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## Lake Oswego School District Population and Enrollment Forecast 2021-22 to 2030-31

Portland State University. Population Research Center

Charles Rynerson Portland State University, rynerson@pdx.edu

Mac Cunningham Portland State University

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# LAKE OSWEGO SCHOOL DISTRICT POPULATION AND ENROLLMENT FORECASTS 2021-22 TO 2030-31



December, 2020



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Prepared By

Population Research Center

Portland State University

December, 2020

**Project Staff:** 

Charles Rynerson, Senior Research Associate

Mac Cunningham, Graduate Research Assistant



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#### **EXECUTIVE SUMMARY**

This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC) for the Lake Oswego School District (LOSD). The study includes analyses of population, housing and enrollment, and forecasts of district-wide school enrollments for the 2021-22 to 2030-31 school years. Due to the unusual circumstances of the COVID-19 pandemic, the base, or "launch" year for the forecasts is 2019-20, not 2020-21. Following are some of this report's highlights.

#### Population, Employment, and Housing Trends

- The District's population has grown slowly, at an annual average of 0.2 percent in the 2000s and about 0.4 percent since 2010.
- The average of 286 births per year to district residents Between 2012 and 2019 was similar to the average of 288 the previous eight years from 2004 to 2011.
- Multnomah County is the leading workplace for LOSD residents, accounting for 38
  percent of all primary jobs.
- In the past five years permits have been issued for nearly 400 new single-family homes within the District. However, there is roughly one demolition for every two new homes built.
- Mercantile Village in the Lake Grove Elementary area, to be completed in Spring
   2021, will include more than 100 two- and three-bedroom apartments.

#### **Housing and Enrollment**

For detached single-family homes in LOSD about 10 years old or newer, the
average number of LOSD K-12 students per home in fall 2019 was 0.59, or 59
students in every 100 homes. Homes built between 1999 and 2008, roughly 10 to
20 years old, had a similar K-12 average of 0.57 students, and homes built before
1999 had an average of only 0.43 LOSD K-12 students per home.

- There were significantly lower average numbers of K-12 students per row home (0.07), condominium unit (0.15), apartment (0.16), and duplex/triplex unit (0.18).
- The average number of elementary students per home is highest in single-family homes built within the past 10 years, while the highest average number of high school students per home occurs in homes between 10 and 20 years old. Student generation rates by type and age of home are reported in Figure 10 on page 18.
- These students yield rates per housing type and age and are generally consistent with other districts in the Portland Metro Area.

#### **Enrollment Trends**

- This year's enrollment decline is entirely attributable to choices that families are making in response to distance learning during the COVID-19 pandemic, a trend seen throughout Oregon and the U.S.
- The greatest impact is seen in LOSD kindergartens, which enrolled 340 students but likely would have enrolled more than 400 under normal circumstances.
- Other elementary grades are also noticeably affected by the pandemic, with middle grades less so; the effect on high school enrollment is negligible.

#### **<u>District-wide Enrollment Forecast: Low Series</u>**

 In the *low series* forecast, K-12 enrollment in 2021-22 is 90 students below the 2019-20 baseline, and continues to fall each year throughout the forecast horizon.
 This scenario assumes net migration drops slightly, as well as slightly smaller incoming kindergarten classes averaging less than 400 students over the 10-year forecast period.  By 2030-31, the District enrolls 514 students (seven percent) fewer students than in 2019-20, including losses of 252 in K-5<sup>th</sup> grade, 161 in 6<sup>th</sup>-8<sup>th</sup> grade, and 101 in 9<sup>th</sup>-12<sup>th</sup> grade.

#### **District-wide Enrollment Forecast: Middle Series**

- The *middle series* forecast is consistent with recent trends observed through 2019 20, and is considered the most likely scenario.
- At 433 students, 2021-22 kindergarten is relatively large, reflecting birth cohorts as well as the potential to include some children whose families delayed the start of kindergarten in 2020-21 to avoid distance learning.
- Total K-12 enrollment in fall 2021 is 115 students greater than in fall 2019, as each school level sees enrollment surpassing its pre-pandemic level. Between 2019-20 and 2021-22 elementary schools add 26 students, middle schools add 71 students, and high schools add 18 students.
- After 2021-22, enrollment gains are relatively modest, as incoming kindergarten class sizes show little or no growth. The District adds only 75 more K-12 students from 2021-22 to 2030-31.

#### **<u>District-wide Enrollment Forecast: High Series</u>**

- The high series forecast is characterized by consistently large incoming kindergarten classes averaging 450 students over the 10-year forecast period as well as greater cohort in-migration each year.
- K-12 enrollment grows each year, resulting in a net gain of 850 students (12 percent) by 2030-31. Each school level grows at a similar rate, with elementary grades adding 370 students (13 percent), middle grades adding 200 students (12 percent), and high school grades adding 280 students (11 percent).

Figure 1 summarizes recent and forecast district-wide K-12 enrollments under the three scenarios. Figure 2 charts the District's 10-year K-12 enrollment history and the 10-year K-12 forecasts. Figure 3 details the middle series forecast by grade level groups. More details of the forecasts for the District and for individual schools are presented in the "Enrollment Forecasts" section and in Appendices A and B.

Figure 1 Historic and Forecast K-12 Enrollment Low, Middle, and High Series Lake Oswego School District

	Low Enroll-	Net	Middle Enroll-	Net	High Enroll-	Net
School Year	ment	Change	ment	Change	ment	Change
2010-11	6,767	N/a	6,767	N/a	6,767	N/a
2014-15	6,857	90	6,857	90	6,857	90
2019-20	7,018	161	7,018	161	7,018	161
2025-26	6,725	-293	7,209	191	7,534	516
2030-31	6,504	-221	7,208	-1	7,868	334

	Low	Middle	High
<b>Average Annual Enrollment Growth</b>	Forecast	Forecast	Forecast
2019-20 to 2025-26	-0.7%	0.4%	1.2%
2025-26 to 2030-31	-0.7%	0.0%	0.9%

Source: Historic enrollment, Lake Oswego School District; Enrollment forecasts, Population Research Center, PSU, December 2020.

Figure 2 Lake Oswego School District, K-12 Enrollment History and Forecasts, 2010-2011 to 2030-2031

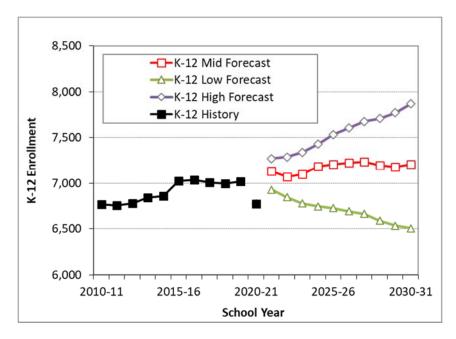


Figure 3 Historic and Middle Series Forecast Enrollment by School Level (K-5, 6-8, 9-12) Lake Oswego School District

School Year	K-5	6-8	9-12	K-12 Total
2010-11	2,714	1,621	2,432	6,767
2014-15	2,777	1,662	2,418	6,857
5-Year Net Change	63	41	-14	90
5-Year Percent Change	2%	3%	-1%	1%
2019-20	2,854	1,685	2,479	7,018
5-Year Net Change	77	23	61	161
5-Year Percent Change	3%	1%	3%	2%
2025-26	2,919	1,753	2,537	7,209
6-Year Net Change	65	68	71	191
6-Year Percent Change	2%	4%	2%	3%
2030-31	2,922	1,713	2,586	7,208
5-Year Net Change	3	-40	36	-1
5-Year Percent Change	0%	-2%	1%	0%
11-Year Net Change	68	28	107	190
11-Year Percent Change	2%	2%	4%	3%

Population Research Center, PSU, December 2020

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#### INTRODUCTION

The Lake Oswego School District (LOSD) requested that the Portland State University Population Research Center (PRC) update enrollment forecasts for the District and its schools. PRC last prepared forecasts for LOSD in January 2019. This report updates LOSD enrollment history and local area population, housing, and economic trends, and presents new forecasts for a 10-year horizon from 2021-22 to 2030-31. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, and housing development data from the City of Lake Oswego.

The District serves most of the City of Lake Oswego and adjacent unincorporated areas, all of the City of Rivergrove, and small portions of the Cities of Tualatin, West Linn, and Portland. At the time of the 2010 Census, 99 percent of the District's population lived within Clackamas County, and 84 percent lived within the City of Lake Oswego.

Following this introduction are sections presenting recent population, housing, employment, and enrollment trends within the District, and analysis of the number of students in different types of homes. Next are the results of the district-wide enrollment forecasts and a description of the methodology used to produce them. The final section contains a brief discussion of the accuracy of forecasts. Appendices contain grade level detail of the district-wide forecasts and individual school forecasts and a profile summarizing population, housing, and socio-economic estimates for the District based on recent Census Bureau surveys.

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#### POPULATION, HOUSING, AND EMPLOYMENT TRENDS, 2000 to 2019

The LOSD area has experienced modest population growth since 2000. Population grew by just six percent from 39,873 in 2000 to 42,344 in 2019, compared with 25 percent growth for Clackamas County and 31 percent for the Portland Metropolitan Statistical Area (MSA). Growth rates for the District, cities, counties, and MSA are presented in Figure 4.

Figure 4 City and Region Population, 2000, 2010, and 2019

				Avg. Annual Growth	Avg. Annual Growth
	Population	Population	<b>Population</b>	Rate 2000-	Rate 2010-
City/Region	(2000)	(2010)	(2019)	2010	2019
LOSD Total <sup>1</sup>	39,873	40,755	42,344	0.2%	0.4%
City of Lake Oswego <sup>2</sup>	35,666	36,574	39,115	0.3%	0.7%
LOSD Portion	33,273	34,146	N/A	0.3%	N/A
City of Rivergrove <sup>3</sup>	345	350	505	0.1%	4.0%
LOSD Unincorporated	6,255	6,259	N/A	0.0%	N/A
Clackamas County	338,391	375,992	423,420	1.1%	1.3%
Multnomah County	660,486	735,334	821,730	1.1%	1.2%
Washington County	445,342	529,710	613,410	1.8%	1.6%
Portland-Vancouver- Hillsboro MSA <sup>4</sup>	1,927,881	2,226,009	2,522,223	1.4%	1.4%

- 1. School District population determined by PSU-PRC based on aggregation of census blocks within the LOSD boundary. The 2010 LOSD population published by the Census Bureau is 40,616. The 2019 estimate is based on an interpolation of PRC's 2020 forecast.
- 2. City of Lake Oswego gained 96 persons between 2000 and 2010 and 71 persons between 2010 and 2019 due to annexation.
- 3. City of Rivergrove population estimated for 2010 by Population Research Center due to undercount reported in the 2010 Census.
- 4. Portland-Vancouver-Hillsboro MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.

Sources: U.S. Census Bureau, 2000, and 2010 censuses; Portland State University Population Research Center July 1, 2019 estimates.

#### Births

The number of births each year to residents of the LOSD gradually declined from a high of 343 in 2000 to just 256 in 2011, as shown in Figure 5. Since 2011, births have fluctuated annually, with neither an upward nor downward trend. Between 2012 and 2019 the District averaged 286 births per year. In contrast, state and national births have continued to decline, with 2019 totals the lowest of the 21<sup>st</sup> Century. Furthermore, Brookings scholars Melissa Kearney and Phillip Levine predict that "The COVID-19 episode will likely lead to a large, lasting baby bust." LOSD enrollment is forecast to be somewhat insulated from the downturn due to the high level of in-migration of young families.

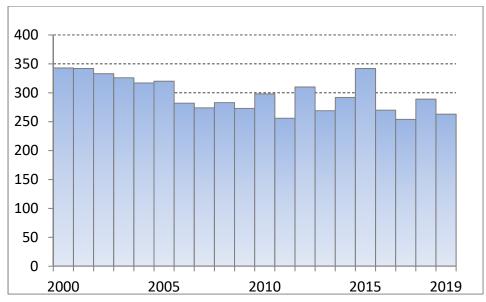


Figure 5 Annual Births, 2000 to 2019, Lake Oswego S.D.

Year	2000	2001	2002	2003	2004	2005	2006	2007
Births	343	342	333	326	317	320	282	274
Year	2008	2009	2010	2011	2012	2013	2014	2015
Births	283	273	298	256	310	269	292	342
Year	2016	2017	2018	2019				
Births	270	254	289	263	<del>-</del>			

<sup>&</sup>lt;sup>1</sup> "Half a million fewer children? The coming COVID baby bust." Melissa S. Kearney and Phillip B. Levine Monday, Brookings, June 15, 2020. <a href="https://www.brookings.edu/research/half-a-million-fewer-children-the-coming-covid-baby-bust/">https://www.brookings.edu/research/half-a-million-fewer-children-the-coming-covid-baby-bust/</a>

#### **Employment**

Recent origin-destination employment statistics show that more than 86 percent of employed LOSD residents commute beyond the District's boundaries. As many or more residents work in Multnomah County (38 percent) or Washington County (25 percent) as in Clackamas County (25 percent).<sup>2</sup> Therefore, demand for housing in the LOSD is related to the strength of the entire region's economy.

Prior to the pandemic the MSA had added jobs for nine consecutive years; in 2019 annual average non-farm employment was 178,200 (17 percent) higher than the pre-Great Recession peak in 2007.<sup>3</sup> Clackamas County's seasonally adjusted unemployment rate was at a near-record low of 3.0 in March 2020 but spiked up to 13.8 percent in April. According to the latest estimates, Clackamas County's unemployment rate had fallen to 7.6 percent by September 2020.<sup>4</sup>

Between 2019 and 2029, the Portland Metro area is expected to add 113,200 jobs—more than 11 percent growth over the 10-year period. The industries that will grow the fastest over the next decade are information (13%), professional and business services (17%), private educational and health services (17%), and leisure and hospitality (12%).<sup>5</sup>

<sup>&</sup>lt;sup>2</sup>U.S. Census Bureau. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. 2017 data. Includes one (primary) job per resident. <a href="http://onthemap.ces.census.gov/">http://onthemap.ces.census.gov/</a>

<sup>&</sup>lt;sup>3</sup> "Current Employment Estimates," Oregon Employment Department. <a href="https://www.qualityinfo.org/ed-ceest">https://www.qualityinfo.org/ed-ceest</a>. Retrieved on November 13, 2020. Average annual non-farm employment in the Portland-Vancouver-Hillsboro MSA was 1,044,100 in 2007, had fallen to 979,700 in 2010, and recovered to 1,222,300 in 2019.

<sup>&</sup>lt;sup>4</sup> "Local Area Unemployment Statistics," Oregon Employment Department. https://www.qualityinfo.org/ed-uesti. Retrieved on November 13, 2020.

<sup>&</sup>lt;sup>5</sup> "Portland Tri-County Industry Projections, 2019-2029" Oregon State Employment Department, retrieved October 23, 2020.

#### **Housing Growth and Characteristics**

During the 2000 to 2010 period, the District added 1,170 housing units, as shown in Figure 6. In the nine years between 2010 and 2019 about 700 or more homes and apartment units were added to the District's housing stock. <sup>6</sup>

The share of LOSD households with children under 18 fell from 35 percent in 2000 to 30 percent in 2010, lower than the 33 percent share in Clackamas County overall but higher than Multnomah County's 26 percent share. LOSD's average household size of 2.34 in 2010 fell below the Clackamas average of 2.56 and was similar to Multnomah's average of 2.35.

Household characteristics based on 2020 Census counts will be published in summer 2021 for areas including school districts.

Figure 6 Lake Oswego School District Housing and Household Characteristics, 2000, 2010, and 2019

				Change	Chang
	2000	2010	2010	Btwn	Btwn
Characteristics	2000	2010	2019	'00-'10	'10-'19
Housing Units	17,238	18,408	19,142	1,170	734
Households	16,249	17,287	N/A	1,038	N/A
Households with children < 18	5,650	5,212	N/A	-438	N/A
share of total	35%	30%	N/A	-5%	N/A
Households with no children < 18	10,599	12,075	N/A	1,476	N/A
share of total	65%	70%	N/A	5%	N/A
Household Population	39,694	40,522	N/A	828	N/A
Persons per Household	2.44	2.34	N/A	-0.10	N/A

Sources: U.S. Census Bureau, 2000, and 2010 Census data aggregated to LOSD boundary by PSU-PRC; 2019 housing unit inventory compiled by PSU-PRC from Metro's Regional Land Information System.

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<sup>&</sup>lt;sup>6</sup> PRC developed a housing unit inventory for Clackamas, Multnomah, and Washington Counties based on the multi-family inventory and taxlot data from Metro's RLIS.

Nearly five years of recent residential permit activity are presented in Figure 7. According to our unofficial tally, permits were issued for 372 single-family homes during the period. However, the high land values in Lake Oswego mean that it is often feasible to demolish an older home just to build one or two new homes. Note that Figure 8 shows 180 permits for single-family home demolitions during the period, resulting in net growth of just 192 homes. There are roughly two new homes for every one demolished. The Forest Hills Elementary area saw the most demolitions as well as the most permits for new homes, and the difference (+67) accounted for 35 percent of the District's gain in single-family homes. Conversely, the Oak Creek Elementary area saw no demolitions during the period, perhaps a result of having the newest housing stock and the smallest lot sizes.

Figure 7 New Single-Family Homes Permitted Lake Oswego School District by Attendance Area

					2020 (Jan-	
Elementary Area	2016	2017	2018	2019	Oct)	Total
Forest Hills	38	31	27	31	19	146
Hallinan	12	10	1	11	7	41
Lake Grove	19	20	6	7	13	65
Oak Creek	8	6	2	0	0	16
River Grove	18	12	10	11	5	56
Westridge	13	13	8	4	10	48
District	108	92	54	64	54	372
High/Middle School					2020 (Jan-	
Area	2016	2017	2018	2019	Oct)	Total
Lake Oswego	65	57	35	38	32	227
Lakeridge	43	35	19	26	22	145
District	108	92	54	64	54	372

Source: Records from Construction Monitor, LLC processed and geocoded by PSU Population Research Center.

Figure 8 Single-Family Home Demolition Permits Lake Oswego School District by Attendance Area

					2020 (Jan-	
Elementary Area	2016	2017	2018	2019	Oct)	Total
Forest Hills	17	21	16	14	11	79
Hallinan	2	5	1	4	1	13
Lake Grove	10	10	8	6	6	40
Oak Creek	0	0	0	0	0	0
River Grove	4	6	4	1	2	17
Westridge	9	9	5	2	6	31
District	42	51	34	27	26	180
					2020 (Jan-	
High/Middle School Area	2016	2017	2018	2019	Oct)	Total
Lake Oswego	27	31	24	20	17	119
Lakeridge	15	20	10	7	9	61
District Total	42	51	34	27	26	180

Source: Records from Construction Monitor, LLC processed and geocoded by PSU Population Research Center.

In addition to ongoing single-family home construction, there are at least four significant multi-family developments underway or planned. First, the mixed-use Mercantile Village at Kruse Way and Boones Ferry Road in the Lake Grove Elementary area will include 206 apartments and is expected to be completed in spring 2021. There are typically very few school children living in market-rate multi-family developments. However, because 103 units in Mercantile Village are planned as two bedroom or larger units, the LOSD might expect 10-20 elementary students and 5-15 secondary students once the development is fully occupied.

Three other large developments are still in planning stages. They include a 160-unit project at 5600 Meadows Road in the River Grove Elementary area (LU 19-0041), a potential 100-unit development consisting of two- and three-bedroom units at the Marylhurst site in the Hallinan Elementary area (Comprehensive Plan Amendment LU20-0016 is a first step), and 45 units of multi-family housing in the North Anchor Project.

#### HOUSING AND ENROLLMENT

How many children are expected to live in future new homes and attend LOSD schools? Because each housing development is unique, the number of resident public school students per home may depend on factors including affordability, proximity to schools, the number of bedrooms, and the presence or absence of child-friendly amenities within the development and in the surrounding neighborhood. However, district-wide average student generation rates are useful as a baseline for estimating potential student generation from planned and proposed developments. Furthermore, measuring the number of students in older homes helps to explain the "aging in place" phenomenon that can lead to enrollment losses as families age.

Using data from Metro, we compiled a current housing inventory in a spatial file that differentiates single-family homes, duplexes/triplexes, apartments, and condominiums. We then combined this file with student address points from fall 2019 in order to quantify the number of students by housing type.

#### Students by Housing Type and Age of Single-Family Home

From our work measuring average student generation rates (SGRs) in several other Portland area districts, we have observed that single-family homes less than 10 years old consistently have the greatest average number of students, while those 20 years old and older average the fewest. These observations are also valid in LOSD in 2019. For District homes built since 2009 the average number of LOSD K-12 students per single-family home was 0.59, about three students in every five homes. This is similar to rates that we have measured for new detached single-family homes in studies for other area school districts. Homes built between 1999 and 2008 had a slightly lower K-12 average of 0.57

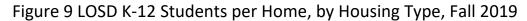
<sup>&</sup>lt;sup>7</sup> For example, 0.58 in the David Douglas School District and 0.45 in the Oregon City School District, both in fall 2019.

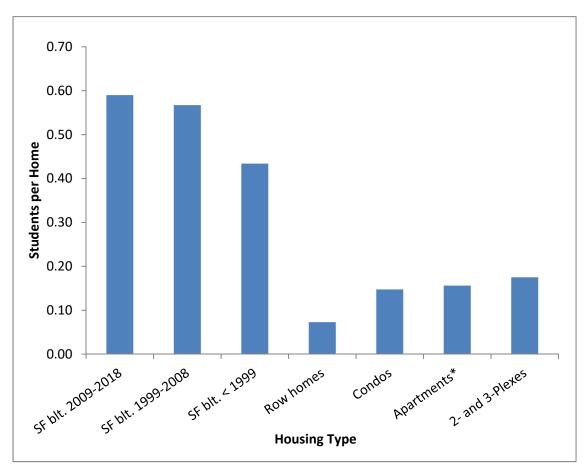
students, and homes built before 1999 have an average of just 0.43 LOSD K-12 students per home.

Figure 9 depicts these rates by age of single-family home as well as rates for other types of homes. Detached single-family homes comprise 69 percent of the District's housing stock and are home to 88 percent of LOSD students residing within the District. The other 12 percent of resident students live in rental apartments, condominiums, attached homes, duplexes, or triplexes. All of these housing types are home to fewer LOSD students per home, on average.

The SGRs are presented in greater detail in Figure 10, including grade level detail, and for detached single-family homes, three ranges of home age. Most homes on lots smaller than 2,750 square feet are attached, or nearly attached; homes on these lots are categorized as row homes in the table, while homes on lots larger than 2,750 square feet are categorized as detached homes. There are fewer LOSD students, on average, in homes on smaller lots compared with those on larger lots. Row homes average 0.07 K-12 students, fewer than in condos and apartments, and significantly fewer than in detached homes.

Fall 2019 SGRs for detached single-family homes are charted in Figure 11, illustrating "aging in place". Homes that are 10 years old or newer have an average of 0.31 LOSD grade K-5 students, which is greater than the 0.19 in homes 10-20 years old and the 0.18 average in homes more than 20 years old. Homes that are 10-20 years old have the greatest number of high school students per home, and those more than 20 years old have the fewest number per home regardless of grade level. These SGRs are very comparable to SGRs in other Portland area districts.





	SF Built	SF Built	65 D. 'II.	_			2- and
Housing Type	2009- 2018	1999- 2008	SF Built <1999	Row homes	Condos	Apart- ments*	3- Plexes
Students Per Household	0.59	0.57	0.43	0.07	0.15	0.16	0.18
Share of Housing Stock	4%	4%	60%	1%	9%	17%	1%

<sup>\*</sup>Excludes independent living senior apartments, an additional two percent of LOSD housing units.

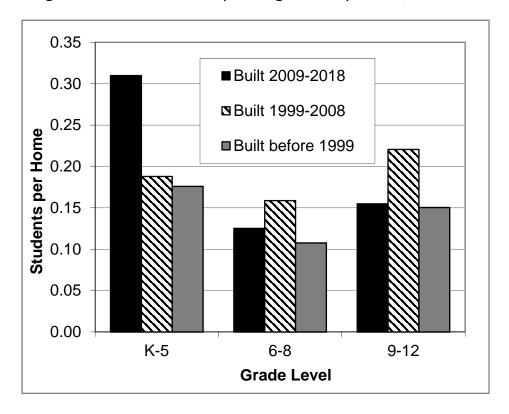
Figure 10 Average Number of LOSD Students per Home, Fall 2019

By Housing Type and Grade Level

Housing Type	K-5	6-8	9-12	K-12
Detached SF homes built 2009-2018	0.31	0.13	0.15	0.59
Detached SF homes built 1999-2008	0.19	0.16	0.22	0.57
Detached SF homes built before 1999	0.18	0.11	0.15	0.43
Row homes	0.01	0.01	0.05	0.07
Condominiums	0.07	0.03	0.05	0.15
Apartments (4+ unit buildings)	0.08	0.04	0.04	0.16
Duplexes and Triplexes	0.08	0.07	0.03	0.18

Source: Data compiled by PSU-PRC, using LOSD student data and geographic shape files from Metro RLIS. Excludes senior housing developments.

Figure 11 LOSD Students per Single-Family Home, Fall 2019



#### **ENROLLMENT TRENDS**

After several years of decline in the early 2000s, total K-12 enrollment reached a plateau from 2006-07 to 2011-12, followed by five consecutive years of enrollment growth. From 2016-17 to 2019-20, LOSD K-12 enrollment was again relatively stable. Over the eight-year period ending in fall 2019, LOSD added 261 students (3.9 percent), with growth at each school level, elementary, middle, and high.

Typically, the most recent October enrollment count is used as a baseline, or "launch" year for enrollment forecasts. However, due to the COVID-19 pandemic, October 2020 enrollment is an anomaly. Using October 2019 as a baseline, and given the large birth cohort in 2014-2015, we would have expected modest enrollment increases for K-12 overall and at every school level. Instead, K-12 enrollment fell by about 240 students from 2019-20. We conclude that all of the enrollment decline is attributable to choices that families are making in response to distance learning, a trend seen throughout Oregon and the U.S.

The greatest impact of COVID-19 is seen in LOSD kindergartens, which likely would have enrolled more than 400 students under normal circumstances, but instead enrolled 340 students, 58 fewer compared with fall 2019. This 15 percent drop mirrors the experience of districts nationwide. NPR reports that "in many places, the enrollment drops are especially noticeable in kindergarten and pre-K. For our reporting, we reached out to more than 100 districts and heard back from more than 60. In our sample, the average kindergarten enrollment drop was 16%." Other elementary grades are also noticeably affected by the pandemic, with middle grades less so. The effect on high school enrollment is negligible. In fact, the number of students enrolled in LOSD grades 9-12 in fall 2020 is higher than in any year among the 35 years for which we have records.

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<sup>&</sup>lt;sup>8</sup> "Enrollment Is Dropping in Public Schools Around the Country." Anya Kamenetz, Marco A. Treviño, and Jessica Bakeman, reporters. NPR, October 9, 2020.

Figure 12 summarizes the enrollment history for the District by grade level annually for the past 10 years, from 2010-11 to 2020-21. The figures include students at all 10 LOSD schools, but do not include Outside Placement students who may be counted in other reports.

Figure 12 Lake Oswego School District, Enrollment History, 2010-2011 to 2020-2021

	2010-	2011-	2012-	2013-	2014-	2015-	2016-	2017-	2018-	2019-	2020-
Grade	11	12	13	14	15	16	17	18	19	20	21*
K	412	376	402	361	376	434	442	412	407	398	340
1	467	436	407	426	427	423	458	469	430	452	401
2	417	487	467	438	460	454	456	488	474	451	433
3	452	438	513	494	466	494	473	486	516	494	458
4	496	467	457	531	500	491	521	498	506	533	478
5	470	510	503	472	548	527	501	518	525	526	515
6	521	490	527	546	523	602	583	544	544	564	522
7	580	541	521	569	561	532	618	584	555	554	567
8	520	616	561	541	578	575	551	622	605	567	556
9	628	544	664	614	611	641	615	577	645	648	640
10	590	626	562	671	608	610	632	611	575	654	634
11	594	578	624	562	649	606	602	624	606	591	649
12	573	590	568	618	550	634	583	572	608	586	582
US**	47	58	0	0	0	0	0	0	0	0	0
Total	6,767	6,757	6,776	6,843	6,857	7,023	7,035	7,005	6,996	7,018	6,775
Annual Net Change	N/a	-10	19	67	14	166	12	-30	-9	22	-243
Annual Percent	N/a	-0.1%	0.3%	1.0%	0.2%	2.4%	0.2%	-0.4%	-0.1%	0.3%	-3.5%
Change											
K-5	2,714	2,714	2,749	2,722	2,777	2,823	2,851	2,871	2,862	2,854	2,625
6-8	1,621	1,647	1,609	1,656	1,662	1,709	1,752	1,750	1,704	1,685	1,645
9-12	2,432	2,396	2,418	2,465	2,418	2,491	2,432	2,384	2,430	2,479	2,505

<sup>\*</sup>Enrollment impacted by distance learning during COVID-19 pandemic.

Source: Lake Oswego School District

<sup>\*\*</sup>Note: "US" are ungraded secondary students, included in grade 9-12 totals.

#### **Private and Home School Enrollment and Inter-district Transfers**

The Census Bureau's American Community Survey (ACS) provides an estimate of private school enrollment among LOSD residents based on a question about school enrollment by level and by type (public or private). The current ACS estimate from surveys conducted between 2014 and 2018 is that 642 LOSD K-12<sup>th</sup> grade students were enrolled in private schools, an 8.8 percent share of all K-12<sup>th</sup> graders, with a margin of error of plus or minus 2.4 percent.<sup>9</sup> During the COVID-19 pandemic, many districts have reported an uptick in area residents enrolled in private schools, some of which are offering in-classroom or hybrid instruction.

Another difference between LOSD enrollment and child population can be attributed to home-schooling. Home-schooled students living in the District are required to register with the Clackamas Education Service District (CESD). As of November 16, 2020, there were 302 LOSD residents registered as home-schooled, including 144 who had registered between July and October. The fall 2020 figure is more than double the total in previous years, when home school enrollment remained relatively stable — 134 students in October 2019 and 128 students in both June 2018 and June 2017.<sup>10</sup> As of November 2020 the home-schooled population accounts for about four percent of LOSD K-12<sup>th</sup> grade residents.

Private schools and home-schooling help to explain the difference between the number of school-age 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. 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. Under

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<sup>&</sup>lt;sup>9</sup> U.S. Census Bureau 2014-2018 American Community Survey, Table S1401. The margin of error (MOE) is calculated at the 90 percent confidence level.

<sup>&</sup>lt;sup>10</sup> Correspondence from Shirley Skidmore, Strategic Communications Director, CESD (2020 figure), Stuart Ketzler, Assistant Superintendent of Business Services, LOSD (2019 figure), Kelsey Cardwell, Strategic Communications Officer, CESD (2017 and 2018 figures).

Oregon's inter-district transfer (IDT) rules, students who want to attend a public school outside of their home district have to gain approval from their resident district and the district that they want to attend, and that approval must be renewed each year. Beginning in the 2012-13 school year, Oregon adopted a new Open Enrollment policy under which students could transfer without approval of their home district to a district that designated available spaces at its schools. Once the student was admitted to the new district, they did not need to reapply annually. The statute allowing Open Enrollment expired, and no students have been admitted under the policy after the 2018-19 school year. However, students already enrolled

Figure 13 LOSD Non-Resident Students

	Inter- District	Open		
2018-19	Transfers <sup>1</sup>	Enrollment <sup>2</sup>	Tuition	Total
K-5	4	0	2	6
6-8	5	37	5	47
9-12	73	147	14	234
Net	82	184	21	287

	Inter- District	Open		
2019-20	Transfers <sup>1</sup>	Enrollment <sup>2</sup>	Tuition	Total
K-5	7	0	1	8
6-8	8	13	4	25
9-12	99	110	14	223
Net	114	123	19	256

	Inter-			
	District	Open		
2020-21	Transfers <sup>1</sup>	Enrollment <sup>2</sup>	Tuition	Total
K-5	16	0	0	16
6-8	20	0	2	22
9-12	119	90	17	226
Net	155	90	19	264

<sup>1.</sup> Traditional inter-district transfers; annual application required.

Source: Lake Oswego School District

<sup>2.</sup> All Open Enrollment students in school year indicated, regardless of initial year of enrollment.

may continue. Figure 13 shows the number of non-resident students enrolled in LOSD schools under both IDTs and Open Enrollment, as well as a smaller number of students paying tuition. The number of non-resident middle school students has shrunk, but at the high school level the absence of new Open Enrollment students has been offset by an increase in IDTs.

#### **Enrollment Trends at Individual Schools**

Total enrollments at each of the District's schools from 2015-16 to 2020-21 are shown in Figure 14.

Given the district-wide trend in K-5<sup>th</sup> grade enrollment caused by the pandemic, it is unsurprising that all six of LOSD elementary schools lost enrollment between 2019-20 and 2020-21. Losses ranged from only 19 students at Forest Hills to 60 students at Lake Grove. Between 2015-16 and 2019-20, the largest change among elementary schools was the increase of 66 students at River Grove, which had added students each year for nine consecutive years beginning in 2011-12. Part of that growth at River Grove was attributable to its Spanish Immersion program. The other five elementary schools saw enrollments fluctuate over the 2015-16 to 2019-20 period, with both gains and losses on an annual basis.

The net loss of three students at Lake Oswego Middle School (LOMS) between 2019-20 and 2020-21 was negligible, and the net loss of 37 students at Lakeridge Middle School (LMS), which is partially attributable to expiration of the Open Enrollment law, was smaller than at most elementary schools. Even before the pandemic, both schools saw 2019-20 enrollments below their respective peaks (2015-16 at LOMS and 2017-18 at LMS.)

The only LOSD school to gain enrollment between 2019-20 and 2020-21 was Lakeridge High School (LHS), which added 34 students. This growth followed the increase of 69 students from 2015-16 to 2019-20. Meanwhile, Lake Oswego High School (LOHS) saw a small net loss of eight students in 2020-21, following a larger loss of 81 students between 2015-16 and 2019-20. These trends resulted in LHS and LOHS having roughly equal numbers of students in fall 2020.

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Figure 14 Enrollment History for Individual Schools, 2015-2016 to 2020-2021

School	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21*
Forest Hills Elementary	452	444	410	425	431	412
Lake Grove Elementary	416	460	405	391	406	346
Oak Creek Elementary	539	478	565	572	569	525
Hallinan Elementary	435	457	477	457	422	394
River Grove Elementary	500	538	556	557	566	526
Westridge Elementary	481	474	458	456	460	422
Elementary Totals	2,823	2,851	2,871	2,858	2,854	2,625
Lake Oswego Junior High School	920	911	884	861	861	858
Lakeridge Junior High School	789	841	866	843	824	787
Junior High School Totals	1,709	1,752	1,750	1,704	1,685	1,645
Lake Oswego High School	1,340	1,311	1,273	1,277	1,259	1,251
Lakeridge High School	1,151	1,121	1,111	1,157	1,220	1,254
High School Totals	2,491	2,432	2,384	2,434	2,479	2,505
District Total	7,023	7,035	7,005	6,996	7,018	6,775

<sup>\*</sup>Enrollment impacted by distance learning during COVID-19 pandemic.

Source: Lake Oswego School District

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#### **ENROLLMENT FORECASTS**

#### <u>District-wide Long-range Forecast Methodology</u>

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 2000s 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 was 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 1999 to 2019, using data from the Oregon Health Authority, Center for Health Statistics. Detailed information including the age of mothers is used to calculate age-specific fertility rates (ASFRs) for both 2000 and 2010.

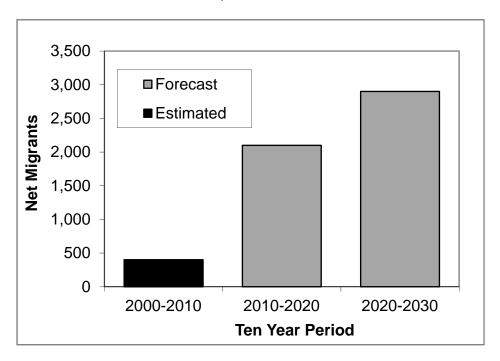
The total fertility rate (TFR) is another measure of fertility; it is an estimate of the number of children that would be born to the average woman during her child-bearing years based on ASFRs observed at a given time. The estimated TFR for the District decreased from 1.48 in 2000 to 1.43 in 2010. Declines in TFRs also occurred in Clackamas County, the State of Oregon, and the nation during the decade. In 2000, the TFRs were 2.02 for Clackamas County

and 1.98 for the State; in 2010, the TFRs were 1.89 for Clackamas County and 1.81 for the State. Statewide TFR has fallen even further since 2010, reaching 1.51 in 2018. Based on slight decreases to rates for women under 30 and increases for women 30 and older we maintain a TFR near 1.43 throughout the forecast.

#### **Population Forecast**

Figure 15 shows the 2000 to 2010 estimates and 2010 to 2030 forecasts of LOSD population change attributable to net migration.

Figure 15 Net Migration, 2000 to 2030, Lake Oswego S.D. History and Forecast



Year	2000-2010	2010-2020	2020-2030
Net Migrants	400	2,100	2,900

The District added nearly 900 residents in the 2000s. Part of the increase was attributable to positive net migration (more people moving in than moving out) of around 400 persons. Natural increase (births minus deaths) accounted for the remainder of residents added. Net migration has accelerated in the current decade and is expected to be even greater in the coming decade between 2020 and 2030. However, due to an aging population and low birth

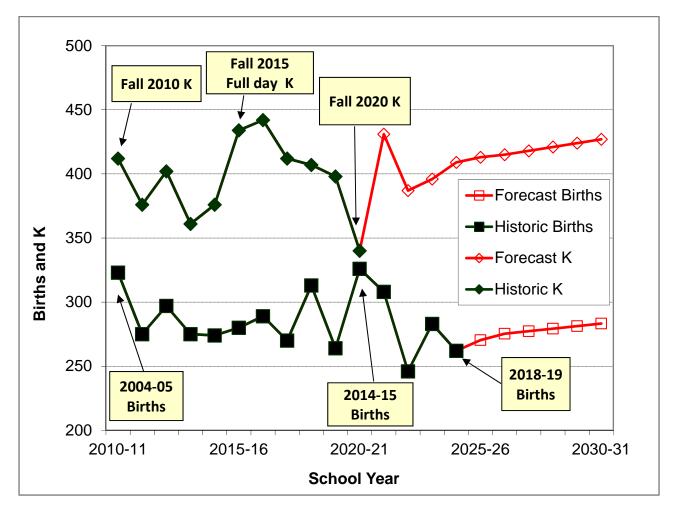
rates, there are already more deaths than births each year. Therefore, migration accounts for all of the population increase and more, as natural increase is negative.

Our forecasts for LOSD population are 42,434 in 2020, an increase of 1,697 persons from the 2010 Census (0.40 percent average annual growth), and 43,690 in 2030, an additional increase of 1,256 persons from 2020 (0.29 percent average annual growth). School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 299 person growth in school-age population in the period between 2010 and 2030 amounts to a 0.20 percent annual average growth rate.

#### **District-wide Enrollment Forecast**

Figure 16 compares the historic and forecast number of births in the District with the historic and forecast number of LOSD kindergarten students. Births correspond to kindergarten cohorts (September to August). Many children move into and out of the District between birth and age five, and not all District kindergarten residents attend LOSD schools. Therefore, year-to-year changes in kindergarten enrollment don't simply follow trends in birth cohorts. However, the direction of kindergarten change (growth or decline) matched the direction of birth cohort change in seven of nine years from 2011-12 to 2019-20. Based on the peak births in 2014-15 shown in Figure 16, we would have expected LOSD kindergarten enrollment to have increased in 2020-21, if not for COVID-19. Excluding 2020-21, the ratio of kindergarten enrollment to cohort births has been at or above 1.30 for more than 10 consecutive years, indicating that LOSD consistently gains net in-migration of young children between birth and age five.

Figure 16 Lake Oswego SD Birth Cohorts and Kindergarten Enrollment History and Forecast



The latest October 1<sup>st</sup> enrollment count is typically used as the baseline, or launch year, for a long-range enrollment forecast. However, due to the unusual situation this year, our forecast models use October 2019 enrollment as a baseline, rather than the results of October 2020 student counts. Depending on how long the pandemic prevents students from returning to classrooms, and how confident parents are about letting their children safely return, there is a risk that the forecasts may overpredict enrollment in the short run, specifically for next year, 2021-22. We know that some families have chosen homeschooling or online charters as an alternative to distance learning at their neighborhood public school. A national survey conducted in September found that "81.6 percent of K-12 parents who disenrolled their children say that they will re-enroll their children back into the original school once it is safe

to do so."<sup>11</sup> Any figure less than 100 percent suggests that some families may continue to choose other options. However, for these forecasts we assume that past trends in school choice will return as soon as next year, and certainly in the long run.

In the *low series* forecast, which assumes slightly lower incoming Kindergarten classes as well as slightly lower net migration over the 10-year forecast period, K-12 enrollment in 2021-22 is 90 students below the 2019-20 baseline, and continues to fall each year throughout the forecast horizon. By 2030-31, the District enrolls 514 (seven percent) fewer students than in 2019-20. Enrollment in elementary grades K-5 falls by 236 students (eight percent) between 2019-20 to 2024-25 before stabilizing, ultimately ending the 11-year period with a loss of 252 students (nine percent). Middle grades 6-8 initially add students, peaking in 2022-23, before beginning to decline. The sharpest drop in middle school enrollment begins after 2024-25, resulting in a net loss of161 students (10 percent) for the entire 11-year period. Compared with elementary and middle grades, enrollment in high school grades 9-12 is relatively stable, only losing 101 students (four percent) between 2019-20 and 2030-31.

The *middle series* forecast is consistent with recent trends observed through 2019-20, and is considered the most likely scenario. Net in-migration of families with children brings cohort growth to the District. At 433 students, 2021-22 kindergarten is relatively large, reflecting birth cohorts as well as the potential to include some children whose families delayed the start of kindergarten to avoid distance learning. Total K-12 enrollment in fall 2021 is 115 students greater than in fall 2019, as each school level sees enrollment surpassing its prepandemic level. Between 2019-20 and 2021-22 elementary schools add 26 students, middle schools add 71 students, and high schools add 18 students. After 2021-22, enrollment gains are relatively modest, as incoming kindergarten class sizes show little or no growth. The District adds only 75 more K-12 students from 2021-22 to 2030-31.

<sup>&</sup>lt;sup>11</sup> Gates Foundation COVID-19 Tracker Analysis Wave #11 (September 17-21, 2020). Civis Analytics. <a href="https://www.civisanalytics.com/wp-content/uploads/2020/09/COVID">https://www.civisanalytics.com/wp-content/uploads/2020/09/COVID</a> Tracker Wave 11 Quicktakes National.pdf.

The *high series* forecast is characterized by consistently large incoming kindergarten classes averaging 450 students over the 10-year forecast period as well as greater cohort inmigration each year. K-12 enrollment in fall 2021 is 252 students greater than in fall 2019, with significant growth at each school level. Between 2019-20 and 2021-22 elementary and middle levels each add 98 students, and high schools add 56 students. After 2021-22, K-12 enrollment grows each year, resulting in a net gain of 850 students (12 percent) by 2030-31. Each school level grows at a similar rate, with elementary grades adding 370 students (13 percent), middle grades adding 200 students (12 percent), and high school grades adding 280 students (11 percent).

Figure 17 contains district-wide forecasts by school level under the three scenarios. Detailed annual forecasts by individual grades are included in Appendix A.

Each of the District's six elementary schools is expected to recover from its pandemic-influenced 2020-21 losses and see 2021-22 enrollments similar to 2019-20. In the long run, most elementary schools have additional small net gains due to housing growth. There is incremental single-family growth throughout the District, and large apartment complexes are expected to be completed in Lake Grove in 2021 and in Hallinan and River Grove in the mid-2020s. Having less current and future residential development than in other elementary areas, Oak Creek and Westridge see little or no growth.

Because the largest elementary cohorts are currently in 4<sup>th</sup> and 5<sup>th</sup> grades, both middle schools see growth in the short run, with 2021-22 enrollments 30 to 40 students greater than in 2019-20. However, subsequent relatively slow growth results in peaks at LOMS in 2027-28 and LMS in 2028-29, followed by slight decline. Enrollment is expected to be stable at LOHS, and growing at LHS, assuming that LHS continues to enroll new non-residents at current levels.

Enrollment at individual schools consistent with the middle series district-wide forecast is presented in Figure 18 and in Appendix B, subject to current boundaries and grade configurations, existing trends, and expected residential development.

Figure 17 Lake Oswego School District, Enrollment Forecasts, 2021-2022 to 2030-2031

#### **Low Series**

Grade	Actual 2019-20	2021-22	2022-23	2023-24	2024-25	2025-26	2030-31	Change 2019-20 to 2025-26	Change 2019-20 to 2030-31
K-5	2,854	2,761	2,706	2,672	2,618	2,611	2,602	-243	-252
6-8	1,685	1,722	1,734	1,727	1,714	1,670	1,524	-15	-161
9-12	2,479	2,445	2,405	2,377	2,413	2,444	2,378	-35	-101
Total	7,018	6,928	6,845	6,776	6,745	6,725	6,504	-293	-514
Annual r	net change	-45*	-83	-69	-31	-20	-44*		
Annual 9	% change	-0.6%*	-1.2%	-1.0%	-0.5%	-0.3%	-0.7%*		

<sup>\*</sup>Average annual change.

Population Research Center, Portland State University, December 2020.

#### **Middle Series**

Grade	Actual 2019-20	2021-22	2022-23	2023-24	2024-25	2025-26	2030-31	Change 2019-20 to 2025-26	Change 2019-20 to 2030-31
K-5	2,854	2,880	2,848	2,881	2,899	2,919	2,922	65	68
6-8	1,685	1,756	1,764	1,770	1,778	1,753	1,713	68	28
9-12	2,479	2,497	2,459	2,449	2,505	2,537	2,573	58	94
Total	7,018	7,133	7,071	7,100	7,182	7,209	7,208	191	190
Annual n	net change	58*	-62	29	82	27	0*		
Annual %	% change	0.8%*	-0.9%	0.4%	1.2%	0.4%	0.0%*		

<sup>\*</sup>Average annual change.

Population Research Center, Portland State University, December 2020.

**High Series** 

Grade	Actual 2019-20	2021-22	2022-23	2023-24	2024-25	2025-26	2030-31	Change 2019-20 to 2025-26	Change 2019-20 to 2030-31
K-5	2,854	2,952	2,955	3,000	3,028	3,087	3,224	233	370
6-8	1,685	1,783	1,813	1,822	1,824	1,820	1,885	135	200
9-12	2,479	2,535	2,520	2,517	2,575	2,627	2,759	148	280
Total	7,018	7,270	7,288	7,339	7,427	7,534	7,868	516	850
Annual r	net change	126*	18	51	88	107	67*		
Annual 9	% change	1.8%*	0.2%	0.7%	1.2%	1.4%	0.9%*		

<sup>\*</sup>Average annual change.

Population Research Center, Portland State University, December 2020.

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Figure 18 Enrollment Forecasts for Individual Schools\*, 2021-2022 to 2030-2031

	2019-											Change 2019-20
	20	2021-	2022-	2023-	2024-	2025-	2026-	2027-	2028-	2029-	2030-	to
School	Actual	22	23	24	25	26	27	28	29	30	31	2030-31
Forest Hills Elementary	431	429	428	426	427	429	433	435	442	441	440	9
Lake Grove Elementary	406	408	416	422	438	437	434	432	435	428	422	16
Oak Creek Elementary	569	569	555	541	539	532	526	517	524	536	551	-18
Hallinan Elementary	422	436	419	418	436	454	446	446	452	457	454	32
River Grove Elementary	566	571	564	587	575	584	577	568	573	582	590	24
Westridge Elementary	460	467	466	487	484	483	480	473	474	471	465	5
Elementary Totals	2,854	2,880	2,848	2,881	2,899	2,919	2,896	2,871	2,900	2,915	2,922	68
Lake Oswego Middle School	861	891	889	904	898	907	897	910	890	872	859	-2
Lakeridge Middle School	824	865	875	866	880	846	901	901	905	870	854	30
Junior High School Totals	1,685	1,756	1,764	1,770	1,778	1,753	1,798	1,811	1,795	1,742	1,713	28
Lake Oswego High School	1,259	1,258	1,231	1,234	1,255	1,251	1,270	1,260	1,252	1,264	1,259	0
Lakeridge High School	1,220	1,239	1,228	1,215	1,250	1,286	1,258	1,291	1,247	1,257	1,314	94
High School Totals	2,479	2,497	2,459	2,449	2,505	2,537	2,528	2,551	2,499	2,521	2,573	94
District Totals	7,018	7,133	7,071	7,100	7,182	7,209	7,222	7,233	7,194	7,178	7,208	190

<sup>\*</sup>Consistent with the district-wide middle series forecast, and assuming no changes in boundaries or transfer policies. Population Research Center, Portland State University, December 2020.

#### **FORECAST ACCURACY**

The best way to measure potential forecast error is to compare actual enrollments with previous forecasts that were conducted using similar data and methodologies. In Figure 19, actual LOSD enrollment by grade level in fall 2019 is compared with the 2019-20 forecasts that were prepared by PRC in January 2019. Comparison of fall 2020 enrollment to the 2020-21 forecasts are of little utility due to the decline in 2020 enrollment caused by the pandemic.

When PRC last prepared forecasts for LOSD, the state's Open Enrollment policy was set to expire. Therefore, we prepared a set of forecasts that assumed that the District would enroll fewer new non-residents in middle and high schools compared with the recent past, and a set of forecasts that assumed that the District would continue to enroll new non-residents at recent levels. In the first year of the forecast, 2019-20, the only differences between the two forecasts were in 6<sup>th</sup> and 9<sup>th</sup> grades, as those were the grades at which LOSD had been admitting nearly all new students under Open Enrollment. In subsequent years, the differences grew as cohorts progressed through secondary grades.

As we showed in Figure 13 in the "Enrollment Trends" section, an increase in the number of Inter-district Transfers offset the loss of new Open Enrollment students. Therefore, in spite of the name and the end of the policy, the "Open Enrollment" forecast was more reliable than the "No Open Enrollment" forecast. Figure 19 shows that the Open Enrollment forecast for the District total fell 50 students (0.7 percent) short of actual 2019-20 enrollment, with most of the difference occurring at high school grades. In Figure 20, we calculate the forecast error for individual schools. At five of the District's 10 schools, actual enrollments were within 12 students of the forecasts. The largest differences occurred at Hallinan Elementary, which had 30 students less than forecast, and at Lakeridge High School, which exceeded the forecast by 41 students.

Figure 19 Fall 2019 Enrollment Compared to One-Year Forecasts<sup>1</sup>
By Grade Level

Grade	2019-20 Actual Enroll.	No Open Enr. Fcst.	No Open Enr. Diff.	No Open Enr. Error	Open Enr. Fcst.	Open Enr. Diff.	Open Enr. Error
K	398	401	3	0.8%	401	3	0.8%
1	452	430	-22	-4.9%	430	-22	-4.9%
2	451	451	0	0.0%	451	0	0.0%
3	494	496	2	0.4%	496	2	0.4%
4	533	539	6	1.1%	539	6	1.1%
5	526	527	1	0.2%	527	1	0.2%
6	564	551	-13	-2.3%	573	9	1.6%
7	554	550	-4	-0.7%	550	-4	-0.7%
8	567	566	-1	-0.2%	566	-1	-0.2%
9	648	616	-32	-4.9%	638	-10	-1.5%
10	654	639	-15	-2.3%	639	-15	-2.3%
11	591	570	-21	-3.6%	570	-21	-3.6%
12	586	588	2	0.3%	588	2	0.3%
Total	7,018	6,924	-94	-1.3%	6,968	-50	-0.7%
MAPE <sup>2</sup>	N/a	N/a	N/a	1.7%	N/a	N/a	1.4%

<sup>1.</sup> Forecasts for 2019-20 by PSU-PRC, baseline 2018-19 enrollment. December 2018. The "OPEN ENR" scenario assumed that the District would enroll new non-resident students in 6th and 9th grades at historic levels.

<sup>2.</sup> Mean absolute percent error for individual grades K-12.

Figure 20 Fall 2019 Enrollment Compared to One-Year Forecasts<sup>1</sup>
By School

		Open	Open	Open
School	Actual	Enr. Fcst.	Enr. Diff.	Enr. Error
Forest Hills	431	430	-1	-0.2%
Hallinan	422	452	30	7.1%
Lake Grove	406	388	-18	-4.4%
Oak Creek	569	557	-12	-2.1%
River Grove	566	567	1	0.2%
Westridge	460	450	-10	-2.2%
Elementaries	2,854	2,844	-10	-0.4%
Lake Oswego Middle	861	841	-20	-2.3%
Lakeridge Middle	824	848	24	2.9%
Middle Schools	1,685	1,689	4	0.2%
Lake Oswego High	1,259	1,256	-3	-0.2%
Lakeridge High	1,220	1,179	-41	-3.4%
High Schools	2,479	2,435	-44	-1.8%
District	7,018	6,968	-50	-0.7%
MAPE <sup>2</sup>	N/a	N/a	N/a	2.5%

<sup>1.</sup> Forecasts for 2019-20 by PSU-PRC, baseline 2018-19 enrollment. January 2019. The "OPEN ENR" scenario assumed that the District would enroll new non-resident students in 6th and 9th grades at levels similar to recent years.

<sup>2.</sup> Mean absolute percent error for individual schools.

#### **APPENDIX A**

#### **DISTRICT-WIDE ENROLLMENT FORECASTS**

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Figure 21 Lake Oswego S.D., <u>Low</u> Series Enrollment Forecasts, 2021-22 to 2030-31

	2019-20										
Grade	Actual	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	398	404	360	364	371	373	377	383	386	385	384
1	452	433	429	383	387	395	397	402	407	409	409
2	451	424	454	450	402	406	414	416	421	426	428
3	494	487	445	476	472	422	426	434	435	441	446
4	533	486	510	466	499	494	442	446	454	455	461
5	526	527	508	533	487	521	516	462	465	473	474
6	564	584	566	546	572	523	560	554	495	498	507
7	554	562	592	574	553	580	530	568	560	501	504
8	567	576	576	607	589	567	595	544	581	573	513
9	648	593	612	612	645	626	602	632	577	616	607
10	654	607	590	609	609	642	623	599	628	574	612
11	591	629	597	581	599	599	632	613	589	617	565
12	586	616	606	575	560	577	577	609	591	567	594
Total	7,018	6,928	6,845	6,776	6,745	6,725	6,691	6,662	6,589	6,535	6,504
Annua	l change	-45	-83	-69	-31	-20	-34	-29	-73	-54	-31
Avg.	Annual	-0.6%	-1.2%	-1.0%	-0.5%	-0.3%	-0.5%	-0.4%	-1.1%	-0.8%	-0.5%
Ch	ange										
K-5	2,854	2,761	2,706	2,672	2,618	2,611	2,572	2,543	2,568	2,589	2,602
6-8	1,685	1,722	1,734	1,727	1,714	1,670	1,685	1,666	1,636	1,572	1,524
9-12	2,479	2,445	2,405	2,377	2,413	2,444	2,434	2,453	2,385	2,374	2,378

Population Research Center, Portland State University, December 2020

Figure 22 Lake Oswego S.D., Middle Series Enrollment Forecasts, 2021-22 to 2030-31

	2019-20										
Grade	Actual	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	398	433	385	400	419	423	424	425	424	421	418
1	452	463	463	420	437	451	455	456	456	455	454
2	451	452	488	494	448	460	475	479	479	479	480
3	494	502	474	518	525	470	483	498	501	501	504
4	533	495	523	499	546	547	490	503	518	521	523
5	526	535	515	550	524	568	569	510	522	538	543
6	564	594	574	559	597	562	610	611	546	559	579
7	554	575	602	588	573	605	569	618	618	552	568
8	567	587	588	623	608	586	619	582	631	631	566
9	648	602	621	627	665	643	620	655	615	667	668
10	654	615	599	622	628	662	640	617	651	611	665
11	591	644	612	600	623	625	659	637	613	647	609
12	586	636	627	600	589	607	609	642	620	596	631
Total	7,018	7,133	7,071	7,100	7,182	7,209	7,222	7,233	7,194	7,178	7,208
Annua	l change	58	-62	29	82	27	13	11	-39	-16	30
Avg.	Annual	0.8%	-0.9%	0.4%	1.2%	0.4%	0.2%	0.2%	-0.5%	-0.2%	0.4%
Ch	ange										
K-5	2,854	2,880	2,848	2,881	2,899	2,919	2,896	2,871	2,900	2,915	2,922
6-8	1,685	1,756	1,764	1,770	1,778	1,753	1,798	1,811	1,795	1,742	1,713
9-12	2,479	2,497	2,459	2,449	2,505	2,537	2,528	2,551	2,499	2,521	2,573

Population Research Center, Portland State University, December 2020

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Figure 23 Lake Oswego S.D., <u>High</u> Series Enrollment Forecasts, 2021-22 to 2030-31

	2019-20										
Grade	Actual	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	398	451	409	428	449	457	457	459	460	462	466
1	452	476	478	443	463	485	493	493	494	496	499
2	451	464	505	507	468	490	511	520	520	521	524
3	494	508	492	535	536	495	517	539	548	548	551
4	533	506	538	521	565	566	521	544	567	577	578
5	526	547	533	566	547	594	593	546	570	594	606
6	564	604	592	577	611	590	640	639	588	614	641
7	554	582	618	605	588	623	600	651	650	598	626
8	567	597	603	640	625	607	642	618	671	670	618
9	648	613	638	645	683	667	647	683	658	715	714
10	654	623	614	639	645	683	666	646	682	657	715
11	591	652	626	617	641	647	684	667	647	683	659
12	586	647	642	616	606	630	635	671	654	635	671
Total	7,018	7,270	7,288	7,339	7,427	7,534	7,606	7,676	7,709	7,770	7,868
Annua	l change	126	18	51	88	107	72	70	33	61	98
Avg.	Annual	1.8%	0.2%	0.7%	1.2%	1.4%	1.0%	0.9%	0.4%	0.8%	1.3%
Ch	ange										
K-5	2,854	2,952	2,955	3,000	3,028	3,087	3,092	3,101	3,159	3,198	3,224
6-8	1,685	1,783	1,813	1,822	1,824	1,820	1,882	1,908	1,909	1,882	1,885
9-12	2,479	2,535	2,520	2,517	2,575	2,627	2,632	2,667	2,641	2,690	2,759

Population Research Center, Portland State University, December 2020

# APPENDIX B ANNUAL SCHOOL FORECASTS BY GRADE LEVEL (MIDDLE SCENARIO)

# **Annual (Middle Series) School Forecasts by Grade Level**

#### **Forest Hills Elementary**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	61	58	58	55	61	65	63	63	63	63	63	62
1	70	67	65	63	61	68	71	69	69	68	68	70
2	73	70	68	67	66	64	71	74	71	71	70	71
3	69	76	81	73	72	72	68	76	79	76	76	75
4	75	66	81	84	76	76	75	71	78	81	78	79
5	83	75	76	86	90	82	81	80	75	83	86	83
Total	431	412	429	428	426	427	429	433	435	442	441	440

#### **Lake Grove Elementary**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	57	33	62	57	64	64	59	59	59	59	59	59
1	57	51	67	67	62	70	69	64	64	64	64	64
2	69	51	69	71	72	67	74	73	68	68	68	68
3	62	67	63	72	75	75	71	78	77	72	72	73
4	86	62	77	68	77	80	80	76	84	83	77	77
5	75	82	70	81	72	82	84	84	80	89	88	81
Total	406	346	408	416	422	438	437	434	432	435	428	422

#### **Oak Creek Elementary**

		100.1										
Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	75	72	79	68	63	63	71	73	74	74	73	73
1	77	84	83	86	75	70	70	79	81	82	82	81
2	95	77	90	93	95	83	78	78	88	89	90	91
3	107	97	91	97	100	104	89	84	84	95	96	97
4	101	99	110	98	106	109	112	96	91	91	102	104
5	114	96	116	113	102	110	112	116	99	93	93	105
Total	569	525	569	555	541	539	532	526	517	524	536	551

<sup>\*2020-21</sup> Enrollment impacted by distance learning during COVID-19 pandemic.

# Annual (Middle Series) School Forecasts by Grade Level

#### **Hallinan Elementary**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	52	50	66	59	63	71	68	68	68	68	68	67
1	67	50	76	70	64	69	75	72	72	72	72	72
2	72	65	57	79	73	68	71	78	75	75	75	75
3	82	73	71	58	81	77	70	73	80	77	77	77
4	78	81	75	72	59	85	78	71	74	81	78	78
5	71	75	91	81	78	66	92	84	77	79	87	85
Total	422	394	436	419	418	436	454	446	446	452	457	454

#### **River Grove Elementary**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	80	74	93	79	79	83	90	90	90	90	90	89
1	101	79	96	98	86	85	88	95	95	95	95	95
2	79	90	87	99	104	90	88	91	98	98	98	98
3	98	83	110	92	108	111	95	93	96	101	101	103
4	104	96	84	111	95	110	112	95	93	96	102	102
5	104	104	101	85	115	96	111	113	96	93	96	103
Total	566	526	571	564	587	575	584	577	568	573	582	590

#### **Westridge Elementary**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
K	73	53	75	67	70	73	72	71	71	70	68	68
1	80	70	76	79	72	75	78	76	75	75	74	72
2	63	80	81	79	84	76	78	81	79	78	78	77
3	76	62	86	82	82	86	77	79	82	80	79	79
4	89	74	68	90	86	86	90	81	83	86	84	83
5	79	83	81	69	93	88	88	92	83	85	88	86
Total	460	422	467	466	487	484	483	480	473	474	471	465

<sup>\*2020-21</sup> Enrollment impacted by distance learning during COVID-19 pandemic.

# Annual (Middle Series) School Forecasts by Grade Level

#### **Lake Oswego Middle School**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
6	285	276	295	282	305	287	293	297	300	272	283	286
7	291	289	299	301	289	313	294	300	304	307	277	290
8	285	293	297	306	310	298	320	300	306	311	312	283
Total	861	858	891	889	904	898	907	897	910	890	872	859

#### **Lakeridge Middle School**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
6	279	246	299	292	254	310	269	313	311	274	276	293
7	263	278	276	301	299	260	311	269	314	311	275	278
8	282	263	290	282	313	310	266	319	276	320	319	283
Total	824	787	865	875	866	880	846	901	901	905	870	854

#### **Lake Oswego High School**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
9	327	326	314	312	323	329	313	337	315	322	327	328
10	333	309	312	312	312	323	327	311	335	312	319	326
11	294	331	315	305	306	307	316	319	304	327	304	313
12	305	285	317	302	293	296	295	303	306	291	314	292
Total	1259	1251	1258	1231	1234	1255	1251	1270	1260	1252	1264	1259

#### **Lakeridge High School**

Grade	2019-20	2020-21*	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
9	321	314	288	309	304	336	330	283	340	293	340	340
10	321	325	303	287	310	305	335	329	282	339	292	339
11	297	318	329	307	294	316	309	340	333	286	343	296
12	281	297	319	325	307	293	312	306	336	329	282	339
Total	1220	1254	1239	1228	1215	1250	1286	1258	1291	1247	1257	1314

<sup>\*2020-21</sup> Enrollment impacted by distance learning during COVID-19 pandemic.

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#### **APPENDIX C**

# POPULATION, HOUSING, SOCIAL AND ECONOMIC PROFILE

# Population, Housing, Social and Economic Profile Lake Oswego School District 7J, Oregon

	20:	LO-2	014	201	5-20	019	Compare
	Estimate	CV *	Margin of Error (+/-)	Estimate	CV *	Margin of Error (+/-)	Statistically Different?
POPULATION							
Total population	40,866		603	43,531		638	**
Percent under 18 years	22.5%		1.1%	22.0%		0.9%	
Percent 65 years and over	17.2%		1.0%	19.9%		1.0%	**
Median age (years)	45.3		1.0	46.1		1.0	
Percent white alone, non-Latino	86.3%		1.7%	82.9%		1.9%	**
HOUSING							
Total housing units	18,604		434	18,781		424	
Occupied housing units	17,334		472	17,937		411	
Owner occupied	11,826		461	13,405		478	**
Percent owner-occupied	68.2%		2.1%	74.7%		1.8%	**
Renter occupied	5,508		401	4,532		327	**
Vacant housing units***	1,270		306	844		232	**
Vacancy rate	6.8%		1.6%	4.5%		1.2%	**
Average household size	2.35		0.05	2.42		0.04	**
Renter households paying more than 30 percent of household income on rent plus utilities	52.9%		5.8%	43.9%		4.9%	**
SOCIAL							
Age 25+ with a bachelor's degree or higher	63.8%		2.0%	69.9%		1.9%	**
Foreign-born population	4,592		780	4,550		522	
Percent foreign-born	11.2%		1.9%	10.5%		1.2%	
Age 5+ language other than English at home	4,877		888	5,606		699	
Percent language other than English	12.5%		2.2%	13.5%		1.7%	
ECONOMIC							
Median household income (2019 dollars)	\$90,143		\$3,902	\$113,063		\$5,148	**
Per capita income (2019 dollars)	\$61,049		\$3,397	\$66,706		\$3,160	**
Percent of persons below poverty level	7.5%		2.0%	3.7%		0.8%	**

<sup>\*</sup> Green, yellow, and red icons indicate the reliabilty 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. 55

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<sup>\*\*</sup> Indicates that the two estimates are statistically different 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.

<sup>\*\*\*</sup> 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.

<sup>\*\*\*\*\*</sup> Indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.