NEWBERG SCHOOL DISTRICT ENROLLMENT FORECAST 2018-19 TO 2027-28



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NEWBERG SCHOOL DISTRICT ENROLLMENT FORECAST 2018-19 TO 2027-28

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CONTENTS

EXECUTIVE SUMMARY	
Population Trends	-
Economic Trends	
Housing Growth and Characteristics2	
Enrollment Trends)
District-wide Enrollment Forecast: MIDDLE SERIES	
District-wide Enrollment Forecast: LOW SERIES	,
District-wide Enrollment Forecast: HIGH SERIES)
INTRODUCTION	,
POPULATION, ECONOMIC, AND HOUSING TRENDS, 2000 to 2017 7	,
Population Trends	,
Economic Trends 8)
Housing Growth and Characteristics	-
ENROLLMENT TRENDS	,
District-Wide Enrollment Trends	,
Enrollment at Individual Schools)
Private and Home School Enrollment and District "Capture Rate")
Inter-District Transfers and Open Enrollment	
Neighboring Districts)
ENROLLMENT FORECASTS	,
District-wide Long-series Forecast Methodology25	,
Births and Fertility Rates	,
School Enrollment and Population)
Population Forecast)
District-wide Enrollment Forecast	
Individual School Forecasts	Ļ
APPENDIX A: NSD LOW AND HIGH FORECAST SCENARIOS, 2018-19 TO 2027-28	
APPENDIX B: 2000 AND 2010 CENSUS PROFILE FOR THE DISTRICT	
APPENDIX C: POPULATION, HOUSING, SOCIAL AND ECONOMIC PROFILE, 2006-2010 AND 2011-2015 AMERICAN COMMUNITY SURVEYS	

TABLES AND CHARTS

Table 1. Historic and MIDDLE SERIES Forecast Enrollment, Newberg School District	3
Table 2. Historic and Three Enrollment Forecasts, NSD	4
Table 3. City and Region Population, 2000, 2010, and 2017	6
Table 4. Where NSD Residents are Employed	
Table 5. NSD Housing and Household Characteristics, 2000 and 2010	
Table 6. New SFR Units Authorized by Building Permits	
Table 7. NSD SFR Subdivision Applications, 2016-2017	13
Table 8. NSD Historic Enrollment, 2007-08 to 2017-18	16
Table 9. NSD Historic Enrollment by School, 2012-13 to 2017-18	18
Table 10. Inter-District Transfers and Open Enrollment	
Table 11. Neighboring Yamhill County School Districts	22
Table 12. Annual Births, 2000 to 2016, NSD	25
Table 13. Population by Age Group, MIDDLE SERIES Forecast	28
Table 14. NSD MIDDLE SERIES Enrollment Forecasts, 2018-19 TO 2027-28	31
Table 15. Enrollment Forecasts for Individual Schools	33
Chart 1. NSD K-12 Enrollment History and Forecasts	4
Chart 2. Annual Non-Farm Employment, Yamhill County	
Chart 3. Housing Units Authorized by Building Permits, Cities of Newberg and Dundee	
Chart 4. NSD K-12 Enrollment, 2007-08 to 2017-18	
Chart 5. NSD Estimated Annual Births 2000 to 2016	
Chart 6. NSD Net Migration, 2000 to 2030, History and Forecast	
Chart 7. NSD Birth Cohorts, Kindergarten Enrollment & MIDDLE SERIES Forecast	
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EXECUTIVE SUMMARY

This report presents a series of three scenarios of district-wide enrollment forecasts by grade level for the Newberg School District (NSD) for the 10-year period between 2018-19 and 2027-28. Each enrollment forecast scenario relates to population forecasts that incorporate different assumptions about growth within the District, with the primary differences being the contribution of net migration to the District's population and age distribution. Individual school forecasts consistent with the middle series scenario are also presented for the 10-year period.

Population Trends

- Between 2000 and 2010, total population within the NSD grew from 28,956 persons to 33,907: an Average Annual Growth Rate (AAGR) of 1.6 percent. The City of Newberg had a higher AAGR of 2.0 percent.
- Between 2010 and 2017 the NSD AAGR was 0.8 percent, half that of the 2000-2010 decade. The District's population rose to 35,946 in 2017.
- Between 2000 and 2016, NSD births reached a high of 472 in 2007. As the recession and slow recovery took hold, births declined to a low of 353 in 2013. They ended the period at 368 in 2016.

Economic Trends

- Thirty-two percent of employed NSD residents work within Yamhill County, with 23
 percent working within the area of the school district itself. Another 32 percent work at
 various locations within Washington County, and 10 percent work in Multnomah County.
- After three years of job losses, Yamhill County added 3,510 jobs between 2011 and 2016, reaching a high of 32,970 jobs.
- After reaching a high of 11.6 percent in 2009, the County's unemployment rate dropped to 4.7 percent in 2016.

Housing Growth and Characteristics

- With the exception of the 392 Single Family Residence (SFR) permit spike in 2005, SFR permits in the two cities of Newberg and Dundee averaged 183 annually between 2000 and 2006. As the recession began, permits declined to about 40 annually between 2010 and 2014. They have risen modestly in the following two years.
- The Antonia Crater and Mabel Rush Elementary School Attendance Areas (ESAA) have seen the largest number of single family residence permits in the last few years.
- Currently the City of Newberg has seven new single-family subdivisions either permitted or in the review process. Five of them are located in the Antonia Crater ESAA.

Enrollment Trends

- For the first five years of the 10-year historical period, NSD decreased in total enrollment by 76 students.
- During the second five years District enrollment declined by an additional 132 students, bringing the total 10-year decrease to 208.
- Enrollment losses occurred across all three grade level groupings.

District-wide Enrollment Forecast: MIDDLE SERIES

- For the first five years of the 2018-19 TO 2027-28 Middle Series forecast, Grades 6-8 show the largest increase of the three grade groupings: 106 students (ten percent). High school grades grow by 34 students (two percent), and K-5 enrollment declined by 75 (three percent.
- During the second five years, the trends in K-5 and 6-8 reverse, with a five percent increase in K-5 and a one percent decrease in 6-8. High school enrollment remains steady with a two percent increase.
- Total enrollment goes up by 187 students (four percent) over the entire 10-year forecast period and all three-grade groupings increase in enrollment. The largest gains by single grade are 11th grade (16 percent), 6th grade (12 percent), and Kindergarten (eight percent).

District-wide Enrollment Forecast: LOW SERIES

- District enrollment for the 10 year forecast period declines by 77 students (two percent).
- Losses during the period occur in two grade groupings (K-5 and 9-12), with the largest percentage decline in grades K-5 (four percent). Grades 6-8 shows a three percent increase.

District-wide Enrollment Forecast: HIGH SERIES

- District enrollment for the 10 year forecast period increases by 576 students (12 percent).
- Enrollment increases by six percent in both the first and second half of the forecast. In the first half, the largest increase occurs in grades 6-8. In the second half, the largest is K-5.

Enrollment Forecasts for Individual Schools

 Three NSD elementary schools gain enrollment over the forecast period and three have declines. The two middle schools gain 94 students during the period while the high school gains 60.

Table 1 summarizes historic and forecast K-12 enrollments by five-year intervals under the three scenarios. Chart 1 depicts the District's 10-year K-12 enrollment history and the three K-12 forecast scenarios.

Table 1
Enrollment History and Middle Series Forecast
Newberg School District

	Actual			Forecast	
	2007-08	2012-13	2017-18	2022-23	2027-28
K-5	2,347	2,314	2,314	2,239	2,347
5 year change		-33	0	- <i>7</i> 5	108
6-8	1,173	1,215	1,094	1,200	1,188
5 year change		42	-121	106	-12
9-12	1,677	1,592	1,581	1,615	1,641
5 year change		-85	-11	34	26
Total* 5 year change	5,197	5,121 <i>-76</i>	4,989 -132	5,054 <i>65</i>	5,176 <i>122</i>

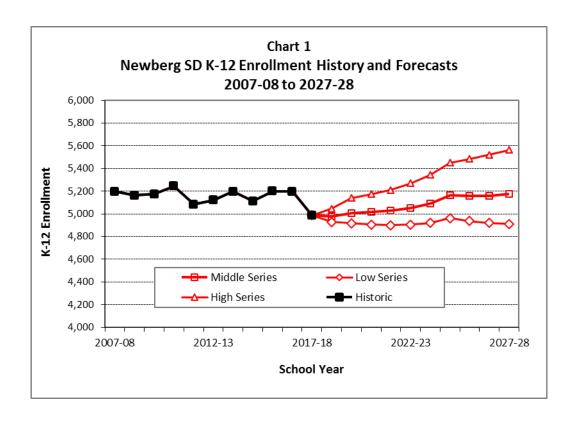
Source: Historic enrollment, Newberg School District; Enrollment forecasts, Population Research Center, PSU, November, 2017

Table 2
Historic and Forecast Enrollment
Newberg School District

000000000000000000000000000000000000000	LC)W	МІ	DDLE	HIGH	
School Year	Enroll- ment	5 year growth	Enroll- ment	5 year growth	Enroll- ment	5 year growth
2007-08	5,197		5,197		5,197	
2012-13	5,121	-76	5,121	-76	5,121	-76
2017-18	4,989	-132	4,989	-132	4,989	-132
2022-23 (fcst.)	4,905	-84	5,054	65	5,269	280
2027-28 (fcst.)	4,912	7	5,176	122	5,565	296
AAEG*, 2017-18 to 2027-28	-0.	2%	0.4	4%	1	1%

*Note: Average Annual Enrollment Growth.

Source: Historic enrollment, Newberg School District; Enrollment forecasts, Population Research Center, PSU. December 2017.



INTRODUCTION

The Newberg School District (NSD) requested that the Portland State University Population Research Center (PRC) prepare enrollment forecasts for use in the District's planning. This study integrates information about NSD enrollment trends with local area population, housing, and economic trends, and presents three forecasts ("Middle," "Low," and "High") for a 10-year horizon from 2018-19 TO 2027-28. PRC considers the Middle forecast as most likely to occur. The Low forecast considers the effect of less robust local area population growth than anticipated during the forecast period, and the High forecast assumes stronger than anticipated growth.

In the next few sections we present overviews of the local area population, housing and economic trends, and NSD enrollment history, followed by the methodology and results of the district-wide and individual school enrollment forecasts for the period between 2018-19 and 2027-28.

Appendix A includes the district-wide population and enrollment forecasts for the low and high growth scenarios, and Appendix B is a profile comparing the results of the 2000 and 2010 censuses for the District. Appendix C contains a brief District profile based upon two recent American Community Survey data sets.

The Newberg School District serves the City of Newberg, the City of Dundee, portions of unincorporated Yamhill County, and a few small parts of unincorporated Clackamas and Washington County. In 2017, 65 percent of the District's population lived within the City of Newberg.

Information sources for this report include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, annual city and county population estimates produced by PRC, county and urban growth boundary (UGB) population forecasts produced by PRC in 2017, county employment trends and forecasts from the Oregon Employment Department, housing development data from the City of Newberg, and housing development data from proprietary sources.

POPULATION, ECONOMIC, AND HOUSING TRENDS, 2000 to 2017

Population Trends

Between 2000 and 2010, total population within the NSD grew from 28,956 persons to 33,907, an Average Annual Growth Rate (AAGR) of 1.6 percent. The City of Newberg had a higher AAGR of 2.0 percent, larger than Yamhill County's overall AAGR of 1.5 percent.

Between 2010 and 2017 the NSD AAGR was 0.8%, half that of the 2000-2010 AAGR. The City of Newberg's 2010 to 2017 AAGR was also 0.8 percent, 1.2 percent lower than the 2000-2010 decade. Yamhill County's 2010 to 2017 AAGR was 0.4 percent lower than its 1.5 percent for 2000 to 2010.

Table 3 includes PRC estimates for 2000, 2010, and 2017.

Table 3
City and Region Population, 2000, 2010, and 2017

		2010	2017	Avg. Annual Growth Rate		
	2000			2000-2010	2010-2017	
NSD Total ¹	28,956	33,907	35,946	1.6%	0.8%	
City of Newberg	18,220	22,110	23,480	2.0%	0.8%	
City of Dundee	2,625	3,170	3,225	1.9%	0.2%	
NSD Unincorporated	8,111	8,627	9,241	0.6%	1.0%	
Yamhill County	85,500	99,405	106,300	1.5%	1.1%	

^{1.} School District population determined by PSU-PRC based on aggregation of census blocks within the NSD boundary shapefiles. The 2010 NSD population published by the Census Bureau is 33,940. The 2017 estimate is based on an extrapolation of 2010-2016 growth estimated by the Census Bureau. See http://www.census.gov/did/www/saipe. Sources: U.S. Census Bureau, 2000, and 2010 censuses; Portland State University Population Research Center, July 1, 2017 estimates

Economic Trends

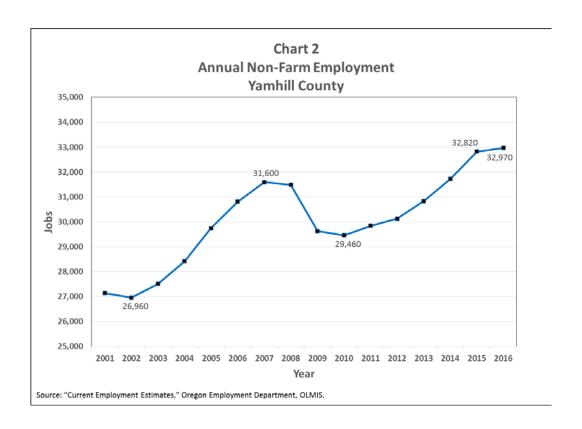
Thirty-two percent of employed NSD residents work within Yamhill County (23 percent within the area of the school district itself, 18 percent work within the City of Newberg, and one percent in the City of Dundee). Thirty-two percent and ten percent work within Washington and Multnomah Counties respectively. Table 4 reports the number and share of workers by place of work.

Table 4 Where NSD Residents Are Employed					
Job Located Within*	Workers	Share			
Washington County, OR	4,586	32%			
Hillsboro city, OR	868	6%			
Tigard city, OR	807	6%			
Tualatin city, OR	806	6%			
Beaverton city, OR	770	5%			
Yamhill County, OR	4,549	32%			
Newberg School District	3,297	23%			
Newberg city, OR	2,607	18%			
McMinnville city, OR	799	6%			
Dundee city, OR	99	1%			
Clackamas County, OR	1,383	10%			
Wilsonville city, OR	485	3%			
Multnomah County, OR	1,374	10%			
Portland city, OR	1,265	9%			
Marion County, OR	1,215	8%			
Linn County, OR	180	1%			
All Other Locations	1,028	7%			
Total Primary Jobs	14,315	100%			

*Note: Indentation indicates that the area is also included wihin the area above it. For example, workers in the City of Newberg are also counted in the Yamhill County. Portions of the City of Portland are outside of Multnomah County, but few jobs are located in those areas.

Source: U.S. Census Bureau. 2017. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. 2nd Quarter 2015 data. Includes at most one (primary) job per resident. http://onthemap.ces.census.gov/

Between 2002 and 2007, Yamhill County added 4,640 jobs—about 17 percent growth over the five-year period. Growth slowed after 2007 and the County encountered three years of job losses. During this time jobs declined by 2,140 (seven percent). After 2010, job growth returned and the County steadily gained 3,510 jobs (12 percent) through 2016, reaching a new high of 32,970 jobs. Growth between 2015 and 2016 was 150 jobs, the smallest annual gain of the post-2010 growth period.



The Yamhill County unemployment rate rose from 5.0 percent in 2007 — higher than the U.S. rate of 4.6 percent — to 11.6 percent in 2009 — higher than the 2009 U.S. rate of 9.3. The County's unemployment rate has steadily declined since 2010, reaching 4.7 percent in 2016. Both the Oregon and U.S. unemployment rates were at 4.9 percent in 2016¹.

In October 2017, the Oregon Employment Department reported this concerning the most recent Yamhill County unemployment rate:

Yamhill County's unemployment rate was 4.1 percent in October, essentially unchanged from its revised rate of 4.0 percent in September. Over the past 12 months Yamhill County's seasonally adjusted unemployment rate has declined 0.5 percentage point. Oregon's statewide unemployment rate in October was 4.3 percent, essentially unchanged from its revised September rate of 4.2 percent. The national unemployment rate was 4.1 percent in October...The fastest-growing private-sector

¹ Oregon Employment Department, OLMIS.

industries (in Yamhill County) over the past year included: construction (+190 jobs, or 10.3%); other services (+50 jobs, or 4.8%); and manufacturing (+290 jobs, or 4.5%)².

Growth in total population does not always lead to school enrollment growth. Each community's particular demographic trends affect the relationship between population change and school enrollment trends. In particular, population by age group, birth trends, characteristics of new housing units and changing household composition affect the number of school-age children in a community.

² "Employment in Yamhill County: October 2017," Oregon Employment Department

Housing Growth and Characteristics

Table 5 presents housing and household characteristics for NSD compiled from the decennial censuses of 2000 and 2010. There was a gain of 2,392 housing units between 2000 and 2010. The increase in households during this period was 2,120, as the occupancy rate fell from 95.0 percent to 93.8 percent. The percentage of households with children under 18 declined from 41 percent in 2000 to 36 percent in 2010, with a corresponding increase of five percentage points in households with no children under 18 during the same period.

Table 5
Newberg School District
Housing and Household Characteristics, 2000 and 2010

	2000	2010	Change '00 to '10
Housing Units	10,465	12,857	2,392
Households	9,946	12,066	2,120
Households with children under 18 share of total	4,093 41%	4,311 <i>36%</i>	218
Households with no children under 18 share of total	5,853 <i>59%</i>	7,755 <i>6</i> 4%	1,902
Household Population	27,693	32,383	4,690
Persons per Household	2.78	2.68	-0.10

Source: U.S. Census Bureau, 2000, and 2010 Censuses; data aggregated to NSD boundary by Portland State University Population Research Center.

Residential building permit activity between 2000-2016 within the Cities of Newberg and Dundee appears in Chart 3. With the exception of the 392 Single Family Residence (SFR) permit spike in 2005, SFR permits in the two cities averaged 183 between 2000 and 2006. With the beginning of the recession in 2007, SFR permits fell to an average of 126 between 2007 and 2009, and dropped to 40 from 2010 through 2014. The years 2015 and 2016 have shown a small rebound, and the City of Newberg reported 79 permits in the first ten and a half months of 2017. Multiple Family Residences (MFRs) averaged around 100 units during the first four years of the period, and then fell sharply.

Ninety-two percent of permits issued by the two cities were in Newberg.

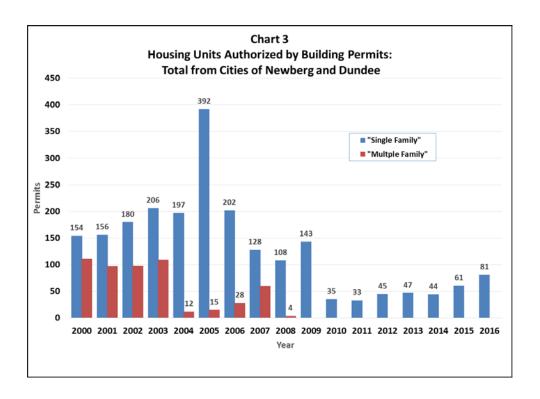


Table Six details SFR permits by elementary school attendance area for the last four years. Mabel Rush and Antonia Crater together have accounted for 68 percent of permits for the period. Thirteen percent of permits are in Joan Austin, while Dundee, Ewing Young and Edwards each have about five to eight percent. Aggregated to the middle school AAs, permits have split fairly evenly between Chehalem Valley and Mountainview.

Mabel Rush had 120 Multi-Family units permitted in 2014.

Table 6
New Single Family Housing Units Authorized by Building Permits
2014 to 2017 by Attendance Area

Single Family Units					
Elementary Area	2014	2015	2016	2017*	Total
Antonia Crater	6	22	50	19	97
Dundee	6	9	6	3	24
Edwards	3	5	3	3	14
Ewing Young	4	7	3	4	18
Joan Austin	8	8	5	17	38
Mabel Rush	15	39	33	19	106
District Total	42	90	100	65	297

Middle School Area	2014	2015	2016	2017*	Total
Chehalem Valley	17	40	60	27	144
Mountainview	25	50	40	38	153
District Total	42	90	100	65	297

*For 2017, January through September only

Note: Excludes retirement housing.

Source: Individual records from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

The City of Newberg currently has four subdivisions under public infrastructure construction with no houses yet built: Gracies Landing, Columbia Estates, Nova Grace and Hazelwood farms. Three other subdivisions, all applied for in 2017, are in the review process.

Five of these seven subdivisions are located within the Antonia Crater ESAA, totaling 224 lots. Edwards and Joan Austin have one subdivision each with 14 and 19 lots respectively.

Table 7 displays subdivision information for NSD.

The Joan Austin ESAA has a 140-unit apartment development slated to begin construction in spring 2018. Joan Austin also has an approved 38-unit apartment development, but as a designated retirement community it is unlikely to generate students.

A 20-unit apartment building is approved for construction in the Edwards ESAA.

Table 7 Single Family Subdivision Applications, 2016-2017 Newberg School District

Year	Elemenary Area	Subdivision Name	Planned Lots	Undeveloped Lots	Status
2016	Antonia Crater	Gracies Landing	53	53	Under public infrastructure construction
2016	Antonia Crater	Columbia Estates	24	24	Under public infrastructure construction
2016	Edwards	Nova Grace	14	14	Under public infrastructure construction
2017	Joan Austin	Hazelwood Farms	19	19	Under public infrastructure construction
2017	Antonia Crater	Page Landing	25	25	In land use review
2017	Antonia Crater	Dutchman Ridge	46	46	In subdivision review
2017	Antonia Crater	Kings Landing	76	76	In subdivision review

*For 2017, January through September only

Source: City of Newberg

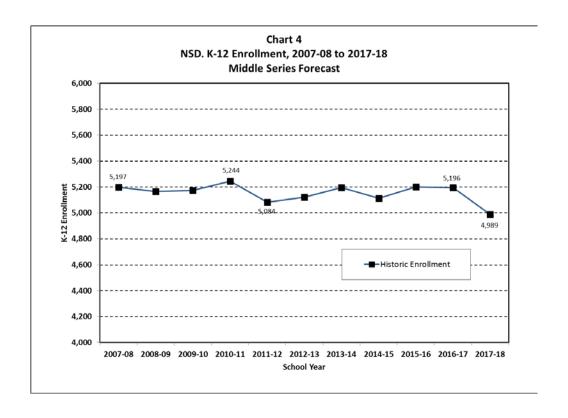
ENROLLMENT TRENDS

District-Wide Enrollment Trends

During each of the last 10 years, total District enrollment each year has mostly stayed within one percent of its 10-year average. The largest exception to this was in 2017-18, when enrollment from the previous year declined by 207 students (four percent) and the second largest was in 2011-12 (decline of 160 students, or three percent). From 2007-08 through 2017-18 high school grades lost 96 students (six percent), middle school grades lost 79 (7 percent), and elementary grades declined by 33 (one percent). By individual grade, 9th, 6th, and 11th grades showed the largest reductions: 72, 52, and 50 students respectively.

Overall, total losses were larger (three percent) in the second five years of the period than the first five (one percent).

Table 8 summarizes the enrollment history for the District by grade level annually for the past 10 years, from 2007-08 to 2017-18, and Chart 4 graphically displays total enrollment history for the period.



		Newberg School District, Historic Emplement, 2007-00 to 2017-10	201120 31	· · · · · · · · · · · · · · · · · · ·			•	000000000000000000000000000000000000000	000000000000000000000000000000000000000	900000000000000000000000000000000000000	
Grade	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
X	375	351	367	371	317	389	415	378	365	371	353
1	398	407	382	387	377	343	419	413	391	370	382
2	372	389	401	384	396	372	363	427	410	398	369
3	406	386	397	414	395	386	375	350	431	427	391
4	395	411	386	409	409	401	401	375	359	422	404
D.	401	380	414	386	397	423	413	402	381	363	415
9	400	389	387	431	384	402	426	394	410	383	348
7	406	396	389	396	418	389	399	417	409	400	368
8	367	406	339	403	388	424	388	379	430	409	378
6	473	370	420	414	404	398	421	389	386	426	401
10	392	464	364	419	394	400	395	420	401	382	412
11	403	405	434	349	403	387	367	379	403	391	353
12	409	410	434	481	402	407	414	389	424	454	415
Total	5,197	5,164	5,174	5,244	5,084	5,121	5,196	5,112	5,200	5,196	4,989
K-5	2,347	2,324	2,347	2,351	2,291	2,314	2,386	2,345	2,337	2,351	2,314
8-9	1,173	1,191	1,175	1,230	1,190	1,215	1,213	1,190	1,249	1,192	1,094
9-12	1,677	1,649	1,652	1,663	1,603	1,592	1,597	1,577	1,614	1,653	1,581
		5 Year Change:	hange:		5 Year Change:	hange:		10 Year	10 Year Change:		
		2007-08 to 2012-13	0 2012-13		2012-13 to 2017-18	2017-18		2007-08 t	2007-08 to 2017-18		
		Change	Pct.	1	Change	Pct.		Change	Pct.		
K-5		-33	-1%		0	%0		-33	-1%		
8-9		42	4%		-121	-10%		-79	-7%		
9-12	000	-85	-5%	. 1	-11	-1%		96-	<i>%9-</i>		
Total		-76	-1%		-132	-3%		-208	-4%		

Enrollment at Individual Schools

Between 2012-13 and 2017-18, the middle schools showed the largest enrollment change of the three grade groupings, a decrease of 121 students (ten percent). High school declined 11 students (less than one percent) while elementary schools were unchanged.

Over the period, Chehalem Valley and Mountain View recorded declines of eight and twelve percent respectively.

For elementary schools, three increased in enrollment and three declined. Edwards showed the largest increase at 165 students (43 percent), along with Ewing Young and Antonia Crater at 29 and 8 students respectively. Dundee and Mabel Rush had near equal decreases of 76 and 74 students, while Joan Austin lost 52.

Newberg high school was fairly steady, with a modest peak in 2016-17 at 1,653, declining to 1,581 in 2017-18, 18 students under the annual high school average for the period.

Individual school enrollment trends appear in Table 9.

Table 9
Newberg S.D., Historic Enrollment by School, 2012-13 to 2017-18

			000000000000000000000000000000000000000	000000000000000000000000000000000000000			Change 2012-13 to
School	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2017-18
Antonia Crater Elementary	449	486	472	438	436	457	8
Dundee Elementary	357	350	328	326	301	281	-76
Edwards Elementary	380	440	444	494	521	545	165
Ewing Young Elementary	160	209	210	224	221	189	29
Joan Austin Elementary	393	336	351	337	352	341	-52
Mabel Rush Elementary	575	565	540	518	520	501	-74
District Elementary Totals	2,314	2,386	2,345	2,337	2,351	2,314	0
Chehalem Valley Middle School	640	661	661	696	656	590	-50
Mountain View Middle School	575	552	529	547	536	504	-71
Middle School Totals	1,215	1,213	1,190	1,243	1,192	1,094	-121
Newberg High School	1,592	1,597	1,577	1,593	1,653	1,581	-11
High School Totals	1,592	1,597	1,577	1,593	1,653	1,581	-11
Sitka Academy (8-12)				27			0
District Totals	5,121	5,196	5,112	5,200	5,196	4,989	-132

Source: Newberg School District.

Private and Home School Enrollment and District "Capture Rate"

Private schools within the NSD enroll local students as well as students from beyond the NSD boundaries; conversely, NSD residents attend private schools beyond the District's boundaries, so the number of students enrolled in private schools physically located within the District cannot be used to measure overall private school share. The best source for private school enrollment by residence is census household survey data. The Census Bureau's American Community Survey (ACS) includes questions about school enrollment by level and by type (public or private). The ACS estimate from NSD households surveyed between 2012 and 2016 indicates that 13.3 percent (+/-3.6 percent) of NSD K-12 residents are enrolled in private schools

Another difference between NSD enrollment and child population can be attributed to home schooling. Home schooled students living in the District are required to register with the Willamette Educational Service District (WESD), though the statistics kept by the WESD are not precise because students who move out of the area are not required to drop their registration. Students who enroll in public schools after having been registered as home schooled are dropped from the home school registry. For the three years from 2014-15 to 2016-17 there were 264, 242, and 282 NSD residents registered as home-schooled, respectively, an average of 263 per year.

Private schools and home schooling help to explain the difference between the number of schoolage children living in the District and the number attending District schools. Both represent "outflow" from the District — that is, children eligible but not attending District schools.

Inter-District Transfers and Open Enrollment

The other "outflow" consists of District residents who attend public schools in other school districts. There is also a related "inflow" of residents from other districts.

During 2012-13 through 2017-18, NSD averaged a net inflow of 11 students per year through inter-district transfers and open enrollment. The first year (2012-13) was the only year with an outflow, all other years' totals were inflows into the District.

By grade groupings, 9-12 varied from the District norm with net outflows in five of the six years. Both K-5 and 6-8 had net inflows in all six years.

Inter-district transfer and open enrollment data appear in Table 8.

	CD 1t - D' :	Table	-	F	
N	SD Inter-Dist	NSD		of NSD	nt
	Inter-	Open	Inter-	Open	Net
	District	Enrollment	District	Enrollment	110
2012-13					***************************************
K-5	18	25	14	15	14
6-8	6	12	8	5	5
9-12	17	4	39	13	-31
Net	41	41	61	33	-12
2013-14					***************************************
K-5	28	14	23	5	14
6-8	6	3	4	1	4
9-12	16	8	35	5	-16
Net	50	25	62	11	2
2014-15					
K-5	27	9	4	4	28
6-8	5	2	3	1	3
9-12	6	2	23	4	-19
Net	38	13	30	9	12
2015-16					
K-5	19	23	12	6	24
6-8	7	3	3	1	6
9-12	28	2	19	4	7
Net	54	28	34	11	37
2016-17	000000000000000000000000000000000000000		***************************************	000500000000000000000000000000000000000	
K-5	19	16	17	0	18
6-8	9	7	11	0	5
9-12	15	0	16	4	-5
Net	43	23	44	4	18
2017-18	***************************************		***************************************		
K-5	11	8	10	0	9
6-8	4	6	5	1	4
9-12	6	3	12	1	-4
Net	21	17	27	2	9

Neighboring Districts

In the earlier part of the last decade McMinnville was the only District of the four (see table 9) with percentage enrollment growth in double figures. Newberg and Dayton were much smaller and Yamhill-Carlton was negative. Moving into the years of recession and slow recovery, McMinnville dropped to two percent growth while the other three districts showed enrollment losses. In the most recent five years, all District enrollments except Yamhill-Carlton were positive.

In 2016-17, Grades 9-12 percentages of enrollment were close for all four schools. Latino enrollment varied from a high of 38 percent in Dayton to nine percent in Yamhill-Carlton.

In 2010, the percentage of each school districts' population living in areas designated as rural recorded a range from 53 percent in Yamhill-Carlton to just under 10 percent in McMinnville.

For a limited but more recent look at population, housing, social and economic information for Newberg SD, see Appendix C.

Table 11
Selected Yamhill County School Districts
Demographic and Enrollment Highlights, 2003 to 2017

	Newberg	Dayton	McMinnville	Yamhill-Carlton
Enrollment growth, 2001-02 to 2006-07	5%	2%	16%	-4%
Enrollment growth, 2006-07 to 2011-12	-1%	-9%	2%	-6%
Enrollment growth, 2011-12 to 2016-17	2%	3%	5%	-9%
Grades 9-12 enrollment, 2016-17	30%	34%	32%	31%
Latino enrollment, 2016-17	20%	38%	34%	9%
Population growth, 2000 to 2010	17%	12%	21%	11%
Population age 5 to 17, 2000	20%	25%	19%	22%
Population age 5 to 17, 2010	18%	21%	19%	19%
Population under age 5, 2000	7.2%	6.6%	7.3%	5.5%
Population under age 5, 2010	6.2%	7.5%	7.1%	5.3%
Population rural, 2010	20.4%	39.7%	9.8%	53.0%

Data assembled by Population Research Center, PSU, from several sources: U.S. Census Bureau; Newberg S.D.; OR Dept. of Education; National Center for Education Statistics.

ENROLLMENT FORECASTS

District-wide Long-series Forecast Methodology

To ensure that enrollment forecasts are consistent with the dynamics of likely population growth within the District, we combine the grade progression enrollment model with a demographic cohort-component model used to forecast population for the District by age and sex. The components of population change are births, deaths, and migration. Using age-specific fertility rates, age-sex specific mortality rates, age-sex specific migration rates, estimates of recent net migration levels, and forecasts of future migration levels, each component is applied to the base year population in a manner that simulates the actual dynamics of population change.

The 2000 and 2010 Census results were used as a baseline for the population forecasts. By "surviving" the 2000 population and 2000 births (estimating the population in each age group that would survive to the year 2010) and comparing the "survived" population to the actual 2010 population by age group, we were able to estimate the overall level of net migration between 2000 and 2010 as well as net migration by gender and age cohort. The net migration data were used to develop initial net migration rates, which were used as a baseline for rates used to forecast net migration for the 2010 to 2030 period.

We estimated the number of births to women residing within the District each year from 2000 to 2016, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers is incorporated in the establishment of age-specific fertility rates (ASFRs) for both 2000 and 2010.

Births and Fertility Rates

NSD births began the last decade with a decrease of 43 births between 2000 and 2005. Births jumped 118 during the next two years, peaking at 472 in 2007. As the economic recession and slow recovery took hold births in the District declined sharply, reaching a low of 353 in 2013. They showed modest improvement in the last three years of the period, ending in 2016 with 368 births, 20 below the median for the 16-year period.

The total fertility rate (TFR) is one measure for fertility; it is an estimate of the number of children that would be born to the average woman during her childbearing years based on age-specific fertility rates observed at a given time. The estimated TFR for NSD decreased from 1.98 in 2000 to 1.80 in 2010. Comparatively, the TFRs in 2000 were 2.12 for Yamhill County and 1.98 for the State, while in 2010 the estimated TFRs were 1.82 for both Yamhill County and the State.

NSD births appear in Chart 3 and Table 9.

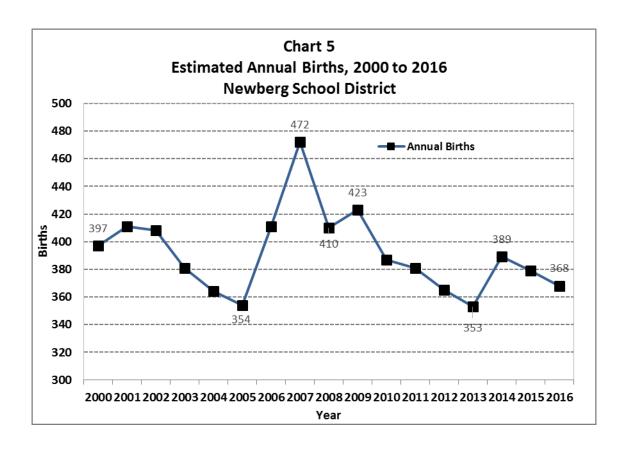


Table 12
Annual Births, 2000 to 2016
Newberg School District

/ear	Births
2000	397
001	411
2002	408
2003	381
2004	364
2005	354
2006	411
2007	472
2008	410
009	423
2010	387
011	381
012	365
013	353
014	389
015	379
016	368

Source: 2000-2016 birth data from Oregon Center for Health Statistics allocated to NSD boundary by PSU-PRC.

School Enrollment and Population

School enrollment links to population in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children enrolled in NSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District.

For purposes of forecasting enrollment, the ratios of kindergarten and first grade public school enrollment to overall population in the corresponding ages are very important. Once a student is enrolled in the public schools in first grade, it is very likely that they will continue to be enrolled in subsequent grades, unless their family moves out of the District. Kindergarten capture rates have recently increased due to the attraction of full day kindergarten. We estimate that about 85 percent of NSD kindergarten-age residents will enroll in NSD kindergartens throughout the forecast horizon.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District's population. Once the students are in first grade, a set of baseline rates are used to move students from one grade to the next. A grade progression rate (GPR) is the ratio of enrollment in an individual grade to enrollment in the previous grade the previous year. Baseline rates, usually 1.00 for elementary grades, represent a scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration levels of the overall population by single year of age.

Population Forecast

Chart six displays the 2000 to 2010 estimates and 2010 to 2030 forecasts of NSD population growth attributable to net migration. The 2010 to 2020 decade shows a population decrease attributable to net migration of 500 less persons than the previous decade (2000 to 2010). For the 2020 to 2030 decade, net migration rebounds to a high of 3,700 persons.

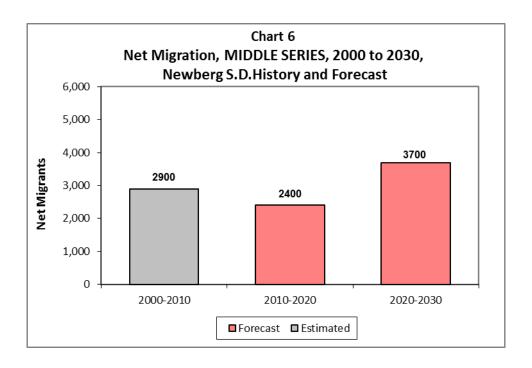


Table 10 details history and forecasts for Newberg School District population by age groups. The 2010 population for the NSD was 33,907, an increase of 4,951 persons from the 2000 Census (1.6 percent average annual growth rate, or AAGR). The forecast for 2020 population in the NSD is 37,480, an increase of 3,573 persons from the 2010 Census (1.0 percent AAGR). The 2030 population forecast is 41,498, an increase of 4,019 persons from the 2020 Census (1.0 percent AAGR).

School-age population (5 to 17) decreased by 389 persons between 2000 and 2010, and its share of total population declined by 1.8 percentage points. Between 2010 and 2020, school age population is expected to increase by 16, although the total population increase results in schoolage share dropping by 1.7 percentage points. Between 2020 and 2030 school-age population is expected to decline again by 1.8 percentage points, ending at 14.7 percent.

Table 13
Population by Age Group, MIDDLE SERIES Forecast
Newberg School District, 2000 to 2030

	2000	2010	2020	2030	2010 to 20	30 Change
	Census	Census	Forecast	Forecast	Number	Percent
Under Age 5	2,071	2,095	1,956	2,145	50	2%
Age 5 to 9	2,175	2,361	2,145	2,304	-57	-2%
Age 10 to 14	2,254	2,355	2,447	2,349	-6	0%
Age 15 to 17	1,339	1,441	1,581	1,456	15	1%
Age 18 to 19	1,113	1,266	1,357	1,396	130	10%
Age 20 to 24	2,335	2,478	2,583	2,745	267	11%
Age 25 to 29	1,740	2,034	2,225	2,589	555	27%
Age 30 to 34	1,915	2,151	2,230	2,400	249	12%
Age 35 to 39	2,275	2,114	2,339	2,660	546	26%
Age 40 to 44	2,426	2,220	2,402	2,574	354	16%
Age 45 to 49	2,220	2,440	2,220	2,497	57	2%
Age 50 to 54	1,806	2,505	2,261	2,481	-24	-1%
Age 55 to 59	1,360	2,256	2,450	2,276	20	1%
Age 60 to 64	876	1,873	2,544	2,334	461	25%
Age 65 to 69	746	1,369	2,227	2,430	1,061	78%
Age 70 to 74	764	821	1,700	2,324	1,503	183%
Age 75 to 79	625	731	1,228	1,957	1,226	168%
Age 80 to 84	464	656	669	1,358	702	107%
Age 85 and over	452	741	916	1,224	483	65%
Total Population	28,956	33,907	37,480	41,498	7,591	22%
Total age 5 to 17	5,768	6,157	6,173	6,109	-48	-1%
share age 5 to 17	19.9%	18.2%	16.5%	14.7%		***************************************

	2000-2010	2010-2020	2020-2030
Population Change	4,951	3,573	4,019
Percent	17%	11%	11%
Average Annual	1.6%	1.0%	1.0%

Source: U.S. Census Bureau, 2000 and 2010 Censuses; data aggregated to NSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

District-wide Enrollment Forecast

Chart 7 compares the historic and forecast number of births in the District with the historic and forecast number of NSD kindergarten students. The trend in births correspond to kindergarten cohorts (September to August) in general. However, external factors, such as migration of children into and out of the District between birth and age five, and private school enrollment, can alter the correlations between lagged births and kindergarten enrollment.

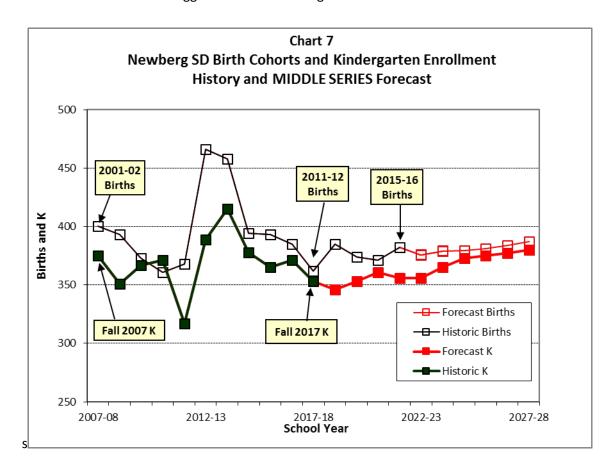


Table 11 contains the NSD middle series grade level forecasts for each year from 2018-19 TO 2027-28. For the first five years of the forecast, enrollment losses in all but two of K-5 grades resulted in a 75 student decline. Losses were largest in fourth and fifth grades. In the second half of the forecast K-5 turns around with a 108 student increase. Each K-5 grade level grows during this period.

Middle schools recorded the largest numeric and percentage increase in the first five forecast years (106 students, 10 percent). Sixth grade had the largest increase at 54. In the second half of the forecast, grades 6-8 post a one percent decline as the earlier, smaller K-5 cohorts progress to middle school.

During the 10 year forecast period the high school grades increase by 60 students, and total enrollment by 187 students.

Appendix A includes the district-wide population and enrollment forecasts for the low and high growth scenarios.

Population Research Center, Portland State University, November 2017. 2027-28 5,176 1,188 2,347 1,641 2026-27 Newberg School District MIDDLE SERIES Enrollment Forecasts, 2018-19 to 2027-28 5,161 1,178 1,663 2,320 2025-26 2017-18 to 2027-28 5,157 2,303 1,168 1,686 Pct. 10 Year Change: 1% % 4% % Change 2024-25 1,183 1,699 5,162 2,280 2023-24 5,092 2,252 1,186 1,654 Forecast 2022-23 1,615 2022-23 to 2027-28 5,054 2,239 1,200 Pct. -1% 2% 2% 5 Year Change: 2% Table 14 Change 2021-22 1,206 5,026 1,569 2,251 -12 2020-21 5,015 2,243 1,237 1,535 2019-20 2017-18 to 2022-23 5,008 2,248 1,579 1,181 -3% 10% Pct. 2% 1% 5 Year Change: Change 2018-19 4,980 2,275 1,568 1,137 -75 2017-18 Actual 4,989 2,314 1,094 1,581 Grade Total Total 9-12 K-5 8-9 8-9 8 1 \checkmark m Ŋ œ

Individual School Forecasts

Forecasts for individual schools are consistent with the MIDDLE SERIES district-wide growth forecast, under a scenario in which current boundaries and grade configurations remain constant. Of course, school districts typically respond to enrollment change in various ways that might alter the status quo, such as attendance area boundary changes, opening new schools, closing schools, and policy or program changes. If new charter or private schools open, enrollment at District-run schools may be affected. However, the individual school forecasts depict what future enrollments might be under current conditions.

The methodology for the individual school forecasts relies on unique sets of GPRs for each school. New kindergarten classes were forecast each year based on recent trends and birth cohorts within elementary attendance areas. Subsequent grades were forecast using GPRs based initially on recent rates and adjusted based on expected levels of housing growth. The final forecasts for individual schools are controlled to match the district-wide forecasts. Table 12 presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

Elementary schools as a group grows by 33 students over the 10-year forecast period (2017-18 to 2027-28), but the six schools are evenly split between increasing and decreasing enrollments. Antonia Crater, Edwards, and Joan Austin grow, with Antonia Crater at the top with a 69 student increase. Dundee, Ewing Young and Mabel Rush show roughly equal declines for the period.

Chehalem Valley and Mountain View middle schools both grow over the 10 years, at 68 and 26 students respectively. Newberg High School increased by 60 students during the forecast period, Ending with an enrollment of 1,641.

~	Table 15 NSD Enrollment Forecasts for Individual Schools, 2018-19 to 2027-28	ollment	Forecas	ts for I	Table 15 ndividua	al Schoo	ols, 2018	3-19 to	2027-28	•		
	Actual					Forecast	cast					Change
School	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2027-28
Antonia Crater Elementary	457	468	468	476	497	494	496	505	512	517	526	69
Dundee Elementary	281	263	249	241	235	238	241	243	243	245	249	-32
Edwards Elementary	545	292	561	559	559	565	559	565	292	269	572	27
Ewing Young Elementary	189	177	160	158	147	149	151	154	157	159	162	-27
Joan Austin Elementary	341	341	349	347	356	347	353	358	362	363	366	25
Mabel Rush Elementary	501	461	461	462	457	446	452	455	462	467	472	-29
District Elementary Totals	2,314	2,275	2,248	2,243	2,251	2,239	2,252	2,280	2,303	2,320	2,347	33
Chehalem Valley Middle School	290	610	661	692	889	658	651	648	651	929	658	89
Mountain View Middle School	504	527	520	545	518	542	535	535	517	522	230	26
Middle School Totals	1,094	1,137	1,181	1,237	1,206	1,200	1,186	1,183	1,168	1,178	1,188	96
Newberg High School	1,581	1,568	1,579	1,535	1,569	1,615	1,654	1,699	1,686	1,663	1,641	09
High School Totals	1,581	1,568	1,579	1,535	1,569	1,615	1,654	1,699	1,686	1,663	1,641	9
District Totals	4,989	4,980	5,008	5,015	5,026	5,054	5,092	5,162	5,157	5,161	5,176	187

Population Research Center, Portland State University, November, 2017

APPENDIX A

NSD LOW AND HIGH FORECAST SCENARIOS, 2018-19 TO 2027-2

Table A-1 Newberg School District LOW SERIES Enrollment Forecasts, 2018-19 to 2027-28

	Actual					Fore	cast				
Grade	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	353	331	338	344	337	336	342	348	351	354	356
1	382	359	342	354	360	352	351	358	364	367	370
2	369	384	361	347	359	365	357	356	363	369	372
3	391	371	386	365	351	363	369	361	360	367	373
4	404	393	373	390	369	355	367	373	365	364	371
5	415	406	395	377	394	373	359	371	377	369	368
6	348	413	404	395	377	394	373	359	371	377	369
7	368	349	415	408	399	381	398	377	363	375	381
8	378	369	350	419	412	403	385	402	381	367	379
9	401	380	371	355	425	418	409	391	408	387	373
10	412	399	379	374	358	428	421	412	394	411	390
11	353	390	378	363	358	343	410	403	395	378	394
12	415	384	424	416	400	394	378	451	444	435	416
Total	4,989	4,928	4,916	4,907	4,899	4,905	4,919	4,962	4,936	4,920	4,912
K-5	2,314	2,244	2,195	2,177	2,170	2,144	2,145	2,167	2,180	2,190	2,210
6-8	1,094	1,131	1,169	1,222	1,188	1,178	1,156	1,138	1,115	1,119	1,129
9-12	1,581	1,553	1,552	1,508	1,541	1,583	1,618	1,657	1,641	1,611	1,573

	5 Year Change: 2017-18 to 2022-23		
	Change	Pct.	
<- 5	-170	-7%	
5-8	84	8%	
9-12	2	0%	
Total	-84	-2%	

5 Year Change: 2022-23 to 2027-28					
Change	Pct.				
66	3%				
-49	-4%				
-10	-1%				
7	0%				

2017-18 to 2027-28				
Change	Pct.			
-104	-4%			
35	3%			
-8	-1%			
-77	-2%			

10 Year Change:

Population Research Center, Portland State University, December 2017.

Table A-2
Newberg School District HIGH SERIES Enrollment Forecasts, 2018-19 to 2027-87

	Actual					Fore	ecast				
Grade	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	353	360	370	378	376	377	391	402	400	401	405
1	382	382	379	389	398	396	397	411	423	421	421
2	369	390	390	386	396	405	403	404	419	431	429
3	391	376	398	396	392	403	412	410	411	426	438
4	404	398	383	404	402	398	409	418	416	417	432
5	415	411	405	389	410	408	404	415	424	422	423
6	348	418	414	407	391	412	410	406	417	426	424
7	368	354	425	420	413	397	418	416	412	423	432
8	378	374	360	431	426	419	403	424	422	418	429
9	401	387	383	367	440	435	428	411	433	431	427
10	412	408	394	388	372	446	441	434	417	439	437
11	353	398	395	380	374	359	430	425	419	402	423
12	415	392	443	438	421	414	398	476	471	464	445
Total	4,989	5,048	5,139	5,173	5,211	5,269	5,344	5,452	5,484	5,521	5,565
K-5	2,314	2,317	2,325	2,342	2,374	2,387	2,416	2,460	2,493	2,518	2,548
6-8	1,094	1,146	1,199	1,258	1,230	1,228	1,231	1,246	1,251	1,267	1,285
9-12	1,581	1,585	1,615	1,573	1,607	1,654	1,697	1,746	1,740	1,736	1,732

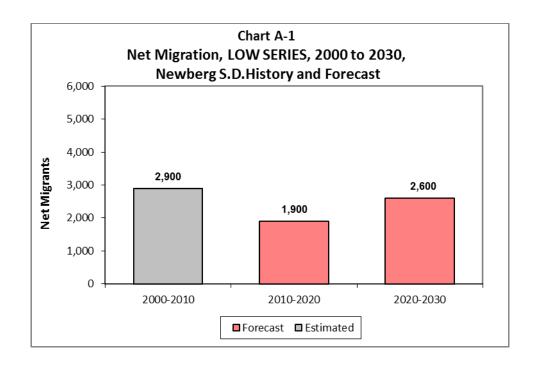
	5 Year C 2017-18 to	2022-23
	Change	Pct.
<- 5	73	3%
5-8	134	12%
9-12	73	5%
Гotal	280	6%

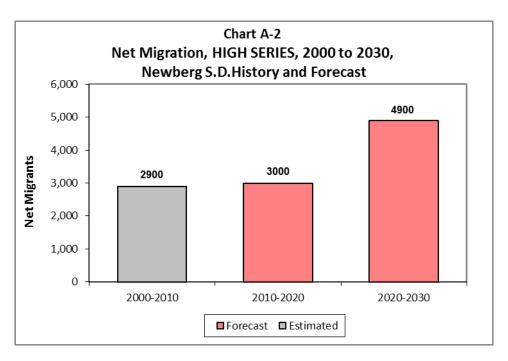
5 Year Change:					
2022-23 t	o 2027-28				
Change	Pct.				
161	7%				
57	5%				
78	5%				
296	6%				

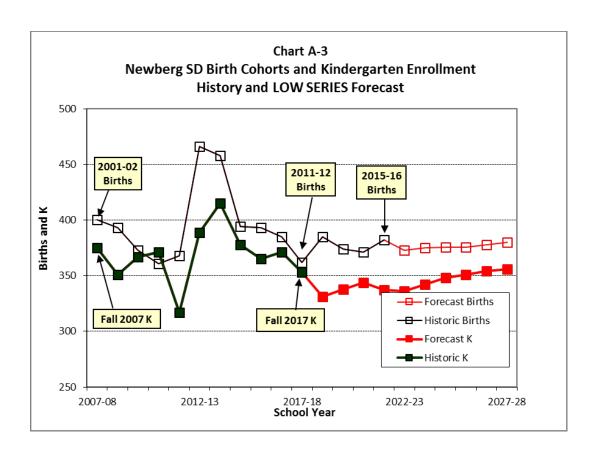
2017-18 to 2027-28					
Change	Pct.				
234	10%				
191	17%				
151	10%				
576	12%				

10 Year Change:

Population Research Center, Portland State University, December 2017.







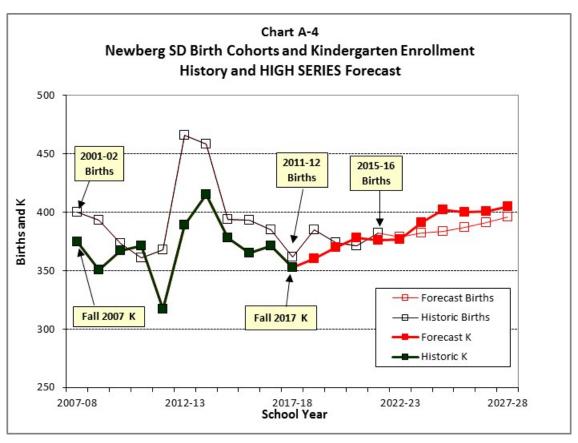


Table A3
Population by Age Group , LOW SERIES Forecast
Newberg School District, 2000 to 2030

	2000	2010	2020	2030	2010 to 20	30 Change
	Census	Census	Forecast	Forecast	Number	Percent
Under Age 5	2,071	2,095	1,892	2,038	-57	-3%
Age 5 to 9	2,175	2,361	2,063	2,175	-186	-8%
Age 10 to 14	2,254	2,355	2,439	2,207	-148	-6%
Age 15 to 17	1,339	1,441	1,558	1,361	-80	-6%
Age 18 to 19	1,113	1,266	1,344	1,294	28	2%
Age 20 to 24	2,335	2,478	2,546	2,685	207	8%
Age 25 to 29	1,740	2,034	2,187	2,481	447	22%
Age 30 to 34	1,915	2,151	2,191	2,290	139	6%
Age 35 to 39	2,275	2,114	2,299	2,542	428	20%
Age 40 to 44	2,426	2,220	2,365	2,473	253	11%
Age 45 to 49	2,220	2,440	2,195	2,411	-29	-1%
Age 50 to 54	1,806	2,505	2,237	2,399	-106	-4%
Age 55 to 59	1,360	2,256	2,427	2,214	-42	-2%
Age 60 to 64	876	1,873	2,522	2,292	419	22%
Age 65 to 69	746	1,369	2,209	2,390	1,021	<i>7</i> 5%
Age 70 to 74	764	821	1,680	2,232	1,411	172%
Age 75 to 79	625	731	1,206	1,856	1,125	154%
Age 80 to 84	464	656	655	1,300	644	98%
Age 85 and over	452	741	893	1,154	413	56%
Total Population	28,956	33,907	36,907	39,794	5,887	17%
Total age 5 to 17	5,768	6,157	6,060	5,743	-414	-7%
share age 5 to 17	19.9%	18.2%	16.4%	14.4%		***************************************

	2000-2010	2010-2020	2020-2030
Population Change	4,951	3,000	2,887
Percent	17%	9%	8%
Average Annual	1.6%	0.9%	0.8%

Source: U.S. Census Bureau, 2000 and 2010 Censuses; data aggregated to NSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

Table A4
Population by Age Group, HIGH SERIES Forecast
Newberg School District, 2000 to 2030

	2000	2010	2020	2030	2010 to 20	30 Change
	Census	Census	Forecast	Forecast	Number	Percent
Under Age 5	2,071	2,095	2,040	2,265	170	8%
Age 5 to 9	2,175	2,361	2,227	2,468	107	5%
Age 10 to 14	2,254	2,355	2,505	2,543	188	8%
Age 15 to 17	1,339	1,441	1,613	1,550	109	8%
Age 18 to 19	1,113	1,266	1,380	1,510	244	19%
Age 20 to 24	2,335	2,478	2,607	2,861	383	15%
Age 25 to 29	1,740	2,034	2,262	2,714	680	33%
Age 30 to 34	1,915	2,151	2,275	2,499	348	16%
Age 35 to 39	2,275	2,114	2,385	2,780	666	32%
Age 40 to 44	2,426	2,220	2,438	2,684	464	21%
Age 45 to 49	2,220	2,440	2,239	2,590	150	6%
Age 50 to 54	1,806	2,505	2,274	2,564	59	2%
Age 55 to 59	1,360	2,256	2,462	2,334	78	3%
Age 60 to 64	876	1,873	2,566	2,389	516	28%
Age 65 to 69	746	1,369	2,245	2,484	1,115	81%
Age 70 to 74	764	821	1,720	2,392	1,571	191%
Age 75 to 79	625	731	1,250	2,024	1,293	177%
Age 80 to 84	464	656	683	1,418	762	116%
Age 85 and over	452	741	933	1,294	553	75%
Total Population	28,956	33,907	38,104	43,363	9,456	28%
Total age 5 to 17	5,768	6,157	6,345	6,561	404	7%
share age 5 to 17	19.9%	18.2%	16.7%	15.1%		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

	2000-2010	2010-2020	2020-2030
Population Change	4,951	4,197	5,259
Percent	17%	12%	14%
Average Annual	1.6%	1.2%	1.3%

Source: U.S. Census Bureau, 2000 and 2010 Censuses; data aggregated to NSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

APPENDIX B

2000 AND 2010 CENSUS PROFILE FOR THE DISTRICT

POPULATION	20	00	2010		Cha	Change		
SEX AND AGE	<u> </u>		II		II			
Total population	28,956	100.0%	33,907	100.0%	4,951	17.1%		
Under 5 years	2,071	7.2%	2,095	6.2%	24	1.2%		
5 to 9 years	2,175	7.5%	2,361	7.0%	186	8.6%		
10 to 14 years	2,254	7.8%	2,355	6.9%	101	4.5%		
15 to 19 years	2,452	8.5%	2,707	8.0%	255	10.4%		
20 to 24 years	2,335	8.1%	2,478	7.3%	143	6.1%		
25 to 29 years	1,740	6.0%	2,034	6.0%	294	16.9%		
30 to 34 years	1,915	6.6%	2,151	6.3%	236	12.3%		
35 to 39 years	2,275	7.9%	2,114	6.2%	-161	-7.1%		
40 to 44 years	2,426	8.4%	2,220	6.5%	-206	-8.5%		
45 to 49 years	2,220	7.7%	2,440	7.2%	220	9.9%		
50 to 54 years	1,806	6.2%	2,505	7.4%	699	38.7%		
55 to 59 years	1,360	4.7%	2,256	6.7%	896	65.9%		
60 to 64 years	876	3.0%	1,873	5.5%	997	113.8%		
65 to 69 years	746	2.6%	1,369	4.0%	623	83.5%		
70 to 74 years	764	2.6%	821	2.4%	57	7.5%		
75 to 79 years	625	2.2%	731	2.2%	106	17.0%		
80 to 84 years	464	1.6%	656	1.9%	192	41.4%		
85 years and over	452	1.6%	741	2.2%	289	63.9%		
Median age (years)	33	3.8	36	.8	3.	0		
Under 18 years	7,839	27.1%	8,252	24.3%	413	5.3%		
18 to 64 years	18,066	62.4%	21,337	62.9%	3,271	18.1%		
65 years and over	3,051	10.5%	4,318	12.7%	1,267	41.5%		
Male population	14,221	100.0%	16,714	100.0%	2,493	17.5%		
Under 5 years	1,096	7.7%	1,115	6.7%	19	1.7%		
5 to 9 years	1,129	7.9%	1,184	7.1%	55	4.9%		
10 to 14 years	1,144	8.0%	1,233	7.4%	89	7.8%		
15 to 19 years	1,168	8.2%	1,372	8.2%	204	17.5%		
20 to 24 years	1,091	7.7%	1,202	7.2%	111	10.2%		
25 to 29 years	906	6.4%	1,008	6.0%	102	11.3%		
30 to 34 years	950	6.7%	1,049	6.3%	99	10.4%		
35 to 39 years	1,124	7.9%	1,080	6.5%	-44	-3.9%		
40 to 44 years	1,209	8.5%	1,100	6.6%	-109	-9.0%		
45 to 49 years	1,078	7.6%	1,216	7.3%	138	12.8%		
50 to 54 years	916	6.4%	1,224	7.3%	308	33.6%		
55 to 59 years	677	4.8%	1,086	6.5%	409	60.4%		
60 to 64 years	439	3.1%	945	5.7%	506	115.3%		
65 to 69 years	382	2.7%	672	4.0%	290	75.9%		
70 to 74 years	333	2.3%	372	2.2%	39	11.7%		
75 to 79 years	263	1.8%	344	2.1%	81	30.8%		
80 to 84 years	175	1.2%	265	1.6%	90	51.4%		
85 years and over	141	1.0%	247	1.5%	106	75.2%		

POPULATION (continued)	20	00	20:	10	Cha	nge
Male population (continued)						
Median age (years)	33	3.0	35	.9	2.	9
Under 18 years	4,019	28.3%	4,246	25.4%	227	5.6%
18 to 64 years	8,908	62.6%	10,568	63.2%	1,660	18.6%
65 years and over	1,294	9.1%	1,900	11.4%	606	46.8%
Female population	14,735	100.0%	17,193	100.0%	2,458	16.7%
Under 5 years	975	6.6%	980	5.7%	5	0.5%
5 to 9 years	1,046	7.1%	1,177	6.8%	131	12.5%
10 to 14 years	1,110	7.5%	1,122	6.5%	12	1.1%
15 to 19 years	1,284	8.7%	1,335	7.8%	51	4.0%
20 to 24 years	1,244	8.4%	1,276	7.4%	32	2.6%
25 to 29 years	834	5.7%	1,026	6.0%	192	23.0%
30 to 34 years	965	6.5%	1,102	6.4%	137	14.2%
35 to 39 years	1,151	7.8%	1,034	6.0%	-117	-10.2%
40 to 44 years	1,217	8.3%	1,120	6.5%	-97	-8.0%
45 to 49 years	1,142	7.8%	1,224	7.1%	82	7.2%
50 to 54 years	890	6.0%	1,281	7.5%	391	43.9%
55 to 59 years	683	4.6%	1,170	6.8%	487	71.3%
60 to 64 years	437	3.0%	928	5.4%	491	112.4%
65 to 69 years	364	2.5%	697	4.1%	333	91.5%
70 to 74 years	431	2.9%	449	2.6%	18	4.2%
75 to 79 years	362	2.5%	387	2.3%	25	6.9%
80 to 84 years	289	2.0%	391	2.3%	102	35.3%
85 years and over	311	2.1%	494	2.9%	183	58.8%
Median age (years)	34	l.5	37	.8	3.	3
Under 18 years	3,820	25.9%	4,006	23.3%	186	4.9%
18 to 64 years	9,158	62.2%	10,769	62.6%	1,611	17.6%
65 years and over	1,757	11.9%	2,418	14.1%	661	37.6%
AREA AND DENSITY						
2010 Land Area - Acres ¹	51,5	520	51,5	20		
Persons per acre	0.	.6	0.	7	0.1	17.1%
Persons per square mile	36	50	42	1	62	17.1%
RACE						
Total population	28,956	100.0%	33,907	100.0%	4,951	17.1%
White alone	26,570	91.8%	29,967	88.4%	3,397	12.8%
Black or African American alone	89	0.3%	208	0.6%	119	133.7%
American Indian and Alaska Native alone	185	0.6%	246	0.7%	61	33.0%
Asian alone	305	1.1%	638	1.9%	333	109.2%
Native Hawaiian and Other Pacific Islander alone	32	0.1%	52	0.2%	20	62.5%
Some Other Race alone	1,162	4.0%	1,807	5.3%	645	55.5%
Two or More Races	613	2.1%	989	2.9%	376	61.3%

Аррголіпан						isus biock
POPULATION (continued)	20	00	2010		Cha	nge
RACE (continued)						
Race alone or in combination with one or more other	er races ²					
White	27,145	93.7%	30,893	91.1%	3,748	13.8%
Black or African American	166	0.6%	377	1.1%	211	127.1%
American Indian and Alaska Native	408	1.4%	613	1.8%	205	50.2%
Asian	461	1.6%	980	2.9%	519	112.6%
Native Hawaiian and Other Pacific Islander	92	0.3%	125	0.4%	33	35.9%
Some Other Race	1,345	4.6%	1,988	5.9%	643	47.8%
HISPANIC OR LATINO AND RACE						
Total population	28,956	100.0%	33,907	100.0%	4,951	17.1%
Hispanic or Latino	2,442	8.4%	3,733	11.0%	1,291	52.9%
Not Hispanic or Latino	26,514	91.6%	30,174	89.0%	3,660	13.8%
White alone	25,468	88.0%	28,378	83.7%	2,910	11.4%
Black or African American alone	84	0.3%	183	0.5%	99	117.9%
American Indian and Alaska Native alone	154	0.5%	151	0.4%	-3	-1.9%
Asian alone	301	1.0%	618	1.8%	317	105.3%
Native Hawaiian and Other Pacific Islander alone	25	0.1%	49	0.1%	24	96.0%
Some Other Race alone	21	0.1%	37	0.1%	16	76.2%
Two or More Races	461	1.6%	758	2.2%	297	64.4%
DELATIONICHE						
RELATIONSHIP Total population	28,956	100.0%	33,907	100.0%	4,951	17.1%
In households	27,693	95.6%	32,383	95.5%	4,690	16.9%
In family households	24,343	84.1%	28,159	83.0%	3,816	15.7%
Householder	7,487	25.9%	8,895	26.2%	1,408	18.8%
Spouse ³	6,135	21.2%	7,169	21.1%	1,034	16.9%
Child	8,806	30.4%	9,636	28.4%	830	9.4%
Own child under 18 years	7,225	25.0%	7,429	21.9%	204	2.8%
Other relatives	1,200	4.1%	1,579	4.7%	379	31.6%
Nonrelatives	715	2.5%	880	2.6%	165	23.1%
In nonfamily households	3,350	11.6%	4,224	12.5%	874	26.1%
Householder	2,459	8.5%	3,171	9.4%	712	29.0%
Nonrelatives	891	3.1%	1,053	3.1%	162	18.2%
	- 331	0.2,0		3.2,5	102	
Population under 18 in households	7,822	99.8%	8,192	99.3%	370	4.7%
Population 18 to 64 in households	17,117	94.7%	20,143	94.4%	3,026	17.7%
Population 65 and over in households	2,754	90.3%	4,048	93.7%	1,294	47.0%
In group quarters	1 262	1 10/	1 524	A F0/	261	20.7%
In group quarters	1,263	4.4%	1,524	4.5%	261	20.7%

POPULATION (continued)	20	00	2010		Change	
GROUP QUARTERS	-				"	
Total group quarters population	1,263	100.0%	1,524	100.0%	261	20.7%
Institutionalized population	297	23.5%	183	12.0%	-114	-38.4%
Male	92	7.3%	69	4.5%	-23	-25.0%
Female	205	16.2%	114	7.5%	-91	-44.4%
Noninstitutionalized population	966	76.5%	1,341	88.0%	375	38.8%
Male	385	30.5%	550	36.1%	165	42.9%
Female	581	46.0%	791	51.9%	210	36.1%
Population under 18 in group quarters	17	0.2%	60	0.7%	43	252.9%
Population 18 to 64 in group quarters	949	5.3%	1,194	5.6%	245	252.9%
Population 65 and over in group quarters	297	9.7%	270	6.3%	-27	-9.1%

HOUSEHOLDS	20	00	2010		Cha	nge
Total households	9,946	100.0%	12,066	100.0%	2,120	21.3%
Family households (families) ⁴	7,487	75.3%	8,895	73.7%	1,408	18.8%
With own children under 18 years	3,819	38.4%	3,942	32.7%	123	3.2%
Husband-wife family	6,135	61.7%	7,169	59.4%	1,034	16.9%
With own children under 18 years	2,948	29.6%	2,973	24.6%	25	0.8%
Male householder, no wife present	411	4.1%	533	4.4%	122	29.7%
With own children under 18 years	247	2.5%	268	2.2%	21	8.5%
Female householder, no husband present	941	9.5%	1,193	9.9%	252	26.8%
With own children under 18 years	624	6.3%	701	5.8%	77	12.3%
Nonfamily households ⁴	2,459	24.7%	3,171	26.3%	712	29.0%
Householder living alone	1,853	18.6%	2,428	20.1%	575	31.0%
Male	786	7.9%	1,044	8.7%	258	32.8%
65 years and over	172	1.7%	297	2.5%	125	72.7%
Female	1,067	10.7%	1,384	11.5%	317	29.7%
65 years and over	557	5.6%	710	5.9%	153	27.5%
Households with individuals under 18 years	4,093	41.2%	4,311	35.7%	218	5.3%
Households with individuals 65 years and over	1,994	20.0%	2,937	24.3%	943	47.3%
Average household size	2.	78	2.68		-0.10	-3.6%
Average family size ⁴	3.	16	3.0	07	-0.09	-2.8%

HOUSING UNITS	20	00	2010		Cha	nge
Total housing units	10,465	100.0%	12,857	100.0%	2,392	22.9%
Occupied housing units	9,946	95.0%	12,066	93.8%	2,120	21.3%
Owner occupied ⁵	7,181	72.2%	8,594	71.2%	1,413	19.7%
Owned with a mortgage or a loan	N/	'A	6,687	77.8%		
Owned free and clear	N/	Ά	1,907	22.2%		
Renter occupied	2,765	27.8%	3,472	28.8%	707	25.6%
Vacant housing units ⁶	519	5.0%	791	6.2%	272	52.4%
For rent	181	34.9%	263	33.2%	82	45.3%
For sale only	155	29.9%	215	27.2%	60	38.7%
Rented or sold, not occupied	44	8.5%	74	9.4%	30	68.2%
For seasonal, recreational, or occasional use	52	10.0%	107	13.5%	55	105.8%
For migrant workers	0	0.0%	2	0.3%	2	
All other vacants	87	16.8%	130	16.4%	43	49.4%
Owner-occupied housing units	7,181	72.2%	8,594	71.2%	1,413	19.7%
Population in owner-occupied housing units	20,2	240	23,2	247	3,007	14.9%
Average household size of owner-occupied units	2.82		2.7	71	-0.11	-3.9%
Renter-occupied housing units	2,765	27.8%	3,472	28.8%	707	25.6%
Population in renter-occupied housing units	7,4	53	9,1	36	1,683	22.6%
Average household size of renter-occupied units	2.	70	2.6	53	-0.07	-2.6%

- 1. Land area of the 2010 census blocks that approximate the area.
- 2. In combination with one or more of the other races listed. The six numbers may add to more than the total population, and the six percentages may add to more than 100 percent because individuals may report more than one race.
- 3. "Spouse" represents spouse of the householder. It does not reflect all spouses in a household. Responses of "same-sex spouse" were edited during processing to "unmarried partner."
- 4. "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples unless there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.
- 5. Percentage distribution of ownership categories ("owned with a mortgage or a loan" and "owned free and clear") adds to 100 percent.
- 6. Percentage distribution of vacancy categories ("for rent," etc.) adds to 100 percent.

APPENDIX C

2006-2010 and 2011-2015 AMERICAN COMMUNITY SURVEY PROFILE FOR THE DISTRICT

Population, Housing, Social and Economic Profile Newberg School District 29J, Oregon

	2006-2010		2011-2015			Compare	
	Estimate	CV *	Margin of Error (+/-)	Estimate	CV *	Margin of Error (+/-)	Statistically Different?
POPULATION							
Total population	33,582		719	34,679		681	**
Percent under 18 years	24.7%		1.4%	20.9%		1.2%	**
Percent 65 years and over	11.7%		0.9%	13.9%		0.9%	**
Median age (years)	36.6		1.1	38.6		1.2	**
Percent white alone, non-Latino	85.4%		1.8%	82.3%		2.0%	**
HOUSING							
Total housing units	12,858		406	12,682		388	
Occupied housing units	12,028		374	11,952		388	
Owner occupied	8,947		422	8,352		406	**
Percent owner-occupied	74.4%		2.6%	69.9%		2.6%	**
Renter occupied	3,081		328	3,600		334	**
Vacant housing units***	830		265	730		214	
Vacancy rate	6.5%		2.0%	5.8%		1.7%	
Average household size	2.71		0.08	2.76		0.09	
Renter households paying more than 30 percent of household income on rent plus utilities	52.0%		6.5%	57.8%		8.1%	
SOCIAL							
Age 25+ with a bachelor's degree or higher	29.7%		1.8%	30.0%		2.7%	
Foreign-born population	2,268		568	2,594		456	
Percent foreign-born	6.8%		1.7%	7.5%		1.3%	
Age 5+ language other than English at home	3,032		604	3,676		544	
Percent language other than English	9.7%		1.8%	11.3%		1.7%	
ECONOMIC							
Median household income (2015 dollars)	\$67,043		\$2,967	\$60,339		\$3,761	**
Per capita income (2015 dollars)	\$30,178		\$3,340	\$27,869		\$1,523	
Percent of persons below poverty level	8.2%		1.8%	16.4%		3.0%	**

^{*} Green, yellow, and red icons indicate the reliability of each estimate using the coefficient of variation (CV). The lower the CV, the more reliable the data. High reliability (CV <15%) is shown in green, medium reliability (CV between 15-30% - be careful) is shown in yellow, and low reliability (CV >30% - use with extreme caution) is shown in red. However, there are no absolute rules for acceptable thresholds of reliability. Users should consider the margin of error and the need for precision.

Source: U.S. Census Bureau, American Community Survey 5 year estimates. Surveys are collected over a 60 month period. Estimates represent average characteristics over the entire period. Tabulated by Population Research Center, Portland State University, with additional calculations from source data as needed.

^{**} Indicates that the two estimates are statistically different at the 90 percent confidence level based on results of z-test taking into account the difference between the two estimates as well as an approximation of the standard errors of both estimates.

^{***} Vacant units include those for sale or rent, those sold or rented but not yet occupied, those held for seasonal, recreational, or occasional use, as well as other vacant such as homes under renovation, settlement of an estate, or foreclosures.