

BARRIERS TO MAINTAINING WORKING SMOKE ALARMS

Service Area Demographic Study

&

Interview Research

Conducted for

Tualatin Valley Fire and Rescue

May 2003

Developed by:

**CAMPBELL
DELONG
RESOURCES, INC.**

www.cdri.com

Although Campbell DeLong Resources, Inc. has an established record as consultants on property management and public safety issues, we are not attorneys and do not want our role to be mistaken for that of legal counsel. Regarding those ideas in this document that relate to questions of law, we present them with the understanding that appropriate review by TVF&R attorneys should take place prior to implementation.

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Contents

METHODS.....	1
DEMOGRAPHIC PROFILE.....	7
FOCUS GROUP FINDINGS: RESIDENTS.....	23
INTERVIEW FINDINGS: LANDLORDS	34
RECOMMENDATIONS.....	40
APPENDIX	47

Discussion Guide

TVF&R Census Tracts and Service Area Boundaries

Questions or comments about this report should be directed to John Campbell, Campbell DeLong Resources, Inc., the lead consultant on the project and lead writer on this report. He may be reached at 503-221-2005 or via e-mail to John@cdri.com.

METHODS

RESEARCH OBJECTIVES

The goal of this research falls into two distinct parts:

1. **Provide a demographic profile of the service area.** Because the U.S. Census typically provides reports based on Cities, Counties, and States, TVF&R's service area is not readily profiled by looking at Census data. Therefore a demographic profile, based on a more detailed analysis of Census data for the service area, is required to understand key characteristics of the service area.
2. **Conduct in-depth interviews and provide marketing recommendations.** TVF&R desires marketing recommendations regarding approaches for increasing the likelihood that residents in the service area will understand the importance of, and voluntarily comply with, existing smoke detector requirements for residential dwellings, with special emphasis on a known at-risk population defined as low-income residents in general and low-income Spanish-speaking residents specifically. To develop such recommendations, a qualitative interviewing research process was developed to identify barriers that prevent residents from having working smoke alarms in their homes and how these barriers can be overcome.

The following sections describe the methodologies used for each.

DEMOGRAPHIC STUDY

In order to assist Campbell DeLong Resources, Inc. (CDRI) in gathering demographic data on their service district, Tualatin Valley Fire and Rescue provided a map of the service district which included Census tract and block group boundaries. In order to pull aggregate Census data beyond very basic information (e.g. total population size), analysis at the block group level or higher is optimal. Therefore, decision rules had to be applied that would define the service area using block groups. While many Census tracts are wholly included within the service district boundary, some Census tracts and block groups are divided by the service district boundary. Thus, some judgment calls were required to decide which block groups to include in the population count. Using the map, CDRI determined whether to include the block group based on the amount of the block group included within the service district.

Using this method, the total population of the TVF&R service district is projected to be approximately 382,438. This count does not include Oregon City. The following is a list of census tracts that are wholly included within the service district boundary and a discussion of the decision rules used in developing this analysis.

Census tracts wholly included within service district boundary			
205.01	310.03	315.11	318.09
206.00	310.04	315.12	319.03
207.00	310.05	316.11	319.04
227.02	310.06	316.12	319.05
227.03	311.00	316.13	319.06
227.04	312.00	317.03	320.01
302.00	313.00	317.04	320.02
303.00	314.02	317.05	321.03
304.01	314.03	317.06	321.04
307.00	314.04	318.04	321.05
308.01	315.06	318.05	321.06
308.03	315.07	318.06	
308.04	315.08	318.07	
309.00	315.10	318.08	

The following table lists the block groups which were divided by the service district boundary and were *included* in the population count. Generally, those block groups requiring a judgment call were included when a street-density review suggested that more than one-third of the population were within the service district. Most of the groups included through use of this decision rule likely have a far greater portion within the service district. The population of the census tracts in the above table and the population of the block groups in the following table comprise all of the census tracts and block groups included in the population count.

After developing these decision rules, and applying them by block group, a final visual inspection of the boundaries was made to compare the included areas with the service area boundaries. The resulting boundary outline, while not following the service area boundary precisely in all areas, is a close approximation of the service area and should provide sufficient accuracy for analysis needs typically associated with marketing and outreach decision making.

Block groups divided by service district boundary & included in population count	
Census Tract 68.01, Block Group 1	Census Tract 305.02, Block Groups 1 - 3
Census Tract 69.00, Block Group 2	Census Tract 306.00, Block Groups 1 & 2
Census Tract 70.00, Block Groups 1 & 3	Census Tract 315.04, Block Groups 1 - 4
Census Tract 71.00, Block Group 3	Census Tract 316.05, Block Groups 1 - 4
Census Tract 205.02, Block Groups 1 & 2	Census Tract 316.06, Block Groups 1 - 3
Census Tract 228.00, Block Group 1	Census Tract 316.09, Block Group 1
Census Tract 301.00, Block Groups 1 & 2	Census Tract 316.10, Block Groups 1 - 4
Census Tract 303.00, Block Groups 1 - 4	Census Tract 320.02, Block Groups 1 - 4
Census Tract 304.02, Block Group 1	Census Tract 322.00, Block Groups 1 - 3
Census Tract 305.01, Block Groups 1 - 4	Census Tract 323.00, Block Group 1
Census Tract 315.09, Block Groups 1 & 2	

A total of ten block groups, with small portions in the service area, were judged to not have a significant enough portion of the population to be included in the study of the demographic data – that is, the price (in error) of including the group would exceed the value of including it. Below is a table with the block groups that were not included in the population count.

Block groups divided by service district boundary & not included in population count	
Census Tract 68.02, Block Group 1	Census Tract 203.02, Block Groups 1 & 2
Census Tract 69.00, Block Group 1	Census Tract 204.01, Block Group 4
Census Tract 70.00, Block Group 2	Census Tract 204.02, Block Group 3
Census Tract 71.00, Block Group 2	Census Tract 205.03, Block Groups 1 & 2

The population of these block groups total 19,288. Even in the unlikely possibility that up to half of these block groups' combined populations are within the service district, this would add no more than an additional 9,644 people to our current population estimate of 382,438. However, that potential upper limit would have to be trimmed by the potential error margin of population segments outside of the service area that are included in the study by virtue of their belonging to a group that is predominately within the service area. Thus, we provide the current estimate of 382,438 as, in our judgment, the most reasonable based on available block group-level analysis.

It should also be noted that there are a few block groups which, although they do have some area within the service district, are not included because this area was judged to be negligible. These block groups included: Census Tract 204.01, Block Group 2; Census Tract 228.00, Block Group 2; Census Tract 316.08, Block Group 1; Census Tract 324.05, Block Group 2; Census Tract 324.06, Block Group 4; and Census Tract 307.00, Block Group 2.

IN-DEPTH INTERVIEWS

To investigate current barriers to having working smoke alarms in homes among the identified at-risk populations, a qualitative research approach was designed. Qualitative research is an excellent way to discover the “why” behind participants’ beliefs and attitudes. Our past experience with low-income populations generally, and low-income Latino populations specifically, confirms that understanding of the issues cannot be gained without first establishing a level of trust high enough to permit a meaningful dialogue to occur. This can happen with carefully planned and implemented qualitative research but is seldom achieved through quantitative – typically telephone or mass mail-out survey – research.

To reach the specific target population in question a highly flexible process, making use of existing ties that TVF&R has with the community, was designed to reach three selected populations: 1) Low-income Latinos with children in the Beaverton School District; 2) Residents of Bonita Villa, a location known to have had chronic fire safety problems in the very recent past; and 3) Residents of Tartan West, a location that has recovered from a fatal fire to become one of the more cooperative communities working with TVF&R to ensure smoke alarm compliance. On-the-ground logistics and practical consideration of the property manager’s time led to the interview format adjusting to a modified focus group approach rather than the small group interview approach anticipated. In total, 33 households represented by over 50 residents participated in the resident interviews. In addition, informal individual interviews with a select number of individuals were conducted before, during, and after the focus group interviews to add depth and understanding to the findings gained from residents.

- **Discussion guide.** A discussion guide for the group interviews was developed in cooperation with TVF&R and translated into Spanish for benefit of Spanish-speaking participants attending. A copy of the discussion guide is bound in this report.
- **Dates and location of interview research with residents.**
 - **Welcome Center.** All interviews were conducted on April 3, 2003 at the Welcome Center in Beaverton. The first group, held at 9:00 a.m., included 8 participants representing 5 households. The second group interview, starting at 10:30 a.m., included 7 participants representing 4 households. The third group interview, which began at 7:30 p.m., included approximately 9 people representing 6 households. Each session lasted between one hour and an hour and a half. Participants were identified and invited to the research, using guidelines discussed with CDRI, by Lidia Krivoy, District ESL/Bilingual Social Worker for the Beaverton School District.

- **Bonita Villa.** Eight participants representing 4 households were interviewed in an informal focus group format at the offices of manager Lupe Kinney at Bonita Villa on April 4, 2003. All participants were identified and invited to attend by Kinney using an invitation approach defined by CDRI.
- **Tartan West.** A total of 14 households were represented at the group interview at Tartan West, represented by about 19 participants, on April 14, 2003. All participants were identified and invited to attend by manager Paul Branch using an invitation approach defined by CDRI.
- **Cooperation fees.** As a thank you for their participation in the focus groups and to acknowledge the value of their opinions, each household represented at the focus groups was provided a Fred Meyer gift card in the value of \$20.
- **Researchers.** John Campbell, President of Campbell DeLong Resources, Inc. took the lead in moderating all focus groups and conducted all interviews. Research associate Daniela Diaz, who has a depth of experience conducting groups and interviews in both English and Spanish for CDRI, assisted with most in-Spanish interviews. Lidia Krivoy, of the Welcome Center, also provided translation assistance for two of the interviews at the Welcome Center. Senior researcher Cheri Woodhull assisted with research design, results interpretation, and in-depth analysis of Census tract data on the demographic study.
- **Individual interviews.** The following people were spoken with in informal interviews to gain additional background information:
 - Lidia Krivoy, District ESL/Bilingual Social Worker, Beaverton School District
 - Lupe Kinney, Business Manager, Bonita Villa
 - Steven R. Nicholas, Senior Facilities Maintenance Technician, Washington County Department of Housing Services
 - Paul Branch, Property Manager, Tartan West (with staff)
 - Cleve Joiner, Assistant Fire Marshal, Tualatin Valley Fire and Rescue
 - A variety of other individuals at Tualatin Valley Fire and Rescue were spoken with in brief discussions about the issues and concerns related to the project, both for the purpose of refining questions to be asked of residents and landlords and for the purpose of developing a better understanding of current issues and the range of communications efforts that have been done in the past.
- **Other sources of information reviewed.**
 - An unsigned report on the rate of disabling of both ionizing and photoelectric smoke alarms at Tartan West and Bonita Villa, compiled by Eric McMullen, of TVF&R.

- *Socioeconomic Factors and the Incidence of Fire* by TriData Corporation, June 1997, written for the United States Fire Administration, Federal Emergency Management Agency, National Fire Data Center.
- Selected portions of Oregon Revised Statutes Chapters 90, 153, and 479.

➤ **Additional background information.** Additional background information is drawn from the body of research that Campbell DeLong Resources, Inc. has conducted into property management issues for the purpose of developing training and technical assistance for the U.S. Department of Justice, the U.S. Department of Housing and Urban Development and for a range of public housing agencies, police departments, and community development organizations nationally. Three representative documents include:

- *The Landlord Training Program* manual, Oregon Edition. First edition published in 1989 in a version specifically for the City of Portland. Tenth edition printed March 2002, 124 pages. Original funding by: Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice.
- *Solving Chronic Nuisance Problems: A Manual for Neighborhood Leaders*. Developed for The Enterprise Foundation, with U.S. Department of Housing and Urban Development funding, the 43-page book identifies barriers to solving chronic nuisance problems, discusses “best practices” that experienced leaders use to find solutions, and provides a set of references for pursuing specific nuisance abatement goals. Published in 2001.
- *Keeping Illegal Activity out of Rental Property: A Police Guide for Establishing Landlord Training Programs*. A monograph published by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice, 98 pages. Published in March 2000. The text is copyrighted 1993-1999 by Campbell DeLong Resources, Inc. Available online at: www.ncjrs.org/cpdocs.htm.

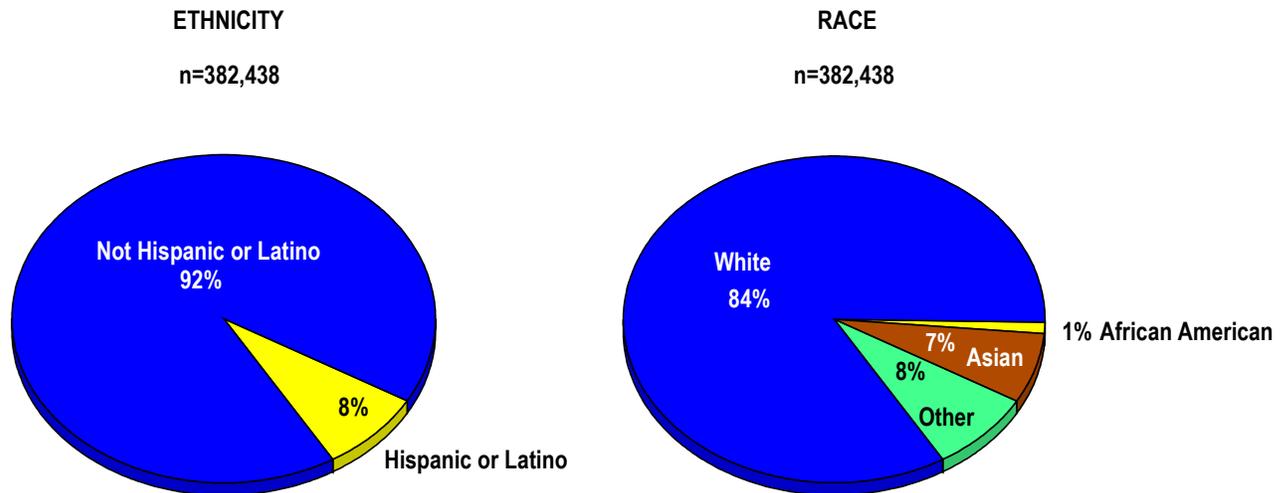
In addition to in-depth research conducted for the documents listed above, we have conducted a wide range of research projects with public and Indian housing agencies that include detailed analysis of the relationship between management practices and tenant behavior. Additional information about our background in working with landlord-tenant issues can be viewed at our website at www.cdri.com.

DEMOGRAPHIC PROFILE

The following section summarizes key findings from a demographic study of TVF&R’s service tract conducted by reviewing 2000 Census tract information. See the *Methods* section of this report for a discussion of limitation and reliability of the following data.

A. THE TOTAL POPULATION OF THE TUALATIN VALLEY FIRE & RESCUE SERVICE DISTRICT, AS RECORDED IN THE 2000 CENSUS, IS APPROXIMATELY 382,438.

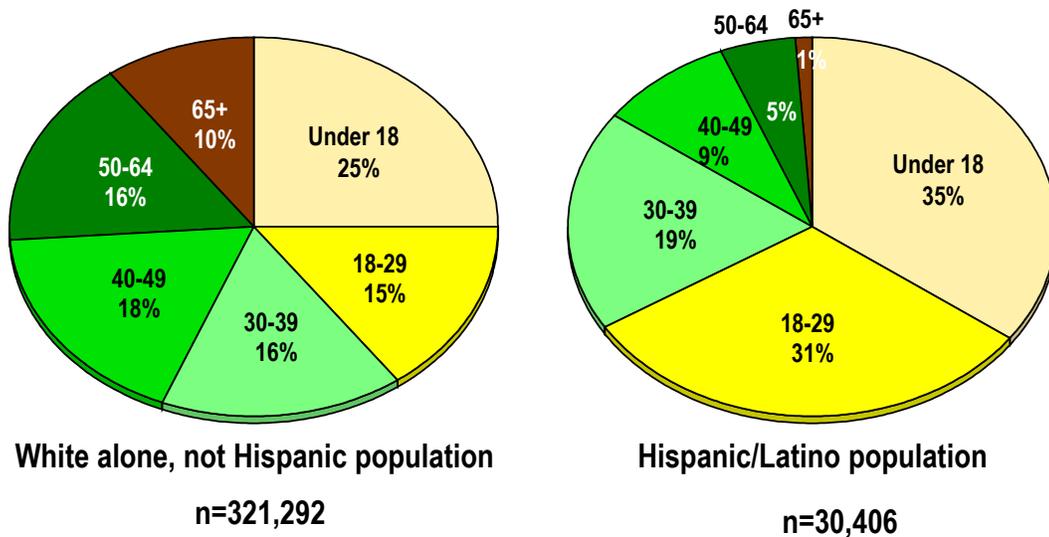
Within the TVF&R service district’s population of 382,438 there are approximately 30,406 Hispanic/Latinos, representing 8% of the total population. When looking at the population by race, 84% of the population is White, 7% Asian American, 1% African American, and 8% are of some other origin, including American Indian and Pacific Islander. It is significant to note a comparison of the size of the Latino population in the 2000 U.S. Census with that of the 1990 U.S. Census. A rough comparison, using approximately similar boundaries from the 1990 Census, indicates that the size of the Latino population in the service area approximately quadrupled in the ten year period.



B. THE HISPANIC/LATINO POPULATION IS MUCH YOUNGER THAN THE WHITE ALONE POPULATION.

When looking at the population by age and ethnicity, we find that the Hispanic Latino population is much younger than is the White alone population (White alone meaning Caucasian, but not of Hispanic origin). For example, 35% of the Hispanic/Latino population is under the age of 18, compared to 25% of the White alone population. In addition, another 31% of the Hispanic/Latino population is between the ages of 18 and 29, while just 15% of the White alone population is in this age range.

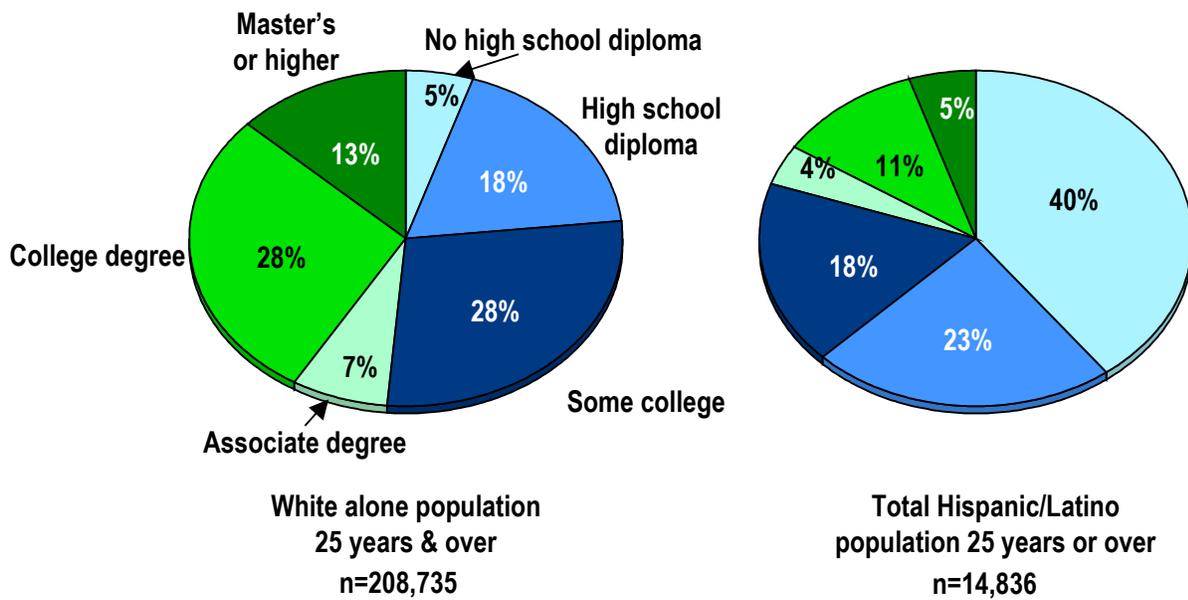
AGE



C. LATINOS ARE MORE LIKELY TO HAVE A LOWER LEVEL OF EDUCATION THAN THE WHITE ALONE POPULATION.

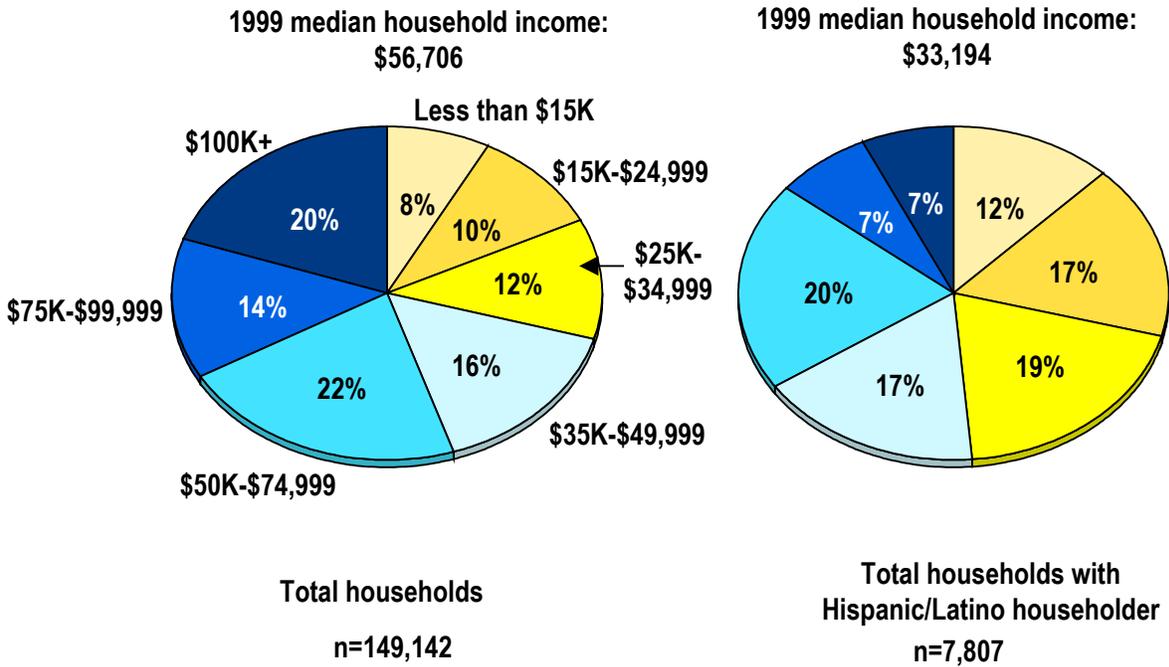
Of the Hispanic/Latino population that is 25 years or older, 4 in 10 do not have a high school degree. In contrast, just 5% of the White alone population does not have a high school diploma. More than 4 in 10 of the White alone population have a bachelor's degree or higher, compared with 16% of the Hispanic/Latino population.

EDUCATIONAL ATTAINMENT

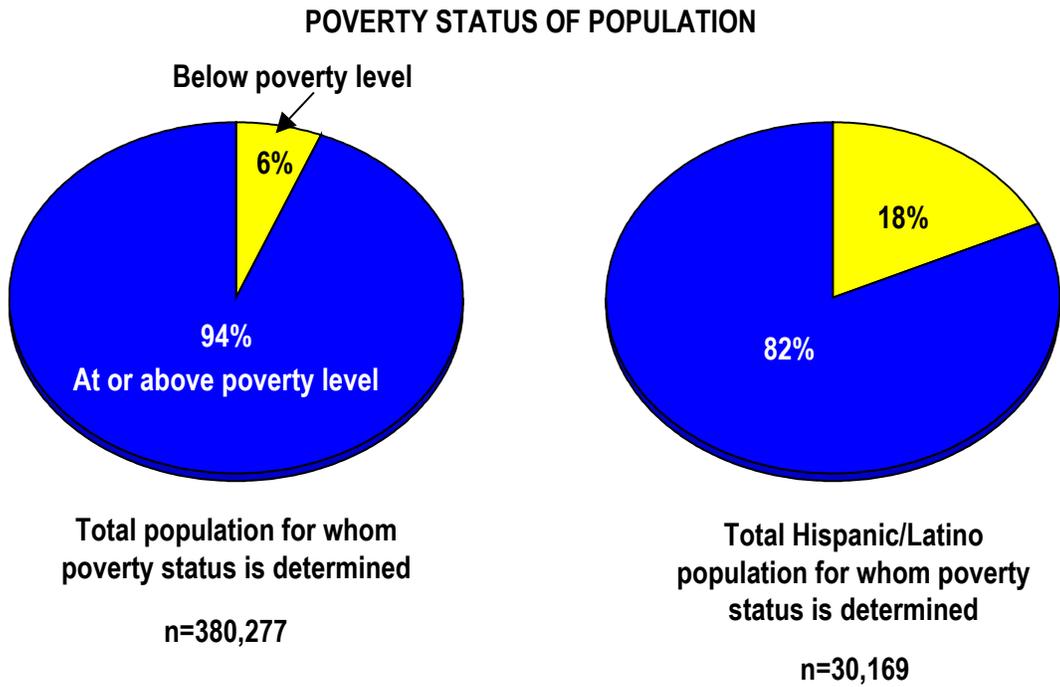


D. THE MEDIAN HOUSEHOLD INCOME FOR THE TOTAL POPULATION IS \$56,706. FOR HOUSEHOLDS WITH A HISPANIC/LATINO HOUSEHOLDER, THE MEDIAN HOUSEHOLD INCOME IS \$33,194.

HOUSEHOLD INCOME



E. HISPANIC/LATINOS ARE MUCH MORE LIKELY TO BE BELOW THE POVERTY LEVEL THAN THE POPULATION AS A WHOLE.

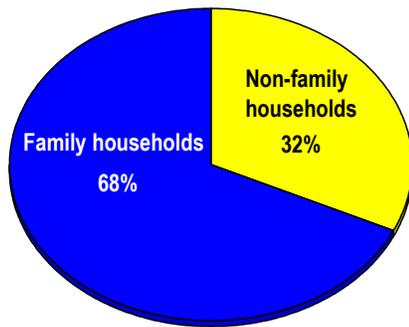


F. MOST HOUSEHOLDS WITHIN THE SERVICE DISTRICT ARE FAMILY HOUSEHOLDS. MORE THAN HALF OF HISPANIC/LATINO HOUSEHOLDS HAVE CHILDREN UNDER THE AGE OF 18 IN THEM.

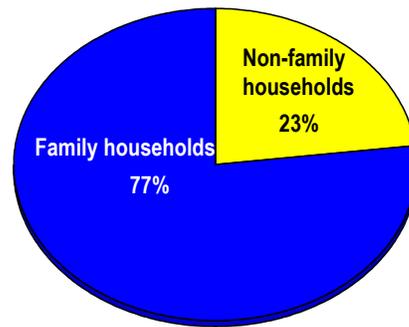
Overall, 7 in 10 (68%) of the households in the service district are family households – households with at least 2 related people. One-third of households have children under the age of 18 (36%) – either married couples (29%) or single parents (7%). One-third of households are either married-couple families with no children or a male/female householder with no children. Another one-third are non-family households (32%). The overall average household size is 2.5 people.

However, when looking at Hispanic/Latino households, the make-up is much different. Over half of these households have children under the age of 18 in them (55%). Four in 10 are married couples with children, while 14% are single parents.

FAMILY & NON-FAMILY HOUSEHOLDS

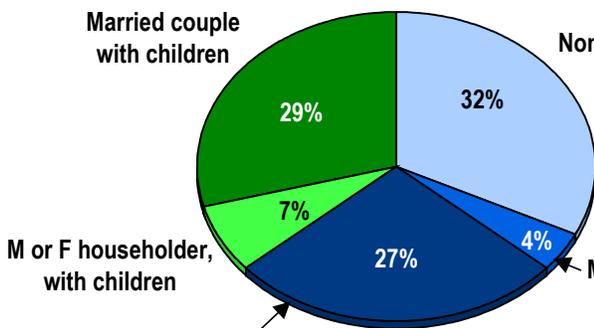


Total households
n=149,142

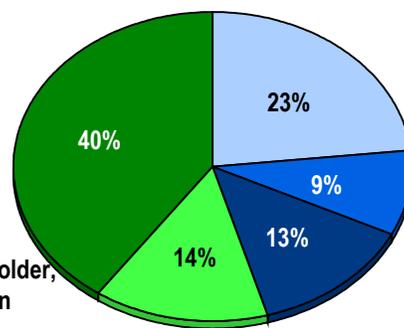


Households with Hispanic/Latino householder
n=7,807

HOUSEHOLD TYPE



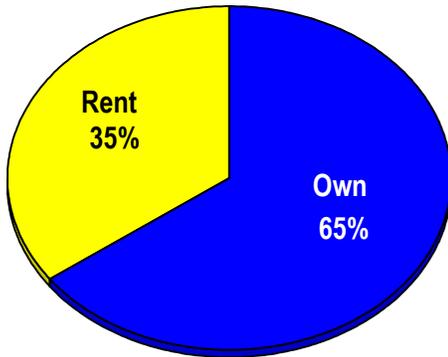
Total households
n=149,142



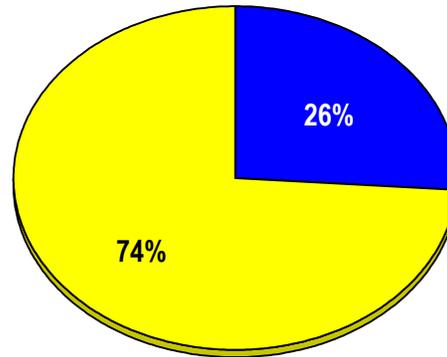
Households with Hispanic/Latino householder
n=7,807

G. TWO-THIRDS OF HOUSEHOLDS OWN THEIR HOME. HOWEVER, THREE-QUARTERS OF HISPANIC/LATINO HOUSEHOLDS RENT.

OWN VS. RENT

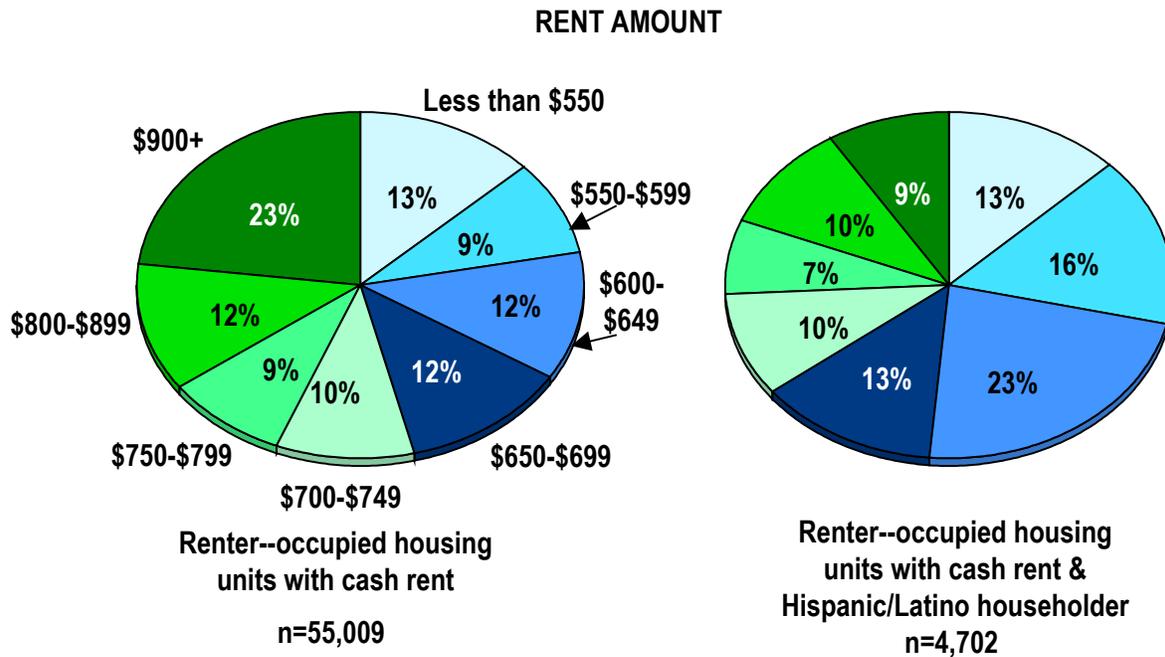


**Occupied housing units with
White alone householder
n=130,820**



**Occupied housing units with
Hispanic/Latino householder
n=7,479**

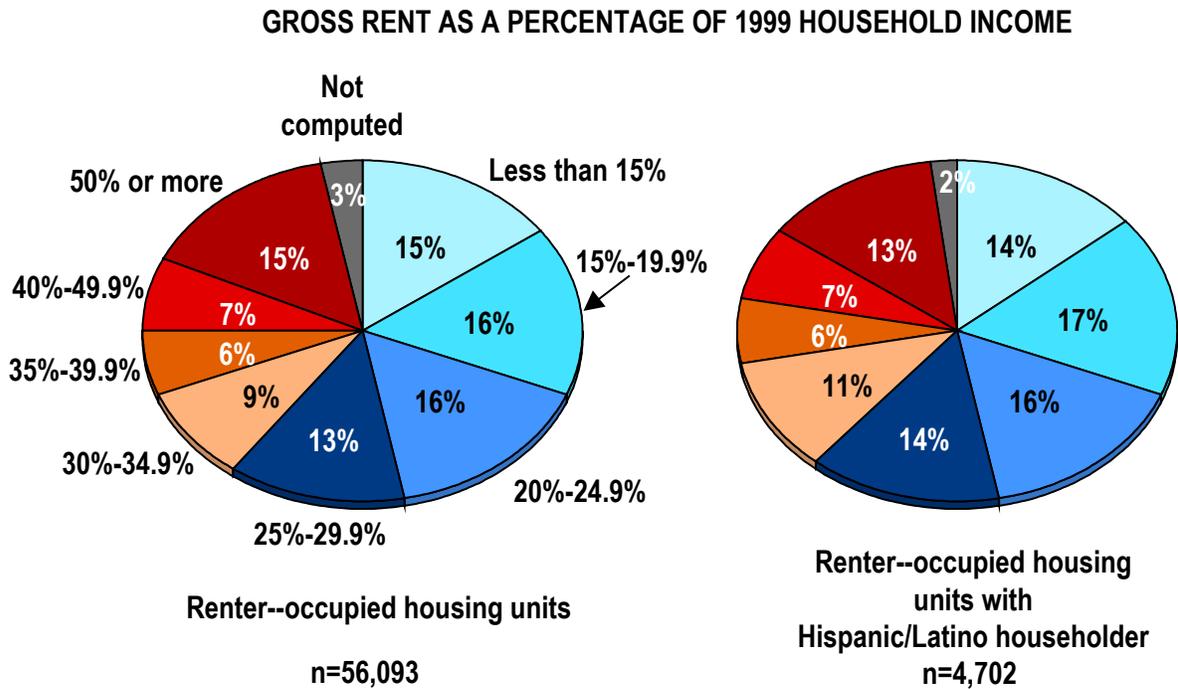
H. MEDIAN RENT FOR RENTER-OCCUPIED HOUSING IS \$712 PER MONTH. HISPANIC/LATINO HOUSEHOLDS, HOWEVER, ARE LIKELY TO BE PAYING LESS THAN \$650.¹



¹ The chart for Hispanic/Latino householders represents a majority subsample of the geographic area examined for this study. Due to the way the U.S. Census collects and distributes this type of data, the information is not available at the “block group” level. Only whole Census tracts are included.

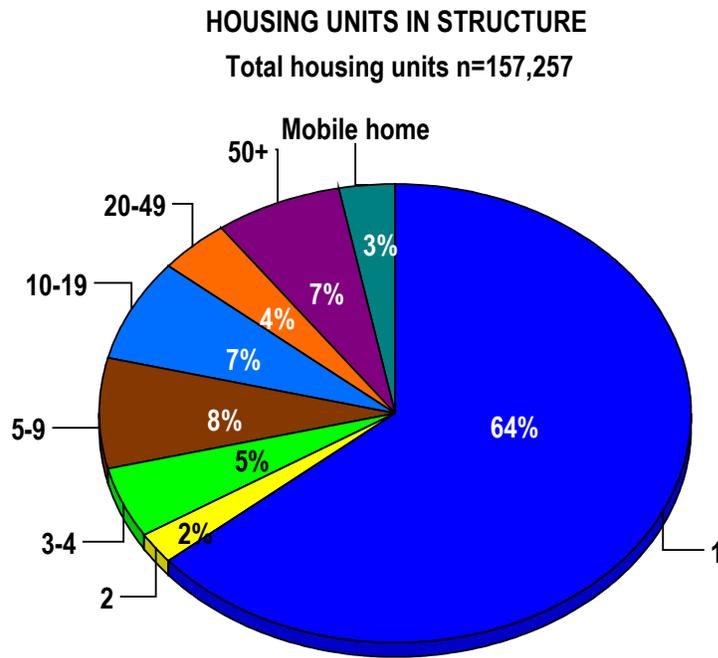
I. MORE THAN 1 IN 4 HOUSEHOLDS ARE IN HOUSING STRESS, PAYING MORE THAN ONE-THIRD OF THEIR INCOME TOWARD RENT.

When looking at rent as a percentage of household income, we find that 28% are paying 35% or more of their monthly income toward rent. Interestingly, Hispanic/Latinos, while suffering greater poverty, are not more likely than the population as a whole to be living in housing stress (26%).¹



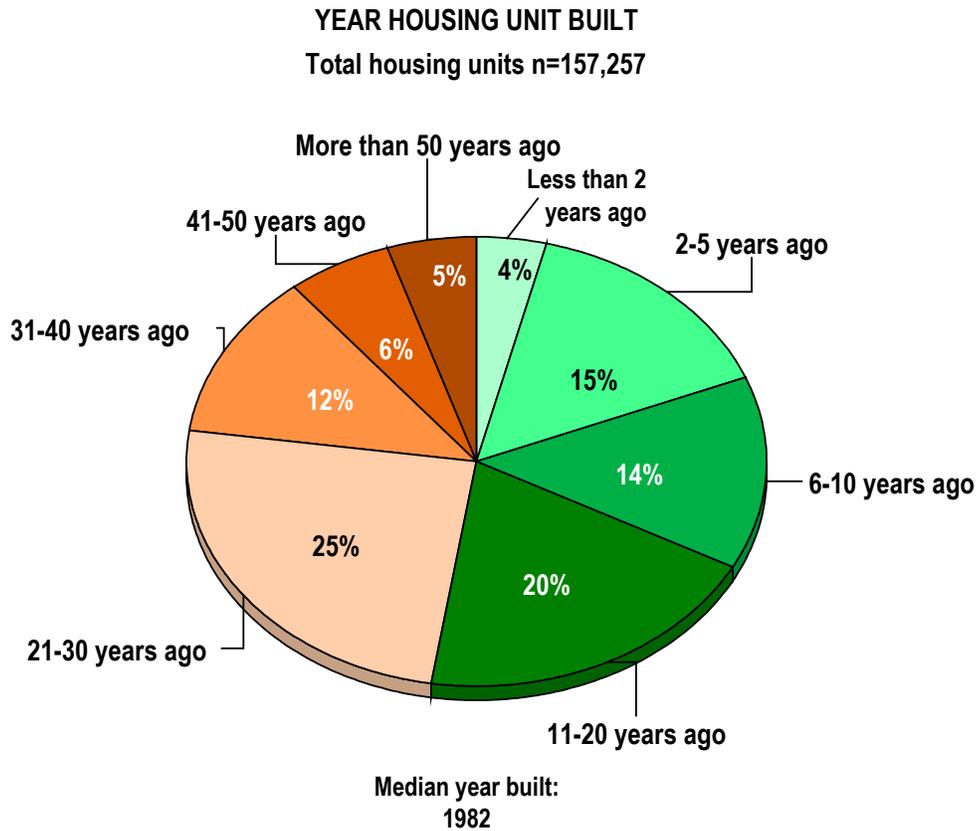
¹ The chart for Hispanic/Latino householders represents a majority subsample of the geographic area examined for this study. Due to the way the U.S. Census collects and distributes this type of data, the information is not available at the “block group” level. Only whole Census tracts are included.

J. MOST HOUSING UNITS ARE SINGLE-STRUCTURE UNITS.



K. THE MEDIAN YEAR BUILT FOR HOUSING UNITS IS 1982.

About one-half of the housing units within the service district were built 20 years ago or less, and half were built more than 20 years ago. Housing units are most likely to have been built between 11 and 30 years ago – 20% were built between 11 and 20 years ago and 25% built 21 to 30 years ago.

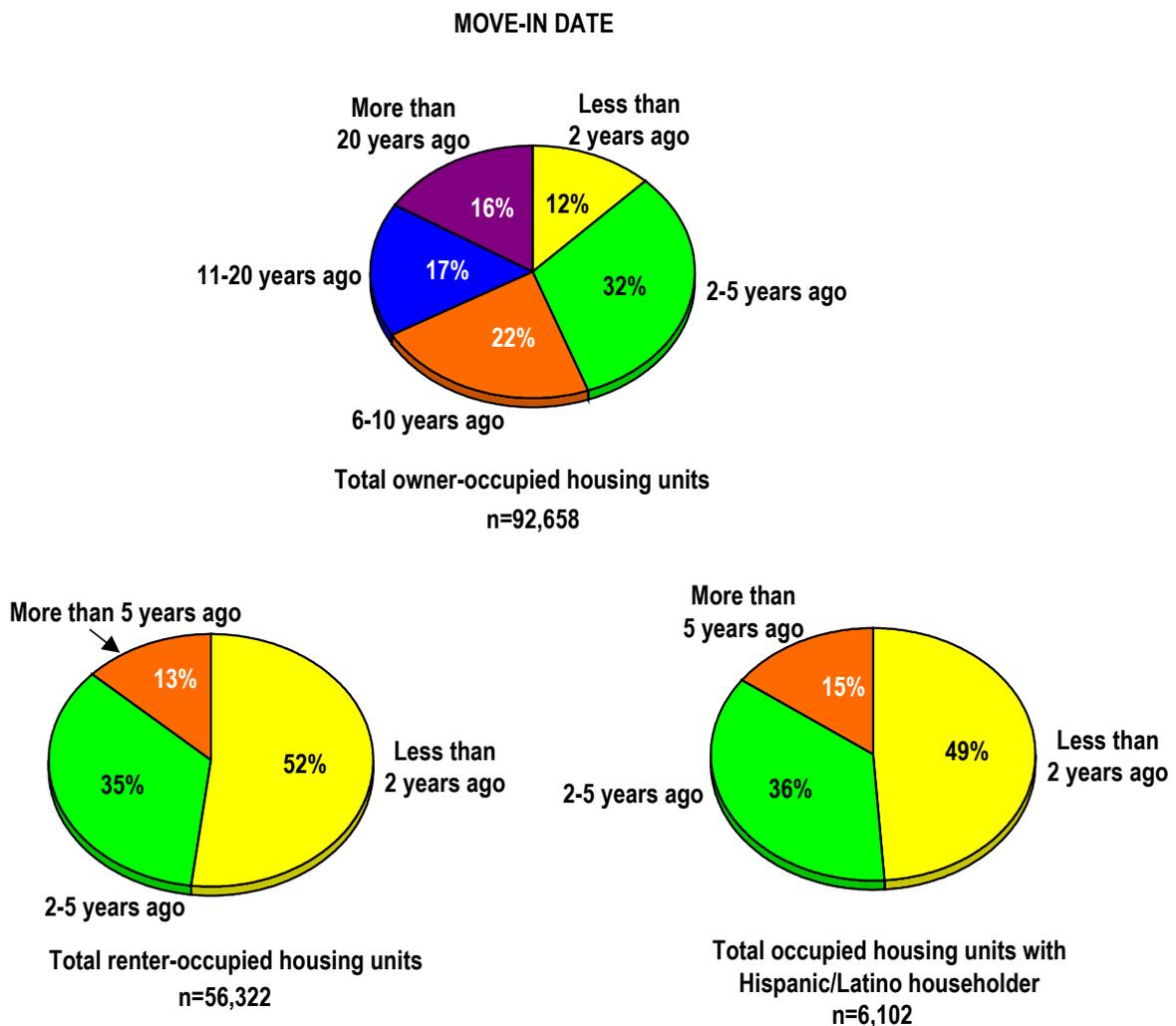


L. FEW RESIDENTS HAVE LIVED IN THEIR HOMES FOR MORE THAN 10 YEARS.

Not surprisingly, those who own their homes are likely to have lived in their dwelling longer than renters have in theirs. However, only one-third of homeowners (33%) have lived in their home for more than 10 years. One in ten have lived in their home for less than 2 years (12%), one-third have lived in their home for 2 to 5 years, and another 2 in 10 moved in 6 to 10 years ago. On average, homeowners have lived in their current home for 7 years.

Renters have lived in their current home for an average of 1 year. More than half of all renters moved into their home less than 2 years ago (52%). One-third moved in 2 to 5 years ago, and only 13% have lived in their current home for more than 5 years.

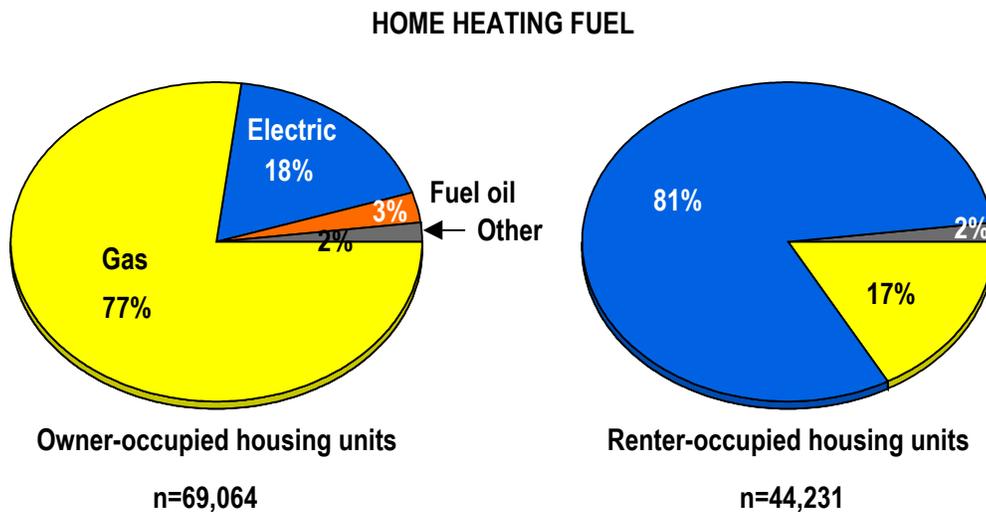
When looking at all Hispanic/Latino households – owners and renters – the move-in date follows a similar pattern as the renters, with half moving into their home less than 2 years ago and another one-third who moved in 2 to 5 years ago.¹



¹ The chart for Hispanic/Latino householders represents a majority subsample of the geographic area examined for this study. Due to the way the U.S. Census collects and distributes this type of data, the information is not available at the “block group” level. Only whole Census tracts are included.

M. THE MAJORITY OF OWNER-OCCUPIED HOUSING UNITS HAVE GAS AS THE HEATING FUEL, WHILE THE MAJORITY OF RENTER-OCCUPIED UNITS HAVE ELECTRICITY.

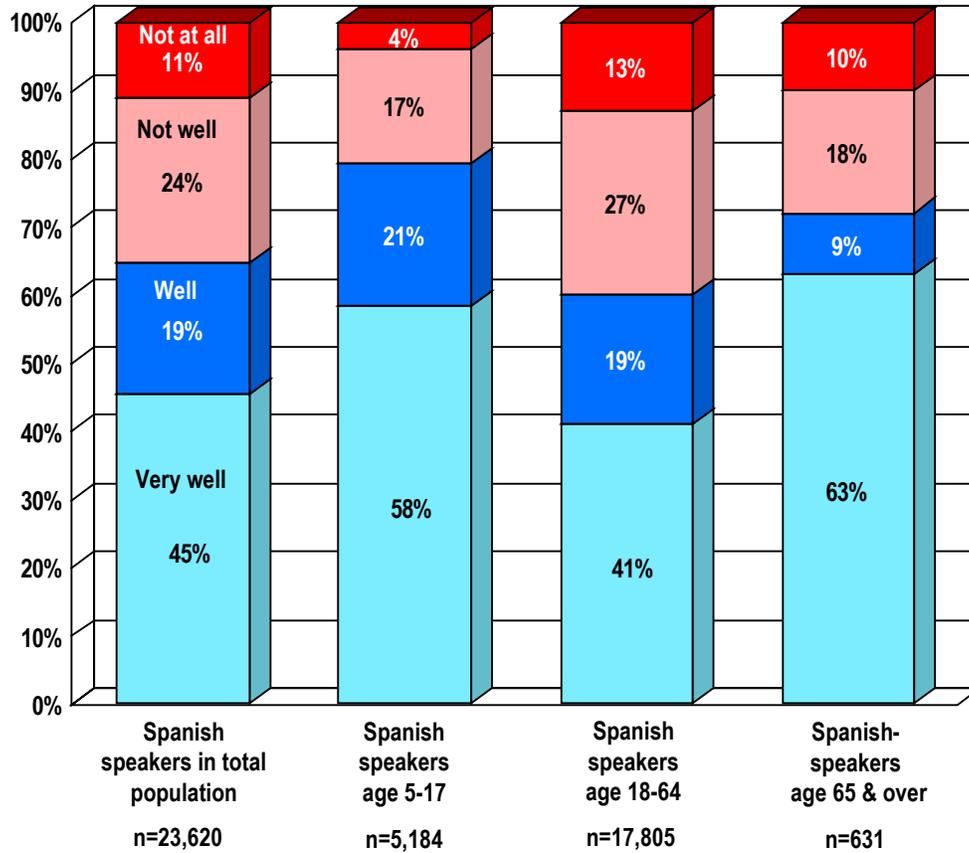
The charts below represents a majority subsample of the geographic area examined for this study. Due to the way the U.S. Census collects and distributes this type of data, the information is not available at the “block group” level. So only whole Census tracts in the geographic sample are included.



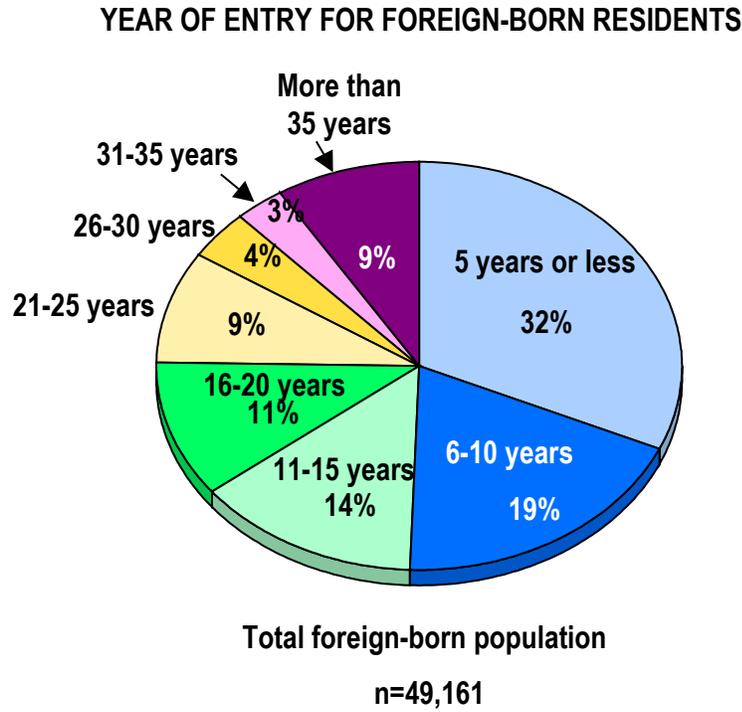
N. ONE-THIRD OF SPANISH SPEAKERS, 8,427 PEOPLE, DO NOT SPEAK ENGLISH WELL OR DO NOT SPEAK ENGLISH AT ALL.

Within the service district population, there are approximately 23,620 Spanish speakers. Of these, 64% speak English well or very well. However, 36% do not speak English well or at all. Four in ten Spanish speakers in the 18 to 64 age range cannot speak English well, compared with 21% of children (age 5 to 17) and 29% of those 65 or older.

LEVEL OF ENGLISH FLUENCY FOR SPANISH SPEAKERS

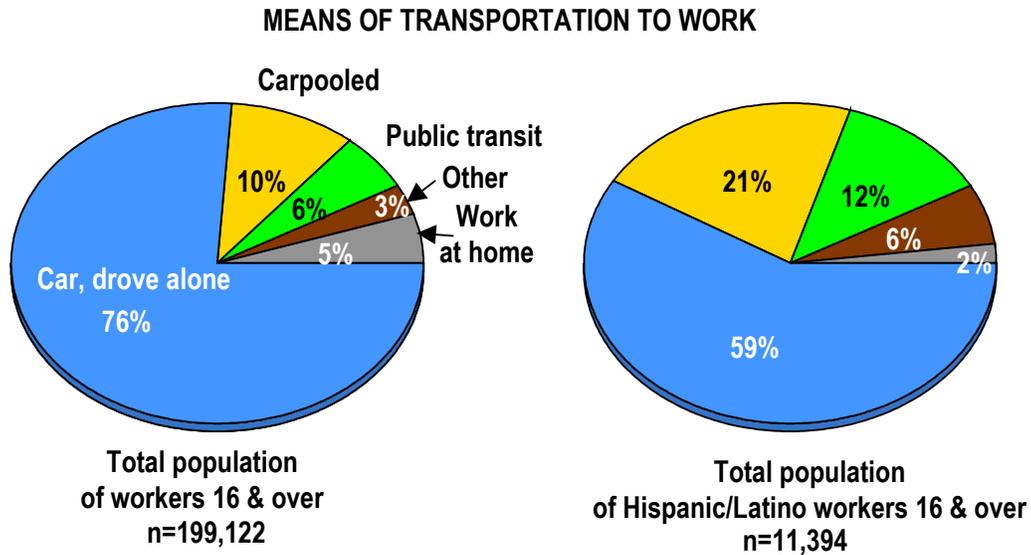


O. ONE-THIRD OF FOREIGN-BORN RESIDENTS IN THE SERVICE AREA HAVE BEEN IN THE UNITED STATES FOR 5 YEARS OR LESS.



P. HISPANIC/LATINO WORKERS ARE MUCH MORE LIKELY TO CARPOOL OR TAKE PUBLIC TRANSIT THAN THE WORKING POPULATION AS A WHOLE.

Three-quarters of the working population (age 16 and over) drive alone to work. One in 10 carpool and 6% use public transit. Hispanic/Latino workers are twice as likely to carpool (21%) and also twice as likely to use public transit (12%) to commute to and from work.¹



¹ The chart for Hispanic/Latino householders represents a majority subsample of the geographic area examined for this study. Due to the way the U.S. Census collects and distributes this type of data, the information is not available at the “block group” level. Only whole Census tracts are included.

FOCUS GROUP FINDINGS: RESIDENTS

A. DESPITE STUDIES THAT DOCUMENT A CORRELATION, WIDESPREAD DISABLING OF SMOKE ALARMS IS NOT A DIRECT FUNCTION OF EITHER INCOME OR LANGUAGE BARRIER.

In this report we will examine a number of factors to identify ways to impact low-income populations generally and low-income Latino populations specifically. While the research plainly shows that tailored messages, unique approaches, and additional education can all help improve the fire safety profile of these target populations, we wish to emphasize right away that the primary causal relationship with smoke alarm disabling behavior is neither poverty nor language barriers. Rather, these two elements, especially in combination, define a population that is more vulnerable to being taken advantage of by a negligent landlord. Therefore, while it *is* the case that the target group (low-income and low-income Latino populations) are at greater risk for fire deaths than are higher-income English-speaking populations, it is not the case that all members of the target group are equally at risk.

The more appropriate way to look at the statistics is to factor in the impact of management effectiveness. When that is done, the finding can be stated more properly in this way:

- **Members of the target group living in competently managed property do not appear substantially more likely to disable a smoke alarm than any other resident.** This finding is supported by research at Tartan West, the Welcome Center, and Bonita Villa. By and large, residents of competently managed property, regardless of demographic profile, learn and adopt the habits of responsible smoke alarm maintenance. This finding is also supported by the study provided to Campbell DeLong Resources, Inc. by TVF&R: According to *Socioeconomic Factors and the Incidence of Fire*,

“A notable exception to the relationship between low-income status and increased fire risk from old and under-maintained housing stocks is the case of households receiving housing assistance.”¹

The report goes on to outline that this exception-to-the-rule likely springs from the fact of better maintenance, more consistent inspection programs, and known, substantial consequences for units that fail to meet the housing quality standards required by the Section 8 program – in other words, basic, responsible property management. This finding is further supported by the current research and will be explored in more detail later in this report.

- **Properties managed by negligent landlords are much more likely to have residents who are negligent as well.** Findings in the current research on this issue are very

¹ *Socioeconomic Factors and the Incidence of Fire* by TriData Corporation, June 1997, written for the United States Fire Administration, Federal Emergency Management Agency, National Fire Data Center. Page 15.

consistent with what we have seen in our past work on this issue. Some of those negligent residents will be opportunists looking for a lax landlord who will look the other way while the resident engages in a wide range of illegal activity. Most of those residents will not be such opportunists, but will be reasonably-behaving members of our most vulnerable populations, primarily our target group, who find themselves stuck in such a place without the resources or skills to find a better home.

One elderly Spanish-speaking resident of Bonita Villa described it frankly when she pointed out that, before the new management took over, she believed there wasn't much point to calling the landlord about even very serious problems because the manager would rarely do much about it. She went on to say that, when residents find out that the management doesn't think these problems are important residents soon stop thinking so as well. As she put it, *"When the manager was more negligent, maybe it made me and others more negligent too."* It is in this type of environment where problems can be most acute.

While the research does suggest there are educational tools that can enhance initial learning about smoke alarms for those who are new to the country, this is not the arena of greatest possible impact. The greater impact can be made by targeting educational tools to residents of the most impacted properties while also targeting both education and enforcement efforts to landlords whose management skills are not consistent with established fire safety practices.

B. THREE DISTINCT GROUPS OF RESIDENTS WERE INTERVIEWED.

The focus group interviews conducted include research held with Latino parents of Beaverton School District children; with residents of Bonita Villa; and with residents of Tartan West. Before analyzing the general findings, it is important to outline some key differences among these three groups:

- **Welcome Center participants tend to be newer to the country and in greater income stress.** Compared to other residents with whom we spoke, participants who attended the Welcome Center focus groups gave the most insight into the challenges facing individuals who have arrived more recently in the country. In addition, consistent with the helping role of the Welcome Center, participants in the Welcome Center focus groups were least likely to be employed and most likely to be in stress regarding life's most basic necessities.
- **Bonita Villa participants have been in the country longer and show the bitterness of residents who have not benefited from decent, safe, and sanitary housing.** Bonita Villa residents interviewed, while also Latino and primarily Spanish speaking, have generally been in the country longer and appear to be less community-oriented and more cynical than the individuals interviewed at the Welcome Center. Given the more positive tone seen at Tartan West, we speculate that the cynicism springs from the specific circumstances associated with Bonita Villa rather than a feature of life in Oregon more generally.

- **Tartan West residents interviewed are least in need of communications from TVF&R.** The residents interviewed at Tartan West showed the least curiosity about the subject matter and yet the greatest likelihood to have a working smoke alarm. Tartan West residents are most likely to have tested their smoke detectors recently and are more likely to understand the most basic role of a smoke alarm – waking an occupant in the event of a fire. Tartan West residents differ from other residents interviewed in that approximately half involved in the focus group were English-speaking and they are likely to be enjoying a slightly more reliable income situation than other residents interviewed. Although the income profile of residents at Tartan West is still low – the manager reports that the average household income is between \$35,000 and \$40,000 per year, usually for a two income household – all are paying for their conventional housing without subsidy, as the Tartan West management does not accept applicants with housing vouchers.

C. TO THE DEGREE THERE ARE CULTURAL BARRIERS TO SMOKE ALARM MAINTENANCE THEY ARE FOUND ALMOST UNIQUELY WITH THE NEWEST ARRIVALS TO THE COUNTRY.

While the most at-risk populations are those housed by negligent landlords, it is also the case that Latinos who are new to the country do face an initial learning curve in order to understand the purpose, value, and proper maintenance of a smoke alarm. The reasons are straightforward – most come from places where smoke alarms are not in use and building materials are less flammable. Examples of these differences, translated¹ from the participants:

- *In Mexico there is more concrete used in construction and less wood. Here, everything you see in your home is flammable.*
- *In Mexico, where I lived, you light a match and then throw it on the floor and it's okay. Not here.*
- *Here there is a prevention philosophy that is taught in schools and needs to be explained as well.*
- *We heard a variation of this story by multiple respondents describing their early experience with living in this country: When the smoke alarm first went off, I didn't know what it was. I was terrified. I grabbed my children and we ran out of the house. I didn't know what to do!*

D. REASONS FOR DISABLING A SMOKE ALARM REFLECT LACK OF UNDERSTANDING OR INSUFFICIENT AWARENESS OF THE IMPORTANCE OF THE ALARM.

Almost all participants, in all groups, indicate that they currently have a working smoke alarm. Only a few acknowledged disabling a smoke alarm in the past. While some skepticism may be understandable in interpreting this result, we believe it is accurate.

¹ Original statements were in Spanish. What is provided is the translation summarized in the focus groups. As such, we have shown translated quotes in italics to draw a distinction between these statements and purely verbatim comments.

Some residents at Tartan West recall training they had received from TVF&R as had members of focus groups at the Welcome Center. When asked more generically why they had disabled a smoke alarm in the past or why they believe others may on occasion, the following answers are most common:

- **Not aware that a chirping alarm indicates a low battery.** *It was broken, always beeping when there was no fire, so we took the battery out. Another comments: We are not used to them. I threw mine away when it began to chirp. I didn't know that meant the battery was low. A third comments: It beeps at anything, sometimes at night when we aren't even cooking. At first it used to scare us but now we ignore it, which is bad because if it was really warning us, how would we know?*
- **Too many nuisance alarms.** *It was going off every time I cooked, so I disabled the one nearest the stove, but not the other one. Another comments: I think some turn them off and only reconnect for inspections. They get tired of them going off while cooking.*
- **Lack of awareness of the hush button.** Residents did not call out this issue immediately, but came to it after the feature was pointed out. While many residents have smoke alarms that feature hush buttons (as all ionizing smoke alarms are now required to), very few were aware of the feature. It appears that simple education about the hush button feature could reduce the incidence of disabling, especially among those who experience frequent nuisance alarms while cooking.
- **Irresponsible children.** *Sometimes kids who don't know better take the battery out to use in something else.*
- **Lack of appropriate concern.** *People who are not responsible, not thinking about the other side of the issue – the safety of themselves, their family, and their neighbors. Another comments: People who think "It's not going to happen to me." On this point, the findings suggest a possible correlation between fully understanding the purpose of a smoke alarm and the willingness to maintain it. Additional research would be required to fully verify this finding, but the current research strongly suggests that those who seem most forgiving of residents who disable alarms are least likely to understand the central purpose of an alarm. When asked when, during the 24-hour day, fire deaths are most likely to happen, people with a more casual understanding of smoke alarms give answers such as "in the evening while cooking," or "all hours." Those who seem to have a better grasp of the urgency of maintaining a smoke alarm are also more likely to know the correct answer: *la noche* – the night, during the hours of sleeping.*
- **Lack of priority by landlord.** As discussed earlier, residents in each research session mention comments regarding the urgency of the issue as expressed by the landlord. A participant at the Welcome Center notes that her landlord doesn't care, which results in more residents being willing to disable smoke alarms. Residents at Bonita Villa agree that the previous landlord set a tone that made it easy for residents to slip in their level of responsibility as well. They perceive this now, particularly in light of the very different management tone being set by the new management.

Note that, one of the reasons we did *not* hear had to do with suspicion regarding an alternate purpose of the government-mandated device – a reason we had speculated in advance might surface in the research. Even when questioned further on the issue, participants give little credibility to the concept that any significant portion of alarms are disabled out of suspicion that the government-mandated device serves a different purpose, such as surveillance or other invasions of one’s privacy.

E. PARTICIPANTS’ SUGGESTED SOLUTIONS FOCUS ON THE BASICS, THE IMPORTANCE/MORAL IMPERATIVE, AND THE LANDLORD’S ROLE.

Researchers asked participants what they would do if they ran TVF&R to increase maintenance of smoke alarms by residents. The responses are instructive and fall cleanly into three categories:

- **Make sure everyone knows key basic facts about their smoke alarm.** Those who had recently been through the learning curve of coming to a new country spoke of this issue in some detail. The key elements they feel should be communicated, ideally in a series of simple pictures, are the following points (some described straight from experience, others evolving from the group discussion):
 - A smoke alarm is designed to wake your family before smoke kills.
 - A periodic chirp or beep means the battery is low.
 - You should test it by pushing the button.
 - If yours doesn’t work, call your landlord or TVF&R.
 - For false alarms, push the hush button (if available), open windows, and turn on fans.
- **Explain the importance, not just in personal terms, but in community terms as well.** On this issue a substantial difference between Latino/Spanish-speaking respondents and English-speaking respondents could be seen. While both groups see value in explaining the importance of smoke alarms, Latino respondents consistently describe that value in more community-oriented terms than their low-income English-speaking counterparts. For this reason, we conclude that messages addressing the community-wide impact of failing to maintain a smoke alarm, as well as the impact on one’s family if an alarm is disabled, will resonate particularly well with the Latino community. The key in communicating the importance is to deliver messages that explain the role of smoke alarms in more specific terms than such generic messages as “smoke alarms save lives.” Additional information about this finding will be explored in the discussion on communication messages later in this report.
- **Elevate enforcement efforts/make landlords be more effective.** While we are accustomed to the counter-intuitive finding that most residents in impacted properties wish landlords would enforce rules more, we were still surprised to hear the strength

of this message coming from focus group participants. In all but one group a participant even recommended some version of surprise inspections on residents – either by the landlord or TVF&R – to verify smoke alarm compliance. In each group when the comment was offered, other residents agreed with the sentiment. Then, generally, a different participant would point out that a landlord cannot inspect without giving at least a 24-hour notice. (Few seem aware that TVF&R’s right to inspect an occupied unit is contingent on either the resident inviting TVF&R in or the landlord serving notice and the resident not denying access.) Other elements of this sentiment have to do with “making” landlords do a better job of walking residents through the details of their obligation to maintain a smoke alarm, the steps involved, and importance of doing so.

Resident willingness to encourage landlords to take action against non-complying tenants is best understood in the context of the community-oriented values repeatedly expressed in the groups. When asked why they would advocate such stringent measures as surprise inspections, fines against tenants, or other enforcement measures, the answer is consistent: few respondents want to live next door to a tenant who has a disabled smoke alarm. Therefore, improved enforcement measures against an irresponsible tenant is a service to the majority of responsible tenants in any housing community. As one respondent put it: *If you know the landlord is going to be inspecting you are less likely to take it down.*

Other suggestions offered by residents are less feasible for an agency to do in the short term or within reasonable budget constraints. They include such suggestions as making all smoke alarms electrical and hardwired (turning them into smoke “detectors” as the term is used in Oregon law), having TVF&R inspect all units every year or going door-to-door to every tenant to teach about smoke alarms, one household at a time.

F. WHILE THE PREFERRED METHOD OF COMMUNICATING IS DOOR-TO-DOOR, IN PERSON, WITH ADVANCE NOTICE, OTHER SUGGESTIONS ARE OFFERED AS WELL.

Respondents offer a number of suggestions for how to reach people like themselves most effectively with messages about smoke alarms. Suggestions include:

- **Repetition.** Just as the demographic profile of the service district indicates that many residents are new to the area, the call for repetition is also sounded by participants. Even respondents from slower paced cultures understand that, with their busy lives, messages are not likely to get through to many on a single try.
- **Pictures that tell the story.** While some point out that they relate to pictures better than the spoken word, it became apparent quickly that there is another compelling reason to provide pictorial explanations in any printed material. In every group, at least one respondent was not literate enough to participate in the written exercise (offered in a choice of Spanish or English) without assistance. Plainly, and as the demographic profile confirms, the target population is one that is more likely to contain non-literate individuals.

- **More events like TVF&R has held in the past.** Respondents who have attended events sponsored by TVF&R single out those events as uniquely valuable to themselves and their families. Their elevated level of understanding regarding the importance and role of smoke alarms was evident in the focus groups as well. Some recalled an event at Tartan West that included teaching children fire safety tips and others at the Welcome Center recall events they attended at that location which they described as particularly helpful.
- **Flyers on doorknobs.** In every group some participants spoke of placing flyers on doorknobs as a way to get attention.
- **In person presentations, with advance notice, dress to identify the agency.** Latino respondents, in particular, emphasize the value of in-person contact, of course with a person who is fluent in Spanish. The preferred approach is to receive some type of advance notice regarding the event or visit, which would allay fears about why an unknown official has come to call. Significantly, even those who are relatively new to the area prefer firefighters to be dressed in clothing that readily identifies them as members of TVF&R. Few see an issue with firefighters in uniform because, they insist, firefighter uniforms do not look like police uniforms. (One respondent volunteered that, in Mexico, opinions about firefighters are generally quite positive, while opinions about police can be mixed.) That said, we understand that new TVF&R uniforms may have a more police-like look. If this is the case, we would recommend that TVF&R members dress in more casual agency-identifying clothing, such as T-shirts or polo shirts with the TVF&R logo on them or dress in other traditional firefighting garb that would be readily identifiable by children.
- **Teach members of the Spanish-speaking community to train as well.** Unlike the English-speaking population interviewed, there was a strong and repeated theme expressed by Spanish-speaking interviewees regarding a sense of obligation to help others in the Latino community and to, as more than one put it, *“do our part by meeting the fire department halfway.”* While we might have more skepticism about attempting such an effort in the English-speaking community, the research suggests there is an opportunity within the Latino community to succeed with such an approach.
- **Teaching children in schools.** This approach is suggested as another way to reach this very family-oriented culture. It also likely serves the purpose of bridging language barriers in families where the children are fluent in English but the parents are not.
- **Advertisements on Univision and shows on Cable Access are recommended television approaches.** From a communications standpoint there is a unique benefit to attempting to reach a population of primarily Spanish-speaking families: the number of television channels they can watch with Spanish language programming are relatively few. Apparently, for those without satellite dishes, Univision is the single channel watched most (with soap operas consistently mentioned as most popular). The same language dynamic also leads to Cable Access programming in Spanish offering a greater impact than might be expected for reaching an English-speaking population. In effect, as one channel surfs, any channel with Spanish spoken is going to catch the ear of the channel surfer. With fewer channels from which to choose, the

odds of a Spanish-speaking person watching a Cable Access show on smoke alarms is greater than the odds of an English-speaking person stopping to watch such a show in English. Spanish radio stations are also a desirable avenue, though none were mentioned with consistency in the focus groups.

- **Bus and MAX advertising can work, but many don't ride.** It certainly appears that advertising on mass transit can be a valuable addition to a communication strategy, but unlike what we would expect to hear from residents living in Portland, low-income residents in TVF&R's service district do not report consistent use of mass transit. Note that this is also confirmed by the Census information. While transit use is higher in this population, most are not routine riders of TriMet.
- **Spanish language smoke alarm orientation materials from the landlord.** While many recall that they had to sign something about smoke alarms when renting their homes, few can readily recall what the information said. Those who recall the most tend to be English speaking. Plainly, strategies that assist landlords in providing in-Spanish information about smoke alarm usage that is at least equal to the detail of information provided in English would help. On top of that, assisting landlords by providing a photocopy-ready information package in both English and Spanish would help all members of the target population. (Note that such materials could also be provided in Adobe Acrobat PDF format for the benefit of the many landlords who use computerized forms.)

G. TOP TRADE-OFF RESULTS: WAKE YOU AND YOUR CHILDREN; SAVE NEIGHBORS; SILENT SMOKE KILLS; ENCOURAGE LANDLORDS TO INSPECT.

After discussing the respondents' suggestions for how TVF&R could increase the rate of smoke alarm maintenance, participants were shown a list of 10 strategies or key messages and asked to distribute \$100 among the options, depending on the priority they placed on each. This model allows for some understanding of the relative value of the different approaches. It is particularly instructive to discover where the average dollar amount awarded exceeds the average of \$10 per item and where it falls below it. The factors tested included five messages oriented toward residents and five strategies oriented more toward enforcement issues. They are shown in the following table.

1. Explain how to use a “hush” button to quiet an alarm without removing batteries.
2. Explain that smoke alarms are designed to wake you and your children while there is still air to breath.
3. Teach that it is the silent smoke, not the fire, that kills.
4. Explain that, in apartments, fires from nearby units can spread to yours — another threat that your smoke alarm will guard against.
5. Explain that working smoke detectors can save not just your life, but the lives of your neighbors as well, by warning of fire earlier.
6. Tell landlords that they are required by Oregon law to provide a working smoke alarm at the time the renter moves in.
7. Teach landlords ways to install smoke alarms that reduce false alarms like those that happen while cooking.
8. Have firefighters come into your home and inspect smoke alarms on a regular basis.
9. Encourage landlords to fine residents who fail to keep smoke alarms working.
10. Ask landlords to inspect homes twice a year to make sure smoke alarms are working.

- **The messages most believe *residents* need to hear include the fact that a smoke alarm may wake residents and their children at night and can protect not just themselves, but neighbors as well.** The fact that it is the silent smoke, not a noisy, crackling fire, is also important, particularly to English-speaking residents. As mentioned earlier, it is apparent that those who don’t take smoke alarms as seriously are least likely to understand that a smoke detector is most importantly designed to wake up the resident before the smoke causes death. Emphasizing this point, rather than a more generic message such as “smoke alarms save lives,” should make a substantial difference.

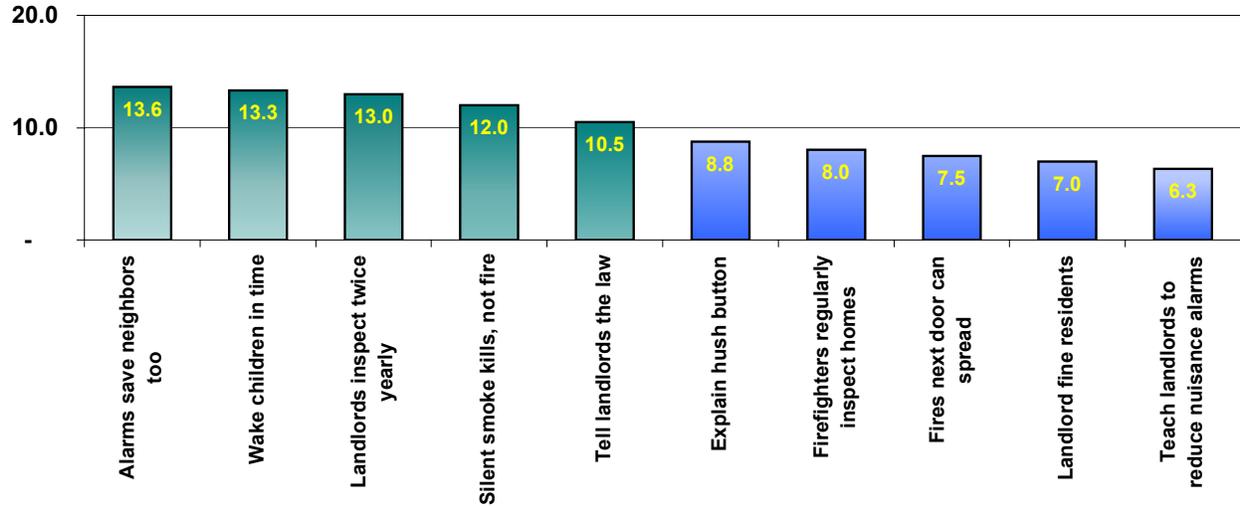
Note also the significance of the importance ascribed to the message that smoke alarms will protect other people in the community by catching the fire early and not having it spread. This connects to the reason that residents are very willing for landlords to fine people who chronically disable their smoke detectors — because they recognize that it’s a safety issue for them as well. Significantly, this community-oriented message resonates much more strongly with Spanish-speaking respondents than with English-speaking respondents.

- **The key strategy supported for landlords is finding a way to encourage them to inspect units twice yearly.** This criterion, and a strategy to teach landlords the law about smoke detectors, are the only two that receive average scores above \$10 by both English-speaking and Latino respondents. Teaching landlords to inspect twice yearly received the highest score among Spanish-speaking respondents and the third highest score among English-speaking participants.
- **Significant differences are apparent between Spanish-speaking and English-speaking respondents.** As the following charts reveal, the priorities of Spanish-speaking and English-speaking respondents do not agree.
 - Spanish-speaking respondents, consistent with the more community-oriented concerns expressed, favor messages that mention the impact on children and neighbors.
 - English-speaking residents tend to put more emphasis on the more personal message of silent smoke killing and learning about the convenience of the hush button.

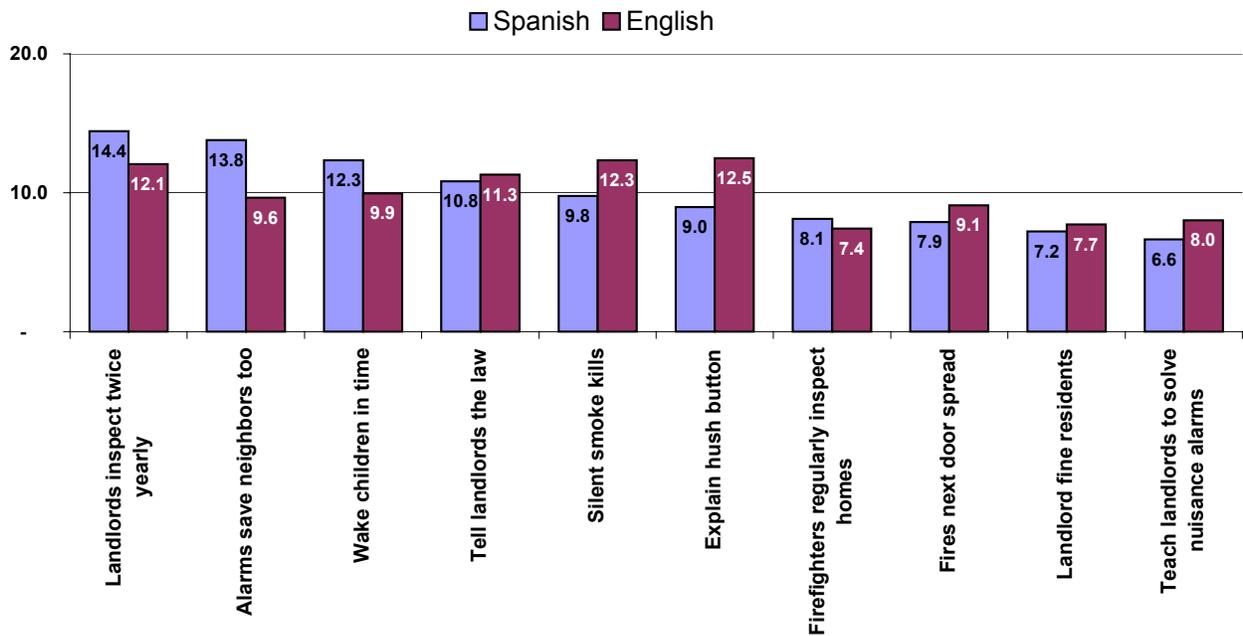
This difference in perception may be a combination of cultural difference and difference in familial status. Unlike English-only participants, Latinos tended to arrive at the focus groups in couples, with their children. Whether this is indicative of the somewhat different average family profile seen in the Census or simply of different community meeting habits, we cannot say. But it is clear that the family-orientation and sense of unity shown by Latinos in the research was much more pronounced than in the English-speaking respondents.

About the following charts: The following charts show results calculated in two different ways. The “Grand Mean” analysis shows the result when the average (mean) score for each of the three locations are then averaged together. This analysis allows each location a equal “vote” in the scoring. The second chart shows the average of all Spanish-speaking participants, regardless of location, as compared with the average of all English-speaking participants, regardless of location.

Grand Means: All Participants



Variance by Primary Language



INTERVIEW FINDINGS: LANDLORDS

The following section combines findings from the current research with findings from previous research conducted on housing management issues. We have been researching and training on landlord-tenant issues for 14 years and have examined property management practices that work and don't work in public and private housing across the nation. Examples of some of our previously published works on this issue are listed on page 6. The following section summarizes key findings from the landlord interviews, conducted for this project, and offers additional analysis based on our expertise in the field.

The results of interviews with managers and maintenance personnel at Bonita Villa and Tartan West are consistent with what we have seen in many other properties. These two properties are nearly perfect research subjects because of their apparent history of poor management – and unfortunate fatal consequences – and the current stage of turnaround that each is in. Further, each are recipients of special attention by TVF&R in the past in the form of a research project in which free smoke alarms were placed in all units and compliance with smoke alarm maintenance standards verified.

That study confirms what our past research would have predicted in general terms: That the rate of disabling smoke alarms was quite high at the poorly-managed property (50% in just three months according to the study) while the rate of disabling at the better-managed property was comparatively low (a rate of active disabling¹ of about 4%). Significantly, the type of smoke alarm (ionizing versus photoelectric) was not a relevant factor in the rate of smoke alarm disabling.

In this section, we present key elements of the story of each property, based on interviews with the on-site property manager and follow-up responses from on-site maintenance personnel. The core finding, supported by both properties is this: *Effectively applied property management skills will solve the problem, virtually in its entirety, and in a manner that virtually all good residents will support, appreciate, and even applaud.*

A. AT TARTAN WEST, A MESSAGE OF CONSISTENT, TOUGH ENFORCEMENT IS COMBINED WITH POSITIVE, OPEN RESIDENT RELATIONS.

Manager Paul Branch took over Tartan West a little over four years ago, a few years after a 1996 fatal fire at the complex where lives would likely have been saved had a smoke alarm not been disabled. As he describes it, and his staff confirms, this was a property with minimal screening practices, lax rule enforcement, and it is interesting to note, *very few, if any, Spanish-speaking residents.*

¹ According to TVF&R, this figure does not include a few alarms that had dead batteries, which are not the result of a resident taking active steps to disable a smoke alarm.

As we have seen consistently, property managed in this manner will, over time, attract some scary people and Tartan West was apparently no exception. As we also typically see, the great majority of residents, even in very poorly managed property, are reasonably well behaved. But the actions of a few residents can essentially terrorize the majority and exacerbate the negligent tone being set by the landlord. Apparently, such was the case at Tartan West when new management took over.

The property then, as now, provided housing to a population with comparatively low incomes – the manager describes the median household income of his residents as between \$35,000 and \$40,000 per year. Usually, he notes, that is in a two-income household.

As our past work on this subject has consistently shown, the hardest part of turning around a property is getting through the first six months to a year while a new tone is being set, residents wrestle with the discovery that the new management intends to enforce the rules while not yet knowing whether new management can be trusted to be fair and considerate of resident needs. As these elements are established over time, managing becomes easier – even enjoyable – and residents come to respect and value a new management tone that has helped calm the nuisance behavior and brought a greater sense of peace and safety to the property.

The challenges were apparently no different at Tartan West. The complex has 145 units and in the first year the manager recalls that as many as 45 units were vacated – some through eviction, others as a result of ill-behaving residents realizing that they could no longer get away with preferred nuisance behaviors and choosing to move. Management instituted new screening criteria, new maintenance policies based on much more rapid response (which built credibility with residents), more consistent lease enforcement, and resident relations based on plenty of walking around and interaction. Management also began providing rental forms in Spanish and, as the manager apparently speaks some Spanish, began to attract a significant portion of residents who are Spanish-only speakers. Today, with a much greater Spanish-speaking population at the community, the rate of disabling smoke detectors has been documented by TVF&R to be at about 4 percent (in 2002), slightly higher than what management estimates they would find on inspection today.

While the skills involved in ensuring effective management and good landlord-tenant relations are much broader than the steps that specifically relate to smoke alarm compliance, all of those skills are part of what builds credibility around the smoke alarm enforcement process as well. For that reason, it is important to note that implementing the smoke alarm policies at Tartan West alone, without making other changes, while helpful, would not likely lead to the results expected if the whole approach were embraced. That said, here are key elements of the smoke alarm management approach at Tartan West:

- **Residents are oriented and told of the history.** All residents before lease signing are given an orientation to the smoke alarm rules, *including* a description by manager Branch of the fire deaths at the property that could likely have been prevented had the smoke alarm been operational.

- **Staff are required to test alarms every time they enter a unit.** *Every* time a member of the property management staff enters a unit for any reason whatsoever – whether it is a maintenance call, a routine inspection, or an emergency – they are required to check the smoke alarm. All maintenance requests go through the manager and are processed using a form that requires maintenance personnel to circle and initial the fact that the smoke alarm was tested. Manager Branch sets the tone for this system by constantly asking about the test and verifying that the forms indicate the tests were done. He even calls residents periodically after maintenance staff have visited the unit to check that they did their work well and that they tested the alarm while in the unit.
- **Residents are warned, with threat of eviction, immediately upon discovery of a disabled alarm.** When a unit is found to have a disabled smoke alarm, maintenance personnel immediately replace it with an operational one and notify management. Management then serves a notice informing the tenant of the violation and explaining that, should management discover a disabled smoke alarm again in the unit, that the resident will be evicted, period.

As draconian as this last part sounds to the untrained ear, it actually isn't. Consider first that landlords routinely evict for the far less life-threatening act of nonpayment of rent – so it certainly stands to reason that a responsible citizen would also follow through and refuse to rent to a tenant who engages in a practice known to threaten the lives of other residents. But that isn't the key reason this policy is not as severe as it sounds. It is this: On the one hand, in the course of four years, manager Branch has served many warning notices for the first violation. On the other hand, as we consistently see with such policies, he has yet to evict a tenant for the second violation. By taking the life-threatening nature of the violation seriously the first time, the landlord ensures that tenants get the message, and stay in compliance, from that point forward. It is an appropriate management approach for behavior that could result in the death of other tenants.

- **Residents, having learned of the manager's good-faith approach and finding him accessible, routinely keep him informed.** As Branch describes it, most residents call right away if a smoke alarm doesn't work and they report if they hear a neighbor's alarm chirping – steps that only happen at properties where the relationship between landlord and tenant is built on a level of mutual respect and trust. As we typically see in rental property situations, when such a rapport is established, the traditionally assumed adversarial relationship between landlords and tenants largely evaporates.

Branch's advice for raising compliance with smoke alarm rules by tenants: education and "encouraging landlords to inspect without fail." When presented with the example of an apartment community with a smoke alarm disabling rate of 50% or more in just three months, he is taken aback: "I'd be talking to management," he explains, "They are too lenient. If management isn't cooperating, then certainly tenants aren't going to follow through. ...Obviously, if you can't get anywhere with management, you aren't going to get anywhere with the tenants." These comments are not anecdotal – they are consistent, and representative, of the sentiments expressed by skilled landlords and managers we have worked with in almost half the states in the nation, including many here in Oregon.

B. BONITA VILLA IS AT THE BEGINNING OF THE ROAD THAT TARTAN WEST HAS ALREADY TRAVELED.

Bonita Villa had been known to TVF&R as a chronic problem location for years before and after a fatal fire at the location in December of 2000. This is the property where TVF&R documented a 50% smoke alarm disabling rate in just three months. Washington County purchased the property recently with the intent of correcting the long-standing problems at the location and installed Pinnacle Realty Management (a private property management company subcontracted to handle day-to-day management) at the property.

Washington County's positive reputation for property management, as documented in other studies we have conducted, would suggest to us that a turnaround in a relatively short time period is likely. That appears to be the case today. At the time we conducted the research, Pinnacle had managed the property for nine months while Washington County's Department of Housing Services provided maintenance and remodeling work on units.¹ Pinnacle Business Manager Lupe Kinney's story is similar to, but different, from that of the Tartan West experience.

Bonita Villa is described as having 96 units, 65 of which have been remodeled in the last nine months with hardwired smoke detectors installed in each. According to Kinney, when the County acquired the property, over 20 residents reportedly were evicted and almost as many again left as word got out that residents would be expected to comply with the lease regulations. Significantly, the income profile of the residents did not change substantially, while the behavior profile did.

Bonita Villa, unlike Tartan West, had a heavily Spanish-speaking population before the turnaround began and continues to afterward. Also unlike Tartan West, Bonita Villa accepts Section 8 vouchers and other forms of public subsidy which management at Tartan West avoids. Yet it appears that the practical results, in terms of smoke alarm compliance, are on a roughly equivalent track, suggesting that similar results are likely given enough time to complete the turnaround.

The general reputation of Bonita Villa prior to the change in ownership apparently was of a place where drug dealing, prostitution, and other illegal acts were common. Indeed, it is Kinney's understanding that police officers were reluctant to enter the property without backup present. According to current residents and management, before new management took over, screening was lax, rule enforcement was rare, and attention to the management's responsibility to maintain the premises was, to be charitable, infrequent. Responsible residents had learned that little, if anything, would be done when calls about maintenance problems were made to management.

As one resident explained, the changes already in place have created a very different atmosphere and has encouraged a willingness on the part of residents to follow the rules.

¹ Shortly after the period during which the research was conducted, Washington County's Department of Housing Services assumed direct management control of the property at Bonita Villa — choosing to no longer out-source part of the task to Pinnacle Realty Management. As this report goes to press, as we understand it, the property is now being directly managed by the Department of Housing Services.

As Kinney describes it, “They are so grateful for all we have done already, they want to comply with the rules *because* of what we have done.” Management has implemented new screening and lease enforcement policies in a property where “for years residents could do whatever they wanted.” The irony is that the residents who have remained plainly appreciate that someone has arrived to set limits and enforce rules. The main beneficiaries of better screening and improved lease enforcement are the low-income Latino residents who are no longer being taken advantage of by a landlord who apparently routinely allowed residents to break substantial portions of the resident responsibilities outlined in Oregon’s landlord-tenant law (ORS Chapter 90).

Regarding smoke alarm compliance, management estimates that the disabling rate is down to perhaps 1 in 10 from the 50% rate documented by TVF&R before the sale. While Pinnacle does not employ the stringent approach used at Tartan West, they use another approach that is also paying dividends. This includes:

- **Orientation at lease signing.** Lupe Kinney apparently speaks Spanish and English well and can orient residents in either language.
- **Consistent reporting by maintenance when disabled alarms are found.** This is said to be a significant change in two respects: 1) the fact of maintenance responding and 2) the fact of the reporting.
- **Use of “the speech” when smoke alarm violations are found.** While management has the right, under Oregon law, to serve a notice that would require tenants to correct a violation, such as a disabled smoke alarm, or face eviction, management also has the option to take less severe action.

At Bonita Villa, management gives “the speech,” which is essentially a brief lecture about the dangers of living without a working smoke detector that ends with asking if the residents want themselves and their family to die in their sleep from a fire. It’s dramatic, but it is thought to be working. Kinney’s estimate is that, for nine out of ten disablers, that is all it takes.

- **Consideration of additional steps is likely.** Maintenance at the property is provided by Washington County. Steven R. Nicholas, Senior Facilities Maintenance Technician with the Department of Housing Services, points out that at other properties the County manages they have implemented a policy of charging tenants a \$250 fine for disabling a smoke alarm and have placed stickers on smoke alarms that say so. Apparently, the policy is that if the alarm is disabled, the manager will replace it with a warning. If it is disabled again, the manager replaces it and charges the tenant the \$250 fine. Discussions held between Nicholas and Kinney during our interview suggest that Pinnacle may consider implementing such a policy at Bonita Villa as well.

A difference in management philosophy between Tartan West and Bonita Villa should be noted for the purpose of underlining the finding that there are a variety of ways to accomplish the same behavior-management purpose. Management at Tartan West does not use a financial penalty approach on the belief that low income people can rarely pay anyway. Management at Tartan West also elects not to accept Section 8 vouchers on the

belief that the added HUD regulations associated with the program make it too difficult to manage effectively.¹ At properties managed by the Department of Housing Services, subsidized tenants are accepted and the bias is for using financial penalties to enforce smoke alarm rules. Depending on the skills and preferences of management, either approach can work.

¹ While it certainly is the case the HUD regulations add to the complexity of managing Section 8 Housing Voucher tenants, changes over the past few years in Section 8 guidelines have significantly reduced the disparity between the lease requirements that are mandated for Section 8 tenants and those that are typically used for private-market tenants.

RECOMMENDATIONS

The research reveals some important elements that can help TVF&R improve its approaches for ensuring that smoke alarms, and smoke detectors, are in place and working to help protect the lives of residents in the service area. Our recommendations are designed to address a continuum of communication, education, and enforcement that, taken in total, should contribute substantially for enhancing efforts to keep smoke alarm systems operational. We base our recommendations on the findings of the research and, particularly, on the following key points:

➤ **Regarding residents:**

- Not all low-income and low-income Latino residents are equally at risk. The at-risk individuals are concentrated in those properties that are poorly managed.
- Cultural and language barriers *do* exist with segments of the Latino community. Improving communication efforts to that community will help, particularly with those who are new to the country.
- Some improvements in communications to longer-term residents, both Spanish and English speaking, will also impact behavior for the better.
- Resident “turnover” rates, as documented in the Census data, underscore the need to continually deliver messages targeted to community residents.

➤ **Regarding landlords:**

- Good management trumps all other efforts. In properties that are well-managed, little effort from TVF&R is required to ensure compliance. Conversely, when property is particularly poorly managed, there is little hope of changing resident behavior until management practices change dramatically.
- In between the great managers and the slumlords are the majority of managers whose behavior can be influenced simply by showing them how. We expect that properties owned by these individuals have issues with smoke alarm disabling, but not to the degree that the chronic nuisance properties do and, because they are better managed, they typically have a better fire safety profile as well.
- The risk of fire, and fire deaths, is most likely to peak at locations with particularly poor management. In these locations, attempts to educate the manager will do little and attempts to educate residents will be largely blocked by the manager. A change in management approach is required, which is often not possible without changing the manager or even the owner. These properties, at greatest risk, should be of the greatest concern to TVF&R. Tools required to affect a turnaround at these properties are

accessible and effective, but involve better enforcement measures to precipitate a change.

➤ **Regarding communication approaches, in general:**

- **English and Spanish together.** Our bias is to develop materials for this campaign (whether brochures, billboards, forms, or anything else) in both Spanish and English *on the same piece*. A form would be Spanish on one side and English on the other – not separate forms for each. This way, managers who use them keep track of one form, language embarrassment issues are minimized, and the language of smoke alarms becomes more recognizable in both languages. This approach also cuts down on paperwork volume and logistics for TVF&R staff as well.
- **Feature the message, not the category of information.** We spent little time in the focus groups looking at written communications pieces simply because respondents had already provided enough information to address concerns on many. Our key recommendation is this: do not waste large font space with a description of the document (e.g., “About the Smoke Alarm in Your Home”). This would be appropriate if the research had suggested that residents are keenly interested in reading more about smoke alarms, but they are not. Rather, use the headline space for teaser messages that will hook the reader in. Something along the lines of “A smoke alarm can wake your children in time...” or “Does your smoke alarm go off when you cook? Here’s how to fix it and stay alive.” A headline should motivate the person to pick up the piece and read further. Leverage the messages of interest identified in the research to do this.

In a similar manner, make sure that newsletters for residents feature key interest points about smoke alarms and fire safety prominently, on the front page, above the fold. Again, stay away from generic statements like “smoke alarms save lives” and “time to test your smoke alarm” and move toward statements that the research suggests will pique their interest.

With these core findings as a backdrop, we recommend that TVF&R address the following “market” segments, with communication, education, and enforcement strategies built on the guidelines outlined.

1. SPANISH SPEAKING PEOPLE WHO ARE NEW TO THE COUNTRY.

Key barriers to action: May not appreciate fire danger here. May not understand how a smoke alarm can save the lives of family members. May not understand English language materials provided. May not be literate, in any language, and may be embarrassed to say so. Compared to the average resident, the person is likely to be more family- and community-oriented and more receptive to such messages. To this group, a smoke alarm is one more overwhelming thing about the faster-paced life here.

➤ **Key importance messages:**

- That smoke alarms are designed to wake you and your children in the event of a fire.
- That working smoke alarms help keep the whole neighborhood safe.
- That fire danger is different with our building materials.

➤ **Other key messages:**

- That the alarm has a test button, which you should push periodically to make sure it is still protecting you and your family.
- If it goes off when you don't need it, open windows, turn on vent fans, and push the "hush" button.
- That if it beeps, but not so loudly, it means the battery is low.
- That your landlord should provide you with one that works when you move in, and that you should call your landlord or TVF&R if you don't have one. (Note: it is important to recommend that tenants call *either* the landlord or TVF&R – this way, residents with good relations with their landlords are likely to call there first, while those with poor relations are likely to call TVF&R. For enforcement reasons described in a later section, this is important.)

➤ **How to communicate:**

- **Pictures.** In every group at least one person could not read. If possible, put the pictures on the smoke alarm, or next to it. Also, the same pictures could be integrated into smoke alarm orientation materials provided to landlords for the benefit of teaching their residents.
- **Materials packages for landlords** to distribute with every incoming resident and/or to stick to the smoke alarm. Put together a standard materials package, with Spanish on one side and English on the other, that landlords may reproduce and give to every incoming resident.
- **In-person, as much as possible, and through children.** It isn't that personal attention is required, but that Spanish-speaking households are more accustomed to in-person communication than are native-born, English-speaking residents. There may also be an opportunity as well for a "train-the-trainer" approach for teaching newcomers. This was suggested with repetition at the Welcome Center. For many new residents the faster-paced way of life is often isolating and the opportunity to have a reason to interact with other Spanish-speaking individuals would likely be welcomed and another avenue to form a sense of community.
- **Univision and Cable Access** programming in Spanish (consider English subtitles also) are particularly recommended, as are flyers at the door. Cable Access can

work better in Spanish because channel surfers will hear the language and stop. Also consider Spanish radio spots.

2. **LONGER-TERM RESIDENTS.** There is considerable overlap between the messages that will resonate with low-income Spanish-speaking residents who are new to the area and with low-income residents in general. If materials are made just for the longer-term residents, suggestions include the following.

Key barriers to action: While they know what a smoke alarm is, they may be disabling simply because it isn't important enough to either themselves or their landlord. Key messages should address the importance and how to reduce the irritation:

➤ **Key importance messages:**

- **That alarms save lives in the middle of the night.** It will make it much more likely that you and your children wake in time to get out before smoke suffocation.
- **That a disabled alarm endangers not just the family, but your neighbors as well.** Note that this message has an implied subtext as well – that residents should be concerned if they hear of a neighbor disabling a smoke alarm.

➤ **Other key messages:**

- That their alarm probably has a hush button.
- That a beeping or chirping alarm isn't broken – it has a low battery.
- That landlord-tenant laws require landlords to provide a smoke alarm and forbid tenants from disabling a smoke alarm.
- If their alarm isn't working properly, or goes off too often when it shouldn't, they should contact their landlord or call TVF&R.

3. **LANDLORDS WHO ARE OPEN TO LEARNING.** This is most landlords. For most, the odds of fire deaths at their units is already comparatively low. However, for a small, but likely significant, percentage education may be life saving. Note this benefit as well: Landlords tend to be less transitory than tenants, so effective educational investments in landlords can pay longer dividends.

Profile: May be model landlords or may be borderline terrible landlords. Common characteristic is that lack of follow-through springs from lack of knowledge about *how* to follow through and the benefits thereof. Examples: not aware of smoke detector law, unsure how to enforce the rules, not clear on management skills, intimidated by tenants, historically lax out of misplaced impressions that tenants prefer it. Will change with proper tools and guidance. These landlords, and owners, will benefit from an information packet, including:

- **Guidelines for enforcement.** Consider including suggested lease language and suggested enforcement notices. Ideally, off-the-shelf materials, such as lease addenda and lease enforcement notices can do best. We also recommend including stickers for smoke alarms stating that, in the event of a smoke alarm being disabled, tenants may face fines or eviction as stated in the tenant’s rental agreement.
- **Tools for training tenants.** Standard education materials in English and Spanish for smoke detector usage such as those already described for tenants.
- **General management information:** Broader information about screening, lease language, resident management tools and more.¹
- **Consider performance incentives.** For example, rather than giving smoke alarms away for free, make them available without charge only to those locations that comply with minimum management standards set by TVF&R. Such standards might cover minimum standards of very basic screening, lease language, lease enforcement, onsite inspection permissions, and hosting of TVF&R educational events when asked. Such an approach should be designed to remove landlords from the program when they fail inspections, so they can be cited as well. Landlords who comply with such a program could even be given the right to display window stickers or signage indicating something along the lines of “This property cooperates with TVF&R to help improve fire safety.”

4. LANDLORDS (OWNERS AND MANAGERS) WHO DON’T CARE. While this is a small percentage of landlords, they are responsible for many of the locations where fire deaths are more likely to occur in the future. Some of these are people who are genuinely heartless. Most are people who have learned over time that they can make a profit by cutting corners and breaking the rules because a) they don’t know any other way, and b) enforcement of local codes is sufficiently lax that they can get away with it.

It appears that both Bonita Villa and Tartan West, in the past, were examples of this. These are places that may have taken advantage of those residents who are most vulnerable: those who are low income and, in Bonita Villa’s case, often can’t speak the local language. They provided comparatively unresponsive maintenance, did minimal screening, and allowed a climate of neglect to negatively influence the behavior of otherwise responsible residents. Such management is often immune to education, is least likely to permit TVF&R to come on site, and oversees property where the next fire death is most likely to occur. The solution to these types of locations is broad-based enforcement to cause either behavior change (in a few instances) or property sale (in most instances). A three-pronged approach is needed:

- **Direct enforcement.** ORS 479.275(3) effectively permits local fire officials to cite *owners* when fire officials find missing or non-operating smoke detectors or alarms regardless of whether disabling was done by the tenant or the landlord. In the case of chronic

¹ We acknowledge a conflict in making this recommendation, as authors of a manual on property management written originally for the U.S. Department of Justice. Nevertheless, we recommend it. Should our manual be desired we can certainly provide it to TVF&R for replication free of charge, as is already done for many jurisdictions in Oregon.

nuisance property, this is appropriate and highly consistent with established housing maintenance code enforcement practices that effectively hold landlords accountable for failing to enforce landlord-tenant law¹ when a tenant's violation results in fire and life safety violations. Landlords do have the authority to enforce the laws that require tenants to maintain smoke alarms and consistently failing to do so can result in a substantial risk to other tenants in an apartment community.

From a practical standpoint, of course, TVF&R does not have the option of doing "surprise" inspections, as some residents suggest, nor for that matter, routine inspections of occupied units even with advance notification. TVF&R does, however, have the right to enter any occupied unit when invited by the resident to do so. It is for this reason, in particular, that we recommend residents be consistently told to contact *either* their landlord or TVF&R in the event that a smoke alarm does not work.

Our work in housing issues over the past decade and a half suggests that extremely few low-income, non-English-speaking tenants will submit a written request to a misbehaving landlord to have a smoke alarm repaired or installed (which is start of the other process that could lead to a local fire official enforcing ORS 479.280). Indeed, most higher-income, English-speaking tenants would think twice about doing so. Therefore, developing a policy of direct enforcement, where feasible, is called for. There may even be variations of law enforcement's "knock and talk" strategy that could be used in situations where chronic nuisance properties are not responding to more benign attempts to change the management culture at the property.

We do not recommend an aggressive policy of citations against all landlords, as that would be counter-productive to the partnership that TVF&R can build with most. But we do recommend such a policy in instances of chronic problem locations – a policy definition for which could be established internally or in partnership with local law enforcement agencies.

Note that, at the time of enforcement against the owner, we'd also recommend giving the tenant a notice, in Spanish and English, explaining that, by Oregon law, a tenant who complains legitimately of a smoke alarm that is not working may not be evicted, have the rent raised, or have services diminished in retaliation.²

- **Cooperative enforcement.** Just as police are trained to use a multi-agency approach to solve chronic nuisance problems, so should firefighters. This means that TVF&R would cite all they can and also ensure that inspectors are sufficiently familiar with relevant building codes and signs of illegal activity to know when and how to contact other enforcement agencies as well, such as police, housing maintenance agencies, and the local housing authority's Housing Quality Standards (HQS) inspectors – each of whom operates with a slightly different set of rights to enter, inspect, and enforce.
- **Educate tenants regarding how to identify and trigger this type of enforcement.** This should be done with care so as not to cause harassment of legitimate landlords (and thus an understandable political backlash). This is why we recommend simply advising that tenants contact either the landlord or TVF&R if there is a problem with a

¹ See ORS 90.325 for basic tenant obligations and ORS 90.400 for the landlord's enforcement options.

² See ORS 90.385.

smoke detector. Tenants will know which to contact, often based on the type of landlord they have.

CONCLUSION

The preceding recommendations are intended to integrate the research findings into a continuum of communications, education, and enforcement that can elevate the likelihood of every home in TVF&R's service district having a working smoke alarm. These steps should help ensure that those who take advantage of low-income and non-English speaking residents discover that, in TVF&R's service area, such an approach becomes increasingly hard to do. By building ever stronger partnerships with willing landlords, communicating core messages about smoke alarms to vulnerable populations, and taking a more effective stand against properties where dysfunctional management holds control, the research suggests that TVF&R will be able to further reduce the incidence of fire fatalities across the service area.

APPENDIX

Discussion Guide

Tualatin Valley Fire & Rescue Census Tracts and Service Area Boundaries

SMOKE ALARM RESEARCH

DISCUSSION GUIDE

April, 2003

I. MODERATOR INTRODUCTION

RESEARCHER INTRODUCES RESEARCH PROCESS

II. PARTICIPANTS' INTRODUCTION

PARTICIPANTS INTRODUCE THEMSELVES. EACH PROVIDES THE FOLLOWING INFORMATION:

- ▶ Name?
- ▶ Where live?
- ▶ Length of residency at current home?
- ▶ Length of residency in local area?

III. USAGE AND PERCEPTION

Today, we are attempting to understand people's viewpoint on fire safety and hope to discover better ways to teach families in the area about fire safety.

- A. Current practices:** Let's start with a very basic question. What are some of the most effective steps that can be taken to protect your family from fire? What about features in a home that help protect against fire? **LISTEN FOR:**

- ▶ Smoke alarm installation and testing
- ▶ Teaching children fire safety
- ▶ Fire hazard issues
- ▶ Child safety issues
- ▶ Others?

Which of these steps have you taken? Are there any other steps that you have been meaning to do, but haven't had either the money or time to do yet?

- B. Benefits and drawbacks:** As you know, one of the fire safety tools in many homes is a smoke alarm.

- ▶ **IF NOT ALREADY DISCLOSED:** Do you have smoke alarms in your home? Do you know if it/they are working? How often do you test your smoke alarm? If currently working: Have you ever lived in a home with a disabled or missing smoke alarm?
- ▶ **BENEFITS:** Let's make a list of the main benefits of smoke alarms. If you were explaining the benefits of having a smoke alarm to a family who did not have one, what would you tell them?
- ▶ **DRAWBACKS:** What about the drawbacks of smoke alarms – what kind of problems or concerns would you tell this new family about?

C. Reasons for disabling. One of the questions we are trying to answer is why some families do not have working smoke alarms in their homes and, more importantly, what can be done to encourage all families to have working alarms. There are many different reasons that we have heard. Tell us, from your own experience:

- ▶ **IF LIVED WITHOUT OPERATING ALARM:** When you have lived without a working smoke alarm, what were the reasons for that?

- ▶ Based on anything you have heard, what would you say are some of the reasons others who don't have working smoke alarms are in that situation? **PROBE FOR:**
 - Lack of understanding regarding what the alarm is, how it works, why, etc.

 - Suspicion regarding a "government" required item (Hidden camera? Provided by person with a badge?) Is that an issue?

D. If you were in charge of TVF&R's effort to make sure that everyone had a working smoke alarm at home, what would you do? **PROBE FOR (STAY GENERAL, DON'T LEAD):**

- ▶ Changes to smoke alarm design

- ▶ Dealing with the cost

- ▶ Types of messages to communicate, e.g.:
 - Key benefits

 - Urgency issues

 - Assurances about concerns (e.g. disturbing neighbors, interrupting cooking, others)

- ▶ Methods of communication – who communicates, where it is communicated, language, others

IV. COMMUNICATION CONCEPTS

A. IF RESPONDENT SEES LITTLE ROLE FOR RESIDENT, THEN EXPLAIN (OTHERWISE SKIP TO B):

One of our concerns is that residents often disable smoke alarms. For example, there have been instances where TVF&R has installed free smoke alarms in every home in an apartment community, yet just three months later, 60% of those alarms had been disabled.

Another issue that TVF&R is aware of is that the landlord's willingness to make sure smoke alarms are working also makes a real difference. In apartments where landlords inspect homes consistently and check that smoke alarms are working, a much smaller percentage of alarms are disabled by tenants.

- ▶ Why do suppose residents often disable smoke alarms?

B. Communication Messages. Now I'd like to show you a list of possible approaches that have been suggested to encourage better smoke alarm maintenance and have you tell us which of these approaches would be the best way for TVF&R to spend money to encourage everyone to have a working smoke detector.

We'd like you to fill out the survey by assuming that you are in charge of TVF&R's budget for encouraging residents to keep smoke detectors working and you are going to decide how to spend it. The list shows steps you could take. Some are messages to residents; some are messages to landlords; some are other steps. To keep it simple, we'd like you to distribute your budget assuming you have \$100 to spend. You could divide it anyway you want among these ten items, but it needs to add to \$100.

- ▶ Explain how to use a "hush" button to quiet an alarm without removing batteries..... _____
 - ▶ Explain that smoke alarms are designed to wake you and your children while there is still air to breath..... _____
 - ▶ Teach that it is the silent smoke, not the fire, that kills _____
 - ▶ Explain that, in apartments, fires from nearby units can spread to yours — another threat that your smoke alarm will guard against..... _____
 - ▶ Explain that working smoke detectors can save not just your life, but the lives of your neighbors as well, by warning of fire earlier _____
 - ▶ Tell landlords that they are required by Oregon law to provide a working smoke alarm at the time the renter moves in..... _____
 - ▶ Teach landlords ways to install smoke alarms that reduce false alarms like those that happen while cooking..... _____
 - ▶ Have firefighters come into your home and inspect smoke alarms on a regular basis..... _____
 - ▶ Encourage landlords to fine residents who fail to keep smoke alarms working..... _____
 - ▶ Ask landlords to inspect homes twice a year to make sure smoke alarms are working _____
- Sum: \$100**

- C. **Best ideas:** Of all the options, which one or two stand out as the *best* approach, the direction you would most strongly recommend? Why? **PROBE ALL APPROACHES AS NECESSARY.**
- D. **Worst ideas:** Which seem like the worst approaches, ones which might actually discourage people or reduce their desire to work with TVF&R? Why?
- E. **OPTIONAL: Test sample pieces.** Now we'd like to show you some of the brochures and information that TVF&R has used in the past. **PROBE FOR:**
- ▶ Which of these have you seen before?
 - ▶ Which have you read?
 - ▶ What message, if any, do you recall from them?
 - ▶ Tell me your impression of how effective these messages might be for you and your family.
- F. One of the challenges in communicating messages is figuring out how to find you. What is the best way to reach families like yours? **PROBE FOR:**
- ▶ Direct mail
 - ▶ Information brought home from schools
 - ▶ Community meetings at the apartment
 - ▶ Community or cultural centers
 - ▶ Bus advertising
 - ▶ Television – which stations and times?
 - ▶ Radio
 - ▶ Newspaper
 - ▶ Church groups?
 - ▶ Other
- G. **Motivational approach:** We have heard many suggestions for how to encourage better usage of smoke alarms. Some people suggest explaining the life saving benefits more clearly so that more people will want to make sure their smoke alarms work, while other suggest enforcing the law more and relying on more fines and inspections to ensure smoke alarms are used. Which direction do recommend for TVF&R? One or both? Why?

V. CLOSE

- A. Of all that we have covered today, what information about smoke alarms, if any, really stands out? Perhaps it is information you weren't aware of or hadn't considered in just that way.
- B. *Check observers if present:* Before we close, let me give our observers a chance to ask any follow up questions... **CHECK WITH OBSERVERS.**
- C. *Last question:* Based on everything we have discussed, what is the single most important thing that TVF&R can do to encourage more people to maintain working smoke alarms? **LIST.**
- D. **Moderator closes with:**
 - ▶ Thanks for participation
 - ▶ Importance of participation
 - ▶ Gift

Smoke Alarms

Explain how to use a “hush” button to quiet an alarm without removing batteries	_____
Explain that smoke alarms are designed to wake you and your children while there is still air to breath	_____
Teach that it is the silent smoke, not the fire, that kills.....	_____
Explain that, in apartments, fires from nearby units can spread to yours — another threat that your smoke alarm will guard against.....	_____
Explain that working smoke detectors can save not just your life, but the lives of your neighbors as well, by warning of fire earlier.....	_____
Tell landlords that they are required by Oregon law to provide a working smoke alarm at the time the renter moves in.....	_____
Teach landlords ways to install smoke alarms that reduce false alarms like those that happen while cooking.....	_____
Have firefighters come into your home and inspect smoke alarms on a regular basis	_____
Encourage landlords to fine residents who fail to keep smoke alarms working	_____
Ask landlords to inspect homes twice a year to make sure smoke alarms are working.....	_____
Sum:	\$100

Alarmas de Humo

Explicar como usar un botón de “silencio” para callar a la alarma sin tener que quitarle las pilas.....	_____
Explicar que las alarmas de humo son diseñadas para despertarlo(a) a Usted y a sus niños mientras queda aire para respirar.....	_____
Enseñar que es el humo callado, no el fuego que mata.....	_____
Explicar que en apartamentos los fuegos de los vecinos pueden esparcerse a su hogar – otra amenaza con cual su alarma puede protegerlo(a).....	_____
Explicar que alarmas de humo que funcionan pueden salvar no sólo su vida, pero las vidas de sus vecinos también con advertirles del fuego más pronto	_____
Decirle a los dueños que estan requeridos por la ley de Oregon en suministrar alarmas de humo que funcionen cuando un nuevo residente se muda al apartamento.....	_____
Enseñarles a los dueños como instalar las alarmas de humo que reduscan alarmas falsas como cuando uno esta cocinando.....	_____
Hacer que los bomberos vengan a su hogar y inspecten las alarmas de humo regularmente.....	_____
Animar a los dueños que multen a los residentes que fallen en mantener a las alarmas funcionando.....	_____
Pedirle a los dueños que inspecten a los hogares dos veces al año para asegurarse que las alarmas esten funcionando.....	_____
Suma:	\$100

