TIGARD-TUALATIN SCHOOL DISTRICT
ENROLLMENT FORECASTS
2019-20 TO 2028-29



JANUARY, 2019

TIGARD-TUALATIN SCHOOL DISTRICT
ENROLLMENT FORECASTS
2019-20 TO 2028-29

Prepared By

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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 analyses 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 2019-20 to 2028-29 school years.

Population and Housing Trends

- There were 992 births to TTSD residents in 2017, the smallest annual total since 1998.
- Since 2014, permits have been issued in TTSD for over 900 single family homes and nearly 700 apartment units.
- In addition to the units permitted through September 2018, construction is set to begin on the 264 unit The Fields apartments in the Durham Elementary area. This affordable housing development will include 132 two and three bedroom apartments. Occupancy is expected in late 2020.
- Estimates of the number of TTSD students residing in River Terrace at build-out have been updated using the latest information about future development. We expect 389 K-5th grade students, 179 6th-8th grade students, and 195 9th-12th grade students. Details are in Table 6 on page 16.

District-wide Enrollment Trends

- TTSD enrolled 12,326 K-12 students in fall 2018, a decrease of 226 students (1.8 percent) from fall 2017.
- The drop reversed the gains that had occurred in four of the previous five years; K-12 enrollment had grown by 211 students between fall 2012 and fall 2017.
- Elementary (K-5th) grades enrolled 97 fewer students in fall 2017 than in fall 2018, attributable in large part to the size of individual grade cohorts. The 5th grade class of 986

students in 2017-18 was significantly larger than the incoming kindergarten class of 862 students in 2018-19.

- Middle (6^{th}-8^{th}) grades enrollment increased by 24 students between fall 2017 and fall 2018, following a 37 student increase between fall 2016 and fall 2017.

- High school (9^{th}-12^{th}) grades had a net loss of 153 students (3.8 percent) between fall 2017 and fall 2018.

- The District consistently gains students between 8^{th} and 9^{th} grade. However, the increase of 30 students (3.2 percent) from 933 8^{th} grade students in 2017-18 to 963 9^{th} grade students in 2018-19 was the smallest growth in nine years.

District-wide Population Forecasts

- Our middle series forecast for 2030 population in the TTSD is 103,612, an increase of 20,155 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 1,190 person growth in school-age population amounts to eight percent in the 20 year period between 2010 and 2030 (0.4 percent average annual growth).

- For the first time PRC has also prepared low and high alternative population and enrollment forecasts for TTSD. Details of these forecasts are in Appendix A.

District-wide Middle Series Enrollment Forecasts

- In the *middle series* forecast, overall K-12 enrollment is expected to increase by 674 students (five percent) in the next 10 years.

- K-5^{th} grade enrollments remain near their 2018-19 level for the 2019-20 school year, then begin to grow, resulting in 288 more K-5 students (five percent) over the 10 year forecast.

- Grades 6-8 add 80 students in 2019-20 then experience three years of small losses. Over the ten year forecast period grades 6-8 grow by 153 students (five percent).

- After a small loss of 32 students in 2019-20, high school enrollments grow, adding 233 students (six percent) over the ten-year period.

- Forecasts for individual schools consistent with the district-wide middle series are presented on pages 32-34, and in Appendix B.

District-wide Low Series Enrollment Forecasts

- The *low series* forecast depicts a scenario under which net migration falls back to levels observed during and after the recession, resulting in total K-12 enrollment in 2028-29 nearly unchanged from 2018-19.

- K-5 enrollment initially declines by 61 students in 2019-20, and fluctuates throughout the forecast horizon, reaching 2028-29 with 65 fewer students compared with 2018-19. Middle school enrollments initially grow by 60 students in 2019-20 then experience several years of small declines, losing just 17 students (one percent) in 10 years. After a loss of 46 students in 2019-20, high school enrollments grow for four years until 2023-24, ending the 10 year forecast horizon with a net gain of 81 students (two percent).

District-wide High Series Enrollment Forecasts

- The *high series* forecast includes net migration consistently near the higher levels observed in the mid-2000s, resulting in K-12 enrollment increasing by 1,223 students (10 percent).

- Growth is balanced among the school levels, with 10 percent growth between 2018-19 and 2028-29 among K-5th grade (adding 555 students), 6th-8th grade (adding 280 students), and 9th-12th grade (adding 388 students).

Table 1 and Chart 1 summarize the district-wide K-12 forecasts. Details of the enrollment forecasts are found in Table 12 on page 31 and in Appendix A for the District, and in Table 13 on page 34 and in Appendix B for each school.

Table 1

Historic and Forecast K-12 Enrollment

Low, Middle, and High Scenarios

Tigard-Tualatin School District

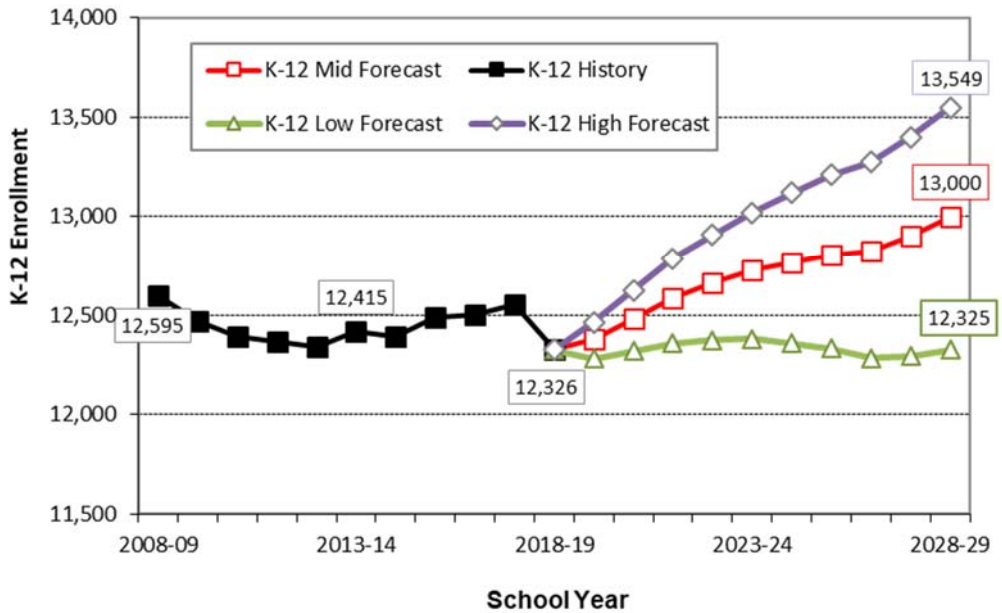
	LOW		MIDDLE		HIGH	
School Year	Enrollment[1]	5 year growth	Enrollment[1]	5 year growth	Enrollment[1]	5 year growth
2008-09	12,595		12,595		12,595	
2013-14	12,415	-180	12,415	-180	12,415	-180
2018-19	12,326	-89	12,326	-89	12,326	-89
2023-24 (fcst.)	12,379	53	12,726	400	13,020	694
2028-29 (fcst.)	12,325	-54	13,000	274	13,549	529
AAEG 2018-19 to 2028-29*	*0.0%*		*0.5%*		*1.0%*	

**Note: Average Annual Enrollment Growth.*

Source: Historic enrollment, Tigard-Tualatin School District; Enrollment forecasts, Population Research Center, PSU, December 2018.

Chart 1

TTSD K-12 Enrollment History and Forecast



INTRODUCTION

The Portland State University Population Research Center (PRC) has prepared enrollment forecasts for the Tigard-Tualatin School District (TTSD) for the 13th consecutive year. This report updates TTSD enrollment history and local area population, housing, and economic trends, and presents new forecasts for a 10 year horizon from 2019-20 to 2028-29. 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, residential capacity data from Metro and the City of Tigard, and housing development data from the cities and counties.

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. Appendices contain details of the three district-wide forecasts and 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. Reliable post-2010 population estimates for the District are not available. Table 2 includes PRC's 2018 estimates for the cities and counties served by TTSD, showing slower annual growth rates for the cities of Tigard and Tualatin from 2010 to 2018 when compare with the 2000 to 2010 period.

Table 2

City and Region Population, 2000, 2010, and 2018

				Avg. Annual Growth Rate	
	2000	2010	2018	2000-2010	2010-2018
City of Durham	1,382	1,351	1,880	*-0.2%*	*4.1%*
City of King City[1]	1,949	3,111	3,700	*4.8%*	*2.1%*
City of Tigard[2]	41,223	48,035	52,785	*1.5%*	*1.1%*
City of Tualatin[3]	22,791	26,054	27,055	*1.3%*	*0.5%*
Tigard-Tualatin S.D.	72,164	83,457	N/A	*1.5%*	*N/A*
Clackamas County	338,391	375,992	419,425	*1.1%*	*1.3%*
Washington County	445,342	529,710	606,280	*1.8%*	*1.6%*
Portland-Vancouver-Hillsboro MSA[4]	1,927,881	2,226,009	2,477,620	*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 56 residents between 2010 and 2018.

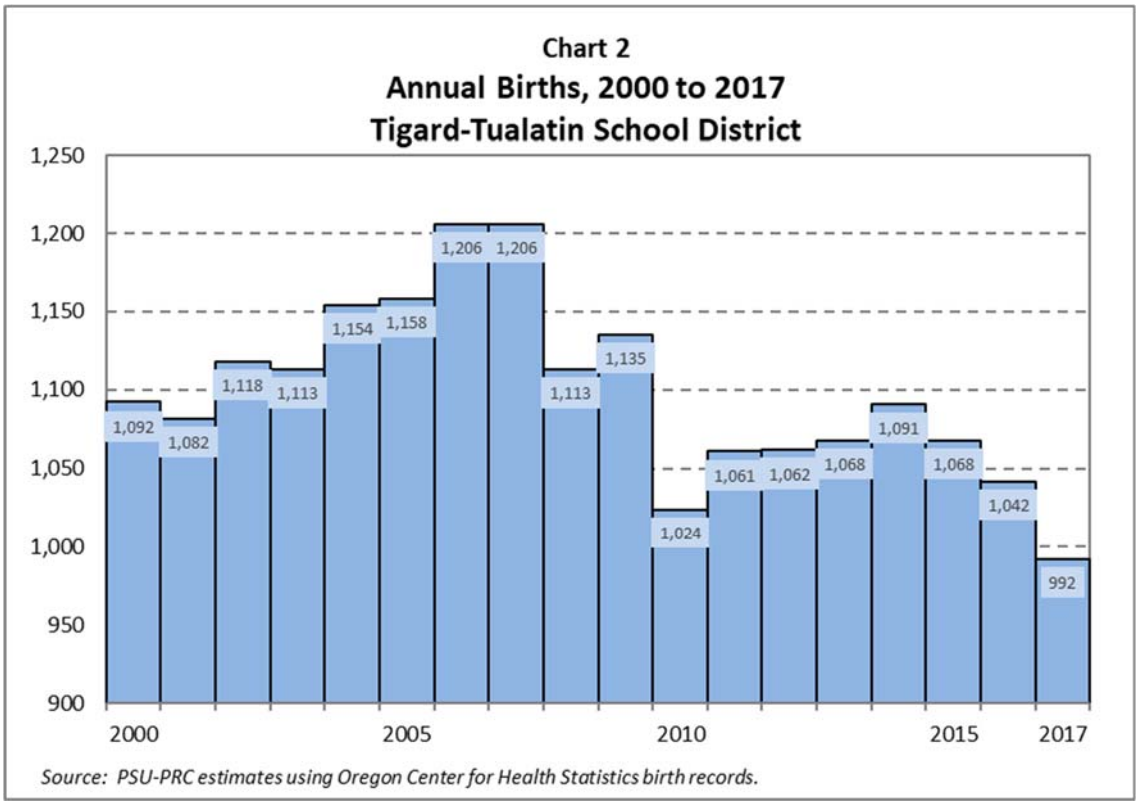
3. Population of the entire city. About 95% of the city's population is within the TTSD. Population growth includes the annexation of 53 residents between 2000 and 2010 and 2 residents between 2010 and 2018.

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, 2018 estimates; State of Washington Office of Financial Management April 1, 2018 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. Chart 2 shows a rebound in TTSD births between 2010 and 2014 followed by three years of decline. Births in calendar year 2017 reached new 21st Century lows in TTSD (fewest since 1998), Oregon (fewest since 1995), and the U.S. (fewest since 1987).[2]. 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 Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) economy. Although there are more than 1.5 jobs in TTSD for every employed resident, recent data show that more than four out of five

[2] "Births: Final Data for 2017." National Vital Statistics Report, Volume 67, Number 8, National Center for Health Statistics; *Oregon Vital Statistics Annual Report 2017 Volume 1*, Oregon Health Authority, Center for Health Statistics.

residents commute outside of the District to work. About 44 percent of employed TTSD residents have a Washington County workplace, while 30 percent work in Multnomah County and 15 percent in Clackamas County. Among cities in the region, the City of Portland is the leading workplace destination with 29 percent of TTSD workers, followed by the cities of Tigard (13 percent), Beaverton (nine percent), and Tualatin (eight percent).[3]

The MSA lost 64,000 jobs (six percent) between 2008 and 2010, causing in-migration to slow to a trickle. By 2013 employment totals had slowly recovered to their pre-recession peak level and the MSA added another 129,000 jobs (12 percent) between 2013 and 2017.[4] The Oregon Employment Department estimates that the MSA's seasonally adjusted unemployment has been at or below 4.0 from November 2017 through the latest estimate in November 2018.[5]

The Oregon Employment Department prepared 10 year employment projections in June 2018.[6] Following are highlights for the Portland area:

> Employment in the Portland tri-county area (Multnomah, Washington, and Clackamas counties) is projected to grow by 12.7 percent from 2017 to 2027, faster than the statewide average of 12 percent. Healthcare support occupations will grow the fastest in this region, with an increase of 21.4 percent, followed by computer and mathematical occupations, with an increase of 19.6 percent. Production occupations have the slowest growth rate at 4.6 percent, followed by office and administrative support occupations at 6.8 percent.[7]

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[3] U.S. Census Bureau, LED Origin-Destination Database (2015). 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] "Current Employment Estimates," Oregon Employment Department. https://www.qualityinfo.org/ed-ceest. Retrieved on January 7, 2019. Average annual non-farm employment in the Portland-Vancouver-Hillsboro MSA was 1,043,400 in 2008, 979,200 in 2010, 1,044,500 in 2013, and 1,173,300 in 2017.

[5] "Employment in the Portland Metro Area: November 2018," December 27, 2018. Oregon Employment Department.
https://www.qualityinfo.org/documents/10182/73818/Employment+in+Portland+Metro+Area?

[6] Projections are available at https://www.qualityinfo.org/projections.

[7] "Health Care, Computer Occupations Lead Portland Tri-County Employment Projections" State of Oregon Employment Department, September 6, 2018.

The Oregon Employment Department estimates that non-seasonally adjusted unemployment rates in November 2018 were 3.4 percent in Tigard and 3.5 percent in Tualatin.[8]

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 423 homes. About 175 of those

[8] Washington County Economic Indicators, December 2018 (November Data). Oregon Employment Department. Retrieved at https://www.qualityinfo.org/documents/10182/96541/Washington+County+Economic+Indicators?

were in Tigard's River Terrace area. However, while construction of many of the homes permitted in 2016 continued on a large scale in 2017, the number of new single family permits decreased sharply in 2017.[9]

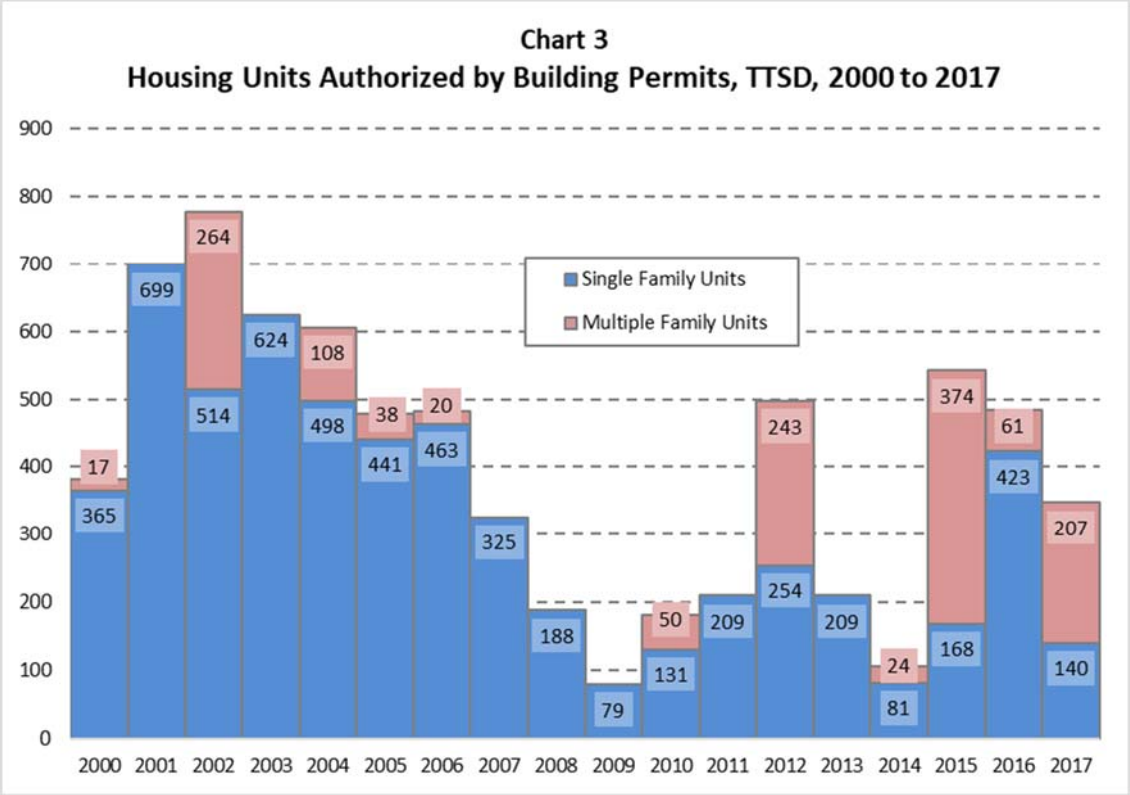


Table 4 on the following page reports the number of housing units approved within each TTSD attendance area. Current development has been increasing at a higher rate in the Tualatin High area with a five year total of 546 single family permits, compared to the Tigard High area with 381 single family permits.[10] The Twality Middle School portion of the Tualatin High area is seeing significantly more development than the other two middle schools. Among elementary school areas, Alberta Rider, Woodward, and Metzger are experiencing the greatest amount of single

[9] 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 2017 are based on individual records from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

[10] Five year totals include permits from January 2014 to September 2018.

family home construction, while large apartment complexes have been recently built in the Deer Creek, Templeton, and Metzger areas.

Table 5 lists selected land use applications submitted to local jurisdictions since 2015. As of October 2018 most of the 2015 applications had been completed and occupied, and home building was underway in the 2016 and some of the 2017 applications. The River Terrace Community Plan area accounts for 1,136 of the 2,420 potential homes in the table. However, the 335 home South River Terrace development approved in 2018 is planned as a 55 and older community with 219 single-family homes and 116 multifamily units.[11]. Also included in the 2018 list, The Fields apartments (Durham Elementary) are currently in pre-development. The Fields is an affordable rental development that will include 132 one bedroom, 100 two bedroom, and 32 three bedroom apartments. Lease-up is projected to take place June 2020-December 2020.[12] With large units and a playground, The Fields is likely to be home to between 50 and 75 school-age children, based on our observations at income-restricted developments in other Portland area school districts.

The area now known as River Terrace was annexed by the City of Tigard in 2013, having been added to the Urban Growth Boundary in 2002 and 2011. Building permits were issued for the first new homes in 2016. In a December 2015 report PRC estimated the number of potential TTSD students residing in River Terrace at build-out using assumptions based on subdivision applications and remaining residential capacity. In 2018 plans were approved for 80 acres of River Terrace to become a 55 and older community. Knowing this, we updated the potential student generation to reflect the expectation of fewer families with school-age children. Whereas the December 2015 estimate indicated 950 potential TTSD K-12 students, the new estimate is 763. The district-wide low and middle series forecasts detailed later in the "Enrollment Forecasts" section both show net growth of less than 763 K-12 students, as aging population in existing homes throughout the District compensate somewhat for the growth in new homes. Assumptions for the number of homes in River Terrace and the number of students per home are in Table 6.

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[11] For more information about development in River Terrace, see http://www.tigard-or.gov/river_terrace.php/

[12] December 4th, 2018 correspondence with Shannon Wilson, Housing Development Coordinator, Washington County Department of Housing Services.

Table 4
New Housing Units Authorized by Building Permits
2014 to 2018 by Attendance Area

Single Family Units

Elementary Area	2014	2015	2016	2017	2018 (Jan-Sep)	Total
Alberta Rider	25	68	150	38	13	**294**
Bridgeport	0	0	0	0	65	**65**
Byrom	8	6	2	3	1	**20**
C.F. Tigard	2	5	12	16	2	**37**
Deer Creek	2	16	37	21	17	**93**
Durham	2	1	16	11	1	**31**
Metzger	24	38	40	9	6	**117**
Templeton	1	13	11	19	9	**53**
Tualatin	7	6	39	20	1	**73**
Woodward	10	15	116	3	0	**144**
District Total	**81**	**168**	**423**	**140**	**115**	**927**
Middle/High Area						
Fowler/Tigard	36	58	168	28	8	**298**
Hazelbrook/Tualatin	15	18	45	23	67	**168**
Twality/Tigard	3	13	27	30	10	**83**
Twality/Tualatin	27	79	183	59	30	**378**
District Total	**81**	**168**	**423**	**140**	**115**	**927**

Multiple Family Units

Elementary Area	2014	2015	2016	2017	2018 (Jan-Sep)	Total
Alberta Rider	0	0	0	0	0	**0**
Bridgeport	0	0	0	0	0	**0**
Byrom	0	0	0	0	0	**0**
C.F. Tigard	0	0	4	0	0	**4**
Deer Creek	0	192	0	20	0	**212**
Durham	0	0	0	0	0	**0**
Metzger	0	0	57	187	0	**244**
Templeton	24	168	0	0	0	**192**
Tualatin	0	14	0	0	0	**14**
Woodward	0	0	0	0	0	**0**
District Total	**24**	**374**	**61**	**207**	**0**	**666**
Middle/High Area						
Fowler/Tigard	0	0	61	187	0	**248**
Hazelbrook/Tualatin	0	14	0	0	0	**14**
Twality/Tigard	24	168	0	0	0	**192**
Twality/Tualatin	0	192	0	20	0	**212**
District Total	**24**	**374**	**61**	**207**	**0**	**666**

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

Table 5
Recent Land Use Applications
Tigard-Tualatin School District, 2015 to 2018

Year[1]	Attendance Areas: Elementary	Middle	High	Development Name	Jurisdiction	Lots/ Units
2015	Alberta Rider	Twality	Tualatin	Polygon at Bull Mountain	Tigard	82
	Alberta Rider	Twality	Tualatin	Burgundy Ridge	Wash. Co.	7
	Alberta Rider	Twality	Tualatin	Estates at Aspen Ridge	Wash. Co.	6
	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
	Metzger	Fowler	Tigard	Mid-Summit Heights No. 2	Wash Co.	12
	Metzger	Fowler	Tigard	Oak Street Apartments[2]	Tigard	187
	Metzger	Fowler	Tigard	Oak Street Estates No. 2	Tigard	8
	Templeton	Twality	Tigard	Atwell Off Main Apts[2]	Tigard	165
	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	Alberta Rider	Twality	Tualatin	Madeline Heights	Tigard	16
	Alberta Rider	Twality	Tualatin	River Terrace Crossing	Tigard	180
	C.F. Tigard	Fowler	Tigard	Burt's Landing	Tigard	18
	C.F. Tigard	Fowler	Tigard	Mission Meadows	Tigard	9
	Durham	Twality	Tigard	Elderberry Ridge	Tigard	40
	Metzger	Fowler	Tigard	Thornwood Meadows	Tigard	6
	Templeton	Twality	Tigard	113th Ave Subdivision	Tigard	29
	Templeton	Twality	Tigard	Irma Dell Butterfield Park	Tigard	13
	Tualatin	Hazelbrook	Tualatin	Sagert Grove	Tualatin	7

continued on next page

Table 5 (continued)
Recent Land Use Applications
Tigard-Tualatin School District, 2015 to 2018

	Attendance Areas					Lots/
Year[1]	Elementary	Middle	High	Development Name	Jurisdiction	Units
2017	Alberta Rider	Twality	Tualatin	14555-14265 SW 150th	Wash. Co.	17
	Alberta Rider	Twality	Tualatin	River Terrace Park	Tigard	158
	Alberta Rider	Twality	Tualatin	14700 SW 150th	Wash. Co.	9
	C.F. Tigard	Fowler	Tigard	98th Avenue Subdivision	Tigard	8
	C.F. Tigard	Fowler	Tigard	Jamestown Village	Tigard	10
	Deer Creek	Hazelbrook	Tualatin	Hazelbrook Estates	Tualatin	5
	Deer Creek	Twality	Tualatin	Edgewater Apartments[2]	King City	20
	Templeton	Twality	Tigard	Erika Court	Tigard	10
	Metzger	Fowler	Tigard	Summit View Crossing	Tigard	10
	Metzger	Fowler	Tigard	Topping Corner	Tigard	18
	Metzger	Fowler	Tigard	Red Cedar Estates	Tigard	7
	Woodward	Fowler	Tigard	Foran Hills	Tigard	15
	Woodward	Fowler	Tigard	Watson Pointe	Tigard	8
2018	Alberta Rider	Twality	Tualatin	Stonegate at Bull Mountain	Wash. Co.	21
	Alberta Rider	Twality	Tualatin	South River Terrace[3]	Tigard	335
	C.F. Tigard	Fowler	Tigard	Brightwood	Tigard	8
	C.F. Tigard	Fowler	Tigard	Birch Mill	Tigard	6
	Durham	Twality	Tigard	15570 SW 79th Avenue	Tigard	11
	Durham	Twality	Tigard	The Fields Apartments[2]	Tigard	264
	Metzger	Fowler	Tigard	Morar Estates	Wash. Co.	4
	Metzger	Fowler	Tigard	Crestline	Wash Co.	6
	Templeton	Twality	Tigard	Trillium Hill	Tigard	14
	Woodward	Fowler	Tigard	Gaarde Meadows Apartments[2]	Tigard	28
				Grand Total for 2015-2018:		**2420**

1. "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.

2. Apartments.

3. Age 55 and over development.

Sources: Compiled by PSU-PRC from information provided by Planning Departments.

Table 6
River Terrace Forecast Assumptions
Updated October 2018

TTSD Students per Single Family Home[1]

Grades	Attached[2]	Detached Small Lot[3]	Detached Medium or Large Lot[4]
K-5	0.120	0.250	0.350
6-8	0.060	0.100	0.160
9-12	0.080	0.100	0.175
K-12	**0.260**	**0.450**	**0.685**

Number of Homes at Build-out
(TTSD Portion of River Terrace Excluding 55+ Community)

Development Status	Attached[2]	Detached Small Lot[3]	Detached Medium or Large Lot[4]
Built[5]	45	61	113
Submitted[6]	78	83	421
Remainder[7]	73	98	370
Total	**196**	**242**	**904**

TTSD Enrollment Forecasts

School Year	K-5	6-8	9-12
2017-18 (Actual)	27	3	4
2018-19 (Actual)	38	7	6
Future at Build-out	389	179	195

1. Student generation rates based on similar recent developments in proximity to River Terrace.

2. Rates for single family attached may also apply to apartment homes, if any are developed in the TTSD portion of River Terrace.

3. Detached homes on lots smaller than 3,600 square feet.

4. Detached homes on lots 3,600 square feet or larger.

5. Homes in Polygon Estates and West River Terrace subdivisions have been completed.

6. Count of lots from subdivisions within the TTSD portion of River Terrace that have been submitted to the City of Tigard but not yet built. Excludes South River Terrace, now planned as a 55+ community. See http://www.tigard-or.gov/riverterracedevelopment/index.php for details.

7. Estimate of additional housing units on remaining residential land within the TTSD based on density of submitted plans, current zoning, and City of Tigard infrastructure plans.

Population Research Center, Portland State University, October 2018.

ENROLLMENT TRENDS

The TTSD enrolled 12,326 K-12 students in fall 2018, a decrease of 226 students (1.8 percent) from fall 2017. The drop reversed the gains that had occurred in four of the previous five years; K-12 enrollment had grown by 211 students between fall 2012 and fall 2017.

Part of the K-12 decline was attributable to relative size of cohorts. The District's all time largest 12th grade class of 2017-18 (1,053 students) was replaced by a relatively small kindergarten class (862 students). The fall 2018 kindergarten class equaled the fall 2015 class as the smallest kindergarten enrollment of the past 10 years.

Elementary (K-5th) grades enrolled 97 fewer students in fall 2017 than in fall 2018, also attributable in large part to the size of individual grade cohorts. The 5th grade class of 986 students in 2017-18 was significantly larger than the incoming kindergarten class in 2018-19. There was net growth of 29 students between fall 2017 kindergarten and fall 2018 1st grade enrollment, but most other elementary cohorts did not grow. Comparing fall 2018 enrollment in 2nd-5th grade with fall 2017 1st-4th grade shows a net loss of two students.

Middle (6th-8th) grades enrollment increased by 24 students, following a 37 student increase between fall 2016 and fall 2017. While the 6th grade class in 2018-19 is the largest in several years, it is 19 students smaller than the 2017-18 5th grade class. That net loss was the largest in six years for the transition from elementary to middle school.

The largest decline was in high school grades, a net loss of 153 students (3.8 percent) between 2017-18 and 2018-19. TTSD enrollment in grades 9-12 fell below the 4,000 threshold for the first time since fall 2014, after reaching 4,077 students in fall 2017 enrollment of 4,077, the largest 9th-12thgrade enrollment in District history. The District consistently gains students between 8th and 9th grade. However, the 2018-19 increase of 30 students (3.2 percent) from 933 8th grade students in 2017-18 to 963 9th grade students in 2018-19 was the smallest increase in nine years.

Table 7 includes the enrollment history for the District by grade level annually for the past 10 years, from 2008-09 to 2018-19. The figures at the bottom of Table 7 summarize growth by elementary, middle and high school grade level groups for five and 10 year periods.

Table 7

Tigard-Tualatin School District, Enrollment History, 2008-09 to 2018-19

Grade	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
K	924	886	902	877	939	877	879	862	893	901	862
1	919	971	896	942	935	986	958	922	874	936	930
2	1,010	927	949	885	917	941	974	974	920	903	922
3	1,009	1,007	909	935	888	911	936	977	982	916	912
4	919	970	1,001	919	928	898	930	972	996	993	934
5	990	922	985	1,011	926	948	895	923	963	986	978
6	974	966	904	967	975	932	938	934	927	962	967
7	981	969	958	910	960	991	932	945	928	945	967
8	936	987	937	973	928	971	974	957	948	933	930
9	976	944	1,028	1,006	1,011	984	1,023	1,021	1,031	993	963
10	1,006	977	951	1,014	986	1,012	977	1,029	1,045	1,005	985
11	973	968	978	937	990	971	972	956	1,011	1,026	957
12	976	968	993	988	958	993	1,002	1,018	981	1,053	1,019
US*	2	5	2	2	0	0	0	0	0	0	0
Total	**12,595**	**12,467**	**12,393**	**12,366**	**12,341**	**12,415**	**12,390**	**12,490**	**12,499**	**12,552**	**12,326**
Annual change		*-128*	*-74*	*-27*	*-25*	*74*	*-25*	*100*	*9*	*53*	*-226*
		-1.0%	*-0.6%*	*-0.2%*	*-0.2%*	*0.6%*	*-0.2%*	*0.8%*	*0.1%*	*0.4%*	*-1.8%*
K-5	5,771	5,683	5,642	5,569	5,533	5,561	5,572	5,630	5,628	5,635	5,538
6-8	2,891	2,922	2,799	2,850	2,863	2,894	2,844	2,836	2,803	2,840	2,864
9-12	3,933	3,862	3,952	3,947	3,945	3,960	3,974	4,024	4,068	4,077	3,924

	5 Year Change: 2008-09 to 2013-14		**5 Year Change: 2013-14 to 2018-19**		**10 Year Change: 2008-09 to 2018-19**	
	Change	**Pct.**	**Change**	**Pct.**	**Change**	**Pct.**
K-5	-210	*-4%*	-23	*0%*	-233	*-4%*
6-8	3	*0%*	-30	*-1%*	-27	*-1%*
9-12	27	*1%*	-36	*-1%*	-9	*0%*
Total	**-180**	***-1%***	**-89**	***-1%***	**-269**	***-2%***

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

Source: Tigard-Tualatin School District

Private and Home School Enrollment

The Census Bureau's American Community Survey (ACS) provides an estimate of private school enrollment among TTSD residents based on a question about school enrollment by level and by type (public or private). The current ACS estimate from surveys conducted between 2013 and 2017 is that 1,171 TTSD K-12th grade students were enrolled in private schools, a 9.2 percent share of all K-12th grade students, with a margin of error of plus or minus 2.0 percent.[13]

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 2017-18 there were 577 TTSD residents registered as home schooled, up from 440 in 2016-17 and 445 in 2015-16.[14] The 577 students account for about four percent of TTSD 1st-12th grade residents. In 2014-15 and 2013-14 there were 424 and 366 TTSD home schooled students respectively.

Inter-District Transfers and Open Enrollment

Under Oregon's traditional inter-district transfer (IDT) rules, students who want to attend a public school outside of their resident district have to gain approval from their home district and the district that they want to attend, and that approval must be renewed each year. Beginning in the 2012-13 school year, Oregon adopted a new Open Enrollment policy under which students may transfer without approval of their home district to a district that designates available spaces at its schools. Once the student is admitted to the new district, they do not need to reapply annually. The open enrollment statute contains a sunset provision, effective July 1, 2019. Unless the state legislature takes action in the 2019 session, districts will not go through the open enrollment

[13] U.S. Census Bureau 2013-2017 American Community Survey, Table S1401. The margin of error of the numeric estimate at the 90 percent confidence level is plus or minus 271; the margin of error of the share is plus or minus 2.0 percent.

[14] Northwest Regional Education Service District, *Annual Reports*.

procedure in the spring of 2019 and will not enroll students through open enrollment in 2019-20.[15]

Table 8 shows the number of non-resident students enrolled in TTSD schools under both IDTs and Open Enrollment. The inflow and outflow under IDTs is small and relatively balanced, and does not contribute significantly to gain or loss for the District. The District has gained from Open Enrollment in recent years. There may be a small negative impact on enrollment if the District is unable to admit new Open Enrollment students. However, the impact will be gradual because the students already admitted through Open Enrollment can continue to enroll in TTSD schools even if the policy is not renewed.

[15] The Oregon Department of Education has more information about transfers between districts at https://www.oregon.gov/ode/schools-and-districts/Pages/transfers-between-districts.aspx

Table 8
Inter-District Transfers and Open Enrollment

	Inter-District Transfers			Open Enrollment		
	Into TTSD	Out of TTSD	Net	Into TTSD	Out of TTSD	Net
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	6	4	2	18	4	14
6-8	3	10	-7	2	6	-4
9-12	18	16	2	14	8	6
K-12	**27**	**30**	**-3**	**34**	**18**	**16**
2016-17						
K-5	14	11	3	18	N/A	N/A
6-8	5	6	-1	0	N/A	N/A
9-12	20	17	3	16	N/A	N/A
K-12	**39**	**34**	**5**	**34**	**N/A**	**N/A**
2017-18						
K-5	14	10	4	31	1	30
6-8	6	2	4	14	5	9
9-12	18	27	-9	19	7	12
K-12	**38**	**39**	**-1**	**64**	**13**	**51**
2018-19						
K-5	14	14	0	31	1	30
6-8	4	9	-5	4	0	4
9-12	20	22	-2	32	9	23
K-12	**38**	**45**	**-7**	**67**	**10**	**57**

Source: Tigard -Tualatin School District

Neighboring Districts

Table 9 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 2010. The Beaverton and Sherwood School Districts have continued to grow, but at a slower rate compared to the earlier period between 2000 and 2010. 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 9
Selected School Districts
Demographic and Enrollment Highlights, 2000 to 2017

	Tigard-Tualatin	Beaverton	Hillsboro	Sherwood
Enrollment growth, **2000-01 to 2010-11**	8%	11%	14%	69%
Enrollment growth, **2010-11 to 2017-18**	1%	6%	-1%	9%
Latino enrollment, **2017-18**	27%	24%	37%	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 **2013-17**[2]	$66,506	$75,572	$77,181	$97,307
Median Household Income - MOE	+/-2,425	+/-1,408	+/-1,612	+/-3,760
Median Value of Home **2013-17**[2]	$343,000	$355,400	$287,600	$395,900
Median Value of Home - MOE	+/-5,490	+/-4,045	+/-4,017	+/-12,732

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, 2013-17 American Community Survey (ACS) 5 Year Estimates. Table B19013, Median Household Income; Table B25077, Median Value of Owner-Occupied Housing Units. In 2017 inflation adjusted dollars. ACS data needs to be interpreted along with margins of error (MOE).

Enrollment at Individual Schools

In 2018-19, five of the District's 10 elementary schools had stable enrollments, gaining or losing no more than 10 students from 2017-18. Two elementary schools saw significant growth. Mary Woodward Elementary (MWES) gained 35 students due to small increases from each of three geographic areas — the MWES neighborhood attendance area (+16), TTSD outside of the MWES area (+14) and non-district residents (+5). The increase of 28 students at Bridgeport Elementary was attributable entirely to students from beyond the Bridgeport attendance area, primarily from within TTSD. One year enrollment losses at Metzger (-47), Templeton (-55) and Tualatin (-47) were partly due to small kindergarten classes replacing large 5th grade classes. Each of the three schools also experienced some cohort loss (comparing 1st-5th grade with previous K-4th grade) among students living in multi-family housing.

Enrollment totals at Fowler and Hazelbrook Middle Schools increased by 34 and 25 students, respectively, from 2017-18 to 2018-19. With only three grades, middle schools can experience enrollment swings from year to year based on the relative size of incoming and outgoing classes. After the growth seen in 2018-19 both Fowler and Hazelbrook are at their largest enrollment in at least five years. Although Twality had a net loss of 32 students between 2017-18 and 2018-19, it remains the largest middle school with an enrollment of 1,034, just 12 students less than its average enrollment over the previous five years.

Both Tigard and Tualatin High Schools experienced large net enrollment losses between 2017-18 and 2018-19. The loss of 128 students at Tigard High School (THS) occurred due to a large 12th grade class being replaced by a small 9th grade class as well as the biggest net cohort loss in 15 years. There were 80 fewer 10th-12th grade students at THS in fall 2018 compared with 9th-11th grade students in fall 2017. Tualatin High School had a net loss of 51 students, also due to cohort losses, but its enrollment of 1,947 in fall 2018 was still higher than in any year before 2017-18.

There were 93 students counted at the Tigard-Tualatin Online Academy in fall 2018, an increase of 21 students from fall 2017. While 12th grade remains the largest individual grade, the Online Academy's 10th and 11th grade enrollments are larger than in recent 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, 2013-14 to 2018-19

	Historic Enrollment						5 year change 2013-14 to 2018-19	
School	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Number**	**Percent**
Alberta Rider	624	591	587	595	559	558	-66	*-11%*
Bridgeport	486	498	491	505	521	549	63	*13%*
Byrom	529	528	560	553	562	557	28	*5%*
C.F. Tigard*	553	531	527	508	485	478	-75	*-14%*
Deer Creek	559	580	600	621	611	605	46	*8%*
Durham	563	574	584	530	552	560	-3	*-1%*
Mary Woodward	476	469	505	515	534	569	93	*20%*
Metzger*	620	648	645	652	665	618	-2	*0%*
Templeton	574	581	577	593	611	556	-18	*-3%*
Tualatin	577	572	554	556	535	488	-89	*-15%*
Elementary Totals	**5,561**	**5,572**	**5,630**	**5,628**	**5,635**	**5,538**	**-23**	***0%***
Fowler M.S.	804	815	804	803	801	835	31	*4%*
Hazelbrook M.S.	1,027	984	959	966	970	995	-32	*-3%*
Twality M.S.	1,051	1,024	1,062	1,026	1,066	1,034	-17	*-2%*
Middle School Totals	**2,882**	**2,823**	**2,825**	**2,795**	**2,837**	**2,864**	**-18**	***-1%***
Tigard H.S.	1,990	1,959	1,956	1,992	1,960	1,832	-158	*-8%*
Tualatin H.S.	1,839	1,896	1,928	1,940	1,998	1,947	108	*6%*
High School Totals	**3,829**	**3,855**	**3,884**	**3,932**	**3,958**	**3,779**	**-50**	***-1%***
Durham Center	66	55	46	52	50	52	-14	*-21%*
Tigard-Tualatin Online Academy	77	85	105	92	72	93	16	*21%*
District Totals	**12,415**	**12,390**	**12,490**	**12,499**	**12,552**	**12,326**	**-89**	***-1%***

**Note: A boundary change before the 2016-17 school year shifted a portion of the former Metzger attendance area to C.F. Tigard. This change affected 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. In addition to the middle series, or most likely, population and enrollment forecasts, we also prepared high and low series forecasts with alternative assumptions about future net migration.

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 2017, 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.

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 TFR for TTSD decreased from 2.11 in 2000 to 1.80 in 2010. Based on national trends and TTSD births observed through 2017, we adjusted the 2010 age-specific fertility rates, decreasing rates for women under 30 and increasing rates for women age 30 and older. These adjustments result in a decrease in TFRs to 1.68 in 2020. The same set of future fertility rates

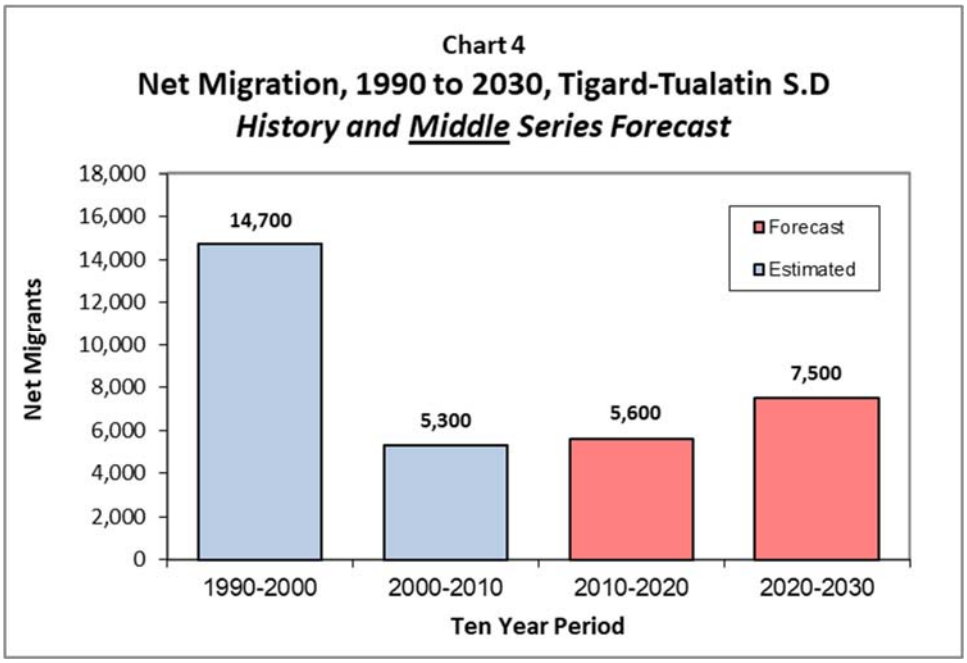
were used in all three forecast scenarios, but the number of births varies slightly between scenarios due to differences in the populations of women in child-bearing ages.

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. We estimate that the kindergarten capture rate is 0.80, indicating that 20 percent of TTSD kindergarten age residents may be enrolled in private or charter schools, or home schooled.

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.

District-wide Population Forecasts

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 eight 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 under the middle series. Forecasts of net migration under the high and low series are presented in charts in Appendix A.



The middle series forecast for 2030 population in the TTSD is 103,612, an increase of 20,155 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 1,190 person growth in school-age population amounts to eight percent in the 20 year period between 2010 and 2030 (0.4 percent average annual growth). These middle series district-wide population forecasts by age group are presented in Table 11. The high and low population forecasts by age group are included in Appendix A.

Table 11

Population by Age Group, Middle Series Forecast

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	5,332	6,006	262	*5%*
Age 5 to 9	5,209	5,606	5,690	5,956	350	*6%*
Age 10 to 14	5,016	5,646	6,059	6,077	431	*8%*
Age 15 to 17	2,959	3,393	3,535	3,802	409	*12%*
Age 18 to 19	1,642	1,769	1,806	1,793	24	*1%*
Age 20 to 24	4,470	4,665	5,391	5,954	1,289	*28%*
Age 25 to 29	5,547	5,803	6,266	6,748	945	*16%*
Age 30 to 34	5,633	6,075	6,218	7,183	1,108	*18%*
Age 35 to 39	6,102	6,116	6,387	7,124	1,008	*16%*
Age 40 to 44	6,284	6,022	6,565	6,983	961	*16%*
Age 45 to 49	5,829	6,201	6,172	6,474	273	*4%*
Age 50 to 54	4,609	6,249	5,967	6,520	271	*4%*
Age 55 to 59	3,175	5,696	6,108	6,115	419	*7%*
Age 60 to 64	2,206	4,493	6,122	5,833	1,340	*30%*
Age 65 to 69	1,733	2,960	5,420	5,778	2,818	*95%*
Age 70 to 74	1,797	2,127	4,132	5,542	3,415	*161%*
Age 75 to 79	1,862	1,642	2,637	4,559	2,917	*178%*
Age 80 to 84	1,592	1,564	1,755	3,026	1,462	*93%*
Age 85 and over	1,371	1,686	1,659	2,139	453	*27%*
Total Population	**72,164**	**83,457**	**93,221**	**103,612**	**20,155**	***22%***
Total age 5 to 17	13,184	14,645	15,284	15,835	1,190	*8%*
share age 5 to 17	*18.3%*	*17.5%*	*16.4%*	*15.3%*		

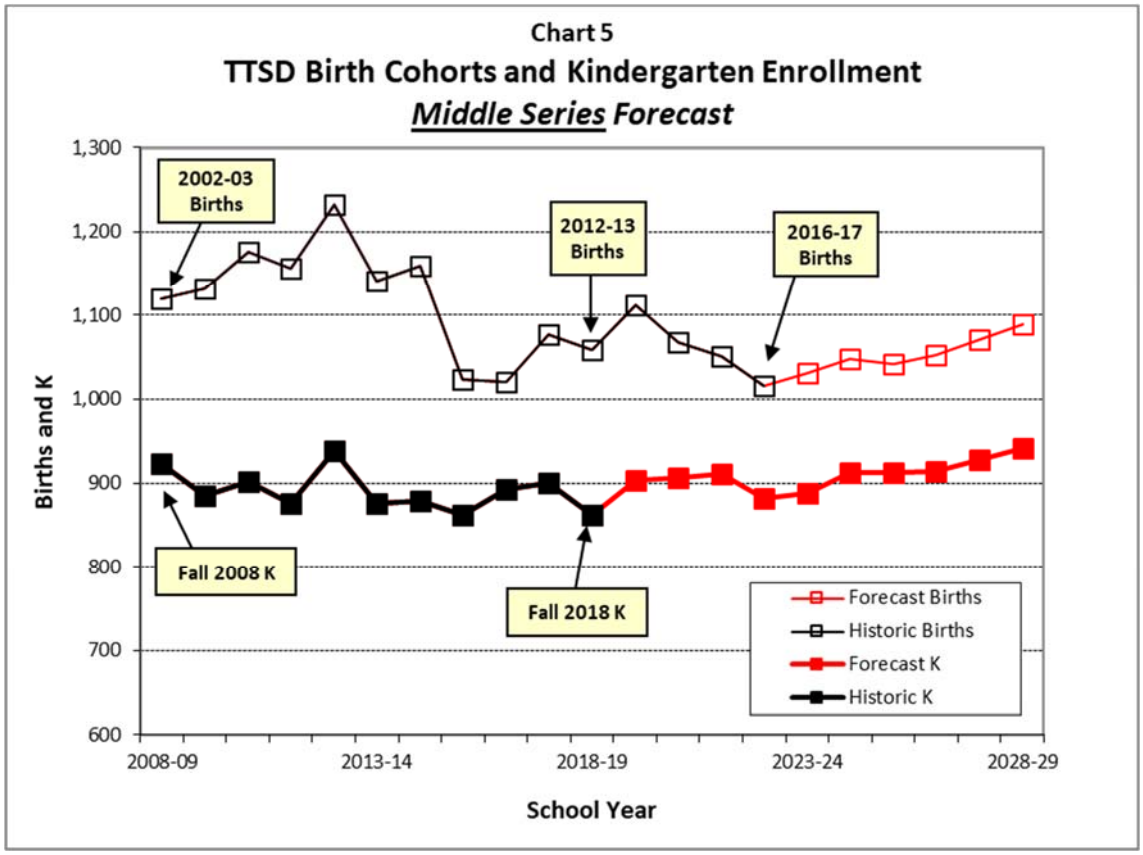
		2000-2010	2010-2020	2020-2030
Population Change		**11,293**	**9,764**	**10,391**
Percent		*16%*	*12%*	*11%*
Average Annual		*1.5%*	*1.1%*	*1.1%*

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 Forecasts

Chart 5 compares the historic and forecast number of births to District residents with the historic and forecast number of TTSD kindergarten students under the middle series. Births are compiled by kindergarten cohorts (September to August). The difference between lagged births and TTSD kindergarten enrollment represents a combination of net migration and the kindergarten capture rate, as many children move into and out of the District between birth and age five and not all District residents attend TTSD kindergartens. 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. If we only look at enrollment numbers, it may seem that full day kindergarten has not resulted in an increased capture rate. However, birth cohorts corresponding to new kindergarten classes since 2015-16 have been smaller than those in 2014-15 and earlier. In the four years from fall 2015 to fall 2018 the ratio of kindergarten to births has averaged 0.84, compared with an average of 0.77 in the eight years from fall 2007 to fall 2014.



In the *middle series* forecast, overall K-12 enrollment is expected to increase by 674 students (five percent) in the next 10 years. K-12 enrollment grows steadily, at a relatively slow pace averaging 0.5 percent annually. K-5th grade enrollments remain near their 2018-19 level for the 2019-20 school year, then begin to grow, resulting in 288 more K-5 students (five percent) over the 10 year forecast. Grade 6-8 enrollments add 80 students in 2019-20, then experience three years of small losses. Over the ten year forecast period grades 6-8 grow by 153 students (five percent). After a

small loss of 32 students in 2019-20, high school enrollments grow, adding 233 students (six percent) over the ten-year period.

The *low series* forecast depicts a scenario under which net migration falls back to levels observed during and after the recession. K-12 enrollment is relatively unchanged in the long run, with small increases in some years and small decreases in others. K-5 enrollment initially declines by 61 students in 2019-20, and fluctuates throughout the forecast horizon, reaching 2028-29 with 65 fewer students (one percent) compared with 2018-19. Middle school enrollments initially grow by 60 students in 2019-20 and then experience several years of small declines, losing just 17 students (one percent) in 10 years. After losing 46 students in 2019-20, high school enrollments grow for four years until 2023-24, and end the 10 year forecast horizon with a net gain of 81 students (two percent).

The *high series* forecast includes net migration consistently near the higher levels observed in the mid-2000s. K-12 enrollment grows at an average of 1.0 percent annually. Over the entire 10 year period, K-12 enrollment is expected to increase by 1,223 students (10 percent). Growth is balanced among the school levels, with 10 percent growth between 2018-19 and 2028-29 among K-5th grade (adding 555 students), 6th-8th grade (adding 280 students), and 9th-12th grade (adding 388 students).

Table 12 contains annual district-wide forecasts by school level under the three scenarios for the District. Detailed annual forecasts by individual grades are included in Appendix A.

Table 12

Tigard-Tualatin S.D. Enrollment Forecasts by School Level, 2019-20 to 2028-29

		LOW SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	5,538	5,477	5,506	5,536	5,504	5,456	5,473	-82	17	-65
6-8	2,864	2,924	2,908	2,880	2,844	2,874	2,847	10	-27	-17
9-12	3,924	3,878	3,906	3,941	4,027	4,049	4,005	125	-44	81
Total	**12,326**	**12,279**	**12,320**	**12,357**	**12,375**	**12,379**	**12,325**	**53**	**-54**	**-1**
Annual change		*-47*	*41*	*37*	*18*	*4*	*-11*			
		-0.4%	*0.3%*	*0.3%*	*0.1%*	*0.0%*	*-0.1%*			

		MIDDLE SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	5,538	5,540	5,613	5,692	5,703	5,702	5,826	164	124	288
6-8	2,864	2,944	2,932	2,911	2,883	2,920	3,017	56	97	153
9-12	3,924	3,892	3,934	3,982	4,076	4,104	4,157	180	53	233
Total	**12,326**	**12,376**	**12,479**	**12,585**	**12,662**	**12,726**	**13,000**	**400**	**274**	**674**
Annual change		*50*	*103*	*106*	*77*	*64*	*55*			
		0.4%	*0.8%*	*0.8%*	*0.6%*	*0.5%*	*0.4%*			

		HIGH SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	5,538	5,589	5,694	5,802	5,833	5,858	6,093	320	235	555
6-8	2,864	2,966	2,966	2,957	2,940	2,985	3,144	121	159	280
9-12	3,924	3,910	3,964	4,027	4,134	4,177	4,312	253	135	388
Total	**12,326**	**12,465**	**12,624**	**12,786**	**12,907**	**13,020**	**13,549**	**694**	**529**	**1,223**
Annual change		*139*	*159*	*162*	*121*	*113*	*106*			
		1.1%	*1.3%*	*1.3%*	*0.9%*	*0.9%*	*0.8%*			

Population Research Center, Portland State University, December 2018.

Individual School Forecasts

Forecasts for individual schools are prepared under a scenario in which current boundaries and grade configurations remain constant. 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 the future Art Rutkin School 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.

Among the District's 10 elementary schools, the largest growth is expected at Alberta Rider, which adds 153 students, and at Mary Woodward, which adds 96 students. Both grow due to new housing in River Terrace based on current boundaries that do not include a school at the Art Rutkin site. Significant growth is also expected at Deer Creek, which adds 42 students in this forecast. Potential long-range growth in the current Deer Creek boundary is much higher, depending on the pace of future development in the King City UGB expansion area approved by Metro in

December 2018.[16] More information about the timeline and 10 year growth potential in the King City UGB expansion will be included in future studies. The only other TTSD elementary school with a forecast of significant growth is Durham, where The Fields apartments are expected to be completed in late 2020. Enrollment at Metzger initially declines due to the impact of a 2016 boundary change, then rebounds due to ongoing housing growth. The District's five other elementary schools are forecast to have relatively stable enrollments throughout the forecast period.

Among TTSD middle schools, Twality includes the fast growing Alberta Rider area as well as a portion of Deer Creek. Twality initially grows due to a large 6th grade class entering in 2019-20 and then experiences a few years of decline due to much smaller cohorts from its feeders. Twality's growth resumes near the end of the forecast period, resulting in an increase of 108 students in 10 years. Fowler's enrollment fluctuates between annual increases and decreases, but ends with an overall 85 student increase for the 10 year period. Hazelbrook's primary feeders, Bridgeport, Byrom, and Tualatin, are all forecasted to experience a slight enrollment decline. As a result, Hazelbrook's enrollment is forecasted to decline by 40 students during the period.

Tigard High School grows by 109 students during the forecast period while Tualatin High School adds 124 students. Tigard HS has experienced two years of declining enrollment since 2016-17, and is expected to see two more years of decline amounting to a 59 student loss by 2020-21. By 2028-29 Tigard HS rebounds to 1,941 students. Tualatin HS grows steadily until reaching an enrollment peak in in 2023-24 with 2,075 students. Tualatin HS has 115 more students than Tigard in 2018-19, and is forecast to have a similar difference of 130 students by 2028-29.

Table 13 presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

[16] More information at https://www.oregonmetro.gov/news/metro-council-approves-ugb-expansion-could-create-9200-new-homes. and at http://www.ci.king-city.or.us/departments/parks_and_recreation/king_city_ura.php.

Table 13
Enrollment Forecasts for Individual Schools, 2019-20 to 2028-29

School	Actual 2018-19	Forecast 2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	Change 2018-19-2028-29
Alberta Rider	558	559	591	601	623	642	657	677	693	703	711	153
Bridgeport	549	563	560	571	562	553	547	546	541	540	542	-7
Byrom	557	553	546	545	543	545	541	538	538	539	543	-14
C.F. Tigard*	478	493	495	493	502	501	495	488	488	489	496	18
Deer Creek	605	590	600	628	619	616	632	630	630	635	647	42
Durham	560	542	570	601	602	593	589	589	588	587	591	31
Mary Woodward	569	599	622	635	662	660	670	669	666	661	665	96
Metzger*	618	604	588	583	577	580	582	587	591	598	607	-11
Templeton	556	550	558	557	546	542	556	554	550	549	557	1
Tualatin	488	487	483	478	467	470	474	468	463	463	467	-21
Elementary Totals	**5,538**	**5,540**	**5,613**	**5,692**	**5,703**	**5,702**	**5,743**	**5,746**	**5,748**	**5,764**	**5,826**	**288**
Fowler M.S.	835	871	886	883	871	876	872	914	923	933	920	85
Hazelbrook M.S.	995	980	980	976	991	968	981	968	973	968	955	-40
Twality M.S.	1,034	1,093	1,066	1,052	1,021	1,076	1,090	1,101	1,109	1,145	1,142	108
Middle School Totals	**2,864**	**2,944**	**2,932**	**2,911**	**2,883**	**2,920**	**2,943**	**2,983**	**3,005**	**3,046**	**3,017**	**153**
Tigard H.S.	1,832	1,781	1,763	1,806	1,860	1,884	1,915	1,879	1,884	1,908	1,941	109
Tualatin H.S.	1,947	1,966	2,026	2,031	2,071	2,075	2,022	2,051	2,040	2,038	2,071	124
Durham Center	52	52	52	52	52	52	52	52	52	52	52	0
Tig.-Tual. Online	93	93	93	93	93	93	93	93	93	93	93	0
High School Totals	**3,924**	**3,892**	**3,934**	**3,982**	**4,076**	**4,104**	**4,082**	**4,075**	**4,069**	**4,091**	**4,157**	**233**
District Totals	**12,326**	**12,376**	**12,479**	**12,585**	**12,662**	**12,726**	**12,768**	**12,804**	**12,822**	**12,901**	**13,000**	**674**

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

Population Research Center, Portland State University, December 2018.

Capacity figures in Table 14 are reviewed annually by District staff and updated as needed to reflect rebuilt schools, the addition of portables, and the relocation of special programs. Capacities are compared with both the base year (2018-19) and end year (2028-29) of the enrollment forecast.

Table 14

Facility Capacity and Enrollment, 2018-19 and 2028-29

	2018-19				2028-29			
School	**Capacity Excluding portables**	**Capacity Including Portables**	**2018-19 Enroll-ment[1]**	**Available Capacity (including portables)[2]**	**2028-29 Forecast Enroll-ment[1]**	**Capacity Excluding portables**	**Capacity Including Portables**	**Available Capacity (including portables)[2]**
Alberta Rider	624	624	558	66	711	624	624	-87
Bridgeport[P]	598	648	549	99	542	598	648	106
Byrom	598	698	557	141	543	598	698	155
C.F. Tigard[PP]	624	624	478	146	496	624	624	128
Deer Creek	598	648	605	43	647	598	648	1
Durham[P]	598	598	560	38	591	598	598	7
Metzger[PP]	624	724	618	106	607	624	724	117
Templeton[3]	598	648	556	92	557	624	624	67
Tualatin[PP]	624	624	488	136	467	624	624	157
Woodward[P]	598	648	569	79	665	598	648	-17
Elementary Totals	**6,084**	**6,484**	**5,538**	**946**	**5,826**	**6,110**	**6,460**	**634**
Fowler M.S.	1,000	1,000	835	165	920	1,000	1,000	80
Hazelbrook M.S.	1,000	1,040	995	45	955	1,000	1,040	85
Twality M.S.[4]	942	1,084	1,034	50	1,142	1,175	1,175	33
Middle School Totals	**2,942**	**3,124**	**2,864**	**260**	**3,017**	**3,175**	**3,215**	**198**
Tigard H.S.[5]	1,776	1,898	1,832	66	1,941	2,000	2,000	59
Tualatin H.S.[6]	1,888	1,888	1,947	-59	2,071	2,000	2,000	-71
High School Totals	**3,664**	**3,786**	**3,779**	**7**	**4,012**	**4,000**	**4,000**	**-12**
Durham Center	105	105	52	53	52	105	105	53
District Totals[1]	**12,795**	**13,499**	**12,233**	**1,266**	**12,907**	**13,390**	**13,780**	**873**

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

2. Current or future (see notes 3-6) capacity minus 2018-19 actual and 2028-29 forecast enrollment.

3. A new Templeton Elementary will open in September 2019 with a 624 student capacity.

4. A new Twality Middle School will open In September 2021 with a 1,175 student capacity.

5. A rebuilt portion of Tigard High School will open in September 2020, bringing capacity to 2,000.

6. Additions to Tualatin High School will open in September 2019, bringing capacity to 2,000.

P. One preschool classroom.

PP. Two preschool classrooms.

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

FORECAST ACCURACY

In Table 15, actual TTSD enrollment by grade level in Fall 2018 is compared with the 2018-19 forecasts that were prepared one year earlier, as well as those prepared two and three years earlier. Similarly, Table 16 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 2015, 2016, and 2017 all predicted K-12 total enrollments higher than the actual fall 2018 enrollment. The largest error in each series was in kindergarten, which enrolls 67 students more than the one year forecast.

Table 15

Fall 2018 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	862	929	67	*7.8%*	943	81	*9.4%*	946	84	*9.7%*
1	930	939	9	*1.0%*	943	13	*1.4%*	945	15	*1.6%*
2	922	948	26	*2.8%*	924	2	*0.2%*	901	-21	*-2.3%*
3	912	915	3	*0.3%*	900	-12	*-1.3%*	921	9	*1.0%*
4	934	927	-7	*-0.7%*	947	13	*1.4%*	966	32	*3.4%*
5	978	1,006	28	*2.9%*	1,010	32	*3.3%*	1,023	45	*4.6%*
6	967	998	31	*3.2%*	1,024	57	*5.9%*	1,016	49	*5.1%*
7	967	972	5	*0.5%*	988	21	*2.2%*	1,007	40	*4.1%*
8	930	955	25	*2.7%*	950	20	*2.2%*	952	22	*2.4%*
9	963	988	25	*2.6%*	997	34	*3.5%*	1,020	57	*5.9%*
10	985	1,000	15	*1.5%*	1,013	28	*2.8%*	1,023	38	*3.9%*
11	957	988	31	*3.2%*	1,023	66	*6.9%*	1,010	53	*5.5%*
12	1,019	1,060	41	*4.0%*	1,063	44	*4.3%*	1,052	33	*3.2%*
Total	**12,326**	**12,625**	**299**	***2.4%***	**12,725**	**399**	***3.2%***	**12,782**	**456**	***3.7%***
MAPE[4]				***2.6%***			***3.4%***			***4.1%***

1. Forecast for 2018-19 by PSU-PRC, baseline 2016-17 enrollment. December 2017.

2. Forecast for 2018-19 by PSU-PRC, baseline 2016-17 enrollment. December 2016.

3. Forecast for 2018-19 by PSU-PRC, baseline 2015-16 enrollment. December 2015.

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

Table 16

Fall 2018 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	558	566	8	*1.4%*	590	32	*5.7%*	598	40	*7.2%*
Bridgeport	549	531	-18	*-3.3%*	510	-39	*-7.1%*	506	-43	*-7.8%*
Byrom	557	567	10	*1.8%*	575	18	*3.2%*	545	-12	*-2.2%*
C. F. Tigard[4]	478	475	-3	*-0.6%*	510	32	*6.7%*	583	105	*22.0%*
Deer Creek	605	631	26	*4.3%*	648	43	*7.1%*	630	25	*4.1%*
Durham	560	553	-7	*-1.3%*	532	-28	*-5.0%*	586	26	*4.6%*
Mary Woodward	569	556	-13	*-2.3%*	531	-38	*-6.7%*	547	-22	*-3.9%*
Metzger	618	635	17	*2.8%*	626	8	*1.3%*	618	0	*0.0%*
Templeton	556	612	56	*10.1%*	612	56	*10.1%*	567	11	*2.0%*
Tualatin Elem.	488	538	50	*10.2%*	533	45	*9.2%*	522	34	*7.0%*
Elementaries	**5,538**	**5,664**	**126**	***2.3%***	**5,667**	**129**	***2.3%***	**5,702**	**164**	***3.0%***
Fowler	835	873	38	*4.6%*	867	32	*3.8%*	829	-6	*-0.7%*
Hazelbrook	995	976	-19	*-1.9%*	994	-1	*-0.1%*	957	-38	*-3.8%*
Twality	1,034	1,073	39	*3.8%*	1,093	59	*5.7%*	1,176	142	*13.7%*
Middle Schools	**2,864**	**2,922**	**58**	***2.0%***	**2,954**	**90**	***3.1%***	**2,962**	**98**	***3.4%***
Tigard HS	1,832	1,929	97	*5.3%*	2,006	174	*9.5%*	1,974	142	*7.8%*
Tualatin HS	1,947	1,988	41	*2.1%*	1,954	7	*0.4%*	1,971	24	*1.2%*
Durham Center	52	50	-2	*-3.8%*	52	0	*0.0%*	46	-6	*-11.5%*
Tig.-Tual. Online Acad.	93	72	-21	*-22.6%*	92	-1	*-1.1%*	127	34	*36.6%*
High Schools	**3,924**	**4,039**	**115**	***2.9%***	**4,104**	**180**	***4.6%***	**4,118**	**194**	***4.9%***
District	**12,326**	**12,625**	**299**	***2.4%***	**12,725**	**399**	***3.2%***	**12,782**	**456**	***3.7%***
MAPE[4]				***3.7%***			***5.7%***			***5.1%***

1. Forecast for 2018-19 by PSU-PRC, baseline 2016-17 enrollment. December 2017.

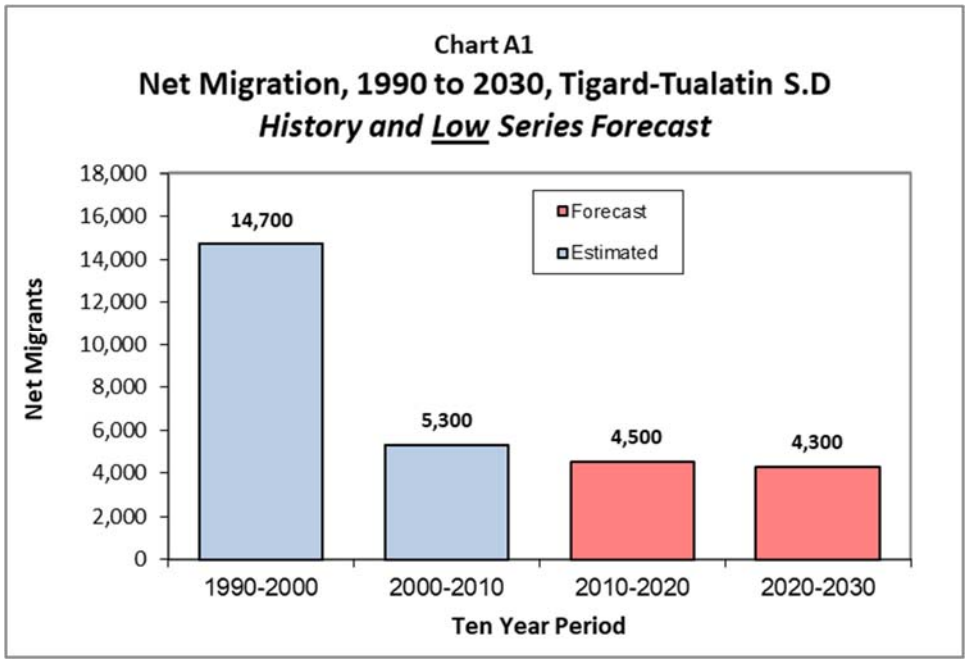
2. Forecast for 2018-19 by PSU-PRC, baseline 2016-17 enrollment. December 2016.

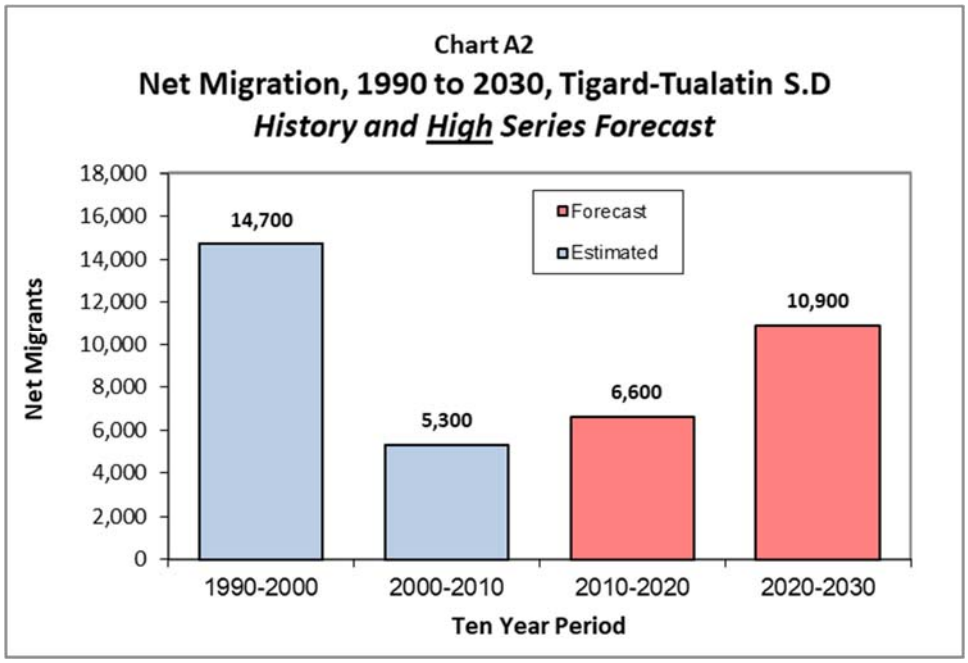
3. Forecast for 2018-19 by PSU-PRC, baseline 2015-16 enrollment. December 2015.

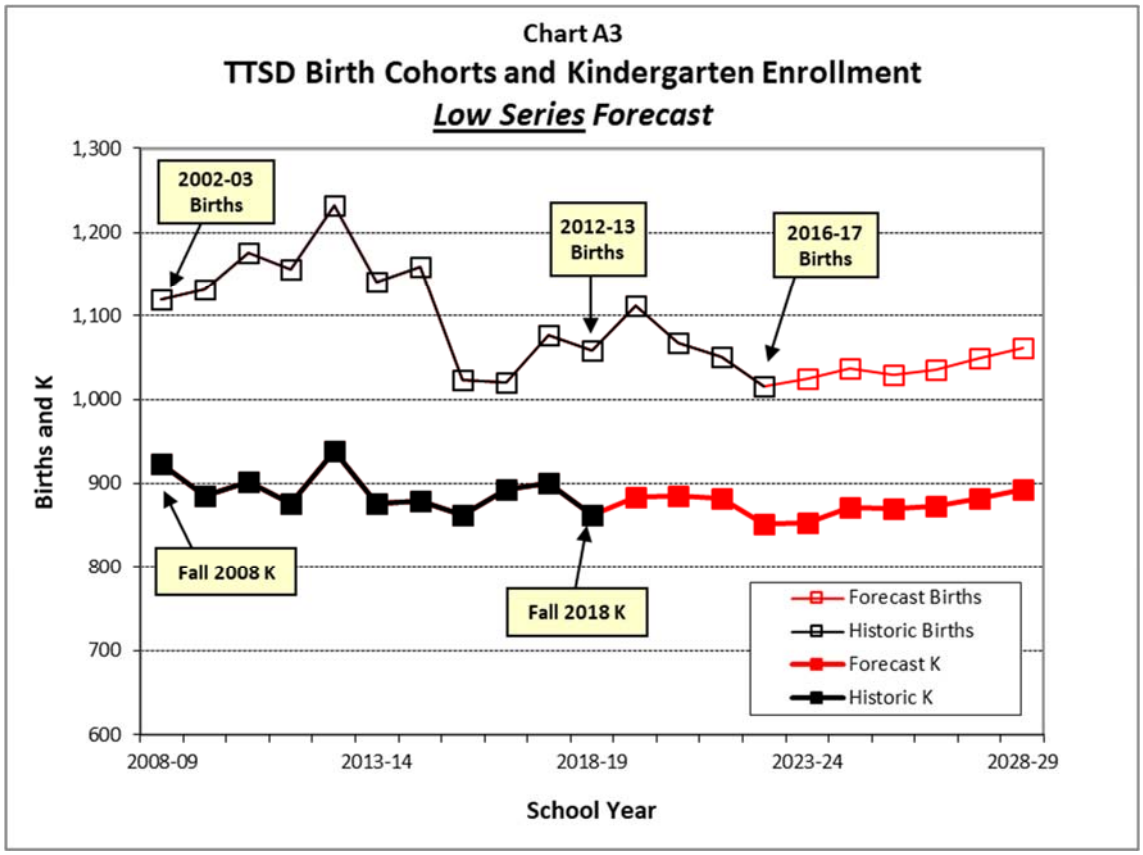
4. Mean absolute percent error for individual schools, not including Durham Center or Tigard-Tualatin Online Academy. Elementary schools with boundary changes are also excluded from the two and three year forecast MAPEs.

APPENDIX A

DISTRICT-WIDE POPULATION FORECASTS AND ENROLLMENT FORECASTS


Chart A1
Net Migration, 1990 to 2030, Tigard-Tualatin S.D
History and Low Series Forecast
Net Migrants
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
14,700
5,300
4,500
4,300
Forecast
Estimated
1990-2000
2000-2010
2010-2020
2020-2030
Ten Year Period


Chart A2
Net Migration, 1990 to 2030, Tigard-Tualatin S.D
History and High Series Forecast
Net Migrants
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
14,700
5,300
6,600
10,900
Forecast
Estimated
1990-2000
2000-2010
2010-2020
2020-2030
Ten Year Period


Chart A3
TTSD Birth Cohorts and Kindergarten Enrollment
Low Series Forecast
1,300
1,200
1,100
1,000
900
800
700
600
Births and K
2002-03 Births
2012-13 Births
2016-17 Births
Fall 2008 K
Fall 2018 K
Forecast Births
Historic Births
Forecast K
Historic K
2008-09
2013-14
2018-19
2023-24
2028-29
School Year

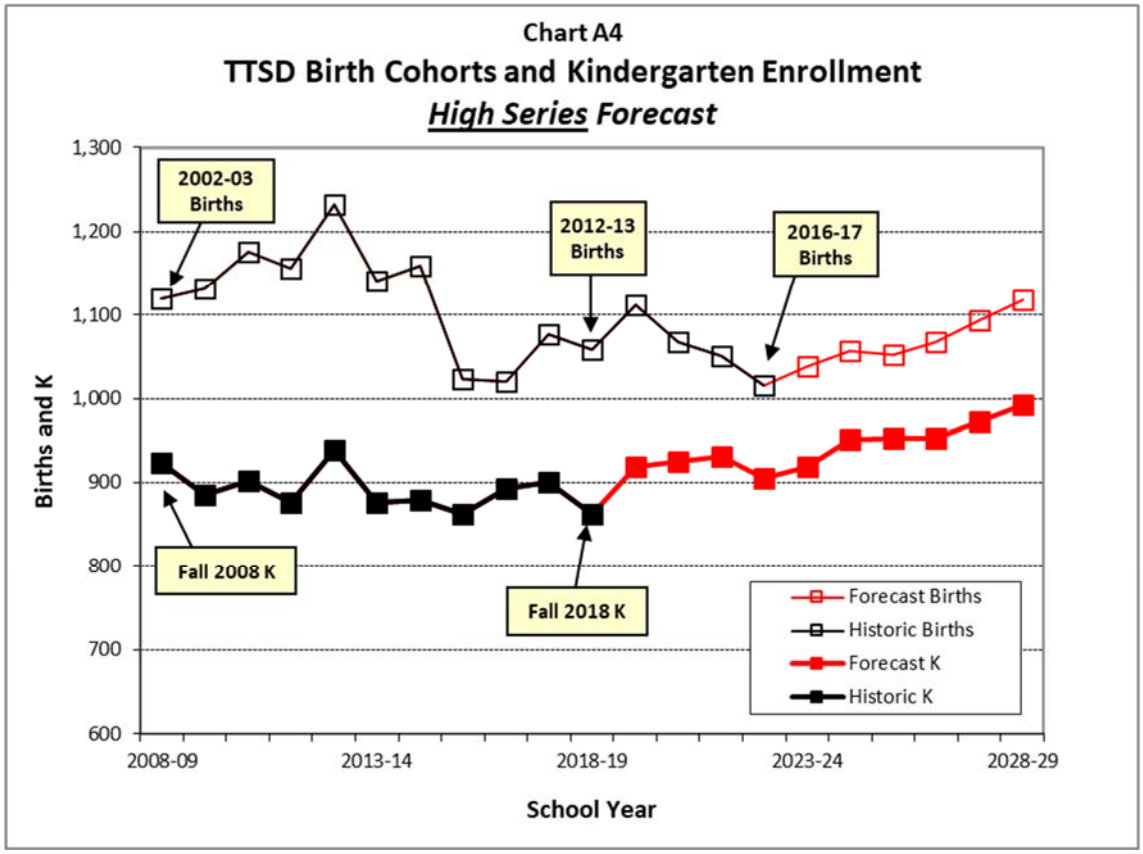

Chart A4
TTSD Birth Cohorts and Kindergarten Enrollment
High Series Forecast
1,300
1,200
1,100
1,000
900
800
700
600
Births and K
2002-03 Births
2012-13 Births
2016-17 Births
Fall 2008 K
Fall 2018 K
Forecast Births
Historic Births
Forecast K
Historic K
2008-09
2013-14
2018-19
2023-24
2028-29
School Year

Table A1

Population by Age Group, Low Series Forecast
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	5,212	5,666	-78	*-1%*
Age 5 to 9	5,209	5,606	5,575	5,636	30	*1%*
Age 10 to 14	5,016	5,646	5,925	5,757	111	*2%*
Age 15 to 17	2,959	3,393	3,498	3,647	254	*7%*
Age 18 to 19	1,642	1,769	1,770	1,737	-32	*-2%*
Age 20 to 24	4,470	4,665	5,311	5,604	939	*20%*
Age 25 to 29	5,547	5,803	6,197	6,376	573	*10%*
Age 30 to 34	5,633	6,075	6,132	6,740	665	*11%*
Age 35 to 39	6,102	6,116	6,340	6,876	760	*12%*
Age 40 to 44	6,284	6,022	6,526	6,743	721	*12%*
Age 45 to 49	5,829	6,201	6,133	6,264	63	*1%*
Age 50 to 54	4,609	6,249	5,932	6,333	84	*1%*
Age 55 to 59	3,175	5,696	6,060	5,916	220	*4%*
Age 60 to 64	2,206	4,493	6,069	5,625	1,132	*25%*
Age 65 to 69	1,733	2,960	5,377	5,597	2,637	*89%*
Age 70 to 74	1,797	2,127	4,082	5,349	3,222	*151%*
Age 75 to 79	1,862	1,642	2,595	4,373	2,731	*166%*
Age 80 to 84	1,592	1,564	1,721	2,847	1,283	*82%*
Age 85 and over	1,371	1,686	1,608	1,944	258	*15%*
Total Population	**72,164**	**83,457**	**92,064**	**99,030**	**15,573**	***17%***
Total age 5 to 17	13,184	14,645	14,998	15,040	395	*3%*
share age 5 to 17	*18.3%*	*17.5%*	*16.3%*	*15.2%*		

		2000-2010	2010-2020	2020-2030
Population Change		**11,293**	**8,607**	**6,966**
Percent		*16%*	*10%*	*8%*
Average Annual		*1.5%*	*1.0%*	*0.7%*

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.

Table A2

Population by Age Group, High Series Forecast

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	5,413	6,351	607	*11%*
Age 5 to 9	5,209	5,606	5,765	6,278	672	*12%*
Age 10 to 14	5,016	5,646	6,143	6,395	749	*13%*
Age 15 to 17	2,959	3,393	3,587	3,972	579	*17%*
Age 18 to 19	1,642	1,769	1,839	1,840	71	*4%*
Age 20 to 24	4,470	4,665	5,472	6,233	1,568	*34%*
Age 25 to 29	5,547	5,803	6,335	7,144	1,341	*23%*
Age 30 to 34	5,633	6,075	6,303	7,746	1,671	*28%*
Age 35 to 39	6,102	6,116	6,433	7,376	1,260	*21%*
Age 40 to 44	6,284	6,022	6,604	7,226	1,204	*20%*
Age 45 to 49	5,829	6,201	6,211	6,686	485	*8%*
Age 50 to 54	4,609	6,249	6,001	6,709	460	*7%*
Age 55 to 59	3,175	5,696	6,156	6,317	621	*11%*
Age 60 to 64	2,206	4,493	6,176	6,043	1,550	*34%*
Age 65 to 69	1,733	2,960	5,463	5,961	3,001	*101%*
Age 70 to 74	1,797	2,127	4,181	5,737	3,610	*170%*
Age 75 to 79	1,862	1,642	2,679	4,746	3,104	*189%*
Age 80 to 84	1,592	1,564	1,789	3,209	1,645	*105%*
Age 85 and over	1,371	1,686	1,710	2,341	655	*39%*
Total Population	**72,164**	**83,457**	**94,259**	**108,310**	**24,853**	***26%***
Total age 5 to 17	13,184	14,645	15,495	16,645	2,000	*13%*
share age 5 to 17	*18.3%*	*17.5%*	*16.4%*	*15.4%*		

		2000-2010	2010-2020	2020-2030
Population Change		**11,293**	**10,802**	**14,050**
Percent		*16%*	*13%*	*15%*
Average Annual		*1.5%*	*1.2%*	*1.4%*

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.

Table A3

Tigard-Tualatin School District, LOW SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	862	884	885	882	852	853	872	871	873	883	893
1	930	884	914	914	909	878	879	899	897	899	909
2	922	932	895	926	923	918	887	888	908	906	908
3	912	924	943	906	935	932	927	896	897	917	915
4	934	924	944	963	923	953	950	945	913	914	935
5	978	929	925	945	962	922	952	949	944	912	913
6	967	982	938	934	952	969	929	959	956	951	919
7	967	971	991	946	940	959	976	935	966	963	958
8	930	971	979	1,000	952	946	965	983	941	973	970
9	963	980	1,024	1,032	1,053	1,003	996	1,016	1,035	991	1,025
10	985	956	971	1,014	1,022	1,043	993	986	1,006	1,025	982
11	957	956	927	941	983	991	1,011	963	956	975	994
12	1,019	986	984	954	969	1,012	1,020	1,041	991	984	1,004
Total	**12,326**	**12,279**	**12,320**	**12,357**	**12,375**	**12,379**	**12,357**	**12,331**	**12,283**	**12,293**	**12,325**
Annual change		*-47* *-0.4%*	*41* *0.3%*	*37* *0.3%*	*18* *0.1%*	*4* *0.0%*	*-22* *-0.2%*	*-26* *-0.2%*	*-48* *-0.4%*	*10* *0.1%*	*32* *0.3%*
K-5	5,538	5,477	5,506	5,536	5,504	5,456	5,467	5,448	5,432	5,431	5,473
6-8	2,864	2,924	2,908	2,880	2,844	2,874	2,870	2,877	2,863	2,887	2,847
9-12	3,924	3,878	3,906	3,941	4,027	4,049	4,020	4,006	3,988	3,975	4,005

	5 Year Change: 2018-19 to 2023-24		5 Year Change: 2023-24 to 2028-29		10 Year Change: 2018-19 to 2028-29	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-82	*-1%*	17	*0%*	-65	*-1%*
6-8	10	*0%*	-27	*-1%*	-17	*-1%*
9-12	125	*3%*	-44	*-1%*	81	*2%*
Total	**53**	***0%***	**-54**	***0%***	**-1**	***0%***

Population Research Center, Portland State University, December 2018

Table A4

Tigard-Tualatin School District, MIDDLE SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	862	904	907	912	883	889	913	913	914	928	942
1	930	907	948	952	952	923	929	954	954	955	970
2	922	936	921	962	963	963	934	940	965	965	966
3	912	928	950	935	973	974	974	945	951	976	976
4	934	930	952	974	956	995	996	996	966	972	998
5	978	935	935	957	976	958	997	998	998	968	974
6	967	989	947	947	967	986	968	1,007	1,008	1,008	978
7	967	978	999	956	954	974	994	975	1,015	1,016	1,016
8	930	977	986	1,008	962	960	981	1,001	982	1,022	1,023
9	963	985	1,033	1,042	1,064	1,015	1,013	1,035	1,057	1,037	1,079
10	985	960	979	1,027	1,035	1,056	1,008	1,006	1,028	1,050	1,030
11	957	958	933	951	997	1,005	1,025	978	976	998	1,019
12	1,019	989	989	962	980	1,028	1,036	1,056	1,008	1,006	1,029
Total	**12,326**	**12,376**	**12,479**	**12,585**	**12,662**	**12,726**	**12,768**	**12,804**	**12,822**	**12,901**	**13,000**
Annual change		*50*	*103*	*106*	*77*	*64*	*42*	*36*	*18*	*79*	*99*
		0.4%	*0.8%*	*0.8%*	*0.6%*	*0.5%*	*0.3%*	*0.3%*	*0.1%*	*0.6%*	*0.8%*
K-5	5,538	5,540	5,613	5,692	5,703	5,702	5,743	5,746	5,748	5,764	5,826
6-8	2,864	2,944	2,932	2,911	2,883	2,920	2,943	2,983	3,005	3,046	3,017
9-12	3,924	3,892	3,934	3,982	4,076	4,104	4,082	4,075	4,069	4,091	4,157

	5 Year Change: 2018-19 to 2023-24		**5 Year Change: 2023-24 to 2028-29**		**10 Year Change: 2018-19 to 2028-29**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	164	*3%*	124	*2%*	288	*5%*
6-8	56	*2%*	97	*3%*	153	*5%*
9-12	180	*5%*	53	*1%*	233	*6%*
Total	**400**	***3%***	**274**	***2%***	**674**	***5%***

Population Research Center, Portland State University, December 2018

Table A5

Tigard-Tualatin School District, HIGH SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	862	919	925	932	906	919	952	953	953	972	992
1	930	917	969	974	971	944	958	991	993	992	1,012
2	922	941	934	987	988	985	958	972	1,005	1,007	1,006
3	912	934	958	951	1,001	1,002	999	972	986	1,019	1,021
4	934	936	962	986	975	1,027	1,028	1,025	997	1,011	1,045
5	978	942	946	972	992	981	1,033	1,034	1,031	1,003	1,017
6	967	996	959	963	986	1,006	995	1,048	1,049	1,046	1,017
7	967	985	1,010	972	973	997	1,017	1,006	1,059	1,060	1,057
8	930	985	997	1,022	981	982	1,007	1,027	1,016	1,069	1,070
9	963	991	1,044	1,057	1,081	1,038	1,039	1,065	1,086	1,075	1,131
10	985	965	987	1,040	1,051	1,075	1,033	1,033	1,059	1,080	1,069
11	957	962	939	960	1,011	1,021	1,045	1,004	1,004	1,029	1,050
12	1,019	992	994	970	991	1,043	1,054	1,078	1,036	1,036	1,062
Total	**12,326**	**12,465**	**12,624**	**12,786**	**12,907**	**13,020**	**13,118**	**13,208**	**13,274**	**13,399**	**13,549**
Annual change		*139*	*159*	*162*	*121*	*113*	*98*	*90*	*66*	*125*	*150*
		1.1%	*1.3%*	*1.3%*	*0.9%*	*0.9%*	*0.8%*	*0.7%*	*0.5%*	*0.9%*	*1.1%*
K-5	5,538	5,589	5,694	5,802	5,833	5,858	5,928	5,947	5,965	6,004	6,093
6-8	2,864	2,966	2,966	2,957	2,940	2,985	3,019	3,081	3,124	3,175	3,144
9-12	3,924	3,910	3,964	4,027	4,134	4,177	4,171	4,180	4,185	4,220	4,312

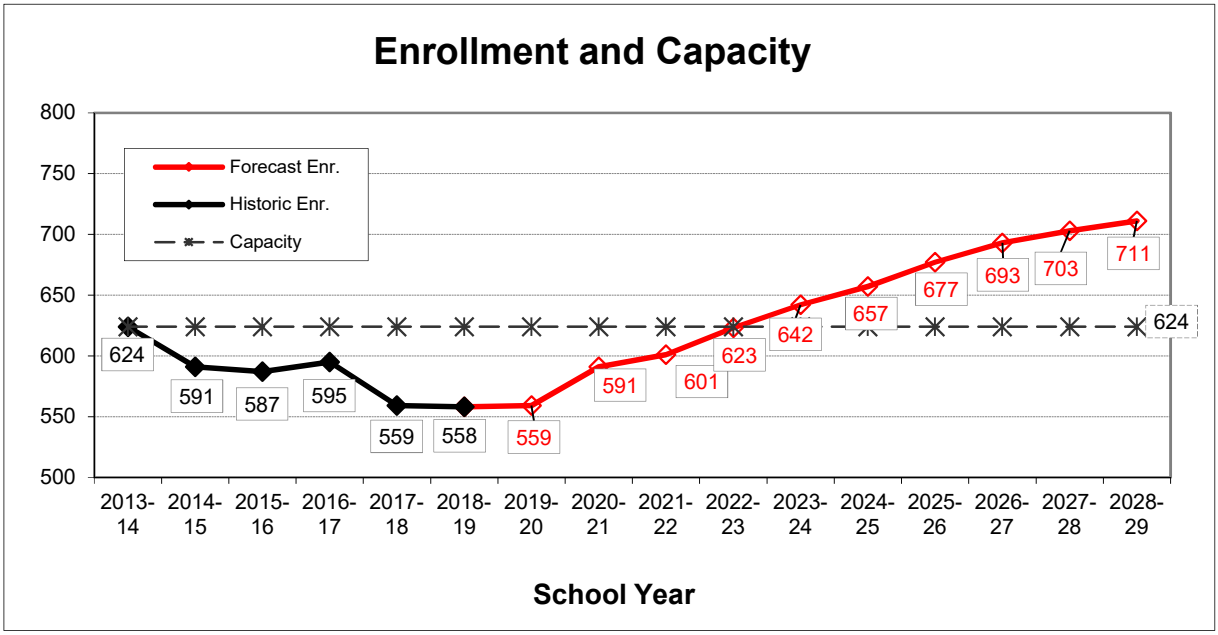
	5 Year Change: 2018-19 to 2023-24		**5 Year Change: 2023-24 to 2028-29**		**10 Year Change: 2018-19 to 2028-29**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	320	*6%*	235	*4%*	555	*10%*
6-8	121	*4%*	159	*5%*	280	*10%*
9-12	253	*6%*	135	*3%*	388	*10%*
Total	**694**	***6%***	**529**	***4%***	**1,223**	***10%***

Population Research Center, Portland State University, December 2018

APPENDIX B

ENROLLMENT AND CAPACITY PROFILES FOR INDIVIDUAL SCHOOLS

Alberta Rider Elementary School



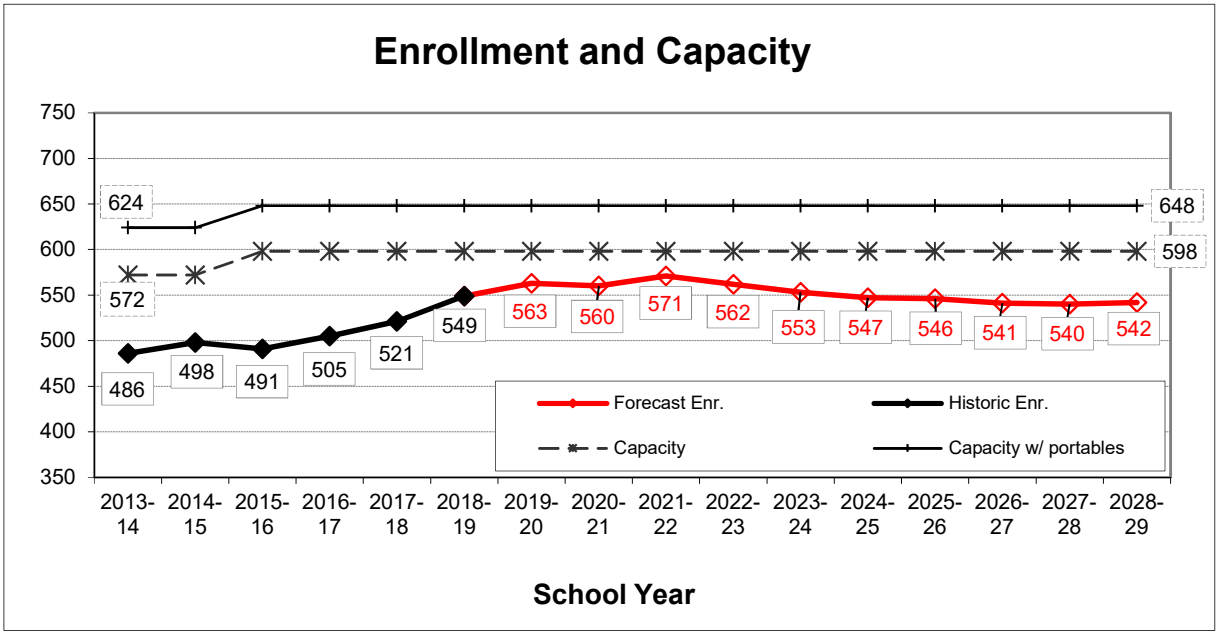
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	624	558	642	711
5 year Change		*-66*	*84*	*69*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	25	68	150	38	13
Multiple Family Units	0	0	0	0	0

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

Bridgeport Elementary School



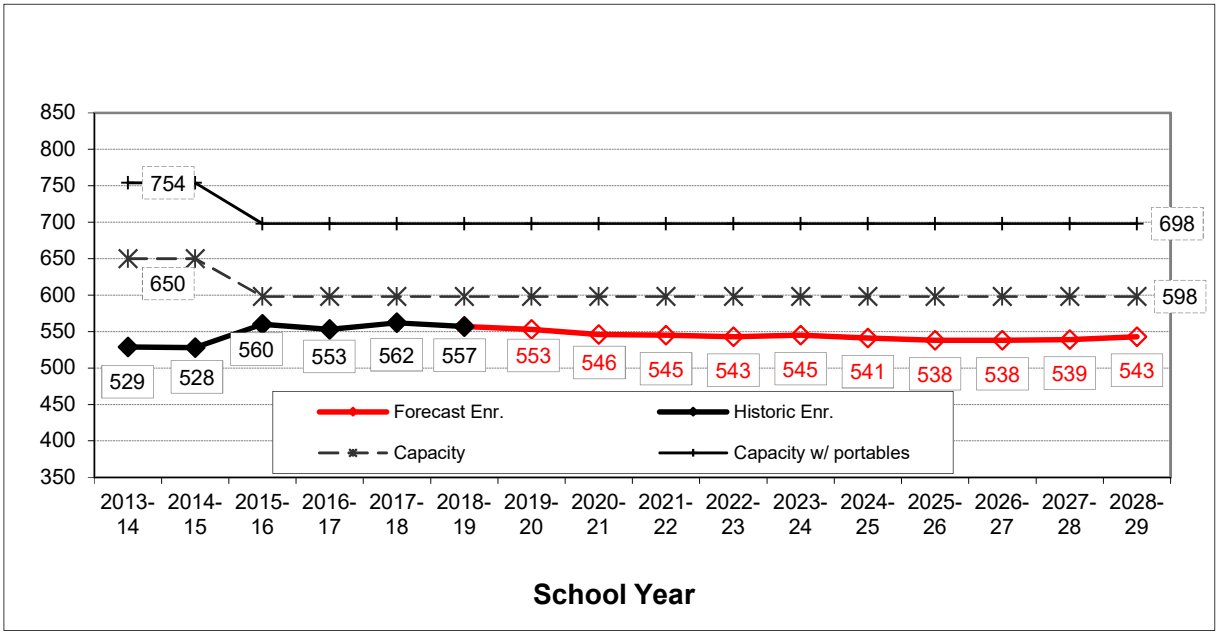
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	486	549	553	542
5 year Change		*63*	*4*	*-11*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	0	0	0	0	64
Multiple Family Units	0	0	0	0	0

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

Edward Byrom Elementary School



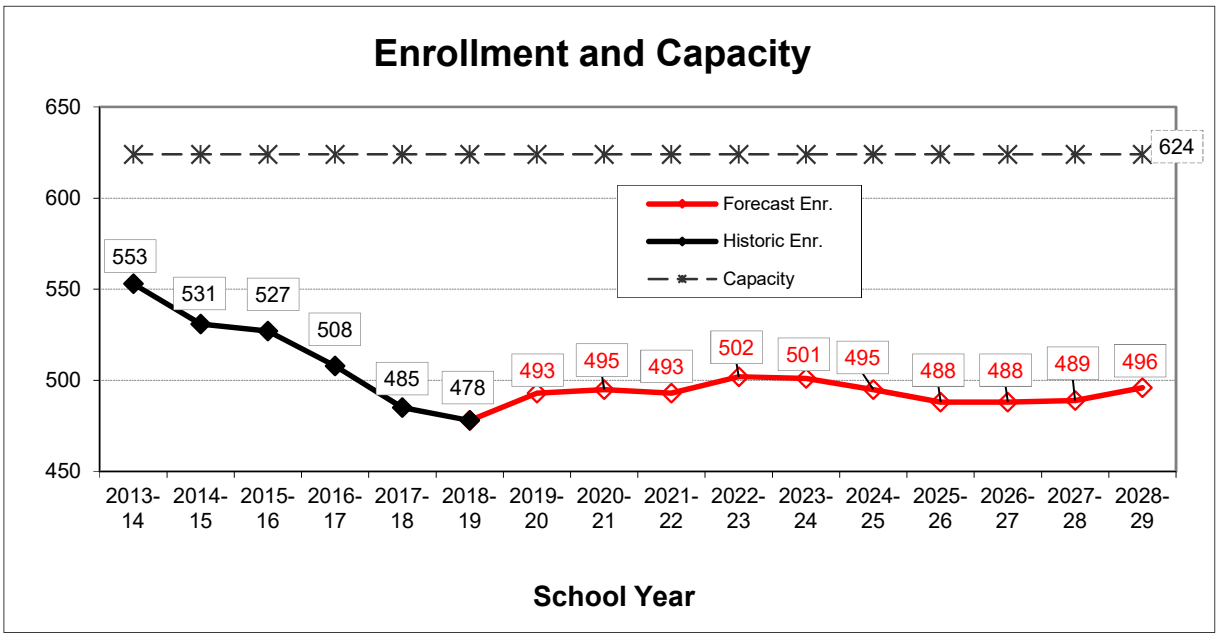
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	529	557	545	543
5 year Change		*28*	*-12*	*-2*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	8	6	2	3	1
Multiple Family Units	0	0	0	0	0

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

Charles F. Tigard Elementary School



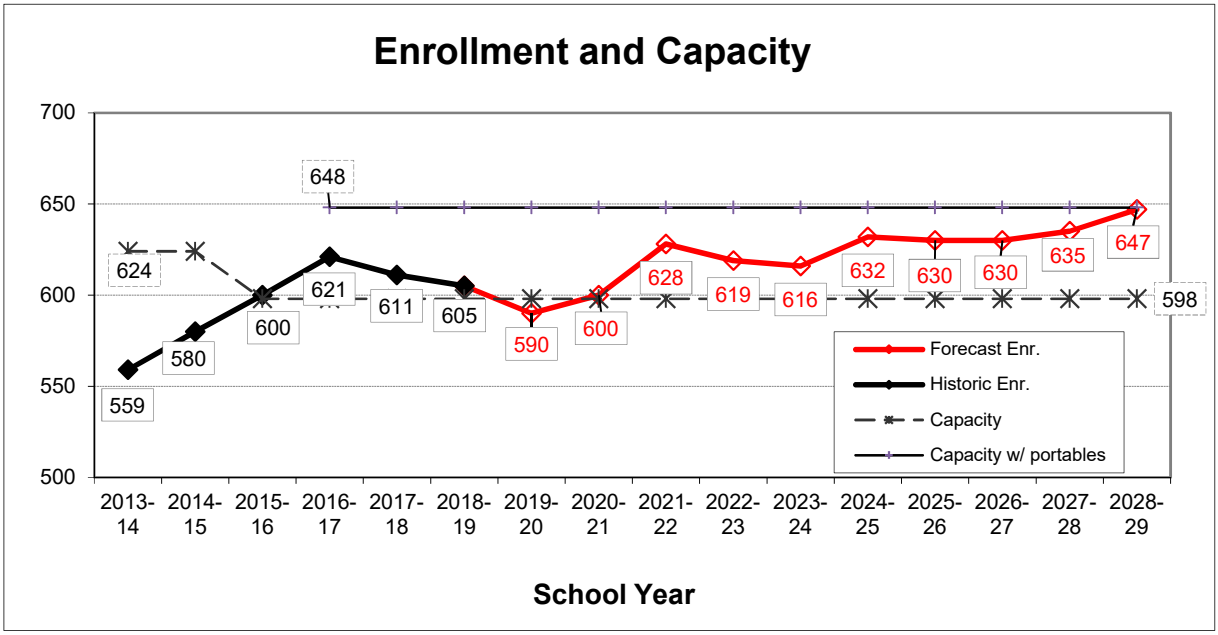
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	553	478	501	496
5 year Change		*-75*	*23*	*-5*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	2	5	12	16	2
Multiple Family Units	0	0	4	0	0

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

Deer Creek Elementary School



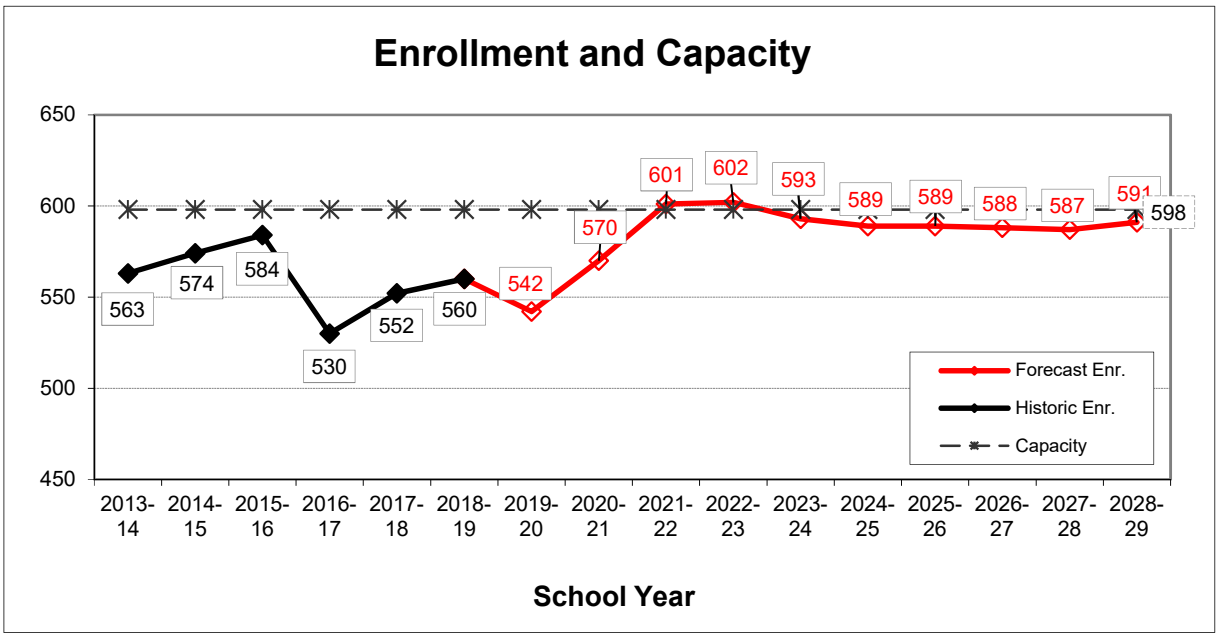
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	559	605	616	647
5 year Change		*46*	*11*	*31*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	2	16	37	21	17
Multiple Family Units	0	192	0	20	0

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

Durham Elementary School



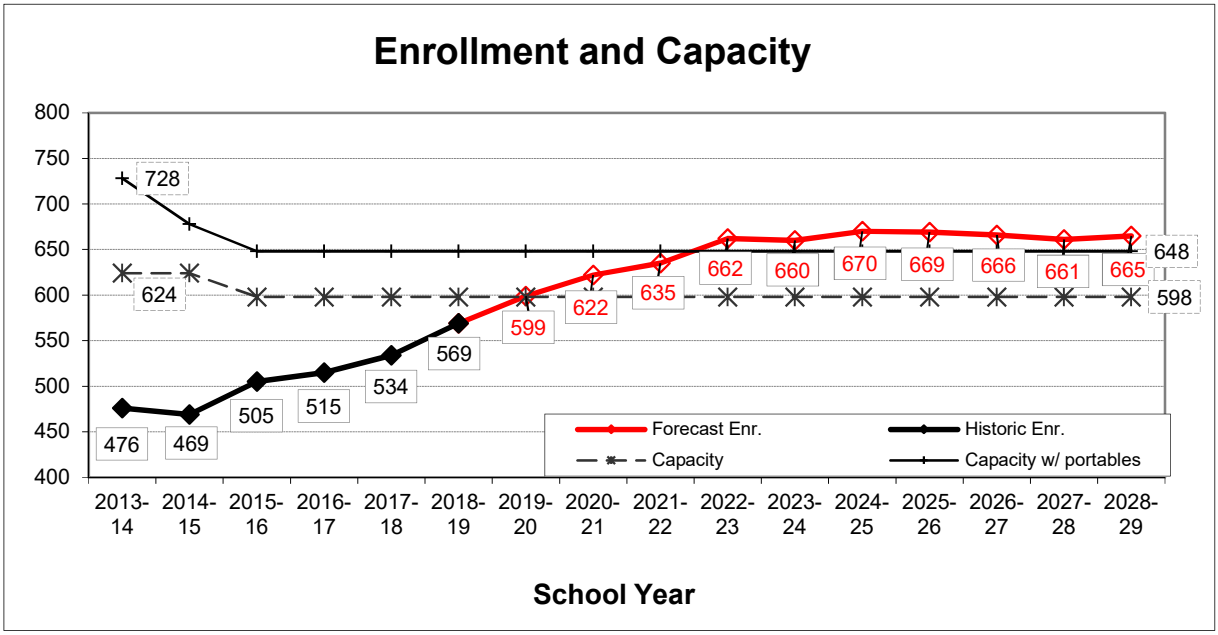
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	563	560	593	591
5 year Change		*-3*	*33*	*-2*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	2	1	16	11	1
Multiple Family Units	0	0	0	0	0

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

Mary Woodward Elementary School



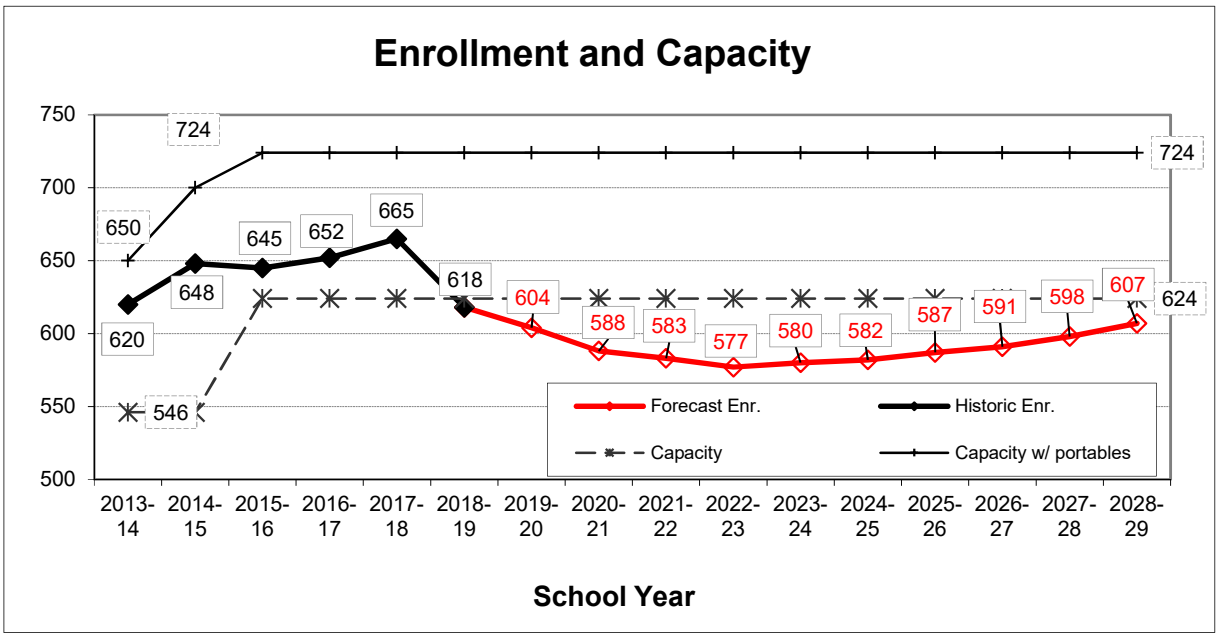
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	476	569	660	665
5 year Change		*93*	*91*	*5*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	10	15	116	3	0
Multiple Family Units	0	0	0	0	0

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

Metzger Elementary School



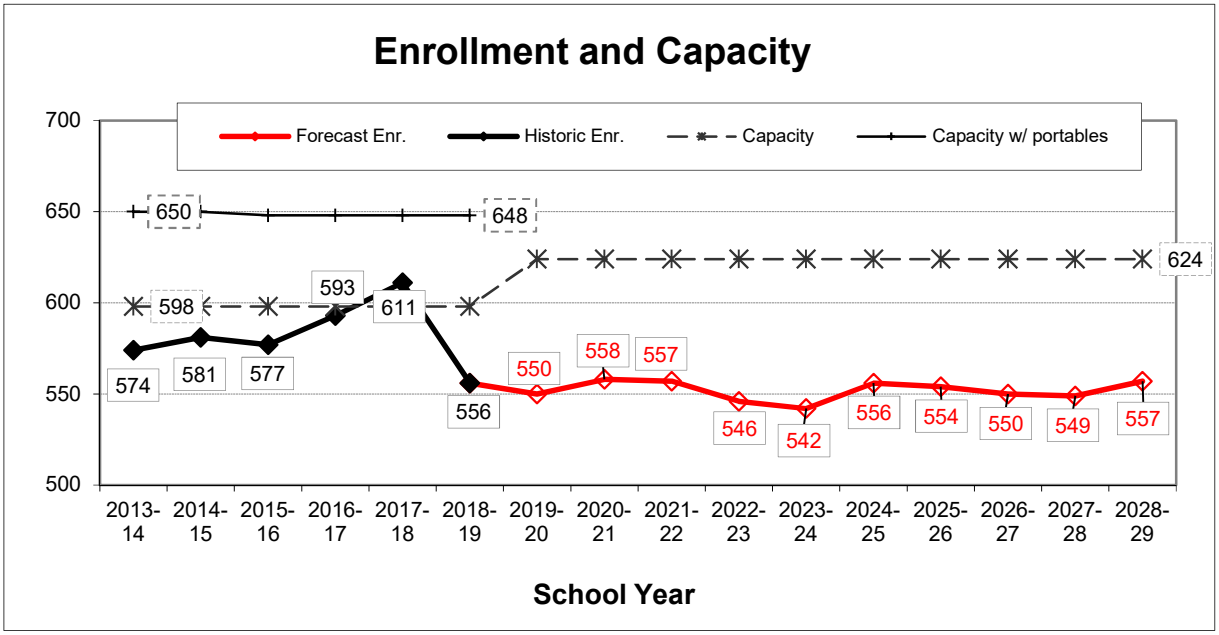
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	620	618	580	607
5 year Change		*-2*	*-38*	*27*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	24	38	40	9	5
Multiple Family Units	0	0	57	187	0

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

James Templeton Elementary School



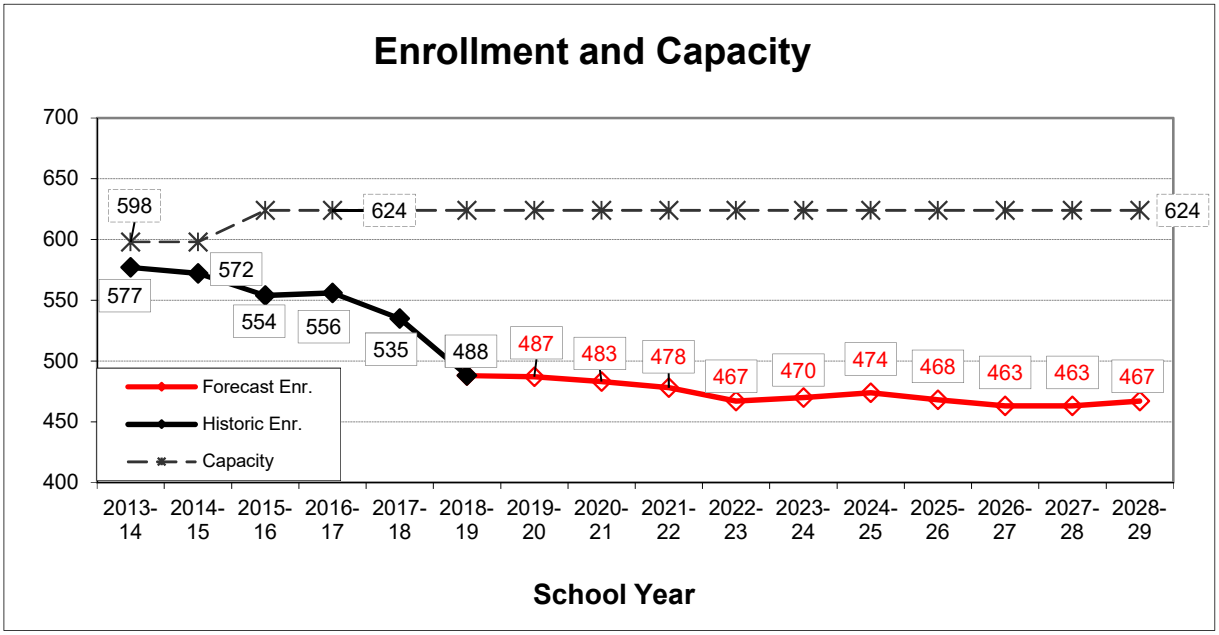
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	574	556	542	557
5 year Change		*-18*	*-14*	*15*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	1	13	11	19	4
Multiple Family Units	24	168	0	0	0

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

Tualatin Elementary School



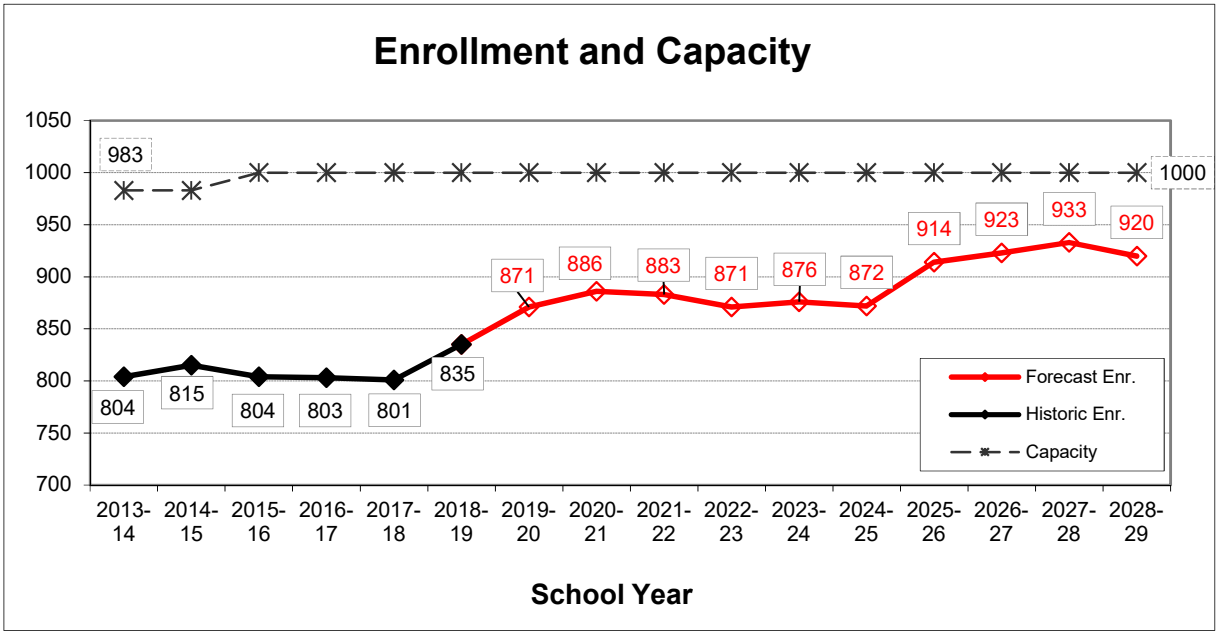
Note: Capacity prior to 2015-16 at all elementary schools includes some half day kindergarten classes. Beginning in 2015-16 all kindergarten classes are full day, thereby reducing capacity in some cases.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	577	488	470	467
5 year Change		*-89*	*-18*	*-3*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	7	6	39	20	1
Multiple Family Units	0	14	0	0	0

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

Fowler Middle School

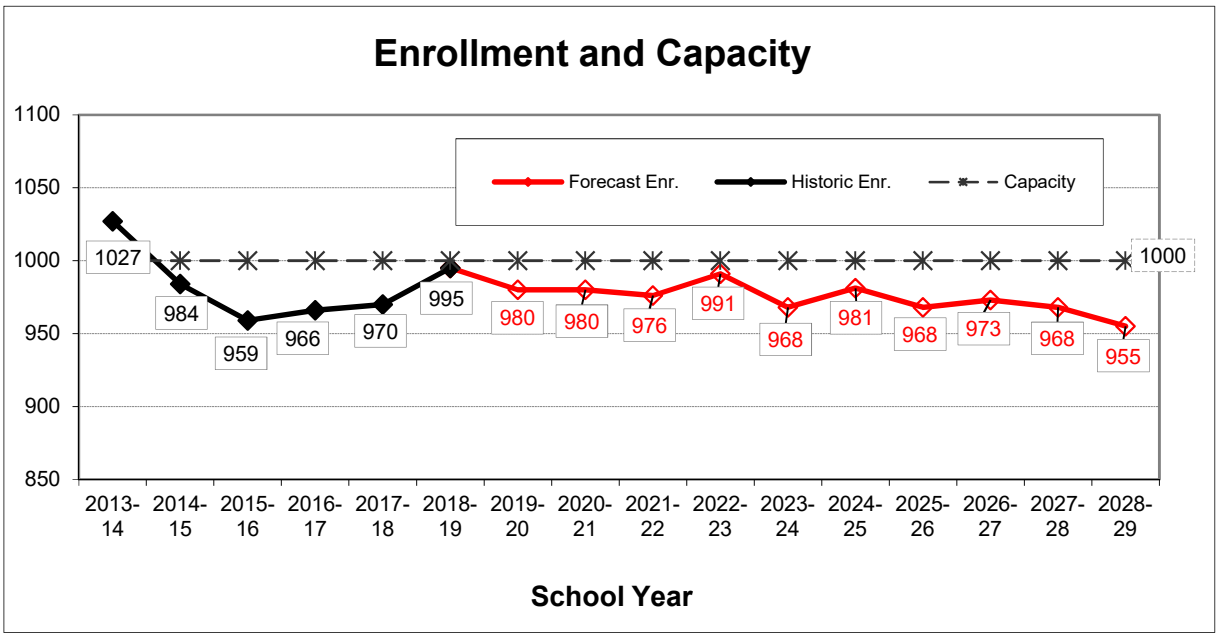


Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	804	835	876	920
5 year Change		*31*	*41*	*44*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	36	58	168	28	7
Multiple Family Units	0	0	61	187	0

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

Hazelbrook Middle School

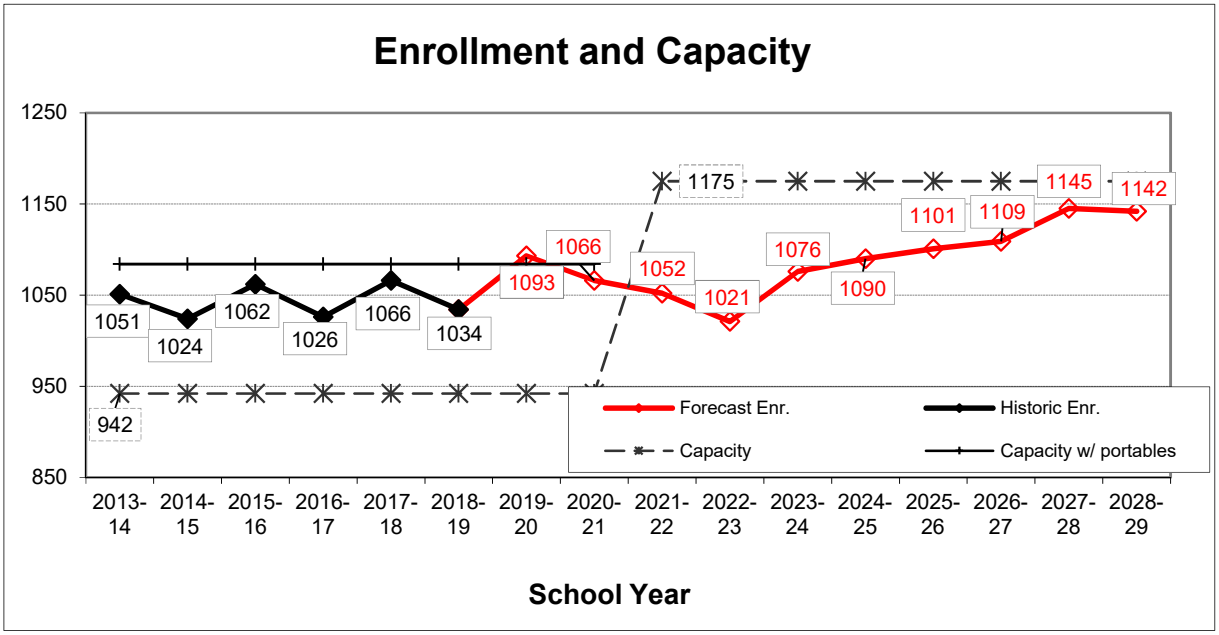


Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	1027	995	968	955
5 year Change		*-32*	*-27*	*-13*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	15	18	45	23	66
Multiple Family Units	0	14	0	0	0

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

Twality Middle School

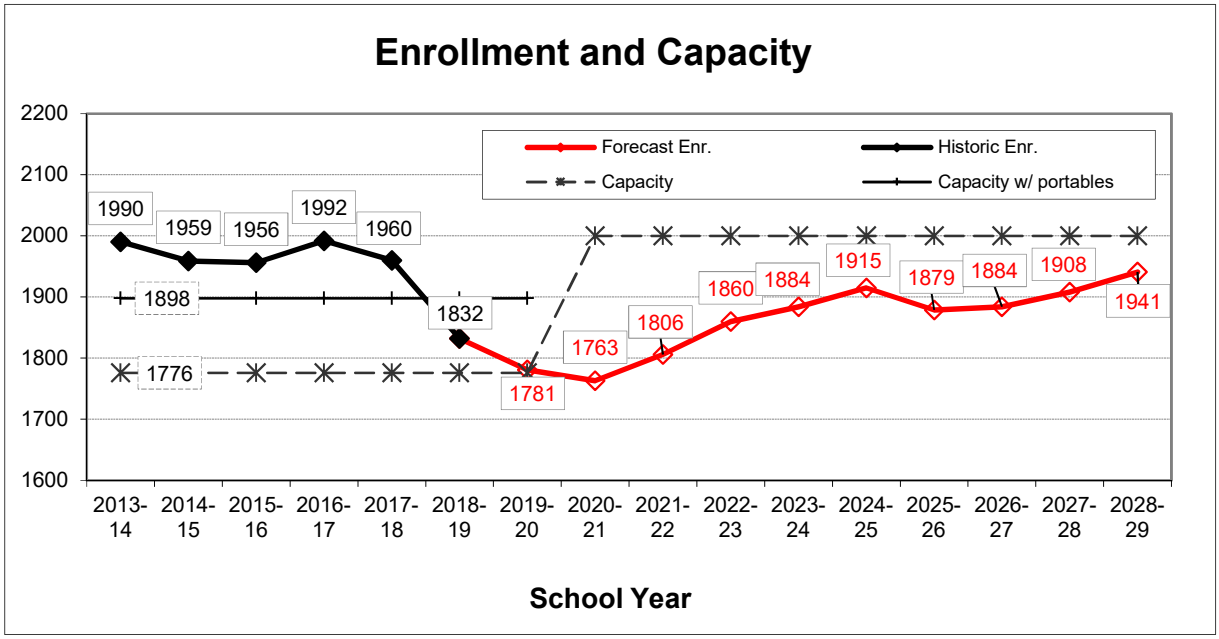


Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	1051	1034	1076	1142
5 year Change		*-17*	*42*	*66*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	30	92	210	89	35
Multiple Family Units	24	283	0	0	0

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

Tigard High School

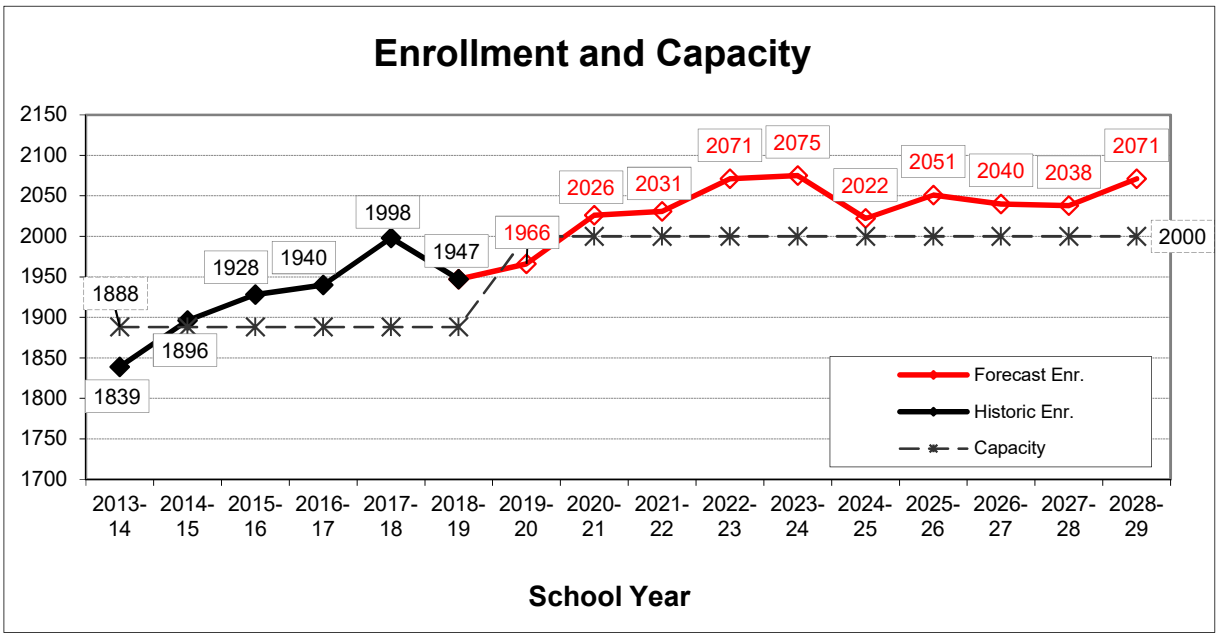


Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	1990	1832	1884	1941
5 year Change		*-158*	*52*	*57*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	39	71	195	58	12
Multiple Family Units	24	168	61	187	0

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

Tualatin High School

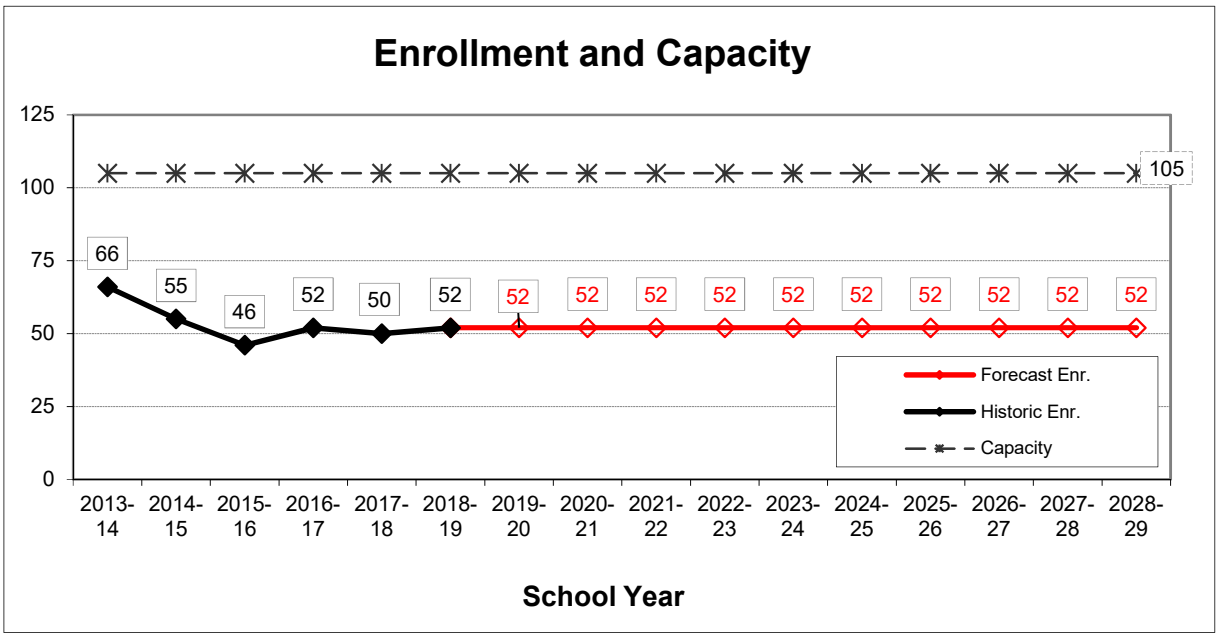


Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	1839	1947	2075	2071
5 year Change		*108*	*128*	*-4*

New Housing Units Authorized by Building Permits					
	Permit Year				
	2014	2015	2016	2017	2018 (Jan-Sep)
Single Family Units	42	97	228	82	96
Multiple Family Units	0	206	0	20	0

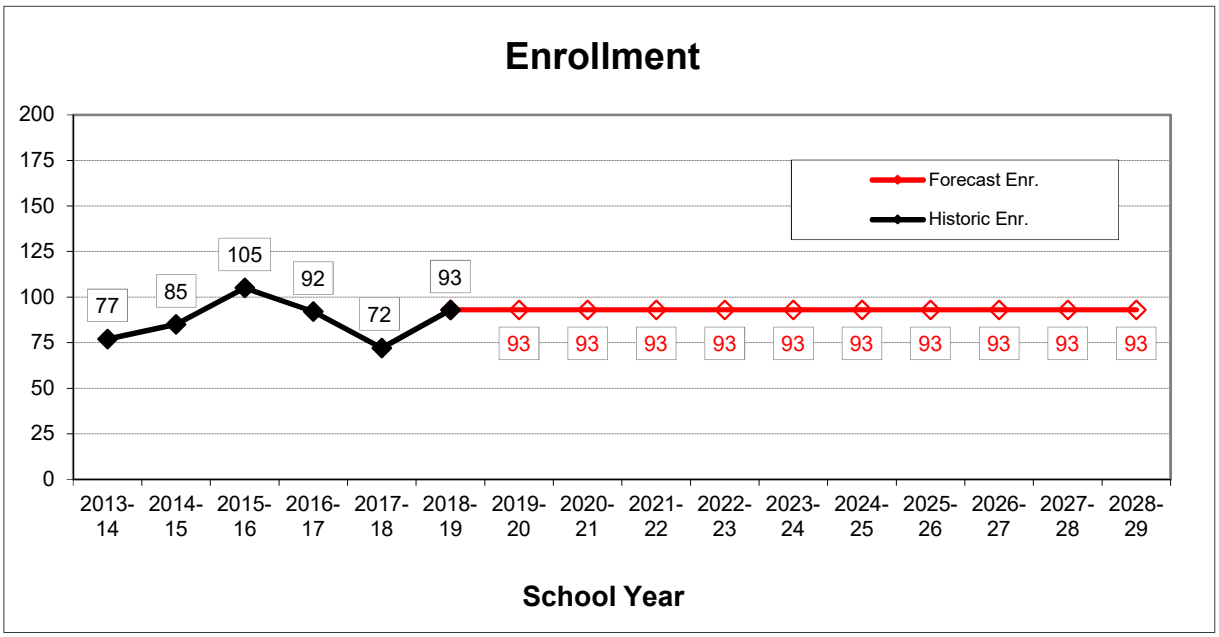
Source: Permit reports from Construction Monitor, Inc., processed and geocoded by PSU-PRC.

Durham Center



Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	66	52	52	52
5 year Change		*-14*	*0*	*0*

Tigard-Tualatin Online Academy



Note: Opened in 2012.

Enrollment History and Forecast				
	History		Forecast	
	2013-14	2018-19	2023-24	2028-29
Total enrollment	77	93	93	93
5 year Change		*16*	*0*	*0*