TIGARD-TUALATIN SCHOOL DISTRICT

ENROLLMENT FORECAST UPDATE

2017-18 TO 2026-27

Portland State UNIVERSITY

Population Research Center



JANUARY, 2017

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Prepared By

Population Research Center

Portland State University

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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 Tigard-Tualatin School District (TTSD). The study includes analysis of population, housing and enrollment trends affecting the District in recent years, estimates of the impacts of housing development on TTSD enrollment, and forecasts of district-wide and individual school enrollments for the 2017-18 to 2026-27 school years.

District-wide Enrollment Trends

- TTSD enrolled 12,499 K-12 students in fall 2015, an increase of nine students (0.1 percent) from fall 2015.
- Fall 2016 K-12 enrollment was the highest since 2008-09.
- Kindergarten enrollment grew by 31 students from fall 2015 in spite of the corresponding birth cohort (births to TTSD residents, September 2010 to August 2011) being the smallest in 12 years.
- Elementary (K-5th) grades enrolled two fewer students in fall 2016 than in fall 2015. There was very little cohort growth (+12 students) between fall 2015 kindergarten and fall 2016 1st grade, as TTSD kindergartens now enroll a higher share of eligible district residents than they did before universal full day kindergarten was implemented in fall 2015.
- Middle (6th-8th) grades enrollment fell by 33 students, almost entirely due to a smaller 6th grade replacing last year's larger 8th grade.
- High school (9th-12th) grades added 44 students between fall 2015 and fall 2016, after adding 50 students the previous year. Fall 2016 enrollment of 4,068 students in grades 9-12 is the largest in District history.

District-wide Population Forecast

- Our forecast for 2020 population in the TTSD is 92,966, an increase of 9,509 persons from the 2010 Census (1.1 percent average annual growth).

- School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 791 person growth in school-age population amounts to 5.4 percent in the 10 year period between 2010 and 2020, or 0.5 percent annually.

- In the 2020 to 2030 period, the 1,074 person growth in school age population results in seven percent growth over the decade, slightly lower than the rate of total population growth.

District-wide Enrollment Forecast

- K-12 enrollment grows by 137 students in the first year of the forecast, as families move into several hundred new housing units now under construction within the District.

- Annual K-12 increases follow throughout the rest of the forecast period, although economic cycles may result in growth less linear than predicted.

- Over the 10 year forecast period, K-12 enrollment is forecast to increase by 999 students (eight percent). Elementary school enrollment is expected to grow by 548 students (10 percent), while middle schools increase by 340 students (12 percent). High school enrollment changes the least, increasing by 243 students (six percent) by 2023-24 before experiencing a temporary decline as the smaller birth cohorts of the 2008 to 2011 period, currently in primary grades, enter high school.

- Table 1 compares the historic and forecast growth for the District by five year increment. Chart 1 depicts the District's 10 year K-12 enrollment history and forecast.

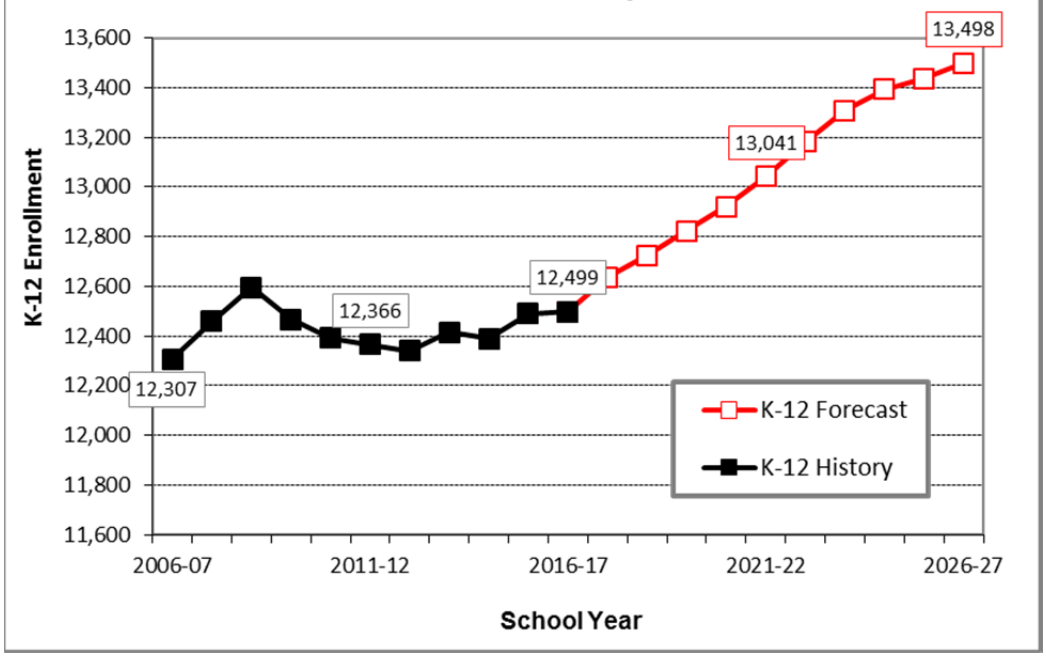
More detailed enrollment forecasts are found in Table 13 on page 34 for the District, and in Table 14 on page 38 for each school, grouped by school level (elementary, middle, and high). Individual school forecasts are also presented in Appendix A.

Table 1
Historic and Forecast Enrollment
Tigard-Tualatin School District

	Actual			Forecast	
	2006-07	**2011-12**	**2016-17**	**2021-22**	**2026-27**
District Total	**12,307**	**12,366**	**12,499**	**13,041**	**13,498**
5 year change		***59***	***133***	***542***	***457***
		0%	***1%***	***4%***	***4%***
K-5	5,671	5,569	5,628	5,904	6,176
5 year change		*-102*	*59*	*276*	*272*
		-2%	*1%*	*5%*	*5%*
6-8	2,796	2,850	2,803	2,961	3,143
5 year change		*54*	*-47*	*158*	*182*
		2%	*-2%*	*6%*	*6%*
9-12	3,840	3,947	4,068	4,176	4,179
5 year change		*107*	*121*	*108*	*3*
		3%	*3%*	*3%*	*0%*

Population Research Center, PSU. December 2016.

Chart 1
TTSD K-12 Enrollment History and Forecast



INTRODUCTION

For the eleventh consecutive year, the Portland State University Population Research Center (PRC) has prepared enrollment forecasts for the Tigard-Tualatin School District (TTSD). This report updates TTSD enrollment history and local area population, housing, and economic trends, and presents new forecasts for a 10 year horizon from 2017-18 to 2026-27. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, city and county population estimates produced by PRC, housing development data from the cities and counties, and residential capacity data and forecasts from Metro.

The District serves the cities of Tigard, Tualatin, Durham and King City, and portions of unincorporated Washington County, notably the Metzger and Bull Mountain communities.[1] Most of the District is within Washington County; a portion in Clackamas County (to the east of SW 65th Ave. in the City of Tualatin) contains less than three percent of the District's total population.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District. Next are the results of the district-wide enrollment forecasts and individual school forecasts, and a description of the methodology used to produce them. The final section contains a brief discussion of the nature and accuracy of forecasts. An appendix contains a one page profile for each school showing its enrollment history, enrollment forecasts, and capacity.

[1] The northern edge of the City of Tigard is served by the Beaverton School District, and small portions of the City of Tualatin are served by the West Linn-Wilsonville and Sherwood School Districts.

POPULATION, EMPLOYMENT, AND HOUSING TRENDS

Between 2000 and 2010, total population within the TTSD grew by 16 percent, from 72,164 persons to 83,457. This growth rate was similar to the Portland metropolitan area's 15 percent growth in the decade. More than 97 percent of TTSD residents lived within the Washington County portion of the District (81,311 persons in 2010). Clackamas County accounted for the rest (2,146 persons in 2010). The District added 11,293 residents between 2000 and 2010. Its 16 percent rate of population growth during the 2000s was slightly less than the 19 percent growth experienced by Washington County overall, but greater than the 11 percent growth rate in Clackamas County. Table 2 includes PRC's 2016 estimates for the cities and counties served by TTSD, showing slower annual growth rates since 2010 of 0.6 percent for the City of Tigard and 0.5 percent for the City of Tualatin.

Table 2

City and Region Population, 2000, 2010, and 2016

				Avg. Annual Growth Rate	
	2000	2010	2016	2000-2010	2010-2016
City of Durham	1,382	1,351	1,880	*-0.2%*	*5.4%*
City of King City[1]	1,949	3,111	3,530	*4.8%*	*2.0%*
City of Tigard[2]	41,223	48,035	49,745	*1.5%*	*0.6%*
City of Tualatin[3]	22,791	26,054	26,840	*1.3%*	*0.5%*
Tigard-Tualatin S.D.	72,164	83,457	N/A	*1.5%*	N/A
Clackamas County	338,391	375,992	404,980	*1.1%*	*1.2%*
Washington County	445,342	529,710	583,595	*1.8%*	*1.6%*
Portland-Vancouver-Hillsboro MSA[4]	1,927,881	2,226,009	2,407,540	*1.4%*	*1.3%*

1. King City's population growth includes the annexation of 288 residents between 2000 and 2010.

2. Population of the entire city. About 84.5% of the city's population is within the TTSD. Population growth includes the annexation of 1,119 residents between 2000 and 2010 and 52 residents between 2010 and 2016.

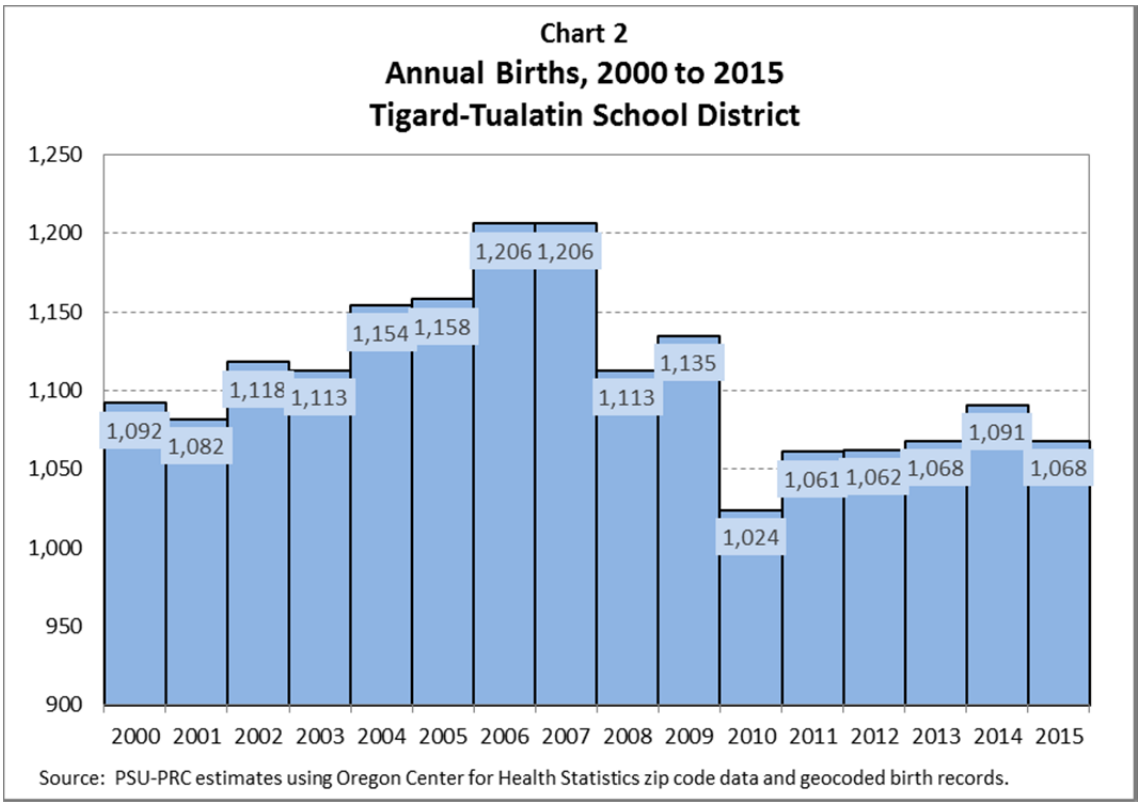
3. Population of the entire city. About 95% of the city's population is within the TTSD. Population growth includes the annexation of 53 residents between 2000 and 2010 and 4 residents between 2010 and 2016.

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 aggregated to TTSD boundary by PSU Population Research Center; Portland State University Population Research Center, July 1, 2016 estimates; State of Washington Office of Financial Management April 1, 2016 estimates.

Births

The number of births to women residing within the District peaked in 2007, just as it did in the U.S. and in Oregon. In both the U.S. and in Oregon, annual births fell more than eight percent between 2007 and 2011. Births began to rebound in Oregon in 2013 and in the U.S. in 2014.[2] Chart 2 shows that the number of births to TTSD residents remained relatively stable between 2011 and 2015. The annual average of 1,070 births during this five year period remains 12 percent below the 2007 peak. In the "Enrollment Forecasts" section of this report we will examine the relationship between births, migration, and subsequent school enrollments.



Employment

Population growth in the TTSD depends to a great extent on the strength of the metro area's economy. Although there are more than 1.5 jobs in TTSD for every employed resident, recent

[2] "Births: Final Data for 2014." National Vital Statistics Report, Volume 64, Number 12, National Center for Health Statistics; *Oregon Vital Statistics Annual Report 2014 Volume 1*, Oregon Health Authority, Center for Health Statistics.

data show that more than four out of five residents commute outside of the District to work. The City of Portland and the Beaverton-Hillsboro area are the leading workplace destinations for District residents.[3]

The MSA lost 64,000 jobs between 2008 and 2010, causing in-migration to slow to a trickle, and the mortgage housing crisis slowed the demand for new single family homes that had fueled the TTSD's long streak of annual enrollment growth. By 2013 employment totals had slowly recovered to their pre-recession peak level, but unemployment rates in the MSA remained above U.S. rates and household formation lagged behind job growth.[4] In 2015, job growth rivaled the pre-recession levels of the mid-2000s, as the MSA added about 35,000 jobs between 2014 and 2015.[5] In November 2016 the MSA's seasonally adjusted unemployment rate of 4.6 percent was identical to the U.S. rate. The Oregon Employment Department estimates that non-seasonally adjusted unemployment rates in November 2016 were 3.5 percent in Tigard and 3.6 percent in Tualatin.[6]

The Clackamas-Multnomah-Washington County tri-county area is projected to add 140,000 jobs between 2014 and 2024. The tri-county job growth rate of 15 percent is significantly higher than the nation's projected job growth rate of 6.5 percent over the same period.[7]

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[3] U.S. Census Bureau, LED Origin-Destination Database (2014). Commute shed report for residents of TTSD. Includes workers at firms covered by unemployment insurance (excludes most agricultural jobs and self-employed. https://onthemap.ces.census.gov/.

[4] "What's the Story behind Household Formations?" Federal Reserve Bank of Atlanta. June 24, 2013. At https://www.frbatlanta.org/news/conferences/2013/130624-speaker-series-household-formations.aspx.

[5] "Current Employment Estimates," Oregon Employment Department. https://www.qualityinfo.org/ed-ceest. Average annual non-farm employment in the Portland-Vancouver-Hillsboro MSA was 1,043,400 in 2008, 979,200 in 2010, 1,043,700 in 2013, 1,076,000 in 2014 and 1,111,400 in 2015.

[6] Washington County Economic Indicators, December 2016 (November Data). Oregon Employment Department. Retrieved at https://www.qualityinfo.org/documents/10182/96541/Washington+County+Economic+Indicators?version=1.23

[7] Oregon Employment Projections, 2014-2024. Oregon Employment Department, Workforce and Economic Research. June 13, 2016.

Housing

Table 3 presents housing and household characteristics for TTSD compiled from the decennial censuses of 1990, 2000, and 2010. The figures are based on our aggregation of census block data to approximate the District boundaries. The boundaries used to compile the data are consistent with the tax assessors' parcel files and the District's maps. Data for TTSD published by the Census Bureau and the U.S. Department of Education show a smaller population and fewer households due to inaccurate boundaries used in the Census Bureau's geographic system.

Table 3
Tigard-Tualatin School District
Housing and Household Characteristics, 1990, 2000, and 2010

				10 year Change	
	1990	2000	2010	'90-'00	'00-'10
Housing Units	22,467	30,831	35,228	8,364	4,397
Households	21,317	29,097	33,454	7,780	4,357
Households with children < 18	7,097	10,090	11,153	2,993	1,063
share of total	*33%*	*35%*	*33%*		
Households with no children < 18	14,220	19,007	22,301	4,787	3,294
share of total	*67%*	*65%*	*67%*		
Household Population	51,391	71,714	82,949	20,323	11,235
Persons per Household	2.41	2.46	2.48	0.05	0.01

Source: U.S. Census Bureau, 1990, 2000, and 2010 Censuses; data aggregated to TTSD boundary by Portland State University Population Research Center.

Although the District added fewer housing units in the 2000s than in the 1990s, Chart 3 shows significant growth in single family housing prior to the Great Recession, with an average of 540 homes permitted annually from 2001 to 2006. In contrast, an average of only 164 single family homes were permitted annually from 2008 to 2015. In 2016, the District saw the greatest single family home development since 2006, with permits approved for 424 homes. About 175 of those were in Tigard's River Terrace area.[8]

[8] PSU-PRC compiled TTSD district-wide totals shown in Chart 3 for 2000 to 2013 from the U.S. Census Bureau Building Permits Survey, at https://www.census.gov/construction/bps/ (citywide totals for Durham, King City, and Tualatin) and geocoded building permit records from the City of Tigard and Washington County. Totals for 2014 to 2016 are based on individual records from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

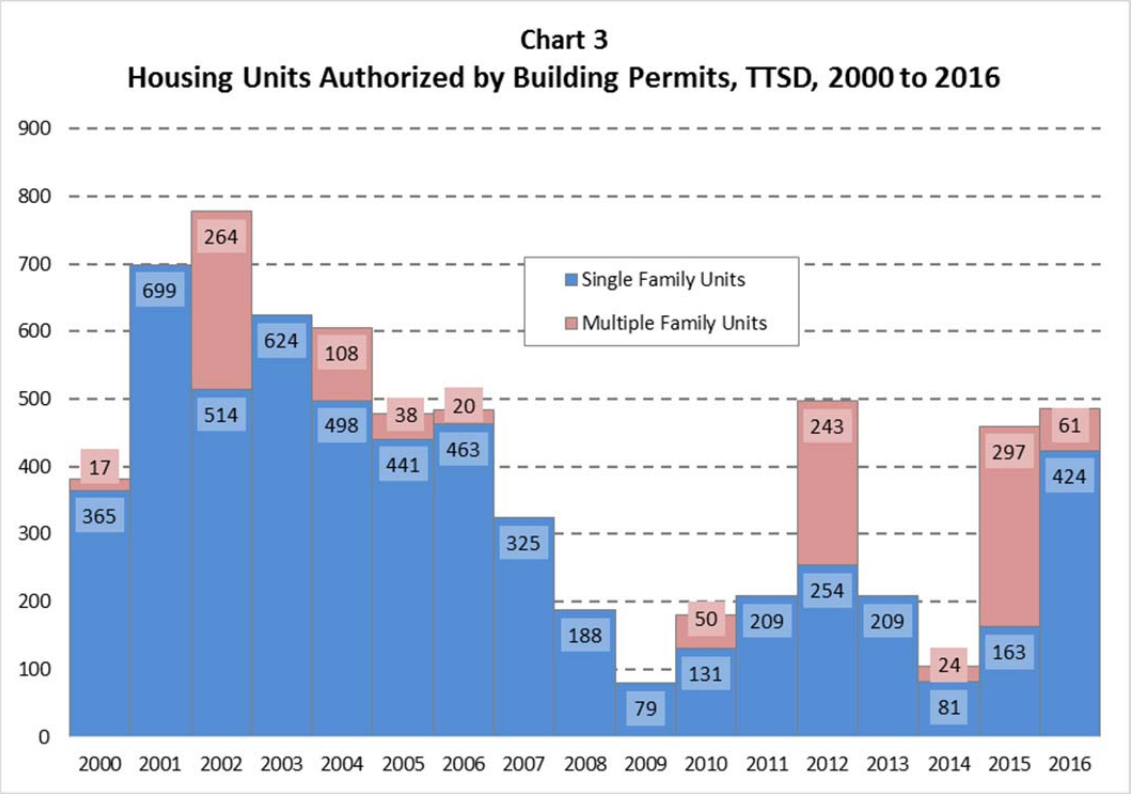


Table 4 on the following page reports the number of housing units approved within each TTSD attendance area. Current development is relatively balanced between the two high schools, with a three year total of 335 single family permits in the Tigard High area and 333 in the Tualatin High area. However, the Hazelbrook Middle School portion of the Tualatin High area is seeing much less development than the other two middle schools. Among elementary school areas, Alberta Rider, Woodward, and Metzger are experiencing the greatest amount of single family home construction, while Deer Creek and Templeton both have large apartment complexes completed or nearing completion.

Table 5 lists selected land use applications submitted to local jurisdictions in 2014 through 2016. Including smaller developments not in the list there were more than 1800 lots in subdivisions and more than 600 apartment units. Housing construction is underway in all of the developments submitted in 2014 and nearly all of those submitted in 2015. The River Terrace Community Plan area accounts for 1,070 of the TTSD subdivision lots[9].

[9] For more information about development in River Terrace, see http://riverterracetigard.com/.

Table 4

New Housing Units Authorized by Building Permits 2014 to 2016 by Attendance Area

Single Family Units

Elementary Area	2014	2015	2016	Total
Alberta Rider	26	66	119	**211**
Bridgeport	0	0	0	**0**
Byrom	8	6	2	**16**
C.F. Tigard	2	5	12	**19**
Deer Creek	1	15	37	**53**
Durham	2	1	16	**19**
Metzger	24	41	41	**106**
Templeton	1	10	11	**22**
Tualatin	7	6	39	**52**
Woodward	10	13	147	**170**
District Total	**81**	**163**	**424**	**668**

Middle/High Area	2014	2015	2016	Total
Fowler/Tigard	36	59	200	**295**
Hazelbrook/Tualatin	15	18	45	**78**
Twality/Tigard	3	10	27	**40**
Twality/Tualatin	27	76	152	**255**
District Total	**81**	**163**	**424**	**668**

Multiple Family Units

Elementary Area	2014	2015	2016	Total
Alberta Rider	0	0	0	**0**
Bridgeport	0	0	0	**0**
Byrom	0	0	0	**0**
C.F. Tigard	0	0	4	**4**
Deer Creek	0	118	0	**118**
Durham	0	0	0	**0**
Metzger	0	0	57	**57**
Templeton	24	165	0	**189**
Tualatin	0	14	0	**14**
Woodward	0	0	0	**0**
District Total	**24**	**297**	**61**	**382**

Middle/High Area	2014	2015	2016	Total
Fowler/Tigard	0	0	61	**61**
Hazelbrook/Tualatin	0	14	0	**14**
Twality/Tigard	24	165	0	**189**
Twality/Tualatin	0	118	0	**118**
District Total	**24**	**297**	**61**	**382**

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

Table 5

Selected Land Use Applications[1]

Tigard-Tualatin School District, 2014 to 2016

	Attendance Areas					
Year[2]	Elementary	Middle	High	Development Name	Jurisdiction	Lots/ Units
2014	Alberta Rider	Twality	Tualatin	Park Place Estates	Tigard	25
	Alberta Rider	Twality	Tualatin	River's Edge	King City	80
	C.F. Tigard	Fowler	Tigard	Olson Woods	Tigard	13
	Deer Creek	Hazelbrook	Tualatin	Rayborn Estates	Tualatin	12
	Deer Creek	Twality	Tualatin	Castle Oaks East (SF lots)	King City	23
	Deer Creek	Twality	Tualatin	Castle Oaks East (apts)[3]	King City	22
	Deer Creek	Twality	Tualatin	River Ridge Apartments[3]	Tualatin	180
	Durham	Twality	Tigard	Hoggans Park	Tigard	12
	Metzger	Fowler	Tigard	Oak Street Estates	Tigard	38
	Metzger	Fowler	Tigard	Spruce Glen	Tigard	12
	Metzger	Fowler	Tigard	9550 SW Greenburg Rd[3]	Tigard	57
	Templeton	Twality	Tigard	Ashwood	Tigard	12
	Templeton	Twality	Tigard	113th Avenue Apartments[3]	Tigard	24
	Templeton	Twality	Tigard	Greenswards Park No. 4	Tigard	15
	Tualatin	Hazelbrook	Tualatin	Heather Ridge	Tualatin	16
2015	Alberta Rider	Twality	Tualatin	Polygon at Bull Mountain	Tigard	82
	Alberta Rider	Twality	Tualatin	Polygon at River Terrace Edge	Tigard	237
	Alberta Rider	Twality	Tualatin	Polygon at S. River Terrace	Tigard	190
	Alberta Rider	Twality	Tualatin	Summit Ridge No. 5	Tigard	29
	Bridgeport	Hazelbrook	Tualatin	Sagert Farm	Tualatin	79
	Deer Creek	Twality	Tualatin	Maxfield Gardens	King City	36
	Durham	Twality	Tigard	Heritage Crossing	Tigard	62
	Metzger	Fowler	Tigard	Ash Creek Village	Tigard	13
	Templeton	Twality	Tigard	Atwell Off Main Apts[3]	Tigard	171
	Templeton	Twality	Tigard	Annand Hill	Tigard	30
	Tualatin	Hazelbrook	Tualatin	Mission Terrace	Tualatin	13
	Woodward	Fowler	Tigard	Polygon at Roshak Ridge	Tigard	244
	Woodward	Fowler	Tigard	Polygon at W. River Terrace	Tigard	137
2016	Durham	Twality	Tigard	Elderberry Ridge	Tigard	40
	Alberta Rider	Twality	Tualatin	Madeline Heights	Tigard	16
	Alberta Rider	Twality	Tualatin	River Terrace Crossing	Tigard	180

1. Subdivisions and apartments with fewer than 12 lots or units are not included.

2. "Year" indicates the year in which the application was submitted. Some applications may still be pending approval. Construction and occupancy generally occur in later years.

3. Apartments.

Source: Compiled by PSU-PRC from Planning Department documents.

ENROLLMENT TRENDS

The TTSD enrolled 12,499 K-12 students in fall 2015, a small increase of nine students (0.1 percent) from fall 2015; K-12 enrollment was 109 students greater than in fall 2014 and 158 students greater than the recent low observed in fall 2012.

Although recent enrollment gains have been small, significant cohort growth has occurred in each of the past four years since 2012-13, indicating net migration of families with children into the District. Overall growth has been muted by smaller incoming kindergarten classes following the birth downturn, and relatively large high school graduating classes.

Elementary (K-5th) grades enrolled two fewer students in fall 2016 than in fall 2015, although kindergarten enrollment experienced a significant increase of 31 students. The kindergarten growth occurred in spite of the corresponding birth cohort (births to TTSD residents, September 2010 to August 2011) being the smallest in 12 years. As expected, there was very little cohort growth (+12 students) between fall 2015 kindergarten and fall 2016 1st grade, as TTSD kindergartens now enroll a higher share of eligible district residents than they did before universal full day kindergarten was implemented in fall 2015.

Middle (6th-8th) grades enrollment fell by 33 students, almost entirely due to a smaller 6th grade replacing last year's larger 8th grade. In contrast, high school (9th-12th) grades added 44 students between fall 2015 and fall 2016, after adding 50 students the previous year. TTSD enrollment in grades 9-12 crossed the 4,000 threshold for the first time in fall 2015, and fall 2016 enrollment of 4,068 students is the largest in District history.

Table 6 includes the enrollment history for the District by grade level annually for the past 10 years, from 2006-07 to 2016-17. The figures at the bottom of Table 6 summarize growth by elementary, middle and high school grade level groups for five and 10 year periods.

Table 6

Tigard-Tualatin School District, Enrollment History, 2006-07 to 2016-17

Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
K	906	860	924	886	902	877	939	877	879	862	893
1	990	984	919	971	896	942	935	986	958	922	874
2	905	1,017	1,010	927	949	885	917	941	974	974	920
3	964	903	1,009	1,007	909	935	888	911	936	977	982
4	931	963	919	970	1,001	919	928	898	930	972	996
5	975	945	990	922	985	1,011	926	948	895	923	963
6	910	965	974	966	904	967	975	932	938	934	927
7	929	937	981	969	958	910	960	991	932	945	928
8	957	953	936	987	937	973	928	971	974	957	948
9	992	1,015	976	944	1,028	1,006	1,011	984	1,023	1,021	1,031
10	1,033	1,015	1,006	977	951	1,014	986	1,012	977	1,029	1,045
11	910	1,007	973	968	978	937	990	971	972	956	1,011
12	898	890	976	968	993	988	958	993	1,002	1,018	981
US*	7	6	2	5	2	2	0	0	0	0	0
Total	**12,307**	**12,460**	**12,595**	**12,467**	**12,393**	**12,366**	**12,341**	**12,415**	**12,390**	**12,490**	**12,499**
Annual change		*153*	*135*	*-128*	*-74*	*-27*	*-25*	*74*	*-25*	*100*	*9*
		1.2%	*1.1%*	*-1.0%*	*-0.6%*	*-0.2%*	*-0.2%*	*0.6%*	*-0.2%*	*0.8%*	*0.1%*
K-5	5,671	5,672	5,771	5,683	5,642	5,569	5,533	5,561	5,572	5,630	5,628
6-8	2,796	2,855	2,891	2,922	2,799	2,850	2,863	2,894	2,844	2,836	2,803
9-12	3,840	3,933	3,933	3,862	3,952	3,947	3,945	3,960	3,974	4,024	4,068

	5 Year Change: 2006-07 to 2011-12		5 Year Change: 2011-12 to 2016-17		10 Year Change: 2006-07 to 2016-17	
	Change	**Pct.**	**Change**	**Pct.**	**Change**	**Pct.**
K-5	-102	*-2%*	59	*1%*	-43	*-1%*
6-8	54	*2%*	-47	*-2%*	7	*0%*
9-12	107	*3%*	121	*3%*	228	*6%*
Total	**59**	***0%***	**133**	***1%***	**192**	***2%***

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

Source: Tigard-Tualatin School District

Private and Home School Enrollment and District "Capture Rate"

Because TTSD residents may attend private schools beyond the District's boundaries, the best source for private school enrollment by residence is census household survey data. The Census Bureau's American Community Survey (ACS) includes questions about school enrollment by level and by type (public or private). The ACS estimate from TTSD households surveyed between 2011 and 2015 indicates that only 8.2 percent of TTSD K-12 students are enrolled in private schools.[10]

Another difference between TTSD enrollment and child population can be attributed to home schooling. Home schooled students living in the District are required to register with the Northwest Regional Educational Service District (NWRESD), though the statistics kept by the NWRESD 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. In 2015-16 there were 445 TTSD residents registered as home schooled[11], up from 424 in 2014-15 and 366 in 2013-14. The 445 students account for about three percent of TTSD residents age seven to eighteen. In 2012-13 and 2011-12 there were 320 and 293 TTSD home schooled students respectively. Home school student numbers, although small, have been steadily increasing.

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 TTSD 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 little or no change in the District's "capture rates." In both periods, TTSD enrollment accounted for about 78 to 79 percent of the kindergarten-age population and 84 percent of the 1st grade age population. That means that about 22 percent of kindergarten-age children and 16 percent of first grade age

[10] U.S. Census Bureau 2011-2015 American Community Survey, Table S1401. The margin of error of the ACS estimate at the 90 percent confidence level is plus or minus 2.4 percent.
[11] Northwest Regional Education Service District, *2015-16 Annual Report*.

children were not enrolled in TTSD 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.

Charter Schools

The District's only charter school, MITCH, is not included in the enrollment history or forecasts in this report. The school opened in 2003-04, and has been at or near its capacity and charter agreement of 250 students since 2010-11, when it expanded to include grades K-8. Therefore, it may have had an impact on enrollment at district-run schools several years ago, but has had little or no impact since 2010-11.

District residency is not a requirement at many charter schools. Therefore, residents of TTSD may be enrolled at charters in neighboring districts or at online schools with statewide enrollment. Students enrolled in online charters may be attending from home, but are not counted in the home school registry.

Inter-District Transfers and Open Enrollment

Under Oregon's inter-district transfer rules that were in place prior to 2012-13, students who wanted to attend a public school outside of their resident district had to gain approval from their home district and the district that they want to attend, and that approval needed to be renewed each year. Table 7 shows that the net flows under these rules may have contributed to a small loss of 20 TTSD students between 2010-11 and 2011-12, from a net inflow of 15 students to a net outflow of five students.

Beginning with the 2012-13 school year, Oregon adopted a new open enrollment policy under which students may transfer without approval of their home district to a district that designates available spaces at its schools.[12] The TTSD and several neighboring districts adopted the policy. In the initial year of the new policy, slightly more students transferred out of the TTSD than into

[12] The Oregon Department of Education (ODE) provides information about House Bill 3681 at http://www.ode.state.or.us/news/announcements/announcement.aspx?=7750.

it, and additional net loss occurred under the traditional inter-district transfer rules.[13] The overall net loss of 28 students in 2012-13 compared with 2011-12 was roughly equivalent to the District's net enrollment loss of 25 students during the same period.

Because students who enroll in another district under the open enrollment policy do not need to reapply each year, the impact may be cumulative. However, the net outflow of 24 students under open enrollment in 2013-14 was offset by a 23 student decrease in TTSD residents transferring to other school districts under the traditional inter-district transfer rules. The transfer flows in the 2014-15 school year exhibited a similar trend, with a net outflow of 18 students under open enrollment offset by a 17 student decrease in inter-district transfers out of TTSD. We conclude that transfers contributed to a net loss of TTSD students in the 2011-12 and 2012-13 school years, but little or no enrollment change in the 2013-14 or 2014-15 school years. In 2015-16, Inter-district transfers were equal in both directions, netting out to zero, while open enrollment resulted in 34 students entering and 18 leaving for a net increase of 16.

[13] Inter-district transfers remain as one method of transfer. The policy was modified by House Bill 2747, effective with the 2014-15 school year. The ODE provides information about House Bill 2747 at http://www.ode.state.or.us/superintendent/priorities/faq-for-interdistrict-transfer-formatted.pdf.

Table 7
Inter-District Transfers and Open Enrollment

	Inter-District Transfers			Open Enrollment		
	Into TTSD	Out of TTSD	Net	Into TTSD	Out of TTSD	Net
2010-11						
K-5	24	22	2	N/A	N/A	N/A
6-8	12	5	7	N/A	N/A	N/A
9-12	35	29	6	N/A	N/A	N/A
K-12	71	56	15	N/A	N/A	N/A
2011-12						
K-5	22	17	5	N/A	N/A	N/A
6-8	7	7	0	N/A	N/A	N/A
9-12	27	37	-10	N/A	N/A	N/A
K-12	56	61	-5	N/A	N/A	N/A
2012-13						
K-5	19	16	3	7	19	-12
6-8	3	13	-10	2	6	-4
9-12	18	37	-19	14	5	9
K-12	40	66	-26	23	30	-7
2013-14						
K-5	11	14	-3	7	25	-18
6-8	4	7	-3	1	15	-14
9-12	29	22	7	16	8	8
K-12	44	43	1	24	48	-24
2014-15						
K-5	9	14	-5	16	31	-15
6-8	2	4	-2	2	13	-11
9-12	32	8	24	15	7	8
K-12	43	26	17	33	51	-18
2015-16						
K-5	10	4	6	18	4	14
6-8	5	10	-5	2	6	-4
9-12	17	18	-1	14	8	6
K-12	32	32	0	34	18	16

Source: Tigard -Tualatin School District

Neighboring Districts

Table 8 compares several facts about TTSD demographics and enrollment trends in comparison to three neighboring school districts (Beaverton, Hillsboro, and Sherwood). In the TTSD and Hillsboro S.D. K-12 enrollment growth has stalled since 2008. The Beaverton and Sherwood School Districts have continued to grow, but at a slower rate compared to the earlier period between 2000 and 2008. TTSD is most similar to the Beaverton S.D. in its Latino enrollment, school-age population, urban population, and multi-family housing shares, as well as the median value of its owner-occupied single family homes. Median household income in the TTSD trails each of the other districts shown in the table.

Table 8
Selected School Districts
Demographic and Enrollment Highlights, 2000 to 2015

	Tigard-Tualatin	Beaverton	Hillsboro	Sherwood
Enrollment growth, **2000-01 to 2008-09**	9%	8%	13%	57%
Enrollment growth, **2008-09 to 2015-16**	-1%	8%	1%	17%
Latino enrollment, **2015-16**	26%	24%	36%	10%
Population growth, **2000 to 2010**[1]	16%	18%	20%	40%
Population under age 5, **2000**	7.1%	7.6%	8.7%	9.7%
Population under age 5, **2010**[1]	6.9%	7.1%	7.8%	7.4%
Population age 5 to 17, **2000**	18%	18%	20%	19%
Population age 5 to 17, **2010**[1]	18%	18%	19%	24%
Population rural, **2010**	0.1%	0.4%	10.4%	12.1%
Median Household Income **2011-15**[2]	$58,897	$68,391	$70,014	$86,166
Median Household Income - MOE	+/-2,867	+/-1,908	+/-1,784	+/-4,660
Median Value of Home **2011-15**[2]	$299,700	$308,600	$245,600	$334,200
Median Value of Home - MOE	+/-6,457	+/-5,355	+/-3,759	+/-12,815

Data assembled by PSU Population Research Center (PRC) from several sources: U.S. Census Bureau; enrollment reports from PRC; OR Dept. of Education; U.S. Dept. of Education.

1. Coffee Creek Correctional Facility population excluded from Sherwood School District.

2. U.S. Census Bureau, 2011-15 American Community Survey (ACS) 5 Year Estimates. Table B19013, Median Household Income; Table B25077, Median Value of Owner-Occupied Housing Units. In 2015 inflation adjusted dollars. ACS data needs to be interpreted along with margins of error (MOE).

Latino Enrollment Growth

Between 2010-11 and 2016-17, the District's K-12 Latino enrollment grew by 404 students (14 percent) and the Latino share of total District enrollment increased from 23 to 26 percent. However, this growth is significantly less than the previous six year period from 2004-05 to 2010-11, during which Latino enrollment grew by 974 students, increasing from a 15 to 23 percent share of total TTSD K-12 enrollment.

The slowdown in Latino enrollment growth is most evident at elementary and middle grades, in which Latino enrollment grew by 62 (four percent) and 60 (nine percent) students respectively over the six year period. High school grades added 282 students (40 percent) over the same period.

Lower dropout rates, and thus higher graduation rates, play a role in the growth at the high school level, but most of the growth is simply due to the size of the cohorts entering high school. During the peak years of migration from Latin America in the 1990s and early 2000s, most migrants were young adults, many with small children or children born after their parents migrated. Therefore, most of the Latino enrollment growth during the period before 2007 occurred in elementary grades. High school growth followed naturally as families remain in the community.

Slower growth in lower grades is attributable to a decline in both international migration and Latina birth rates. The total fertility rate (TFR) among Latinas in Oregon was about 3.2 in 1990, falling to 2.2 by 2014. TFRs as a measure of birth rates are described in more detail in the Enrollment Forecasts section.

Table 9 reports Latino enrollment by school level annually from 2010-11 to 2016-17.

Table 9
Latino Enrollment History, Tigard-Tualatin School District

School	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Change 2010-11 to 2016-17 Number	Change 2010-11 to 2016-17 Percent
Latino K-5	**1,486**	**1,439**	**1,422**	**1,486**	**1,565**	**1,539**	**1,548**	**62**	**4%**
Change		-47	-17	64	79	-26	9		
Share of District Total	*26%*	*26%*	*26%*	*27%*	*28%*	*27%*	*28%*		
Latino 6-8	**638**	**673**	**696**	**716**	**699**	**689**	**698**	**60**	**9%**
Change		35	23	20	-17	-10	9		
Share of District Total	*23%*	*24%*	*24%*	*25%*	*25%*	*24%*	*25%*		
Latino 9-12	**705**	**762**	**796**	**814**	**898**	**955**	**987**	**282**	**40%**
Change		57	34	18	84	57	32		
Share of District Total	*18%*	*19%*	*20%*	*21%*	*23%*	*24%*	*24%*		
Latino Total	**2,829**	**2,874**	**2,914**	**3,016**	**3,162**	**3,183**	**3,233**	**404**	**14%**
Change		45	40	102	146	21	50		
Share of District Total	*23%*	*23%*	*24%*	*24%*	*26%*	*25%*	*26%*		
Non-Latino Total	**9,564**	**9,492**	**9,427**	**9,399**	**9,228**	**9,307**	**9,266**	**-298**	**-3%**
District Total	**12,393**	**12,366**	**12,341**	**12,415**	**12,390**	**12,490**	**12,499**	**106**	**1%**

Source: PSU-PRC tabulation of Tigard-Tualatin School District data.

Enrollment at Individual Schools

In 2016-17, five of the District's 10 elementary schools had stable enrollments, gaining or losing no more than 10 students from 2015-16. One year growth at Bridgeport (+14) and Templeton (+16) was primarily attributable larger 2016-17 kindergarten classes replacing smaller 2015-16 5th grade classes. The largest one year growth among TTSD elementary schools was at Deer Creek (+21), which gained students from new homes and apartments completed within its boundary in 2016. A relatively small kindergarten class at Charles F. Tigard contributed to its 19 student loss, resulting in its fifth consecutive year of enrollment decline. The largest enrollment change among elementary schools occurred at Durham, which lost 54 students. Durham had 33 fewer students in its incoming kindergarten class compared with its 2015-16 5th grade class, and attrition occurred at other grades. Mobility of families in rental apartments played a big role in the loss, as Durham enrolled 214 students who resided in multi-family homes within its boundary in 2015-16, and only 160 in 2016-17.

Enrollment totals at both Fowler and Hazelbrook Middle Schools in 2016-17 changed very little from 2015-16, and have been relatively stable for several years. Twality experienced a one year loss of 36 students, in contrast to its 38 student growth the previous year. With only three grades, middle schools can experience enrollment swings from year to year based on the relative size of incoming and outgoing classes. However, all three TTSD middle schools are within 20 students of their 2010-11 counts.

Both Tigard and Tualatin High Schools gained students between 2015-16 and 2016-17. Enrollment of 1,992 at Tigard High is the largest since 2011-12, and Tualatin High enrollment of 1,940 is its largest ever.

There were 92 students counted at the Tigard-Tualatin Online Academy in fall 2016, including 86 students in 9th-12th grade. When these students and 50 Durham Center 9th-12th grade students are included with the students at the two traditional high schools, the total enrollment at district-run high schools has increased by 121 students in the past five years.

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

Table 10

Enrollment History for Individual Schools, 2011-12 to 2016-17

	Historic Enrollment						5 year change 2011-12 to 2016-17	
School	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**Number**	**Percent**
Alberta Rider*	574	601	624	591	587	595	21	*3.7%*
Bridgeport	547	508	486	498	491	505	-42	*-7.7%*
Byrom*	589	568	529	528	560	553	-36	*-6.1%*
C.F. Tigard*	587	583	553	531	527	508	-79	*-13.5%*
Deer Creek	529	516	559	580	600	621	92	*17.4%*
Durham	553	550	563	574	584	530	-23	*-4.2%*
Metzger*	575	570	620	648	645	652	77	*13.4%*
Templeton	579	596	574	581	577	593	14	*2.4%*
Tualatin*	595	617	577	572	554	556	-39	*-6.6%*
Woodward*	441	424	476	469	505	515	74	*16.8%*
Elementary Totals	**5,569**	**5,533**	**5,561**	**5,572**	**5,630**	**5,628**	**59**	***1.1%***
Fowler M.S.*	827	802	804	815	804	803	-24	*-2.9%*
Hazelbrook M.S.	977	988	1027	984	959	966	-11	*-1.1%*
Twality M.S.*	1,040	1,049	1,051	1,024	1,062	1,026	-14	*-1.3%*
Middle School Totals	**2,844**	**2,839**	**2,882**	**2,823**	**2,825**	**2,795**	**-49**	***-1.7%***
Tigard H.S.	2,015	1,975	1,990	1,959	1,956	1,992	-23	*-1.1%*
Tualatin H.S.	1,874	1,842	1,839	1,896	1,928	1,940	66	*3.5%*
High School Totals	**3,889**	**3,817**	**3,829**	**3,855**	**3,884**	**3,932**	**43**	***1.1%***
Durham Center	64	67	66	55	46	52	-12	*-18.8%*
Tigard-Tualatin Online Academy	--	85	77	85	105	92	85	*N/A*
District Totals	**12,366**	**12,256**	**12,415**	**12,390**	**12,490**	**12,499**	**133**	***1.1%***

**Note: Boundary changes before the 2013-14 school year shifted a portion of the former Alberta Rider and Twality attendance area to Mary Woodward and Fowler, and a portion of the former Tualatin Elementary attendance area to Byrom. A boundary change before the 2016-17 school year shifted a portion of the former Metzger attendance area to C.F. Tigard. These changes affect new students only, having only small initial impacts, with additional impact in subsequent years.*

Source: Tigard-Tualatin School District

ENROLLMENT FORECASTS

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 1999 to 2015, 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 2010.

Nationally, fertility rates for women under age 30 have reached all-time lows, but rates for women 30 and older have been increasing.[14] Birth totals by age group for women residing within TTSD suggest that these trends are also occurring locally.

[14] "Births in the United States, 2015." National Center for Health Statistics Data Brief No. 285, September 2016. Retrieved at https://www.cdc.gov/nchs/data/databriefs/db258.pdf.

The total fertility rate (TFR) is an estimate of the number of children that would be born to the average woman during her child-bearing years based on age-specific fertility rates observed at a given time. The estimated TFR for the District fell from 2.11 in 2000 to 1.80 in 2010. Based on national trends and TTSD births observed through 2015, we adjusted the 2010 age-specific fertility rates, decreasing rates for women under 25 and increasing rates for women age 30 and older. These adjustments are largely offsetting, resulting in only a small increase to 1.84 in TFRs in 2015 and beyond.

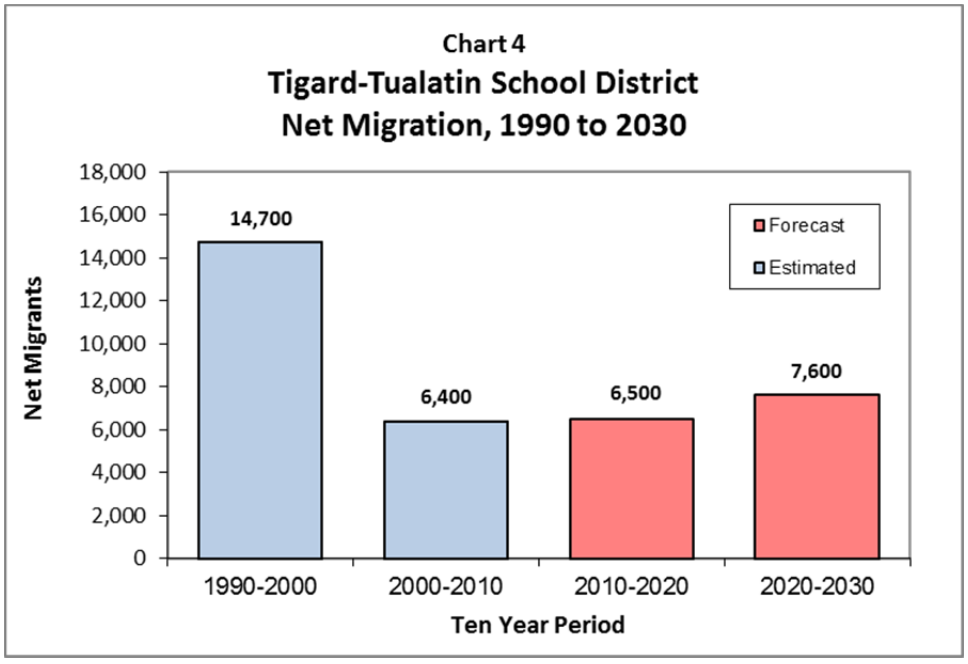
Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in TTSD 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

The District added about 9,000 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. Slower growth has persisted in the first six years of this decade, and growth due to net migration in the 2010 to 2020 period

is forecast to be similar to the 2000 to 2010 period. Chart 4 shows the 1990 to 2010 estimates and 2010 to 2030 forecasts of TTSD population growth attributable to net migration.



The district-wide population forecast by age group is presented in Table 11. The forecast for 2020 population in the TTSD is 92,966, an increase of 9,509 persons from the 2010 Census (1.1 percent average annual growth). School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 791 person growth in school-age population amounts to 5.4 percent in the 10 year period between 2010 and 2020, or 0.5 percent annually. In the 2020 to 2030 period, the 1,074 person growth in school age population results in 7.0 percent growth over the decade, slightly lower than the 10 percent growth in total population.

Table 11

Population by Age Group

Tigard-Tualatin School District, 2000 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change	
					Number	Percent
Under Age 5	5,128	5,744	5,737	6,076	332	*6%*
Age 5 to 9	5,209	5,606	5,752	6,237	631	*11%*
Age 10 to 14	5,016	5,646	6,149	6,441	795	*14%*
Age 15 to 17	2,959	3,393	3,535	3,832	439	*13%*
Age 18 to 19	1,642	1,769	1,782	1,837	68	*4%*
Age 20 to 24	4,470	4,665	5,452	5,967	1,302	*28%*
Age 25 to 29	5,547	5,803	6,187	6,516	713	*12%*
Age 30 to 34	5,633	6,075	6,214	7,050	975	*16%*
Age 35 to 39	6,102	6,116	6,288	6,776	660	*11%*
Age 40 to 44	6,284	6,022	6,396	6,604	582	*10%*
Age 45 to 49	5,829	6,201	6,154	6,354	153	*2%*
Age 50 to 54	4,609	6,249	5,950	6,338	89	*1%*
Age 55 to 59	3,175	5,696	6,084	6,051	355	*6%*
Age 60 to 64	2,206	4,493	6,021	5,758	1,265	*28%*
Age 65 to 69	1,733	2,960	5,246	5,595	2,635	*89%*
Age 70 to 74	1,797	2,127	4,062	5,348	3,221	*151%*
Age 75 to 79	1,862	1,642	2,594	4,337	2,695	*164%*
Age 80 to 84	1,592	1,564	1,723	2,947	1,383	*88%*
Age 85 and over	1,371	1,686	1,640	2,035	349	*21%*
Total Population	**72,164**	**83,457**	**92,966**	**102,100**	**18,643**	***20%***
Total age 5 to 17	13,184	14,645	15,436	16,510	1,865	*12%*
share age 5 to 17	*18.3%*	*17.5%*	*16.6%*	*16.2%*		

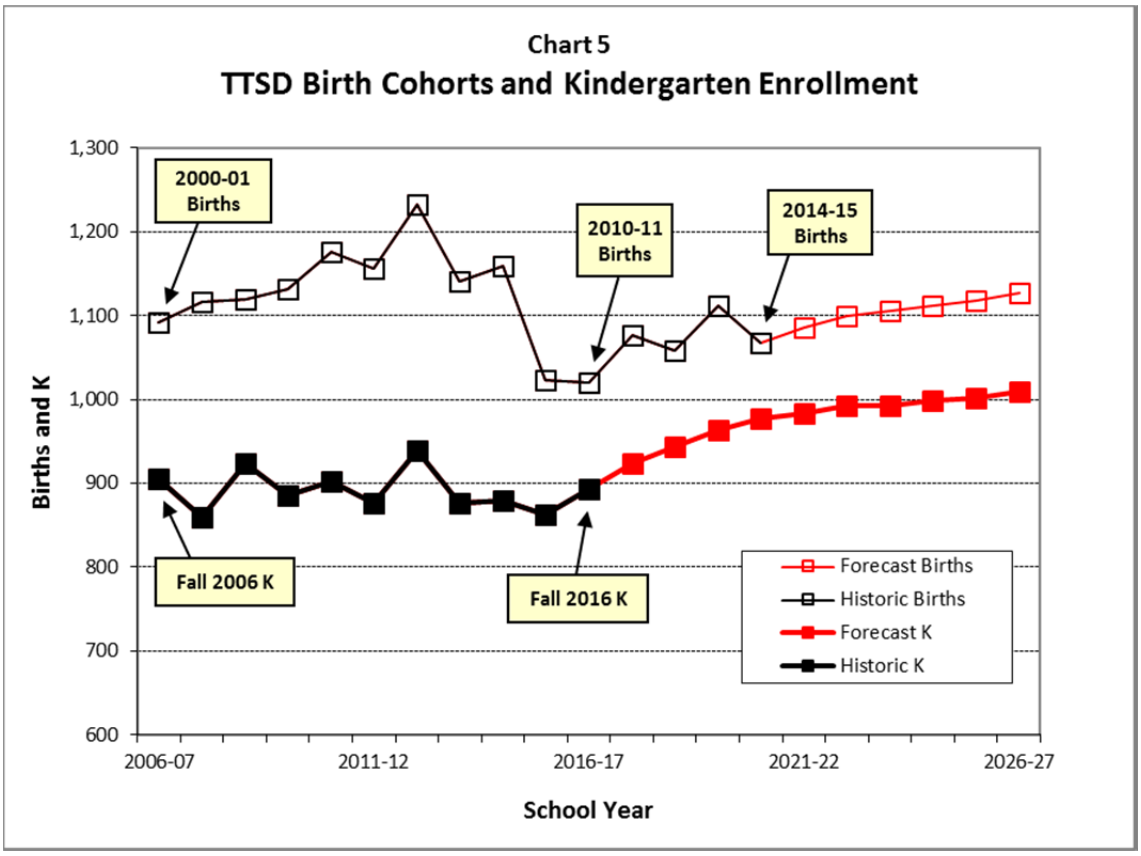
		2000-2010	2010-2020	2020-2030
Population Change		**11,293**	**9,509**	**9,134**
Percent		*16%*	*11%*	*10%*
Average Annual		*1.5%*	*1.1%*	*0.9%*

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

District-wide Enrollment Forecast

Chart 5 compares the historic and forecast number of births to District residents with the historic and forecast number of TTSD kindergarten students. Births are compiled by kindergarten cohorts (September to August). Although many children move into and out of the District between birth and age five, and not all District residents attend TTSD kindergartens, the trend in kindergarten enrollment has often followed the trend in the birth cohort. For example, the peak kindergarten class of 2012-13 aligned with the birth peak in 2006-07. However, the

gap between births and kindergarten enrollment grew wider between the mid-2000s and early 2010s as fewer young families moved into the District during the housing downturn. Beginning in fall 2015, when full day kindergarten was fully implemented, the gap has narrowed significantly. The ratio of fall 2016 kindergarten to corresponding (2010-11) births was 0.88, compared with 0.84 in fall 2015 and 0.76 in fall 2014. The recovery in births that began in 2011-12 as well as positive net migration of young families into the District will result in kindergarten enrollments continuing to increase.



Until 2008-09 the District's growth was fueled by migration; there were consistently more households moving in than out. Table 12 illustrates how the TTSD gained students due to migration at nearly every grade level. During the four years between 2004-05 and 2008-09, average GPRs for each grade from 2nd to 8th were 1.01 or 1.02, indicating one to two percent growth due to migration at each grade level each year. During the following four years, from 2008-09 to 2012-13, the GPRs show evidence of net out-migration, particularly at elementary grades. In the most recent four years, since 2012-13, the net flow has once again shifted to reveal slightly positive migration. The forecast includes enrollment growth due to migration at

somewhat higher rates than in the 2012-13 to 2016-17 period, though lower than in the 2004-05 to 2008-09 period. The K-1st grade transition is forecast to be lower than all of the historic periods, due to the higher kindergarten capture rate. Many of the students who would have attended private kindergartens and subsequently enrolled in TTSD for 1st grade will instead enroll in TTSD kindergarten.

Table 12

Grade Progression Rates[1]

Tigard-Tualatin S.D. History and Forecast

Grade Transition	4 Year Average: 2004-05 to 2008-09	4 Year Average: 2008-09 to 2012-13	4 Year Average: 2012-13 to 2016-17	Baseline (without the influence of migration)	Forecast Average: 2017-18 to 2026-27
K-1	1.09	1.04	1.05	--[2]	1.02
1-2	1.02	0.99	1.00	1.00	1.01
2-3	1.01	0.99	1.00	1.00	1.01
3-4	1.02	0.99	1.02	1.00	1.01
4-5	1.02	1.01	1.00	1.00	1.01
5-6	1.01	0.98	1.01	1.00	1.01
6-7	1.02	1.00	1.00	1.00	1.01
7-8	1.01	1.00	1.01	1.00	1.01
8-9	1.04	1.04	1.06	1.05	1.06
9-10	0.99	0.99	1.01	1.00	1.00
10-11	0.97	0.98	0.98	0.98	0.98
11-12	0.96	1.01	1.03	1.03	1.03

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.

K-12 enrollment grows by 137 students in the first year of the forecast, as families move into several hundred new housing units now under construction within the District. Annual increases follow throughout the rest of the forecast period, although economic cycles may result in growth less linear than predicted. Housing growth including infill in the District's more established areas such as Metzger and Central Tigard, small subdivisions in nearly every part of the District (see Table 5 on page 13), and large developments in the River Terrace area ensure that residential capacity will be sufficient to absorb the demand implied by these population and enrollment forecasts. Annual enrollment growth rates average 0.8 percent. Over the 10 year forecast period, K-12 enrollment is forecast to increase by 999 students (eight percent).

During the five year period 2016-17 to 2021-22 elementary school enrollment is expected to grow by 276 students (five percent), while middle schools increase by 158 students (six percent). High school enrollment changes the least during these first five years, increasing by 108 students (three percent). In the next five year increment, elementary and middle levels continue to grow, but high school enrollments may reach a short term peak around 2023-24 as the smaller birth cohorts of the 2008 to 2011 period, currently in primary grades, enter high school. For the 10 year period ending in 2026-27, grades K-5 enrollments grow by 548 students (10 percent). Grades 6-8 enrollments grow by 340 students (12 percent) and grades 9-12 enrollments grow by 111 students (three percent).

Table 13 contains grade level forecasts for the Tigard-Tualatin School District for each year from 2017-18 to 2026-27. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12).

Table 13

Tigard-Tualatin School District, Enrollment Forecasts, 2017-18 to 2026-27

	Actual	Forecast									
Grade	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**
K	893	924	943	963	977	984	993	992	998	1,002	1,009
1	874	911	943	962	981	994	1,000	1,008	1,008	1,014	1,018
2	920	887	924	957	975	992	1,005	1,011	1,019	1,019	1,026
3	982	934	900	938	971	987	1,004	1,017	1,023	1,031	1,031
4	996	996	947	913	952	983	999	1,016	1,029	1,035	1,044
5	963	1,011	1,010	961	927	964	996	1,012	1,029	1,042	1,048
6	927	976	1,024	1,024	973	937	974	1,006	1,023	1,040	1,053
7	928	939	988	1,037	1,034	981	945	982	1,014	1,032	1,049
8	948	940	950	1,000	1,047	1,043	989	953	990	1,022	1,041
9	1,031	1,005	997	1,008	1,058	1,106	1,102	1,045	1,007	1,046	1,079
10	1,045	1,040	1,013	1,005	1,012	1,061	1,109	1,105	1,048	1,010	1,049
11	1,011	1,028	1,023	996	986	993	1,041	1,088	1,084	1,028	991
12	981	1,045	1,063	1,058	1,027	1,016	1,024	1,073	1,121	1,117	1,060
Total	**12,499**	**12,636**	**12,725**	**12,822**	**12,920**	**13,041**	**13,181**	**13,308**	**13,393**	**13,438**	**13,498**
Annual change		*137* *1.1%*	*89* *0.7%*	*97* *0.8%*	*98* *0.8%*	*121* *0.9%*	*140* *1.1%*	*127* *1.0%*	*85* *0.6%*	*45* *0.3%*	*60* *0.4%*
K-5	5,628	5,663	5,667	5,694	5,783	5,904	5,997	6,056	6,106	6,143	6,176
6-8	2,803	2,855	2,962	3,061	3,054	2,961	2,908	2,941	3,027	3,094	3,143
9-12	4,068	4,118	4,096	4,067	4,083	4,176	4,276	4,311	4,260	4,201	4,179

	5 Year Change: 2016-17 to 2021-22		**5 Year Change: 2021-22 to 2026-27**		**10 Year Change: 2016-17 to 2026-27**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	276	*5%*	272	*5%*	548	*10%*
6-8	158	*6%*	182	*6%*	340	*12%*
9-12	108	*3%*	3	*0%*	111	*3%*
Total	**542**	***4%***	**457**	***4%***	**999**	***8%***

Population Research Center, Portland State University, December 2016

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, 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. For example, Alberta Rider is forecast to be well over its capacity, because Art Rutkin is not included among the District's elementary schools.

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

Residential capacity and development trends influence the district-wide forecast migration assumptions, but the cohort model does not explicitly incorporate information about planned housing development. However, the number of potential new homes and their location are important factors for the allocation of district-wide growth to individual schools, particularly when large new developments are underway. The building permit and land use application data presented in the Population, Housing, and Employment Trends section are valuable resources for judging the relative short and long term growth potential among individual schools.

In calendar year 2016, 119 building permits were issued for new single family homes in the Alberta Rider attendance area. However, the lingering impact of a 2013 boundary change that reassigned part of its former area to Mary Woodward will likely result in lower enrollment at Alberta Rider in 2017-18, in spite of an increase in students from within its current boundary. Students grandfathered from the 2013 boundary change now in 4th and 5th grade are part of the largest grade cohorts at Alberta Rider. In the long run, without the additional capacity of the new elementary school at the Art Rutkin site, Alberta Rider would add nearly 300 students after 2017-18.

The Mary Woodward attendance area had 147 new homes permitted in 2016, including 130 in the Polygon at West River subdivision in River Terrace. Woodward may gain about 25 or more students from these new homes by fall 2017. However, 4th and 5th grade are also the largest current classes at Woodward. As these older students progress from Woodward into middle school, the overall enrollment increases may be initially small even with the growth from new housing. In the long run, Woodward would add close to 100 students if its boundaries were unchanged.

Previous reports prepared for TTSD by PRC included estimates of students residing in River Terrace at buildout based on the 2010 West Bull Mountain Concept Plan, and on zoning adopted in the 2014 River Terrace Community Plan. In the December 2015 report, we refined these estimates to reflect specific plans for subdivisions underway and proposed. The City of Tigard estimates that 2,500 new housing units will be built in River Terrace over the next 20 years, including the portion within the Beaverton School District. Based on land use applications that have been submitted and zoning in the remainder or the area and student generation rates from similar developments, we estimate that 1,890 housing units to be built within the TTSD portion of River Terrace will be home to 490 elementary, 219 middle, and 242 high school students.

Relatively stable enrollments are forecast at most of the other elementary schools under their current configurations, with the exception of C.F. Tigard (+82 in 10 years), which grows due to a 2016 boundary reassignment from Metzger, and Deer Creek (+76 in 10 years), which has had recent new housing development and has substantial capacity for development to continue. Small enrollment declines are forecast in the long run at Byrom and Tualatin elementaries, and Durham shows almost no growth in the forecast. These three schools have the smallest amount of residential development planned within their attendance areas.

Among TTSD middle schools, Twality includes the fast growing Alberta Rider area as well as other growing areas including Templeton and a portion of Deer Creek. Twality grows until 2019-20 and then experiences a few years of decline due to smaller cohorts born between 2008 and 2011. Twality's growth resumes near the end of the forecast period, resulting in an increase of 226 students in 10 years. Fowler's enrollment fluctuates between annual increases and decreases, but ends with an overall 106 student increase for the 10 year period. Hazelbrook's

primary feeders, Bridgeport, Byrom, and Tualatin, are among the slowest growing elementary schools. Hazelbrook's enrollment remains relatively stable throughout the forecast period.

Tigard High School grows by 99 students during the forecast period while Tualatin High School adds only 12 students. Both high schools reach enrollment peaks in the early 2020s, with 2,000 students forecast at Tualatin High in 2022-23, and 2,186 students at Tigard High in 2023-24. Tigard has only 52 more students than Tualatin in 2016-17, but the difference grows to 239 students by 2026-27.

Table 14 presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

Table 14
Enrollment Forecasts for Individual Schools, 2017-18 to 2026-27

School	Actual 2016-17	Forecast 2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Change 2016-17-2026-27
Alberta Rider	595	578	590	624	686	731	772	804	832	861	866	271
Bridgeport	505	506	510	519	508	514	520	526	526	523	525	20
Byrom	553	571	575	570	559	560	554	548	542	539	539	-14
C.F. Tigard*	508	521	510	521	529	548	574	577	584	586	590	82
Deer Creek	621	634	648	641	654	680	679	682	689	692	697	76
Durham	530	533	532	508	514	521	527	529	530	531	535	5
Metzger*	652	656	626	616	591	595	604	614	622	627	634	-18
Templeton	593	607	612	617	634	647	646	646	647	648	651	58
Tualatin	556	539	533	537	540	540	537	535	532	530	532	-24
Woodward	515	518	531	541	568	568	584	595	602	606	607	92
Elementary Totals	**5,628**	**5,663**	**5,667**	**5,694**	**5,783**	**5,904**	**5,997**	**6,056**	**6,106**	**6,143**	**6,176**	**548**
Fowler M.S.	803	799	867	917	939	884	848	835	846	888	909	106
Hazelbrook M.S.	966	979	994	975	982	962	966	946	963	969	974	8
Twality M.S.	1,026	1,069	1,093	1,161	1,125	1,107	1,086	1,152	1,210	1,229	1,252	226
Middle School Totals	**2,795**	**2,847**	**2,954**	**3,053**	**3,046**	**2,953**	**2,900**	**2,933**	**3,019**	**3,086**	**3,135**	**340**
Tigard H.S.	1,992	2,015	2,006	1,981	1,995	2,063	2,140	2,186	2,171	2,108	2,091	99
Tualatin H.S.	1,940	1,967	1,954	1,950	1,952	1,977	2,000	1,989	1,953	1,957	1,952	12
Durham Center (8^{th}-12^{th})	52	52	52	52	52	52	52	52	52	52	52	0
Tig.-Tual. Online (7^{th} - 12^{th})	92	92	92	92	92	92	92	92	92	92	92	0
High School Totals	**4,076**	**4,126**	**4,104**	**4,075**	**4,091**	**4,184**	**4,284**	**4,319**	**4,268**	**4,209**	**4,187**	**111**
District Totals	**12,499**	**12,636**	**12,725**	**12,822**	**12,920**	**13,041**	**13,181**	**13,308**	**13,393**	**13,438**	**13,498**	**999**

**Note: Forecasts include the impact of a boundary change. New students residing in a portion of the former Metzger area are assigned to C.F. Tigard beginning in 2016-17.*

Population Research Center, Portland State University, December 2016

The capacity figures in Table 15 are from the TTSD's November 2009 Facilities and Capacity Assessment, updated as needed to reflect the addition of portables and the relocation of special programs. The capacities are compared with both the base year (2016-17) and end year (2026-27) of the enrollment forecast. The forecast indicates that there will be district-wide capacity shortfalls at the elementary, middle, and high school levels.

Table 15

Facility Capacity and Enrollment, 2016-17 and 2026-27

	2016-17				2026-27	
School	**Capacity Excluding portables**	**Capacity Including Portables**	**2016-17 Enroll-ment[1]**	**Available Capacity (excluding portables)[2]**	**2026-27 Forecast Enroll-ment[1]**	**Available Capacity (excluding portables)[2]**
Alberta Rider	624	624	595	29	866	-242
Bridgeport[H]	598	648	505	93	525	73
Byrom[H]	598	698	553	45	539	59
C.F. Tigard[H]	624	624	508	116	590	34
Deer Creek	598	598	621	-23	697	-99
Durham	598	598	530	68	535	63
Metzger[H]	624	724	652	-28	634	-10
Templeton	598	648	593	5	651	-53
Tualatin[H]	624	624	556	68	532	92
Woodward	598	648	515	83	607	-9
Elementary Totals	**6,084**	**6,434**	**5,628**	**456**	**6,176**	**-92**
Fowler M.S.	1,000	1,000	803	197	909	91
Hazelbrook M.S.	1,000	1,040	966	34	974	26
Twality M.S.	942	1,084	1,026	-84	1,252	-310
Middle School Totals	**2,942**	**3,084**	**2,795**	**147**	**3,135**	**-193**
Tigard H.S.	1,776	1,898	1,992	-216	2,091	-315
Tualatin H.S.	1,888	1,888	1,940	-52	1,952	-64
High School Totals	**3,664**	**3,786**	**3,932**	**-268**	**4,043**	**-379**
Durham Center	105	n/a	52	53	52	53
District Totals[1]	**12,795**	**13,409**	**12,407**	**388**	**13,406**	**-611**

1. October 1 Enrollment. Does not include Tigard-Tualatin Online Academy.

2. 2016-17 Capacity without portables minus 2016-17 actual and 2026-27 forecast enrollment.

H. Headstart classroom location.

Sources: Tigard-Tualatin School District; PSU-PRC enrollment forecasts.

FORECAST ACCURACY

In Table 16, actual TTSD enrollment by grade level in Fall 2016 is compared with the 2016-17 forecasts that were prepared one year earlier, as well as those prepared two and three years earlier. Similarly, Table 17 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.

The district-wide forecasts prepared in 2013 and 2015 predicted K-12 total enrollments slightly higher than actual fall 2015 enrollment while the 2014 forecast was lower. All three forecasts were within six tenths of one percent of the District total. The largest error in the one year forecast was in kindergarten, which enrolls 37 students more than forecast.

Table 16

Fall 2016 Enrollment Compared to Previous Forecasts

By Grade Level

		One year forecast[1]			Two year forecast[2]			Three year forecast[3]		
Grade	**Actual**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**
K	893	856	-37	*-4.1%*	860	-33	*-3.7%*	873	-20	*-2.2%*
1	874	893	19	*2.2%*	880	6	*0.7%*	903	29	*3.3%*
2	920	935	15	*1.6%*	932	12	*1.3%*	958	38	*4.1%*
3	982	988	6	*0.6%*	967	-15	*-1.5%*	936	-46	*-4.7%*
4	996	992	-4	*-0.4%*	995	-1	*-0.1%*	1,014	18	*1.8%*
5	963	988	25	*2.6%*	967	4	*0.4%*	976	13	*1.3%*
6	927	927	0	*0.0%*	952	25	*2.7%*	944	17	*1.8%*
7	928	946	18	*1.9%*	906	-22	*-2.4%*	930	2	*0.2%*
8	948	957	9	*0.9%*	957	9	*0.9%*	971	23	*2.4%*
9	1,031	1,018	-13	*-1.3%*	993	-38	*-3.7%*	1,009	-22	*-2.1%*
10	1,045	1,024	-21	*-2.0%*	1,023	-22	*-2.1%*	1,056	11	*1.1%*
11	1,011	1,017	6	*0.6%*	998	-13	*-1.3%*	1,006	-5	*-0.5%*
12	981	993	12	*1.2%*	988	7	*0.7%*	977	-4	*-0.4%*
Total	**12,499**	**12,534**	**35**	***0.3%***	**12,418**	**-81**	***-0.6%***	**12,553**	**54**	***0.4%***
MAPE[4]				***1.5%***			***1.7%***			***2.0%***

1. Forecast for 2016-17 by PSU-PRC, baseline 2015-16 enrollment. December 2015.

2. Forecast for 2016-17 by PSU-PRC, baseline 2014-15 enrollment. December 2014.

3. Forecast for 2016-17 by PSU-PRC, baseline 2013-14 enrollment. December 2013.

4. Mean absolute percent error for individual grades K-12.

Table 17

Fall 2016 Enrollment Compared to Previous Forecasts by Individual School

School	Actual	One year forecast[1]			Two year forecast[2]			Three year forecast[3]		
		Fcst.	Diff.	Error	Fcst.	Diff.	Error	Fcst.	Diff.	Error
Alberta Rider	595	594	-1	*-0.2%*	598	3	*0.5%*	650	55	*9.2%*
Bridgeport	505	506	1	*0.2%*	522	17	*3.4%*	497	-8	*-1.6%*
Byrom	553	538	-15	*-2.7%*	521	-32	*-5.8%*	525	-28	*-5.1%*
C. F. Tigard[4]	508	553	45	*8.9%*	535	27	*5.3%*	546	38	*7.5%*
Deer Creek	621	607	-14	*-2.3%*	559	-62	*-10.0%*	581	-40	*-6.4%*
Durham	530	569	39	*7.4%*	575	45	*8.5%*	553	23	*4.3%*
Metzger[4]	652	646	-6	*-0.9%*	683	31	*4.8%*	681	29	*4.4%*
Templeton	593	575	-18	*-3.0%*	560	-33	*-5.6%*	571	-22	*-3.7%*
Tualatin Elem.	556	537	-19	*-3.4%*	573	17	*3.1%*	544	-12	*-2.2%*
Woodward	515	527	12	*2.3%*	475	-40	*-7.8%*	512	-3	*-0.6%*
Elementaries	**5,628**	**5,652**	**24**	***0.4%***	**5,601**	**-27**	***-0.5%***	**5,660**	**32**	***0.6%***
Fowler	803	789	-14	*-1.7%*	799	-4	*-0.5%*	836	33	*4.1%*
Hazelbrook	966	945	-21	*-2.2%*	908	-58	*-6.0%*	948	-18	*-1.9%*
Twality	1,026	1,085	59	*5.8%*	1,084	58	*5.7%*	1,041	15	*1.5%*
Middle Schools	**2,795**	**2,819**	**24**	***0.9%***	**2,791**	**-4**	***-0.1%***	**2,825**	**30**	***1.1%***
Tigard HS	1,992	1,958	-34	*-1.7%*	1,935	-57	*-2.9%*	1,945	-47	*-2.4%*
Tualatin HS	1,940	1,939	-1	*-0.1%*	1,940	0	*0.0%*	1,962	22	*1.1%*
Durham Center	52	46	-6	*-11.5%*	55	3	*5.8%*	66	14	*26.9%*
Tig.-Tual. Online Acad.	92	120	28	*30.4%*	96	4	*4.3%*	95	3	*3.3%*
High Schools	**4,076**	**4,063**	**-13**	***-0.3%***	**4,026**	**-50**	***-1.2%***	**4,068**	**-8**	***-0.2%***
District	**12,499**	**12,534**	**35**	***0.3%***	**12,418**	**-81**	***-0.6%***	**12,553**	**54**	***0.4%***
MAPE[5]				***2.8%***			***4.6%***			***3.4%***

1. Forecast for 2016-17 by PSU-PRC, baseline 2015-16 enrollment. December 2015.

2. Forecast for 2016-17 by PSU-PRC, baseline 2014-15 enrollment. December 2014.

3. Forecast for 2016-17 by PSU-PRC, baseline 2013-14 enrollment. December 2013.

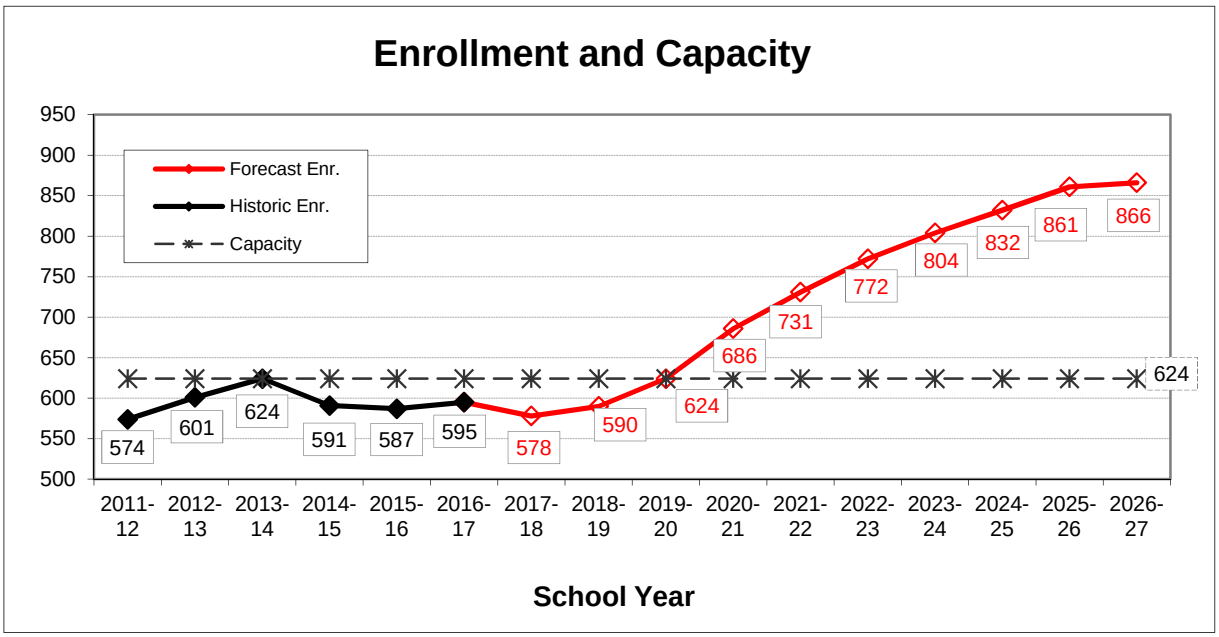
4. Beginning in Fall 2016, new students residing in a portion of the former Metzger area are assigned to C.F. Tigard. This change was not modeled in the two and three year forecasts.

5. Mean absolute percent error for individual schools, not including Durham Center or Tigard-Tualatin Online Academy. Elementary schools with boundary changes are also excluded from the two and three year forecast MAPEs.

APPENDIX A

ENROLLMENT AND CAPACITY PROFILES FOR INDIVIDUAL SCHOOLS

Alberta Rider Elementary School



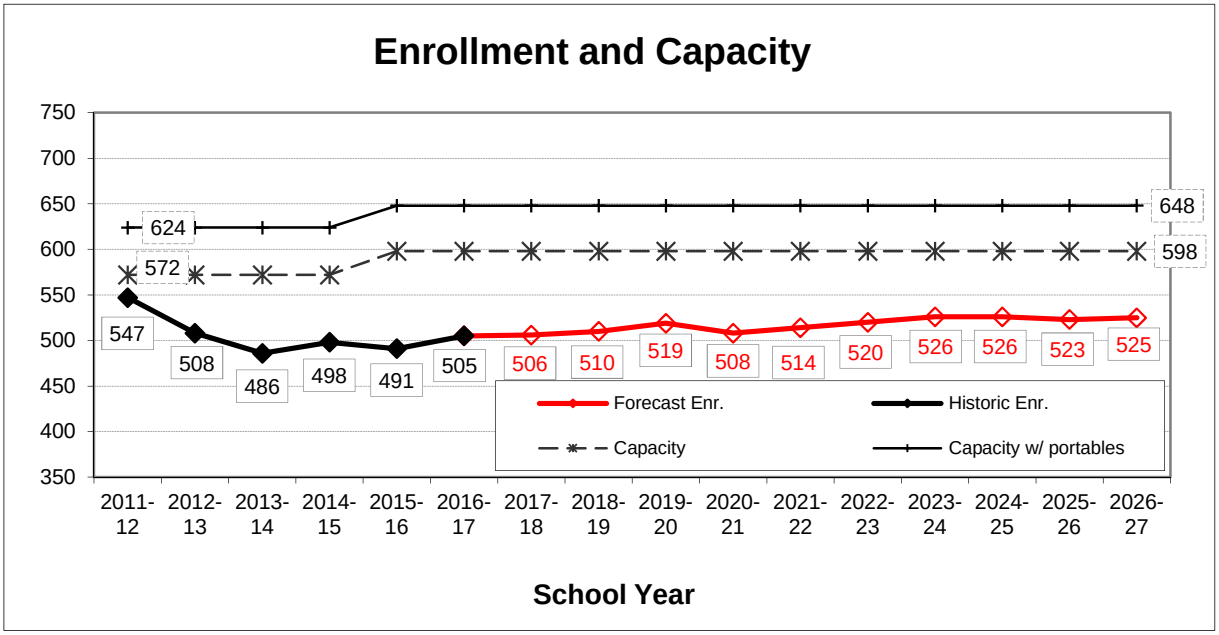
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	574	587	686	866
Change		13	99	180

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	26	66	119
Multiple Family Units	0	0	0
Demolitions	-1	-3	-4

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Bridgeport Elementary School



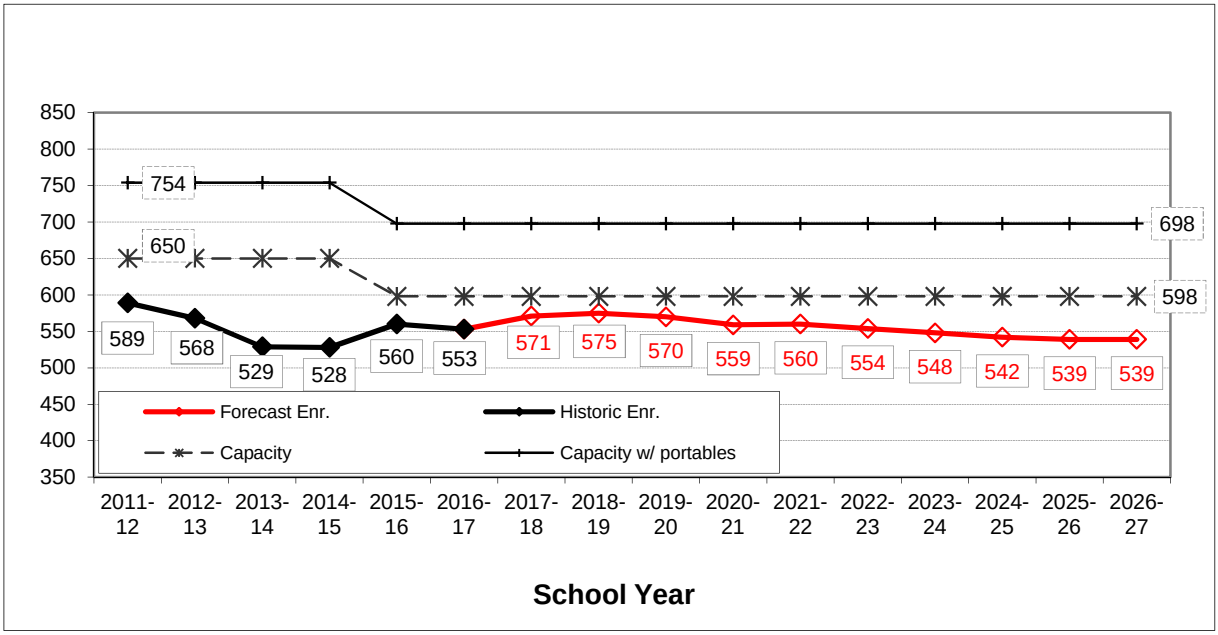
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	547	491	508	525
Change		-56	17	17

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	0	0	0
Multiple Family Units	0	0	0
Demolitions	0	-1	0

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Edward Byrom Elementary School



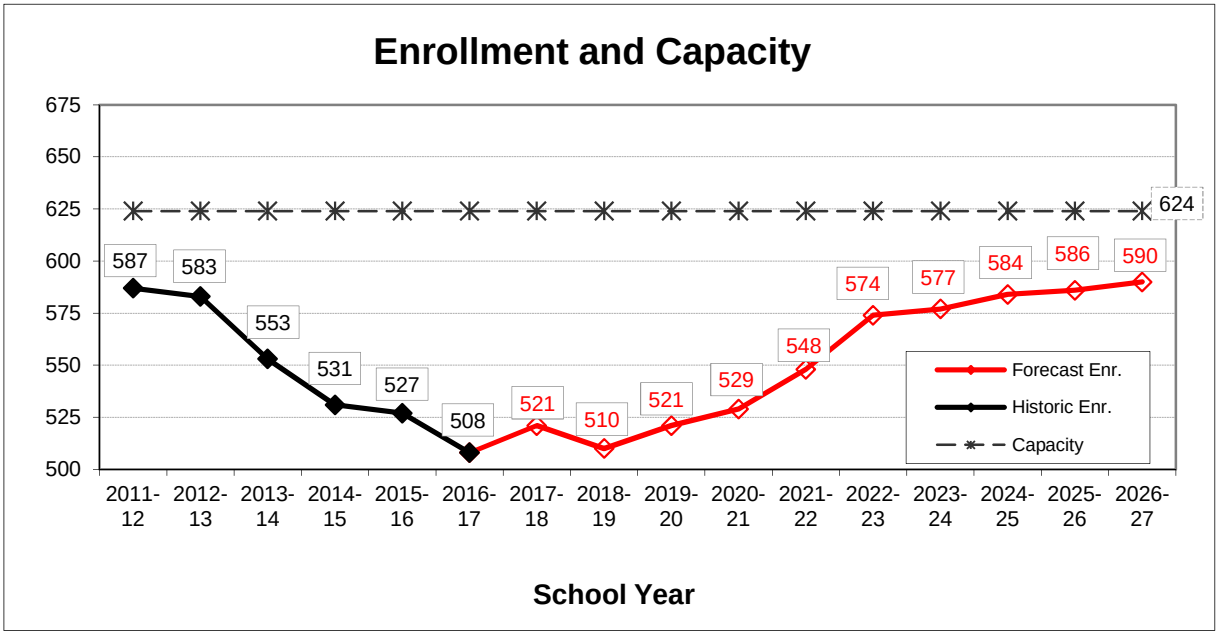
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	589	560	559	539
Change		-29	-1	-20

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	8	6	2
Multiple Family Units	0	0	0
Demolitions	0	0	-1

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Charles F. Tigard Elementary School



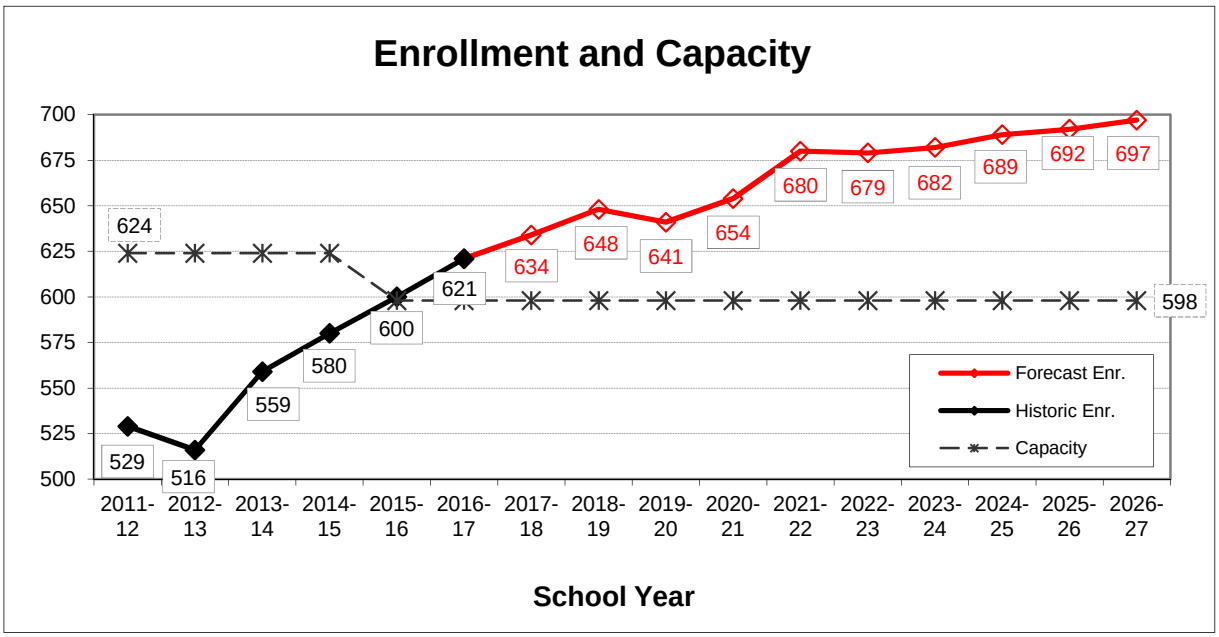
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	587	527	529	590
Change		-60	2	61

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	2	5	12
Multiple Family Units	0	0	4
Demolitions	-1	-1	-2

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Deer Creek Elementary School



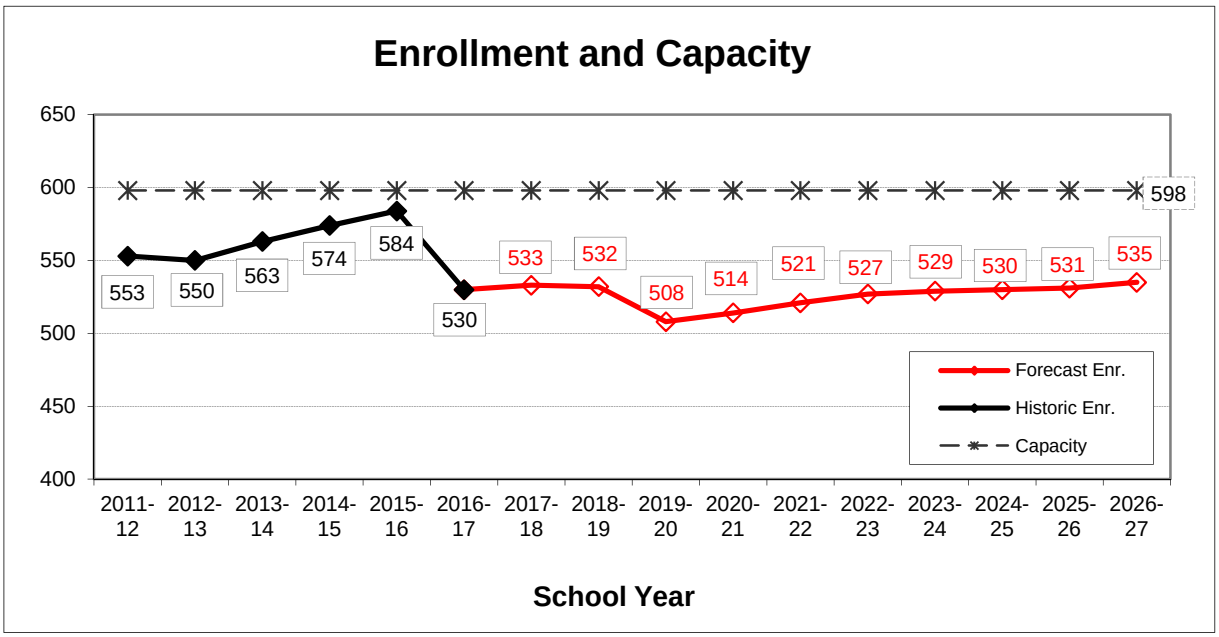
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	529	600	654	697
Change		71	54	43

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	1	15	37
Multiple Family Units	0	118	0
Demolitions	0	0	-3

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Durham Elementary School



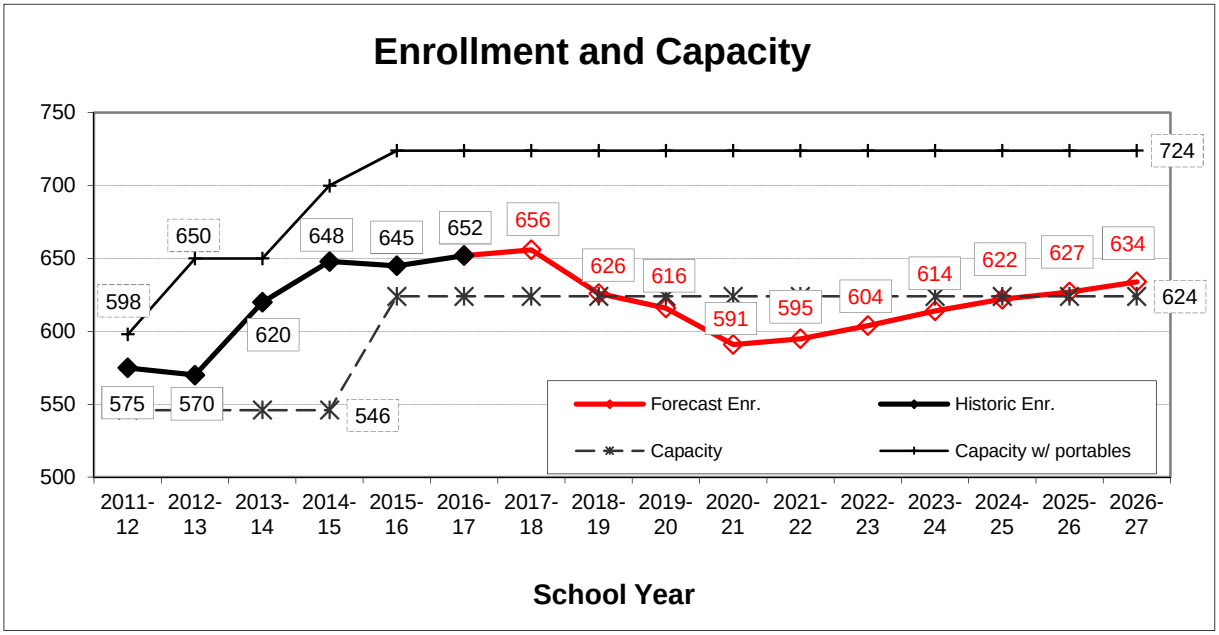
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	553	584	514	535
Change		31	-70	21

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	2	1	16
Multiple Family Units	0	0	0
Demolitions	-1	-6	-1

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Metzger Elementary School



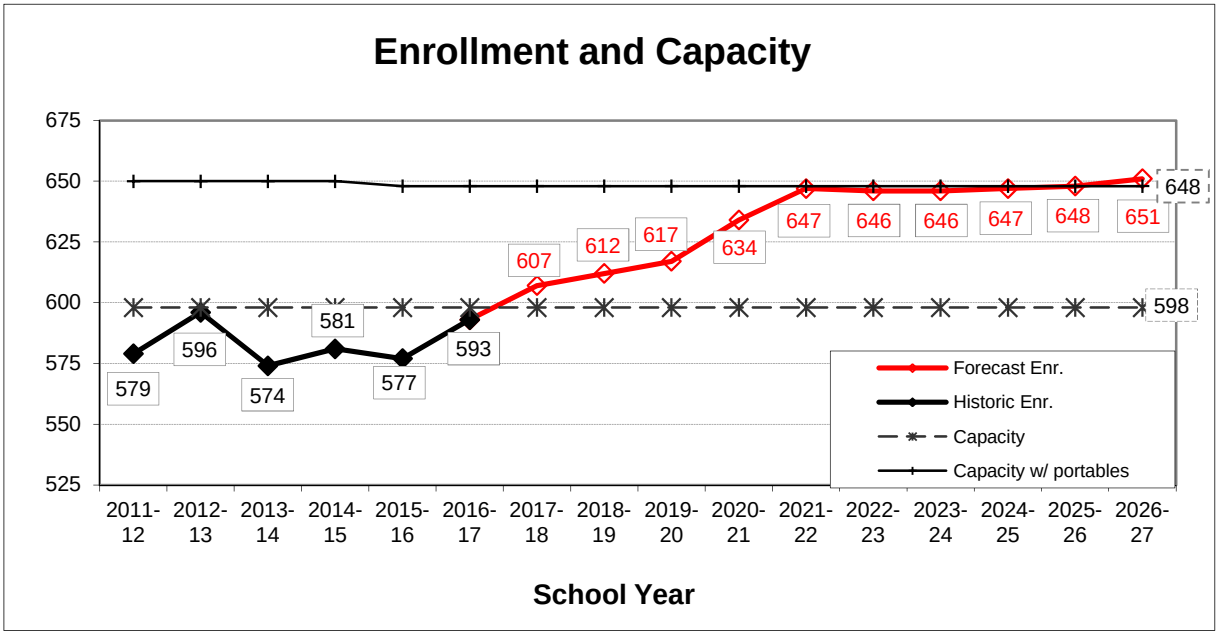
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	575	645	591	634
Change		70	-54	43

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	24	41	41
Multiple Family Units	0	0	57
Demolitions	-4	-2	-2

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

James Templeton Elementary School



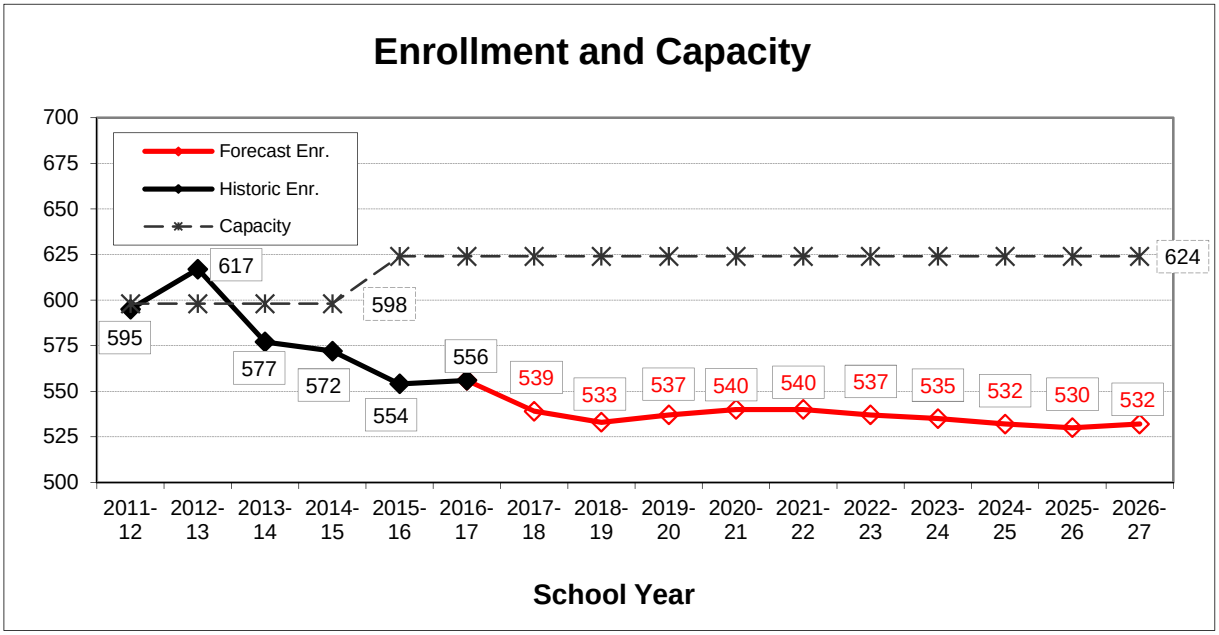
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	579	577	634	651
Change		-2	57	17

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	1	10	11
Multiple Family Units	24	165	0
Demolitions	-1	-3	0

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Tualatin Elementary School



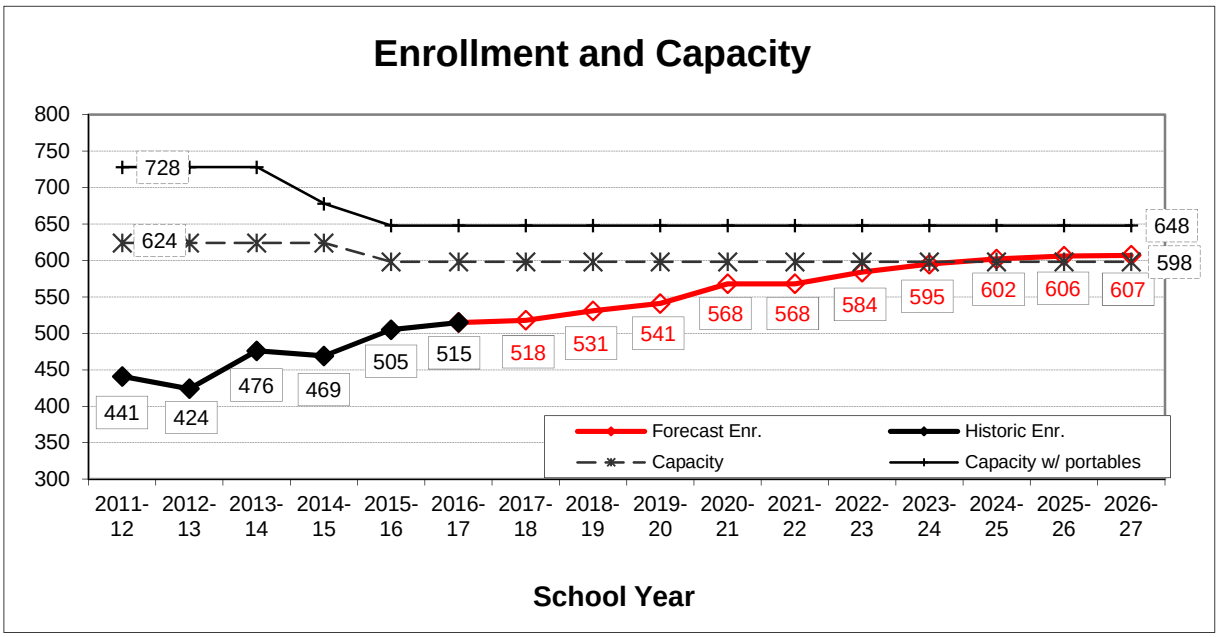
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	595	554	540	532
Change		-41	-14	-8

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	7	6	39
Multiple Family Units	0	14	0
Demolitions	0	0	0

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Mary Woodward Elementary School



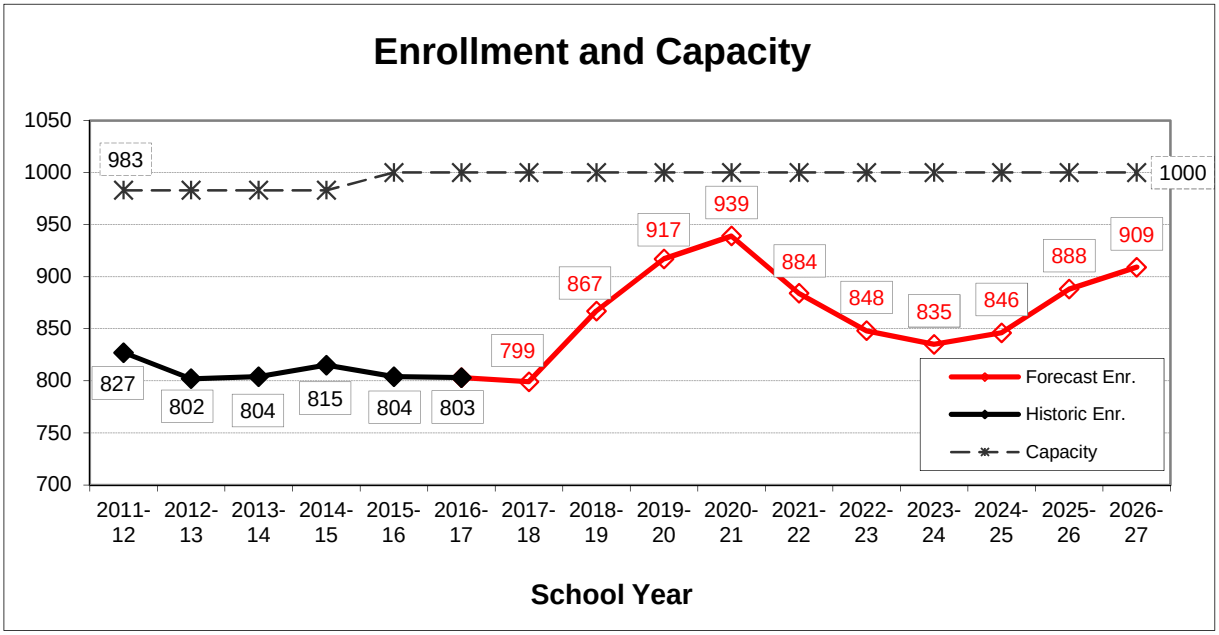
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	441	505	568	607
Change		64	63	39

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	10	13	147
Multiple Family Units	0	0	0
Demolitions	-5	-2	-2

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Fowler Middle School

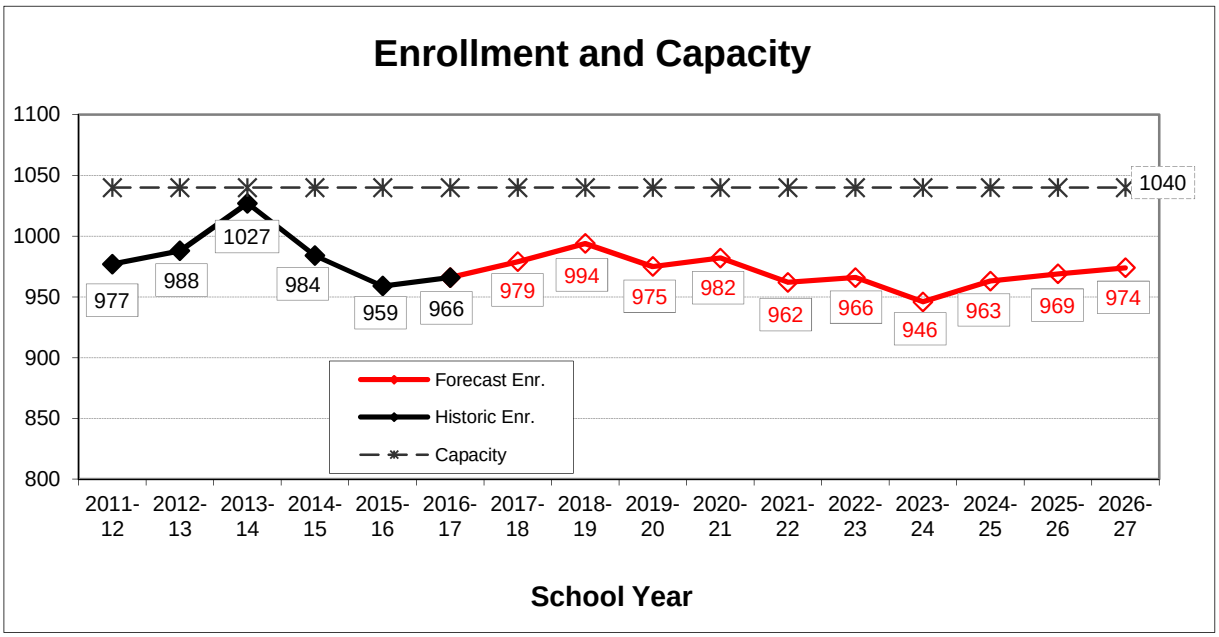


Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	827	804	939	909
Change		-23	135	-30

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	36	59	200
Multiple Family Units	0	0	61
Demolitions	-10	-8	-6

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Hazelbrook Middle School

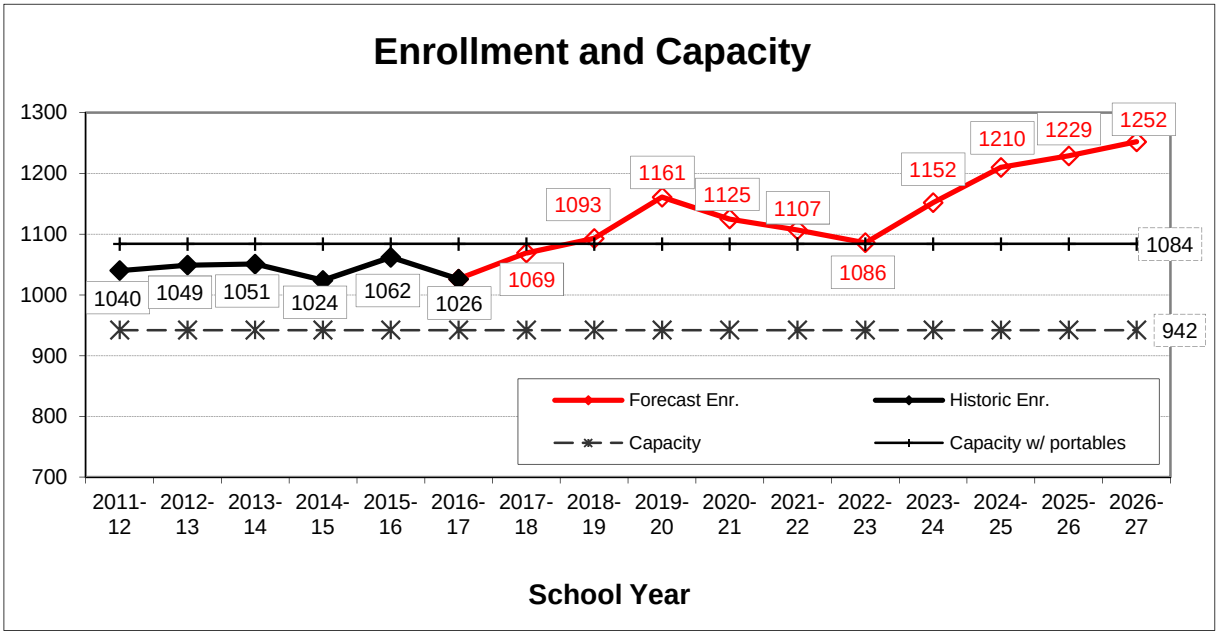


Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	977	959	982	974
Change		-18	23	-8

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	15	18	45
Multiple Family Units	0	14	0
Demolitions	0	-1	-1

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Twality Middle School



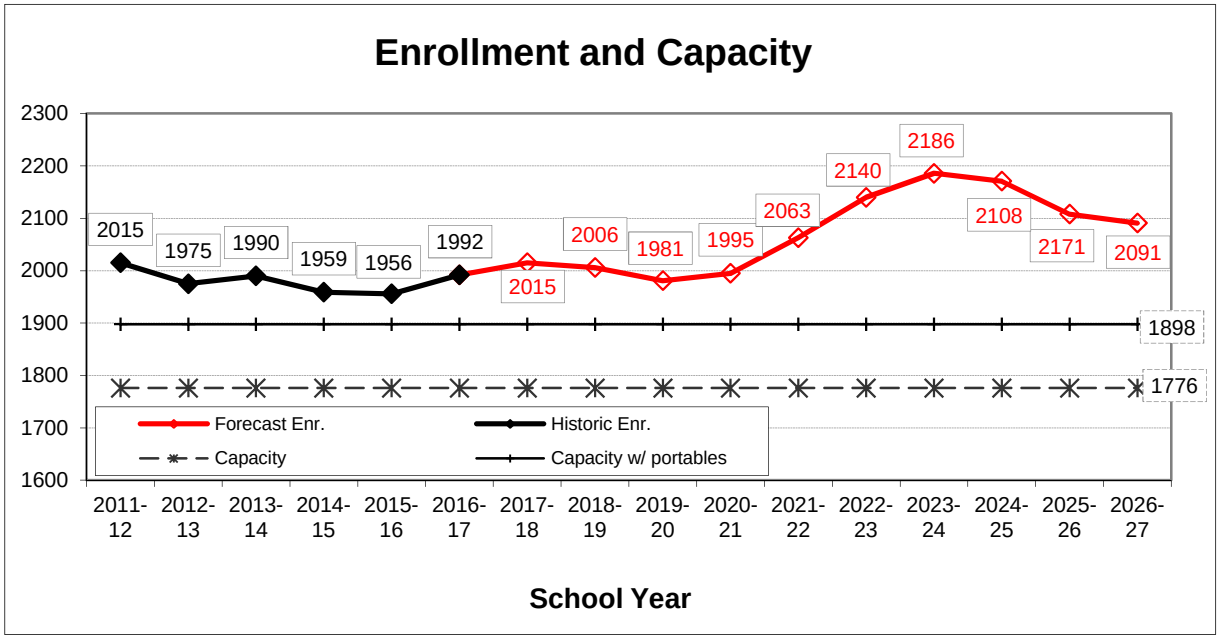
In 2006 a phased-in boundary change began that assigns a portion of Fowler's former attendance area to Twality.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	1040	1062	1125	1252
Change		22	63	127

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	30	86	179
Multiple Family Units	24	283	0
Demolitions	-3	-9	-8

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Tigard High School

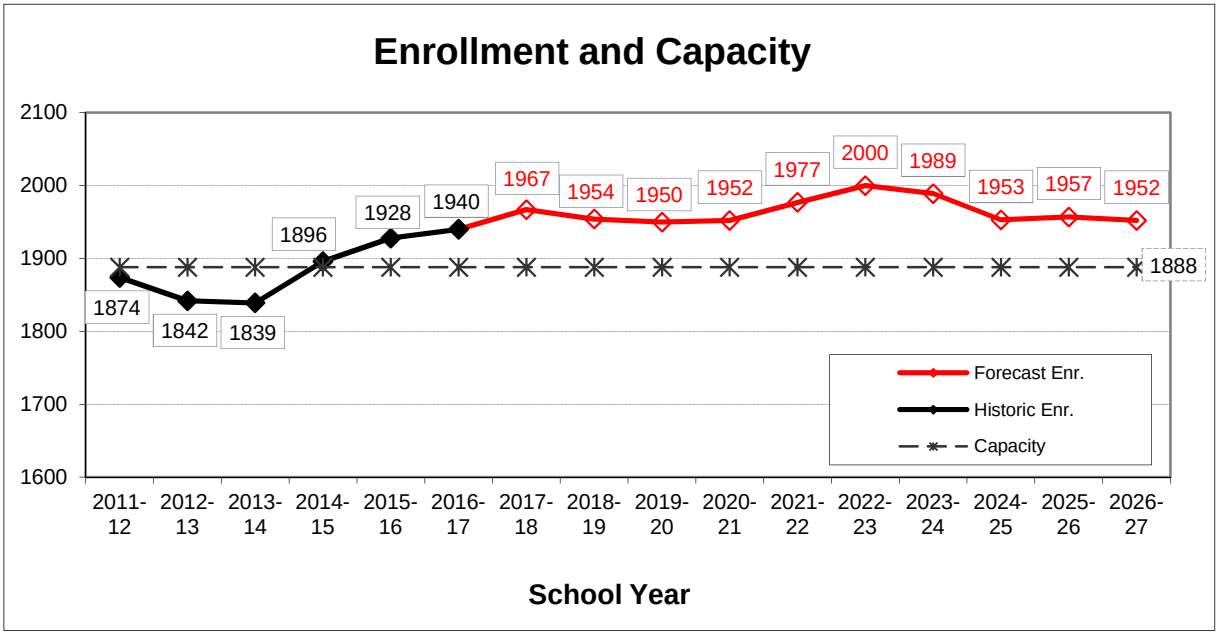


Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	2015	1956	1995	2091
Change		-59	39	96

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	39	69	227
Multiple Family Units	24	165	61
Demolitions	-12	-14	-7

Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Tualatin High School

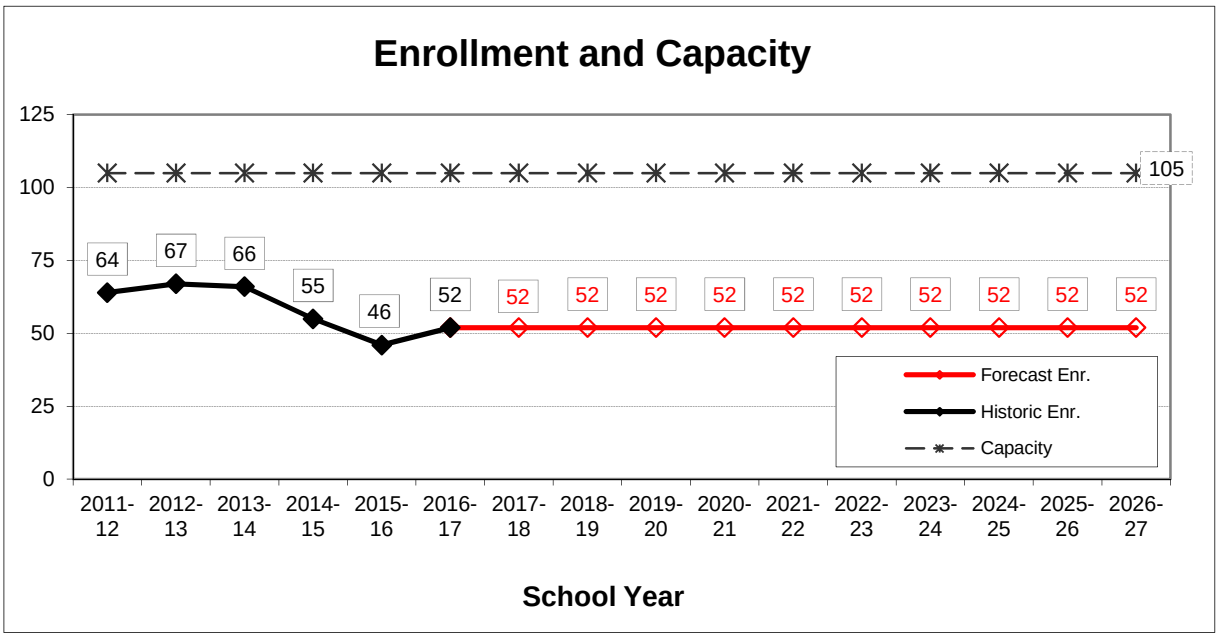


Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	1874	1928	1952	1952
Change		54	24	0

New Housing Units Authorized by Building Permits			
	Permit Year		
	2014	2015	2016
Single Family Units	42	94	197
Multiple Family Units	0	132	0
Demolitions	-1	-4	-8

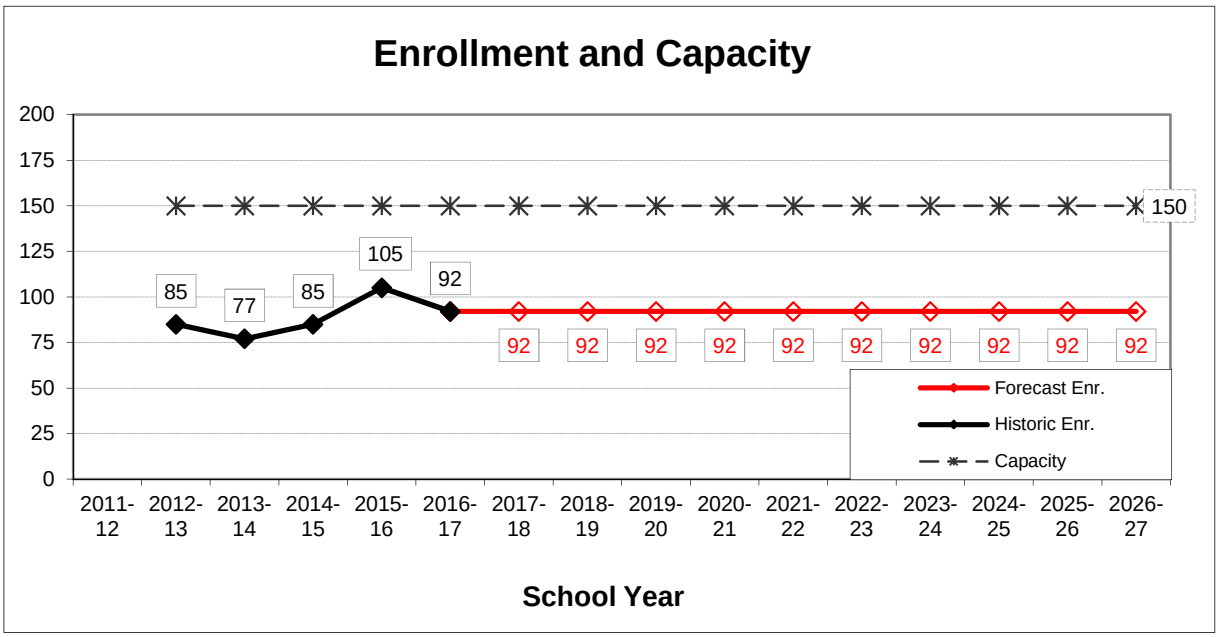
Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Durham Center



Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	64	46	52	52
Change		-18	6	0

Tigard-Tualatin Online Academy



Note: Opened in 2012.

Enrollment History and Forecast				
	History		Forecast	
	2011-12	2016-17	2021-22	2026-27
Total enrollment	0	105	92	92
Change		105	-13	0