
City of Phoenix

Housing Needs Analysis

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Prepared for:
City of Phoenix

DRAFT REPORT

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Summary

This report presents a housing needs analysis consistent with requirements of Statewide Planning Goal 10 and OAR 660-008. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

The primary goals of the housing needs analysis were to (1) project the amount of land needed to accommodate the future housing needs of all types within the Phoenix Urban Growth Boundary (UGB), (2) evaluate the existing residential land supply within the Phoenix UGB to determine if it is adequate to meet that need, (3) to fulfill state planning requirements for a twenty-year supply of residential land, and (4) identify policy and programmatic options for the City to meet identified housing needs.

What are the key housing needs in Phoenix?

Following are several key issues identified in the housing needs analysis:

- **Phoenix's housing market is strongly impacted by the housing market in the Rogue Valley.** Phoenix is relatively small, accounting for 2% of Jackson County's population, and located between Medford (with more than 76,000 people) and Ashland (with more than 20,000 people). On average, both housing costs and rental costs are lower in Phoenix than in Medford, and substantially lower than in Ashland. Most residents who live in Phoenix work in Medford or Ashland, and Phoenix residents' incomes are generally lower than in Medford or Ashland.

This information suggests that the role Phoenix plays in the Rogue Valley housing market is as a place where housing is comparatively more affordable. Given these factors, Phoenix will continue to have demand for affordable lower-income and workforce housing.

- **Demographic and economic trends will drive demand for relatively affordable attached single-family housing and multifamily housing in Phoenix.** The key demographic trends that will affect Phoenix's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino population.
 - *Baby Boomers.* By 2035, people 60 years and older will account for 36% of the population in Jackson County (up from 28% in 2015). As the Baby Boomers age, growth of retirees will drive demand for small single-family detached and townhomes for homeownership, townhome and multifamily rentals, age-restricted housing, and assisted-living facilities.
 - *Millennials.* Growth in this population will result in increased demand for both ownership and rental opportunities. Between 2015 and 2036, Millennials will be a

key driver in demand for housing that is comparatively affordable and housing for families with children.

- *Hispanic and Latino population.* Growth in the number of Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable. Hispanic and Latino households are more likely to be larger than average, with more children and possibly with multigenerational households.
- **Phoenix has an existing lack of affordable housing.** Phoenix’s key challenge over the next 20 years is providing opportunities for development of relatively affordable housing of all types of housing, from lower-cost single-family housing to market-rate multifamily housing.
 - About half of Phoenix households cannot afford a two-bedroom apartment at HUD’s fair market rent level of \$844.
 - In 2015, a household needed to earn \$16.23 an hour to afford a two-bedroom rental unit in Jackson County.
 - Phoenix currently has a deficit of housing units that are affordable to households that earn less than \$75,000
 - About 44% of Phoenix’s households are cost burdened, with 68% of renters and 31% of owners paying more than 30% of their income on housing.

How much growth is Phoenix planning for?

A 20-year population forecast (in this instance, 2016 to 2036) is the foundation for estimating the number of new dwelling units needed. Exhibit 1 shows a population forecast for Phoenix for the 2016 to 2036 period. It shows that Phoenix’s population will grow by about 1,929 people over the 20-year period.

Exhibit 1. Population Forecast, Phoenix, 2016-2036

Source: ECONorthwest based on Phoenix’s official 2015-2035 population forecast from the Oregon Population Forecast Program.

2016 Population	5,048
2036 Population	6,997
Change 2016 to 2036	
Number	1,929
Average annual growth rate	1.7%

The housing needs analysis assumes that Phoenix’s population will grow by 1,929 people over the 2016 to 2036 period.

How much buildable residential land does Phoenix currently have?

Exhibit 2 shows vacant acres excluding constrained and unbuildable land by plan designation. The results show that Phoenix has about 52 net buildable acres in residential plan designations. Of this, 51% (27 acres) is in the Low-Density Residential designation, 28% (15 acres) is in Residential Hillside, 18% (9 acres) is in Medium-Density Residential, and 3% (1.6 acres) is in the Residential Employment and High-Density Residential designations.

Exhibit 2. Vacant Acres, Excluding Constrained and Unbuildable, City of Phoenix, 2015

Source: City of Phoenix Residential Buildable Lands Inventory Table 10
Note: Residential Employment land is included with Residential Hillside.

Low-Density Residential	26.7 acres
Medium-Density Residential	9.1 acres
High-Density Residential	1.4 acres
Residential Hillside	14.9 acres
Total	52.2 acres

How much housing will Phoenix need?

Phoenix will need to provide about 892 new dwelling units to accommodate forecast population growth between 2016 and 2036. About 580 dwelling units (65%) will be single-family attached types, which includes manufactured dwellings. About 45 (5%) will be single-family attached and 268 (30%) will be multifamily, which includes duplexes, structures with three to four dwellings, and structures with five or more dwellings.

How much land will be required for housing?

Exhibit 3 allocates needed housing units to plan designations in Phoenix. The allocation is based, in part, on the types of housing allowed in the zoning designations in each plan designation. Exhibit 3 shows:

- The overall needed housing mix is 65% single-family detached housing types and 35% multifamily attached housing types (including single-family attached).
 - This mix represents a shift from the existing mix of housing, with three-quarters of the housing stock in single-family detached housing.
 - The shift in mix is in response to the need for a wider range of relatively housing types, including housing types such as duplexes, townhouses, and apartments. In addition, Phoenix has need for relatively affordable smaller single-family detached housing.
- 51% of needed dwelling units will locate in the Low-Density Residential designation.
- 15% of needed dwelling units will locate in the Medium-Density Residential designation.
- 29% of needed dwelling units will locate in the High-Density Residential designation.
- 5% of needed dwelling units will locate in the Residential Hillside designation.

Exhibit 3. Allocation of needed housing by type and plan designation, Phoenix UGB, 2016 to 2036

	Residential Plan Designation				Total
	Low-Density Residential	Medium-Density Residential*	High-Density Residential	Residential Hillside	
Dwelling Units					
Single-family detached	447	-	89	44	580
Single-family attached	9	18	18	-	45
Multifamily	-	116	152	-	268
Total	456	134	259	44	893
Percent of Units					
Single-family detached	50%	0%	10%	5%	65%
Single-family attached	1%	2%	2%	0%	5%
Multifamily	0%	13%	17%	0%	30%
Total	51%	15%	29%	5%	100%

Source: ECONorthwest

Note: Medium Density Residential includes 0.15 acres of land in Residential Employment, which is zoned R-2.

Note: Single-family detached housing in High Density Residential is manufactured homes in manufactured home parks.

Exhibit 4 compares the demand for housing with the capacity of land by plan designation in order to determine whether there is sufficient residential land within the Phoenix UGB to accommodate growth over the 2016 to 2036 period. Exhibit 4 shows that Phoenix has a deficit of capacity in most residential plan designations:

- **Low-Density Residential:** Phoenix has a deficit of capacity for about 425 dwelling units, or 94 gross acres of land to accommodate growth over the 2016-2036 period.
- **Medium-Density Residential:** Phoenix has a deficit of capacity for about 71 dwelling units, or 10 gross acres of land to accommodate growth.
- **High-Density Residential:** Phoenix has a deficit of capacity for about 147 dwelling units, or 8 gross acres of land to accommodate growth.
- **Residential Hillside:** Phoenix has sufficient land in Residential Hillside to accommodate growth.

Phoenix does not have enough land to accommodate residential growth over the 20-year period. Phoenix has a total land deficit of 113 gross acres to accommodate new housing within the City’s existing UGB.

Exhibit 4. Comparison of capacity of existing residential land with demand for new dwelling units and land deficit, Phoenix UGB, 2016-2036

Source: Buildable Lands Inventory from City of Phoenix; Calculations by ECONorthwest

Note: DU is dwelling unit.

Plan Designation	Land Sufficiency			Land Deficit	
	Dwelling Units Capacity of Buildable Land	Needed Dwelling Units (2016-2036)	Surplus or Deficit of Dwelling Units	Gross Density (du/ acre)	Land Deficit (Gross Acres)
Low-Density Residential	120	545	-425	4.5	-94
Medium-Density Residential	63	134	-71	6.8	-10
High-Density Residential	24	170	-146	17.3	-8
Residential Hillside	44	44	0	-	-
Total	251	893	-642		-113

1. Introduction

This report presents Phoenix's Housing Needs Analysis for the 2016 to 2036 period. It is intended to comply with statewide planning policies that govern planning for housing and residential development, including Goal 10 (Housing), and OAR 660 Division 8. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

This report provides Phoenix with a factual basis to update the Housing Element of the City's Comprehensive Plan and to support future planning efforts related to housing and options for addressing unmet housing needs in Phoenix. It provides information that informs future planning efforts, including development and redevelopment in urban renewal areas in the future. It provides the City with information about the housing market in Phoenix and describes the factors that will affect housing demand in Phoenix in the future, such as changing demographics. This analysis will help decision makers understand whether Phoenix has enough land to accommodate growth over the next 20 years.

Framework for a Housing Needs Analysis

Economists view housing as a bundle of services for which people are willing to pay: shelter certainly, but also proximity to other attractions (job, shopping, recreation), amenities (type and quality of fixtures and appliances, landscaping, views), prestige, and access to public services (quality of schools). Because it is impossible to maximize all these services and simultaneously minimize costs, households must, and do, make tradeoffs. What they can get for their money is influenced by both economic forces and government policy. Moreover, different households will value what they can get differently. They will have different preferences, which in turn are a function of many factors like income, age of household head, number of people and children in the household, number of workers and job locations, number of automobiles, and so on.

Thus, housing choices of individual households are influenced in complex ways by dozens of factors; and the housing market in the Rogue Valley Region, Jackson County and Phoenix are the result of the individual decisions of hundreds of thousands of households. These points help to underscore the complexity of projecting what types of housing will be built in Phoenix between 2016 and 2036.

The complex nature of the housing market was demonstrated by the unprecedented boom and bust during the past decade. This complexity does not eliminate the need for some type of forecast of future housing demand and need, with the resulting implications for land demand and consumption. Such forecasts are inherently uncertain. Their usefulness for public policy often derives more from the explanation of their underlying assumptions about the dynamics of markets and policies than from the specific estimates of future demand and need. Thus, we start our housing analysis with a framework for thinking about housing and residential markets, and how public policy affects those markets.

Statewide planning Goal 10

The passage of the Oregon Land Use Planning Act of 1974 (ORS Chapter 197), established the Land Conservation and Development Commission (LCDC), and the Department of Land Conservation and Development (DLCD). The Act required the Commission to develop and adopt a set of statewide planning goals. Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local housing policies must meet the requirements of Goal 10 and the statutes and administrative rules that implement it (ORS 197.295 to 197.314, ORS 197.475 to 197.490, and OAR 600-008).¹ Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as “housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels.” ORS 197.303 defines needed housing types:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;²
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

DLCD provides guidance on conducting a housing needs analysis in the document *Planning for Residential Growth: A Workbook for Oregon's Urban Areas*, referred to as the Workbook.

Phoenix must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed. This housing needs analysis was developed to meet the requirements of Goal 10 and its implementing administrative rules and statutes.

¹ ORS 197.296 only applies to cities with populations over 25,000.

² Government assisted housing can be any housing type listed in ORS 197.303 (a), (c), or (d).

Organization of this Report

The rest of this document is organized as follows:

- **Chapter 2. Residential Buildable Lands Inventory** presents the methodology and results of Phoenix's inventory of residential land.
- **Chapter 3. Historical and Recent Development Trends** summarizes the state, regional, and local housing market trends affecting Phoenix's housing market.
- **Chapter 4. Demographic and Other Factors Affecting Residential Development in Phoenix** presents factors that affect housing need in Phoenix, focusing on the key determinants of housing need: age, income, and household composition. This chapter also describes housing affordability in Phoenix relative to the larger region.
- **Chapter 5. Housing Need in Phoenix** presents the forecast for housing growth in Phoenix, describing housing need by density ranges and income levels.
- **Chapter 6. Residential Land Sufficiency within Phoenix** estimates Phoenix's residential land sufficiency needed to accommodate expected growth over the planning period.

2. Residential Buildable Lands Inventory

This chapter provides a summary of the residential buildable lands inventory (RBLI) for the Phoenix UGB. The City of Phoenix staff developed the buildable lands inventory analysis. It is intended to comply with statewide planning Goal 10 policies that govern planning for future housing and residential development. The full buildable lands inventory completed by City staff is presented in Appendix A.

Definitions

The City of Phoenix developed the buildable lands inventory with a tax lot database from Jackson County GIS. The tax lot database is current as of October 2015. The inventory builds from the database to estimate buildable land by plan designation. The following definitions were used to identify buildable land for inclusion in the inventory:

- *Developed land.* Land that is developed at densities or with uses consistent with the zoning district in which it falls containing improvements that make it unlikely to redevelop in the near future.
- *Vacant land.* Parcels with no permanent structures or improvements.
- *Partially Vacant land.* Parcels with some buildings or improvements on it, but with vacant portions large enough to accommodate additional development based on the size of the lot, zoning designations, and/or the value of land and improvements. The Safe Harbor in OAR 660-024-0050 was used for the purpose of this RBLI.
- *Buildable land.* Residentially designated land within the urban growth boundary, including both vacant and developed land likely to be redeveloped, that is suitable, available and necessary for residential uses (OAR 660-008-0005 (2)).
- *Constrained land.* Parcels with significant physical, environmental or infrastructure limits to development. Development constraints include, but are not limited to, environmentally sensitive areas such as wetlands, and areas with steep slopes, extreme topography, infrastructure deficiencies, parcel fragmentation, or natural hazards (OAR 660-008-0005 (2)).
- *Unbuildable land.* Land that is under the minimum legal building lot size for the underlying zoning district, land that has no automobile access, or land that is already committed to other uses by policy.

Development constraints

Consistent with state guidance on buildable lands inventories, the City of Phoenix deducted the following constraints from the buildable lands inventory and classified those portions of tax lots that fall within the following areas as constrained, unbuildable land.

- *Lands in wetlands.* No wetland areas were determined to be “locally significant” within any residential buildable land.
- *Lands within floodways and the 100-year floodplain.* Development on land within floodways is prohibited. Lands within the 100-year floodplain are not constrained and are considered developable at standard densities since the City allows residential development within the floodplain if certain standards are met.
- *Riparian setbacks.* Class 1 streams 50 feet; Class 2 streams 25 feet. These areas are 100% constrained (development is prohibited). Riparian Areas that overlap with other constraints (i.e. 100-Year Flood Hazard Zone) were not identified to prevent double-counting the constraints.
- *Slopes.* Lands with slopes of 25 percent or greater are constrained and considered unbuildable. Slopes 15% to 24% are considered partially constrained because they can only be developed at densities lower than residential developments on slopes of less than 15%.

Buildable Lands Inventory Results

Land Base

The Residential Buildable Land Inventory includes a review of the following residential plan designations:

- Residential Employment
- Residential Hillside
- Low-Density Residential
- Medium-Density Residential
- High-Density Residential

Exhibit 5 shows residential land in Phoenix by classification (development status). The results show that Phoenix has 474 total acres in residential plan designations. Seventy-one percent (335 acres) of residential land is developed, 15% (73 acres) is vacant, 10% (47 acres) is partially vacant, and 4% (19 acres) is unbuildable.

Exhibit 5. Land by Classification, Phoenix UGB, 2015

Plan Designation	Vacant Acres	Partially Vacant Acres	Developed Acres	Unbuildable Acres	Gross Acres
Residential Employment	0.2	0.0	3.0	0.0	3.1
Residential Hillside	51.3	14.8	15.3	11.1	92.5
Low-Density Residential	8.2	28.4	199.9	6.4	242.9
Medium-Density Residential	11.8	3.5	15.9	0.6	31.7
High-Density Residential	1.8	0.0	101.0	0.5	103.4
Total	73.3	46.7	335.0	18.6	473.5

Source: City of Phoenix Residential Buildable Lands Inventory Table 4

Exhibit 6 shows gross and net buildable acres for vacant and partially vacant land by plan designation. The results show that Phoenix has about 52 net buildable acres in residential plan designations. Of this, 51% (27 acres) is in the Low-Density Residential designation, 28% (15 acres) is in Residential Hillside, 18% (9 acres) is in Medium-Density Residential, and 3% (1.6 acres) is in the Residential Employment and High-Density Residential designations.

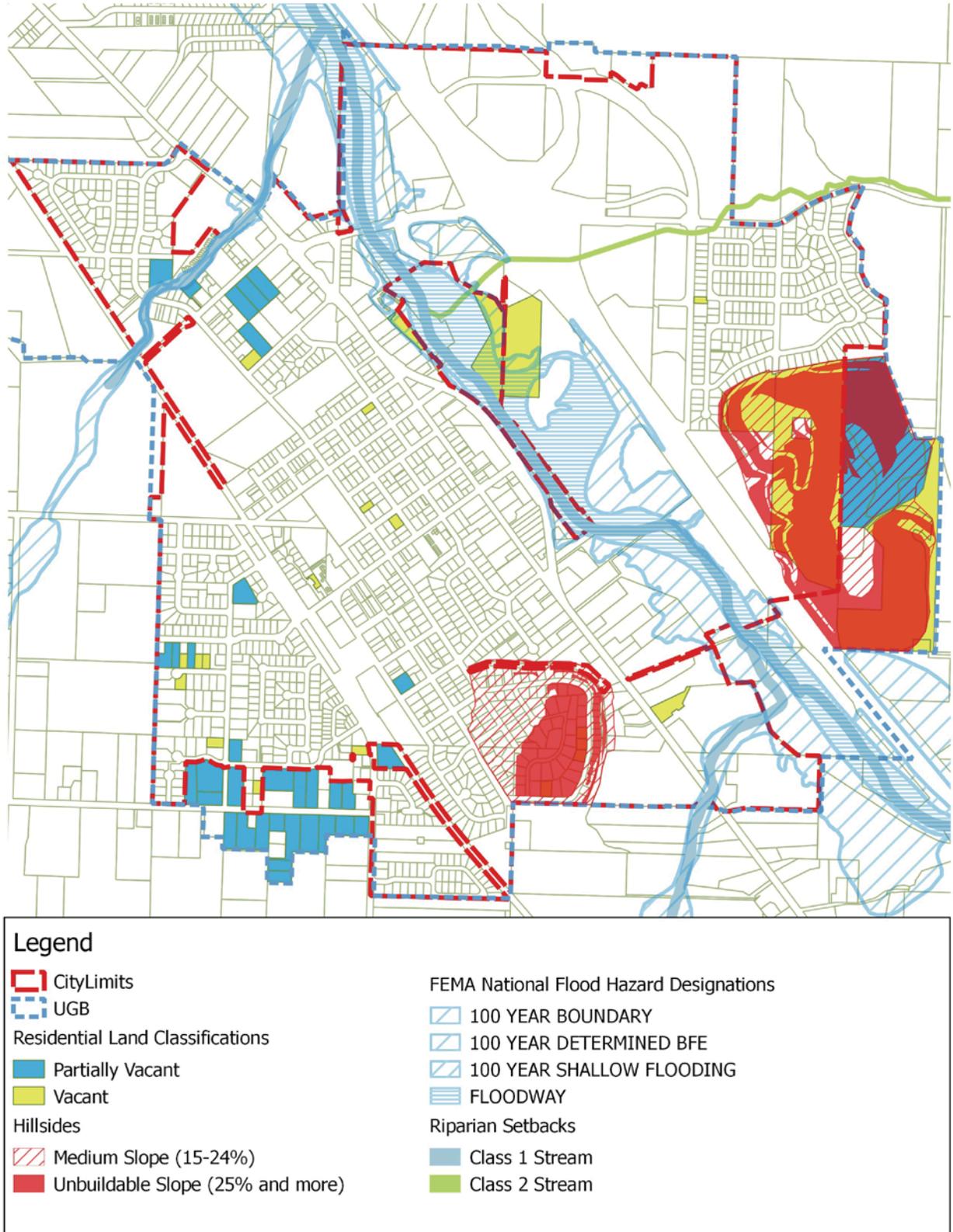
Exhibit 6. Gross and Net Buildable Acres by Plan Designation, Phoenix UGB, 2015

Plan Designation	Vacant Acres	Unbuildable Constrained Acres	Total Unbuildable Acres	Vacant Acres (Excluding Constrained and Unbuildable)
Residential Employment	0.2	0.0	0.0	0.2
Residential Hillside	65.8	3.7	47.4	14.7
Low-Density Residential	29.5	1.6	1.2	26.7
Medium-Density Residential	14.3	1.3	3.9	9.1
High-Density Residential	1.8	0.4	0.0	1.4
Total	111.6	7.0	52.4	52.2

Source: City of Phoenix Residential Buildable Lands Inventory Table 10

Exhibit 7 shows vacant and partially vacant residential land by plan designation with development constraints.

Exhibit 7. Vacant and Partially Vacant Land with Constraints



Source: City of Phoenix Residential Buildable Lands Inventory Map 7

3. Historical and Recent Development Trends

Analysis of historical development trends in Phoenix provides insight into the functioning of the local housing market. The mix of housing types and densities, in particular, are key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands Workbook* as:

1. Determine the time period for which the data will be analyzed
2. Identify types of housing to address (all needed housing types)
3. Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types

This HNA examines changes in Phoenix's housing market from January 2000 to February 2015. We selected this time period because it provides information about Phoenix's housing market before and after the national housing market bubble's growth and deflation. In addition, data about Phoenix's housing market during this period is readily available, from sources such as the Census and the City and County's building permit database.

The HNA presents information about residential development by housing type. There are multiple ways that housing types can be grouped. For example, they can be grouped by:

1. Structure type (e.g., single-family detached, apartments, etc.)
2. Tenure (e.g., distinguishing unit type by owner or renter units)
3. Housing affordability (e.g., units affordable at given income levels)
4. Some combination of these categories

For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached** includes single-family detached units, manufactured homes on lots and in mobile home parks, and accessory dwelling units.
- **Single-family attached** is all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.
- **Multifamily** is all attached structures (e.g., duplexes, tri-plexes, quad-plexes, and structures with five or more units) other than single-family detached units, manufactured units, or single-family attached units.

Data Used in this Analysis

Throughout this analysis, we use data from multiple sources, choosing data from well-recognized and reliable data sources. One of the key sources for data about housing and household data is the U.S. Census. This report primarily uses data from two Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition), household characteristics (e.g., household size and composition), and housing occupancy characteristics. As of the 2010 Decennial Census, it does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 2000 and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a sample of households in the U.S. From 2009 through 2013, the ACS sampled an average of 3.2 million households per year, or about 2.8% of the households in the nation. The ACS collects detailed information about households, such as: demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment), household characteristics (e.g., household size and composition), housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms), housing costs (e.g., rent, mortgage, utility, and insurance), housing value, income, and other characteristics.

In general, this report uses data from the 2009-2013 ACS for Phoenix. Where information is available, we report information from the 2000 and 2010 Decennial Census.

The foundation of the housing needs analysis is the population forecast for Phoenix from the Oregon Population Forecast Program by the Portland State University Population Research Center.

Trends in Housing Mix

This section provides an overview of changes in the mix of housing types in Phoenix and comparison geographies. These trends demonstrate the types of housing developed in Phoenix historically. Unless otherwise noted, this chapter uses data from the 2000 and 2010 Decennial Census, and 2009-2013 American Community Survey 5-Year Estimates.

This section shows the following trends in housing mix in Phoenix:

- **Phoenix's housing stock is made up of mostly single-family detached housing units.** 75% percent of Phoenix's housing stock is single-family detached, 24% is multifamily and only about 1% is single-family attached (e.g., townhouses). In comparison, these housing types account for 22% of Jackson County's housing stock, and 34% of Medford's.
- **Phoenix's overall housing mix has remained largely stable since 2000.** Phoenix's housing stock grew by 18% (more than 340 new units) between 2000 and the 2009-2013 period.³ However the mix of housing types remained largely stable, shifting by no more than a percent in any category. The percentage of single-family attached housing increased from 74% in 2000 to 75% in 2009-2013.
- **Single-family detached housing accounted for nearly all of housing growth between 2000 and 2014.** About 98% of new housing was single-family detached and 2% was multifamily housing, such as duplexes or fourplexes.

The implication for the forecast of new housing in Phoenix is that the City's housing stock primarily single-family detached and very little multifamily development is occurring. One of the City's key challenges in future housing development will be to encourage multifamily development, as a way to provide a wider range of housing options.

³ This report presents data from the 2000 Decennial Census and from the 2009-2013 American Community Survey 5-Year Estimates. Single-year Ceneus data, such as the 2000 and 2010, are only available for small cities like Phoenix from the Decennial Census. Between the Decennial Census, the best available data is from the American Community Survey, collected over a 5-year period. Since Phoenix is a small city and the American Community Survey is based on a sample of the population, it takes five years of American Community Survey responses to result in statistically valid results. The American Community Survey data used in this report is from the 2009-2013 period.

Housing Mix

About 75% of Phoenix’s housing stock is single-family detached.

In comparison, about 78% of the housing in Jackson County, and about 66% in Medford are single-family detached.

The mix of housing in Phoenix was largely stable between 2000 and 2009-2013.

The percentage of single-family attached housing increased by about one percent to 75% while single-family attached and multifamily both fell by about 1% respectively.

Phoenix had 2,239 dwelling units in the 2009-2013 period. About 1,674 were single-family detached, 32 were single-family attached, and 444 were multifamily.

Exhibit 8. Housing Mix, 2009-2013

Source: Census Bureau, 2009-2013 ACS Table B25024

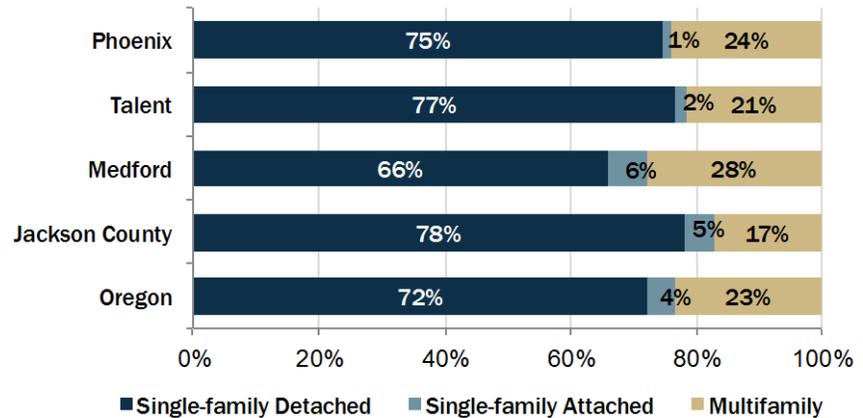
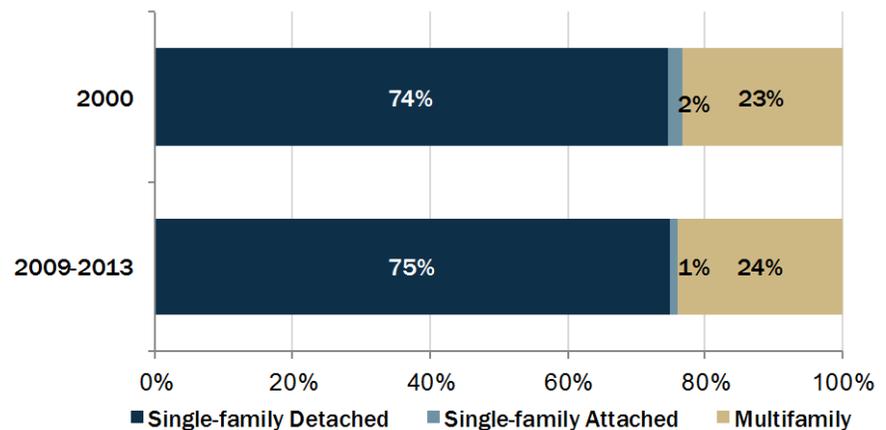


Exhibit 9. Change in Housing Mix, Phoenix, 2000 and 2009-13

Source: Census Bureau, 2000 Decennial Census, SF3 Table H030, and 2013 ACS Table B25024

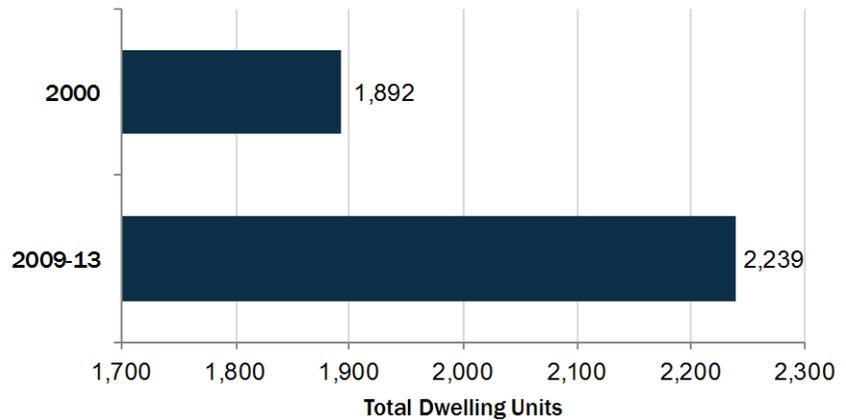


The total number of dwelling units in Phoenix increased by 347 dwelling units from 2000 to 2009-13.

This amounted to an 18% increase over the analysis period.

Exhibit 10. Total Dwelling Units, Phoenix, 2000 and 2009-13

Source: Census Bureau, 2000 Decennial Census, SF3 Table H030, and 2009-13 ACS Table B25024.

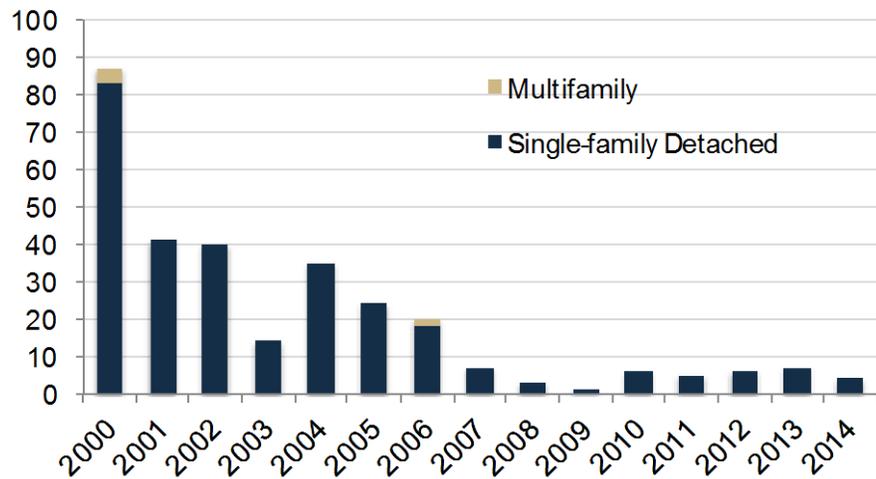


Building Permits

Over the 2000 to 2014 period, Phoenix issued permits for more than 303 dwelling units, with an average of 20 permits issued annually.

About 98% of dwellings permitted were single-family detached and 2% were multifamily.

Exhibit 11. Building Permits by Type of Unit, Phoenix, 2000 through 2014



Source: City of Phoenix.

Trends in Tenure

Housing tenure describes whether a dwelling is owner- or renter-occupied. This section shows:

- **Almost two thirds of Phoenix’s households are owner-occupied.** In comparison, 62% of households in Jackson County, and about half (51%) of households in Medford are owner-occupied.
- **Homeownership in Phoenix is close to the county average.** Sixty two percent of households are homeowners throughout Jackson County.
- **Most homeowners (99%) live in single-family detached housing and most renters (68%) live in multifamily housing in Phoenix.**

The implications for the forecast of new housing are: (1) opportunities for rental housing are limited, given that two-thirds of renters live in multifamily housing and that very little new multifamily housing has been built in Phoenix since 2000 and (2) there may be opportunities to encourage development of a wider variety of affordable attached housing types for homeownership, such as townhomes.

Phoenix has similar homeownership rates to the county, but higher homeownership rates than Medford and Talent. More than half of households in Phoenix live in owner-occupied dwelling units, compared with 62% of households in Jackson County and 51% of Medford households.

The overall homeownership rate in Phoenix remained between 63% and 65% since 2000.

Exhibit 12. Tenure, Occupied Units, Phoenix, Medford, Jackson County, 2009-13

Source: Census Bureau, 2009-2013 ACS Table B24003

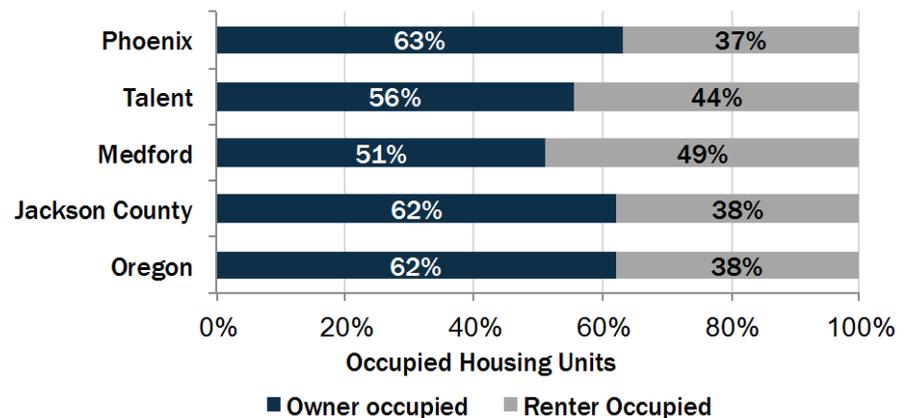
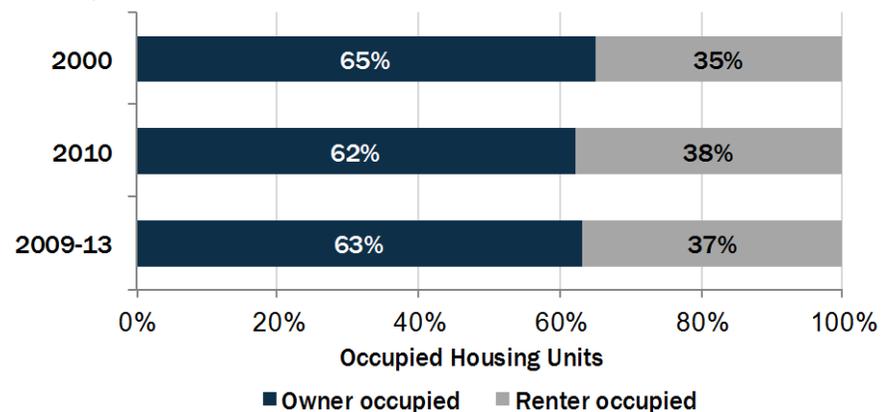


Exhibit 13. Tenure, Occupied Units, Phoenix, 2000-2013

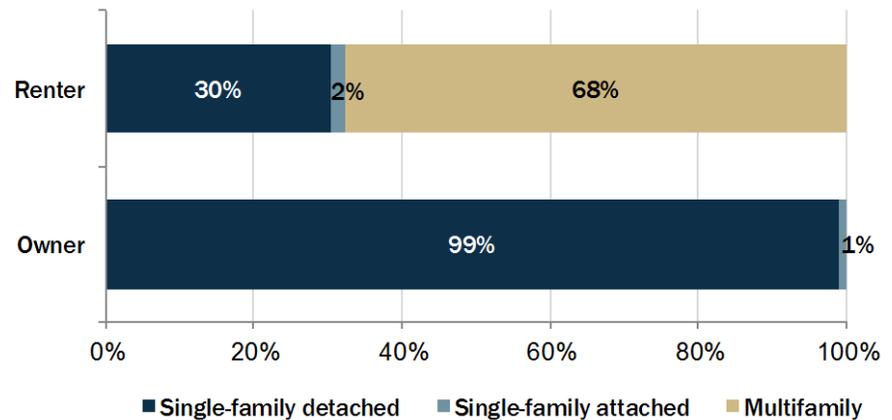
Source: Census Bureau, 2000 Decennial Census SF1 Table H004, 2010 Decennial Census SF1 Table H4, 2009-13 ACS Table B24003



The majority (99%) of owner-occupied housing units are single-family detached units and less than one third of renter-occupied units are multifamily.

Exhibit 14. Housing Units by Type and Tenure, Phoenix, 2013

Source: Census Bureau, 2013 ACS Table B25032



Vacancy Rates

The Census defines vacancy as: "Unoccupied housing units are considered vacant. Vacancy status is determined by the terms under which the unit may be occupied, e.g., for rent, for sale, or for seasonal use only." The 2010 Census identified vacant through an enumeration, separate from (but related to) the survey of households. The Census determines vacancy status and other characteristics of vacant units by enumerators obtaining information from property owners and managers, neighbors, rental agents, and others.

In 2000, the vacancy rate in Phoenix was 5.6%, equivalent to the rate of the county, and lower than that of the state.

Exhibit 15. Percent of Housing Units that are Vacant, 2000

Source: Census Bureau, 2000, Summary File 1 Table QT-H1

5.6% Phoenix	4.0% Talent	4.6% Medford	5.6% Jackson County	8.2% Oregon
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From 2000 to 2010, Phoenix's vacancy rate rose to 6.9%, but still stood below that of the county and state.

Exhibit 16. Percent of Housing Units that are Vacant, 2010

Source: Census Bureau, 2000, Summary File 1 Table QT-H1

6.9% Phoenix	6.6% Talent	7.2% Medford	8.6% Jackson County	9.3% Oregon
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In the 2009-2013 period, the vacancy rate in Phoenix, was below that of Jackson County and Oregon.

Exhibit 17. Percent of Housing Units that are Vacant, 2009-2013

Source: Census Bureau, 2009-13 ACS Table B25002

4.7% Phoenix	6.5% Talent	7.6% Medford	8.5% Jackson County	9.6% Oregon
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A survey of multifamily housing developments conducted by ECONorthwest in July and August 2015 (see Exhibit 45) shows no vacancies (100% occupancy) in the multifamily complexes surveyed in Phoenix, Talent, and Medford. While this survey is not comprehensive, it indicates that the market for multifamily rental housing in the region is tight.

Housing Density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.⁴ The U.S. Census does not track residential development density. As part of the Buildable Lands Inventory (in Appendix A), Phoenix staff calculated single-family detached development in the city on land without a slope averages 4.9 dwelling units per net acre. Land with slopes of 15-20% developed at an average density of 3.9 dwelling units per net acre (or 80% of average density) and 3.2 dwelling units per acre (or 65% of the average density) on land with slopes 21-25%.

Exhibit 18 shows the density for a sample of single-family attached and multifamily housing in Phoenix. The single-family attached and multifamily developments shown in Exhibit 18 include the majority of these housing types in Phoenix, with five of Phoenix nine multifamily housing complexes shown in Exhibit 18. All of these units were built in 2001 or before, except Creekside, which is a proposed multifamily development in Phoenix.

Existing single-family attached housing has a density of about 12.5 dwelling units per net acre and multifamily has a density of 22.8 dwelling units per net acre.

Exhibit 18. Sample of Density of Single-Family Attached And Multifamily Housing, Phoenix, 2015

Source: City of Phoenix GIS data

Development	Net Acres	Dwelling Units	Density (DU/Net Acre)
Single-Family Attached	7.27	91.00	12.5
Cheryl Lane Townhome	0.84	20	23.8
Megan Lane Townhouses	2.74	21	7.7
Brookside Townhouses	1.70	32	18.8
Park Rose	1.99	18	9.0
Multifamily	5.44	124.00	22.8
Phoenix Court	0.66	13	19.7
Leisure Village	1.74	44	25.3
Phoenix Village	1.18	20	16.9
Midas Gardens	0.83	15	18.1
Creekside (proposed)	1.03	32	31.1

The Regional Problem Solving process (RPS) resulted in commitments from each city in the region about “committed densities” for residential development in Urban Reserve Areas (URAs). Phoenix’s committed density is 6.6 dwelling units per gross acre (or 8 dwelling units per net acre) for the 2010-2035 period. For the 2036-2060 period, Phoenix’s committed density is

⁴ OAR 660-024-0010(6) uses the following definition of net buildable acre. “Net Buildable Acre” “...consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.” While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

7.6 dwelling units per gross acre, a 15% increase over the committed density for the 2010-2035 period.⁵

Government-assisted housing programs

Governmental agencies and nonprofit organizations offer a range of housing assistance to low- and moderate-income households in renting or purchasing a home. In Phoenix, one such development provides government-assisted housing. The Brookside and Rose Court apartments, offer 76 units of affordable housing directed towards elderly and disabled Phoenix residents, according to Oregon Housing and Community Services.⁶

Manufactured Homes

Manufactured homes have provided a source of affordable housing in Phoenix. They provide a form of homeownership that can be made available to low- and moderate-income households. Cities are required to plan for manufactured homes—both on lots and in parks (ORS 197.475-492).

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space. Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons, including the fact that property taxes levied on the value of the land are paid by the property owner rather than the manufactured homeowner. The value of the manufactured home generally does not appreciate in the way a conventional home would, however. Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate another manufactured home to escape rent increases. Living in a park is desirable to some because it can provide a more secure community with on-site managers and amenities, such as laundry and recreation facilities.

Phoenix had 477 mobile homes in 2000 and 514 mobile homes in the 2009-13 period, an increase of 37 dwellings. According to Census data, 93% of the mobile homes in Phoenix were owner-occupied in the 2009-2013 period.

OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high-density residential development. Exhibit 19 presents the inventory of mobile and manufactured home parks within Phoenix in 2015.

⁵ Greater Bear Creek Valley Regional Plan, page 2-11 to 2-12.

⁶ "Oregon Low Cost Housing Projects," Oregon Housing and Community Services, accessed August, 2015, <https://egov.hcs.state.or.us/reser/APS/LowCostHousing.jsp>.

Phoenix has 5 manufactured home parks with a total of 386 spaces, of which 6 are vacant.

Exhibit 19. Inventory of Mobile/Manufactured Home Parks, Phoenix, 2015

Source: Oregon Manufactured Dwelling Park Directory

Name	Total Spaces	Vacant Spaces	Comprehensive Plan Designation
Bear Lake Mobile Estates	210	3	High Density Residential
Creekside Estates	58	1	High Density Residential
Greenway Village Mobile Home Park	55	2	High Density Residential
Rogue Valley South MHP	63	0	High Density Residential

4. Demographic and Other Factors Affecting Residential Development in Phoenix

Demographic trends are important to a thorough understanding of the dynamics of the Phoenix housing market. Phoenix exists in a regional economy; trends in the region impact the local housing market. This chapter documents demographic, socioeconomic, and other trends relevant to Phoenix, at the national, state, and regional levels.

Demographic trends provide a context for growth in a region; factors such as age, income, migration and other trends show how communities have grown and how they will shape future growth. To provide context, we compare Phoenix to Medford and Jackson County where appropriate. Characteristics such as age and ethnicity are indicators of how population has grown in the past and provide insight into factors that may affect future growth.

A recommended approach to conducting a housing needs analysis is described in “Planning for Residential Growth: A Workbook for Oregon’s Urban Areas,” the Department of Land Conservation and Development’s guidebook on local housing needs studies. As described in the workbook, the specific steps in the housing needs analysis are:

1. Project the number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.
3. Describe the demographic characteristics of the population and, if possible, the housing trends that relate to demand for different types of housing.
4. Determine the types of housing that are likely to be affordable to the projected households based on household income.
5. Determine the needed housing mix and density ranges for each plan designation and the average needed net density for all structure types.
6. Estimate the number of additional needed units by structure type.

This chapter presents data to address steps 2, 3, and 4 in this list. Chapter 5 presents data to address steps 1, 5, and 6 in this list.

Demographic and Socioeconomic Factors Affecting Housing Choice ⁷

Analysts typically describe housing demand as the *preferences* for different types of housing (i.e., single-family detached or apartment), and *the ability to pay* for that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing; in other words, income or wealth).

Many demographic and socioeconomic variables affect housing choice. However, the literature about housing markets finds that age of the householder, size of the household, and income are most strongly correlated with housing choice.

- **Age of householder** is the age of the person identified (in the Census) as the head of household. Households make different housing choices at different stages of life. This chapter discusses generational trends, such as housing preferences of Baby Boomers, people born from about 1946 to 1964, and Millennials, people born from about 1980 to 2000.
- **Size of household** is the number of people living in the household. Younger and older people are more likely to live in single-person households. People in their middle years are more likely to live in multiple person households (often with children).
- **Income** is the household income. Income is probably the most important determinant of housing choice. Income is strongly related to the type of housing a household chooses (e.g., single-family detached, duplex, or a building with more than five units) and to household tenure (e.g., rent or own).

⁷ The research in this chapter is based on numerous articles and sources of information about housing, including:

Davis, Hibbits, & Midghal Research, "Metro Residential Preference Survey," May 2014.

The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014

"Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America.

"Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders

The Case for Multi-family Housing. Urban Land Institute. 2003

E. Zietz. *Multi-family Housing: A Review of Theory and Evidence*. Journal of Real Estate Research, Volume 25, Number 2. 2003.

C. Rombouts. *Changing Demographics of Homebuyers and Renters*. Multi-family Trends. Winter 2004.

J. McIlwain. *Housing in America: The New Decade*. Urban Land Institute. 2010.

D. Myers and S. Ryu. *Aging Baby Boomers and the Generational Housing Bubble*. Journal of the American Planning Association. Winter 2008.

M. Riche. *The Implications of Changing U.S. Demographics for Housing Choice and Location in Cities*. The Brookings Institution Center on Urban and Metropolitan Policy. March 2001.

L. Lachman and D. Brett. *Generation Y: America's New Housing Wave*. Urban Land Institute. 2010.

This chapter focuses on these factors, presenting data that suggests how changes to these factors may affect housing need in Phoenix over the next 20 years.

National Trends ⁸

This brief summary on national housing trends builds on previous work by ECONorthwest, the Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing is closely tied to jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the number of underwater homeowners, delinquent loans, and vacancies remains high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

- **Post-recession recovery slows down.** Despite strong growth in the housing market in 2012 and the first half of 2013, by the first quarter of 2014, housing starts and existing home sales were both down by 3% from the same time a year before, while existing home sales were down 7% from the year before. Increases in mortgage interest rates and meager job growth contributed to the stall in the housing market.
- **Continued declines in homeownership.** After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at about 65%. The Urban Land Institute projects that homeownership will continue to decline to somewhere in the low 60% range.
- **Housing affordability.** In 2012, more than one-third of American households spent more than 30% of income on housing. Low-income households face an especially dire hurdle to afford housing. Among those earning less than \$15,000, more than 80% paid over 30% of their income and almost 70% of households paid more than half of their income. For households earning \$15,000 to \$29,000, more than 60% were cost burdened, with about 30% paying more than half of their income on housing.
- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that demand for new homes could total as many as 13.2 million units

⁸ These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2013," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

nationally between 2015 and 2025. Much of the demand will come from Baby Boomers, Millennials,⁹ and immigrants.

- **Changes in housing preference.** Housing preference will be affected by changes in demographics, most notably the aging of the Baby Boomers, housing demand from the Millennials, and growth of foreign-born immigrants.
 - *Baby Boomers.* The housing market will be affected by continued aging of the Baby Boomers, the oldest of whom were in their late 60's in 2015 and the youngest of whom were in their early 50's in 2015. Baby Boomers' housing choices will affect housing preference and homeownership, with some boomers likely to stay in their home as long as they are able and some preferring other housing products, such as multifamily housing or age-restricted housing developments.
 - *Millennials.* As Millennials age over the next 20 years, they will be forming households and families. In 2015, the oldest Millennials in their mid-20's and the youngest in their mid-teens. By 2035, Millennials will be between 35 and 55 years old.

Millennials were in the early period of household formation at the beginning of the 2007-2009 recession. Across the nation, household formation fell to around 600,000 to 800,000 in the 2007-2013 period, well below the average rate of growth in previous decades. Despite sluggish growth recently, several demographic factors indicate increases in housing growth to come. The Millennial generation is the age group most likely to form the majority of new households. While low incomes have kept current homeownership rates among young adults below their potential, Millennials may represent pent-up demand that will release when the economy fully recovers. As Millennials age, they may increase the number of households in their 30s by 2.4 to 3.0 million over the through 2025.

- *Immigrants.* Immigration and increased homeownership among minorities will also play a key role in accelerating household growth over the next 10 years. Current Population Survey estimates indicate that the number of foreign-born households rose by nearly 400,000 annually between 2001 and 2007, and accounted for nearly 30 percent of overall household growth. Beginning in 2008, the influx of immigrants was stanchied by the effects of the Great Recession. After a period of declines, however, the foreign born are again contributing to household growth. Census Bureau estimates of net immigration in 2011–12 indicate an increase of 110,000 persons over the previous year, to a total of nearly 900,000.

The growing diversity of American households will have a large impact on the domestic housing markets. Over the coming decade, minorities will make up a larger share of young households, and constitute an important source of demand

⁹ There is no precisely agreed on definition for when the Millennial generation started. Millennials are, broadly speaking, the children of Baby Boomers, born from the early 1980's through the early 2000's.

for both rental housing and small homes. This makes the growing gap in homeownership rates between whites and blacks and whites and Hispanics troubling. Since 2001, the difference in homeownership rates between whites and blacks rose from 25.9 to 29.5 in 2013. Similarly the gap between white and Hispanic homeownership rates increased since 2008, from below 26%, to over 27% in 2013. This growing gap between racial and ethnic groups will hamper the country's homeownership rate as minority households constitute a larger share of the housing market.

- **Changes in housing characteristics.** The U.S Census Bureau's Characteristics of New Housing Report (2013) presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:¹⁰
 - *Larger single-family units on smaller lots.* Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 sq. ft. to 2,384 sq. ft., and 19% in the western region from 1,985 sq. ft. to 2,359 sq. ft. Moreover, the percentage of units smaller than 1,400 sq. ft. nationally decreased by almost half, from 15% in 1999 to 8% in 2012. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2013, the percentage of lots less than 7,000 sq. ft. increased from 27% of lots to 36% of lots.
 - *Larger multifamily units.* Between 1999 and 2013, the median size of new multiple family dwelling units increased by 2% nationally and 3% in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 32% in 2013 nationally, and increased from 25% to 32% in the western region.
 - *More household amenities.* Between 1990 and 2013, the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multifamily units.

¹⁰ <https://www.census.gov/construction/chars/highlights.html>

State Trends

Oregon's 2011-2015 *Consolidated Plan* includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.¹¹ The plan concludes that "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, as compared to the nation.
- Since 2005, is experiencing higher foreclosure rates compared with the previous two decades.
- Losing federal subsidies on about 8% of federally-subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.
- Increasingly older, more diverse, and has less affluent households.¹²

¹¹ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

¹² State of Oregon *Consolidated Plan 2011 to 2015*.

http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

Regional and Local Demographic Trends that may affect housing need in Phoenix

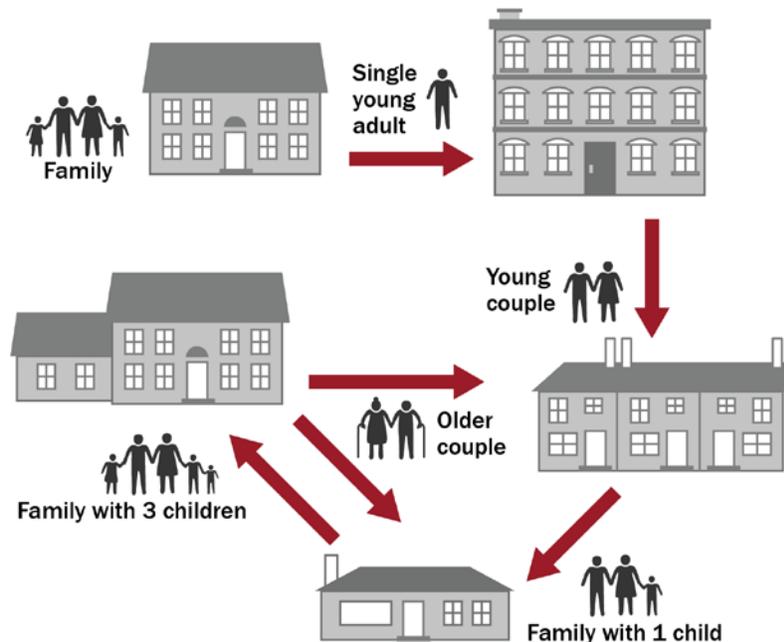
Demographic trends that might affect the key assumptions used in the baseline analysis of housing need are: (1) the aging population, (2) changes in household size and composition, and (3) increases in diversity.

An individual's housing needs change throughout their life, with changes in income, family composition, and age. The types of housing needed by a 20-year-old college student differ from the needs of a 40-year-old parent with children, or an 80-year-old single adult. As Phoenix's population ages, different types of housing will be needed to accommodate older residents. The housing characteristics by age data below reveal this cycle in action in Phoenix.

Housing needs and preferences change in predictable ways over time, with changes in marital status and size of family. Families of different sizes need different types of housing.

Exhibit 20. Effect of demographic changes on housing need

Source: ECONorthwest, adapted from Clark, William A.V. and Frans M. Dieleman. 1996. *Households and Housing*. New Brunswick, NJ: Center for Urban Policy Research.



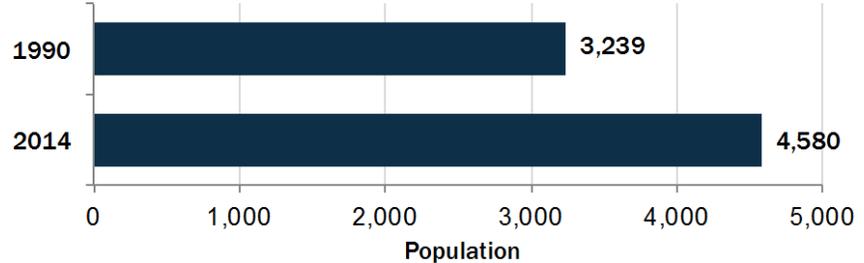
Growing population

Phoenix's population grew by 41% between 1990 and 2014, adding about 1,300 new residents. Over this period, Phoenix's population grew at an average annual growth rate of 1.5%. **Phoenix's population growth will drive future demand for housing in Phoenix over the planning period.**

Since 1990, Phoenix's population has grown by roughly 1,300 people.

Exhibit 21. Population, Phoenix, 1990 - 2014

Source: US Decennial Census 1990, and PSU Population Research Center.



From 1990 to 2014, Phoenix's population grew by 41%, accounting for 2% of population growth in Jackson County.

Exhibit 22. Population Growth, 1990 - 2014

Source: US Decennial Census 1990, 2000, 2010. PSU Population Research Center, Population Estimates and Reports, <http://www.pdx.edu/prc/population-reports-estimates>.

41% Phoenix	90% Talent	63% Medford	42% Jackson County	39% Oregon
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Phoenix's population grew at a similar rate to that of the county, region, and state.

Exhibit 23. Annual Average Rate of Growth, 1990 - 2014

Source: US Decennial Census 1990, 2000, 2010. PSU Population Research Center, Population Estimates and Reports, <http://www.pdx.edu/prc/population-reports-estimates>.

1.5% Phoenix	2.7% Talent	2.1% Medford	1.5% Jackson County	1.4% Oregon
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Phoenix is projected to grow by 1,928 people between 2015 to 2035, at an average annual growth rate of 1.7%. Extrapolating Phoenix's forecast to 2016 to 2036, Phoenix expects to grow by 1,929 people.¹³

Exhibit 24. Forecast of Population Growth at the County-Level, 2015 - 2035

Source: Oregon Population Forecast Program, Portland State University, Population Research Center.

1.7% 1,928 people Phoenix	1.0% 44,564 people Jackson County
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¹³ This forecast of population growth is based on Phoenix's official population forecast from the Oregon Population Forecast Program. ECONorthwest extrapolated the 2015 population to 2016 and the 2035 population to 2036 based on the methodology specified in the following file (from the Oregon Population Forecast Program website): http://www.pdx.edu/prc/sites/www.pdx.edu/prc/files/Population_Interpolation_Template.xlsx

Aging Population

This section shows two key characteristics of Phoenix's population, with implications for future housing demand in Phoenix:

- **Phoenix's population is older than the state and county, on average.** Phoenix has a larger share of elderly residents, and a relatively small share of people younger than 20 years. As Phoenix's elderly population grows, it will have increasing demand for housing that is suitable for elderly residents.

Demand for housing for retirees will grow over the planning period, as the Baby Boomers continue to age and retire. The State forecasts share of residents aged 60 years and older will account for more than one third of Jackson County's population, compared to around 28% in 2015.

The impact of growth in seniors in Phoenix will depend, in part, on whether seniors already in city continue to live in there as they retire. National surveys show that, in general, most retirees prefer to age in place by continuing to live in their current home and community as long as possible.¹⁴ In addition, Jackson County is an area that has historically attracted retirees moving from other states and other areas. Some of these retirees may choose to locate in Phoenix, if housing is available.

Growth in the number of seniors will result in demand for housing types specific to seniors, such as small and easy to maintain dwellings, assisted living facilities, or age-restricted developments. Senior households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health fails. The challenges that aging seniors face in continuing to live in their community include: changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.¹⁵

- **Phoenix has a smaller population of younger people than the State average.** About 45% of Phoenix's population is under 40 years old, compared to 47% of Jackson County's population and the State average of 52%. The forecast for population growth in Jackson County shows the number of people under 20 years old decreasing by 1% and people between 20 and 39 increasing by 6%. People aged 40 to 59 are forecast to grow by about 18%. Assuming that the age distribution of Phoenix's population continues to resemble the County's, Phoenix will have relatively little growth in these age groups.

People currently aged 15 to 35 are referred to as the Millennial generation and account for the largest share of population in Oregon. By 2035, they will be aged 35 to 55. The forecast for Jackson County shows some growth (an 18%) in people roughly in the Millennials' age group. Phoenix's ability to attract people in this age group will depend,

¹⁴ A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See <http://www.aarp.org/research>.

¹⁵ "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

in large part, on whether the city has opportunities for housing that both appeals to and is affordable to Millennials.

In the near-term, Millennials may increase demand for rental units. The long-term housing preference of Millennials is uncertain. They may have different housing preferences as a result of the current housing market turmoil and may prefer smaller, owner-occupied units or rental units. On the other hand, their housing preferences may be similar to the Baby Boomers, with a preference for larger units with more amenities. Recent surveys about housing preference suggest that Millennials want affordable single-family homes in areas that offer transportation alternatives to cars, such as suburbs or small cities with walkable neighborhoods.¹⁶

A recent survey of people living in the Portland Region shows that Millennials, these younger residents, prefer single-family detached housing. The survey finds that housing price is the most important factor in choosing housing for younger residents.¹⁷ The survey results suggest that Millennials are more likely than other groups to prefer housing in an urban neighborhood or town center. While this survey is for the Portland Region, it shows similar results as national surveys and studies about housing preference for Millennials.

Growth in Millennials in Phoenix will result in increased demand for both affordable single-family detached housing, as well as increased demand for affordable townhouses and multifamily housing. Growth in this population will result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable. There is potential for attracting new residents to housing in downtown, especially if the housing is relatively affordable and located in proximity to services.

From 2000 to 2009-13 Phoenix's median age increased from 41.0 to 50.9 years.

Exhibit 25. Median Age, Years, 2000 to 2009-13

Source: US Census Bureau, 2000 Decennial Census Table B01002, 2009-13 ACS, Table B01002.

2000	41.0 Phoenix	34.3 Talent	37.0 Medford	39.2 Jackson County	36.3 Oregon
2009-13	50.9 Phoenix	38.8 Talent	37.8 Medford	42.5 Jackson County	38.7 Oregon

¹⁶ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014.

"Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America.

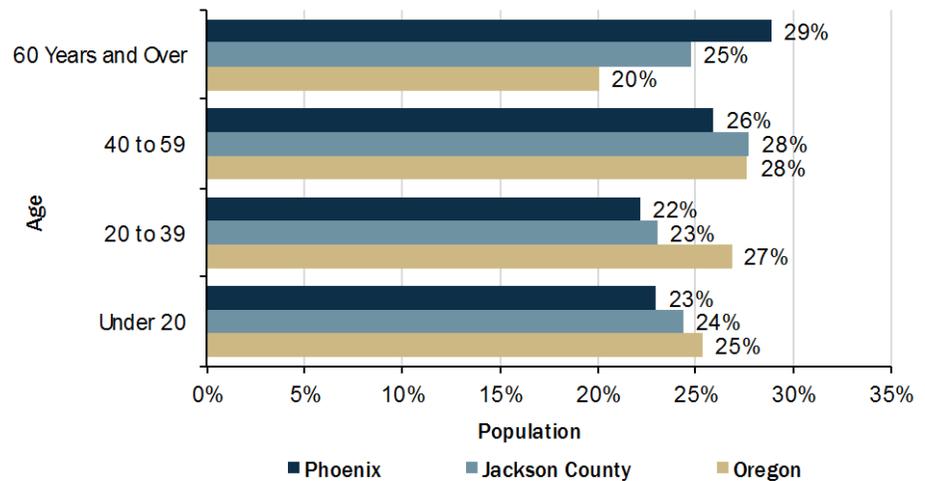
"Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders

¹⁷ Davis, Hibbits, & Midghal Research, "Metro Residential Preference Survey," May 2014.

In 2010, about 48% of Phoenix residents were aged between 20 and 59.

Exhibit 26. Population Distribution by Age, 2010

Source: US Census Bureau, 2010 Decennial Census Table P12.

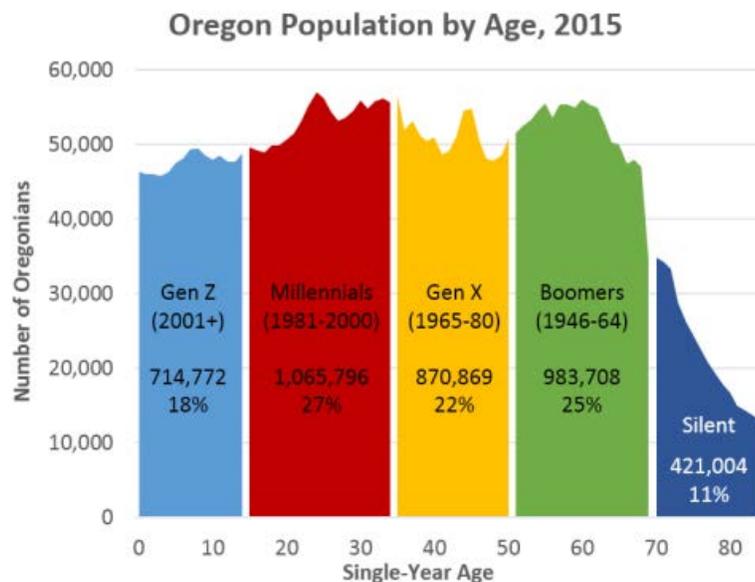


Oregon’s largest age groups are the Millennials and the Baby Boomers.

By 2035, Millennials will be between 35 and 54 years old. Baby Boomers will be 71 to 89 years old.

Exhibit 27. Population Distribution by Generation and Age, Oregon, 2015

Source: Oregon Office of Economic Analysis, “Population, Demographics, and Generations” by Josh Lehner, February 5, 2015. <http://oregoneconomicanalysis.com/2015/02/05/population-demographics-and-generations/>



Source: Oregon Office of Economic Analysis

The majority of population growth in Jackson County will be in people over 60 years old.

Exhibit 28. Fastest-growing Age Groups, Jackson County, 2010 - 2035

Source: Portland State University, Population Research Center, Jackson County Forecast, June 30, 2015

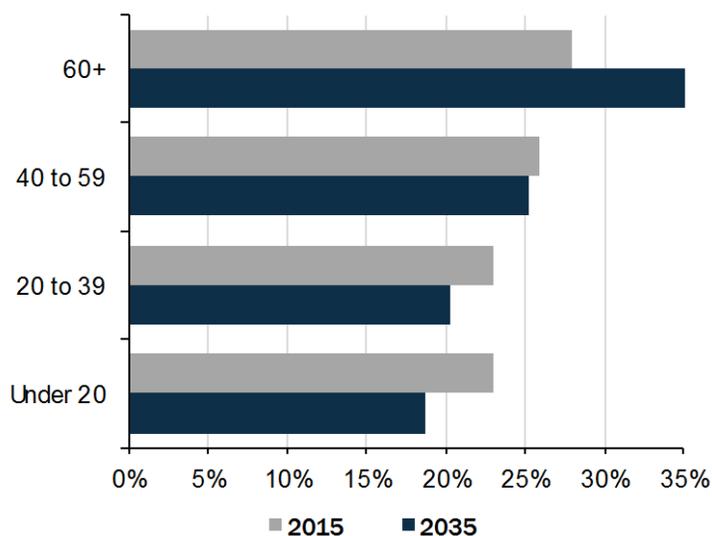
Under 20	20-39 Yrs	40-59 Yrs	60+ Yrs
1% Decrease -539 People	6% Increase 3,124 People	18% Increase 9,794 People	54% Increase 32,185 People

While population growth is expected in all age groups, by 2035, residents older than sixty are expected make up a larger share of the population.

The share of residents aged 60 years and older will account for nearly one third of Jackson County's population, compared to around 28% in 2010.

Exhibit 29. Population Growth by Age Group, Jackson County, 2010 - 2035

Source: Portland State University, Population Research Center, Jackson County Forecast, June 30, 2015



Increased Ethnic Diversity

Phoenix is becoming more ethnically diverse. The Hispanic and Latino population grew from 9% of Phoenix's population in 2000 to 13% of the population in the 2009-2013 period, adding more than 200 new Hispanic and Latino residents. In comparison to Jackson County and Oregon, Phoenix's population is more ethnically diverse.

Continued growth in the Hispanic and Latino population will affect Phoenix's housing needs in a variety of ways.¹⁸ Growth in first and, to a lesser extent, second and third generation Hispanic and Latino immigrants will increase demand for larger dwelling units to accommodate the, on average, larger household sizes for these households. Households for Hispanic and Latino immigrants are more likely to include multiple generations, requiring more space than smaller household sizes. As Hispanic and Latino households integrate over generations, household size typically decreases and their housing needs become similar to housing needs for all households.

Growth in Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable.

¹⁸ The following articles describe housing preferences and household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households. Hispanic and Latino households have a strong preference for homeownership but availability of mortgages and availability of affordable housing are key barriers to homeownership for this group.

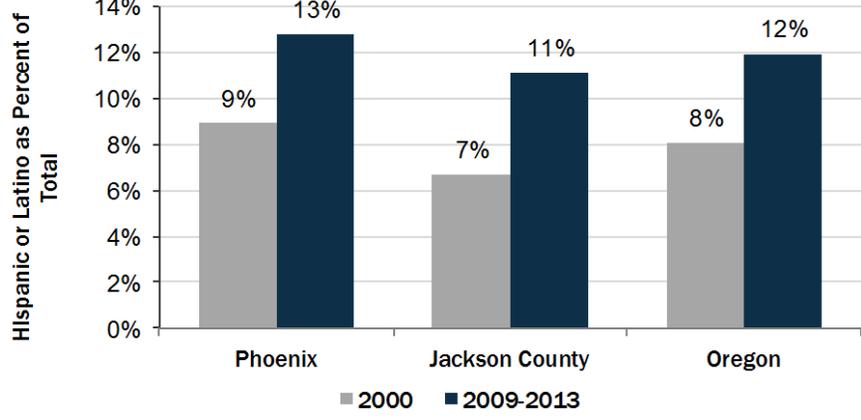
Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012.

National Association of Hispanic Real Estate Professionals. *2014 State of Hispanic Homeownership Report*, 2014.

Phoenix's Hispanic population has increased.
The Hispanic population also grew in Jackson County, and Oregon.

Exhibit 30. Hispanic or Latino Population as a Percent of the Total Population, 2000 to 2009-2013

Source: US Census Bureau, 2000 Decennial Census Table P008, 2009-2013 ACS Table B03002.



Household size and composition

Phoenix's household size and composition show that households in Phoenix are somewhat different from the county and statewide averages. Phoenix's households are smaller and a smaller percentage are family households with children.

Phoenix's average household size is below that of the county and the state.

Exhibit 31. Average Household Size, 2009-2013

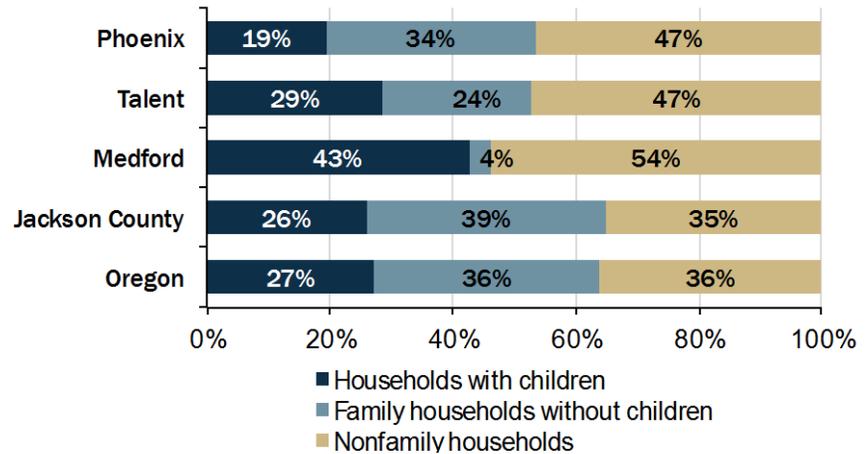
Source: US Census Bureau, 2013 ACS Table B25010.

2.10 Persons Phoenix	2.42 Persons Jackson County	2.49 Persons Oregon
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Phoenix has a smaller share of households with children than Jackson County or Oregon.

Exhibit 32. Household Composition, 2009-2013

Source: US Census Bureau, 2009-2013 ACS, Table DP02.



Income of Phoenix Residents

Income is one of the key determinants in housing choice and households' ability to afford housing. Income for people living in Phoenix is slightly below the average in Jackson County and considerably below the state average.

In the 2009-13 period, Phoenix's median household income was below that of the county and the state.

Exhibit 33. Median Household Income, 2009-2013

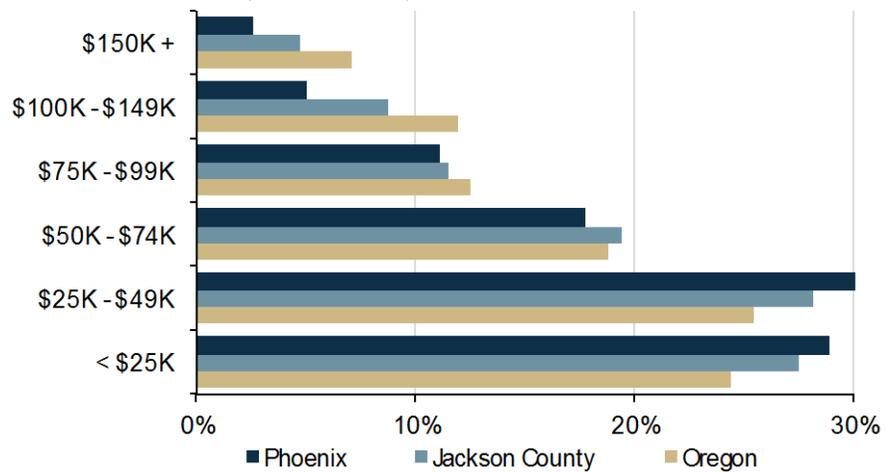
Source: US Census Bureau, 2009-2013 ACS Table B25119

\$37,558	\$34,797	\$41,513	\$44,005	\$50,229
Phoenix	Talent	Medford	Jackson County	Oregon

More than one third of Phoenix households earn between \$25,000 and \$49,000.

Exhibit 34. Household Income, Phoenix, Jackson County, Oregon, 2009-13

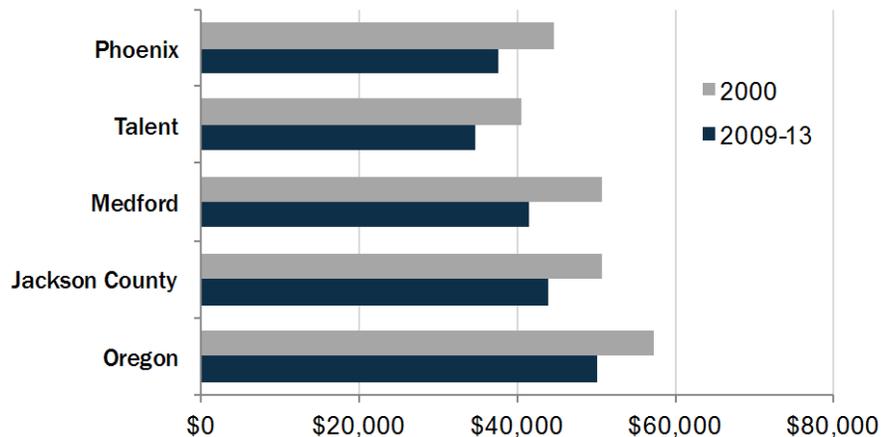
Source: US Census Bureau, 2009-2013 ACS, Table B19001



After adjusting for inflation, Phoenix's median household income decreased by 16% from 1999 to the 2009-13 period, from \$44,597 to \$37,558 per year.

Exhibit 35. Median Household Income, Oregon, Jackson County, Medford, Talent, Phoenix, 2000 to 2009-13, Inflation-adjusted

Source: US Census Bureau, 2000 Decennial Census, Table HCT012, 2009-2013 ACS Table B25119



Commuting trends

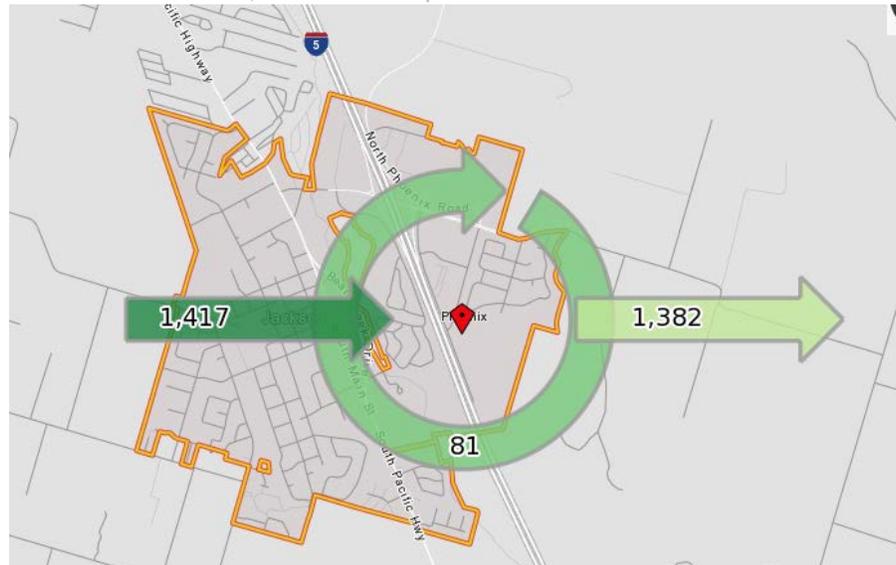
Phoenix is part of the complex, interconnected economy of the Southern Oregon. Of the more than 1,400 people who work in Phoenix, more than 95% of workers commute into Phoenix from other areas, most notably Medford, Central Point, and Ashland. More than 1,300 residents of Phoenix commute out of the city for work, mostly to Medford and Ashland.

Phoenix is part of an interconnected regional economy.

More than 1,400 people commute into Phoenix for work and nearly 1,400 people living in Phoenix commute out of the city for work.

Exhibit 36. Commuting Flows, Phoenix, 2012

Source: US Census Bureau, Census On the Map.



More than 90% of workers at businesses located in Phoenix live in Jackson County, mostly in areas outside of Phoenix.

Thirty-percent of people employed at businesses in Phoenix live in Medford, 6% live in Central Point, and 5% live in Phoenix and Ashland each.

Exhibit 37. Places Where Workers at Businesses in Phoenix Lived, 2012

Source: US Census Bureau, Census On the Map.



Three-quarters of residents of Phoenix work in Jackson County, most of them in cities outside of Phoenix.

Forty-five percent of residents of Phoenix work in Medford and 20% in Ashland. Six percent of Phoenix residents live and work in Phoenix.

Exhibit 38. Places Where Phoenix Residents were Employed, 2011

Source: US Census Bureau, Census On the Map.

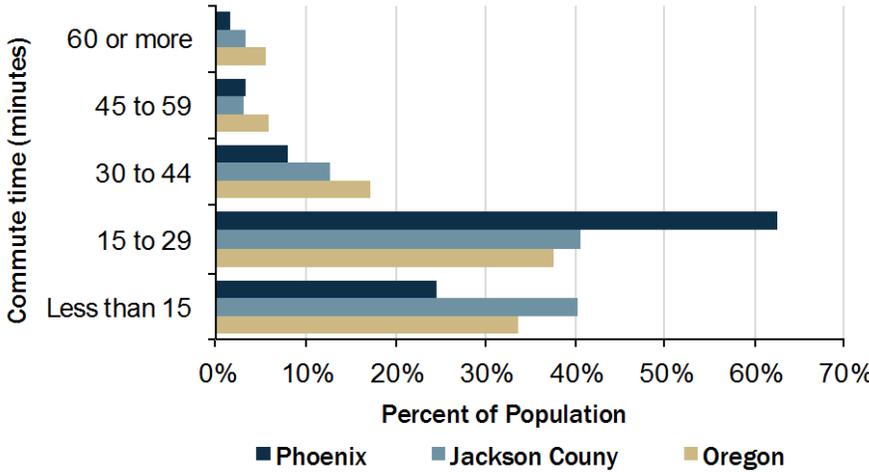


Most Phoenix residents have a commute time that takes less than 30 minutes.

About 87% of Phoenix residents have commute times less than 30 minutes, and only 2% commute for longer than one hour.

Exhibit 39. Commute Time by Place of Residence, Phoenix, Jackson County, Oregon, 2009-2013

Source: US Census Bureau, 2009-2013 ACS Table B08303.



Regional and Local Trends Affecting Affordability in Phoenix

This section describes changes in sales prices, rents, and housing affordability in Phoenix and Jackson County since 2000.

Changes in housing costs

Phoenix’s housing sales prices are slightly higher than the Jackson County average, with a median sales price in \$244,000 in 2015, compared to Jackson County’s overall average and other cities in the region. In general, Phoenix’s housing prices changed with changes in housing price throughout the region, but staying slightly above most prices, except for those in Jacksonville.

Phoenix’s median home sales price is above the county average.

Exhibit 40. Median Home Sale Price, Phoenix, Jackson County, Talent, Ashland, East Medford, Total, 2015

Source: Rogue Valley Association of Realtors, Residential Market Statistics, <http://roguevalleyrealtors.org/market-statistics-media-menu/residential-market-statistics-menu.html>

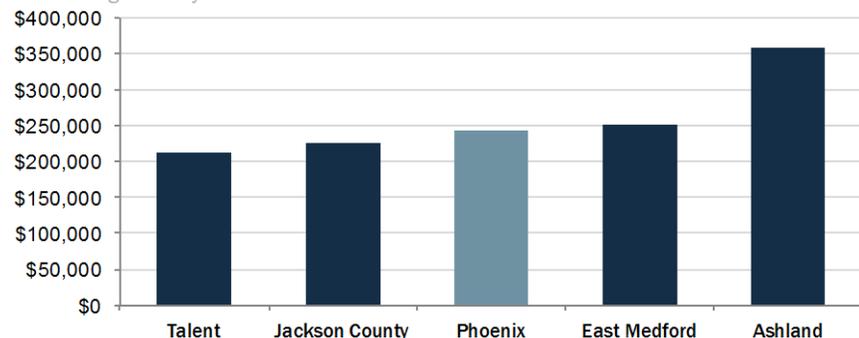
Note: When using Rogue Valley Association of Realtors estimates, Jackson County refers to the association’s “Urban Totals” estimate for Jackson County.



Phoenix’s median home sale price was above most comparable cities in the region.

Exhibit 41. Median Sales Price, Phoenix-area Geographies, 2015

Source: Rogue Valley Association of Realtors.

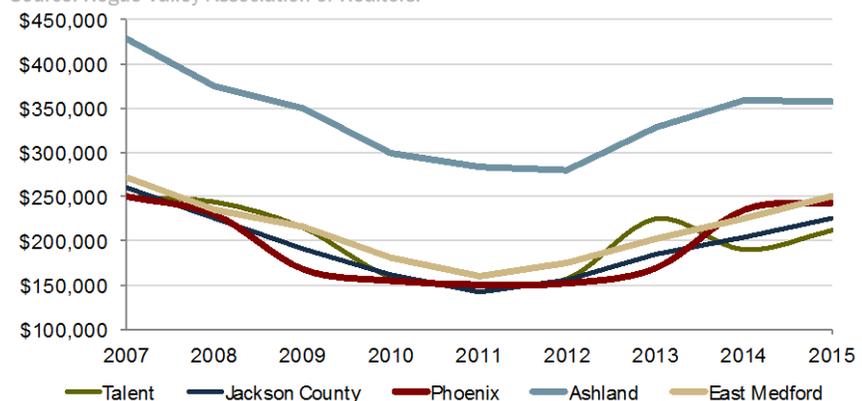


Median home sales prices in Phoenix and across Jackson County declined since 2007, but have generally begun to recover starting in 2012.

The median sales price in Phoenix in 2015 was nearly equal to the sales price at the height of the housing market bubble in 2007.

Exhibit 42. Median Sales Price, Phoenix, Jackson County, Talent, Ashland, East Medford, 2007-2015

Source: Rogue Valley Association of Realtors.



Housing costs have increased faster than income since 2000.

The median value of a house in Phoenix was 3.0 times the median household income in 2000 and 4.2 times by the 2009-2013 period. The change in housing value compared to income was a little smaller in Phoenix than Jackson County.

Exhibit 43. Ratio of Housing Value to Income (Median to Median), 2000 to 2009-13¹⁹

Source: US Census Bureau, 2000 Decennial Census, Tables HCT012 and H085, and 2009-2013 ACS, Tables B19013 and B25077

2000	3.0 Phoenix	3.2 Talent	5.8 Ashland	3.6 Medford	3.6 Jackson County
2009-13	4.2 Phoenix	4.7 Talent	7.6 Ashland	5.1 Medford	5.2 Jackson County

Changes in rental costs

Rent costs are relatively low in Phoenix, compared to Jackson County and other comparable cities in Oregon.

Median contract rent in Phoenix is about \$652.

Exhibit 44. Median Contract Rent, 2009-2013

Source: US Census Bureau, 2009-2013 ACS Table B25058

\$652 Phoenix	\$820 Talent	\$809 Ashland	\$739 Medford	\$745 Jackson County	\$749 Oregon
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¹⁹ This ratio compared the median value of housing in Phoenix to the median household income. Inflation-adjusted median owner values in Phoenix increased from \$132,279 in 2000 to \$158,000 in 2009-13. Over the same period, median income decreased from \$44,543 to \$37,558.

ECONorthwest surveyed multifamily rental complexes in Phoenix, Talent, and Medford to get a sense of rental prices and occupancy rates. The results showed that all the multifamily complexes were completely occupied, suggesting that the rental market in the southern part of the Rogue Valley is very tight.

All of the multifamily complexes were fully occupied.

Government-subsidized rents (highlighted in blue) averaged between \$420 to \$566 per unit. Market-rate rents were between \$800 to \$1,360 per month.

Exhibit 45. Rent survey findings

Source: ECONorthwest

Note: Blue shaded units are government-subsidized affordable

Note: townh. is townhomes

Project Name	Type of Units	Number of Units
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--	--	--

ur Seasons
Apartments

Brentwood
Apartments

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Housing Affordability

A typical standard used to determine housing affordability is that a household should pay no more than a certain percentage of household income for housing, including payments and interest or rent, utilities, and insurance. HUD guidelines indicate that households paying more than 30% of their income on housing experience “cost burden,” and households paying more than 50% of their income on housing experience “severe cost burden.” Using cost burden as an indicator is consistent with the Goal 10 requirement to provide housing that is affordable to all households in a community.

About 44% of Phoenix’s households are cost burdened. About 68% of renter households are cost burdened, compared with 31% of homeowners. Cost burden rates in Phoenix are consistent with those in Jackson County for owner households and a higher percentage of renter households in Phoenix are cost burdened than in Jackson County.

For example, more than one-quarter of Phoenix households have income of less than \$25,000 per year. These households can afford rent of less than \$625 per month or a home with a value of less than \$62,500. Most, but not all, of these households are cost burdened.

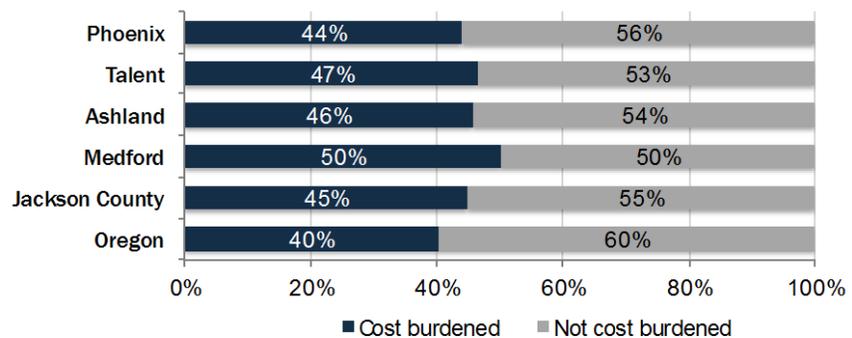
Cost Burden

About 44% of all households in Phoenix are cost burdened.

The percentages of cost burdened households in Jackson County and Medford are slightly higher than that of the Phoenix.

Exhibit 46. Housing Cost Burden Phoenix, Talent, Ashland, Medford, Jackson County, Oregon, 2009-13

Source: US Census Bureau, 2009-2013 ACS Tables B25091 and B25070.

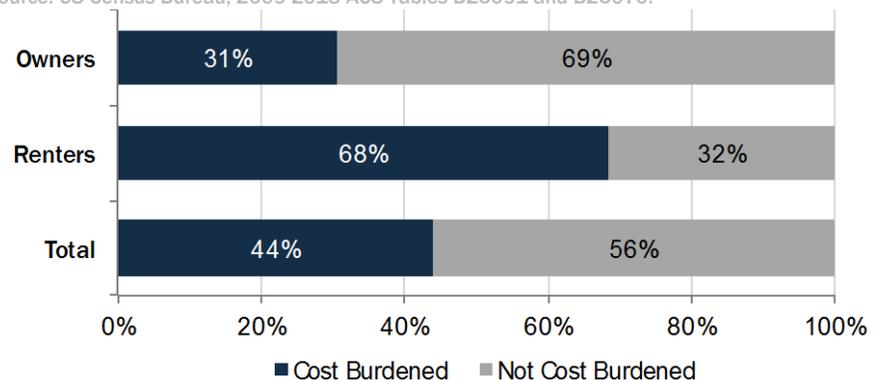


More than two thirds of Phoenix renters are cost burdened, compared to less than one third of homeowners.

Cost burden rates are much higher among renters in Phoenix than among homeowners. In the 2009-13 period, about 68% of renters were cost burdened, compared to 31% of homeowners.

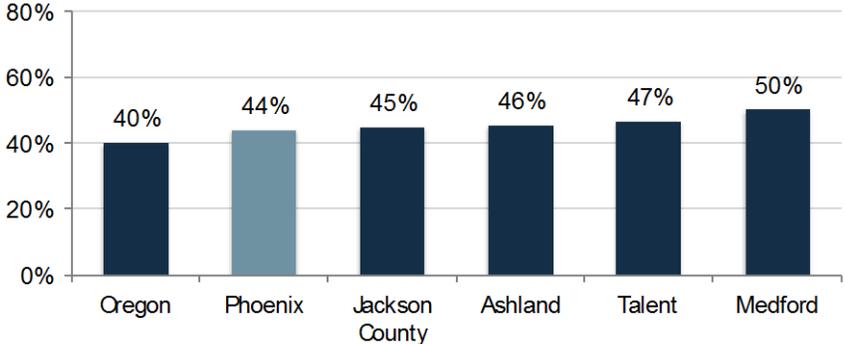
Exhibit 47. Housing Cost Burden by Tenure, Phoenix, 2009-13

Source: US Census Bureau, 2009-2013 ACS Tables B25091 and B25070.



Phoenix’s percentage of cost-burdened homes is below that of Jackson County, Talent, and Medford, but above that of the state overall.

Exhibit 48. Housing Cost Burden, All Households, 2009-2013
 Source: US Census Bureau, 2009-13 ACS Tables B25091 and B25070.



While cost burden is a common measure of housing affordability, it does have some limitations. Two important limitations are:

- A household is defined as cost burdened if the housing costs exceed 30% of their income, regardless of actual income. The remaining 70% of income is expected to be spent on non-discretionary expenses, such as food or medical care, and on discretionary expenses. Households with higher income may be able to pay more than 30% of their income on housing without impacting the household’s ability to pay for necessary non-discretionary expenses.
- Cost burden compares income to housing costs and does not account for accumulated wealth. As a result, the estimate of how much a household can afford to pay for housing does not include the impact of accumulated wealth a household’s ability to pay for housing. For example, a household with retired people may have relatively low income but may have accumulated assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on the cost burden indicator. This issue is particularly important in Phoenix, where the population is substantially older than the average for Jackson County or Oregon.

Cost burden is only one indicator of housing affordability. Another way of exploring the issue of financial need is to review housing affordability at varying levels of household income.

Fair Market Rent for a 2-bedroom apartment in Jackson County is \$844.

Exhibit 49. HUD Fair Market Rent (FMR) by Unit Type, Jackson County, 2015

Source: U.S. Department of Housing and Urban Development

\$617	\$624	\$844	\$1,244	\$1,402
Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom

A household must earn at least \$16.23 per hour to afford a two-bedroom unit in Jackson County.

More than 40% of households in Phoenix have an income below the affordable housing wage for Jackson County.

More than a third of Phoenix households have income less than \$27,950 and cannot afford a one-bedroom apartment at Jackson County's Fair Market Rent (FMR) of \$624 and nearly half of Phoenix households cannot afford a two-bedroom apartment at a Fair Market Rent of \$844.

Exhibit 50. Affordable Housing Wage, Jackson County, 2015

Source: U.S. Department of Housing and Urban Development; Oregon Bureau of Labor and Industries

\$16.23/hour

Affordable Housing Wage for two-bedroom Unit in Jackson County

Exhibit 51. Financially Attainable Housing, by Median Family Income (MFI) for Jackson County (\$55,900), Phoenix, 2015

Source: U.S. Department of Housing and Urban Development
US Census Bureau, 2013 ACS Table 19001

% of Ja. Co. MFI	<30%	30%-50%	50%-80%	80%-120%	>120%
Annual Income	<\$16,770	\$16,770-\$27,950	\$27,950-\$44,720	\$44,720-\$67,080	> \$67,080
Monthly Affdble. Housing Cost	<\$419	\$419-\$699	\$699-\$1,118	\$1,118-\$1,677	> \$1,677
Percent of Phoenix Households	23%	14%	20%	21%	22%
Attainable Owner Housing Types	None	Mfg. in parks	Townhome Duplex Mfg on lot	Townhome Single-family house	All housing types
Attainable Renter Housing Types	Subsidized Apartment	Apartment Mfg. in parks Duplex	Apartment Townhome Single-family house	Most Single-family houses	All housing types

Phoenix currently has a deficit of housing affordable to households earning less than \$75,000. The deficit of housing for households earning less than \$25,000 results in these households living in housing that is more expensive than they can afford, consistent with the data about renter cost burden in Phoenix.

The housing types that Phoenix has a deficit of are more affordable housing types such as apartments, duplexes, tri- and quad-plexes, manufactured housing, townhomes, and smaller single-family housing.

Exhibit 52. Rough Estimate of Housing Affordability, Phoenix, 2015

Source: US Census Bureau, 2009-2013 ACS Tables 19001, 25075, 25063

Annual Income	<\$25K	<\$25K- \$50K	<\$50K- \$75K	<\$75K- \$100K	>\$100k	30%- 50%
HH in Phoenix	616 29%	740 35%	378 18%	237 11%	163 8%	\$22,170 \$36,950
Monthly Affdble. Housing Cost	<\$625	\$625- \$1,250	\$1,250- \$1,875	\$1,875- \$2,450	> \$2,450	Monthly Affdble. Housing Cost
Affdble. Owner Housing Cost	<\$62,500	\$62,500- \$125,000	\$125,000- \$187,500	\$187,500- \$245,000	> \$245K	Monthly Affdble. Housing Cost
Est. of Number of Owner Units in Phoenix	425	162	236	353	173	11%
Est. of Number of Renter Units in Phoenix	141	556	86	3	0	Mfg. in parks
HUD Fair Market Rent (2015)	Studio: \$617	1 bdrm: \$624 2 bdrm: \$844 3bdrm: \$1,244	4 bdrm: \$1,402			
Does Phoenix Have Enough Units?	No Deficit: 51 units	No Deficit: 22 units	No Deficit: 56 units	Yes Surplus: 119 units	Yes Surplus: 10 units	

Summary of the Factors Affecting Phoenix's Housing Needs

The purpose of the analysis thus far has been to provide background on the kinds of factors that influence housing choice, and in doing so, to convey why the number and interrelationships among those factors ensure that generalizations about housing choice are difficult to make and prone to inaccuracies.

There is no question that age affects housing type and tenure. Mobility is substantially higher for people aged 20 to 34. People in that age group will also have, on average, less income than people who are older. They are less likely to have children. All of these factors mean that younger households are much more likely to be renters, and renters are more likely to be in multifamily housing.

The data illustrate what more detailed research has shown and what most people understand intuitively: life cycle and housing choice interact in ways that are predictable in the aggregate; age of the household head is correlated with household size and income; household size and age of household head affect housing preferences; income affects the ability of a household to afford a preferred housing type. The connection between socioeconomic and demographic factors and housing choice is often described informally by giving names to households with certain combinations of characteristics: the "traditional family," the "never marrieds," the "dinks" (dual-income, no kids), the "empty nesters."²⁰ Thus, simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

Thus, one is ultimately left with the need to make a qualitative assessment of the future housing market. The following is a discussion of how demographic and housing trends are likely to affect housing in Phoenix over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 2000 and 2014 Phoenix's population (within its city limits) grew by more than 1,300 people (41%). The population in Phoenix's UGB is forecast to grow from 5,048 to 6,977, an increase of 1,929 people (38%) between 2016 and 2036. Jackson County is expected to grow by approximately 44,000 people (21%) over the same period.²¹
- **Housing affordability will continue to be a key challenge in Phoenix.** Housing affordability is a challenge in Jackson County in general and particularly a challenge in the area between Medford and Ashland, where Phoenix is located. Housing prices are increasing faster than incomes in Jackson County, consistent with state and national challenges. Phoenix has a relatively small share of housing that is multifamily housing (less than a quarter of the City's housing stock) and much of the existing multifamily housing apartment buildings are government-subsidized affordable multifamily

²⁰ See *Planning for Residential Growth: A Workbook for Oregon's Urban Areas* (June 1997).

²¹ This forecast is based on Phoenix's official forecast from the Oregon Population Forecast Program for the 2015 to 2025 period, shown in Exhibit 24. ECONorthwest extrapolated the 2015 population to 2016 and the 2035 population to 2036 based on the methodology specified in the following file (from the Oregon Population Forecast Program website): http://www.pdx.edu/prc/sites/www.pdx.edu/prc/files/Population_Interpolation_Template.xlsx.

housing. Phoenix's key challenge over the next 20 year is providing opportunities for development of relatively affordable housing of all types of housing, from lower-cost single-family housing to market-rate multifamily housing.

- **Without substantial changes in housing policy, on average, future housing will look a lot like past housing.** That is the assumption that underlies any trend forecast, and one that allows some quantification of the composition of demand for new housing.

The City's residential policies can impact the amount of change in Phoenix's housing market, to some degree. If the City adopts policies to increase opportunities to build smaller-scale single-family and multifamily housing types, especially multifamily that is affordable to low- and moderate-income households, a larger percentage of new housing developed over the next 20 years in Phoenix may be relatively affordable. Examples of policies that the City could adopt to achieve this outcome include: allowing a wider range of housing types (e.g., duplex or townhouses) in single-family zones, ensuring that there is sufficient land zoned to allow single-family attached multifamily housing development, supporting development of government-subsidized affordable housing, and encouraging multifamily residential development in downtown. The degree of change in Phoenix's housing market, however, will depend on market demand for these types of housing in the southern part of Jackson County.

- **If the future differs from the past, it is likely to move in the direction (on average) of smaller units and more diverse housing types.** Most of the evidence suggests that the bulk of the change will be in the direction of smaller average house and lot sizes for single-family housing. This includes providing opportunities for development of smaller single-family detached homes, townhomes, and multifamily housing.

Key demographic and economic trends that will affect Phoenix's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino population.

- *The Baby Boomer's population is continuing to age.* By 2035, people 60 years and older will account for 36% of the population in Jackson County (up from 28% in 2015). The changes that affect Phoenix's housing demand as the population ages are that household sizes decrease and homeownership rates decrease. Growth in retirees is the factor that is likely to have the biggest effect on Phoenix's housing market because this age group is expected to account for nearly three-quarters of the growth in Jackson County over the 20-year period.
- *Millennials will continue to age.* By 2035, Millennials will be roughly between about 35 years old to 55 years old. As they age, generally speaking, their household sizes will increase and homeownership rates will peak by about age 55. Between 2015 and 2036, Millennials will be a key driver in demand for housing for families with children.
- *Hispanic and Latino population will continue to grow.* The U.S. Census projects that by about 2040, Hispanic and Latino population will account for one-quarter of the nation's population. The share of Hispanic and Latino population in the western U.S. is likely to be higher. Hispanic and Latino population already accounts for about 13% of Phoenix's population. In addition, Hispanic and

Latino population is generally younger than the U.S. average, with many Hispanic and Latino people belonging to the Millennial generation.

Hispanic and Latino population growth will be an important driver in growth of housing demand, both for owner- and renter-occupied housing. Growth in Hispanic and Latino population will drive demand for housing for families with children. Given the lower income for Hispanic and Latino households, especially first generation immigrants, growth in this group will also drive demand for affordable housing, both for ownership and renting.²²

In summary, an aging population, increasing housing costs (although lower than the Region), housing affordability concerns for Millennials and the Hispanic and Latino populations, and other variables are factors that support the conclusion of need for a smaller and less expensive units and a broader array of housing choices. Growth of retirees will drive demand for small single-family detached and townhomes for homeownership, townhome and multifamily rentals, age-restricted housing, and assisted-living facilities. Growth in Millennials and Hispanic and Latino population will drive demand for affordable housing types, including demand for small, affordable single-family units (many of which may be ownership units) and for affordable multifamily units (many of which may be rental units).

- **No amount of analysis is likely to make the distant future completely certain: the purpose of the housing forecasting in this study is to get an approximate idea about the future so policy choices can be made today.** Economic forecasters regard any economic forecast more than three (or at most five) years out as highly speculative. At one year, one is protected from being disastrously wrong by the sheer inertia of the economic machine. But a variety of factors or events could cause growth forecasts to be substantially different.

²² The following articles describe housing preferences and household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households. Hispanic and Latino households have a strong preference for homeownership but availability of mortgages and availability of affordable housing are key barriers to homeownership for this group.

Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012.

National Association of Hispanic Real Estate Professionals. *2014 State of Hispanic Homeownership Report*, 2014.

5. Housing Need in Phoenix

Project New Housing Units Needed in the Next 20 Years

The results of the housing needs analysis are based on: (1) the official population forecast for growth in Phoenix over the 20-year planning period, (2) information about Phoenix's housing market relative to Jackson County and nearby cities, and (3) the demographic composition of Phoenix's existing population and expected long-term changes in the demographics of Jackson County.

Forecast for housing growth

This section describes the key assumptions and presents an estimate of new housing units needed in Phoenix between 2016 and 2036, shown in Exhibit 53. The key assumptions are based on the best available data and may rely on safe harbor provisions, when available.²³

- **Population.** A 20-year population forecast (in this instance, 2016 to 2036) is the foundation for estimating needed new dwelling units. Phoenix will grow from 5,048 persons in 2016 to 6,977 persons in 2036, an increase of 1,929 people.²⁴
- **Persons in Group Quarters.** Persons in group quarters do not consume standard housing units: thus, any forecast of new people in group quarters is typically derived from the population forecast for the purpose of estimating housing demand. Group quarters can have a big influence on housing in cities with colleges (dorms), prisons, or a large elderly population (nursing homes). In general, any new requirements for these housing types will be met by institutions (colleges, government agencies, health-care corporations) operating outside what is typically defined as the housing market. Nonetheless, group quarters require residential land. They are typically built at densities that are comparable to that of multiple-family dwellings.

The 2009-2013 American Community Survey shows that 1.9% of the City's population was in group quarters. **For the 2016 to 2036 period, we assume that 1.9% of new population, 37 people, will be in group quarters.**

²³ A safe harbor is an assumption that a city can use in a housing needs analysis that the State has said will satisfy the requirements of Goal 14. OAR 660-024 defines a safe harbor as "... an optional course of action that a local government may use to satisfy a requirement of Goal 14. Use of a safe harbor prescribed in this division will satisfy the requirement for which it is prescribed. A safe harbor is not the only way, or necessarily the preferred way, to comply with a requirement and it is not intended to interpret the requirement for any purpose other than applying a safe harbor within this division."

²⁴ This forecast is based on Phoenix's official forecast from the Oregon Population Forecast Program for the 2015 to 2025 period, shown in Exhibit 24. ECONorthwest extrapolated the 2015 population to 2016 and the 2035 population to 2036 based on the methodology specified in the following file (from the Oregon Population Forecast Program website): http://www.pdx.edu/prc/sites/www.pdx.edu/prc/files/Population_Interpolation_Template.xlsx.

- **Household Size.** OAR 660-024 established a safe harbor assumption for average household size—which is the figure from the most-recent decennial Census at the time of the analysis. According to the 2009-2013 American Community Survey, the average household size in Phoenix was 2.22 people. **Thus, for the 2016 to 2036 period, we assume an average household size of 2.22 persons per household.**
- **Vacancy Rate.** The Census defines vacancy as: "Unoccupied housing units are considered vacant. Vacancy status is determined by the terms under which the unit may be occupied, e.g., for rent, for sale, or for seasonal use only." The 2010 Census identified vacant through an enumeration, separate from (but related to) the survey of households. The Census determines vacancy status and other characteristics of vacant units by enumerators obtaining information from property owners and managers, neighbors, rental agents, and others.

Vacancy rates are cyclical and represent the lag between demand and the market's response to demand for additional dwelling units. Vacancy rates for rental and multifamily units are typically higher than those for owner-occupied and single-family dwelling units.

OAR 660-024 established a safe harbor assumption for vacancy rate—which is the figure from the most-recent decennial Census. According to the 2009-2013 American Community Survey, Phoenix's vacancy rate was 4.7%. **For the 2016 to 2036 period, we assume a vacancy rate of 4.7%.**

Phoenix will have demand for 892 new dwelling units over the 20-year period, with an annual average of 45 dwelling units.

Exhibit 53. Forecast of demand for new dwelling units, Phoenix UGB, 2016 to 2036

Source: Calculations by ECONorthwest

Change in persons	1,929
<i>minus</i> Change in persons in group quarters	37
<i>equals</i> Persons in households	1,892
Average household size	2.2
New occupied DU	852
<i>times</i> Aggregate vacancy rate	4.7%
<i>equals</i> Vacant dwelling units	40
Total new dwelling units (2016-2036)	892
Annual average of new dwelling units	45

New housing units needed over the next 20 years

Exhibit 53 presents a forecast of new housing in Phoenix's UGB for the 2016-2036 period. This section determines the needed mix and density for new housing developed over this 20-year period in Phoenix.

Exhibit 54 shows that, in the future, the need for new housing developed in Phoenix will include more housing generally more affordable, with some housing located in walkable areas with access to services. This assumption is based on the following findings in the previous chapters:

- Demographic changes suggest moderate increases in demand for attached single-family housing and multifamily housing. The key demographic trends that will affect Phoenix's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino population. Growth of these groups has the following implications for housing need in Phoenix:
 - *Baby Boomers.* Growth in the number of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, moving into age-restricted manufactured home parks (if space is available), or moving into group housing (such as assisted living facilities or nursing homes), as their health fails. Minor increases in the share of Baby Boomers who downsize to smaller housing will result in increased demand for single-family attached and multifamily housing. Some Baby Boomers may prefer housing in walkable neighborhoods, with access to services.
 - *Millennials.* Growth in Millennial households is expected to account for a relatively small share in population growth in Jackson County over the next 20-years. To the extent that Millennials grow in Phoenix, this growth will result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable. Some Millennials may prefer to locate in traditional single-family detached housing, at the edges of Phoenix's UGB. Some Millennials will prefer to locate in in walkable neighborhoods, possibly choosing small single-family detached houses, townhouses, or multifamily housing.
 - *Hispanic and Latino population.* Growth in the number of Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable. Hispanic and Latino households are more likely to be larger than average, with more children and possibly with multigenerational households. The types of housing that are most likely to be affordable to the majority of Hispanic and Latino households are existing lower-cost single-family housing, single-family housing with an accessory dwelling unit, and multifamily housing. In

addition, growth in the number of farmworkers will increase need for affordable housing for farmworkers.

- About 44% of Phoenix’s households have affordability problems, indicating a need for more affordable housing types. About half of Phoenix’s households could not afford a two-bedroom apartment at HUD’s fair market rent level of \$844. A household earning median family income (\$55,900) could afford a home valued up to about \$140,000, which is considerably below the median sales price for single-family housing of about \$244,000 in Phoenix.

In addition, Phoenix has a small supply of multifamily housing, which accounts for less than one-quarter of the city’s housing stock. Phoenix has few multifamily apartment buildings, two of which are government-subsidized apartment buildings. As a result, there are few choices for market-rate multifamily housing opportunities in Phoenix.

Continued increases in housing costs may increase demand for denser housing (e.g., multifamily housing or smaller single-family housing) or locating in less expensive areas in Southern Oregon, farther from employment centers. To the extent that denser housing types are more affordable than larger housing types, continued increases in housing costs will increase demand for denser housing.

These findings suggest that Phoenix’s needed housing mix is for a broader range of housing types than are currently available in Phoenix’s housing stock. The types of housing that Phoenix will need to provide opportunity for development of over the next 20-years are described above: smaller single-family detached housing (e.g., cottages or small single-family detached units), manufactured housing, “traditional” single-family detached housing, townhouses, duplexes and quad-plexes, small apartment buildings, and larger apartment buildings.

Exhibit 54 shows a forecast of needed housing in the Phoenix UGB during the 2016 to 2036 period. The projection is based on the following assumptions:

- Phoenix’s official forecast for population growth shows that the City will add 1,929 people over the 20-year period. Exhibit 53 shows that the new population will result in need for 892 new dwelling units over the 20-year period.
- The assumptions about the mix of housing in Exhibit 54 are:
 - Sixty-five percent of new housing will be single-family detached, a category which includes manufactured housing. Exhibit 9 shows that 75% of Phoenix’s housing was single-family detached in the 2009-2013 period, with little change since 2000.
 - Five percent of new housing will be single-family attached. Exhibit 9 shows that 1% of Phoenix’s housing was single-family attached in the 2009-2013 period, with little change since 2000.
 - Thirty percent of new housing will be multifamily. Exhibit 9 shows that 24% of Phoenix’s housing was single-family attached in the 2009-2013 period, with little change since 2000.

Phoenix will have demand for 892 new dwelling units over the 20-year period, with an annual average of 45 dwelling units.

Exhibit 54. Forecast of demand for new dwelling units, Phoenix UGB, 2016 to 2036

Source: Calculations by ECONorthwest

Needed new dwelling units (2016-2036)	892
Dwelling units by structure type	
<i>Single-family detached</i>	
<i>Percent single-family detached DU</i>	65%
<i>equals Total new single-family detached DU</i>	580
<i>Single-family attached</i>	
<i>Percent single-family attached DU</i>	5%
<i>equals Total new single-family attached DU</i>	45
<i>Multifamily</i>	
<i>Percent multifamily detached DU</i>	30%
<i>equals Total new multifamily DU</i>	268
Total new dwelling units (2016-2036)	892

The forecast of new units does not include dwellings that will be demolished and replaced. This analysis does not factor those units in; it assumes they will be replaced at the same site and will not create additional demand for residential land.

Exhibit 57 allocates needed housing to plan designations in Phoenix. The allocation is based, in part, on the types of housing allowed in the zoning designations in each plan designation. Exhibit 57 shows:

- **Low Density Residential** will accommodate new single-family detached housing and a small amount of single-family attached.
- **Medium Density Residential**²⁵ will accommodate a mixture of new and lower density multifamily housing, such as duplexes or triplexes.
- **High Density Residential** will primarily accommodate multifamily, with a small amount of single-family attached housing.
- **Residential Hillside** will accommodate new single-family detached housing.

Exhibit 55. Allocation of needed housing by housing type and plan designation, Phoenix UGB, 2016 to 2036

Source: ECONorthwest

Note: Medium Density Residential includes 0.15 acres of land in Residential Employment, which is zoned R-2.

Note: Single-family detached housing in High Density Residential is manufactured homes in manufactured home parks.

	Residential Plan Designation				Total
	Low-Density Residential	Medium-Density Residential*	High-Density Residential	Residential Hillside	
Dwelling Units					
Single-family detached	447	-	89	44	580
Single-family attached	9	18	18	-	45
Multifamily	-	116	152	-	268
Total	456	134	259	44	893
Percent of Units					
Single-family detached	50%	0%	10%	5%	65%
Single-family attached	1%	2%	2%	0%	5%
Multifamily	0%	13%	17%	0%	30%
Total	51%	15%	29%	5%	100%

²⁵ Medium Density Residential includes 0.15 acres of land in Residential Employment, which is zoned R-2.

Exhibit 56 presents the assessment of needed density for housing built in Phoenix over the 2015 to 2035 period. The assessment of needed density is based on a number of factors: (1) the types of housing and development densities allowed in each Plan Designation, (2) existing development by type of housing, (3) the densities by type of plan designation described in OAR 660-038 Table 2,²⁶ and (4) the range of housing need by income identified Exhibit 57, which includes need for housing for high income households to low- and very-low income households.

Phoenix uses the safe harbor in OAR 660-024-0040(10) to estimate land needed for streets and roads, parks, and schools, as described below.²⁷ As a result, Exhibit 57 converts from net densities to gross densities by decreasing densities by 25% in each plan designation.²⁸

Exhibit 57 shows the following needed densities, in net and gross acres:

- **Low Density Residential:** 6.0 dwelling units per acre, with 25% of land used for rights-of-way, resulting in a density of 4.5 dwelling units per gross acre. Low Density Residential allows densities of between 5.5 and 7.25 dwelling units per net acre. The historical density of for single-family detached dwellings in Phoenix is 4.9 dwelling units per net acre.
- **Medium Density Residential:** 9.0 dwelling units per acre, with 25% of land used for rights-of-way, resulting in a density of 6.8 dwelling units per gross acre. Medium Density Residential allows densities of between 5.5 and 10.0 dwelling units per net acre.
- **High Density Residential – Multifamily Housing:** 23.0 dwelling units per acre, with 25% of land used for rights-of-way, resulting in a density of 17.3 dwelling units per gross acre. High Density Residential allows a minimum density of about 13 dwelling units per net acre.²⁹ The historical density of for multifamily dwellings in Phoenix is 22.8 dwelling units per net acre.
- **Residential Hillside:** 4.0 dwelling units per acre, with 25% of land used for rights-of-way, resulting in a density of 3.0 dwelling units per gross acre. The historical density

²⁶ While Phoenix does not use the methodology described in OAR 660-038, the City did consider the densities described in Table 2. Phoenix's needed densities generally fit within the ranges described in Table 2. The exception is for Medium Density Residential. Table 2 shows a range of 10-12 dwelling units per acre for medium density. Phoenix's zoning code allows a maximum of about 10 dwelling units per acre for Medium Density Residential.

²⁷ OAR 660-024-0040(10) says: "As a safe harbor during periodic review or other legislative review of the UGB, a local government may estimate that the 20-year land needs for streets and roads, parks and school facilities will together require an additional amount of land equal to 25 percent of the net buildable acres determined for residential land needs under section (4) of this rule, and in conformance with the definition of "Net Buildable Acre" as defined in OAR 660-024-0010(6)."

²⁸ OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" "...consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads." While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads, parks, and schools.

²⁹ This minimum density assumes that three dwelling units are developed on a 10,000 square foot lot, which is the minimum lot size in HDR.

for single-family detached dwellings on slopes in Phoenix are 3.9 dwelling units per net acre on slopes of 15-20%, and 3.2 dwelling units per acre on slopes of 21-25%.

Exhibit 56. Needed density for housing built in the Phoenix UGB, 2016 to 2036

Source: ECONorthwest
 Note: DU is dwelling unit.

Plan Designation	Net Density (du/ acre)	Percentage of land for Rights-of-Way, Parks, and Schools	Gross Density (du/ acre)
Low-Density Residential	6.0	25%	4.5
Medium-Density Residential	9.0	25%	6.8
High-Density Residential	23.0	25%	17.3
Residential Hillside	4.0	25%	3.0

Needed housing by income level

The next step in the housing needs analysis is to develop an estimate of need for housing by income and housing type. This requires an estimate of the income distribution of current and future households in the community. These estimates presented in this section are based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

The analysis in Exhibit 57 is based on American Community Survey data about income levels in Phoenix, using information shown in Exhibit 51. Income is categorized into market segments consistent with HUD income level categories, using Jackson County's 2015 Median Family Income (MFI) of \$55,900. Exhibit 57 is based on current household income distribution, assuming approximately that the same percentage of households will be in each market segment in the future.

More than half of Phoenix's future households will have income below 80% of Jackson County's median family income (less than \$45,000 in 2015 dollars).

This shows a substantial need for affordable housing types, such as government-subsidized affordable housing, manufactured homes, apartments, townhomes, duplexes, and small single-family homes.

Exhibit 57. Estimate of needed new dwelling units by income level, by Median Family Income (MFI) for Jackson County (\$55,900), Phoenix, 2016-2036

Source: U.S. Department of Housing and Urban Development
US Census Bureau, 2013 ACS Table 19001

% of Ja. Co. MFI	<30%	30%-50%	50%-80%	80%-120%	>120%
Annual Income	<\$16,770	\$16,770-\$27,950	\$27,950-\$44,720	\$44,720-\$67,080	>\$67,080
2015 Monthly Affdble. Housing Cost	<\$419	\$419-\$699	\$699-\$1,118	\$1,118-\$1,677	>\$1,677
Percent of Phoenix Households	23%	14%	20%	21%	22%
New Households 2016-2036	486	302	431	441	475
Attainable Owner Housing Types	None	Mfg. in parks	Townhome Duplex Mfg on lot	Townhome Single-family house	All housing types
Attainable Renter Housing Types	Subsidized Apartment	Apartment Mfg. in parks Duplex	Apartment Townhome Single-family house	Most Single-family houses	All housing types

Need for government assisted and manufactured housing

ORS 197.303 requires cities to plan for government-assisted housing, manufactured housing on lots, and manufactured housing in parks.

- **Government-subsidized housing.** Government-subsidies can apply to all housing types (e.g., single family detached, apartments, etc.). Phoenix allows development of government-assisted housing in all residential plan designations, with the same development standards for market-rate housing. This analysis assumes that Phoenix will continue to allow government housing in all of its residential plan designations. Because government assisted housing is similar in character to other housing (with the exception being the subsidies), it is not necessary to develop separate forecasts for government-subsidized housing.
- **Manufactured housing on lots.** Phoenix allows manufactured homes on lots in in Low Density Residential designation (the R-1 zone), which is the zone where single-family detached housing is allowed. Phoenix does not have special siting requirements for manufactured homes. Since manufactured homes are subject to the same siting requirements as site-built homes, it is not necessary to develop separate forecasts for manufactured housing on lots.
- **Manufactured housing in parks.** OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high density residential development. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,³⁰ Phoenix has four manufactured home parks within the City, with 386 spaces and six vacant spaces. The manufactured home parks are located in the High Density Residential Plan Designation.

ORS 197.480(2) requires Phoenix to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high density residential.

- Exhibit 53 shows that the Phoenix area will grow by 892 dwelling units over the 2016 to 2036 period.
- Analysis of housing affordability (in Exhibit 56) shows that about 37% of Phoenix's new households will be low income, earning 50% or less of the region's median family income. One type of housing affordable to these households is manufactured housing.
- Manufactured housing in parks accounts for about 20% (about 386 dwelling units) of Phoenix's current housing stock.

³⁰ Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>

- National, state, and regional trends since 2000 showed that manufactured housing parks were closing, rather than being created. For example, between 2000 and 2015, Oregon had 68 manufactured parks close, with more than 2,700 spaces. Of these 13 parks (336 spaces) that closed were in Jackson or Josephine counties. Discussions with several stakeholders familiar with manufactured home park trends suggest that over the same period, few to no new manufactured home parks have opened in Oregon.
- Exhibit 56 shows that the households most likely to live in manufactured homes in parks are those with incomes between \$16,700 and \$28,000 (30% to 50% of median family income), which include 14% of Phoenix households. However, households in other income categories may live in manufactured homes in parks.

Manufactured home park development is an allowed use in High Density Residential. The national and state trends of closure of manufactured home parks and the fact that no new manufactured home parks have opened in Oregon in over the last 15 years demonstrate that development of new manufactured home parks in Phoenix is unlikely. In addition, residential land prices in Phoenix have increased by 5% annually between 1999 and 2016, making it less economically feasible to open a new manufactured home park. In contrast, the annual average inflation rate over the same period was 2.6%.

Our conclusion from this analysis is that development of new manufactured home parks in Phoenix over the planning period is unlikely over the 2016-2036 period. It is, however, likely that manufactured homes will continue to locate on individual lots in Phoenix. The forecast of housing in Exhibit 54 assumes that no new manufactured home parks will be opened in Phoenix over the 2016-2036 period. The forecast includes new manufactured homes on lots in the category of single-family detached housing.

- Over the next 20-years (or longer) one or more manufactured home parks may close in Phoenix, as a result of manufactured home park landowners selling or redeveloping their land for uses with higher rates of return, rather than lack of demand for spaces in manufactured home parks. Manufactured home parks contribute to the supply of low-cost affordable housing options, especially for affordable homeownership.

While there is statewide regulation of the closure of manufactured home parks designed to lessen the financial difficulties of this closure for park residents,³¹ the City has a role to play in ensuring that there are opportunities for housing for the

³¹ ORS 90.645 regulates rules about closure of manufactured dwelling parks. It requires that the landlord must do the following for manufactured dwelling park tenants before closure of the park: give at least one year's notice of park closure, pay the tenant between \$5,000 to \$9,000 for each manufactured dwelling park space, and cannot charge tenants for demolition costs of abandoned manufactured homes.

displaced residents. The City's primary role is to ensure that there is sufficient land zoned for new multifamily housing and to reduce barriers to residential development to allow for development of new, relatively affordable housing. The City may use a range of policy to encourage development of relatively affordable housing, such as allowing a wider range of moderate density housing (e.g., duplexes or cottages) in the Low Density Residential designation, using tax credits to support affordable housing production, developing an inclusionary zoning policy, or partnering with a developer of government-subsidized affordable housing.

6. Residential Land Sufficiency within Phoenix

This chapter presents an evaluation of the sufficiency of vacant residential land in Phoenix to accommodate expected residential growth over the 2016 to 2036 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of Phoenix’s ability to accommodate needed new housing units for the 2016 to 2036 period, based on the analysis in the housing needs analysis. The chapter ends with a discussion of the conclusions and recommendations for the housing needs analysis.

Framework for the Capacity Analysis

The buildable lands inventory summarized in Chapter 2 (and presented in full in Appendix A) provides a *supply* analysis (buildable land by type), and Chapter 5 provided a *demand* analysis (population and growth leading to demand for more residential development). The comparison of supply and demand allows the determination of land sufficiency.

There are two ways to get estimates of supply and demand into common units of measurement so that they can be compared: (1) housing demand can be converted into acres, or (2) residential land supply can be converted into dwelling units. A complication of either approach is that not all land has the same characteristics. Factors such as zone, slope, parcel size, and shape, can all affect the ability of land to accommodate housing. Methods that recognize this fact are more robust and produce more realistic results. This analysis uses the second approach: it estimates the ability of vacant residential lands within the UGB to accommodate new housing. This analysis, sometimes called a “capacity analysis,”³² can be used to evaluate different ways that vacant residential land may build out by applying different assumptions.

³² There is ambiguity in the term *capacity analysis*. It would not be unreasonable for one to say that the “capacity” of vacant land is the maximum number of dwellings that could be built based on density limits defined legally by plan designation or zoning, and that development usually occurs—for physical and market reasons—at something less than full capacity. For that reason, we have used the longer phrase to describe our analysis: “estimating how many new dwelling units the vacant residential land in the UGB is likely to accommodate.” That phrase is, however, cumbersome, and it is common in Oregon and elsewhere to refer to that type of analysis as “capacity analysis,” so we use that shorthand occasionally in this memorandum.

Phoenix Capacity Analysis Results

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based on the needed densities by the housing type categories shown in Exhibit 56.

Exhibit 58 shows that **Phoenix vacant residential land has capacity to accommodate approximately 251 new dwelling units**, based on the following assumptions:

- **Buildable residential land.** The capacity estimates start with the number of buildable acres in residential Plan Designations as shown in Chapter 2.
- **Needed densities.** The capacity analysis assumes development will occur at needed densities (as opposed to historical observed densities). Those densities were derived from historical levels and the needed densities shown in Exhibit 56.

Exhibit 58. Estimated housing development potential on vacant residential lands, number of dwelling units, Phoenix UGB

Source: Buildable Lands Inventory from City of Phoenix; Calculations by ECONorthwest
Note: DU is dwelling unit.

Plan Designation	Buildable/ Suitable Acres	Gross Density (du/ acre)	Dwelling Units Capacity
Low-Density Residential	26.7	4.5	120
Medium-Density Residential*	9.3	6.8	63
High-Density Residential	1.4	17.3	24
Residential Hillside	14.7	3.0	44
Total	52.2		251

The estimated capacity in Exhibit 58 does not include assumptions about redevelopment opportunities.

Residential Land Sufficiency

The next step in the analysis of the sufficiency of residential land within Phoenix is to compare the demand for housing by Plan Designation (Exhibit 55) with the capacity of land by Plan Designation (Exhibit 58).

Exhibit 59 shows that Phoenix has a deficit of capacity in most residential plan designations:

- **Low Density Residential:** Phoenix has a deficit of capacity for about 425 dwelling units, or 94 gross acres of land to accommodate growth over the 2016-2036 period.
- **Medium Density Residential:** Phoenix has a deficit of capacity for about 71 dwelling units, or 10 gross acres of land to accommodate growth.
- **High Density Residential:** Phoenix has a deficit of capacity for about 147 dwelling units, or 8 gross acres of land to accommodate growth.
- **Residential Hillside:** Phoenix has sufficient land in Residential Hillside to accommodate growth.

Exhibit 59. Comparison of capacity of existing residential land with demand for new dwelling units and land deficit, Phoenix UGB, 2016-2036

Source: Buildable Lands Inventory from City of Phoenix; Calculations by ECONorthwest
Note: DU is dwelling unit.

Plan Designation	Land Sufficiency			Land Deficit	
	Dwelling Units Capacity of Buildable Land	Needed Dwelling Units (2016-2036)	Surplus or Deficit of Dwelling Units	Gross Density (du/ acre)	Land Deficit (Gross Acres)
Low-Density Residential	120	545	-425	4.5	-94
Medium-Density Residential	63	134	-71	6.8	-10
High-Density Residential	24	170	-146	17.3	-8
Residential Hillside	44	44	0		-
Total	251	893	-642		-113

Conclusions and Recommendations

The key findings of the Housing Needs Analysis are that:

- **Phoenix has an existing deficit of affordable housing.** More than one-third of Phoenix’s existing households are low- or very-low income, with income below \$28,000. Phoenix has a deficit of housing that is affordable to households in these income ranges. The types of housing affordable to these households are government subsidized housing, manufactured homes, smaller single-family detached housing (e.g., cottages or “tiny houses”), duplexes or quadplexes, and apartments.

In addition, 40% have income between \$28,000 and \$67,000. Phoenix also has a deficit of housing that is affordable to households in these income ranges. The types of housing affordable to these households are manufactured homes on lots, apartments, duplexes or quadplexes, townhomes, or single-family housing.

- **Phoenix’s housing market is strongly impacted by the housing market in the Rogue Valley.** Phoenix is relatively small, accounting for 2% of Jackson County’s population, and located between Medford (with more than 76,000 people) and Ashland (with more than 20,000 people). On average, both housing costs and rental costs are lower in Phoenix than in Medford, and substantially lower than in Ashland.

While the percentage of households who are cost burdened³³ is as similar in Phoenix as in Medford or Ashland (between 45% and 50% of households), household incomes are generally lower than in Phoenix than in Medford or Ashland. In addition, most residents who live in Phoenix work in Medford or Ashland.

This information suggests the role that Phoenix plays in the Rogue Valley housing market is as a place where housing is comparatively more affordable and workforce housing is generally more available. Given Phoenix’s small size, relative to Medford or Ashland, and commuting patterns within the Rogue Valley, Phoenix is going to continue to have demand for affordable lower-income and workforce housing.

- **Phoenix’s demographics are changing, consistent with regional and national trends, with changes affecting the types of housing needed over the next 20 years.** Demographic changes suggest moderate increases in demand for relatively affordable attached single-family housing and multifamily housing. The key demographic trends that will affect Phoenix’s future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino population. Growth of these groups has the following implications for housing need in Phoenix:
 - *Baby Boomers.* Growth in the number of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as

³³ HUD guidelines indicate that households paying more than 30% of their income on housing experience “cost burden.”

long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health declines. Minor increases in the share of Baby Boomers who downsize to smaller housing will result in increased demand for single-family attached and multifamily housing. Some Baby Boomers may prefer housing in walkable neighborhoods with access to services.

- *Millennials.* Growth in this population will result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable. Some Millennials may prefer to locate in traditional single-family detached housing, at the edges of Phoenix's UGB. Some Millennials will prefer to locate in housing closer to Downtown, or in walkable neighborhoods, possibly choosing small single-family detached houses, townhouses, or multifamily housing. These households will be a primary driver of increased demand for smaller, less expensive housing types.
- *Hispanic and Latino population.* Growth in the number of Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable. Hispanic and Latino households are more likely to be larger than average, with more children and possibly with multigenerational households. The types of housing that are most likely to be affordable to the majority of Hispanic and Latino households are existing lower-cost single-family housing, single-family housing with an accessory dwelling unit, and multifamily housing. In addition, growth in the number of farmworkers will increase need for affordable housing for farmworkers.
- **Phoenix is planning for a shift in the mix of housing developed in Phoenix.** Phoenix's existing housing stock is 75% single-family detached, 24% multifamily, and 1% single-family attached. Within these broad housing types, Phoenix's housing stock is a mixture of housing types. For example, Phoenix's single-family detached housing ranges from mobile and manufactured housing to more affordable single-family detached housing, to higher-amenity, single-family detached housing.

Phoenix is planning for a change in the mix of housing in response to the need for more affordable housing and the demographic changes that suggest demand for a wider variety of housing types. Phoenix's needed housing mix for development over the 2016-2036 period is 65% single-family detached, 30% multifamily, and 5% single-family attached.

- **Phoenix's needed housing densities are roughly consistent with the City's historical densities.** The City's existing densities range from 6 dwelling units per net acre in Low Density Residential, to 23 dwelling units per net acre in High Density Residential. Given the mix of housing that Phoenix is planning for, the average density for newly built housing will be about 7.3 dwelling units per net acre.
- **Phoenix has a deficit of land to accommodate housing in all residential plan designations except for Hillside Residential. Phoenix has a total land deficit of 113**

gross acres to accommodate new housing within the City's existing UGB. Ninety-four acres are in Low Density Residential, 10 in Medium Density Residential, and eight acres in High Density Residential.

- **Phoenix has a range of options to address the residential deficits: (1) adopt policies to increase land use efficiency, (2) expand the UGB, or (3) do both.** OAR 660-024-0050(4) says: "Prior to expanding the UGB, a local government must demonstrate that the estimated needs cannot reasonably be accommodated on land already inside the UGB." Meeting the standard requires a city to evaluate policies to increase land use efficiency.

The City's policy options for increasing land use efficiency and providing opportunities for development of relatively affordable housing include: ensuring that enough land is zoned for residential development to meet the need in each plan designation, eliminating barriers to residential development, evaluating opportunities for increasing development density (e.g., allowing smaller lot sizes in some zones), allowing a wider range of housing types (e.g., cottage housing), identifying opportunities for denser multifamily development (e.g., redevelopment of an underused site in downtown), and providing infrastructure in a cost-effective way. The City also has options for supporting development of affordable housing, such as partnering with nonprofit housing providers on development of government-subsidized housing, providing property tax breaks for development of desired housing (e.g., affordable workforce multifamily housing), or providing flexibility in development standards for desired housing developments.

Appendix A: Buildable Lands Inventory

This appendix presents the residential buildable lands inventory report developed by the City of Phoenix. The results of the buildable lands inventory are summarized in Chapter 2.