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Coordinated Population Forecast for Union County, its Urban Growth Boundaries (UGB), and Area Outside UGBs 2016-2066

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Coordinated Population Forecast

2016

Through

2066

Union County

Urban Growth Boundaries (UGB) & Area Outside UGBs

Population Research Center
PORTLAND STATE UNIVERSITY

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http://arcweb.sos.state.or.us/pages/records/local/county/scenic/union/99.html

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Prepared by

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How to Read this Report

This report should be read with reference to the documents listed below—downloadable on the Forecast Program website (http://www.pdx.edu/prc/opfp).

Specifically, the reader should refer to the following documents:

- *Methods and Data for Developing Coordinated Population Forecasts*—Provides a detailed description and discussion of the methods employed to prepare the forecasts. This document also describes the data sets and assumptions that feed into these methods and determine the forecast output.
- *Forecast Tables*—Provides complete tables of population forecast numbers by county and all sub-areas within each county for each five-year interval of the forecast period (i.e., 2016-2066).

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Executive Summary

Historical

Union County's total population has grown slowly since 2000, with an average annual growth rate of half percent between 2000 and 2010 (Figure 1). However, some of its sub-areas experienced more rapid population growth during the 2000s. Summerville posted the highest average annual growth rate of 1.4 percent, and Imbler and Union were close behind with average annual growth rates of about 1.2 percent each.

Union County's positive population growth in the 2000s was the combined result of a consistent natural increase and a net in-migration. The larger number of births relative to deaths has led to a natural increase (more births than deaths) in every year from 2000 to 2015 (Figure 12). While net in-migration fluctuated dramatically during the early years of the last decade, the number of in-migrants has been slightly more stable during recent years, accounting for the majority of Union County's population increase.

Forecast

Total population in Union County as a whole as well as within some of its sub-areas will likely grow at a slightly faster pace in the nearer-term (2016 to 2035) compared to the longer-term (Figure 1). The tapering of growth rates is largely driven by an aging population—a demographic trend which is expected to contribute to natural decrease (more deaths than births). As natural decrease occurs, population growth will become increasingly reliant on net in-migration.

Steady increase in net in-migration is expected to offset the growing natural decrease, leading to relatively steady population growth over the forecast period. However, an aging population is expected to not only lead to an increase in deaths, but a smaller proportion of women in their childbearing years will likely result in a long-term stabilization in the number of births.

Figure 1. Union County and Sub-Areas—Historical and Forecast Populations, and Average Annual Growth Rates (AAGR)

	Historical			Forecast				
	2000	2010	AAGR (2000-2010)	2016	2035	2066	AAGR (2016-2035)	AAGR (2035-2066)
Union County	*24,530*	*25,748*	*0.5%*	*27,086*	*29,638*	*32,362*	*0.5%*	*0.3%*
Cove UGB	594	567	-0.5%	564	546	499	-0.2%	-0.3%
Elgin UGB	1,666	1,747	0.5%	1,805	1,965	2,142	0.4%	0.3%
Imbler UGB	284	319	1.2%	337	382	452	0.7%	0.5%
Island City UGB	975	1,056	0.8%	1,112	1,267	1,493	0.7%	0.5%
La Grande UGB	13,041	13,615	0.4%	14,042	15,385	17,206	0.5%	0.4%
North Powder UGB	460	435	-0.6%	432	432	432	0.0%	0.0%
Summerville UGB	117	135	1.4%	135	135	135	0.0%	0.0%
Union UGB	1,877	2,107	1.2%	2,200	2,408	2,659	0.5%	0.3%
Outside UGBs	5,516	5,767	0.4%	6,459	7,119	7,344	0.5%	0.1%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses; Forecast by Population Research Center (PRC).

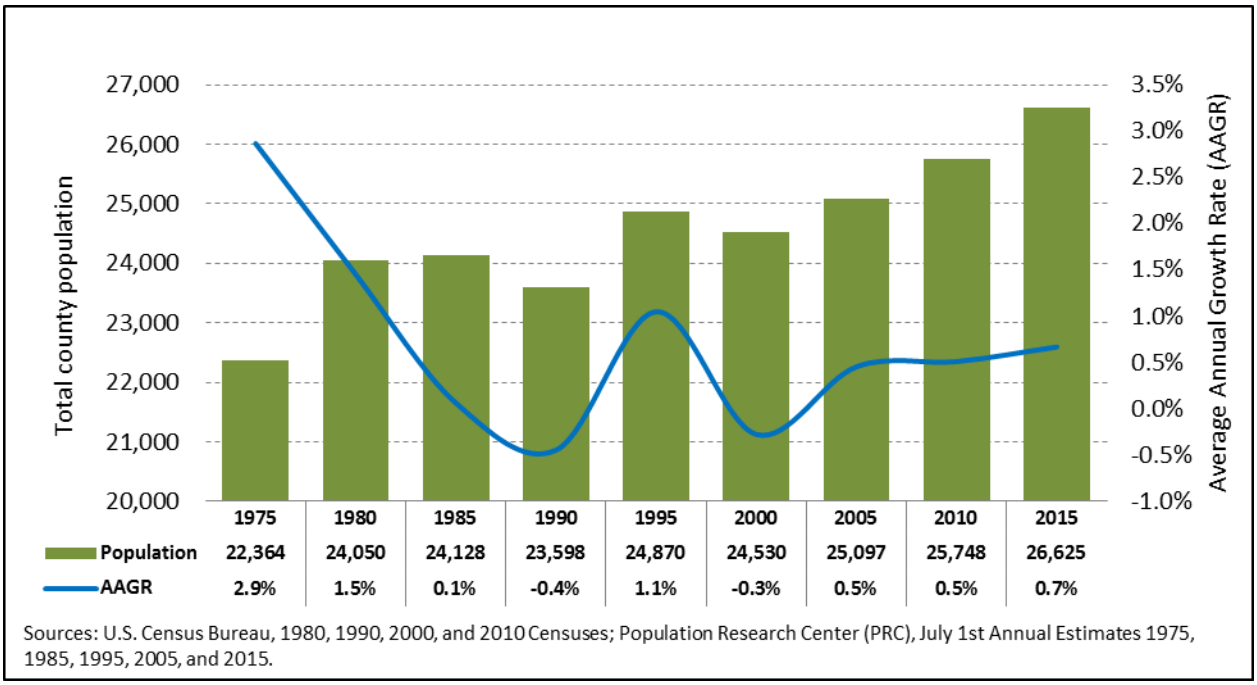
Historical Trends

Different growth patterns occur in different parts of the County. Each of Union County's sub-areas was examined for any significant demographic characteristics or changes in population or housing growth that might influence their individual forecasts. Factors that were analyzed include age composition of the population, ethnicity and race, births, deaths, migration, and number or growth rate of *housing units* as well as the *occupancy rate* and *persons per household (PPH)*. It should be noted that population trends of individual sub-areas often differ from those of the county as a whole. However, in general, local trends within sub-areas collectively influence population growth rates for the county.

Population

Union County's total population grew by about 19 percent between 1975 and 2015—from roughly 22,400 in 1975 to about 26,600 in 2015 (Figure 2). During this 40-year period, the county realized the highest growth rates during the late 1970s, which coincided with a period of relative economic prosperity. During the 1980s, challenging economic conditions, both nationally and within the county, led to population decline. Again, during the early 1990s population growth increased, but challenging economic conditions in the late 1990s yielded population decline. Even so, Union County experienced positive population growth over the last decade (2000 to 2010)—averaging about 120 new persons per year. In recent years, growth rates have slightly increased, leading to faster paced population growth between 2010 and 2015.

Figure 2. Union County—Total Population by Five-year Intervals (1975-2015)



Sources: U.S. Census Bureau, 1980, 1990, 2000, and 2010 Censuses; Population Research Center (PRC), July 1st Annual Estimates 1975, 1985, 1995, 2005, and 2015.

Union County's population change is the combined population growth or decline within each sub-area. During the 2000s, Union County's average annual population growth rate stood at half percent (Figure 3). At the same time, the Union, Summerville, and Imbler UGBs all recorded average annual growth

rates greater than one percent, while population in the La Grande, Island City, Elgin UGBs, and the area outside UGBs all increased at rates near or below that of the county as a whole. Cove and North Powder recorded population decline between 2000 and 2010.

Figure 3. Union County and Sub-areas—Total Population and Average Annual Growth Rate (AAGR) (2000 and 2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010
Union County	*24,530*	*25,748*	*0.5%*	*100.0%*	*100.0%*
Cove	594	567	-0.5%	2.4%	2.2%
Elgin	1,666	1,747	0.5%	6.8%	6.8%
Imbler	284	319	1.2%	1.2%	1.2%
Island City	975	1,056	0.8%	4.0%	4.1%
La Grande	13,041	13,615	0.4%	53.2%	52.9%
North Powder	460	435	-0.6%	1.9%	1.7%
Summerville	117	135	1.4%	0.5%	0.5%
Union	1,877	2,107	1.2%	7.7%	8.2%
Outside UGBs	5,516	5,767	0.4%	22.5%	22.4%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses.

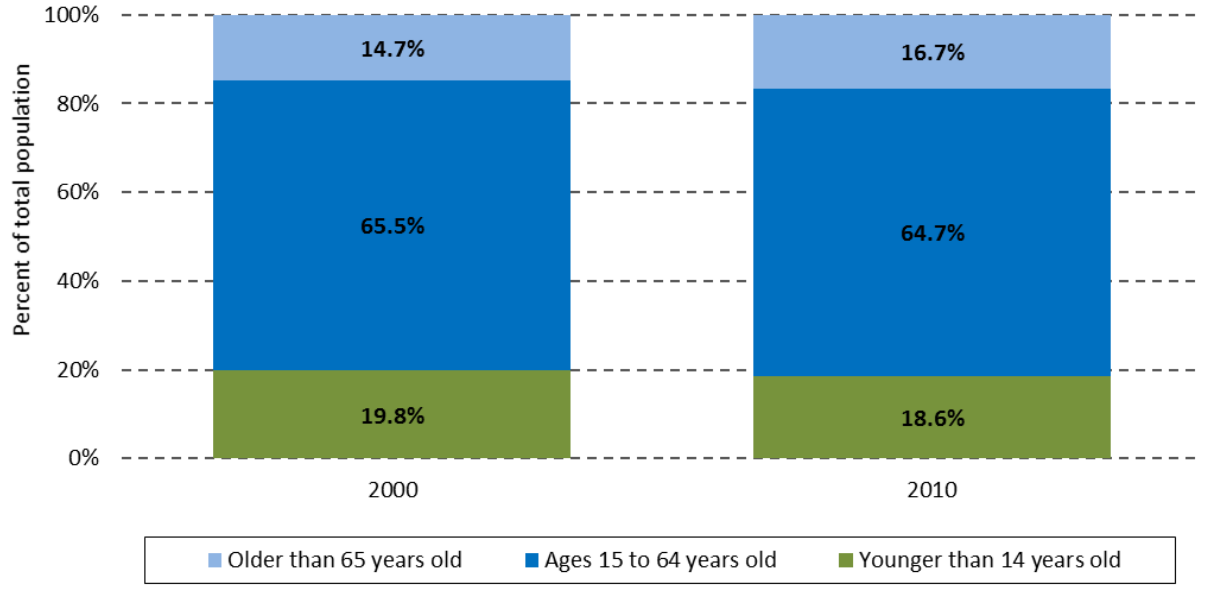
Note 1: For simplicity each UGB is referred to by its primary city's name.

Age Structure of the Population

Union County's population is aging, but at a slower pace compared to some areas across Oregon. An aging population significantly influences the number of deaths, but also yields a smaller proportion of women in their childbearing years, which may result in a decline in births. For Union County the proportion of population 65 or older increased from 15 percent to 17 percent between 2000 and 2010 (Figure 4). Further underscoring Union County's trend in aging, the median age rose from about 38 in 2000 to 40 in 2010, an increase that is consistent with that observed statewide and many of Oregon's counties over the same time period.[1]

[1] Median age is sourced from the U.S. Census Bureau's 2000 and 2010 Censuses, DP-1.

Figure 4. Union County—Age Structure of the Population (2000 and 2010)



Sources: U.S. Census Bureau, 2000 and 2010 Censuses. Calculated by Population Research Center (PRC).

Race and Ethnicity

While the statewide population is aging, another demographic shift is occurring across Oregon—minority populations are growing as a share of total population. A growing minority population affects both fertility rates and average household size[2]. The Hispanic population within Union County increased substantially from 2000 to 2010 (Figure 5), while the White, non-Hispanic population increased over the same time period, but with a decrease in its percentage share. The increase in the Hispanic population and some other minority populations is notable, but overall the minority population has remained a relatively small proportion of total population and will likely not substantively influence future population change.

[2] Historical data shows that some racial/ethnic groups, such as Hispanics, generally have higher fertility rates than other groups (http://www.pewsocialtrends.org/2012/05/17/explaining-why-minority-births-now-outnumber-white-births/); also average household sizes can vary among racial/ethnic groups (https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&sqi=2&ved=0ahUKEwjp09-PltXMAhUC_WMKHQFZCBEQFggcMAA&url=http%3A%2F%2Fwww.census.gov%2Fpopulation%2Fsocdemo%2Fhh-fam%2Fcps2011%2FtabAVG1.xls&usg=AFQjCNFfO2dYB_OKGxp-ag3hBMVDx4_j9w&cad=rja).

Figure 5. Union County—Hispanic or Latino and Race (2000 and 2010)

Hispanic or Latino and Race	2000		2010		Absolute Change	Relative Change
Total population	*24,530*	*100.0%*	*25,748*	*100.0%*	*1,218*	*5.0%*
Hispanic or Latino	600	2.4%	1,002	3.9%	402	67.0%
Not Hispanic or Latino	23,930	97.6%	24,746	96.1%	816	3.4%
White alone	22,843	93.1%	23,407	90.9%	564	2.5%
Black or African American alone	117	0.5%	126	0.5%	9	7.7%
American Indian and Alaska Native alone	191	0.8%	255	1.0%	64	33.5%
Asian alone	204	0.8%	204	0.8%	0	0.0%
Native Hawaiian and Other Pacific Islander alone	147	0.6%	223	0.9%	76	51.7%
Some Other Race alone	92	0.4%	49	0.2%	-43	-46.7%
Two or More Races	336	1.4%	482	1.9%	146	43.5%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses.

Births

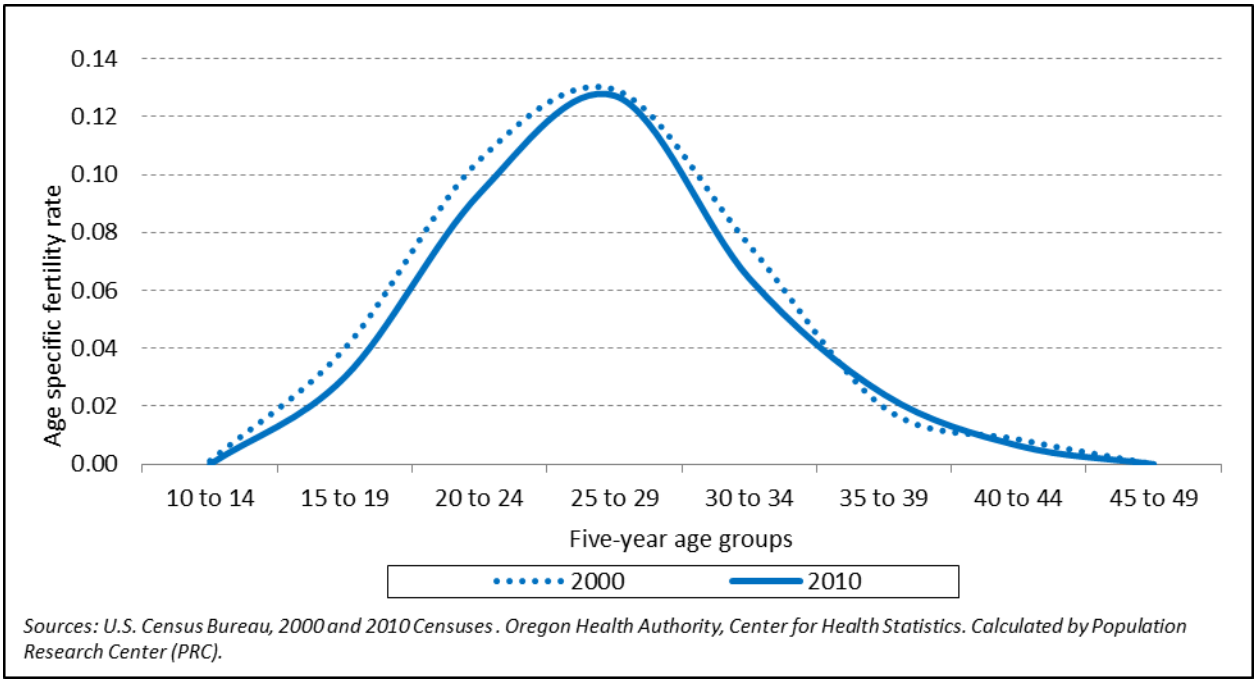
Historical fertility rates for Union County mirror trends similar to Oregon as a whole. Total fertility rates decreased in Union County from 2000 to 2010, while they also decreased for the state over the same time period (Figure 6). At the same time fertility for high end mothers marginally increased in both Union County and Oregon (Figure 7 and Figure 8). As Figure 7 demonstrates, fertility rates for younger women in Union County are lower in 2010 compared to earlier decades, and some women are choosing to have children at older ages. While age specific fertility largely follows statewide patterns, the increase in births among women in their thirties is less pronounced in Union County. Even so, both the county and state continue to see total fertility fall further below *replacement fertility*.

Figure 6. Union County and Oregon—Total Fertility Rates (2000 and 2010)

	2000	2010
Union County	1.90	1.73
Oregon	1.98	1.80

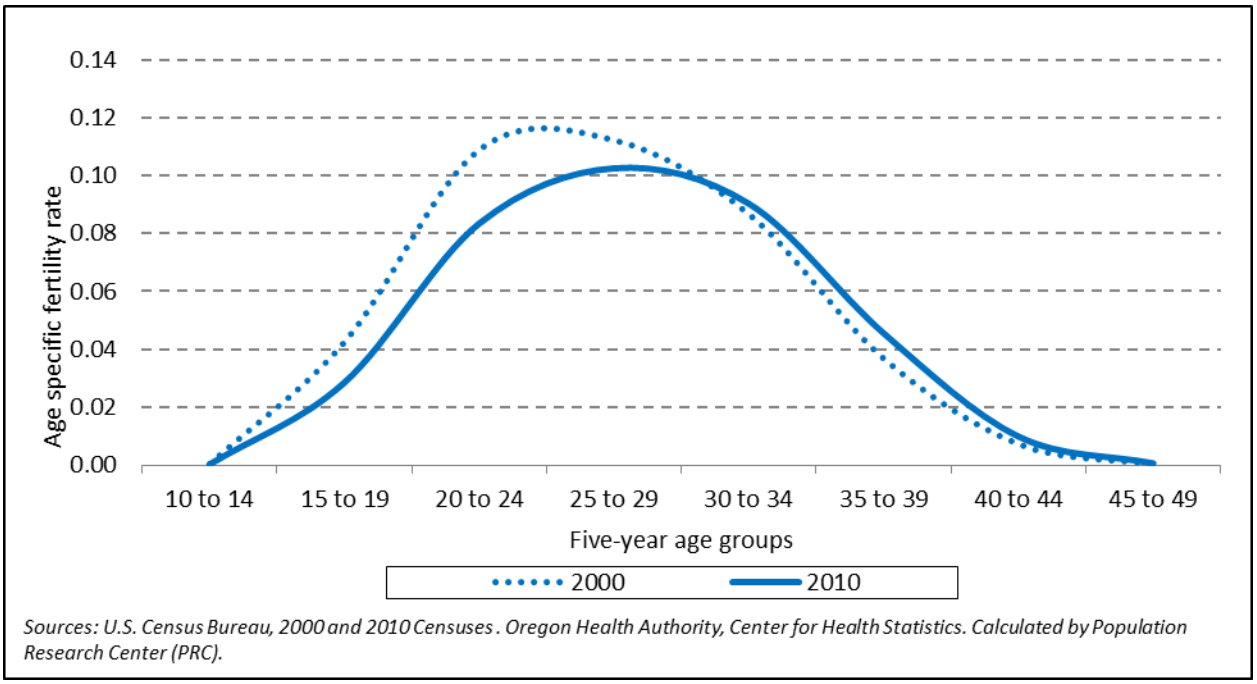
Sources: U.S. Census Bureau, 2000 and 2010 Censuses.
Oregon Health Authority, Center for Health Statistics.
Calculated by Population Research Center (PRC).

Figure 7. Union County—Age Specific Fertility Rate (2000 and 2010)



Sources: U.S. Census Bureau, 2000 and 2010 Censuses . Oregon Health Authority, Center for Health Statistics. Calculated by Population Research Center (PRC).

Figure 8. Oregon—Age Specific Fertility Rate (2000 and 2010)



Sources: U.S. Census Bureau, 2000 and 2010 Censuses . Oregon Health Authority, Center for Health Statistics. Calculated by Population Research Center (PRC).

Figure 9 shows the number of births by the area in which the mother resides. Generally the number of births fluctuates from year to year. For example, a sub-area with a small increase in births between two

years could easily show a decrease for a different time period; however for the 10-year period from 2000 to 2010 the county as a whole saw a decrease in births (Figure 9).

Figure 9. Union County and Sub-Areas—Total Births (2000 and 2010)

	2000	2010	Absolute Change	Relative Change	Share of County 2000	Share of County 2010
Union County	*302*	*281*	*-21*	*-7.0%*	*100.0%*	*100.0%*
La Grande	174	173	-1	-0.6%	57.6%	61.6%
Smaller UGBs	77	62	-15	-19.5%	25.5%	22.1%
Outside UGBs	51	46	-5	-9.8%	16.9%	16.4%

Sources: Oregon Health Authority, Center for Health Statistics. Aggregated by Population Research Center (PRC).

Note 1: For simplicity each UGB is referred to by its primary city's name.

Note 2: Smaller UGBs are those with populations less than 7,000 in forecast launch year.

Deaths

The population in the county, as a whole, is aging and contrary to the statewide trend, people are not necessarily living longer.[3] For Union County in 2000, life expectancy for males was 76 years and for females was 82 years. By 2010, life expectancy had slightly increased for males, but had decreased for females. However in both Union County and Oregon, the survival rates changed little between 2000 and 2010—underscoring the fact that mortality is the most stable component of population change. Even so, the total number of countywide deaths increased (Figure 10).

Figure 10. Union County and Sub-Areas—Total Deaths (2000 and 2010)

	2000	2010	Absolute Change	Relative Change	Share of County 2000	Share of County 2010
Union County	*199*	*229*	*30*	*15.1%*	*100.0%*	*100.0%*
La Grande	118	128	10	8.5%	59.3%	55.9%
All other areas	81	101	20	24.7%	40.7%	44.1%

Sources: Oregon Health Authority, Center for Health Statistics. Aggregated by Population Research Center (PRC).

Note 1: For simplicity each UGB is referred to by its primary city's name.

Note 2: All other areas includes some larger UGBs (those with populations greater than 7,000), all smaller UGBs (those with populations less than 7,000), and the area outside UGBs. Detailed, point level death data were unavailable for 2000, thus PRC was unable to assign deaths to some UGBs.

Migration

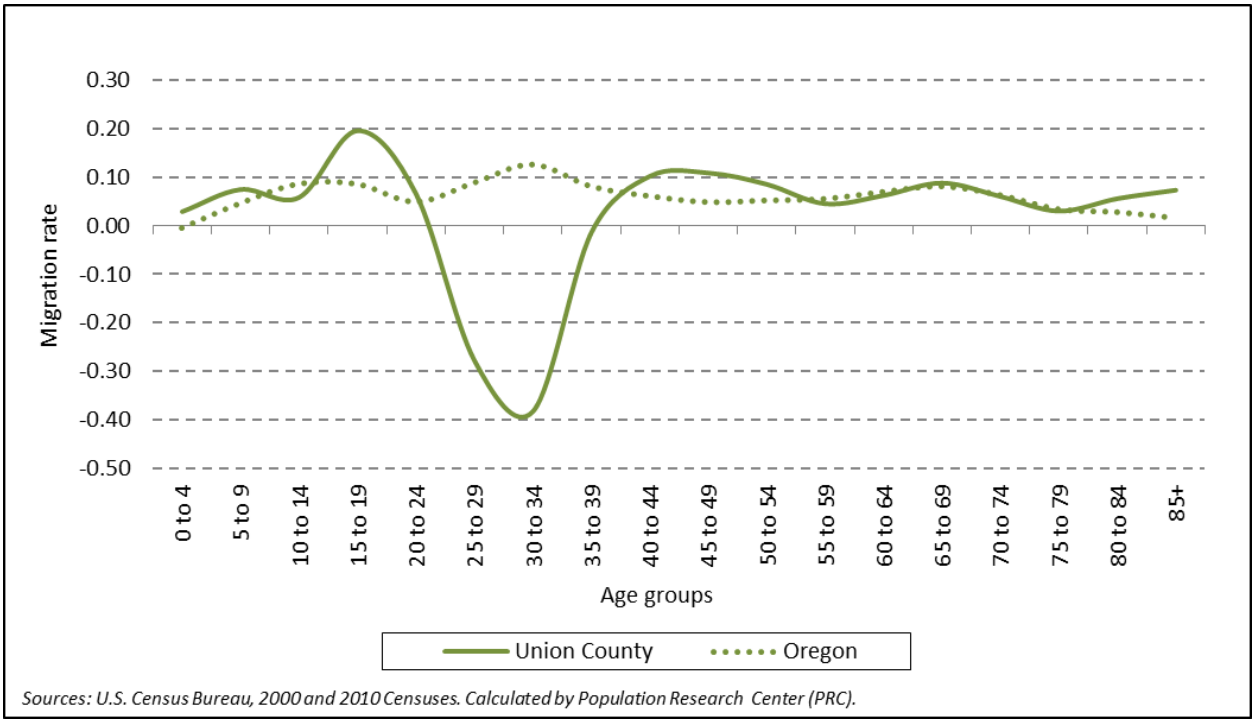
The propensity to migrate is strongly linked to age and stage of life. As such, age-specific migration rates are critically important for assessing these patterns across five-year age cohorts. Figure 11 shows the

[3] Researchers have found evidence for a widening rural-urban gap in life expectancy. This gap is particularly apparent between race and income groups and may be one explanation for the decline in life expectancy in the 2000s. See the following research article for more information. *Singh, Gopal K., and Mohammad Siahpush. "Widening rural-urban disparities in life expectancy, US, 1969-2009." American Journal of Preventative Medicine 46, no. 2 (2014): e19-e29.*

historical age-specific migration rates by five-year age group, both for Union County and Oregon. The migration rate is shown as the number of net migrants per person by age group.

From 2000 to 2010, younger individuals (ages with the highest mobility levels) moved into the county, likely in pursuit of educational opportunities located in La Grande. At the same time however, the county lost a substantial number of persons in their late twenties and early thirties. These persons likely left the county in search of employment opportunities.

Figure 11. Union County and Oregon—Age Specific Migration Rates (2000-2010)

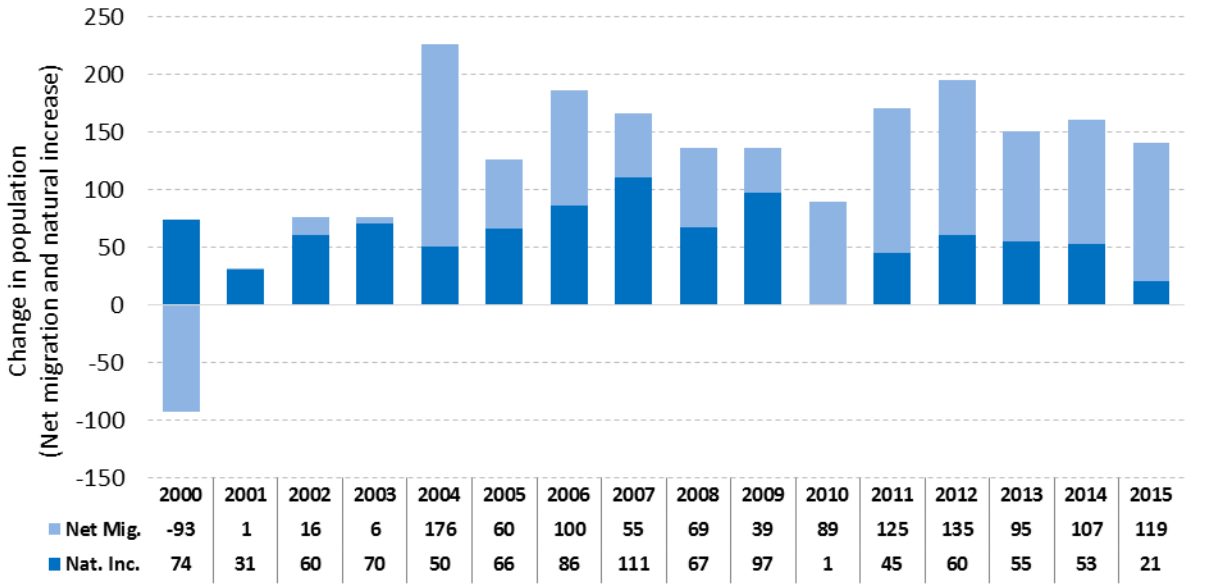


Sources: U.S. Census Bureau, 2000 and 2010 Censuses. Calculated by Population Research Center (PRC).

Historical Trends in Components of Population Change

In summary, Union County's positive population growth in the 2000s was the combined result of a consistent natural increase and a net in-migration (Figure 12). The larger number of births relative to deaths has led to a natural increase (more births than deaths) in every year from 2000 to 2015. While net in-migration fluctuated dramatically during the early years of the last decade, the number of in-migrants has been slightly more stable during recent years, accounting for the majority of Union County's population increase.

Figure 12. Union County—Components of Population Change (2000-2015)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Net Mig.	-93	1	16	6	176	60	100	55	69	39	89	125	135	95	107	119
Nat. Inc.	74	31	60	70	50	66	86	111	67	97	1	45	60	55	53	21

Sources: Population Research Center, July 1st Annual Estimates 2000-2015. Oregon Health Authority, Center for Health Statistics. Calculated by Population Research Center (PRC).

Housing and Households

The total number of housing units in Union County increased rapidly during the middle years of this last decade (2000 to 2010), but this growth slowed with the onset of the national recession in 2007. From 2000 to 2010, the total number of housing units increased by about eight percent countywide; this resulted in nearly 900 new housing units (Figure 13). La Grande captured the largest share of the growth in total housing units, with Union, Elgin, and the area outside UGBs also seeing large shares of the countywide housing growth. In terms of relative housing growth, Union grew the most during the 2000s; its total housing units increased nearly 16 percent (125 housing units) by 2010.

With the exception of Cove and North Powder, the direction of change in the numbers of housing units for Union County's sub-areas, corresponded with the direction of change for their populations for the 2000 to 2010 period. Cove and North Powder both experienced an increase in housing units between 2000 and 2010, while they lost population over the same time period. The remaining sub-areas all saw increases in both housing units and population.

Figure 13. Union County and Sub-Areas—Total Housing Units (2000 and 2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010
Union County	*10,603*	*11,489*	*0.8%*	*100.0%*	*100.0%*
Cove	247	264	0.7%	2.3%	2.3%
Elgin	703	795	1.2%	6.6%	6.9%
Imbler	111	125	1.2%	1.0%	1.1%
Island City	394	443	1.2%	3.7%	3.9%
La Grande	5,691	5,990	0.5%	53.7%	52.1%
North Powder	202	210	0.4%	1.9%	1.8%
Summerville	47	50	0.6%	0.4%	0.4%
Union	802	927	1.4%	7.6%	8.1%
Outside UGBs	2,406	2,685	1.1%	22.7%	23.4%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses.

Note 1: For simplicity each UGB is referred to by its primary city's name.

Occupancy rates tend to fluctuate more than PPH. This is particularly true in smaller UGB areas where fewer housing units cause larger changes—in relative terms. From 2000 to 2010 the occupancy rate in Union County declined slightly; this was most likely due to slack in demand for housing as individuals experienced the effects of the Great Recession. La Grande, the most populous UGB, experienced a similar decline in occupancy rate, while North Powder, Summerville, Union and the area outside UGBs experienced more extreme declines in their occupancy rates. The remaining UGBs recorded slight increases in their occupancy rates.

Average household size, or PPH, in Union County was 2.4 in 2010, the same as in 2000 (Figure 14). Union County's PPH in 2010 was slightly lower than for Oregon as a whole, which had a PPH of 2.5. PPH varied across the nine sub-areas, with all of them falling between 2.3 and 3.0 persons per household. In 2010 the highest PPH was in Summerville with 3.0 and the lowest was 2.3 in La Grande and Cove.

Figure 14. Union County and Sub-Areas—Persons per Household (PPH) and Occupancy Rate

	Persons Per Household (PPH)			Occupancy Rate		
	2000	2010	Change 2000-2010	2000	2010	Change 2000-2010
Union County	*2.4*	*2.4*	*-0.1*	*91.9%*	*91.4%*	*-0.5%*
Cove	2.6	2.3	-0.3	93.5%	93.6%	0.0%
Elgin	2.6	2.4	-0.2	91.3%	91.8%	0.5%
Imbler	2.7	2.7	0.0	95.5%	96.0%	0.5%
Island City	2.6	2.5	-0.1	95.4%	95.9%	0.5%
La Grande	2.3	2.3	0.0	93.5%	93.2%	-0.3%
North Powder	2.6	2.4	-0.2	87.6%	86.2%	-1.4%
Summerville	2.6	3.0	0.4	95.7%	90.0%	-5.7%
Union	2.5	2.5	-0.1	93.1%	92.0%	-1.1%
Outside UGBs	2.6	2.5	-0.2	87.1%	86.3%	-0.8%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses.

Note 1: For simplicity each UGB is referred to by its primary city's name.

Assumptions for Future Population Change

Evaluating past demographic trends provides clues about what the future will look like, and it helps determine the most likely scenario for population change. Past trends also explain the dynamics of population growth specific to local areas. Relating recent and historical population change to events that influence population change serves as a gauge for what might realistically occur in a given area over the forecast horizon.

Assumptions about fertility, mortality, and migration were developed for Union County's population forecast as well as the forecast for the La Grande UGB.[4] The assumptions are derived from observations based on life events, as well as trends unique to Union County and the La Grande UGB. Population changes for smaller sub-areas are determined by the changes in the number or growth rate of total housing units and PPH. Assumptions around housing unit growth as well as occupancy rates are derived from observations of historical building patterns and current plans for future housing development. In addition assumptions for PPH are based on observed historical patterns of household demographics—for example the average age of householder. The forecast period is 2016-2066.

Assumptions for the County and La Grande UGB

During the forecast period, as the population in Union County is expected to age more quickly during the first half of the forecast period and then remain relatively stable over the forecast horizon. Fertility rates are expected to slightly decline throughout the forecast period. The total fertility rate in Union County is forecast to mildly decrease from 1.8 children per woman in 2015 to 1.7 children per woman by 2065. Similar patterns of declining total fertility are expected within the La Grande UGB.

Changes in mortality and life expectancy are more stable compared to fertility and migration. One Influential factors affecting mortality and life expectancy include the advancement in medical technology and health care. The county and the La Grande UGB area are projected to follow the statewide trend of increasing life expectancy throughout the forecast period—progressing from a life expectancy of 79 years in 2010 to 86 in 2060. However, in spite of increasing life expectancy and the corresponding increase in survival rates, Union County's aging population and large population cohort reaching a later stage of life will increase the overall number of annual deaths throughout the forecast period. La Grande will experience a similar increase in the number of deaths as its population ages.

Migration is the most volatile and challenging demographic component to forecast due to the many factors influencing migration patterns. Economic, social, and environmental factors—such as employment, educational opportunities, housing availability, family ties, cultural affinity, climate change, and natural amenities—occurring both inside and outside the study area can affect both the direction and the volume of migration. Net migration rates will change in line with historical trends unique to Union County. Net in-migration of younger and older persons and net out-migration of

[4] County sub-areas with populations greater than 7,000 in the forecast launch year were forecast using the *cohort-component method*. County sub-areas with populations less than 7,000 in forecast launch year were forecast using the *housing-unit method*. See Glossary of Key Terms at the end of this report for a brief description of these methods or refer to the *Methods* document for a more detailed description of these forecasting techniques.

middle-age individuals will persist throughout the forecast period. Countywide average annual net migration starts from a historical average level between 2015 and 2020, but is expected to gradually increase to 134 net in-migrants by 2035 and continue increase to about 150 net in-migrants by 2066. Net in-migration is expected to account for all of Union County's population growth throughout the entire forecast period.

Assumptions for Smaller Sub-Areas

Population growth for the smaller UGBs are assumed to be determined by corresponding growth in the number or growth rate of housing units, as well as changes in housing occupancy rates and PPH. The change in housing unit growth is much more variable than change in housing occupancy rates or PPH.

Occupancy rates and PPH are assumed to stay relatively stable over the forecast period. Smaller household size is associated with an aging population in Union County and its sub-areas.

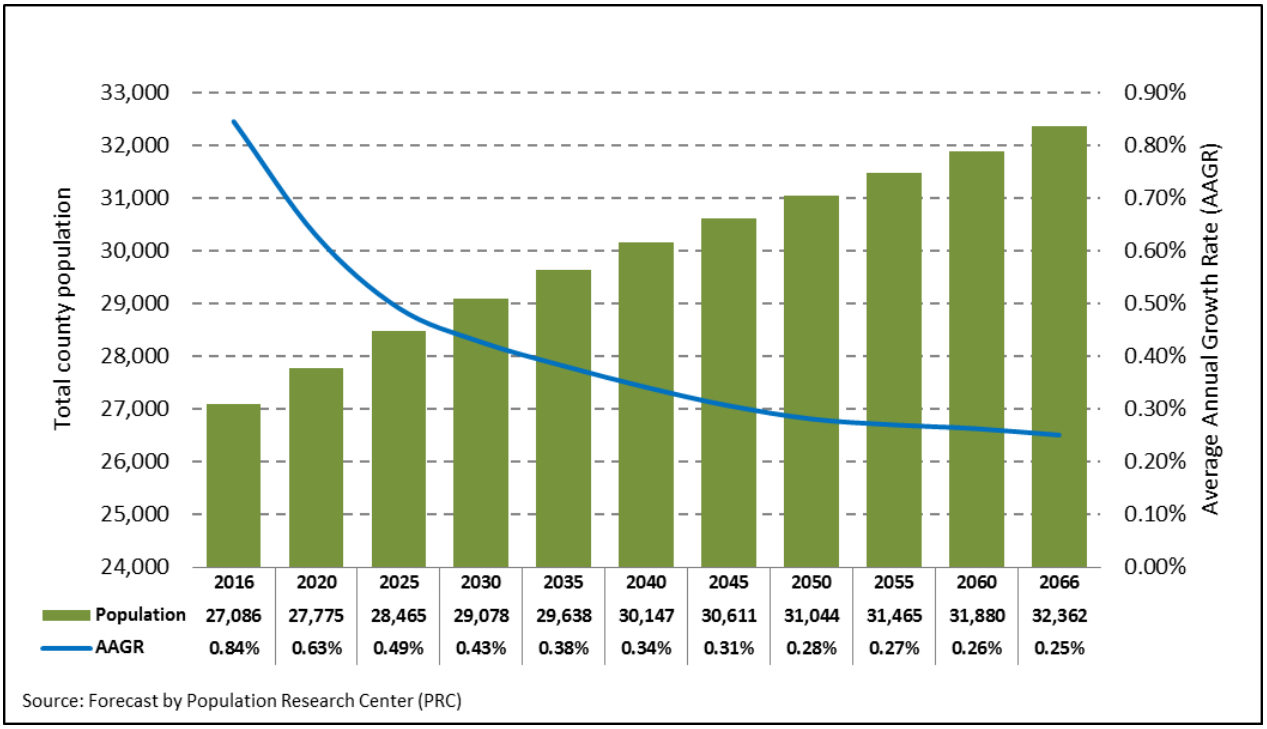
In addition, for sub-areas experiencing population growth, we assume a higher growth rate in the near-term, with growth stabilizing over the remainder of the forecast period. If planned housing units were reported in the surveys, then they are assumed to be constructed over the next 5-15 years. Finally, for county sub-areas where population growth has been flat or has declined, and there is no planned housing construction, population growth is held mostly stable with little to no change.

Forecast Trends

Under the most-likely population growth scenario in Union County, countywide and sub-area populations are expected to increase over the forecast period. The countywide population growth rate is forecast to slowly decline throughout the whole forecast period. Forecasting tapered population growth is driven by both an aging population—contributing to a steady increase in deaths over the entire forecast period—as well as the expectation of relatively stable in-migration over the second half of the forecast period. The combination of these factors will likely result in a slowly declining population growth rate as time progresses through the forecast period.

Union County's total population is forecast to grow by nearly 5,300 persons (20 percent) from 2016 to 2066, which translates into a total countywide population of 32,362 in 2066 (Figure 15). The population is forecast to grow at the highest rate in the near-term (2016-2020), with tapering growth over the rest of the forecast horizon. This anticipated steady population growth is based on the assumption that in-migration will persist, with younger persons migrating into the county for educational opportunities and older persons migrating into the county for family ties, closer proximity to healthcare, or for lifestyle reasons.

Figure 15. Union County—Total Forecast Population (2016-2066)



Source: Forecast by Population Research Center (PRC)

La Grande, Union County's largest UGB, is forecast to population growth of more than 1,300 from 2016 to 2035 and greater than 1,800 from 2035 to 2066 (Figure 16). La Grande's population is expected to grow at a slightly faster pace in the near term (2016-2035). It is also expected to increase as a share of countywide population, while the smaller sub-areas and area outside UGBs are expected to decrease some as a share of Union County's total population.

Figure 16. Union County and La Grande—Forecast Population and AAGR

	2016	2035	2066	AAGR (2016-2035)	AAGR (2035-2066)	Share of County 2016	Share of County 2035	Share of County 2066
Union County	*27,086*	*29,638*	*32,362*	*0.5%*	*0.3%*	*100.0%*	*100.0%*	*100.0%*
La Grande	14,042	15,385	17,206	0.5%	0.4%	51.8%	51.9%	53.2%
Smaller UGBs	6,585	7,135	7,812	0.4%	0.3%	24.3%	24.1%	24.1%
Outside UGBS	6,459	7,119	7,344	0.5%	0.1%	23.8%	24.0%	22.7%

Source: Forecast by Population Research Center (PRC)

Note 1: For simplicity each UGB is referred to by its primary city's name.

Note 2: Smaller UGBs are those with populations less than 7,000 in forecast launch year.

Elgin, Imbler, and Island City are expected to see population increase, with slightly more rapid growth during the initial 19 years of the forecast period. At the same time North Powder and Summerville are forecast to see stable populations, with no change over the entire 50-year period. Cove is expected to lose population, going from about 560 persons in 2016 to around 500 in 2066. Cove has an older population than the other UGBs and the county, which helps to explain the decrease.

Figure 17. Union County and Smaller Sub-Areas—Forecast Population and AAGR

	2016	2035	2066	AAGR (2016-2035)	AAGR (2035-2066)	Share of County 2016	Share of County 2035	Share of County 2066
Union County	*27,086*	*29,638*	*32,362*	*0.5%*	*0.3%*	*100.0%*	*100.0%*	*100.0%*
Cove	564	546	499	-0.2%	-0.3%	2.1%	1.8%	1.5%
Elgin	1,805	1,965	2,142	0.4%	0.3%	6.7%	6.6%	6.6%
Imbler	337	382	452	0.7%	0.5%	1.2%	1.3%	1.4%
Island City	1,112	1,267	1,493	0.7%	0.5%	4.1%	4.3%	4.6%
La Grande	14,042	15,385	17,206	0.5%	0.4%	51.8%	51.9%	53.2%
North Powder	432	432	432	0.0%	0.0%	1.6%	1.5%	1.3%
Summerville	135	135	135	0.0%	0.0%	0.5%	0.5%	0.4%
Outside UGBS	6,459	7,119	7,344	0.5%	0.1%	23.8%	24.0%	22.7%

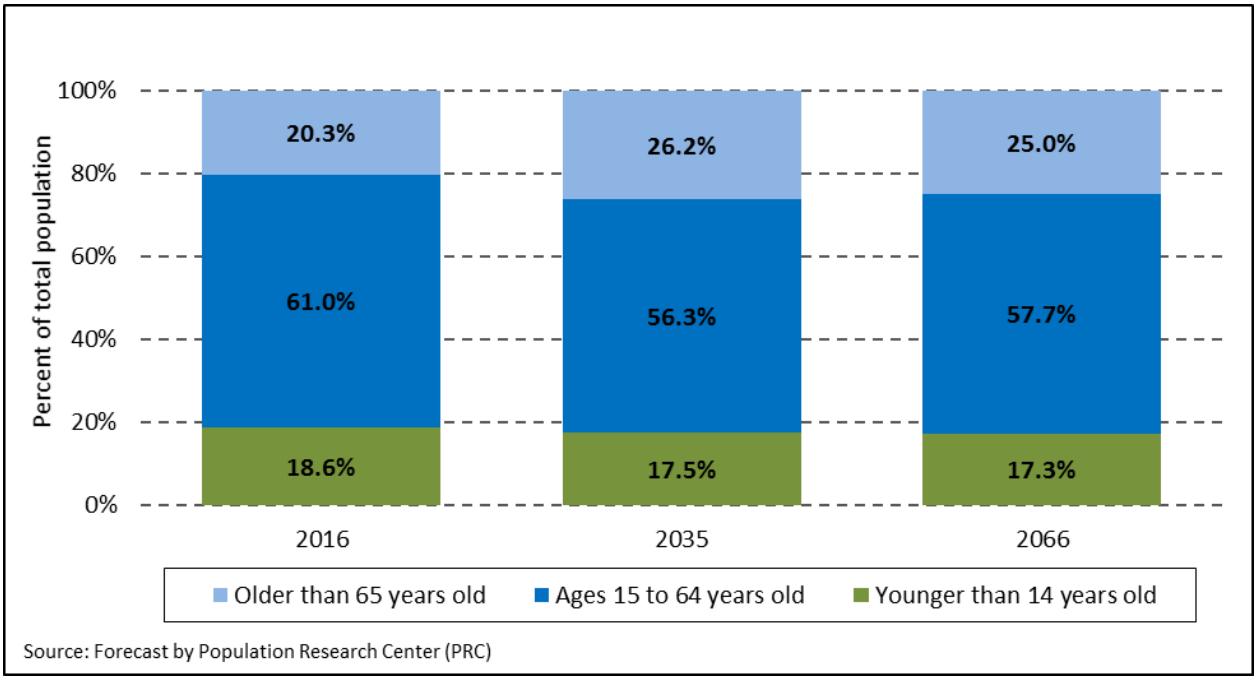
Source: Forecast by Population Research Center (PRC)

Note 1: For simplicity each UGB is referred to by its primary city's name.

Forecast Trends in Components of Population Change

As previously discussed, a key factor in increasing deaths is an aging population. From 2016 to 2035 the proportion of county population 65 or older is forecast to grow from roughly 20 percent to about 26 percent; however the proportion of the population 65 or older is expected to actually slightly decrease from 2035 to 2066 (Figure 18). For a more detailed look at the age structure of Union County's population see the forecast table published to the forecast program website (http://www.pdx.edu/prc/opfp).

Figure 18. Union County—Age Structure of the Population (2016, 2035, and 2066)

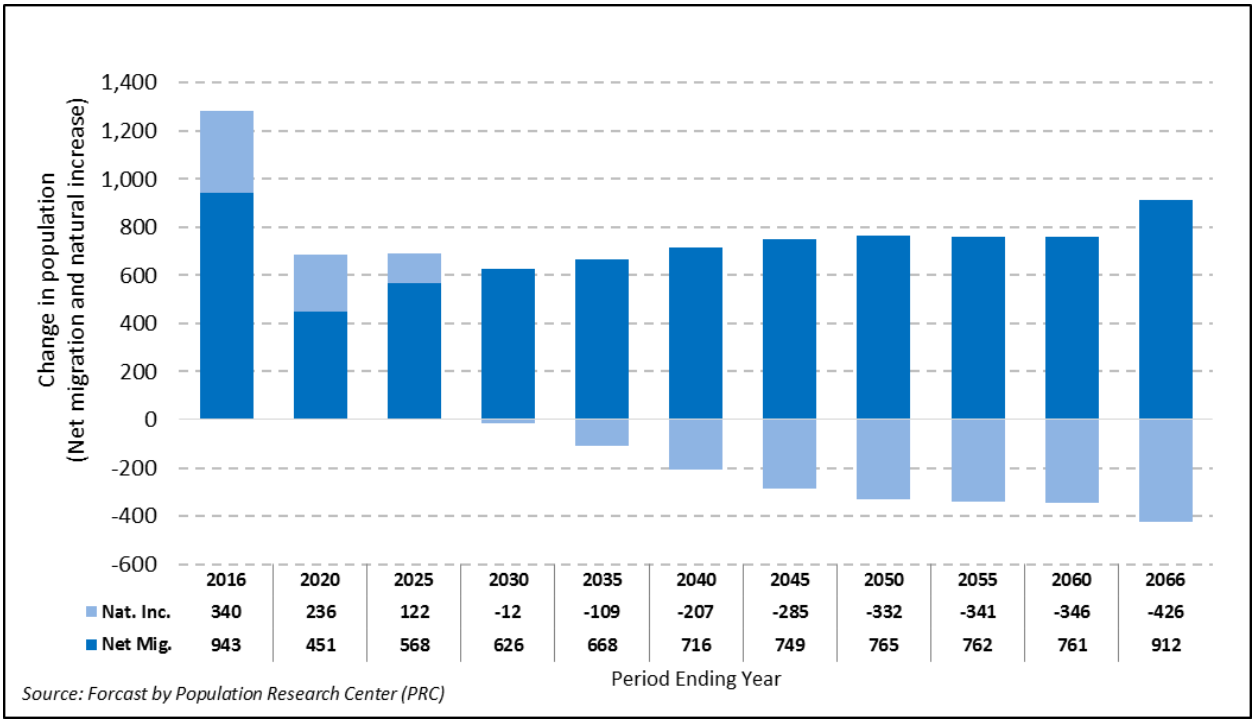


As the countywide population ages in the near-term—contributing to a slow-growing population of women in their years of peak fertility—and more women choose to have fewer children and have them at an older age, average annual births are expected to remain relatively constant; this combined with the rise in number of deaths, is expected to lead to a natural decrease by 2030 (Figure 19).

Net in-migration is forecast to drop sharply in the near-term carrying forward historical fluctuations then stabilizing more. By 2066, the level of net in-migration level is forecast to about the same as in 2016. The majority of these net in-migrants are expected to be young (under the age of 24) and older individuals, along with some middle-age persons.

In summary, a steady increase in net in-migration is expected to offset the growing natural decrease, leading to relatively steady population growth over the forecast period. An aging population is expected to not only lead to an increase in deaths, but a smaller proportion of women in their childbearing years will likely result in a long-term stabilization in the number of births.

Figure 19. Union County—Components of Population Change, 2016-2066



Source: Forcast by Population Research Center (PRC)

Glossary of Key Terms

Cohort-Component Method: A method used to forecast future populations based on changes in births, deaths, and migration over time; this method models the population in age cohorts, which are survived into progressively older age groups over time and are subject to age-specific mortality, fertility and net migration rates to account for population change.

Coordinated population forecast: A population forecast prepared for the county along with population forecasts for its city urban growth boundary (UGB) areas and non-UGB area.

Housing unit: A house, apartment, mobile home or trailer, group of rooms, or single room that is occupied or is intended for residency.

Housing-Unit Method: A method used to forecast future populations based on changes in housing unit counts, vacancy rates, the average numbers of persons per household (PPH), and group quarters population counts.

Occupancy rate: The proportion of total housing units that is occupied by individuals or groups of persons.

Persons per household (PPH): The average household size (i.e. the average number of persons per occupied housing unit for a particular geographic area).

Replacement Level Fertility: The average number of children each woman needs to bear in order to replace the population (to replace each male and female) under current mortality conditions. This is commonly estimated to be 2.1 children per woman in the U.S.

Appendix A: Surveys and Supporting Information

Supporting information is based on planning documents and reports, and from submissions to PRC from city officials and staff, and other stakeholders. The information pertains to characteristics of each city area, and to changes thought to occur in the future. The cities of Cove, Elgin, Imbler, Island City, North Powder, Summerville, and Union City did not submit survey responses.

Cove—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**

Cove—Union County—NO SURVEY RESPONSE	
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and studies	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Elgin—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and studies						

Elgin—Union County—NO SURVEY RESPONSE	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Imbler—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and studies						

Imbler—Union County—NO SURVEY RESPONSE	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Island City—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and						

Island City—Union County—NO SURVEY RESPONSE	
studies	
Other information (e.g. planning documents, email correspondence, housing development survey)	

La Grande—Union County—10/23/2015						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
Seeing population declines in age groups less than 19; and, in age groups between 25-44; while gaining in age groups older than 44. Ages 55-64 are the fasted growing age group.	Occupancy is at nearly full capacity/occupancy. There is a need for low income housing. The majority of housing permits are for new single-family dwellings or remodel/expansions for moderate to upper income groups.	One 16 unit multi-family apartment facility was planned to accommodate young families, college students and low income residents. This project is at 50% construction, no occupancy yet. On track for completion in spring 2016.	Discussion are occurring to restore a former assisted living facility and change the use to house low income, mental health, transitional housing for prison release, other.	Recent 300 acre expansion of UGB to accommodate large acreage industrial uses. No prospects at this time.	Collector street reconstruction beginning in November 2015. Future UGB development could trigger $10 million in water, sewer, storm water and transportation improvements.	**Promos:** The City hired an economic development director to partner with other State and local agencies to promote developable sites, develop incentive programs, etc. **Hinders:** Cost of infrastructure improvements of UGB areas discourages development.

La Grande—Union County—10/23/2015	
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and studies	No recent studies specifically related to population and housing growth.
Other information (e.g. planning documents, email correspondence, housing development survey)	

North Powder—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and						

North Powder—Union County—NO SURVEY RESPONSE	
studies	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Summerville—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and						

Summerville—Union County—NO SURVEY RESPONSE	
studies	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Union City—Union County—NO SURVEY RESPONSE						
Observations about Population Composition (e.g. about children, the elderly, racial ethnic groups)	**Observations about Housing (including vacancy rates)**	**Planned Housing Development/Est. Year Completion**	**Future Group Quarters Facilities**	**Future Employers**	**Infrastructure**	**Promotions (Promos) and Hindrances (Hinders) to Population and Housing Growth; Other notes**
						Promos: **Hinders:**
Highlights or summary of influences on or anticipation of population and housing growth from planning documents and						

Union City—Union County—NO SURVEY RESPONSE	
studies	
Other information (e.g. planning documents, email correspondence, housing development survey)	

Appendix B: Specific Assumptions

Cove

The average annual housing unit growth rate is assumed to gradually decrease, a trend similar to trends of the 2000s and the 2010-2015 period. The overall 50-year annual average housing unit growth rate is zero percent. The occupancy rate is assumed to gradually decline, and averages 86 percent throughout the 50-year horizon. PPH is assumed to be steady at 2.3 over the forecast period, the same as in Census 2010. There is no group quarters population in Cove.

Elgin

The average annual housing unit growth rate is assumed to slightly decline, with an overall 50-year average of 0.25 percent, which is higher than the 2010-2015 growth rates. The occupancy rate is assumed to gradually increase, with an annual average of 92 percent throughout the 50-year horizon, a rate that is higher than the rates in the 2000 and 2010 Censuses. PPH is assumed to be steady at 2.49 over the forecast period, roughly the same level as the 2000 and 2010 Census averages. The group quarters population is assumed to remain at zero.

Imbler

The average annual housing unit growth rate is assumed to gradually decline, but the overall 50-year annual average is 0.35 percent. The occupancy rate is assumed to be steady at 95.5 percent throughout the 50-year horizon, which is the same as in Census 2000. PPH is assumed to gradually increase, and averages 3.0 over the forecast period, a rate higher than in both Census 2000 and 2010. There is no group quarters population in Imbler.

Island City

The average annual housing unit growth rate is assumed to gradually decrease, a trend that is similar to the historical trend during the 2000s and in the 2010-2015 period. The overall 50-year annual average housing unit growth rate is 0.6 percent. The occupancy rate is assumed to be steady at 95.5 percent throughout the 50-year horizon, which is the same as historical census rates. PPH is assumed to be stable at 2.48 over the forecast period also. The group quarters population is assumed to remain the same as the Census 2010 level.

La Grande

Total fertility rates are assumed to stay close to recent historical level, but slightly increase and then gradually decline over the forecast period. Survival rates for the whole 50-year horizon are assumed to gradually increase. Survival rates for 2060 are assumed to be the same as those forecast for the county as a whole. Age-specific net migration rates are assumed to generally follow historical patterns for Union County, but at higher rates for multiple age groups over the forecast period.

North Powder

The 5-year average annual housing unit growth rate is assumed to gradually decline, similar to the trends after 2000; and the overall 50-year annual average housing unit growth rate is 0.05 percent. The occupancy rate is assumed to slightly decrease following recent trends, and averages 81 percent throughout the 50-year horizon. PPH is assumed to hold steady at 2.5 over the forecast period, the same as the averages in Census 2000 and 2010. The group quarters population is assumed to remain at zero.

Summerville

The 5-year average annual housing unit growth rate is assumed to remain at zero percent through the forecast period, a similar level as in the 2010-2015 period. The occupancy rate is assumed to be stable at 96.1 percent throughout the 50-year horizon, which is slightly above the Census 2000 and 2010 average rate. PPH is assumed to be steady at 2.8 over the 50-year horizon, the same as the average of the Census 2000 and 2010 levels. There is no group quarters population in Summerville.

Union

The 5-year average annual housing unit growth rate is assumed to gradually decline over the 50-year forecast period, similar to trends during the2000s and 2010-2015 period. The overall 50-year annual average HU growth rate is 0.03 percent. The occupancy rate is assumed to be fairly stable at 92 percent throughout the 50-year horizon, the same rate as in Census 2010. PPH is assumed to gradually increase, and averages 2.8 over the forecast period, which is a rate higher than both Census 2000 and 2010. The group quarters population is assumed to stay the same level as in Census 2010.

Outside UGBs

The 5-year average annual housing unit growth rate is assumed to gradually decline over the 50-year forecast period, similar to trends during the 2000s and 2010-2015 period. The overall 50-year annual average HU growth rate is 0.26 percent. The occupancy rate is assumed to be fairly stable at 87 percent throughout the 50-year horizon, which is the same as in Census 2000. PPH is assumed to be stable at 2.63 over the forecast period. The group quarters population is assumed to be at a level that is the average of Census 2000 and 2010.

Appendix C: Detailed Population Forecast Results

Figure 20. Union County - Population by Five-Year Age Group

Population Forecasts by Age Group / Year	2016	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2066
00-04	1,576	1,587	1,578	1,599	1,675	1,711	1,728	1,745	1,751	1,766	1,778	1,778
05-09	1,731	1,662	1,669	1,664	1,723	1,798	1,837	1,848	1,839	1,847	1,866	1,868
10-14	1,744	1,833	1,735	1,746	1,779	1,835	1,915	1,949	1,932	1,925	1,935	1,939
15-19	1,778	1,925	2,040	1,934	1,990	2,019	2,084	2,166	2,173	2,156	2,151	2,153
20-24	1,999	1,822	2,003	2,128	2,063	2,114	2,147	2,208	2,262	2,272	2,257	2,256
25-29	1,720	1,788	1,586	1,748	1,899	1,835	1,881	1,903	1,928	1,978	1,989	1,987
30-34	1,361	1,401	1,464	1,301	1,467	1,588	1,535	1,568	1,562	1,585	1,628	1,630
35-39	1,373	1,353	1,398	1,464	1,331	1,496	1,620	1,560	1,570	1,567	1,592	1,602
40-44	1,380	1,452	1,423	1,474	1,579	1,430	1,609	1,736	1,648	1,661	1,661	1,666
45-49	1,415	1,439	1,529	1,502	1,591	1,698	1,540	1,727	1,837	1,746	1,764	1,764
50-54	1,643	1,465	1,490	1,588	1,596	1,684	1,800	1,627	1,799	1,917	1,825	1,829
55-59	1,863	1,702	1,465	1,497	1,631	1,635	1,728	1,842	1,643	1,820	1,945	1,926
60-64	2,000	1,910	1,701	1,469	1,537	1,670	1,678	1,769	1,861	1,663	1,848	1,873
65-69	1,780	1,978	1,862	1,666	1,475	1,541	1,680	1,685	1,755	1,852	1,662	1,698
70-74	1,309	1,646	1,873	1,771	1,624	1,433	1,502	1,633	1,617	1,688	1,788	1,750
75-79	939	1,125	1,493	1,706	1,654	1,515	1,334	1,398	1,497	1,488	1,557	1,575
80-84	706	801	1,004	1,339	1,570	1,529	1,412	1,230	1,281	1,374	1,374	1,387
85+	768	889	1,153	1,482	1,452	1,616	1,579	1,451	1,509	1,575	1,664	1,680
Total	**27,086**	**27,775**	**28,465**	**29,078**	**29,638**	**30,147**	**30,611**	**31,044**	**31,465**	**31,880**	**32,284**	**32,362**

Population Forecasts prepared by: Population Research Center, Portland State University, June 30, 2016.

Figure 21. Union County's Sub-Areas - Total Population

Area/Year	2016	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2066
Union County	27,086	27,775	28,465	29,078	29,638	30,147	30,611	31,044	31,465	31,880	32,284	32,362
Cove UGB	564	561	557	552	546	539	532	525	517	509	501	499
Elgin UGB	1,805	1,841	1,886	1,927	1,965	1,998	2,027	2,055	2,082	2,110	2,137	2,142
Imbler UGB	337	347	359	371	382	393	404	415	426	437	449	452
Island City UGB	1,112	1,149	1,191	1,231	1,267	1,302	1,337	1,373	1,410	1,447	1,485	1,493
La Grande UGB	14,042	14,345	14,712	15,056	15,385	15,705	16,015	16,311	16,598	16,878	17,152	17,206
North Powder UGB	432	432	432	432	432	432	432	432	432	432	432	432
Summerville UGB	135	135	135	135	135	135	135	135	135	135	135	135
Union UGB	2,200	2,251	2,308	2,358	2,408	2,453	2,492	2,529	2,568	2,609	2,651	2,659
Outside UGB Area	6,459	6,713	6,886	7,017	7,119	7,190	7,237	7,269	7,297	7,322	7,342	7,344

Population Forecasts prepared by: Population Research Center, Portland State University, June 30, 2016.