1-1-2013

Lake Oswego School District Population and Enrollment Forecast 2013-14 to 2022-23

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LAKE OSWEGO SCHOOL DISTRICT

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JANUARY, 2013

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Prepared By

Population Research Center

Portland State University

JANUARY, 2013

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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). The study includes analysis of population, housing and enrollment trends affecting the District in recent years, estimates of the impacts of housing development on LOSD enrollment, and forecasts of district-wide and individual school enrollments for the 2013-14 to 2022-23 school years.

Enrollment Trends

The Lake Oswego School District (LOSD) enrolled 6,776 students in Fall 2012 (October 1st enrollment based on student database), a slight increase of 19 students (0.3 percent) from Fall 2011. Total K-12 enrollment has fluctuated since 2006-07, but the district's enrollment has been relatively stable compared with the 259 students' decline that occurred between 2002-03 and 2006-07 period. District elementary schools enrollment in Fall 2012 was 2,749, similar to the K-5 enrollment in 2005-06. There was a net gain of 35 students (0.1 percent) compared to Fall 2011. Junior high grades (6th-8th) enrollment was 1,609 in Fall 2012, a decline in enrollment from Fall 2011 with of 38 students (2.3 percent). The enrollment in high school grades 9-12 was 2,418 in Fall 2011, a net gain of 22 students (1.0 percent) compared to the previous year; the high school grades enrollment was similar to the enrollment in Fall 2005 and 2010.

Declining or, at best, stable enrollment can be attributed to the lack of new housing development and an aging population. These trends, especially affected elementary and middle school grades in the past decade.

Enrollment Forecast

Very little change in K-12 enrollment decline is expected for 2013-14 due to the current slow job growth, high unemployment rate, and aging of existing families in the district. Over the 10 year forecast period, K-12 enrollment is forecast to decrease by 240 students (four percent), similar to the overall decrease of 229 students experienced in the 10 years between 2002-03 and 2012-13. Table 1 presents the enrollment history and forecast for LOSD at 5-year increments.

In general, K-5 enrollments are forecast to decrease gradually throughout the forecast period, though increases are possible in individual years as K-5 enrollment fluctuates during the first half of the forecast

horizon. For the 10 year forecast period, K-5 enrollment is forecast to decline by 153 students (six percent). Less severe loss is expected for secondary enrollments throughout the forecast period, amounting to 12 junior high school students (one percent) and 75 high school students (3 percent) loss over the 10 year period. There will be annual fluctuations that no forecast can anticipate; a one or two year deviation from the forecast does not mean that the forecast trend will be inaccurate in the long run.

Table 1
Historic and Forecast Enrollment
Lake Oswego School District

	Actual			Forecast	
	2002-03	**2007-08**	**2012-13**	**2017-18**	**2022-23**
District Total	7,005	6,777	6,776	6,671	6,536
5 year change		*-228*	*-1*	*-105*	*-135*
		-3%	*0%*	*-2%*	*-2%*
K-5	2,903	2,655	2,749	2,706	2,596
5 year change		*-248*	*94*	*-43*	*-110*
		-9%	*4%*	*-2%*	*-4%*
6-8	1,800	1,744	1,609	1,666	1,597
5 year change		*-56*	*-135*	*57*	*-69*
		-3%	*-8%*	*4%*	*-4%*
9-12	2,302	2,378	2,418	2,299	2,343
5 year change		*76*	*40*	*-119*	*44*
		3%	*2%*	*-5%*	*2%*

Population Research Center, PSU. December 2012.

Individual School Forecasts

We evaluated Metro's residential capacity data for each school attendance area. Among elementary schools, Forest Hills attendance area contains the greatest amount of buildable residential land including potential land for redevelopment, in-fills vacant lots, and vacant land; followed by Lake Grove, and River Grove. These three schools account for about 67 percent of the vacant residential land in the District. Assumptions about future growth in kindergarten enrollment and future GPRs are based on past trends for each school as well as approved housing development and future residential growth potential.

Junior high school enrollment is relatively stable during the 10 years forecast horizon. The enrollments for both Lake Oswego and Lakeridge High are expected to fluctuate throughout the forecast horizon; the impact of open enrollment is expected to stabilize 2016-17 and onwards.

INTRODUCTION

The Lake Oswego School District (LOSD) requested that the Portland State University Population Research Center (PRC) prepare enrollment forecasts for use in the district's planning needs. The current study updates the work PRC conducted in 2004, providing a snapshot of the demographic, housing, and school enrollment patterns and trends. This report also presents an extended district-wide and individual school enrollment forecasts for a 10-year period from 2013-14 to 2022-23.

In the next few sections, overviews of the local area population, housing and economic trends, and LOSD enrollment history will be presented. Next, the methodology for the district-wide and individual school enrollment forecasts will be described; followed by the results of the new 10 year forecasts with a forecast horizon between 2013-14 and 2022-23. The final section contains a brief discussion of the nature and accuracy of forecasts. Appendix A includes the district-wide enrollment forecast for the low, medium, and high growth scenarios; Appendix B contains a one page profile for each school showing its enrollment history and forecasts; Appendix C contains a one page census profile for the District.

Study Area, Data, and Materials

Lake Oswego School District serves portion of the City of Lake Oswego, City of River Grove, and portions of unincorporated Clackamas, and Washington County. City of Lake Oswego in particular, accounts for 83.3 percent of the district's population; City of River Grove contains 0.6 percent of the district population. About 98.7 percent of the District's total population is within Clackamas County while about 0.9 and 0.4 percent of the District's population resides in Washington County and Multnomah County, respectively.

A wide range of information specific to the district and its surrounding area was gathered for use in this demographic study. Data sources include: enrollment information from the LOSD, home school information from the Clackamas County Education Service District, demographic and housing data from the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, city and county population estimates produced by PRC, housing development information from the cities and counties, and residential capacity data from Metro.

DEMOGRPAHIC AND HOUSING TRENDS, 1990 to 2010

The LOSD area experienced modest population growth in the past two decades. Population grew from 35,595 in 1990 to 39,873 in 2000 and then increased further to 40,755 by 2010. The district's population grew by 12 percent between 1990 and 2000. The growth within LOSD was not as robust between 2000 and 2010; the total population within the LOSD still grew by 2.2 percent. This growth rate was similar to the City of Lake Oswego's 2.5 percent growth in the past decade; however, the growth rate in LOSD was much lower than the Portland metropolitan area's 15.5 percent growth in the decade. In 2010, most of the LOSD residents lived in incorporated cities. City of Lake Oswego portion accounts for the greatest share of the district's resident with 34,146 persons, followed by the city of River Grove (350 persons). Residents from unincorporated Clackamas, Multnomah, and Washington Counties (6,259 persons) make up the rest of the district's population. The District's rate of population growth during the 2000s was slightly less than the 0.3 percent average annual growth experienced by City of Lake Oswego overall. However, the population growth in the LOSD during the 2000s was much slower than the 1.1 percent average annual growth rate observed in Clackamas and Multnomah Counties, and the 1.8 percent rate in Washington County.

The percentage growth in all of areas shown in Table 2 was smaller in the 2000s than in the 1990s. The District added 882 residents between 2000 and 2010, compared with growth of 4,278 residents between 1990 and 2000.

Table 2

City and Region Population, 1990, 2000, and 2010

	1990	2000	2010	Avg. Annual Growth Rate 1990-2000	Avg. Annual Growth Rate 2000-2010
LOSD Total[1]	35,595	39,873	40,755	*1.1%*	*0.2%*
City of Lake Oswego[2]	31,677	35,666	36,574	*1.2%*	*0.3%*
LOSD Portion	29,197	33,273	34,146	*1.3%*	*0.3%*
City of Rivergrove[3]	315	345	350	*0.9%*	*0.1%*
LOSD Unincorporated	6,083	6,255	6,259	*0.3%*	*0.0%*
Clackamas County	278,850	338,391	375,992	*2.0%*	*1.1%*
Multnomah County	583,887	660,486	735,334	*1.2%*	*1.1%*
Washington County	311,554	445,342	529,710	*3.6%*	*1.8%*
Portland-Vancouver-Beaverton MSA[4]	1,523,741	1,927,881	2,226,009	*2.4%*	*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.

2. City of Lake Oswego gained 281 persons between 1990 and 2000 and gained 96 persons between 2000 and 2010 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-Beaverton MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.

Sources: U.S. Census Bureau, 1990, 2000, and 2010 censuses; Portland State University Population Research Center.

Tables 3 and 4 present additional population and housing characteristics for LOSD based on the 2010 block level census data that was published in August 2011. The customized district totals for these 2010 characteristics are aggregated by census block level data to approximate the District and elementary attendance area boundaries. The boundaries used to compile the data are verified with the district and are consistent with the tax assessors' parcel files. Data for LOSD published by the Census Bureau and the U.S. Department of Education show a smaller population and fewer households due partly to an undercount in City of River Grove and partly due to inaccurate boundaries used in the Census Bureau's geographic system. Efforts are now underway to improve the Census Bureau's school district boundary files.

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Table 3

Lake Oswego School District

Housing and Household Characteristics, 2000 and 2010

	2000	2010	10 year Change	
			Numeric	Percent
Housing Units	17,238	18,408	1,170	6.8%
Households	16,249	17,287	1,038	6.4%
Households with children < 18	5,650	5,212	-438	-7.8%
share of total	*35%*	*30%*		
Households with no children < 18	10,599	12,075	1,476	13.9%
share of total	*65%*	*70%*		
Household Population	39,694	40,522	828	2.1%
Persons per Household	2.44	2.34	-0.10	

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

Table 4
Lake Oswego School District
Population, Households, and Housing Units by Elementary Area, 2010 Census

	Population			Households				
Elementary Area	Total	Age 5-17	< Age 5	Total House-holds	With Children < Age 18	Share of HHs with persons < Age 18	Popu-lation in House-holds	Persons per House-hold
Forest Hills	6,906	1,344	239	2,939	880	30%	6,906	2.35
Hallinan	7,306	1,271	298	3,196	877	27%	7,192	2.25
Lake Grove	4,741	1,007	234	1,837	696	38%	4,741	2.58
Oak Creek	9,134	1,468	371	4,235	1,094	26%	9,074	2.14
River Grove	6,785	1,174	344	2,900	868	30%	6,738	2.32
Westridge	5,883	1,243	246	2,180	797	37%	5,871	2.69
LOSD Total	**40,755**	**7,507**	**1,732**	**17,287**	**5,212**	**30%**	**40,522**	**2.34**

	Housing Units						
Elementary Area	Total Housing Units	Occupied	Vacant	Vacancy Rate	Owner Occupied	Renter Occupied	Percent Owner Occupied
Forest Hills	3,224	2,939	285	8.8%	2,215	724	75%
Hallinan	3,394	3,196	198	5.8%	2,130	1,066	67%
Lake Grove	1,934	1,837	97	5.0%	1,418	419	77%
Oak Creek	4,510	4,235	275	6.1%	2,315	1,920	55%
River Grove	3,043	2,900	143	4.7%	1,906	994	66%
Westridge	2,303	2,180	123	5.3%	1,934	246	89%
LOSD Total	**18,408**	**17,287**	**1,121**	**6.1%**	**11,918**	**5,369**	**69%**

Source: 2010 Census, Summary File 1, census block data aggregated to approximate LOSD attendance areas by PSU, Population Research Center.

Metro's Regional Land Information System (RLIS) combines information from county tax assessor records with spatial features, enabling the tax lot information to be organized by various geographic areas. In Table 5, recently built single family homes are tabulated by current (2012-13) attendance area and year built to show the distribution of recent housing development. Information about multiple family developments was more challenging to gauge since the year built of structure can span across multiple years and number of units were difficult to ascertain. Metro compiled such information from various government and commercial sources to determine the year each development was completed

and verified the number of units. Multiple family developments were assigned to current attendance areas and the information are considered when producing the short term school enrollment forecast.

Table 5
Lake Oswego School District
New Single Family Homes By Attendance Area

	Year Built											2000-10
Elementary Area*	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Forest Hills	14	35	40	13	28	28	31	34	22	12	15	272
Hallinan	17	9	9	6	13	16	24	9	13	6	5	127
Lake Grove	7	4	4	9	16	15	28	8	7		4	102
Oak Creek	16	24		17	5	12	3	2		1		80
River Grove	9	34	3	16	14	10	23	22	8	11	18	168
Westridge	11	14	26	24	32	17	17	12	11	7	5	176
District	**74**	**120**	**82**	**85**	**108**	**98**	**126**	**87**	**61**	**37**	**47**	**925**
Junior High School Area*												
Lake Oswego	37	63	44	39	49	55	62	44	29	13	19	454
Lakeridge	37	57	38	46	59	43	64	43	32	24	28	471
District	**74**	**120**	**82**	**85**	**108**	**98**	**126**	**87**	**61**	**37**	**47**	**925**
High School Area*												
Lake Oswego	37	63	44	39	49	55	62	44	29	13	19	454
Lakeridge	37	57	38	46	59	43	64	43	32	24	28	471
District	**74**	**120**	**82**	**85**	**108**	**98**	**126**	**87**	**61**	**37**	**47**	**925**

**Note: Current (2012-13) attendance area.*

Source: Metro Regional Land Information System, August 2012; tax lot information compiled by Metro from county tax assessors information includes year built and land use ("SFR"). Compiled by LOSD attendance area by Population Research Center, PSU.

Other than residential housing that has been constructed, potential housing developments also provide insights towards housing growth and thus this information contributes to short to mid-range population and enrollment forecasts, especially at the attendance area level. Subdivision information is maintained and provided by the local planning departments from the Cities of Lake Oswego and River Grove, as well as Clackamas County. Tables 6 and 7 show the single family and multiple family subdivisions (housing developments with four or more new homes) approved in the past five years, respectively.

Table 6

Single Family Subdivisions
Lake Oswego School District, 2008 to 2012

Year*	Elementary School	Subdivision Name	Jurisdiction	Lots
2008	Forest Hills	Tryon Cove	City of L.O.	5
	Hallinan	Skylands Point View Estates	City of L.O.	6
	River Grove	Carman Grove	City of L.O.	8
	River Grove	Riveredge Woods	City of River Grove	8
	River Grove	Riveredge View	City of River Grove	7
	Westridge	Bella Terra	City of L.O.	15
		2008 Total:		**49**
2009	River Grove	Renaissance Woods	City of River Grove	34
	Westridge	2050 SW Childs Road	Clackamas Co.	5
		2009 Total:		**34**
2010	River Grove	Grove Park	City of L.O.	11
		2010 Total:		**11**
2011	Lake Grove	Lakeview Townhomes (SF-Att)	City of L.O.	8
	River Grove	West Grove Village	City of L.O.	12
	River Grove	Pilkington Glen	Clackamas Co.	10
	River Grove	Frost Street	Clackamas Co.	24
	Westridge	Bryant Glade	City of L.O.	4
		2011 Total:		**58**
2012		**None**		**0**
		2012 Total:		**0**
		Grand Total 2008 - 2012:		**152**

1. "Year" indicates the year that of the plat approval. Construction and occupancy may be in later years.

Sources: Compiled by Population Research Center, PSU; primary information from City of Lake Oswego planning department, City of River Grove, and Clackamas County.

Table 7

Multiple Family Developments
Lake Oswego School District, 2008 to 2012

Year*	Elementary School	Development Name	Jurisdiction	Units
2008	Forest Hills	Five Fifty-Five Second St. Condo	City of L.O.	30
	Hallinan	Parrish Commons Condominiums	City of L.O.	2
		2008 Total:		**32**
2011	River Grove	Sloanea Condominiums	City of L.O.	2
		2011 Total:		**2**
		Grand Total 2008 - 2012:		**34**

1. "Year" indicates the year that of the plat approval. Construction and occupancy may be in later years.

Sources: Compiled by Population Research Center, PSU; primary information from City of Lake Oswego planning department and City of Rivergrove.

HOUSING AND ENROLLMENT

Housing development can be an indirect indicator for population change in the future, but how many children are expected to live in future new homes and attend LOSD schools? Since each 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 may be 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 based on parcels that differentiates single family homes, apartments, condominiums, and manufactured home parks. We then combined this file with student address points from Fall 2012 in order to quantify the number of students by housing type.

For District homes built between 2000 and 2010, the average number of LOSD K-12 students per single family home was 0.62, or over one student in every two homes. The rates are within the higher range of rates that we have measured for new single family homes in recent studies for other area school districts.[1] Homes built in the 1990s had the same K-12 average of 0.62 students; however, these homes, now 12 to 22 years old, are home to slightly older families — fewer elementary and middle school children but more high school children. Homes built before 1990 have an average of just 0.41 current LOSD K-12 students per home.

Table 8 includes these rates by age of single family home as well as rates for other types of homes. In the most recent decade, a growing number of lots in new subdivisions are designed for attached or nearly attached ("skinny") row homes. Almost a hundred of these homes on smaller lots had been built

[1] For example, 0.57 in the Canby School District, 0.53 in the Gresham-Barlow School District, 0.66 in the North Clackamas School District, 0.48 in the Oregon City School District, and 0.55 in the Tigard-Tualatin School District.

since 2000, generating fewer LOSD students per home (0.09) than detached homes built at about the same time (0.68). Multiple family housing also tends to generate fewer students per home than single family housing. Among other types of housing, rental apartments had higher student generation rates (0.15) than condominium units (0.11).

Table 8
Average Number of LOSD Students per Home, Fall 2012
By Housing Type and Grade Level

	Grade Level			
	K-5	**6-8**	**9-12**	**K-12**
Single family homes built 2000-2010	0.29	0.13	0.19	**0.62**
detached homes built 2000-2010	0.32	0.14	0.21	**0.68**
row homes built 2000-2010	0.03	0.03	0.02	**0.09**
Single family homes built 1990-1999	0.23	0.16	0.23	**0.62**
Single family homes built before 1990	0.17	0.10	0.15	**0.41**
Condominiums	0.05	0.03	0.04	**0.11**
Apartments	0.07	0.04	0.04	**0.15**

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

The same Fall 2012 student generation rates are shown in Chart 1, illustrating the "aging in place" that occurs in single family homes. In general, the homes that are 12-22 years old have fewer young children than homes that are less than 12 years old. As the older children graduate from high school, the homes built in the 1990s will soon have fewer K-12 residents, much like the homes built before 1990 that are now more than 22 years old. In the case of LOSD, we can see that the district is attractive to families with children with a relatively high student generation rate in single family housing. Although the same K-12 average student generation rate is observed for houses built between 1990 and 1999, the student grade pattern is different than those residing in newer homes. A higher share of students from houses built since 2000 are in elementary grades than those built in the 1990s, while there is a higher share of Junior High School and High School grade level students in the houses built in the 1990s. This pattern demonstrates how the aging housing stock correlates with a gradual decline in school enrollment. Although younger families may eventually occupy the older homes, owner-occupied homes turn over to new owners very gradually, and the new owners will represent a diverse mix of households that may not include as many families with children as the newer tract homes.

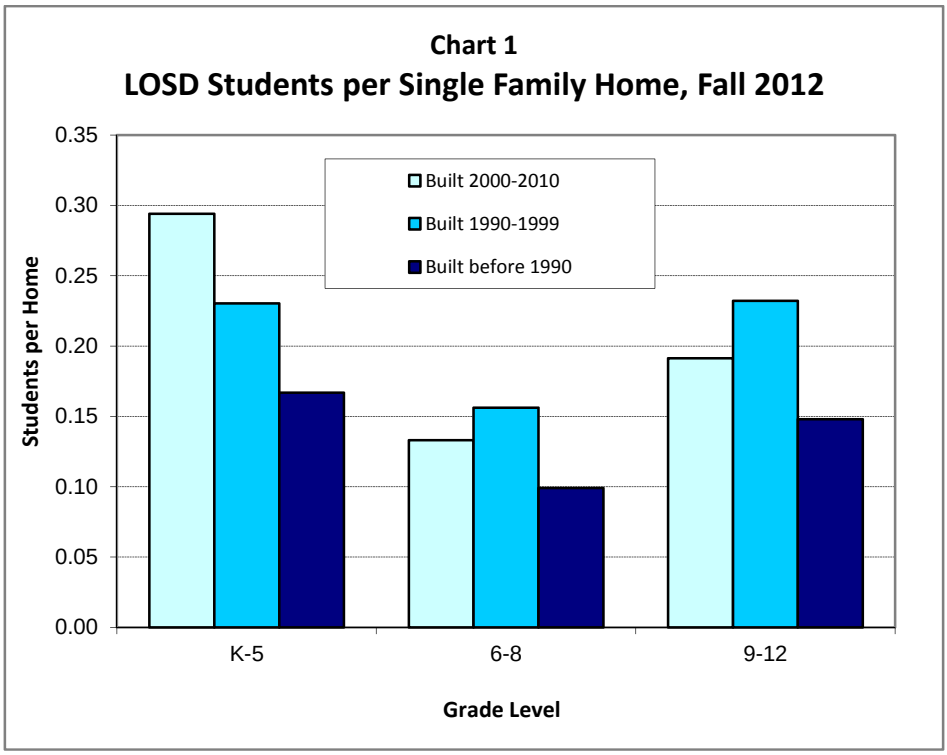


Chart 1
LOSD Students per Single Family Home, Fall 2012
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Students per Home
Built 2000-2010
Built 1990-1999
Built before 1990
K-5
6-8
9-12
Grade Level

ENROLLMENT TRENDS

The Lake Oswego School District (LOSD) enrolled 6,776 students in Fall 2012 (October 1st enrollment based on student database), a slight increase of 19 students (0.3 percent) from Fall 2011. Total K-12 enrollment has fluctuated since 2006-07, but the district's enrollment has been relatively stable compared with the 259 students' decline that occurred between 2002-03 and 2006-07 period. District elementary schools enrollment in Fall 2012 was 2,749, similar to the K-5 enrollment in 2005-06. There was a net gain of 35 students (0.1 percent) compared to Fall 2011. Junior high grades (6th-8th) enrollment was 1,609 in Fall 2012, a decline in enrollment from Fall 2011 with of 38 students (2.3 percent). The enrollment in high school grades 9-12 was 2,418 in Fall 2011, a net gain of 22 students (1.0 percent) compared to the previous year; the high school grades enrollment was similar to the enrollment in Fall 2005 and 2010.

Declining or, at best, stable enrollment can be attributed to the lack of new housing development and an aging population. These trends especially affected elementary and middle school grades in the past decade. The gain in high school enrollment from 2002-03 to 2005-06 was likely due to momentum from the greater number of children born to the baby boom generation advancing to high school grades. Although these children have graduated from high school, subsequent stabilization of high school enrollment was because the incoming freshman class was slightly larger than the graduation class due to school district policies in accepting tuition and open enrollment.

Table 9 summarizes the enrollment history for the District by grade level annually for the past 10 years, from 2002-03 to 2012-13. As shown in the table, enrollment loss for the LOSD was 228 (three percent) from 2002-03 to 2007-08 while the loss slowed to only 1 student (zero percent) from 2007-08 to 2012-13, and loss for the entire ten year period was 229 students, or three percent.

Table 9

Lake Oswego School District, Enrollment History, 2002-03 to 2012-13

Grade	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
K	332	385	366	343	346	366	353	419	412	376	402
1	466	396	449	425	400	433	429	414	467	436	407
2	509	484	417	491	445	434	458	442	417	487	467
3	531	521	523	424	492	452	454	475	452	438	513
4	536	543	530	539	441	499	481	466	496	467	457
5	529	545	557	543	558	471	534	491	470	510	503
6	589	562	550	572	551	573	475	549	521	490	527
7	601	591	564	573	577	583	591	493	580	541	521
8	610	598	606	572	581	588	586	604	520	616	561
9	595	619	594	604	560	605	614	594	628	544	664
10	576	603	604	607	601	570	611	604	590	626	562
11	541	556	584	611	600	605	547	588	594	578	624
12	566	531	566	576	585	585	587	535	573	590	568
US*	24	22	19	16	9	13	23	28	47	58	0
Total	**7,005**	**6,956**	**6,929**	**6,896**	**6,746**	**6,777**	**6,743**	**6,702**	**6,767**	**6,757**	**6,776**
Annual change		*-49*	*-27*	*-33*	*-150*	*31*	*-34*	*-41*	*65*	*-10*	*19*
		-0.7%	*-0.4%*	*-0.5%*	*-2.2%*	*0.5%*	*-0.5%*	*-0.6%*	*1.0%*	*-0.1%*	*0.3%*
K-5	2,903	2,874	2,842	2,765	2,682	2,655	2,709	2,707	2,718	2,714	2,749
6-8	1,800	1,751	1,720	1,717	1,709	1,744	1,652	1,646	1,621	1,647	1,609
9-12	2,302	2,331	2,367	2,414	2,355	2,378	2,382	2,349	2,428	2,396	2,418

	5 Year Change: 2002-03 to 2007-08		5 Year Change: 2007-08 to 2012-13		10 Year Change: 2002-03 to 2012-13	
	Change	**Pct.**	**Change**	**Pct.**	**Change**	**Pct.**
K-5	-248	*-9%*	94	*4%*	-154	*-5%*
6-8	-56	*-3%*	-135	*-8%*	-191	*-11%*
9-12	76	*3%*	40	*2%*	116	*5%*
Total	**-228**	***-3%***	**-1**	***0%***	**-229**	***-3%***

**Note: "US" are ungraded secondary students, included in grade 9-12 totals.*

Sources: Oregon Department of Education; LOSD

Private and Home School Enrollment and District "Capture Rate"

The best source for private school enrollment by residence is census data. The 2000 Census and the more recent American Community Survey (ACS) included questions about school enrollment by level and by type (public or private). The 2010 Census did not include socio-economic variables as the Census long form has been replaced by the ACS, which samples a small number of households to provide data annually. In 2000, 10 percent of K-12 students living in the District were enrolled in private schools. The ACS estimate from surveys conducted from 2006 to 2010 indicates that nine percent of LOSD K-12 students are enrolled in private schools. However, the ACS has a smaller sample size than the census long form, with larger margins of error.

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), though the statistics kept by the CESD 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 being registered as home schooled are dropped from the home school registry.

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. These ratios are called "capture rates." 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. Comparing LOSD kindergarten and 1st grade enrollment in 1999-00 and 2000-01 to the 2000 Census and in 2009-10 and 2010-11 to the 2010 Census reveals an increase in the District's Kindergarten "capture rate," and a slight decline in 1st grade "capture rate." In 2000, the LOSD enrollment accounted for about 70 percent of the kindergarten-age population and 91 percent of the 1st grade age population. That means that about 30 percent of kindergarten-age children and 9 percent of first grade age children were not enrolled in LOSD schools. The kindergarten increased to roughly 91 percent while the 1st grade capture rates declined to 85 percent in the 2000s, meaning about 9 percent kindergarten-age children and 15 percent first grade age children were not enrolled in LOSD schools. These children include students who were enrolled in private schools or charter schools, net transfers to and from other public school districts, home schooled students, or children not yet attending school, since school is not compulsory until age seven.

Enrollment at Individual Schools

Total enrollment at each of the District's schools and recent enrollment trends by school are shown in Table 10.

Although direct elementary school level enrollment comparisons by school for 2012-13 are not possible due to the change in grade level configuration from K-6 to K-5 in elementary schools, the LOSD K-5 enrollment decreased by only 4 students between 2011-12 and 2012-13. The K-5 enrollment has also been stable at just above 2,700 students since 2008-09. Three of the district's six schools had notable enrollment increases; one school remains relatively stable and two schools lost enrollment. Among schools that gained students, Oak Creek experienced the greatest gain (156 students) in the past year after taking on part of the enrollment from Uplands due to its closure, followed by River Grove (gain of 79 students) taking on some of Bryant's attendance area after its closure, Forest Hills (gain of 18 students) after enrolling students from the remainder of the Uplands attendance area, and Lake Grove (gain of 3 students). Conversely, the largest decrease in enrollment was observed in Hallinan (loss of 42 students), followed by Westridge (loss of 9 students). Both of these schools gained students between 2010-11 and 2011-12 due to the closure of Palisades elementary. The grade configuration change from K-6 to K-5 for elementary school in 2012-13 moderated the gains or contributed to the loss in enrollment for each elementary school.

Both junior high schools in LOSD grew this year due to the addition of 6th grade. The 6th through 8th grades enrollment decreased by 5 students in the past year and the enrollment for the 6th through 8th grades has remained above 1,600 students since 2008-09. Notably, Lake Oswego Junior High School had a gain of 264 students. Lakeridge Junior High School gained 188 students in the past year.

Lake Oswego High School enrolled 1,296 students and Lakeridge High School enrolled 1,122 students in 2012-13. Both high schools gained enrollment in the past year. Lake Oswego High School gained 36 students, while Lakeridge High School gained 44 students in the past year.

Table 10

Enrollment History for Individual Schools, 2007-08 to 2012-13

	Historic Enrollment						5 year change* 2007-08 to 2012-13	
School	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**Number**	**Percent**
Forest Hills Elementary	380	400	400	399	417	435	55	*14.5%*
Lake Grove Elementary	474	480	483	510	496	499	25	*5.3%*
Oak Creek Elementary	372	346	352	353	374	530	158	*42.5%*
Uplands Elementary	437	426	453	459	439	*Closed*	-437	*N/A*
Bryant Elementary	299	316	320	312	279	*Closed*	-299	*N/A*
Hallinan Elementary	332	327	348	367	479	437	105	*31.6%*
Palisades Elementary	310	306	302	275	*Closed*	*Closed*	-310	*N/A*
River Grove Elementary	299	275	304	286	303	382	83	*27.8%*
Westridge Elementary	336	331	322	321	475	466	130	*38.7%*
Elementary Totals	**3,239**	**3,207**	**3,284**	**3,282**	**3,262**	**2,749**	**-490**	***-15.1%***
Lake Oswego Junior High School	645	604	570	579	607	871	226	*35.0%*
Lakeridge Junior High School[1]	528	573	527	521	550	738	210	*39.8%*
Junior High School Totals	**1,173**	**1,177**	**1,097**	**1,100**	**1,157**	**1,609**	**436**	***37.2%***
Lake Oswego High School	1,262	1,279	1,260	1,286	1,260	1,296	34	*2.7%*
Lakeridge High School	1,103	1,080	1,061	1,099	1,078	1,122	19	*1.7%*
High School Totals	**2,365**	**2,359**	**2,321**	**2,385**	**2,338**	**2,418**	**53**	***2.2%***
District Total	**6,777**	**6,743**	**6,702**	**6,767**	**6,757**	**6,776**	**-1**	***0.0%***

1. Waluga Junior High School has been renamed as Lakeridge Junior High School in 2012.

**Note: Enrollment change is shown for a five year period; however, school closures, boundary changes, and grade reconfiguration occurred during this period affecting elementary and junior high school grades.*

Sources: Oregon Department of Education; LOSD

ENROLLMENT FORECASTS

Potential Residential Development

Residential development trend generally correlates with school enrollment trend because housing development such as single family homes attract young families to move into the district, bringing children that may attend local schools. In the 1990s, there were about 1,600 single family housing units built in LOSD while a gradual increase in K-12 enrollment was observed. In the 2000s, about 900 single family housing units were built; this, coupled with factors such as aging families and limited land capacity for future housing development, help explain the district's enrollment decline.

Residential development has slowed down substantially in recent years compared to the first half of the 2000s due to the economic downturn. Housing development in the City of Lake Oswego, City of River Grove, and Unincorporated portion of the district has been stagnant since 2009. However, there are some signs of housing development starting to pick up in the past year as shown by the subdivision table (Table 6) [2] The only planned large scale development, Foothills District Framework Plan, within the City of Lake Oswego, was still at its planning and early development phase. This economic and capital redevelopment project involves development of 107 acres area into mixed use development; potential residential units, along with affordable and workforce housing will be expected within the scope of this project. The impact of this project on LOSD enrollment in the near future is expect to be minimal since the residential construction is expected to begin in 2017 and anticipated to be completed by 2025. The impact of this project to school enrollment will likely happen towards the end of the forecast horizon, particularly moderating the decline in enrollment for the Hallinan Elementary School attendance area.

The current study uses an objective approach to district-wide residential capacity analysis through the use of parcel-based residential capacity data used in Metro's current regional forecast allocation.[3] The Metro residential capacity databases indicate that there is capacity within the LOSD for about 586 housing units on vacant residential land. About 2,060 additional units could be built on land that is currently developed or partially developed. There are challenges with both types of development.

[2] Communications with Planners, City of Lake Oswego and City of River Grove.

[3] The underlying data was provided by Metro, but results included in this study are unofficial estimates prepared by the Portland State University Population Research Center.

Vacant land may require new services and infrastructure, and if it is currently unincorporated it may need to be annexed by an existing city or included in new or expanded service districts. Infill and redevelopment is more likely if the existing improvement is of low value compared with the land. For example, a small older home on a two acre parcel is a candidate for a new subdivision.

District-wide Long-range 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.

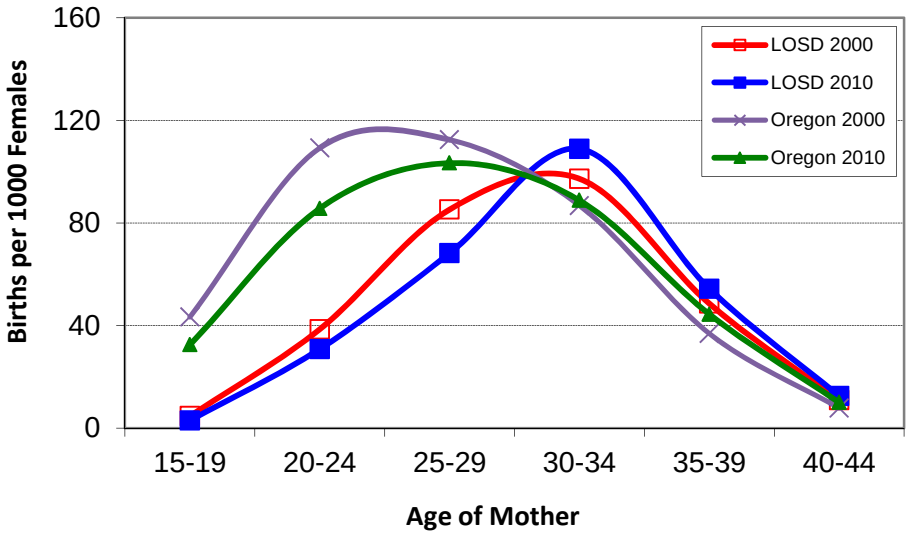
The 2000 and 2010 Census results were used as a baseline for the population forecasts. By "surviving" the 2000 population and 2000s births (estimating the population in each age group that would survive to the year 2010) and comparing the "survived" population to the actual 2010 population by age group, 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 2000 to 2009, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers is used to calculate fertility rates by age group for both 2000 and 2009. Since detailed births data was not yet available for 2010 as we compiled the information for this study, data from 2009 was used to approximate fertility rates for 2010.

The 2000 and 2010 age-specific fertility rates for the LOSD and for the State of Oregon are shown in Chart 2. LOSD age-specific fertility rates for most age groups in 2000 were similar to that in 2010, with a slight decrease in fertility rates among women under 30 and an increase in fertility among women 30 years old or above, indicating a trend of older mothers. Additionally, at each time point, the rates for women under 30 were higher for the State than the LOSD's rates. The total fertility rate (TFR) is another

measure for fertility; it is an estimate of the number of children that would be born to the average women during her child-bearing years based on age-specific fertility rates observed at a given time. The estimated TFRs for the District decreased from 1.43 in 2000 to 1.39 in 2010. Similarly, drops in TFRs were observed in Clackamas County, Multnomah County, Washington County, and the States during the past decade. In 2000, the TFRs were 2.02 for Clackamas County, 1.82 for Multnomah County, 2.20 for Washington County, and 1.98 for the State; while in 2010, the TFRs were 1.89 for Clackamas County, 1.64 for Multnomah County, 1.99 for Washington County, and 1.82 for the State.

Chart 2
Age-Specific Fertility Rates, 2000 and 2010
LOSD and Oregon



State and national long term trends indicate declining fertility rates for women under 30 and increasing rates for women 30 and over, but fertility rates in the 2009 to 2010 period have been unusually low due to the poor economy in general. This seems to have had a relatively minor impact to the LOSD compared with other school districts due to the already low fertility rate and relatively affluent status among the district's residents. Birth totals fell more than seven percent in the U.S. and Oregon between 2007 and 2010.[4] The Pew Research Center's analysis of multiple economic and demographic data sources

[4] "Recent Trends in Births and Fertility Rates Through 2010." NCHS Health E-Stat, June 2011; Oregon Vital Statistics Annual Report 2010. Oregon Health Authority, Center for Health Statistics.

confirms the close correlation between the economic downturn and the nation's fertility downturn.[5] Because of the current unusually low rates, we increased rates slightly by 2015 for all age groups, and the District's TFR is expected to rebound from 1.39 in 2010 to 1.43 by 2015.

Table 11 shows historic births from 1995 to 2009 as well as forecasts from 2010 until 2017, the period that will have an impact on the enrollment forecasts presented in this study. The number of births in LOSD decreased nearly every year in the late 90s and in 2000s. Births in LOSD decreased by 14 percent from 397 in 1995 to 341 in 2000; similarly, a decrease of 20 percent was noted between 2000 and 2009. Births in LOSD experienced a slight dip between 2008 and 2010 likely as a result of poor economic conditions; however, the birth trend is forecast to level off from 2010 to 2017.

[5] "In a Down Economy, Fewer Births." Pew Research Center, Pew Social & Demographic Trends, October 2011.

Table 11

Estimated and Forecast Births

Lake Oswego School District

Year	Births
1995	397
1996	395
1997	384
1998	381
1999	360
2000	341
2001	342
2002	336
2003	327
2004	317
2005	320
2006	280
2007	269
2008	283
2009	273
2010 (forecast)	270
2011 (forecast)	270
2012 (forecast)	271
2013 (forecast)	271
2014 (forecast)	271
2015 (forecast)	272
2016 (forecast)	270
2017 (forecast)	269

Source: 1995-2009 birth data from Oregon Center for Health Statistics allocated to LOSD boundary by PSU-PRC. 2010-2017 forecasts, PSU-PRC.

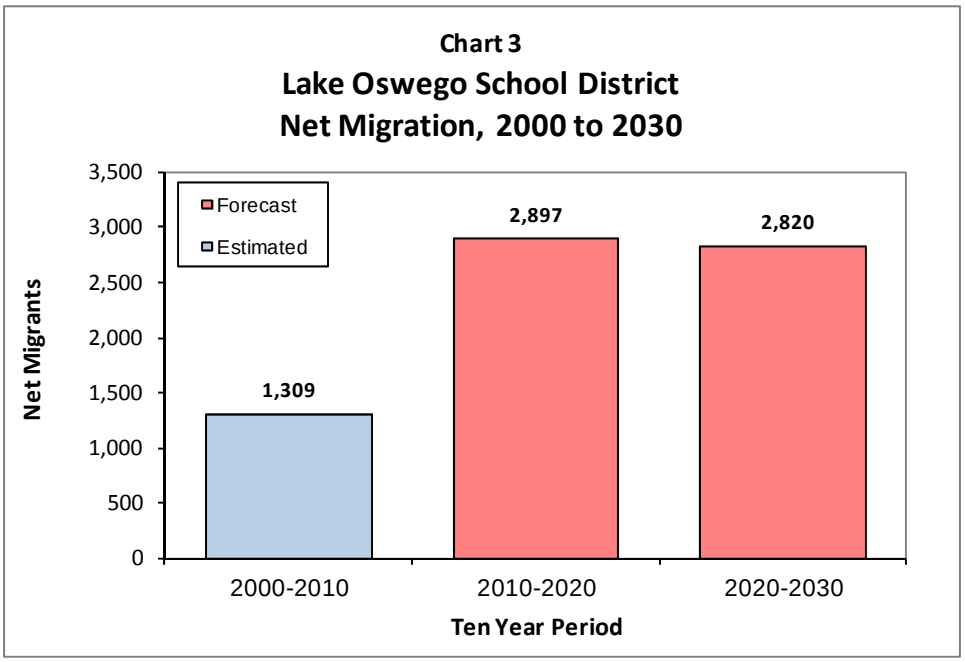
Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in LOSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District's enrollment. If there is evidence that capture rates have changed since the time of the census, they may be adjusted in the forecast.

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 grade progression rates (GPRs) are

used to move students from one grade to the next. Grade progression rates are 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 years of age.

Population Forecast

Census data reported in the "Population and Housing Trends" section showed that the District added about 3,400 fewer residents in the 2000s than in the 1990s. Most of the difference was due to a lower level of positive net migration (more people moving in than moving out). Natural increase (births minus deaths) has also contributed less to population growth since 2000 due to an aging population and lower fertility. Population growth due to net migration is forecast to be higher in the 2010 to 2020 and 2020 to 2030 periods than in the 2000 to 2010 period. Chart 3 shows the 2000 to 2010 estimates and 2010 to 2030 forecast of LOSD population growth attributable to net migration.



The district-wide population forecast by age group is presented in Table 12. The forecast for 2020 population in the LOSD is 41,600, an increase of 845 persons from the 2010 Census (0.2 percent average annual growth). School-age population (5 to 17) is forecast to decrease despite an overall increase in the district's population. The loss of 260 in school-age population between 2010 and 2020 amounts to a

loss of 3 percent in the 10 year period, or a loss of 0.4 percent annually. By 2020, the fastest growing age groups are the elderly generation in its 70s and 80s. Growth in population age 60 and older in the District is forecast to more than offset the decline in population under age 60 within the District between 2010 and 2020.

Table 12

Population by Age Group

Lake Oswego School District, 1990 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2020 Change		2020 to 2030 Change	
					Number	Percent	Number	Percent
Under Age 5	2,061	1,732	1,639	1,578	-93	*-5%*	-61	*-4%*
Age 5 to 9	2,816	2,470	2,290	2,204	-180	*-7%*	-86	*-4%*
Age 10 to 14	3,314	3,054	2,946	2,728	-108	*-4%*	-218	*-7%*
Age 15 to 17	1,999	1,983	2,011	1,855	28	*1%*	-156	*-8%*
Age 18 to 19	772	766	600	551	-166	*-22%*	-49	*-8%*
Age 20 to 24	1,666	1,609	1,563	1,507	-46	*-3%*	-56	*-4%*
Age 25 to 29	1,953	1,902	2,035	1,933	133	*7%*	-102	*-5%*
Age 30 to 34	2,100	1,650	1,593	1,546	-57	*-3%*	-47	*-3%*
Age 35 to 39	2,911	2,221	2,228	2,383	7	*0%*	155	*7%*
Age 40 to 44	3,879	2,808	2,488	2,445	-320	*-11%*	-43	*-2%*
Age 45 to 49	4,229	3,413	2,751	2,759	-662	*-19%*	8	*0%*
Age 50 to 54	3,768	3,926	2,944	2,670	-982	*-25%*	-274	*-9%*
Age 55 to 59	2,489	3,659	3,192	2,518	-467	*-13%*	-674	*-21%*
Age 60 to 64	1,540	3,181	3,422	2,565	241	*8%*	-857	*-25%*
Age 65 to 69	1,174	2,088	3,116	2,721	1,028	*49%*	-395	*-13%*
Age 70 to 74	1,062	1,326	2,694	2,902	1,368	*103%*	208	*8%*
Age 75 to 79	980	963	1,660	2,429	697	*72%*	769	*46%*
Age 80 to 84	620	877	1,052	1,906	175	*20%*	854	*81%*
Age 85 and over	540	1,127	1,376	1,741	249	*22%*	365	*27%*
Total Population	**39,873**	**40,755**	**41,600**	**40,941**	**845**	***2%***	**-659**	***-2%***
Total age 5 to 17	8,129	7,507	7,247	6,787	-260	*-3%*	-460	*-6%*
share age 5 to 17	*20.4%*	*18.4%*	*17.4%*	*16.6%*				

		2000-2010	2010-2020	2020-2030
Population Change		**882**	**845**	**-659**
Percent		*2%*	*2%*	*-2%*
Average Annual		*0.2%*	*0.2%*	*-0.2%*

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

District-wide Enrollment Forecast

Chart 4 compares the historic and forecast number of births in the District with the historic and forecast number of LOSD 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. In LOSD, there were greater numbers of lagged births than kindergarten students between school years 2002-03 and 2006-07; since then the kindergarten enrollment has been consistently higher than births. Kindergarten enrollment has grown in spite of corresponding decreases in births. Over the period between 2008-09 and 2012-13, the gap between births and kindergarten enrollment has grown as a consequence of higher net migration, increasing capture rates, or some combination of the two factors. Kindergarten and first grade capture rates are shown in Table 13. The kindergarten capture rate for LOSD has increased in the past four years, while the first grade capture rate is declined slightly.

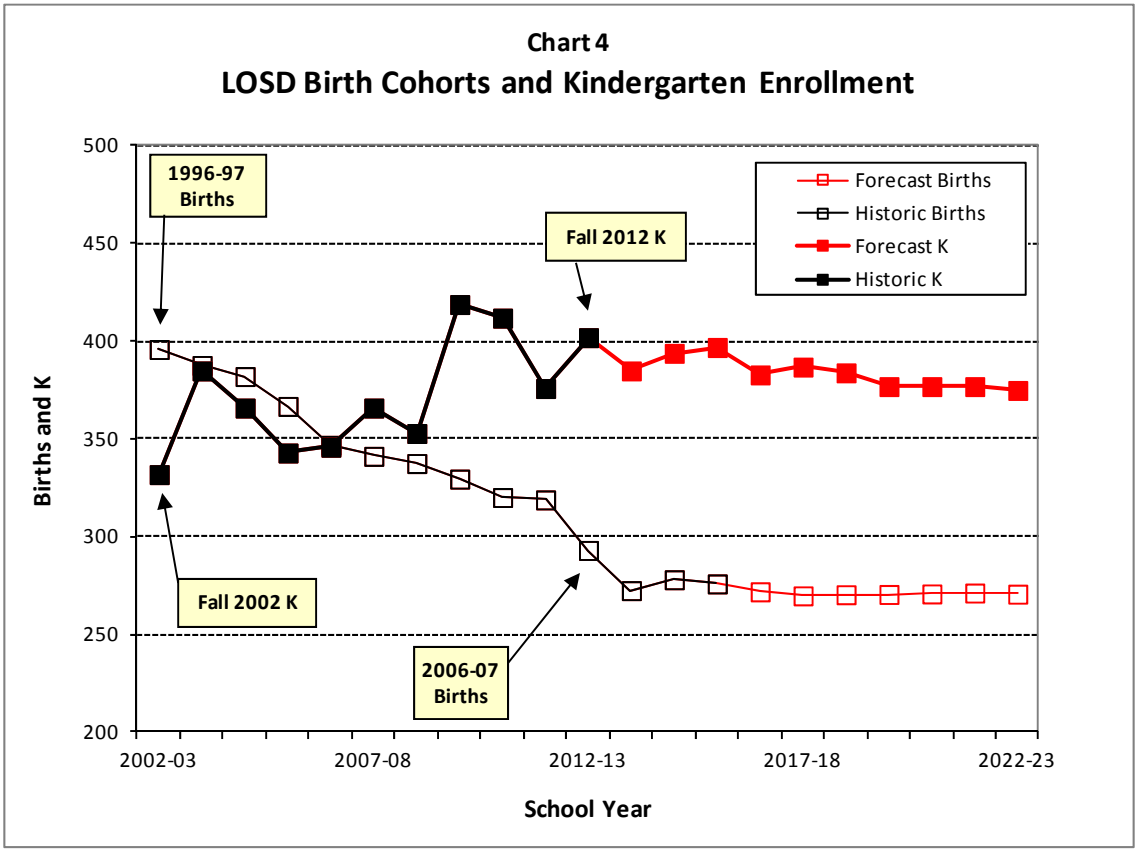


Table 13
Estimated and Forecast Capture Rates*
Lake Oswego School District

School Year	Kindergarten	Grade 1
2012-13	0.917	0.829
2017-18 (forecast)	0.890	0.910
2022-23 (forecast)	0.890	0.910

**The ratio of enrollment in District schools to total population in the District.*

The District has been experiencing a general decline in enrollment due to the slow down in housing development and aging families. However, LOSD attracts family with young children to move in and also allows enrollment of out of district students via policies such as tuition and open enrollment, which help to lessen the effect of the decline in enrollment due to aging families. Table 14 illustrates how the LOSD has gained students due to migration at nearly every elementary and middle school grade level. Over the 10 years between 2002-03 and 2012-13, average GPRs for each grade from 2nd to 8th ranged from 1.02 to 1.04, indicating growing enrollments due to migration at each grade level. For the most recent three years, from 2009-10 to 2012-13, there has been a small increase in the GPRs at most grade levels attributable to migration of school-age children. An exception to this decline was for the Kindergarten to 1st grade and 1st to 2nd grade transitions, which is likely influenced by a combination of in-migration to the District, incoming tuition enrollment, and a higher Kindergarten capture rate perhaps related to fewer children attending private schools. The forecast includes enrollment growth due to migration at similar rates than in the 2002-03 to 2012-13 period except for the 8th to 9th grade transition, where the GPRs are higher due to open enrollment.

Table 14

Grade Progression Rates[1]
Lake Oswego S.D. History and Forecast

Grade Transition	10 Year Average: 2002-03 to 2012-13	3 Year Average: 2009-10 to 2012-13	Baseline (without the influence of migration)	Forecast Average: 2012-13 to 2022-23
K-1	1.15	1.09	--[2]	1.08
1-2	1.05	1.04	1.00	1.04
2-3	1.03	1.04	1.00	1.04
3-4	1.03	1.04	1.00	1.04
4-5	1.04	1.04	1.00	1.04
5-6	1.03	1.05	1.00	1.03
6-7	1.03	1.05	1.00	1.04
7-8	1.02	1.05	0.99	1.03
8-9	1.02	1.05	1.05	1.08
9-10	1.00	1.01	0.98	1.00
10-11	0.98	0.99	0.96	0.98
11-12	0.98	0.98	0.96	0.98

1. Ratio of enrollment in an individual grade to enrollment in the previous grade the previous year.

2. The enrollment forecast model uses capture rates for first grade; K-1 baseline GPRs are not used.

Very little change in K-12 enrollment decline is expected for 2013-14 due to the current slow job growth, high unemployment rate, and aging of existing families in the district. Over the 10 year forecast period, K-12 enrollment is forecast to decrease by 240 students (four percent), similar to the overall decrease of 229 students experienced in the 10 years between 2002-03 and 2012-13.

In general, K-5 enrollments are forecast to decrease gradually throughout the forecast period, though increases are possible in individual years as K-5 enrollment fluctuates during the first half of the forecast horizon. For the 10 year forecast period, K-5 enrollment is forecast to decline by 153 students (six percent). Less severe loss is expected for secondary enrollments throughout the forecast period, amounting to 12 junior high school students (one percent) and 75 high school students (3 percent) loss over the 10 year period. There will be annual fluctuations that no forecast can anticipate; a one or two year deviation from the forecast does not mean that the forecast trend will be inaccurate in the long run.

Table 15 contains grade level forecasts for the LOSD for each year from 2013-14 to 2022-23. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12). Appendix A provides the district-wide 2013-14 to 2022-23 enrollment forecast for the low, medium, and high growth scenarios, based on different assumptions for housing development and migration within the LOSD. The low forecast assumes that fewer families with children will move into the district and that the district will not gain additional students at the high school level through the open enrollment policy. The medium and high forecasts both assume levels of growth due to open enrollment policies and practices similar to that experienced in 2012-13, which results in a slightly greater gain in 8^{th} to 9^{th} grade enrollment (a difference of roughly 20 additional students) in the forecast period compared to the pattern seen before 2012-13. The total 9-12 enrollment gain due to open enrollment will offset some of the enrollment loss forecast at high school grade levels and the effect of open enrollment is expected to stabilize by 2015-16 as the original open enrollment cohort promote to twelfth-grade. The in-migration assumptions are higher in the high growth forecast scenario than in the medium growth forecast scenario.

Table 15

Lake Oswego School District, Enrollment Forecasts, 2013-14 to 2022-23

	Actual	Forecast									
Grade	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
K	402	385	394	397	383	387	384	377	377	377	375
1	407	438	424	434	427	412	416	414	405	406	405
2	467	424	456	442	452	445	429	433	431	422	423
3	513	487	442	475	460	471	464	447	451	449	440
4	457	534	507	460	494	479	490	483	465	469	467
5	503	474	553	525	477	512	496	508	501	482	486
6	527	520	490	572	543	493	530	513	525	518	499
7	521	547	539	508	593	563	511	550	532	545	537
8	561	536	563	555	523	610	579	526	566	547	561
9	664	604	578	606	598	564	657	624	567	610	590
10	562	662	602	576	604	596	562	655	622	565	608
11	624	549	646	588	562	590	582	549	640	607	552
12	568	609	536	631	574	549	576	568	536	625	593
US*	0	0	0	0	0	0	0	0	0	0	0
Total	**6,776**	**6,769**	**6,730**	**6,769**	**6,690**	**6,671**	**6,676**	**6,647**	**6,618**	**6,622**	**6,536**
Annual change		*-7* *-0.1%*	*-39* *-0.6%*	*39* *0.6%*	*-79* *-1.2%*	*-19* *-0.3%*	*5* *0.1%*	*-29* *-0.4%*	*-29* *-0.4%*	*4* *0.1%*	*-86* *-1.3%*
K-5	2,749	2,742	2,776	2,733	2,693	2,706	2,679	2,662	2,630	2,605	2,596
6-8	1,609	1,603	1,592	1,635	1,659	1,666	1,620	1,589	1,623	1,610	1,597
9-12	2,418	2,424	2,362	2,401	2,338	2,299	2,377	2,396	2,365	2,407	2,343

	5 Year Growth: 2012-13 to 2017-18		**5 Year Growth: 2017-18 to 2022-23**		**10 Year Growth: 2012-13 to 2022-23**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-43	*-2%*	-110	*-4%*	-153	*-6%*
6-8	57	*4%*	-69	*-4%*	-12	*-1%*
9-12	-119	*-5%*	44	*2%*	-75	*-3%*
Total	**-105**	***-2%***	**-135**	***-2%***	**-240**	***-4%***

**Note: "US" are ungraded secondary students; included in grade 9-12 totals*

Population Research Center, Portland State University, December 2012

Individual School Forecasts

Forecasts for individual schools are prepared 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, or offering special programs. 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. This method accounts for intra-district students' transfers in the forecast assuming the same transfer patterns observed in recent enrollment records. The embedded intra-district transfer assumptions entail any future change in policies that limit intra-district transfer would likely increase the enrollment for schools in the south side of the district (Hallinan, River Grove, Westridge, Lakeridge Junior High, and Lakeridge High) and decrease the enrollments for school in the north side (Forest Hills, Lake Grove and Oak Creek, Lake Oswego Junior High, and Lake Oswego High). The final forecasts for individual schools are controlled to match the district-wide forecasts.

We evaluated Metro's residential capacity data for each school attendance area. Among elementary schools, Forest Hills attendance area contains the greatest amount of buildable residential land including potential land for redevelopment, in-fill, and vacant land; followed by Lake Grove, and River Grove. These three schools account for about 67 percent of the vacant residential land in the District. Assumptions about future growth in kindergarten enrollment and future GPRs are based on past trends for each school as well as approved housing development and future residential growth potential.

Junior high school enrollment is relatively stable during the 10 year forecast horizon. Lake Oswego Junior High is expected to have stable enrollment until 2017-18, then gradually decline during the second half of the forecast horizon. Lakeridge Junior High is expected to experience a decline in enrollment in the next two years, but a growth in enrollment follows due to potential housing growth in its attendance area and feeder elementary schools. The enrollments for both Lake Oswego and Lakeridge High are expected to fluctuate throughout the forecast horizon, with short term gains in

enrollment from 2012-13 to 2015-16 due to open enrollment; from 2016-17 onwards, the high school enrollment levels off as the additional growth from open enrollment stabilizes.

Table 16 presents the enrollment forecasts for each school, grouped by school level (elementary, junior high, and high).

Table 16

Enrollment Forecasts for Individual Schools, 2013-14 to 2022-23

School	Actual 2012-13	Forecast 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Change 2012-13-2022-23
Forest Hills Elementary	435	435	450	446	430	437	444	441	437	432	430	-5
Lake Grove Elementary	499	511	522	515	510	506	487	484	478	476	477	-22
Oak Creek Elementary	530	506	493	488	468	471	463	462	457	454	451	-79
Hallinan Elementary	437	435	437	407	399	401	393	388	385	383	384	-53
River Grove Elementary	382	391	404	412	436	435	434	429	422	418	414	32
Westridge Elementary	466	464	470	465	450	456	458	458	451	442	440	-26
Elementary Totals	**2,749**	**2,742**	**2,776**	**2,733**	**2,693**	**2,706**	**2,679**	**2,662**	**2,630**	**2,605**	**2,596**	**-153**
Lake Oswego Junior High Schoo	871	882	873	867	883	882	869	832	849	838	836	-35
Lakeridge Junior High School[1]	738	721	719	768	776	784	751	757	774	772	761	23
Junior High School Totals	**1,609**	**1,603**	**1,592**	**1,635**	**1,659**	**1,666**	**1,620**	**1,589**	**1,623**	**1,610**	**1,597**	**-12**
Lake Oswego High School	1,296	1,300	1,285	1,327	1,308	1,288	1,309	1,319	1,288	1,308	1,276	-20
Lakeridge High School	1,122	1,124	1,077	1,074	1,030	1,011	1,068	1,077	1,077	1,099	1,067	-55
High School Totals	**2,418**	**2,424**	**2,362**	**2,401**	**2,338**	**2,299**	**2,377**	**2,396**	**2,365**	**2,407**	**2,343**	**-75**
District Totals	**6,776**	**6,769**	**6,730**	**6,769**	**6,690**	**6,671**	**6,676**	**6,647**	**6,618**	**6,622**	**6,536**	**-240**

1. Waluga Junior High School has been renamed as Lakeridge Junior High School in 2012.

Population Research Center, Portland State University, December 2012

The capacity figures in Table 17 are provided by the LOSD. They are compared with both the base year (2012-13) and end year (2022-23) of the enrollment forecast. The forecasts indicate that, relative to maximum capacity, there will not be district-wide capacity shortfalls at any grade levels; however, relative to ideal capacity, there are and will continue to be capacity challenges at River Grove Elementary.

Table 17

Facility Capacity and Enrollment, 2012-13 and 2022-23

	2012-13				2022-23	
School	**Maximum Capacity[1]**	**Ideal Capacity[2]**	**2012-13 Enrollment**	**Available Capacity[3]**	**2022-23 Forecast Enrollment**	**Available Capacity[3]**
Forest Hills Elementary	567	513	435	78	430	83
Lake Grove Elementary	702	513	499	14	477	36
Oak Creek Elementary	729	540	530	10	451	89
Hallinan Elementary	621	459	437	22	384	75
River Grove Elementary[4]	486	378	382	-4	414	-36
Westridge Elementary	621	486	466	20	440	46
Elementary Totals	**3,726**	**2,889**	**2,749**	**140**	**2,596**	**293**
Lake Oswego Junior High School	1,092	924	871	53	836	88
Lakeridge Junior High School[5]	1,064	952	738	214	761	191
Middle School Totals	**2,156**	**1,876**	**1,609**	**267**	**1,597**	**279**
Lake Oswego High School	1,764	1,456	1,296	160	1,276	180
Lakeridge High School	1,680	1,456	1,122	334	1,067	389
High School Totals	**3,444**	**2,912**	**2,418**	**494**	**2,343**	**569**
District Totals	**9,326**	**7,677**	**6,776**	**901**	**6,536**	**1,141**

1. The maximum number of students each school facility can serve if all classrooms were used for regular instruction at an average of 27 students per classroom at elementary schools and 28 students per classroom at secondary schools.

2. Ideal capacity is the net capacity of the facility, which is the maximum capacity minus certain classrooms desginated for other purposes such as learning centers, computer labs, science labs, music rooms, and extended care rooms etc.

3. Available capacity is calculated as the difference between ideal capacity and enrollment.

4. River Grove capacity do not include extra classrooms provided by portables. A portable with 2 classrooms was added in 2012-13, with City approval to add up to 3 more portables (6 additional classrooms) within the next three years, subject to a maximum enrollment of 460 students.

5. Waluga Junior High School has been renamed as Lakeridge Junior High School in 2012.

FORECAST ERROR AND UNCERTAINTY

In general, forecast error varies according to the size of the population being forecast and the length of the forecast horizon. The smaller the population and the longer the forecast period, the larger the error is likely to be. In particular, the school level forecasts depend on assumptions about the distribution of housing and population growth in small areas within the District over a 10 year period, so the error is likely greater than the District-wide forecast error. The forecasts should be used as only one of many tools in the planning process.

Due to the nature of forecasting, there is no way to estimate a confidence interval as one might for data collected from a survey. 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 Table 18, actual LOSD enrollment by grade level in Fall 2010 is compared with the 2010-11 forecasts that were prepared seven years earlier since the previous project did not forecast beyond 2010-2011. Similarly, Table 19 compares enrollment forecasts for individual schools. As a measure of average error for grade levels and for individual school enrollments, the mean absolute percent error (MAPE) is included in the tables.

Forecasts prepared in 2004 did not foresee the economic recession that began since the end of the past decade; therefore, the impact of economic downturn such as slower housing development and migration that likely affect enrollment was not completely accounted for in the previous study. As seen in Table 18, the Fall 2010 forecast enrollment for LOSD was slightly higher than actual enrollments. In this case, the medium growth scenario forecast conducted eight years ago was closer to actual LOSD enrollment compared to the low or high growth scenarios.

The K-12 total medium growth forecast prepared in 2004 was 66 students (1.0 percent) different than actual enrollment while the low growth scenario forecast was 150 students less (-2.2 percent) than actual enrollment. The high growth scenario was 302 students (4.5 percent) greater than the actual enrollment in 2010. The MAPE was lower for the low growth scenario than that for the medium growth scenario. However, 2nd grade enrollment was 46 students (11.0 percent) lower and 5th grade enrollment was 57 students (11.1 percent) lower than the medium growth forecast. Other than these two grades, the seven year medium growth forecast prepared in 2004 was within ten percent of actual enrollment at all other grade levels. The differences between actual and forecast enrollment were also within 10 percent for all but two grades in the low growth forecast.

Table 18

Fall 2010 Enrollment Compared to Previous Forecasts By Grade Level[1]

		Medium Growth Forecast			Low Growth Forecast			High Growth Forecast		
Grade	**Actual**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**
K	412	376	-36	*-8.7%*	366	-46	*-11.2%*	393	-19	*-4.6%*
1	467	426	-41	*-8.8%*	415	-52	*-11.1%*	445	-22	*-4.7%*
2	417	463	46	*11.0%*	452	35	*8.4%*	487	70	*16.8%*
3	452	484	32	*7.1%*	471	19	*4.2%*	513	61	*13.5%*
4	496	520	24	*4.8%*	506	10	*2.0%*	548	52	*10.5%*
5	470	527	57	*12.1%*	511	41	*8.7%*	550	80	*17.0%*
6	521	551	30	*5.8%*	536	15	*2.9%*	575	54	*10.4%*
7	580	591	11	*1.9%*	576	-4	*-0.7%*	613	33	*5.7%*
8	520	527	7	*1.3%*	511	-9	*-1.7%*	544	24	*4.6%*
9	628	593	-35	*-5.6%*	569	-59	*-9.4%*	602	-26	*-4.1%*
10	590	615	25	*4.2%*	585	-5	*-0.8%*	616	26	*4.4%*
11	594	598	4	*0.7%*	573	-21	*-3.5%*	604	10	*1.7%*
12	573	542	-31	*-5.4%*	526	-47	*-8.2%*	558	-15	*-2.6%*
US	47	20	-27	*-57.4%*	20	-27	*-57.4%*	21	-26	*-55.3%*
Total	**6,767**	**6,833**	**66**	***1.0%***	**6,617**	**-150**	***-2.2%***	**7,069**	**302**	***4.5%***
MAPE[2]				***6.0%***			***5.6%***			***7.7%***

1. Forecast for 2010-11 by PSU-PRC, baseline 2003-04 enrollment.

2. Mean absolute percent error for individual grades.

The forecast errors by individual schools shown in Table 19 were generally higher than that for the district-wide forecast because school level geographies were smaller. Thus, greater variations in enrollment could be expected depending on the distribution and timing of housing and population growth. Notably, forecast errors for schools that serve the more built out area of the district (such as Lake Grove, Oak Creek) were smaller than those serving the developing areas (such as Palisades and River Grove) where growth due to residential development and migration were previously expected and were more severely affected by the economic downturn.

Table 19
Fall 2010 Enrollment Compared to Previous Forecasts
By Individual School

		Seven year medium growth forecast[1]		
School	**Actual**	**Fcst.**	**Diff.**	**Error**
Bryant	312	269	-43	*-13.8%*
Forest Hills	399	432	33	*8.3%*
Hallinan	367	399	32	*8.7%*
Lake Grove	510	477	-33	*-6.5%*
Oak Creek	353	331	-22	*-6.2%*
Palisades	275	357	82	*29.8%*
River Grove	286	350	64	*22.4%*
Uplands	459	429	-30	*-6.5%*
Westridge	321	324	3	*0.9%*
Elementaries	**3,282**	**3,368**	**86**	***2.6%***
Lake Oswego Junior Hi	579	557	-22	*-3.8%*
Waluga Junior High	521	561	40	*7.7%*
Middle Schools	**1,100**	**1,118**	**18**	***1.6%***
Lake Oswego High	1,286	1,238	-48	*-3.7%*
Lakeridge High	1,099	1,109	10	*0.9%*
High Schools	**2,385**	**2,347**	**-38**	***-1.6%***
District	**6,767**	**6,833**	**66**	***1.0%***
MAPE[2]				***9.2%***

1. Forecast for 2010-11 by PSU-PRC, baseline 2003-04 enrollment.
2. Mean absolute percent error for individual schools.

APPENDIX A

LAKE OSWEGO SCHOOL DISTRICT LOW, MEDIUM, AND HIGH FORECAST SCENARIOS, 2013-14 TO 2022-23

Table A1

Lake Oswego School District, Low Growth Enrollment Forecasts, 2013-14 to 2022-23

	Actual	Forecast									
Grade	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
K	402	380	384	378	363	367	364	359	363	363	361
1	407	431	404	410	402	386	389	387	382	386	386
2	467	420	445	420	426	418	401	404	403	398	402
3	513	482	433	463	437	443	435	417	420	419	414
4	457	529	497	450	481	454	460	452	433	437	435
5	503	470	543	514	465	498	470	476	468	448	452
6	527	516	482	561	531	480	514	485	492	484	463
7	521	542	531	499	581	550	497	532	503	510	502
8	561	531	552	545	512	597	565	510	547	517	524
9	664	583	552	576	569	535	624	591	533	572	541
10	562	659	578	549	573	566	532	621	589	531	570
11	624	546	640	563	535	558	552	519	606	575	518
12	568	606	530	624	549	521	544	538	506	591	561
Total	**6,776**	**6,695**	**6,571**	**6,552**	**6,424**	**6,373**	**6,347**	**6,291**	**6,245**	**6,231**	**6,129**
Annual change		*-81* *-1.2%*	*-124* *-1.9%*	*-19* *-0.3%*	*-128* *-2.0%*	*-51* *-0.8%*	*-26* *-0.4%*	*-56* *-0.9%*	*-46* *-0.7%*	*-14* *-0.2%*	*-102* *-1.6%*
K-5	2,749	2,712	2,706	2,635	2,574	2,566	2,519	2,495	2,469	2,451	2,450
6-8	1,609	1,589	1,565	1,605	1,624	1,627	1,576	1,527	1,542	1,511	1,489
9-12	2,418	2,394	2,300	2,312	2,226	2,180	2,252	2,269	2,234	2,269	2,190

	5 Year Growth: 2012-13 to 2017-18		**5 Year Growth: 2017-18 to 2022-23**		**10 Year Growth: 2012-13 to 2022-23**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-183	*-7%*	-116	*-5%*	-299	*-11%*
6-8	18	*1%*	-138	*-8%*	-120	*-7%*
9-12	-238	*-10%*	10	*0%*	-228	*-9%*
Total	**-403**	***-6%***	**-244**	***-4%***	**-647**	***-10%***

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Table A2

Lake Oswego School District, Medium Growth Enrollment Forecasts, 2013-14 to 2022-23

	Actual	Forecast									
Grade	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
K	402	385	394	397	383	387	384	377	377	377	375
1	407	438	424	434	427	412	416	414	405	406	405
2	467	424	456	442	452	445	429	433	431	422	423
3	513	487	442	475	460	471	464	447	451	449	440
4	457	534	507	460	494	479	490	483	465	469	467
5	503	474	553	525	477	512	496	508	501	482	486
6	527	520	490	572	543	493	530	513	525	518	499
7	521	547	539	508	593	563	511	550	532	545	537
8	561	536	563	555	523	610	579	526	566	547	561
9	664	604	578	606	598	564	657	624	567	610	590
10	562	662	602	576	604	596	562	655	622	565	608
11	624	549	646	588	562	590	582	549	640	607	552
12	568	609	536	631	574	549	576	568	536	625	593
Total	**6,776**	**6,769**	**6,730**	**6,769**	**6,690**	**6,671**	**6,676**	**6,647**	**6,618**	**6,622**	**6,536**
Annual change		*-7* *-0.1%*	*-39* *-0.6%*	*39* *0.6%*	*-79* *-1.2%*	*-19* *-0.3%*	*5* *0.1%*	*-29* *-0.4%*	*-29* *-0.4%*	*4* *0.1%*	*-86* *-1.3%*
K-5	2,749	2,742	2,776	2,733	2,693	2,706	2,679	2,662	2,630	2,605	2,596
6-8	1,609	1,603	1,592	1,635	1,659	1,666	1,620	1,589	1,623	1,610	1,597
9-12	2,418	2,424	2,362	2,401	2,338	2,299	2,377	2,396	2,365	2,407	2,343

	5 Year Growth: 2012-13 to 2017-18		**5 Year Growth: 2017-18 to 2022-23**		**10 Year Growth: 2012-13 to 2022-23**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-43	*-2%*	-110	*-4%*	-153	*-6%*
6-8	57	*4%*	-69	*-4%*	-12	*-1%*
9-12	-119	*-5%*	44	*2%*	-75	*-3%*
Total	**-105**	***-2%***	**-135**	***-2%***	**-240**	***-4%***

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Table A3

Lake Oswego School District, High Growth Enrollment Forecasts, 2013-14 to 2022-23

	Actual	Forecast									
Grade	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
K	402	391	399	405	396	406	408	406	405	404	404
1	407	442	430	441	438	428	439	441	439	438	437
2	467	428	465	450	462	458	448	460	462	460	458
3	513	491	450	487	471	484	479	469	482	484	482
4	457	539	516	470	509	492	506	501	490	504	506
5	503	478	563	537	489	530	512	527	522	510	525
6	527	525	499	585	558	508	551	532	548	543	530
7	521	552	549	520	610	581	530	574	554	571	566
8	561	541	573	568	538	631	601	548	593	573	590
9	664	609	588	620	615	583	683	651	593	642	621
10	562	667	612	589	621	616	584	684	652	594	643
11	624	553	656	601	578	609	605	573	671	640	583
12	568	614	544	644	590	567	598	594	562	658	628
Total	**6,776**	**6,830**	**6,844**	**6,917**	**6,875**	**6,893**	**6,944**	**6,960**	**6,973**	**7,021**	**6,973**
Annual change		*54* *0.8%*	*14* *0.2%*	*73* *1.1%*	*-42* *-0.6%*	*18* *0.3%*	*51* *0.7%*	*16* *0.2%*	*13* *0.2%*	*48* *0.7%*	*-48* *-0.7%*
K-5	2,749	2,769	2,823	2,790	2,765	2,798	2,792	2,804	2,800	2,800	2,812
6-8	1,609	1,618	1,621	1,673	1,706	1,720	1,682	1,654	1,695	1,687	1,686
9-12	2,418	2,443	2,400	2,454	2,404	2,375	2,470	2,502	2,478	2,534	2,475

	5 Year Growth: 2012-13 to 2017-18		**5 Year Growth: 2017-18 to 2022-23**		**10 Year Growth: 2012-13 to 2022-23**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	49	*2%*	14	*1%*	63	*2%*
6-8	111	*7%*	-34	*-2%*	77	*5%*
9-12	-43	*-2%*	100	*4%*	57	*2%*
Total	**117**	***2%***	**80**	***1%***	**197**	***3%***

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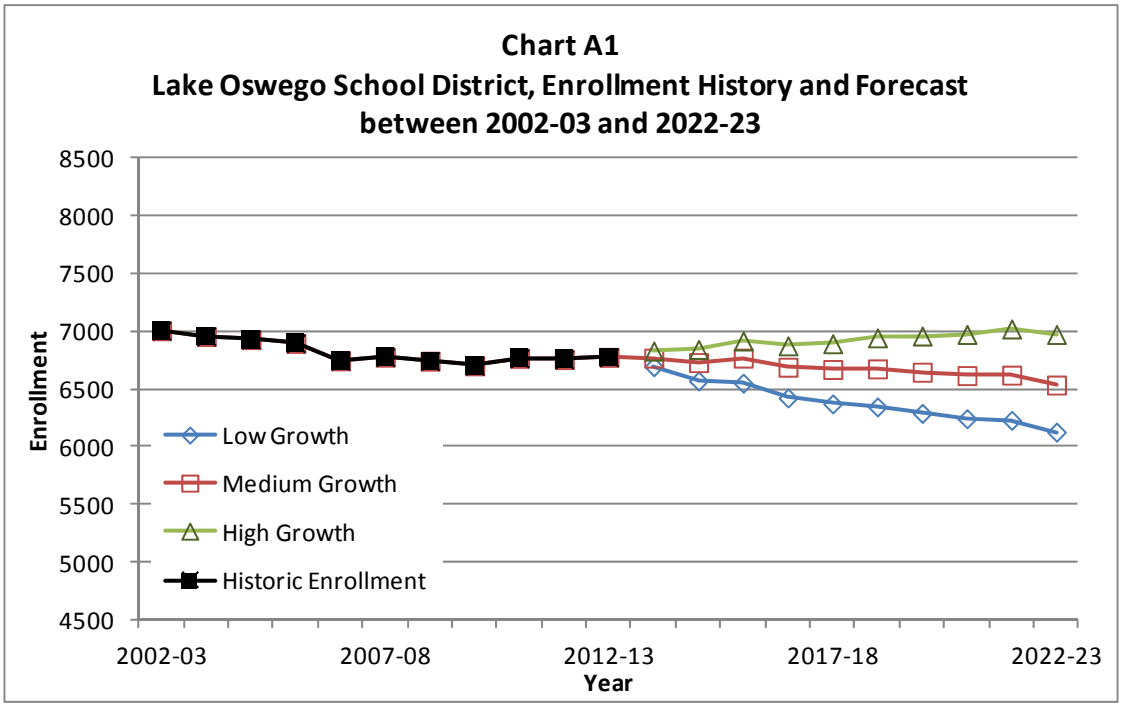
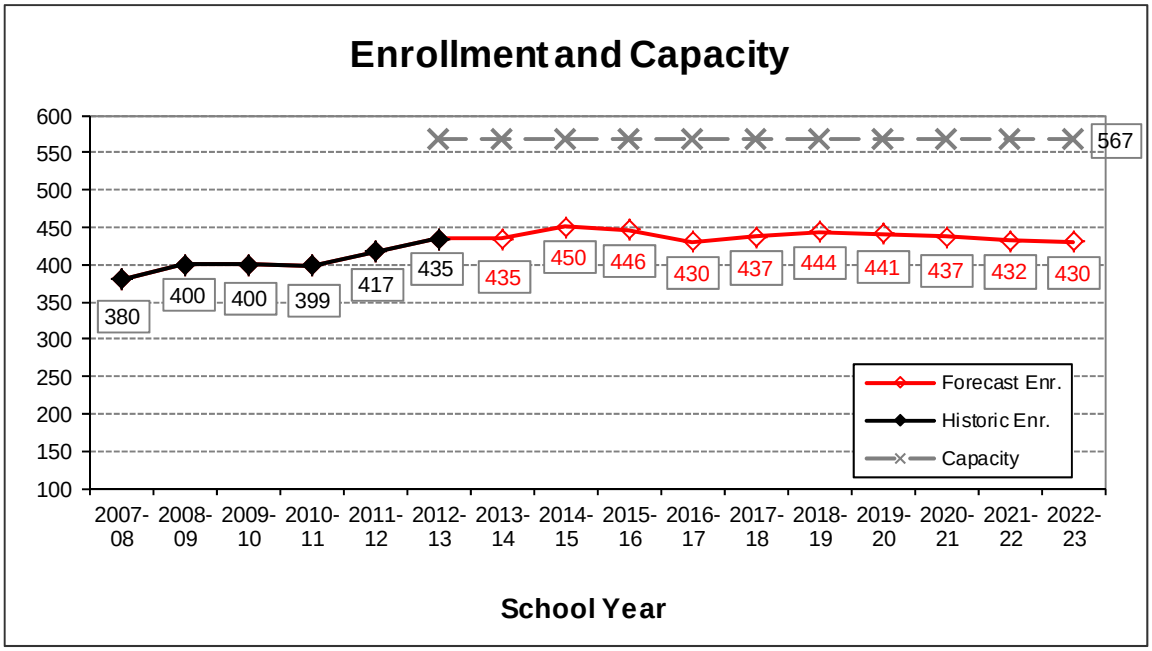


Chart A1
Lake Oswego School District, Enrollment History and Forecast
between 2002-03 and 2022-23
8500
8000
7500
7000
6500
6000
5500
5000
4500
Enrollment
Low Growth
Medium Growth
High Growth
Historic Enrollment
2002-03
2007-08
2012-13
2017-18
2022-23
Year

APPENDIX B

ENROLLMENT PROFILES FOR INDIVIDUAL SCHOOLS

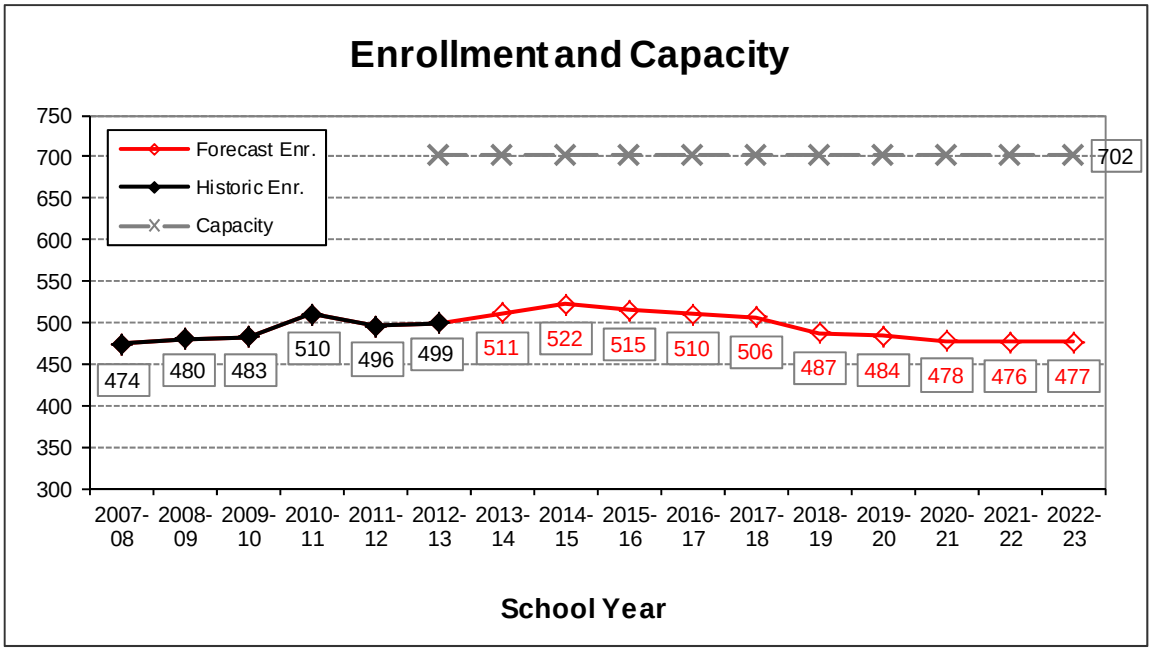
Forest Hills Elementary School



Note: Uplands Elementary closed in 2012 and a portion of its attendance area was reassigned to Forest Hills. Grade configuration changed from K-6 to K-5 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	380	435	437	430
Change		55	2	-7

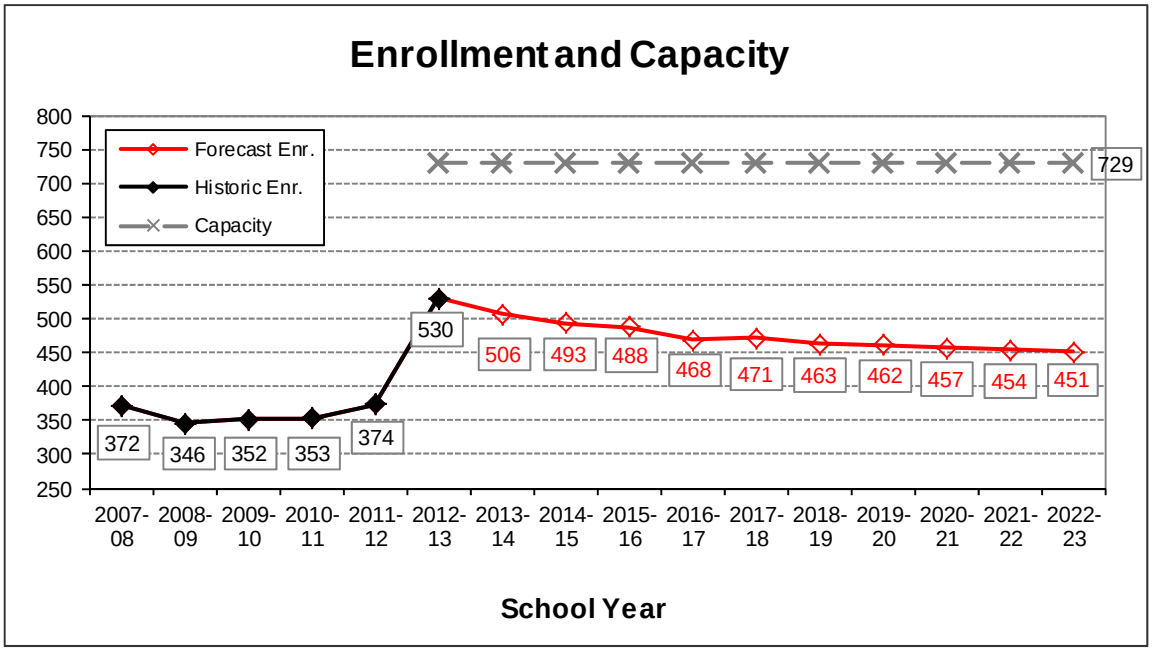
Lake Grove Elementary School



Note: Grade configuration changed from K-6 to K-5 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	474	499	506	477
Change		25	7	-29

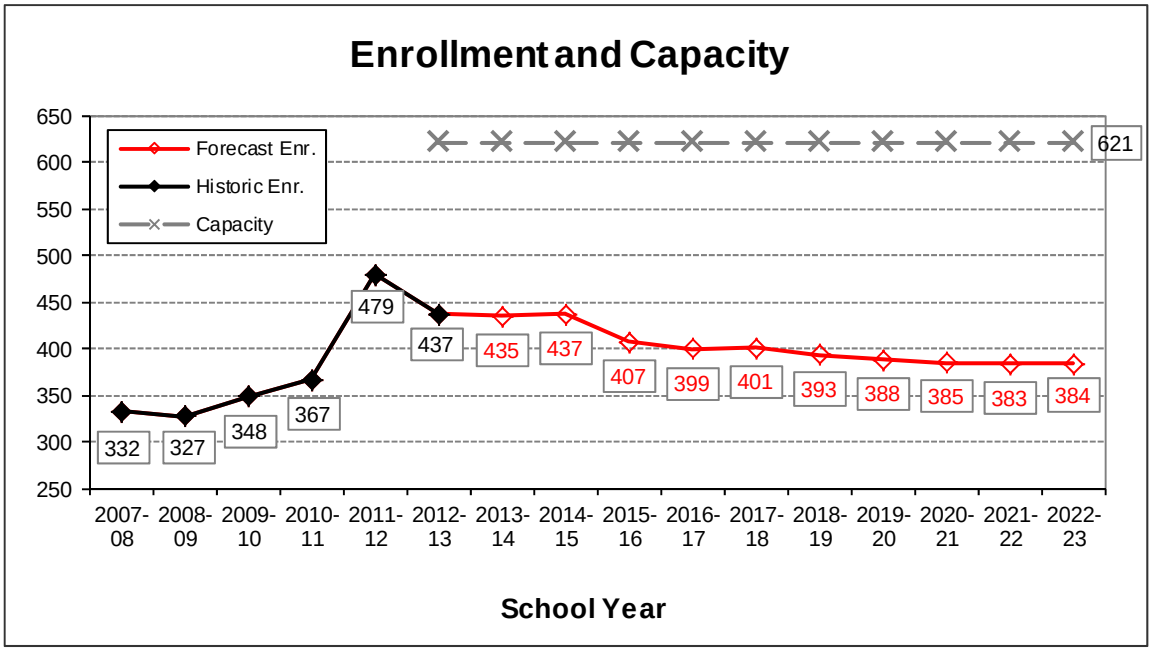
Oak Creek Elementary School



Note: Uplands Elementary closed in 2012 and a portion of its attendance area was reassigned to Oak Creek. Grade configuration changed from K-6 to K-5 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	372	530	471	451
Change		158	-59	-20

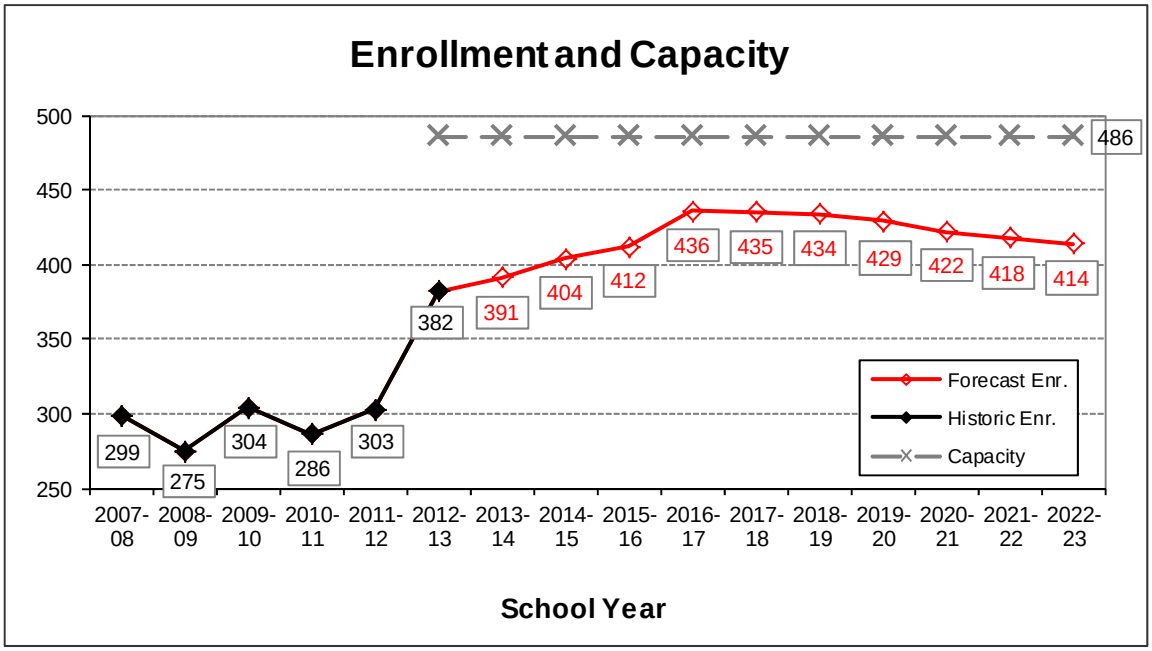
Hallinan Elementary School



Note: Palisades Elementary closed in 2011 and a portion of its attendance area was reassigned to Hallinan. Grade configuration changed from K-6 to K-5 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	332	437	401	384
Change		105	-36	-17

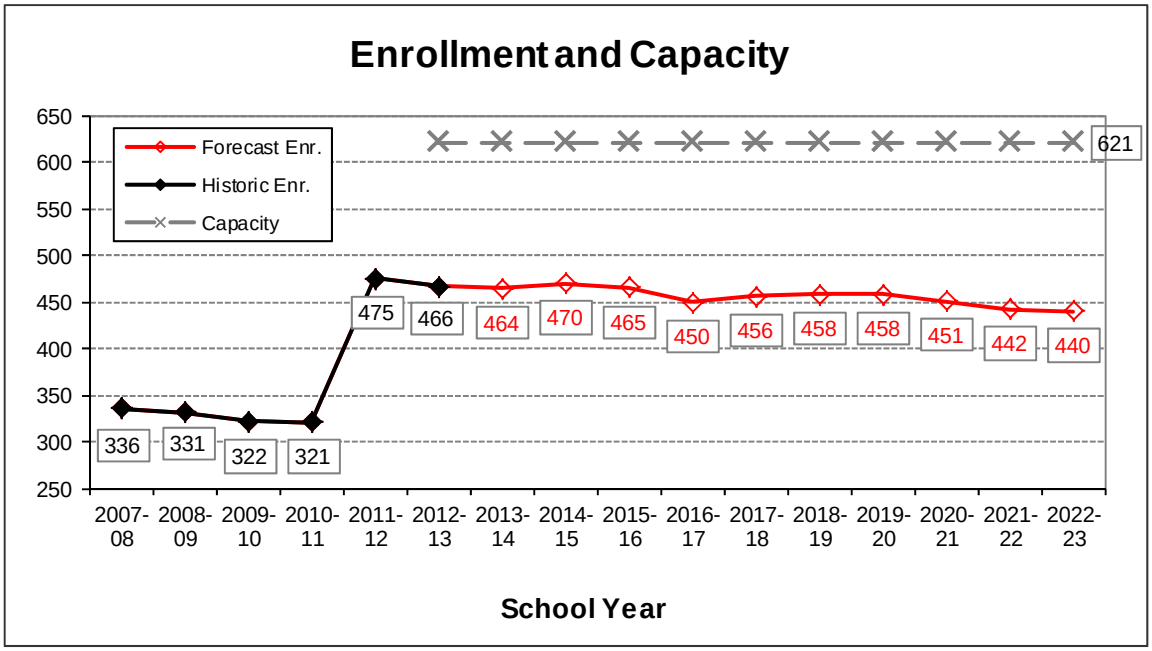
River Grove Elementary School



Note: Bryant Elementary closed in 2012 and a portion of its attendance area was reassigned to River Grove. Grade configuration changed from K-6 to K-5 in 2012-13. The City established a cap of 460 students during a conditional approval in August 2012.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	299	382	435	414
Change		83	53	-21

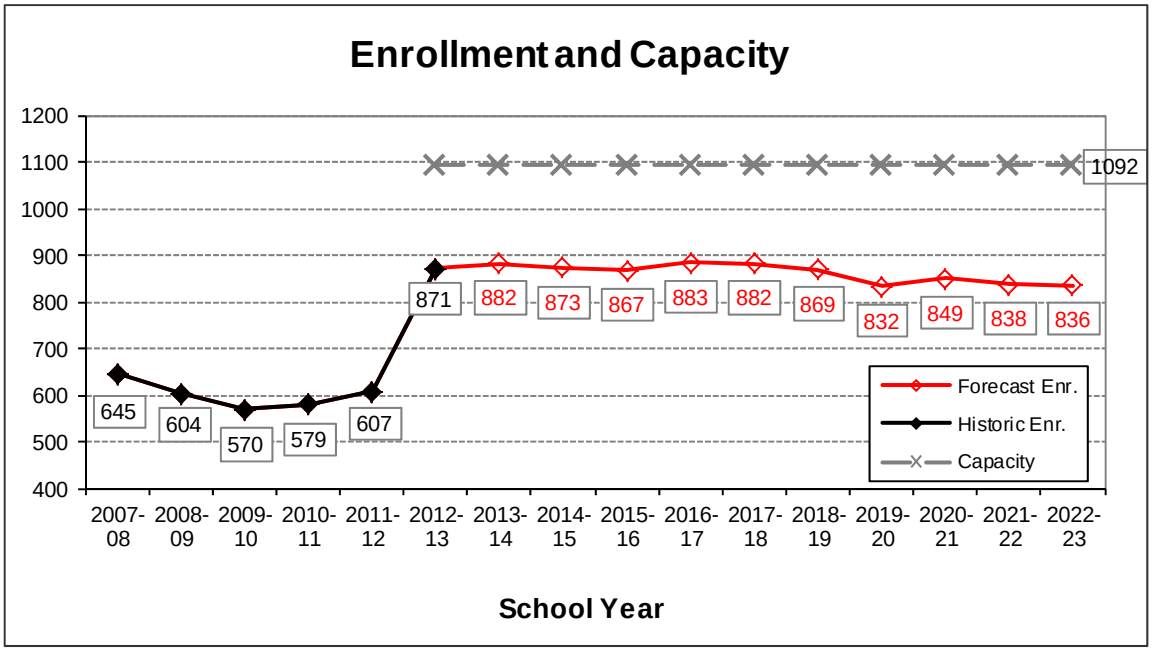
Westridge Elementary School



Note: Palisades Elementary closed in 2011 and a portion of its attendance area was reassigned to Westridge. Bryant Elementary closed in 2012 and a portion of its attendance area was reassigned to Westridge. Grade configuration changed from K-6 to K-5 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	336	466	456	440
Change		130	-10	-16

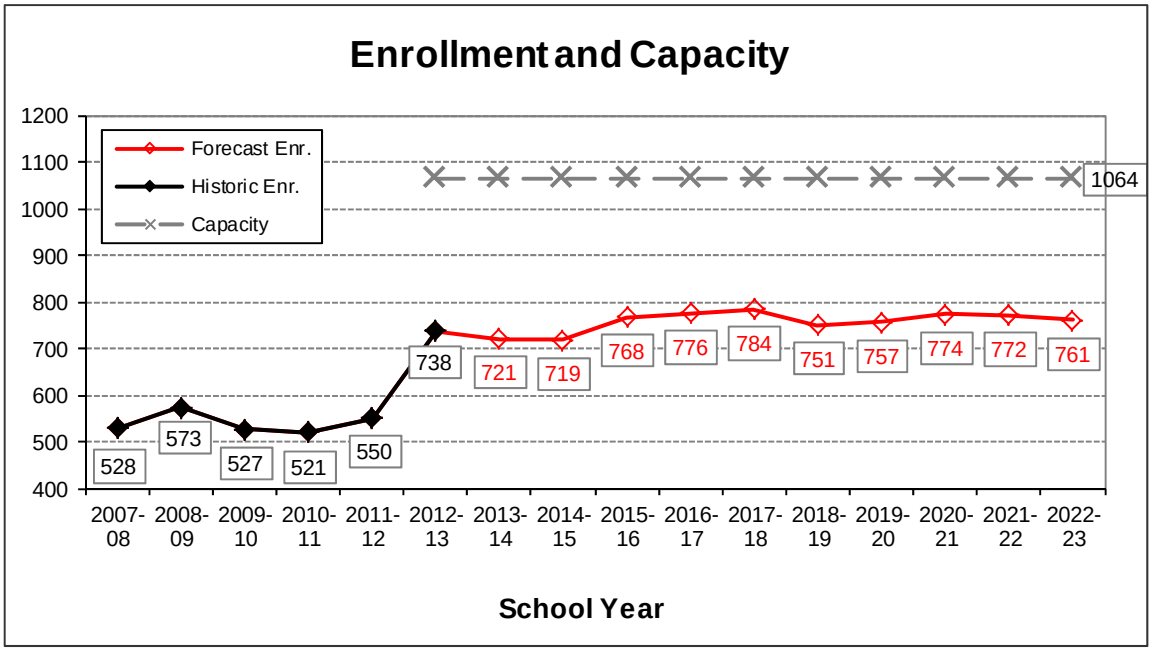
Lake Oswego Junior High School



Note: Grade configuration changed from 7-8 to 6-8 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	645	871	882	836
Change		226	11	-46

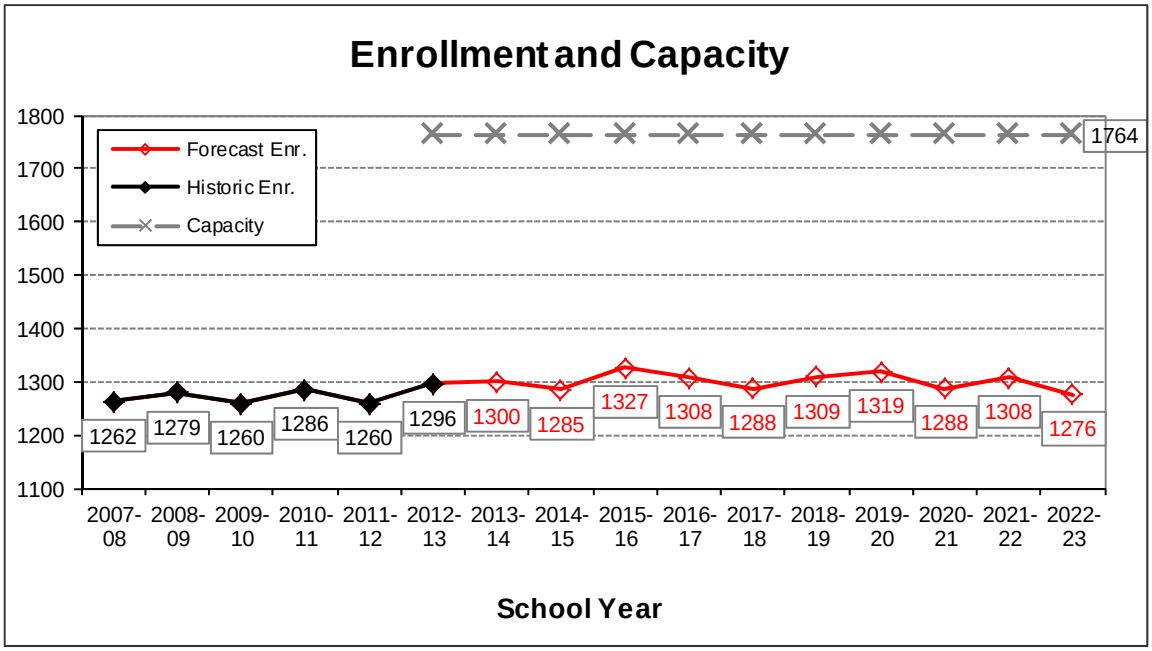
Lakeridge Junior High School



Note: Waluga Junior High School has been renamed as Lakeridge Junior High School in 2012. Grade configuration changed from 7-8 to 6-8 in 2012-13.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	528	738	784	761
Change		210	46	-23

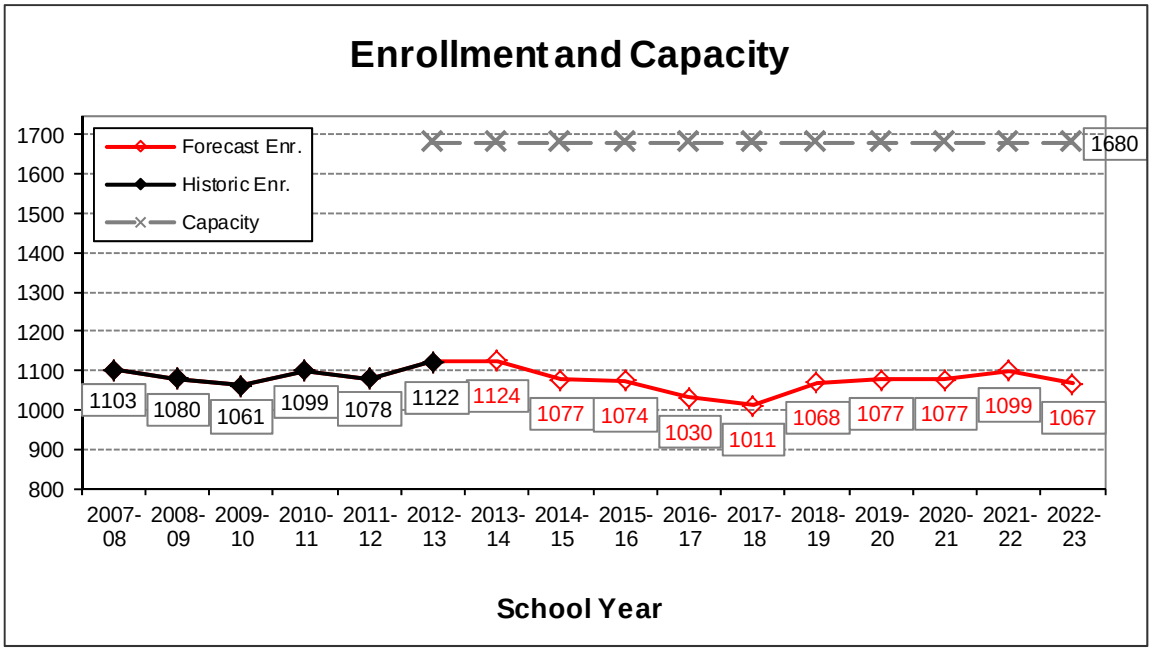
Lake Oswego High School



Note: Open enrollment started in 2012-13 likely increased the number of out of district students enrolling in Lake Oswego High School than it would otherwise had.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	1262	1296	1288	1276
Change		34	-8	-12

Lakeridge High School



Note: Open enrollment started in 2012-13 likely increased the number of out of district students enrolling in Lakeridge High School than it would otherwise had.

Enrollment History and Forecast				
	History		Forecast	
	2007-08	2012-13	2017-18	2022-23
Total enrollment	1103	1122	1011	1067
Change		19	-111	56

APPENDIX C

2000 AND 2010 CENSUS PROFILE FOR THE DISTRICT

2000 and 2010 Census Profile

Lake Oswego School District

Approximation based on census blocks

POPULATION	2000		2010		Change	
SEX AND AGE						
Total population	39,873	*100.0%*	40,755	*100.0%*	882	*2.2%*
Under 5 years	2,061	*5.2%*	1,732	*4.2%*	-329	*-16.0%*
5 to 9 years	2,816	*7.1%*	2,470	*6.1%*	-346	*-12.3%*
10 to 14 years	3,314	*8.3%*	3,054	*7.5%*	-260	*-7.8%*
15 to 19 years	2,771	*6.9%*	2,749	*6.7%*	-22	*-0.8%*
20 to 24 years	1,666	*4.2%*	1,609	*3.9%*	-57	*-3.4%*
25 to 29 years	1,953	*4.9%*	1,902	*4.7%*	-51	*-2.6%*
30 to 34 years	2,100	*5.3%*	1,650	*4.0%*	-450	*-21.4%*
35 to 39 years	2,911	*7.3%*	2,221	*5.4%*	-690	*-23.7%*
40 to 44 years	3,879	*9.7%*	2,808	*6.9%*	-1,071	*-27.6%*
45 to 49 years	4,229	*10.6%*	3,413	*8.4%*	-816	*-19.3%*
50 to 54 years	3,768	*9.5%*	3,926	*9.6%*	158	*4.2%*
55 to 59 years	2,489	*6.2%*	3,659	*9.0%*	1,170	*47.0%*
60 to 64 years	1,540	*3.9%*	3,181	*7.8%*	1,641	*106.6%*
65 to 69 years	1,174	*2.9%*	2,088	*5.1%*	914	*77.9%*
70 to 74 years	1,062	*2.7%*	1,326	*3.3%*	264	*24.9%*
75 to 79 years	980	*2.5%*	963	*2.4%*	-17	*-1.7%*
80 to 84 years	620	*1.6%*	877	*2.2%*	257	*41.5%*
85 years and over	540	*1.4%*	1,127	*2.8%*	587	*108.7%*
Median age (years)	40.4		45.3		4.9	
Under 18 years	10,190	*25.6%*	9,239	*22.7%*	-951	*-9.3%*
18 to 64 years	25,307	*63.5%*	25,135	*61.7%*	-172	*-0.7%*
65 years and over	4,376	*11.0%*	6,381	*15.7%*	2,005	*45.8%*
Male population	19,287	*100.0%*	19,435	*100.0%*	148	*0.8%*
Under 5 years	1,069	*5.5%*	898	*4.6%*	-171	*-16.0%*
5 to 9 years	1,436	*7.4%*	1,294	*6.7%*	-142	*-9.9%*
10 to 14 years	1,743	*9.0%*	1,593	*8.2%*	-150	*-8.6%*
15 to 19 years	1,486	*7.7%*	1,409	*7.2%*	-77	*-5.2%*
20 to 24 years	810	*4.2%*	826	*4.3%*	16	*2.0%*
25 to 29 years	944	*4.9%*	941	*4.8%*	-3	*-0.3%*
30 to 34 years	1,030	*5.3%*	795	*4.1%*	-235	*-22.8%*
35 to 39 years	1,344	*7.0%*	1,042	*5.4%*	-302	*-22.5%*
40 to 44 years	1,765	*9.2%*	1,317	*6.8%*	-448	*-25.4%*
45 to 49 years	1,998	*10.4%*	1,586	*8.2%*	-412	*-20.6%*
50 to 54 years	1,836	*9.5%*	1,824	*9.4%*	-12	*-0.7%*
55 to 59 years	1,256	*6.5%*	1,706	*8.8%*	450	*35.8%*
60 to 64 years	754	*3.9%*	1,522	*7.8%*	768	*101.9%*
65 to 69 years	569	*3.0%*	1,008	*5.2%*	439	*77.2%*
70 to 74 years	466	*2.4%*	597	*3.1%*	131	*28.1%*
75 to 79 years	394	*2.0%*	415	*2.1%*	21	*5.3%*
80 to 84 years	235	*1.2%*	337	*1.7%*	102	*43.4%*
85 years and over	152	*0.8%*	325	*1.7%*	173	*113.8%*

2000 and 2010 Census Profile
Lake Oswego School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
Male population (continued)						
Median age (years)	39.2		43.5		4.3	
Under 18 years	5,292	*27.4%*	4,799	*24.7%*	-493	*-9.3%*
18 to 64 years	12,179	*63.1%*	11,954	*61.5%*	-225	*-1.8%*
65 years and over	1,816	*9.4%*	2,682	*13.8%*	866	*47.7%*
Female population	20,586	*100.0%*	21,320	*100.0%*	734	*3.6%*
Under 5 years	992	*4.8%*	834	*3.9%*	-158	*-15.9%*
5 to 9 years	1,380	*6.7%*	1,176	*5.5%*	-204	*-14.8%*
10 to 14 years	1,571	*7.6%*	1,461	*6.9%*	-110	*-7.0%*
15 to 19 years	1,285	*6.2%*	1,340	*6.3%*	55	*4.3%*
20 to 24 years	856	*4.2%*	783	*3.7%*	-73	*-8.5%*
25 to 29 years	1,009	*4.9%*	961	*4.5%*	-48	*-4.8%*
30 to 34 years	1,070	*5.2%*	855	*4.0%*	-215	*-20.1%*
35 to 39 years	1,567	*7.6%*	1,179	*5.5%*	-388	*-24.8%*
40 to 44 years	2,114	*10.3%*	1,491	*7.0%*	-623	*-29.5%*
45 to 49 years	2,231	*10.8%*	1,827	*8.6%*	-404	*-18.1%*
50 to 54 years	1,932	*9.4%*	2,102	*9.9%*	170	*8.8%*
55 to 59 years	1,233	*6.0%*	1,953	*9.2%*	720	*58.4%*
60 to 64 years	786	*3.8%*	1,659	*7.8%*	873	*111.1%*
65 to 69 years	605	*2.9%*	1,080	*5.1%*	475	*78.5%*
70 to 74 years	596	*2.9%*	729	*3.4%*	133	*22.3%*
75 to 79 years	586	*2.8%*	548	*2.6%*	-38	*-6.5%*
80 to 84 years	385	*1.9%*	540	*2.5%*	155	*40.3%*
85 years and over	388	*1.9%*	802	*3.8%*	414	*106.7%*
Median age (years)	41.3		46.6		5.3	
Under 18 years	4,898	*23.8%*	4,440	*20.8%*	-458	*-9.4%*
18 to 64 years	13,128	*63.8%*	13,181	*61.8%*	53	*0.4%*
65 years and over	2,560	*12.4%*	3,699	*17.3%*	1,139	*44.5%*
AREA AND DENSITY						
2010 Land Area - Acres[1]	8,350		8,350			
Persons per acre	4.8		4.9		0.1	*2.2%*
Persons per square mile	3,056		3,124		68	*2.2%*
RACE						
Total population	39,873	*100.0%*	40,755	*100.0%*	882	*2.2%*
White alone	36,443	*91.4%*	36,505	*89.6%*	62	*0.2%*
Black or African American alone	252	*0.6%*	267	*0.7%*	15	*6.0%*
American Indian and Alaska Native alone	134	*0.3%*	169	*0.4%*	35	*26.1%*
Asian alone	1,696	*4.3%*	2,187	*5.4%*	491	*29.0%*
Native Hawaiian and Other Pacific Islander alor	69	*0.2%*	62	*0.2%*	-7	*-10.1%*
Some Other Race alone	330	*0.8%*	340	*0.8%*	10	*3.0%*
Two or More Races	949	*2.4%*	1,225	*3.0%*	276	*29.1%*

2000 and 2010 Census Profile

Lake Oswego School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
RACE (continued)						
Race alone or in combination with one or more other races[2]						
White	37,324	*93.6%*	37,658	*92.4%*	334	*0.9%*
Black or African American	376	*0.9%*	436	*1.1%*	60	*16.0%*
American Indian and Alaska Native	334	*0.8%*	460	*1.1%*	126	*37.7%*
Asian	2,157	*5.4%*	2,883	*7.1%*	726	*33.7%*
Native Hawaiian and Other Pacific Islander	157	*0.4%*	170	*0.4%*	13	*8.3%*
Some Other Race	549	*1.4%*	476	*1.2%*	-73	*-13.3%*
HISPANIC OR LATINO AND RACE						
Total population	39,873	*100.0%*	40,755	*100.0%*	882	*2.2%*
Hispanic or Latino	1,025	*2.6%*	1,613	*4.0%*	588	*57.4%*
Not Hispanic or Latino	38,848	*97.4%*	39,142	*96.0%*	294	*0.8%*
White alone	35,828	*89.9%*	35,424	*86.9%*	-404	*-1.1%*
Black or African American alone	236	*0.6%*	251	*0.6%*	15	*6.4%*
American Indian and Alaska Native alone	121	*0.3%*	145	*0.4%*	24	*19.8%*
Asian alone	1,690	*4.2%*	2,168	*5.3%*	478	*28.3%*
Native Hawaiian and Other Pacific Islander alc	69	*0.2%*	59	*0.1%*	-10	*-14.5%*
Some Other Race alone	75	*0.2%*	53	*0.1%*	-22	*-29.3%*
Two or More Races	829	*2.1%*	1,042	*2.6%*	213	*25.7%*
RELATIONSHIP						
Total population	39,873	*100.0%*	40,755	*100.0%*	882	*2.2%*
In households	39,694	*99.6%*	40,522	*99.4%*	828	*2.1%*
In family households	33,121	*83.1%*	33,271	*81.6%*	150	*0.5%*
Householder	10,984	*27.5%*	11,278	*27.7%*	294	*2.7%*
Spouse[3]	9,360	*23.5%*	9,421	*23.1%*	61	*0.7%*
Child	11,517	*28.9%*	11,114	*27.3%*	-403	*-3.5%*
Own child under 18 years	9,797	*24.6%*	8,869	*21.8%*	-928	*-9.5%*
Other relatives	801	*2.0%*	985	*2.4%*	184	*23.0%*
Nonrelatives	459	*1.2%*	473	*1.2%*	14	*3.1%*
In nonfamily households	6,573	*16.5%*	7,251	*17.8%*	678	*10.3%*
Householder	5,265	*13.2%*	6,009	*14.7%*	744	*14.1%*
Nonrelatives	1,308	*3.3%*	1,242	*3.0%*	-66	*-5.0%*
Population under 18 in households	10,114	*99.3%*	9,212	*99.7%*	-902	*-8.9%*
Population 18 to 64 in households	25,299	*100.0%*	25,101	*99.9%*	-198	*-0.8%*
Population 65 and over in households	4,281	*97.8%*	6,209	*97.3%*	1,928	*45.0%*
In group quarters	179	*0.4%*	233	*0.6%*	54	*30.2%*

2000 and 2010 Census Profile
Lake Oswego School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
GROUP QUARTERS						
Total group quarters population	179	*100.0%*	233	*100.0%*	54	*30.2%*
Institutionalized population	80	*44.7%*	190	*81.5%*	110	*137.5%*
Male	27	*15.1%*	58	*24.9%*	31	*114.8%*
Female	53	*29.6%*	132	*56.7%*	79	*149.1%*
Noninstitutionalized population	99	*55.3%*	43	*18.5%*	-56	*-56.6%*
Male	30	*16.8%*	13	*5.6%*	-17	*-56.7%*
Female	69	*38.5%*	30	*12.9%*	-39	*-56.5%*
Population under 18 in group quarters	76	*0.7%*	27	*0.3%*	-49	*-64.5%*
Population 18 to 64 in group quarters	8	*0.0%*	34	*0.1%*	26	*325.0%*
Population 65 and over in group quarters	95	*2.2%*	172	*2.7%*	77	*81.1%*

HOUSEHOLDS	2000		2010		Change	
Total households	16,249	*100.0%*	17,287	*100.0%*	1,038	*6.4%*
Family households (families)[4]	10,984	*67.6%*	11,278	*65.2%*	294	*2.7%*
With own children under 18 years	5,462	*33.6%*	5,019	*29.0%*	-443	*-8.1%*
Husband-wife family	9,360	*57.6%*	9,421	*54.5%*	61	*0.7%*
With own children under 18 years	4,509	*27.7%*	4,000	*23.1%*	-509	*-11.3%*
Male householder, no wife present	412	*2.5%*	535	*3.1%*	123	*29.9%*
With own children under 18 years	204	*1.3%*	281	*1.6%*	77	*37.7%*
Female householder, no husband present	1,212	*7.5%*	1,322	*7.6%*	110	*9.1%*
With own children under 18 years	749	*4.6%*	738	*4.3%*	-11	*-1.5%*
Nonfamily households[4]	5,265	*32.4%*	6,009	*34.8%*	744	*14.1%*
Householder living alone	4,180	*25.7%*	4,921	*28.5%*	741	*17.7%*
Male	1,513	*9.3%*	1,673	*9.7%*	160	*10.6%*
65 years and over	195	*1.2%*	398	*2.3%*	203	*104.1%*
Female	2,667	*16.4%*	3,248	*18.8%*	581	*21.8%*
65 years and over	984	*6.1%*	1,517	*8.8%*	533	*54.2%*
Households with individuals under 18 years	5,650	*34.8%*	5,212	*30.1%*	-438	*-7.8%*
Households with individuals 65 years and over	3,083	*19.0%*	4,608	*26.7%*	1,525	*49.5%*
Average household size	2.44		2.34		-0.10	*-4.0%*
Average family size[4]	2.97		2.91		-0.07	*-2.2%*

2000 and 2010 Census Profile
Lake Oswego School District

Approximation based on census blocks

HOUSING UNITS	2000		2010		Change	
Total housing units	17,238	*100.0%*	18,408	*100.0%*	1,170	*6.8%*
Occupied housing units	16,249	*94.3%*	17,287	*93.9%*	1,038	*6.4%*
Owner occupied[5]	11,471	*70.6%*	11,918	*68.9%*	447	*3.9%*
Owned with a mortgage or a loan	N/A		9,222	*77.4%*		
Owned free and clear	N/A		2,696	*22.6%*		
Renter occupied	4,778	*29.4%*	5,369	*31.1%*	591	*12.4%*
Vacant housing units[6]	989	*5.7%*	1,121	*6.1%*	132	*13.3%*
For rent	395	*39.9%*	324	*28.9%*	-71	*-18.0%*
For sale only	314	*31.7%*	260	*23.2%*	-54	*-17.2%*
Rented or sold, not occupied	77	*7.8%*	81	*7.2%*	4	*5.2%*
For seasonal, recreational, or occasional use	103	*10.4%*	183	*16.3%*	80	*77.7%*
For migrant workers	0	*0.0%*	0	*0.0%*	0	--
All other vacants	100	*10.1%*	273	*24.4%*	173	*173.0%*
Owner-occupied housing units	11,471	*70.6%*	11,918	*68.9%*	447	*3.9%*
Population in owner-occupied housing units	30,381		29,999		-382	*-1.3%*
Average household size of owner-occupied unit	2.65		2.52		-0.13	*-4.9%*
Renter-occupied housing units	4,778	*29.4%*	5,369	*31.1%*	591	*12.4%*
Population in renter-occupied housing units	9,313		10,523		1,210	*13.0%*
Average household size of renter-occupied unit	1.95		1.96		0.01	*0.5%*

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.