City of North Plains
Housing Needs Analysis

Updated April 2022

Prepared for:

City of North Plains

CONSOLIDATED REPORT

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Acknowledgments (2017)

ECONorthwest and the City of North Plains thank the many people who helped to develop the North Plains Housing Needs Analysis.

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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 GrowthManagement Program (1996).

The primary goals of the housing needs analysis are to (1) project the amount of land needed to accommodate the future housing needs of all types within the North Plains Urban Growth Boundary (UGB), (2) evaluate the existing residential land supply within the North Plains 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 theCity to meet identified housing needs

2021 UPDATES

ECONorthwest prepared the Housing Needs Analysis that was adopted by North Plains City Council in 2017. 3J Consulting used the 2017 analysis and made revisions in 2021 to reflect new 2020 population projections for North Plains prior to a planned Urban Growth Boundary (UGB) amendment.

The following tables, with associated text, were updated in 2021:

- Exhibit 1. Population Forecast
- Exhibit 2. Buildable Residential Acres
- Exhibit 3. Capacity Comparison Residential Land/New Dwelling
- Exhibit 4. Residential Acres by Classification and Plan Designation
- Exhibit 5. Buildable Lands Inventory, Vacant Land Map
- Exhibit 6. Buildable Lands Inventory, Partially Vacant Land Map
- Exhibit 7. Housing Mix
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- Exhibit 52. Financially Attainable Housing by MFI
- Exhibit 53. Estimate of Vacant/Partially Vacant Land
- Exhibit 54. Housing Development Potential
- Exhibit 55. Capacity Comparison Residential Land/New DU
- Exhibit 56. Land Estimate, Residential Deficits
- Exhibit 57. Land Estimate, Public Uses

What are the key housing needs in North Plains?

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

- **North Plains' housing market is strongly impacted by the housing market in the Portland region.** North Plains is relatively small, accounting for less than 1% of Washington County's population, and located west of Portland along US-26 and north of Hillsboro (with more than 97,000 people). Most residents who live in North Plains work in Hillsboro or Portland, and North Plains residents' incomes are generally higher than in Hillsboro or Portland.

  Home sales prices in North Plains are higher than in both Beaverton and Hillsboro. In

comparison with other Washington County cities, North Plains has seen a particularly strong recovery since the housing market crash. Rental costs in North Plains are much lower than in Beaverton, Hillsboro, and Washington County overall. North Plains has a relatively small share of housing that is multifamily housing (less than a quarter of the City's housing stock).

Given these factors, demand for housing in North Plains will continue to be driven by growth in the Portland Region. North Plains will have demand for development of single-family detached housing and multifamily housing, especially as rents rise in North Plains, with continued growth on the Portland region's Westside.

▪ **Demographic and economic trends will drive demand for relatively affordable single-family detached, single-family attached, and multifamily housing in North Plains.** The key demographic trends that will affect North Plains' future housing needs are: (1) the aging of the Baby Boomers, (2) the aging of the Millennials, and (3) continued growth in Hispanic and Latino population.

   o *Baby Boomers.* By 2040, people 60 years and older will account for 24% of the population in Washington County (up from 20% in 2020). As the Baby Boomers age, growth of retirees will drive demand for small single-family detached houses and townhomes for homeownership, townhome and multifamily rentals, age-restricted housing and assisted-living facilities.

   o *Millennials.* Growth in this population will result in increased demand for both ownership and rental opportunities. Between 2020 and 2040, Millennials will be a key driver in demand for housing that is comparatively affordable and housing for families with children.

   o *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.

▪ **North Plains has an existing lack of affordable housing.** North Plains' key challenge over the next 20 years is providing opportunities for development of relatively affordable versions of all types of housing, from lower-cost single-family housing to market-rate multifamily housing.

   o More than one-third of North Plains households cannot afford a two-bedroom apartment at HUD's fair market rent level of $1,208.

   o In 2016, a household needed to earn $23.23 an hour to afford a two-bedroom rental unit in Washington County.

   o North Plains currently has a deficit of housing units that are affordable to households earning less than $50,000.

   o About 38% of North Plains' households are cost burdened, with 57% of renters and 43% of owners paying more than 30% of their income on housing.

How much growth is North Plains planning for?

A 20-year population forecast (in this instance, 2020 to 2040) is the foundation for estimating the number of new dwelling units needed. Exhibit 1 shows a population forecast for North Plains for the 2020 to 2040 period. It shows that North Plains' population will grow by about 3,666 people over the 20-year period.

Exhibit 1. Population Forecast, North Plains, 2020-2040

Source: ECONorthwest based on North Plains' official 2020-2040 population forecast from the Oregon Population Forecast Program.

2020 Population	3,410
2040 Population	7,076
Change 2020 to 2040	
Number	3,666
Average annual growth rate	3.7%

The housing needs analysis assumes that North Plains' population will grow by 3,666 people over the 2020 to 2040 period.

How much buildable residential land does North Plains currently have?

Exhibit 2 shows buildable residential acres by plan designation, after excluding constrained and unbuildable land, as well as a 15% reduction for right-of-way construction. The results show that North Plains has about 67 net buildable acres in residential plan designations.

Exhibit 2. Buildable Residential Acres, Excluding Constrained land, Unbuildable land and Right-of-Way, by Zoning Designation, City of North Plains, 2021

Source: North Plains Buildable Lands Inventory, Exhibit 4

Inside North Plains City Limits	
Low-Density Residential	2.2 acres
Medium-Density Residential	2.4 acres
High-Density Residential	2.2 acres
Neighborhood Community	60 acres
Total	67 acres

How much housing will North Plains need?

North Plains will need to provide about 1,348 new dwelling units to accommodate forecast population growth between 2020 and 2040. Of the needed 1,348 new dwelling units, the Brynhill Master Plan area, which accounts for all of the 60 net acres of NC-zoned property with development potential within the City limits, will include up to 504 dwelling units. The City does not intend to utilize the NC-zoning district for future UGB expansions. After full build-out of the Brynhill Master Plan area, North Plains will need to provide about 844 new dwelling units to accommodate forecast population growth between 2020 and 2040.

Of the 844 needed new dwelling units, about 591 (70%) will be single-family detached types, which includes manufactured dwellings. About 84 (10%) will be single-family attached, and 169 (20%) will be multifamily, which includes structures with four or more dwellings. Duplexes and triplexes are permitted in the R-2.5 zone and are included in the multifamily housing type percentage.

This mix represents a shift from the existing mix of housing, in which eighty-eight percent of the housing stock is single-family detached housing. The shift in mix is in response to the need for a wider range of relatively affordable housing types, including housing types such as duplexes, townhouses, and apartments. In addition, North Plains has need for relatively affordable smaller single-family attached and detached housing.

How much land will be required for housing?

Exhibit 3 shows that North Plains' 8 net acres of R-zoned vacant and re-developable land has the capacity to accommodate 54 new dwelling units. The Brynhill development will accommodate another 504 dwelling units. North Plains has a deficit of capacity for 790 new dwelling units in the R-zoning districts.

North Plains does not have enough land to accommodate residential growth over the 20-year period.

Exhibit 3. Comparison of capacity of existing residential land with demand for new dwelling units and land deficit, North Plains UGB, 2020-2040
Source: Calculations by 3J Consulting, Exhibit 55

Plan Designation	Dwelling Units Capacity of Buildable Land	Needed Dwelling Units (2020-2040)	Surplus or Deficit of Dwelling Units
Low Density Residential (R7.5)	11	591	-580
Medium Density Residential (R5)	19	84	-65
High Density Residential (R2.5)	24	169	-145
NC	504	504	0
Total	558	1,348	-790

What are the Conclusions and Recommendations of the Housing Needs Analysis?

The key findings of North Plains' housing needs analysis are described above and restated below:

- **North Plains will need to plan for more single-family attached and multifamily dwelling units in the future to meet the City's housing needs.** Historically, about 88% of North Plains housing was single-family detached. While 70% of new housing in North Plains is forecast to be single-family detached, the City will need to provide opportunities for development of new single-family attached (10% of new housing) and new multifamily (20% of new housing), which includes a wide range of housing types (e.g., duplexes, triplexes, apartments).

  The factors driving the shift in types of housing needed in North Plains include changes in demographics and decreases in housing affordability, described above and in the full housing needs analysis.

- **North Plains will need to plan to provide opportunity for development of a wider range of housing types.** While North Plains will continue to need single-family detached housing in the future, the City's needed housing mix includes a wider range of housing types, such as small lot single-family housing, townhouses and all types of multifamily housing.

- **North Plains will need to evaluate how to accommodate the deficit of land for housing.** The City has three choices for addressing this land deficit: increase capacity of land within the UGB through land use efficiency measures; expand the UBG; or both. Most cities choose to evaluate options to increase land use efficiency and (if there is still a deficit of land), expand the UGB. The State process for expanding the UGB requires that cities consider policies to increase land use efficiency prior to expanding the UGB.

Recommendations to North Plains for addressing the City's housing needs are:

- **North Plains should plan to provide opportunities for development of the housing need identified in this report.** While the City does not generally have a direct role in housing development, the City's planning framework set the context for housing development. The City should evaluate opportunities to lower barriers to development of types of housing that are relatively more affordable (e.g., townhouses and multifamily housing) and ensure that sufficient land is available to accommodate these housing types.

- **North Plains has an existing deficit of affordable housing.** North Plains housing prices, especially ownership prices, have increased substantially since 2000. The City should consider opportunities to allow and encourage development of more affordable housing types, as described in this report.

- **North Plains should monitor residential land development.** Monitoring residential land development will help the City ensure that there is enough residential land to accommodate the long-term forecast for population growth. We recommend that the City Develop and implement a system to monitor the supply of residential land. This includes monitoring residential development (through permits) as well as land consumption (e.g. development on vacant, or redevelopable lands).

1. <u>Introduction</u>

This report presents North Plains' Housing Needs Analysis for the 2020 to 2040 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 North Plains 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 North Plains. 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 North Plains and describes the factors that will affect housing demand in North Plains in the future, such as changing demographics. This analysis will help decision makers understand whether North Plains 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. In addition to shelter, housing includes 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 of these services and simultaneously minimize costs, households must, and do, make tradeoffs. What they can get for their money is influenced both by 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 Portland region, Washington County, and North Plains 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 North Plains between 2020 and 2040.

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.

North Plains 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.

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[1] ORS 197.296 subsections (2) to (9) 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 North Plains' inventory of residential land.

- **Chapter 3. Historical and Recent Development Trends** summarizes the state, regional, and local housing market trends affecting North Plains' housing market.

- **Chapter 4. Demographic and Other Factors Affecting Residential Development in North Plains** presents factors that affect housing need in North Plains, focusing on the key determinants of housing need: age, income, and household composition. This chapter also describes housing affordability in North Plains relative to the larger region.

- **Chapter 5. Housing Need in North Plains** presents the forecast for housing growth in North Plains, describing housing need by density ranges and income levels.

- **Chapter 6. Residential Land Sufficiency within North Plains** estimates North Plains' residential land sufficiency needed to accommodate expected growth over the planning period.

2.   Residential Buildable Lands Inventory

This chapter summarizes the residential buildable lands inventory (BLI) for the North Plains UGB. Washington County staff conducted the BLI on behalf of the City of North Plains. It complies with statewide planning Goal 10 policies that govern planning for residential uses.

Methods, Definitions, and Assumptions

Overview of the Methodology

The BLI was completed in accordance with Metro's BLI methodology. The BLI used Washington County tax lot database and Metro's Land Information Systems (RLIS) database. The tax lot data was current as of September 2019.

First, the analysis established the residential land base (parcels or portion of parcels with appropriate zoning). Then, these parcels were classified by development status. Next, environmental constraints were identified and deducted. Lastly, total buildable area by plan designation was summarized.

Definitions

A key step in the buildable lands analysis is to classify each tax lot into a set of mutually exclusive categories based on development status. For the purpose of this study, all residential tax lots in the UGB are classified into one of the following categories:

- *Vacant land.* Tax lots that have no development (based on examination of aerial imagery) or where development covers only a small portion of the tax lot. For this inventory, residential lands with less than $10,000 of improvement value were considered vacant.

- *Partially vacant and potentially redevelopable land.* Partially vacant tax lots are those occupied by a use, but which contain enough land to be further subdivided without need of rezoning. Partially vacant residential land was identified by subtracting 0.25 acres from every developed, residential tax lots at least 0.5 acres in size.

- *Public or exempt land.* Lands in public ownership are considered unavailable for residential development. This includes lands in Federal, State, County, or City ownership, as well as lands owned by churches, utilities, and other semi-public organizations, such as hospitals. Public lands were identified using property assessor taxexemption codes and property owners' name and refined through consultation with City of North Plains staff and the North Plains Planning Commission.

- *Developed land.* Land that is developed at densities consistent with zoning with improvements that make it unlikely to redevelop during the analysis period. Lands not classified in any of the above categories are considered developed.

Development Constraints

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

- *Land within wetlands.* The city's Significant Natural Resources Overlay District, identified by Development Code sections 155.380-391, prohibits new development within wetland areas, with the exception of new roads and utilities under certain circumstances. However, the mapped resources captured on the city's Significant Natural Resources map overlap with the identified 100-year flood plain and therefore do not appear individually on the buildable lands inventory map.

- *Land with slopes over 25%.* Lands with slopes over 25% are considered unsuitable for residential development. However, North Plains does not have any lands identified with slopes over 25%.

- *Lands within floodplains.* Lands falling within the FEMA 100-year flood plain were deducted from the buildable lands inventory.

Results of the Buildable Lands Inventory

Exhibit 4 shows residential land in the North Plains UGB by classification (development status). Of North Plains' 356 total residential acres, about 268 acres (75%) are in classifications with no development capacity, including developed land, public land, or land that is undevelopable because of development constraints.

The remaining 87 acres (25%) is unconstrained vacant or partially vacant residential land with development capacity. Seventy-three acres of vacant land is located in the NC zone and approved for Master Plan Development.

Exhibit 4. Residential acres by classification and plan designation, North Plains UGB, 2021

	Land with Residential Development Capacity (acres)		
	Vacant	Partially Vacant	Total Vacant and Partially Vacant Land
Low-Density Residential (R7.5)	2.5	3.37	5.87
Medium-Density Residential (R5)	2.8	1.97	4.77
High-Density Residential (R2.5)	2.5	1.52	4.02
Neighborhood Community (NC)	73	---	73
Total	**80.8**	**6.86**	**87.66**

North Plains BLI

Exhibits 5 and 6 show the location of vacant and partially vacant land in North Plains.

Exhibit 5. Buildable Lands Inventory, Vacant Land, 2021
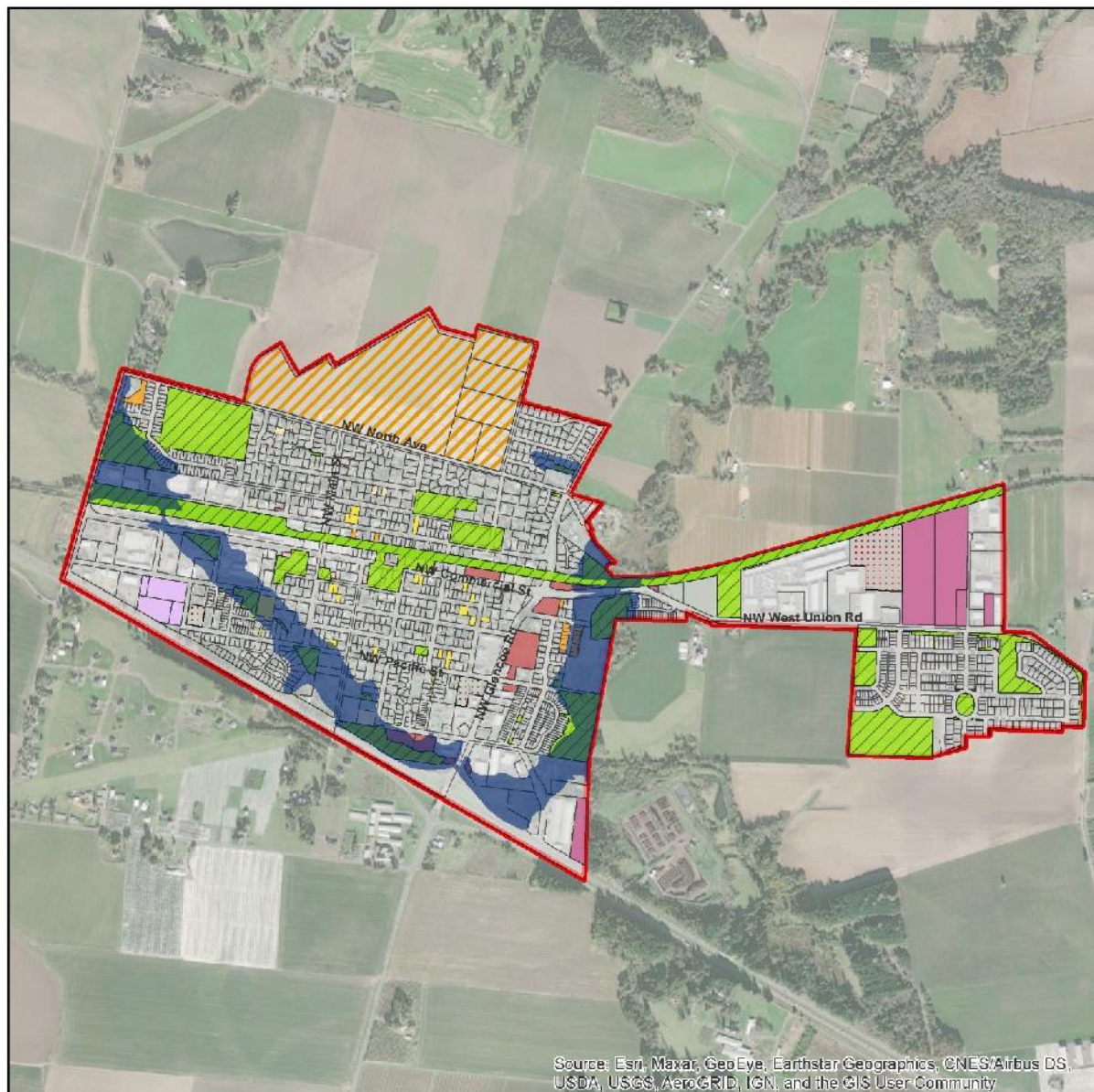
North Plains
Buildable Lands Inventory (BLI)

2,500   1,250   0   2,500 Feet   N

Legend

▭ North Plains UGB/City Limits	**Vacant Taxlots**	▮ EFU	▮ R-2.5
▮ Floodplain	**ZONE**	▮ FD-10	▮ R-5
▨ Institutional and Public Use	▮ C-1	▮ M-1	▮ R-7.5
▨ Brynhill Development (504 units)	▮ C-2	▮ M-2	
▦ Development Pending			
▯ Developed Taxlots			

Exhibit 6. Buildable Lands Inventory, Partially Vacant Land, 2021

North Plains
Buildable Lands Inventory (BLI)

2,000 1,000   0   2,000 Feet   N

Legend

- [red outline] North Plains UGB/City Limits
- [blue] Floodplain
- [gray] Developed Taxlots
- [orange diagonal] Brynhill Development (504 units)
- [red dotted] Development Pending
- [crosshatch] Partially Vacant Lots
- [yellow] R-2.5
- [light orange] R-5
- [pale yellow] R-7.5

3. Historical and Recent Development Trends

Analysis of historical development trends in North Plains 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 North Plains' housing market from January 2000 to December 2016. We selected this time period because it provides information about North Plains' housing market before and after the national housing market bubble's growth and deflation. In addition, data about North Plains' housing market during this period is readily available, from sources such as the Census and the City'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** are 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 <u>all</u> 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 <u>sample</u> of households in the U.S. From 2015 through 2019, the ACS sampled an average of 3.5 million households per year, or about 2.6% 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 both the 2010-2014 and 2015-2019ACS for North Plains.

The foundation of the housing needs analysis is the population forecast for North Plains 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 North Plains and comparison geographies. These trends demonstrate the types of housing developed in North Plains historically. Unless otherwise noted, this chapter uses data from the 2000 and 2010 Decennial Census, and 2015-2019 American Community Survey 5-Year Estimates.

This section shows the following trends in housing mix in North Plains:

- **North Plains' housing stock is predominantly single-family detached housing units.** Eighty-eight percent of North Plains' housing stock is single-family detached, 7% is multifamily, and 5 % is single-family attached (e.g., townhouses). This proportion of single-family housing is much larger than the average for Washington County (61%).

- **Since 2000, North Plains' housing mix has shifted toward single-family housing.** North Plain's housing stock grew by about 84% (more than 501 new units) between 2000 and the 2015-2019 period. The mix of housing types also shifted slightly between 2000 and 2015-2019. The percentage of single-family detached housing increased from 83% in 2000 to 88% in 2015-2019.

- **Single-family detached housing accounted for all new housing growth between 2005 and 2016.** No new multifamily or single-family detached units were built between 2005 and 2016.
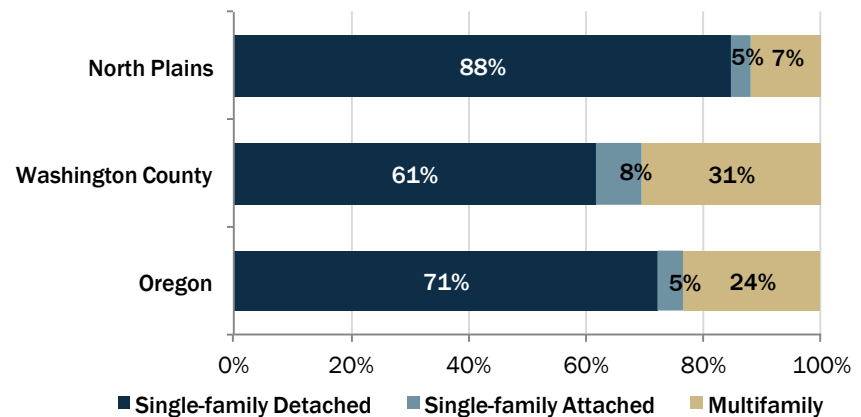
Housing Mix

About 88% of North Plains' housing stock is single-family detached.

In comparison, about 61% of the housing in Washington County.

Exhibit 7. Housing Mix, 2015-2019
Source: Census Bureau, 2015-2019 ACS Table B25024

The mix of housing in North Plains was largely stable between 2000 and 2010-2014.

The percentage of single-family attached housing remained consistent at 3% while single-family attached increased by 5% and multifamily fell by 7%.

North Plains had 1,096 dwelling units in the 2015-2019 period. About 962 were single-family detached, 62 were single-family attached, and 72 were multifamily.

The total number of dwelling units in North Plains increased by 459 dwelling units from 2000 to 2015-19.

This amounted to a 72% increase over the analysis period.

Exhibit 8. Change in Housing Mix, North Plains, 2000 and 2015-19
Source: Census Bureau, 2000 Decennial Census, SF3 Table H030, and 2019 ACS Table
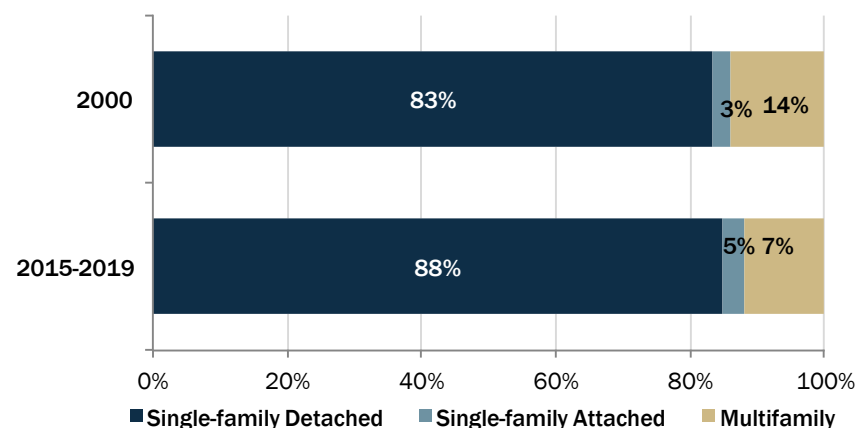
Exhibit 9. Total Dwelling Units, North Plains, 2000 and 2015-19
Source: Census Bureau, 2000 Decennial Census, SF3 Table H030, and 2015-19 ACS Table B25024.
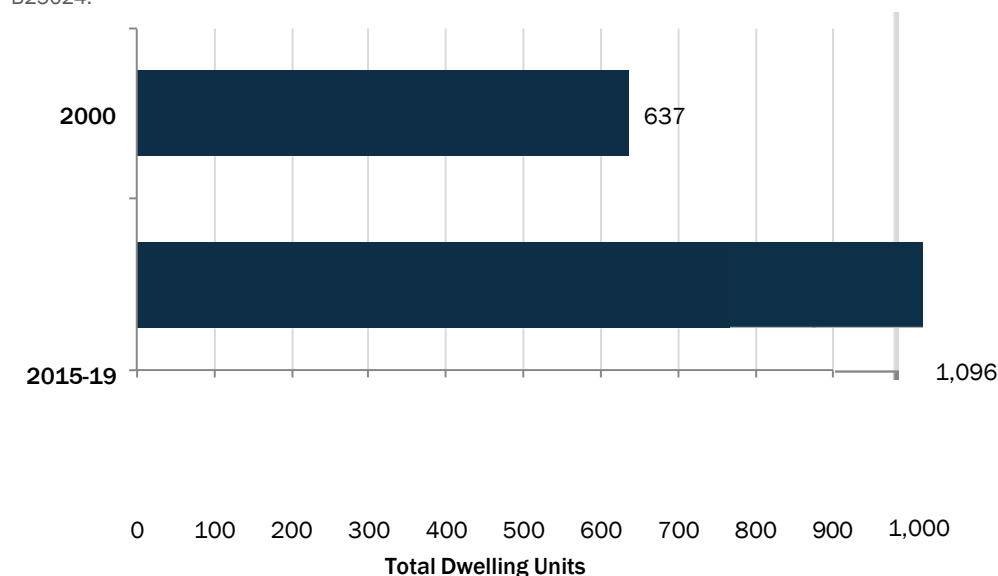
Building Permits

Over the 2005 to 2016 period, North Plains permitted 412 new single-family residential units, with an average of 32 new units permitted annually.

All of the new units in North Plains between 2005 and 2016 were single-family residential. No new multifamily or single-family attached units were built during that time period.

The largest number of units were permitted in 2015 and 2016, with nearly 100 units permitted annually.

Exhibit 10. Residential Building Permits, North Plains, 2005 through 2016
Source: City of North Plains.
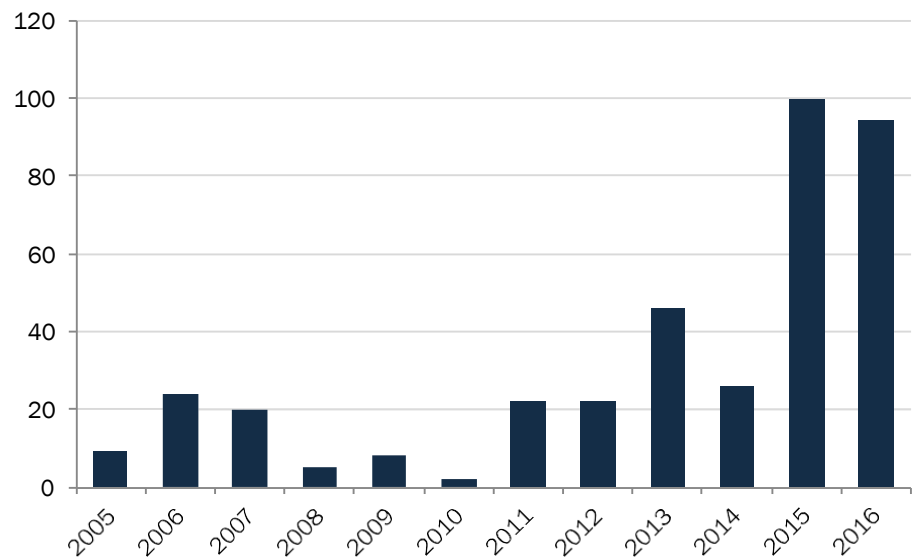
Trends in Tenure

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

- **About 78% of North Plains' households own their own home.** In comparison, 62% of Washington County households and 53% of Hillsboro households are homeowners.

- **Homeownership in North Plains is well above the county and state averages.**

- **Homeownership in North Plains increased between 2000 and 2010-2014.** In 2000 and 2010, 75% of North Plains households were homeowners. This rose to 78% in 2010-2014.

- **Nearly all North Plains homeowners (96%) live in single-family detached housing, while many renters (57%) live in multifamily housing.**

The implications for the forecast of new housing are: (1) opportunities for rental housing in North Plains are limited, given more than half of renters live in multifamily housing and no new multifamily housing has been built in North Plains since 2005 and (2) there may be opportunities to encourage development of a wider variety of affordable attached housing types for homeownership, such as townhomes.

North Plains has higher homeownership rates than the county average, but similar rates to other small cities in western Washington County.

More than three quarters of households in North Plains live in owner-occupied dwelling units, compared with 61% of households in Washington County and 53% of Hillsboro households.

Exhibit 11. Tenure, Occupied Units, North Plains, Banks, Forest Grove, Cornelius, Hillsboro, Beaverton, Washington County, Oregon, 2010-14
Source: Census Bureau, 2010-2014 ACS Table B24003

	Owner occupied	Renter Occupied
North Plains	78%	22%
Banks	76%	24%
Beaverton	48%	52%
Cornelius	79%	21%
Forest Grove	59%	41%
Hillsboro	53%	47%
Washington County	61%	39%
Oregon	62%	38%

Occupied Housing Units

■ Owner occupied ■ Renter Occupied

The overall homeownership rate in North Plains remained between 75% and 78% since 2000.

Exhibit 12. Tenure, Occupied Units, North Plains, 2010-2014
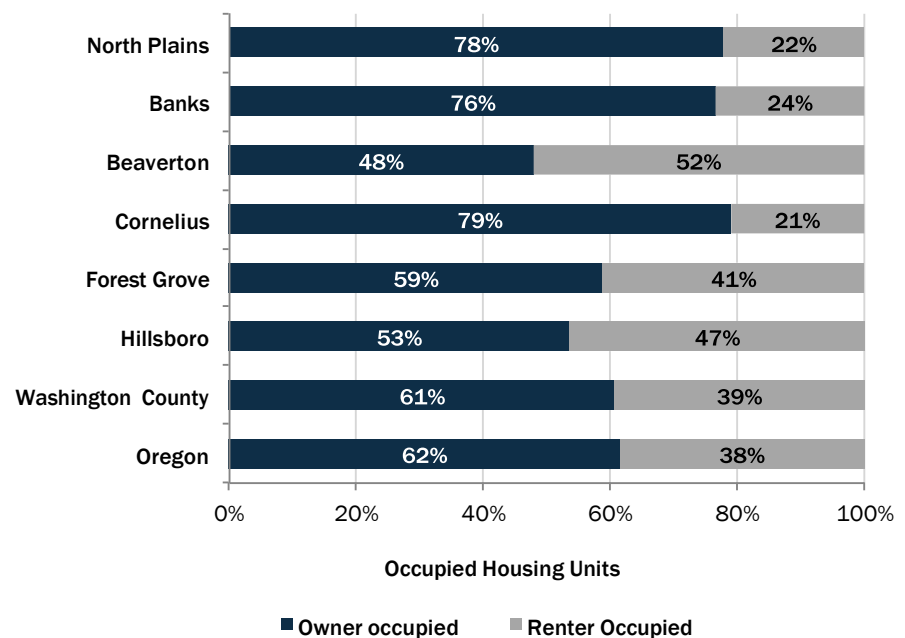Source: Census Bureau, 2000 Decennial Census SF1 Table H004, 2010 Decennial Census SF1 Table H4, 2010-14 ACS Table B24003

Year	Owner occupied	Renter occupied
2000	75%	25%
2010	75%	25%
2010-14	78%	22%

Occupied Housing Units

■ Owner occupied   ■ Renter occupied
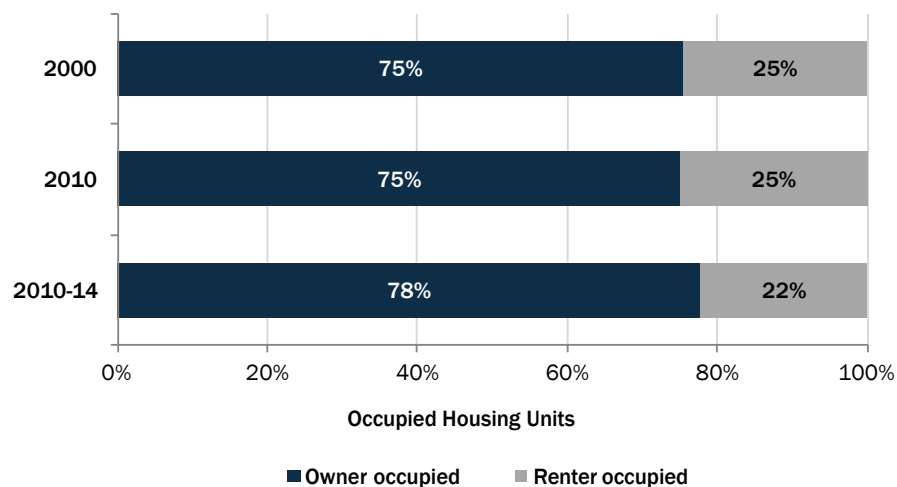
The majority (96%) of owner-occupied housing units are single-family detached units and more

than half of renter-occupied units are multifamily.

Exhibit 13. Housing Units by Type and Tenure, North Plains, 2014
Source: Census Bureau, 2014 ACS Table B25032

Tenure	Single-family detached	Single-family attached	Multifamily
Renter	40%	2%	57%
Owner	96%	4%	

■ Single-family detached   ■ Single-family attached   ■ Multifamily
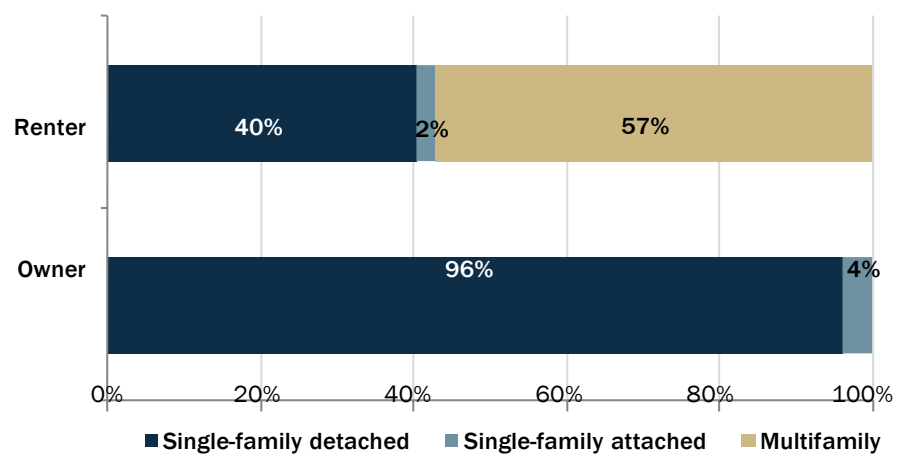
Vacancy Rates

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 Census determines vacancy status and other characteristics of vacant units by enumerators obtaining information from property owners and managers, neighbors, rental agents, and others.

From 2000 to 2011-2015, North Plains vacancy rate remained around 6%. North Plains' vacancy rate is higher than the county rate but lower than the state.

Exhibit 14. Percent of Housing Units that are Vacant, 2011-2015
Source: Census Bureau, 2011-15 ACS Table B25002
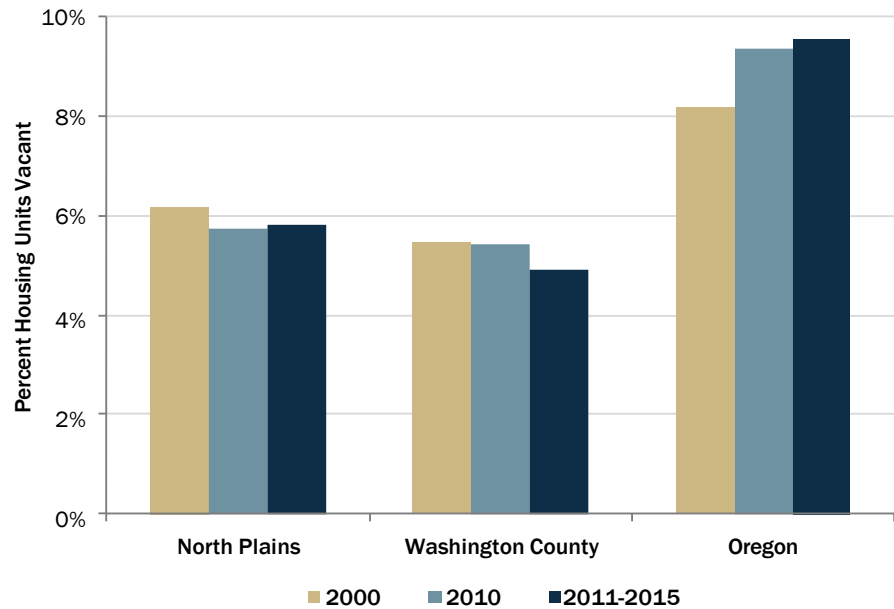
Manufactured Homes

Manufactured homes have provided a source of affordable housing in North Plains. 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 to 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.

North Plains had 71 mobile homes in 2000 and 103 mobile homes in the 2010-14 period, an increase of 31 dwellings. According to Census data, 91% of the mobile homes in North Plains were owner-occupied in the 2010-2014 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. According to the Oregon Manufactured Dwelling Park Directory, North Plains has no manufactured home parks.[3]

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[3] Oregon Manufactured Dwelling Park Directory. Accessed February 1, 2017.
http://o.hcs.state.or.us/MDPCRParks/ParkDirQuery.jsp

4. Demographic and Other Factors Affecting Residential Development in North Plains

Demographic trends are important for a thorough understanding of the dynamics of the North Plains housing market. North Plains exists in a regional economy; trends in the region impact the local housing market. This chapter documents demographic, socioeconomic, and other trends relevant to North Plains, 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 North Plains to Washington County and nearby cities (Banks, Beaverton, Cornelius, Forest Grove, Hillsboro) 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 [4]

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).

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[4] 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 North Plains over the next 20 years.

National Trends [5]

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, 2016* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

"With household growth finally picking up, housing should help boost the economy. Although homeownership rates are still falling, the bottom may be in sight as the lingering effects of the housing crash continue to dissipate. Meanwhile, rental demand is driving the housing recovery, and tight markets have added to already pressing affordability challenges. Local governments are working to develop new revenue sources to expand the affordable housing supply, but without greater federal assistance, these efforts will fall far short of need."

The U.S. housing market has recovered substantially from the crash, but there are still some challenges ahead.

- **Household growth should spur the economy.** In 2015, the economy neared full employment and incomes began to climb. Household growth returned to its expected pace, and new home construction was up by 11 percent. Household growth continues to gain momentum, and the housing sector should be an engine of growth.

- **Lowest homeownership**. Homeownership rate has fallen to its lowest level in a half-century. Foreclosures are a factor in low homeownership rates, and 9.4 million homes were forfeited through foreclosures from the start of the housing crash, 2007-2015. Foreclosures have slowed recently, but tight mortgage credit is not helping the transition into owning a home either.

- **Housing affordability**. In 2014, 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 83% 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 65% 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 nationally between 2015 and 2025. Much of the demand will come from Baby Boomers, Millennials,[6] and immigrants.

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[5] 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 2016," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

[6] 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.

- **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 staunched 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 2013-2014 indicate an increase of 995,944 persons over the previous year.

    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 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 29.8 in 2014. Similarly, the gap between white and Hispanic homeownership rates increased since 2008, from 25%, to 26% in 2014. 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 (2016) 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:[7]

  - *Larger single-family units on smaller lots.* Between 1990 and 2015 the median size of new single-family dwellings increased 30% nationally from 1,905 sq. ft. to 2,467 sq. ft., and 23% in the western region from 1,985 sq. ft. to 2,435 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 2015. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 33% of new one-family homes completed in 2015. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2015, the percentage of lots less than 7,000 sq. ft. increased from 27% of lots to 30% of lots.

  - *Larger multifamily units.* Between 1999 and 2015, the median size of new multiple family dwelling units increased by 3% nationally and 1% in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 30% in 2015 nationally, and went from 25% to 24% in the western region.

  - *More household amenities.* Between 1990 and 2015, 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.

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[7] https://www.census.gov/construction/chars/highlights.html

State Trends

Oregon's *2016-2020 Consolidated Plan* includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.[8] The plan concludes, "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 that far surpass wage growth
- Limited supply of rental housing at prices that are affordable to moderate and low income households.
- Extremely low vacancy rates in some parts of the state, due to population growth, lack of new unit production, and increase in rental households due to foreclosures.
- Expiration of subsidies on about 49% of housing units that are currently federally subsidized by the Section 8 or HUD Multifamily Assistance programs
- Increasing homelessness and housing instability
- Lack of housing stock that is suitable for the elderly and people with disabilities
- Increasingly older, more diverse, and has less affluent households.

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[8] State of Oregon 2016-2020 Consolidated Plan. https://www.oregon.gov/ohcs/docs/Consolidated-Plan/2016-2020-Consolidated-Plan.pdf

Regional and Local Demographic Trends that may affect housing need in North Plains

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 North Plains' 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 North Plains.

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 15. Effect of demographic changes on housing need
Source: ECONorthwest, adapted from Clark, Willam A.V. and Frans M. Dieleman. 1996. *Households and Housing*. New Brunswick, NJ: Center for Urban Policy Research.
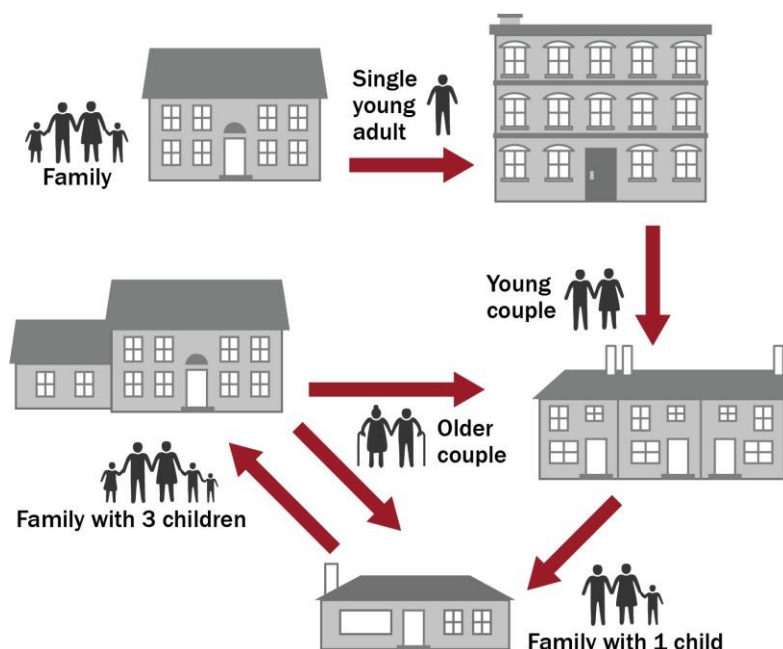
Growing population

North Plains' population grew by 107% between 1990 and 2015, adding about 1,043 new residents. Over this period, North Plains' population grew at an average annual growth rate of 3.0%.

North Plains' population growth will drive future demand for housing in North Plains over the planning period. North Plains is forecast to grow at 3.7% annually between 2020 and 2040, adding 3,666 new residents. The forecast of faster growth in North Plains is reflective of the residential development pressure in the west side of the Portland region, including growth of employment in Hillsboro, Beaverton, and other west side cities. In part, the population growth is based on recent and upcoming annexations of residential land newly brought into the North Plains UGB and the rapid pace of planned development of these areas.

Since 1990, North Plains' population has grown by roughly 2,438 people.

Exhibit 16. Population, North Plains, 1990 - 2020
Source: US Decennial Census 1990, and PSU Population Research Center.
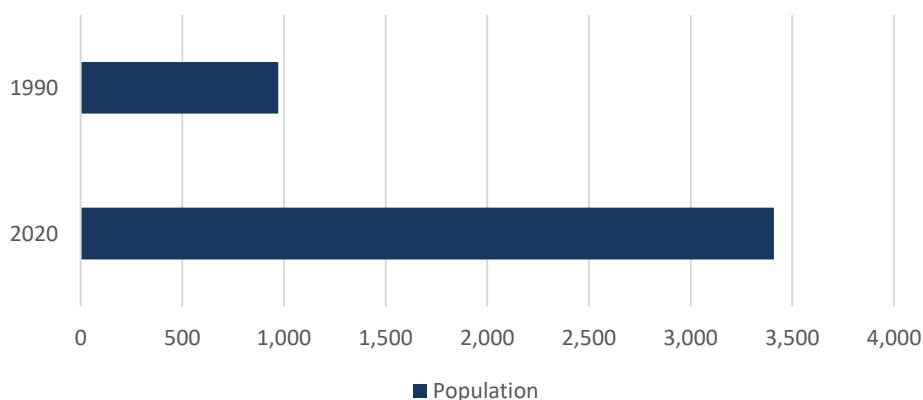
From 1990 to 2015, North Plains' population grew by 245%, accounting for 0.4% of population growth in Washington County.

Exhibit 17. Population Growth, 1990 - 2015
Source: US Decennial Census 1990, 2000, 2010. PSU Population Research Center, Population Estimates and Reports, http://www.pdx.edu/prc/population-reports-estimates.

107%	83%	41%
North Plains	Wash. Co.	Oregon

North Plains' population grew at a faster rate compared to that of the county, region, and state.

Exhibit 18. Annual Average Rate of Growth, 1990 - 2015
Source: US Decennial Census 1990, 2000, 2010. PSU Population Research Center, Population Estimates and Reports, http://www.pdx.edu/prc/population-reports-estimates.

3.0%	2.4%	1.4%
North Plains	Wash. Co.	Oregon

North Plains is projected to grow by 3,666 people between 2020 and 2040, at an average annual growth rate of 3.7%.[9]

**Exhibit 19. Forecast of Population Growth, North Plains UGB, 2020 – 2040**
Source: Oregon Population Forecast Program, Portland State University, Population Research Center.

3,410	7,076	3,666	108% Increase
people 2020	people 2050	New people 2020-2040	3.7% Average Annual Growth Rate

Between 1990 and 2019, North Plains grew at 3% annually. The City is forecast to grow at 3.7% annually between 2020 and 2040.

Exhibit 20. Forecast Population, North Plains, 2020-2040
Source: PSU Population Research Center.
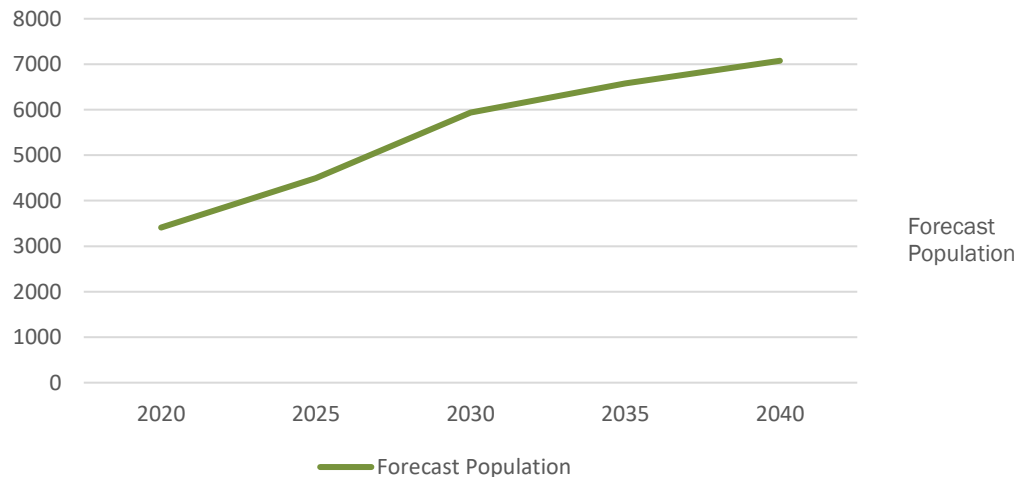
Aging Population

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

- **Seniors.** North Plains and Washington County currently have a smaller share of elderly residents than the state average. As North Plains' 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 about one-quarter of Washington County's population, compared to around 20% in 2020.

  The impact of growth in seniors in North Plains will depend, in part, on whether older people already in the city continue to live there as they retire. National surveys show

[9] This forecast of population growth is based on North Plains' official population forecast from the Oregon Population Forecast Program.

that, in general, most retirees prefer to age in place by continuing to live in their current home and community as long as possible.[10]

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.[11]

▪ **North Plains population of younger people and the State average.** About 25% of North Plains' population is under 20 years old, compared to 25% of Washington County's population and the State average of 23%. The forecast for population growth in Washington County shows the percentage of people under 20 years old decreasing from 25% of the population to 22% of the population, and people between 20 and 39 also decreasing from 30% of the population to 28% of the population. People aged 40 to 59 are forecast to remain at 26% of the population. Assuming that the age distribution of North Plains' population continues to resemble the County's, North Plains will have a slight decrease in these age groups.

People currently aged 20 to 40 are referred to as the Millennial generation and account for the largest share of population in Oregon. By 2040, they will be aged 40 to 60. The forecast for Washington County shows a decrease in Millennials from 29% of the population in 2020 to 26% of the population in 2040. North Plains' ability to attract people in this age group will depend, 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. [12]

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[10] 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.

[11] "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

[12] 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

A recent survey of people living in the Portland Region shows that Millennials prefer single-family detached housing. The survey finds that housing price is the most important factor in choosing housing for younger residents.[13] 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 North Plains 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.

Between 2000 and 2010, the number of North Plains residents aged 45-64 increased by 77%.

Exhibit 21. Change in Age Distribution, North Plains, 2000 to 2010
Source: US Census Bureau, 2000 Decennial Census Table P012, 2010 Decennial Census Table P12.

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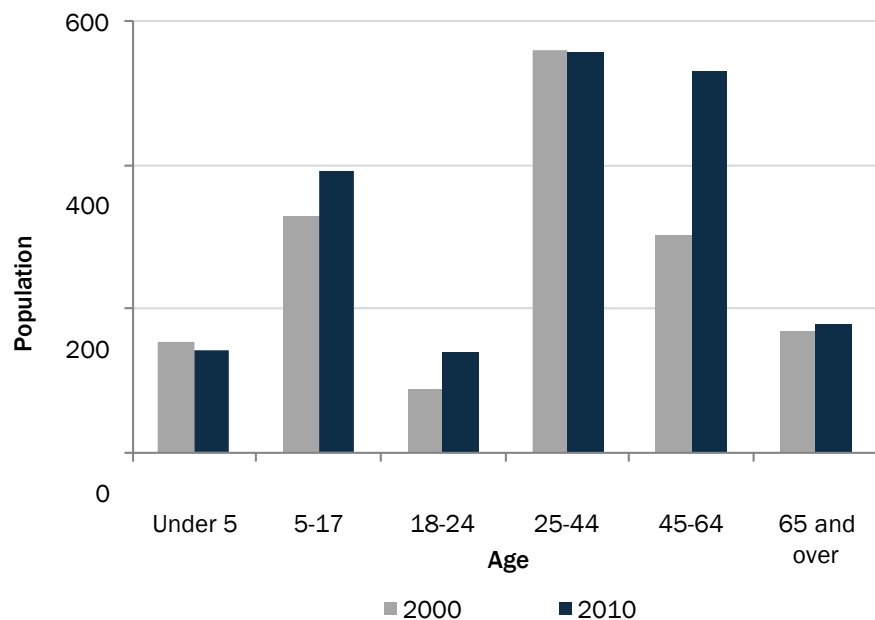
[13] Davis, Hibbits, & Midghal Research, "Metro Residential Preference Survey," May 2014.

From 2000 to 2010-2014, North Plains' median age increased from 34.0 to 38.6 years.

Exhibit 22. Median Age, North Plains, Washington County, Oregon, 2000 to 2010-14
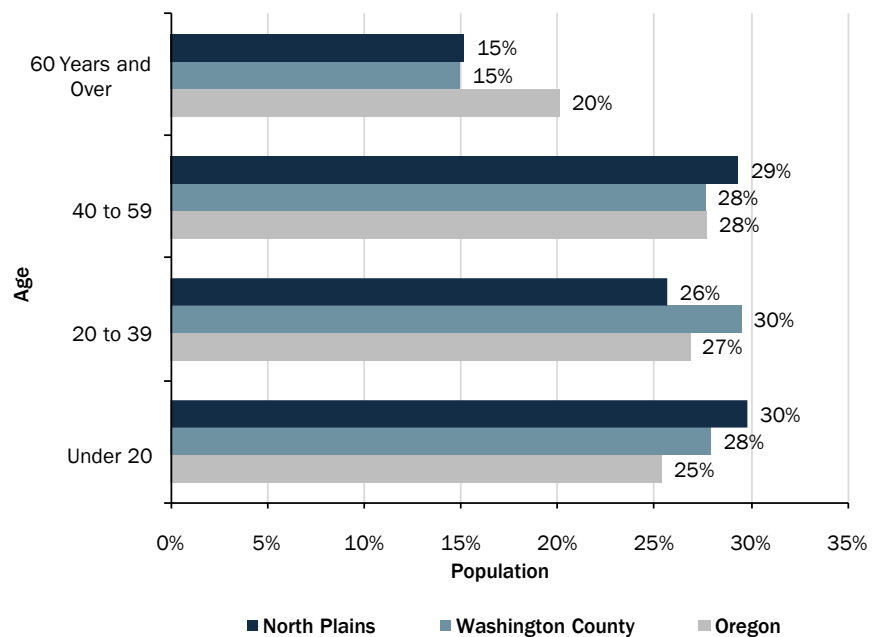Source: US Census Bureau, 2000 Decennial Census Table B01002, 2010-14 ACS, Table B01002.
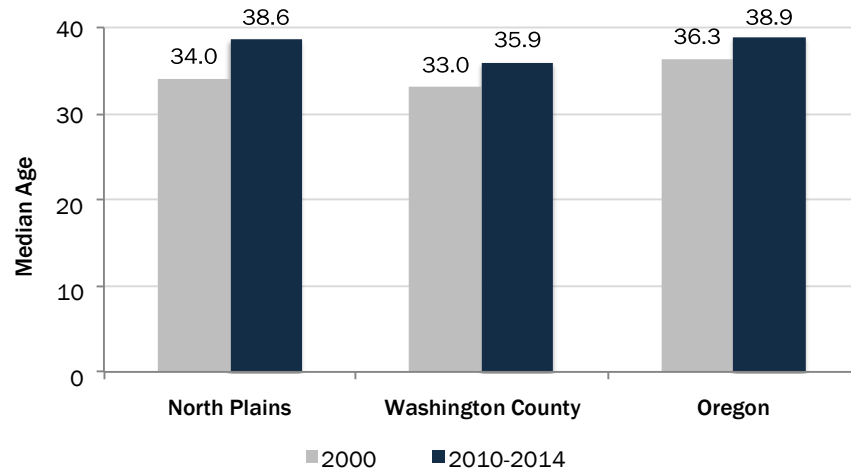
In 2010, about 55% of North Plains residents were aged between 20 and 59.

Exhibit 23. 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 24. 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
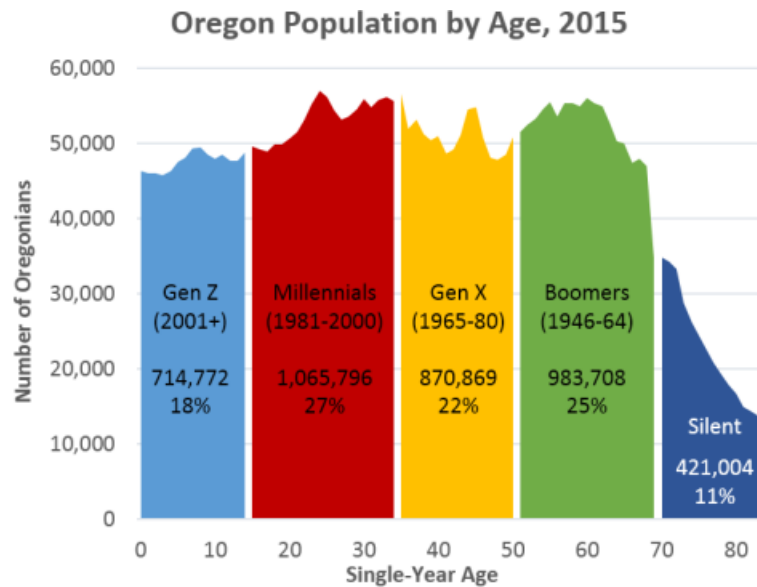
Thirty-six percent of population growth in Washington County will be people 60 years and older.

Exhibit 25. Fastest-growing Age Groups, Washington County, 2020 - 2040

Source: Portland State University, Population Research Center, Washington County Forecast, June 2020.

Under 20	20-39 Yrs	40-59 Yrs	60+ Yrs
14%	25%	25%	36%
24,542 People	44,247 People	44,975 People	64,597 People

People over age 40 will continue to account for more than half of the population in Washington County through 2040.

Exhibit 26. Population Growth by Age Group, Washington County, 2020 - 2040

Source: Portland State University, Population Research Center, Washington County Forecast, June 30, 2020
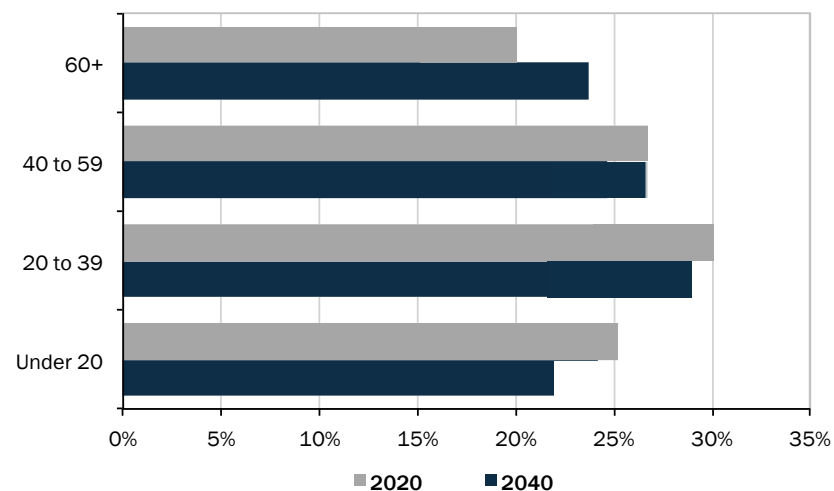
Increased Ethnic Diversity

North Plains is becoming more ethnically diverse. The Hispanic and Latino population grew from 7% of North Plains' population in 2000 to 10% of the population in the 2010-2014 period, adding more than 71 new Hispanic and Latino residents. North Plains' population is less ethnically diverse than Washington County or Oregon.

Continued growth in the Hispanic and Latino population will affect North Plains' housing needs in a variety of ways. [14] 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.

North Plains' Hispanic population has increased.

The Hispanic population also grew in Washington County, and Oregon.

Exhibit 27. Hispanic or Latino Population as a Percent of the Total Population, 2000 to 2010-2014
Source: US Census Bureau, 2000 Decennial Census Table P008, 2010-2014 ACS Table B03002.

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[14] 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.

Household size and composition

North Plains' household size and composition show that households in North Plains' are somewhat different from the county and statewide averages. North Plains' households are larger, with a large percent being family households with children.

North Plains' average household size is higher than the county and the state.

Exhibit 28. Average Household Size, 2011-2015
Source: US Census Bureau, 2011-2015 ACS Table B25010.

2.72 Persons	2.66 Persons	2.51 Persons
North Plains	Washington County	Oregon
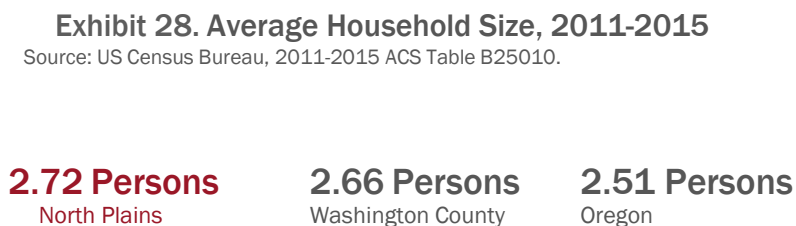
North Plains has a larger share of households with children than Washington County or Oregon.

Exhibit 29. Household Composition, 2010-2014
Source: US Census Bureau, 2010-2014 ACS, Table DP02.

	Households with children	Family households without children	Nonfamily households
North Plains	36%	31%	33%
Washington County	33%	34%	33%
Oregon	27%	36%	37%
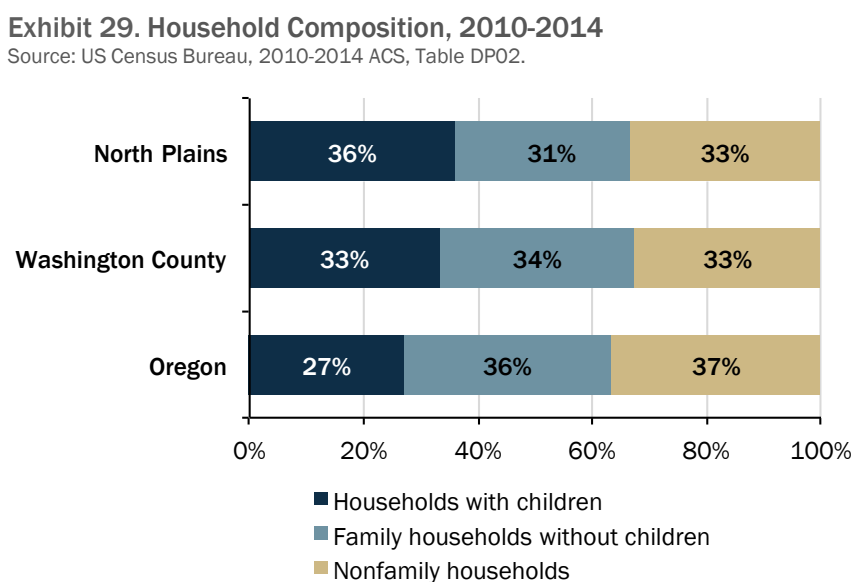
Income of North Plains Residents

Income is one of the key determinants in housing choice and households' ability to afford housing. Income for people living in North Plains is higher than the average in Washington County and considerably higher than the state average.

In the 2010-14 period, North Plains' median household income was above that of the county and the state.

North Plains' median household income was $73,750–higher than all comparison cities except Banks.

Exhibit 30. Median Household Income, 2010-2014
Source: US Census Bureau, 2010-2014 ACS Table B25119
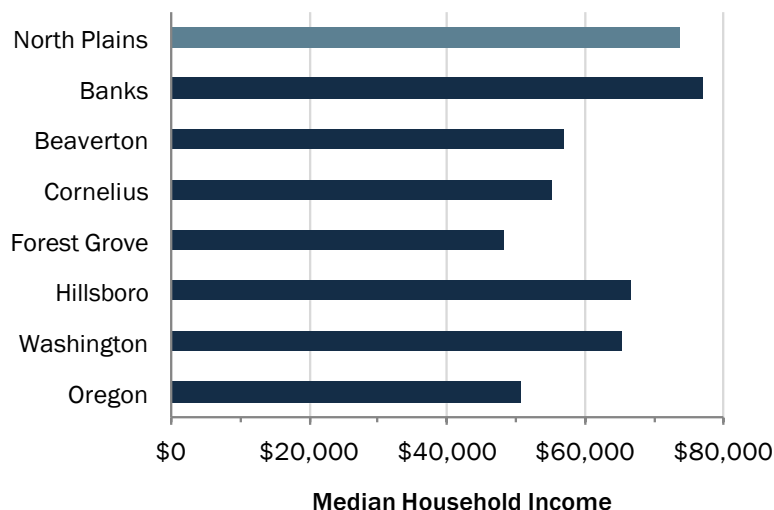
Approximately half of North Plains' households earn more than $75,000 per year.

Exhibit 31. Household Income, North Plains, Washington County, Oregon, 2010-2014
Source: US Census Bureau, 2010-2014 ACS, Table B19001
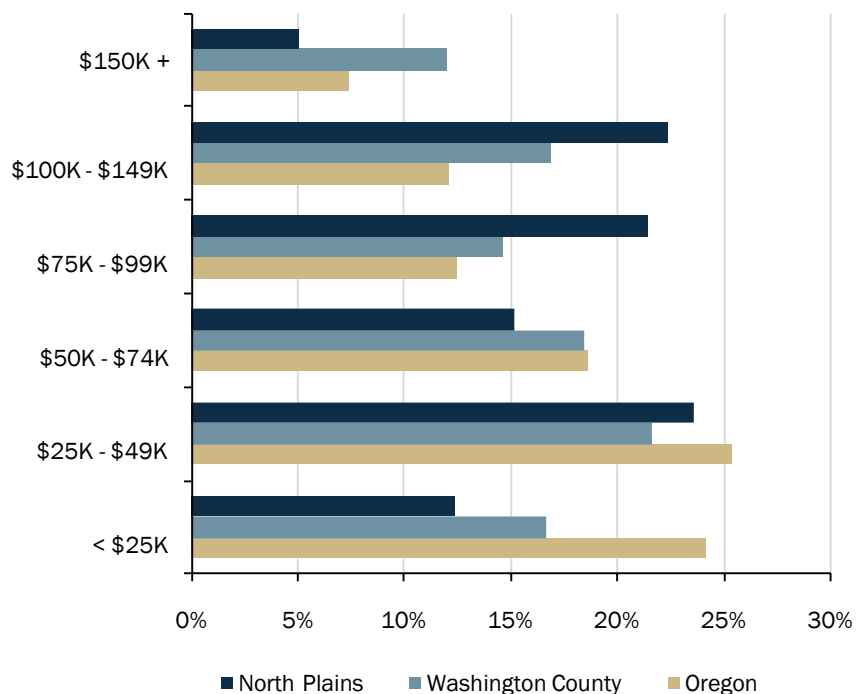
After adjusting for inflation, North Plains' median household income increased by 6% from 2000 to 2010-14, from $69,492 to $73,750 per year.

In contrast, the median household income in Washington County and Oregon decreased by more than 10% since 2000.

Exhibit 32. Median Household Income, North Plains, Washington County, Oregon, 2000 to 2010-14, Inflation-adjusted
Source: US Census Bureau, 2000 Decennial Census, Table HCT012, 2010-2014 ACS Table B25119

Commuting trends
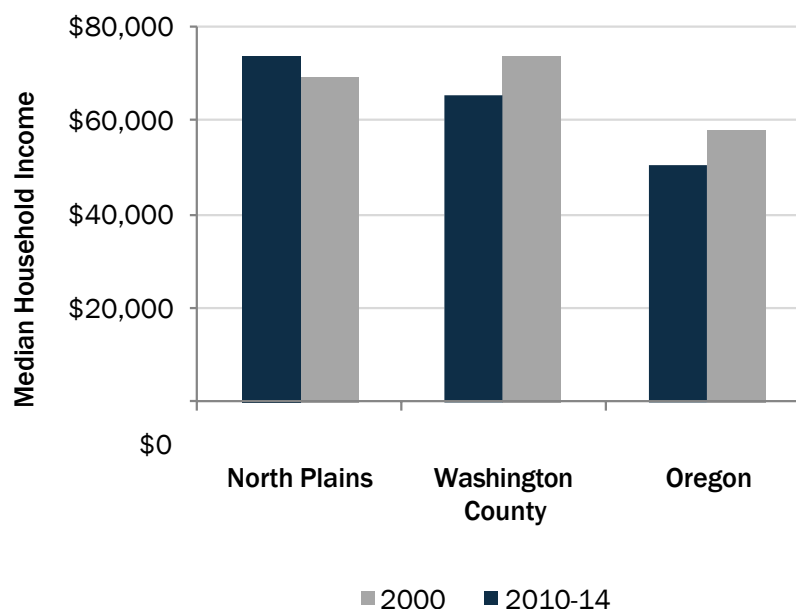
North Plains is part of the complex, interconnected economy of the Portland region and western Washington County. Of the more than 850 people who work in North Plains, more than 97% of workers commute into North Plains from other areas, most notably Hillsboro and unincorporated Washington County. More than 780 residents of North Plains commute out of the city for work, mostly to Hillsboro, Portland, and Beaverton.

North Plains is part of an interconnected regional economy.

About than 750 people commute into North Plains for work and over 700 people living in North Plains commute out of the city for work.

Exhibit 33. Commuting Flows, North Plains, 2014
Source: US Census Bureau, Census On the Map.

About 63% of workers at businesses located in North Plains live in Washington County, mostly in areas outside of North Plains.
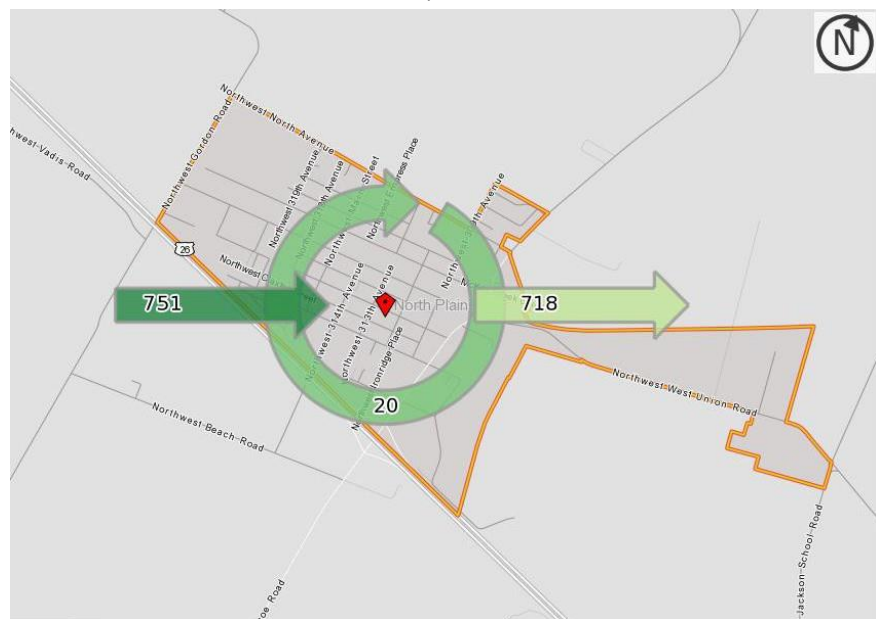
Eighteen percent of people employed at businesses in North Plains live in Hillsboro, 8% live in Portland, 6% live in Forest Grove, and 5% live in Portland.

Exhibit 34. Places Where Workers at Businesses in North Plains Lived, 2014
Source: US Census Bureau, Census On the Map.

3%	**18%**	**8%**	**6%**	**5%**
North Plains	Hillsboro	Portland	Forest Grove	Beaverton
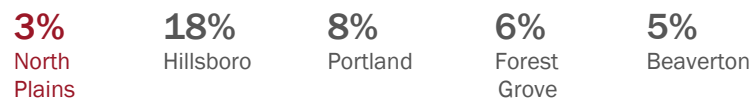
Nearly two-thirds of North Plains work in Washington County, most of them in cities outside of North Plains.

Thirty-two percent of residents of North Plains work in Hillsboro and 20% in Portland. Three percent of North Plains residents live and work in North Plains.

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

About 66% of North Plains residents have commute times less than 30 minutes. Twelve percent of North Plains residents commute for longer than one hour.

Exhibit 35. Places Where North Plains Residents were Employed, 2014
Source: US Census Bureau, Census On the Map.

3%	**32%**	**20%**	**11%**	**5%**
North Plains	Hillsboro	Portland	Beaverton	Tigard

Exhibit 36. Commute Time by Place of Residence, North Plains, Washington County, Oregon, 2010-2014
Source: US Census Bureau, 2010-2014 ACS Table B08303.

Regional and Local Trends Affecting Affordability in North Plains

This section describes changes in sales prices, rents, and housing affordability in North Plains and Washington County since 2000.
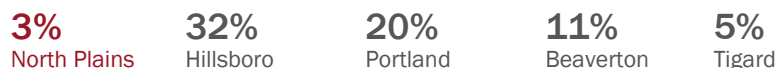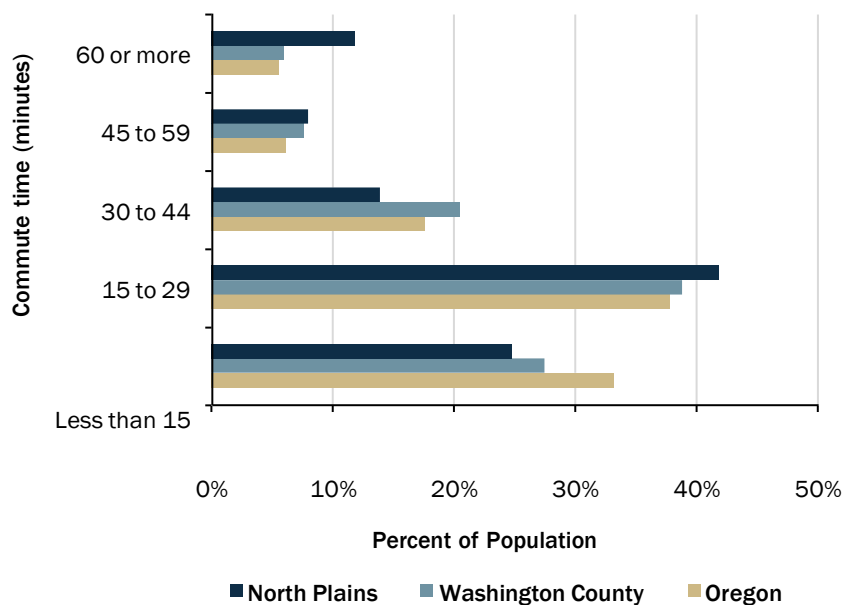
Changes in housing costs

North Plains' home sales prices are higher than other cities in western Washington County, with a median sales price in $337,000 in 2016. In general, North Plains' housing prices changed in concert with changes in housing price throughout the region, but staying slightly above most prices.

North Plains' median home sale price in 2016 was higher than any other nearby city, at about $337,000.

Exhibit 37. Median Sales Price, North Plains and Nearby Cities, 2016
Source: Property Radar, Zillow
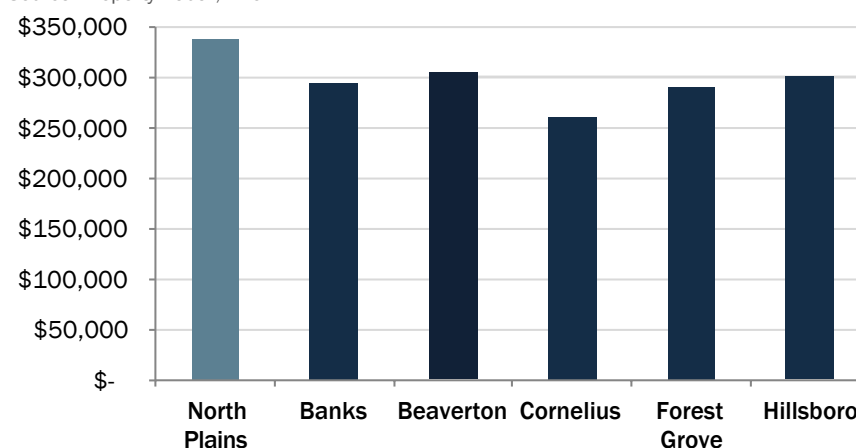
Median home sales prices in North Plains and across western Washington County declined between 2007 and 2012, but have generally recovered from the housing market crash.

Sales prices in North Plains increased from about $130,000 in 2000, an increase of more than $200,000 or 160% by 2016. This growth rate is larger in both increase in dollars and in percentage change from the other cities in the region.

Exhibit 38. Median Sales Price, North Plains, Banks, Beaverton, Cornelius, Forest Grove, and Hillsboro, 2000-2016
Source: Property Radar, Zillow
Note: The North Plains median for 2008 excludes 42 sales related to the conversion of Oak Meadows Park into homeowners' association. The median price for those 42 transactions was $106,000. When those transactions are included, North Plains median was $140,000.
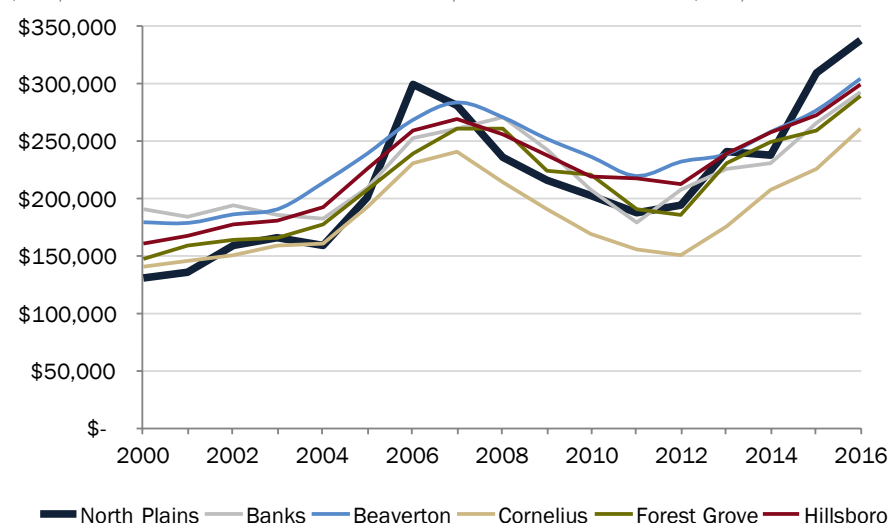
North Plains housing costs have increased slightly faster than income since 2000, but less so than in other cities.

The median value of a house in North Plains was 3.0 times the median household income in 2000 and 3.1 times by the 2010-2014 period. The change in housing value compared to income was

smaller in North Plains than Washington County.

Exhibit 39. Ratio of Housing Value to Income (Median to Median), 2000 to 2010-14[15]
Source: US Census Bureau, 2000 Decennial Census, Tables HCT012 and H085, and 2010-2014 ACS, Tables B19013 and B25077

Legend: ■ 2000 ■ 2010-2014
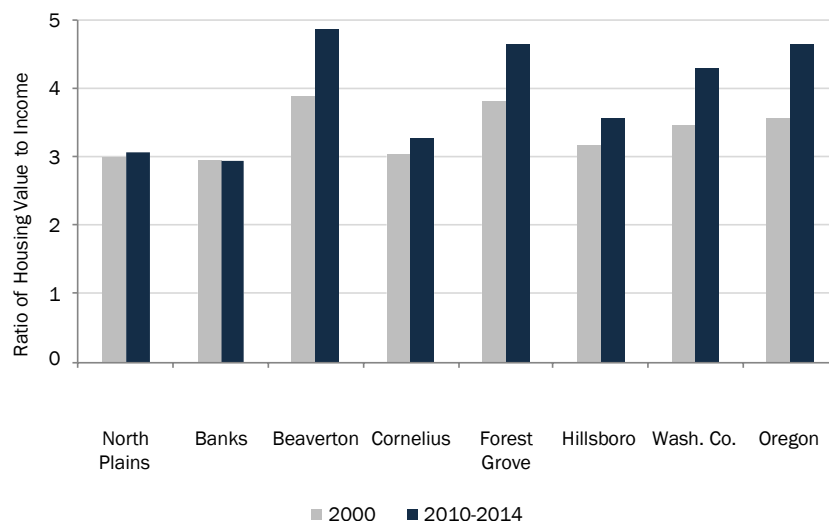
Changes in rental costs

Rent costs are relatively low in North Plains, compared to Washington County and other nearby cities in western Washington County.

Median contract rent in North Plains is about $620.

Exhibit 40. Median Contract Rent, 2010-2014
Source: US Census Bureau, 2010-2014 ACS Table B25058

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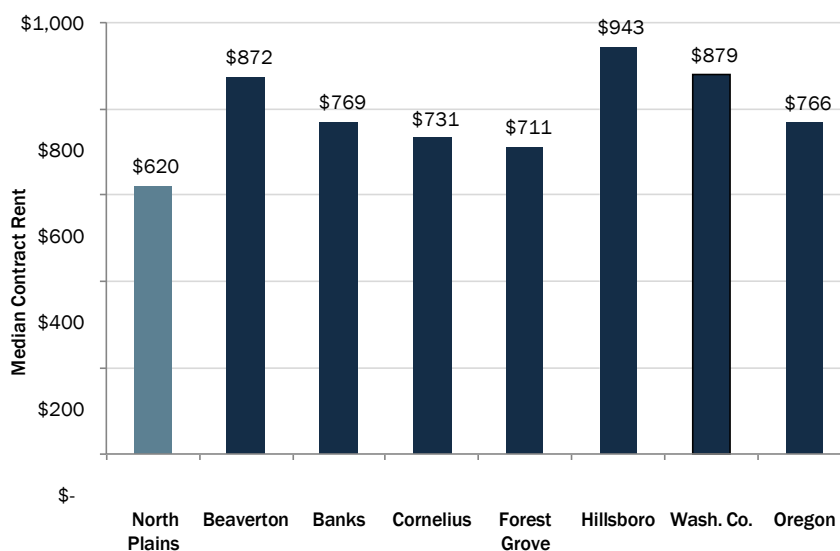
[15] This ratio compares the median value of housing in North Plains and other places to the median household income. Inflation-adjusted median owner values in North Plains increased from $207,604 in 2000 to $225,900 in 2010-14. Over the same period, median income increased from $69,492 to $73,750.

Almost 30% of renters in North Plains pay between $600 and $799.

Exhibit 41. Gross Rent, 2010-2014
Source: US Census Bureau, 2010-2014 ACS Table B25063

Percent of renter-occupied housing units

■ North Plains   ■ Washington County
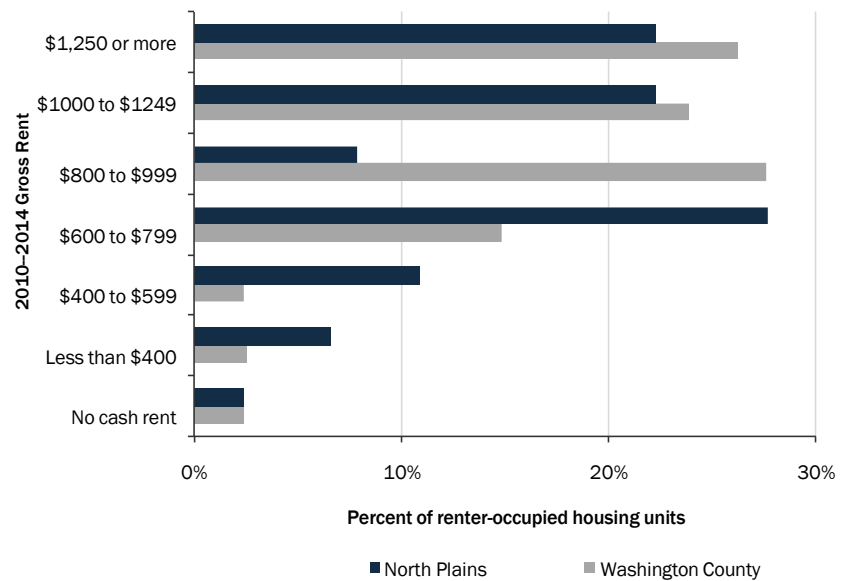
Housing Affordability

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 38% of North Plains' households are cost burdened. About 57% of renter households are cost burdened, compared with 32% of homeowners. For both owner and renter households, cost burden rates in North Plains are higher than those in Washington County.

For example, about 12% of North Plains 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 38% of all households in North Plains are cost burdened.

The percentage of cost burdened households in Washington County is slightly lower than that of North Plains.

Exhibit 42. Housing Cost Burden North Plains, Washington County, Oregon, 2010-14
Source: US Census Bureau, 2010-2014 ACS Tables B25091 and B25070.

	Cost burdened	Not cost burdened
North Plains	38%	62%
Washington County	37%	63%
Oregon	39%	61%

More than half of North Plains renters are cost burdened, compared to less than one third of homeowners.

Cost burden rates are much higher among renters in North Plains than among homeowners. In the 2010-14 period, about 57% of renters were cost burdened, compared to 32% of homeowners.
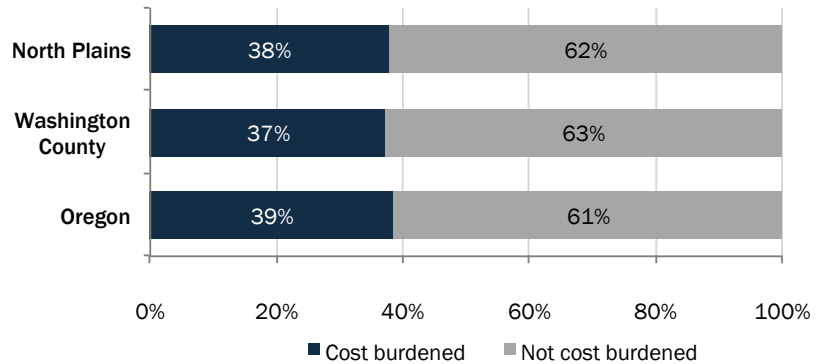
Exhibit 43. Housing Cost Burden by Tenure, North Plains, 2010-14
Source: US Census Bureau, 2010-2014 ACS Tables B25091 and B25070.

	Cost Burdened	Not Cost Burdened
Owners	32%	68%
Renters	57%	43%
Total	38%	62%

North Plains' percentage of cost-burdened homes is above that of Washington County, but below that of most cities in the region.

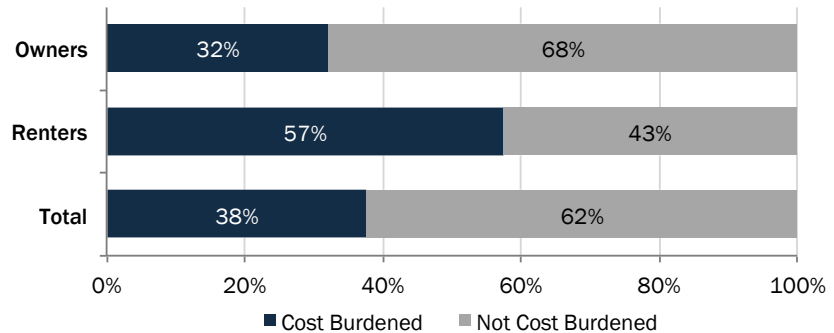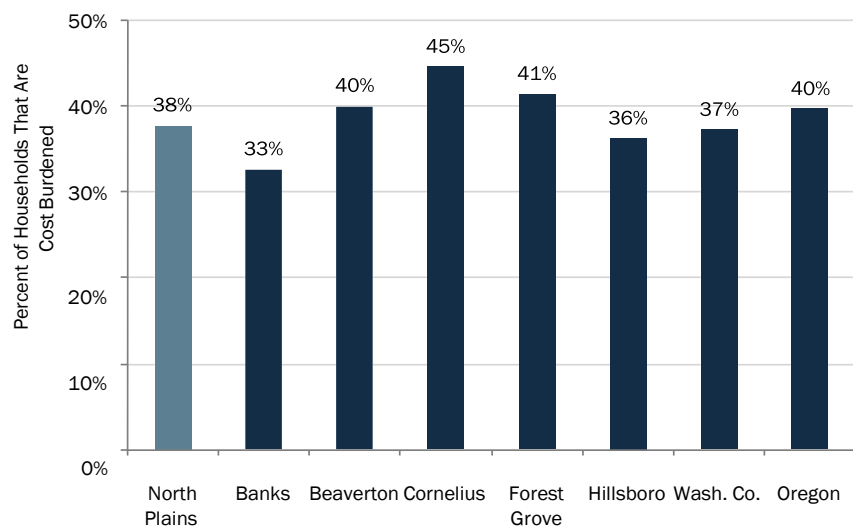### Exhibit 44. Housing Cost Burden, All Households, 2010-2014
Source: US Census Bureau, 2010-14 ACS Tables B25091 and B25070.

North Plains	Banks	Beaverton	Cornelius	Forest Grove	Hillsboro	Wash. Co.	Oregon
38%	33%	40%	45%	41%	36%	37%	40%

According to the Center for Neighborhood Technology's (CNT) Housing and Transportation Index, the average North Plains resident spends 53% of their income on housing and transportation costs. In comparison, a resident of Hillsboro spends 50% of their income on housing and transportation costs and a resident of Portland spends 49%. [16]

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.

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. This section describes affordability in North Plains in the context of housing costs across Washington County.

Fair Market Rent for a 2-bedroom apartment in Washington County is $1,208.	**Exhibit 45. HUD Fair Market Rent (FMR) by Unit Type, Washington County, 2016** Source: U.S. Department of Housing and Urban Development

$886	$1,021	$1,208	$1,757	$2,109
Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom

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[16] Center for Neighborhood Technology Housing and Transportation Affordability Index. For more information, please see: http://htaindex.cnt.org/fact-sheets/?focus=place&gid=7891

A household must earn at least $23.23 per hour to afford a two-bedroom unit in Washington County.

More than 30% of households in North Plains have an income below the affordable housing wage for Washington County.

Exhibit 46. Affordable Housing Wage, Washington County, 2016
Source: U.S. Department of Housing and Urban Development; Oregon Bureau of Labor and Industries

$23.23/hour

Affordable Housing Wage for two-bedroom Unit in Washington County

Exhibit 47 shows the types of housing attainable at different household incomes based on Washington County's median family income ($73,300). Exhibit 48 shows that North Plains has households with incomes across the spectrum, from 11% of households earning less than 30% of the County's median family income (less than $21,990) to 38% of households with income of 120% or more of the County's median family income ($87,960 or more).

Exhibit 47 shows that North Plains' households have a wide range of housing needs, from government assisted housing to owner-occupied single-family detached housing.

About 36% of North Plains households have income less than $48,000 and cannot afford a two-bedroom apartment at Washington County's Fair Market Rent (FMR) of $1,208.

Exhibit 47. Financially Attainable Housing, by Median Family Income (MFI) for Washington County ($73,300), North Plains, 2016
Source: U.S. Department of Housing and Urban Development
US Census Bureau, 2014 ACS Table 19001

% of Wa. Co. MFI	<30%	30%-50%	50%-80%	80%-120%	>120%
Annual Income	<$21,990	$21.990-$36,650	$36,650-$58,640	$58,640-$87,960	> $87,960
Monthly Affdble. Housing Cost	<$550	$550-$916	$916-$1,466	$1,466-$2,199	> $2,199
Percent of North Plains House-holds	11%	13%	14%	24%	38%
Attainable Owner Housing Types	None	Mfg. in parks	Single-family attached Condos Duplexes Mfg. on lots	Affordable single-family housing and other housing types	All housing types
Attainable Renter Housing Types	Apartment New and used govern-ment assisted housing	Apart-ments Mfg. in parks Duplex	Single-family attached Detatched Mfg. on lots Apartments	All housing types	All housing types

Exhibit 48 compares the demand for housing by income category with the supply of housing, assuming that households are not cost burdened. Exhibit 49 shows that North Plains has a deficit of 37 dwelling units affordable to households with income of less than $25,000 and 75 dwelling units affordable to households with income of $25,000 to $50,000. These households are unable to find affordable housing in North Plains and are cost burdened as a result.

North Plains currently has a deficit of housing affordable to households earning less than $50,000.

The deficit of housing for households earning less than $50,000 results in these households living in housing that is more expensive than they can afford. This is consistent with the data about renter cost burden in North Plains.

The housing types that North Plains 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 48. Rough Estimate of Housing Affordability, North Plains, 2016
Source: US Census Bureau, 2010-2014 ACS Tables 19001, 25075, 25063

Annual Income	<$25K	$25K-$50K	$50K-$75K	$75K-$100K	>$100k
HH in North Plains	92 / 13%	176 / 24%	113 / 15%	160 / 21%	205 / 27%
Monthly Affdble. Housing Cost	<$625	$625-$1,250	$1,250-$1,875	$1,875-$2,450	> $2,450
Affdble. Owner Housing Cost	< $62,500	$62,500-$125,000	$125,000-$187,500	$187,500-$245,000	> $245K
Est. of Number of Owner Units	8	20	143	175	235
Est. of Number of Renter Units	47	81	32	6	0
HUD Fair Market Rent (2015)		Studio: $886 / 1 bdrm: $1,021 / 2 bdrm: $1,208	3bdrm: $1,757	4 bdrm: $2,109	
Does North Plains Have Enough Units?	No Deficit: 37 units	No Deficit: 75 units	Yes Surplus: 62 units	Yes Surplus: 55 units	Yes Surplus 29 units

Summary of the Factors Affecting North Plains' 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."[17] Thus, simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

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 North Plains over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 1990 and 2015 North Plains' population grew by 1,043 people, more than doubling the city's population. The population in North Plains' UGB is forecast to grow from 3,410 to 7,076, an increase of 3,666 people (108%) between 2020 and 2040.[18]

- **Housing affordability will be a growing challenge in North Plains.** Housing affordability is a challenge in western Washington County in general, and North Plains is affected by these regional trends. Housing prices are increasing faster than incomes in Washington County, consistent with state and national challenges. North Plains has a relatively small share of housing that is multifamily housing (less than a 15% of the City's housing stock), and more than half of households that rent are cost burdened. North Plains' key challenge over the next 20 years is providing opportunities for

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

[18] This forecast of population growth is based on North Plains' official population forecast from the Oregon Population Forecast Program.

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 North Plains' housing market to some degree. If the City adopts policies to increase opportunities to build smaller-scale single-family, townhouses, 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 North Plains 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. The degree of change in North Plains' housing market, however, will depend on market demand for these types of housing in the western part of Washington 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 North Plains' 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.* The changes that most affect North Plains' housing demand as the population ages are that household sizes decrease and homeownership rates decrease. North Plains has a larger share of working-aged residents than the County average and may continue to do so in the future. North Plains will be affected by the aging of the Baby Boomers, as more residents of North Plains retire. Some of the retiring residents in North Plains may choose to downsize their housing, if housing types such as townhouses or small single-family housing are available in North Plains.

- *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. The Hispanic and Latino population currently

account for about 10% of North Plains' population. In addition, the 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. [19]

In summary, an aging population, increasing housing costs (with faster growth in sales price than nearby cities in 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 the 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), townhouses, 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.

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[19] 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 North Plains

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 North Plains over the 20-year planning period, (2) information about North Plains' housing market relative to Washington County and nearby cities, and (3) the demographic composition of North Plains' existing population and expected long-term changes in the demographics of Washington County.

Forecast for housing growth

This section describes the key assumptions and presents an estimate of new housing units needed in North Plains between 2020 and 2040, shown in Exhibit 50. The key assumptions are based on the best available data and may rely on safe harbor provisions, when available.[20]

- **Population.** A 20-year population forecast (in this instance, 2020 to 2040) is the foundation for estimating needed new dwelling units. North Plains will grow from 3,410 persons in 2020 to 7,076 persons in 2040, an increase of 3,666 people.[21]
- **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 timeof the analysis. According to the 2015-2019 American Community Survey, the average household size in North Plains was 2.72 people. **Thus, for the 2020 to 2040 period,we assume an average household size of 2.72 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 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 2015-2019 American Community Survey, North Plains' vacancy rate was 6%. **For the 2020 to 2040 period, we assume a vacancy rate of 6%.**

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[20] 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."

[21] This forecast is based on North Plains' official forecast from the Oregon Population Forecast Program for the 2020 to 2040 period, shown in Exhibit 20.

North Plains will have demand for 1,348 new dwelling units over the 20-year period, with an annual average of 68 dwelling units.

Exhibit 49. Forecast of demand for new dwelling units, North Plains UGB, 2020 to 2040

Source: Calculations by 3J Consulting, Inc.

Change in persons	3,666
Average household size	2.72
New occupied DU	1,348
times Aggregate vacancy rate	6%
equals Vacant dwelling units	81
Annual average of new dwelling units	68

New housing units needed over the next 20 years

Exhibit 50 presents a forecast of new housing in North Plains UGB for the 2020-2040 period. This section determines the needed mix and density for new housing developed over this 20-year period in North Plains.

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 North Plains' 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 North Plains:
  - *Baby Boomers.* Growth in the number of seniors will have an impact on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. North Plains has a larger share of working-aged residents than the County average and may continue to do so in the future. North Plains will be affected by the aging of the Baby Boomers, as more residents of North Plains retire. Some of the retiring residents in North Plains may choose to downsize their housing, if housing types such as townhouses or small single-family housing is available in North Plains. Some Baby Boomers may prefer housing in walkable neighborhoods, with access to services.
  - *Millennials.* Growth in Millennial households is will be important to North Plains, as the Millennials will be in their prime working years during the planning period. North Plains has a larger share of working aged residents because of the city's proximity to employment centers on the west side of the Portland region. Growth in Millennials will result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable. Millennials will need affordable housing for owners and renters, including small single-family detached houses, townhouses, or multifamily housing. Millennials often prefer housing in walkable neighborhoods, with access to services.
  - *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 38% of North Plains' households have affordability problems, indicating a need for more affordable housing types. More than one-third of North Plains' households could not afford a two-bedroom apartment at HUD's fair market rent level of $1,208. A household earning median family income ($73,300) could afford a home valued up to about $258,000, which is below the median sales price for single-family housing of about $337,000 in North Plains.

  In addition, North Plains has a small supply of multifamily housing, which accounts for less than 15% of the city's housing stock. North Plains has few multifamily buildings. As a result, there are few choices for market-rate multifamily housing opportunities in North Plains.

  Continued increases in housing costs may increase demand for denser housing (e.g., multifamily housing, townhouses, or smaller single-family housing). 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 North Plains' needed housing mix is for a broader range of housing types than are currently available in North Plains' housing stock. The types of housing that North Plains 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, and apartment buildings.

Exhibit 50 shows a forecast of needed housing in the North Plains UGB during the 2020 to 2040 period. The projection is based on the following assumptions:

- North Plains' official forecast for population growth shows that the City will add 3,666 people over the 20-year period. Exhibit 50 shows that the new population will result in need for 1,348 new dwelling units over the 20-year period.

- The assumptions about the mix of housing in Exhibit 50 are:

  ◦ Seventy percent of new housing will be single-family detached, a category which includes manufactured housing. Exhibit 9 shows that 88% of North Plains' housing was single-family detached in the 2015-2019 period, a small increase since 2000.
  ◦ Ten percent of new housing will be single-family attached. Exhibit 9 shows that 6% of North Plains' housing was single-family attached in the 2015-2019 period, withlittle change since 2000.

  ◦ Twenty percent of new housing will be multifamily. Exhibit 9 shows that 6% of North Plains' housing was single-family attached in the 2010-2014 period, a small decrease since 2000.
  ◦ In general, single-family detached housing will be developed in the R-7.5 zoning district, single-family attached housing will be developed in the R-5 zoning district and multifamily housing will be developed in the R-2.5 zoning district.

North Plains will have demand for 1,348 new dwelling units over the 20-year period, 70% of which will be single-family detached housing.

Exhibit 50. Forecast of demand for new dwelling units, 2020 to 2040

Source: Calculations by 3J Consulting

Needed new dwelling units (2020-2040)	**1,348**
Minus Brynhill Development (504 du)	**844**
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	**70%**
equals Total new single-family detached DU	**591**
Single-family attached	
Percent single-family attached DU	**10%**
equals Total new single-family attached DU	**84**
Multifamily	
Percent multifamily detached DU	**20%**
equals Total new multifamily DU	**169**

Exhibit 51. Demand for housing by zoning designation, 2020-2040

Source: Calculations by 3J Consulting, Inc

Plan Designation	Dwelling Units Capacity of Buildable Land	Needed Dwelling Units (2020-2040)	Surplus or Deficit of Dwelling Units
Low Density Residential (R7.5)	11	591	-580
Medium Density Residential (R5)	19	84	-65
High Density Residential (R2.5)	24	169	-145
NC	504	504	0
Total	558	1,348	-790

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 secondary data from the Census, and analysis by ECONorthwest and 3J Consulting.

The analysis in **Exhibit 52** is based on American Community Survey data about income levels in North Plains, using information shown in Exhibit 48. Income is categorized into market segments consistent with HUD income level categories, using Washington County's 2019 Median Family Income (MFI) of $82,215. **Exhibit 52** is based on current household income distribution, assuming approximately that thesame percentage of households will be in each market segment in the future.

About one-quarter of North Plains' future households will have income below 50% of Washington County's median family income (less than $41,108 in 2019 dollars) and more than one-third will have incomes between 50% and 120% of the County's median family income (income between $41,108 and $98,658).

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 52. Financially Attainable Housing, by Median Family Income (MFI) for Washington County ($82,215), North Plains, 2020-2040
Source: U.S. Department of Housing and Urban Development
US Census Bureau, 2019 ACS Table S1901

% of Wa. Co. MFI	<30%	$30% -50%	50%-80%	80%-120%	>120%
Annual Income	<$24,664	$24,665 - $41.107	$41,108- $65,772	$65,773- $98,658	>$98, 659
Monthly Affdble. Housing	<$617	$618- $1,052	$1,053- $1,644	$1,645- $2,466	> $2,467
Percentage of North Plains households	8%	11%	13%	22%	46%
New Households 2020-2040	109	150	178	301	628
Attainable Owner Housing Types	None	Mfg. in parks	Single-family attached condos duplexes mfg. on lots	Affordable single-family housing and other housing types	All housing types
Attainable Renters Housing Typpes.	Apartment new and used government assisted housing	Apartments mfg. in parks duplex	Single-family attached detached mfg. on lots apartment	All housing types	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.). North Plains allows development of government-assisted housing in all residential plan designations, with the same development standards for market-rate housing. This analysis assumes that North Plains 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.** North Plains does not allow manufactured homes as an outright use on lots in the R-7.5, R-5, R-2.5, or the NC zones, which are the zone where single-family detached housing is allowed. Manufactured homes on lots are allowed as a conditional use in these zones. North Plains plans to update its zoning code to allow manufactured homes on lots in these zones as an outright permitted use.
North Plains does not have any manufactured home parks within its UGB. As a result, all the manufactured homes in North Plains are on individual lots. The 2015-2019 American Community Survey shows that 3.6% of North Plains' homes are manufactured homes. Given the need for affordable housing, shown in Exhibit 53, it is reasonable to assume that up to 3.6% of North Plains' new housing may be manufactured homes on lots. Based on the forecast of new housing in Exhibit 51, up to about 29 new dwelling units in North Plains may be manufactured homes on lots. Manufactured homes on lots are part of the forecast for 969 new single-family detached dwellings. Once the City allows manufactured homes on lots as an outright permitted use in single-family zones, the number of manufactured homes on lots will be developed based on market demand for this type of housing over the 20-year planning period.

- **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,[22] North Plains has no manufactured home parks within the city.
ORS 197.480(2) requires North Plains 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.

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[22] Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, http://o.hcs.state.or.us/MDPCRParks/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. 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.

Given these trends, the lack of manufactured home parks in North Plains, increases in land prices across the Portland region, and the comparatively high home sales prices in North Plains, it is reasonable to assume that North Plains may not have development of new manufactured home parks over the 20-year planning period. However, the City permits, with a conditional use permit, manufactured home parks in the R-5 and R-2.5 zones and is prepared to review and approve this land use if proposed.

6. Residential Land Sufficiency within North Plains

This chapter presents an evaluation of the sufficiency of vacant residential land in North Plains to accommodate expected residential growth over the 2020 to 2040 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of North Plains' ability to accommodate needed new housing units for the 2020 to 2040 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 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 comparisonof 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,"[23] can be used to evaluate different ways that vacant residential land may build out by applying different assumptions.

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[23] 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.

North Plains Capacity Analysis Results

The first step in the capacity analysis is to account for land for rights-of-way on North Plains' vacant land. Exhibit 4 and Exhibit 5 show vacant and partially vacant residential land in North Plains. The capacity analysis begins with the inventory of vacant and partially vacant land to determine the number of dwelling units that could be built in North Plains on residential lands.

Before calculating residential land capacity, it is necessary to account for land that will be needed for public rights-of-way (e.g., roads and sidewalks). Exhibit 54 shows that about 15% of land vacant land will be needed for future rights-of-way on vacant land in North Plains. This estimate is based on analysis from "Analysis of Land Use Efficiency in Oregon Cities: A Report to the HB 2254 Rules Advisory Committee"[24] that shows an average of 15% of land (in cities the size that North Plains will be by 2037), were used for rights-of-way as of 2015. This finding is consistent with research by ECONorthwest for other cities that shows that cities typically use between 10% and 20% of land for rights-of-way in residential areas.

Exhibit 53 estimates North Plains has about 67 acres of vacant and partially vacant land for housing, excluding land for rights-of-way.

Exhibit 53. Estimate of vacant and partially vacant land accounting for land for rights-of-way, North Plains UGB, 2021
Source: BLI; Calculations by ECONorthwest

	Vacant Land (acres)	Percentage of Land for Rights of-Way	Estimated Land for Housing (acres)
Low-Density Residential (R7.5)	2.5	15%	2.2
Standard-Density Residential (R5)	2.8	15%	2.4
High-Density Residential (R2.5)	2.5	15%	2.2
Neighborhood Community (NC)	70	15%	60
Total	78		67

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[24] "Analysis of Land Use Efficiency in Oregon Cities: A Report to the HB 2254 Rules Advisory Committee" prepared by the University of Oregon's Community Service Center and the Department of Planning, Public Policy and Management, 2015.

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based on the development densities allowed or required in North Plains' zoning code and Comprehensive Plan. Where information is available, we considered densities of recent residential development. Exhibit 55 uses the following development densities assumptions:

- **Low Density Residential (R7.5):** The maximum density in R7.5 is 5.8 dwelling units per acre (assuming 7,500 square foot lots). Exhibit 55 assumes that land in this zone will develop at 90% of maximum density at 5.2 dwelling unit per acre.

- **Standard Density Residential (R5):** The maximum density in R5 is 8.7 dwelling units per acre (assuming 5,000 square foot lots) for single-family detached housing. Exhibit 55 assumes that land in this zone will develop at 90% of maximum density at 7.8 dwelling unit per acre.

- **High Density Residential (R2.5):** The maximum density in R2.5 is 10.9 dwelling units per acre (assuming 4,000 square foot lots) for single-family detached housing and 17.4 dwelling units per acre for duplex, triplex, and single-family attached housing. Exhibit 55 assumes land will develop at the densities in recently developed subdivisions, 11 dwelling units per acre.

- **Neighborhood Community (NC):** All of the vacant NC-zoned property in the City is master planned (Brynhill) at a density of 8.4 dwelling units per acre.

Exhibit 54 shows that North Plains' vacant land (excluding land for rights-of-way) has capacity for 558 dwelling units.

Exhibit 54. Estimated housing development potential on vacant residential lands, number of dwelling units, North Plains UGB (Brynhill Expansion Area Excluded)
Source: Buildable Lands Inventory

	Vacant Land Excluding ROW	Development Density (dwelling units/acre)	New Dwelling Units
Low Density Residential (R7.5)	2.2	5.2	11
Standard Density Residential (R5)	2.4	7.8	19
High Density Residential (R2.5)	2.2	11	24
Neighborhood Community (NC)	60	8.4	504
Total	67		558

Residential Land Sufficiency

The final step in the analysis of the sufficiency of residential land within North Plains is to compare the demand for housing by Plan Designation (Exhibit 51) with the capacity of land by Plan Designation (Exhibit 54).

Exhibit 55 shows that North Plains has insufficient capacity in the R7.5, R5, and R2.5 zones. This isbecause Exhibit 52 allocates a limited amount of housing to these designations based on the amount of vacant land within these designations. As new land is brought into North Plains, that land is zoned NC and will be planned to meet North Plains' housing needs.

Exhibit 55 shows that North Plains has a deficit of land to accommodate 668 new dwelling units in the NC designation.

Exhibit 55. Comparison of capacity of existing residential land with demand for new dwelling units and land deficit, North Plains UGB, 2020-2040
Source: Buildable Lands Inventory from Washington County; Calculations by 3J Consulting

Plan Designation	Dwelling Units Capacity of Buildable Land	Needed Dwelling Units (2020-2040)	Surplus or Deficit of Dwelling Units
Low Density Residential (R7.5)	11	591	-580
Medium Density Residential (R5)	19	84	-65
High Density Residential (R2.5)	24	169	-145
NC	504	504	0
Total	558	1,348	-790

However, North Plains' growth will be driven by growth in the larger Portland region, especially employment growth of the Westside in Hillsboro and Beaverton. North Plains is very small compared to Hillsboro and Beaverton. Continued growth on the Westside may drive growth in North Plains fast, with most vacant residential (especially land in parcels large enough to subdivide) developing over the course of three to five years. However, changes in regional growth rates (such as slowing from a recession) may slow growth in North Plains.

Despite the uncertainty of regional growth rates over the next few years, we recommend that North Plains begin planning for UGB expansion once the Comprehensive Plan update process is completed. The UGB expansion process can be time consuming and the City will need time to plan for infrastructure and facility improvements necessary to serve areas newly brought into the UGB.

Estimate of Additional Land Needed to Accommodate Housing Demand

The conclusions from Exhibit 55 show that North Plains does not have sufficient land within its urban growth boundary to accommodate future growth. The City has three choices for addressing this land deficit: increase capacity of land within the UGB through land use efficiency measures; expand the UBG; or both. Most cities choose to evaluate options to increase land use efficiency and (if there is still a deficit of land), expand the UGB. The State process for expanding the UGB requires that cities consider policies to increase land use efficiency prior to expanding the UGB.

The overall density assumption for land brought into North Plains' UGB in the early 2000s, in the north and east portions of the City was development of an average of 8.4 dwelling units per acre. If the City proceeds with a UGB expansion to accommodate the forecast of population growth, the City will need to identify an average density that meets the City's identified housing needs in this analysis. The density target should also consider historical development patterns and opportunities for increasing land use efficiency (analysis the City will perform as part of the UGB expansion process).

Exhibit 56 estimates the amount of land that North Plains may need for a UGB expansion **based on existing and proposed zoning policies**. This analysis is based on the 2021 UGB Expansion Phase 1 report, which took into account existing development patterns, community preference, City housing policy and forthcoming efficiency measures for development within the existing City limits. The purpose of these tables isto give an estimate of potential land need, given a range of mixtures of housing types and densities.

Exhibit 55 makes a simplified assumption that the R-7.5 zoning district will develop primarily as single-family detached housing, the R-5 zoning district will develop primarily as single-family attached housing and the R-2.5 zoning district will develop primarily as multifamily housing. However, the number of dwelling units assigned to each zoning district in Exhibit 56 varies from Exhibit 55 in the acknowledgement that the R-5 zoning district density of 8.0 dwelling units per acre is much more supportive of single-family detached housing than attached. Similarly, it is likely that single-family attached housing will also be developed on some parcels in the R-2.5 zoning district. These estimates **do not include** land needed for rights-of-ways, parks, and other public facilities.

Exhibit 56. Estimate of land to meet residential deficits in North Plains UGB, 2020-2040
Source: 3J Consulting, Inc.

Zoning Designation	Average Density	Acres	Dwelling Units
R-7.5 (Low Density)	5.5 dwelling units per net acre	84.5	464
R-5 (Medium Density)	8.0 dwelling units per net acre	14.0	112
R-2.5 (High Density)	17.4 dwelling units per net acre	12.3	214
Total	**7.1 dwelling units per net acre**	**110.8**	**790**

We assume that North Plains will require concept plans for any UGB expansion areas. The concept plan will determine the amounts and range of densities of each housing type. Regardlessof development densities, meeting the housing needs of households with low- and moderate- income will require policies that support development of a wider range of housing types.

Actions in the City's revised Comprehensive Plan Objectives and Policies that support development of a range of housing types include: working with the Housing Authority of Washington County to identify sites, projects and developers to provide assisted housing units for low- and moderate-income households or identifying financial and other strategies to encourage development of low- and moderate-income housing

Land needed for public and semi-public uses

The North Plains UGB Expansion will require land for public uses, including schools, parks, trails, open space and rights-of-way. The amount of land needed for public infrastructure is estimated at 15% of the acreage needed for residential dwellings (for example, 100 acres of land for dwellings requires 15 acres for streets and infrastructure).

All public schools in North Plains are owned and operated by Hillsboro School District (HSD). HSD completed construction of a new elementary school in 2021 that, combined with the existing elementary school, will accommodate all K-6 students in North Plains in the 20-year planning horizon of the UGB expansion.

Middle school students in North Plains attend Evergreen Middle School and high school students attend Glencoe High School, both of which are in Hillsboro. Evergreen currently has just over 800 students and capacity for another 400 students. The District's current demographic study shows a Student Yield Factor of 0.053 middle school students per household in North Plains for the Glencoe High School feeder group. The addition of an estimated 791 housing units in the next 20 years within the UGB expansion area would yield approximately 42 new middle school students in North Plains in the next 20 years. While a middle school may eventually be built in North Plains, there is no plan to do so in the 20-year planning horizon of the UGB expansion. Similarly, there are no plans for high school construction in the city. Therefore, the needs analysis for public schools results in no land need for the UGB Expansion project.[26]

The North Plains Parks and Open Space Master Plan ("Parks Plan") identifies the level-of-service standard of 6.25 acres per 1,000 residents of developed core parks (community, neighborhood and mini parks). The Parks Plan also identifies the goal of providing trails and pathways, but does not specify a certain amount of land. The 2040 population estimate of 7,076 people translates to 44.23 acres of developed core parks. Adding 2.0 acres for trails and pathways brings the total need in year 2040 to approximately 46.23 acres. According to the Parks Plan, there are 6.24 acres of parks in the city[1]. Therefore, the amount of land needed for parks, trails and open space in the UGB expansion area, as identified in the 2021 Phase 1 UGB Report, is 40 acres. The City will identify park land that meet the City's specified park needs when developing a UGB expansion proposal.

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[1] The Sunset Ridge and Brynhill Master Plan areas include privately-owned parks that are accessible to the public that are not included in the Parks Plan inventory as they were not fully constructed at the time of inventory and are not owned or maintained by the City.

Exhibit 57. Estimate of land needed to meet residential deficits including public uses in North Plains UGB, 2020-2040

Land Use	Acres
Housing	110.8
Parks, Trails and Open Space	40.0
Schools	0
Infrastructure	16.6
Total Residential Land Need	**167.4**

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[26] Based on discussions with Adam Stewart, Hillsboro School District Chief Financial Officer.
Source: 3J Consulting, Inc.

Conclusions and Recommendations

The key findings of the North Plains Housing Needs Analysis are that:

- **North Plains' population is forecast to grow substantially faster than in the past.** North Plains is forecast to grow from 3,410 people in 2020 to 7,076 people in 2040, an increase of 3,666 people. This population growth will occur at an average annual growth rate of 3.7%. In comparison, North Plains grew at an average annual growth rate of 3.0% between 1990 and 2014. One of the reasons for faster growth in the future is that North Plains has recently annexed vacant land into the city limits and expects to annex the remaining vacant residential land relatively soon.

- **North Plains is planning for 1,348 new dwelling units.** The growth of 3,666 people will result in demand for 1,348 new dwelling units over the 20-year planning period averaging 68 new dwelling units annually.

- **North Plains will need to plan for more single-family attached and multifamily dwelling units in the future to meet the City's housing needs.** Historically, about 88%of North Plains housing was single-family detached. While 70% of new housing in North Plains is forecast to be single-family detached, the City will need to provide opportunities for development of new single-family attached (10% of new housing) and new multifamily (20% of new housing).

- The factors driving the shift in types of housing needed in North Plains include changes in demographics and decreases in housing affordability. The aging of the Baby Boomers and the household formation of the Millennials will drive demand for renter- and owner-occupied housing such as small single-family detached housing, townhouses, duplexes, and apartments. Both groups may prefer housing in walkable neighborhoods,with access to services.

  In addition, 38% of North Plains' households have affordability problems, indicating a need for more these affordable housing types. About 263 new households will have incomes of $41,107 (in 2019 dollars) or less. And more than 485 new households will have incomes between $41,108 and $98,658. These households will all need access to affordable housing, such as the housing types described above.

- **North Plains has a deficit of land to accommodate housing.** North Plains' vacant and partially vacant land can accommodate about 558 dwelling units, which is 790 dwelling units short of North Plains forecast of 1,348 dwelling units.

- **North Plains will need to evaluate how to accommodate the deficit of land for housing.** The City has three choices for addressing this land deficit: increase capacity of land within the UGB through land use efficiency measures; expand the UBG; or both. Most cities choose to evaluate options to increase land use efficiency and (if there is still a deficit of land), expand the UGB. The State process for expanding the UGB requires that cities consider policies to increase land use efficiency prior to expanding the UGB.

- **North Plains will need to plan to provide opportunity for development of a wider range of housing types.** Eight-eight percent of the housing in North Plains' housing market is single-family detached. While North Plains will continue to need single-family detached housing in the future, the City's needed housing mix includes a wider range of housing types, such as small lot single-family housing, townhouses and all types of multifamily housing.

Recommendations to North Plains for addressing the City's housing needs are:

- **North Plains should plan to provide opportunities for development of the housing need identified in this report.** This analysis found that North Plains housing needs are for more development of single-family attached housing and multifamily housing. While the City does not generally have a direct role in housing development, the City's planning framework set the context for housing development. The City should evaluate opportunities to lower barriers to development of types of housing that are relatively more affordable (e.g., townhouses and multifamily housing) and ensure that sufficient land is available to accommodate these housing types.

- **North Plains has an existing deficit of affordable housing.** North Plains housing prices, especially ownership prices, have increased substantially since 2000. The City should consider opportunities to allow and encourage development of more affordable housing types, as described in this report. The City may consider partnering with organizations involved in producing affordable housing, such as the Washington County Housing Authority, to support development of new affordable housing in NorthPlains.

- **North Plains should update its zoning code to meet state requirements related to manufactured homes and make other clarifications.** This project results in recommendations for the following revisions to North Plains' zoning code:

  o ORS 197.480 requires cities to allow manufactured home parks in zones planned for six to 12 dwelling unit units per acre. This includes the R-5 and R-2.5 zones in North Plains.

  o North Plains' zoning code refers to single-family attached housing in a variety of ways: single-family attached homes/row houses, single family attached row houses up to 4 units, townhomes/condominiums, or row homes/town homes. We recommend that the City define single-family attached housing and refer to it in a consistent way.

    For example, in a recent update to their zoning code, Hood River defined single-family attached housing as: "Townhouse (attached single family) means a single-family dwelling unit located on its own lot that shares one or more common or abutting walls with one or more single family dwelling units on adjacent lot(s)."

  o Multifamily is currently a conditional use in the R-2.5 zone. However, the purpose of the zoning is to "to provide for the development of residential single family and multifamily housing and to implement the housing policies of the Comprehensive Plan." We recommend that the City allow multifamily as an outright use in the R-2.5 zone.

- **North Plains should evaluate opportunities to provide for efficient development of residential land within the UGB.** As part of expanding the UGB, North Plains is required to evaluate opportunities to provide efficient development of residential land within the UGB. This evaluation is challenging in North Plains because the City has relatively little vacant land within the city limits (zoned R-7.5, R-5, or R-2.5). Land in the NC zone on the east side of the City is fully developed. Development plans for land in the NC zone in the North Expansion Area have been approved by the City.

  The City may make some changes to increase land use efficiency and provide a wider range of affordable housing types. For example, the City could do some or all of the following: allow duplexes as an outright permitted use in the R-5 zone, allow multifamily outright in the R-2.5 zone, allow cottage housing development in selected single-family zones, allow accessory dwelling units in the NC zone, or revise the City's mixed-use regulations to encourage new mixed residential and commercial development.

- **North Plains should monitor residential land development.** Monitoring residential land development will help the City ensure that there is enough residential land to accommodate the long-term forecast for population growth. We recommend that the City develop and implement a system to monitor the supply of residential land. This includes monitoring residential development (through permits) as well as land consumption (e.g. development on vacant, or redevelopable lands).