68 percent of renters in multifamily units pay their own energy bills (Table 75). It is not clear why such a small percentage of mobile home residents appear not to pay their own utility bills.

Table 75 Bill payment by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
All energy utilities paid by household	84	30	95	73	63	
Some energy utilities paid by household	8	14	1	16	24	
All energy utilities paid by landlord	7	46	3	6	12	

* RECS data only

Awareness of Energy Star and other energy labels

Awareness of Energy Star among households is presented in Table 76. The National Energy Star Survey (NESS) data indicate that the multifamily residents are about as likely (50 percent) as single-family residents to be aware of the Energy Star logo/label. However, the RECS data indicate that awareness is higher (39 percent) among single-family residents than among multifamily residents (21-27 percent). RECS data also show that multifamily residents are less likely to have seen the Energy Star logo/label on a refrigerator or dishwasher. However, both the RECS and NESS data show that multifamily residents are more likely to have seen the Energy Star label on a room AC (six percent) when compared to single-family residents (0 percent).

RECS data indicate that multifamily residents are less likely to have seen, read, or used (as a purchasing aide) the yellow energy information label on household appliances.

Table 76 Awareness of Energy Star and other energy labels by housing type

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Aware of the Energy Star logo/label						
RECS	34	15	39	21	27	
National Energy Star Survey	48	27	52	50	48	
Has seen Energy Star on a computer monitor						
RECS	14	5	16	10	12	
National Energy Star Survey	24	14	35	38	30	
Has seen Energy Star on a dishwasher						
RECS	4	3	5	0	0	
National Energy Star Survey	13	14	23	17	11	
Has seen Energy Star on a refrigerator						
RECS	11	3	13	2	5	
National Energy Star Survey	26	17	38	17	20	
Has seen Energy Star on a room/window air conditioning						
RECS	2	0	1	5	2	
National Energy Star Survey	7	0	16	0	6	

	Overall	Mobile	Single family	Multifamily (2-5 units)	Multifamily (5 or more units)	Multifamily (2 or more units)
Has seen Energy Star on a central air conditioning RECS National Energy Star Survey	11	14	28			
Ever seen yellow-colored energy info label on home appliance? RECS National Energy Star Survey	62	53	70	52	43	
Ever actually read the info on a yellow energy info label? RECS National Energy Star Survey	41	21	49	22	25	
Has info on yellow energy info label ever influenced a purchase decision? RECS National Energy Star Survey	30	26	37	10	16	

Summary of key findings for multifamily households

- Asians and Hispanics live in multifamily units more frequently than do Whites.
- Multifamily dwellings are concentrated in urban areas.
- There is a higher proportion of Spanish and other non-English speaking families located in multifamily units than in single family or mobile homes.
- Lower income families are more prevalent in multifamily dwellings, while middle-income families are also present in large numbers in multifamily dwellings.
- Homeownership is far less prevalent in multifamily dwellings than it is in single-family or mobile home settings.
- Multifamily households in complexes containing five or more units are more likely to have electricity as their primary heating fuel than any other housing type. Alternatively, multifamily units having two to four units are less likely to have electric heat.
- The SCE RASS data show that multifamily housing is more likely to have window air conditioning.

- The RECS data indicate that multifamily complexes of two to five units only have some kind of air conditioning 21 percent of the time and 51 percent of the time for multifamily complexes of five or more units. The RECS data also indicate that multifamily complexes of five or more units have air conditioning that is older than the average, at 15.86 years.
- Ceiling fans are less common in multifamily settings than in single-family housing.
- Multifamily dwellers in both PG&E and SCE's service territory are less likely to have two or more refrigerators, less likely to have refrigerators with through the door water and ice, and less likely to have a separate freezer.
- Multifamily dwellers in both PG&E and SCE's service territory are more likely to have refrigerators with less than 17 cubic feet and less likely to have refrigerators with more than 22 cubic feet.
- The RECS data show that multifamily dwellings have an average 0.42 to 0.45 indoor lights on more than 12 hours per day, while single family households have an average 0.81 lights on.
- Multifamily households in California are less likely to have dishwashers than single-family ones. Multifamily dwellings in California are less likely to have electric water pumps (for drinking and irrigation) than mobile or single family homes.
- Multifamily dwellings are less likely to have a swimming pool than single-family households. However, when swimming pools are present in the multifamily setting, they tend to be heated.
- Multifamily dwellers in California are less likely to have a Jacuzzi or hot tub than single-family settings.
- Multifamily dwellings in California are somewhat less likely to have ceiling and wall insulation than single family or mobile dwellings.
- Multifamily dwellings in California are more likely to have a head of household who is female. Also, units in large multi-family complexes have a higher percentage of heads of householders who are unemployed/retired/disabled than units in smaller multifamily complexes.
- Multifamily households are more likely to have households with one adult (any age) and children when compared to single-family households. Multifamily households with one adult (between 19-64 years old) and no children are more common when compared to single-family households. Multi family households are somewhat less likely to have households with more than one adult (any age) and children than single-family homes.
- Multifamily housing does tend to be located in areas with fewer HDD.
- Multifamily households are less likely to have all energy utilities paid by the household than single family or mobile homes.
- Awareness of Energy Star is higher among single-family residents than among multifamily residents.

- Multifamily residents are less likely to have seen, read, or used (as a purchasing aide) the yellow energy information label on household appliances.

Rural

What constitutes a rural customer is difficult to define. Identifying what it is to be rural when one is far from a city seems less difficult although with electronic media and large-scale distribution systems the city has invaded the countryside. Urban culture and products are available nearly everywhere. Determining if an area is rural is much more difficult when one is outside the incorporated boundaries of a large city. Many people live in agricultural areas but commute to a city. The commute and the economic and social links to the city rather than ties to the local place define their life.

In this section we discuss the energy needs and preferences of rural customers. In the absence of a more specific definition, we relied on people's categorization of their locations. The 1997 US DOE Residential Energy Consumption Survey (RECS) data asked respondents whether they lived in a city/urban area, a suburban area, a town or a rural setting. In this chapter we examine energy characteristics based on the responses to this question.

Heating system

There is natural gas in some rural areas and slightly more than a quarter of rural customers use electricity for heating. Nearly half of rural customers say that they use other fuels such as propane, wood, kerosene, and fuel oil. This is important because it means that these customers do not have a distribution utility to which they might naturally turn for energy efficiency services.

Table 77 Primary heating system fuel by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Primary heating fuel is piped gas	68	71	24	83	64
Primary heating fuel is electricity	25	26	29	17	25
Primary heating fuel is other fuel	7	3	47	0	11

* RECS data only.

According to this data, heating systems in rural areas are among the newest. Fifty-six percent of rural respondents indicate that they have purchased systems since 1990. The average age of heating systems for rural households is 12.2 years compared with 15 or more for other groups (Table 78).

Table 78 Primary heating system age by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
1990s or newer	30	26	56	37	30
1980s	25	24	16	22	34
1970s or older	55	51	28	41	36
Mean age of main heating system (years)	16.0	16.7	12.2	15.0	15.1

* RECS data only.

Cooling systems and fans

Households in rural areas are less likely than urban and suburban areas to have any kind of air conditioning (Table 79). Some of the difference undoubtedly reflects location and climate. As we shall see, rural locations have significantly higher heating degree days and significantly fewer cooling degree days than urban locations. The average age of the units suggests that households in rural areas have purchased air conditioning quite recently. Rural households in California are less likely to have window air conditioners (2 percent) when compared to households in other locations (13 percent overall). Rural households that have window air conditioning tend to have older units (averaging 15 years in age).

Table 79 Cooling system characteristics by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Does the dwelling have some kind of air conditioning?	41	42	36	44	37
Does the dwelling have central air conditioning?	29	28	34	34	26
Does the dwelling have both central air conditioning and window air conditioning?	1	0	0	2	0
Mean age of air conditioning (years)	12	11.8	7.6	11.0	13.7
Does the dwelling have window air conditioning?	13	14	2	9	11
Homes that have more than one Window air conditioning	1	1	0	0	2
Mean age of window air conditioners (for those having at least one)	8.5	7.6	15.0	6.7	14.6

* RECS data only

Rural households (57 percent) are more likely than households overall (41 percent) to have ceiling fans. Rural households that have ceiling fans also have a high average number of ceiling fans per household (1.05) compared to the overall average of 0.81. Only suburban dwellings average more ceiling fans per home (1.16) than rural ones.

Table 80 Fan ownership by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Ceiling fan(s) in home?	41	37	57	57	41
Number of ceiling fans in home? (Mean of those having at least one fan)	0.81	0.73	1.05	1.16	0.86

* RECS data only

Water heating system

A near majority of rural households use electricity (46 percent) for water heating. This compares to 16 percent for electric water heaters overall.

Table 81 Water heating system fuel by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Water heating fuel is natural gas?	81	87	28	83	75
Water heating fuel is electricity?	16	12	46	16	19
Water heater fuel is solar?	0	0	0	1	0
Water heating fuel is other?	3	1	26	0	6

* RECS data only

Refrigerators and freezers

Twenty-three percent of rural households have two or more refrigerators (23 percent) compared to 16 percent of households in general (Table 82). Removing second refrigerators is a potential target for reducing rural household energy use. However, many second refrigerators in rural areas may be in mobile homes where the main refrigerator is smaller and a second refrigerator may be viewed as a necessity. Also, second refrigerators at mobile home sites may be in unconditioned space and this may adversely influence energy use.

Rural households report newer refrigerators than other households. For instance, only 21 percent of households would be eligible for a program in rural areas targeting refrigerators purchased before 1990. The percentage of rural households with main refrigerators with water and ice through the door is the same as the average for all households overall (18 percent).

Thirty-two percent of rural households have separate freezers. This is much higher than the overall average of 14 percent of homes with separate freezers.

Table 82 Refrigerator and freezer characteristics by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Two or more refrigerators	16	15	23	24	10
Refrigerators have water and ice through the door	18	17	18	24	14
Main refrigerator is 1990s or newer	65	64	79	67	64
Has separate freezer?	14	12	32	16	15

* RECS data only

Other end-uses

Rural households are more likely to have clothes washers (79 percent) and dryers (73 percent) than the average household (61 and 57 percent respectively). Fifty-five percent of rural households (Table 83) have an automatic dishwasher, compared to 48 percent of households overall. Seven percent of rural households have a heated waterbed. This is more than double the three percent overall average. However, rural households with heated waterbeds average 1.0 bed, while the overall average is 1.6. Twenty-two percent of rural households have laser printers. This is higher than the overall average of 13 percent. Water pumps used in drinking water, irrigation and livestock are most prevalent

in rural areas and uncommon elsewhere. Thirty-six percent of rural households have water pumps compared to only three percent of households overall.

Table 83 Household appliances by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Does the residence have a clothes washer?	61	55	79	83	63
Does the residence have a clothes dryer?	57	51	73	84	63
Does the residence have a dishwasher	48	43	55	71	48
Does the residence have a heated waterbed?	3	3	7	0	5
Number of waterbeds (Mean of those having at least one waterbed)	1.6	1.1	1.0	NA	2.4
Does the residence have a laser printer?	13	10	22	21	15
Does the residence have a water pump? (for drinking, irrigation, or livestock, excluding aquariums)	3	1	36	0	3

* RECS data only.

Swimming pools and Jacuzzis

Rural households have swimming pools in line with the overall average (45 percent), but there are almost zero swimming pools in rural areas. Jacuzzis, tubs, and spas are more common in rural households (13 percent) than the overall average of seven percent (Table 84).

Table 84 Swimming pools and jacuzzis by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Is there a swimming pool?	4	4	4	6	3
Is the pool heated?	2	2	0	6	0
Is the swimming pool on a time clock? (percent of those with pool only)					
Is there a Jacuzzi, tub or spa?	7	5	13	16	4

* RECS data only.

Residence characteristics

Rural homes (Table 85) tend to be slightly smaller in square footage (1,297 square feet) compared to the average size of a home in California (1,337 square feet). Afternoon sun shading trees are more prevalent in rural areas (53 percent) than they are on average in California (41 percent). Rural homes are slightly newer, 26.9 years compared to 32.3 for the average home in California.

Table 85 Residence characteristics by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Average square footage of heated space in home	1,337	1,258	1,297	1,803	1,397
Is the residence shaded in the summer (OR) shade tree?	41	36	53	55	48
Average age of house	32	34	27	29	29

* RECS data only.

Household characteristics

Female heads of households (Table 86) are less common in rural areas of California, than elsewhere. In rural areas, the head of household is employed full-time for 59 percent of rural households and part-time for another 11 percent. This compares to 49 percent and 11 percent for heads of households overall.

Table 86 Head of household characteristics by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Head of household is female	50	51	42	48	48
Head of household is employed full-time	49	46	59	61	49
Head of household is employed part-time	11	11	11	4	18
Head of household is unemployed or not employed (retired/disabled)	40	43	30	36	33

* RECS data only

Number of occupants

Rural households (Table 87) have slightly more occupants (2.94) than the average home in California (2.78). Senior citizens over 65 years of age are less prevalent in rural areas (an average 0.18 persons per home) than in homes overall, where an average 0.38 senior citizens live per household.

Table 87 Occupant characteristics by urban/rural location

Household occupant characteristics	Overall	City/Urban	Rural	Suburban	Town
Number of occupants	2.78	2.79	2.94	2.66	2.70
Number 65 and older	0.38	0.44	0.18	0.37	0.18

* RECS data only.

Energy use and degree days

Rural household usage of electricity is the highest, 8,640 kWhs per year, among the categories of location. This is 2,562 kWhs above the overall average of 6,078. This is due in large part to the higher incidence of electric space heating, water heating, and electric pumping found in rural areas. Natural gas usage is slightly above average in rural areas at 48,608 therms per year.

Higher usage (Table 88) also undoubtedly reflects the fact that rural dwellings in California are located in cooler climatic region with an average of 3,374 heating degree days compared to the statewide average of 1,918. Rural areas have fewer cooling degree days, 838 per year, than other areas.

Table 88 Energy use and degree days by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Annual kWh use	6,078	5,548	8,640	8,030	6,062
Annual therm use	486.08	466.72	509.15	596.84	496.78
Mean Annual HDD	1,918	1,674	3,374	1,652	2,701
HDD - below 1200	40	48	0	34	18
HDD - from 1200 to 3000	52	47	71	63	61
HDD - over 3000	8	5	30	3	20
Mean Annual CDD	1,136	1,196	838	1,270	856
CDD - less than 1200	51	47	69	46	64
CDD - over 1200	49	53	32	54	36

* RECS data only.

Bill payment

Eighty-nine percent of rural households pay all utility bills and eight percent have utilities included in rent. Next to suburban regions, this is the highest average of all. Only 2 percent pay some of the utility bills in rural households (See Table 89 below).

Table 89 Bill payments by urban/rural location

Who pays utility bills for household	Overall	City/Urban	Rural	Suburban	Town
All energy utilities paid by household?	84	82	89	95	85
Some energy utilities paid by household?	8	9	2	3	6
All energy utilities paid by landlord?	7	8	8	2	7

* RECS data only.

Awareness of Energy Star and other energy labels

displays information about the awareness of Energy Star appliance labels and the yellow-colored energy efficiency information label that is displayed at the point of sale on most home appliances. Generally, rural household awareness of these items is at the same level as the overall awareness or slightly higher. Energy Star logo and label awareness is 35 percent in rural areas compared to 34 percent overall. Similarly, the yellow-colored energy efficient labels found on household appliances at the point of sale is 68 percent in rural areas compared to 62 percent overall (Table 90).

Table 90 Awareness of Energy Star and other energy labels by urban/rural location

	Overall	City/Urban	Rural	Suburban	Town
Aware of the Energy Star logo/label	34	31	35	43	41
Ever seen Energy Star on a computer monitor	14	12	19	15	14
Ever seen Energy Star on a dishwasher	4	2	7	9	6
Ever seen Energy Star on a refrigerator	11	10	16	7	14
Ever seen Energy Star on a room/window air conditioning	2	2	0	0	1
Ever seen yellow-colored energy info label on home appliance	62	77	68	66	62
Ever actually read the info on a yellow energy info label	41	37	48	50	50
Has info on yellow energy info label ever influenced a purchase decision?	30	28	30	45	30
Ever seen Energy Star on a central AC					

* RECS data only.

Summary of key findings for rural households

- Customers in rural areas tend to be White (79 percent). Hispanics are well represented (14.2 percent) but Asians are not found in rural settings.
- Rural customers have above average income (\$47,624).
- Most dwellings in California are single-family units (68 percent). There is a higher percentage of single family dwellings in rural areas (81 percent) than in California in general (68 percent). Mobile homes are frequently found in rural areas.
- Homeownership is slightly higher in rural areas (59 percent) than in the rest of the state (54 percent).
- Forty-seven percent of rural households use fuels such as propane, wood, kerosene, and/or fuel oil, compared to seven percent overall. Also, rural customers use electricity as a primary heating fuel in 29 percent of households compared to 24 percent overall.
- Heating systems are newer in rural households than in other households.
- Compared with other households in California (46 percent), rural households (36 percent) are less likely to have some kind of air conditioning.
- Rural households in California are less likely to have window air conditioners (two percent) than households in other geographic locations (13 percent).
- Given the younger age of air conditioners in rural areas, the data suggest that rural households are starting to buy air conditioning.
- Rural areas are somewhat more likely to operate central air conditioning systems (34 percent) than households in general (29 percent).

- Rural locations have significantly higher heating degree days and significantly lower cooling degree days. Rural households are just as likely to have ceiling fans (57 percent) as suburban ones. Rural households that have ceiling fans also have a high average number of ceiling fans per household (1.05) compared to the overall average of 0.81.
- The main water heating fuel for rural dwellings is electricity (46 percent). This compares to 16 percent electric water heaters overall.
- Rural households have a slightly above average number of refrigerators (1.23) compared to 1.15 the average household. The incidence of rural households with two or more refrigerators (23 percent) is also above the overall average of 16 percent. Rural households tend to have newer refrigerators. Thirty-two percent of rural households have separate freezers. This is much higher than the overall average of 14 percent of homes with separate freezers.
- Seventy-nine percent of rural households have clothes washers and 73 percent have clothes dryers. This compares to 61 percent and 57 percent in the general.
- Rural households are more likely to have laser printers.
- Water pumps used for drinking water, irrigation and livestock are most prevalent in rural areas and uncommon elsewhere.
- Rural household electricity usage is the highest among the geographical categories. This may reflect a higher incidence of electric heating, water heating, and the use of pumps.
- On average, rural households in California are located in cooler areas than other households in the state.
- Rural households have slightly more occupants than the overall average household in California.

Summary of key findings for the energy efficiency needs of hard-to-reach groups

In this chapter we have attempted to identify the energy efficiency needs of selected groups by examining appliance holding and energy use data for these groups from previously completed surveys. Although some of these data are five years old, they can still provide us with some understanding of how households use energy.

We examined the energy use characteristics of Asians and Hispanics. Both groups tend to be located in urban areas and are more likely than the average household to be renters in multifamily complexes. Both groups have incomes that are less than the average with Hispanics being the lowest. Asian and Hispanic households tend to have more occupants than the average household.

Significantly, Asian and Hispanic household use less energy than other groups, both in terms of kWh and therms. Both groups tend to live in climates with more cooling and fewer heating degree days. Differences in climate, the fact that they more often live in multifamily dwellings where there may be common walls and ceilings that reduce

thermal swings, and the smaller size of units may partially explain the lower energy use. Another explanation is that Asians and Hispanics are less likely to have energy consuming appliances. Asians are somewhat less likely to have air conditioning or ceiling fans than households in general. Both groups are less likely to have other appliances such as clothes washers and dryers and dishwashers. Also, both groups are less likely than the average household to have extra refrigerators and are more likely than the average household to have smaller refrigerators. On average, more Asian households have CFLs than other households.

These findings suggest that there are only limited opportunities to reduce energy usage in Asian and Hispanic households. Indeed, as the income of Asians and Hispanics rise, we might expect to see energy use in these households rise as they add appliances. Hispanics are somewhat less aware of the Energy Star logo and both groups are less familiar with the yellow energy guide label than households in general. If there is a need with respect to these groups it is probably for more education about the efficiency of appliances so that when they make choices they will make energy efficient ones.

We also examined the energy efficiency potential of moderate-income households. Moderate-income customers use just slightly less than the average amount of energy compared to all customers.

In most respects they are similar to average customers although there are some differences. More than the average number of moderate-income households have window air conditioners. There may be some replacement opportunities here. About 17 percent of these households say they have a second refrigerator. Most have a main refrigerator that is 17 cubic feet or more. Thus, there may be some potential for the removal of second refrigerators among these customers. Less than the average number of moderate-income customers have wall insulation so there may be some potential for home insulation.

A smaller proportion of moderate-income customers than upper-middle-income customers have appliances such as clothes washers, dryers, and dishwashers. In a good economy there is potential load growth in moderate-income households.

Only about one third of moderate-income customers are aware of the Energy Star logo. A sixth or less have seen it used on an appliance. Two-thirds know about the yellow energy sticker but less than half have actually read one. More of this group could be aware and make use of energy information.

Mobile home households use about a fifth less electricity than the average household. However, they use a significantly greater than average amount of energy for heating. Very high percentages of mobile homes have central air conditioning. Potentially there are opportunities to improve the efficiency of mobile home air conditioning and to reduce energy consumption for heating as well. About 16 percent of mobile home households have a second refrigerator. Given the space available in mobile homes, many of these refrigerators may be operating in unconditioned spaces. Potentially there are opportunities for removing second refrigerators. About 30 percent of mobile home households have compact fluorescents, which is right at the household average, but mobile home households that have compacts have more of them.

Mobile home households are the least aware (about 15 percent) of any of the housing groups of the Energy Star logo. However, about half have seen the yellow energy sticker and about half of those have read it.

Households in multifamily complexes use about two-thirds of the electricity of the average household, a little less than 4,000 kWh per year. There are a variety of reasons why this may be the case. There are fewer occupants, the units are smaller, units shelter each other reducing heat losses or heat gains, and the occupants have fewer appliances such as washers, dryers, and dishwashers.

Households in large multifamily complexes are slightly more likely to be aware of the Energy Star logo than households in smaller complexes. Just the opposite is the case for the yellow energy guide label. About 40 percent of households in large complexes have seen one and about half of that percentage have read one.

Rural households have the highest electricity use of any group, more than 8,000 kWh per year, and the second highest consumption of gas. The heating fuel consumption is probably accounted for by the fact that the rural customers live in climates where the number of heating degree days is almost double that of the other housing groups. Also many households use electricity for heating. Rural customers also live in areas with many fewer cooling degree days, which may account for the fact that the percentage of rural households with air conditioning is smaller than for other housing types.

Rural households only follow suburban households in the number of appliances they have. Almost a quarter of these households have a second refrigerator. Sixteen percent have a freezer. There may be potential for reducing second refrigerators. Approximately a third of rural households have pumps. This is possibly an area where there may be gains in energy efficiency.

Thirty-five percent of rural households are aware of the Energy Star logo, which is above the average for all households, and a few more than half have seen the logo on an appliance. An above average number of households are aware of the yellow energy sticker and perhaps 70 percent of rural households have read one.

We should probably make some general observations concerning the findings in this chapter. The first is that we have consistently found high percentages of post-1990 refrigerators. It was around 1990 when refrigerators started to be more efficient. If these data are correct then there are not very many of pre-1990s refrigerators to be replaced.

A second observation is that Hispanic and Asian households use less energy than the average household. Hispanic and Asian households are larger which means that per capita use in these households is somewhat smaller than the average. This leads to two observations. The potential for energy efficiency in these households is somewhat less than for the average household. A second point is that the reasons for this have to do with the appliances in the household and that may relate to income. As income increases we may see increases in energy consumption as a result of creating new appliance purchases.

The same is also true of multifamily households. They use about two thirds of the energy of the average household. Again, this reduces the potential for energy efficiency impacts

and also means that as multifamily incomes rise multifamily households may also use more energy.

A second general point is that because renters are mobile, it makes sense to target them with efficiency measures that they can take with them. Lighting is potentially an area of interest to apartment dwellers because many apartments are not well lit. Many multifamily households probably have the halogen torchiere lamps that could be replaced. An obvious program possibility is efficient high quality lamps. For example, it might make sense to target quality table and floor lamps to these groups. A table or floor lamp that is attractive, of good quality and inexpensive might meet the needs of many renters. Attractive window treatments that help to keep out the sun or retain heat are another option.

A third point is that appliances in rental units are usually purchased by the unit's owner. There are exceptions to this. From other studies we know that these appliances are often purchased or replaced under contracts with appliance manufacturers, a pricing agreement with a local distributor, or in the case of small complexes, from sources like Sears and Best Buy. Many of the models that are on the contracts or pricing agreements are among the least efficient appliances that are currently available. One strategy to promote energy efficiency is to work with manufacturers, distributors and major retailers to make efficient models more competitive on the contracts and price lists.

The numbers in these datasets do not seem to suggest that computers have significantly penetrated multifamily households. Because of the age of the data we suspect that the number of computers is much higher. We are also certain that most renters have many other electronic devices. It makes sense to promote Energy Star devices in the multifamily segments. It also makes sense to encourage these segments to activate the Energy Star features of computers if they are not already activated.

Table 91 summarizes the energy efficiency issues and needs of California's hard-to-reach populations. Pluses (+) indicate areas where there are opportunities to increase the utilization of energy efficient technologies while minuses (-) indicate areas which are not good opportunities for this. Blank spaces indicate that needs are comparable to the rest of the population.

Table 91 Summary of energy efficient issues and need for the hard-to-reach

Energy efficient issues and needs	Hispanics	Asians	Moderate -income	Housing type Multifamily/mobile home	Renter	Rural
Electric space heat is in use				+	+	+
Main space heating systems is old					+	-
Central air conditioning (CAC) is present						
Window air conditioning (AC) is present					+	-
Main AC System is old				+		
Decrease ceiling fan usage				-	-	+
Replace electric water heaters				+	+	+
Disconnect extra refrigerators/freezers				- mf + mh	-	+
Clothes washer replacement					-	+
Clothes dryer replacement					-	+
Dishwasher replacement				-	-	
Replace reduce usage of laser printers	-			-	-	+
Lighting /CFL usage	+	+			+	
Convert/reduce electric water pumping	-	-	-	-	-	+
Reduce heated swimming pools	-	-		-	-	+
Reduce heated Jacuzzis, spas, or hot tubs	-	-		-	-	+
High heating degree day opportunities						+
High cooling degree day opportunities					+	
Insulation of thermal envelope				+ mh	+	
High occupancy issues	+	+	+			
Increase awareness of Energy Star	-	+		+	+	
Increase awareness of appliance yellow energy info label	-	+		+	+	

Chapter 7: Community-Based Organizations

Community-based organizations

Community-based organizations are potentially an important resource for communicating with and delivering services to hard-to-reach groups. This chapter defines community based organizations and summarizes data from a large number of existing studies that suggest how to reach and partner with community based organizations to effectively deliver services to hard-to-reach populations.

This chapter also discusses what community-based programs (CBOs) are; how they relate to community-targeted programs; and how community programs deliver services and build community capacity. The different types of CBOs are described and defined along with the potential role of each type of CBO in serving California's hard-to-reach populations. The chapter concludes with a step-by-step checklist for partnering with CBOs to serve hard-to-reach populations.

What are community-based organizations

Community-based organizations (CBOs) are non-governmental organizations (NGOs) centered on community service or advocacy for the community. According to Brennan, they are intentional participatory organizations that are designed to facilitate social connections and cooperation, and, by virtue of repeated interactions among members of the organization and the community, to engender trust with the agency and among members of the community.⁴¹

A community-based organization usually operates within a geographically bounded area, although the boundaries may be somewhat indistinct and may change with issues and time. The geographic boundaries can be finite, a few blocks, or a much larger area such as Southern California. Terms that are often associated with community-based organizations are *non-profit*, *voluntary*, *service*, *association*, *independent*, *charitable*, *citizen*, *people's*, and *philanthropic*. Religious organizations may be considered community-based as well.

CBOs are generally characterized as having:

- Indigenous leadership and control of programs
- Programs that explicitly address the needs of community members or advocate for the community
- Knowledge, access, and use of community resources and capacities

Policy makers and the public are often attracted to the idea of delivering services through small altruistic CBOs and NGOs as alternatives to large bureaucratic governmental institutions and for-profit corporations. Hall 1987 refers to non-profits as a body of individuals who associate for any of three purposes:

⁴¹ Brennan

- 1) to perform public tasks that have been delegated to them by the state
- 2) to perform public tasks for which there is a demand that neither the state nor for-profit organizations are willing to fulfill
- 3) to influence the direction of policy in the state, the for-profit sector or other non-profit organizations

Najam defines NGOs as the joining together – in association – of actors with shared normative values for the purpose of actualizing a social vision.⁴² Because CBOs are usually of the community, they have knowledge of the community and the potential to function as efficient delivery systems.

By the same token, CBOs are known by the community. The community can have both positive and negative perceptions of such organizations and these can be either an asset or a liability to organizations partnering with CBOs.

We should also keep in mind that in contemporary society, people's ties are often external to the community. Social ties and social networks are more often associated with work or participation in social interest groups.⁴³ The Internet is replacing the local bar as the place to meet, and the Internet respects no geographical boundaries. Thus, communities (associations of people) are often not anchored in local relationships.

One of the difficulties that CBOs face is building social relationships within the community and maintaining interest in these relationships. CBOs are trying to create social integration where it may not or does not exist. But as CBOs attempt to address local problems and issues, the problem is more than one of just creating social integration, it is also one of building more connections outside the neighborhood in order to funnel resources into the area. Agencies wanting to intervene in neighborhoods and communities face much the opposite problem. They must also sustain and in some cases create voluntary associations as points of contact with the "community."

CBOs may focus on certain segments of the community, low-income or Lao families, and/or they may focus on particular social issues, community economic development or opposing the removal of housing. They may have broad multicultural membership and perform a wide range of services and advocate on a broad range of issues. At the other end of the scale, community-based organizations may focus on a narrow service or issue related to a specific population. They may be organizations that have been in the community for a long time or whose lifetimes are the lifetimes of the issues about which they were formed. Some have connections that reach to state, national, and international levels with thousands of employees while others are small and local and depend on the services of a few volunteers.

⁴² Najam, Adil, The Four C's of the Third Sector-Government Relations: Confrontation, Co-optation, Complementary, Cooperation, Non-profit Management and Leadership Journal, Vol 10 No. 4, Summer 2000.

⁴³ Taub, Richard P., George P. Surgeon, Sara Lindholm, Phyllis Betts Otti, Amy Bridges, "Urban Voluntary Associations, Locality Based and Externally Induced," *American Journal of Sociology*, Vol. 83, No. 2, 1977, 425-442.

Services/types of organizations

One strategy for promoting energy efficiency with hard-to-reach populations is to create alliances and partnerships with existing community-based organizations. When energy providers think about delivering services through community-based organizations, they often think about the community action agencies that arose during the war on poverty and that have been associated with weatherization programs. However, there are many more types community based organizations and many types of services delivered by CBOs. As we think about delivering services through such organizations, it is worthwhile to identify some of the types of organizations and services. Knowing the types of organizations and services may help in the identification and selection of partners.

Healthcare and senior citizen services

CBOs commonly offer health related services. Examples are:

- HIV/AIDS prevention and care
- Assisted living and home healthcare
- Immunization, nutrition, and other preventive care
- Health insurance and maintenance organizations for the uninsured
- Meal delivery services (Meals on Wheels) for house-bound community members
- Heart Attack-REACT Project, sponsored by the National Heart, Lung and Blood Institute to provide patient education to seek help quickly when heart attack symptoms begin

Because of the ways in which HIV and AIDS are transmitted, many local agencies have experience in seeking out hard-to-reach populations such as intravenous drug users, minorities, recent immigrants, and low-income populations. They understand the value of using social networks.

Youth organizations

CBOs are often involved with services for youths at risk with programs such as after-school activities, peer pressure intervention programs, sports activities at traditional and nontraditional hours, and counseling.

Drug prevention and intervention

CBOs provide drug education, treatment services, and facilities for drug addicts and at-risk populations. Somewhat different kinds of organizations are the local chapters of Alcoholics Anonymous and Mothers Against Drunk Driving (MADD) that are in virtually every community around the county.

Abuse prevention and intervention and homeless services

Some CBOs operate shelters, food kitchens, food distribution centers, and other programs for victims of domestic violence and homeless people. CBOs are partnered with outreach programs and receive patient/victim referrals from healthcare and criminal justice organizations.

Childcare, adoption, and reproductive services

CBOs provide childcare for individuals and businesses. CBOs also offer adoption services, reproductive healthcare, and education aimed at reducing teenager and unwanted pregnancies.

Employment service organizations

Employment and training programs are often funded with Federal money with state and local governments and the business community playing vital supporting roles. CBOs serve as the subcontractor for employment outreach and recruitment of trainees, intake, assessment, classroom training responsibilities, job placement, and on-the-job follow-up. In addition, CBOs provide a critical link between mainstream and traditional employment agencies and the disadvantaged clientele under served by “mainstream” education and training such as community colleges and other schools and universities.

Ethnic and cultural groups and associations

Ethnic and cultural organizations often act to preserve and promote the culture of their constituents. These organizations educate their members and disseminate information within their communities. They also provide opportunities for social interaction, English or native language and culture classes, employment assistance, mutual aid, informal banking, ethnic festivals and celebrations, and links to native countries. A number of ethnic groups have ethnic based professional associations through which business contacts are made.

Faith-based organizations

Faith based or religious organizations are strategically involved in major life events such as birth, marriage, severe illnesses, and death. For many immigrant groups, catholic and protestant, religious groups are the center of social life. Many faith-based organizations either operate social services directly, for example, daycare and services to senior citizens, or they have affiliated nonprofit social organizations that operate the services.

Neighborhood and homeowner associations

Neighborhood associations range from organizations that mostly act to inform homeowners on local zoning, political and economic issues to organizations which own and maintain property up to and including the external shells of residential buildings. Such organizations distribute information to members, take on projects to run or maintain communal property (e.g., manage a swimming pool or maintain landscaping), and act as aggregators to obtain discounted services such as exterior painting for some or all of the members. Many such associations have management firms that manage their affairs. The effectiveness and interest in these types of organizations is often dependent on whether the association has professional staff, the importance of the decisions that are being made, the budgets involved, the presence or absence of controversial issues, and/or activist members.

Low-income advocacy and assistance organizations

A variety of CBOs aid low-income individuals and families. Federally funded low-income energy service programs have been in existence since the 1970s and target low-income participants with bill paying assistance, household weatherization, energy

education, and other energy services. Another type of organization is Habitat for Humanity, which enrolls income-qualified families and assists them in the construction of their own homes. Most Habitat for Humanity chapters encourage the use of energy efficient practices in new home construction. Because Habitat for Humanity relies on volunteers, its use of energy efficient practices and materials present opportunities to educate volunteers as well as low-income families.

Trade associations, business groups, and economic development organizations

Many local areas have business associations that work to promote local business and to address issues that may positively or negatively affect businesses and residents in an area. Most of these are voluntary organizations. Some may be large enough to have staff. Such organizations may sponsor cooperative advertising, street fairs, and other types of promotional events. In some instances, these business associations may be aligned with special taxing districts that levy a special tax, the proceeds of which are used to make local improvements within the boundaries of the taxing district. Organizations such as Chambers of Commerce, industry, and trade associations play a local role in economic development.

These organizations may be affiliates of regional, state, national, and international organizations.

Environmental organizations and animal advocacy groups

There are grassroots energy and environmental groups and organizations in virtually every community. These organizations may be temporary organizations formed to address a fairly narrow local issue, for example, a problem of vacant lots or a wetlands issue, or have a long history as affiliates of larger national organizations such as the Audubon Society. The goals of these organizations range from management of specific problems to education to political activism. Local environmental groups sponsor community clean-ups, waste reduction and recycling, land reclamation and habitat restoration, endangered species protection, consumer education, clean air and water initiatives, transportation and energy efficiency, and conservation projects. There are also animal advocacy groups such as Raptor Recovery, the Humane Society, PETA, vegetarian and vegan groups, and advocates for animal health and welfare. Such groups often support energy efficiency initiatives.

General social service organizations

Some organizations such as the United Way and Urban League are umbrella organizations that provide support and fund raising for many of the above listed groups.

Appendix B lists a broad range of contacts that may be of assistance in identifying and finding community-based organizations.

Working effectively with community-based organizations

Earlier it was pointed out that there is a certain attractiveness, especially for activists and policy makers, in using community-based organizations to implement policy and programs. While the proposition is attractive and fits with our ethical and moral notions

of community and local control, implementing programs through community organizations is no easier, and in some ways may be more difficult, than implementing programs in general. As we noted earlier, community-based organizations are often confronted with the problem of having to create a community within a geographic boundary as well as delivering services within that community.

From the ground-up or using what is on the ground: alternative strategies for working with communities

There are different models for developing a community-based program: the *campaign model*, the *community office model*, the *new issue-specific community organization model*, the *partnering model*, and the *comprehensive community initiative model* to name a few.⁴⁴

The *campaign model* identifies volunteers or organizations in the community and asks them to help promote a campaign. There are lots of versions of this model. One is ask a local service organization to do something like distribute energy efficiency information within the community for a contribution to the organization's treasury. Another example is to work with a local service organization to sell products like compact fluorescents as a fundraiser for the organization.

Campaigns are usually of limited duration and focused on the delivery of specific information products or services. The results are linked to the enthusiasm and training of the volunteers. Because there is no follow-on, the impacts may not be sustained in the long term.

The *community office model* is one in which the sponsoring organization establishes an office within the community, recruits local community members to serve as advisors, and then implements standard programs or modifications of standard programs in the community based on input from the advisors.⁴⁵ This design can work although experience suggests that is not a very effective design and it does not necessarily promote sustainability. Success depends on the legitimacy of the sponsoring organization within the community and the community advisors. This type of program disappears when the office in the community is closed which limits the sustainability of effort.

The key in this model is the local advisors. It is critically important to choose the right people. People who are controversial or who are closely affiliated with factions in the community may limit the reach of such a program.

People who are available to take these positions are often not the most influential people in the community. Advisors often participate as a way to enhance their own standing to increase their own influence in the community.

⁴⁴ Calhoun, Robin et al, "Communities As a Resource for Promoting Energy Efficiency: Lessons from Wisconsin Community-based programs," Wisconsin Demand-Side Demonstrations (WSDS), Inc., June 95.

⁴⁵ Neal, Betty, *et. al.*, "Energy Conservation 2000 in Mayville and Horicon: A Study of a Community-based Program," Wisconsin Demand-Side Demonstrations (WSDS), Inc.

Without training, community advisors typically lack general understanding of technical issues that can lead to decisions that promote visibility but produce somewhat limited energy savings.

The advisor's community agenda may be quite different than that of the intervening organization and this can lead to clashes over what should be done and how it should be done. Can we just put out a handwritten flyer reproduced at the local copy shop versus send the flyer to the utility marketing department to be made pretty and printed? Advisors may withdraw or reduce their efforts if they do not believe they are being listened to. Advisors typically see their role as a short term one and will move to the next problem or opportunity after a few months of activity.

A program that uses advisors has to sell two products, the organization and the products the organization is promoting. It is a toss-up as to whether the effort and resources spent in creating the advisory committee is worth the effort. If the sponsoring agency has credibility within the community it might be more effective to hire local staff who know the community, place those staff in the community and directly deliver the program services for the sponsors under the sponsor's name.

A third model is the creation within a community of a *new issue-specific community organization*. Starting a new community organization is a difficult path. It may be required if there are no suitable organizations with which to partner in the community. A new organization has to establish itself within the community, develop a community base, develop organizational capacity to maintain itself and offer services, and develop and implement outreach programs. Building organizational infrastructure is a time consuming and costly task. It generally takes three to five years to establish a new organization. Once established, the organization must deal with the issue of sustaining itself over time. This model is not recommended unless there are no organizations with which to affiliate in the community or the existing organizations do not have broad community support and are not likely to gain that support.

A fourth model is to work with *existing community based organizations*. This is probably the preferred path because it builds on pre-existing relationships and makes use of organization capacity and relationships that already exist in the community. However, this approach is not without its pitfalls. In the next sections we will identify some key issues in partnering with community based organizations.

A last model is the idea of the *comprehensive community initiative (CCI)*. The idea of CCI has emerged in the last 10 years. The goal of CCIs is "to maximize the capacity and impact of neighborhood resources and institutions..." CCIs incorporate strategies from several community models while maintaining their own structure and goals. CCIs have been funded by foundation money and reflect the belief that "single-issue planning and development neglects the interconnectedness of all the threads that create a community fabric." The idea is to create a general comprehensive approach to community problems rather than have a multiplicity of smaller effort.

Several foundations view CCIs as a way to address neighborhood developments by providing more comprehensive planning, and provide more long-term funding, up to

seven years, rather than the shorter nature of most grants.⁴⁶ CCIs work to strengthen the neighborhood's capacity to affect change by building leadership among local residents and organizations, serve as decision-makers, and act as neighborhood "think tanks" analyzing available resources and needs and determining how those needs could be best fulfilled using resources at hand.

CCIs encourage residents to think about what holds them together as a community. They promote collaboration among individuals and institutions, public and private, that shape neighborhoods including municipal governments, CBOs, social service providers, block clubs, and business owners. The CCI model requires long-term commitments on the part of those promoting energy efficiency and it also means that some of the resources from the promoters of energy efficiency are likely to be used to address community development issues as well as energy savings and demand reduction. These are not necessarily conditions that are acceptable to energy efficiency organizations. On the positive side, infusing an energy efficiency ethic and praxis into a community could have long-term spillover effects substantially great than those of a short-term program.

Partnering with a community-based organization

In the previous section we suggested that a preferred strategy is to work with existing community-based organizations rather than to use a campaign strategy or to attempt implementing from a local office with an advisory committee or start a new organization. In this section, we briefly address the problems of working with community-based organizations. We have provided some checklists that can be used to assess how effectively one can work with a community-based organization. The intent of the criteria is to help in developing an effective working relationship. Few organizations will be able to meet all or even many of these criteria. The best use of these criteria is to examine relationships and potential relationships and identify areas that are vitally important and areas where there is potential for adapting to a new environment.

Choosing a partner organization

There are usually several organizations within a community with which a sponsor can partner. Earlier, we talked about the types of services and organizations that may be present within a community. A good first step is to take an inventory of local organizations to determine who the potential partners might be. By using Table 92 and talking with people in the community and examining information that is available on the web, one should quickly identify potential partners.

⁴⁶ Pitcoff, Winton. "Comprehensive Community Initiatives: Redefining Community Development," *Shelterforce*, November/December, 1997. See also, Smock, Kristina., "Comprehensive Community Initiatives: A New Generation of Urban Revitalization Strategies, <http://uac.rdp.utoledo.edu/comm-org/papers97/smock/cciwebj.htm>.

Table 92 Screening information for community-based programs

Type of Organization	Approximate Number in Community	Names of Organizations	Populations Served/ Targeted	Types of Services Offered
General Healthcare Services				
Specialized Healthcare (i.e., HIV/Aids Prevention/ Immunization)				
Senior Citizen Centers				
Youth Organizations				
Drug Prevention/ Intervention				
Homeless Shelters				
Child Care/Day Care/Adoption Services				
Ethnic/Cultural Associations				
Faith-Based Organizations				
Neighborhood/Homeowner Associations				
Low-income Assistance/ Advocacy Organizations				
Trade Associations/ Business Groups (i.e., Chamber of Commerce)				
Environmental Organizations/Advocacy Groups				
General Social Service Organizations (i.e., United Way/Urban League)				
Other				

Once there is a short list of potential partners, one can then begin to examine which partners might be best.

Relationship between the partner and the target audience

In order to implement a successful program it is important to understand the relationship between a potential partner organization and the target audience. The best partners are those who have demonstrated the ability to work with the target audience in the past. It is also important to choose partners who have legitimacy with the entire audience. As we shall see in the next chapter, there are sometimes secular or religious cleavages within communities. If a potential partner is perceived to be aligned with one or another faction, it may be difficult for the partner to work with other groups. In evaluating potential partners, the partner organization should meet the following criteria.

- The partner is widely known within the target audience.
- In the past, the partner has worked effectively with the target audience.
- The partner is not aligned with any faction or subgroup within the target audience that will limit its effectiveness with the larger part of the audience.

Relationship between the sponsoring agency and the partner

The relationship between the sponsoring agency and the partner organization is important as well. There needs to be strong support for the program within the sponsoring organization.⁴⁷

The resources allocated to the program need to be sufficient to permit the program to move forward without delay and to permit the partnering agency to do the best and most competent job of which it is capable. As an example, community-based organizations are usually nonprofit organizations. They are not likely to have large amounts of working capital. Thus, the sponsoring agency may need to work with the partnering agency on payment arrangements that do not place the partnering agency at financial risk.

The sponsoring agency needs to delegate authority to the project manager to make all decisions. It is disruptive of a relationship to have to wait on decisions that have to move up and down the chain of command and perhaps be changed along the way. Giving the project manager authority to make and implement decisions also sends a message to the partner agency about the importance of the project and the trust that the sponsoring agency has in its own project manager.

The sponsoring agency's project manager plays a key role. This person should have good social skills, a good understanding of the program, an understanding of how nonprofit organizations operate and the types of problems they face, and sensitivity to the needs and desires of the agency and the target audience.

A major key is the degree to which the agency and the community are allowed to help set the agenda. The problem that typically arises is that the sponsor has certain goals that it wishes met. These goals may be driven by the fact that the sponsor may have fiduciary responsibilities for delivering a certain level of reduction in energy consumption, for example. Issues arise when the partnering agency and the community believe that at least some of the funds may need to be spent in community building or other activities that on the surface are only indirectly associated with delivering energy services. Alternatively, issues may arise when the community wants assistance in paying energy bills or complaint resolution services and the sponsoring organizations wants to deliver energy efficiency services. It is important for regulators and sponsoring agencies and others to be very clear as to the degree of latitude that is available.

The sponsoring agency should examine its own situation with respect to the following items.

⁴⁷ Shediac-Rizkallah, M. C. and L. R Bone. "Planning for the sustainability of community-based health programs: conceptual frameworks and future directions for research, practice and policy," Health Education Research Theory & Practice, Vol. 13 no. 1, 1998. pp. 87-108. Oxford University Press.

- The sponsoring agency has legitimacy with the target community.
- Management of the sponsoring agency fully understands and supports the program.
- The sponsoring agency is committed to providing in a timely way the resources that are needed to make the project successful.
- The sponsoring agency understands that successful partnering with community based organizations requires time.
- The sponsoring agency understands the skills and expertise of the partner agency and respects those skills and expertise.
- Management of the sponsoring agency understands that it needs to be flexible with respect to rules and requirements in dealing with partners.
- The program manager from the sponsoring agency has good social skills.
- The program manager is flexible and has good problem solving skills.
- The program manager from the sponsoring agency is sensitive to the needs of the target audience.
- The program manager and the sponsoring agency are prepared to give the partner agency and the community a strong role in defining the program even it changes the focus of the effort.
- The sponsoring agency delegates decision-making authority to the project manager so that the project manager can make decisions quickly and knows that those decisions will receive the backing of management.

Important characteristics of community-based organizations

Not all partnering agencies are the same. Some organizations have their roots in community advocacy and are good at mobilizing the community to achieve social and political ends. Other community-based organizations have their roots in service delivery and have developed extensive organizational capabilities to provide these services. Most organizations have some combination of these two characteristics. In selecting an organization it is important to match these characteristics with the requirements of the program. Also, matching the characteristics of the sponsoring and partnering agencies with respect to social and policy goals and the strategies for achieving the goals, is likely to enhance the potential for a cooperative relationship.

The literature on community-based organizations indicates that multipurpose organizations are generally more effective at adapting than single purpose organizations.

It is important to look at the history of community-based organizations to see how they operate. Some will have a stable history, a long string of successes, and capable management. They will have good relations with the community. Other community-based organizations will have followed a path that more resembles that of a roller coaster.

Generally, organizations that have an established role in the community are better partners because they have the connections. A word of warning: well-entrenched organizations are not always the right answer because they may not be flexible in dealing with new challenges and broader audiences. A checklist for the characteristics of a good partnering agency is as follows:

- The partnering agency has a long and mostly stable history.
- The partnering agency has capable management.
- The partnering agency has a well-developed organizational infrastructure that can handle new requirements without breaking.
- The partnering agency provides a broad array of services to its audiences.
- The agency manages or implements programs that have many of the same characteristics as the program to be implemented.
- The partner agency has a high degree of participation in its programs from members of the target audience.
- There is a connectedness between the partner agency and the community.

Partnering agency support for the program

It is also important to examine how the partnering agency will manage the intervention. Agency partners take on programs for many reasons: interest, the needs of the community, covering staff salaries, desire to get in with a sponsor, etc. If an agency takes on a program for the wrong reasons, then the program may not be implemented with dedication and skill.

Successful interventions have the strong support of partnering agency management. They also have a champion, who is not necessarily the project manager, inside the agency. Finally, successful interventions are the result of the agency having the right capabilities to implement the program. The checklist that follows identifies characteristics of agencies that are more likely to be successful in program interventions.

- The program is strongly supported by the management within the partner agency.
- There is a champion within the host organization to promote the program.
- The champion has a strong interest in the program.
- The champion is in a mid to upper level managerial position.
- The champion has the ear and support of management.
- The champion has a sense for the compromises that are necessary to build support.⁴⁸
- The champion has negotiating skills.
- Managing the program is seen as a career-enhancing move.
- There are strong leadership skills and a highly trained staff.
- The partner agency has the capabilities to manage and implement the program or the ability to adapt so that it can implement the program.

Program implementation

Clear project goals are important. Further, it is important that the goals are the goals of the agency and the community and not just those of the sponsoring agency. Without buy-in from the agency and the community, there is likely to be little enthusiasm for the project within the agency or the community. The trick is to define goals that meet the needs of the agency, community, and sponsoring agency.

⁴⁸ Steckler, A. and R. M. Goodman, "How to Institutionalize Heal Promotion Programs, *American Journal of Health Promotion*, 3, 34-44.

Programs are likely to be more successful when the partner agency sees the potential for enhancing its own capabilities and creating new social networks and when people within the community see an opportunity to gain new skills or create new relationships. Successful programs are also characterized by high community visibility and the early dissemination of early project results.

Like all projects, community based projects take time if they are to have lasting effects. Creating sustainable effects easily takes three to five years.⁴⁹ One can do short term interventions delivering services to a community, but the effects of short-term interventions are likely to be short lived.

Agency staff need time and experience to understand energy efficiency activities and see how they can be an integral part of the larger set of services that the agency offers. Time is needed to establish a sustainable funding base. The most successful programs adopt an “entrepreneurial” approach to funding, looking for innovative ways to raise funds and sustain programs in the long term. The development and implementation of these ideas require time. Short-term programs do not provide the necessary incubation period.

The following check list items provide an indication of the potential for program implementation success.

- Project goals are clear and consistent through time.⁵⁰
- The community participates in establishing the project goals.
- Project goals meet the expressed needs of the community as well as the needs of the sponsoring agency.
- The program increases the capabilities of the partner organization and the community to solve problems and deal with issues in the community.
- The rules for the program are adjusted to account for local conditions.
- The time frame for implementing the program is sufficient so that it can be made to work effectively.
- The program has early and high visibility within the community.
- Project results are disseminated early.
- Funding is adequate to accomplish the goals of the program in the required timeframe.
- The program is designed so that it will be possible to sustain the program once support for the program by the sponsoring agency ceases.

Delivering services

One of the important reasons for using community-based organizations is to deliver services through direct contact and social networks. Direct contact and social networks are much more effective ways to reach and gain the participation of audiences than mass

⁴⁹ Steckler. See also Scheirer, M. A. “The Life Cycle of An Innovation: Adoption Versus Discontinuation of the Fluoride Mouth Rinse Program in Schools,” *Journal of Health and Social Behavior*, 31, 1990, 203-215. Rogers, Everett, *Diffusion of Innovations*, 4th Edition, New York: The Free Press, 1995. Lafond, A. K. “Improving the Quality of Investment in Health: Lessons on Sustainability, Health Policy and Planning 10 (suppl) 1995, pp. 63-76

⁵⁰ Bossert, T. J. “Can They Get Along Without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa,” *Social Science and Medicine*, 1990, 30, pp. 1015-1023.

media. Volunteers are particularly effective when they are dealing with their peers. However, there are some important keys to successfully using volunteers.

For volunteers to be successful, they need to have patterns of high interaction in the community. Persons who do not have good contacts in the community will often volunteer, but they should not be expected to be very effective. Programs should particularly look for volunteers who interact with people on a regular basis in their day-to-day jobs. Such people often know who is in the networks, who might be most interested, and who might be the most willing to try a new product or service.

Volunteers are volunteers. They need to be trained to do the job they are being asked to do. It is important not to ask them to do things for which they are ill equipped, for example, to offer technical advice. That should be left to others. Volunteers also need to be taught how to cope with rejection, since that is likely the most common response that they will receive.

Finally, volunteers need to be rewarded. They need feedback about their efforts and they need recognition. The following check list items are useful to understanding if a program is able to successfully use volunteers.

- The program uses volunteers to deliver interventions wherever possible.
- Program volunteers and staff have a history of frequent interactions with the target group.
- The program recruits volunteers who have high interactions with the target community such as shopkeepers, housing project managers, and social and health-service providers.
- The program recognizes the work of volunteers and staff by providing incentives such as prizes and media coverage.
- The program does team building.
- Volunteers and staff are regularly given feedback about the progress of the program that reinforces their role.
- Volunteers and staff are given skills training.⁵¹
- Volunteers are trained to cope with rejection.

Summary

In this chapter we have discussed the role of community-based organizations. Community based organizations are formed to address local issues or the needs of specific populations. Policy and implementer staff in public bureaucracies and private corporations believe that community-based organizations are important to the solution of local problems that are difficult for public and private agencies to address. The assumption is that there are social ties within geographical areas that can be used to help inform and to implement solutions. It is important to realize that in contemporary society, social ties may be more external than internal to the geographic community. As

⁵¹ See Bossert. See also Jackson, C., *et. al.*, The Capacity-building Approach to Intervention Maintenance Implemented by the Stanford Five-City Project, Health Education Research, 9, 1994, 385-396.

a result, community-based organizations may need to spend a great deal of effort in integrating the community.

Community organizations provide a broad range of services. A list of the types of services is provided in the main part of the chapter. This list can be used to help identify community-based organizations for partnering.

There are several strategies for working with community-based organizations: campaigns, developing new community organizations, establishing a store front operation with a local advisory committee, partnering with an existing community-based organization, and becoming involved with a Comprehensive Community Initiative. Partnering with a community based organization and/or becoming involved with a CCI are likely to be the most effective in terms of delivering energy efficiency services in selected communities. Other strategies may work, but may not be as effective, productive, or sustainable.

There are some key conditions that will result in more rather than less successful partnership arrangements with community organizations.

The sponsoring agency should:

- Choose a partner that is well connected in the community and with the whole target audience.
- Establish clear project goals that have the support of the agency and the community.
- Have sufficient funding and ample time to develop a sustainable program.
- Give the program high visibility and promote early results.

The partnering agency should:

- Have a long and reasonably stable history and will have a broad range of experience in delivering a variety of services.
- Have good management
- Be able to commit itself and its staff to the program and has a champion within the agency.
- Use staff and volunteers who have connections within the community to implement the program.
- Provide training and recognition to staff and volunteers.

Chapter 8 Program Strategies for Reaching the Hard-to-Reach Populations in California

In the preceding chapters, we have described in some detail the location, interests and energy needs of hard-to-reach populations in California. Based on this information, there are potentially dozens of program strategies that could be designed to meet the needs of these groups. The goal of this chapter is two-fold: to summarize the key findings and to identify some program strategies.

In our discussion of the definitions of hard-to-reach we made a number of points about operationalizing the definitions. For instance, it is very difficult to make workable the idea of the hard-to-reach having a primary language other than English. There is little data that is collected in a day-to-day operational context that makes it practical to use such a definition. There are a number of other problems with the definitions that need to be addressed that are discussed in the chapter on definitions.

The first step in any program strategy is to identify the target audience. We have described the potential target audiences in two ways. The first is a set of qualitative descriptions of ethnic communities that are found in California. The second is a set of quantitative descriptions based on the analysis of segmentation data and the analysis of existing survey data.

California ethnic groups

Because the use of a language other than English as a primary household language was defined as a criterion for hard-to-reach, we attempted to assess this for each major ethnic group. As a part of the examination of ethnic groups, we attempted to describe ethnic organizations and institutions in order to understand how these communities might be approached.

The definitions with which we started defined the hard-to-reach as those whose primary language is Chinese or Spanish. What became almost immediately obvious is that the Asian and Hispanic populations are multicultural in and of themselves and that if we used the definition of a household where the primary language is Chinese, we would ignore some sizable Asian communities who use languages other than Chinese. It was also clear that there are many Hispanic cultures and the best approaches to one Hispanic community might not work for other segments of the Hispanic communities.

Asian groups in which a substantial number of households with a primary language other than English are Cambodians, Chinese, Chinese-Vietnamese, Hmong, Indonesians, Indos, Lao, Mien and Vietnamese. Chinese, as it is used here, does not include Taiwanese, many of whom have English skills. Several of these groups speak languages indigenous to their origins.

Among Hispanics, we identified households whose origins are in Colombia, Ecuador, Guatemala, Mexico and El Salvador as having high percentages of households where the

primary language is Spanish but where there are cultural variations that set the groups apart.

Based on our examination of the ethnic groups, we identified five potential strategies for approaching these groups: through churches and religious associations, through ethnic associations, through community events such as festivals and athletic events, through local media, and through business and trade associations.

For both Asian and Hispanic groups, religious organizations are potentially important paths (Table 93 and Table 94). In some instances, these are religious organizations that have worked with members of the ethnic group since they arrived in the United States. In other instances, the religious affiliations are a part of the indigenous culture of these groups and have a long history. In some instances, there are schisms along religious lines within the community. A sponsoring agency wishing to work through a religious organization, or any organization for that matter, needs to understand how that organization relates to the entire ethnic community.

The Chinese and Chinese-Vietnamese have a number of associations that are potential paths for reaching these groups. Likewise, Chinese, the Lao, and Mien have community events which offer opportunities for reaching these groups. The Chinese, Hmong, and Vietnamese can be reached through local ethnic media such as newspapers and cable. The Chinese have a number of business associations that are potential paths for communicating with Chinese households. The reader may want to refer to the earlier sections for the details.

Table 93 Potential outreach strategies for Asian groups

Ethnic Group	Outreach Strategy				
	Churches/ Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Cambodians	✓				
Chinese	✓	✓	✓	✓	✓
Chinese-Vietnamese	✓	✓			
Hmong	✓			✓	
Indonesians	✓				
Indos					
Lao	✓		✓		
Mien	✓				
Vietnamese	✓		✓	✓	

Within the Hispanic community, the Catholic Church and Catholic social services are important. Ecuadorians and Salvadorians have associations, especially soccer associations that are a potential way to reach these groups. Colombians and Ecuadorians can be reached through local media. Business associations are important within that Salvadorian community.

Table 94 Potential outreach strategies for Hispanic groups

Cultural Group	Outreach Strategy				
	Churches Religious Organizations	Associations	Community Events	Local Media	Business Organizations
Mexicans	✓		✓		
Salvadorans	✓	✓	✓		✓
Brazilians	✓				
Nicaraguans	✓	✓	✓		
Colombians	✓			✓	
Peruvians	✓	✓	✓	✓	✓
Guatemalan Maya	✓		✓		
Ecuadorians	✓	✓	✓	✓	
Argentineans	✓		✓		
Punjabi					
Mexicans					
Californios			✓		

We have provided some discussion in the text of where these ethnic groups may reside in California. Users of this report will want to examine this and other information to determine which of these groups might be potential target audiences within their service territories.

Community-based organizations

The discussion of ethnic groups raises the issue of using community-based organizations to deliver services to ethnic and community groups. Our overall conclusion is that partnering with community-based organizations can be an effective way to deliver services to selected geographic areas and groups. Because community-based approaches are more effective in some place than in others

In contemporary society, the bulk of an individual's social contacts and interaction is often external to the geographic community rather than internal to the community. Thus, the "natural" patterns of communication are into and out of the neighborhood rather than within the neighborhood. Partnering with community-based organizations will work best when there is already significant communication and interaction within the community to which the community-based organization is a party, and/or there are organizations within the community who are working to increase social integration within the community. The strategy of partnering with community-based organizations is likely to meet with more limited success in areas where the social capital of community does not already exist. The key point is that agencies getting involved with community-based organizations need to choose the community and the partner agency well.

As we noted in the main body of the report, there are a variety of ways of working with community organizations: the campaign model, the community office model, the new community organization model, the partnering model, and the comprehensive community initiative model, to name a few. Utilities probably do not want to get involved with the long term requirements of building new community organizations. The campaign model, in which local organizations are engaged to deliver specific services for a short period of time, is a possibility. The campaign model can get the services delivered but it may not result in sustained impacts. The community office model is also a possibility. The best option is probably to partner with a community-based organization to deliver services. This model has the best chance of good penetration in selected communities and of sustaining the impacts of the program over time.

There are some key conditions that will result in more rather than less successful partnership arrangements with community organizations.

The sponsoring agency should:

- Choose a partner that is well connected in the community and with the whole target audience.
- Establish clear project goals that have the support of the agency and the community.
- Have sufficient funding and ample time to develop a sustainable program.
- Give the program high visibility and promote early results.

The partnering agency should:

- Have a long and reasonably stable history and a broad range of experience in delivering a variety of services.
- Have good management.
- Be able to commit itself and its staff to the program and have a champion within the agency.
- Use staff and volunteers who have connections within the community to implement the program.
- Provide training and recognition to those involved.

Our analysis suggests that there may be indigenous and community organizations in geographical areas occupied by the ethnic groups identified in Table 93 and Table 94 that might be good partners. Before this can be done, the areas in which these groups are located will need to be clearly identified and local groups identified and more carefully screened.

One final word of warning, to effectively partner with community-based organizations requires a long-term commitment.

Locating hard-to-reach groups

Using the PRIZM market segmentation data we identified and segmented five groups: renters, households in small complexes, households in large complexes, households

living in mobile homes, and rural households. A key finding is that each of these groups is comprised of a series of submarkets each of which is very different. Effective programming will use:

- Location information in the maps to identify groups of interest within utility service territories and the zip codes of interest.
- PRIZM segment numbers (Microvision codes can be linked to the segment PRIZM numbers) to identify households at the address level.
- Descriptive information to develop communication paths and content for channeling communication and information to households.

Renter clusters

Within the renter group, we have identified five major clusters or groupings. The fact that we can identify these clusters, points to the importance of viewing renters as a series of markets rather than a single homogeneous market.

Coastal single urban professionals are affluent and well-educated singles and married couples living in major cities along the coast. This group is mostly White with a strong Asian presence.

Urban middle-income single renters are similar to the coastal single urban professionals but not as affluent and not so numerous.

Ethnic blue-collar renters live in central urban areas. These households are in blue-collar and service occupations and tend to be Hispanic and African-American. These singles and single parents with children have incomes below \$25,000.

Ethnic new arrivals are blue-collar and service workers who are often foreign-born and among the most recent immigrants. These households generally have incomes under \$50,000.

Ethnic middle-income singles are younger well-educated minorities who are making fresh starts or young White professionals in public service or private industries. They have incomes between \$25,000 and \$50,000.

Small apartment complexes

We can examine the multifamily market in terms of the characteristics of households in small apartment complexes. Again, there are five main clusters. Two of these clusters, ethnic new arrivals and ethnic middle-income singles, are identical to the renter segments of the same name.

Young single urban professionals are like coastal urban single professionals without the older professionals. As it turns out, older professionals are found in large multifamily complexes.

Hispanic families are low-income Hispanic families whose breadwinners are in blue-collar and service industries. There are many children in this cluster. This segment contains high percentages of foreign-born individuals.

City apartments are mainly African-American households and some Hispanic households. They show up in cities where they work in blue-collar and service jobs.

Large apartment complexes

Upscale coastal couples and single are very affluent urban professionals who live near the coast. It appears that older and very affluent professionals live in large multifamily complexes rather than smaller ones. This group is largely White although a substantial contingent is Asian.

Smaller city out-of city are White and Hispanic singles with modest incomes who primarily live in large complexes in inland cities.

Urban-blue collar is a subset of the ethnic blue-collar renter group who live in large complexes in the city. This cluster is made up of Hispanics, Asians and African-Americans, a third to a half of whom have less than a high school education.

Mobile home clusters

Mobile homes are more likely to be found in nonmetropolitan areas and, thus, the characteristics of people living in mobile homes are much like households in nonmetropolitan areas in general.

Mid-scale traditionals are working Americans living in lightly populated areas on the outskirts of larger metropolitan areas. Mid-scale traditional households are made up of married couples with and without children who typically have a high school education and work in a blue-collar job.

Rural blue-collar and farming households are married couple households with children still at home who work in traditional blue-collar jobs or agricultural occupations and have moderate-incomes.

Small town communities are households living in small towns. This group has high concentrations of African-Americans, Hispanics, Whites, and Native Americans. These households tend to be married couples who earn less than \$35,000 per year.

Rural seniors are older retired workers living-remote areas around Redding, Stockton, and east of Fresno to Bakersfield. These are married couples with incomes under \$20,000.

Nonmetropolitan clusters

Households outside of the urban area are found in small towns, villages and in the open country.

Working towns are found outside metropolitan areas and second cities. They typically have incomes under \$35,000. This group is largely White although there are some Hispanics and African-Americans.

Farming country represents those households most directly involved with farming. These households have incomes under \$35,000. They are found in the Central Valley and the northern part of the state.

Country living households are found along the eastern edge of California. These households are made up of married couples and married couples with children. The educational level of these households is high school or less.

Energy needs

By reanalyzing saturation surveys, we were able to examine the energy efficiency needs of a number of the groups that have been defined as hard-to-reach. A key point is that it is difficult to identify programmatic measures that will significantly reduce the energy use of some hard-to-reach groups especially those groups which are in rental housing.

For example, we found that Hispanic and Asian households use less energy than the average household. Hispanic and Asian households are also larger which means that per capita use in these households is somewhat smaller than the average. This leads to two observations. The potential for energy efficiency in these households appears to be somewhat less than for the average household. A second point is that one of the reasons there are fewer appliances may be lower levels of household income. In the short term it may be difficult to reduce energy use a great deal. In the longer term as income increases, we may see increases in energy consumption as some of these hard-to-reach households increase their stock of appliances.

The same is also true of multifamily households. They use about two thirds of the energy of the average household. Again, this reduces the potential for energy efficiency impacts from programmatic measures and also means that as incomes rise in multifamily households, multifamily households may use more energy.

There are some measures that make sense for renters in multifamily housing. Keeping in mind the fact that renters are mobile, it makes sense to target them with efficiency measures that they can take with them. Lighting is potentially an area of interest to apartment dwellers because many apartments are not well lit. Many multifamily households probably have the halogen torchiere lamps that could be replaced. An obvious program possibility is efficient high quality lamps. For example, it might make sense to target quality table and floor lamps to these groups. A table or floor lamp that is attractive, of good quality and inexpensive might meet the needs of many renters. Attractive window treatments that help to keep out the sun or retain heat are another option.

Multifamily households often have an array of personal electronic goods. One thing that does come through in the data is that ethnic and multifamily households are less aware of Energy Star products than other groups. It makes sense to encourage these segments to purchase Energy Star products and activate the Energy Star features of computers and other electronic goods.

Renters often have little control over the energy efficiency characteristics of the appliances in their apartments. The unit's owner usually purchases appliances in rental units. There are some exceptions to this but not many. From other studies we know that these appliances are often purchased or replaced based on contracts with appliance manufacturers, a pricing agreement with a local distributor, or in the case of small renter complexes, from sources like Sears and Best Buy. Many of the models that are on the contracts or pricing agreements are among the least efficient appliances that are currently

available. One way to promote energy efficiency is to work with manufacturers, distributors and major retailers to make efficient models price competitive on the contracts and price lists. This may be a less visible but more effective way to meet the needs of renters.

There do appear to be energy efficiency opportunities in mobile home and rural households. Many rural households have pumps that may potentially be a target. There appear to be a substantial number of second refrigerators. It would appear that there might be an insulation issue as well. Many of these households have do-it-yourselfers who could complete energy projects with appropriate information and materials. Rural areas may be the ideal areas in which to partner with home stores.

Appendix A: Works Consulted

Allensworth, Elaine M and Refugio I Rochin, "Ethnic Transformation in Rural California: Looking Beyond the Immigrant Farmworker," *Rural Sociology* 63(1) p 26-50, 1998. *Communities in rural California are becoming increasingly Latino. Using a quantitative database of 288 rural communities, together with qualitative data collected in the San Joaquin Valley, we examine the processes through which this ethnic transformation is occurring.*

Anheier, Helmut K and Jeremy Kendall, "Trust and voluntary organizations: Three theoretical approaches," *Civil Society Working Paper*, 5, February, 2000. *The purpose of this paper is to explore what non-profit approaches can offer trust theories and vice versa. The paper explains and compares the major approaches to trust in economics, sociology and political science, using the non-profit or voluntary organization as a focal point.*

Bailis, Lawrence N, "Community Based Organizations and CETA," *Community Action*, Vol. 1, No. 3, 1982. *The growth and implementation of CETA (Comprehensive Employment and Training Act) has been accompanied by the rise of non-profit organizations that claim to serve all or portions of the client community groups known as CBOs.*

Beaudin, Christy Louise, "Determinants of utilization in a community-based AIDS service organization," University of Los Angeles, Dissertation, 223 pages, 1996. *Organizations providing community-based care for persons with AIDS are challenged by the increasing numbers and diversity of persons with HIV and AIDS. This research explores determinants of service utilization in a Los Angeles County ASO.*

Bicknell, Rhode and Joseph Telfair, "The Process of Selling a Community Evaluation to a Community: Cumberland County's Experience," in Telfair, Joseph, et. al., eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *There is an increasing need for accountability of social service dollars given to community service agencies and programs. Many of these entities struggle to meet the new requirements by engaging in the unfamiliar area of community evaluation.*

Bolin, Robert, Lois Stanford, "The Northridge Earthquake: Community-based Approaches to Unmet Recovery Needs," *Disasters*, 1998, 22, 1, March, 21-38, 1998. *Ethnographic research underpins an examination of the role of nongovernmental organizations and community-based organizations in filling in the gaps left by federal and state assistance programs, focusing on the unmet recovery needs of two minority populations in Fillmore and Piru and Ventura County, CA, in the aftermath of the 1994 Northridge earthquake.*

Braun, Mark Edward, "Social Change and the empowerment of the poor: Poverty representation in Milwaukee's Community Action Programs, 1964-1972," University of Wisconsin – Milwaukee, Dissertation, 308 pages, 1999. *The analysis of the Community Action Agencies (CAPs) concentrates on three tenants issues: the political dynamics*

associated with CAPs, the role of poverty representation in the CAPs, and the coverage and types of social services furnished by the CAPs.

Bossert, T. J. "Can They Get Along Without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa," *Social Science and Medicine*, 1990, 30, pp. 1015-1023.

Calhoun, Robin et al, "Communities As a Resource for Promoting Energy Efficiency: Lessons from Wisconsin Community-based programs," Wisconsin Demand-Side Demonstrations (WDS), Inc., June 95. *This report describes the effectiveness of community based programs as a marketing strategy and considers effectiveness in relation to other types of utility energy conservation programs.*

CDC, Bibliography of CDC AIDS Community Demonstration Projects, Center for Disease Control (CDC), February 11, 2001.

City of Dallas, Mayors Office, Census 2000: The Mayor's Complete Count Committee, City of Dallas, May 1999. *The Mayor's complete count committee lists strategies used to get to hard to reach people in the census count*

Claritas Inc., *Summary Lifestyle Descriptions: PRIZM Cluster Narratives*, Claritas Inc., 1999. *This description of 62 geo-demographic clusters is based on census data of income, race, language, etc plus behavioral info*

Clavel, Pierre et al, "The Community Option in the Urban Policy," *Urban Affairs Review*, 1997, 32, 4, 435-458, March 97. *Possibilities for community option in federal and local urban policy are explored; the community option represents the idea that urban planning and services may be decentralized from public to community-based organizations*

Consumers Union West Coast Regional Office, *Recommendations*, www.healthykidsproject.org, February 10, 2001. *Paper makes recommendations on fostering and improving school based outreach and enrollment programs for healthy families and Medi-Cal*

Corless, I. B., and M. Pittman, "The San Francisco care model," *AIDS in the world II: global dimensions, social roots, and responses*. The Global AIDS Policy Coalition, edited by Jonathan M Mann et al, New York, NY, Oxford University Press, 1996. :507-409, 1996. *The San Francisco model for the care of men and women infected with HIV brings together formal institution and CBOs, existing services and those developed to meet emerging needs, public and private agencies, and professionals and volunteers.*

CPUC, "Utility Sponsored residential energy efficiency final public workshop," A00-09-049. CSU Fullerton, CSU Fullerton, Pollak Library, <http://guides.library.fullerton.edu>, February 5, 2001. *Annotated business listing of resources on demographic analysis, databases and information*

Davis, Ron, et. al., "Milwaukee Neighborhoods Save Energy and Win A Study of a Community-based Program," Wisconsin Demand-Side Demonstrations (WDS), Inc., July 18, 1995. *The Milwaukee Neighborhoods project was a community-based residential energy conservation project sponsored by WEPCo utility in collaboration with WDS. Two low-income neighborhoods in Milwaukee were targeted for "Save*

Energy and Win" activities and education and focus groups were held with neighborhoods.

Ellis, Jeffrey, *et. al.*, presentation on, "Reducing disparities in access to health information: Interactive health communication and community-based collaborations," The California Telehealth and Telemedicine Center. *Abstract #1085, addresses how effective a tool grant-making in promoting interest in community-based IHC projects and what types of collaborative IHC projects are California-based CBOs and provider-organizations thinking about developing. It also addresses how prepared are community-based organizations and providers to develop and implement IHC projects?*

Erickson, Jeffrey J. *et. al.*, "Approaches to the Residential Market: A WDSO Evaluation Report," Wisconsin Demand-Side Demonstrations (WDSO), Inc., September 1995. *From 1992 to 1995 WDSO in collaboration with utilities sponsored 7 residential energy efficiency programs in Wisconsin. These programs used a variety of innovative and cost-effective ways of capturing greater energy savings in the residential sector. This report integrates the finding from these programs, comments on the effectiveness of various residential marketing and delivery strategies and provides insight for the development of future energy efficiency programs.*

Fisher, Dennis, and Richard H Needle, *AIDS and Community Based Drug Prevention Programs*, Barington Park Press, Binghamton, NY, 1993. *Evaluation and outreach of CBOs in AIDS prevention and drug intervention programs are the subjects of this book. A series of case studies and anecdotes relating to this subject comprise most chapters of this book.*

Fujiwara, Lynn H, "Sanctioning Immigrants: Asian Immigrant and Refugee Women and Racial Politics of Welfare Reform," Dissertation Abstract: The Humanities and Social Science; 2000, 60, 7, Jan., Jan. 2000. *Asian immigrant women are central to the formulation of policy and politics discourses, particularly around public assistance and the importance of citizenship.*

Grey, Guenther C., *et. al.*, "AIDS Community Demonstration Projects: Implementation of Volunteer Networks for HIV-Prevention Programs -- Selected Sites, 1991-1992," *MMWR Weekly*, 20-Nov-92. *Lists several dozen community demonstration projects on AIDS prevention and research.*

Gunshenan, Jim, *et. al.*, "Merrill Community Energy Conservation Project: A Study of a Community-based Program," Wisconsin Demand-Side Demonstrations (WDSO), Inc., Apr-95. *The Merrill Community Energy Conservation Project's (MCECP) community-based aspects lay in it's Community Advisory Committee (CAC) and in it's use of community incentive to help raise funds for a local recreation center*

Heschong Mahone Group, Joint utility-sponsored (SCE / SoCalGas) Residential Energy Efficiency Public Workshop, SCE, 4-Oct-2000. *Overview of workshop on residential audits and residential contractor programs*

HIV Dent, "Role of Community-Based Organizations in Control of STDs," *JAMA* (08/05/98), 8-Aug-98. *Articles speaks to CBOs in their lead role in providing HIV/AIDS outreach services to disadvantaged populations that health departments have trouble reaching directly*

HUD, "Faith and Community-based Organizations and Political Process Model: Social Mobilization as an Explanation for Member Participation in Community Building," www.hud.gov, November 11, 2000. *This dissertation explores the applicability of the political process model (a social movement framework) to community building initiatives*

Huddleston, Jack, *et. al.*, "Energy Services In Low income Households," Energy Center of Wisconsin, January 97. *White paper covers characteristics of low-income homes, use of energy services, existing assistance programs, changing environments for low-income energy services, and future energy services.*

Jackson, C., *et. al.*, The Capacity-building Approach to Intervention Maintenance Implemented by the Stanford Five-City Project, Health Education Research, 9, 1994, 385-396.

Lafond, A. K. "Improving the Quality of Investment in Health: Lessons on Sustainability, Health Policy and Planning 10 (suppl) 1995, pp. 63-76.

Levinson, David and Melvin Ember, *American Immigrant Cultures: Builders of a Nation, Vol 1 and Vol 2*, MacMillan Reference USA, Simon & Prentice Hall Int., 1997. *A lengthily 2 volume book on around 100 American Immigrant Cultures, describes the history and number of immigrants in the USA, why each group immigrated, and profiles the immigrants, community institutions, demographic characteristics, language and culture*

Leviton, Laura C, and Russell G Schuh, "The Importance of a Discovery Capacity in Community-Based Health and Human Service Program Evaluation," in Telfair, Joseph, *et. al.*, eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *For most programs, but particularly in community settings, evaluators need a better appreciation of the usefulness of a continuing discovery capacity.*

Lieberman, Jerome, *et. al.*, "Creating Linkages Among Community-based organizations, the University, and Public Housing Entities," *Cityscape*, Vol 5, No 1, www.huduser.org/periodicals/cityscpe/vol5num1/, 2000. *Article is about a south Florida HUD funded project on partnerships between Public Housing Authorities and CBOs. The collaboration forms a multifaceted partnership team that allows for improved strategies and services that enhance outcomes from public housing and neighborhood residents*

Lundsford, Dan, "The Triad Alliance: Preparing Vulnerable Populations," *Public Management*, Vol. 82 Issue 10, p17, 3p, Oct-00. *The terms "vulnerable," "at risk," and "undeserved populations" are associated with specific groups or segments of a community whose needs often are not met through the traditional services provided by political subdivisions. These vulnerable populations usually are associated with community-based organizations (CBOs), that is, with local organizations, usually non-profit, that reside in communities and serve the needs of specific groups within these communities. CBO clients are traditionally the communities undeserved and at-risk populations.*

McElroy, Kathleen, *et. al.*, "The New London Resource Project: A Study of A Community-based Program," Wisconsin Demand-Side Demonstrations (WDSM), Inc.,

July 1995. *This is a preliminary evaluation of the New London Resource Project (NLRP) that is community-based. The NLRP includes walk-through audits in the commercial and industrial sectors, positive cash-flow and financing and contractor arranging services available in a ll sectors.*

Min-Zhou, "Social Capital in Chinatown: The Role of Community-based organizations and families in the Adaptation of the Younger Generation," *American Sociological Association*, 1995. *Results show that Chinatown provides strong community-based support for immigrant children, and that they are heavily involved in the ethnic community through the family and various forms of community-based organizations.*

Morales, Alfonso, and Robert Jimenez, "Latino Leadership: An Anti-Foundationalist Approach to Social Movement Leadership in LA," *American Sociology Association*, 1999. *Illustrates that a foundationalist approach to categorizing social movement leaders' techniques is misleading, in that it privileges the analyst's conceptual scheme. Here, a dualists' conceptualization accounts for leadership as either professional/formal or entrepreneurial/informal. A process perspective is utilized that does not reify analytic concepts and simultaneously permits an understanding of the variation in the behavior of SMLs and the operation of social movement organizations (SMOs).*

Najam, Adil, "The Four C's of the Third Sector-Government Relations: Confrontation, Co-optation, Complementary, Cooperation," *Non-profit Management and Leadership Journal*, Vol 10 No. 4, Summer 2000. *This paper presents an interest-based model of NGO-government relations derived from the degree of convergence or divergence of goals and strategy preferences of particular NGOs and particular governmental agencies on the particular issue.*

Neal, Betty, *et. al.*, "Energy Conservation 2000 in Mayville and Horicon: A Study of a Community-based Program," *Wisconsin Demand-Side Demonstrations (WDSO), Inc.*, Jun-95. *The main feature of the WP&P sponsored EC2000 was a residential direct-install component of energy efficient measures. The program was planned and delivered with substantial community involvement which lowered the cost and increased impacts. The program was marketed through both grassroots and broadcast means and included a local product distribution network.*

Norton, Rita, "The City of San Jose's Comments on The Future of Energy Efficiency Public Benefits Programs," *Environmental Services Dept, CEC*, 16-Nov-99. *San Jose's comments on energy efficiency public goods programs for the future*

Pitcoff, Winton. "Comprehensive Community Initiatives: Redefining Community Development," *Shelterforce*, November/December, 1997.

Okstein, Linda, *et. al.*, "Financial and Nonfinancial Incentives," *Wisconsin Demand-Side Demonstrations (WDSO), Inc.*, Sep-95. *Report looks at financial and non-traditional incentives targeted at customers in residential energy efficiency programs*

Organization for University Partnerships, "Faith/Community-based organizations and the political process model: Social Mobilization as an explanation for member participation in community building," *OUP homepage, www.oup.org*, November 22, 2000. *This dissertation explores the applicability of the Political Process Model (a social movement framework) to community building initiatives. The paper identifies participant*

characteristics and explains their relationships to the level and quality of individual participation in community development programs

Organization for University Partnerships, “Knowledge Production and Use in Community-based Organizations: Examining the Impacts and Influence of Information Technologies, OUP homepage, www.oup.org, November 22, 2000. *This study investigates the impact of IT adoption and use by CBOs. It examines IT’s role in decision making, participatory processes, and the extent to which IT enables and sustains organizational leadership.*

Oster, Sharron M, *Strategic Management for Non-profit Organizations: Theory and Cases*, Amazon.com, February 1995.

Parker, Edith A., et. al., “Evaluating Community-based Health Programs That Seek to Increase Community Capacity,” in Telfair, Joseph, et. al., eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *There are methods that are optimal in formative summative evaluations of community capacity expansions.*

Robinson, Warner A, “Developing Community Energy Education Programs and Other Coalition-based Efforts” *Program Innovations in Aging*, Vol 9, May 1984.

Rogers, Everett, *Diffusion of Innovations*, 4th Edition, New York: The Free Press, 1995.

Saxe, Leonard and Elizabeth Tighe, “The View from Main Street and the View from 40,000 Feet: Can a National Evaluation Understand Local Communities?,” in Telfair, Joseph, et. al., eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *The Robert Wood Johnson Foundation sponsors a Fighting Back initiative, in which communities across the country receive funding to combat alcohol and drug use. The evaluation of this initiative has revealed much about the challenges to national evaluators in conducting community-based evaluation.*

SCE, “Low Income Programs Needs Assessment Study and CARE Outreach Pilot,” SCE, March 12, 1999. *In compliance with Assigned Commissioner's Ruling (ACR) of the CPUC in R. 98-07-037 dated March 8, 1999*

SCE, Attachment A: SCE responding to ordering paragraph 38 of decision 00-07-017 dated Aug 21, 2000, CPUC, August 21, 2000. *Utility report on budget allocations and info regarding non-residential chain accounts*

Scheirer, M. A. “The Life Cycle of An Innovation: Adoption Versus Discontinuation of the Fluoride Mouth Rinse Program in Schools,” *Journal of Health and Social Behavior*, 31, 1990, 203-215.

Sevel, Francine, “Designing Effective Consumer Education Print Materials,” *National Regulatory Research Institute (NRRI) Quarterly Bulletin* 18, no. 4, 1997/1988. *Presents data on how public information is disseminated to utility customers and stakeholders in a deregulated environment and how consumer education campaigns are effected by these findings*

Shediac-Rizkallah, Mona C., and Lee R Bone, “Planning for the sustainability of community-based health programs: conceptual framework and future directions for

research, practice and policy,” *Health Education Research, Theory and Practice*, Vol. 13, No. 1, pages 87-108, 1998. *Attention to the sustainability of health intervention programs both in the US and abroad is increasing, but little consensus exists on the conceptual and operational definition of sustainability. Indicators include: 1) maintenance of health benefits achieved through an initial program, 2) level of institutionalization of the program within an organization and 3) measures of capacity building in the recipient community. Planning for sustainability requires the use of programmatic approaches and strategies that favor long-term program maintenance. Influences of sustainability derive from: project design and implementation factors, factors within the organizations setting, and factors in the broader community environment.*

Smock, Kristina., “Comprehensive Community Initiatives: A New Generation of Urban Revitalization Strategies, <http://uac.rdp.utoledo.edu/comm-org/papers97/smock/cciwebj.htm>.

SoCalGas, “Discussion Documents for CADMAC Public Workshop on PY 2001 Energy Efficiency Program Cost-Effectiveness and Related Matters,” CPUC, February 5, 2001.

Steckler, A. and R. M. Goodman, “How to Institutionalize Heal Promotion Programs, *American Journal of Health Promotion*, 3, 34-44.

Talerico, Tom, *et. a.*, “Viroqua Conserves: A Study of a Community-based Program,” Wisconsin Demand-Side Demonstrations (WDS), Inc., Jun-95. *Viroqua Conserves was a community-based energy efficiency demonstration project that involved the community in the design of marketing and technology selection for the program.*

Tanjasiri, Sora Park, “Acting locally: Factors promoting Asian Pacific Islander agency participation in collaborative tobacco policy advocacy,” University of California - Los Angeles, Dissertation, 257 pages, 1996. *CBOs hold great potential for both advocating healthful policies and involving community clients and constituencies, they also face multiple organizational and environmental barriers that prevent their involvement in policy advocacy*

Taub, Richard P., George P. Surgeon, Sara Lindholm, Phyllis Betts-Otti, Amy Bridges, “Urban Voluntary Associations, Locality Based and Externally Induced,” *American Journal of Sociology*, Vol. 83, No. 2, 1977, 425-442.

Telfair, Joseph and Laura C Leviton, “The Community as Client: Improving the Prospects for Useful evaluation Findings,” in Telfair, Joseph, *et. al.*, eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *Interviews with leaders of community-based health initiatives shed light on their needs in the evaluation process.*

Telfair, Joseph, “Improving the Prospects for a Successful Relationship Between Community and Evaluator,” in Telfair, Joseph, *et. al.*, eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *The likelihood that an evaluation experience will be a positive one in community settings can be improved by the employment of certain techniques, such as a screening tool that evaluators can use to assess a community's level of availability potential.*

United Way, *Measuring Program Outcomes: A Practical Approach*, <http://national/unitedway.org/outcomes/>, 1996. *Provides a step-by-step outline of how to evaluate program outcomes, from "Getting ready" to "Using Results" of evaluation efforts.*

USDA, "Small Farms Database of Commission's Recommendations and USDA Action Plans By Subject," USDA.gov, February 5, 2001. *Is a database listing USDA recommendation and agencies that are to be contacted regarding each recommendation*

Utility Consulting, California Public Utility Commission Consumer Education Program (CEP) 12.5 minute plug in video entitled: California! Community-based Organizations (CBOs) meeting video, <http://ucitd.com/accomp.cfm>, February 9, 2001.

Wanderson, Abraham, "Framing the Evaluation of Health and Human Service Programs in Community Settings: Assessing Progress," in Telfair, Joseph, et. al., eds. *New Directions for Evaluation: Evaluating Health and Human Service Programs in Community Settings*, No. 83, Fall 1999. *The chapters are assessed in the light of an emerging framework for evaluation in community settings. Along with other recent contributions, these chapters add to a body of knowledge that may eventually offer a contingency theory for evaluation in community settings.*

www.ald.org/san-Diego/sd_cbo.htm, Community Based Organizations, www.ald.org/san-Diego/sd_cbo.htm, 2/9/01. *List of San Diego CBOs that have hate-crimes reported to them*

www.cdcpin.org, African-American and NIV/AIDS: A guide to selected resources, May 1999, www.cdcpin.org, May 1999 *An annotated list of California CBO projects/organizations for AIDS/HIV.*

www.culturalpartnerships.org/community.htm, Community Based Organizations, Institute for Cultural Partnerships - www.culturalpartnerships.org/community.htm, 2/9/01. *Describes CBO role in preserving cultural identity*

Appendix B: Community-Based Organizations

Asian organizations and links

The following is a list of links to Asian organization. Click on the link to go to the home page of the organization.

Directories

[AArisings: Asian American Links: Organizations](#)

Institutes/Research Centers

[Asia Society California Center, Downtown](#)

[Asian Pacific Business Institute, East LA - Cal State L.A.](#)

[Pacific Basin Institute, Claremont - Pomona College](#)

[Pacific Century Institute, Woodland Hills](#)

[Pacific Rim Association - Cal State Long Beach \(CSULB\)](#)

[Southeast Asian Studies Center - Cal State Long Beach \(CSULB\)](#)

[Association of MultiEthnic Americans \(AMEA\)](#)

[Center for Cultural Fluency, Brentwood - Mount St. Mary's College](#)

[Center for Language Minority Education and Research - Cal State Long Beach \(CSULB\)](#)

Organizations

[Asian American Media Development, Mid-City](#)

[Asian Business Association of Los Angeles](#)

[Asian Pacific American Legal Center](#)

[Asian Pacific American Network, Downtown](#)

[Asian Pacific Community Fund](#)

[Asian Pacific Islanders Women's Health - FDA Los Angeles District](#)

[Asian Pacific Professional Association](#)

[Asian Professional Exchange \(APEX\), Hermosa Beach](#)

[Leadership Education for Asian Pacifics, Downtown](#)

[Media Action Network for Asian Americans](#)

[National Association of Asian American Professionals](#)

Cambodian/Khmer/Hmong

[Long Beach Cambodian Community](#)

[Society of Cambodian Students and Professionals](#)

Chinese

[Chinatown Service Center, Downtown](#)

[Living Information in Los Angeles](#)

[Organization of Chinese Americans](#)

Media

[Chinese American Daily News, Monterey Park - newspaper](#)
[Chinese LA Daily News - newspaper](#)
[Chinese Television Network \(America\), Alhambra](#)
[KAZN-AM \(Radio Chinese 1300\), Pasadena - radio station](#)

Trade Organizations

[Chinese Chamber of Commerce](#)
[Consulate General of China](#)

Japanese Organizations

[Consulate General of Japan in Los Angeles - in Japanese](#)
[Japan Foundation & Language Center in Los Angeles, Santa Monica](#)
[Japanese American Cultural and Community Center, Downtown](#)
[Japanese Chamber of Commerce of Southern California](#)
[Little Tokyo Service Center, Downtown](#)
[Nikkei Games, August - Cal State Long Beach \(CSULB\)](#)
[US Japan Expo, Downtown, November](#)

Organizations

[Japanese American Citizens League - Pacific Southwest Division, Downtown](#)
[Japanese American Citizens League, Torrance](#)
[Orange County Nissei Coordinating Council](#)
[Torrance Japanese American Citizens League](#)

Korean

[Consulate General of Korea](#)
[Korean American Coalition, Mid-City](#)
[Korean Cultural Center Los Angeles](#)
[Korean Youth and Community Center, Mid-City](#)
[USC Korean Heritage Library, Downtown](#)

Directories

[Korean Business Directory California](#)
[LA Korea](#)
[Los Angeles Connections Korean American](#)
[1004 Directory Service - in Korean](#)

Taiwanese

[Caltech Taiwanese Graduate Student Association \(Chinese Culture Club\), Pasadena](#)
[Cal State Dominguez Hills Chinese \(R.O.C.\) Student Association, Carson](#)
[Nation Taiwan University Alumni Association of Southern California](#)
[Taiwanese Student Association of Caltech, Pasadena](#)
[Taiwanese American Citizens League](#)
[UCLA Taiwanese Student Association, Westwood](#)
[USC Taiwanese Student Association, Downtown](#)

Thai

[Cal Poly Pomona Thai Student Association](#)
[Khaosod USA, Hollywood - newspaper](#)
[Royal Thai Consulate-General, Los Angeles, Hollywood](#)
[Siam Chronicle - newspaper, in Thai](#)
[Thai Times USA, Hollywood - newspaper](#)
[Thai-LA.com](#)
[UCLA Thai Smakom, Westwood](#)
[USC Thai Student Association, Downtown](#)

Vietnamese[Biet Dong Quan \(BDQVN\), Orange - veterans](#)[Federation of Overseas Free Vietnamese Communities, Santa Ana](#)[Trung Tam Van Hoa Viet Nam, Westminster](#)[Truong Viet Ngu Van Lang Los Angeles](#)[UCLA Vietnamese Language and Culture Program, Westwood](#)[VIET Foundation, San Clemente](#)[Vietnamese American Arts & Letters Association, Garden Grove](#)[Vietnamese Community of Orange County, Santa Ana - social services](#)*Organizations*[Vietnamese Community in Southern California](#)[Vietspace](#)

Community organizations

The information about the following based organizations is organized by city.

**State Government
Contacts**

Tom Bettencourt
Home Program Manager
P.O. Box 952050
CA Dept of Housing &
Community Development
Sacramento, California
94252-2054

Dorothy Clobes
Section 8 Program Manager
P.O. Box 952054
CA Dept of Housing &
Community Development
Sacramento, California
94252-2054

**Other Social Service
Agencies**

Volunteer Center Assistance
League of Southern
California
8124 Van Nyes Blvd. #200,
Panorama City, CA 91402
818 908 5066

Lutheran Social Services of
Southern California

501 E. Orangethorpe Ave.
Suite 250
Fullerton, CA 92831

**Community Based
Organizations**

LAWP
Refugee Services Center
532 South Vermont Ave.
Los Angeles, CA 90020
(213) 738-3351
(213) 389-7117 FAX

PG&E
Economic Opportunity
Commission of San Luis
Obispo County, Inc.
1030 Southwood Drive
San Luis Obispo, CA 93401

Joyce Ellen Lippman
Central Coast Commission
for Seniors Suite B
208 W. Main Street
Santa Maria, CA 93453-
5027

Madera County Action
Agency, Inc.
1200 West Maple Street
Madera, CA 93637

Fresno County Economic
Opportunities Commission
1920 Mariposa Mall
Fresno, CA 93721

Jo Johnson
Fresno-Madera Area Agency
on Aging, Suite 1200
2220 Tulare Street
Fresno, CA 93721

Ruby Juarze
Central Valley Regional
Center
5168 N. Blythe
Fresno, CA 93722

Bill Parker
Community Action Agency
of San Mateo County, Inc.
930 Brittan Avenue
San Carlos, CA 94070

Maggie M. Cuadros
North Peninsula
Neighborhood Services
Center Inc.
600 Linden Avenue
S. San Francisco, CA 94080

Nancy Wu
Director

Sunnyvale Community Services 810 West McKinley Ave Sunnyvale, CA 94086	Martinez, CA 94553	Watsonville, CA 95076
Alfred Farach Greenlining Institute 3rd Floor 785 Market St. San Francisco, CA 94105	Bob Sessler Contra Costa Office on Aging 40 Douglas Drive Martinez, CA 94553-4068	Patty Friez Energy Services PO Box 2707 Watsonville, CA 95077
Diane Marbello Salvation Army 832 Folsom St. San Francisco, CA 94107	Carmen Family Services First Baptist Head Start, Suite 5 2240 Gladstone Dr. Pittsburg, CA 94565	Paul Tatsuta Economic and Social Opportunities, Inc. 1445-47 Oakland Road San Jose, CA 95112
Raquel Medina Executive Director Mission Economic Development Ass., 9th Flr 2602 Mission St. San Francisco, CA 94110	Robin Crown Solano-Napa Agency on Aging, Inc. Suite 1401 601 Sacramento Vallejo, CA 94590	Stephen Schmoll Council on Aging of Santa Clara County, Inc. 2115 The Alameda San Jose, CA 95126
Maritza Villagomez Program Assistant HELPLINK Suite 200 50 California St San Francisco, CA 94111	Tara Kelly Development Coordinator Spanish Unity Council Suite 2-A 1900 Fruitvale Avenue Oakland, CA 94601	Marley Holte San Joaquin County Dept. of Aging, Children's and Community Services 850 N. Union Street Stockton, CA 95205
Nancy Hoeffler Exec. Dir. Community Energy Services Corporation 1013 Pardee St. Berkeley, CA 94201 510-644-8546 nancyh@dnai.com	Larry Taylor Community Development Corp of Oakland 5636 Shattack Ave Oakland, CA 94609	Hubert Walsh Merced County Area Agency on Aging 851 W 23rd Street Merced, CA 95340
Jennifer Hoyle Baha Director Shelter, Inc. Suite 200 1070 Concord Ave. Concord, CA 94520	Linda Kretz Alameda County Area Agency on Aging 8000 Edgewater Drive Oakland, CA 94621	Diane Almanza Merced County CAA P.O. Box 2085 Merced, CA 95344
Spectrum Community Services 1435 Grove Way Hayward, CA 94546	Jennifer Davis Seniors Council of Santa Cruz and San Benito Counties, Inc. 234 Santa Cruz Ave Aptos, CA 95003	Central Valley Opportunity Center 1748 Miles Court Merced, CA 95348
Donna Svihula Contra Costa County Community Svcs Dept Suite 101 1220 Morello Ave	San Benito Community Action Agency 1131 San Felipe Rd. Hollister, CA 95023	Lynda Shelton Stanislaus County Department of Aging & Veterans Services 822 12 Street Modesto, CA 95354-2309
	Community Action Board Santa Cruz 723 F - East Lake Ave	Robin Schaeff Sonoma County Area Agency on Aging 2250 Northpoint Parkway Santa Rosa, CA 95402
		Peggy Lee

Area 12 Agency on Aging 56 N Washington Street Sonora, CA 95470	Jackson, CA 95642	Suite 101 2862 Arden Way Sacramento, CA 95825
Sandra Klaisner NCES Suite 3B 966 Mazzone Street, Ukiah, , CA 95482 707-463-0303 (T) 707-463-0637 (F)	Doug Nowka El Dorado County Area Agency on Aging 937 Spring Street Placerville, CA 95667	Lousie A. Perez Executive Director Community Resource Project, Inc. Suite 6 250 Harris Ave. Sacramento, CA 95838
Linda McQueen North Coast Energy Services P.O. Box 413 Ukiah, CA 95482	El Dorado County Dept. of Community Services 937 Spring Street Placerville, CA 95667	Dolores Soto For Northern Regional Center, Suite 3 580 Manzanita Ave Chico, CA 95926
Doug Harris North Coast Opportunities, Inc. - AAA 1081 A S. Dora Street Ukiah, CA 95482	Jennifer Durbin Project GO, Inc. 3740 Rocklin Road Rocklin, CA 95677 916-624-5705 (T) 916-624-4844 (F)	Vicki Paxton PSA 3 Area Agency on Aging University Foundation California State University, Chico Chico, CA 95929
Lloyd Throne Redwood CAA 904 G Street Eureka, CA 95501	Sacramento County Adult & Aging Commission Suite 200 909 12th Street Sacramento, CA 95814	Rae Rush Community Action Agency of Butte Co. 2255 Del Oro Ave Oroville, CA 95965
Sandra, K Fitzpatrick Area Agency on Aging 3300 Glenwood Street Eureka, CA 95501-3490	MartyLynn OmotoVictor California Nevada Community Action #200 225 - 30th Street Sacramento, CA 95816	Plumas Co Community Development Commission P.O. Box 319 Quincy, CA 95971
Del Norte Senior Center 810 H Street Crescent City, CA 95531	Sacramento Housing & Redevelopment Agency Emergency Home Repair 2nd Floor 1013 7th Street Sacramento, CA 95817	Karen Cheryl Betty Hansen (Hagen)Skala Glenn County Human Resource Agency Community Action Division 420 East Laurel Street Willows, CA 95988
Community Action Board of Santa Cruz, Suite E 501 Soquel Avenue Santa Cruz, CA 95602	Sacramento Neighborhood Housing Services 3453 5th Avenue Sacramento, CA 95817	Keith Griffith Self-Help Home Improvement Project, Inc. 3777 Meadow View Dr. Suite 100 Redding, CA 96002
Galt Community Concilio 660 Chabolla Ave. Galt, CA 95632	Rosalind Garner Senior and Adult Services 4875 Broadway Sacramento, CA 95820	Great Northern Corp. P.O. Box 20 Weed, CA 96094
Pete Grahmbeek Amador-Tuolumne Community Action Agency 935 South Highway 49 Jackson,, CA 95642	Howard Owens Congress of, CA Seniors 1151 Oak Hall Way Sacramento, CA 95822	
Betty Stark Amador-Tuolumne Community Action Agency 935 South State Hwy 49	Deanna Lea Area 4 Agency on Aging	

Dennis Dudley
PSA 2 Area Agency on
Aging
PO Box 1400
Yreka, CA 96097

Los Nietos Senior Center
11640 W. Slauson Avenue
Whittier, CA 90606
(562) 699-2040
(562) 692-7441 FAX

Community Action
Commission of Santa
Barbara County
5681 Hollister Avenue
Goleta, CA 93117

SCE

Florence/Firestone Services
Center
7807 S. Compton Avenue
Los Angeles, CA 90001
(323) 586-6501
(323) 582-4071 FAX

San Pedro Service Center
769 W. Third Street
San Pedro, CA 90731
(310) 519-6091
(310) 548-4880 FAX

Jerry Webster
Kings Community Action
Organization, Inc.
1222 West Lacey Blvd
Hanford, CA 93230-5998

Centro Maravilla Service
Center
4716 Cesar E. Chavez
Avenue
Los Angeles, CA 90022
(323) 260-2805
(323) 266-6457 FAX

Altadena Senior Center
560 East Mariposa Street
Altadena, CA 91001
(626) 798-0505
(626) 794-6742 FAX

John Davis
Kings-Tulare Area Agency
on Aging
5957 S. Mooney Blvd.
Visalia, CA 93277

Zigmund Vays
Community Enhancement
Services
160 South Fairfax Ave
Los Angeles, CA 90036

Santa Clarita Valley Service
Center
24271 San Fernando Road
Newhall, CA 91321
(661) 254-0070
(661) 255-8620 FAX

Community Services and
Employment Training, Inc.
P.O. Box 787
Visalia, CA 93277

Willowbrook Senior Center
12915 Jarvis Street
Los Angeles, CA 90061
(310) 603-3358
(310) 366-7309 FAX

Pacoima Community Center
11243 Glenoaks Blvd.
Pacoima, CA 91331
(818) 897-2909
(818) 896-1534 FAX

Eddie Jimenez
Proteus, Inc.
1830 N. Dinuba Blvd
Visalia, CA 93292

East Los Angeles Services
Center
133 N. Sunol Drive
Los Angeles, CA 90063
(323) 260-2808
(323) 266-6457 FAX

San Fernando Valley Service
Center
7555 Van Nuys Blvd.
Van Nuys, CA 91405
(818) 901-3501
(818) 901-3506 FAX

Robin Ackling
Kern Co. Agency & Adult
Svcs.
1415 Truxtun Ave
Bakersfield, CA 93301

East Rancho Dominguez
Service Center
4513 E. Compton Blvd.
Compton, CA 90221
(310) 603-7401
(310) 763-1372 FAX

San Gabriel Valley Service
Center
3017 Tyler Avenue
El Monte, CA 91731
(626) 575-5403
(626) 442-2619 FAX

Eddy Laine
Kern County Office on Aging
1415 Truxton Ave
Bakersfield, CA 93301

Asian Community Services
Center
14112 S. Kingsley Drive
Gardena, CA 90249
(310) 217-7300
(310) 516-9226 FAX

Bill Warren
Community Services Dept.
686 East Mill Street
San Bernardino, CA 92415

Kern County Economic
Opportunity Corp
300 19th Street
Bakersfield, CA 93301-4502

Allan R. Shaw
ASCEEP
Suite 172
618 Ventura Street
Fillmore, CA 93015

Antelope Valley Senior
Center
777 W. Jackman Street
Lancaster, CA 93534
(661) 726-4400
(661) 940-7947 FAX

Governmental organizations

City of Los Angeles

CULTURAL AFFAIRS COMMISSION

Haroot Avanesian, Staff
Architect

Marjorie Thayne,
Commission Executive
Assistant

Elizabeth F. Jenkins-Hair,
Senior Clerk Typist

Tel (213) 473-7720

Fax (213) 473-8352

Mobile Home Rent
Stabilization

Community Development

323-890-7267

Mobilehome Parks -
Exterior

Public Health Programs

323-881-4015

**Coalition for Humane
Immigrant Rights of Los
Angeles (CHIRLA)** **1-888-624-4752** (Spanish and
Russian)

**Neighborhood Legal
Services HEALTH
CONSUMER CENTER** **1-800-896-3203** (Spanish,
Armenian, Cambodian, Arabic and
French)

**Chinatown Service
Center** **1-213-808-1700** (Cantonese and
Mandarin)

South Asian Network **1-562-403-0488** (South Asian
Languages)

**Thai Community
Development Center** **1-213-739-8455**

WRAP Agency **1-310-337-1550** (Cambodian,
Japanese, Laotian, Tagalog,
Vietnamese)

Korean Resource Center 1-323-937-3718**Los Angeles County
DPSS Public Charge
Language Lines**

<i>Language</i>	<i>Phone Numbers</i>
Armenian	800-453-6968
Cambodian	800-632-9690
Chinese	800-557-3731
English	800-815-5005
Farsi	800-807-3938
Korean	800-557-5351
Russian	800-808-4044
Spanish	800-576-1519
Tagalog	800-810-8985
Vietnamese	800-578-6762

Other California Cities

Imperial www.imperialcounty.com/
Los Angeles www.co.la.ca.us/

Orange www.oc.ca.gov/

Riverside www.co.riverside.ca.us/

San Bernardino www.co.san-bernardino.ca.us/

Ventura www.ventura.org/vencnty.htm

Agoura Hills	www.ci.agoura-hills.ca.us
Anaheim	www.anaheim.net/
Arcadia	www.ci.arcadia.ca.us
Azusa	www.ci.azusa.ca.us
Baldwin Park	www.baldwinpark.com
Banning	www.ci.banning.ca.us/
Beaumont	www.ci.beaumont.ca.us/
Bell Gardens	www.ci.bell-gardens.ca.us
Bellflower	www.bellflower.org
Beverly Hills	www.ci.beverly-hills.ca.us/
Big Bear Lake	www.bigbear.com/
Blythe	www.co.riverside.ca.us/city/blythe/
Brawley	www.imperialcounty.com/brawley/index.html
Brea	www.ci.brea.ca.us/
Buena Park	www.buenapark.com/
Burbank	www.burbank.acityline.com/
Calabasas	www.ci.calabasas.ca.us
Calimesa	www.ci.calimesa.ca.us
Calipatria	www.imperialcounty.com/calipatria/index.html
Camarillo	www.ci.camarillo.ca.us/
Canyon Lake	www.ci.canyon-lake.ca.us/
Carson	carson.csudh.edu
Cerritos	www.ci.cerritos.ca.us/
Chino Hills	www.chinohills.org
Colton	www.co.riverside.ca.us/colton/
Commerce	www.ci.commerce.ca.us/
Compton	
Corona	www.ci.corona.ca.us/
Costa Mesa	www.cityofcostamesa.com/

Cypress	www.ci.cypress.ca.us
Culver City	www.ci.culver-city.ca.us/
Dana Point	www.danapoint.org
Desert Hot Springs	www.deserthotsprings.com
Diamond Bar	www.ci.diamond-bar.ca.us/
Downey	www.downeyca.org
Duarte	www.ci.duarte.ca.us
El Centro	www.satcom.net/ecn/index.html
El Monte	www.elmonte.org
El Segundo	www.elsegundo.org
Fillmore	www.fillmoreca.com
Fontana	www.fontana.org
Fountain Valley	www.fountainvalley.org/
Fullerton	www.ci.fullerton.ca.us/
Garden Grove	www.ci.garden-grove.ca.us/
Gardena	www.ci.gardena.ca.us
Glendale	www.ci.glendale.ca.us/
Glendora	www.ci.glendora.ca.us
Grand Terrace	www.ci.grand-terrace.ca.us
Hawthorne	www.cityofhawthorne.com
Hemet	www.ci.hemet.ca.us/
Hermosa Beach	www.hermosabch.org/
Hesperia	www.ci.hesperia.ca.us/
Huntington Beach	www.scag.org/homepages/huntington_beach/govt.htm
Imperial	www.imperialcounty.com/imperial/index.html
Indian Wells	www.ci.indian-wells.ca.us
Indio	www.indio.org
Industry	www.cityofindustry.org/
Inglewood	www.cityofinglewood.org/
Irvine	www.ci.irvine.ca.us/
La Mirada	www.cerritos.edu/lamirada/
La Quinta	www.la-quinta.org/
La Verne	www.ci.la-verne.ca.us//
Laguna Beach	www.scag.org/homepages/laguna_beach/index.htm
Laguna Hills	www.lagunahills.com/
Laguna Niguel	www.ci.laguna-niguel.ca.us
Lake Elsinore	www.ci.lake-elsinore.ca.us/
Lake Forest	www.city-lakeforest.com/
Lakewood	www.lakewoodcity.org/

Lancaster	http://www.cityoflancasterca.org
Lomita	www.lomita.com
Long Beach	www.ci.long-beach.ca.us/
Los Alamitos	www.ci.los-alamitos.ca.us
Los Angeles	www.ci.la.ca.us/
Lynwood	www.lynwood.ca.us
Malibu	www.ci.malibu.ca.us/
Manhattan Beach	www.ci.manhattan-beach.ca.us
Maywood	www.cityofmaywood.com
Mission Viejo	www.missionviejo.com/
Monrovia	www.acityline.com/monrovia
Montclair	www.ci.montclair.ca.us/
Monterey Park	www.ci.monterey-park.ca.us/
Moorpark	www.ci.moorpark.ca.us/
Moreno Valley	www.ci.moreno-valley.ca.us/
Murrieta	www.ci.murrieta.ca.us/
Newport Beach	www.city.newport-beach.ca.us/
Norco	www.ci.norco.ca.us/
Norwalk	www.ci.norwalk.ca.us
Ojai	www.ojai.org/
Ontario	www.ci.ontario.ca.us
Orange	www.cityoforange.org
Oxnard	www.ci.oxnard.ca.us/
Palm Desert	www.palm-desert.org/
Palm Springs	www.ci.palm-springs.ca.us
Palmdale	www.cityofpalmdale.org
Palos Verdes Estates	www.palosverdes.com/pve
Pasadena	www.ci.pasadena.ca.us/index.html
Pico Rivera	www.ci.pico-rivera.ca.us/
Placentia	www.placentia.org/
Pomona	www.ci.pomona.ca.us/
Port Hueneme	www.isle.net/~cityhall
Rancho Cucamonga	www.ci.rancho-cucamonga.ca.us/
Rancho Mirage	www.ci.rancho-mirage.ca.us
Rancho Palos Verdes	www.palosverdes.com/rpv

Redlands	www.ci.redlands.ca.us
Redondo Beach	www.redondo.org
Rialto	www.ci.rialto.ca.us
Riverside	www.ci.riverside.ca.us/
Rolling Hills	www.palosverdes.com/rh
Rolling Hills Estates	www.palosverdes.com/rhe
San Buenaventura	www.ci.ventura.ca.us/
San Clemente	www.scag.org/homepages/san_clemente/Home-page.htm
San Dimas	www.cityofsandimas.com/html/index.html
San Jacinto	www.ci.san-jacinto.ca.us/
San Juan Capistrano	www.sanjuancapistrano.org/
San Marino	www.ci.san-marino.ca.us/
Santa Ana	www.ci.santa-ana.ca.us
Santa Clarita	http://www.santa-clarita.com
Santa Monica	www.ci.santa-monica.ca.us
Seal Beach	www.ci.seal-beach.ca.us/
Signal Hill	www.ci.signal-hill.ca.us
Simi Valley	www.ci.simi-valley.ca.us/
South El Monte	www.ci.south-el-monte.ca.us
South Pasadena	www.ci.south-pasadena.ca.us
Stanton	www.ci.stanton.ca.us
Temecula	www.ci.temecula.ca.us/
Temple City	www.ci.temple-city.ca.us
Thousand Oaks	www.talbotdesign.com/to/
Torrance	www.ci.torrance.ca.us/
Twentynine Palms	www.29palms.com/
Upland	www.citylimits.com/cities/upland/
Vernon	www.vernongov.org
Victorville	www.ci.victorville.ca.us/
Villa Park	www.ci.villa-park.ca.us
Walnut	www.ci.walnut.ca.us/
West Covina	www.westcov.org
West Hollywood	www.ci.west-hollywood.ca.us/
Westlake Village	www.wlv.org
Westminster	www.latimes.com/westminster

Whittier www.whittierch.org
Yucaipa www.yucaipa.org

County Government
Imperial County

Imperial Valley Association of
Governments (IVAG)

Los Angeles County

Arroyo Verdugo Cities
Gateway Cities Council of
Governments
Las Virgenes Malibu Council of
Governments (LVMCOG)

City of Los Angeles
North Los Angeles County
San Gabriel Valley Council of
Governments (SGVCOG)
South Bay Cities Council of
Governments
Westside Cities

Orange County

Orange County Council of
Governments (OCCOG)

Riverside County

Coachella Valley Association of
Governments (CVAG)

Western Riverside Council of
Governments (WRCOG)

San Bernardino County

San Bernardino Associated
Governments (SANBAG)

Ventura County

Ventura Council of Governments
(VCOG)

SANDAG Members

18 Cities and County
Governments in the San
Diego Area

[City of Carlsbad - Hon.
Ramona Finnila,
Councilmember](#)

(A) Hon. Bud Lewis,
Mayor

(A) Hon. Matt Hall,
Councilmember

[City of Chula Vista - Hon. Shirley Horton, Mayor](#)

(A) Hon. Patty Davis,
Deputy Mayor

(A) Hon. Mary Salas,
Councilmember

[City of Coronado - Hon. Chuck Marks, Mayor Pro Tem](#)

(A) Hon. Thomas Smisek,
Mayor

(A) Hon. Phil Monroe,
Councilmember

[City of Del Mar - Hon. Richard Earnest, Councilmember](#)

(A) Hon. Crystal
Crawford, Mayor

[City of El Cajon - Hon. Richard Ramos, Councilmember](#)

(A) Hon. Mark Lewis,
Mayor

[City of Encinitas - Hon. Dennis Holz, Mayor](#)

(A) Hon. Maggie
Houlihan, Councilmember

[City of Escondido - Hon. Lori Holt Pfeiler, Mayor](#)

(A) Hon. June Rady,
Mayor Pro Tem

[City of Imperial Beach - Hon. Diane Rose, Mayor](#)

(A) Hon. Mayda Winter,
Councilmember

(A) Hon. Patricia McCoy,
Mayor Pro Tem

[City of La Mesa - Hon.
Art Madrid, Mayor](#)

(A) Hon. Barry Jantz,
Vice Mayor

[City of Lemon Grove -
Hon. Mary Sessom,
Mayor](#)

(A) Hon. Jill Greer, Mayor
Pro Tem

[City of National City -
Hon. Ron Morrison,
Councilmember](#)

(A) Hon. George H.
Waters, Mayor

[City of Oceanside - Hon.
Terry Johnson, Mayor](#)

(A) Hon. Esther Sanchez,
Councilmember

(A) Hon. Jack Feller,
Councilmember

[City of Poway - Hon.
Mickey Cafagna, Mayor](#)

(A) Hon. Don Higginson,
Councilmember

(A) Hon. Robert Emery,
Councilmember

[City of San Diego - Hon.
Dick Murphy, Mayor](#)

(A) Hon. Byron Wear,
Councilmember

[City of San Marcos - Hon.
Hal Martin,
Councilmember](#)

(A) Hon. Pia Harris-Ebert,
Vice Mayor

[City of Santee - Hon. Jack Dale, Councilmember](#)

(A) Hon. Hal Ryan,
Councilmember

(A) Hon. Jim Bartell,
Councilmember

[City of Solana Beach - Hon. Joe Kellejian, Councilmember](#)

(A) Hon. Marcia Smerican, Deputy Mayor

(A) Hon. Doug Sheres,
Councilmember

[City of Vista - Hon. Gloria E. McClellan, Mayor](#)

(A) Hon. Judy Ritter,
Councilmember

[County of San Diego - Hon. Bill Horn, Supervisor](#)

(A) Hon. Greg Cox,
Supervisor

[California State Department of Transportation - Jeff Morales, Director](#)

(A) Gary Gallegos,
District 11 Director
(Advisory Member)

[Metropolitan Transit Development Board - Leon Williams, Chairman](#)

(A) Hon. Jerry Rindone,
Councilmember
(Advisory Member)

[North San Diego County
Transit Development
Board - Hon. Julianne
Nygaard, Chair](#)

(A) Hon. Christy Guerin,
Deputy Mayor, City of
Encinitas
(Advisory Member)

United States

**Department of Defense -
CAPT Gary Engle, CEC,
USN, Commander,
Southwest Division, Naval
Facilities Engineering
Command**

(A) CAPT Robert Schenk,
CEC, USN
(Liaison Member)

[San Diego Unified Port
District - Jess Van
Deventer, Commissioner](#)

(A) Frank Urtasun,
Commissioner
(Advisory Member)

[San Diego County Water
Authority - John Fowler](#)

(A) Hon. Bud Lewis
(Advisory Member)

**Tijuana/Baja
California/Mexico - Hon.
Javier Diaz De Leon,
Deputy Consul in
Charge**

(Advisory Member)

Hispanic organizations

The following is a list of links to Hispanic organization. Click on the link to go to the home page of the organization.

[Los Angeles Connections Mexican American](#)

Business

[Inland Empire Hispanic Chamber of Commerce](#)

[Latin Business Association](#)

Cultural

[Cesar E. Chavez Center for Higher Education - Cal Poly Pomona](#)

[Cultura - Cal Poly Pomona, hospitality](#)

[Plaza de la Raza, East LA - cultural and educational center](#)

[Radio Aztlán - KUCR-FM \(88.3\), UC Riverside radio program](#)

[Santa Monica College Latino Center](#)

Research Centers

[Boeckmann Center for Latin American & Iberian Studies, Downtown - USC](#)

[University of California Committee on Latino Research](#)

[UCLA Chicano Studies Research Center, Westwood](#)

[UC Riverside Center for Advanced Studies of the Americas](#)

Argentinian/Argentina

[Consulado General de la Republica Argentina, Mid-City](#)

[Escuela Argentina de Los Angeles, Whittier](#)

[Los Angeles Argentinian Page](#)

Brazilian

[Brazil TV, Hollywood](#)

[Brazilian Connections in LA - from SambaLA Dance School](#)

[PelourinhoDotCom - Brazilian events in Los Angeles, show, music, restaurants, cinema, conference, classes.](#)

Panamanian

[Panamanian Cultural Arts Center, Carson](#)

Peruvian

[L.A. Peruvian Times, Huntington Park - newspaper](#)

Salvadoran/El Salvador

[ASOSAL - Association of Salvadorans in Los Angeles](#)

Uruguayan/Uruguay

[Consulate General of Uruguay](#)

Venezuelan

[Venezuelan Association of California](#)

[Consulate General of Nicaragua, Mid-City](#)

Mexican

[Consulate General of Mexico](#)

[Instituto Cultural Mexicano](#)

Native American tribes in California

Agua Caliente Reservation
 Agua Caliente Tribal Council
 Richard Milanovich,
 Chairperson
 960 E.Tahquitz Way #106

Palm Springs, CA 92262
 Tel# (619) 325-5673, Fax#
 325-0593

Alturas Rancheria

Northern California Agency
 Paul Del Rosa, Chairperson
 P.O. Box 360
 Alturas, CA 96101
 Tel# (916) 233-3055, Fax#

Augustine Reservation <i>Southern California Agency</i> Thermal, CA 92274 Tel# , Fax#	Tel# (619) 938-2003, Fax# 938-2942	John A. James, Chairperson 84-245 Indio Spring Dr. Indio, CA 92203 Tel# (619) 342-2593, Fax# 347-7880
Barona Reservation <i>Southern California Agency</i> Clifford M. LaChappa, Chairperson 1095 Barona Rd. Lakeside, CA 92040 Tel# (619) 433-6612, Fax# 443-6613	Big Sandy Rancheria <i>Central California Agency</i> Jeannette Sample, Chairperson P.O. Box 337 Auberry, CA 93602 Tel# (209) 855-4003, Fax# 855-4129	Cahuilla Band of Mission Indians <i>Southern California Agency</i> Michelle Delgado, Spokesperson P.O. Box 391760 Anza, CA 92539 Tel# (714) 763-5549, Fax# 763-2808
Bear River Band of Rohnerville Rancheria <i>Northern California Agency</i> Brenda Bowie, Chairperson P.O. Box 731 Loleta, CA 95551 Tel# (707) 733-1900, Fax# 733-1972	Big Valley Rancheria <i>Central California Agency</i> Valentino Jack, Chairperson P.O. Box 955 Lakeport, CA 95453 Tel# (707) 263-3924, Fax# 263-3977	Campo Band of Mission Indians <i>Southern California Agency</i> Ralph Goff, Chairperson 1779 Campo Truck Trail Campo, CA 92006 Tel# (619) 478-9046, Fax# 478-5818
Benton Paiute Reservation <i>Utu Utu Gwaitu Paiute Tribal Council</i> Rose Marie Bahe, Chairperson Star Route 4, Box 56-A Benton, CA 93512 Tel# (619) 933-2321, Fax# 933-2412	Bishop Indian Tribal Council <i>Central California Agency</i> Allen Summers, Chairperson P.O. Box 548 Bishop, CA 93514 Tel# (619) 873-3584, Fax# 873-4143	Capitan Grande Reservation <i>Southern California Agency</i> Lakeside, CA 92040 Tel# , Fax#
Berry Creek Rancheria <i>Central California Agency</i> Albert Martin, Chairperson 5 Tyme Way Oroville, CA 95966 Tel# (916) 534-3859, Fax# 534-1151	Blue Lake Rancheria <i>Northern California Agency</i> Claudia Brundin, Chairperson P.O. Box 428 Blue Lake, CA 95525 Tel# (707) 668-5101, Fax# 668-4272	Cedarville Rancheria <i>Northern California Agency</i> P.O. Box 126 Cedarville, CA 96104 Tel# (916) 233-2349, Fax# 233-4006
Big Lagoon Rancheria <i>Northern California Agency</i> Virgil Moorehead, Chairperson P.O. Drawer 3060 Trinidad, CA 95570 Tel# (707) 826-2079, Fax# 826-1737	Bridgeport Indian Colony <i>Central California Agency</i> Herb Glazier, Chairperson P.O. Box 37 Bridgeport, CA 93517 Tel# (619) 932-7083, Fax# 932-7846	Chemehuevi Reservation <i>Colorado River Agency</i> Matthew Leivas Sr., Chairperson P.O. Box 1976 Havasu Lake, CA 92363 Tel# (619) 858- 4301, Fax# 858-5400
Big Pine Reservation <i>Central California Agency</i> Cheryl Andreas, Chairperson P.O. Box 700 Big Pine, CA 93513	Buena Vista Rancheria <i>Central California Agency</i> Donna Marie Potts, Spokesperson 4650 Coalmine Road Ione, CA 95640 Tel# (209) 455-7652, Fax#	Chicken Ranch Rancheria <i>Central California Agency</i> Lloyd Matheison, Chairperson P.O. Box 1159 Jamestown, CA 95327 Tel# (209) 984-4806, Fax# 984-5606
	Cabazon Band of Mission Indians <i>Cabazon General Council</i>	Chico Rancheria

<p><i>Central California Agency</i> Delores McHenry, Chairperson 3006 Esplanade St. Chico, CA 95926 Tel# (916) 899-8922, Fax# 899-8517</p>	<p>Tel# (619) 478-5289, Fax# Death Valley Indian Community <i>Southern California Agency</i> Pauline Esteves, Chairperson P.O. Box 206 Death Valley, CA 92325 Tel# (619) 786-2374, Fax#</p>	<p>Douglas Mullen, Chairperson 645 Antelope Blvd. #15 Red Bluff, CA 96080 Tel# (916) 528-9000, Fax# 529-9002</p>
<p>Cloverdale Rancheria Council <i>Central California Agency</i> 555 S. Cloverdale Blvd. #1 Cloverdale, CA 95425 Tel# (707) 894-9377, Fax# 894-5874</p>	<p>Dry Creek Rancheria <i>Central California Agency</i> Amy Martin, Chairperson P.O. Box 607 Geyserville, CA 95441 Tel# (707) 857-3045, Fax# 857-3047</p>	<p>Grindstone Rancheria <i>Central California Agency</i> Daryl F. Burrows, Chairperson P.O. Box 63 Elk Creek, CA 95939 Tel# (916) 968-5116, Fax# 968-5366</p>
<p>Cold Springs Rancheria <i>Central California Agency</i> Jennifer Fred, Acting Chairperson P.O. Box 209 Tollhouse, CA 93667 Tel# (209) 855-8187, Fax# 855-8359</p>	<p>Elk Valley Rancheria <i>Northern California Agency</i> John Green, Vice Chairperson P.O. Box 1042 Crescent City, CA 95531 Tel# (707) 464-4680, Fax# 464-4519</p>	<p>Guidiville Rancheria <i>Northern California Agency</i> Keith R. Pike, Chairperson P.O. Box 339 Talmadge, CA 95481 Tel# (707) 462-3682, Fax# 968-9183</p>
<p>Colusa Rancheria <i>Central California Agency</i> Delbert Benjamin, Chairperson P.O. Box 8 Colusa, CA 95932 Tel# (916) 458-8231, Fax# 458-2018</p>	<p>Fort Bidwell Reservation <i>Fort Bidwell Community Council</i> Ralph DeGarmo, Chairperson P.O. Box 127 Fort Bidwell, CA 96112 Tel# (916) 279-6310, Fax# 279-2233</p>	<p>Hoopa Extension Reservation <i>Northern California Agency</i> Weitchpec, CA 95546 Tel# , Fax#</p>
<p>Cortina Rancheria <i>Central California Agency</i> Mary Norton, Chairperson P.O. Box 7470 Citrus Heights, CA 95621 Tel# (916) 726-7118, Fax# 726-3608</p>	<p>Fort Independence Reservation <i>Central California Agency</i> Richard Wilder, Chairperson P.O. Box 67 Independence, CA 93526 Tel# (619) 878-2126, Fax# 878-2311</p>	<p>Hoopa Valley Indian Reservation <i>Northern California Agency</i> Dale Risling, Chairperson P.O. Box 1348 Hoopa, CA 95546 Tel# (916) 625-4211, Fax# 625-4594</p>
<p>Coyote Valley Reservation <i>Central California Agency</i> Doris Renick, Chairperson P.O. Box 39, 7901 Hwy. 101 N. Redwood Valley, CA 95470 Tel# (707) 485-8723, Fax# 468-1247</p>	<p>Fort Mojave Reservation <i>Fort Mojave Tribal Council</i> Patricia Madueno, Chairperson 500 Merriman Ave. Needles, CA 92363 Tel# (619) 326-4591, Fax# 326-2468</p>	<p>Hopland Reservation <i>Central California Agency</i> Hale P. Knight, Chairperson P.O. Box 610 Hopland, CA 95449 Tel# (707) 744-1647, Fax# 744-1506</p>
<p>Cuyapaipe General Council <i>Southern California Agency</i> Tony J. Pinto, Chairperson 2271 Alpine Blvd. #D Alpine, CA 91901</p>	<p>Greenville Rancheria <i>Central California Agency</i></p>	<p>Inaja & Cosmit Band of Mission <i>Southern California Agency</i> Rebecca Maxcy, Spokesperson P.O. Box 491 Santa Ysabel, CA 92070 Tel# (714) 276-6224, Fax#</p>
	<p>Jackson Rancheria <i>Central California Agency</i></p>	

Margaret Dalton,
Chairperson
P.O. Box 429
Jackson, CA 95642
Tel# (209) 223-1935, Fax#
223-5366

Jamul Band of Mission
Indians
Southern California Agency
Raymond Hunter,
Chairperson
P.O. Box 612
Jamul, CA 91935
Tel# (619) 669-4785, Fax#
669-4817

Karuk Tribe of California
Northern California Agency
Alvis Johnson, Chairperson
P.O. Box 1016
Happy Camp, CA 96039
Tel# (916) 493-5305, Fax#
493-5322

Kashia Business Committee
Stewarts Point Rancheria
Calvin H. Smith Sr.,
Chairperson
P.O. Box 3854
Stewarts Point, CA 95480
Tel# (707) 725-0721, Fax#

La Jolla Band of Mission
Indians
Southern California Agency
Geneva Fitzsimmons,
Chairperson
Star Route, Box 158
Valley Center, CA 92082
Tel# (619) 742-3771, Fax#
742-3772

La Posta Band of Mission
Indians
Southern California Agency
Gwendolyn Parada,
Chairperson
1064 Barona Rd.
Lakeside, CA 92040
Tel# (619) 561-2924, Fax#

Laytonville Rancheria
Central California Agency
Carmen Ochoa, Chairperson
P.O. Box 1239

Laytonville, CA 95454
Tel# (707) 984-6197, Fax#
984-6201

Lone Pine Reservation
Central California Agency
Sandra Jefferson Yonge,
Chairperson
P.O. Box 747
Lone Pine, CA 93545
Tel# (619) 876-5414, Fax#

Lookout Rancheria
Northern California Agency
Laura Craig, Chairperson
P.O. Drawer 1570
Burney, CA 96013
Tel# (916) 335-5421, Fax#

Los Coyotes Band of Mission
Indians
Southern California Agency
Banning Taylor Sr.,
Spokesperson
P.O. Box 100
Warner Springs, CA 92086
Tel# (619) 782-3269, Fax#
782-2701

Lytton Rancheria
Central California Agency
Eleanor Lopez, Chairperson
P.O. Box 7882
Santa Rosa, CA 95407
Tel# (707) 575-5917, Fax#
575-6974

Manchester/Port Arena
Rancheria
Central California Agency
Darnell White, Interim
Chairperson
P.O. Box 623
Point Arena, CA 95468
Tel# (707) 882-2788, Fax#
882-4142

Manzanita General Council
Southern California Agency
Frances Shaw, Chairperson
P.O. Box 1302
Boulevard, CA 92005
Tel# (619) 766-4930, Fax#
766-4857

Mesa Grande Band of
Mission Indians
Southern California Agency
Carlos Guaffac, Chairperson
P.O. Box 270
Santa Ysabel, CA 92070
Tel# (619) 282-9650, Fax#
282-3750

Middletown Rancheria
Central California Agency
Lucas Simon, Chairperson
P.O. Box 1035
Middletown, CA 95461
Tel# (707) 987-3670, Fax#
987-9015

Mooretown Rancheria
Central California Agency
Darlene Cummings,
Chairperson
P.O. Box 1842
Oroville, CA 95965
Tel# (916) 533-3625, Fax#
533-3680

Morongo Band of Mission
Indians
Southern California Agency
Rodney Matthews, Vice-
Chairperson
11581 Potrero Rd.
Banning, CA 92220
Tel# (909) 849-4697, Fax#
849-4698

North Fork Rancheria
Central California Agency
P.O. Box 120
North Fork, CA 93643
Tel# (209) 877-2461, Fax#
877-2467

Pala Band of Mission Indians
Southern California Agency
Robert Smith, Chairperson
P.O. Box 43
Pala, CA 92059
Tel# (619) 742-3784, Fax#
742-1411

Pauma Band of Mission
Indians
Southern California Agency
Maurice J. Magante,
Chairperson

P.O. Box 86
Pauma Valley, CA 92061
Tel# (619) 742-1289, Fax#
742-3422

Pechanga Band of Mission
Indians
Southern California Agency
Jennie Miranda,
Spokesperson
P.O. Box 1477
Temecula, CA 92593
Tel# (909) 676-2768, Fax#
695-1778

Picayune Rancheria
Central California Agency
Gilbert Cordero, Chairperson
P.O. Box 269
Coarsegold, CA 93614
Tel# (209) 683-6633, Fax#
683-0599

Pinoleville Rancheria
Central California Agency
Leona Williams, Chairperson
367 N. State St. #204
Ukiah, CA 95482
Tel# (707) 463-1454, Fax#
463-6601

Pit River Tribal Council
Northern California Agency
Loomis Jackson, Chairperson
P.O. Drawer 1570
Burney, CA 96013
Tel# (916) 335-5421, Fax#
335-5241

Potter Valley Rancheria
Central California Agency
Shirley Laiwa,
Representative
755 El Rio St. #B
Ukiah, CA 95482
Tel# (707) 468-7494, Fax#
468-0874

Quartz Valley Reservation
Northern California Agency
Fred A. Chase, Chairperson
P.O. Box 737
Etna, CA 96032
Tel# (916) 467-3307, Fax#
467-3466

Ramona Band of Cahuilla
Indians
Southern California Agency
Manuel Hamilton,
Representative
3940 Cary Rd.
Anza, CA 92539
Tel# (909) 763-0371, Fax#
763-0371

Redding Rancheria
Northern California Agency
Edward R. Foreman,
Chairperson
2000 Rancheria Rd.
Redding, CA 96001
Tel# (916) 241-8979, Fax#
241-1879

Redwood Valley Rancheria
Central California Agency
Rita Hoel, Chairperson
3250 Road I
Redwood Valley, CA 94570
Tel# (707) 485-0361, Fax#
485-5726

Rincon Band of Mission
Indians
Southern California Agency
Robert Calac, Chairperson
P.O. Box 68
Valley Center, CA 92082
Tel# (619) 749-1051, Fax#
749-8901

Robinson Rancheria
Central California Agency
Douglas Duncan,
Chairperson
P.O. Box 1119
Nice, CA 95464
Tel# (707) 275-0527, Fax#
275-0235

Round Valley Reservation
*Covelo Indian Community
Council*
Joseph A. Russ Sr., President
P.O. Box 448, Hwy. 162
Covelo, CA 95428
Tel# (707) 983-6126, Fax#
983-6128

Rumsey Rancheria
Central California Agency

Paula Lorenzo, Chairperson
P.O. Box 18
Brooks, CA 95606
Tel# (916) 796-3400, Fax#
796-2143

San Manuel Band of Mission
Indians
Southern California Agency
Lynn R. LeRoy, Chairperson
P.O. Box 266
Patton, CA 92369
Tel# (909) 864-8933, Fax#
864-3370

San Pasqual General Council
Southern California Agency
Roy Natividad, Chairperson
P.O. Box 365
Valley Center, CA 92082
Tel# (619) 749-3200, Fax#
749-3876

Santa Rosa Rancheria
Central California Agency
Clarence Atwell Jr.,
Chairperson
P.O. Box 8
Lemoore, CA 93245
Tel# (209) 924-1278, Fax#
924-3583

Santa Rosa Reservation
Southern California Agency
Anthony Largo,
Spokesperson
325 N. Western St.
Hemet, CA 92343
Tel# (909) 849-4761, Fax#
849-5612

Santa Ynez Band of Mission
Indians
Southern California Agency
David Dominguez,
Chairperson
P.O. Box 517
Santa Ynez, CA 93460
Tel# (805) 688-7997, Fax#
686-9578

Santa Ysabel Band of
Mission Indians
Southern California Agency
Ben Scerato, Chairperson
P.O. Box 130

Santa Ysabel, CA 92070
Tel# (619) 765-0845, Fax#
765-0320

Scotts Valley Band of Pomo
Indians
Central California Agency
Leslie Miller, Chairperson
149 Main #200
Lakeport, CA 95453
Tel# (707) 263-4771, Fax#
263-4773

Sherwood Valley Rancheria
Central California Agency
Mike Knight, Chairperson
190 Sherwood Hill Dr.
Willits, CA 95490
Tel# (707) 459-9690, Fax#
459-6936

Shingle Springs Rancheria
Central California Agency
W. David Murry, Elise
Shilin, Co-Chairs
P.O. Box 1340
Shingle Springs, CA 95682
Tel# (619) 676-8010, Fax#
676-8033

Smith River Rancheria
*Smith River Rancheria Tribal
Council*
Loren J. Bommelyn,
Chairperson
P.O. Box 239
Smith River, CA 95567
Tel# (707) 487-9255, Fax#
487-0930

Soboba Band of Pomo
Indians
Southern California Agency
Ernest Salgado Jr.,
Chairperson
P.O. Box 487
San Jacinto, CA 92383
Tel# (909) 654-2765, Fax#
654-4198

Stewarts Point Rancheria
Central California Agency
Calvin H. Smith, Chairperson
P.O. Box 3854
Stewarts Point, CA 95480

Tel# (707) 725-0721, Fax#
528-4267

Sulphur Bank Rancheria
Elem General Council
Thomas Brown, Chairperson
P.O. Box 618
Clearlake Oaks, CA 95423
Tel# (707) 998-3431, Fax#
998-9348

Susanville Rancheria
Central California Agency
Nicholas J Padilla,
Chairperson
P.O. Drawer U
Susanville, CA 96130
Tel# (916) 257-6264, Fax#
257-7986

Sycuan Reservation
Southern California Agency
Daniel Tucker, Spokesperson
5459 Dehesa Rd.
El Cajon, CA 92021
Tel# (619) 445-2613, Fax#
445-1927

Table Bluff Rancheria
Northern California Agency
Albert E. James, Chairperson
P.O. Box 519
Loleta, CA 95551
Tel# (707) 733-5055, Fax#
733-5601

Table Mountain Rancheria
Central California Agency
Vernon Castro, Lewis
Barnes, Co-Chairpersons
P.O. Box 410
Friant, CA 93626
Tel# (209) 822-2587, Fax#
822-2693

Timbisha Shoshone Tribe
Central California Agency
Roy Kennedy, Chairperson
P.O. Box 206
Death Valley, CA 92328
Tel# (619) 786-2374, Fax#
786-2375

Torres-Martinez Band of
Mission Indians
Southern California Agency

Mary E. Belardo,
Chairperson
66-725 Martinez Rd.
Thermal, CA 92274
Tel# (619) 397-8144, Fax#
397-8146

Trinidad Rancheria
Northern California Agency
Marian Crutchfield,
Chairperson
P.O. Box 630
Trinidad, CA 95570
Tel# (707) 677-0211, Fax#
677-3921

Tule River Reservation
Central California Agency
Irma Hunter, Chairperson
P.O. Box 589
Porterville, CA 93258
Tel# (209) 781-4271, Fax#
781-4610

Tuolumne Me-Wuk
Rancheria
Central California Agency
Sonny Hendricks,
Chairperson
P.O. Box 699
Touluome, CA 95379
Tel# (209) 928-3475, Fax#
928-1677

Twentynine Palms Band of
Mission Indians
Southern California Agency
June Mike, Chairperson
555 Sunrise Hwy. #200
Palm Springs, CA 92264
Tel# (619) 320-8168, Fax#
327-6947

United Lumbee Nation of NC
& America
Northern California Agency
Eva Silver Star Reed, Chief
P.O. Box 512
Fall River Mills, CA 96028
Tel# (916) 336-6701, Fax#

Upper Lake Rancheria
Central California Agency
Phyllis Harden, Vice-
Chairperson
P.O. Box 254272

Sacramento, CA 95820
Tel# (916) 371-2576, Fax#
374-8853

Viejas Reservation
Viejas Tribal Council
Anthony Pico, Chairperson
P.O. Box 908
Alpine, CA 92001
Tel# (619) 445-3810, Fax#
445-5337

Winnemucca Indian Colony
Western Nevada Agency
Glenn Wasson, Chairperson
420 Pardee
Susanville, CA 96130
Tel# (916) 257-7093, Fax#

Woodfords Community
Council
Western Nevada Agency
M. Kevin Jones, Chairperson
96 Washoe Blvd.

Markleeville, CA 96120
Tel# (916) 694-2170, Fax#

Yurok Indian Reservation
Northern California Agency
Susie L. Long, Chairperson
517 Third St., Suite 21
Eureka, CA 95501
Tel# (707) 444-0433, Fax#
444-0437

Appendix C: List of the 62 PRIZM Clusters

The following are the names and the descriptions given to the clusters by Claritas.

01	Blue Blood Estates	Elite Super-Rich Families
02	Winner's Circle	Executive Suburban Families
03	Executive Suites	Upscale White-Collar Couples
04	Pools and Patios	Established Empty Nesters
05	Kids and Cul-de-Sacs	Upscale Suburban Families
06	Urban Gold Coast	Elite Urban Singles
07	Money and Brains	Sophisticated Urban Fringe Couples
08	Young Literati	Upscale Urban Singles and Couples
09	American Dreams	Established Urban Immigrant Families
10	Bohemian Mix	Bohemian Singles
11	Second City Elite	Upscale Executive Families
12	Upward Bound	Young, Upscale White-Collar Families
13	Gray Power	Affluent Retirees in Sunbelt Cities
14	Country Squires	Elite Exurban Families
15	God's Country	Executive Exurban Families
16	Big Fish, Small Pond	Small-Town Executive Families
17	Greenbelt Families	Small-Town Executive Families
18	Young Influentials	Upwardly Mobile Singles and Couples
19	New Empty Nests	Upscale Suburban Fringe Couples
20	Boomers and Babies	Young White-Collar Suburban Families
21	Suburban Sprawl	Young Mid-Scale Suburban Couples & Singles
22	Blue Chip Blues	Upscale Blue-Collar Families
23	Upstarts and Seniors	Middle-Income Empty Nesters
24	New Beginnings	Young Mobile City Singles
25	Mobility Blues	Young Blue-Collar/Service Families
26	Gray Collars	Aging Couples in Inner
27	Urban Achievers	Mid-Level, White-Collar Urban Couples
28	Big City Blend	Middle-Income Immigrant Families

29	Old Yankee Rows	Empty-Nest, Middle-Class Families
30	Mid-City Mix	African-American Singles and Families
31	Latino America	Hispanic Middle-Class Families
32	Middleburg Managers	Mid-Level White-Collar Families
33	Boomtown Singles	Middle-Income Young Singles
34	Starter Families	Young, Middle-Class Families
35	Sunset City Blues	Empty Nests in Aging Industrial
36	Towns and Gowns	College Town Singles
37	New Homesteaders	Young Middle-Class Families
38	Middle America	Midscale Families in Midsize Towns
39	Red, White and Blues	Small Town Blue-Collar Families
40	Military Quarters	GIs and Surrounding Off-Base Families
41	Big Sky Families	Midscale Couples, Kids and Farmland
42	New Eco-topia	Rural White- Blue-Collar/Farm Families
43	River City, USA	Middle-Class Rural Families
44	Shotguns and Pickups	Rural Blue-Collar Workers and Families
45	Single City Blues	Ethnically Mixed Urban Singles
46	Hispanic Mix	Urban Hispanic Singles and Families
47	Inner Cities	Inner-City, Single Parent Families
48	Smalltown Downtown	Older Renters and Young Families
49	Hometown Retired	Low-Income, Older Singles and Couples
50	Family Scramble	Low-Income Hispanic Families
51	Southside City	African-American Service Workers
52	Golden Ponds	Retirement Town Seniors
53	Rural Industria	Low-income, Blue-Collar Families
54	Norma Rae-Ville	Young Families, Bi-Racial Mill Towns
55	Mines and Mills	Older Families, Mine and Mill Towns
56	Agri-Business	Rural Farm Town and Ranch Families
57	Grain Belt	Farm Owners and Tenants
58	Blue Highways	Moderate Blue-Collar/Farm Families
59	Rustic Elders	Low-Income, Older Rural Couples
60	Back Country Folks	Remote Rural/Town Families
61	Scrub Pine Flats	Older African-American Farm Families

62 Hard Scrabble Older Families in Poor Isolated Areas