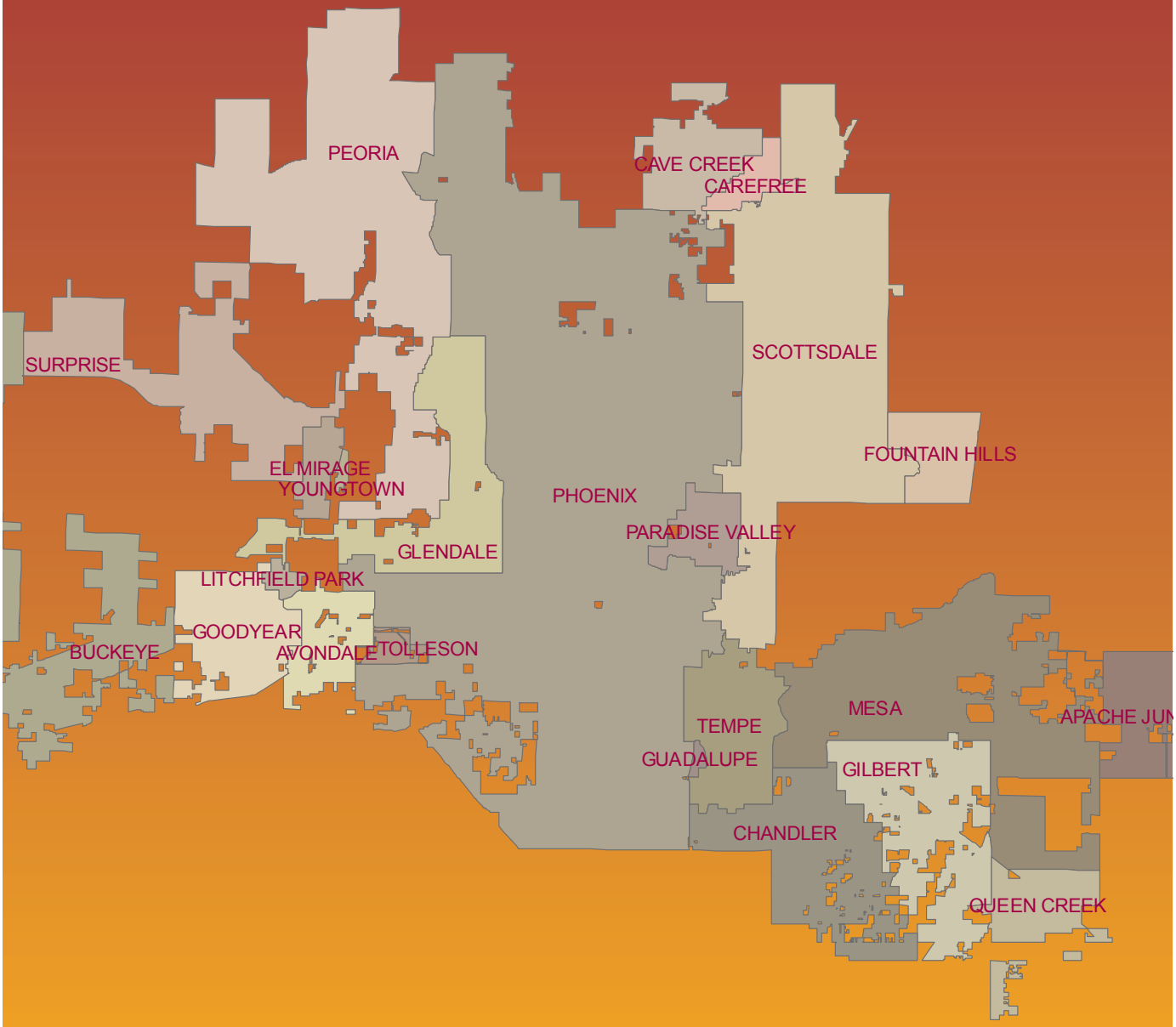
2006 HIGHLIGHTS

PHOENIX AREA SOCIAL SURVEY

Community and Environment in a Desert Metropolis



Central Arizona–Phoenix Long-Term Ecological Research Project
Contribution No. 4, December 2007
Global Institute of Sustainability, Arizona State University

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PHOENIX AREA SOCIAL SURVEY

Community and Environment in a Desert Metropolis

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Introduction

Arizona State University (ASU) researchers conducted the first Phoenix Area Social Survey (PASS) in 2001 to study relationships between people and the natural environment in eight neighborhoods of Phoenix, Arizona. In 2006 we conducted a larger survey of 808 households in 40 neighborhoods in the Valley, an area that stretches from Cave Creek to the north to Chandler to the south, and from Glendale in the west to Apache Junction in the east. PASS focuses on residents' opinions about quality of life and the condition of the natural environment in their neighborhoods and in the region. Respondents answered questions about four areas of the environment:

- Land use
- Water supply
- Air quality
- Climate change

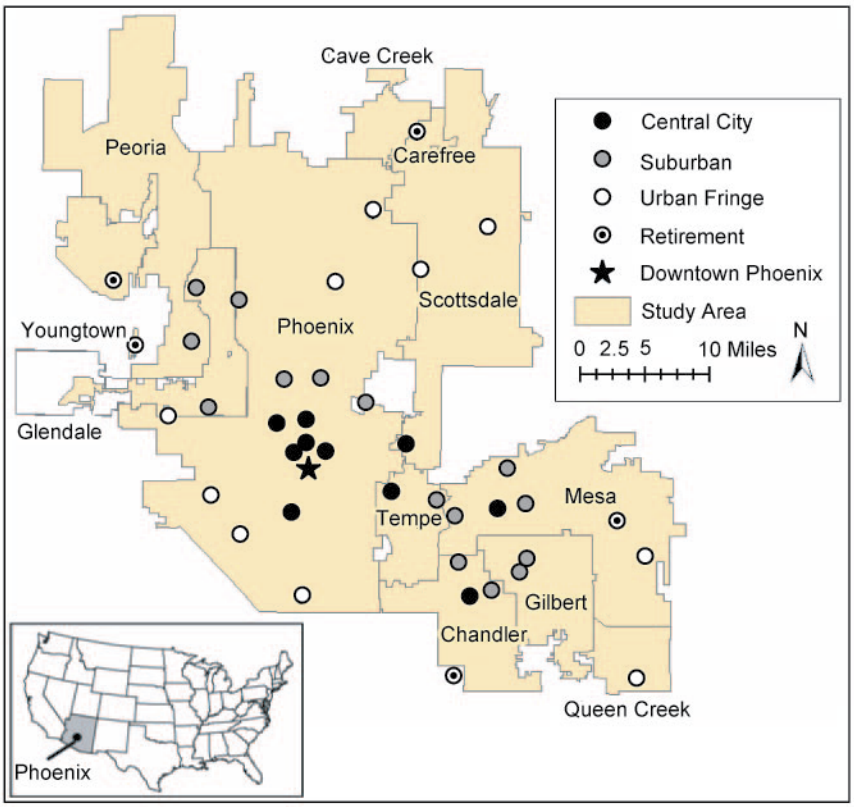
One unique feature of PASS is that social scientists are working with ecologists and other environmental scientists to understand whether people's perceptions correlate with scientifically measured environmental conditions, such as high temperatures, the existence of long-term drought, and the abundance and variety of trees, plants, and wildlife. Another unique feature is that we draw our sample of households from a variety of different kinds of neighborhoods so that we are certain to include viewpoints from a diverse group of people.

We will repeat the survey every five years, as we aim to create a historical record of trends in the attitudes and behavior of area residents. Our goal is to answer the following questions:

- How do communities form and adapt in rapidly urbanizing regions?
- How do knowledge, perceptions, and preferences affect behaviors that change the environment?
- How do inequalities and cultural differences in neighborhoods affect the environment?
- How do changes in social and physical environments affect neighborhood quality of life and vulnerability to environmental hazards?

PASS Neighborhoods

Map of PASS 2006 Neighborhood Locations



People with similar education and income levels and similar race/ethnicity tend to live near each other in urban and suburban areas. In turn, neighborhood environments shape residents' personal views on quality of life and local issues.

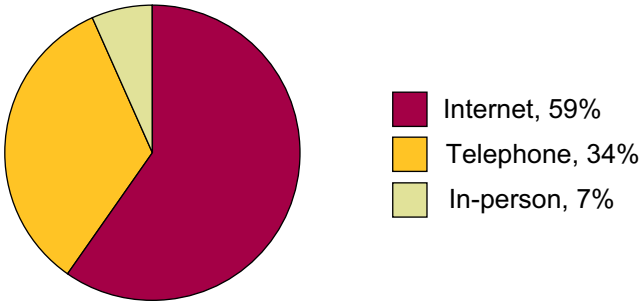
Our survey reflects the diversity of neighborhoods, households, and people who make up the Valley. We drew the neighborhood boundaries according to US Census maps, which divide neighborhoods into areas that are about one-quarter square mile. We selected 40 neighborhoods chosen from among nearly 100 where scientists working with the Central Arizona–Phoenix Long-Term Ecological Research project are collecting ecological data on soil, temperature, vegetation, and fauna. Some of these neighborhoods are in the urban core (within 5 miles of downtown Phoenix or 1.5 miles of the 7 other large-city downtowns). Others are on the urban fringe of development, where new homes were being built from 2001-2005. A third group of neighborhoods is called suburban because they are located between the older and newer areas. The fourth group is retirement communities where the average age of residents is over 55.

We chose some neighborhoods where more than two-thirds of the residents were White/Anglo, others where more than half the residents were Hispanic/Latino, and a third group with mixed race/ethnicity. The average annual household income of neighborhoods varied from $22,000 to $120,000. Within each of the 40 chosen neighborhoods, 40 addresses were randomly selected for the survey sample. These addresses included all types of homes: single-family, multi-family, apartments, townhouses, condominiums, and mobile homes.

PASS Respondents

Surveys were conducted from April 29 through September 27, 2006 by ASU's Institute for Social Science Research. A recruitment letter, in English and Spanish, asking for the household's participation in the survey was sent to each of the 40 addresses. We continued contacting these households until 20 households in the neighborhood agreed. In each household, a randomly selected adult was asked to complete the survey. The study's response rate was 51% with 808 respondents. Of these 808 people, 59% took the survey on the Internet, 34% were surveyed on the phone, and 7% were interviewed in person. Respondents had the option of taking the survery in English or Spanish. It took an average of 45 minutes to complete the phone survey.

How People Answered the Survey



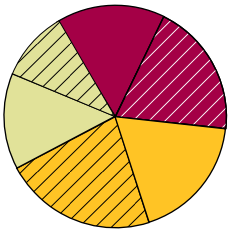
Profile of Survey Respondents

The following graphs show the characteristics of the PASS respondents. Similar to most social surveys, most of the respondents were women and older white people with higher levels of education. However, PASS represents all groups of the population. For example, Latinos were 19% of all respondents, and 10% of the surveys were given in Spanish. All ages, education, and household-income levels, employment statuses, ranges of residential tenure in the Valley, political orientations, and locations were represented. Respondents were paid an incentive for completing the survey. Below and on the next page is some information on who took the survey.

- 56% Female
- 60% Married
- 39% have children under 18 living at home
- 76% own their own home
- Average number of people in household = 3.8

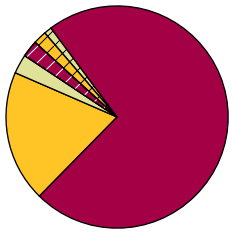
Profile of Respondents

Age



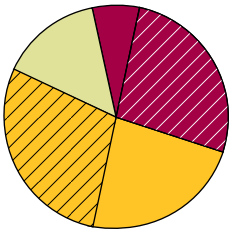
- Under 31, 16%
- 31-40, 19%
- 51-60, 19%
- 41-50, 22%
- 61-70, 14%
- Over 70, 10%

Ethnicity



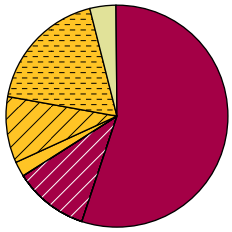
- White, 73%
- Latino, 19%
- African American, 3%
- Native American, 2%
- Asian, 2%
- Mixed Race, 1%

Education Level



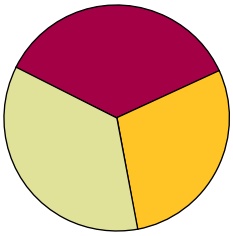
- Less than 12 Years, 7%
- High School Graduate, 26%
- Some College, 24%
- Bachelors Degree, 28%
- Graduate School, 15%

Labor Force Profile



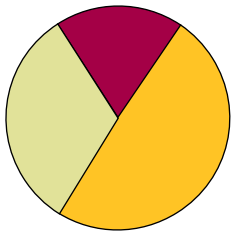
- Work full-time, 55%
- Work part-time, 11%
- Student, 2%
- Homemaker, 10%
- Retired, 18%
- Other, 4%

Annual Household Income



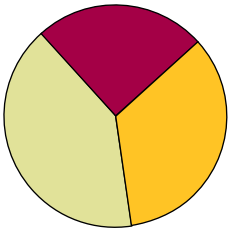
- < $40,000, 35%
- $40,000 - $80,000, 29%
- > $80,000, 36%

Time Lived in Valley



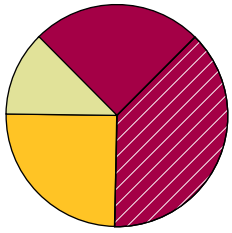
- ≤ 5 Years, 19%
- 6-25 Years, 49%
- ≥ 26 Years, 32%

Political Affiliation



- Liberal, 25%
- Moderate, 34%
- Conservative, 41%

Type of Neighborhood



- Central Cities, 25%
- Suburban, 38%
- Urban Fringe, 25%
- Retirement, 12%

Uses of PASS

ASU faculty and students – now, and in years to come – will use the collected data in many studies. This report highlights the first findings that have emerged from PASS. Studies using the 2006 data include topics such as:

- Perceptions of air-quality conditions and policies to enhance air quality
- The relationship of heat-related illnesses to variations in summer temperatures
- The influence of human activities on bird populations
- The relationship of environmental values to water-conservation behavior
- Crime, fear, and neighborhoods parks
- A comparison of social bonding in different neighborhoods
- Residential-landscape preferences
- Comparison of the public's beliefs about the causes of local environmental problems with beliefs of ASU scientists

Cactus wren photo by Eyal Shochat

Findings: Community

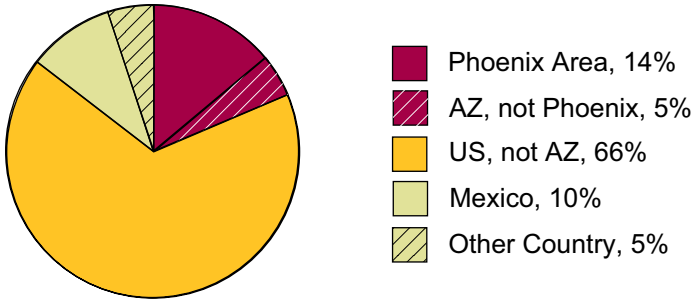
Migration and Residential Mobility in the Valley

Where Do We Come From?

Most adults who live in the Phoenix metropolitan area were not born there but have migrated from other parts of the US, Mexico, and elsewhere. Only 19% of the survey respondents were native Arizonans.

According to the 2000 US Census, for metropolitan areas, Phoenix has one of the smallest percentages of residents who were born in the state of current residence. In other words, compared to most big cities, Phoenix has more people who came from somewhere else.

Birthplaces of PASS Respondents



How Long Have We Been Here?

. . . Average time survey respondents have lived in the Valley = 18 years

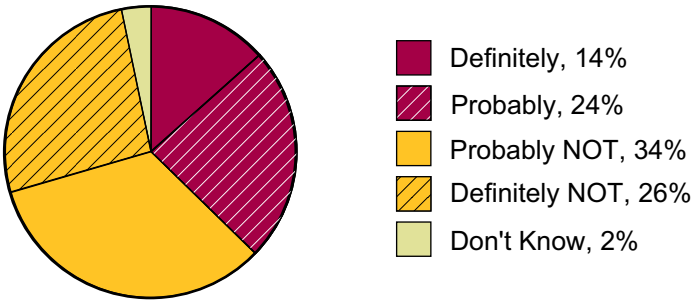
How Often Do We Move?

. . . Average number of residences survey respondents have lived in the Valley = 3
. . . Average in current home:
Homeowners = 6 years
Renters = 2 years

When Will We Move Again?

Nearly 2 of 5 respondents thought they would definitely or probably move from their present home within two years.

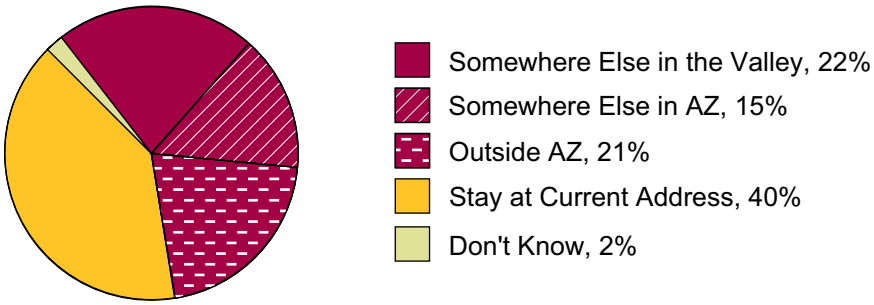
Two-Year Moving Plans of PASS Respondents



Where Do People Want to Move?

3 of 5 respondents said they would like to move away from their current home. In roughly equal proportions, this group would like to move elsewhere in the Valley, elsewhere in Arizona, or outside Arizona. Although most people would prefer to move out of their current home, most of them do want to stay in Arizona.

Where PASS Respondents Would Like to Live

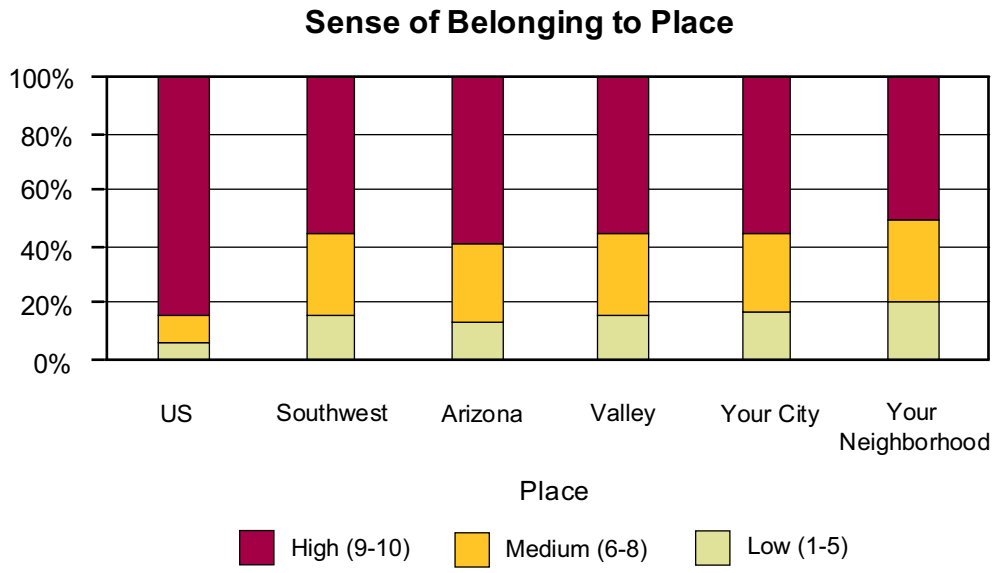


Highlight: Relatively few adults have lived in the Valley for their entire lives. Respondents move frequently within the Valley. A large minority (38%) envisions another move within two years. The people who say they plan to move or that they would like to move have a variety of destinations in mind, suggesting that there are many different reasons for moving. Given a choice of where to live, four of five respondents would stay in Arizona, and three of five would stay in the Valley.

Attachment to Place

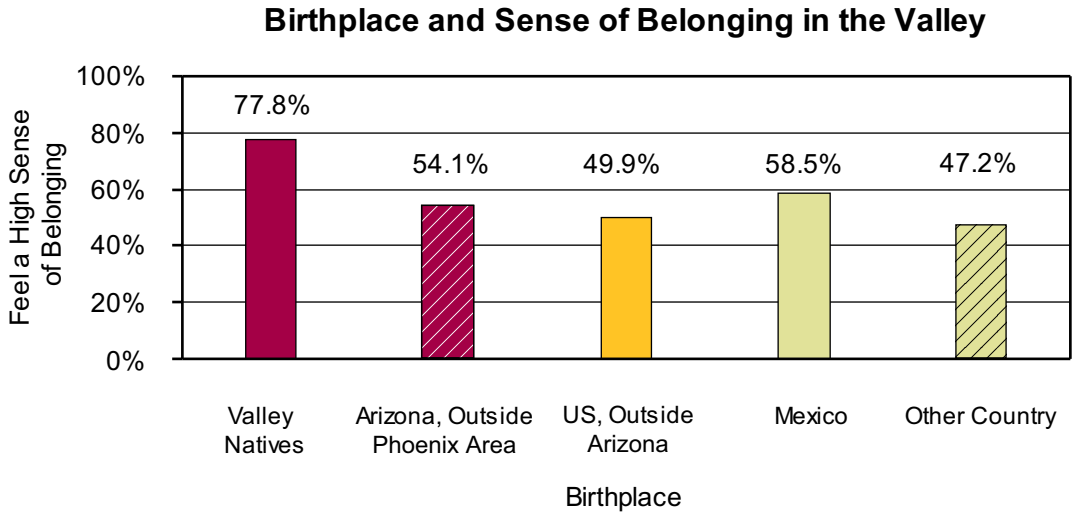
Where Do We Feel a Strong Sense of Belonging?

We asked respondents, ***How much do you feel a sense of belonging in. . .*** On a scale of 1 to 10, respondents rated their attachment to various places. Over 80% of respondents expressed a high sense of belonging in or attachment to the US. Not as many people were as strongly attached to the region, state, metropolitan area, city, or neighborhood. Of these places, people were most likely to strongly identify with the state of Arizona – 60%. About half the respondents saw the Valley as a place where they felt a high sense of belonging, and slightly less than half felt strongly attached to their neighborhoods. Only a minority of people – 20% or less – replied that they do not belong here at all.



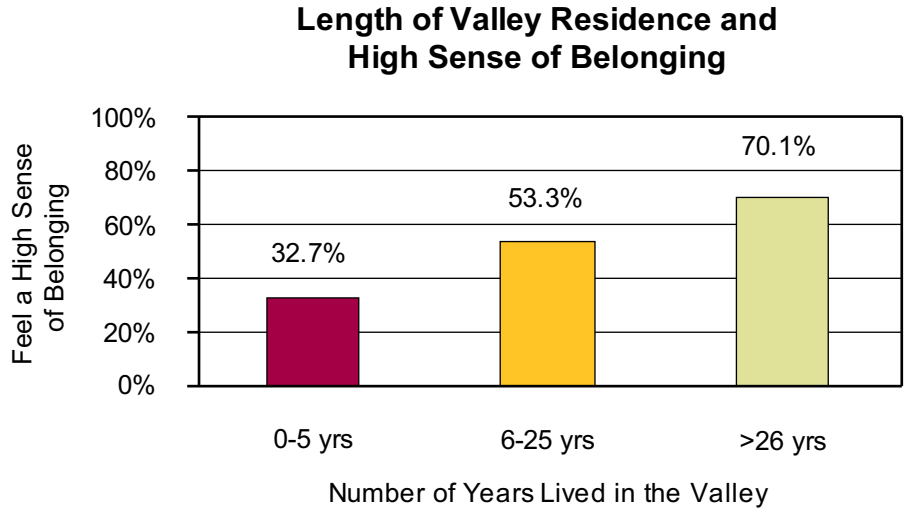
Place attachment differs according to where people are from . . .

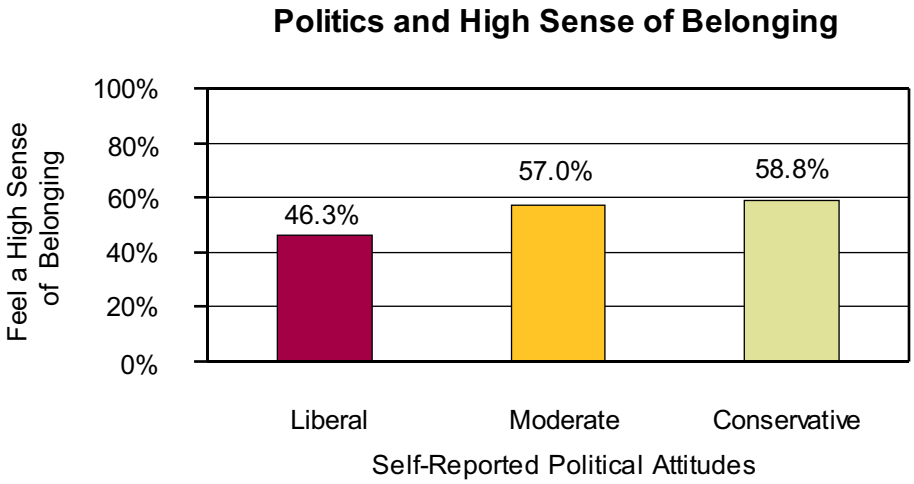
Native-born residents were more attached to the Valley than migrants from outside the Valley.



Place attachment differs significantly by length of residence in the Phoenix area and by self-described political attitudes . . .

Increasing amount of time lived in the Valley and being politically conservative were associated with a stronger sense of belonging in the Valley.





Highlight: Compared to the strong sense of national identity that most respondents felt, their local attachments were weaker. The Valley's lack of deep historical roots and peoples' frequent moves seem to impair the sense of belonging for many people, since respondents who were born here and have lived longest in the Valley also had the highest sense of belonging here. Interestingly, Mexican immigrants felt a stronger sense of belonging in the Valley than immigrants from elsewhere. However, the vast majority of people felt some degree of belonging. With Arizona generally falling into the "red state" catagory, respondents who identified themselves as conservatives or moderates felt a greater sense of local belonging than those with liberal political views.

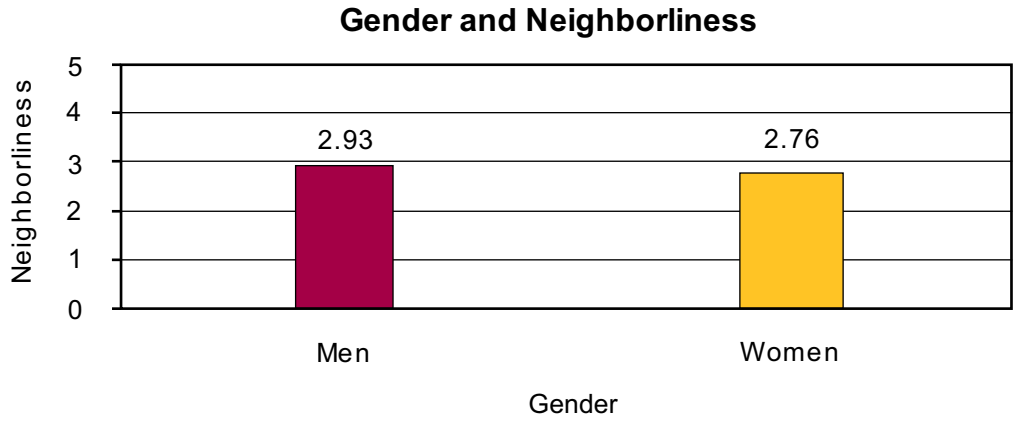
Neighborhood Social Bonds

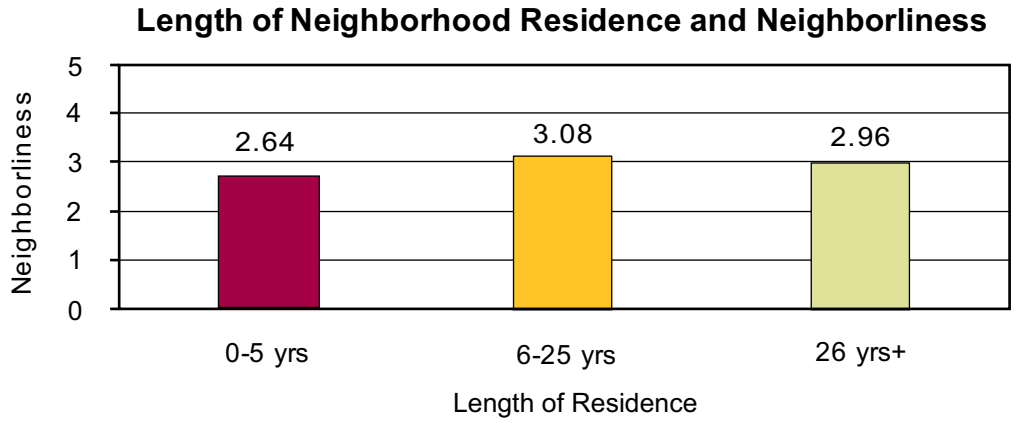
Who Has Strong Social Bonds in Valley Neighborhoods?

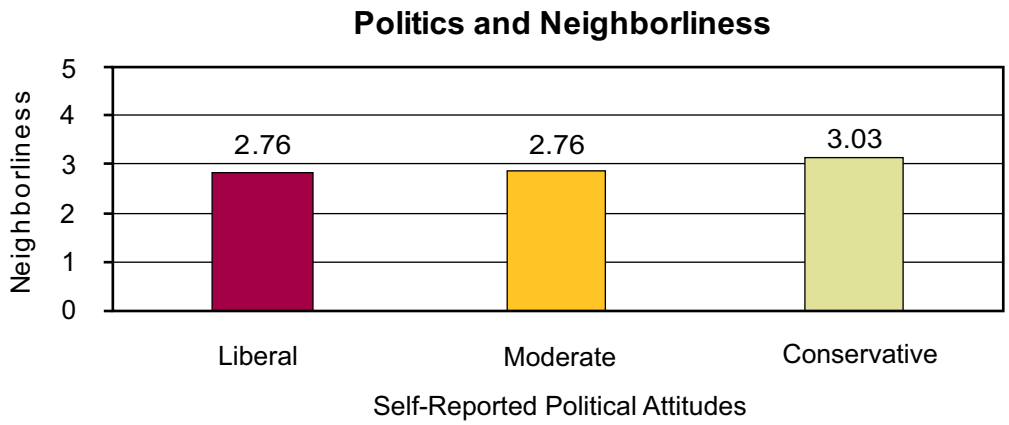
The strength of the social bonds among people in a community is called "social capital." Neighborhood social capital is formed by people talking to each other and performing acts of friendship that lead to trust and good feelings among neighbors. Social capital improves the quality of life in neighborhoods and may be used to gain resources for residents or to prevent outside problems from interfering with neighborhood life. We measured respondents' perceptions of three kinds of neighborhood social capital: ***neighborliness, trust, and activism . . .***

Neighborliness differs significantly by gender, length of residence in the same neighborhood, and politics . . .

NEIGHBORLINESS is the amount of association or interaction that neighbors have with each other. We asked respondents, ***How many neighbors were friends and how often they did favors and visited with neighbors.*** On a scale of 1 to 5, the average neighborliness score for all respondents was 2.83. Men, people who had lived in the Valley longer, and people who identified themselves as politically conservative reported engaging in more neighborly behavior.



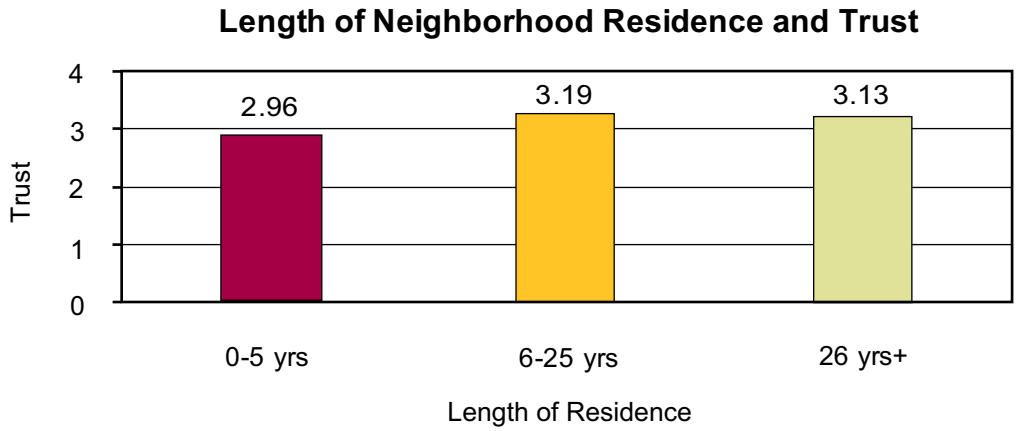


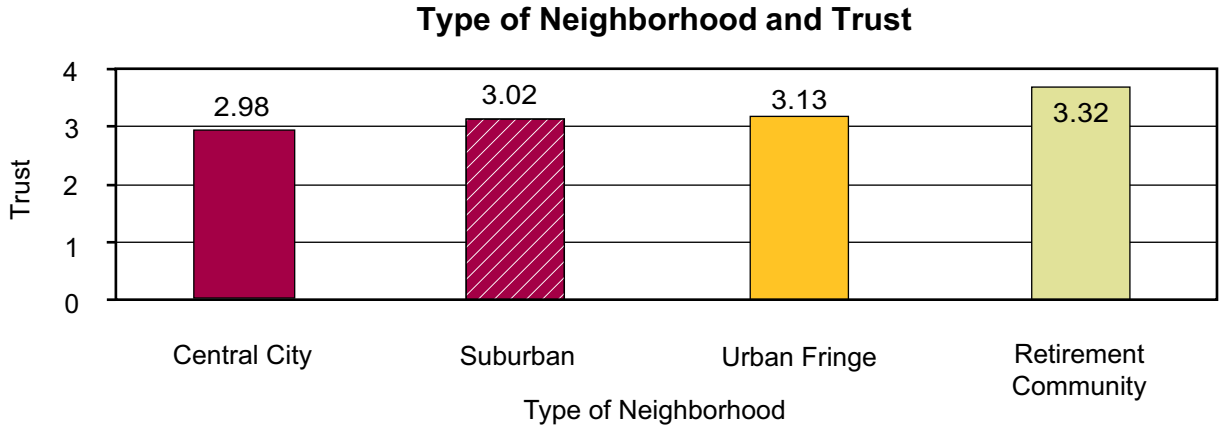


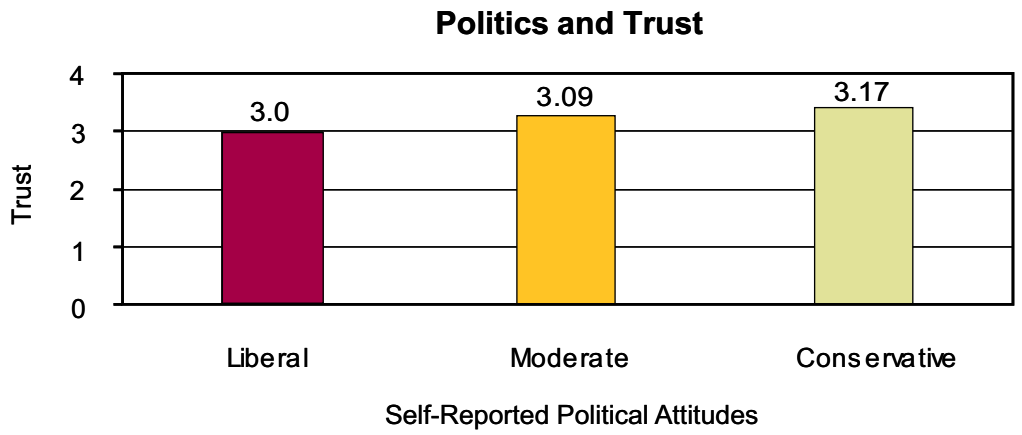
Trust in neighbors differs significantly by length of residence in the same neighborhood, the type of neighborhood, and politics . . .

TRUST is the bond people feel with their neighbors and the confidence placed in neighbors to behave responsibly. We asked respondents ***if they could trust their neighbors; if their neighbors got along; if it was a tight-knit neighborhood; if neighbors could be depended upon to solve problems cooperatively.***

On a scale of 1 to 4, the average trust score for all respondents was 3.08. People who had lived in their neighborhood longer than five years, who lived in retirement communities, and who were politically conservative reported having more trust in their neighbors.



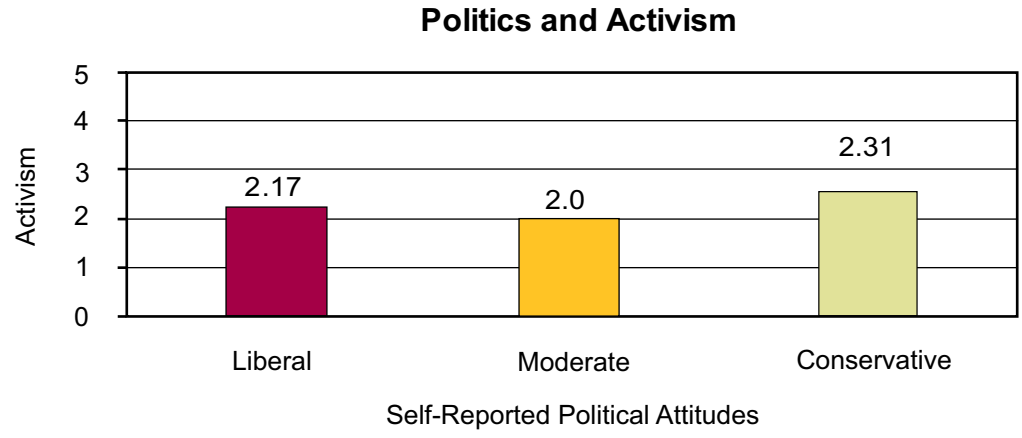


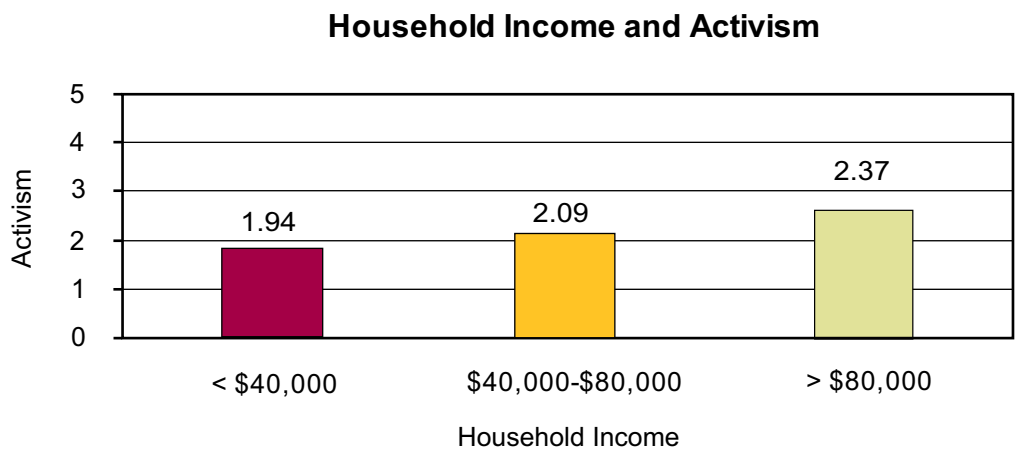


Neighborhood activism differs significantly by politics and household income . . .

ACTIVISM is measured by the actions people take to solve problems in their neighborhoods. We asked respondents ***if they were active in attending neighborhood meetings, working on projects, or contacting government officials about neighborhood problems.***

On a scale of 1 to 5, the group average activism score for all respondents was 2.13. Politically moderate people reported engaging in the fewest neighborhood problem-solving activities. Conservatives reported engaging in the most. The level of activism increased steadily with higher household incomes. The length of time people had lived in their neighborhood did not make a big difference in how active people were.





Highlight: Overall, Valley residents scored just above the middle of the scale on neighborly behavior and a little higher on trusting their neighbors. People scored below the midpoint of the scale on being active neighborhood problem-solvers. All of these social bonding activities were spread unevenly over different segments of the population. Longer-term neighborhood residents had stronger bonds than recent arrivals. People in retirement communities were more trusting of their neighbors. People who identified themselves as politically conservative reported being more neighborly, trusting, and active in neighborhood affairs, perhaps because they have more like-minded neighbors. People with the lowest household incomes were much less active in solving neighborhood problems. There are many possible explanations why this might be the case, but this inactivity could lead to having more problems in their neighborhoods.

Findings: Environment

Appreciation of the Desert Environment

How Do Valley Residents Feel About the Desert?

We asked survey respondents how much they agreed with the statement, ***The desert is a very special place to me.*** The great majority of respondents – 80% – agreed that the desert is special and nearly half strongly agreed with that statement. In answer to a different question, only 18% thought that ***the desert is an empty wasteland.***

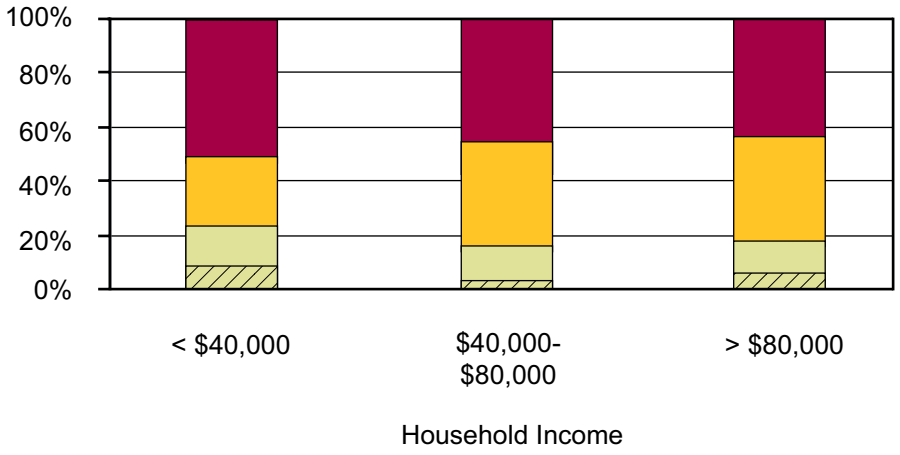
Feeling that the desert is special does not differ according to gender, politics, or location . . .

Identical percentages of men and women, and similar percentages of people across the political spectrum and in all locations, agreed that they appreciate the uniqueness of the desert.

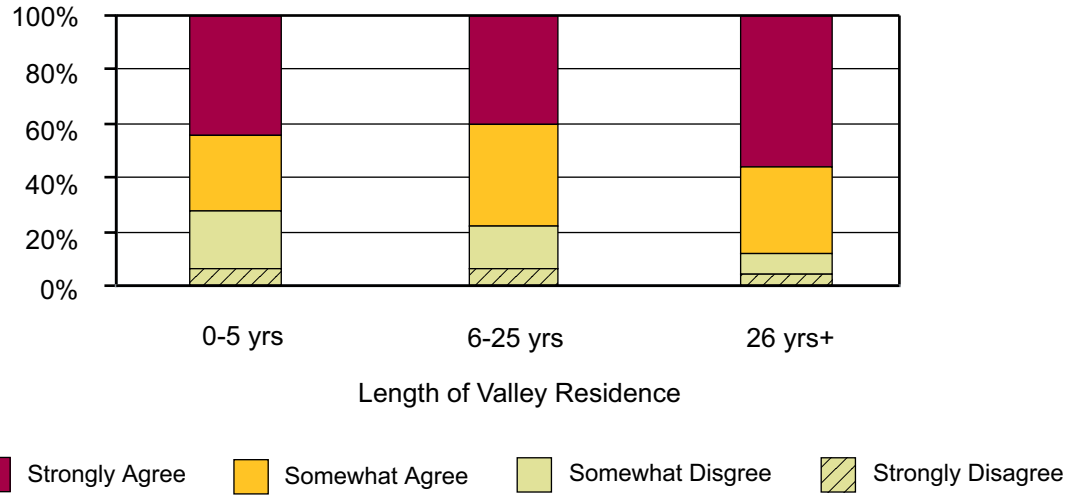
Feeling that the desert is special differs significantly by household income and according to how long people have lived in the Valley . . .

People in lower-income households were more likely to agree strongly that the desert is a special place, while higher-income people still agreed but felt less strongly about it. People who had lived in the Valley the longest were much more likely to agree strongly that the desert is a special place.

Household Income and Agreeing the Desert Is Special



Length of Valley Residence and Agreeing the Desert Is Special



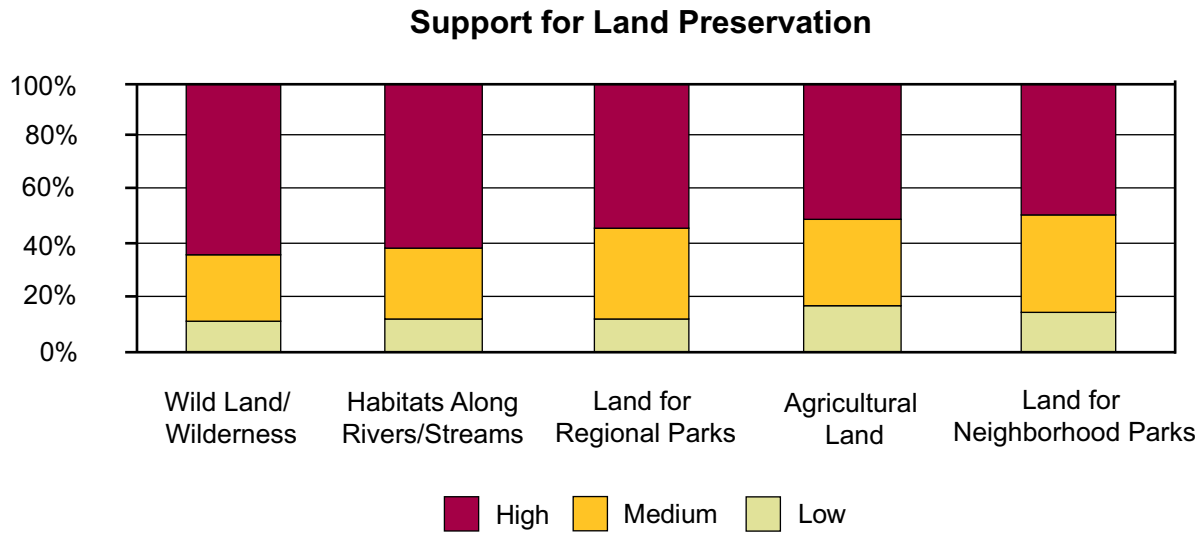
Highlight: A very high proportion of Valley residents agreed that the desert is a special place. In fact, about half the respondents expressed a strong identification with the Valley's natural environment – the same number (though not necessarily the same people) who reported a strong sense of belonging in the Valley's social environment. Appreciation of the regional natural environment appears to grow stronger the longer people live here.

Implication: With so much of the Valley's population expressing appreciation for our desert surroundings, efforts to preserve pristine desert should be welcome. There is, however, a small but noteworthy segment of the population that feels otherwise.

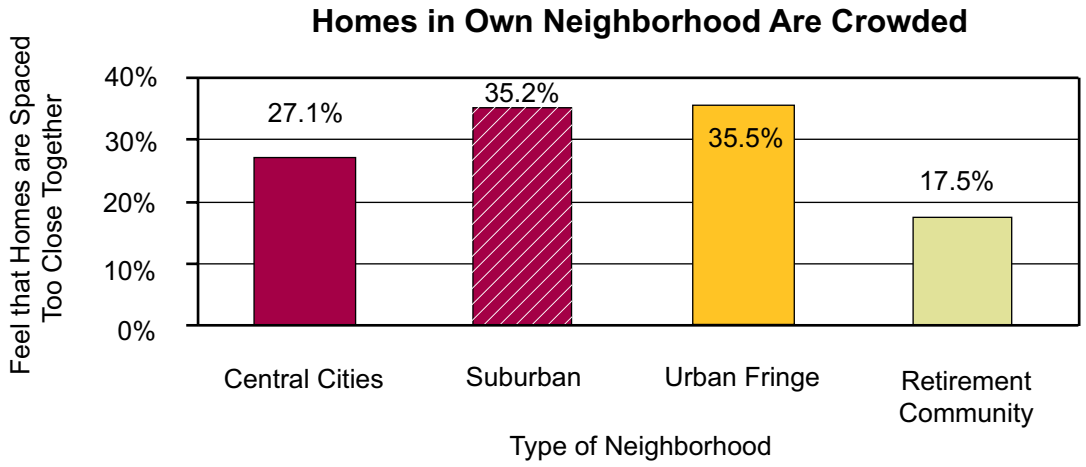
Natural Resource Appreciation

Land Preservation

We asked respondents, ***Do you support or oppose preserving more land for wilderness, riverbank habitats, regional parks, agriculture, and neighborhood parks?*** A majority expressed high or medium support for more land preservation. The strongest support – more than 60% of respondents – was for preserving more wilderness and land along waterways. Approximately half the respondents strongly supported preserving more land for parks and agriculture.



But one-third of respondents felt that homes in their neighborhoods are spaced too close together. This view, which supports low-density residential settlement, would leave less land for conservation and public uses. People in the central city and retirement neighborhoods were less likely to feel crowded than people in suburban or fringe neighborhoods.



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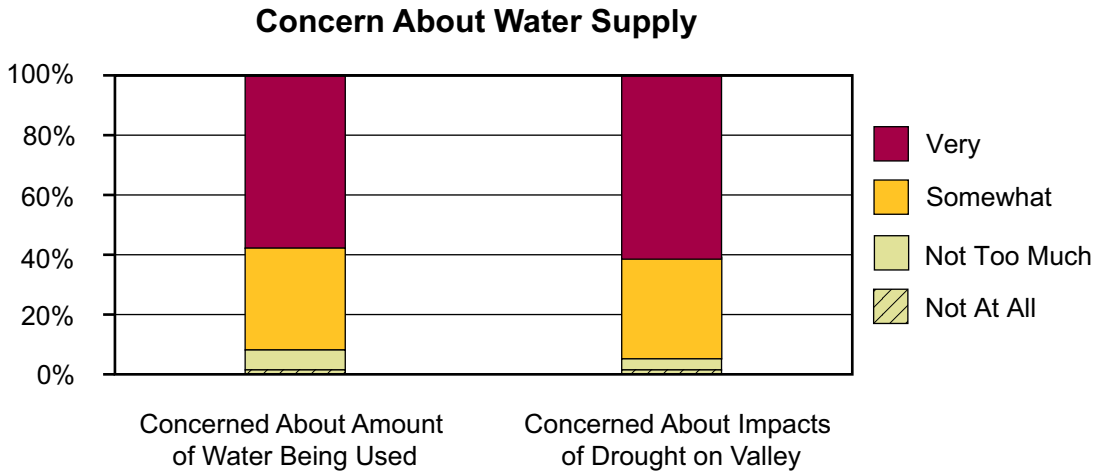
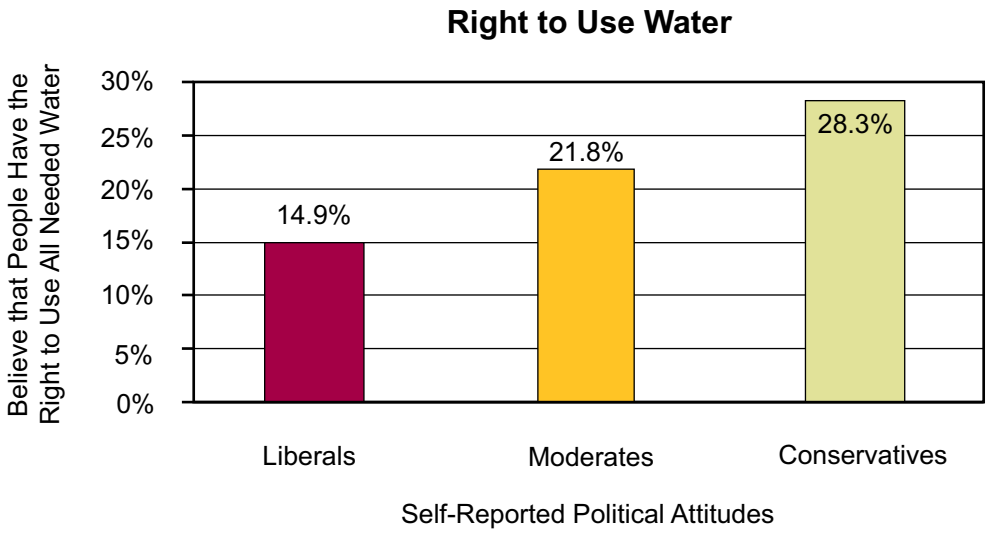
Water Conservation

We asked respondents, ***How concerned are you about the amount of water being used by people who live in the Valley?*** The vast majority was very or somewhat concerned about the amount of water being used by people who live here. 85% agreed that we are experiencing a drought in the Valley. Almost everyone was very concerned or somewhat concerned about the impacts of drought on the Valley.



But one-quarter of respondents thought that people in the Valley have the right to use all the water they need. Conservatives were twice as likely as liberals to believe this, although most conservatives did not agree with the statement.

Although 61% of respondents had looked for ways to reduce water consumption at home in the past year, half the respondents said it would be almost impossible for them to reduce their home water consumption from the past year.



Highlight: Many Valley residents – 60% – strongly favored more land conservation and were concerned about overconsumption. However, not everyone shared these concerns to the same degree or about the same issues. Even some of those who favor more conservation desired less dense residential settlement and did not believe that they could reduce their domestic water consumption.

Implication: Many people seem caught between their positive attitudes toward conservation and their desire to have more land and water available for private household use. Perhaps better information about how to conserve resources through alternative lifestyle choices could make the ideas of conservation and comfort more compatible.

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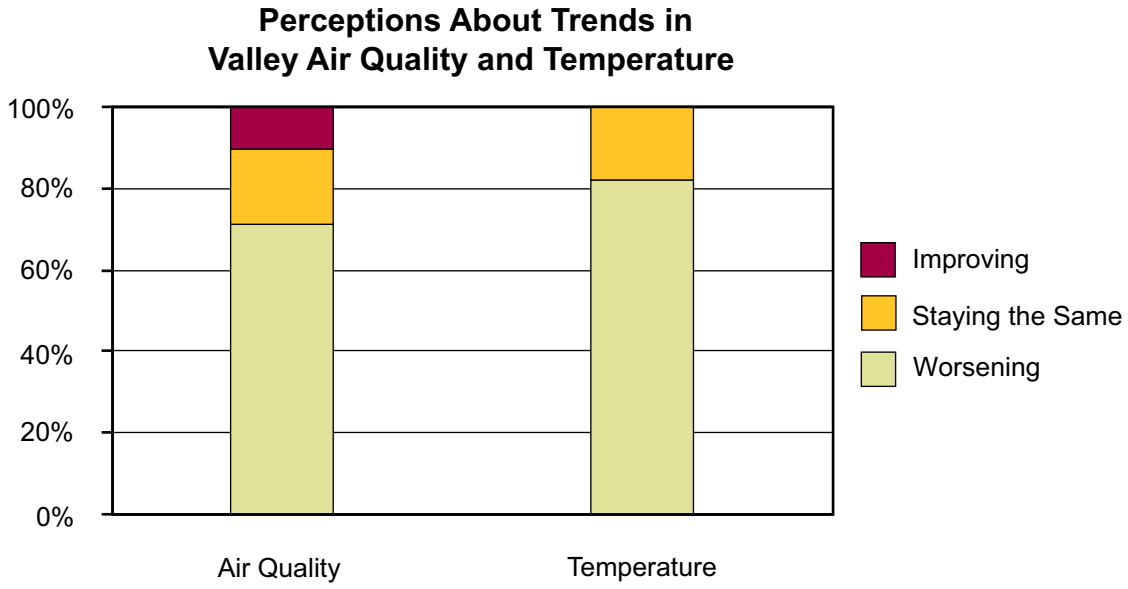
Air Pollution and Climate: Health Problems

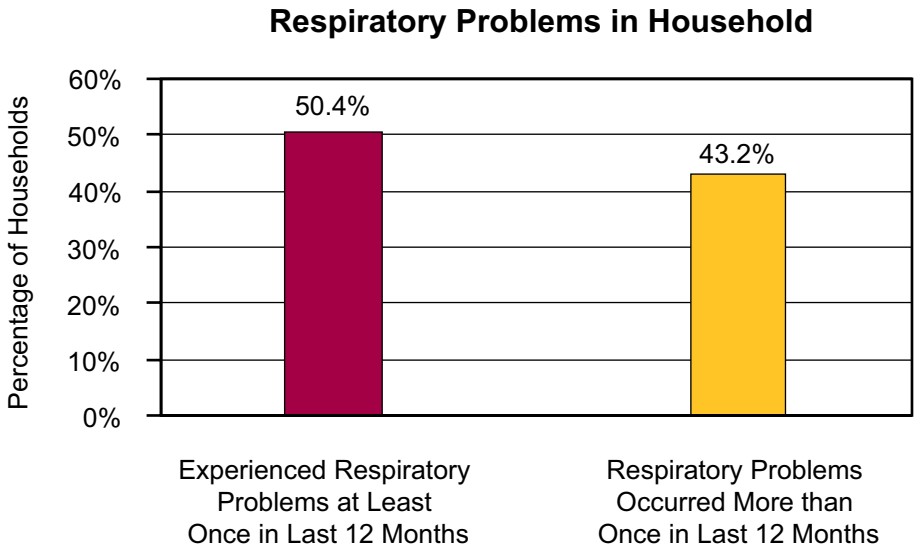
How Does the Environment Affect Us?

We asked respondents, ***Do you think that air quality in the Valley is improving, staying the same, or worsening over time?*** We also asked, ***Do you think the temperature in the Valley is getting hotter or staying the same?*** About 3 respondents of 4 saw these conditions as getting worse/hotter.

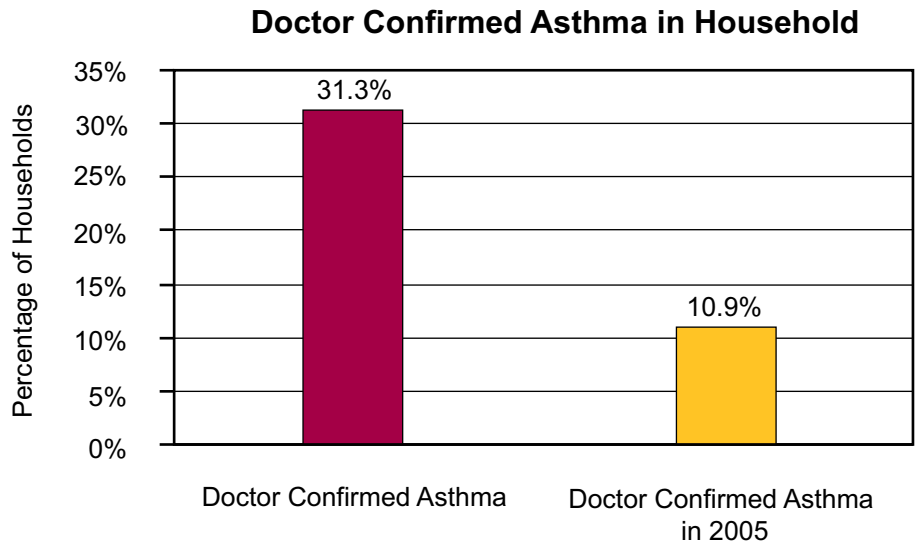


Respiratory Illnesses

We asked respondents whether, during the past year, ***Did someone in your household experience respiratory difficulties when they did not have a cold or infection?*** Although respiratory symptoms can result from chronic health conditions unrelated to air quality, they are also caused and exacerbated by poor air quality. Half the survey respondents reported that someone in their household had respiratory symptoms, and most of those had repeated problems.

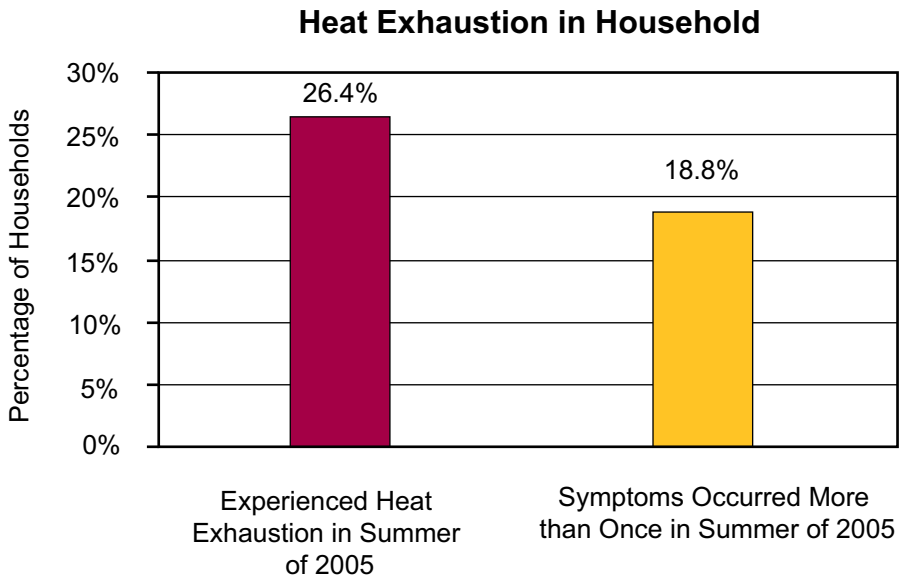


Doctors had diagnosed an asthma case in 1 of 3 households. More than 1 in 10 households had an asthma diagnosis in the past year.

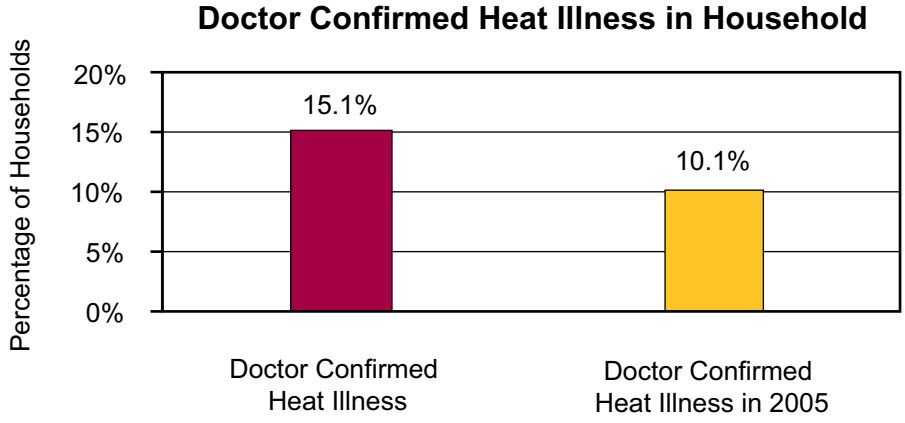


Heat-Related Illnesses

We asked respondents whether, during the past summer, ***Did someone in your household experience symptoms related to heat or high temperatures such as leg cramps, dry mouth, dizziness, fatigue, fainting, rapid heart beat, or hallucinations?*** At least one incident of heat-related illness occurred to someone in one-quarter of the households in the sample. In those households, multiple incidents were common.



Doctors' diagnoses of heat exhaustion were not as common as asthma diagnoses, but people may not seek medical treatment as often for heat symptoms as respiratory symptoms.



Highlight: There was widespread agreement that air quality and rising summer temperatures are worsening.

Implication: Perhaps air quality and heat were of relatively wider concern than land and water conservation to many people because their households are directly affected by current health concerns that are related to those problems.

Population Growth

Who is Concerned about Growth in the Valley?

We asked survey respondents how much they agreed with the statement, ***We are approaching the limit of the number of people the Valley can support.*** Most respondents – 72% – agreed that we are approaching the limits of growth. About 40% strongly agreed and 32% somewhat agreed.

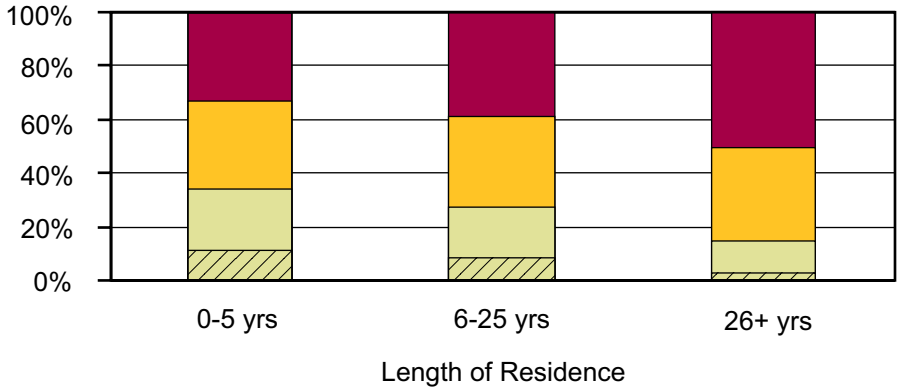
Attitudes about population growth differ only slightly by gender and politics …

Similar percentages of men, women, liberals, moderates, and conservatives strongly agreed or somewhat agreed that the Valley's population growth is reaching its limit.

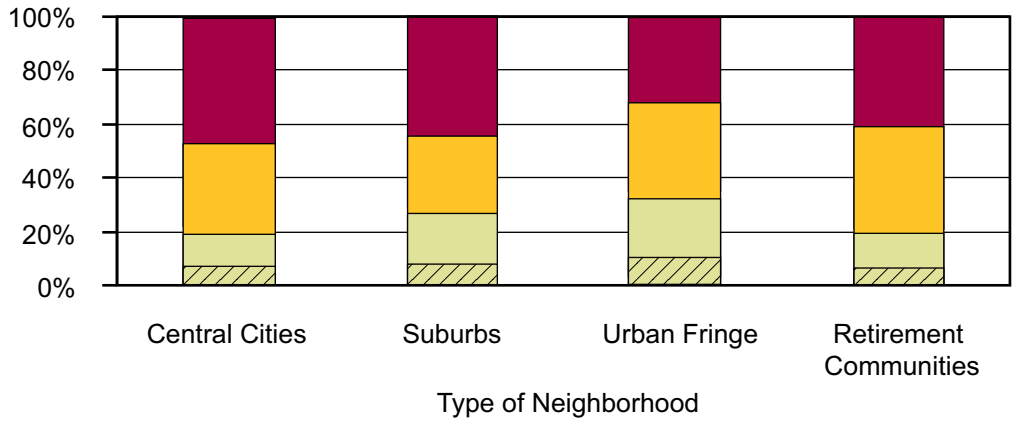
Attitudes about population growth differ significantly according to how long people have lived in the Valley, location, and household income …

The longer people have lived in the Valley, the more they agreed that the Valley is reaching the limit of growth. People who lived on the urban fringe – neighborhoods on the far edges of urban development – were less likely than others to agree that the Valley is reaching its limits. Lower-income households were more likely to agree that the limit is near.

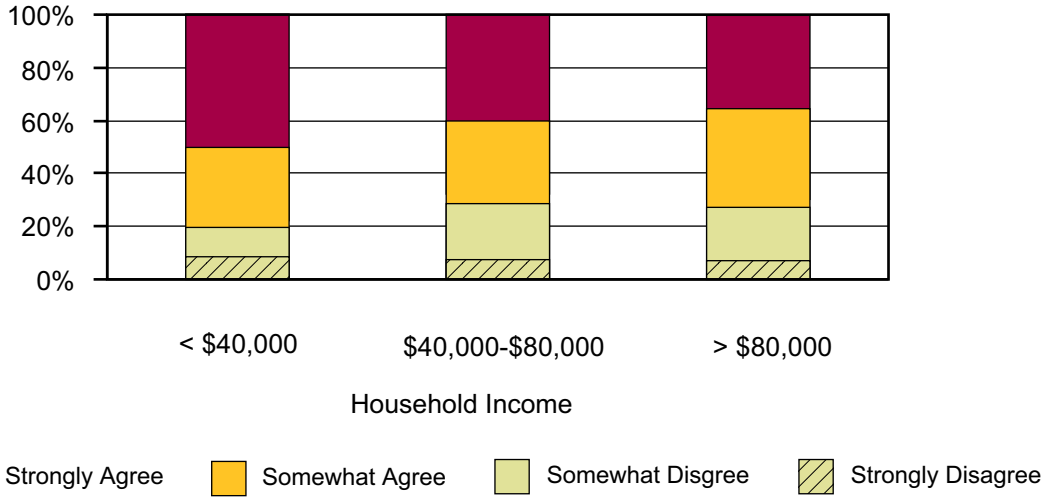
Length of Residence and Approaching Limit of Growth



Type of Neighborhood and Approaching Limit of Growth



Household Income and Approaching Limit of Growth



Highlight: Most Valley residents agreed that the region is reaching the limits of population growth, although nearly 1 of 4 residents thought there is room for more growth. The people who have lived here longer were more likely to believe the Valley is reaching its limits. Higher-income households and those who live on the edge of urban development were more likely to see room for expansion.

Impacts of Growth on the Environment

Can Our Natural Environment Cope With the Impacts of Growth?

We asked survey respondents how much they agreed with the statement, ***The balance of nature in and around the desert is strong enough to cope with the impacts of growth in the Valley.***

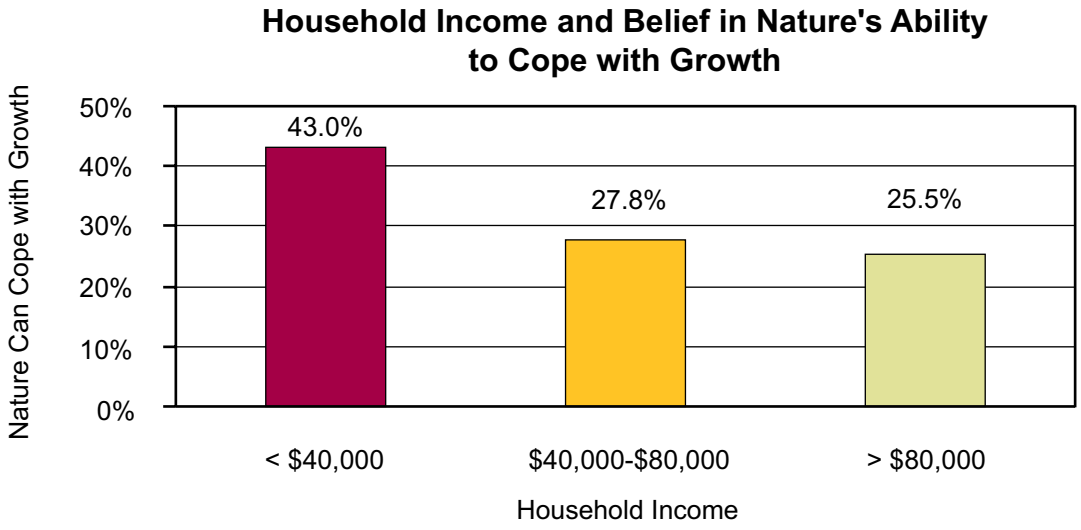
Only one-third of respondents – 32% – strongly or somewhat agreed that the Valley's natural environment would be able to cope with more growth. Thus, 2 of 3 respondents do NOT think the desert can cope. Some groups expressed less confidence than others in the Valley's ability to respond to growth.

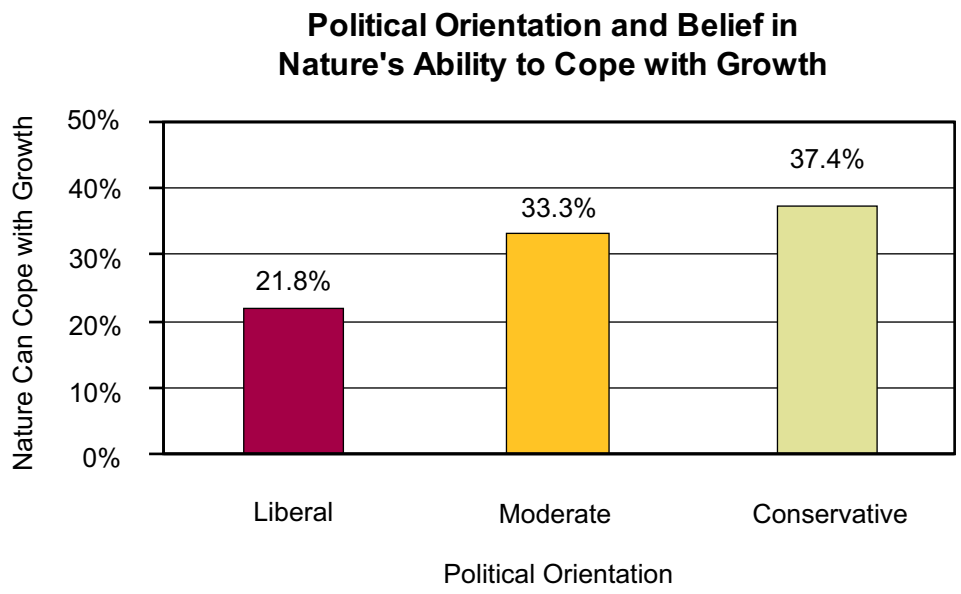
Belief in nature's ability to cope with growth differs only slightly by gender and where people live in the Valley…

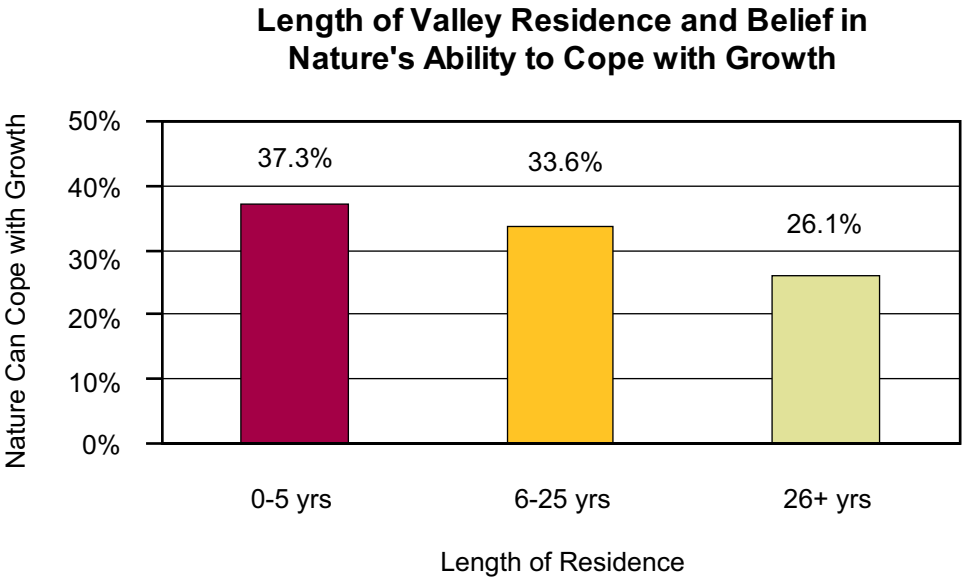
Similar percentages of men and women believed the Valley's natural environment can cope with the impacts of growth. Residents of urban-fringe neighborhoods were slightly less confident in nature's capacity to handle population growth.

Belief differs significantly by income, politics, and length of time lived in the Valley…

Respondents with higher incomes were less likely to believe that the Valley's natural environment would be able to cope with growth. Political orientation also accounted for important differences: only 22% of liberals compared to 37% of conservatives agreed that the environment could withstand more growth. Long-term Valley residents had the least confidence in the coping ability of the natural environment.







Highlight: By a margin of 2 to 1, Valley residents do not believe the desert capable of coping with more population growth. There are strong differences in public opinion, however, with those with higher income, liberal political views, and longer residency expressing more concern.

Implication: Among Valley residents, high appreciation for the desert and strong sentiment that the desert environment cannot support rapidly rising numbers of people should provide a foundation of support for protecting the environment. There is, however, a substantial portion of the public that does not share this view. For this group, it might be difficult to garner political support for policies to limit population growth.

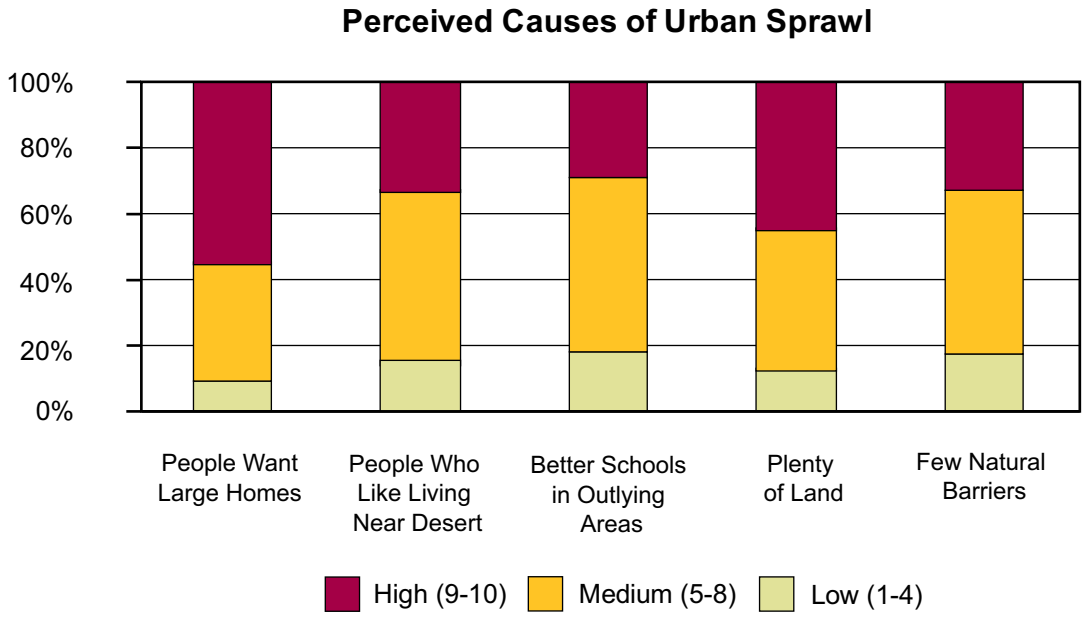
Perceived Causes of Environmental Problems

How Do Valley Residents Think about Environmental Problems?

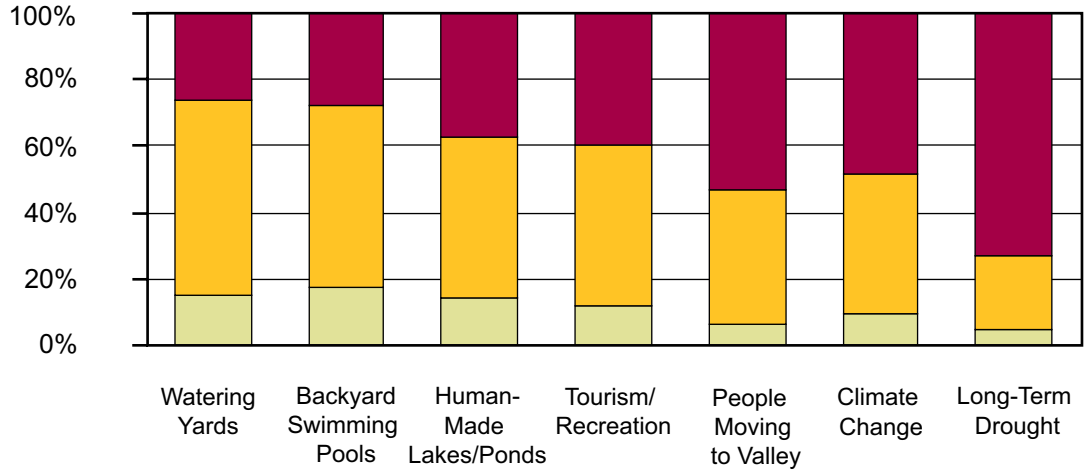
We asked respondents, ***In your judgment, how much does each of the following items contribute to . . . in the Valley?*** On a scale of 1 (does not contribute at all) to 10 (contributes a great deal), respondents rated the importance of each reason for urban sprawl, water shortage, air pollution, and rising temperatures in the Valley.

Reasons arising from household behaviors are on the left side of each graph, followed by social causes in the middle and natural causes on the far right.

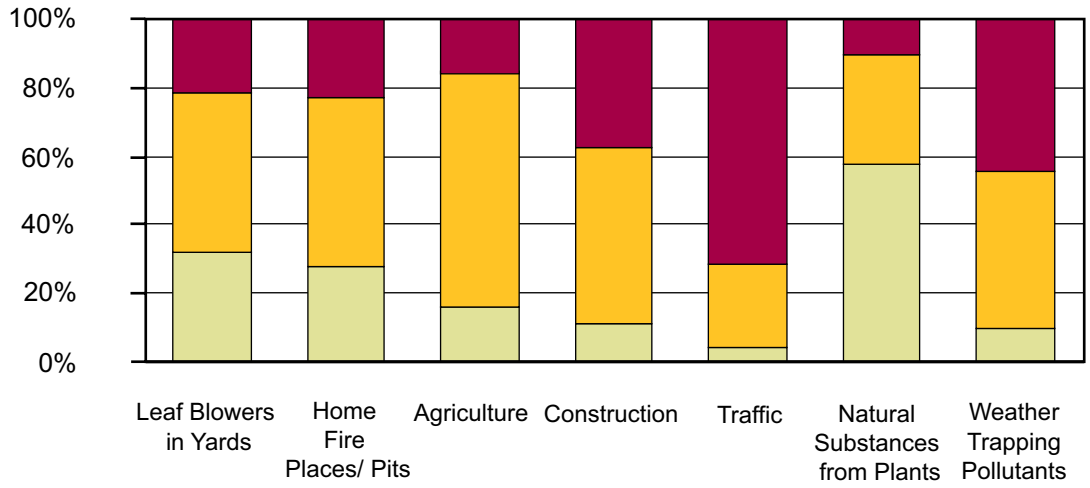
Most respondents rated natural and social causes of environmental problems as much more important than household activities. For example, climate conditions, such as drought and sunny days, were seen as major contributors to potential water shortages and rising temperatures, while household activities, such as yard watering and air conditioning, were seen as minor contributors. One exception to this pattern is that respondents believed people's desire for larger homes contributes to urban sprawl.



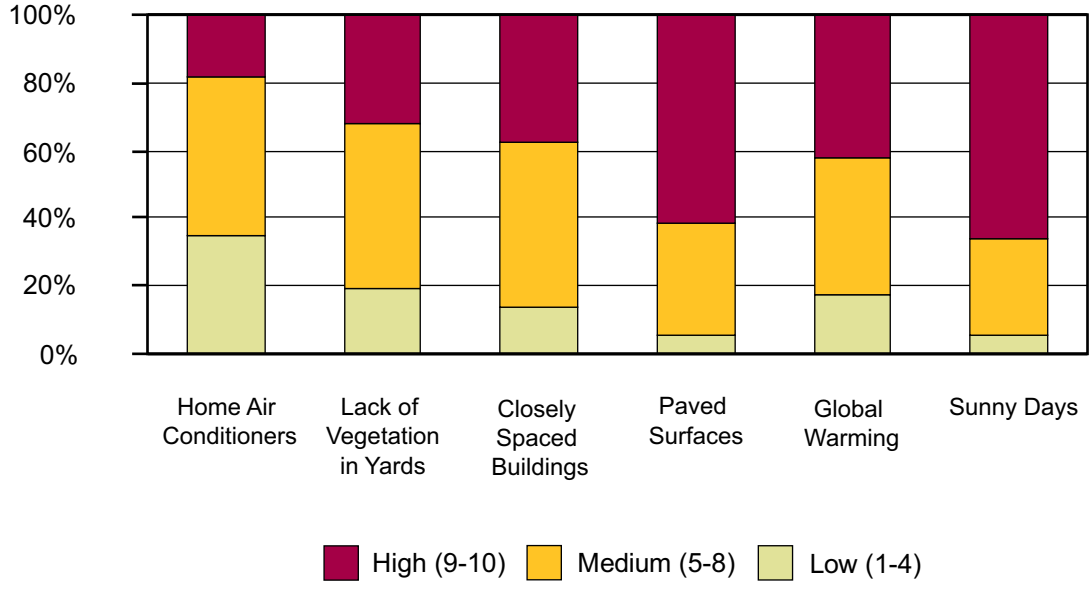
Perceived Causes of Future Water Shortages



Perceived Causes of Air Pollution



Perceived Causes of Rising Temperatures



Highlight: The pattern of survey responses reveals that residents perceive a variety of causes for complex environmental problems. However, they tend to place more blame on nature and general social trends than on their own actions for creating critical problems that face the Valley.

Implication: The perception that individual household activities have relatively lower impact on environmental problems may pose a challenge to changing everyday behaviors that can make a difference to the environment.

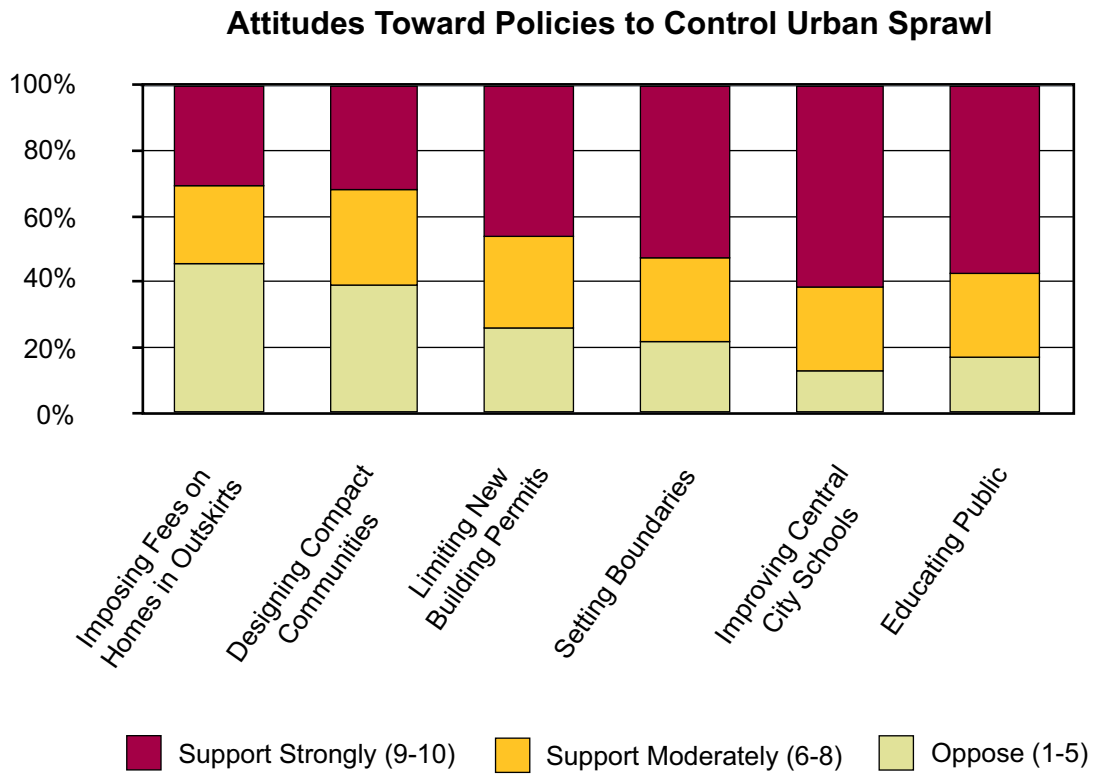
Support and Opposition for Environmental Policies

How Do Valley Residents Think about Policy Solutions?

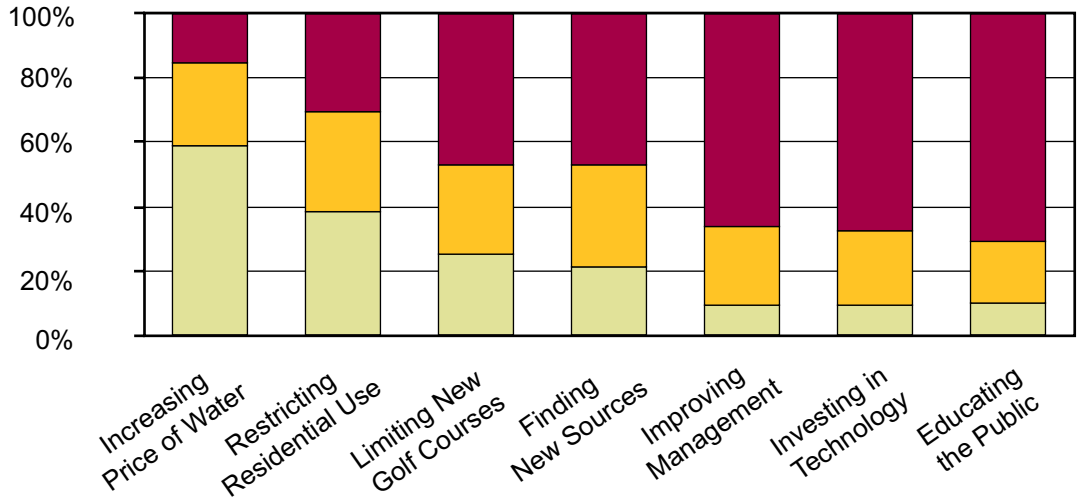
We asked respondents, ***Do you support or oppose each of the following policies that have been suggested to deal with . . . in the Valley?*** On a scale of 1 (strongly oppose) to 10 (strongly support), respondents rated their support for each policy approach to mitigating urban sprawl, water shortages, air pollution, and rising temperatures in the Valley.

Policy solutions pertaining to price increases are on the left side of each graph, followed by regulations, management practices, technological innovation, and public education on the far right side of each graph.

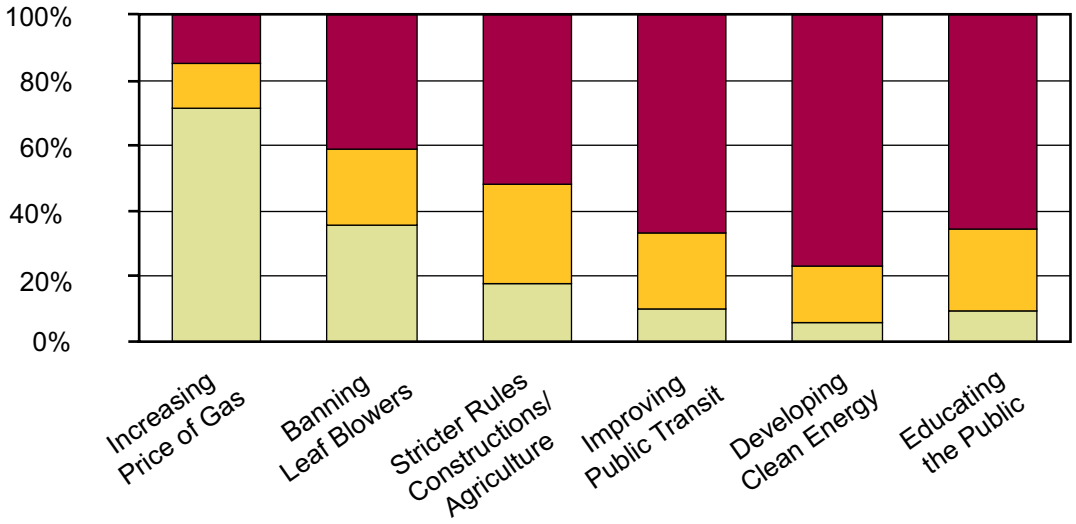
Most respondents strongly supported voluntary actions to address environmental problems in the Valley, such as public education and developing technological solutions to resolve potential water shortages, rising temperatures, and air pollution. Most respondents strongly opposed economic solutions in the forms of raising the price of water, gasoline, and electricity, or imposing fees on urban fringe development. There was also significant opposition to regulatory policies, especially restrictions on residential activities, such as outdoor water use.



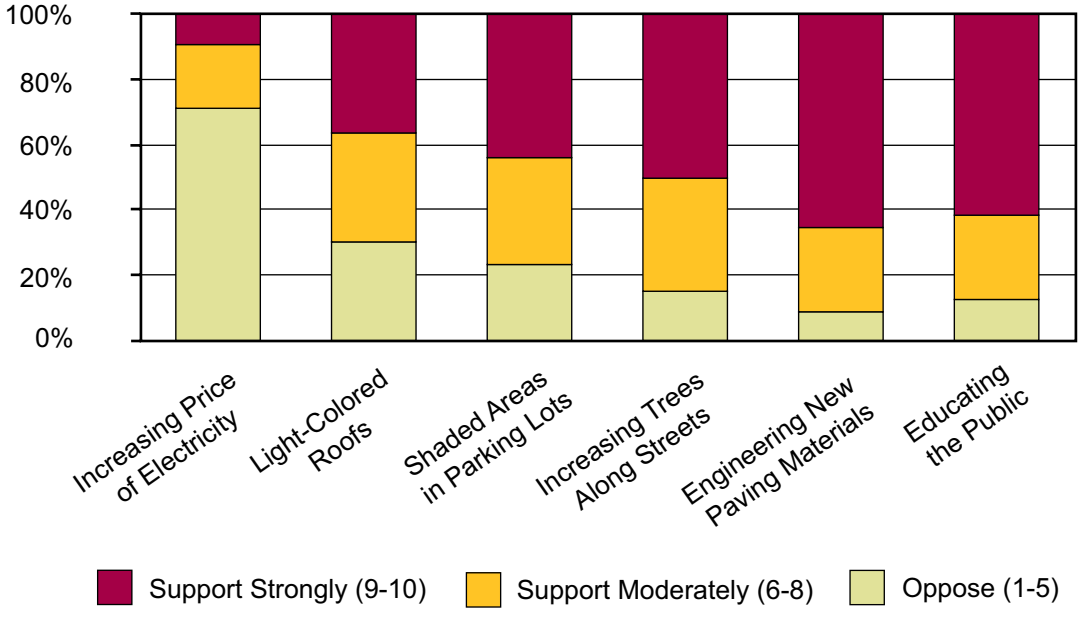
Attitudes Toward Policies to Control Water Shortages



Attitudes Toward Policies to Control Air Pollution



Attitudes Toward Policies to Control Rising Temperature



Highlight: Public investments in research and development for technological solutions to environmental problems have significant public support. Although residents do not generally see their households as heavily contributing to environmental problems, strong support for public educational programs may indicate that they recognize the need for more information to help them, their neighbors, and their communities become better stewards of the environment.

Implication: Will the voluntary solutions favored by respondents be enough to improve the Valley's environment? Although pricing and regulatory policies can be very effective in achieving natural-resource conservation and discouraging behavior that damages the environment, these kinds of policies that directly affect people through price increases or restrictions may be met with substantial opposition. Local policy-makers may need to consider adopting public-education campaigns that show how economic and regulatory frameworks provide incentives to make voluntary conservation more effective and help people to see the connections between paying more, using less, and improving the environment. Policy-makers might engage in outreach efforts to encourage environmentally friendly household behavior, with a focus on illustrating how the environmental impacts of household activities can be minimized.

The Value of Clean Air and Cooler Weather

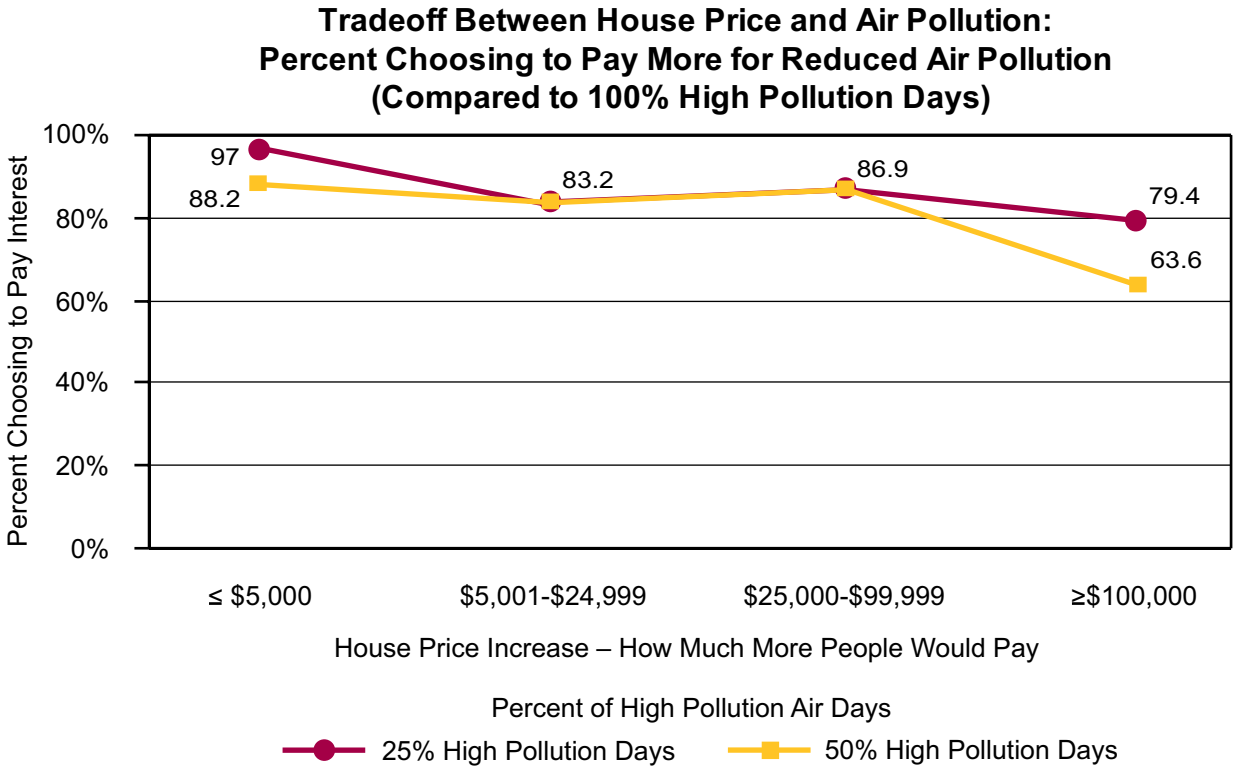
Economists measure people's desires to live in a clean and safe environment by asking them to make choices that indicate how much they would be willing to pay to improve the environmental conditions near their homes.

We asked homeowners a series of hypothetical questions about how much they would like to change the conditions near their homes. We offered them a new situation with housing and neighborhood features comparable to what they have, aside from one change. This change involved improved air quality or temperature along with increased housing costs. Their decisions indicate how much people would be willing to pay for improved air quality or cooler summer temperatures.

To provide a baseline set of conditions for these choices, respondents were first asked what they thought their own home would sell for in the current real-estate market. Then each respondent was offered the choice of purchasing a home identical to their own for more money. The price increase offered the same home and neighborhood conditions as well as an improved environmental condition around the proposed new site for their home. Respondents could either choose to buy the "new" house with the improved air quality or cooler temperatures, or not.

What Would People Pay for Improved Air Quality?

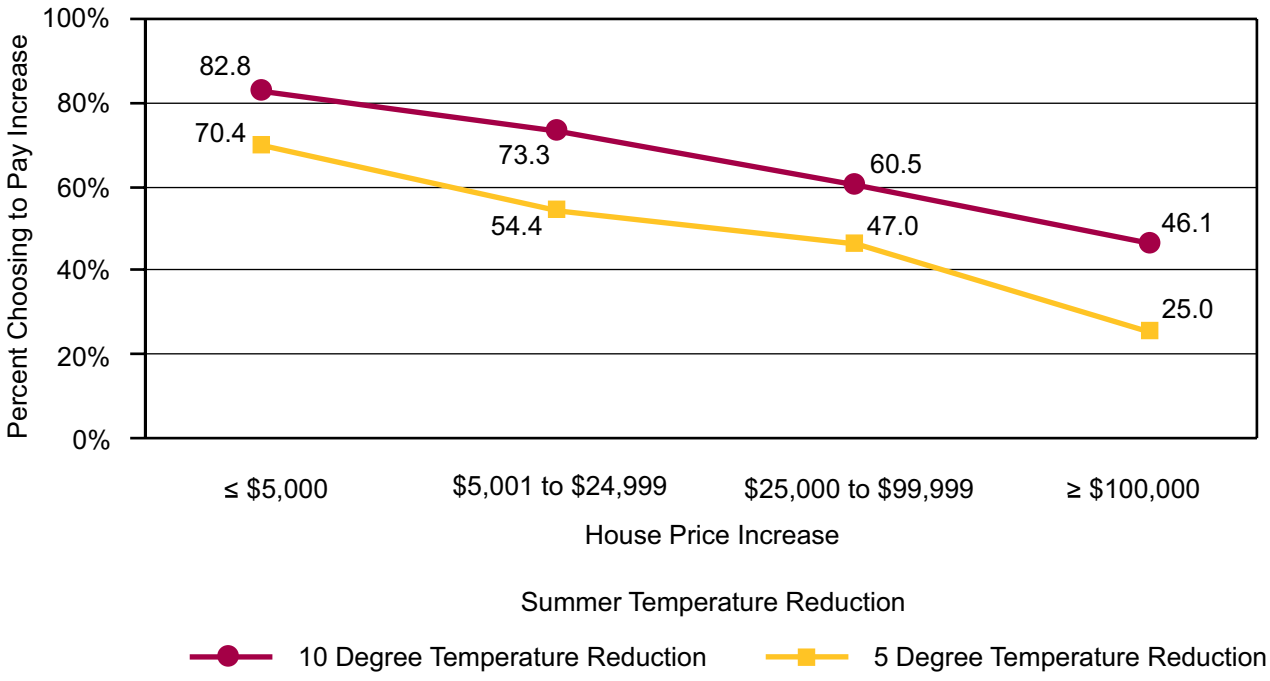
Considerably more than half of all homeowners would pay more for a house in a clean-air environment. The choices were to reduce the number of high pollution days from every day to either one in every four days or one in every two days. It appears that they would be willing to pay quite a large increase in house price. The amount respondents said they would pay for the new home did not differ for the two air-quality changes described.



What Would People Pay for a Cooler Summer?

Most respondents stated they would pay more for a home located in a place with cooler summer temperatures, but not as many would pay as much as they would to reduce air pollution. The choices were to reduce the average Phoenix summer temperature of 105°F by either 5° or 10°. The price respondents said they would pay was clearly linked to the degree of temperature reduction – a reduction of 10° was worth quite a bit more than a reduction of 5°.

The Tradeoff Between House Price and Cooler Temperature: Percent Choosing to Pay More for Summer Temperature Reduction (Compared to Average Temperature of 105 Degrees F)



Highlight: People seem to understand the economic tradeoffs involved in choosing better environmental conditions. Most people are willing to pay substantially more for having cleaner air, and even a smaller improvement is worth a higher home price. The value respondents place on clean air could be related to the illnesses they experience from air pollution. Most people are also willing to purchase more expensive homes to escape the heat, but they are more discriminating. Reducing the temperature by 10^{o} is worth more than reducing it by 5^{o}. As summer temperatures rise in the Valley over time, the amount people are willing to pay for a cool environment may increase.

Implication: Deteriorating air quality and rising summer temperatures are widely recognized as negative by-products of our rapid population growth. Most respondents would be willing to pay to reduce these negatives effects on their own household's quality of life. In contrast to the overwhelming public resistance to price increases for water, gasoline, electricity, and land, these results indicate that people will spend money for improvements in environmental amenities that are near their homes and can be described in specific terms. It may also be that environmental benefits that are priced into homes are seen as part of the home's value that will be recovered when the home is sold, whereas money spent on water or energy is unrecoverable. One way to overcome consumer resistance to conservation measures might be to demonstrate that the increased costs would increase the availability of these resources in the future.

Trusting Sources of Environmental Information

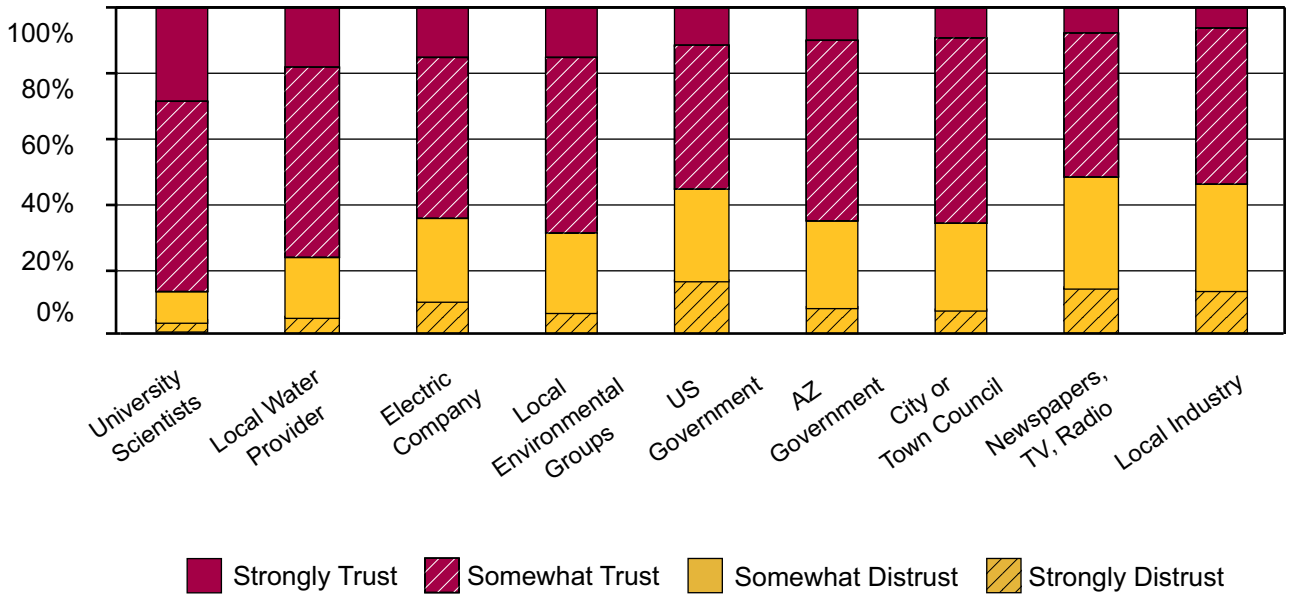
Who Has the Public's Trust?

We asked respondents, ***How much do you trust each group to provide truthful information about environmental issues in the Valley?*** The percentage of respondents who strongly trusted university scientists surpassed any other group, and scientists also had the lowest distrust factor. Approximately 30% of respondents strongly trusted scientists, 58% somewhat trusted them, and only 12% distrusted them.

The public placed relatively high confidence in water utilities and moderate confidence in electric utilities, advocacy groups, and local governments. News media and local industry were at the bottom of the list, with about half the respondents distrusting their information.

A large segment of the public was somewhat skeptical about the truthfulness of information received from most sources. Most people at least somewhat trusted environmental information from several sources, but the percentages that strongly trusted were extremely low.

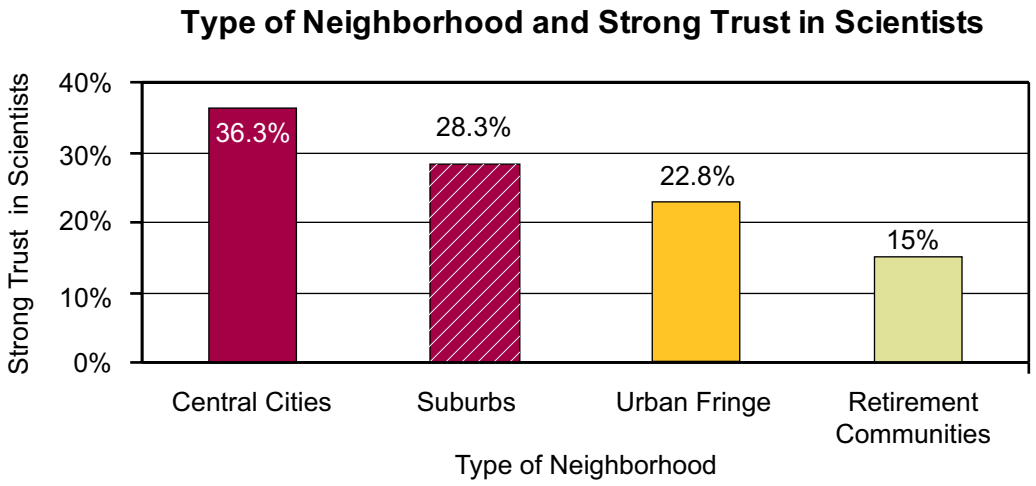
Level of Trust in Sources of Environmental Information

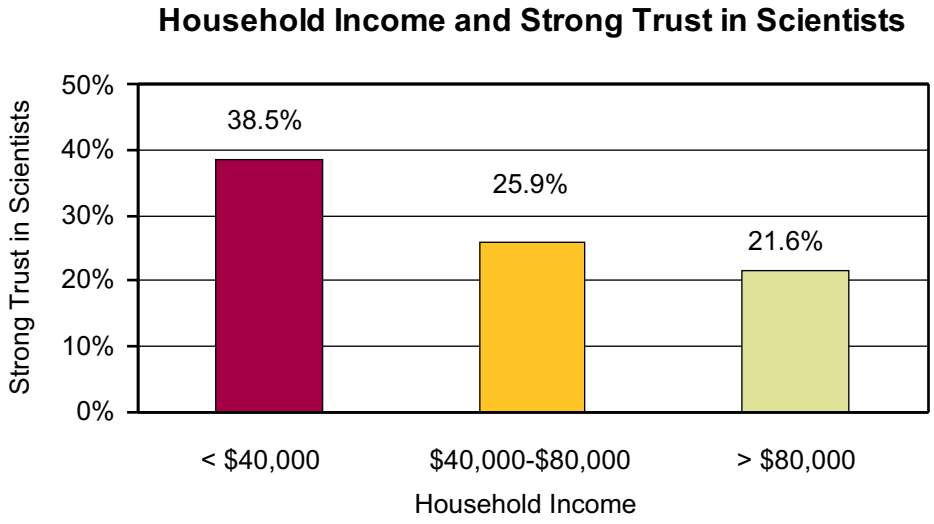


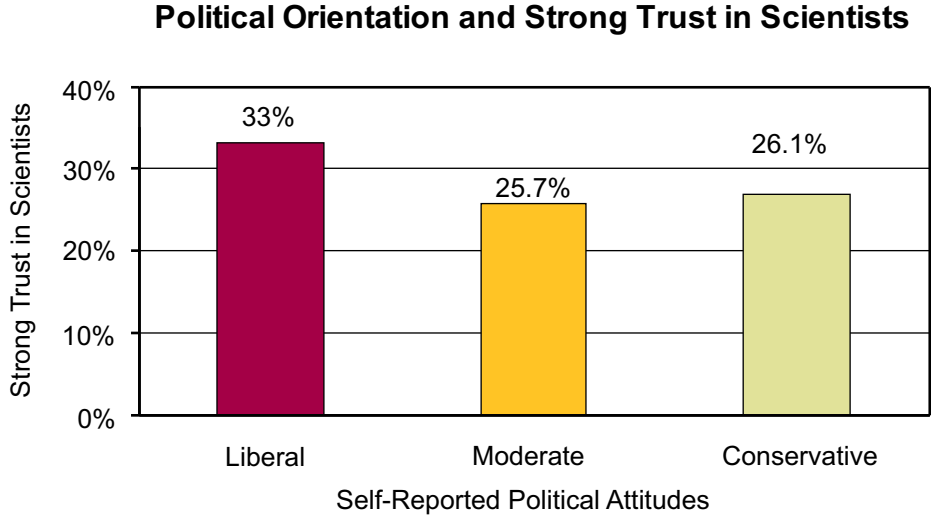
5% answered "don't know" and were eliminated from the graph

Strong trust in scientists differs significantly by neighborhood type, household income, and political orientation …

High confidence in scientists was more common in the central cities, in lower-income households, and among political liberals. Most of the respondents who lived in other types of communities, had middle or higher incomes, and who were moderate or conservative, "somewhat trusted" scientists for environmental information.







Highlight: The public trusts university scientists for truthful information about the environment above all other sources. Utilities, local environmental groups, and local governments also have reasonably high credibility. However, scientific research is often communicated to the general public through the news media, which are not highly trusted.

Implication: Public confidence in sources of environmental information is important for convincing people to change behaviors that negatively impact the environment. The high confidence placed in university scientists suggests that the public would be receptive to more direct engagement with scientists. Possibilities for public-science engagement include community forums, science cafes, Internet sites, and blogs. It would be interesting to examine how the public views scientific studies reported in the news media.

Findings: Quality of Life

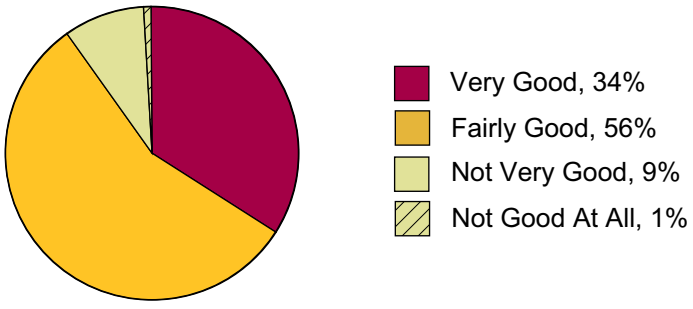
Today and Tomorrow

How Do Valley Residents View Their Quality of Life Today?

We asked respondents to ***rate the overall quality of life in the Valley today.*** About 6 of 10 people thought they have a fairly good quality of life today and 3 of 10 thought it is very good.

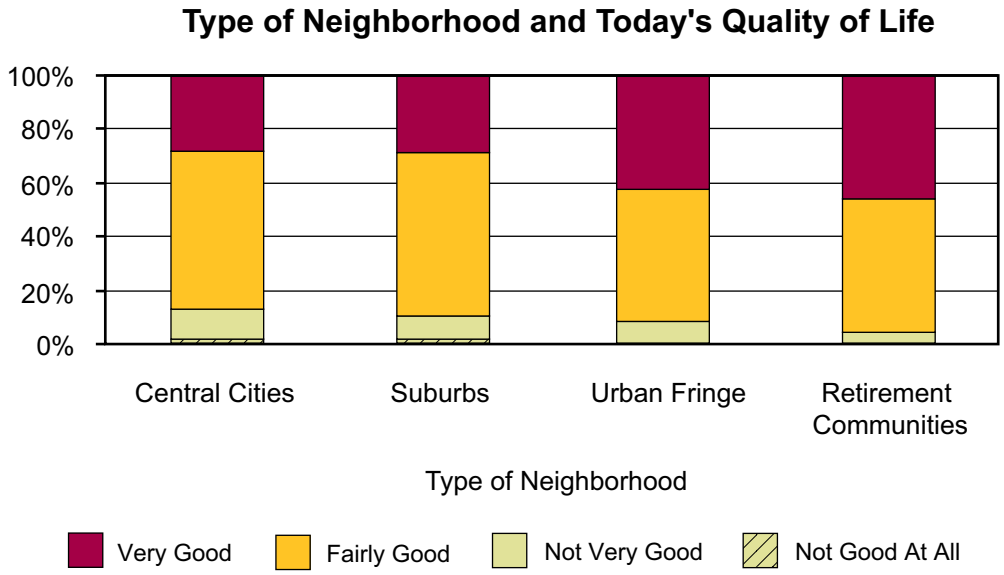
Only 1 of 10 people thought their present quality of life is not good. These figures differed very little according to gender, household income, or length of residence.

Quality of Life Today



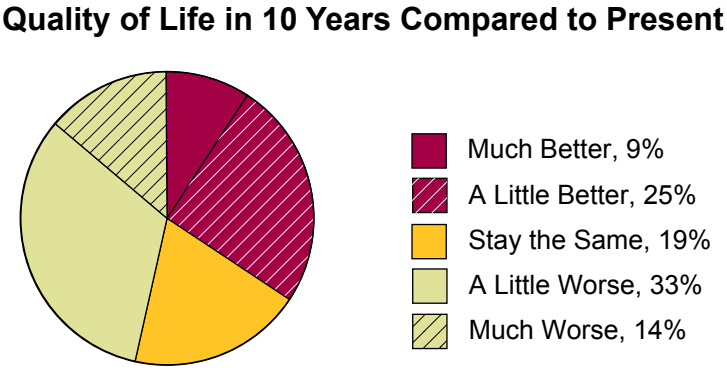
Perceptions of the current quality of life differ significantly by type of neighborhood …

Much higher percentages of residents in retirement neighborhoods and urban fringe neighborhoods said they have a very good quality of life today in the Valley. A greater percentage of central city and older suburban neighborhood residents rated their quality of life as not very good, although they were still a minority.



What Do Residents Predict for the Future?

We asked respondents, ***In the next 10 years do you think the quality of life in the Valley will get much better, a little better, a little worse, much worse, or stay about the same?*** Only 3 of 10 respondents thought the quality of life is getting better in the Valley. In fact, nearly half the respondents thought the quality of life here is getting worse.

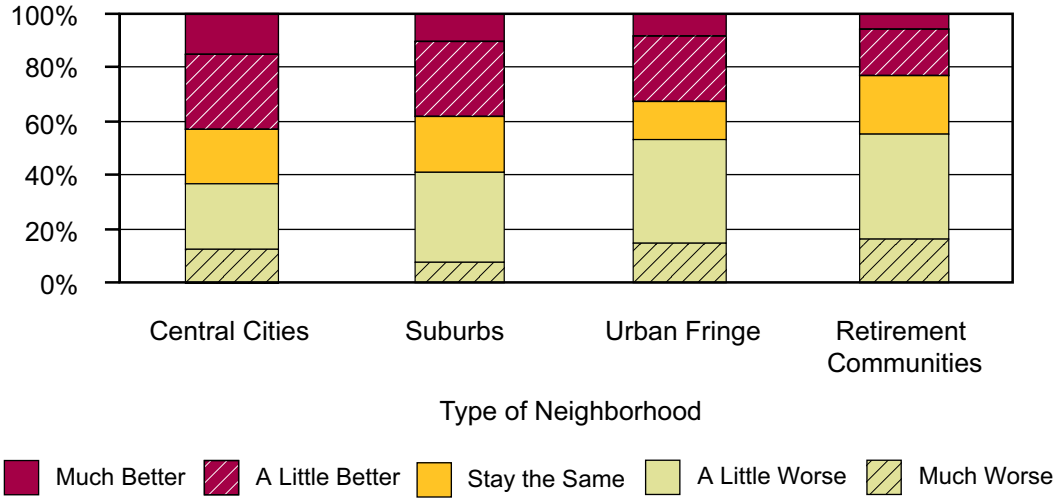


Perceptions of the future quality of life vary significantly by type of neighborhood, years lived in the Valley, and household income …

In a striking reversal of views about the present, people in the central cities and older suburbs are much more optimistic than others about their future in the Valley. Only in the central cities do the residents who think quality of life will improve outnumber those who think it will get worse. A majority of people on the urban fringe and in retirement neighborhoods think their quality of life will actually be worse in the future.

Optimism is also significantly higher among respondents in lower-income households and among the most recent arrivals - those who moved to the Valley within the last five years. Optimists outnumber pessimists only among the lowest-income households and most recent immigrants. In contrast, majorities of the highest-income households and those living in the Valley more than 25 years think their quality of life will be worse in 10 years.

Type of Neighborhood and Today's Quality of Life in 10 Years



Highlight: A large majority appears to be fairly satisfied with today's quality of life in the Valley but only one-third think it is very good. Nearly half the respondents are pessimistic about the future. Residential location in the Valley appears strongly influence residents' perceptions. Central city and suburban residents, who are least likely to say their current quality of life is very good are also much more optimistic about the future. Perhaps these groups see room for improvement in their living situations, whereas those who think they already have a good life are more likely to fear that changes are working against their interests.

Implication: People think about many things when they assess their quality of life: basic needs for food, shelter, health and safety, opportunities for education and employment, social relations – and the built and natural environments. Further analysis of the 2006 Phoenix Area Social Survey will provide some answers about which household and community characteristics are important to Valley residents and their perceptions of the future. The next survey, scheduled for 2011, will repeat these questions, measuring changes in perceptions and actual conditions and determining whether the optimistic or pessimistic views of the Valley's trajectory are more accurate. The information in this report could help to address issues in ways that ensure the optimistic view will prevail.

PASS 2006

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Contacts

For more information about the following ASU programs, please visit their web sites:

Global Institute for Sustainability,
http://gios.asu.edu

Central Arizona – Phoenix Long-Term Ecological Research project,
http://caplter.asu.edu

Decision Center for a Desert City,
http://dcdc.asu.edu

For more information about PASS, contact Dr. Sharon Harlan, Project Director, sharon.harlan@asu.edu.

Publications Related to the 2001 Phoenix Area Social Survey

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Under review for publication:

Larson, K., D. Casagrande, S. L. Harlan, S. Yabiku, and E. Farley Metzger. Residential landscape preferences in the Phoenix oasis: Why we make the desert bloom.