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# Tigard-Tualatin School District Enrollment Forecast Update, 2010-11 to 2019-20

Portland State University. Population Research Center

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**TIGARD-TUALATIN SCHOOL DISTRICT  
ENROLLMENT FORECAST UPDATE  
2010-11 TO 2019-20**



Portland State  
UNIVERSITY

Population Research  
Center



**DECEMBER, 2009**



**TIGARD-TUALATIN SCHOOL DISTRICT  
ENROLLMENT FORECAST UPDATE  
2010-11 TO 2019-20**

**Prepared By  
Population Research Center  
Portland State University**

**DECEMBER, 2009**

**Project Staff:**

Charles Rynerson, Demographic Analyst, Principal Investigator  
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## EXECUTIVE SUMMARY

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This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC). The study includes analysis of population, housing and enrollment trends affecting the District in recent years, estimates of the impacts of housing development on TTSD enrollment, and forecasts of district-wide and individual school enrollments for the 2010-11 to 2019-20 school years.

The Tigard-Tualatin School District (TTSD) enrolled 12,467 students in Fall 2009, a decrease of 128 students (1.0 percent) from Fall 2008. The loss occurred at both the elementary and high school levels, with decreases of 88 students (1.5 percent) in grades K-5 and 71 students (1.8 percent) in grades 9-12. District-wide enrollment in middle school grades 6-8 increased by 31 students (1.1 percent).

Several factors contributed to the downward enrollment trend. The downturn in the housing market and job losses in most sectors of the region's economy reversed the typical enrollment gains due to mobility of families with children; there was a small net loss due to more children leaving than entering District schools. Second, the incoming kindergarten class was 41 students lower than previously forecasted. Much of the kindergarten shortfall could be due to the elimination of the free all day kindergarten classes that had been added at several elementary schools during the past few years. Finally, last year's largest ever 12<sup>th</sup> grade class was replaced this year by a relatively small 9<sup>th</sup> grade class, affecting the enrollment total at the high school level.

Total K-12 enrollment in the TTSD has grown in 20 of the past 22 years. New housing development has contributed to enrollment growth throughout that period. Sustained growth in elementary enrollment from the late 1980s to the mid 1990s and the more recent growth in high school enrollment were influenced by the rapid increase in births caused by the "echo" of the baby boom. Since the late 1990s, a growing Latino population has also been a major contributor to the District's enrollment growth.



Under current plans there is a shrinking amount of developable residential land in the District's communities. If plans remain unchanged and new housing construction returns to recent levels after the current downturn, the District will be near its residential capacity by the end of the 10 year horizon of these forecasts. However, additional residential capacity will be added in the West Bull Mountain area, where concept planning for areas added to the Urban Growth Boundary in 2002 is underway. Planning documents call for more affordable and higher density housing than currently exists in the established parts of Bull Mountain. Similarly, recently completed comprehensive plans for the town centers of the Cities of Tigard and Tualatin envision development that includes a mix of higher-density and affordable housing.

The District's population is aging, but we forecast that school age population will grow in the long run due to an increasing number of births as well as continued migration into the area. In the short run, one to two years, we expect little or no growth generated by new housing due to the severe housing downturn and regional job losses.

Overall K-12 enrollment is forecast to increase by 1,273 students (10 percent) in the next 10 years, slightly more than the increase of 1,136 students experienced in the past 10 years. K-5 enrollments grow throughout the forecast period, while secondary enrollments grow very little until 2013-14, after which their growth accelerates. There will be annual fluctuations that no forecast can anticipate; a one or two year deviation from the forecast does not mean that the forecast will be inaccurate in the long run. For example, the lower than expected enrollment in 2009-10 affects the base enrollment for this forecast and suggests that sluggish growth may continue for one to two more years as a result of current economic conditions. The rate of growth after 2011-12 is similar to last year's forecast for the same period.

Table 1 compares the historic and forecast growth for the District by five year increment. More detailed forecasts for the District may be found in Table 22 of this report.

**Table 1  
Historic and Forecast Enrollment  
Tigard-Tualatin School District**

	Actual			Forecast	
	1999-00	2004-05	2009-10	2014-15	2019-20
<b>District Total</b>	<b>11,331</b>	<b>12,010</b>	<b>12,467</b>	<b>13,049</b>	<b>13,740</b>
<b>5 year change</b>		<b>679</b> <b>6%</b>	<b>457</b> <b>4%</b>	<b>582</b> <b>5%</b>	<b>691</b> <b>5%</b>
<b>K-5</b>	5,227	5,362	5,683	6,041	6,371
<b>5 year change</b>		135 3%	321 6%	358 6%	330 5%
<b>6-8</b>	2,623	2,874	2,922	3,038	3,220
<b>5 year change</b>		251 10%	48 2%	116 4%	182 6%
<b>9-12</b>	3,481	3,774	3,862	3,970	4,149
<b>5 year change</b>		293 8%	88 2%	108 3%	179 5%

*Population Research Center, PSU. November 2009.*

### ***Individual School Forecasts***

Forecasts for individual schools depict what future enrollments might be if current boundaries, grade configurations, and number of schools remain unchanged. Specific figures may be found in Table 23 of this report and in the one page school profiles in the Appendix.

Among elementary schools, Alberta Rider and Woodward’s attendance areas contain the most buildable residential land within the City of Tigard, primarily zoned R-7 for homes with a minimum lot size of 5,000 square feet, a higher density than most existing neighborhoods in the area. They also include the TTSD portion of the West Bull Mountain UGB expansion area for which long range planning is underway. The two schools will experience the largest increases among elementary schools over the next 10 years if their boundaries were to remain unchanged.

Middle school enrollment growth is concentrated at Twality due to growth in all of its feeder elementary schools, as well as ongoing new housing development. Each of the high schools is expected to grow slowly during the first few years of the forecast, with their most significant growth occurring after 2013-14.



## INTRODUCTION

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For the fourth consecutive year, the Tigard-Tualatin School District (TTSD) requested that the Portland State University Population Research Center (PRC) prepare enrollment forecasts for use in the District's planning. Summaries of TTSD enrollment and local area population, housing, and economic trends have been updated, but much of the historic analysis from the previous reports has been retained. 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, county population forecasts from the Oregon Office of Economic Analysis, employment trends and forecasts from the Oregon Employment Department, housing development data from the cities and counties, and personal interviews with city, county, and school district officials and local housing developers.

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.<sup>1</sup> Most of the District is within Washington County; a portion in Clackamas County (to the east of SW 65<sup>th</sup> Ave. in the City of Tualatin) contains less than three percent of the District's total population.

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

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<sup>1</sup> 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 AND HOUSING TRENDS, 1990 to 2009

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During the decade between the 1990 and 2000 Censuses, total population within the boundaries of the TTSD grew by 37 percent, from 51,653 persons to 70,775. Over 97 percent of TTSD residents live within the Washington County portion of the District (68,900 persons in 2000). Clackamas County accounts for the rest (1,875 persons in 2000). The District's rate of population growth during the 1990s was slightly less than the 43 percent growth experienced by Washington County overall, but greater than the 21 percent growth rate in Clackamas County.

In the first nine years of the current decade, the District's population has continued to grow, but at a smaller average of about 1,500 persons per year, compared with 1,900 persons per year in the 1990s. The two counties, the metropolitan region, and each of the District's cities, with the exception of King City, has grown more slowly in the current decade than in the 1990s. The 1990, 2000, and 2009 populations of each of the cities served by TTSD, the District itself, the two counties and the metropolitan region are shown in Table 2 on the next page.

Regionally, the growth rate is influenced primarily by the health of the economy, and the current decade illustrates the cyclical nature of the economy. After the end of the 1990s high-tech boom that fueled much of the area's employment and housing growth, the early 2000s recession slowed employment and population growth. Washington County lost jobs in 2002 and in 2003; and by 2004 its job total had barely recovered to its 2000 level.<sup>3</sup> Between 2004 and 2006, the County added about 22,000 jobs, or nearly 10 percent. Employment growth in the County slowed to about 4,000 jobs in 2007 and turned negative with a loss of about 3,000 jobs in 2008. The latest quarterly job figures for 2009 reveal job losses of nearly 17,000 compared with the same quarter of 2008, wiping out all the employment growth since 2005.<sup>2</sup>

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<sup>2</sup>"Covered Employment and Wages". Oregon Employment Department, OLMIS.

**Table 2  
City and Region Population, 1990, 2000, and 2009**

	1990	2000	2009	Avg. Annual Growth Rate	
				1990-2000	2000-2009
City of Durham	748	1,382	1,400	6.3%	0.1%
City of King City <sup>1</sup>	2,060	1,949	2,785	-0.6%	3.9%
City of Tigard <sup>2</sup>	29,435	41,223	47,460	3.4%	1.5%
City of Tualatin <sup>3</sup>	14,664	22,791	26,130	4.5%	1.5%
Tigard-Tualatin S.D. <sup>4</sup>	51,653	70,775	84,633	3.2%	2.0%
Clackamas County	278,850	338,391	379,845	2.0%	1.3%
Washington County	311,554	445,342	527,140	3.6%	1.8%
Portland-Vancouver-Beaverton MSA <sup>5</sup>	1,523,741	1,927,881	2,217,325	2.4%	1.5%

1. King City's population growth includes the annexation of 288 residents between 2000 and 2009.

2. Population of the entire city of Tigard. About 82% of the city's population is within the TTSD. Population growth includes the annexation of 1,205 residents between 1990 and 2000 and 1,119 residents between 2000 and 2009.

3. Population of the entire city of Tualatin. About 93% of the city's population is within the TTSD. Population growth includes the annexation of 101 residents between 1990 and 2000 and 53 residents between 2000 and 2009.

4. Estimated population for 2009 based on Census Bureau's Small Area Income and Poverty Estimates program 2008 TTSD population estimate and PSU-PRC's 2010 TTSD population forecast from Table 19 of this report.

5. Portland-Vancouver-Beaverton MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.

Sources: U.S. Census Bureau, 1990 and 2000 censuses and 2008 Small Area Income and Poverty Estimates program; Portland State University Population Research Center, Preliminary July 1, 2009 estimates.

### ***Population and Migration by Age Group***

Population by age group for 1990 and 2000 is shown in Table 3 on the next page. Nearly all age groups experienced significant growth during the decade. Notable exceptions were ages 30 to 34 (six percent growth) and ages 65 to 69 (two percent decline). Those age groups lost population in Oregon and the U.S. between 1990 and 2000 because the cohort age 30 to 34 in 2000 were born during the late 1960s “baby bust” that followed the “baby boom,” and those 65 to 69 were born during the depression era of the early 1930s, when births also fell from previous levels. The growth rate for school-age population (47 percent) was higher than the growth rate for total population (37 percent), but the skewed growth rates for individual groups under age 18 foreshadowed slower growth in school-age population after 2000. The growth rate for population under age 5 (27 percent) was

much lower than growth rates for population ages 10 to 14 (50 percent ) and 15 to 17 (64 percent).

**Table 3**  
**Population by Age Group**  
**Tigard-Tualatin School District, 1990 and 2000**

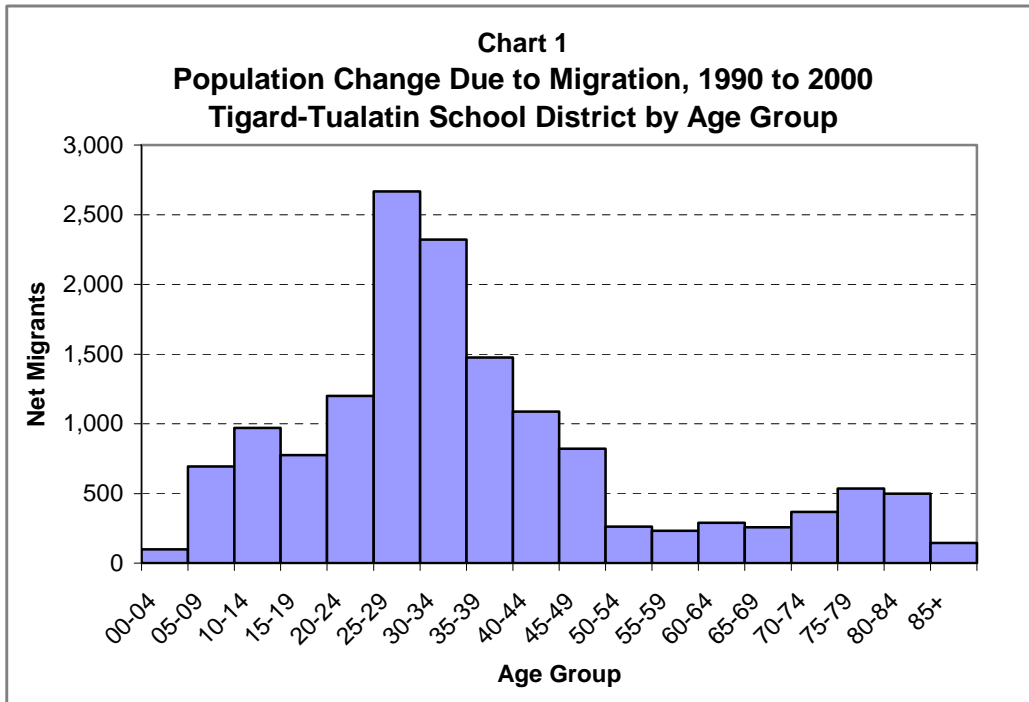
	1990	2000	1990 to 2000 Change	
			Number	Percent
Under Age 5	3,934	4,977	1,043	27%
Age 5 to 9	3,744	5,049	1,305	35%
Age 10 to 14	3,255	4,896	1,641	50%
Age 15 to 17	1,761	2,890	1,129	64%
Age 18 to 19	1,074	1,618	544	51%
Age 20 to 24	3,190	4,433	1,243	39%
Age 25 to 29	4,509	5,475	966	21%
Age 30 to 34	5,159	5,477	318	6%
Age 35 to 39	5,018	5,916	898	18%
Age 40 to 44	4,404	6,143	1,739	39%
Age 45 to 49	3,045	5,723	2,678	88%
Age 50 to 54	2,046	4,532	2,486	122%
Age 55 to 59	1,655	3,137	1,482	90%
Age 60 to 64	1,710	2,183	473	28%
Age 65 to 69	1,753	1,722	-31	-2%
Age 70 to 74	1,709	1,791	82	5%
Age 75 to 79	1,614	1,856	242	15%
Age 80 to 84	1,131	1,590	459	41%
Age 85 and over	942	1,367	425	45%
<b>Total Population</b>	<b>51,653</b>	<b>70,775</b>	<b>19,122</b>	<b>37%</b>
Total age 5 to 17	8,760	12,835	4,075	47%
share age 5 to 17	17.0%	18.1%		

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

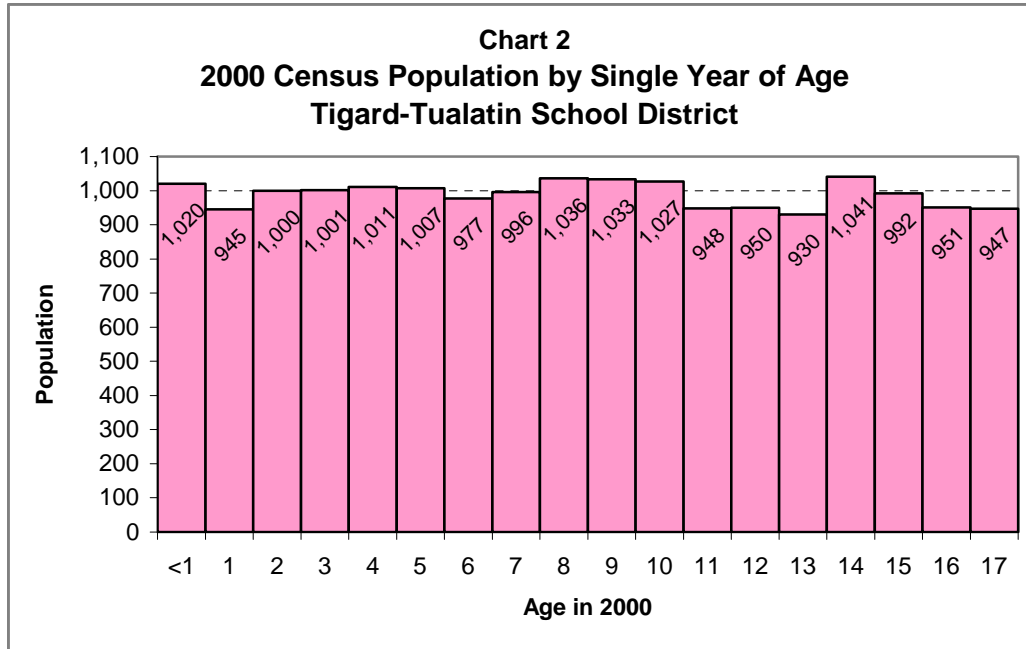
In the 1990s, about 77 percent of TTSD’s population growth was directly attributable to net migration (people moving in minus people moving out). By “surviving” the 1990 population and 1990s births (estimating the population in each age group that would survive to the year 2000) and comparing the “survived” population to the actual 2000 population by age group, we are able to estimate net migration by age cohort. Chart 1 shows the estimated population change that each age group contributed due to migration between 1990 and 2000. For example, among the cohort that was 15 to 19 in 1990 and 25 to 29 in 2000, about 2,600 more people moved into the TTSD than out of it in the 1990s. All age groups added population due to migration, with the largest gains among



young adults ages 25 to 34. Although Table 3 showed that these age groups grew more slowly than overall population within the District, the large migration of young adults allowed TTSD to counter the national decline in population aged 25 to 34.



Closely related to the number of young adults in the District, the number of young children in 2000 was similar to the number of older children, as shown in Chart 2. In Oregon overall, and in many of the school districts that we have worked with, there were more teenagers than younger children in 2000. The age distribution in TTSD was unusually balanced in 2000, and remains so in 2009. The balance can be attributed to the growing ethnic diversity within the District as well as the diversity in housing types. The age distribution of the white, non-Latino population is still influenced by the post-WWII baby boom, so the large population now in their 40s and 50s are more likely to have high school age children than primary or preschool age children. Conversely, many Latino residents are recent immigrants in their 20s and 30s, so there are currently more young children among the Latino population. The relatively large number of apartments in the District may also contribute to the balanced age distribution, as younger householders are more likely to rent than own their home.



***Births and Fertility Rates***

The 34 percent increase in the number of births in the District from 793 in 1990 to 1,063 in 2000 nearly kept pace with the 37 percent overall population increase. Since 2000 the number of births has increased slightly, with the preliminary 2007 total of 1,201 only 13 percent higher than in 2000. Table 4 on the next page reports our estimate of the number of births each year from 1990 to 2007 for the District.

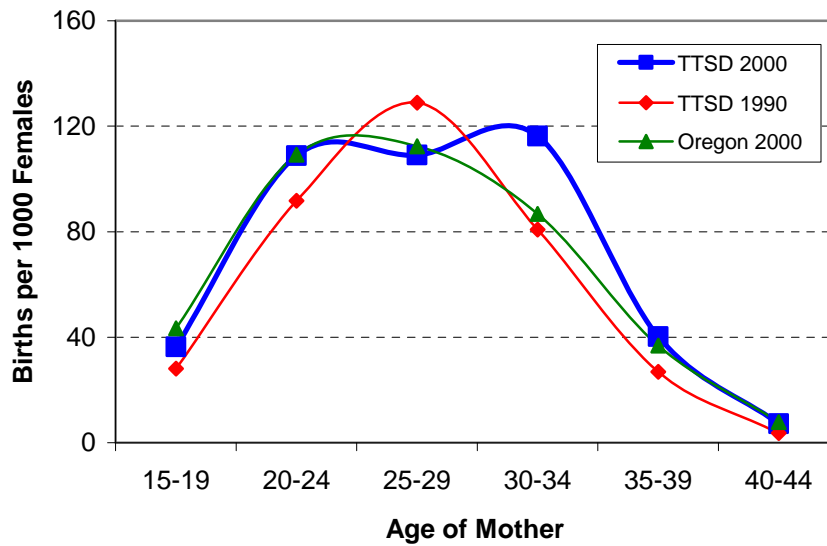
Fertility rates for the TTSD in 1990 and 2000 and for the State of Oregon in 2000 are shown in Chart 3. The rates were calculated for each age group by dividing the number of births in the calendar year by the female population counted in the census. For example, in 2000 there were 288 births to mothers age 25 to 29 and a population of 2,640 women age 25 to 29 in the TTSD, so the fertility rate in 2000 for women age 25 to 29 was  $288/2640 = 0.109$  births per female, or 109 births per thousand females. Chart 3 shows that TTSD age-specific fertility rates for most age groups in 2000 were higher than in 1990, but very close to the State’s 2000 rates.

**Table 4**  
**Annual Births, 1990 to 2007**  
**Tigard-Tualatin School District**

<b>Year</b>	<b>Births</b>
1990	793
1991	829
1992	888
1993	893
1994	945
1995	954
1996	997
1997	951
1998	956
1999	1,024
2000	1,063
2001	1,082
2002	1,116
2003	1,110
2004	1,154
2005	1,158
2006 (preliminary)	1,208
2007 (preliminary)	1,201

*Source: PSU-PRC estimates using Oregon Center for Health Statistics published zip code data and individual birth records.*

**Chart 3**  
**Age-Specific Fertility Rates, 1990 and 2000**  
**Tigard-Tualatin S.D. & State of Oregon**



Another common measure of fertility is the Total Fertility Rate (TFR). This is an estimate of the number of children that would be born to the average women during her child-bearing years, based on age-specific fertility rates observed at a given time. The TFR for the District increased from 1.80 in 1990 to 2.09 in 2000. Total fertility rates in 2000 were 2.20 for Washington County overall, and 1.98 for the State.

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

During the 1990s, the number of housing units within the District’s boundaries increased by nearly 8,000, as shown in Table 5 below. The 35 percent increase in housing units was nearly matched by a 34 percent increase in households (occupied housing units), and the 38 percent rate of growth of households with children under 18 exceeded the overall household growth rate. The share of households in the TTSD that included at least one child under the age of 18 was 34 percent in 2000, close to the 35 percent share in the Portland-Vancouver metro area overall. The average number of persons per household increased from 2.41 in 1990 to 2.45 in 2000.

**Table 5  
Tigard-Tualatin School District  
Housing and Household Characteristics, 1990 and 2000**

	1990	2000	1990 to 2000 Change	
			Number	Percent
Housing Units	22,467	30,389	7,922	35%
Single Family <i>share of total</i>	12,520 56%	16,451 54%	3,931	31%
Multiple Family <i>share of total</i>	8,791 39%	12,646 42%	3,855	44%
Mobile Home and Other <i>share of total</i>	1,156 5%	1,292 4%	136	12%
Households	21,317	28,669	7,352	34%
Households with children under 18 <i>share of total</i>	7,097 33%	9,824 34%	2,727	38%
Households with no children under 18 <i>share of total</i>	14,220 67%	18,845 66%	4,625	33%
Household Population	51,391	70,325	18,934	37%
Persons per Household	2.41	2.45	0.04	2%

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

To track housing change since the 2000 Census, we use three sets of data that are consistent with each other but relate to different stages in the development process. In this section we present them chronologically. First, developers submit land use applications to local jurisdictions in order to subdivide or partition residential land, creating new tax lots for single family development or to gain site development review for multi-family development. After the land use approvals are attained, building permits are issued, and then homes are built and ultimately appear on the tax roles. All of these steps create public records, which are compiled for the District and its attendance areas.

Updating the inventory of land use changes is an ongoing collaborative process between TTSD and PRC. New information is added each year, and older information from previous reports may be adjusted to account for development name changes, lot or unit counts, or other corrections. On the following pages, Tables 6 and 7 present the lists of recent single family subdivisions and multi-family developments. For multi-family developments, Table 7 includes the approval year and the completion year. Subdivision approvals peaked this decade in the 2003 to 2006 period. By 2007 a slowdown became evident and in 2009 there were no new subdivisions or major multi-family developments approved within the District.

Most of the developments approved in 2007 and 2008 and some approved in 2006 remain undeveloped, or have infrastructure installed but no homes built. Unless extensions are filed, plans will have to be resubmitted before development can resume in some of the potential subdivisions that have not yet been platted. It is uncertain which developments will proceed, and under what timeline. No development has taken place in the two largest subdivisions approved in 2007, Sunrise Lane and Annand Hill. In the next largest subdivision, the 17 lot Brentwood Estates, infrastructure is in place in and the first house is currently being framed. Among the townhouse developments in Table 7, only Brownstone, near Greenburg Road and 217, is underway. A first phase of 12 units is now being marketed. The 368 unit Alexan apartments are on hold, but Trammell Crow plans to resume construction in 2010.

**Table 6**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2009**

Year <sup>2</sup>	Attendance Areas <sup>1</sup>			Subdivision Name	Jurisdiction <sup>3</sup>	Lots
	Elementary	Middle	High			
<b>2000</b>	Metzger	Fowler	Tigard	Cedar Ridge Estates	Wa. County	4
	Tualatin	Hazelbrook	Tualatin	Comanche Meadows	Tualatin	20
	A. Rider	Twality	Tualatin	Davis Place	Tigard	17
	Byrom	Hazelbrook	Tualatin	Ibach Meadows	Tualatin	11
	Tualatin	Hazelbrook	Tualatin	Lake Forest	Tualatin	64
	Woodward	Fowler	Tigard	Pacific Crest (TTSD portion)	Tigard	24
	Woodward	Fowler	Tigard	Raven's Ridge	Tigard	42
	Metzger	Fowler	Tigard	Spruce Hollow	Wa. County	5
	C.F. Tigard	Fowler	Tigard	Whistler's Walk (formerly Autumn Grove)	Tigard	65
<b>2000 Total:</b>						<b>252</b>
<b>2001</b>	Metzger	Fowler	Tigard	Ash Creek Meadows	Tigard	13
	C.F. Tigard	Fowler	Tigard	Blue Heron Park	Tigard	18
	Templeton	Twality	Tigard	Brie Woods	Tigard	5
	Metzger	Fowler	Tigard	Coral Manor	Wa. County	4
	Woodward	Fowler	Tigard	Daffodil Hill	Tigard	18
	Metzger	Fowler	Tigard	Esau Estates	Tigard	6
	C.F. Tigard	Fowler	Tigard	Greenburg Pines	Tigard	13
	C.F. Tigard	Fowler	Tigard	Kalamoiika Estates	Tigard	12
	Tualatin	Hazelbrook	Tualatin	Lake Forest East (formerly Lake Forest #4)	Tualatin	5
	Tualatin	Hazelbrook	Tualatin	Lakeridge Terrace	Tualatin	38
	C.F. Tigard	Fowler	Tigard	Nacira Park	Tigard	10
	A. Rider	Twality	Tualatin	Thornwood	Tigard	61
<b>2001 Total:</b>						<b>203</b>
<b>2002</b>	C.F. Tigard	Fowler	Tigard	Cascadian Place	Tigard	12
	Deer Creek	Twality	Tualatin	Castle Oaks #3 (formerly Hayden Meadows #2)	Wa. County	35
	Tualatin	Hazelbrook	Tualatin	Lake Forest North	Tualatin	32
	Deer Creek	Hazelbrook	Tualatin	Linden Terrace	Tualatin	10
	C.F. Tigard	Fowler	Tigard	Moore's Meadow	Tigard	9
	Bridgeport	Hazelbrook	Tualatin	Venetia	Tualatin	93
<b>2002 Total:</b>						<b>191</b>
<b>2003</b>	Metzger	Fowler	Tigard	Ash Creek Estates	Tigard	29
	A. Rider	Twality	Tualatin	Bella Vista	Tigard	45
	Templeton	Twality	Tigard	Bretton Woods	Tigard	10
	Byrom	Hazelbrook	Tualatin	Canterwood #2	Tualatin	25

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**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2009**

Year <sup>2</sup>	Attendance Areas <sup>1</sup>			Subdivision Name	Jurisdiction <sup>3</sup>	Lots
	Elementary	Middle	High			
<b>2003</b> <b>(cont.)</b>	C.F. Tigard	Fowler	Tigard	Cappoen Estates	Tigard	6
	Byrom	Hazelbrook	Tualatin	Cennina (formerly Hale)	Tualatin	8
	Durham	Twality	Tigard	Durham Oaks	Tigard	27
	Deer Creek	Twality	Tualatin	Edgewater on the Tualatin	King City	348
	Templeton	Twality	Tigard	Greensward Park	Tigard	27
	Durham	Twality	Tigard	Hambach Grove	Tigard	38
	Deer Creek	Hazelbrook	Tualatin	Ironwood at Tualatin	Tualatin	4
	Woodward	Fowler	Tigard	Ironwood Estates	Tigard	6
	C.F. Tigard	Fowler	Tigard	Kalamoiika #2	Tigard	5
	Templeton	Twality	Tigard	Kessler Estates	Tigard	15
	Tualatin	Hazelbrook	Tualatin	Lake Forest 2	Tualatin	49
	Durham	Twality	Tigard	Leiser Park	Tigard	19
	A. Rider	Twality	Tualatin	Summit Ridge	Tigard	130
	Woodward	Fowler	Tigard	Tuscany	Tigard	88
	Byrom	Hazelbrook	Tualatin	Victoria Meadows	Tualatin	14
	Metzger	Fowler	Tigard	Weigela Terrace	Tigard	10
	C.F. Tigard	Fowler	Tigard	Whistler's Walk #2 (formerly Prairie Skies)	Tigard	29
	<b>2003 Total:</b>					
<b>2004</b>	A. Rider	Twality	Tualatin	Arbor Pointe (formerly Meyers Farm #2)	Tigard	44
	A. Rider	Twality	Tualatin	Arbor Summit	Tigard	31
	A. Rider	Twality	Tualatin	Arbor Summit#2	Tigard	11
	A. Rider	Twality	Tualatin	French Prairie Vineyards	Tigard	30
	Byrom	Hazelbrook	Tualatin	Graham's Crossing	Tualatin	11
	Byrom	Hazelbrook	Tualatin	Graham's Woods	Tualatin	7
	Deer Creek	Hazelbrook	Tualatin	Hazelbrook	Tualatin	4
	Metzger	Fowler	Tigard	Jackson Woods	Tigard	6
	Templeton	Twality	Tigard	Kessler Estates #2	Tigard	11
	Tualatin	Hazelbrook	Tualatin	Lake Forest #3	Tualatin	44
	Tualatin	Hazelbrook	Tualatin	Lakeview Bluff	Tualatin	16
	Byrom	Hazelbrook	Tualatin	Park View Estates (Macklin Property)	Tualatin	20
	Tualatin	Hazelbrook	Tualatin	Quail Crossing	Tualatin	20
	Durham	Twality	Tigard	Rebecca Meadows	Tigard	5
	Deer Creek	Twality	Tualatin	Roseberry	King City	62
	Bridgeport	Hazelbrook	Tualatin	Shasta Trail	Tualatin	8
	Deer Creek	Twality	Tualatin	Valley View	Tigard	25
	<b>2004 Total:</b>					

*table continued on next page*

**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2009**

Year <sup>2</sup>	Attendance Areas <sup>1</sup>			Subdivision Name	Jurisdiction <sup>3</sup>	Lots	
	Elementary	Middle	High				
2005	A. Rider	Twality	Tigard	Alpine View	Tigard	46	
	A. Rider	Twality	Tualatin	Arbor Pointe #2 (formerly Volpe)	Tigard	49	
	Metzger	Fowler	Tigard	Ash Creek Gates	Tigard	7	
	C.F. Tigard	Fowler	Tigard	Beeler Subdivision	Tigard	4	
	Deer Creek	Twality	Tualatin	Castle Oaks South	King City	30	
	Deer Creek	Twality	Tualatin	Cottage Green	King City	12	
	C.F. Tigard	Fowler	Tigard	Dakota Glen	Tigard	24	
	Deer Creek	Twality	Tualatin	Edgewater East	King City	30	
	Tualatin	Hazelbrook	Tualatin	Halley Court	Tualatin	5	
	Deer Creek	Hazelbrook	Tualatin	Hanegan Court	Tualatin	7	
	Byrom	Hazelbrook	Tualatin	Hedges Creek #4	Tualatin	4	
	Templeton	Twality	Tigard	Lady Apple	Tigard	33	
	Tualatin	Hazelbrook	Tualatin	Logan House Estates	Tualatin	8	
	Woodward	Fowler	Tigard	Maplecrest	Tigard	13	
	Templeton	Twality	Tigard	Mc Donald Woods	Tigard	16	
	A. Rider	Twality	Tualatin	Mountain View Estates	Tigard	19	
	Durham	Twality	Tigard	Prospect Meadows	Tigard	5	
	Woodward	Fowler	Tigard	Sierra Vista (formerly Sierra Park)	Tigard	24	
	Byrom	Hazelbrook	Tualatin	Springwater (formerly Ponderosa Place)	Tualatin	23	
	C.F. Tigard	Fowler	Tigard	Stonechase	Tigard	20	
	Tualatin	Hazelbrook	Tualatin	Streamstone Estates	Tualatin	18	
	A. Rider	Twality	Tualatin	Summit Ridge #3	Tigard	11	
	A. Rider	Twality	Tualatin	Summit Ridge #4	Tigard	5	
	Templeton	Twality	Tigard	Templeton Heights	Tigard	7	
	Byrom	Hazelbrook	Tualatin	Timberwolf Meadows	Tualatin	7	
	Deer Creek	Twality	Tualatin	Trevor Ridge	Tigard	8	
	Byrom	Hazelbrook	Tualatin	Victoria Gardens (formerly Graham's Meadow)	Tualatin	73	
	A. Rider	Twality	Tualatin	Wilson Ridge	Tigard	14	
	<b>2005 Total:</b>						<b>522</b>
	2006	A. Rider	Twality	Tualatin	Arlington Heights III	Tigard	68
A. Rider		Twality	Tualatin	Autumn View	Tigard	50	
Metzger		Fowler	Tigard	Birch Crest	Wa. County	4	
Metzger		Fowler	Tigard	Borders	Wa. County	4	
Durham		Twality	Tigard	Brittany Meadows	Tigard	38	
Metzger		Fowler	Tigard	Brooke Meadows	Wa. County	4	
Byrom		Hazelbrook	Tualatin	Brookwood Park	Tualatin	25	
A. Rider		Twality	Tualatin	Bull Mountain View Estates	Tigard	10	
Byrom		Hazelbrook	Tualatin	Chilkat Meadows	Tualatin	6	

*table continued on next page*



**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2009**

Year <sup>2</sup>	Attendance Areas <sup>1</sup>			Subdivision Name	Jurisdiction <sup>3</sup>	Lots
	Elementary	Middle	High			
<b>2006</b> <b>(cont.)</b>	Durham	Twality	Tigard	Churchill Woods	Tigard	15
	Deer Creek	Twality	Tualatin	Deer Creek Woods	King City	38
	Templeton	Twality	Tigard	Edgewood	Tigard	6
	Metzger	Fowler	Tigard	Elliott Estates	Wa. County	6
	Templeton	Twality	Tigard	Fletcher Woods	Tigard	8
	A. Rider	Twality	Tualatin	French Prairie Vineyards #2	Tigard	13
	Durham	Twality	Tigard	Gage Forest	Tigard	33
	Tualatin	Hazelbrook	Tualatin	Heather Ridge	Tualatin	19
	Metzger	Fowler	Tigard	Hemlock Meadows	Wa. County	4
	A. Rider	Twality	Tualatin	Kramer's Meadow	Tigard	17
	C.F. Tigard	Fowler	Tigard	Krast	Tigard	5
	Metzger	Fowler	Tigard	Madelyn Park	Tigard	19
	C.F. Tigard	Fowler	Tigard	Milesbrook	Tigard	10
	Durham	Twality	Tualatin	Peters Road	Durham	4
	Metzger	Fowler	Tigard	Shellshear Woods	Wa. County	12
	Metzger	Fowler	Tigard	Solera	Tigard	11
	A. Rider	Twality	Tualatin	Wilson Ridge #2	Tigard	17
	<b>2006 Total:</b>					
<b>2007</b>	Byrom	Hazelbrook	Tualatin	Amberstone	Tualatin	13
	Templeton	Twality	Tigard	Annand Hill	Tigard	40
	Deer Creek	Twality	Tualatin	Belford Place	King City	14
	Woodward	Fowler	Tigard	Brentwood Estates	Wa. County	17
	Templeton	Twality	Tigard	Cross Ridge Estates	Tigard	4
	Durham	Twality	Tigard	Fanno Ranch	Tigard	12
	Durham	Twality	Tigard	Fern Hollow	Tigard	7
	Templeton	Twality	Tigard	Foster Estates	Tigard	12
	Metzger	Fowler	Tigard	Greco Estates	Tigard	8
	Woodward	Fowler	Tigard	Highland Hills	Wa. County	11
	Durham	Twality	Tigard	Knauss	Tigard	5
	Templeton	Twality	Tigard	Nash Garden Court	Tigard	4
	Woodward	Fowler	Tigard	Sunrise Lane	Tigard	79
	A. Rider	Twality	Tualatin	Troy Park	Tigard	10
	Woodward	Fowler	Tigard	Walnut Crossing	Tigard	9
<b>2007 Total:</b>						<b>245</b>

*table continued on next page*

**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2009**

Year <sup>2</sup>	Attendance Areas <sup>1</sup>			Subdivision Name	Jurisdiction <sup>3</sup>	Lots
	Elementary	Middle	High			
2008	Templeton	Twality	Tigard	Gertz Homes at Edgewood No. 2	Tigard	12
	Templeton	Twality	Tigard	Hunter's Trail	Tigard	6
	C.F. Tigard	Fowler	Tigard	Jamestowne Village	Tigard	10
	A. Rider	Twality	Tigard	Medallion Meadows	Tigard	14
	Durham	Twality	Tigard	Rosewood Court	Tigard	4
				<b>2008 Total:</b>		<b>46</b>
2009				none		
				<b>2009 Total:</b>		<b>0</b>
<b>Grand Total for 2000-2009:</b>						<b>3192</b>

1. Subdivisions are identified by current (2009-10) attendance area boundaries.

2. "Year" generally indicates the year in which the jurisdiction gave approval for the land use change. Construction and occupancy may be in later years.

3. The jurisdiction overseeing land use planning at the time of the approval. Some identified as Tigard are in unincorporated Washington County, within Tigard's planning area. Others have been annexed to Tigard after Wa. County approval.

Sources: Compiled by TTSD and PSU-PRC from information provided by Tualatin, Tigard, King City, Durham, and Washington County planning departments.

Table 7

**Recent Apartment, Townhome, and Condominium Developments  
Tigard-Tualatin School District, 1999 to 2009**

Approval	Built	Attendance Areas <sup>1</sup>			Development	Type <sup>2</sup>	Jurisdiction <sup>3</sup>	Units
		Elementary	Middle	High				
<b>1999</b>	2001	Tualatin	Hazelbrook	Tualatin	Liberty Oaks	Condo	Tualatin	152
	2000	Bridgeport	Hazelbrook	Tualatin	Meridian Park Townhomes	Condo	Tualatin	15
	2001	Tualatin	Hazelbrook	Tualatin	Rebecca Woods	Condo	Tualatin	10
	2000	Tualatin	Hazelbrook	Tualatin	Tualatin Meadows Apts.	Apt. (inc.)	Tualatin	240
					<b>1999 Total:</b>			<b>417</b>
<b>2000</b>	2002	Metzger	Fowler	Tigard	Rasmussen Project	Apt. (mkt.)	Tigard	3
	2002	Templeton	Twality	Tigard	Sageland Park	Condo	Tigard	11
					<b>2000 Total:</b>			<b>14</b>
<b>2001</b>	2002	C.F. Tigard	Fowler	Tigard	On Fonner Pond Townhomes	Condo	Tigard	6
	2003	Woodward	Fowler	Tigard	Quail Hollow South	Condo	Tigard	63
	2003	Alberta Rider	Twality	Tualatin	Sunridge Heights #1	Duplexes	Tigard	4
	2002	Metzger	Fowler	Tigard	Village at Washington Square	Apt. (inc.)	Tigard	26
	2002	Deer Creek	Hazelbrook	Tualatin	Woodridge Apts.	Apt. (inc.)	Tualatin	264
					<b>2001 Total:</b>			<b>363</b>
<b>2003</b>					<b>2002 Total:</b>			<b>0</b>
	2005	Durham	Twality	Tigard	Bonita Townhomes	Condo	Tigard	53
	2003	Durham	Twality	Tigard	Fanno Pointe Condominiums	Condo	Tigard	42
					<b>2003 Total:</b>			<b>95</b>

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**Table 7 (Continued)**  
**Recent Apartment, Townhome, and Condominium Developments**  
**Tigard-Tualatin School District, 1999 to 2009**

Approval	Built	Attendance Areas <sup>1</sup>			High	Development	Type <sup>2</sup>	Jurisdiction <sup>3</sup>	Units
		Elementary	Middle	High					
2004	2005	Templeton	Twality	Tigard	Oak Tree II Apartments	Apt. (mkt.)	Tigard	108	
	2005	Metzger	Fowler	Tigard	Oleson Woods	Apt. (inc.)	Wa. County	32	
	2006	Metzger	Fowler	Tigard	Ashbrook Townhomes	Condo	Tigard	19	
	2006-2008	Templeton	Twality	Tigard	Canterbury Heights (formerly Canterbury Woods) Townhomes	Condo	Tigard	139	
					<b>2004 Total:</b>			<b>298</b>	
2005	2007	Metzger	Fowler	Tigard	Coral Street Townhomes	Condo	Tigard	5	
	2007	Metzger	Fowler	Tigard	Touchstone Townhomes at Washington Square (formerly Oak Street Condominiums)	Condo	Tigard	46	
					<b>2005 Total:</b>			<b>51</b>	
2006	2007	Metzger	Fowler	Tigard	Coral Commons	Condo	Tigard	14	
	2009-2010	Metzger	Fowler	Tigard	Brownstone at the Crossing (formerly Longstaff Condominiums)	Condo	Tigard	43	
	pending	Metzger	Fowler	Tigard	Montage Townhomes	Condo	Tigard	33	
					<b>2006 Total:</b>			<b>90</b>	

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Table 7 (Continued)

**Recent Apartment, Townhome, and Condominium Developments  
Tigard-Tualatin School District, 1999 to 2009**

Approval	Built	Attendance Areas <sup>1</sup>			High	Development	Type <sup>2</sup>	Jurisdiction <sup>3</sup>	Units
		Elementary	Middle	High					
2007	pending	Durham	Twality	Tigard	Amber Woods Townhomes	Condo	Tigard	7	
	pending	Metzger	Fowler	Tigard	Hall Blvd Subdivision	Condo	Wa. County	7	
	pending	Metzger	Fowler	Tigard	White Oak Village	Condo	Tigard	27	
					<b>2007 Total:</b>			<b>34</b>	
2008	pending	Durham	Twality	Tualatin	Bridgeport Apartments (Alexan at Bridgeport)	Apt. (mkt.)	Durham & Tualatin	<b>368</b>	
2009					none			<b>0</b>	
<b>Grand Total for 1999-2009:</b>								<b>1730</b>	

1. Developments are identified by current (2009-10) attendance area boundaries.

2. Condominium denotes multi-family, townhouse, or attached single family development with individual ownership of units. Rental apartments are identified as market-rate (mkt.) or income-restricted (inc.). Senior housing developments are not included in this table.

3. The local jurisdiction overseeing land use planning at the time of the approval. Some developments identified as Tigard may be in unincorporated Washington County, within Tigard's planning area.

Sources: Compiled by TTSD from information provided by Tualatin, Tigard, King City, Durham, and Washington County planning departments. Historic data verified and assigned to current attendance areas by Population Research Center, PSU.

Following in chronological order, after subdivision plats are complete and building lots are created, new homes are authorized by building permits. Estimates of the residential building permit activity within the TTSD each year since 2000 are presented in Table 8.

Between 2000 and 2006, there were permits issued for at least 450 single family homes within the TTSD each year. There were also a couple of large apartment complexes permitted, specifically the 264 unit Woodridge Apartments in Tualatin and the 108 unit Oak Tree II in Tigard. The downturn that began in 2007 is evident from the totals in the Table 8, showing that about 120 single family homes were permitted in 2008 and that 2009 activity has fallen even further, to about 60 homes.

Finally, when homes are completed they appear in tax assessor records. Metro's Regional Land Information System (RLIS) combines information from County tax assessor records with spatial features, enabling the tax lot information to be organized by various geographic areas. In Table 9 recently built single family homes are tabulated by attendance area and year built. To be more consistent with city and county designations of single and multi-family housing, some of the townhouse developments identified in Table 7 that were counted among multi-family units in previous reports are now included as single family homes in Table 9.

The tax assessor data in Metro's RLIS does not allow for a systematic accounting of recent multiple family construction because not all counties maintain consistent information on the number of units and year built for apartment developments. Fortunately, the TTSD maintains information about multiple family developments approved within the District's boundaries, and this information has been tabulated in previous enrollment forecast reports. We supplemented the District's information with information from various government and commercial sources to determine the year each development was completed and verified the number of units. Developments were assigned to current (2009-10) attendance areas and tabulated in Table 10.

**Table 8  
Housing Units Authorized by Building Permits**

Year Permit Issued	TTSD District Total		Durham		King City		Tigard (TTSD part) <sup>1</sup>		Tualatin <sup>2</sup>		Washington County Uninc. (TTSD part)	
	Single Family	Multiple Family	Single Family	Multiple Family	Single Family	Multiple Family	Single Family	Multiple Family	Single Family	Multiple Family	Single Family	Multiple Family
2000	456	17	2	0	0	0	351	0	64	17	39	0
2001	680	0	4	0	0	0	438	0	222	0	16	0
2002	489	264	1	0	0	0	296	0	184	264	8	0
2003	565	0	1	0	0	51	331	0	140	0	42	0
2004	450	108	1	0	14	0	240	108	174	0	21	0
2005	467	38	1	0	68	0	299	6	86	0	13	32
2006	455	20	3	0	113	0	228	20	101	0	10	0
2007	353	0	1	0	52	0	172	0	48	0	80	0
2008	122	0	1	0	12	0	45	0	21	0	43	0
2009 (est.) <sup>3</sup>	58	0	1	0	8	0	28	0	1	0	20	0

1. Eighty-seven percent of the City's authorized single family units reported by the Census Bureau are allocated to the TTSD, based on GIS shape file (points) provided by City of Tigard Community Development Department.

2. The entire city is included, because almost no permits for new homes have been issued since 2000 by the City of Tualatin for areas outside the TTSD.

3. Data for calendar year 2009 is estimated from January-October data.

Source for Washington County Unincorporated Area: Washington County Land Use & Transportation -- Building Services Department database downloadable at <http://washtech.co.washington.or.us/bldgreports/index.cfm?id=2>. Records within TTSD identified by PSU-PRC.

Source for cities: U.S. Census Bureau, Residential Construction Branch. Data available online at <http://censtats.census.gov/bldg/bldgprmt.shtml>.

**Table 9  
Tigard-Tualatin School District  
New Single Family Homes By Attendance Area**

Elementary Area*	Year Built										2000-08 Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2008	
Alberta Rider	89	87	49	85	25	149	135	57	6	682	
Bridgeport	29	15	4	38	56	8	0	0	0	150	
Byrom	35	55	56	23	18	34	71	22	25	339	
C.F. Tigard	74	40	47	103	51	2	32	18	1	368	
Deer Creek	45	94	68	70	40	118	146	53	8	642	
Durham	71	73	6	1	29	116	5	37	2	340	
Metzger	38	30	31	20	24	5	23	58	6	235	
Templeton	18	39	34	5	44	19	11	46	2	218	
Tualatin	19	150	122	67	59	89	26	10	1	543	
Woodward	121	28	43	191	24	8	3	22	2	442	
<b>District</b>	<b>539</b>	<b>611</b>	<b>460</b>	<b>603</b>	<b>370</b>	<b>548</b>	<b>452</b>	<b>323</b>	<b>53</b>	<b>3959</b>	
<b>Middle School Area<sup>1</sup></b>											
Fowler	233	98	121	314	99	15	58	98	9	1045	
Hazelbrook	83	220	182	138	136	135	99	34	30	1057	
Twality	223	293	157	151	135	398	295	191	14	1857	
<b>District</b>	<b>539</b>	<b>611</b>	<b>460</b>	<b>603</b>	<b>370</b>	<b>548</b>	<b>452</b>	<b>323</b>	<b>53</b>	<b>3959</b>	
<b>High School Area<sup>1</sup></b>											
Tigard	321	218	170	346	176	150	70	181	13	1645	
Tualatin	218	393	290	257	194	398	382	142	40	2314	
<b>District</b>	<b>539</b>	<b>611</b>	<b>460</b>	<b>603</b>	<b>370</b>	<b>548</b>	<b>452</b>	<b>323</b>	<b>53</b>	<b>3959</b>	

\*Note: Current (2009-10) attendance area.

Source: Metro Regional Land Information System, August 2009; tax lot information compiled by Metro from county tax assessors information includes year built and land use ("SFR"). Compiled by TTSD attendance area by Population Research Center, PSU. Includes some attached SFRs that were identified as Multiple Family units in previous reports.



**Table 10  
Tigard-Tualatin School District  
New Multiple Family Units By Attendance Area**

Elementary Area*	Year Built										2000-09 Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Alberta Rider				4							4
Bridgeport	15										15
Byrom											0
C.F. Tigard											0
Deer Creek			264								264
Durham				42							42
Metzger			29		32	19	65			13	158
Templeton					108	55	51	33			247
Tualatin	240	10									250
Woodward											0
<b>District</b>	<b>255</b>	<b>10</b>	<b>293</b>	<b>46</b>	<b>0</b>	<b>74</b>	<b>116</b>	<b>33</b>	<b>13</b>	<b>13</b>	<b>980</b>
<b>Middle School Area<sup>1</sup></b>											
Fowler			29			19	65			13	158
Hazelbrook	255	10	264								529
Tuality				46		55	51	33			293
<b>District</b>	<b>255</b>	<b>10</b>	<b>293</b>	<b>46</b>	<b>0</b>	<b>74</b>	<b>116</b>	<b>33</b>	<b>13</b>	<b>13</b>	<b>980</b>
<b>High School Area<sup>1</sup></b>											
Tigard			29	42		74	116	33		13	447
Tualatin	255	10	264	4							533
<b>District</b>	<b>255</b>	<b>10</b>	<b>293</b>	<b>46</b>	<b>0</b>	<b>74</b>	<b>116</b>	<b>33</b>	<b>13</b>	<b>13</b>	<b>980</b>

\*Note: Current (2009-10) attendance area.

Source: Multiple family development information compiled by TTSD, supplemented by information from various sources to determine year that each development was completed. Compiled by TTSD attendance area by Population Research Center, PSU.

## HOUSING AND ENROLLMENT

Because this year's enrollment downturn is partly attributable to the dynamics of the housing market, it may be helpful to identify the enrollment changes attributable to specific types of housing. Metro recently completed a multiple family housing inventory in a spatial file based on taxlots that differentiates apartments, condominiums, and manufactured home parks and provides more comprehensive data on the number of housing units than was available in the past. We combined this file with the taxlot file and student address points from Fall 2007, 2008, and 2009 in order to quantify the number of students by housing type. There has been an increase in the number of TTSD students residing in new single family homes, built since 2000, and in rental apartments. The decrease has been in single family homes built before 2000. Most of the loss occurred in Fall 2009, when there were 279 students (four percent) fewer than in Fall 2008.

**Table 11**  
**Number of TTSD Students, Fall 2009**  
**By Type of Residence**

Housing Type	TTSD K-12 Students			
	2007-08	2008-09	2009-10	Change '07-'08 to '09-'10
Single Family, Total	8,703	8,721	8,584	-119
built before 1990	4,176	4,118	3,935	-241
built 1990 to 1999	2,728	2,695	2,599	-129
built 2000 to 2005	1,634	1,653	1,736	102
built 2006 to 2008	165	255	314	149
Multi-Family, Total	3,326	3,405	3,441	115
apartments and plexes	3,162	3,224	3,263	101
condominiums	164	181	178	14
Manufactured Home Parks	189	183	190	1
All Other*	242	286	252	10
<b>District total</b>	<b>12,460</b>	<b>12,595</b>	<b>12,467</b>	<b>7</b>

\*Note: Includes addresses that are non-residential, outside of the District, or not able to be geocoded.

Sources: TTSD students by address, Metro Regional Land Information System (August 2009) taxlots, Metro Multi-Family Housing Inventory. Estimates by Population Research Center, PSU.

Speculation about the loss of students residing in established homes yields several plausible scenarios, but no certainty. Part of the loss may be the natural process of aging in place, whereby families remain in their home but no longer have children in K-12 schools. Other possible explanations are that the overbuilding of new homes encouraged families to move up into newer, larger homes, that the foreclosure crisis forced some families to relocate to rental apartments, and that job losses caused residents to move out of the area and resulted in more vacant single family homes.

### ***TTSD Students Residing in New Housing***

How many children can we expect to live in future new homes and attend TTSD schools? Because each development is unique, the number of resident public school students may depend on factors other than the number of homes. These factors include affordability, proximity to schools, the number of bedrooms, and the presence or absence of child-friendly amenities in the development and in the surrounding neighborhood. However, we can measure the current average number of TTSD students per recently constructed housing unit. These figures help to inform the enrollment forecasts for individual schools, and they can be used by District staff on an *ad hoc* basis to estimate potential student generation from planned and proposed developments.

In Table 9 earlier in this section we identified 3,959 single family homes built in the nine years from 2000 to 2008. We accounted for all of the TTSD students living in these homes as of Fall 2009 by combining tax lots from Metro's RLIS with TTSD student address points and the school attendance area boundaries. The student records used in this study contain no personally identifiable data such as names or birth dates, and the confidential locations of student residences are reported only in summary form, such as in the tables in this section.. There were about 2,050 students in these new single family homes, or 0.52 students per unit (52 students for every 100 homes). The rates are similar to those observed in other suburban Portland area districts.<sup>3</sup>

Every elementary attendance area had at least 150 new homes built between 2000 and 2008. However, the average number of students in new single family homes differs

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<sup>3</sup>For example, 0.56 in Hillsboro S.D., Fall 2005 and 0.48 in Oregon City S.D., Fall 2008.

between attendance areas. That may be due to the characteristics of the individual homes, or the characteristics of the neighborhood itself. On the low end of the student generation spectrum is the Metzger attendance area, which has the lowest average number of K-5 students per new home. Literally on the other end of the District, Byrom has the highest average. Table 12 presents estimates of student generation for new single family homes by individual school attendance areas.

**Table 12**  
**Average Number of TTSD Students per Unit, Fall 2009**  
**Residing in Single Family Homes Built 2000 to 2008**

<b>Elementary Area</b>	<b>Number of Grade K-5 Students per unit</b>
Alberta Rider	0.35
Bridgeport	0.25
Byrom	0.41
C.F. Tigard	0.32
Deer Creek	0.24
Durham	0.26
Metzger	0.09
Templeton	0.27
Tualatin	0.24
Woodward	0.25
<b>District total, grades K-5</b>	<b>0.27</b>
<hr/>	
<b>Middle School Area</b>	<b>Number of Grade 6-8 Students per unit</b>
Fowler	0.11
Hazelbrook	0.14
Twality	0.10
<b>District total, grades 6-8</b>	<b>0.11</b>
<hr/>	
<b>High School Area</b>	<b>Number of Grade 9-12 Students per unit</b>
Tigard	0.12
Tualatin	0.13
<b>District total, grades 9-12</b>	<b>0.13</b>
<hr/>	
<b>District total, grades K-12</b>	<b>0.52</b>

*Source: TTSD Fall 2009 students by address matched to Metro Regional Land Information System (August 2009) master address file by Population Research Center, PSU.*



## ENROLLMENT TRENDS

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The Tigard-Tualatin School District (TTSD) enrolled 12,467 students in Fall 2009, a decrease of 128 students (1.0 percent) from Fall 2008. The loss occurred at both the elementary and high school levels, with decreases of 88 students (1.5 percent) in grades K-5 and 71 students (1.8 percent) in grades 9-12. District-wide enrollment in middle school grades 6-8 increased by 31 students (1.1 percent).

Several factors contributed to the downward enrollment trend. The downturn in the housing market and job losses in most sectors of the region's economy reversed the typical enrollment gains due to mobility of families with children; there was a small net loss due to more children leaving than entering District schools. Second, the incoming kindergarten class was 41 students lower than previously forecasted. Much of the kindergarten shortfall could be due to the elimination of the free all day kindergarten classes that had been added at several elementary schools during the past few years. Finally, last year's largest ever 12<sup>th</sup> grade class was replaced this year by a relatively small 9<sup>th</sup> grade class, affecting the enrollment total at the high school level.

Total K-12 enrollment in the TTSD has grown in 20 of the past 22 years. New housing development has contributed to enrollment growth throughout that period. Sustained growth in elementary enrollment from the late 1980s to the mid 1990s and the more recent growth in high school enrollment were influenced by the rapid increase in births caused by the "echo" of the baby boom. Since the late 1990s, a growing Latino population has also been a major contributor to the District's enrollment growth.

Table 13 summarizes the enrollment history for the District by grade level annually for the most recent 10 year period, from 1999-2000 to 2009-10. In most years shown in the table, the District added between 100 and 200 students, experiencing growth rates of one to two percent. Growth for the entire period was 1,136 students, or 10 percent.

Table 13

**Tigard-Tualatin School District, Enrollment History, 1999-00 to 2009-10**

Grade	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
<b>K</b>	806	813	835	831	779	807	893	906	860	924	886
<b>1</b>	857	869	901	909	906	921	900	990	984	919	971
<b>2</b>	882	855	874	937	912	887	944	905	1,017	1,010	927
<b>3</b>	925	894	889	878	926	920	897	964	903	1,009	1,007
<b>4</b>	890	978	902	906	877	913	940	931	963	919	970
<b>5</b>	867	904	993	919	899	914	900	975	945	990	922
<b>6</b>	885	885	918	1,008	924	926	913	910	965	974	966
<b>7</b>	861	916	899	912	990	945	950	929	937	981	969
<b>8</b>	877	875	918	914	915	1,003	969	957	953	936	987
<b>9</b>	928	933	928	991	952	971	1,066	992	1,015	976	944
<b>10</b>	898	928	948	923	977	951	952	1,033	1,015	1,006	977
<b>11</b>	865	891	933	963	891	942	932	910	1,007	973	968
<b>12</b>	790	764	827	822	844	890	874	898	890	976	968
<b>US*</b>	0	0	0	0	18	20	3	7	6	2	5
<b>Total</b>	<b>11,331</b>	<b>11,505</b>	<b>11,765</b>	<b>11,913</b>	<b>11,810</b>	<b>12,010</b>	<b>12,133</b>	<b>12,307</b>	<b>12,460</b>	<b>12,595</b>	<b>12,467</b>
<i>Annual change</i>		174 1.5%	260 2.3%	148 1.3%	-103 -0.9%	200 1.7%	123 1.0%	174 1.4%	153 1.2%	135 1.1%	-128 -1.0%
<b>K-5</b>	5,227	5,313	5,394	5,380	5,299	5,362	5,474	5,671	5,676	5,771	5,683
<b>6-8</b>	2,623	2,676	2,735	2,834	2,829	2,874	2,832	2,796	2,855	2,891	2,922
<b>9-12</b>	3,481	3,516	3,636	3,699	3,682	3,774	3,827	3,840	3,929	3,933	3,862

**5 Year Change:  
1999-00 to 2004-05**

Change	Pct.
135	3%
251	10%
293	8%
<b>679</b>	<b>6%</b>

**5 Year Change:  
2004-05 to 2009-10**

Change	Pct.
321	6%
48	2%
88	2%
<b>457</b>	<b>4%</b>

**10 Year Change:  
1999-00 to 2009-10**

Change	Pct.
456	9%
299	11%
381	11%
<b>1,136</b>	<b>10%</b>

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

Sources: Oregon Department of Education; TTSD

### ***Private and Home School Enrollment and District “Capture Rate”***

The Oregon Department of Education’s (ODE’s) most recent list of private schools shows five schools in the Tigard-Tualatin area that enroll 100 or more students each. In 2007-08 they enrolled a total of 1,229 children including 1,036 in grades K-8 and 193 in grades 9-12. The total enrollment at these same five schools increased from 1,204 in 2006-07 and 1,088 in 2005-06. The largest of the five in 2007-08 were Horizon Christian School in Tualatin, with 389 K-8 students and 93 high school students, and St. Anthony’s School in Tigard, with 390 K-8 students. Horizon Christian’s high school program is relatively new. In Fall 2006, Horizon Christian (formerly Community Christian) expanded its program to include a high school enrolling students in grades 9, 10, and 11 in a new facility shared with the middle school students. A 12-room classroom building has been completed, and another 13 classrooms are planned for this new campus.

Private schools within the TTSD enroll local students as well as students from beyond the TTSD boundaries; conversely TTSD residents attend private schools located throughout the metro area. Therefore, the number of students enrolled in private schools physically located within the District can not be used to measure overall private school share. The best source for private school enrollment by residence is census data. The 1990 and 2000 censuses and the more recent American Community Survey (ACS) included questions about school enrollment by level and by type (public or private). In 2000, 10 percent of K-12 students living in the District were enrolled in private schools. Specifically, 22 percent of kindergartners, nine percent of 1<sup>st</sup>-8<sup>th</sup> grade students (slightly lower than the State’s 10 percent share), and eight percent of 9<sup>th</sup>-12<sup>th</sup> grade students (same as the State) were enrolled in private schools. For grades 1-12 overall, the nine percent private school share in 2000 was an increase from the seven percent share in the 1990 Census. The ACS estimate from surveys conducted from 2006 to 2008 is that eight percent of TTSD K-12 students are enrolled in private schools. However, the ACS is a smaller sample than the census long form, with larger margins of error.

Comparing the population counted in the 2000 Census with the TTSD enrollment by grade level confirms that the share of area children not attending TTSD schools is similar



or slightly higher than the private school shares. TTSD kindergarten enrollment in 1999-00 and 2000-01 averaged about 78 to 79 percent of the kindergarten-age population counted in the census, and TTSD 1<sup>st</sup> grade enrollment accounted for about 84 percent of the corresponding census population.

The District charter school MITCH is not included in the enrollment history or forecasts in this report. The school opened in 2003-04, and in October 2009 it enrolled 146 students in grades K-5. About 115 of MITCH's students are TTSD residents, representing nearly two percent of the District's elementary school age population.

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 (NWRESA), though the statistics kept by the NRESA 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 2008-09 there were 251 TTSD residents registered as home schooled.<sup>4</sup> This accounts for less than two percent of total TTSD K-12 residents. The number of home-schooled students has remained in the range between 200 and 300 each year since 2000.

For purposes of forecasting enrollment, the ratios of kindergarten and first grade public school enrollment to overall population in the corresponding ages are very important. These ratios are called "capture rates." Once a student is enrolled in the public schools in first grade, it is very likely that they will continue to be enrolled in subsequent grades, unless their family moves out of the District. At the time of the 2000 Census, the kindergarten capture rate was 0.78, and the first grade capture rate was 0.84. That means that about 22 percent of kindergarten-age children and 16 percent of first grade age children were not enrolled in TTSD schools, accounting for students who were enrolled in private schools, net transfers to and from other public school districts, home schooled students, or children not yet attending school, since school is not compulsory until age seven.

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<sup>4</sup>Northwest Regional Education Service District, *2008-09 Annual Report*.

***Inter-District Transfers***

In most years, the TTSD has gained enrollment from inter-district transfers, as there have been more students from other public school districts transferring into the District than District residents transferring out. This year’s net gain of 103 students is greater than last year, primarily due to more transfers into TTSD at the high school level. Table 14 presents the inter-district transfer flow by school level for each year since 2004-05.

<b>October 2004</b>	<b>K-5</b>	<b>6-8</b>	<b>9-12</b>	<b>Total</b>
Into Tigard-Tualatin	33	12	49	94
Out of Tigard-Tualatin	22	10	37	69
<b>Net</b>	<b>11</b>	<b>2</b>	<b>12</b>	<b>25</b>
<b>October 2005</b>				
Into Tigard-Tualatin	41	16	36	93
Out of Tigard-Tualatin	36	14	43	93
<b>Net</b>	<b>5</b>	<b>2</b>	<b>-7</b>	<b>0</b>
<b>October 2006</b>				
Into Tigard-Tualatin	47	12	42	101
Out of Tigard-Tualatin	21	7	28	56
<b>Net</b>	<b>26</b>	<b>5</b>	<b>14</b>	<b>45</b>
<b>October 2007</b>				
Into Tigard-Tualatin	100	8	45	153
Out of Tigard-Tualatin	16	8	18	42
<b>Net</b>	<b>84</b>	<b>0</b>	<b>27</b>	<b>111</b>
<b>October 2008</b>				
Into Tigard-Tualatin	55	20	39	114
Out of Tigard-Tualatin	19	9	12	40
<b>Net</b>	<b>36</b>	<b>11</b>	<b>27</b>	<b>74</b>
<b>October 2009</b>				
Into Tigard-Tualatin	50	20	75	145
Out of Tigard-Tualatin	12	11	19	42
<b>Net</b>	<b>38</b>	<b>9</b>	<b>56</b>	<b>103</b>

Source: Tigard-Tualatin School District

### ***Hispanic Enrollment Growth***

In 2009-10, the District's Hispanic enrollment grew by 178 students (seven percent). Elementary schools added 107 Hispanic students (eight percent). Over the past five years, Hispanic enrollment has increased by 796 students (43 percent), while the number of non-Hispanic students has decreased by 339 students (three percent).

Growth in the school age Hispanic population is attributable to in-migration of young adults and higher fertility rates. The slower growth, or decline, in the non-Hispanic school age population is related to the age distribution of the native U.S. born population, which is still impacted by the large baby boom generation. In the TTSD and in most communities there are currently more white non-Hispanics in their 40s and 50s than in their 20s and 30s, so their high school or college age children outnumber elementary age children. Each year, more white non-Hispanics graduate from high school than enter kindergarten or first grade due to the age distribution of children.

Hispanic enrollment is now 21 percent of the District K-12 total and 25 percent of the K-5 (elementary) total. Table 15 reports Hispanic enrollment annually and by school level from 2004-05 to 2009-10.

**Table 15  
Hispanic Enrollment History, Tigard-Tualatin School District**

School	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Change 2004-05 to 2009-10							
	Number	Percent	Number	Percent	Number	Percent	Number	Percent						
<b>Hispanic K-5</b>	1,039	19%	1,118	20%	1,218	21%	1,265	22%	1,291	22%	1,398	25%	359	35%
<i>Share of District Total</i>														
<b>Hispanic 6-8</b>	416	14%	359	13%	441	16%	514	18%	582	20%	624	21%	208	50%
<i>Share of District Total</i>														
<b>Hispanic 9-12</b>	400	11%	457	12%	492	13%	579	15%	600	15%	629	16%	229	57%
<i>Share of District Total</i>														
<b>Hispanic Total</b>	1,855	15%	1,934	16%	2,151	17%	2,358	19%	2,473	20%	2,651	21%	796	43%
<i>Share of District Total</i>														
<b>Non-Hispanic Total</b>	10,155		10,199		10,156		10,102		10,122		9,816		-339	-3%
<b>District Total</b>	12,010		12,133		12,307		12,460		12,595		12,467		457	4%

Source: Tigard-Tualatin School District

***Neighboring Districts***

Table 16 displays several facts about TTSD demographic and enrollment trends in comparison to three other nearby Washington County school districts. The overall enrollment growth or decline in each district is influenced by housing construction, and also by the district’s unique demographics. Housing development within the TTSD was greater in the early 1990s than in the late 1990s or early 2000s, and that is reflected in the different growth rates by period. Conversely, Sherwood added more housing in the late 1990s and early 2000s. Growth in Beaverton and Hillsboro has outpaced Tigard-Tualatin’s growth since the mid-1990s.

**Table 16  
Selected School Districts, Portland Metro West  
Demographic and Enrollment Highlights, 1990 to 2008**

	<b>Tigard-Tualatin</b>	<b>Sherwood</b>	<b>Beaverton</b>	<b>Hillsboro</b>
Enrollment growth, <b>1990-91 to 1995-96</b>	28%	28%	17%	13%
Enrollment growth, <b>1995-96 to 2000-01</b>	9%	62%	14%	16%
Enrollment growth, <b>2000-01 to 2008-09</b>	9%	57%	10%	13%
Latino enrollment, <b>2008-09</b>	19%	7%	18%	30%
Grades 9-12 enrollment, <b>2008-09</b>	31%	26%	31%	30%
Population growth, <b>1990 to 2000</b>	37%	125%	41%	49%
Multi-family housing share, <b>2000</b>	42%	13%	43%	25%
Population age 5 to 17, <b>1990</b>	17%	19%	18%	22%
Population age 5 to 17, <b>2000</b>	18%	20%	18%	20%
Population under age 5, <b>1990</b>	7.6%	6.1%	7.9%	8.5%
Population under age 5, <b>2000</b>	7.0%	9.7%	7.6%	8.7%
Population rural, <b>2000</b>	0.6%	20.2%	0.4%	13.2%

*Data assembled by Population Research Center, PSU, from several sources: U.S. Census Bureau; Beaverton and Hillsboro S.D. reports; Tigard-Tualatin S.D.; OR Dept. of Education; U.S. Dept. of Education.*

### ***Enrollment Trends at Individual Schools: Elementary Schools***

Between 2008-09 and 2009-10 enrollments increased by 11 students at Alberta Rider and 14 students at Durham. Templeton's enrollment was unchanged and the remaining seven elementary schools lost enrollment. This is the second consecutive year for Alberta Rider, Durham and Templeton to lead the District's schools in annual enrollment growth. Each of the three schools gained over 30 students between 2007-08 and 2008-09.

None of the losses were particularly large or surprising at any one school; the largest declines of 28 students at Woodward and 21 students at Bridgeport and Byrom were mainly due to particularly large 5<sup>th</sup> grade classes being replaced by smaller kindergarten classes. The surprise came from the cumulative district-wide impact of so many schools experiencing small enrollment losses.

Durham continued to gain students from the phased in Metzger to Durham boundary change that was initiated in 2006-07. In 2008-09, 46 of the boundary change area's 73 K-5 residents were enrolled at Durham (an increase of 11 from 2007-08), 23 were at Metzger (a decrease of five from 2007-08), and four were at other TTSD schools. In 2009-10, 60 of the boundary change area's 72 K-5 residents were enrolled at Durham (an increase of 14 from 2008-09), only 10 were at Metzger (a decrease of 13 from 2008-09), and two were at other TTSD schools. Also in 2009-10, for the first time all kindergarten residents of the boundary change area were enrolled at Durham.

In a different economic climate, Deer Creek and Woodward would have expected enrollment gains due to the new subdivisions with building lots available and completed three and four bedroom homes for sale. Due to stalled development and completed homes remaining on the market, that growth has not occurred; each of the two schools enrolled about 30 fewer students in Fall 2009 than in Fall 2006.

### ***Enrollment Trends at Individual Schools: Middle Schools***

Both Hazelbrook and Fowler gained enrollment between 2008-09 and 2009-10, reversing a few years of small losses at each school. The growth was mostly due to large incoming 6<sup>th</sup> grade classes (the same cohort that the enrollment losses at Bridgeport, Byrom, and

Woodward Elementary schools were attributed to). In 2006 a boundary adjustment from Fowler to Twality began to be phased in to allow the entire Alberta Rider area to be assigned to Twality. Twality's enrollment has grown significantly since 2006-07, adding 72 students in 2007-08 and 77 students in 2008-09. However, Twality had a small decrease of eight students between 2008-09 and 2009-10.

***Enrollment Trends at Individual Schools: High Schools***

In Fall 2009 both high schools experienced their largest enrollment losses in at least six years, 26 students at Tigard and 39 students at Tualatin. Both had relatively large graduating classes in 2009, contributing to the losses.

Total enrollment at each of the District's schools and recent enrollment trends by school are shown in Table 17 on the next page.

**Table 17  
Enrollment History for Individual Schools, 2004-05 to 2009-10**

School	Historic Enrollment							4 year change*	
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Number	Percent	
	Alberta Rider		424	535	540	571	582	158	29.5%
Bridgeport	493	500	521	534	550	529	29	5.6%	
Byrom	657	661	634	659	654	633	-28	-4.4%	
C.F. Tigard	636	605	614	598	587	577	-28	-4.6%	
Deer Creek	651	563	606	609	581	574	11	1.8%	
Durham	563	532	525	512	542	556	24	4.6%	
Metzger	583	578	609	589	590	582	4	0.7%	
Templeton	517	537	557	551	588	588	51	9.2%	
Tualatin	526	537	539	560	580	562	25	4.6%	
Woodward	736	537	531	520	528	500	-37	-7.0%	
<b>Elementary Totals</b>	<b>5,362</b>	<b>5,474</b>	<b>5,671</b>	<b>5,672</b>	<b>5,771</b>	<b>5,683</b>	<b>209</b>	<b>3.7%</b>	
Fowler M.S.	929	935	910	898	876	885	-50	-5.5%	
Hazelbrook M.S.	1,018	1,010	1,002	1,002	983	1,013	3	0.3%	
Twality M.S.	927	887	879	951	1,028	1,020	133	15.1%	
<b>Middle School Totals</b>	<b>2,874</b>	<b>2,832</b>	<b>2,791</b>	<b>2,851</b>	<b>2,887</b>	<b>2,918</b>	<b>86</b>	<b>3.1%</b>	
Tigard H.S.	1,960	2,005	2,000	2,002	2,003	1,977	-28	-1.4%	
Tualatin H.S.	1,782	1,791	1,772	1,863	1,864	1,825	34	1.9%	
Durham Center	32	31	73	72	70	64	33	45.2%	
<b>High School Totals</b>	<b>3,774</b>	<b>3,827</b>	<b>3,845</b>	<b>3,937</b>	<b>3,937</b>	<b>3,866</b>	<b>39</b>	<b>1.0%</b>	
<b>District Totals</b>	<b>12,010</b>	<b>12,133</b>	<b>12,307</b>	<b>12,460</b>	<b>12,595</b>	<b>12,467</b>	<b>334</b>	<b>2.7%</b>	

\*Note: Enrollment change is shown for a four year period during which school boundaries have been relatively stable. The only attendance area changes have been small areas shifted from Metzger to Durham and from Fowler to Twality beginning in 2006.

Sources: Oregon Department of Education; TTSD





## ENROLLMENT FORECASTS

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### *District-wide Long-range Forecast Methodology*

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

The 1990 and 2000 Census results are used as a baseline for the population forecasts. By “surviving” the 1990 population and 1990s births (estimating the population in each age group that would survive to the year 2000) and comparing the “survived” population to the actual 2000 population by age group, we are able to estimate the overall level of net migration between 1990 and 2000 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 2000 to 2020 period.

We estimated the number of births to women residing within the District each year from 1989 to 2007, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers enabled us to calculate fertility rates by age group for both 1990 and 2000. We adjusted the future fertility rates to reflect trends of decreasing fertility rates for women under age 25 and increases for women age 30 and older. These trends are based on state and national observations, as well as the number of births by age of mother occurring within the District during the 2001 to 2005 period for which detailed birth data is available.

Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 1999-2000 school year) are compared to the population at the appropriate ages counted in the census. The “capture rate,” or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in TTSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District’s enrollment. If there is evidence that capture rates have changed since the time of the census, they may be adjusted in the forecast.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District’s population. Once the students are in first grade, a set of baseline GPRs are used to move students from one grade to the next. These 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.

### ***Residential Development***

In the “Population and Housing Trends, 1990 to 2009” section of this report, we documented a slowdown in residential building permit activity beginning in 2007, reflecting current lower demand for new housing. Given the expected growth in the metropolitan region and the District’s proximity to the region’s major employment centers, we expect housing demand to rebound. The current downturn does influence the short-range enrollment growth rates for 2010-11 and 2011-12.

A bigger concern in the long run is the availability of residential land for new housing construction. In previous forecasts, we considered the possibility that land use constraints would prevent the District from returning to its recent average of about 450 new single family homes annually. If about 200 homes are built in each of the next two years, and an average of 450 homes are built in the following eight years, a total of 4,000 units would be added in the 10 year period. Does the District have enough residential

land? After reviewing existing plans and current planning efforts, we conclude that the capacity does exist. However, as the supply of buildable land shrinks, single family housing that is both affordable and desirable for families with school age children may become scarcer.

Very little rental multi-family development has occurred in recent years, so developers may respond to demand for this product type. Market rate multi-family development usually generates very few school age children per unit, but a large number of new units or a concerted effort to add affordable units could contribute to District enrollment gains.

In Tigard, less than 10 percent of land within the City is considered vacant and buildable. Based on the City's 2009 buildable lands inventory (BLI), if the City developed its remaining residential lands, an additional 3,275 to 3,473 units could be built. These estimates include an allowance for additional projects that occur on land not included on the BLI.<sup>5</sup>

In 2008 we conducted our own analysis using GIS shapefiles provided by the City of Tigard, including the 2007 BLI and platted subdivisions, as well as information from the City's web site about new subdivisions approved but not yet platted. Our results were similar. We estimated that a net housing gain of 1,077 units will occur based on approved land use applications that have been submitted since 2005, and that about 3,000 additional units could be built on remaining residential land, also allowing for a share of development that occurs on lands not included in the inventory. We also calculated that 86 percent of Tigard's buildable residential land is within the TTSD boundary.

To the west of the City of Tigard, West Bull Mountain includes 500 acres added to the Urban Growth Boundary (UGB) in 2002, known as Areas 63 and 64. About 380 acres are within the TTSD boundary. A team of Washington County staff and consultants is currently working on a concept plan for West Bull Mountain with extensive public involvement. Their timeline has been delayed and now calls for adopting comprehensive plan amendments in 2010. The current preferred plan involves adding another 212 acres

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<sup>5</sup>Buildable Lands Report and Land Use Trends Analysis, Planning Commission Presentation, June 1, 2009.

of adjacent farmland to the UGB to “provide a logical connection between the two urban areas [Area 63 and 64] and allow the two urban areas to function as one community.” This additional land to the southwest of the 2002 expansion area, North of Beef Bend Road and east of Roy Rogers Road, is entirely within TTSD. Completing the planning and building the infrastructure for a new community will not happen overnight, but it is likely that additional residential capacity could be added to the District in this area within the 10 year horizon of these forecasts.

In King City, after the current developments that are underway are completed, there will be only a small amount of land available for more residential development. Including ongoing and potential new subdivisions, there may be capacity for a few hundred homes within the City’s current boundaries.

The City of Tualatin envisions only limited development under its current plans. At the beginning of the Tualatin Tomorrow strategic planning work in mid-2006, a community profile declared that “Tualatin is expected to grow to about 28,000 people at build-out, given the amount of land within its current urban planning area boundary.”<sup>6</sup>

Given the 2005 population estimate of 25,465 and subsequent growth to 26,130 in 2009, the expected population at build-out allows the City to add only 2,000 more residents.<sup>7</sup> However, the possibility of future changes to the plans is acknowledged in the final vision, with action statements such as “consider a housing element for the Town Center plan, including guidelines and tools to promote development of a mix of higher-density and affordable housing,” and “prioritize City efforts on orchestrating development of affordable housing throughout Tualatin.”<sup>8</sup>

Future expansions of the City of Tualatin’s boundaries, if any, will have little effect on growth in the TTSD, since nearly all of the unincorporated areas adjacent to the City are outside of the TTSD’s boundaries. Tualatin’s contribution to TTSD’s growth will be from build-out of existing residential land and any infill and redevelopment.

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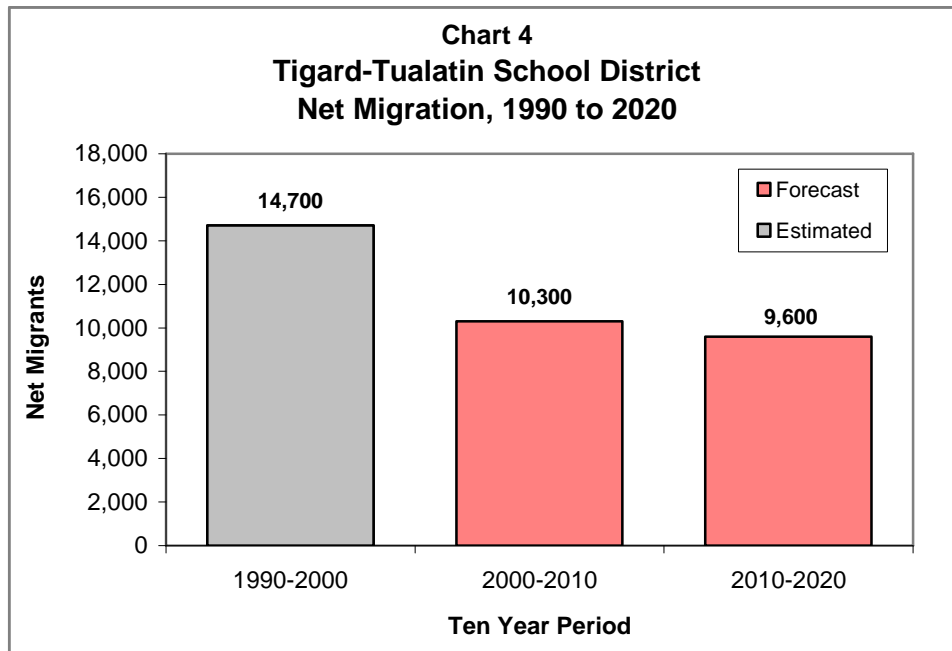
<sup>6</sup>*Tualatin Community Profile and Trends Report*, July 2006. <http://www.tualatintomorrow.org/>

<sup>7</sup>*2008 Preliminary Population Estimates*, Population Research Center, Portland State University. <http://www.pdx.edu/prc>.

<sup>8</sup>*Community Vision and Strategic Action Plan*, June 2007. <http://www.tualatintomorrow.org/>

### ***Population Forecast***

Since the end of the 2000 to 2010 forecast period is approaching, we have a substantial amount of data to compare to the 1990 to 2000 baseline period, including several years of school enrollment, birth, and housing development data. All indicate that population gains within the District in the current decade will be slightly lower than in the 1990s, and that most of the difference will be due to lower levels of net migration (people moving in minus those moving out). The population has continued to grow due to natural increase (births minus deaths). As the overall population grows and new housing development within the District boundaries remains at or below its recent levels, population growth due to net migration is forecast to be similar in the 2010 to 2020 period. Chart 4 shows the 1990 to 2000 estimate and 2000 to 2020 forecasts of TTSD population growth attributable to net migration.



Although very little growth in the young adult population is expected due to net migration, the young adult population will increase because of overall population growth and the larger baby boom “echo” cohort born in the 1980s and 1990s. This increase causes the number of births within the TTSD to increase throughout the forecast period in spite of stable or declining fertility rates. Table 18 shows historic births from 2000 to 2007 as well as forecasts from 2008 until 2014, the period that will have an impact on the enrollment forecasts presented in this study.

**Table 18**  
**Estimated and Forecast Births**  
**Tigard-Tualatin School District**

<b>Year</b>	<b>Births</b>
2000	1,063
2001	1,082
2002	1,116
2003	1,110
2004	1,154
2005	1,158
2006 (preliminary)	1,208
2007 (preliminary)	1,201
2008 (forecast)	1,224
2009 (forecast)	1,247
2010 (forecast)	1,236
2011 (forecast)	1,242
2012 (forecast)	1,251
2013 (forecast)	1,265
2014 (forecast)	1,279

*Source: 1990-2007 birth data from Oregon Center for Health Statistics allocated to TTSD boundary by PSU-PRC. 2008-2014 forecasts, PSU-PRC.*

The district-wide population forecast by age group is presented in Table 19. The forecast for 2020 population in the TTSD is 101,002, an increase of 30,227 persons from the 2000 Census (1.8 percent average annual growth). The 2000 to 2020 growth rate of 43 percent for the District is similar to the 47 percent growth in the State of Oregon Office of Economic Analysis’ most recent forecast for Washington County. School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 3,941 person growth in school-age population amounts to 31 percent in the 20 year period, or 1.3 percent annually. By 2020, the fastest growing age groups are the “baby boom”

generation ages 55 to 74. Population age 55 and older in the District is forecast to double between 2000 and 2020.

**Table 19**  
**Population by Age Group**  
**Tigard-Tualatin School District, 1990 to 2020**

	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	3,934	4,977	6,050	6,603	1,626	33%
Age 5 to 9	3,744	5,049	5,704	6,466	1,417	28%
Age 10 to 14	3,255	4,896	5,384	6,525	1,629	33%
Age 15 to 17	1,761	2,890	3,266	3,785	895	31%
Age 18 to 19	1,074	1,618	2,071	2,222	604	37%
Age 20 to 24	3,190	4,433	5,121	5,334	901	20%
Age 25 to 29	4,509	5,475	5,918	6,621	1,146	21%
Age 30 to 34	5,159	5,477	6,054	6,815	1,338	24%
Age 35 to 39	5,018	5,916	7,059	7,349	1,433	24%
Age 40 to 44	4,404	6,143	6,960	7,356	1,213	20%
Age 45 to 49	3,045	5,723	6,459	7,639	1,916	33%
Age 50 to 54	2,046	4,532	6,162	6,912	2,380	53%
Age 55 to 59	1,655	3,137	5,706	6,364	3,227	103%
Age 60 to 64	1,710	2,183	4,549	6,061	3,878	178%
Age 65 to 69	1,753	1,722	3,045	5,412	3,690	214%
Age 70 to 74	1,709	1,791	2,066	4,039	2,248	126%
Age 75 to 79	1,614	1,856	1,579	2,499	643	35%
Age 80 to 84	1,131	1,590	1,431	1,446	-144	-9%
Age 85 and over	942	1,367	1,661	1,555	188	14%
<b>Total Population</b>	<b>51,653</b>	<b>70,775</b>	<b>86,244</b>	<b>101,002</b>	<b>30,227</b>	<b>43%</b>
Total age 5 to 17	8,760	12,835	14,354	16,776	3,941	31%
share age 5 to 17	17.0%	18.1%	16.6%	16.6%		

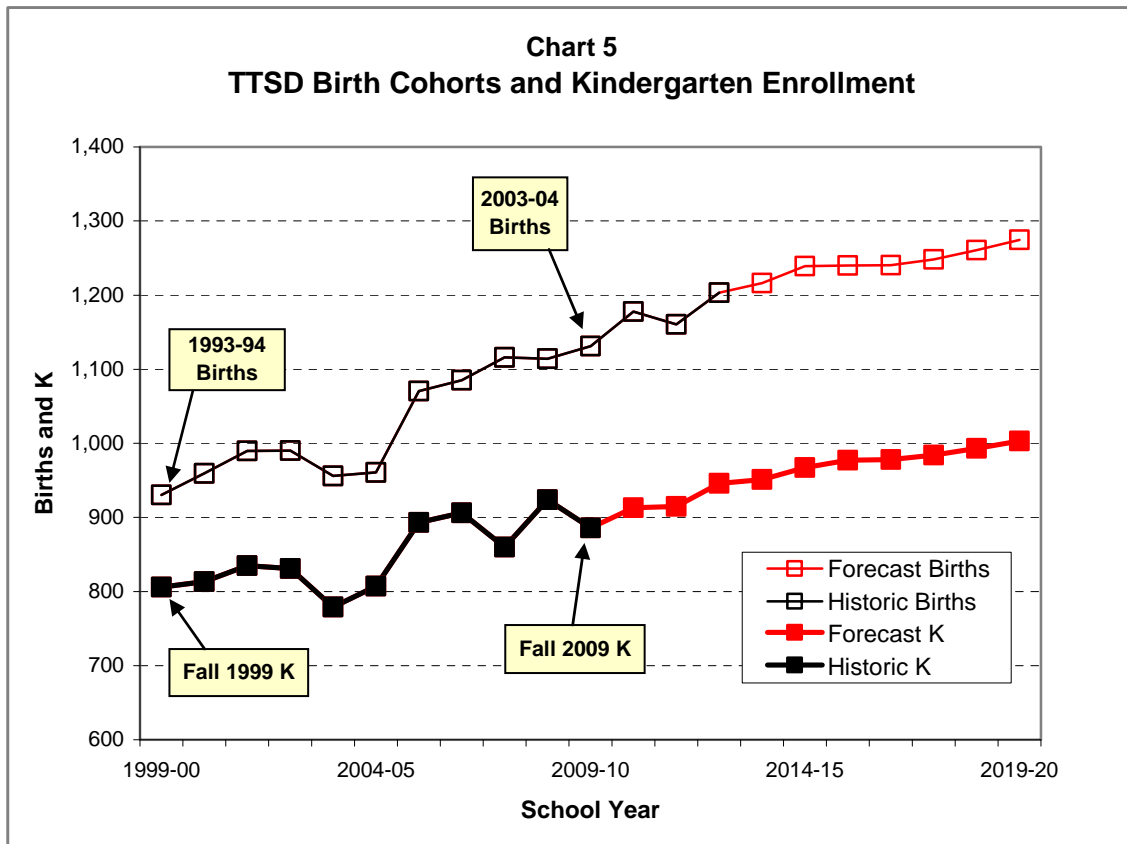
	1990-2000	2000-2010	2010-2020
<b>Population Change</b>	<b>19,122</b>	<b>15,469</b>	<b>14,758</b>
<i>Percent</i>	<i>37%</i>	<i>22%</i>	<i>17%</i>
<i>Average Annual</i>	<i>3.2%</i>	<i>2.0%</i>	<i>1.6%</i>

Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to TTSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2010 and 2020.



**District-wide Enrollment Forecast**

Chart 5 compares the historic and forecast number of births in the District with the historic and forecast number of TTSD kindergarten students. Births correspond to kindergarten cohorts (September to August). Although many children move into and out of the District between birth and age five, and not all District residents attend TTSD kindergartens, the trend in kindergarten enrollment has generally followed the trend in the birth cohort. Fall 2007 and 2009 were exceptions, because kindergarten enrollment fell in spite of corresponding increases in births. Over the past 10 years, the gap between births and kindergarten enrollment has grown as a consequence of lower net migration, declining capture rates, or some combination of the two factors. Kindergarten and first grade capture rates are shown in Table 20 on the next page. The higher rates for first grade reflect the fact that additional residents enter TTSD schools after completing their kindergarten year in private schools.



**Table 20**  
**Estimated and Forecast Capture Rates\***  
**Tigard-Tualatin School District**

School Year	Kindergarten	Grade 1
1989-1990 (census)	0.83	0.88
1999-2000 (census)	0.82	0.87
2009-2010 (estimate)	0.77	0.85
2019-2020 (forecast)	0.78	0.83

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

The District’s growth has been fueled by migration, as there have consistently been more households moving in than out. This migration has contributed to the long term growth in District births and subsequent kindergarten enrollments, as we showed in Chart 5. Table 21 illustrates how the TTSD also gains students due to migration at nearly every grade level. Over the last 10 years, average GPRs for each grade from 2<sup>nd</sup> to 8<sup>th</sup> have been 1.01 or 1.02, indicating growth of one to two percent more students each year

**Table 21**  
**Grade Progression Rates<sup>1</sup>**  
**Tigard-Tualatin S.D. History and Forecast**

Grade Transition	Historic Average: 1999-2000 to 2009-10	Baseline (without the influence of migration)	Forecast Average: 2009-10 to 2019-20
K-1	1.10	-- <sup>2</sup>	1.08
1-2	1.01	1.00	1.01
2-3	1.01	1.00	1.01
3-4	1.01	1.00	1.01
4-5	1.02	1.00	1.01
5-6	1.01	1.00	1.01
6-7	1.01	1.00	1.01
7-8	1.01	1.00	1.01
8-9	1.05	1.03	1.04
9-10	1.00	0.99	1.00
10-11	0.98	0.96	0.97
11-12	0.94	0.98	0.97

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

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

attributable to migration of school-age children. The forecast also includes enrollment growth due to migration, at slightly lower rates than in the past.

Overall K-12 enrollment is forecast to increase by 1,273 students (10 percent) in the next 10 years, slightly more than the increase of 1,136 students experienced in the past 10 years. K-5 enrollments grow throughout the forecast period, while secondary enrollments grow very little until 2013-14, after which their growth accelerates. There will be annual fluctuations that no forecast can anticipate; a one or two year deviation from the forecast does not mean that the forecast will be inaccurate in the long run. For example, the lower than expected enrollment in 2009-10 affects the base enrollment for this forecast and suggests that sluggish growth may continue for one to two more years as a result of current economic conditions. The rate of growth after 2011-12 is similar to last year's forecast for the same period.

Table 22 contains grade level forecasts for the Tigard-Tualatin School District for each year from 2010-11 to 2019-20. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12).



### ***Individual School Forecasts***

We prepared forecasts for individual schools under a scenario in which current boundaries and grade configurations remain constant. Of course, school districts typically respond to enrollment change in various ways that might alter the status quo, such as attendance area boundary changes, building new schools, or offering special programs. However, the individual school forecasts depict what future enrollments might be if today's facilities and boundaries were unchanged.

The methodology for the individual school forecasts relies on unique sets of grade progression rates for each school, and the ratio of kindergarten enrollment to lagged births within the school's attendance area. 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.

Among elementary schools, Alberta Rider and Woodward's attendance areas contain the most buildable residential land as well as the TTSD portion of the West Bull Mountain UGB expansion area. Most of their buildable land within the City of Tigard is zoned R-7 for homes with a minimum lot size of 5,000 square feet, a higher density than most existing neighborhoods. The two schools are likely to experience the largest increase among elementary schools over the next 10 years if their boundaries remain unchanged.

Middle school enrollment growth is concentrated at Twality due to growth in all of its feeder elementary schools, as well as ongoing new housing development. Each of the high schools is expected to grow slowly during the first few years of the forecast, with their most significant growth occurring after 2013-14.

Table 23 on the next page presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

**Table 23  
Enrollment Forecasts for Individual Schools, 2010-11 to 2019-20**

School	Actual	Forecast										Change 2009-10- 2019-20
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	
Alberta Rider	582	591	617	617	659	690	712	736	754	765	775	193
Bridgeport	529	559	567	565	580	579	577	569	572	572	571	42
Byrom	633	629	608	604	590	579	591	613	611	612	615	-18
C.F. Tigard	577	585	591	579	572	554	551	554	563	576	590	13
Deer Creek	574	574	558	559	579	591	603	614	623	630	636	62
Durham	556	555	578	592	596	619	630	636	640	642	643	87
Metzger	582	600	603	612	617	633	647	640	636	633	634	52
Templeton	588	596	600	621	645	663	673	679	686	692	700	112
Tualatin	562	573	582	600	610	616	622	621	621	618	616	54
Woodward	500	493	488	491	513	517	540	554	569	580	591	91
<b>Elementary Totals</b>	<b>5,683</b>	<b>5,755</b>	<b>5,792</b>	<b>5,840</b>	<b>5,961</b>	<b>6,041</b>	<b>6,146</b>	<b>6,216</b>	<b>6,275</b>	<b>6,320</b>	<b>6,371</b>	<b>688</b>
Fowler M.S.	885	851	844	859	872	893	871	897	892	911	905	20
Hazelbrook M.S.	1,013	971	992	979	1,024	1,045	1,036	1,030	1,013	1,034	1,052	39
Twality M.S.	1,020	1,044	1,052	1,125	1,104	1,096	1,091	1,148	1,198	1,231	1,259	239
<b>Middle School Totals</b>	<b>2,918</b>	<b>2,866</b>	<b>2,888</b>	<b>2,963</b>	<b>3,000</b>	<b>3,034</b>	<b>2,998</b>	<b>3,075</b>	<b>3,103</b>	<b>3,176</b>	<b>3,216</b>	<b>298</b>
Tigard H.S.	1,977	1,976	1,968	1,962	1,981	1,965	2,013	2,022	2,048	2,060	2,070	93
Tualatin H.S.	1,825	1,808	1,823	1,877	1,901	1,945	1,982	1,972	2,033	2,029	2,019	194
Durham Center (7 <sup>th</sup> -12 <sup>th</sup> )	64	64	64	64	64	64	64	64	64	64	64	0
<b>High School Totals</b>	<b>3,866</b>	<b>3,848</b>	<b>3,855</b>	<b>3,903</b>	<b>3,946</b>	<b>3,974</b>	<b>4,059</b>	<b>4,058</b>	<b>4,145</b>	<b>4,153</b>	<b>4,153</b>	<b>287</b>
<b>District Totals</b>	<b>12,467</b>	<b>12,469</b>	<b>12,535</b>	<b>12,706</b>	<b>12,907</b>	<b>13,049</b>	<b>13,203</b>	<b>13,349</b>	<b>13,523</b>	<b>13,649</b>	<b>13,740</b>	<b>1,273</b>

Population Research Center, Portland State University, December 2009

**Table 24  
Facility Capacity and Enrollment, 2009-10 and 2019-20**

School	2009-10				2019-20	
	Capacity Excluding portables	Capacity Including Portables	2009-10 Enrollment	Available Capacity (excluding portables) <sup>1</sup>	2019-20 Forecast Enrollment	Available Capacity (excluding portables) <sup>2</sup>
Alberta Rider	624	n/a	582	42	775	-151
Bridgeport	572	624	529	43	571	1
Byrom	650	754	633	17	615	35
C.F. Tigard	624	n/a	577	47	590	34
Deer Creek	624	n/a	574	50	636	-12
Durham	598	n/a	556	42	643	-45
Metzger	546	598	582	-36	634	-88
Templeton	598	650	588	10	700	-102
Tualatin	598	n/a	562	36	616	-18
Woodward	624	728	500	124	591	33
<b>Elementary Totals</b>	<b>6,058</b>	<b>6,422</b>	<b>5,683</b>	<b>375</b>	<b>6,371</b>	<b>-313</b>
Fowler M.S.	983	n/a	885	98	905	78
Hazelbrook M.S.	1,040	n/a	1,013	27	1,052	-12
Twality M.S.	942	1,084	1,020	-78	1,259	-317
<b>Middle School Totals</b>	<b>2,965</b>	<b>3,107</b>	<b>2,918</b>	<b>47</b>	<b>3,216</b>	<b>-251</b>
Tigard H.S.	1,776	1,898	1,977	-201	2,070	-294
Tualatin H.S.	1,888	n/a	1,825	63	2,019	-131
Durham Center	105	n/a	64	41	64	41
<b>High School Totals</b>	<b>3,769</b>	<b>3,891</b>	<b>3,866</b>	<b>-97</b>	<b>4,153</b>	<b>-384</b>
<b>District Totals</b>	<b>12,792</b>	<b>13,420</b>	<b>12,467</b>	<b>325</b>	<b>13,740</b>	<b>-948</b>

1. 2009-10 Capacity (without portables) minus October 1, 2009 enrollment.

2. 2009-10 Capacity (without portables) minus 2019-20 forecast enrollment.

Sources: TTSD, Facilities and Capacity Assessment; PSU Population Research Center enrollment forecasts.

## FORECAST ERROR AND UNCERTAINTY

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In these forecasts, district-wide elementary enrollments are expected to grow by about 700 students in the 10 year forecast period, more than in the most recent 10 years. District middle schools are expected to add a total of about 300 students in the next 10 years, and high schools are also forecast to add about 300 students. However, forecasts should be understood to represent a range of outcomes even though discrete numbers are provided.

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

Due to the nature of forecasting, there is no way to estimate a confidence interval as one might for data collected from a survey. The best way to measure potential forecast error is to compare actual enrollments with previous forecasts that were conducted using similar data and methodologies. In Table 25 on the next page, we compare the actual TTSD enrollment by grade level in Fall 2009 with the 2009-10 forecasts that were prepared one year earlier, as well as those prepared two and three years earlier. Similarly, Table 26 compares enrollment forecasts for individual schools. The enrollment *increase* forecast for 2009-10 was small by historic standards. However, since enrollment actually *decreased* significantly, the errors are relatively higher than shown in previous years' measurements of TTSD forecast errors. As a measure of average error for grade levels and for individual school enrollments, we have included the mean absolute percent error (MAPE) in the tables.



**Table 25**  
**Fall 2009 Enrollment Compared to Previous Forecasts**  
**By Grade Level**

Grade	Actual	One year forecast <sup>1</sup>			Two year forecast <sup>2</sup>			Three year forecast <sup>3</sup>		
		Fcst.	Diff.	Error	Fcst.	Diff.	Error	Fcst.	Diff.	Error
K	886	927	41	4.6%	909	23	2.6%	941	55	6.2%
1	971	987	16	1.6%	987	16	1.6%	1025	54	5.6%
2	927	930	3	0.3%	954	27	2.9%	1034	107	11.5%
3	1007	1022	15	1.5%	997	-10	-1.0%	1019	12	1.2%
4	970	1020	50	5.2%	1032	62	6.4%	1021	51	5.3%
5	922	929	7	0.8%	924	2	0.2%	943	21	2.3%
6	966	1000	34	3.5%	975	9	0.9%	1004	38	3.9%
7	969	985	16	1.7%	958	-11	-1.1%	963	-6	-0.6%
8	987	992	5	0.5%	995	8	0.8%	1008	21	2.1%
9	944	983	39	4.1%	999	55	5.8%	978	34	3.6%
10	977	966	-11	-1.1%	992	15	1.5%	980	3	0.3%
11	968	975	7	0.7%	974	6	0.6%	961	-7	-0.7%
12	968	936	-32	-3.3%	948	-20	-2.1%	882	-86	-8.9%
US <sup>4</sup>	5	2	-3		6	1		7	2	
<b>Total</b>	<b>12,467</b>	<b>12,654</b>	<b>187</b>	<b>1.5%</b>	<b>12,650</b>	<b>183</b>	<b>1.5%</b>	<b>12,766</b>	<b>299</b>	<b>2.4%</b>
<b>MAPE<sup>5</sup></b>			<b>2.2%</b>			<b>2.1%</b>			<b>4.0%</b>	

1. Forecast for 2009-10 by PSU-PRC, baseline 2008-09 enrollment. December 2008.

2. Forecast for 2009-10 by PSU-PRC, baseline 2007-08 enrollment. December 2007.

3. Forecast for 2009-10 by PSU-PRC, baseline 2006-07 enrollment. December 2006.

4. Ungraded secondary enrollment

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

Table 26

### Fall 2009 Enrollment Compared to Previous Forecasts By Individual School

School	Actual	One year forecast <sup>1</sup>			Two year forecast <sup>2</sup>			Three year forecast <sup>3</sup>		
		Fcst.	Diff.	Error	Fcst.	Diff.	Error	Fcst.	Diff.	Error
Alberta Rider	582	607	25	4.3%	579	-3	-0.5%	649	67	11.5%
Bridgeport	529	539	10	1.9%	516	-13	-2.5%	497	-32	-6.0%
Byrom	633	663	30	4.7%	674	41	6.5%	658	25	3.9%
C. F. Tigard	577	566	-11	-1.9%	591	14	2.4%	600	23	4.0%
Deer Creek	574	573	-1	-0.2%	637	63	11.0%	740	166	28.9%
Durham	556	549	-7	-1.3%	498	-58	-10.4%	513	-43	-7.7%
Metzger	582	582	0	0.0%	601	19	3.3%	607	25	4.3%
Templeton	588	608	20	3.4%	576	-12	-2.0%	593	5	0.9%
Tualatin Elem.	562	590	28	5.0%	593	31	5.5%	562	0	0.0%
Woodward	500	538	38	7.6%	538	38	7.6%	564	64	12.8%
<b>Elementaries</b>	<b>5,683</b>	<b>5,815</b>	<b>132</b>	<b>2.3%</b>	<b>5,803</b>	<b>120</b>	<b>2.1%</b>	<b>5,983</b>	<b>300</b>	<b>5.3%</b>
Fowler	885	891	6	0.7%	884	-1	-0.1%	932	47	5.3%
Hazelbrook	1,013	1,016	3	0.3%	1,013	0	0.0%	1,025	12	1.2%
Twality	1,020	1,066	46	4.5%	1,027	7	0.7%	1,018	-2	-0.2%
<b>Middle Schools</b>	<b>2,918</b>	<b>2,973</b>	<b>55</b>	<b>1.9%</b>	<b>2,924</b>	<b>6</b>	<b>0.2%</b>	<b>2,975</b>	<b>57</b>	<b>2.0%</b>
Tigard HS	1,977	1,959	-18	-0.9%	1,955	-22	-1.1%	1,972	-5	-0.3%
Tualatin HS	1,825	1,837	12	0.7%	1,896	71	3.9%	1,766	-59	-3.2%
Durham Center	64	70	6	9.4%	72	8	12.5%	70	6	9.4%
<b>High Schools</b>	<b>3,866</b>	<b>3,866</b>	<b>0</b>	<b>0.0%</b>	<b>3,923</b>	<b>57</b>	<b>1.5%</b>	<b>3,808</b>	<b>-58</b>	<b>-1.5%</b>
<b>District</b>	<b>12,467</b>	<b>12,654</b>	<b>187</b>	<b>1.5%</b>	<b>12,650</b>	<b>183</b>	<b>1.5%</b>	<b>12,766</b>	<b>299</b>	<b>2.4%</b>
<b>MAPE<sup>4</sup></b>				<b>2.5%</b>			<b>3.8%</b>			<b>6.0%</b>

1. Forecast for 2009-10 by PSU-PRC, baseline 2008-09 enrollment. December 2008.

2. Forecast for 2009-10 by PSU-PRC, baseline 2007-08 enrollment. December 2007.

3. Forecast for 2009-10 by PSU-PRC, baseline 2006-07 enrollment. December 2006.

4. Mean absolute percent error for individual schools, excluding Durham Center.

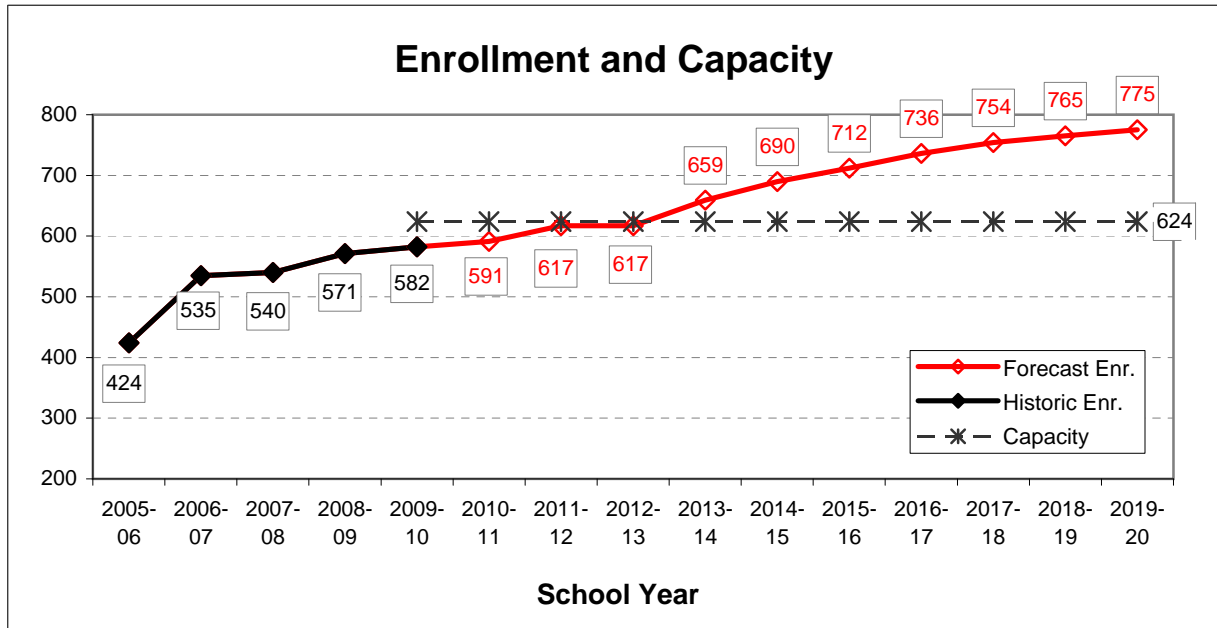


## **APPENDIX**

### **ENROLLMENT, CAPACITY, AND HOUSING DEVELOPMENT PROFILES FOR INDIVIDUAL SCHOOLS**



# Alberta Rider Elementary School Enrollment, Capacity, and Housing Development



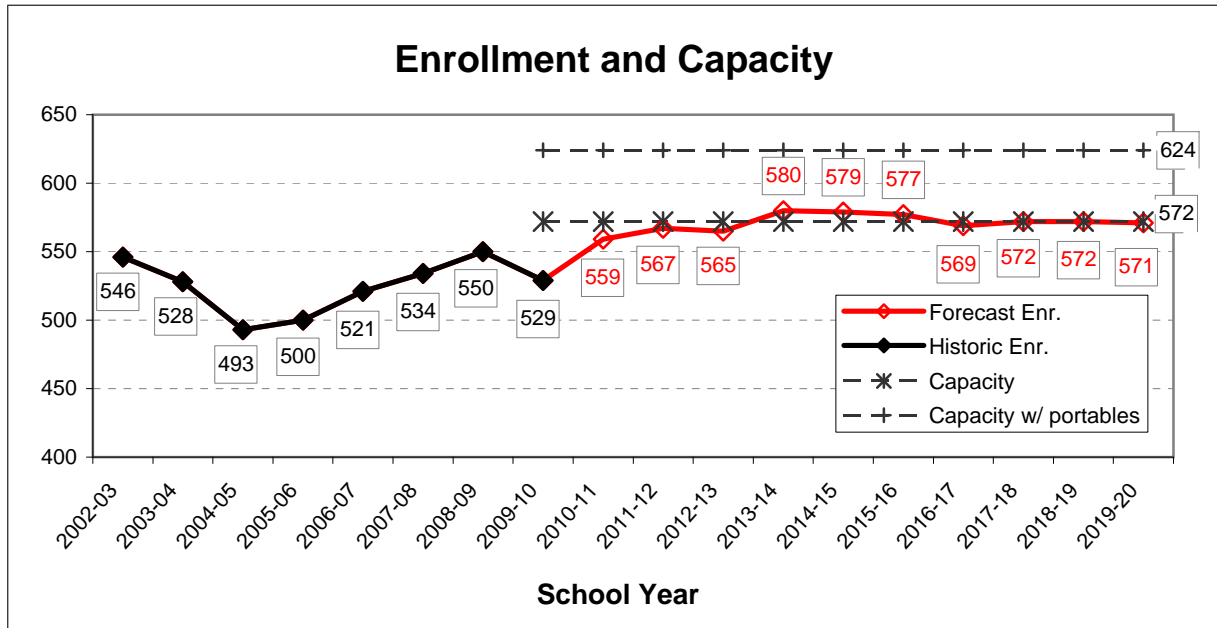
Note: School opened in 2005.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	0	582	690	775
Change	0	582	108	85

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	89	0
2001	87	0
2002	49	0
2003	85	4
2004	25	0
2005	149	0
2006	135	0
2007	57	0
2008	6	0
<b>Total</b>	<b>682</b>	<b>4</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	17	0
2001	61	4
2002	0	0
2003	175	0
2004	116	0
2005	144	0
2006	175	0
2007	10	0
2008	14	0
2009	0	0
<b>Total</b>	<b>712</b>	<b>4</b>

# Bridgeport Elementary School Enrollment, Capacity, and Housing Development

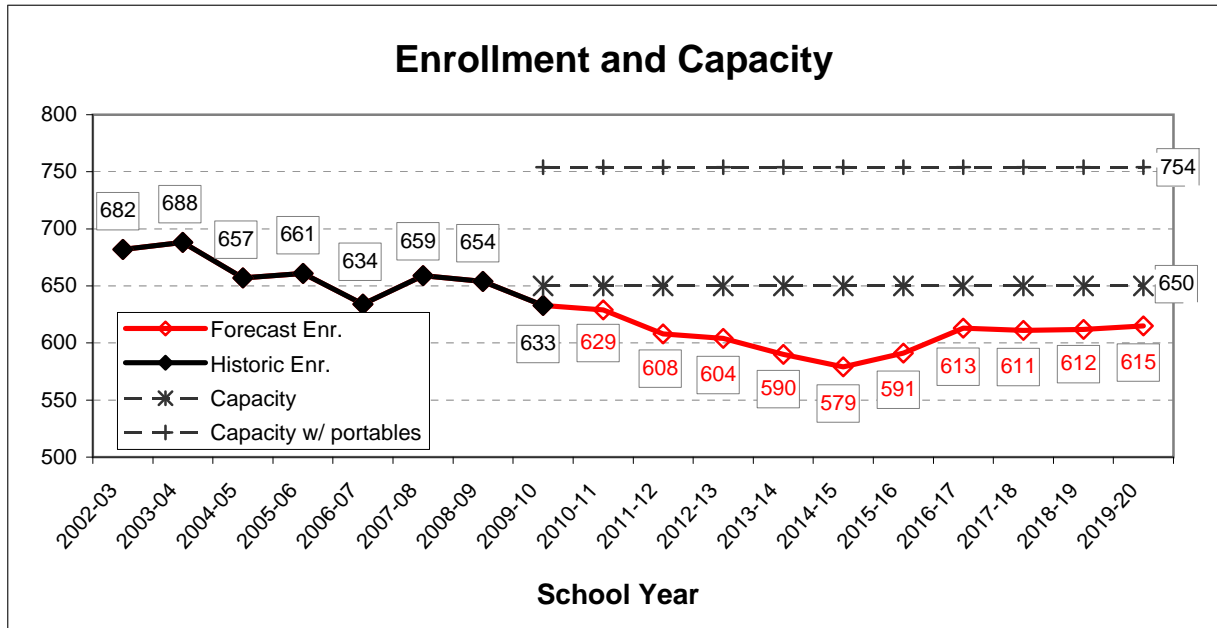


Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	493	529	579	571
Change	-	36	50	-8

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	29	15
2001	15	0
2002	4	0
2003	38	0
2004	56	0
2005	8	0
2006	0	0
2007	0	0
2008	0	0
<b>Total</b>	<b>150</b>	<b>15</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	0	0
2002	93	0
2003	0	0
2004	8	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
<b>Total</b>	<b>101</b>	<b>0</b>

# Edward Byrom Elementary School Enrollment, Capacity, and Housing Development



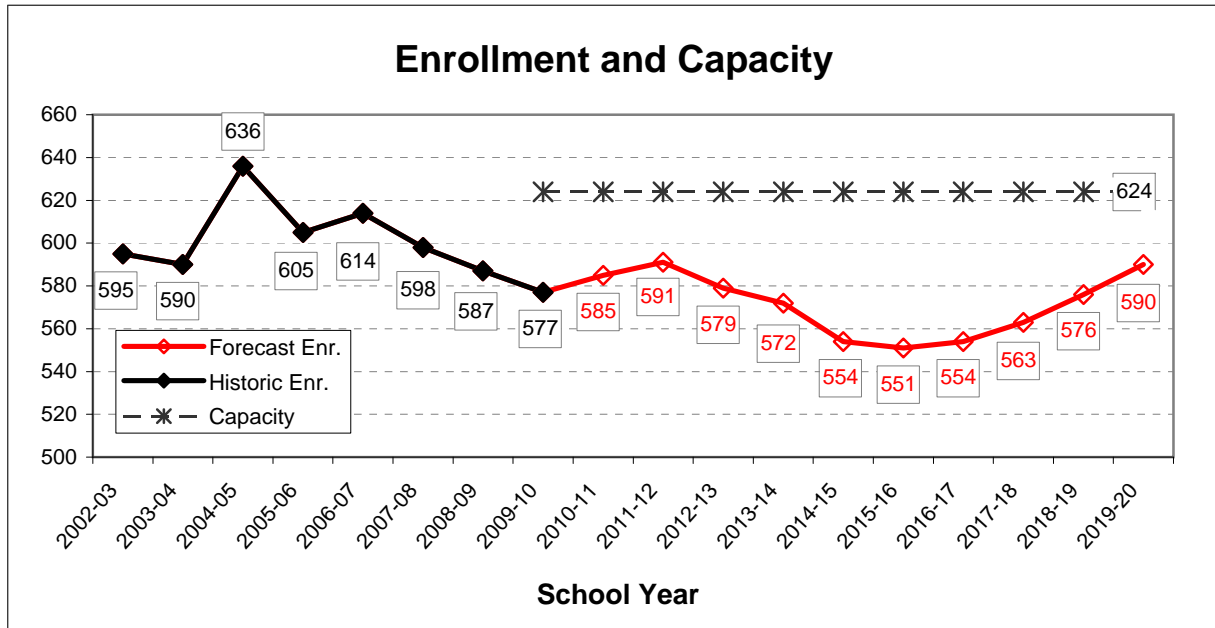
Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	657	633	579	615
Change	-	-24	-54	36

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	35	0
2001	55	0
2002	56	0
2003	23	0
2004	18	0
2005	34	0
2006	71	0
2007	22	0
2008	25	0
<b>Total</b>	<b>339</b>	<b>0</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	11	0
2001	0	0
2002	0	0
2003	47	0
2004	38	0
2005	107	0
2006	31	0
2007	13	0
2008	0	0
2009	0	0
<b>Total</b>	<b>247</b>	<b>0</b>



# Charles F. Tigard Elementary School Enrollment, Capacity, and Housing Development



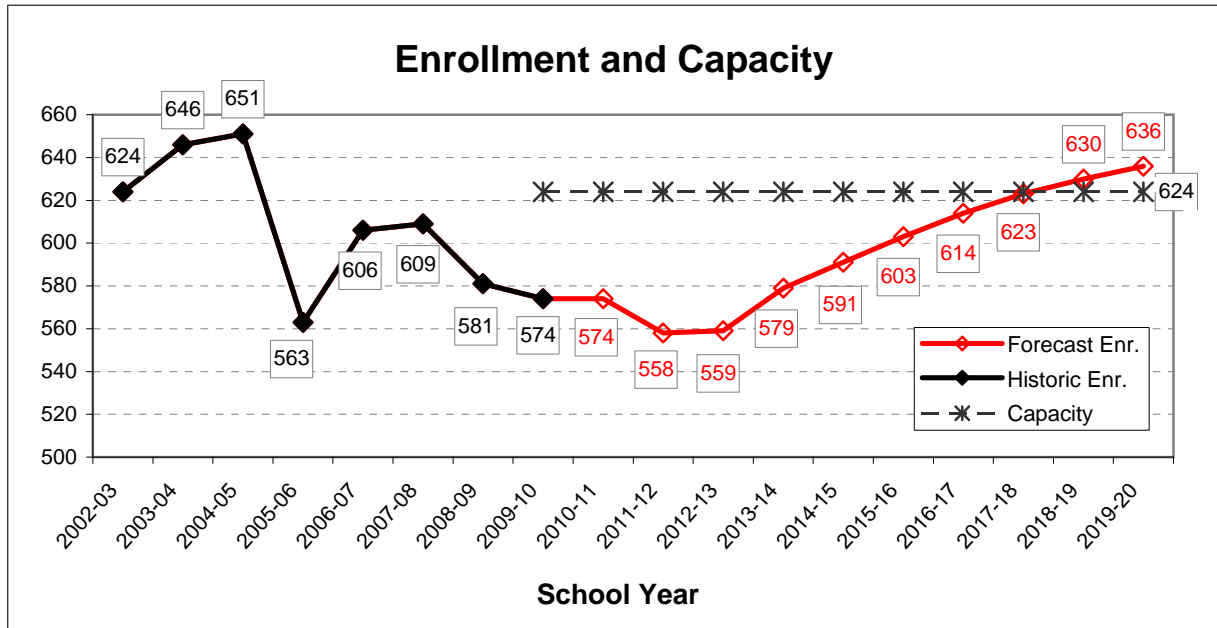
Note: In 2004 a new facility opened. In 2005 a boundary change sent some students to Alberta Rider Elementary.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	636	577	554	590
Change	-	-59	-23	36

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	74	0
2001	40	0
2002	47	0
2003	103	0
2004	51	0
2005	2	0
2006	32	0
2007	18	0
2008	1	0
<b>Total</b>	<b>368</b>	<b>0</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	65	0
2001	53	6
2002	21	0
2003	40	0
2004	0	0
2005	48	0
2006	15	0
2007	0	0
2008	10	0
2009	0	0
<b>Total</b>	<b>252</b>	<b>6</b>

## Deer Creek Elementary School Enrollment, Capacity, and Housing Development



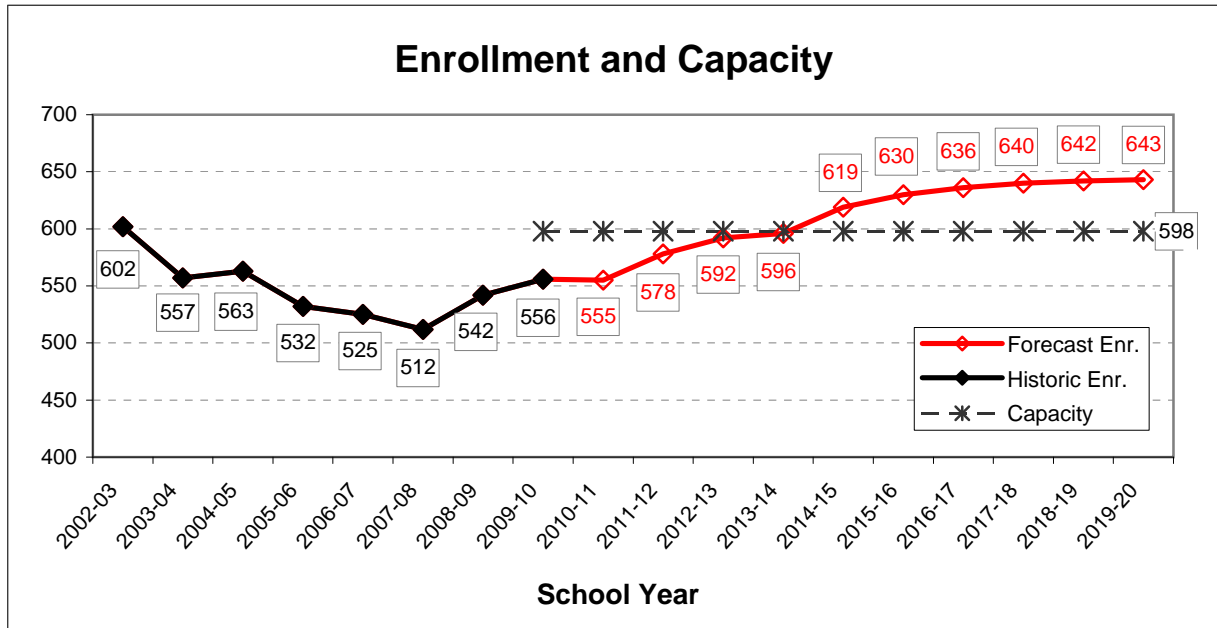
Note: Boundary change in 2005 sent some students to Alberta Rider Elementary.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	651	574	591	636
Change	-	-77	17	45

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	45	0
2001	94	0
2002	68	264
2003	70	0
2004	40	0
2005	118	0
2006	146	0
2007	53	0
2008	8	0
<b>Total</b>	<b>642</b>	<b>264</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	0	264
2002	45	0
2003	352	0
2004	91	0
2005	84	0
2006	38	0
2007	14	0
2008	0	0
2009	0	0
<b>Total</b>	<b>624</b>	<b>264</b>

# Durham Elementary School Enrollment, Capacity, and Housing Development



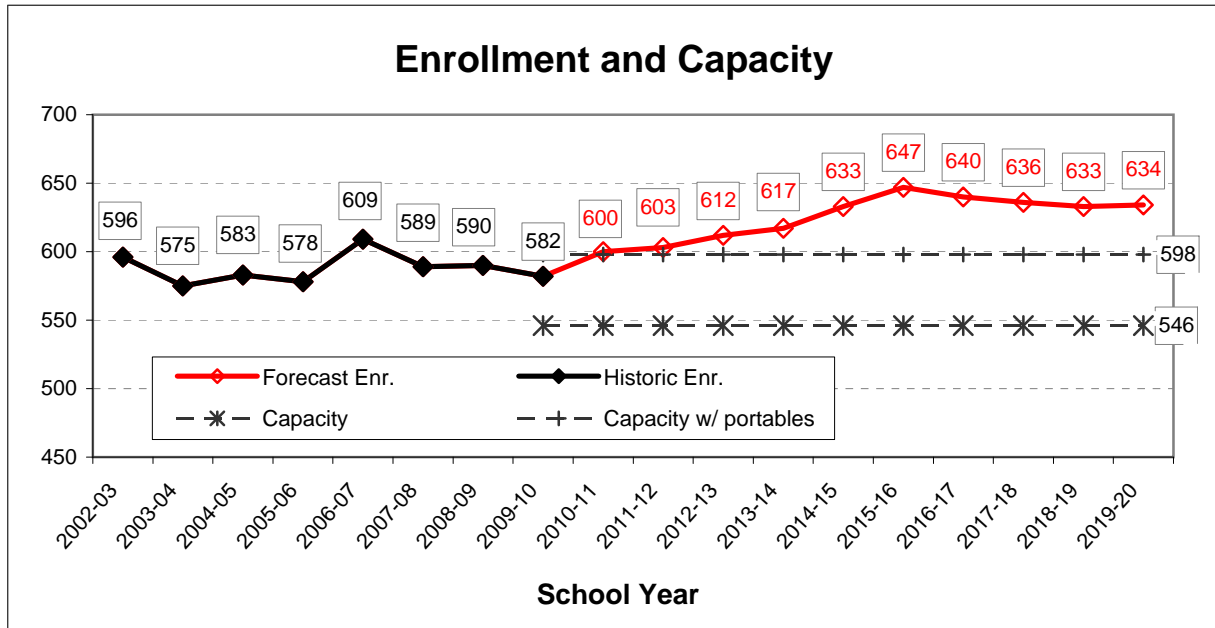
Note: In 2006 a phased-in boundary change began that assigns a portion of the attendance area from Metzger to Durham.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	563	556	619	643
Change	-	-7	63	24

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	71	0
2001	73	0
2002	6	0
2003	1	42
2004	29	0
2005	116	0
2006	5	0
2007	37	0
2008	2	0
<b>Total</b>	<b>340</b>	<b>42</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	0	0
2002	0	0
2003	84	95
2004	5	0
2005	5	0
2006	90	0
2007	24	7
2008	4	368
2009	0	0
<b>Total</b>	<b>212</b>	<b>470</b>

# Metzger Elementary School Enrollment, Capacity, and Housing Development



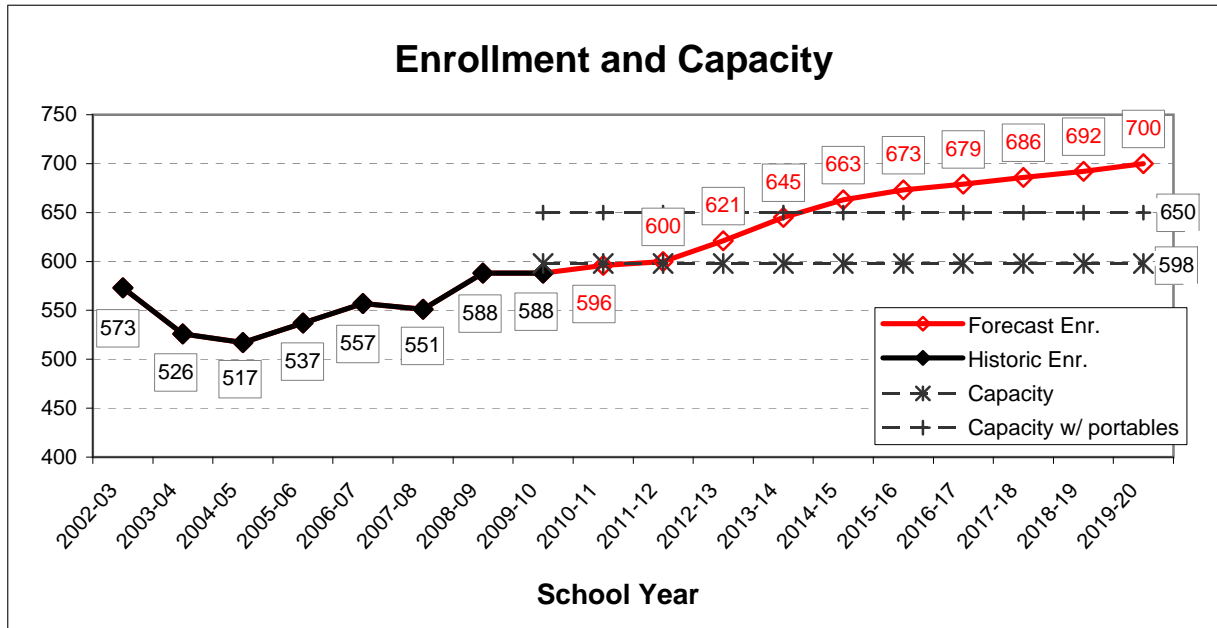
Note: In 2006 a phased-in boundary change began that assigns a portion of the former attendance area to Durham.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	583	582	633	634
Change	-	-1	51	1

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	38	0
2001	30	0
2002	31	29
2003	20	0
2004	24	0
2005	5	32
2006	23	19
2007	58	65
2008	6	0
<b>Total</b>	<b>235</b>	<b>145</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	9	3
2001	23	26
2002	0	0
2003	39	0
2004	6	51
2005	7	51
2006	42	90
2007	8	34
2008	0	0
2009	0	0
<b>Total</b>	<b>134</b>	<b>255</b>

# James Templeton Elementary School Enrollment, Capacity, and Housing Development

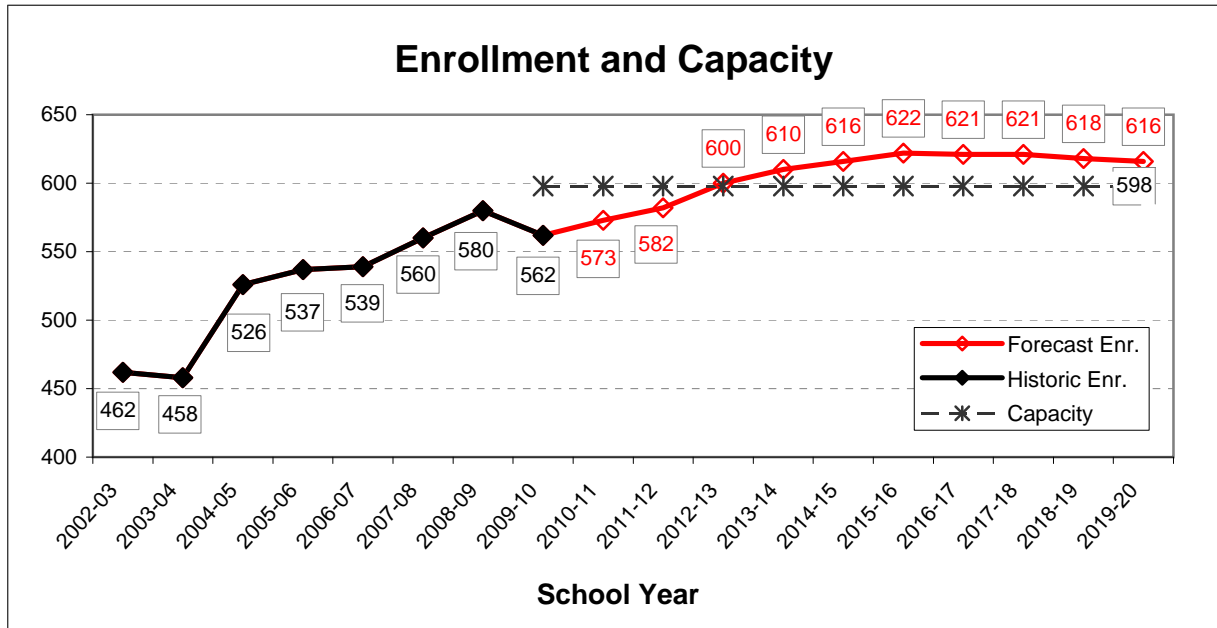


Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	517	588	663	700
Change	-	71	75	37

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	18	0
2001	39	0
2002	34	0
2003	5	0
2004	44	0
2005	19	108
2006	11	55
2007	46	51
2008	2	33
<b>Total</b>	<b>218</b>	<b>247</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	6
2001	5	0
2002	0	0
2003	52	0
2004	11	247
2005	56	0
2006	14	0
2007	60	0
2008	18	0
2009	0	0
<b>Total</b>	<b>216</b>	<b>253</b>

# Tualatin Elementary School Enrollment, Capacity, and Housing Development



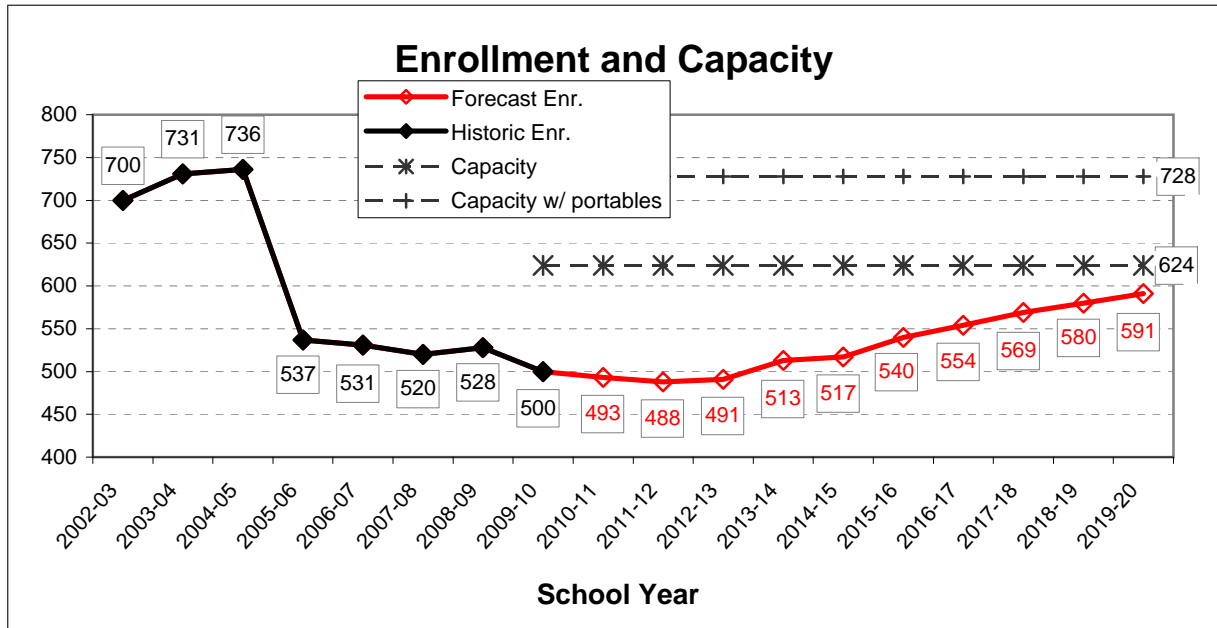
Note: In 2004 a new facility opened.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	526	562	616	616
Change	-	36	54	0

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	19	240
2001	150	10
2002	122	0
2003	67	0
2004	59	0
2005	89	0
2006	26	0
2007	10	0
2008	1	0
<b>Total</b>	<b>543</b>	<b>250</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	84	0
2001	43	0
2002	32	0
2003	49	0
2004	80	0
2005	31	0
2006	19	0
2007	0	0
2008	0	0
2009	0	0
<b>Total</b>	<b>338</b>	<b>0</b>

# Mary Woodward Elementary School Enrollment, Capacity, and Housing Development



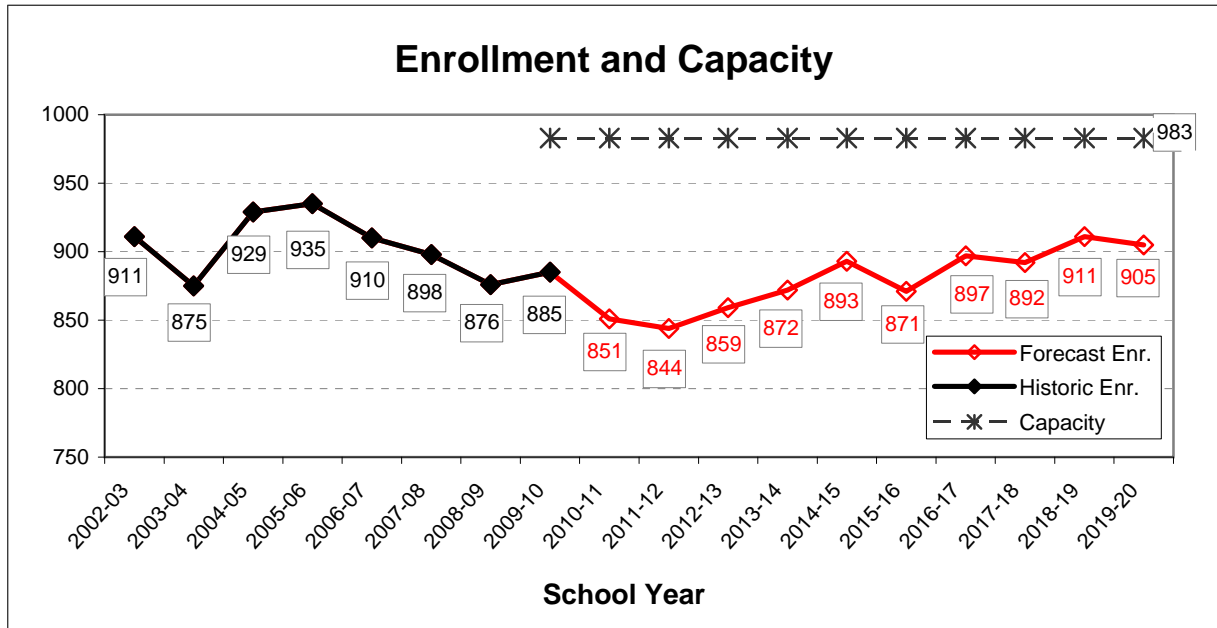
Note: Boundary change in 2005 sent some students to Alberta Rider Elementary.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	736	500	517	591
Change	-	-236	17	74

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	121	0
2001	28	0
2002	43	0
2003	191	0
2004	24	0
2005	8	0
2006	3	0
2007	22	0
2008	2	0
<b>Total</b>	<b>442</b>	<b>0</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	66	0
2001	18	60
2002	0	0
2003	94	0
2004	0	0
2005	37	0
2006	0	0
2007	116	0
2008	0	0
2009	0	0
<b>Total</b>	<b>331</b>	<b>60</b>

# Fowler Middle School Enrollment, Capacity, and Housing Development



Note: In 2006 a phased-in boundary change began that assigns a portion of the attendance area to Twality.

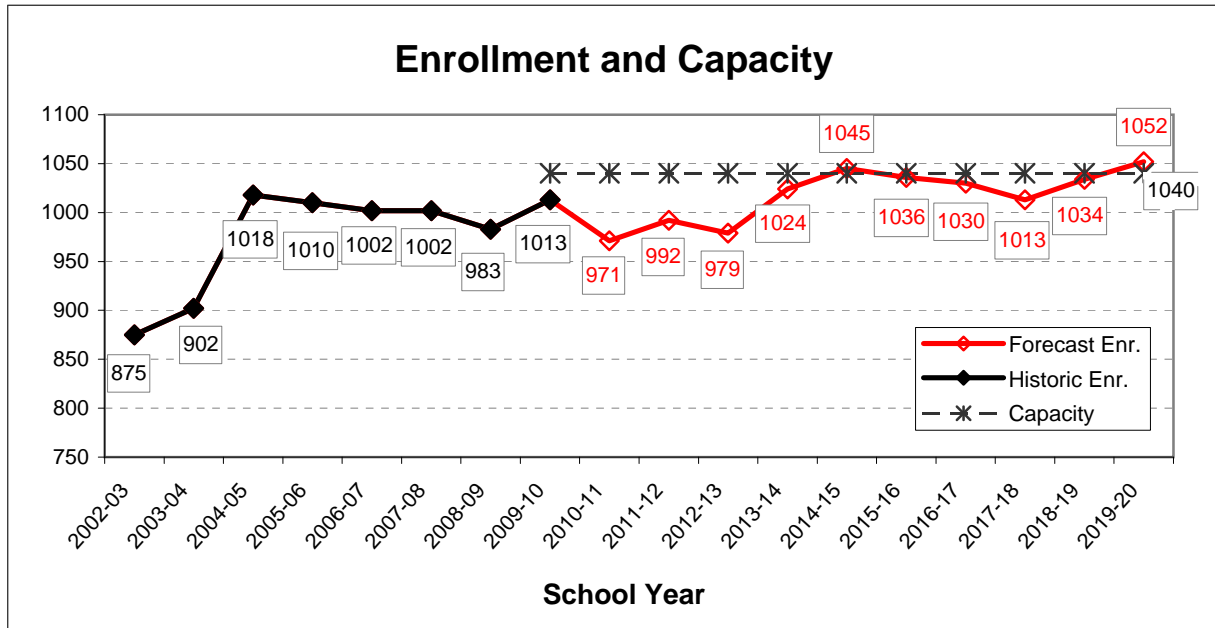
Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	929	885	893	905
Change	-	-44	8	12

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	233	0
2001	98	0
2002	121	29
2003	314	0
2004	99	0
2005	15	32
2006	58	19
2007	98	65
2008	9	0
<b>Total</b>	<b>1045</b>	<b>145</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	140	3
2001	94	92
2002	21	0
2003	173	0
2004	6	51
2005	92	51
2006	57	90
2007	124	34
2008	10	0
2009	0	0
<b>Total</b>	<b>717</b>	<b>321</b>



# Hazelbrook Middle School Enrollment, Capacity, and Housing Development



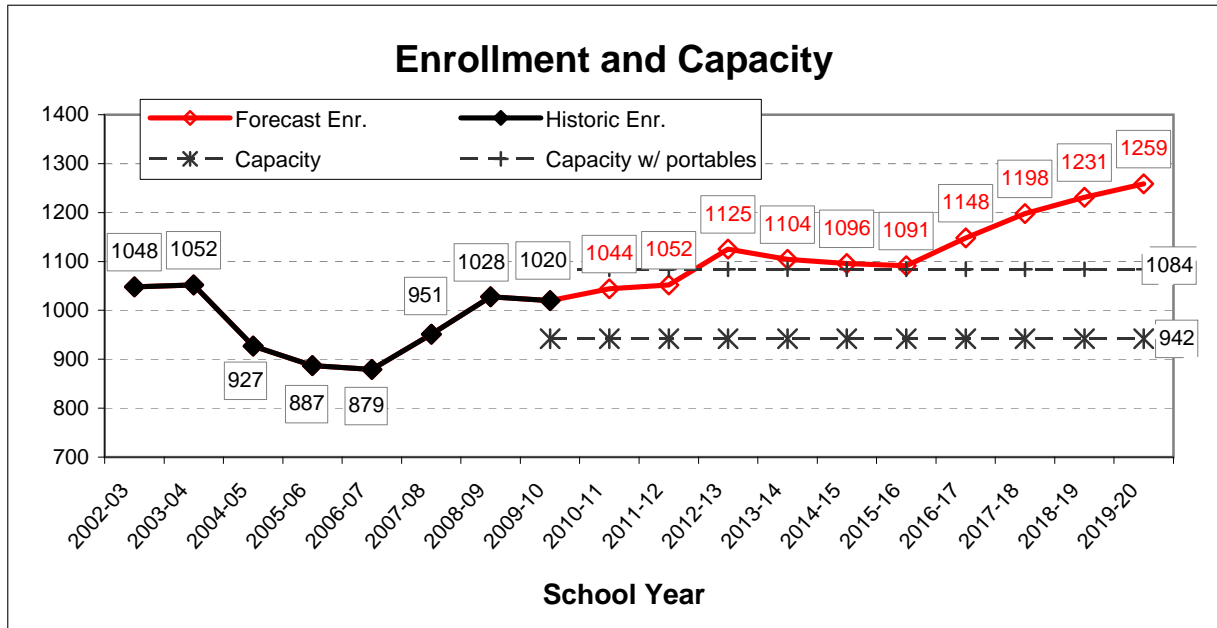
Note: In 2004 capacity was enhanced and a boundary change added students from Twality.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	1018	1013	1045	1052
Change	-	-5	32	7

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	83	255
2001	220	10
2002	182	264
2003	138	0
2004	136	0
2005	135	0
2006	99	0
2007	34	0
2008	30	0
<b>Total</b>	<b>1057</b>	<b>529</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	95	0
2001	43	264
2002	135	0
2003	100	0
2004	130	0
2005	145	0
2006	50	0
2007	13	0
2008	0	0
2009	0	0
<b>Total</b>	<b>711</b>	<b>264</b>

# Twality Middle School Enrollment, Capacity, and Housing Development



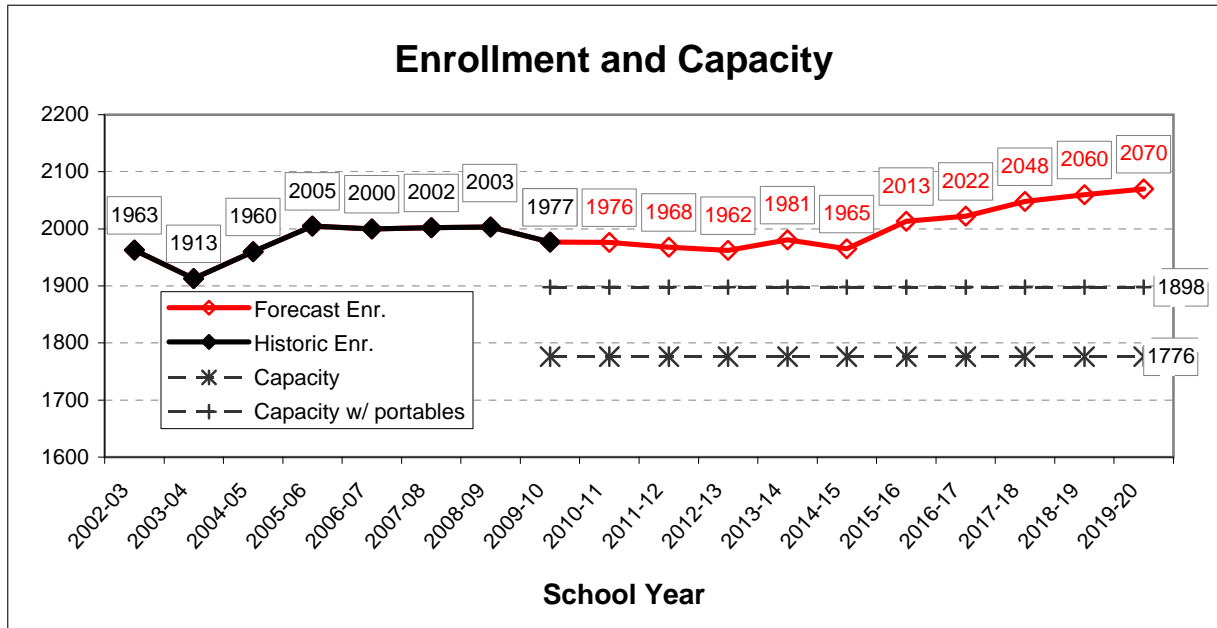
Note: In 2004 a boundary change sent some students to Hazelbrook. In 2006 a phased-in boundary change began that assigns a portion of Fowler's former attendance area to Twality.

Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	927	1020	1096	1259
Change	-	93	76	163

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	223	0
2001	293	0
2002	157	0
2003	151	46
2004	135	0
2005	398	108
2006	295	55
2007	191	51
2008	14	33
<b>Total</b>	<b>1857</b>	<b>293</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	17	6
2001	66	4
2002	35	0
2003	659	95
2004	219	247
2005	282	0
2006	317	0
2007	108	7
2008	36	368
2009	0	0
<b>Total</b>	<b>1739</b>	<b>727</b>

# Tigard High School Enrollment, Capacity, and Housing Development

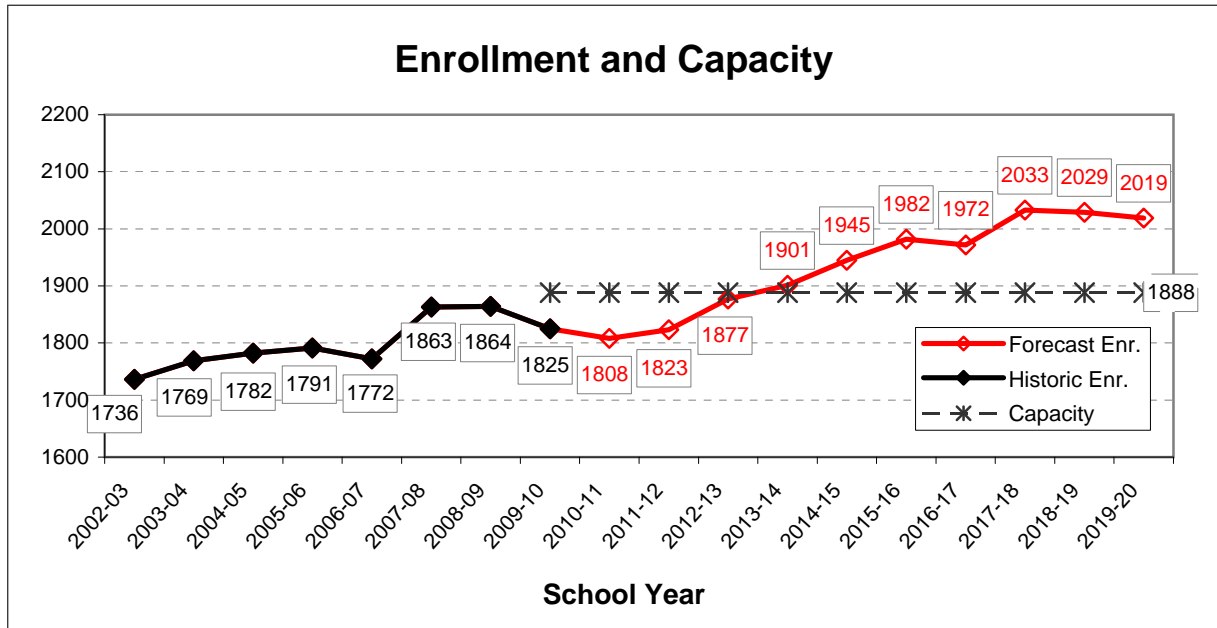


Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	1960	1977	1965	2070
Change	-	17	-12	105

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	321	0
2001	218	0
2002	170	29
2003	346	42
2004	176	0
2005	150	140
2006	70	74
2007	181	116
2008	13	33
<b>Total</b>	<b>1645</b>	<b>434</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	140	9
2001	99	92
2002	21	0
2003	309	95
2004	22	298
2005	199	51
2006	157	90
2007	208	41
2008	46	0
2009	0	0
<b>Total</b>	<b>1201</b>	<b>676</b>

# Tualatin High School Enrollment, Capacity, and Housing Development

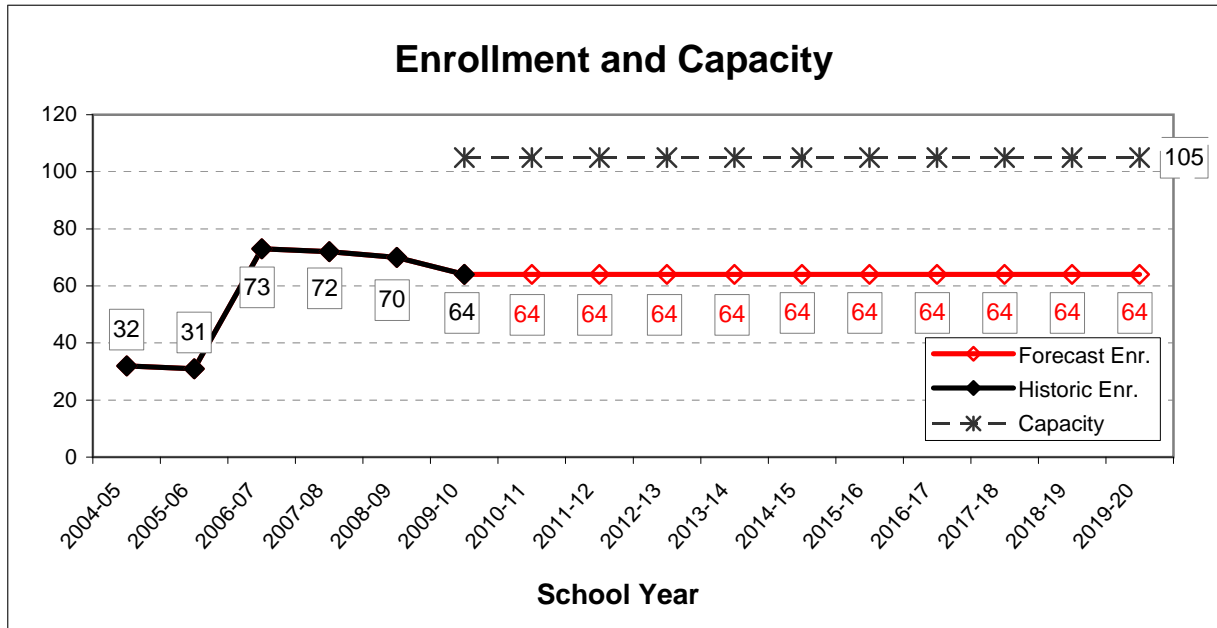


Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	1782	1825	1945	2019
Change	-	43	120	74

Year Built	New Housing Units Built 2000-08	
	Single	Multiple
2000	218	255
2001	393	10
2002	290	264
2003	257	4
2004	194	0
2005	398	0
2006	382	0
2007	142	0
2008	40	0
<b>Total</b>	<b>2314</b>	<b>533</b>

Year Approved	New Development Approved 2000-09	
	SF Lots	MF Units
2000	112	0
2001	104	268
2002	170	0
2003	623	0
2004	333	0
2005	320	0
2006	267	0
2007	37	0
2008	0	368
2009	0	0
<b>Total</b>	<b>1966</b>	<b>636</b>

# Durham Center Enrollment and Capacity



Enrollment History and Forecast				
	History		Forecast	
	2004-05	2009-10	2014-15	2019-20
Total enrollment	32	64	64	64
Change	-	32	0	0