# RESET

## ASSESSING FUTURE HOUSING MARKETS IN THE ROCKY MOUNTAIN WEST

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Shaping The Future of the West

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## Sonoran Institute Mission and Vision

The Sonoran Institute's mission is to inspire and enable community decisions and public policies that respect the land and people of western North America. Facing rapid change, communities in the West value their natural and cultural resources, which support resilient environmental and economic systems.

Founded in 1990, the Sonoran Institute helps communities conserve and restore those resources and manage growth and change through collaboration, civil dialogue, sound information, practical solutions and big-picture thinking.

Our passion is to help shape the future of the West with healthy landscapes, livable communities, and vibrant economies.

The Sonoran Institute is a nonprofit organization with offices in Tucson and Phoenix, Arizona; Bozeman, Montana; Glenwood Springs, Colorado; Saratoga, Wyoming; and Mexicali, Baja California, Mexico. For more information, visit www.sonoraninstitute.org.

The Sonoran Institute, *Shaping the Future of the West*



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## Economic & Planning Systems, Inc. Mission and Vision

Economic & Planning Systems, Inc. (EPS) is a land economics consulting firm experienced in the full spectrum of services related to real estate development, including market analysis, fiscal and economic impacts, public/private partnerships, and the financing of government services and public infrastructure. Founded in 1983, the firm has four offices–located in Berkeley, Los Angeles, and Sacramento, California, and Denver, Colorado–and EPS's team of 35 consultant services clients through the country.

EPS was founded on the principle that real estate development and land use-related public policy should be built on realistic assessment of market forces and economic trends, feasible implementation measures, and recognition of public policy objectives, including provisions for required public facilities and services. The firm excels in preparing analyses that identify opportunity, recognize impacts, support decision making, and provide solutions to real estate development and land use-related problems.

# RESET

*Assessing Future Housing Markets in the Rocky Mountain West*

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# CHAPTER 1: INTRODUCTION

## A Changing Housing Market

The dramatic rise and decline of real estate markets that led up to – and helped fuel – the Great Recession raised many questions about where the housing market is heading, both nationally and in the Rocky Mountain West. Housing demand is up, as evidenced by significant increases in new housing starts in the past year, and questions about the type and tenure of the new demand will become more pressing. Did the Great Recession, which reduced the middle class's net worth by more than 40 percent – primarily because of plummeting home values – fundamentally change homebuyers' attitudes? Will the wave of retiring Baby Boomers and the emergence of the even larger Y-Generation shift consumer demand? How will stagnant household incomes affect housing decisions?

In the wake of the Great Recession, there is growing interest in the direction of the housing market and the types of homes, neighborhoods, and communities people want to live in.

Even before the bottom dropped out from the real estate market in 2007 and 2008, there was significant interest in the effects of long-term demographic trends on the housing market, such as the aging of the Boomer generation and decline in household size. A number of analyses have suggested that economic, demographic, and consumer preference trends are shifting the types of neighborhoods and homes people are seeking. Most experts agree that consumers will drive a more complex housing market in the near future.

Some signs of the changing priorities can be seen in the National Association of Realtors® (NAR) 2011 Consumer Preference Survey, which found that while many Americans still prefer the space and privacy of a large-lot, single-family home, a growing number of consumers are seeking something different. Of particular interest to the Sonoran Institute is the research addressing trade-offs, and how consumer support increases for different neighborhood types with certain attributes that improve quality of life. Some of the key findings from the NAR survey include:

- **A willingness to make trade-offs between size and location**: when forced to choose, a majority of respondents (59 percent) chose a smaller house and lot with a shorter commute (20 minutes or less) over a larger house and lot with a longer commute (39 percent).
- **A desire for walkable, mixed-use neighborhoods**: a majority of respondents (58 percent) preferred a neighborhood with a mix of houses, stores, and businesses within an easy walk versus a neighborhood of houses only, where driving is the only way to reach businesses.
- Finally, when asked to choose between two hypothetical communities, **56 percent selected a community with a mix of housing types, streets with sidewalks, within walking distance to work, schools, shopping, restaurants, and other amenities**, while 43 percent preferred a community characterized by a conventional large-lot subdivision with larger homes and lots, more privacy, no sidewalks, and the need to drive to work, schools, shopping, restaurants, and other amenities.

Other industry research highlights the role that the Y-Generation, or "Gen Y" (born 1982-2000), is expected to play in shaping the markets of the future. According to industry research, Gen Y's interest in convenience, diversity, a sense of being connected, and a healthy work-life balance is influencing how they view housing choices. Key findings of consumer research by real-estate advisory firm Robert Charles Lesser Company (RCLCO) include:

- One-third of Gen Y consumers will pay more for housing walkable to shops, work, and entertainment;
- Two-thirds say living in a walkable community is very important to their location decision;
- One-half would trade lot size for proximity to shopping or to work; and
- Even among families with children, over one-third of Gen Y consumers are willing to trade lot size and their "ideal" home to live in walkable, diverse communities.

Building on these and other analyses, the Sonoran Institute has evaluated the market direction of housing demand in the Rocky Mountain West. The study looks at the region's future, in terms of the economic and demographic trends and their impact on demand. The project also examines the degree of market support for development that is compact, walkable, and includes a mix of land uses. Many new developments have incorporated these elements, and now with a sufficient period of time to measure absorption rates, there is an opportunity to evaluate how these projects have performed, while testing relationships between national trends and local markets in the Rocky Mountain West.

This study is intended to help elected officials, policymakers, planners, and members of the development community better understand the Rocky Mountain West's returning housing market and how it is changing. Most experts agree that the current economic expansion will not be a return to the past. Instead, a new norm is emerging. This new market, many indications suggest, will be complex and highly segmented, in response to increasingly diverse consumer preferences. This research identifies some of the important forces that are propelling the changes, and shows how innovative projects have performed and the degree of market support they have received.

# Project Overview

The Sonoran Institute commissioned Economic & Planning Systems, Inc. (EPS) and RRC Associates to explore economic and demographic trends and test market receptivity in the Rocky Mountain West. The study analyzes supply and demand using six diverse, but representative, Rocky Mountain communities. The research aims to broaden awareness of where the housing market is headed, and what drivers will be most important going forward.

The results indicate that the market in the West, in keeping with the rest of the nation, is growing more complex and more segmented. While many people prefer the privacy and space that comes with a large single-family home on a large lot, a growing number of consumers are increasingly interested something different. Many are seeking the convenience and connectivity that comes with compact, walkable neighborhoods. While a large segment of the market will continue to prefer to live in detached, single-family housing, most households place greater value on neighborhood qualities than on the size of the house when it comes to deciding where to live.

# Defining Compact Walkable Development

Based on national studies – and confirmed in this report – the housing market is shifting, with a growing segment looking for compact, walkable neighborhoods. Various studies have used different terminology to define this market shift, including "New Urbanism," "traditional neighborhood design," "compact walkable development," and "smart growth." These terms cover the elements identified in the research which can be described as a mix of land uses in one neighborhood, built in a more compact pattern which supports more concentrated economic and social activity. Most include forms of transit as well as open space. This report uses the terms "smart growth" and "compact walkable development" (CWD) interchangeably.

Compact walkable development can be urban or suburban, with development on the periphery of communities as greenfield projects or within city cores as infill or redevelopment. Creating places that are walkable – through the design of streets, buildings, public spaces, and entire districts – is considered paramount. Many projects feature a mix of land uses, bringing daily destinations such as housing, employment, and shopping closer together. Designing development to support multiple transportation options (transit, walking, biking, and cars) provides additional choices for people to travel and meet daily needs.There are typically a wide range of housing types to choose from at various densities and price points. Smaller lots, typically located closer to the street, bring houses closer together and make CWD neighborhoods denser than most conventional suburban areas.

The South Main development in Buena Vista, Colorado, was designed with the goal of walkability. Key design features include a pedestrian-scaled street network, compact building design, mixed commercial and residential uses, and public spaces with integrated art and amenities.

While both greenfield development and infill/redevelopment can employ compact walkable design, infill projects often fulfill many of the smart growth principles listed below simply by virtue of their location. These projects are built on existing infrastructure and are often able to utilize an historic street pattern. Building in developed areas poses its own set of challenges, however, and most infill/redevelopment projects are typically of a smaller scale than greenfield projects. This study examines examples of both infill/redevelopment and greenfield projects; both project types offer opportunities going forward.

## Smart Growth Principles

In 1996 a national coalition of builders, planners, conservationists, and others – including the National Association of Realtors, Urban Land Institute, and American Planning Association – developed a set of principles for "smart growth." While every development project and community is different, the basic principles include:

- **Mix land uses**
- **Take advantage of compact building design**
- **Create a range of housing opportunities and choices**
- **Create walkable neighborhoods**
- **Foster distinctive, attractive communities with a strong sense of place**
- **Preserve open space, farmland, natural beauty, and critical environmental areas**
- **Strengthen and direct development towards existing communities**
- **Provide a variety of transportation choices**
- **Make development decisions predictable, fair, and cost effective**
- **Encourage community and stakeholder collaboration in development decisions**

Compact walkable development has been tied to a host of individual and community benefits, including fiscal benefits from utilizing existing infrastructure; lower fuel costs and fewer greenhouse gas emissions due to decreased household auto travel; more efficient use of land, helping maintain agricultural land and wildlife habitat; and reduced healthcare costs because of increased physical activity.

# Report Organization

The research in this report covers trends at the regional scale of the Rocky Mountain West, as well as community-specific market performance using six representative communities in three states. The research includes a combination of quantitative and qualitative data, including analysis of capture rates and price differentials for different unit types and locations; interviews with builders, developers, and realtors; and a survey of residents living in compact walkable neighborhoods as well as conventional developments.

***The following chapters are data rich and provide a detailed analysis of the market trends:***

## Chapter 2 – Forces Shaping the Future Housing Market

For the Rocky Mountain West, the data show that the Gen Y and Baby Boomer generations could result in unprecedented numbers of households looking for new and/or different housing product. Given the overlay of volatile and unpredictable employment growth, stagnant wages, declining household incomes, and shrinking household sizes, the housing market is expected to become more segmented with demand for different types of product.

## Chapter 3 – Community Profiles

There are a limited number of communities in the Rocky Mountain West that have recently developed large-scale, compact walkable developments. For this study, EPS, RRC, and the Sonoran Institute identified six communities that provide a good context to compare the market support of innovative development with conventional development. The communities represent different-sized rural and urban markets, intended to comprise a representative sample with findings applicable to the larger Rocky Mountain region. This chapter includes a summary of relevant economic and demographic trends and identifies unique market attributes for Boise, ID; Bozeman, MT; Buena Vista, CO; Carbondale, CO; Eagle, CO; and Teton County, ID.

## Chapter 4 – Market Capture and Premium

Based on a standard market analysis approach, this chapter summarizes the degree of market support for compact walkable development projects, using data from new conventional development, new CWD typically located on the periphery of communities, and infill development within core areas of the community. EPS has quantified market capture and price premiums for compact walkable development, documenting the market metrics that differentiate CWD.

## Chapter 5 – Survey: What We Say About Where We Want To Live

What types of homes or neighborhoods do people in the Rocky Mountain West want to live in, and what trade-offs will they make to live there? Chapter 5 uses new survey data to explore factors influencing housing choice and community preferences. Why are certain segments of the market drawn to CWD? What elements within CWD are compelling? The study contrasts responses from residents in conventional developments with those living in compact walkable developments.

## Chapter 6 – Findings and Conclusions

This report concludes with a summary of 19 specific findings that quantify market support for compact walkable neighborhoods. In general, the study finds that a growing segment of households in the Rocky Mountain West are seeking – and are willing to pay a premium – to:

- Live somewhere with a strong "sense of place";
- Get closer to the outdoors and nature while living in town;
- Live in walkable places;

- Find ways to reduce commutes;
- Rent housing at different life stages; and
- Look for housing that results in a simpler lifestyle, including a smaller house.

Following the description of these factors, the report covers the drivers that resonate with the market and affect market capture. The section also identifies ways that public sector agencies and private sector developers can respond to the study findings. Many communities in the region are already working to promote infill and redevelopment, expand housing and transportation options, emphasize pedestrian mobility, and catalyze investment in downtowns and commercial districts. For those communities, this study offers some basic ideas on ways to capture growing markets, or at least to allow them to take hold, and how to work with the private sector to achieve local development objectives.

For some time, consumers have prioritized the space and privacy provided by larger homes and lots. Will these types of homes continue to appeal to consumers in today's economy?

CHAPTER 2: # FORCES SHAPING THE FUTURE HOUSING MARKET

The story of the housing market over the last decade has been a dramatic one full of peaks and troughs. This chapter explores how certain drivers of demand will affect future housing production, based on changing attitudes, perceptions of value, and underlying socio-economics.

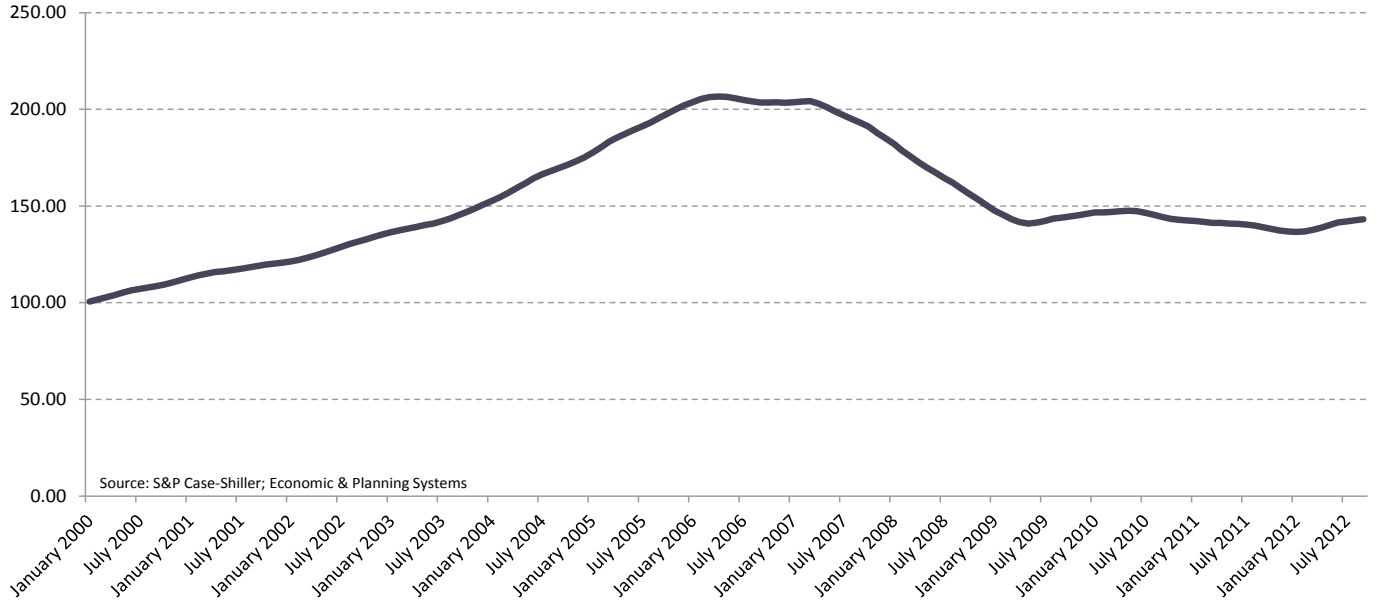
## A Nation Recovering

At the national level, a few fundamental shifts in employment and demographics contributed to the housing industry's challenges. During the past decade, the nation grew by more than 27 million people, but lost 1.5 million wage and salary jobs. In 2000, 74 out of 100 people of working age could find a job in the wage and salary workforce. By 2010, that figure had dropped to 66. With this kind of pressure on the labor force, workers attempted to establish proprietorships, a trend that also proved difficult for an increasing number of people. The proportion of proprietors grew from just 17 percent of the workforce to 22 percent in 10 years, meaning that in 2000, for every 100 employed persons, 20 were proprietors. By 2010, that number had increased to 28.

In the balance of housing and households, there was also a mismatch of supply and demand. Between 2000 and 2010, more than 11 million new households were formed, but nearly 16 million housing units were built. That meant for every 10 new households, 14 housing units were built, one of which was used for seasonal and recreational use, and three of which were left vacant. Absorbing the housing overhang has been a major challenge and a central cause of the Great Recession.

Recently, however, the nation's housing market has shown signs of recovery. Figure 2.1 charts a closely watched gauge of the housing industry, the S&P Case/Shiller home price index and 20-city composite. The index is calibrated to the year 2000 and illustrates the steep rise and fall of home prices on either side of the recession. The market stabilized in 2006 and showed an uptick in pricing in 2012. Home values and housing starts in the first months of 2013 continue to rise, suggesting ongoing recovery.

**Figure 2.1**
**S&P/Case-Shiller Home Price Index**
**Sonoran Institute Housing Study**




*The figures on the Y axis are an index that starts at 100. The numbers do not reflect absolute prices but rather the relative change in prices.

# Four Major Trends

Given the problems of the recent past, as the national and regional areas recover, most residential markets are manifesting a new approach to housing. This chapter explains changing macro trends and establishes a backdrop for understanding how the growing popularity of compact walkable neighborhoods fits into these larger socio-economic and demographic shifts.

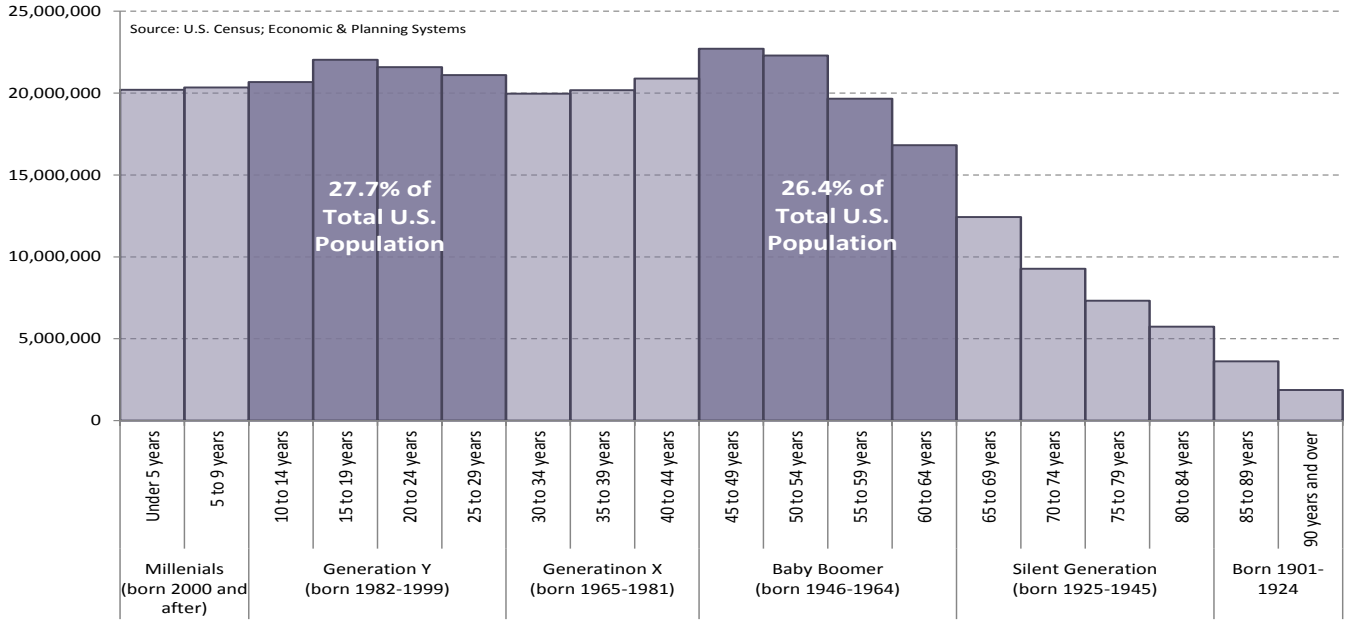
Major factors affecting demand, nationally and in the Rocky Mountain West, include:

1. **Shifting priorities for the largest demographic cohorts (Baby Boomers and Gen Y);**
2. **Declining wages and household income;**
3. **Uncertain employment growth; and**
4. **Shrinking household sizes and changing household types.**

## #1 The Roles of Generation Y and the Baby Boomers

The nation is in the midst of several significant demographic shifts with implications for housing demand. First, the population is growing. Between 2000-2010, the U.S. population grew by an average of 0.9 percent annually, factoring in the aging of the baseline population, births, deaths, and in- and out-migration. Second, the two major cohorts are moving into the years in which a portion will form households (Generation Y) or change housing (Baby Boomers). Both are large groups and both will contribute directly to new types of housing demand.

**Figure 2.2**
**U.S. Age Distribution, 2000-2010**
**Sonoran Institute Housing Study**




The implications on demand from Gen Y and the Boomers are significant. As shown in Table 2.1, the Gen Y cohort will generate 4.7 million adults annually, over roughly the next 10 years. With reasonable employment options, these individuals will form households and seek housing. Based on general assumptions regarding household size and bracketing of the cohort, Gen Y will increase demand by 1.8 million households annually for the nation and will create 44,000 households in the Rocky Mountain West.

Baby Boomers will continue to exert influence on the housing market. Some Baby Boomers will choose to age in place, at least as long as they are able, while others will look for alternative housing. Many currently have

houses that represent equity that can be invested in other ways. Many of these houses (and lots) will exceed the size needed or wanted. A reduction in costs and maintenance responsibilities will drive many Boomers to seek housing that is smaller and easier to maintain. Over the next couple of decades, there will be over 1.7 million households nationally and approximately 42,000 households in the Rocky Mountain West weighing these choices each year.

**Table 2.1**
**Estimated Gen. Y and Boomer Households**
**Sonoran Institute Housing Study**

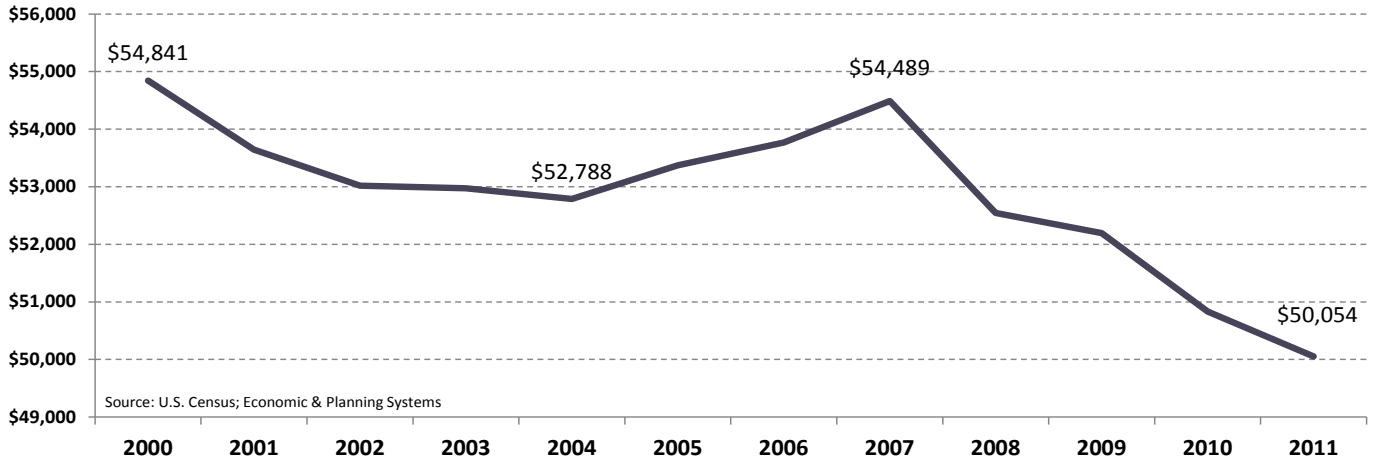
| | United States | Colorado | Idaho | Montana | Rocky Mountain West |
|---|---|---|---|---|---|
| **Gen. Y** | | | | | |
| Ages 10 to 29 (Approx. Generation Y) | 85,405,385 | 1,393,203 | 447,257 | 259,109 | 2,099,569 |
| Estimated Population per Individual Age Cohort | 4,744,744 | 77,400 | 24,848 | 14,395 | 116,643 |
| Total Population per Households [1] | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 |
| **Estimated Households per Year** | **1,793,674** | **29,260** | **9,393** | **5,442** | **44,095** |
| **Baby Boomers** | | | | | |
| Ages 45 to 64 (Approx. Baby Boomers) | 81,489,445 | 1,340,342 | 388,850 | 288,690 | 2,017,882 |
| Estimated Population per Individual Age Cohort | 4,527,191 | 74,463 | 21,603 | 16,038 | 112,105 |
| Total Population per Households [1] | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 |
| **Estimated Households per Year** | **1,711,432** | **28,150** | **8,167** | **6,063** | **42,379** |

[**Note 1**]: Actual average household size is 2.59; using this ratio holds all other assumptions on institutionalized population, for example, constant.
Source: U.S. Census; Economic & Planning Systems
H:\21876-Sonoran Institute Housing Market Study\Data\[21876-Demographics.xlsx]t20 - Est Gen Y and Boomer HHs

## #2 Declining Household Income

Decreases in personal and household earnings are symptoms of underlying economic shifts. Wages for the average American worker stagnated between 2000 and 2010, and fell far short of cost of living. Measured by the Consumer Price Index (CPI), reported by the Bureau of Labor Statistics, the cost of living increased at an average rate of 2.4 percent per year from 2000 to 2010, but wages for the average wage and salary worker increased at just 0.5 percent per year on average (adjusted for inflation) and even declined for proprietors. Median household income fell from nearly $55,000 in 2000 to nearly $50,000 by 2011, as shown in Figure 2.3.

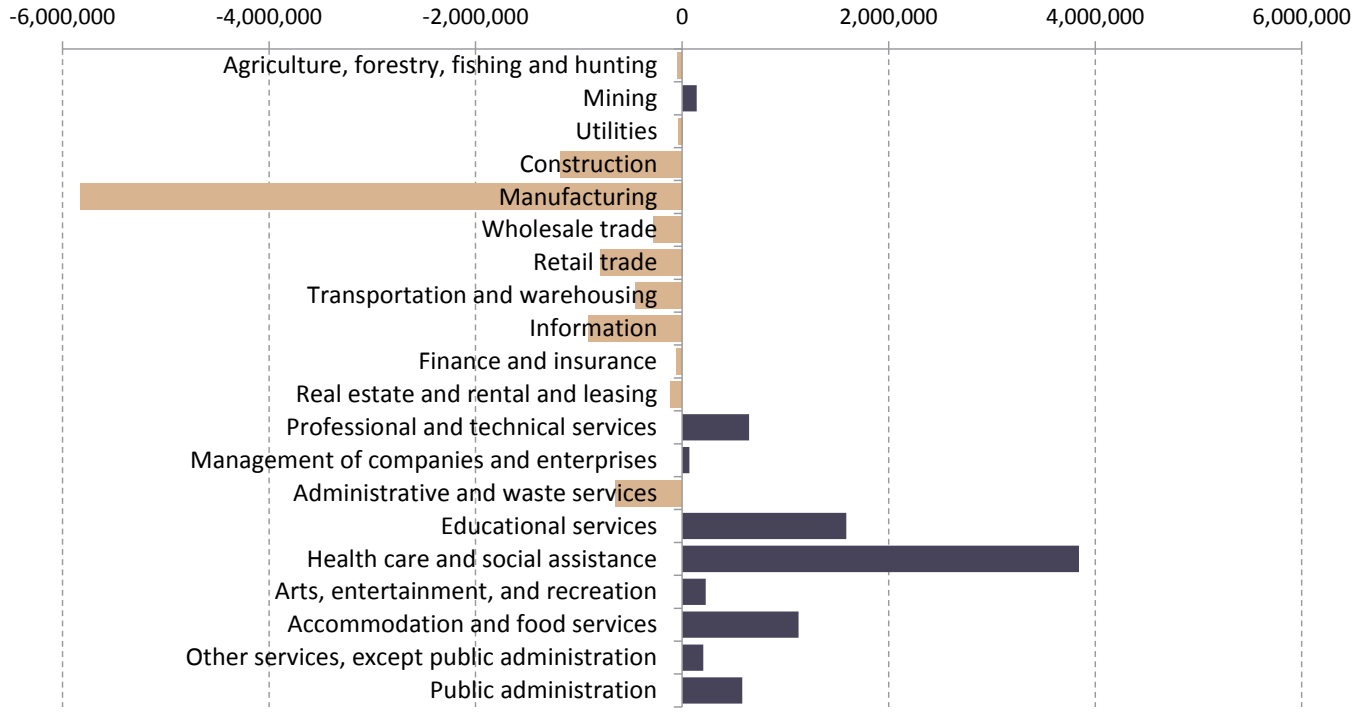
**Figure 2.3**
**U.S. Household Income, 2000-2011**
**Sonoran Institute Housing Study**



## #3 Uncertain Employment Growth

Job losses were tremendous during the Great Recession. The U.S. lost a net of more than 1.5 million wage and salary jobs over the past decade. Many of the unemployed, faced with dismal job prospects, attempted to establish proprietorships. An increase primarily in health care jobs masked alarming losses in a few core industries. As shown in Figure 2.4, nearly 6 million manufacturing jobs were lost to U.S. workers, an average of more than half a million per year.

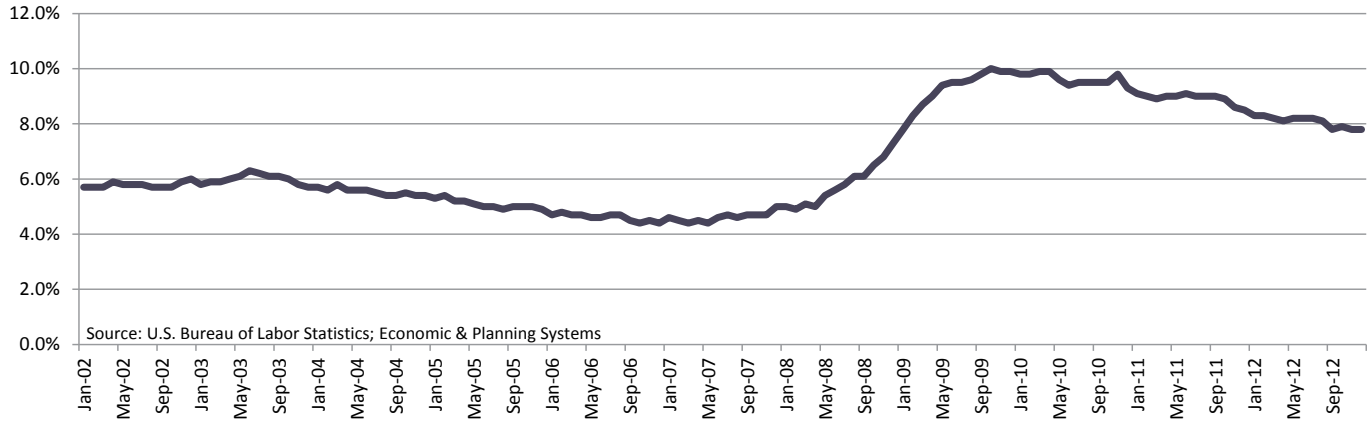
**Figure 2.4**
**U.S. Net Employment Change, 2000 to 2010**
**Sonoran Institute Housing Study**




Source: U.S. Bureau of Labor Statistics; Economic & Planning Systems

And although the construction industry grew considerably in the first half the decade, the housing boom was followed by a massive and unprecedented decline, with the industry shedding more than 2 million jobs from 2007 to 2010, or 25 percent of the entire industry as of 2007. Layoffs in the wage and salary workforce were another primary contributor to the increase in the unemployment rate, shown in Figure 2.5. Following the near collapse of the nation's economy, from April 2008 to October 2009, unemployment skyrocketed from 5.0 percent to 10.0 percent.

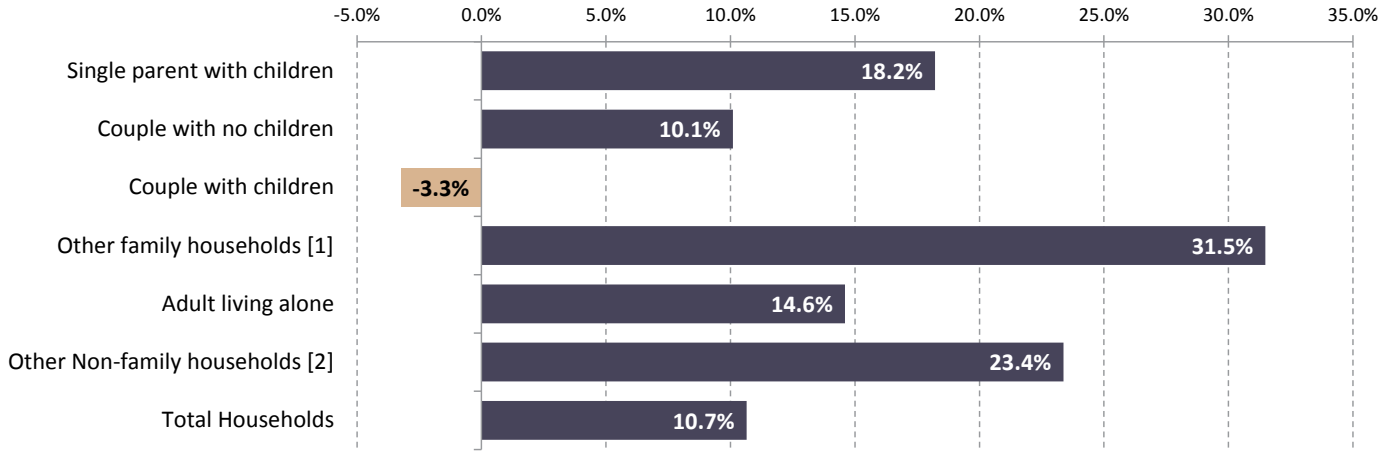
**Figure 2.5**
**U.S. Unemployment Rate, 2002-2012**
**Sonoran Institute Housing Study**



# #4 Shrinking Household Sizes and Changing Household Types

From 2000 to 2010, the nation grew by 11.2 million households, or 10.7 percent. More than 75 percent of that growth came from three household types: adults living alone (35 percent), couples with no children (25 percent), and single-parent households (20 percent). Growth of other family households (i.e., households with an elderly parent) and other non-family households (i.e., non-related roommates) represents the other 25 percent of the change.

**Figure 2.6**
**U.S. Household Formation by Type, 2000-2010**
**Sonoran Institute Housing Study**



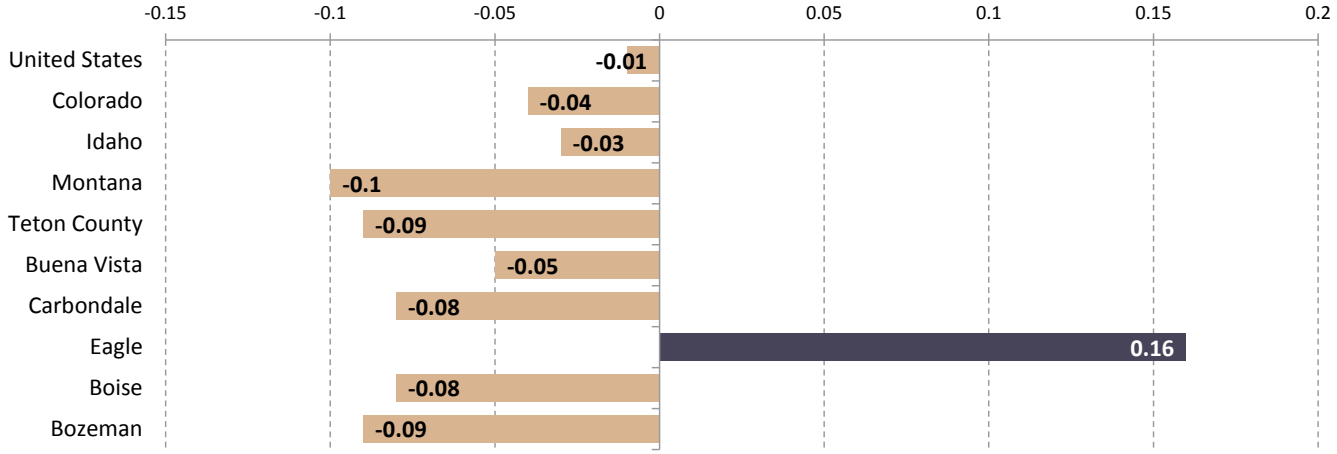

Source: U.S. Census; Economic & Planning Systems

[**Note 1**]: A household that has at least one member of the household related to the householder by birth, marriage, or adoption is a "Family household." All persons living in family households are included in this total regardless of their relationship to the householder. Same-sex couple households are included in the family households category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

[**Note 2**]: "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

As shown below in Figure 2.7, the average household size for the nation contracted slightly over the past decade (a change of .01 percent). In some markets within the Rocky Moutain West, the change was more significant. Montana saw the largest decrease on a state level. Of the sample communities studied in this report, Eagle, Colorado, was the only community that saw an increase in average household size.

**Figure 2.7**
**Percentage Change in Average U.S. Household Size, 2000-2010**
**Sonoran Institute Housing Study**




Source: U.S. Census, Economic & Planning Systems

Looking ahead, a few of the key factors that will affect future housing market demand include:

- **Market recovery** – Housing markets across the county show signs of recovery. As the market returns and product increases, communities and developers are assessing development models that better address community goals and household preferences.
- **Changing demographics will shift household demand** – In the Rocky Mountain West, Gen Y is expected to form 44,000 new households annually. Similarly, a portion of Boomers' households will seek new housing options as they retire and look for different housing. In the Rocky Mountain West, 42,000 households will reach the age of 65 annually. Some will age in place while others will seek out new communities and new housing.
- **Declining household income will affect consumer choices and product types** – Households will seek rental and ownership housing that costs less than comparable options from the past. They will make trade-offs that reduce household monthly outlay. The developments that will outperform others will be those with smaller offerings (apartments, houses, lots, etc.) with additional neighborhood amenities.
- **Households will be more diverse and smaller** – The traditional household composition, two parents with children, is shrinking and will be replaced by non-traditional households as well as single-person households. Communities and developments that offer a diversity of housing types that reflects the new household composition will capture a greater market share.

Location matters: Centrally located or "core" areas, including downtowns and surrounding neighborhoods, provide attributes that appeal to many consumers, such as convenient access to amenities and daily needs, walkable streets and neighborhoods, and a strong sense of place.

# CHAPTER 3: COMMUNITY PROFILES

The purpose of documenting economic and demographic changes in the Rocky Mountain West is to characterize the market contexts within which buyers and renters make choices about housing. In addition to the macro trends affecting markets throughout the region discussed in the previous chapter, this chapter includes a detailed evaluation of six representative communities, ranging from small to large and rural to urban, to show how changing conditions manifest themselves in various local markets.

Infill projects such as this one in downtown Glenwood Springs, CO, can capture growing demand for centrally located housing in walkable neighborhoods.

There are a limited number of communities in the Rocky Mountain West that have recently developed large-scale, compact walkable developments. For this reason, EPS, RRC, and the Sonoran Institute identified six communities that provide a good context to compare the market support for different types of housing development.

Each of the selected communities includes compact walkable development in core areas as well as in a new development. This mix of neighborhood and development types, across six different communities, provides an opportunity to analyze a range of market segments and consumer preferences.

The community profiles that are provided in this chapter are intended to give the reader a picture of a few quantifiable (socio-economic) and qualitative (demographic and social) aspects of each community. From this, correlations are later drawn between a community's characteristics and the performance of its housing market. These communities include:

- Boise, Idaho
- Bozeman, Montana
- Buena Vista, Colorado
- Carbondale, Colorado
- Eagle, Colorado
- Teton County, Idaho

This chapter identifies major trends and unique market attributes for each of these representative communities.

## Teton Valley, Idaho

Teton County, Idaho, sits along Idaho's eastern border with Wyoming, immediately west of Grand Teton National Park. Residents are attracted to its stunning views, access to world-class outdoor recreation, and proximity to the resort community of Jackson, WY.

During the past decade, Teton County's population grew more than 5 percent per year, adding approximately 400 persons each year. By 2010, the population had reached approximately 10,000, and the number of housing units grew as a result. The subdivision platting activity boomed during these 10 years, adding more than 7,000 new lots to Teton Valley (by some estimates, a 100-year build-out).

Demand for housing was fueled in part by relatively low land values, commuters to Jackson, and modest local economic growth, partially fueled by the second-home and part-time resident segments. Real estate speculation was very strong, and exceeded sustainable levels. The number of local households grew by approximately 6 percent per year, and second-homeowner units grew by nearly 8 percent.

The employment base grew from approximately 2,700 to nearly 4,500 jobs by 2010, and 40 percent of this increase came from sole proprietors. Unlike much of the nation, wage growth in Teton Valley was not stagnant (more than 2 percent annually, adjusted for inflation). As with other growth figures, it grew from a relatively small base. Average wages for workers increased from approximately $25,000 in 2000 to $31,000 by 2010.

The low-density nature of Teton Valley development and very large number of 2.5-acre lots provide many options that cater to a rural mindset. Perhaps more significantly, the lack of vibrant core areas in the existing communities meant that the county lacked the first "building blocks" of town-oriented CWD. Of the six communities studied, the existing context of the Teton Valley represents the greatest market challenge to compact walkable development. Within this context, the local CWD, Mountainside Village, has absorbed slowly. The project has been able to achieve a premium for its homes, although, like all Teton Valley subdivisions, the volume of sales has been slow since the real estate crash.

## Boise, Idaho

Boise, Idaho, the capital and county seat of Ada County, is located on the state's western side. With a population over 200,000, historically strong and diverse employment (including major presence by corporations such as Hewlett-Packard, Micron Technology, and the J.R. Simplot Company), high quality public schools, proximity to recreation, and four higher education institutions, it is an attractive community. In a state with overall low population density (19 persons per square mile), Boise is settled at 373 persons per square mile. From 2000 to 2010, its population grew by approximately 20,000 people (2,000 per year) on a base of 186,000. Household growth, like trends across the nation, exceeded population growth as household formation rates decreased.

Boise's size allows a wider spectrum of economic activity than the other communities studied. Manufacturing, health care, administrative and waste services, and professional and technical services are the city's largest industries. Evidence of a strong driver of housing demand, the total workforce in Ada County grew by nearly 35,000 jobs from a base of 229,000 jobs in 2000, approximately 1.5 percent per year. The

county's wage and salary workforce is a strong component of the local economy and accounted for 77 percent of the total workforce in 2010. Also notable was the rapid increase in sole proprietors during the second half of the decade. Wages in Boise are relatively high compared to the Idaho average, but over the past decade declined from nearly $44,000 to less than $42,000 adjusted for inflation.

The community's size, corresponding diversity of segments, and overall density lend itself to compact walkable development. The Boise market has four CWD projects – all of which have been successful – and one, Hidden Springs, has generated a highly committed set of residents that are particularly enthusiastic about CWD concepts. Boise has an appealing historic core dating to the 1800s and a well-executed initial CWD project from the 1990s that has contributed to the success of later projects. The overall quality of the projects, their proximity to recreation, and the inclusion of commercial uses all help translate market interest into market capture.

## Buena Vista, Colorado

Buena Vista is located in the high plains of central Colorado, approximately 120 miles southwest of Denver. Buena Vista has a strong summer season for tourism, based on its world-class river and rafting. This has not translated to a large resort base (as seen in ski-centric communities), and real estate has not been subject to that type of growth or pressure on prices. This rural community grew from about 2,200 to 2,600 people between 2000 and 2010. The population density here is similar but lower than Teton Valley, Idaho, at 18 persons per square mile.

Overall employment grew by approximately 1,000 between 2000 and 2010, but only 175 were wage and salary jobs, suggesting that many of the proprietor positions were not full time in nature and were created to supplement other primary wage earners. As a resort- and tourist-oriented economy, its primary industries are retail and accommodation and food services (each 16 percent). Its reliance on these sectors, as well as construction and real estate, made it susceptible to the effects of the national recession. Sole proprietorships account for one-third of Buena Vista's employment base, compared to nearly 20 percent across the state.

One of the most challenging aspects of the Buena Vista market is its small size. Its strength is the amount of seasonal traffic it sustains during the summer months and the wide range of potential segments represented in the tourist flow. South Main is a new compact walkable neighborhood located immediately southeast of the historic downtown. It has developed slowly, with slower absorption than initially planned. That said, the project's execution is superior to even the most demanding standards found in resort communities. The inclusion of a vibrant commercial district, and its highly successful integration of the river and trails, has created a market that did not otherwise exist in Buena Vista prior to ground breaking. Some buyers are second-homeowners, some are employed outside the community but are able to work remotely, and some are locals who gravitate to the project's unique character and quality. The walkable nature (including walkable to an existing elementary school) has been particularly effective in attracting local families with young children.

# Carbondale, Colorado

The town of Carbondale is located in the Roaring Fork Valley, approximately 10 miles southeast of Glenwood Springs and about 30 miles northwest of Aspen. Carbondale stands out among the Roaring Fork Valley communities as a unique blend of bedroom community and resort-oriented economy.

From 2000-2010, Carbondale's population increased from 5,200 to 6,400, a 2 percent annual growth rate. The number of permanent resident housing units grew by more than 2.5 percent, while the number of second-homeowner units increased at nearly 11 percent per year.

Fueling housing growth in this community were notable economic and demographic drivers. From 2000 to 2010, total employment increased by approximately 6,300 jobs. At the end of the decade, there were 4,100 more wage and salary jobs than in 2000, and there were more than 2,100 more sole proprietorships. The mining industry, largely located in the western portion of the county, gained more than 1,600 jobs in spite of losses during the recession, and offset the losses of 800 jobs in construction. Other sectors to gain jobs were wholesale trade, transportation and warehousing, professional and technical services, and health care and social assistance.

The Carbondale market is exceptional. While it has long served as a bedroom community for Aspen, which has had a major influence on housing values, it has gained its own appeal and is now considered an international draw for people seeking the small-town mountain lifestyle. The growth pressure within this region has been strong for decades, and managing the growth has become a major priority for the community. Strong urban growth boundaries have resulted in higher densities, with most of the recent development adopting CWD elements. Several smaller compact walkable projects have been built in the past decade, most of which are walkable to the historic town core. The area surrounding the community includes older subdivisions with larger lots, some of which include estate housing and generate high price thresholds that cater to an "up valley" buyer, and is clearly decoupled from the local Carbondale market.

# Eagle, Colorado

The town of Eagle is located on the western end of the Vail Valley in Eagle County, Colorado, approximately 30 miles west of Vail and approximately 32 miles east of Glenwood Springs. Eagle has grown in proportion to the Eagle County economy, which has been generally strong. Eagle's attributes include an historic downtown that has attracted redevelopment projects, a beautiful location within the Sylvan Valley, and room to accommodate growth. Its natural character appeals to both the workforce that serves the Vail Valley as well as second-homeowners looking for an authentic community close to Vail.

Eagle's population grew faster than any other community in this analysis, more than doubling its small 2000 population of approximately 3,000, averaging nearly 8 percent annual growth. Housing units for permanent residents were developed as quickly, but the number of housing units for second-homeowners grew at more than 16 percent per year. Eagle also serves as a bedroom community for Vail's resort economy. Like Carbondale, Eagle offers a more affordable option than Vail or Aspen for people living and working in those exceptionally high-end real estate markets.

Eagle County's employment base has been construction oriented, and during the Great Recession, lost many jobs. Between 2000-2010, the economy lost more than 2,600 jobs in construction, manufacturing, transportation and warehousing, and professional and technical services. Its largest industries are accommodation and food services (24 percent), arts/entertainment/recreation (13 percent), and retail (11 percent). Job losses were only somewhat offset by gains in the health care and social assistance, arts/entertainment/recreation, and accommodation/food services industries. By 2010, there were 3,600 more people in sole proprietorships than in 2000.

The market implications for compact walkable growth are generally positive. The community itself appeals to both locals and second-homeowners, giving it the ability to capture two distinct markets. The most notable CWD project in the county, Eagle Ranch, was started in the mid-1990s. Ample land supply at the time enabled developers to aggregate sufficient land to create a compact mixed-use core and small-lot, single-family homes surrounded by conventional development. The market conditions over the past two decades have tightened, and the remaining inventory has become constrained. This in turn has resulted in higher density development throughout the county, allowing buyer expectations to shift toward smaller lots. CWD capture grew over time, based on greater "down valley" market pressure, more acceptance of density, and higher completion of amenities (specifically a local elementary school, town center, and trails through the open space).

## Bozeman, Montana

The city of Bozeman is located in the Gallatin Valley in southwestern Montana. The market is growing, both in terms of employment and population. The area has particularly high rates of educational attainment, as 45 percent of the population have a bachelor's degree or higher (compared to state and national averages that are approximately half this rate). Montana State University, with 14,600 students, likely contributes to that level of educational attainment.

During the past decade, the city's population grew by nearly 10,000 residents from 27,500, representing more than 3 percent annual growth since 2000. The household growth rate exceeded population growth, indicating a decrease in household size. While representing a very small percentage of the inventory, the number of second-homeowner units more than doubled from 700 units to nearly 1,700.

Bozeman's largest industries are retail (15 percent), accommodation and food services (13 percent), health care and social assistance (10 percent), and construction (8 percent). While the peak (2007/2008) in employment was mostly due to the housing industry, as in other parts of the country, Gallatin County experienced healthy growth in other non-real-estate-driven industries. For example, more than 50 percent of the net job increase (7,900 jobs) from 2000 to 2010 was in the professional and technical services, administrative and waste services, and health care and social assistance industries. Overall, there were approximately 14,000 more jobs in the county in 2010 than in 2000. Over the course of the decade, the portion of workers in proprietorships increased from 25 percent to approximately 30 percent.

The prospects for compact walkable growth in Bozeman are positive. The areas surrounding downtown are highly compelling, given the quality of the housing stock and the walkability to a vibrant commercial core. The market understands and has an appreciation for compact walkable neighborhoods, and a range of commercial and residential infill projects have been completed. In terms of a new peripheral development, the project execution has not been as strong as found in other communities evaluated in this study. In one of the larger CWD neighborhoods, elements like a commercial node were platted but not developed, and the mix of housing could have been better suited to the market. Nevertheless, the concept of compact walkable development has found a following within the community and has a cohort of dedicated residents who enjoy living in a compact walkable neighborhood.

# CHAPTER 4: MARKET CONDITIONS

There are many ways to evaluate the market receptivity to compact walkable development. This chapter of the report summarizes the data that quantifies pricing differential and capture rates. It looks at how core and peripheral CWD performed relative to community-wide averages. It considers sales price per square foot, and overall pricing trends. Capture rates are identified, as well as sales price premiums.

- **Capture rate** in this analysis identifies a particular product type's portion (i.e., CWD) as a percentage of the total new home construction market. Capture rates document a significant component of demand and the resulting percentage reflects the degree of market support. The following analysis estimates capture rates for each community using residential building permit records.

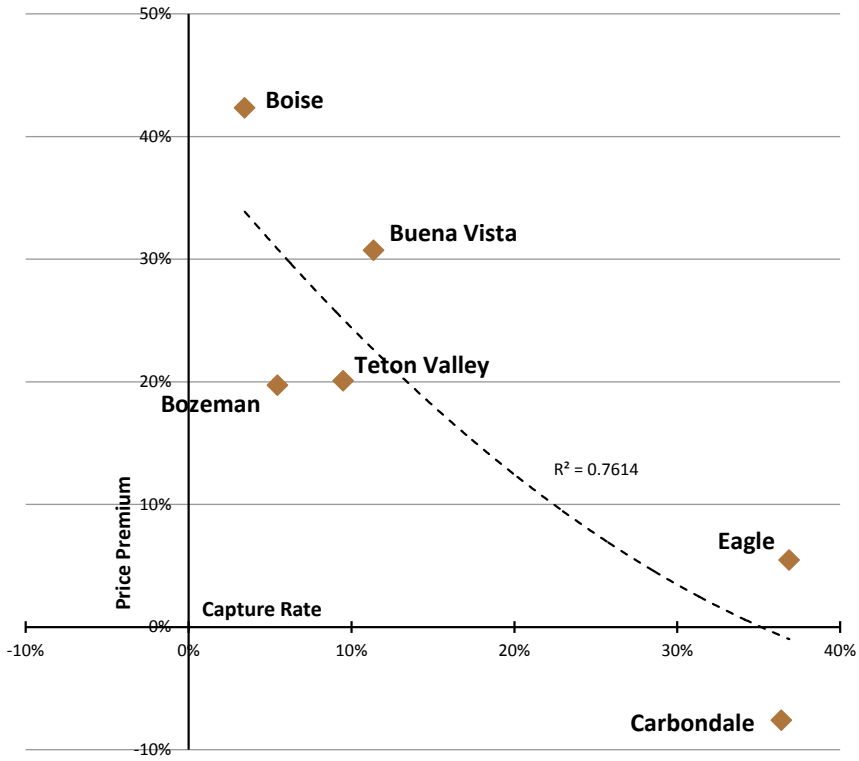
- **Premiums** quantify a market's willingness to pay for housing and are also driven by the quantity, quality, and location of the housing. A premium is the additional dollar amount that a consumer would pay for certain features, as compared to regional averages. In this analysis, premiums are estimated as a percentage using home sales data from local multiple listing services (MLS), comparing CWD pricing to regional averages by year of construction.

Together, capture rates and premiums articulate an important intersection within the housing market. To a limited extent, they illustrate the balance between the availability of product and the market's willingness to pay for it (i.e., supply and demand).

The following Figure 4.1 shows each community relative to one another on what resembles a supply-demand curve. From an observational standpoint, the intersection of data seems to point to the basic economic principle of a balance between product availability (supply) and price (demand). Boise, for example, sits in the upper left of the curve with a low capture rate but high premium, while Carbondale sits in the lower right with a high capture rate and negative price premium. With the other communities' market performance metrics somewhere in between, it could be observed that as the availability of product increases, a market's overall willingness to pay higher premiums decreases. On the other hand, not every community performs perfectly according to this principle. Many factors, which were detailed in the Community Profiles section and are explored quantitatively in a correlation analysis in Appendix B, contribute to why each market performed the way it did. A few of those factors are explained in this chapter.

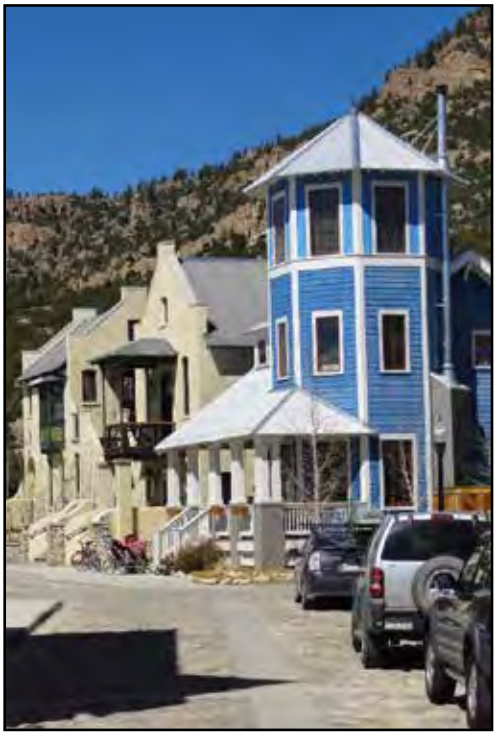
Do homes in walkable neighborhoods command a premium in the market?

**Figure 4.1**
**Community Capture Rates and Premiums**
**Sonoran Institute Housing Study**




Source: Economic & Planning Systems

The South Main project in Buena Vista, CO, incorporates a mix of different housing options, from detached single-family to attached townhomes, to live-work units and high-end lofts over retail.



# Market Support for Compact Walkable Development

The breadth of market support for CWD has been debated, with some arguing that it is a small niche of buyers and renters while others purport that it attracts a wide range of households. This chapter reports the capture rates of CWD within each community from 2000 to 2010. Inputs were based on building permit and home resales data provided by local jurisdictions. Major findings include:

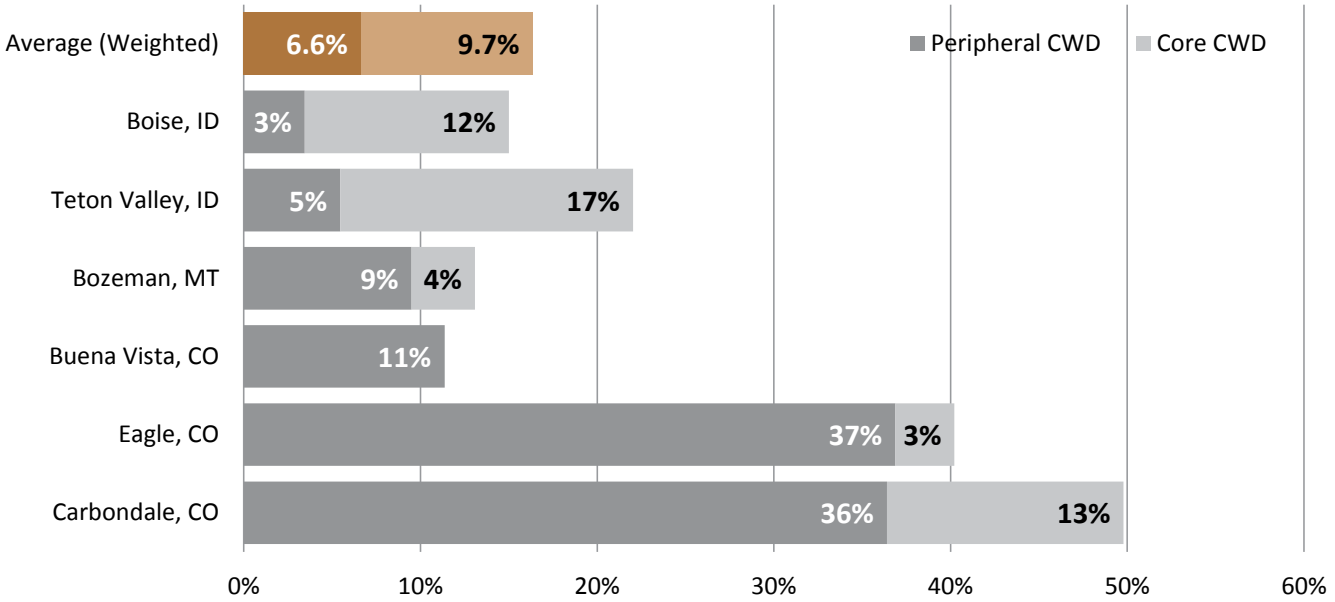
- CWD market demand averages 16 percent of the development activity in Western mountain communities.
- CWD capture rates varied by community and by year over the course of the past decade, from a low of 8 percent in Boise to a high of 70 percent in Carbondale.
- At the height of the market, Carbondale and Eagle achieved capture rates as high as 50 to 70 percent. Even in the northern Rockies, CWD represented as much as 25 percent in Bozeman and Teton Valley.
- Following the housing bust, development activity plummeted and CWD capture rates contracted. Lower capture rates suggested a greater resistance to its concepts in a down market. In Colorado, capture rates ranged between 15 and 35 percent, while in the northern Rockies capture rates fell to between 10 and 12 percent.
- Based on interviews with the development community, demand during the lowest part of the recession shifted to product that has offered exceptional value (short sales, foreclosures, etc.) and buyers' priorities focused on price. As markets stabilize, developers and brokers expect capture rates to return to the figures representative of the averages for the decade.

# New Construction Capture Rates

The study measures capture rates for CWD in both core and peripheral residential areas. Core CWD takes advantage of higher-density land uses and existing infrastructure in an urban or downtown setting, while peripheral CWD occurs in greenfield development on the edge of a community. This analysis looks at new residential building trends in both the core and peripheral neighborhoods.

For the analysis, more than 16,000 residential building permit records were assigned a street address (geocoded). Each permit record for each community was designated as core CWD, peripheral CWD, or a conventional housing development. Using a decade[1] of geocoded data, CWD accounted for 16 percent of the market, as shown in Figure 4.2. (Note that the data shown below is based on decade-long averages.)

**Figure 4.2**
**CWD Market Capture**
**Sonoran Institute Housing Study**

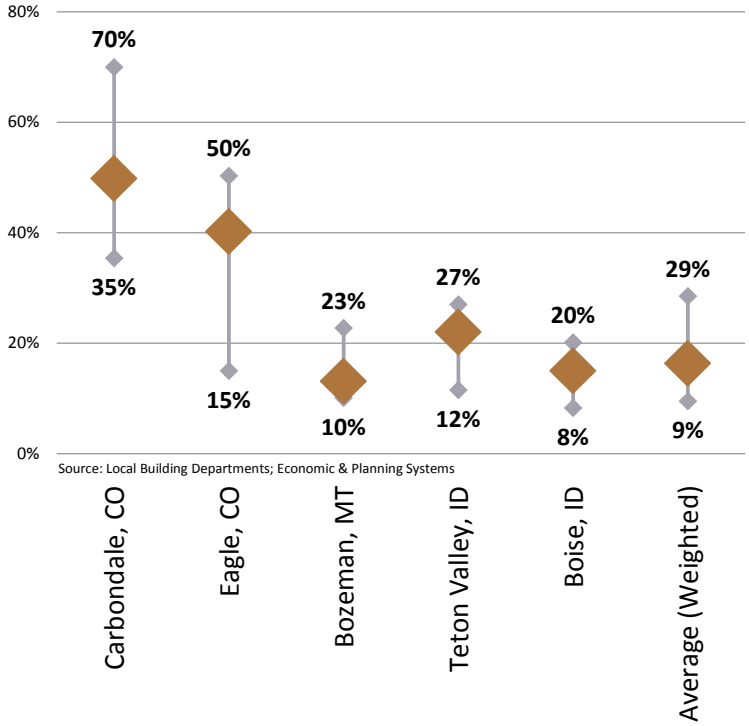



Source: Local Building Departments; Economic & Planning Systems

There was, however, significant variation by community. In Eagle and Carbondale, CWD accounted for 40 to 50 percent for the decade, while in Bozeman and Buena Vista it accounted for just 11 to 13 percent. In the town of Eagle, Eagle Ranch was positioned uniquely to capture a large share of the population expansion, which doubled over 10 years. The project capitalized on a large market of buyers seeking walkability, access to recreation, and connectivity to its on-site school, shops, and restaurants.

CWD capture varied from year to year. Averages fluctuated between 9 and 29 percent. In the years leading directly to the peak, capture rates were generally highest. In the following years, they dropped. Figure 4.3 provides the average capture by community, along with the range of capture from 2000 to 2011. The wide variation in some markets can be attributed to large projects coming on-line in some years, and few units completed in others. Eagle and Carbondale fall into this category, while Bozeman and Boise, in particular, are larger markets with higher volumes and greater breadth of housing available.

**Figure 4.3**
**Variation in Market Capture Rate**
**Sonoran Institute Housing Study**




Source: Local Building Departments; Economic & Planning Systems

Most developers and realtors interviewed believed that demand for housing in walkable neighborhoods was expanding. But getting projects meeting that demand to pencil out is a often a challenge.

## CWD from the Developer's Perspective

During the study, interviews were conducted with brokers and developers to understand their perspective on CWD. Generally, the development community in the northern Rockies indicated that about 15 to 20 percent of the market demand is for CWD. This seems reasonable for the areas studied, although in some areas it could be higher. In Colorado, however, estimates generally centered around 25 percent. The analysis of building permit data supports these estimates. In the northern Rockies, Bozeman and the Teton Valley generally align with the range stated during key informant interviews (i.e., 15 to 20 percent). The Colorado communities of Eagle, with an average of 40 percent, and Carbondale, at 50 percent, exceed the local developer estimates of 25 percent.

# Price Premiums on Resales

CWD development is different than conventional development. Lots are smaller, uses are mixed, and access is different. Why are developers interested in creating products with smaller lots and less square footage? In this chapter, the data on pricing is evaluated and show that CWD buyers, on average, are willing to pay a premium to live in these neighborhoods. Specifically:

- Buyers value compact walkable development and are willing to pay a premium for it. Before the recession, the average price per square foot of a home in a CWD community was 18.5 percent above the community average.
- During the recession and the time of initial recovery (since 2009) buyers paid a 12.5 percent premium for homes in compact walkable development. The amount of the premium declined, in part due to foreclosures, short sales, and discounted new product that offered more attractive pricing. Notwithstanding the nature of the real estate market during the recession, compact walkable development retained its premium.
- In Boise and Bozeman, the largest communities studied, pre-recession pricing for homes in a CWD community averaged between 20 and 40 percent higher than the community-wide averages. In Bozeman, Valley West captured premiums because of its unique variety of product types, comprehensive trail systems, and the

recreational open space coursing through its center. Similarly, Hidden Springs, Harris Ranch, and Bown Crossing in Boise captured a unique and sizable market niche of buyers with their amenities, commercial mix of uses, architecture, and walkable designs.

- Communities in proximity to resorts have lower premiums, primarily because of high averages driven by second home segments. For example, Carbondale is located within the Roaring Fork Valley and is directly linked to the Aspen economy. The local real estate market includes housing for Carbondale locals employed in the valley as well as part-time residents who seek out the Roaring Fork Valley for its proximity to Aspen. The financial resources of these buyers far exceed that of any locals and, accordingly, drive up the averages within the Carbondale market. The resulting premium for compact walkable development is negligible, primarily because the market-wide averages are much higher than other communities in the study. The same is generally true of Eagle although the pricing attributed to the Vail market is not as strong as Aspen, and the corresponding averages are lower than communities in the Roaring Fork Valley.
- Teton Valley (25 miles from Jackson, WY) may also be considered within the sphere of a resort. However, the geography of the Teton Valley is substantially different from that of the Roaring Fork Valley or Eagle Valley. Generally, land supply constraints limit development within the two Colorado valleys. Teton Valley, however, has a surplus of land with platted vacant lots that represent decades of supply. While the Teton Valley is within commuting distance to Jackson, and is impacted by its economy, its geographic differences create a unique real estate market that is driven by its own supply and demand factors.
- The lowest priced market was Buena Vista at $144 per square foot, reflecting its relatively small economic base. Nevertheless, it generated one of the largest premiums at about 30 percent. A novel product in a community with comparatively low population growth, South Main captured the interest of buyers with its connectivity to the existing urban fabric.
- Recent studies have suggested that compact walkable development (particularly in core areas) is more resistant to weakening market trends. The sales data evaluated for this project confirmed this finding, identifying a modest insular effect that kept prices from falling as much as peripheral development during the Great Recession. It should be recognized that peripheral CWD is not as established as the core neighborhoods, or even some conventional suburban areas, and buyers were less likely to buy into new CWD areas when market conditions were soft. Familiarity and predictability reduce risk, and core areas and conventional suburban areas have provided more predictability during the recession.

## Resale Premium Methodology

Data on resales (between 2000 and 2011) were collected from local multiple listing services (MLS):

- Boise: more than 40,000 sales in 10 years;
- Bozeman: nearly 7,000 sales in 9 years;
- Buena Vista: fewer than 200 sales in 9 years;
- Carbondale: approximately 1,400 sales in 9 years;
- Eagle: approximately 1,200 sales in 9 years; and
- Teton Valley: approximately 1,500 sales in 10 years.

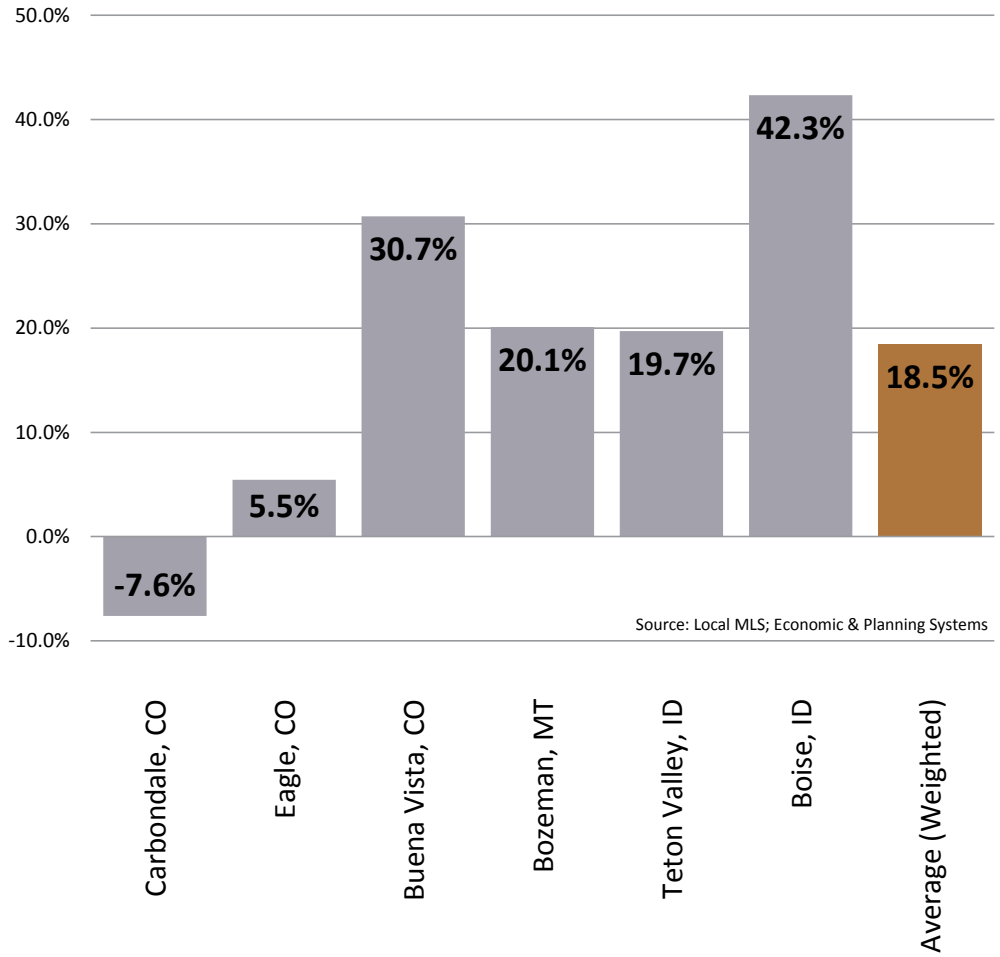
In preparing the data for analysis, records of sales were cleaned through removing duplicate entries and removing records that were clearly errors (i.e., miskeyed). As with building permit records, the sales records were geocoded using their addresses and then given a geographic attribute, such as CWD periphery, etc. Premiums were then determined by taking averages of the sales according to the location of the sale, grouped by age of structure.[2]

## Premiums for Home Resales

Buyers are willing to pay 18.5 percent more per square foot for homes in compact walkable neighborhoods, as compared to conventional developments. As shown below in Figure 4.4, premiums generally ranged from 20 to 40 percent, with the exceptions of Eagle at 5.5 percent and Carbondale at -7.6 percent. For reasons noted previously, the pressure from resort-oriented buyers for homes in and around these two communities drives overall averages higher, and reduces (or eliminates) the premium.

Given that Aspen is a unique market with unparalleled pricing, the influence of these buyers in the Carbondale vicinity raises the regional average pricing, and shows CWD product that is geared to locals (with local incomes) as performing below regional averages. This pattern is a reflection of the very distinct submarkets operating within one geographic area. While CWD product in Carbondale was still higher than any of the other community CWD premiums, it was nevertheless lower than the total market average (shown later), thus contributing to the appearance of negative price premiums.

**Figure 4.4**
**CWD Market Premiums, Pre-2009**
**Sonoran Institute Housing Study**




Compact walkable neighborhoods commanded a premium during stable market conditions, but what about during a market contraction? The past decade of sales data enable the study to address the potential for a premium under both sets of market conditions. Figures 4.5 and 4.6 illustrate the price points for the community-wide average (overall market) and CWD. It is important to highlight that all price points fell during the recession, but overall, CWD maintained its premium even after the housing market bottomed out. That is, the overall relationships did not change. Except for Carbondale, homes in compact walkable neighborhoods still achieved a premium that is equal to or exceeded the community-wide average.

**Figure 4.5**
**CWD and Conventional Sales, Pre-2009**
**Sonoran Institute Housing Study**

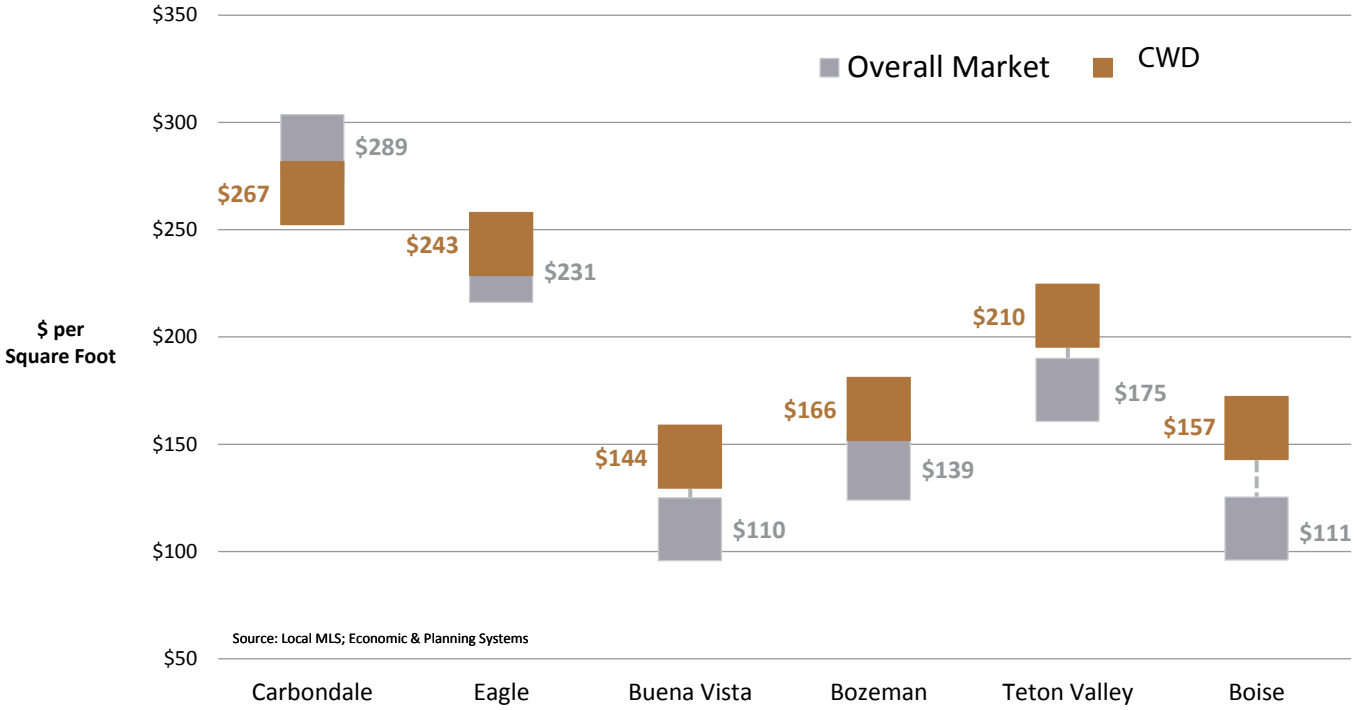
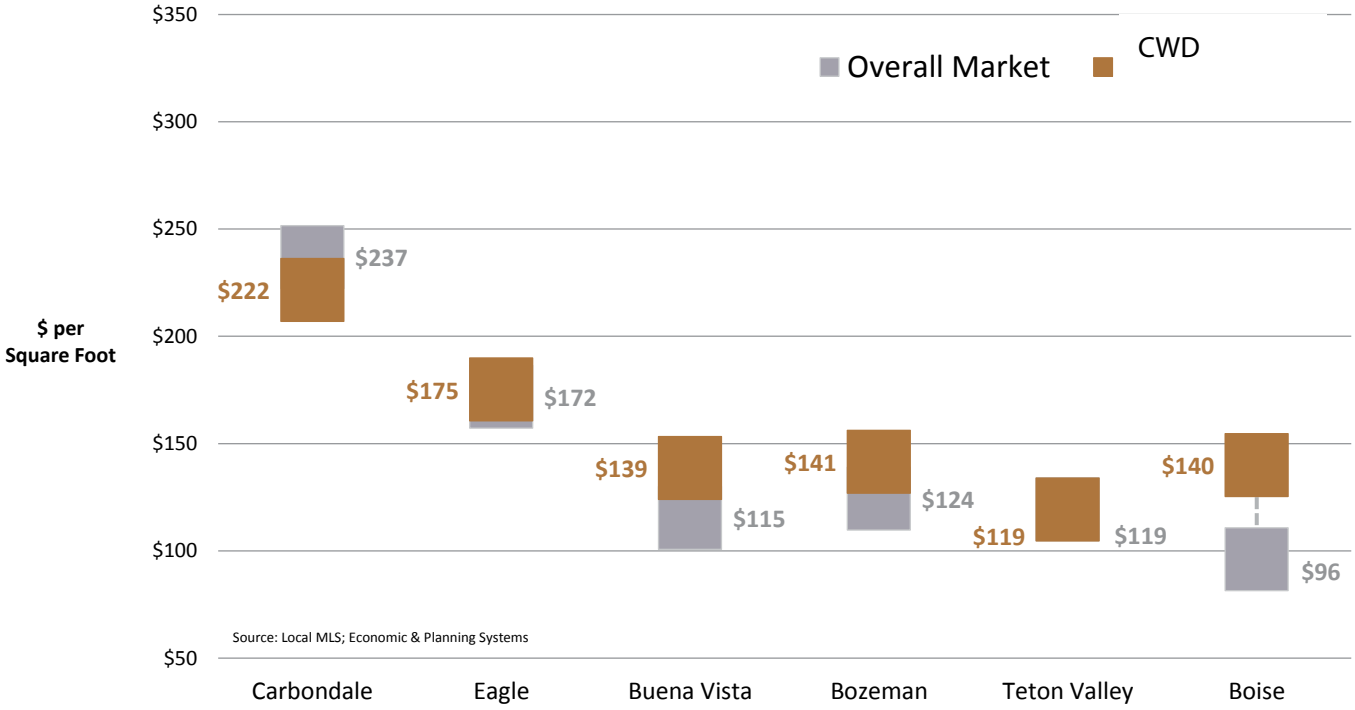



**Figure 4.6**
**CWD and Conventional Sales, Post-2009**
**Sonoran Institute Housing Study**




## (Endnotes)

1 The time period evaluated covers the years since 2000, with the exception of Buena Vista, which is based on the period from 2005 to 2011, the time in which an active CWD option existed.

2 An important part of the sales analysis was to identify the sales in historic neighborhoods of housing built after 2000—i.e., new CWD. As such, the analysis for CWD identifies premiums for new core CWD product as well as product built in the periphery in new master-planned developments.

Many factors play into the decisions people make about where to live, including housing characteristics, commute times, school quality, neighborhood safety, access to local services, and proximity to open space. Which of these factors are most important in the Rocky Mountain West?

Supplementing the quantitative analysis described previously, we conducted a survey to explore basic preferences regarding where people want to live and the qualities they are seeking in a home, neighborhood, and community. We asked several of the same questions used in the National Association of Realtors 2011 Consumer Preference Survey, allowing us to compare regional and national results.

Creating a sense of place often requires attention to sidewalks and other public spaces. Rifle, Colorado – shown above – is making strategic investments in sidewalks, parks, and other amenities to help activate its downtown and spur redevelopment.

The Sonoran Institute survey was distributed to three neighborhood types in the six representative communities, including compact walkable neighborhoods in the core, compact walkable neighborhoods on the periphery, and conventional development. The survey was distributed to neighborhoods that were as comparable as possible regarding age, home size, price point, and school quality. The goal was to focus on differences pertaining to neighborhood layout and design, while holding as many other variables as constant as possible. The neighborhoods selected for each community are shown in maps in Appendix A. Approximately 3,000 surveys were distributed by hanging them on doors. A total of 327 surveys were returned, for an 11 percent response rate. Surveys were purposely distributed to a variety of neighborhood types (conventional and compact walkable) and locations (core and peripheral areas). The survey methodology did not include random sample distribution, but was instead intended to sample people living in a variety of different neighborhood types and locations.

Our survey results suggest that a set of resident priorities, such as convenience, walkability, and access to the outdoors, can be met through compact walkable development.

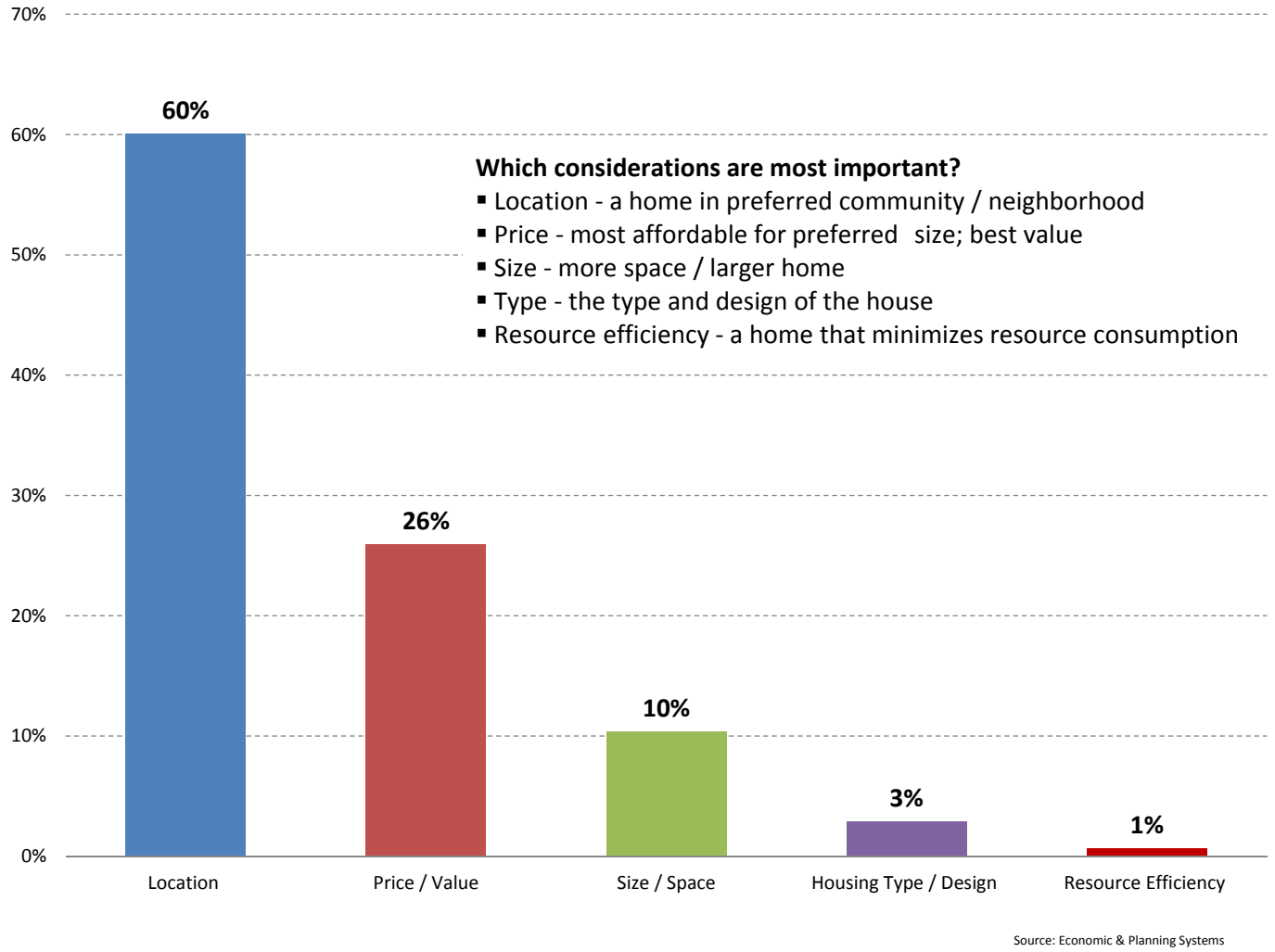
# Where do we want to live?

For most people, the question "where do you want to live" is about much more than the individual housing unit they would call home. In urban and suburban areas, that unit — whether it is a large single-family house or a small studio apartment — is part of a neighborhood or a subdivision within a larger community. In rural areas, individual units are also part of a larger community structure. We designed this survey to help us better understand where people want to live, and what respondents' preferences are related to house size, lot size, quality of the neighborhood, and location within a community. We also asked respondents to weigh trade-offs and choose between competing hypothetical housing options.

## Location and value are top considerations

When asked to rank the importance of five different considerations related to where they choose to live, respondents rated location and community highest.

**Figure 5.1**
**Most important considerations when choosing where to live**
**Sonoran Institute Housing Study**

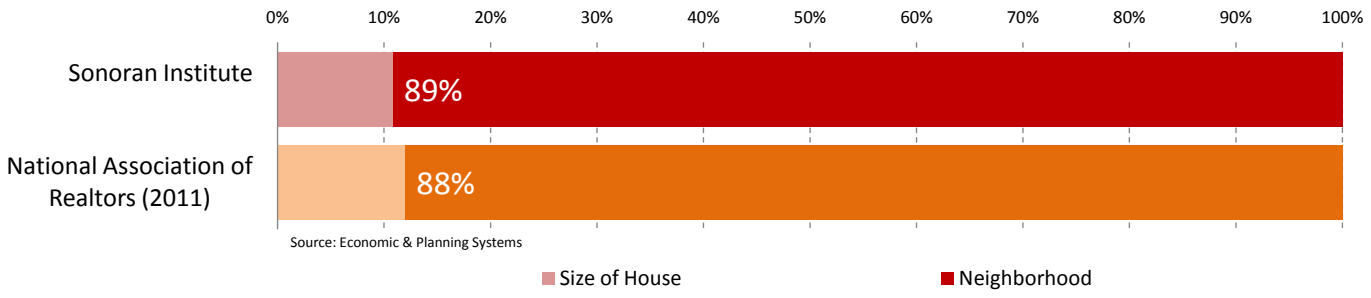



## Neighborhood character is more important than home size

The characteristics and quality of a neighborhood factor strongly into decisions about where to live. In both the National Association of Realtors survey and the Sonoran Institute survey, the quality or character of the neighborhood is a more important factor than the size of the home. In the National Association of Realtors 2011 survey, 88 percent of respondents indicated that they chose where to live based largely on a consideration of the neighborhood, and just 12 percent indicated they chose where to live largely based on the size of the house. The Sonoran Institute survey results are nearly identical (89 percent to 11 percent), as shown in Figure 5.2.

**Figure 5.2**
**Character of Neighborhood versus Size of Home**
**Sonoran Institute Housing Study**

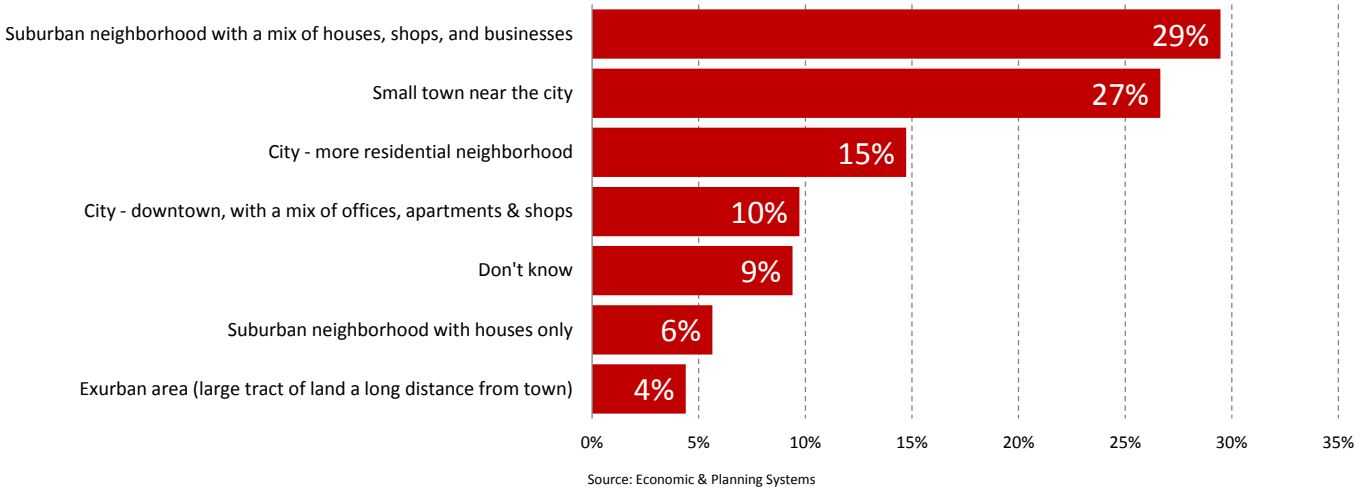
The chart below shows how people responded to the question: *Which is more important to you in deciding where to live, the size of a house or the neighborhood?*




## Most would prefer to live in a neighborhood featuring a mix of houses, shops, and businesses

The chart below shows preferences for the type of community people would prefer if life circumstances forced them to move to a larger city. The responses suggest that many people are looking for neighborhoods that offer a mix of uses, but in a setting that is also not heavily urbanized. Between two types of suburban neighborhoods, the clear preference is for those neighborhoods that incorporate a mix of houses, shops, and businesses (29 percent), over conventional suburban neighborhoods with houses only (6 percent). A large number of respondents (27 percent) would also choose to live in a small town near the city, rather than a suburban area or the city itself.

**Figure 5.3**
**Preference for Type of Community**
**Sonoran Institute Housing Study**

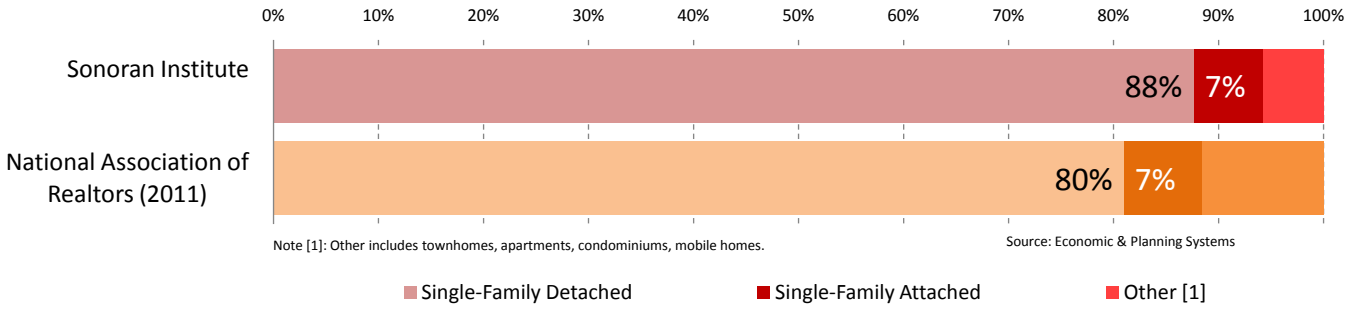



## People generally prefer detached single-family homes

The NAR survey results suggest that most Americans (80 percent) would prefer, all else being equal, to live in a single-family, detached home over other types of housing such as townhouses, condominiums, or apartments. A similar preference for detached single-family is seen in the Sonoran Institute survey, but to an even greater extent: 88 percent would prefer to live in a detached single-family home.

**Figure 5.4**
**Comparison of Preferences for Unit Types**
**Sonoran Institute Housing Study**

The chart below shows responses to the question: *If you could choose, in which of the following would you prefer to live? (Options included: single-family detached; single-family attached or townhouse; apartment or condominium; mobile home on owned land; caretaker unit on rented space; other.)*




Analyzing the survey results by age cohort, younger adults (under 35) are the most willing to live in attached product, followed by those over 55. Even in those age cohorts, preference for attached options is low. Households without children are more willing to consider attached product, but still have a preference for single-family homes. Households with children, particularly teenage children, are most interested in single-family detached housing. Generally, households in the middle of the age spectrum (35 to 54) with teenage children are the least willing to consider alternatives to the single-family home. However, people in the younger and older age cohorts (Gen Y and Baby Boomers) and households without children are the most likely to opt for attached housing. Given national demographic trends, and recognizing that the Baby Boomer and Gen Y cohorts are significantly larger than others, even small shifts in these groups will have larger impacts on the market and the product that gets built.

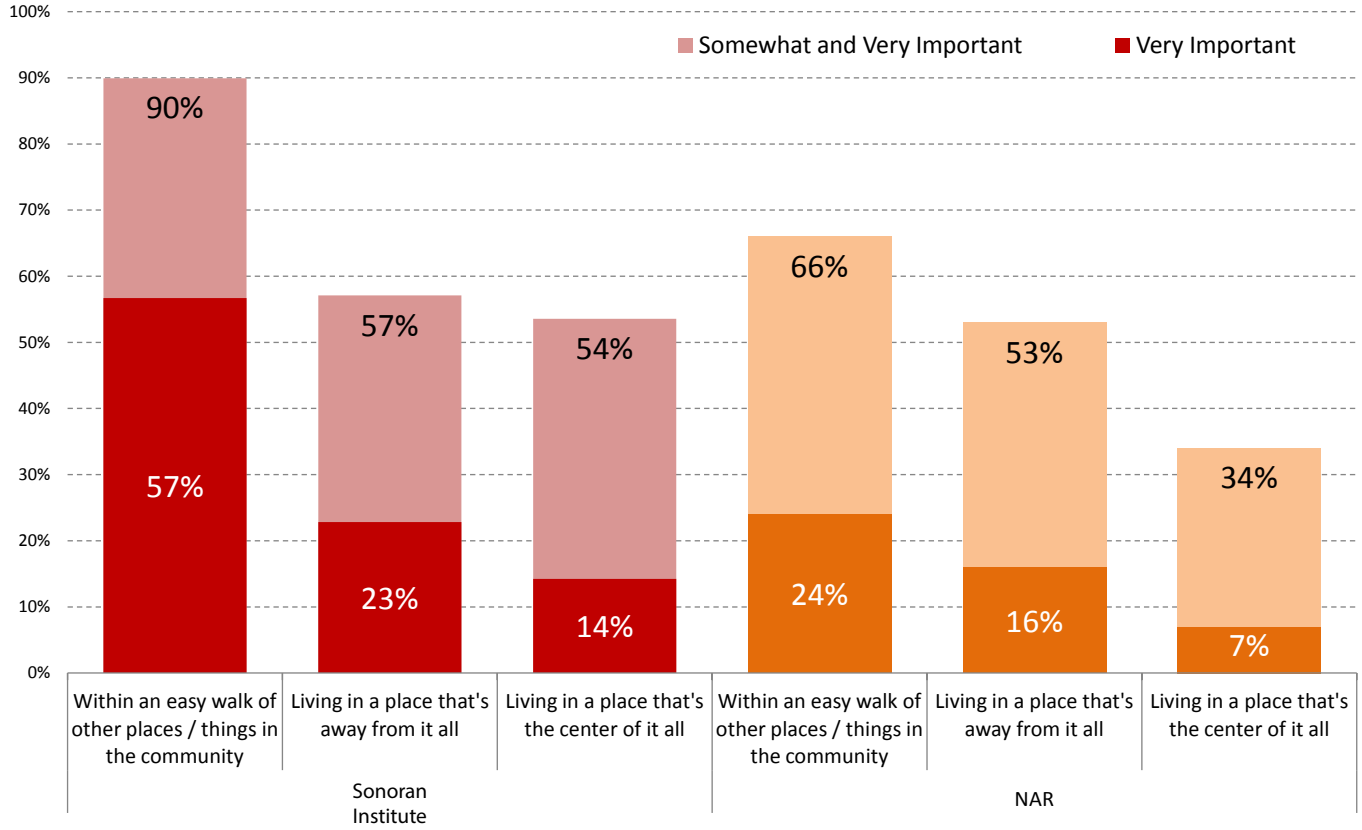
## People, especially in the Rocky Mountain West, seek neighborhoods with walkable destinations

There is growing market demand for walkability. This study found that residents in the Rocky Mountain West place a much higher priority on having places to walk than the national average.

Figure 5.5 below shows national responses along with Sonoran Institute results for questions about the places where people want to live. In both cases, the top preference is for a neighborhood within an easy walk of other places and things within the community. Ninety percent of the Sonoran Institute survey respondents felt this to be important or very important, compared to 66 percent of respondents nationally. Responses were nearly split on the question of living in a place that is "in the center of it all" or a place that is "away from it all," supporting the idea that a subset of the population is interested in more centrally located neighborhoods or existing downtowns, while another segment prefers living in more rural settings. Interestingly, some smaller communities in the Rocky Mountains offer both; people can live within or close to downtown while also living in a relatively rural setting.

Most people say that the quality of the neighborhood they live in is more important than the size of their home.

**Figure 5.5**
**Neighborhood Characteristics**
**Sonoran Institute Housing Study**




Source: Economic & Planning Systems

## People are willing to "trade" certain housing characteristics for walkability

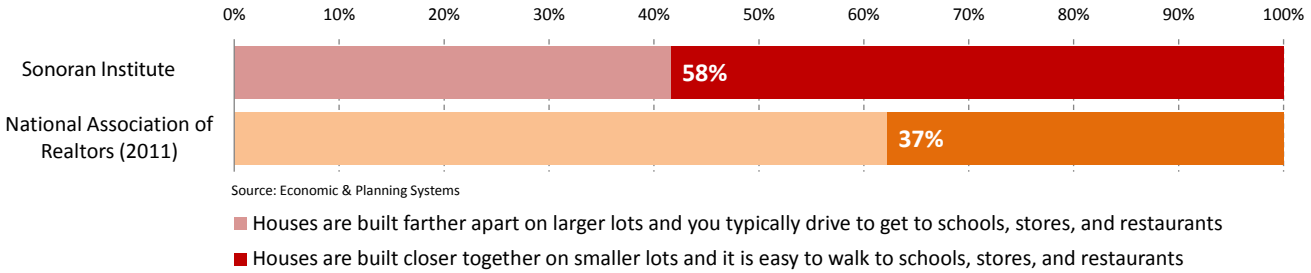
As the graphs below show, the survey employed several questions that forced respondents to assess the relative importance of different needs or values when it comes to deciding where to live. These "trade-off" questions mirrored those asked in the National Association of Realtors (NAR) survey. Results of the NAR study are shown for several of the questions below to allow for comparison with national trends.

### Trade-off #1 – A majority of people choose walkability to schools, stores, and restaurants over lot size

In Figure 5.6 below, the summary of the Sonoran Institute survey results shows that about 58 percent of residents would opt for a single-family home on a small lot within walking distance to schools, stores, and restaurants. This compares to 37 percent of respondents in the National Association of Realtors study that would choose the smaller lot. In the Sonoran Institute survey, respondents currently living in compact walkable development were more likely to make the trade-off for a smaller lot (63 percent) than those living in conventional development (37 percent).

Walkability is an increasingly important factor in people's housing choices.

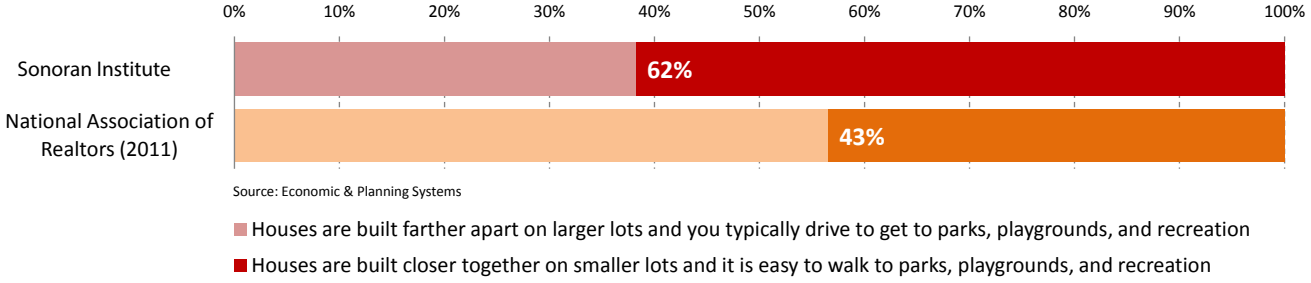
**Figure 5.6**
**Trade-offs: Lot Size v. Proximity to Schools, Stores, and Restaurants**
**Sonoran Institute Housing Study**




## Trade-off #2 – Most people choose being able to walk to trails, parks, playgrounds, and recreation over lot size

As shown below in Figure 5.7, most households (62 percent) would prefer to live in a neighborhood that is within walking distance to parks, playgrounds, and recreation – and will make the trade-off to live on smaller lots to have this option. This is a higher percentage than was seen in the NAR study. Many people live in the Rockies because of the access to recreation, which may explain the difference. During interviews with local brokers and developers, access to recreation and trails was consistently emphasized as a major driver of residential choice in Western communities. When results are broken down by neighborhood type, people living in compact walkable neighborhoods were more likely to make the trade-off than those living in conventional neighborhoods (69 percent and 50 percent respectively).

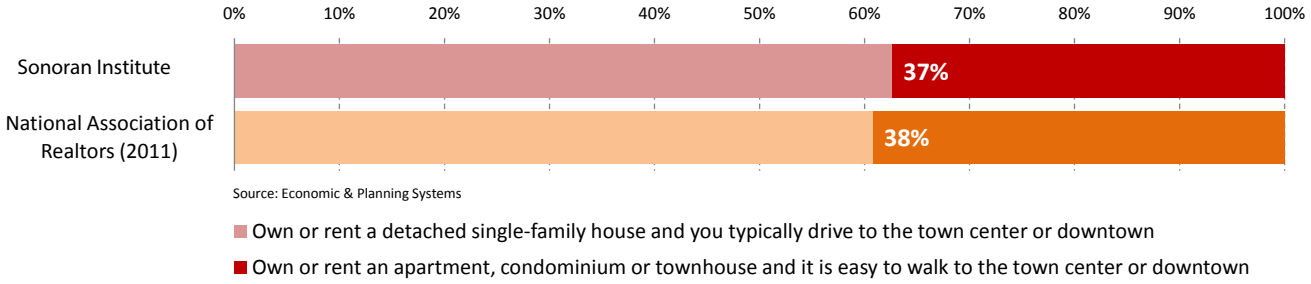
**Figure 5.7**
**Trade-offs: Parks, Playgrounds, and Recreation**
**Sonoran Institute Housing Study**




## Trade-off #3 – Attached housing is more attractive if it is within walking distance to a town center

We see in Figure 5.6 above that almost 60 percent of households overall will trade a large lot in favor of easy access to schools, stores, and recreation. People are less likely to make a similar trade-off when it comes to living in attached housing. As shown in Figure 5.8, 37 percent of respondents are willing to live in attached housing in order to live within walkable distance to a town center.

**Figure 5.8**
**Trade-offs: Attached Housing and Proximity to a Town Center**
**Sonoran Institute Housing Study**

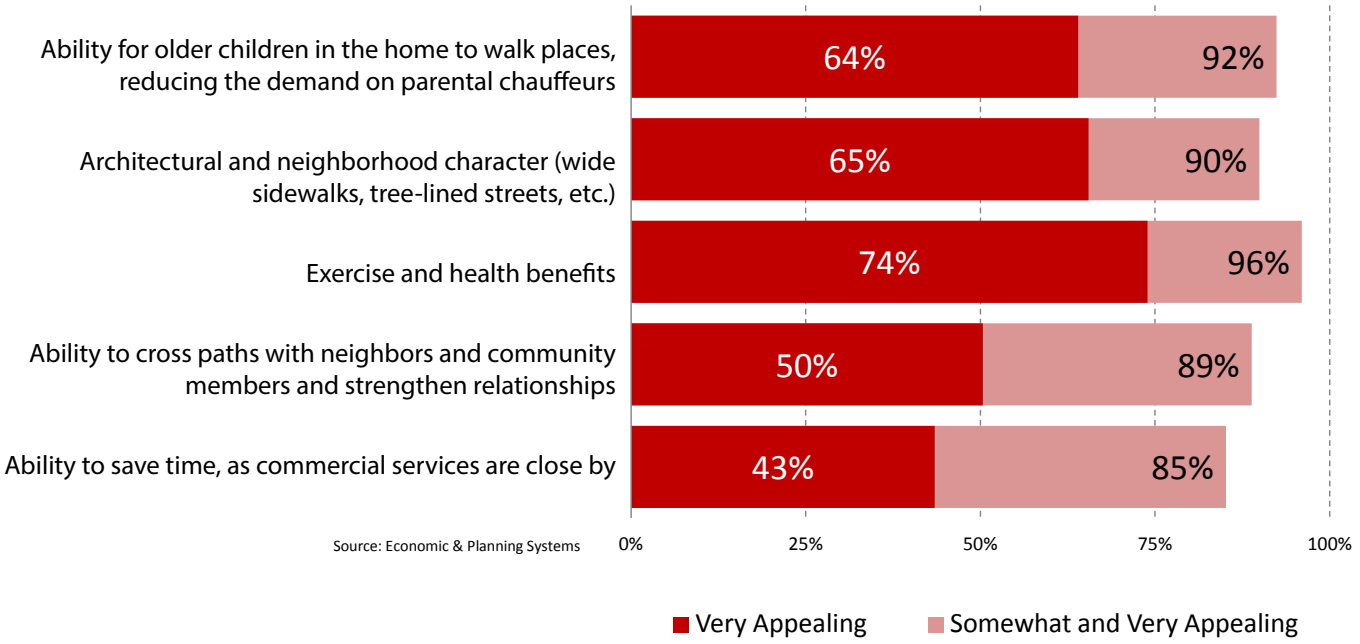



While the desire for single-family product is clear, it is important to note that, nationally, there has been resurgence of interest in living downtown and other core or centrally located neighborhoods. Other market studies indicate that Gen Y is particularly drawn to these areas. Convenience, cultural amenities, walkability, neighborhood vitality, and a feeling of being connected to the larger community are frequently cited as benefits associated with living in downtowns and other core areas. From a market perspective, while 37 percent is relatively low compared to other trade-off questions, it still represents a sizable number (nearly 40 percent) that would opt live in attached product in order to live near a town center. This result is in keeping with interview responses which also suggest that improving the design of attached product is an important step in improving their marketability.

## People find several characteristics of walkable neighborhoods appealing

The trade-off questions above indicate that the convenience of living within walking distance of various destinations – from stores and schools to trails and recreation – is appealing to many consumers, and many people prioritize that convenience over other considerations such as lot size or housing type. During interviews, realtors and developers offered a variety of other reasons why some buyers and renters are drawn to walkable neighborhoods. These reasons include aesthetic and lifestyle considerations ranging from neighborhood character to the opportunities for residents to exercise, save time, and connect with neighbors. Figure 5.9 shows the relative appeal of various benefits associated with walkable neighborhoods.

**Figure 5.9**
**Most Appealing Characteristics of Walkable Neighborhoods**
**Sonoran Institute Housing Study**



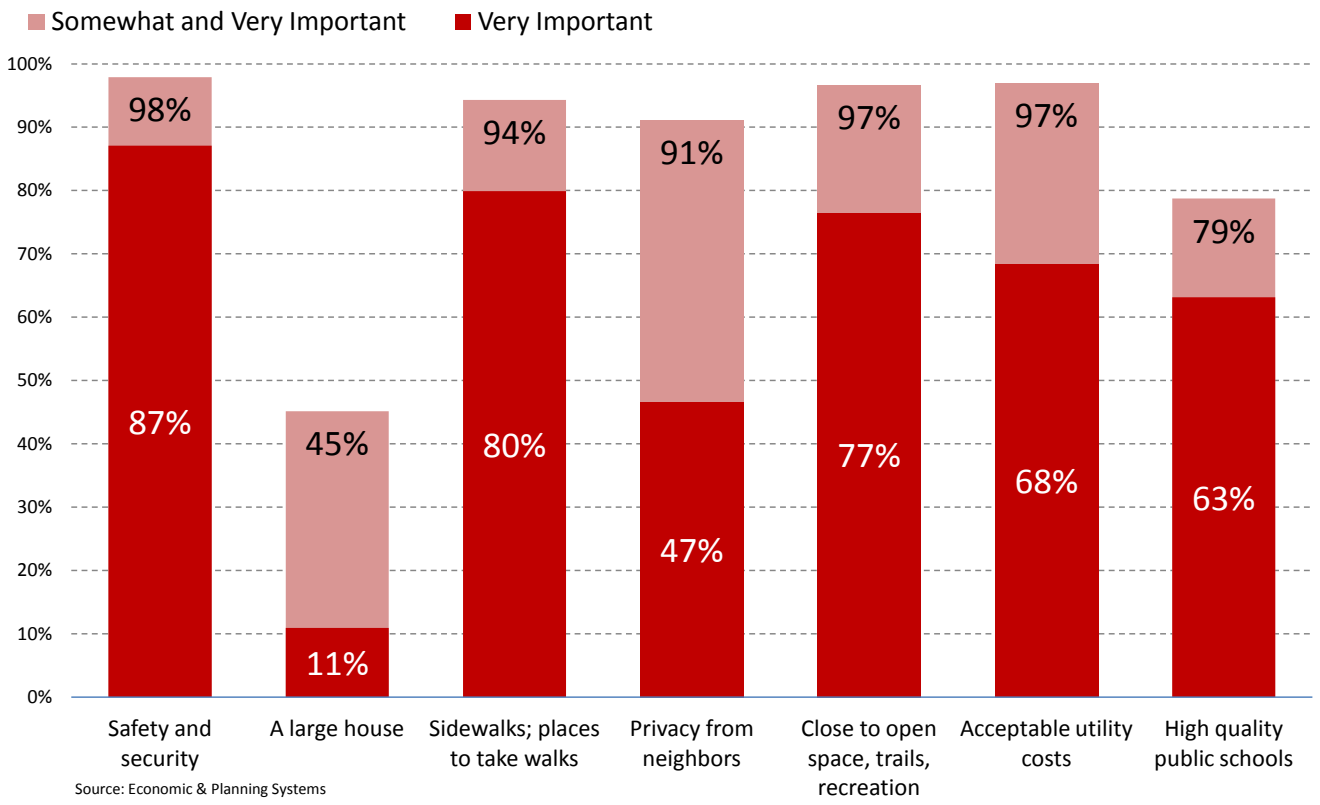
# What do we specifically want from our homes and neighborhoods?

This section of the survey analysis focuses on the qualities and benefits people want from their homes and neighborhoods. The survey was structured to measure the relative importance of different features and amenities. Additionally, several questions focus on how well people feel their current living situation meets their needs.

## Safety and security, affordable utility costs, and places to work are top priorities

Safety and security ranked at the top of a list of neighborhood qualities people considered important in their housing decisions. As seen in figure 5.10, 98 percent said this was important, with 87 percent indicating it was very important. Other top priorities were living in close proximity to open space, trails, and recreation; acceptable utility costs; and having sidewalks and places to walk.

**Figure 5.10**
**Most important characteristics of a neighborhood**
**Sonoran Institute Housing Study**



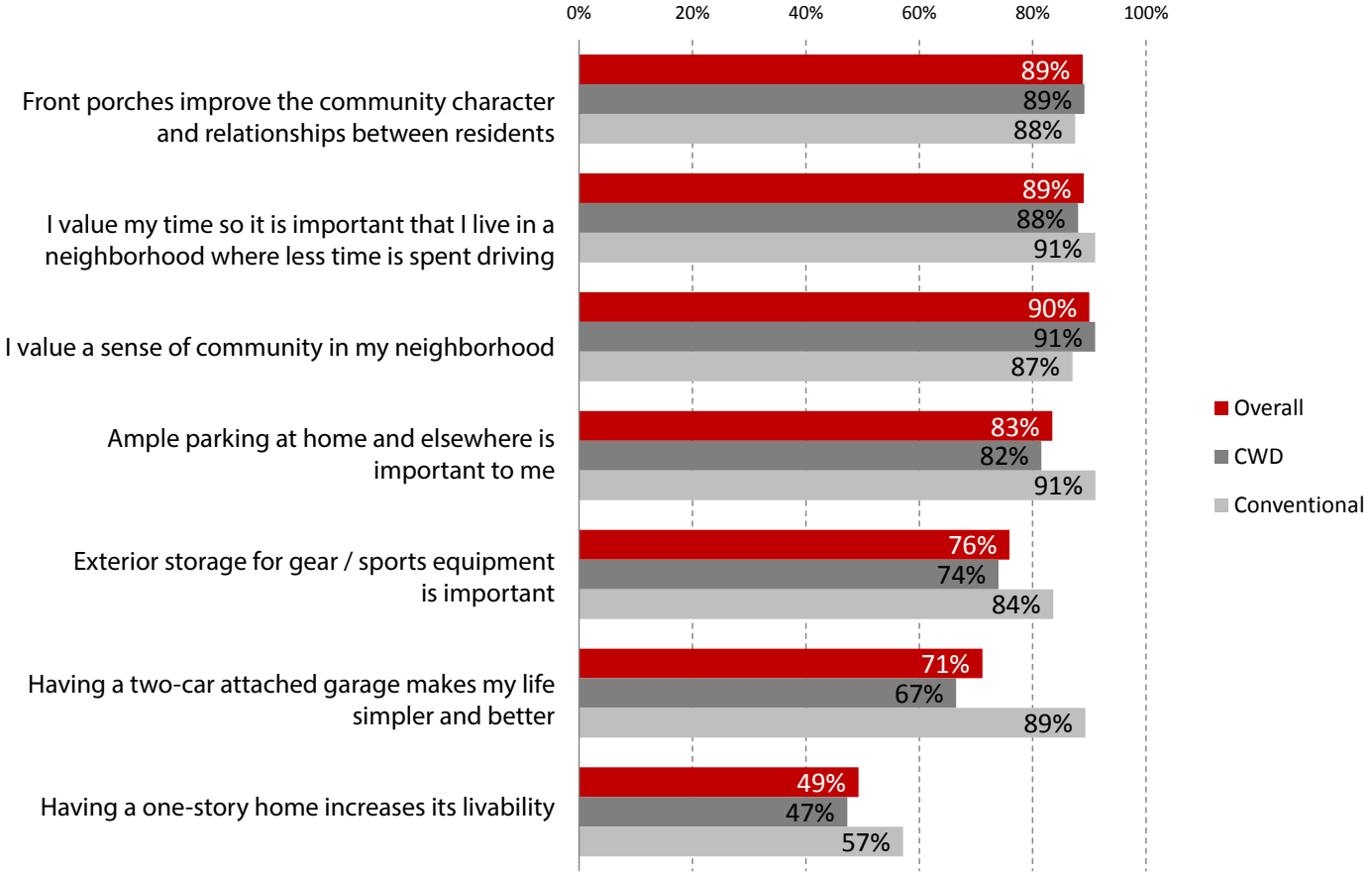
Source: Economic & Planning Systems

When analyzed by neighborhood type, the results show that residents of compact walkable neighborhoods place higher priority on access to outdoor recreation than people living in conventional suburban neighborhoods. Having a larger house was a higher priority for people living in conventional neighborhoods. Interest in privacy, safety and security, sidewalks and places to walk, acceptable utility costs, and high quality public schools was fairly similar for people living in both conventional and compact walkable neighborhoods.

## Sense of community, convenience, and parking are very important

Residents of both compact walkable developments and conventional neighborhoods value characteristics of a home and neighborhood that provide convenience and a sense of community. As shown in Figure 5.11 below, residents in both conventional and CWD neighborhoods indicate that a sense of community, less driving time, front porches, and ample parking are at the top of their list of priorities. Other features, such as exterior storage for gear and sports equipment, ranked high among both groups. Residents in compact walkable neighborhoods had a lower preference for an attached two-car garage (67 percent compared to 89 percent), while having a one-story home was generally unimportant to both groups.

**Figure 5.11**
**Priorities for Housing Features**
**Sonoran Institute Housing Study**

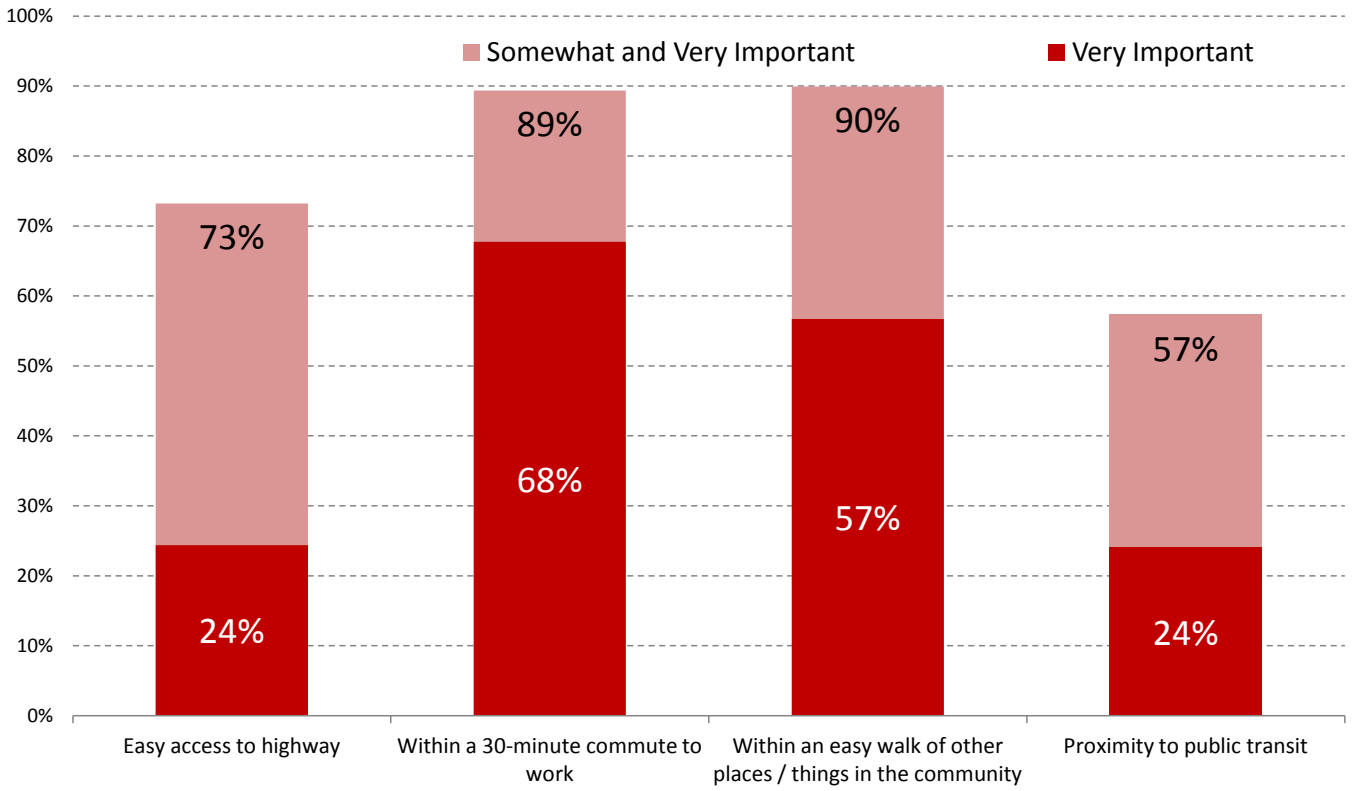



Source: Economic & Planning Systems

## People also want transportation options

Transportation factors affect most people's decisions about where to live. Figure 5.12 shows that 68 percent of respondents find that a 30-minute commute to work is "very important." As seen in the discussion above, walking is increasingly viewed as a viable mode of transportation. Living in an area where some trips can be made on foot is compelling to many residents. Other factors, such as easy access to the highway or proximity to transit are not as important, as just 24 percent of households find them "very important."

**Figure 5.12**
**Importance of Transportation Characteristics**
**Sonoran Institute Housing Study**




Source: Economic & Planning Systems

A shorter commute is important to residents in both conventional and compact walkable neighborhoods, with 87 percent and 88 respectively saying it was either somewhat or very important. However, it appears to be a higher priority for residents in compact walkable neighborhoods, as 71 percent of CWD respondents said a shorter commute was very important, compared to 57 percent in conventional neighborhoods.

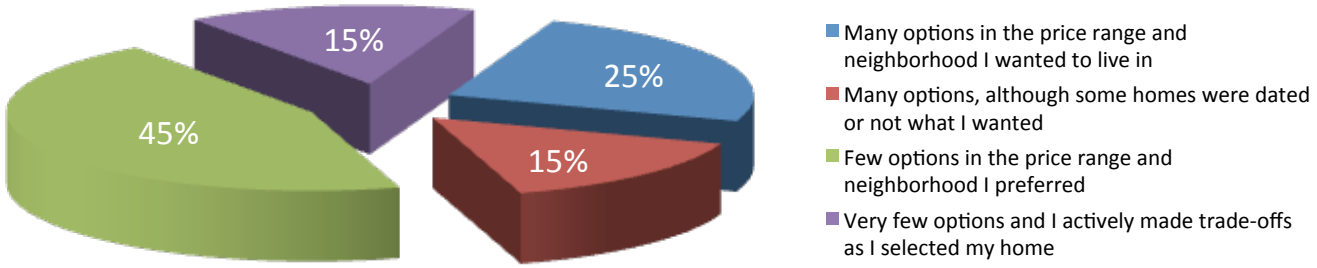
The mixed-use town center in Eagle Ranch Village in Eagle, Colorado, creates a sense of being "in the center of it all" for some residents, while also providing a destination within easy walking distance of the surrounding neighborhoods within the project.

## Housing choices are important, but often limited

The questions above reveal a number of different qualities consumers are seeking from their homes and neighborhoods. Whether existing housing stock provides those qualities – at price points people can afford – is another question. Figure 5.13 below shows that 45 percent of respondents found few options that met their needs in the price range and neighborhood they preferred, and another 15 percent had very few options and needed to make trade-offs related to price, neighborhood, or other factors. Combined, 60 percent of respondents felt they had few or very few options that reflected their needs and preferences. This finding lends weight to the importance of expanding the range of available housing types for both rental and ownership.

**Figure 5.13**
**Selection of Options When Choosing Current Home**
**Sonoran Institute Housing Study**

The chart below reflects responses to the question: *When you chose your current home, how broad a selection did you have to choose from?*




Source: Economic & Planning Systems

Many people want to live within close proximity to recreation. South Main in Buena Vista, CO, was designed to provide convenient access to outdoor recreation and amenities, as well as to create walkable neighborhoods within the project through thoughtfully planned streets, buildings, and landscaping.

# CHAPTER 6: FINDINGS & CONCLUSIONS

Expanding housing choices, including rental options, will help communities and developers tap into new segments of the market.

The purpose of this study is to improve understanding of the housing markets in the Rocky Mountain West in the wake of the Great Recession. It examines how markets are responding to economic, demographic, and consumer preference changes, and builds on national research exploring demand for compact walkable development. The study's findings underline the complexity of the region's real estate market and indicate that, as is seen nationally, a mix of factors is driving an increasingly segmented market in the Rocky Mountain West. Through a variety of research methods, the study finds that compact walkable projects or neighborhoods appeal to certain segments of the market and are capturing a portion of the available demand. This segment is willing to trade-off larger homes and larger lots for certain quality-of-life characteristics such as a shorter commute and the ability to walk to schools, businesses, or recreation areas. Looking ahead, it is expected that conventional development will continue to capture the majority of new development in most markets. However, changing demographics, economics, and household priorities suggest that development that is walkable and centrally located, and that offers a sense of place and is in close proximity to daily needs and recreation will play an increasingly important role in the future.

This chapter provides a summary of market trends; highlights the most successful elements contributing to market traction in the six communities; describes challenges found in compact walkable development; suggests concepts for local action; and proposes a future research agenda.

## Changing Market Trends

The largest factors influencing the development of compact walkable development include:

- **Demographic shifts** – Households are departing from traditional norms as household size drops and composition varies. Demand from Baby Boomer and Gen Y cohorts will accentuate the changing nature of the market. Together, these groups dominate the consumer market, accounting for 26.4 percent and 27.7 percent of the population, respectively. Many members of Gen Y will enter the housing market as new householders, while Baby Boomers look for housing products that differ from their current situations. Each will bring changing priorities and different resources, prompting suppliers to rethink the housing market.

- **Demand for walkability** – This term is sweeping through urban, rural, and mountain markets, becoming a driver for design concepts. Survey data show that 90 percent of all residents believe that walkability is "somewhat" or "very" important to them. It should be noted that walkability is about more than including sidewalks in a development. For this concept to work, a neighborhood must provide relevant destinations, ensure a high quality walking environment, and allow community members to interact more frequently.

- **Declining household income** – Average household income is falling for many Americans. Data show a decline of 1 percent per year from 2000 to 2011, for a net loss of 10 percent of household income. It is logical to conclude that households will seek ways to reduce expenditures on housing and transportation (as well as other categories), such as is facilitated by compact walkable development.

- **Strong rental market** – The recent influx in rental development seen nationwide is not an anomaly. Notwithstanding the pent up demand from low production rates over the past five years, the rental market is expected to expand relative to historic levels due to changes in secondary lending markets (i.e., the reorganized Fannie Mae, FHA, etc.), inconsistent returns for ownership investments, consumer preference for liquidity, and income limitations, among others. More rental options will be increasingly important.

- **Desire for a "sense of place"** – As the demographic and economic backdrop changes, some households will seek alternatives to conventional development. Survey research and interviews suggest that neighborhoods with a strong sense of place will out-sell others. But there is no simple equation that defines a successful sense of place. It is a unique combination of design, amenities, mixed uses, and walkability for which buyers and renters will often pay a premium.

- **Openness to making trade-offs** – Most consumers have a concept of their "ideal" home, and the list of what consumers are looking for is only growing. Recognizing that it is difficult to have it all, consumers are increasingly willing to make trade-offs in order to meet their priorities and stay within budget. A family may prefer the privacy of a large lot but decide that a smaller single-family home in an area that allows them to walk to certain destinations would better meet their needs. For example, 62 percent of survey respondents were willing to live in a home with a smaller lot if it meant being able to walk to parks, trails, and recreation. Similarly, 58 percent were willing to live on a smaller lot in order to be within walking distance of daily needs such as schools, stores, and restaurants. Indeed, walkability was among the most important factors in people's willingness to make trade-offs, which likely corresponds to a growing interest in convenience, healthy lifestyles, reducing commute times, and feeling connected to a community.

- **Convenience and Connectivity** – Many of the trade-offs consumers are willing to make are based on the desire for improved convenience and connectivity. Survey findings show that residents value shorter commutes, want to spend less time driving kids to their activities, and prefer shorter distances to commercial uses. They recognize that compact walkable neighborhoods achieve these objectives and will make the necessary trade-offs.

These trends contributed to price premiums for compact walkable development, along with the potential for growing market capture.

- **Premiums** – For developments that assemble the right combination of compact walkable attributes, developers can achieve 15 to 20 percent premiums per square foot above community averages. The data show that consumers recognize the value created by compact walkable environments and will pay for it. Before the recession, buyers paid an average of 18.5 percent more for compact walkable product. After the recession, although buyers paid less per square foot for all product, compact walkable still commanded a premium of 12.5 percent above community-wide averages.

- **Capture Rate** – For the six markets studied, compact walkable communities captured from 10 to 50 percent of a given market, with a weighted average of 16.3 percent for the six communities evaluated. Based on interviews and an evaluation of the specific market performance represented across this continuum, 15 to 25 percent capture is a realistic figure for the near term. Several factors, including the emergence of Gen Y into the housing market, the continued retirement of Baby Boomers, and a rising demand for rental, may increase this figure in the future. Compact walkable developments may become more visible as new projects are completed, and consumers may prefer the concept more than expected. Also, as developers gain experience, they will likely innovate and provide a more affordable, attractive product. Lastly, as compact walkable neighborhoods build out, they tend to be more attractive because they offer more amenities and a greater mix of uses, compared to conventional development, which tends to become less attractive as more homes are built and open spaces lost.

# Learning from Successful Projects

The projects evaluated for the study offer many examples of strong elements that contribute to high market capture. These include physical elements (site planning and urban design) as well as local socio-economic factors.

- **Commercial node/point of focus** – Vibrant retail creates a destination within compact walkable development. It creates a point of focus for the neighborhood. It provides opportunities for local residents to interact, reinforcing the concept of engagement evaluated in this study. Harris Ranch in Boise, ID, provides an example of a small-scale retail center with a very successful brew pub and pizza restaurant. It creates vibrancy and focus. Eagle Ranch in Eagle, CO, with its more extensive town center, has successfully created an identity for the overall development. These commercial nodes are not without their challenges. Town centers like Eagle Ranch may be removed from major arterials and therefore lack the high traffic counts associated with conventional retail. But, for those with even modest success, the contributions of the retail amenity to the larger neighborhoods are substantial and are noticeably absent in projects that do not have them.

- **Walkability** – Walkability is the product of well-designed physical infrastructure and desirable destinations. This concept has been executed nicely in nearly all of the projects studied. Examples include Valley West in Bozeman, MT, with fully integrated detached sidewalks as well as walking paths along a central creek and open space corridor. Eagle Ranch, in Eagle, CO, includes extensive walkways, linking the small-lot single-family homes to the town center as well as providing extensive running paths through the project's open space. Walkability has been prioritized in the South Main project in Buena Vista, CO, as well, including the development of a form-based code with new street guidelines that address internal connectivity, parking, reduced street widths, and other design considerations to create a walkable environment.

- **Sense of Place** – High quality urban design often contributes to a sense of place and neighborhood identity. A project that has created a strong sense of a differentiated neighborhood is South Main in Buena Vista, CO. The attention to detail, consistent architectural elements, and the integration of a central park, commercial node, and river frontage sets the community apart from all others in the region.

- **Core Areas** – A city's urban core often provides all the elements of compact walkable development. The markets value them, as the value of these areas has proven most resilient in volatile economic conditions. In Bozeman's core, for example, numerous infill projects took advantage of a walkable, amenity-laden downtown commercial core. Residents benefit from the immediate sense of place, connectivity, and convenience, and they recognize the cost-savings associated with living in an environment where many destinations are within walking distance, saving on transportation costs. Looking at the differentials using market data over the past 10 years, Bozeman's conventional product gained 11 percent in value (similar to its compact walkable neighborhoods on the periphery). The core areas, however, doubled their appreciation with a 22 percent increase.

- **Access to recreation** – The Harris Ranch project in Boise, ID, currently under development, offers access to the Boise River as well as access to BLM land opposite the river. Designers sought ways to create visual and physical linkages to both natural assets, and the neighborhood design reflects the orientation. Mountainside Village in Teton County, ID, also provides trail access to BLM land, and plans call for linking central boulevards to the natural amenities. Both projects have highlighted these amenities in branding and marketing materials. Other projects, such as South Main in Buena Vista, which incorporated trails, whitewater parks, and climbing boulders into the project, have packaged similar recreational amenities. Indeed, the compact walkable communities that have achieved the highest capture rates and premiums are those with a bundled amenity package that caters to the outdoors and recreation.

- **Diversity of housing product** – Valley West in Bozeman, MT, has incorporated a diverse housing inventory, with a broader range of sizes, unit types, and price ranges than any other development considered in the study. This includes both large and small single-family homes, townhomes, duplexes,

and condos. This diversity of product, particularly in softening market conditions, may have worked against its market receptivity and resulted in slower sales. However, the design is both creative and thoughtful and has achieved a mix of units not found in other projects.

- **Expanding local economy** – Clearly, a strong local economy will benefit all projects in a given region. Not surprisingly, the correlation between real estate project success and job growth is strong. It is noteworthy that two projects have been developed in communities where economies are not expanding (Teton Valley, ID, and Buena Vista, CO). In the case of the Buena Vista market, the developer has been able to generate demand for the compact walkable project due to the proximity to the outdoor recreation opportunities and the ability to draw the visitation market to the project.

- **Symbiotic benefits of placemaking and economic development** – Traditional economic development theory states that population follows employment opportunity. However, recent trends suggest that jobs follow qualified labor. Locations that attract highly skilled labor are those communities with high quality of life. Much of the research conducted to date has focused on major cities and the correlation between economic investment by private sector employers and the concentration of educated employees. Given this link, worker flow to smaller communities in the Rocky Mountain West warrants analysis.

- **Not too wealthy** – Compact walkable development seems to have the greatest market support in communities with median household incomes that are not at either extreme. For example, communities where the portion of households deriving their income from investments is substantially higher than the regional average are generally not conducive to compact walkable neighborhoods. Similarly, counties in which the percentage of second homes is higher than statewide averages do not foster strong market support. Both are generally recognized as indications of wealth. Alternatively, communities with a good mix of proprietors and wage & salary employment positions result in a good context for these types of development. Looking forward, there is a need and opportunity to create compact walkable development that meets a wider spectrum of consumers.

- **Regional density and constrained land supply** – One of the strongest correlations found in the evaluation of the regional context is the link between overall regional density and market support for compact walkable development. Higher existing densities and a constrained land supply directly benefit the market performance of compact walkable development, including in Carbondale, CO, where community leaders have developed comprehensive land use plans with a growth boundary. While Eagle, CO, is less regulated, the land supply available for development has been shrinking in the county as Eagle Ranch has been built out, increasing market pressure over time.

# Opportunities

## Overcoming initial resistance to compact walkable development

Consumers often have mixed reactions when they first encounter compact walkable development. They may express concerns about the size of the home, the size of the lot, privacy, or a lack of parking. Most developers find that overcoming initial resistance requires a compelling set of amenities. However, once households make the transition into a compact walkable development, they find the initial design elements that were problematic provide new ways of living that increase quality of life and raise satisfaction levels.

## Creating affordable single-family products

In light of larger trends in the housing industry and in national demographics (i.e., declining wage levels and household incomes), there is growing market demand for lower priced product. Gen Y's prospective renters and buyers, in particular, are looking for value; conventional development faces a substantial challenge to provide small-lot development and still create livable communities. The need to find new ways to provide affordable single-family home product will increase given larger industry trends that show that buyers and renters place high priorities on living in "places," not just subdivisions. Thus it is expected that the market will recognize the quality of the neighborhood and the amenities available in compact walkable developments, particularly for entry-level single-family product.

### Incorporating rental options

The projects evaluated in this study did not include any rental apartments. The only identified rental opportunities were accessory dwelling units or investor-owned units. Generally, it appears that renters have fewer opportunities than owners in compact walkable developments in the Rocky Mountain West. Some of the existing town centers in the region, however, do have some existing rental products. Moving forward, as the rental demand exceeds levels from the recent past, new compact walkable neighborhoods will need to increase the mix of tenure to respond to the market.

### Reducing combined housing and transportation costs

While compact walkable development tends to command a price premium, these products are often associated with other cost savings. In a standard housing analysis, affordability is defined as a percentage of a household's income going toward housing costs (typically 30 percent). But a recent evolution in the thinking on housing affordability has incorporated another major expenditure into the equation: transportation costs. Factoring in the additional transportation costs associated with living in a location far from amenities, employment, and other desired destinations, often shows that living in compact walkable development is comparable, or less costly, than conventional alternatives.

## Informing Local Planning and Policy

Local communities that anticipate changing economic and demographic trends will be better prepared to respond effectively. The research findings are intended to broaden the dialogue among community leaders, elected and appointed officials, developers, and households looking to shape their future neighborhoods. Some of the ideas captured in the research fall in the purview of land developers and their teams. Others, however, are most relevant to local planners and policymakers:

### Elevate opportunities for infill

- Infill achieves the best of all possible compact walkable outcomes, as it increases density within existing areas of a community, providing many of the compact walkable elements the market seeks, and in most cases, provides more of these elements than projects located on the periphery of a community.
- For a variety of reasons – from spatial constraints to zoning or push-back from neighbors – infill and redevelopment are typically more difficult to build than greenfield projects, which start with a blank slate of open land. However, several resources are available on reforming local codes to enable and encourage infill and redevelopment. Additionally, district-level or neighborhood-level planning is proving to be an effective way to make infill and redevelopment more feasible by tying together design considerations with strategic infrastructure investments.

### Expand housing options

- Recognize the demand for compact walkable neighborhoods and develop consensus among community members, land owners, and developers that certain portions of future growth areas be designated for these types of neighborhoods.
- Seek to recreate the feel of core areas (i.e., the walkability and vitality of downtowns and main streets) through targeted investments in infrastructure and amenities in areas poised for redevelopment. This approach can be particularly effective in redevelopment of commercial corridors, where strategic investment such as improved sidewalks or utilities can help transform aging commercial strips into more active, walkable mixed-use districts.
- Plan for and enable a mix of housing types and sizes for both rental and ownership. In many areas, this may mean addressing barriers in the zoning code, particularly to facilitate infill housing in established areas that fits in with the surrounding neighborhood. Allow parking reductions for compact walkable neighborhoods that are located in close proximity to services, recreation, and other amenities.
- Consider reducing minimum lot size requirements for single-family detached housing.
- Allow accessory dwelling units by right in single-family zones.

### Develop guidelines for walkable commercial nodes

- Develop site plan guidelines and urban design guidelines that allow these nodes to be walkable, with pedestrian connectivity to surrounding neighborhoods.
- Allow parking reductions or shared parking for commercial centers that are well connected by transit, by bike, and on foot.

### Create well-designed and connected sidewalk networks

- Identify critical missing links in the pedestrian network, and add new connections to ensure the ability of residents to walk safely.
- Implement locally adopted design guidelines for sidewalks, street trees, street furniture, lighting, etc.

### Invest strategically in infrastructure to set the table for quality development

- Communities should identify the type of development they want, and gear infrastructure investments toward enabling that type of development in desired locations.
- Seek to invest in public infrastructure for developments that are designed efficiently for compact development, and for those that are positioned to benefit the most from existing infrastructure systems.
- Avoid investments in infrastructure that can cripple the opportunity to create compact walkable projects. Creating streets that serve multiple modes of transportation is particularly important. A walkable project that is surrounded by unwalkable streets is stranded and less likely to succeed.

# A Future Research Agenda

The research completed for this project has generated a series of topics and questions for future analysis:

- Trends related to market capture. How will capture rates change over time? Will capture rates increase over time, as residents of compact walkable communities share their insights in the marketplace? Or will compact walkable development maintain its current market position, without significant change over time, given the historic preference for conventional development?
- The relationship between the market performance of compact walkable communities and the larger regional land supply. This study found a relatively strong correlation between market support and overall population density. Taking this another step would require a detailed inventory of vacant land by development status (comprehensive plan designation, trunk infrastructure availability, parcel size and ownership breakdown, etc.). The data could be used to test whether pressure on the land inventory increases demand for compact walkable development.
- The combined housing and transportation costs of residents of compact walkable developments. As more developments are completed in the Rocky Mountain West, further research is possible into the shares of income spent on housing and transportation costs. Are residents of compact walkable neighborhoods spending less on combined costs?
- There is a premise that places with a high quality of life attract well-educated workers, and thus jobs. The Rocky Mountain West boasts livable cities and unbeatable access to recreation. How do these factors contribute to the region's economic development? What are the most important factors? How important are walkable neighborhoods to this equation and do they attract a capable, dynamic workforce that, in turn, expands the local economy?

# APPENDIX A: SUPPORTING MATERIAL

## Community Profiles

The following tables contain data used to inform the community profile narratives. Each table contains three sets of figures: a state factor, local factor, and a percentage representing the degree that the local factor is above or below the state factor. The percentage figures were graphed with capture rates and premiums to estimate correlation coefficients in the analysis found in Appendix B.

**Table A1**
**Bozeman Socio-Economic Variable**
**Sonoran Institute Housing Study**

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $56,886 | $66,130 | 16.3% |
| Median Household Income | $43,872 | $50,136 | 14.3% |
| Households at $150K to $200K | 2.3% | 3.4% | 44.3% |
| **Household Size** | | | |
| Average Household Size | 2.35 | 2.36 | 0.4% |
| Portion Vacant HUs (Seasonal Use) | 7.4% | 5.4% | -27.2% |
| Portion Occupied HU.s | 85.1% | 88.4% | 3.9% |
| **Household Type** | | | |
| Non-Family Households | 37.2% | 41.8% | 12.3% |
| Adults Living Alone | 29.7% | 33.5% | 12.8% |
| Family Households | 62.8% | 58.2% | -7.3% |
| Families with Children Under 18 | 28.0% | 21.0% | -25.0% |
| Single-Mothers with Children Under 18 | 22.3% | 22.4% | 0.7% |
| Single Parent with Children Under 18 as % of Family HHs | 25.2% | 50.5% | 100.4% |
| Single Parent as % of Total HHs | 7.0% | 10.6% | 50.4% |
| **Income Derived from Investment** | 21.3% | 24.3% | 14.1% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 48.0% | 50.8% | 5.8% |
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 72.6% | 80.4% | 10.7% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 91.0% | 96.0% | 5.5% |
| Achieved at least Bachelor Degree | 24.3% | 51.1% | 110.3% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $37,506 | $36,094 | -3.8% |
| Average Annual Wage - W & S | $34,596 | $33,250 | -3.9% |
| W&S Jobs as % of Total | 73.2% | 73.0% | -0.4% |
| Proprietors Jobs as % of Total | 26.8% | 27.0% | 1.0% |
| **Population** | | | |
| Baby Boomers | 29.2% | 16.7% | -42.8% |
| 29 to 45 year old growth rate | -1.2% | 3.8% | -410.5% |
| 46 to 64 year old growth rate | 2.7% | 4.6% | 67.9% |
| Portion 29 to 45 years old | 17.4% | 19.1% | 10.2% |
| Portion 46 to 64 years old | 29.2% | 16.7% | -42.8% |
| Persons per Square Mile | 6.8 | 34.4 | 405.9% |

Source: Economic & Planning Systems

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**Table A2**
**Boise Socio-Economic Variable**
**Sonoran Institute Housing Study**

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $59,460 | $72,123 | 21.3% |
| Median Household Income | $46,423 | $55,835 | 20.3% |
| Households at $150K to $200K | 2.5% | 4.4% | 73.4% |
| **Household Size** | | | |
| Average Household Size | 2.66 | 2.58 | -3.0% |
| Portion Vacant HUs (Seasonal Use) | 5.6% | 0.6% | -90.1% |
| Portion Occupied HU.s | 87.4% | 93.5% | 6.9% |
| **Household Type** | | | |
| Non-Family Households | 30.4% | 33.1% | 8.9% |
| Adults Living Alone | 23.8% | 30.6% | 28.6% |
| Family Households | 69.6% | 66.9% | -3.9% |
| Families with Children Under 18 | 35.1% | 29.1% | -17.1% |
| Single-Mothers with Children Under 18 | 19.1% | 23.6% | 23.7% |
| Single Parent with Children Under 18 as % of Family HHs | 21.1% | 50.9% | 141.1% |
| Single Parent as % of Total HHs | 7.4% | 14.8% | 100.0% |
| **Income Derived from Investment** | 17.8% | 16.9% | -4.7% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 37.2% | 46.9% | 26.2% |
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 74.3% | 79.0% | 6.3% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 88.2% | 92.9% | 5.3% |
| Achieved at least Bachelor Degree | 27.9% | 37.3% | 33.7% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $39,632 | $47,751 | 20.5% |
| Average Annual Wage - W & S | $34,900 | $39,816 | 14.1% |
| W&S Jobs as % of Total | 76.0% | 80.5% | 5.9% |
| Proprietors Jobs as % of Total | 24.0% | 19.5% | -18.8% |
| **Population** | | | |
| Baby Boomers | 24.8% | 26.1% | 5.4% |
| 29 to 45 year old growth rate | 0.6% | -0.6% | -207.1% |
| 46 to 64 year old growth rate | 3.4% | 3.5% | 1.0% |
| Portion 29 to 45 years old | 18.7% | 20.3% | 8.2% |
| Portion 46 to 64 years old | 24.8% | 26.1% | 5.4% |
| Persons per Square Mile | 19 | 372.8 | 1862.1% |

Source: Economic & Planning Systems

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## Table A3
## Teton Valley Socio-Economic Variable
## Sonoran Institute Housing Study

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $59,460 | $61,276 | 3.1% |
| Median Household Income | $46,423 | $53,364 | 15.0% |
| Households at $150K to $200K | 2.5% | 2.9% | 15.3% |
| **Household Size** | | | |
| Average Household Size | 2.66 | 2.78 | 4.5% |
| Portion Vacant HUs (Seasonal Use) | 5.6% | 12.1% | 116.9% |
| Portion Occupied HU.s | 87.4% | 76.1% | -12.9% |
| **Household Type** | | | |
| Non-Family Households | 30.4% | 31.3% | 2.8% |
| Adults Living Alone | 23.8% | 21.9% | -7.9% |
| Family Households | 69.6% | 68.7% | -1.2% |
| Families with Children Under 18 | 35.1% | 38.8% | 10.4% |
| Single-Mothers with Children Under 18 | 19.1% | 11.4% | -40.1% |
| Single Parent with Children Under 18 as % of Family HHs | 21.1% | 14.8% | -30.0% |
| Single Parent as % of Total HHs | 7.4% | 5.7% | -22.8% |
| **Income Derived from Investment** | 17.8% | 21.6% | 21.6% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 37.2% | 50.7% | 36.4% |

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 74.3% | 85.7% | 15.3% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 88.2% | 89.0% | 0.9% |
| Achieved at least Bachelor Degree | 27.9% | 31.6% | 13.3% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $39,632 | $29,802 | -24.8% |
| Average Annual Wage - W & S | $34,900 | $30,686 | -12.1% |
| W&S Jobs as % of Total | 76.0% | 66.5% | -12.4% |
| Proprietors Jobs as % of Total | 24.0% | 33.5% | 39.4% |
| **Population** | | | |
| Baby Boomers | 24.8% | 22.8% | -8.2% |
| 29 to 45 year old growth rate | 0.6% | 5.8% | 889.1% |
| 46 to 64 year old growth rate | 3.4% | 7.4% | 116.0% |
| Portion 29 to 45 years old | 18.7% | 26.8% | 42.9% |
| Portion 46 to 64 years old | 24.8% | 22.8% | -8.2% |
| Persons per Square Mile | 19 | 22.6 | 18.9% |

Source: Economic & Planning Systems

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## Table A4
## Eagle Socio-Economic Variable
## Sonoran Institute Housing Study

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $75,264 | $96,523 | 28.2% |
| Median Household Income | $56,456 | $71,337 | 26.4% |
| Households at $150K to $200K | 5.0% | 6.1% | 21.3% |
| **Household Size** | | | |
| Average Household Size | 2.49 | 2.71 | 8.8% |
| Portion Vacant HUs (Seasonal Use) | 4.8% | 34.7% | 627.5% |
| Portion Occupied HU.s | 88.2% | 60.4% | -31.5% |
| **Household Type** | | | |
| Non-Family Households | 36.1% | 37.7% | 4.5% |
| Adults Living Alone | 27.9% | 16.3% | -41.6% |
| Family Households | 63.9% | 62.3% | -2.5% |
| Families with Children Under 18 | 32.3% | 49.1% | 52.0% |
| Single-Mothers with Children Under 18 | 21.2% | 11.2% | -47.3% |
| Single Parent with Children Under 18 as % of Family HHs | 22.7% | 22.1% | -2.5% |
| Single Parent as % of Total HHs | 7.3% | 10.9% | 48.2% |
| **Income Derived from Investment** | 18.0% | 25.2% | 40.2% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 62.6% | 67.8% | 8.4% |

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 78.3% | 87.1% | 11.3% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 89.3% | 87.2% | -2.4% |
| Achieved at least Bachelor Degree | 35.9% | 40.8% | 13.6% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $51,498 | $45,279 | -12.1% |
| Average Annual Wage - W & S | $47,441 | $39,377 | -17.0% |
| W&S Jobs as % of Total | 77.5% | 74.9% | -3.3% |
| Proprietors Jobs as % of Total | 22.5% | 25.1% | 11.3% |
| **Population** | | | |
| Baby Boomers | 26.7% | 22.7% | -15.0% |
| 29 to 45 year old growth rate | -0.1% | 6.9% | -4791.1% |
| 46 to 64 year old growth rate | 3.5% | 10.7% | 209.9% |
| Portion 29 to 45 years old | 20.9% | 29.6% | 41.5% |
| Portion 46 to 64 years old | 26.7% | 22.7% | -15.0% |
| Persons per Square Mile | 48.5 | 31 | -36.1% |

Source: Economic & Planning Systems

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**Table A5**
**Buena Vista Socio-Economic Variable**
**Sonoran Institute Housing Study**

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $75,264 | $58,150 | -22.7% |
| Median Household Income | $56,456 | $42,941 | -23.9% |
| Households at $150K to $200K | 5.0% | 2.6% | -48.6% |
| **Household Size** | | | |
| Average Household Size | 2.49 | 2.15 | -13.7% |
| Portion Vacant HUs (Seasonal Use) | 4.8% | 16.9% | 255.1% |
| Portion Occupied HU.s | 88.2% | 75.1% | -14.8% |
| **Household Type** | | | |
| Non-Family Households | 36.1% | 36.3% | 0.6% |
| Adults Living Alone | 27.9% | 31.9% | 14.3% |
| Family Households | 63.9% | 63.7% | -0.3% |
| Families with Children Under 18 | 32.3% | 25.5% | -20.9% |
| Single-Mothers with Children Under 18 | 21.2% | 19.7% | -7.4% |
| Single Parent with Children Under 18 as % of Family HHs | 22.7% | 41.0% | 80.7% |
| Single Parent as % of Total HHs | 7.3% | 10.5% | 42.9% |
| **Income Derived from Investment** | 18.0% | 32.5% | 80.6% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 62.6% | 58.2% | -7.0% |

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 78.3% | 64.4% | -17.7% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 89.3% | 90.8% | 1.7% |
| Achieved at least Bachelor Degree | 35.9% | 23.5% | -34.5% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $51,498 | $28,307 | -45.0% |
| Average Annual Wage - W & S | $47,441 | $28,445 | -40.0% |
| W&S Jobs as % of Total | 77.5% | 66.8% | -13.7% |
| Proprietors Jobs as % of Total | 22.5% | 33.2% | 47.2% |
| **Population** | | | |
| Baby Boomers | 26.7% | 31.1% | 16.9% |
| 29 to 45 year old growth rate | -0.1% | -0.6% | 295.7% |
| 46 to 64 year old growth rate | 3.5% | 2.9% | -15.2% |
| Portion 29 to 45 years old | 20.9% | 17.2% | -17.9% |
| Portion 46 to 64 years old | 26.7% | 31.1% | 16.9% |
| Persons per Square Mile | 48.5 | 17.6 | -63.7% |

Source: Economic & Planning Systems

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**Table A6**
**Carbondale Socio-Economic Variable**
**Sonoran Institute Housing Study**

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Household Income** | | | |
| Average Household Income | $75,264 | $76,381 | 1.5% |
| Median Household Income | $56,456 | $64,902 | 15.0% |
| Households at $150K to $200K | 5.0% | 4.0% | -21.3% |
| **Household Size** | | | |
| Average Household Size | 2.49 | 2.73 | 9.6% |
| Portion Vacant HUs (Seasonal Use) | 4.8% | 5.3% | 10.3% |
| Portion Occupied HU.s | 88.2% | 88.6% | 0.5% |
| **Household Type** | | | |
| Non-Family Households | 36.1% | 30.3% | -15.9% |
| Adults Living Alone | 27.9% | 24.6% | -11.8% |
| Family Households | 63.9% | 69.7% | 9.0% |
| Families with Children Under 18 | 32.3% | 36.7% | 13.8% |
| Single-Mothers with Children Under 18 | 21.2% | 18.9% | -11.2% |
| Single Parent with Children Under 18 as % of Family HHs | 22.7% | 37.7% | 66.3% |
| Single Parent as % of Total HHs | 7.3% | 13.9% | 89.2% |
| **Income Derived from Investment** | 18.0% | 20.2% | 12.7% |
| **Political Views** | | | |
| Percent Democrat / Unaffiliated | 62.6% | 62.3% | -0.5% |

| | State Factor | Local Factor | % Above / Below State |
|---|---|---|---|
| **Average Age of Head of Householder** | | | |
| Laborforce Age (16 to 65) | 78.3% | 83.0% | 6.1% |
| **Educational Attainment** | | | |
| Achieved at least High School Diploma | 89.3% | 85.6% | -4.1% |
| Achieved at least Bachelor Degree | 35.9% | 40.3% | 12.3% |
| **Employment** | | | |
| Average Annual Wage - All Jobs | $51,498 | $42,959 | -16.6% |
| Average Annual Wage - W & S | $47,441 | $43,597 | -8.1% |
| W&S Jobs as % of Total | 77.5% | 72.0% | -7.1% |
| Proprietors Jobs as % of Total | 22.5% | 28.0% | 24.4% |
| **Population** | | | |
| Baby Boomers | 26.7% | 22.4% | -16.1% |
| 29 to 45 year old growth rate | -0.1% | 1.8% | -1331.8% |
| 46 to 64 year old growth rate | 3.5% | 4.0% | 15.1% |
| Portion 29 to 45 years old | 20.9% | 26.2% | 24.9% |
| Portion 46 to 64 years old | 26.7% | 22.4% | -16.1% |
| Persons per Square Mile | 48.5 | 19.1 | -60.6% |

Source: Economic & Planning Systems

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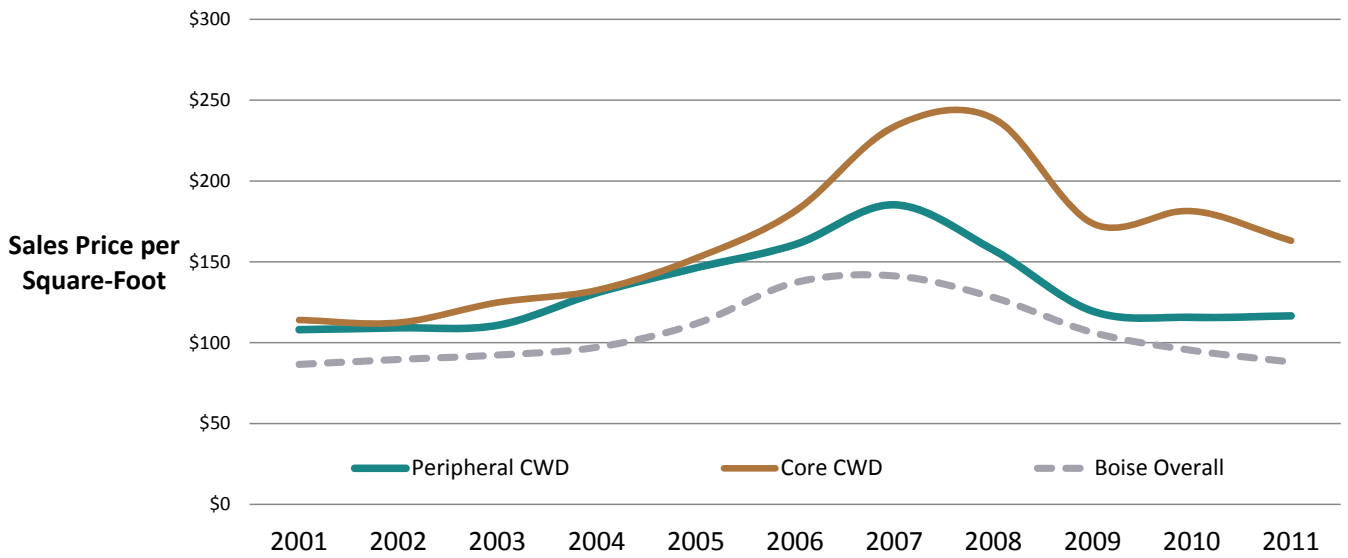
# Maps for Market Results

The following section contains supporting analysis for the market results section of the report. The maps illustrate the location of compact walkable development in each community. Sales are coded to show pricing relative to community-wide averages. The figures that follow chart trends in average price per square-foot for sales of core and peripheral CWD and the overall community average.

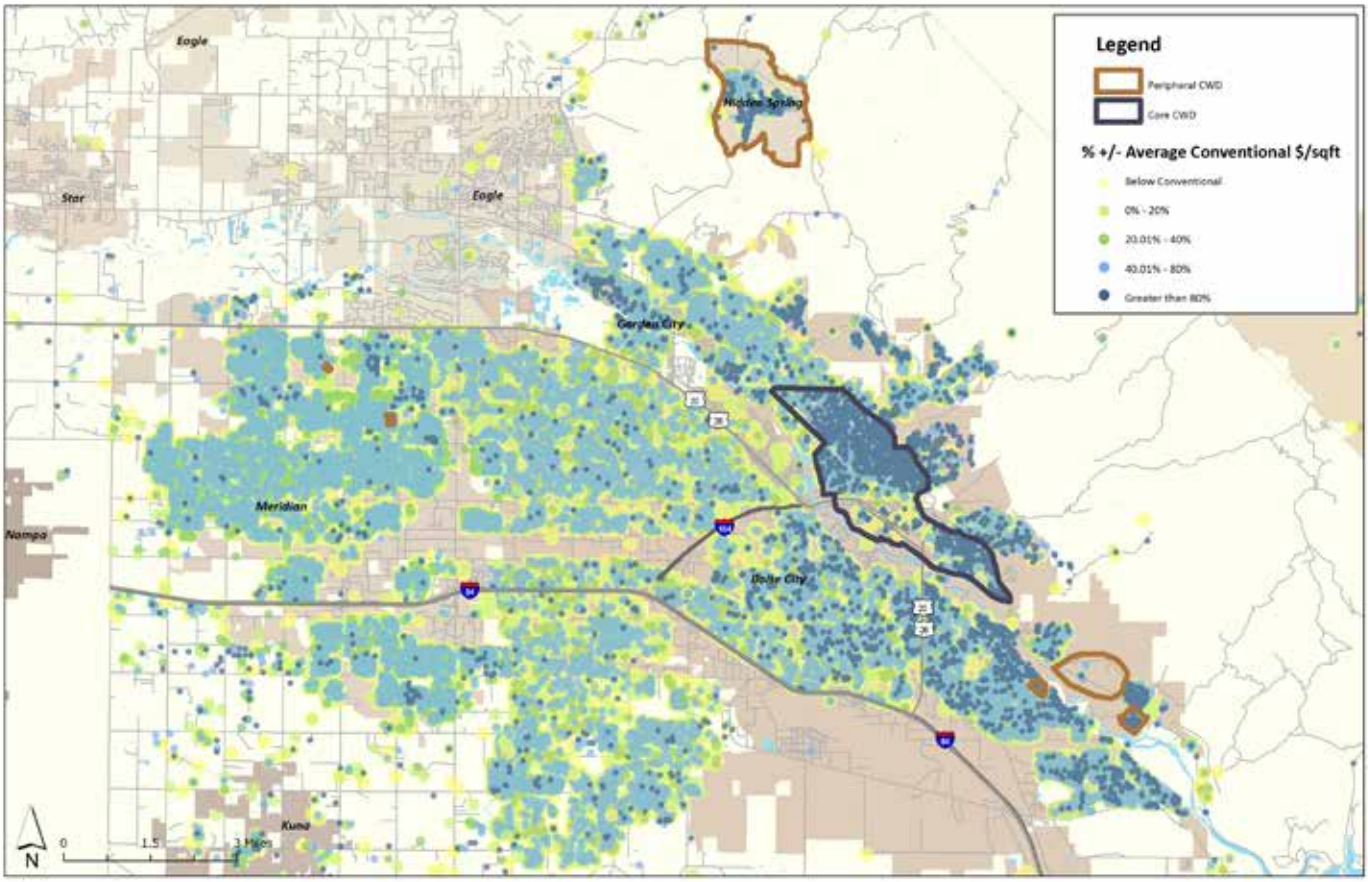
# Boise

**Figure A1**
**Sales Trends in Boise**
**Sonoran Institute Housing Study**



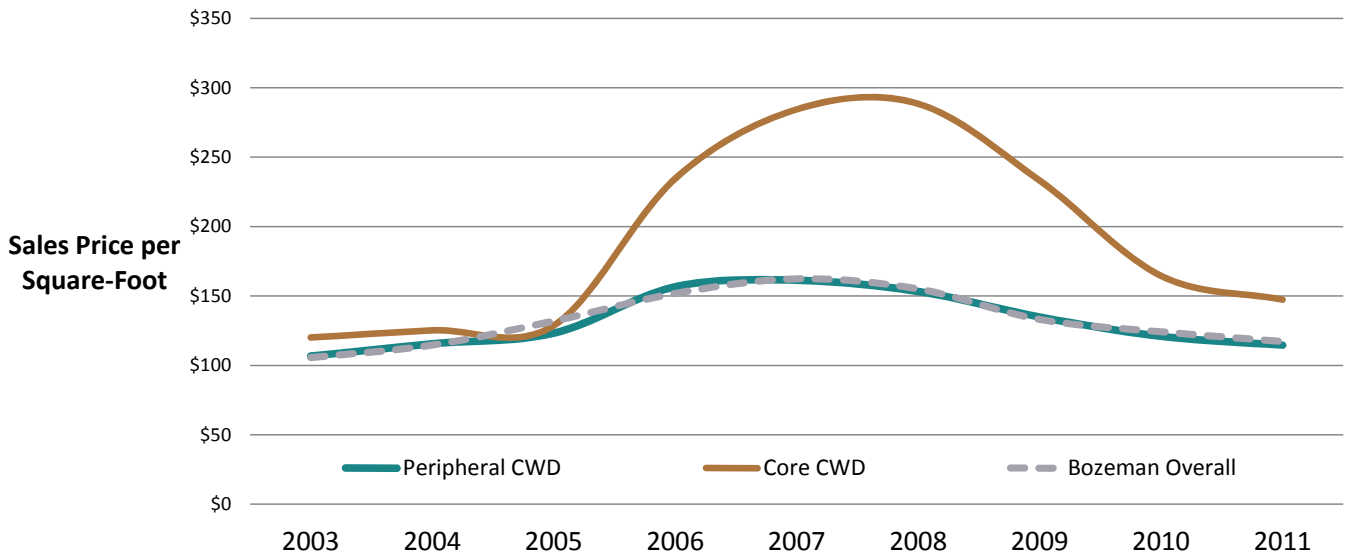

Source: Local MLS; Economic & Planning Systems

**Figure A2**
**Sales Premiums in Boise**
**Sonoran Institute Housing Study**



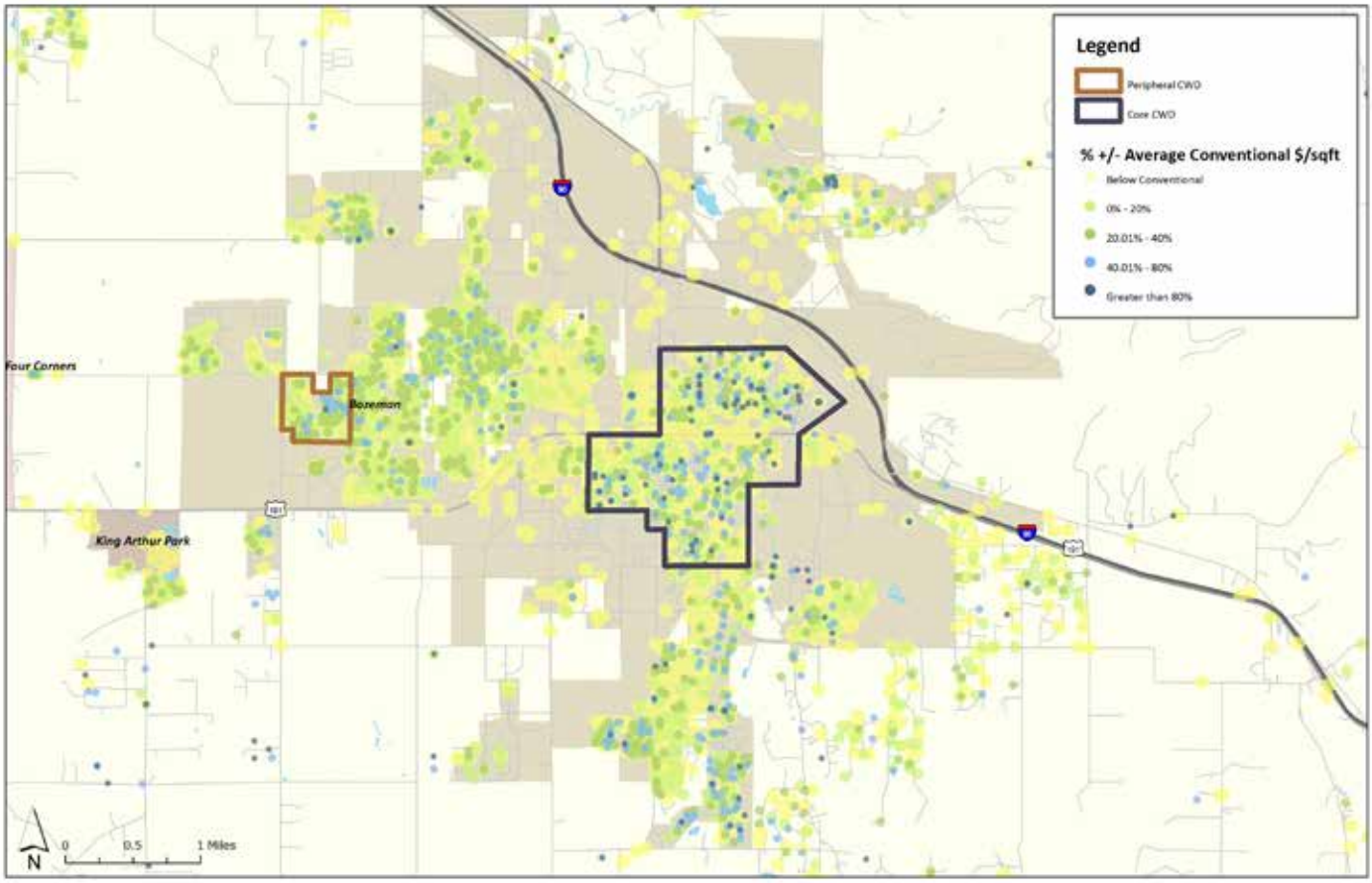
# Bozeman

**Figure A3**
**Sales Trends in Bozeman**
**Sonoran Institute Housing Study**



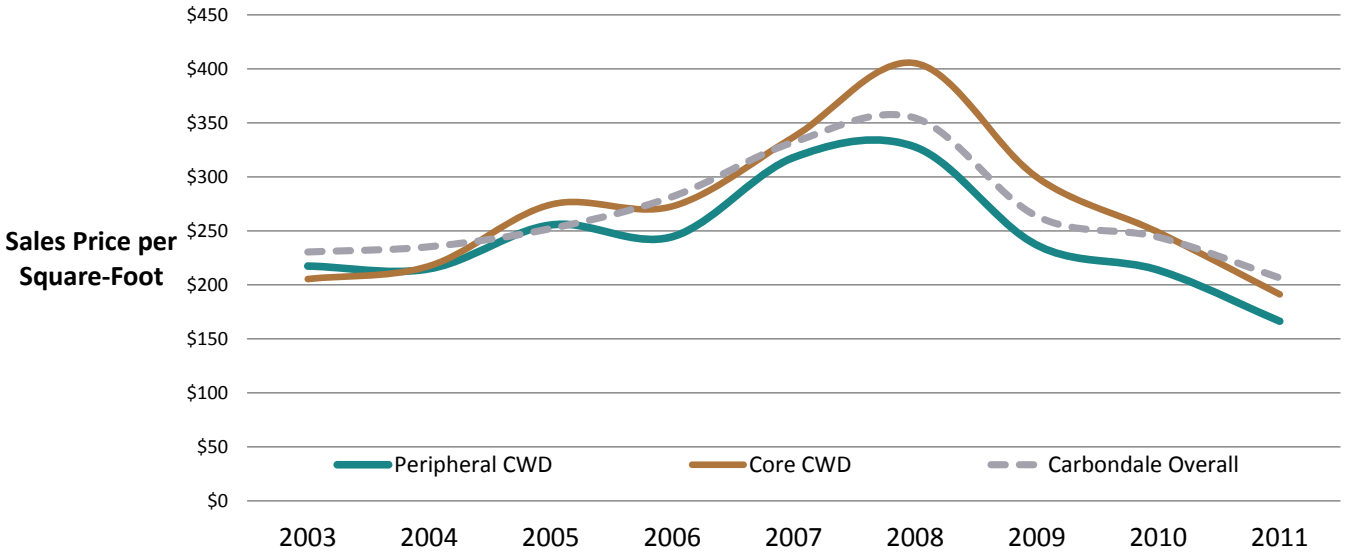

Source: Local MLS; Economic & Planning Systems

**Figure A4**
**Sales Premiums in Bozeman**
**Sonoran Institute Housing Study**



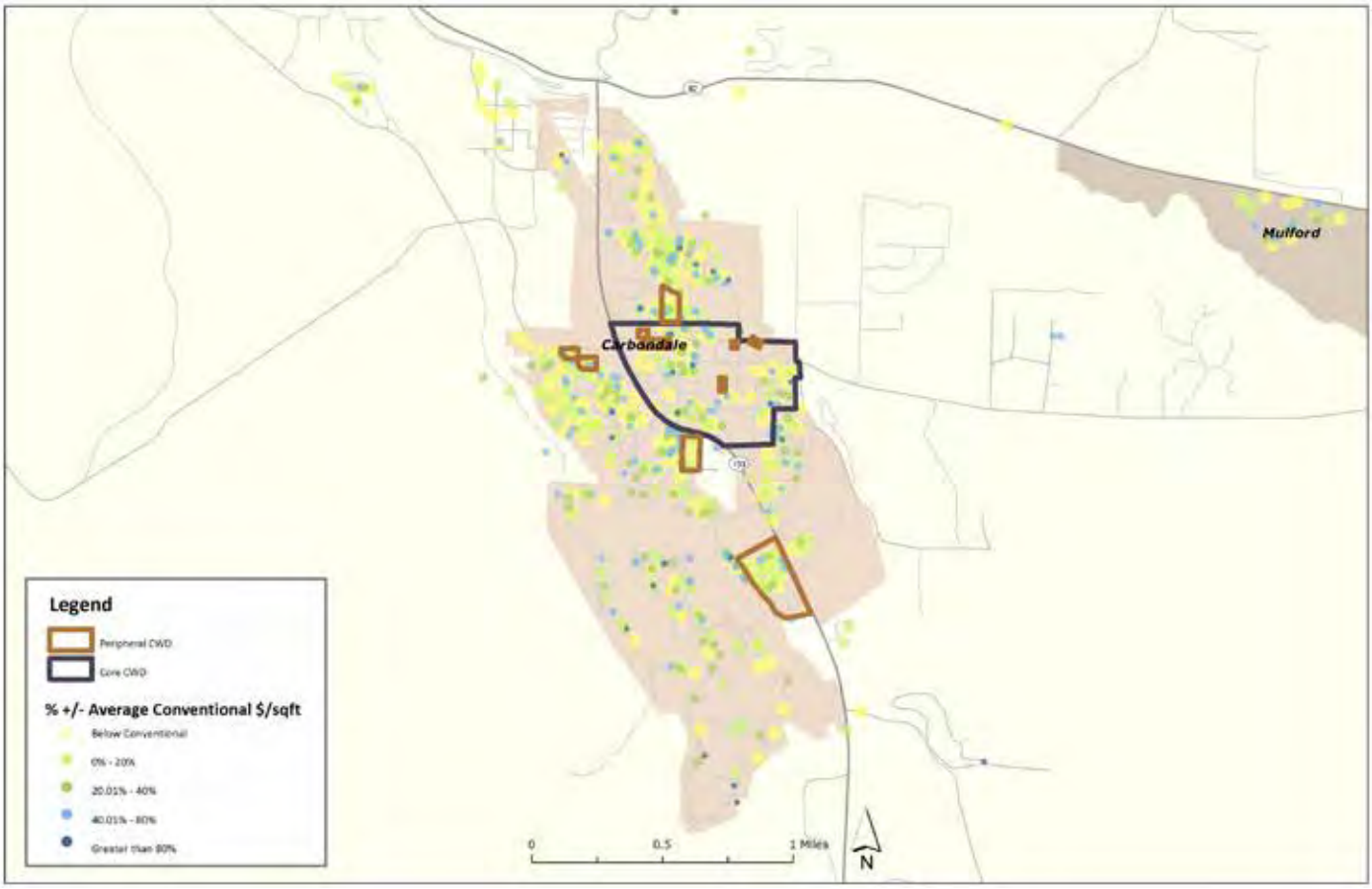
# Carbondale

**Figure A5**
**Sales Trends in Carbondale, 2003-2011**
**Sonoran Institute Housing Study**



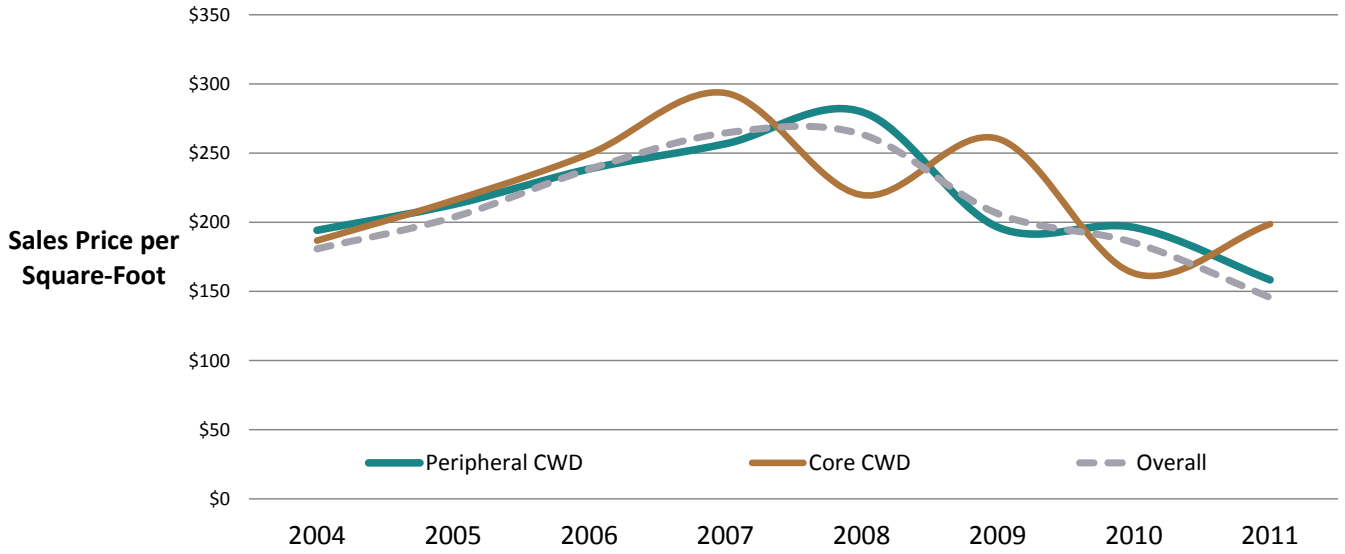

Source: Local MLS; Economic & Planning Systems

**Figure A6**
**Sales Premiums in Carbondale**
**Sonoran Institute Housing Study**



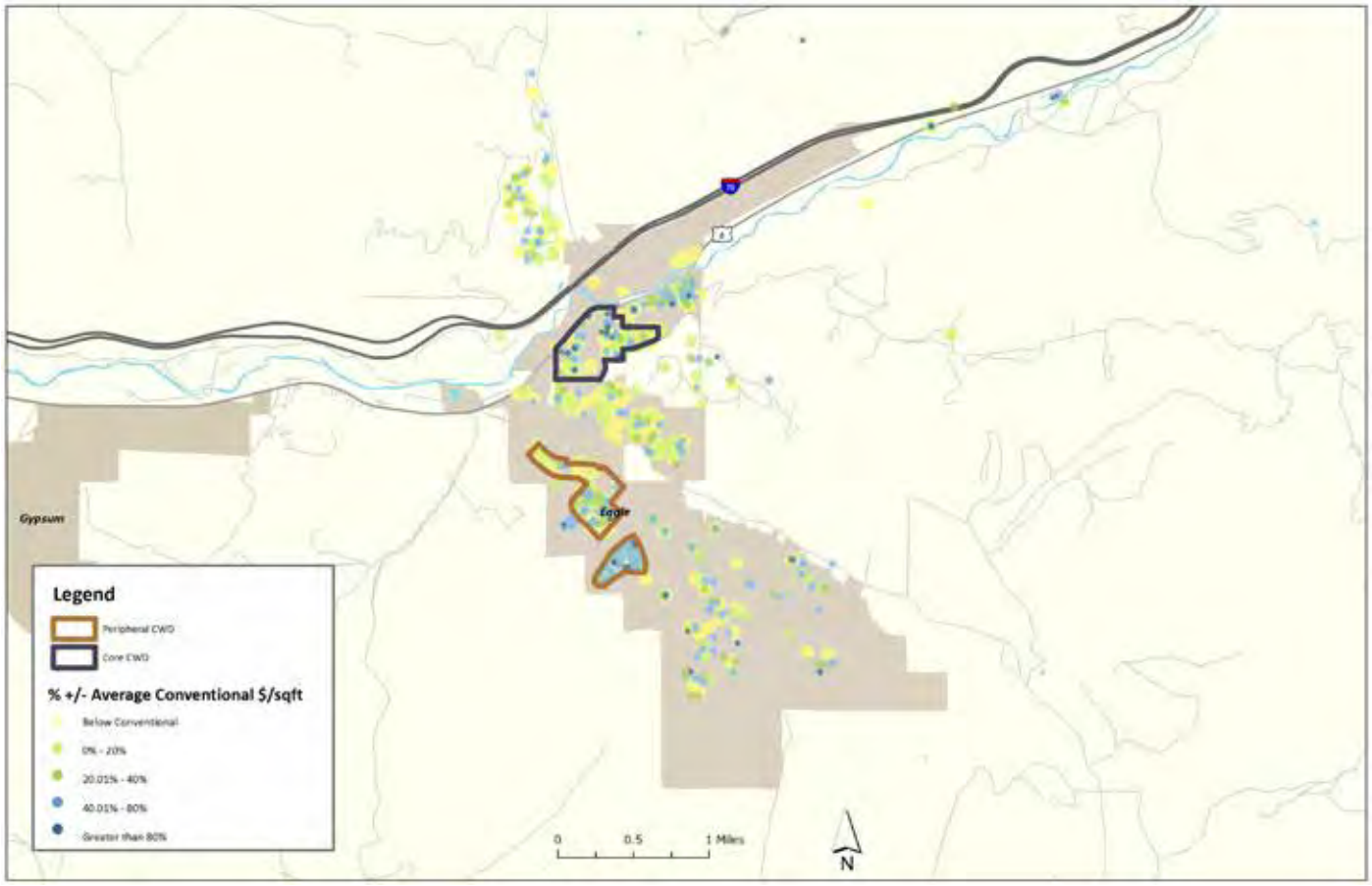
# Eagle

**Figure A7**
**Sales Trends in Eagle, 2004-2011**
**Sonoran Institute Housing Study**




Source: Local MLS; Economic & Planning Systems

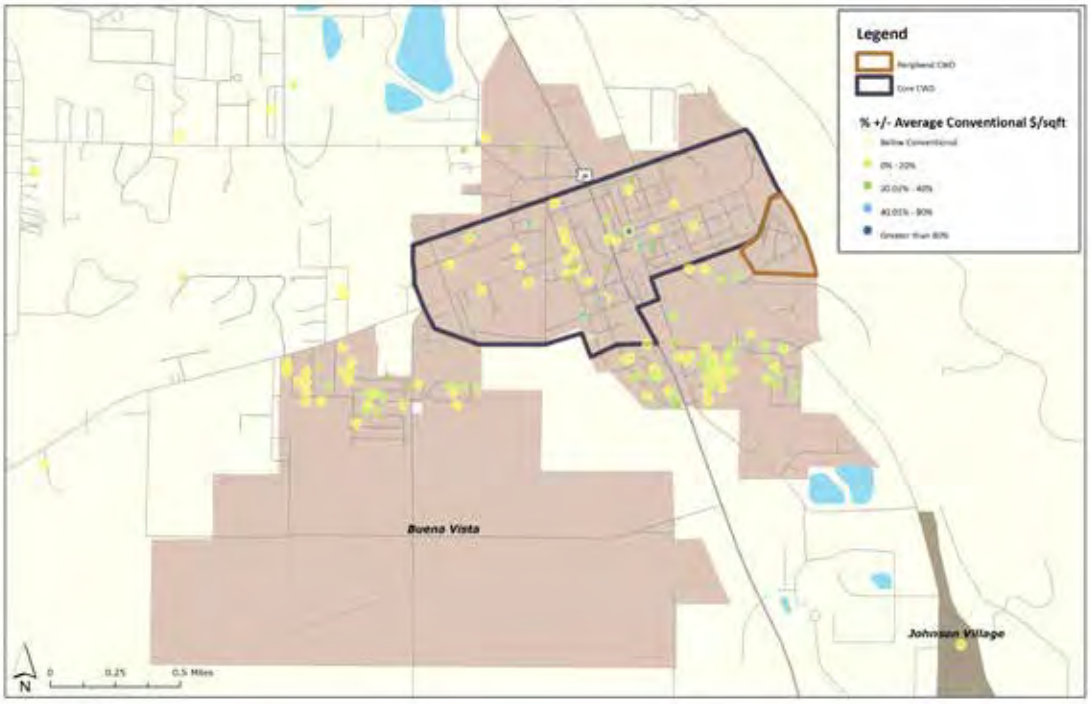
**Figure A8**
**Sales Premiums in Eagle**
**Sonoran Institute Housing Study**



**Note**: A figure illustrating sales trends in Buena Vista and Teton County are unavailable for lack of consistent volume during the past decade.

# Buena Vista

**Figure A9**
**Sales Premiums in Buena Vista**
**Sonoran Institute Housing Study**




# Teton Valley

**Figure A10**
**Sales Premiums in Teton Valley**
**Sonoran Institute Housing Study**

# APPENDIX B: CORRELATION ANALYSIS

The chapters on trends, community profiles, and market results give the reader a framework for understanding the national, regional, and local economic and demographic conditions that shape drivers of housing demand. In their own contexts, each community's housing market performed differently, but when viewed collectively, there appear consistencies in the relationships between their socio-economic characteristics and measures of how well compact walkable development performed.

This appendix is provided as a supplement and offers a quantitative synthesis of the information contained in several chapters. For the planning practitioner, this information is intended to increase awareness of possible links between the socio-economic characteristics and conditions of a market, and help explain how CWD may have succeeded. From a strategic standpoint, it delves further into how this information could be used in a planning and policy context to more effectively and comprehensively address CWD in the future.

## Methodology

The purpose of this analysis was to identify a relationship between pieces of information gathered. In order to estimate whether certain socio-economic characteristics contribute to CWD demand, EPS determined that the simplest and most intuitive analytical tool to use is a correlation analysis. We identify:

- What is a correlation analysis?
- How is a correlation estimated?
- How are the findings useful?

Data gathered include:

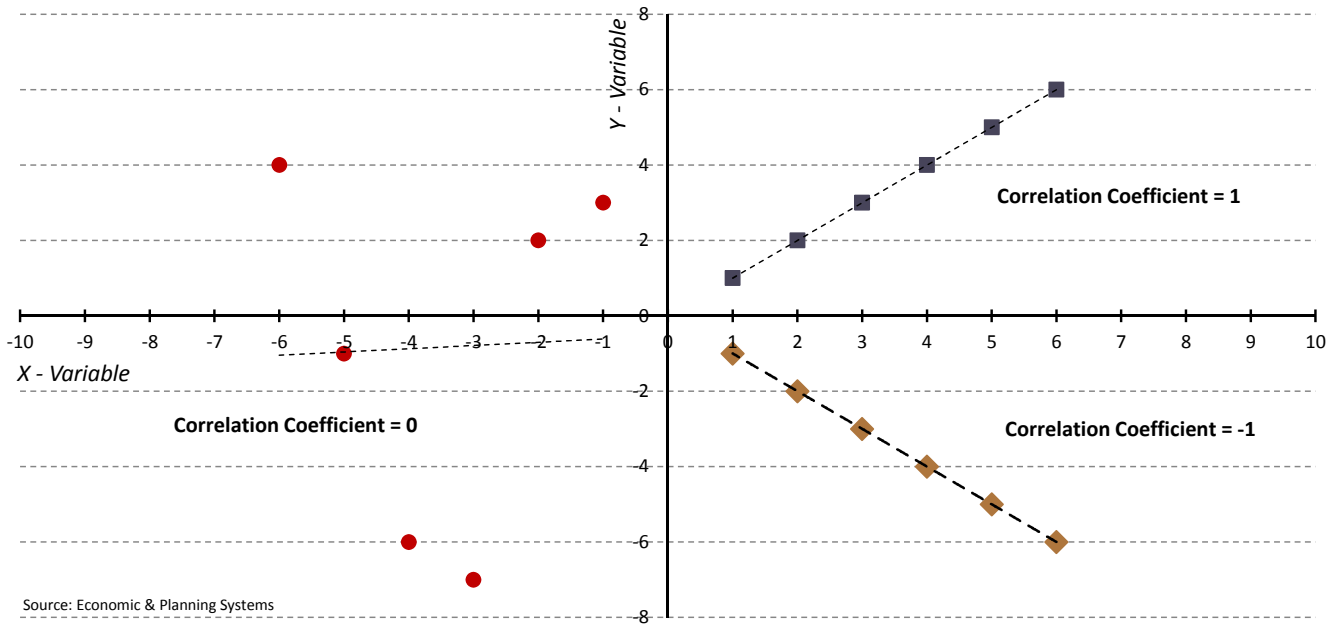
- Demographic (population, household composition, household type, etc.)
- Economic (employment, wages, household incomes)
- Built environment (building permits, occupancy characteristics, land use patterns)
- Housing market (sales price premium data)

### What is a correlation analysis?

A correlation analysis is a statistical method for evaluating the degree to which there may be a linear relationship between variables (an X variable and a Y variable). While there are multiple types of correlation measures, the most commonly used is called the Pearson Correlation Coefficient, used here. This analysis measures the linear relationship between multiple sets of (X,Y) variables by drawing a "best fit" line through each set of variables and assigning a number (i.e., coefficient) that ranges from negative 1 to positive 1.

Figure B1 illustrates the spectrum of correlation types using this tool. A value of "1" implies that the relationship between all the (X,Y) variables is perfectly and positively correlated (upper right quadrant). A value of "-1" implies that the relationship between all the (X,Y) variables is perfectly but negatively correlated (lower right quadrant). A value of "0" implies that there is no relationship between the (X,Y) variables (upper left quadrant). As will be seen in the following analysis, rarely do coefficients equal exactly 1, -1, or even zero, but most are somewhere in between.

**Figure B1**
**Illustration of Correlations**
**Sonoran Institute Housing Study**




## How is a correlation estimated?

Each set of (X,Y) variables corresponds to attributes of the six communities. Each X variable, or independent variable, can be any of the state- and local-level socio-economic characteristics documented in tables in Appendix A. The Y variables are either the CWD capture rate or the CWD sales premium. The illustration below shows the three main steps in putting together the (X,Y) variables for each community:

**Step 1**: Gather all the state and local socio-economic characteristics;

**Step 2**: The X variables are the local characteristics divided by the state characteristics. The Y variables are simply either the capture rate or premium:

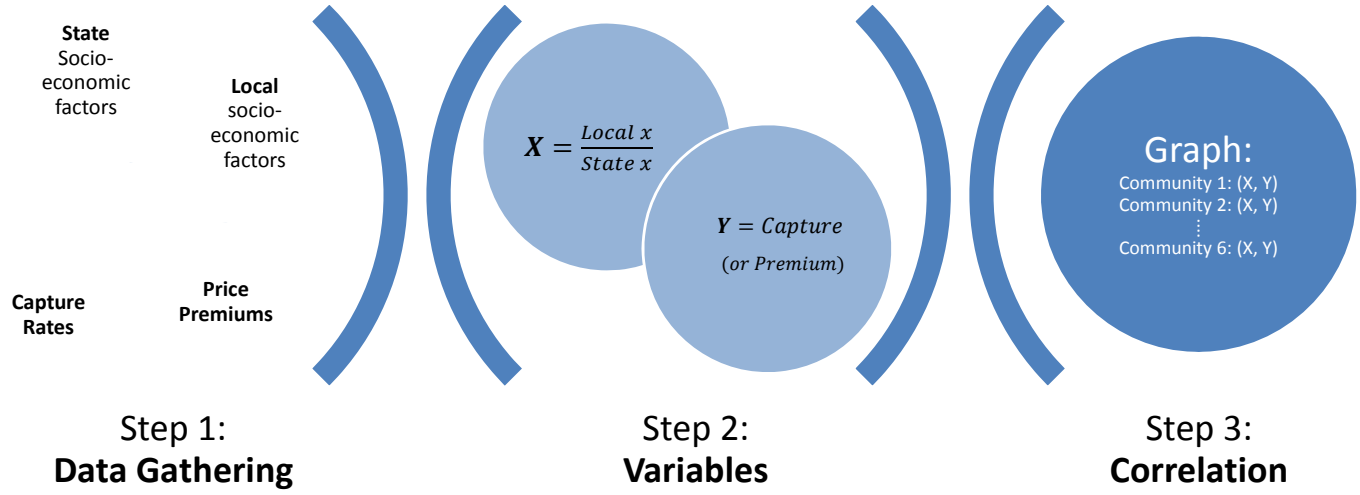
***X variable:*** $\dfrac{\textbf{Boise}\text{: Single-parent households (\%)}}{\textbf{Idaho}\text{: Single-parent households (\%)}} = \dfrac{14.8\%}{7.4\%} - 1 =$ **100% above State factor**

***Y variable:*** **Boise**: Compact Walkable Capture Rate (%) = **15% of housing market**

***(X,Y):*** ***( 100%, 15%)***

**Step 3**: Plot each set of (X,Y) variables on a graph like the one in **Figure B1** previously.

**Figure B2**
**Correlation Analysis Methodology**
**Sonoran Institute Housing Study**




When the (X,Y) variables for each community are graphed, the correlation analysis fits a line through each point and assigns it a coefficient somewhere between -1 and 1, as described previously. This coefficient indicates how closely the relationships match each other among the communities. In theory, the closer the coefficient is to 1 or -1, the stronger the relationship between a socio-economic characteristic and its predictive value for CWD capture or premiums.

# Correlations

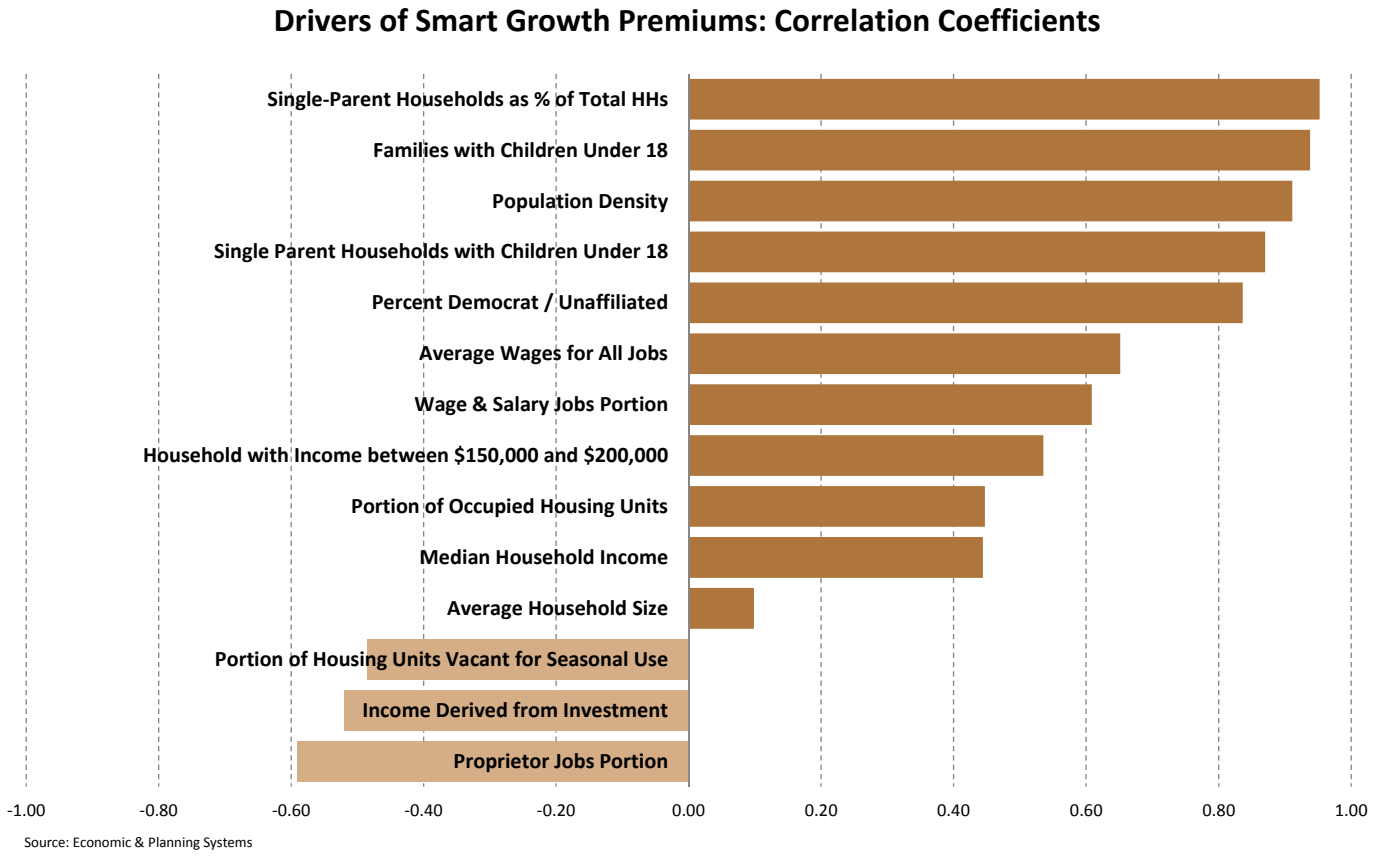
Shown in Figure B3 are the estimated coefficients based on the relationship between 14 socio-economic characteristics of each community and their premiums. Many of the relationships are intuitive (e.g., the positive ones), but some are not, particularly the negative ones.

From a land use standpoint, there is a strong relationship between population density and premiums. The implication is that with higher existing density (e.g., Bozeman or Boise), CWD (a higher-density housing option) is attractive and commands a premium. Conversely, in areas with low existing density (e.g., Teton Valley), local markets prefer lower-density product, and CWD is less attractive.

From a demographic standpoint, CWD premiums seem to have a strong correlation with the portion of families with children. As mentioned previously, households choose housing based on a variety of factors, such as time-savings, convenience, access to recreation and amenities, or general walkability. The correlation quantifies the strength of the relationship between the values these households have and their willingness to pay.

From an economic standpoint, the relationship between the presence of wage and salary jobs is positively correlated to CWD premiums, but negatively correlated to the presence of proprietors. It is important to recall that over the past decade more workers who were laid off from wage and salary jobs found it increasingly difficult to establish as proprietors and, consequently, struggled to earn decent wages. While not the only consideration, buying power is a strong determinant of demand. The implication here may be that as the local workforce of decent-paying jobs increases, the possibility of success for achieving premiums in CWD product increases.

**Figure B3**
**Premiums & Socio-Economic Variable Correlations**
**Sonoran Institute Housing Study**




When viewed in retrospect to the community profiles, the correlation analysis reveals general relationships between variables and the CWD premium, but not necessarily predictive ones. That is, there are always exceptions to the rule.

In particular, not every community with a significantly higher proportion of single-parent households is going to see higher premiums. For example, Carbondale has a higher proportion of single-parent households than the state but a negative price premium. As discussed in the market results section of the report, Carbondale is a unique economy influenced heavily by Aspen. In this case, the strength of that market association outweighs the influence that this socio-economic characteristic has on the housing market.

Additionally, not every community with a high proportion of sole-proprietors will carry a negative correlation to the CWD premium. For example, Eagle and Buena Vista both have higher proportions of sole proprietors than found at the state level. Nevertheless, Eagle and Buena Vista experienced high CWD price premiums.

Many other exceptions can be found when comparing the experience of the housing market to the individual profiles of the communities studied. Generally speaking, however, some combination of these variables above and below regional averages drove premiums higher than conventional housing.

## How is the correlation analysis useful?

Several factors influence people's housing decisions and therefore demand for different housing options. The findings of the correlation analysis identify potential linkages between socio-economic characteristics and the market performance of compact walkable development. At a minimum, this suggests that not all communities are in the same position when it comes to the market potential for compact walkable development; local conditions do matter. Taken further, a positive relationship between a socio-economic factor – such as households with children – may also begin to reveal potential market drivers, which could help explain why CWD has gained a foothold in certain markets, and whether it has potential – or faces socio-economic barriers – in others. The analysis also identifies what underlying conditions speak to a market's receptiveness to CWD, as well as which demographic segments have been behind drivers of demand in the past. While this should not be taken to mean that some communities, based on their demographic or socio-economic characteristics, either do or do not have what it takes for CWD to succeed, it may offer insight into areas with particular opportunity as well as those that might pose relatively greater risk.

Perhaps most importantly, the correlation analysis provides additional questions for future research, including the degree to which these linkages hold up in other communities, and which may actually have a *causal* relationship. Similarly, they present a set of planning and design challenges to address, including how to create compact walkable communities that appeal to households with lower income, or that can succeed in communities with a significant proportion of second homes.

# APPENDIX C: SURVEY RESPONSE DATA

Approximately 3,000 surveys were distributed by hanging them on doors. A total of 327 surveys were returned, for an 11 percent response rate. Surveys were purposely distributed to a variety of neighborhood types (conventional and compact walkable) and locations (core and peripheral areas). The survey methodology did not include random sample distribution, but was instead intended to sample people living in a variety of different neighborhood types and locations. To provide an idea of who responded, socioeconomic and demographic information related to the respondents is shown in the charts below.

**Figure C1**
**Distribution of Age**
**Sonoran Institute Housing Study**

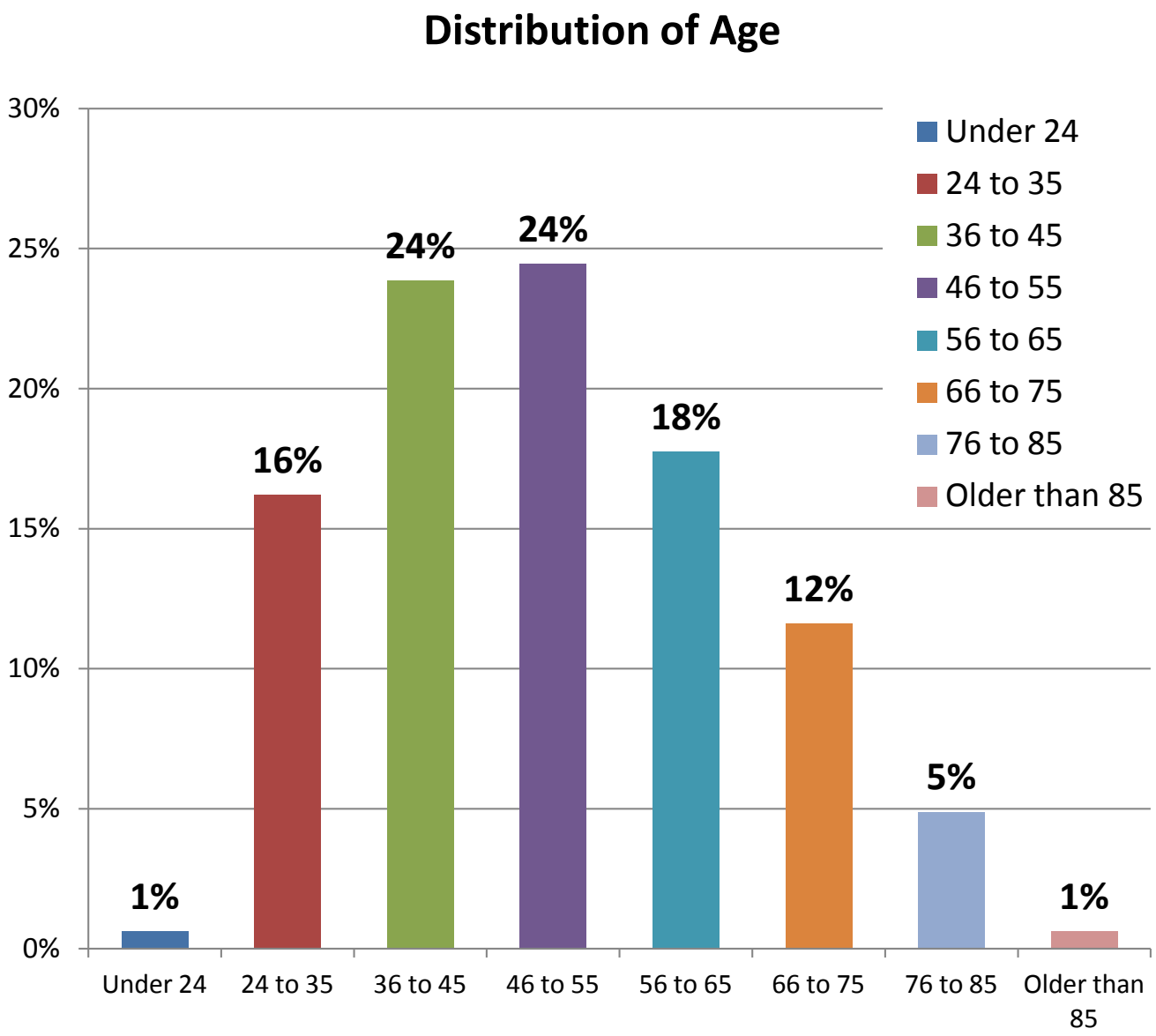
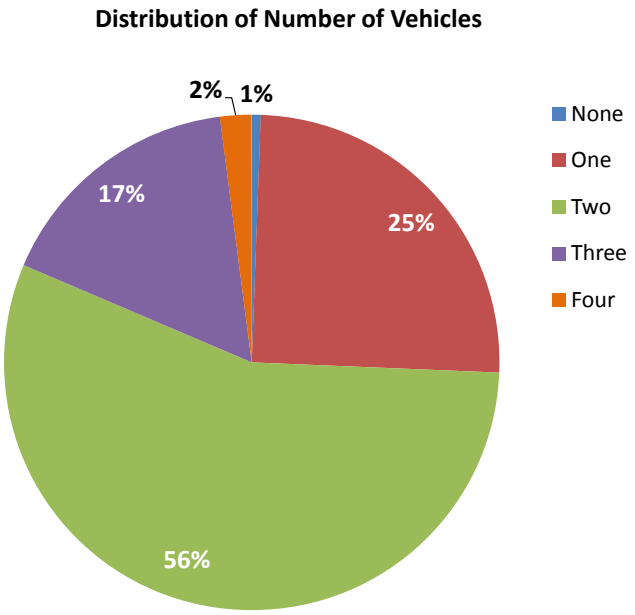
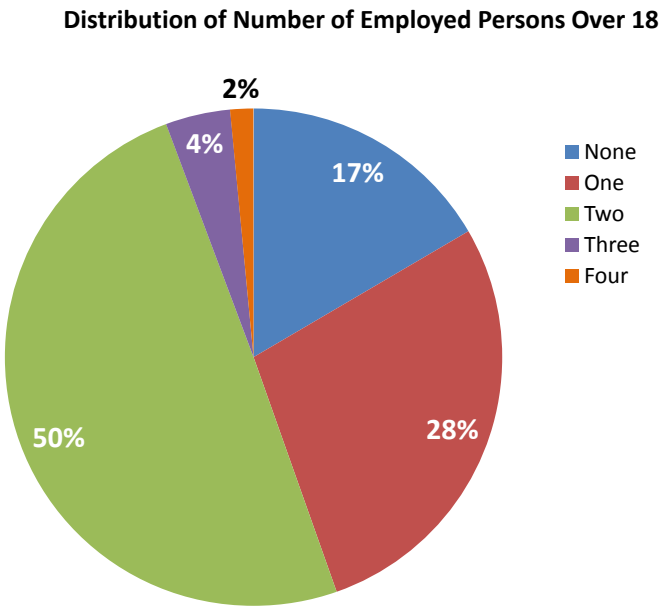
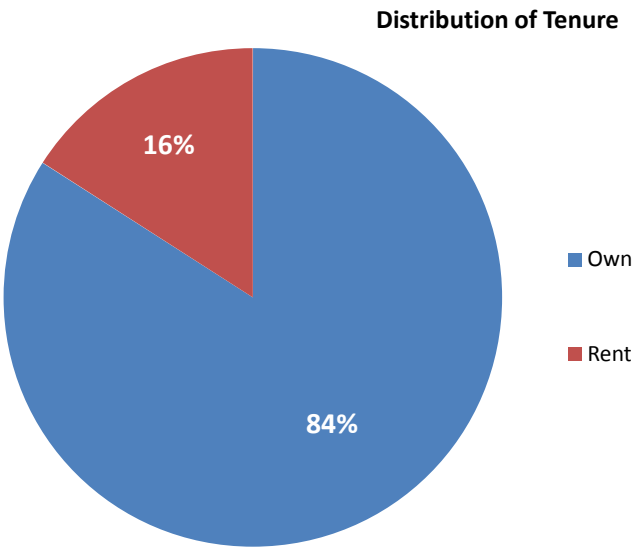
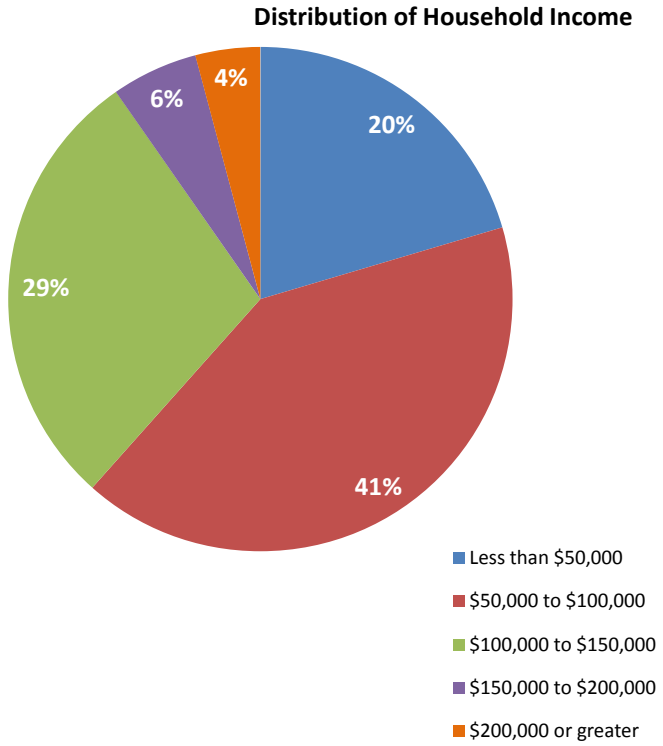


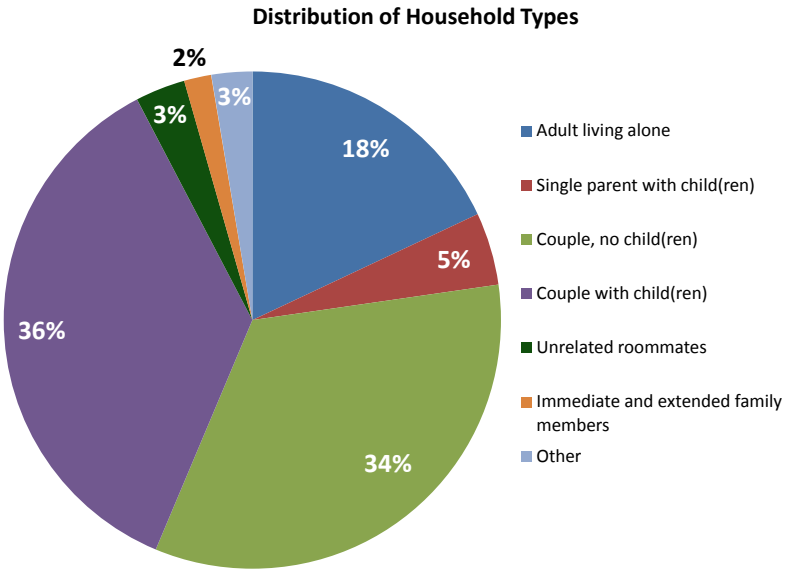
**Figure C2**
**Sonoran Institute Housing Study**

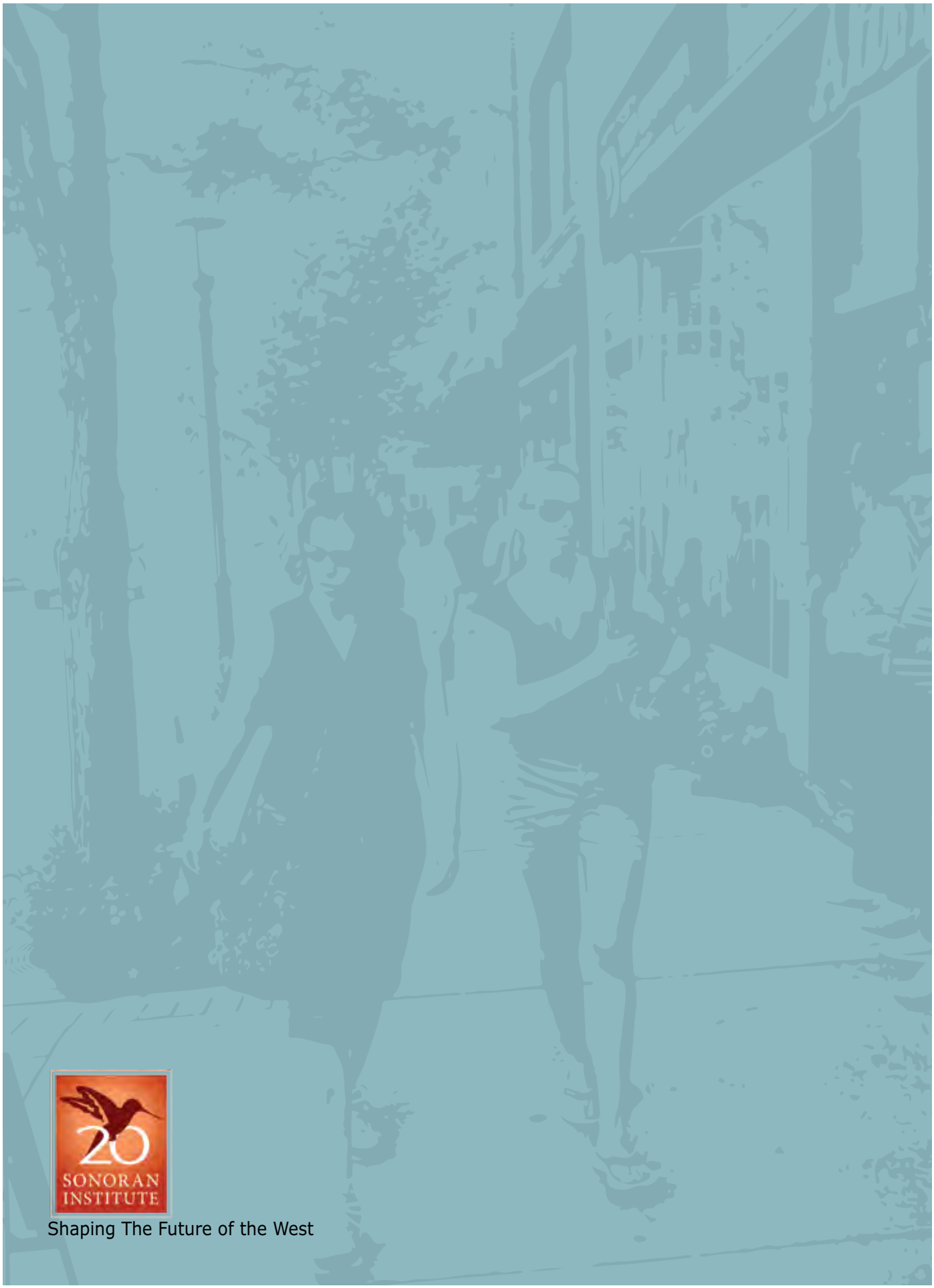




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