

December 2008

# Tigard-Tualatin School District Enrollment Forecast Update, 2009-10 to 2018-19

Portland State University. Population Research Center

Follow this and additional works at: <http://pdxscholar.library.pdx.edu/enrollmentforecasts>



Part of the [Urban Studies and Planning Commons](#)

---

## Recommended Citation

Portland State University. Population Research Center, "Tigard-Tualatin School District Enrollment Forecast Update, 2009-10 to 2018-19" (2008). *School District Enrollment Forecast Reports*. Paper 61.  
<http://pdxscholar.library.pdx.edu/enrollmentforecasts/61>

This Technical Report is brought to you for free and open access. It has been accepted for inclusion in School District Enrollment Forecast Reports by an authorized administrator of PDXScholar. For more information, please contact [pdxscholar@pdx.edu](mailto:pdxscholar@pdx.edu).

**TIGARD-TUALATIN SCHOOL DISTRICT  
ENROLLMENT FORECAST UPDATE  
2009-10 TO 2018-19**



Portland State  
UNIVERSITY

Population Research  
Center



**DECEMBER, 2008**



**TIGARD-TUALATIN SCHOOL DISTRICT  
ENROLLMENT FORECAST UPDATE  
2009-10 TO 2018-19**

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

**DECEMBER, 2008**

**Project Staff:  
Charles Rynerson  
Vivian Siu  
Danan Gu**



## CONTENTS

---

EXECUTIVE SUMMARY .....	1
Individual School Forecasts.....	3
INTRODUCTION .....	5
POPULATION AND HOUSING TRENDS, 1990 to 2008.....	7
Population and Migration by Age Group.....	8
Births and Fertility Rates .....	11
Housing Growth and Characteristics .....	13
TTSD Students Residing in New Housing .....	27
ENROLLMENT TRENDS.....	29
Private and Home School Enrollment and District “Capture Rate” .....	31
Inter-District Transfers.....	33
Hispanic Enrollment Growth .....	34
Neighboring Districts.....	36
Enrollment Trends at Individual Schools: Elementary Schools .....	37
Enrollment Trends at Individual Schools: Middle Schools .....	38
Enrollment Trends at Individual Schools: High Schools.....	38
ENROLLMENT FORECASTS.....	41
District-wide Long-range Forecast Methodology.....	41
Residential Development.....	42
Population Forecast.....	45
District-wide Enrollment Forecast.....	48
Individual School Forecasts.....	52
FORECAST ERROR AND UNCERTAINTY.....	55
APPENDIX: ENROLLMENT, CAPACITY, AND HOUSING DEVELOPMENT PROFILES FOR INDIVIDUAL SCHOOLS	

## TABLES AND CHARTS

---

Table 1. Historic and Forecast Enrollment, Tigard-Tualatin School District.....	2
Table 2. City and Region Population, 1990, 2000, and 2007.....	8
Table 3. Population by Age Group, Tigard-Tualatin School District, 1990 and 2000.....	9
Table 4. Annual Births, 1990 to 2007, Tigard-Tualatin School District.....	12
Table 5. Housing and Household Characteristics, 1990 and 2000.....	13
Table 6. Recent Single Family Subdivisions, TTSD, 2000 to 2008.....	15
Table 7. Recent Apt., Townhome, and Condo Developments, TTSD, 1999 to 2008.....	20
Table 8. Housing Units Authorized by Building Permits.....	23
Table 9. New Single Family Homes by Attendance Area.....	24
Table 10. New Multiple Family Homes by Attendance Area.....	26

## TABLES AND CHARTS (continued)

---

Table 11. Average Number of TTSD Students per New Housing Unit, Fall 2008.....	28
Table 12. Tigard-Tualatin S.D., Enrollment History, 1998-99 to 2008-09.....	30
Table 13. Inter-District Transfers.....	33
Table 14. Hispanic Enrollment History, Tigard-Tualatin School District.....	35
Table 15. Selected School Districts, Demographic and Enrollment Highlights.....	36
Table 16. Enrollment History for Individual Schools, 2003-04 to 2008-09.....	39
Table 17. Estimated and Forecast Births, Tigard-Tualatin School District.....	46
Table 18. Population by Age Group, Tigard-Tualatin School District, 1990 to 2020....	47
Table 19. Estimated and Forecast Capture Rates, Tigard-Tualatin School District.....	49
Table 20. Grade Progression Rates, Tigard-Tualatin S. D. History and Forecast.....	49
Table 21. TTSD, Enrollment Forecasts, 2009-10 to 2018-19.....	51
Table 22. Enrollment Forecasts for Individual Schools, 2009-10 to 2018-19.....	53
Table 23. Fall 2008 Enrollment Compared to Previous Forecasts by Grade Level.....	56
Table 24. Fall 2008 Enrollment Compared to Previous Forecasts by School.....	57
Chart 1. Population Change due to Migration, 1990 to 2000, TTSD by Age Group.....	10
Chart 2. 2000 Census Population by Single Year of Age, Tigard-Tualatin S.D.....	11
Chart 3. Age-Specific Fertility Rates, 1990 and 2000, TTSD & State of Oregon.....	12
Chart 4. Tigard-Tualatin S.D., Net Migration, 1990 to 2020.....	45
Chart 5. TTSD Kindergarten Enrollment and Birth Cohorts.....	48

## EXECUTIVE SUMMARY

---

The Tigard-Tualatin School District (TTSD) enrolled 12,595 students in Fall 2008, an increase of 135 students (1.1 percent) from Fall 2007. Growth was concentrated in elementary and middle grades, with increases of 99 students (1.7 percent) in grades K-5 and 36 students (1.3 percent) in grades 6-8. District-wide enrollment in high school grades 9-12 was unchanged from Fall 2007.

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 new housing development on TTSD enrollment, and forecasts of district-wide and individual school enrollments for the 2009-10 to 2018-19 school years.

Total K-12 enrollment in the TTSD has grown in 20 of the past 21 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 may be added in the West Bull Mountain area, where concept planning for areas added to the Urban Growth Boundary in 2002 is underway. Also, recent comprehensive plans envision development in the town centers of the Cities of Tigard and Tualatin 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, there may be little growth generated by new housing due to the severe housing related recession and regional job losses.

Overall K-12 enrollment is forecast to increase by 11 percent in the next 10 years. The growth of about 1,400 students is similar to the K-12 growth of the past 10 years, but the pattern of growth by grade level differs. High schools have led the District's growth in recent years, but are expected to grow very little over the next five years between 2008-09 and 2013-14. In this first five year increment, growth is concentrated at the elementary and middle school levels. During the last five years, 2013-14 to 2018-19, forecast growth is more balanced among the grade levels, with average annual growth rates at or near one percent for elementary, middle, and high school.

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 21 of this report.

	Actual			Forecast	
	1998-99	2003-04	2008-09	2013-14	2018-19
<b>District Total</b>	<b>11,305</b>	<b>11,810</b>	<b>12,595</b>	<b>13,312</b>	<b>13,993</b>
<i>5 year change</i>		<b>505</b> <b>4%</b>	<b>785</b> <b>7%</b>	<b>717</b> <b>6%</b>	<b>681</b> <b>5%</b>
<b>K-5</b>	5,251	5,299	5,771	6,172	6,492
<i>5 year change</i>		48 1%	472 9%	401 7%	320 5%
<b>6-8</b>	2,605	2,829	2,891	3,101	3,267
<i>5 year change</i>		224 9%	62 2%	210 7%	166 5%
<b>9-12</b>	3,449	3,682	3,933	4,039	4,234
<i>5 year change</i>		233 7%	251 7%	106 3%	195 5%

*Population Research Center, PSU. December 2008.*

### ***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 22 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 as well as the TTSD portion of the West Bull Mountain UGB expansion area for which long range planning is underway. 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 in the area. 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 all of their significant growth occurring after 2011-12.



## INTRODUCTION

---

For the third 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. Information about TTSD enrollment trends and local area population, housing, and economic trends has been updated, but much of the historic analysis from the previous reports has been retained. The major difference is that previous studies completed in Fall 2006 and 2007 included five year forecasts, while this report includes 10 year forecasts for the District and its schools. This is an update to the supplemental 10 year forecast prepared in Spring 2008, incorporating Fall 2008 enrollment. Other 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

---

<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.

forecasts. An appendix contains one page profiles for each school showing its enrollment history and forecasts and housing trends within its attendance area.

## POPULATION AND HOUSING TRENDS, 1990 to 2008

---

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.<sup>2</sup> 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 eight years of the current decade, the area served by TTSD has continued to grow, but at a slower rate. The two counties overall have also grown more slowly since 2000; Clackamas County has grown by an average annual rate of 1.3 percent between 2000 and 2007, compared with 2.0 percent in the 1990s, and Washington County's 1.9 percent average annual growth rate since 2000 is less than the 3.6 percent average annual growth it experienced in the 1990s. The 1990, 2000, and 2008 populations of the counties and each of the cities served by TTSD are shown in Table 2 on the next page. With the exception of King City, each of the District's cities has grown more slowly in the current decade than in the 1990s.

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, Washington County added about 22,000 jobs, or nearly

---

<sup>2</sup>A correction in the allocation of 2000 Census data within the District's boundary results in a slightly lower 2000 population than was reported previously. The 2000 population of 70,775 is 1,076 persons, or 1.5 percent less than in previous reports. Other 2000 figures such as housing stock and fertility rates also reflect the correction.

<sup>3</sup>"Covered Employment and Wages". Oregon Employment Department, OLMIS.

**Table 2**  
**City and Region Population, 1990, 2000, and 2008**

	1990	2000	2008	Avg. Annual Growth Rate	
				1990-2000	2000-2008
City of Durham	748	1,382	1,395	6.3%	0.1%
City of King City <sup>1</sup>	2,060	1,949	2,775	-0.6%	4.4%
City of Tigard <sup>2</sup>	29,435	41,223	47,150	3.4%	1.6%
City of Tualatin <sup>3</sup>	14,664	22,791	26,040	4.5%	1.6%
Tigard-Tualatin S.D.	51,653	70,775	N/A	3.2%	
Clackamas County	278,850	338,391	376,660	2.0%	1.3%
Washington County	311,554	445,342	519,925	3.6%	1.9%
Portland-Vancouver-Beaverton MSA <sup>4</sup>	1,523,741	1,927,881	2,191,785	2.4%	1.6%

1. King City's population growth includes the annexation of 288 residents between 2000 and 2008.

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 1,113 residents between 2000 and 2008.

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 2008.

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

Sources: U.S. Census Bureau, 1990 and 2000 censuses; Portland State University Population Research Center, Preliminary July 1, 2008 estimates.

10 percent. Employment growth slowed to about 4,000 jobs in 2007. The latest monthly job figures for 2008 indicate that the 2007 gain has been wiped out by the current recession, and the County is back to its 2006 employment level.<sup>4</sup>

### ***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

<sup>4</sup>“Current Employment Statistics”. Oregon Employment Department, OLMIS.

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**

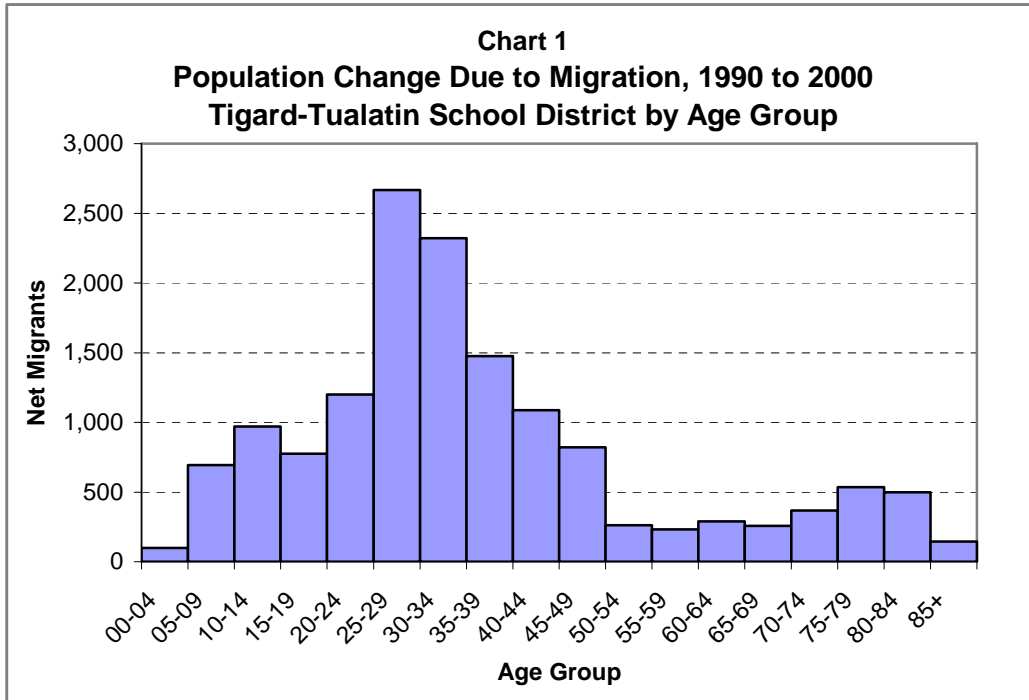
	1990	2000	1990 to 2000 Change	
			Number	Percent
Under Age 5	3,934	4,977	1,043	27%
Age 5 to 9	3,744	5,049	1,305	35%
Age 10 to 14	3,255	4,896	1,641	50%
Age 15 to 17	1,761	2,890	1,129	64%
Age 18 to 19	1,074	1,618	544	51%
Age 20 to 24	3,190	4,433	1,243	39%
Age 25 to 29	4,509	5,475	966	21%
Age 30 to 34	5,159	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

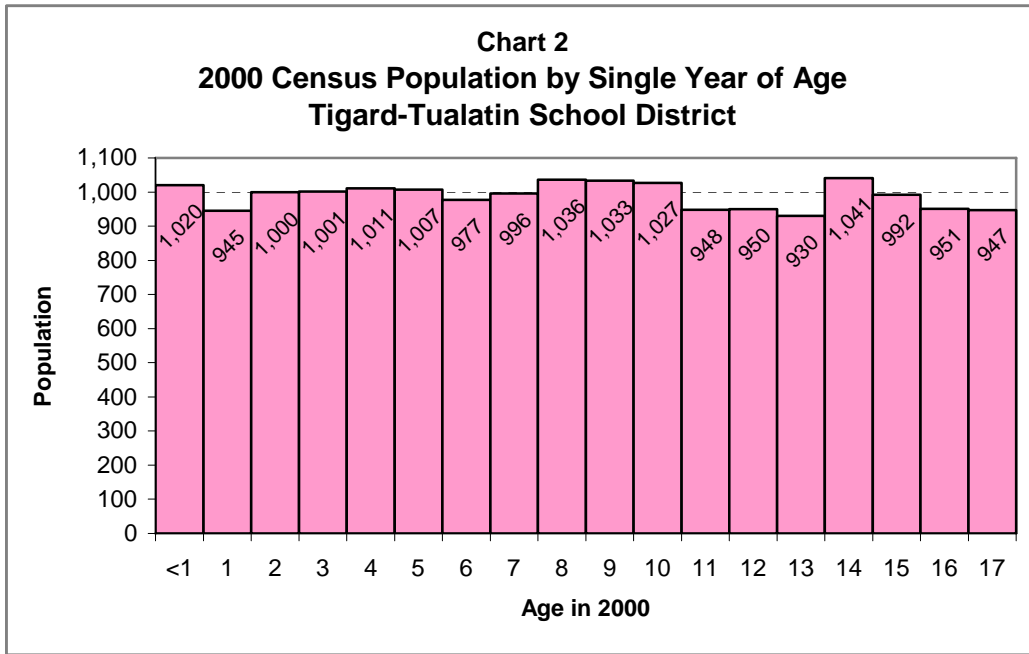


between 1990 and 2000. For example, among the cohort that was 15 to 19 in 1990 and 25 to 29 in 2000, about 2,600 more people moved into the TTSD than out of it in the 1990s. All age groups added population due to migration, with the largest gains among young adults ages 25 to 34. Although Table 3 showed 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 2008. 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.

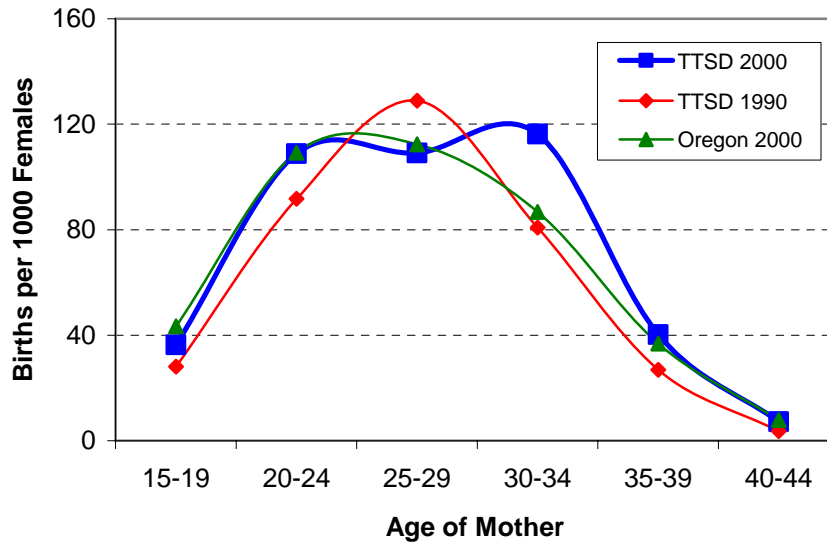
Fertility rates for the TTSD in 1990 and 2000 and for the State of Oregon in 2000 are shown in Chart 3. The rates were calculated for each age group by dividing the number of births in the calendar year by the female population counted in the census. For example, in 2000 there were 288 births to mothers 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 we have 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. In 2008 there has been very little activity. Because of the current decline in the housing market, several of the most recent developments listed in Tables 6 and 7 may be delayed, or may not be built as approved. In particular, the 110 unit Hidden Creek Condominiums in Table 7 on page 21 remains in the table because it gained approval, but the property is now bank owned and a future owner may need to go through the land use approval process again if they propose a different project. The next largest multi-family development that gained jurisdictional approval but has not yet been built, the 43 unit Longstaff Condominiums near Highway 217 and 95<sup>th</sup> Avenue, has been appealed to the Circuit Court.

**Table 6**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2008**

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>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>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

*table continued on next page*

**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2008**

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>932</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>						<b>355</b>	

*table continued on next page*

**Table 6 (Continued)**  
**Recent Single Family Subdivisions**  
**Tigard-Tualatin School District, 2000 to 2008**

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 2008**

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 2008**

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>
<b>Grand Total for 2000-2008:</b>						<b>3192</b>

1. Subdivisions are identified by current (2008-09) 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.

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 2008**

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>2002 Total:</b>								<b>0</b>
<b>2003</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>

*table continued on next page*

**Table 7 (Continued)**  
**Recent Apartment, Townhome, and Condominium Developments**  
**Tigard-Tualatin School District, 1999 to 2008**

Approval	Built	Attendance Areas <sup>1</sup>			Development	Type <sup>2</sup>	Jurisdiction <sup>3</sup>	Units
		Elementary	Middle	High				
<b>2004</b>	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
	2007	Templeton	Twality	Tigard	Canterbury Heights (formerly Canterbury Woods) Townhomes	Condo	Tigard	139
<b>2004 Total:</b>								<b>298</b>
<b>2005</b>	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
	pending	Metzger	Fowler	Tigard	Livingston Lane Townhomes	Condo	Tigard	14
<b>2005 Total:</b>								<b>65</b>
<b>2006</b>	2007	Metzger	Fowler	Tigard	Coral Commons	Condo	Tigard	14
	pending	Metzger	Fowler	Tigard	Longstaff Condominiums	Condo	Tigard	43
	pending	Metzger	Fowler	Tigard	Montage Townhomes	Condo	Tigard	33
	pending	Alberta Rider	Twality	Tualatin	Hidden Creek Condominiums (Lindquist Development)	Condo	King City	110
<b>2006 Total:</b>								<b>200</b>

*table continued on next page*

**Table 7 (Continued)**  
**Recent Apartment, Townhome, and Condominium Developments**  
**Tigard-Tualatin School District, 1999 to 2008**

Approval	Built	Attendance Areas <sup>1</sup>			Development	Type <sup>2</sup>	Jurisdiction <sup>3</sup>	Units
		Elementary	Middle	High				
<b>2007</b>	2008	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>41</b>
<b>2008</b>	U.C.	Durham	Twality	Tualatin	Bridgeport Apartments (Alexan at Bridgeport)	Apt. (mkt.)	Durham & Tualatin	<b>368</b>
<b>Grand Total for 1999-2008:</b>								<b>1861</b>

1. Developments are identified by current (2008-09) 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.

**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	51	0	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 (est.) <sup>3</sup>	142	0	1	0	13	0	53	0	25	0	50	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 2008 is estimated from Washington County January-August data and the cities' 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>.

Residential building permits within the TTSD authorized by each jurisdiction are tabulated in Table 8 on the previous page. In 2007 there were about 350 homes permitted within the TTSD, compared with at least 450 in each of the seven previous years. The jurisdictions are on track to issue permits for fewer than 150 homes in 2008.

Between 2000 and 2006, single family housing construction within the TTSD continued at a pace similar to the 1990s, with an average of about 470 units completed annually. Consistent with the residential building permit data, Table 9 shows that there were fewer new homes built in 2007. The table includes geographic detail about new homes by

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

Elementary Area <sup>1</sup>	Year Built								2000-07 Total
	2000	2001	2002	2003	2004	2005	2006	2007	
Alberta Rider	89	86	49	86	24	149	138	54	675
Bridgeport	29	15	4	38	56	8			150
Byrom	35	54	56	23	18	34	71	21	312
C.F. Tigard	75	40	41	102	51	2	32	18	361
Deer Creek	43	94	68	69	40	117	148	52	631
Durham	71	73	6	1	29	63	5	37	285
Metzger	38	31	32	20	25	5	23	51	225
Templeton	18	39	23	5	44	20	11	44	204
Tualatin	5	57	77	67	59	89	26	10	390
Woodward	121	27	30	140	24	8	4	21	375
<b>District</b>	<b>524</b>	<b>516</b>	<b>386</b>	<b>551</b>	<b>370</b>	<b>495</b>	<b>458</b>	<b>308</b>	<b>3608</b>
<b>Middle School Area<sup>1</sup></b>									
Fowler	234	98	103	262	100	15	59	90	961
Hazelbrook	69	126	137	138	136	135	99	33	873
Twality	221	292	146	151	134	345	300	185	1774
<b>District</b>	<b>524</b>	<b>516</b>	<b>386</b>	<b>551</b>	<b>370</b>	<b>495</b>	<b>458</b>	<b>308</b>	<b>3608</b>
<b>High School Area<sup>1</sup></b>									
Tigard	322	218	141	294	177	98	71	171	1492
Tualatin	202	298	245	257	193	397	387	137	2116
<b>District</b>	<b>524</b>	<b>516</b>	<b>386</b>	<b>551</b>	<b>370</b>	<b>495</b>	<b>458</b>	<b>308</b>	<b>3608</b>

1. Current (2008-09) attendance area.

Source: Metro Regional Land Information System, November 2008; 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. Attached SFRs identified as Multiple Family Developments in Table 10 are excluded from this table.

school attendance area. 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. We created shape files of the District's elementary, middle, and high school attendance areas and identified tax lots within each area in order to identify recently built single family homes by attendance area.

The tax assessors' 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 (2008-09) attendance areas and tabulated in Table 10. The table includes developments that have been completed as well as several developments that are under construction or planned to be completed by 2010. Developments that are not yet underway are not included in the table, because we can not count on them being completed any time soon.



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

Elementary Area <sup>1</sup>	Year Built											2000-10 Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 <sup>2</sup>	2010 <sup>2</sup>	
Alberta Rider				4								4
Bridgeport	15											15
Byrom												0
C.F. Tigard			6									6
Deer Creek			264									264
Durham				42		53			7		368	470
Metzger			29			32	19	65		40		185
Templeton			11			108		139				258
Tualatin	240	162										402
Woodward				63								63
<b>District</b>	<b>255</b>	<b>162</b>	<b>310</b>	<b>109</b>	<b>0</b>	<b>193</b>	<b>19</b>	<b>204</b>	<b>7</b>	<b>40</b>	<b>368</b>	<b>1667</b>
<b>Middle School Area<sup>1</sup></b>												
Fowler			35	63		32	19	65		40		254
Hazelbrook	255	162	264									681
Twality			11	46		161		139	7		368	732
<b>District</b>	<b>255</b>	<b>162</b>	<b>310</b>	<b>109</b>	<b>0</b>	<b>193</b>	<b>19</b>	<b>204</b>	<b>7</b>	<b>40</b>	<b>368</b>	<b>1667</b>
<b>High School Area<sup>1</sup></b>												
Tigard			46	105		193	19	204	7	40		614
Tualatin	255	162	264	4							368	1053
<b>District</b>	<b>255</b>	<b>162</b>	<b>310</b>	<b>109</b>	<b>0</b>	<b>193</b>	<b>19</b>	<b>204</b>	<b>7</b>	<b>40</b>	<b>368</b>	<b>1667</b>

1. Current (2008-09) attendance area.

2. Expected completion of developments currently underway.

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

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

If the number of homes in a proposed subdivision is known, how many children can we expect to live in the 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.

We calculated the Fall 2008 number of students per unit by using a geographic information system (GIS), combining tax lots from Metro's RLIS system (polygons) with TTSD student residences (points) and the school district and school attendance area boundaries. Points for student residences were created by matching the student addresses to the tax lot addresses. 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.

In Table 9 earlier in this section we identified 3,608 single family homes built in the seven years from 2000 to 2007. We accounted for all of the TTSD students living in these homes as of Fall 2008. There were an estimated 1,845 students in these single family homes, or 0.51 students per unit (51 students for every 100 homes). The rates are similar to those observed in other suburban Portland area districts.<sup>5</sup>

New single family housing has been built throughout the District since 2000. Every elementary attendance area had at least 150 new homes built between 2000 and 2007. But the average number of students in new single family homes differs between

---

<sup>5</sup> *Hillsboro School District, Population and Enrollment Forecasts, 2006-07 to 2015-16*, Population Research Center, Portland State University, April, 2006. The estimate for Fall 2005 HSD students per unit was 0.59 for detached single family homes.

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. In Table 11, we present estimates of student generation for new single family development by individual school attendance areas.

**Table 11**  
**Average Number of TTSD Students per Unit, Fall 2008**  
**Residing in Single Family Homes Built 2000 to 2007**

<b>Elementary Area</b>	<b>Number of Grade K-5 Students per unit</b>
Alberta Rider	0.34
Bridgeport	0.24
Byrom	0.43
C.F. Tigard	0.29
Deer Creek	0.22
Durham	0.22
Metzger	0.09
Templeton	0.27
Tualatin	0.28
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	0.15
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>0.12</b>
<hr/>	
<b>District total, grades K-12</b>	<b>0.51</b>

*Source: TTSD Fall 2008 students by address matched to Metro Regional Land Information System (November 2008) tax lot shape files by Population Research Center, PSU.*

## ENROLLMENT TRENDS

---

The Tigard-Tualatin School District (TTSD) enrolled 12,595 students in Fall 2008, an increase of 135 students (1.1 percent) from Fall 2007. Growth was concentrated in elementary and middle grades, with increases of 99 students (1.7 percent) in grades K-5 and 36 students (1.3 percent) in grades 6-8. District-wide enrollment in high school grades 9-12 was unchanged from Fall 2007.

Table 12 on the next page summarizes the enrollment history for the District by grade level annually for the most recent 10 year period, from 1998-99 to 2008-09. In most years shown in the table, the District added between 100 and 200 students, experiencing growth rates of one to two percent. Cumulative growth for the entire period was about 1,300 students, or 11 percent.

Like many Oregon districts, the TTSD's biggest growth rates over the past 10 years have been in high school, reflecting the "echo" of the baby boom that caused births to soar between the early 1980s and early 1990s. Enrollment in grades 9-12 is now 14 percent higher than in 1998-99.

TTSD has also experienced significant growth of 10 percent at the elementary level and 11 percent at the middle school level in the past 10 years. Almost without exception, Oregon districts that have added enrollment below the high school level in recent years have had either lots of new housing, large increases in Latino enrollment, or both. Since the end of the early 1980s recession, the District has consistently added between 300 and 600 single family homes each year. We estimate that in Fall 2007 about 1,845 TTSD students resided in new single family homes built between 2000 and 2007, exceeding the District's overall growth. The number of Latino students enrolled in TTSD schools has grown by about 1,600 in the past 10 years. Together, the housing growth and the Latino enrollment growth have offset the aging of the overall population, a major demographic phenomenon that might have caused enrollment to decline.

**Table 12  
Tigard-Tualatin School District, Enrollment History, 1998-99 to 2008-09**

<b>Grade</b>	<b>1998-99</b>	<b>1999-00</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
<b>K</b>	785	806	813	835	831	779	807	893	906	860	924
<b>1</b>	893	857	869	901	909	906	921	900	990	984	919
<b>2</b>	926	882	855	874	937	912	887	944	905	1,017	1,010
<b>3</b>	868	925	894	889	878	926	920	897	964	903	1,009
<b>4</b>	871	890	978	902	906	877	913	940	931	963	919
<b>5</b>	908	867	904	993	919	899	914	900	975	945	990
<b>6</b>	857	885	885	918	1,008	924	926	913	910	965	974
<b>7</b>	862	861	916	899	912	990	945	950	929	937	981
<b>8</b>	886	877	875	918	914	915	1,003	969	957	953	936
<b>9</b>	910	928	933	928	991	952	971	1,066	992	1,015	976
<b>10</b>	908	898	928	948	923	977	951	952	1,033	1,015	1,006
<b>11</b>	908	865	891	933	963	891	942	932	910	1,007	973
<b>12</b>	709	790	764	827	822	844	890	874	898	890	976
<b>US*</b>	14	0	0	0	0	18	20	3	7	6	2
<b>Total</b>	<b>11,305</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>
<i>Annual change</i>		26 0.2%	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%
<b>K-5</b>	5,251	5,227	5,313	5,394	5,380	5,299	5,362	5,474	5,675	5,672	5,771
<b>6-8</b>	2,605	2,623	2,676	2,735	2,834	2,829	2,874	2,832	2,796	2,855	2,891
<b>9-12</b>	3,449	3,481	3,516	3,636	3,699	3,682	3,774	3,827	3,836	3,933	3,933

	<b>5 Year Change: 1998-99 to 2003-04</b>		<b>5 Year Change: 2003-04 to 2008-09</b>		<b>10 Year Change: 1998-99 to 2008-09</b>	
	<b>Change</b>	<b>Pct.</b>	<b>Change</b>	<b>Pct.</b>	<b>Change</b>	<b>Pct.</b>
K-5	48	1%	472	9%	520	10%
6-8	224	9%	62	2%	286	11%
9-12	233	7%	251	7%	484	14%
<b>Total</b>	<b>505</b>	<b>4%</b>	<b>785</b>	<b>7%</b>	<b>1,290</b>	<b>11%</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. So 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 of data for private school enrollment of TTSD residents is the 2000 Census. Annual updates will be available from the Census Bureau’s American Community Survey (ACS), but the sample size is not yet large enough to provide reliable estimates for the District. In 2000, about 1,267 of the K-12 students living in the District were reported as private school students, a 10 percent share of all K-12 students. 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.

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 2008 it enrolled 131 students in grades K-5. About 80 of MITCH's students are TTSD residents, representing just over one 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 (NWRESD), though the statistics kept by the NRESD 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 2007-08 there were 233 TTSD residents registered as home schooled.<sup>6</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 five year olds not yet attending school, since school is not compulsory until age seven.

---

<sup>6</sup>Northwest Regional Education Service District, *2007-08 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 74 students is less than last year, primarily due to fewer transfers into TTSD at the elementary level. The 55 K-5 students transferring into TTSD in 2008-09 is closer to historic averages than the unusually high number of 100 K-5 students in 2007-08. Table 13 presents the inter-district transfer flow by school level for each year since 2003-04.

<b>October 2003</b>	<b>K-5</b>	<b>6-8</b>	<b>9-12</b>	<b>Total</b>
Into Tigard-Tualatin	35	12	56	103
Out of Tigard-Tualatin	41	12	35	88
<b>Net</b>	<b>-6</b>	<b>0</b>	<b>21</b>	<b>15</b>
<b>October 2004</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>

*Source: Tigard-Tualatin School District*



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

In 2008-09, the District's Hispanic enrollment grew by 115 students (five percent), modest growth compared with gains of over 200 Hispanic students in many recent years. Elementary schools only added 26 Hispanic students (two percent). Over the past five years, Hispanic enrollment has increased by 840 students (51 percent), while the number of non-Hispanic students has decreased by 55 students (one 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 20 percent of the District K-12 total and 22 percent of the K-5 (elementary) total. Table 14 reports Hispanic enrollment annually and by school level from 2003-04 to 2008-09.

**Table 14**  
**Hispanic Enrollment History, Tigard-Tualatin School District**

School	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Change 2003-04 to 2008-09	
							Number	Percent
<b>Hispanic K-5</b>	<b>932</b>	<b>1,039</b>	<b>1,118</b>	<b>1,218</b>	<b>1,265</b>	<b>1,291</b>	<b>359</b>	<b>39%</b>
<i>Share of District Total</i>	<i>18%</i>	<i>19%</i>	<i>20%</i>	<i>21%</i>	<i>22%</i>	<i>22%</i>		
<b>Hispanic 6-8</b>	<b>349</b>	<b>416</b>	<b>359</b>	<b>441</b>	<b>514</b>	<b>582</b>	<b>233</b>	<b>67%</b>
<i>Share of District Total</i>	<i>12%</i>	<i>14%</i>	<i>13%</i>	<i>16%</i>	<i>18%</i>	<i>20%</i>		
<b>Hispanic 9-12</b>	<b>352</b>	<b>400</b>	<b>457</b>	<b>492</b>	<b>579</b>	<b>600</b>	<b>248</b>	<b>70%</b>
<i>Share of District Total</i>	<i>10%</i>	<i>11%</i>	<i>12%</i>	<i>13%</i>	<i>15%</i>	<i>15%</i>		
<b>Hispanic Total</b>	<b>1,633</b>	<b>1,855</b>	<b>1,934</b>	<b>2,151</b>	<b>2,358</b>	<b>2,473</b>	<b>840</b>	<b>51%</b>
<i>Share of District Total</i>	<i>14%</i>	<i>15%</i>	<i>16%</i>	<i>17%</i>	<i>19%</i>	<i>20%</i>		
<b>Non-Hispanic Total</b>	<b>10,177</b>	<b>10,155</b>	<b>10,199</b>	<b>10,156</b>	<b>10,102</b>	<b>10,122</b>	<b>-55</b>	<b>-1%</b>
<b>District Total</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>785</b>	<b>7%</b>

Source: Tigard-Tualatin School District

***Neighboring Districts***

Table 15 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 15  
Selected School Districts, Portland Metro West  
Demographic and Enrollment Highlights, 1990 to 2007**

	<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 2007-08</b>	8%	51%	11%	10%
Latino enrollment, <b>2007-08</b>	19%	7%	20%	29%
Grades 9-12 enrollment, <b>2007-08</b>	32%	26%	31%	29%
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 2007-08 and 2008-09 three of the District's elementary schools had enrollment increases of 30 or more students. Alberta Rider added 31 students, Durham gained 30 students, and Templeton gained 37 students.

Templeton's large gain came from diverse parts of its attendance areas, including the single family homes north of McDonald Street and a couple of large apartment complexes. Enrollment shifts due to turnover in rental housing can have a sudden impact on schools depending on the composition of families moving in and out, but are difficult to claim as a long term source of growth or decline. For example, an apartment complex that contributed a net gain of 13 students to Templeton also lost about the same number of high school students. Several recent subdivisions have been developed in the Templeton area, and part of the enrollment growth comes from the new homes.

Durham continued to gain students from the phased in Metzger to Durham boundary change. 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. About 37 new homes were built in the Durham area in 2007, mostly in the Churchill Woods and Gage Forest subdivisions, but the new homes are not yet a source of enrollment growth for the school.

The TTSD elementary school with the largest enrollment loss between 2007-08 and 2008-09 was Deer Creek, which lost 28 students. Growth was forecast at Deer Creek, partly due to the new subdivisions in King City west of 131<sup>st</sup> Avenue. Construction slowed, and many of the homes that were recently completed either remain on the market or are occupied by households without children. As a result, there was no enrollment gain at Deer Creek in 2008-09 from these subdivisions. Still, that does not explain the loss. We looked closely at the enrollment change at Deer Creek, and could not find a single explanation for the loss. When we split the attendance area into smaller pieces, we discovered tiny enrollment losses of three to ten students from each of several areas, including the existing single family subdivisions north of Beef Bend Road, apartments north of Beef Bend Road, the Mountain View Mobile Estates, and the apartments and

single family homes in Tualatin near Hazelbrook Middle School. None of the changes were significant enough to account for the school's entire enrollment change, but they had a cumulative impact.

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

Enrollment has fallen slightly at Hazelbrook and Fowler since 2004, when a portion of the former Twality boundary was assigned to Hazelbrook. 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. Most of this year's growth was expected, due to housing growth and a large 6<sup>th</sup> grade class entering from Twality's feeders. Twality also gained from the overall resident growth observed in the Templeton area.

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

Both high schools had stable enrollment for a few years until the big growth of 91 students at Tualatin High in 2007-08. Both high schools had roughly the same enrollment in Fall 2008 as in Fall 2007.

Total enrollment at each of the District's schools and recent enrollment trends by school are shown in Table 16 on the next page.

**Table 16  
Enrollment History for Individual Schools, 2003-04 to 2008-09**

School	Historic Enrollment						3 year change* 2005-06 to 2008-09	
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Number	Percent
Alberta Rider			424	535	540	571	147	34.7%
Bridgeport	528	493	500	521	534	550	50	10.0%
Byrom	688	657	661	634	659	654	-7	-1.1%
C.F. Tigard	590	636	605	614	598	587	-18	-3.0%
Deer Creek	646	651	563	606	609	581	18	3.2%
Durham	557	563	532	525	512	542	10	1.9%
Metzger	575	583	578	609	589	590	12	2.1%
Templeton	526	517	537	557	551	588	51	9.5%
Tualatin	458	526	537	539	560	580	43	8.0%
Woodward	731	736	537	531	520	528	-9	-1.7%
<b>Elementary Totals</b>	<b>5,299</b>	<b>5,362</b>	<b>5,474</b>	<b>5,671</b>	<b>5,672</b>	<b>5,771</b>	<b>297</b>	<b>5.4%</b>
Fowler M.S.	875	929	935	910	898	876	-59	-6.3%
Hazelbrook M.S.	902	1,018	1,010	1,002	1,002	983	-27	-2.7%
Twality M.S.	1,052	927	887	879	951	1,028	141	15.9%
<b>Middle School Totals</b>	<b>2,829</b>	<b>2,874</b>	<b>2,832</b>	<b>2,791</b>	<b>2,851</b>	<b>2,887</b>	<b>55</b>	<b>1.9%</b>
Tigard H.S.	1,913	1,960	2,005	2,000	2,002	2,003	-2	-0.1%
Tualatin H.S.	1,769	1,782	1,791	1,772	1,863	1,864	73	4.1%
Durham Center		32	31	73	72	70	39	125.8%
<b>High School Totals</b>	<b>3,682</b>	<b>3,774</b>	<b>3,827</b>	<b>3,845</b>	<b>3,937</b>	<b>3,937</b>	<b>110</b>	<b>2.9%</b>
<b>District Totals</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>462</b>	<b>3.8%</b>

*\*Note: Enrollment change is shown for a three 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

---

### *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 2008” 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 2009-10.

A bigger concern in the long run is the availability of residential land for new housing construction. Before we prepared the population forecast for the previous forecast completed in Spring 2008, 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, according to the *Tigard 2007 Report* that was part of the City's comprehensive plan update, at the end of June 2006, less than 10 percent of land within the City was considered buildable. Large lots available for residential development were scarce with only 49 lots greater than two acres. "Based on the June 2006 buildable lands data, if the City developed its remaining residential lands, an additional 2,902 to 3,482 units could be built."<sup>7</sup> These estimates include a 20% allowance for additional projects that occur on land not included on the buildable lands inventory (BLI).

We conducted our own analysis using GIS shape files 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

---

<sup>7</sup>*Tigard 2007 Report*, February 2007. Available at [http://www.ci.tigard.or.us/city\\_hall/departments/cd/long\\_range\\_planning/comprehensive\\_plan.asp](http://www.ci.tigard.or.us/city_hall/departments/cd/long_range_planning/comprehensive_plan.asp)

involvement. Their timeline calls for adopting comprehensive plan amendments as early as Summer 2009. Given the progress being made in planning, 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>8</sup>

Given the 2005 population estimate of 25,465 and subsequent growth to 26,040 in 2008, the expected population at build-out allows the City to add only 2,000 more residents.<sup>9</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>10</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.

---

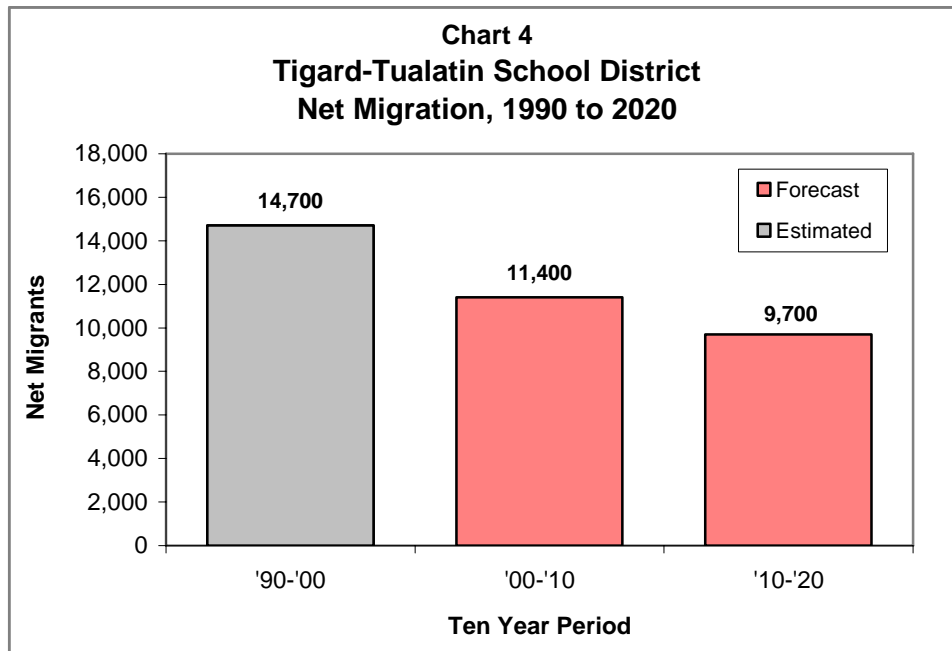
<sup>8</sup>*Tualatin Community Profile and Trends Report*, July 2006. <http://www.tualatintomorrow.org/>

<sup>9</sup>*2008 Preliminary Population Estimates*, Population Research Center, Portland State University. <http://www.pdx.edu/prc>.

<sup>10</sup>*Community Vision and Strategic Action Plan*, June 2007. <http://www.tualatintomorrow.org/>

### *Population Forecast*

Since we are nearing the end of the 2000 to 2010 forecast period, 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 even lower in the 2010 to 2020 period. Chart 4 shows our 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 17 shows historic births from 2000 to 2007 as well as forecasts from 2008 until 2013, the period that will have an impact on the enrollment forecasts presented in this study.

<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)	1,226
2009 (forecast)	1,245
2010 (forecast)	1,264
2011 (forecast)	1,277
2012 (forecast)	1,290
2013 (forecast)	1,304

*Source: 1990-2007 birth data from Oregon Center for Health Statistics allocated to TTSD boundary by PSU-PRC. 2008-2013 forecasts, PSU-PRC.*

The population forecast is basically unchanged from the forecast that we prepared in Spring 2008, except that migration rates were adjusted for some age groups. Our forecast for 2020 population in the TTSD is 102,450, an increase of 31,675 persons from the 2000 Census (1.9 percent average annual growth). The 2000 to 2020 growth rate of 45 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.

The district-wide population forecast by age group is presented in Table 18. School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The

4,182 person growth in school-age population amounts to 33 percent in the 20 year period, or 1.4 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 18**  
**Population by Age Group**  
**Tigard-Tualatin School District, 1990 to 2020**

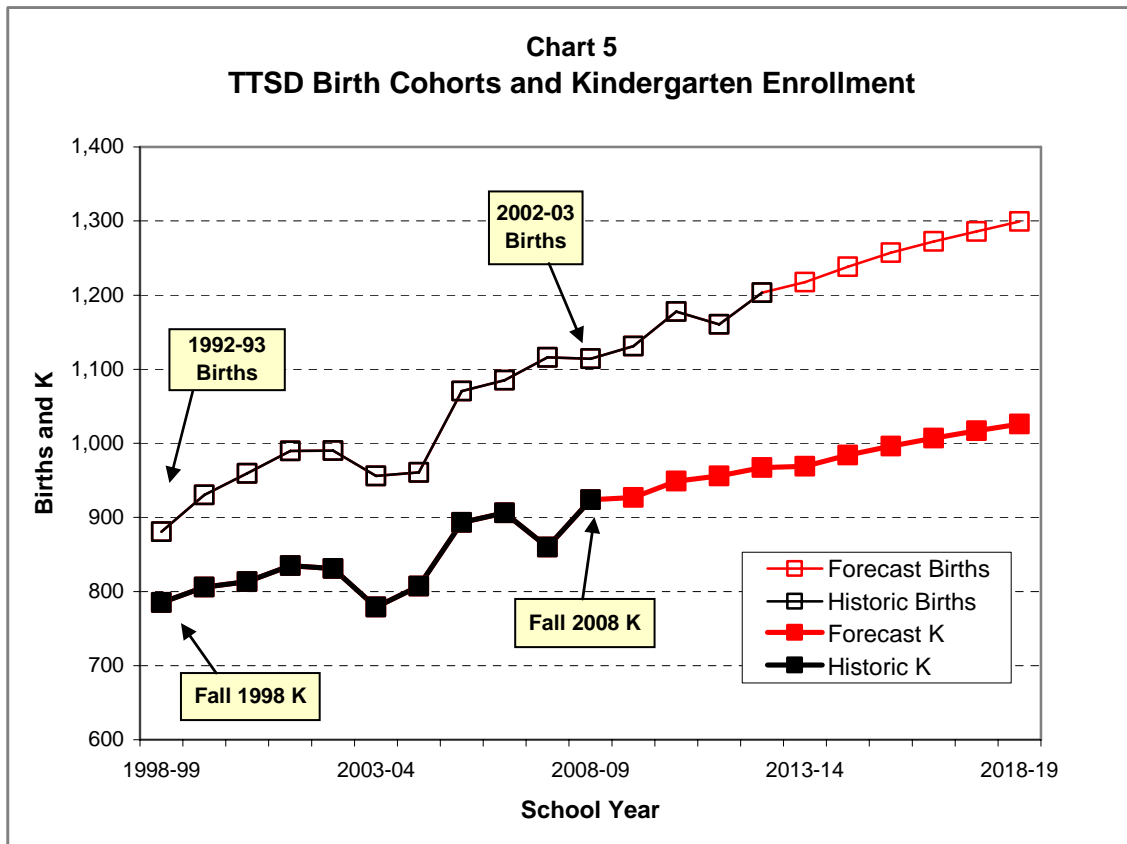
	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	3,934	4,977	6,107	6,738	1,761	35%
Age 5 to 9	3,744	5,049	5,789	6,624	1,575	31%
Age 10 to 14	3,255	4,896	5,469	6,557	1,661	34%
Age 15 to 17	1,761	2,890	3,317	3,836	946	33%
Age 18 to 19	1,074	1,618	2,050	2,263	645	40%
Age 20 to 24	3,190	4,433	5,211	5,418	985	22%
Age 25 to 29	4,509	5,475	6,130	6,661	1,186	22%
Age 30 to 34	5,159	5,477	6,217	6,935	1,458	27%
Age 35 to 39	5,018	5,916	7,150	7,612	1,696	29%
Age 40 to 44	4,404	6,143	7,018	7,551	1,408	23%
Age 45 to 49	3,045	5,723	6,507	7,738	2,015	35%
Age 50 to 54	2,046	4,532	6,180	6,969	2,437	54%
Age 55 to 59	1,655	3,137	5,728	6,412	3,275	104%
Age 60 to 64	1,710	2,183	4,581	6,079	3,896	178%
Age 65 to 69	1,753	1,722	3,069	5,433	3,711	216%
Age 70 to 74	1,709	1,791	2,089	4,067	2,276	127%
Age 75 to 79	1,614	1,856	1,606	2,519	663	36%
Age 80 to 84	1,131	1,590	1,458	1,462	-128	-8%
Age 85 and over	942	1,367	1,671	1,576	209	15%
<b>Total Population</b>	<b>51,653</b>	<b>70,775</b>	<b>87,348</b>	<b>102,450</b>	<b>31,675</b>	<b>45%</b>
Total age 5 to 17	8,760	12,835	14,575	17,017	4,182	33%
<i>share age 5 to 17</i>	<i>17.0%</i>	<i>18.1%</i>	<i>16.7%</i>	<i>16.6%</i>		

	1990-2000	2000-2010	2010-2020
<b>Population Change</b>	<b>19,122</b>	<b>16,573</b>	<b>15,102</b>
<i>Percent</i>	<i>37%</i>	<i>23%</i>	<i>17%</i>
<i>Average Annual</i>	<i>3.2%</i>	<i>2.1%</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 was an exception, because kindergarten enrollment was lower than in Fall 2006 in spite of an increase in births between 2000-01 and 2001-02. 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 19 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 19**  
**Estimated and Forecast Capture Rates\***  
**Tigard-Tualatin School District**

School Year	Kindergarten	Grade 1
1989-1990	0.83	0.88
1999-2000	0.82	0.87
2009-2010 (forecast)	0.79	0.85
2018-2019 (forecast)	0.78	0.84

*\*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 20 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 20**  
**Grade Progression Rates<sup>1</sup>**  
**Tigard-Tualatin S.D. History and Forecast**

Grade Transition	Historic Average: 1998-99 to 2008-09	Baseline (without the influence of migration)	Forecast Average: 2008-09 to 2018-19
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	1.02	1.00	1.01
4-5	1.01	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	1.04	1.05
9-10	0.99	0.98	0.99
10-11	0.98	0.96	0.97
11-12	0.93	0.97	0.96

*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.

Table 21 contains grade level forecasts for the Tigard-Tualatin School District for each year from 2009-10 to 2018-19. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12). Overall K-12 enrollment is forecast to increase by 11 percent in the next 10 years. The growth of 1,398 students is similar to the K-12 growth of the past 10 years, but the pattern of growth by grade level differs. High schools have led the District's growth in recent years, but are expected to grow very little over the next five years between 2008-09 and 2013-14. In this first five year increment, growth is concentrated at the elementary and middle school levels. During the last five years, 2013-14 to 2018-19, forecast growth is more balanced among the grade levels, with average annual growth rates at or near one percent for elementary, middle, and high school.

**Table 21  
Tigard-Tualatin School District, Enrollment Forecasts, 2009-10 to 2018-19**

Grade	Actual		Forecast								
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
<b>K</b>	924	927	949	956	967	969	984	996	1,007	1,017	1,026
<b>1</b>	919	987	999	1,019	1,038	1,048	1,050	1,065	1,077	1,090	1,099
<b>2</b>	1,010	930	998	1,011	1,031	1,049	1,058	1,059	1,074	1,086	1,098
<b>3</b>	1,009	1,022	941	1,010	1,023	1,042	1,059	1,067	1,068	1,083	1,094
<b>4</b>	919	1,020	1,033	951	1,021	1,033	1,051	1,068	1,076	1,077	1,091
<b>5</b>	990	929	1,031	1,044	961	1,031	1,042	1,059	1,076	1,084	1,084
<b>6</b>	974	1,000	939	1,042	1,055	970	1,040	1,050	1,067	1,084	1,091
<b>7</b>	981	985	1,012	950	1,054	1,066	979	1,049	1,059	1,076	1,092
<b>8</b>	936	992	996	1,023	961	1,065	1,076	987	1,058	1,068	1,084
<b>9</b>	976	983	1,042	1,046	1,075	1,009	1,117	1,127	1,034	1,109	1,118
<b>10</b>	1,006	966	973	1,031	1,035	1,063	997	1,103	1,113	1,021	1,094
<b>11</b>	973	975	937	943	1,000	1,003	1,029	964	1,067	1,076	986
<b>12</b>	976	936	938	902	908	962	965	989	927	1,026	1,034
<b>US*</b>	2	2	2	2	2	2	2	2	2	2	2
<b>Total</b>	<b>12,595</b>	<b>12,654</b>	<b>12,790</b>	<b>12,930</b>	<b>13,131</b>	<b>13,312</b>	<b>13,449</b>	<b>13,585</b>	<b>13,705</b>	<b>13,899</b>	<b>13,993</b>
<i>Annual change</i>		59 0.5%	136 1.1%	140 1.1%	201 1.6%	181 1.4%	137 1.0%	136 1.0%	120 0.9%	194 1.4%	94 0.7%
<b>K-5</b>	5,771	5,815	5,951	5,991	6,041	6,172	6,244	6,314	6,378	6,437	6,492
<b>6-8</b>	2,891	2,977	2,947	3,015	3,070	3,101	3,095	3,086	3,184	3,228	3,267
<b>9-12</b>	3,933	3,862	3,892	3,924	4,020	4,039	4,110	4,185	4,143	4,234	4,234

	5 Year Growth: 2008-09 to 2013-14		5 Year Growth: 2013-14 to 2018-19		10 Year Growth: 2008-09 to 2018-19	
	Growth	Pct.	Growth	Pct.	Growth	Pct.
K-5	401	7%	320	5%	721	12%
6-8	210	7%	166	5%	376	13%
9-12	106	3%	195	5%	301	8%
<b>Total</b>	<b>717</b>	<b>6%</b>	<b>681</b>	<b>5%</b>	<b>1,398</b>	<b>11%</b>

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

Population Research Center, Portland State University, December 2008

### ***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 all of their significant growth occurring after 2011-12.

Table 22 on the next page presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

**Table 22**  
**Enrollment Forecasts for Individual Schools, 2009-10 to 2018-19**

School	Actual 2008-09	Forecast										Change 2008-09- 2018-19
		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Alberta Rider	571	607	629	648	639	673	697	710	730	743	753	182
Bridgeport	550	539	578	585	584	596	595	603	595	595	597	47
Byrom	654	663	661	635	632	627	626	608	626	629	635	-19
C.F. Tigard	587	566	574	562	551	544	537	537	540	549	561	-26
Deer Creek	581	573	568	565	571	594	601	613	628	640	646	65
Durham	542	549	554	571	578	574	581	590	593	596	599	57
Metzger	590	582	608	619	639	648	664	685	678	675	674	84
Templeton	588	608	623	625	629	646	648	670	673	681	689	101
Tualatin	580	590	607	620	643	660	670	667	669	670	672	92
Woodward	528	538	549	561	575	610	625	631	646	659	666	138
<b>Elementary Totals</b>	<b>5,771</b>	<b>5,815</b>	<b>5,951</b>	<b>5,991</b>	<b>6,041</b>	<b>6,172</b>	<b>6,244</b>	<b>6,314</b>	<b>6,378</b>	<b>6,437</b>	<b>6,492</b>	<b>721</b>
Fowler M.S.	876	891	858	877	859	859	854	858	901	917	930	54
Hazelbrook M.S.	983	1,016	987	1,024	1,010	1,048	1,041	1,066	1,080	1,083	1,072	89
Twality M.S.	1,028	1,066	1,098	1,110	1,197	1,190	1,196	1,158	1,199	1,224	1,261	233
<b>Middle School Totals</b>	<b>2,887</b>	<b>2,973</b>	<b>2,943</b>	<b>3,011</b>	<b>3,066</b>	<b>3,097</b>	<b>3,091</b>	<b>3,082</b>	<b>3,180</b>	<b>3,224</b>	<b>3,263</b>	<b>376</b>
Tigard H.S.	2,003	1,959	1,972	1,993	2,021	2,037	2,054	2,098	2,075	2,106	2,102	99
Tualatin H.S.	1,864	1,837	1,854	1,865	1,933	1,936	1,990	2,021	2,002	2,062	2,066	202
Durham Center (7 <sup>th</sup> -12 <sup>th</sup> )	70	70	70	70	70	70	70	70	70	70	70	0
<b>High School Totals</b>	<b>3,937</b>	<b>3,866</b>	<b>3,896</b>	<b>3,928</b>	<b>4,024</b>	<b>4,043</b>	<b>4,114</b>	<b>4,189</b>	<b>4,147</b>	<b>4,238</b>	<b>4,238</b>	<b>301</b>
<b>District Totals</b>	<b>12,595</b>	<b>12,654</b>	<b>12,790</b>	<b>12,930</b>	<b>13,131</b>	<b>13,312</b>	<b>13,449</b>	<b>13,585</b>	<b>13,705</b>	<b>13,899</b>	<b>13,993</b>	<b>1,398</b>

*Population Research Center, Portland State University, December 2008*



## **FORECAST ERROR AND UNCERTAINTY**

---

In these forecasts, district-wide elementary enrollments are expected to grow by over 700 students in the 10 year forecast period, more than in the most recent 10 years. District middle schools are expected to add nearly 400 students in the next 10 years, and high schools are 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 23 on the next page, we compare the actual TTSD enrollment by grade level in Fall 2008 with the 2008-09 forecasts that were prepared one year earlier, as well as those prepared two and three years earlier. Similarly, Table 24 compares enrollment forecasts for individual schools. Whether the forecasts can be judged to be accurate or not likely depends on which numbers are most important to the user. For example, total K-12 enrollment was only seven students different from what was forecast last year — an error of less than one tenth of one percent. However, three elementary schools and one high school had forecasts more than 30 students different from actual enrollment. 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 23**  
**Fall 2008 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	924	897	-27	-2.9%	932	8	0.9%	872	-52	-5.6%
1	919	946	27	2.9%	1023	104	11.3%	959	40	4.4%
2	1010	992	-18	-1.8%	1009	-1	-0.1%	977	-33	-3.3%
3	1009	1023	14	1.4%	1006	-3	-0.3%	1007	-2	-0.2%
4	919	911	-8	-0.9%	929	10	1.1%	924	5	0.5%
5	990	977	-13	-1.3%	993	3	0.3%	965	-25	-2.5%
6	974	943	-31	-3.2%	955	-19	-2.0%	923	-51	-5.2%
7	981	980	-1	-0.1%	995	14	1.4%	970	-11	-1.1%
8	936	951	15	1.6%	927	-9	-1.0%	944	8	0.9%
9	976	1001	25	2.6%	994	18	1.8%	1004	28	2.9%
10	1006	1006	0	0.0%	994	-12	-1.2%	1015	9	0.9%
11	973	983	10	1.0%	952	-21	-2.2%	989	16	1.6%
12	976	972	-4	-0.4%	927	-49	-5.0%	931	-45	-4.6%
US <sup>4</sup>	2	6	4		7	5		3	1	
<b>Total</b>	<b>12,595</b>	<b>12,588</b>	<b>-7</b>	<b>-0.1%</b>	<b>12,643</b>	<b>48</b>	<b>0.4%</b>	<b>12,483</b>	<b>-112</b>	<b>-0.9%</b>
<b>MAPE<sup>5</sup></b>				<b>1.5%</b>			<b>2.2%</b>			<b>2.6%</b>

1. Forecast for 2008-09 by PSU-PRC, baseline 2007-08 enrollment. December 2007.

2. Forecast for 2008-09 by PSU-PRC, baseline 2006-07 enrollment. December 2006.

3. Forecast for 2008-09 by Dr. Judith A. Barmack, baseline 2005-06 enrollment. January 2006.

4. Ungraded secondary enrollment

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

**Table 24**  
**Fall 2008 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	571	549	-22	-3.9%	608	37	6.5%	499	-72	-12.6%
Bridgeport	550	535	-15	-2.7%	512	-38	-6.9%	472	-78	-14.2%
Byrom	654	661	7	1.1%	642	-12	-1.8%	645	-9	-1.4%
C. F. Tigard	587	610	23	3.9%	613	26	4.4%	646	59	10.1%
Deer Creek	581	630	49	8.4%	702	121	20.8%	658	77	13.3%
Durham	542	501	-41	-7.6%	510	-32	-5.9%	515	-27	-5.0%
Metzger	590	596	6	1.0%	622	32	5.4%	605	15	2.5%
Templeton	588	557	-31	-5.3%	571	-17	-2.9%	540	-48	-8.2%
Tualatin Elem.	580	581	1	0.2%	556	-24	-4.1%	570	-10	-1.7%
Woodward	528	526	-2	-0.4%	556	28	5.3%	554	26	4.9%
<b>Elementaries</b>	<b>5,771</b>	<b>5,746</b>	<b>-25</b>	<b>-0.4%</b>	<b>5,892</b>	<b>121</b>	<b>2.1%</b>	<b>5,704</b>	<b>-67</b>	<b>-1.2%</b>
Fowler	876	875	-1	-0.1%	903	27	3.1%	848	-28	-3.2%
Hazelbrook	983	989	6	0.6%	1,002	19	1.9%	1,037	54	5.5%
Twality	1,028	1,006	-22	-2.1%	972	-56	-5.4%	952	-76	-7.4%
<b>Middle Schools</b>	<b>2,887</b>	<b>2,870</b>	<b>-17</b>	<b>-0.6%</b>	<b>2,877</b>	<b>-10</b>	<b>-0.3%</b>	<b>2,837</b>	<b>-50</b>	<b>-1.7%</b>
Tigard HS	2,003	2,000	-3	-0.1%	2,011	8	0.4%	2,155	152	7.6%
Tualatin HS	1,864	1,900	36	1.9%	1,793	-71	-3.8%	1,787	-77	-4.1%
Durham Center	70	72	2	2.9%	70	0	0.0%			
<b>High Schools</b>	<b>3,937</b>	<b>3,972</b>	<b>35</b>	<b>0.9%</b>	<b>3,874</b>	<b>-63</b>	<b>-1.6%</b>	<b>3,942</b>	<b>5</b>	<b>0.1%</b>
<b>District</b>	<b>12,595</b>	<b>12,588</b>	<b>-7</b>	<b>-0.1%</b>	<b>12,643</b>	<b>48</b>	<b>0.4%</b>	<b>12,483</b>	<b>-112</b>	<b>-0.9%</b>
<b>MAPE<sup>4</sup></b>				<b>2.6%</b>			<b>5.3%</b>			<b>6.8%</b>

1. Forecast for 2008-09 by PSU-PRC, baseline 2007-08 enrollment. December 2007.

2. Forecast for 2008-09 by PSU-PRC, baseline 2006-07 enrollment. December 2006.

3. Forecast for 2008-09 by Dr. Judith A. Barmack, baseline 2005-06 enrollment. January 2006.

4. Mean absolute percent error for individual schools.



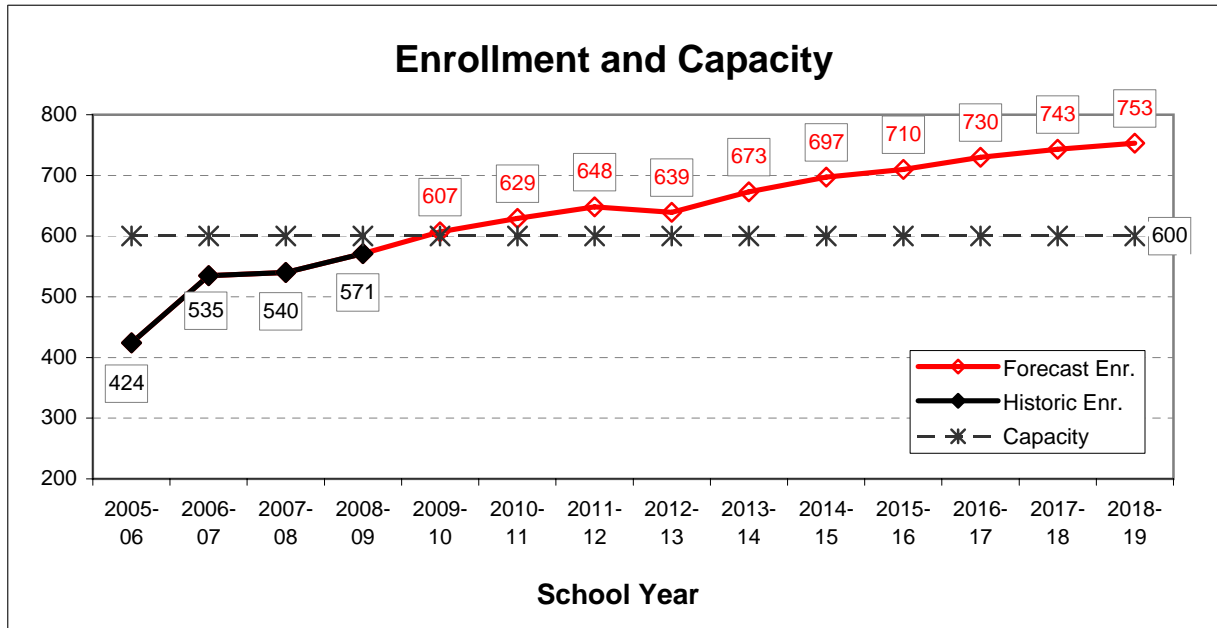


## **APPENDIX**

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



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



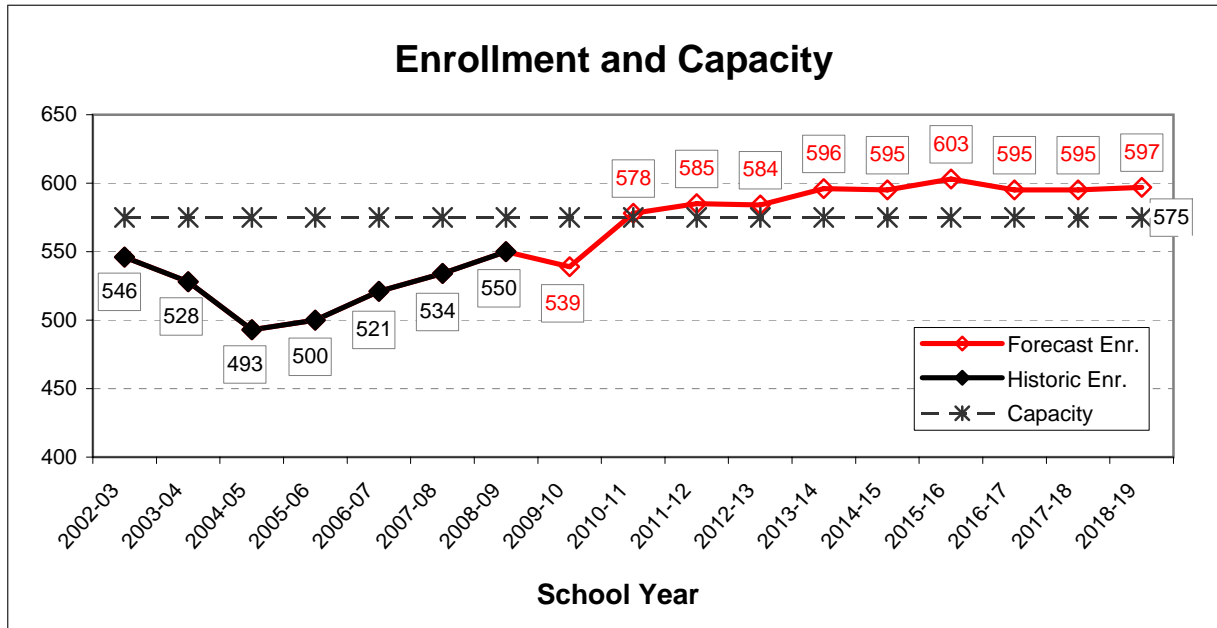
Note: School opened in 2005.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	0	571	673	753
Change	0	571	102	80

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	89	0
2001	86	0
2002	49	0
2003	86	4
2004	24	0
2005	149	0
2006	138	0
2007	54	0
<b>Total</b>	<b>621</b>	<b>4</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	17	0
2001	61	4
2002	0	0
2003	175	0
2004	116	0
2005	144	0
2006	175	110
2007	10	0
2008	14	0
<b>Total</b>	<b>698</b>	<b>114</b>

# Bridgeport Elementary School Enrollment, Capacity, and Housing Development

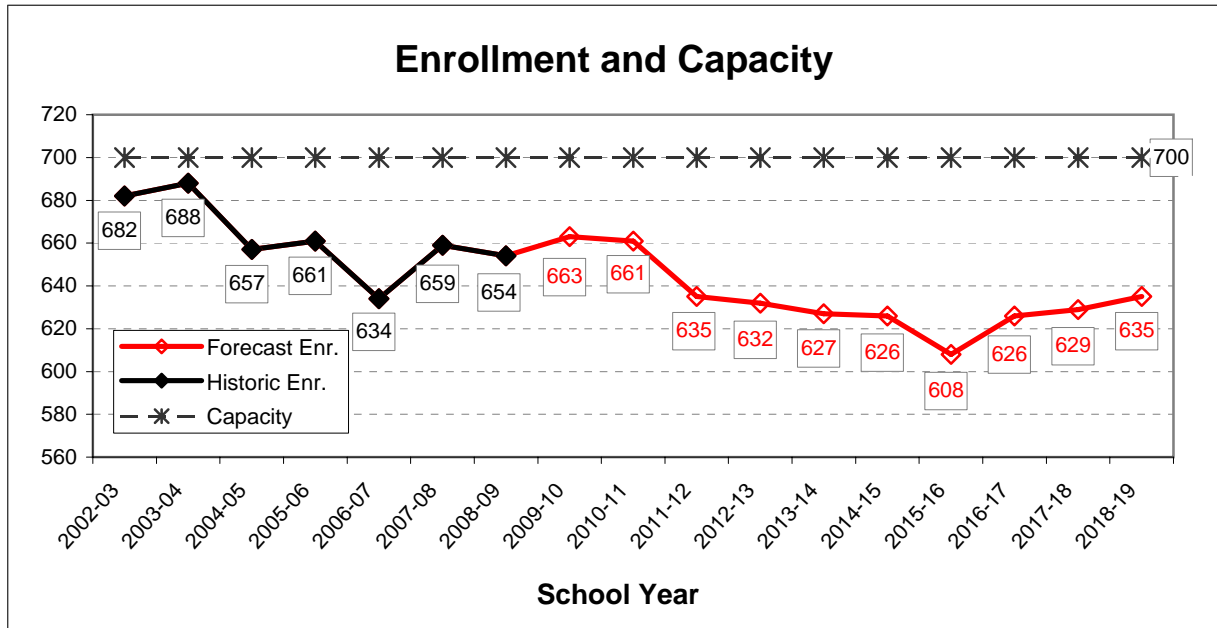


Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	528	550	596	597
Change	-	22	46	1

Year Built	New Housing Units Built 2000-07	
	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
<b>Total</b>	<b>150</b>	<b>15</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>101</b>	<b>0</b>

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

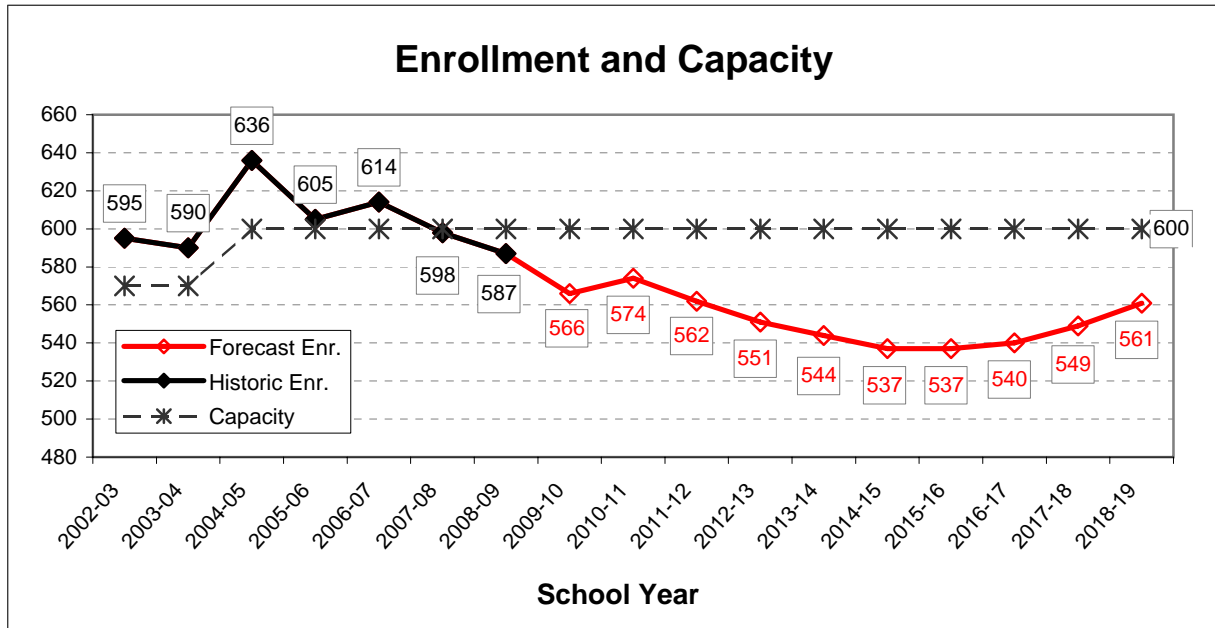


Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	688	654	627	635
Change	-	-34	-27	8

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	35	0
2001	54	0
2002	56	0
2003	23	0
2004	18	0
2005	34	0
2006	71	0
2007	21	0
<b>Total</b>	<b>312</b>	<b>0</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>247</b>	<b>0</b>

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



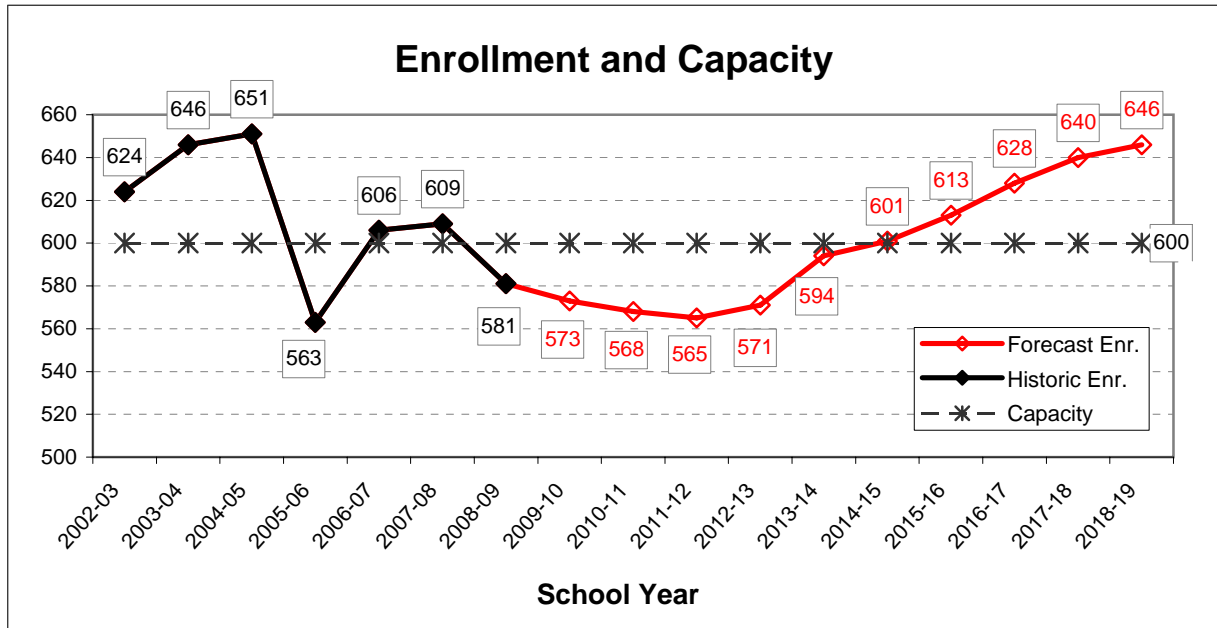
Note: In 2004 a new facility opened. In 2005 a boundary change sent some students to Alberta Rider Elementary.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	590	587	544	561
Change	-	-3	-43	17

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	75	0
2001	40	0
2002	41	6
2003	102	0
2004	51	0
2005	2	0
2006	32	0
2007	18	0
<b>Total</b>	<b>361</b>	<b>6</b>

Year Approved	New Development Approved 2000-08	
	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
<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.

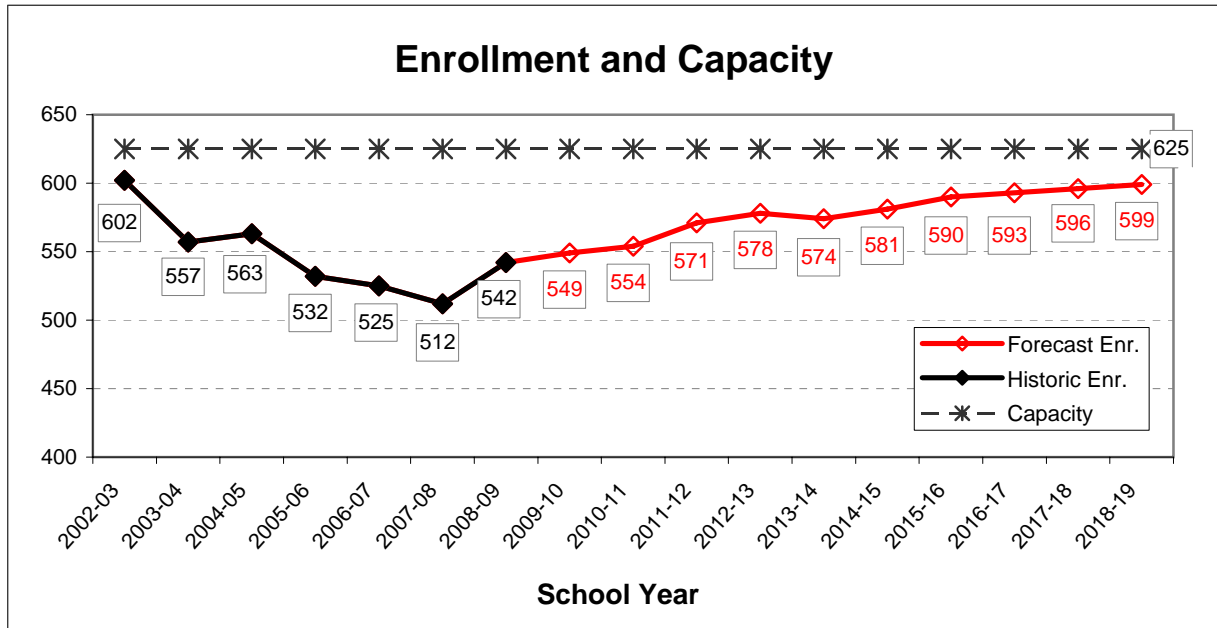
Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	646	581	594	646
Change	-	-65	13	52

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	43	0
2001	94	0
2002	68	264
2003	69	0
2004	40	0
2005	117	0
2006	148	0
2007	52	0
<b>Total</b>	<b>631</b>	<b>264</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>624</b>	<b>264</b>



# Durham Elementary School Enrollment, Capacity, and Housing Development



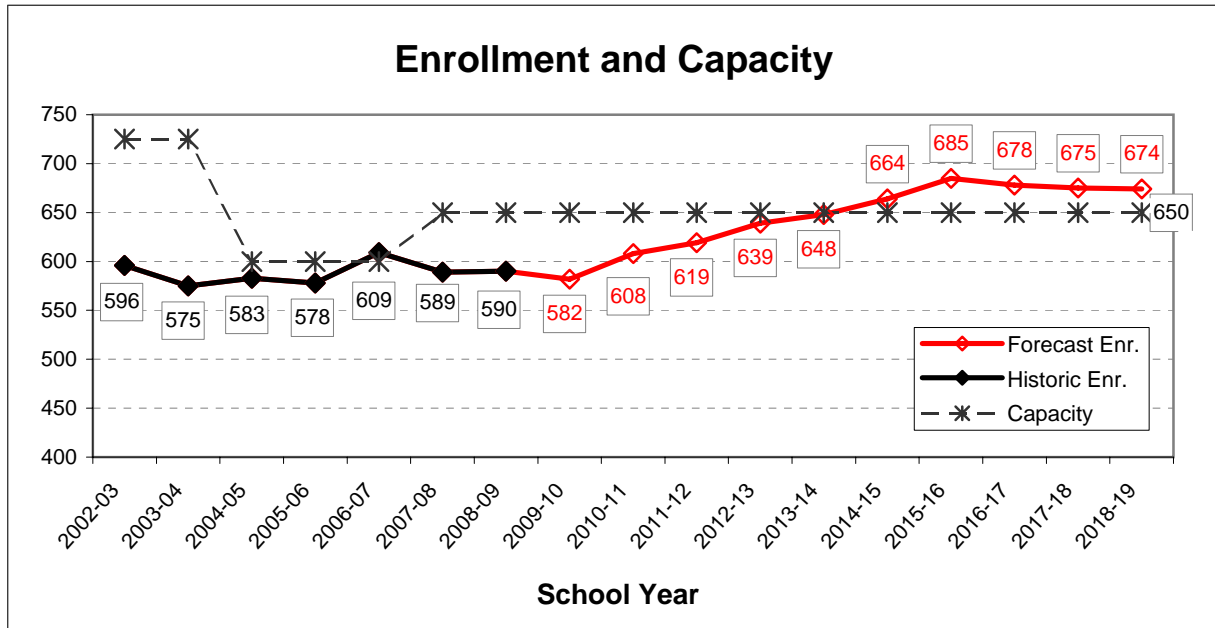
Note: In 2006 a phased-in boundary change began that assigns a portion of the attendance area from Metzger to Durham.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	557	542	574	599
Change	-	-15	32	25

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	71	0
2001	73	0
2002	6	0
2003	1	42
2004	29	0
2005	63	53
2006	5	0
2007	37	0
<b>Total</b>	<b>285</b>	<b>95</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>212</b>	<b>470</b>

# Metzger Elementary School Enrollment, Capacity, and Housing Development



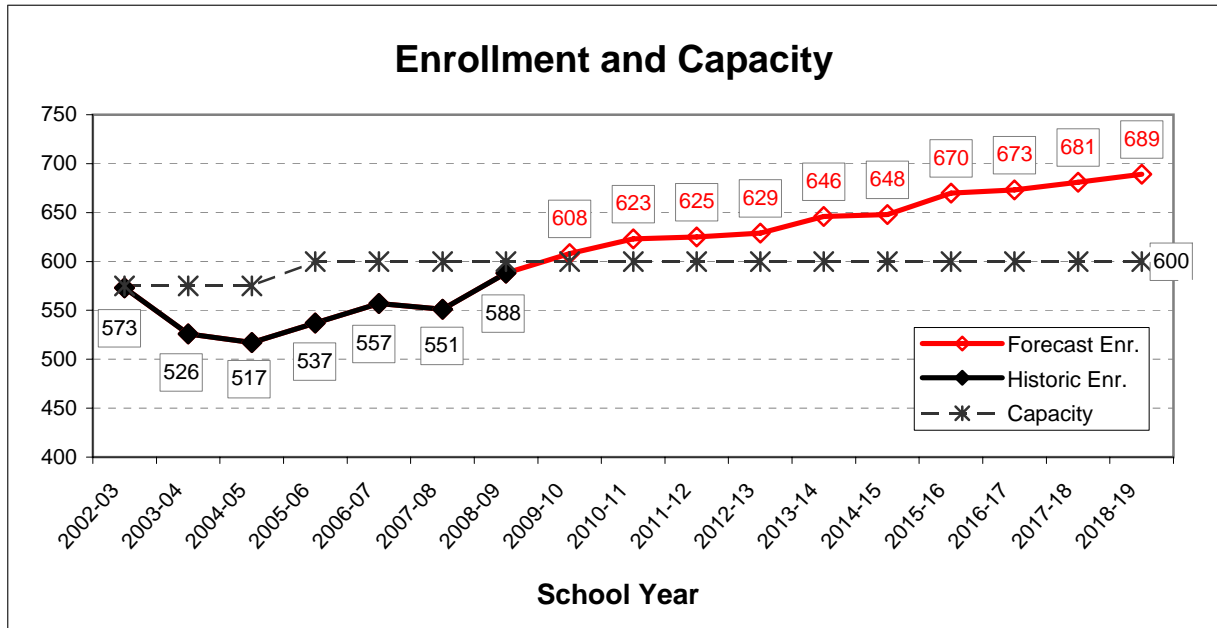
Note: In 2004 a replacement school opened and portables were eliminated. In 2006 a phased-in boundary change began that assigns a portion of the former attendance area to Durham. In 2007 a two room portable was added.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	575	590	648	674
Change	-	15	58	26

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	38	0
2001	31	0
2002	32	29
2003	20	0
2004	25	0
2005	5	32
2006	23	19
2007	51	65
<b>Total</b>	<b>225</b>	<b>145</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	9	3
2001	23	26
2002	0	0
2003	39	0
2004	6	51
2005	7	64
2006	42	90
2007	8	34
2008	0	0
<b>Total</b>	<b>134</b>	<b>268</b>

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



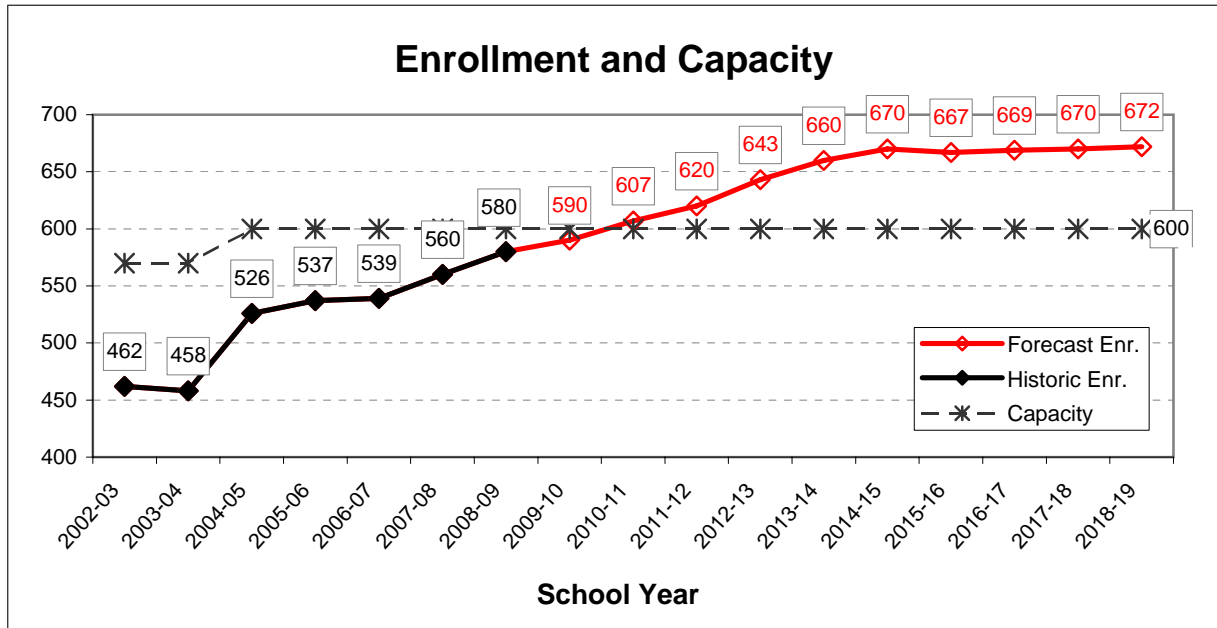
Note: In 2005 a classroom was added.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	526	588	646	689
Change	-	62	58	43

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	18	0
2001	39	0
2002	23	11
2003	5	0
2004	44	0
2005	20	108
2006	11	0
2007	44	139
<b>Total</b>	<b>204</b>	<b>258</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>216</b>	<b>253</b>

# Tualatin Elementary School Enrollment, Capacity, and Housing Development



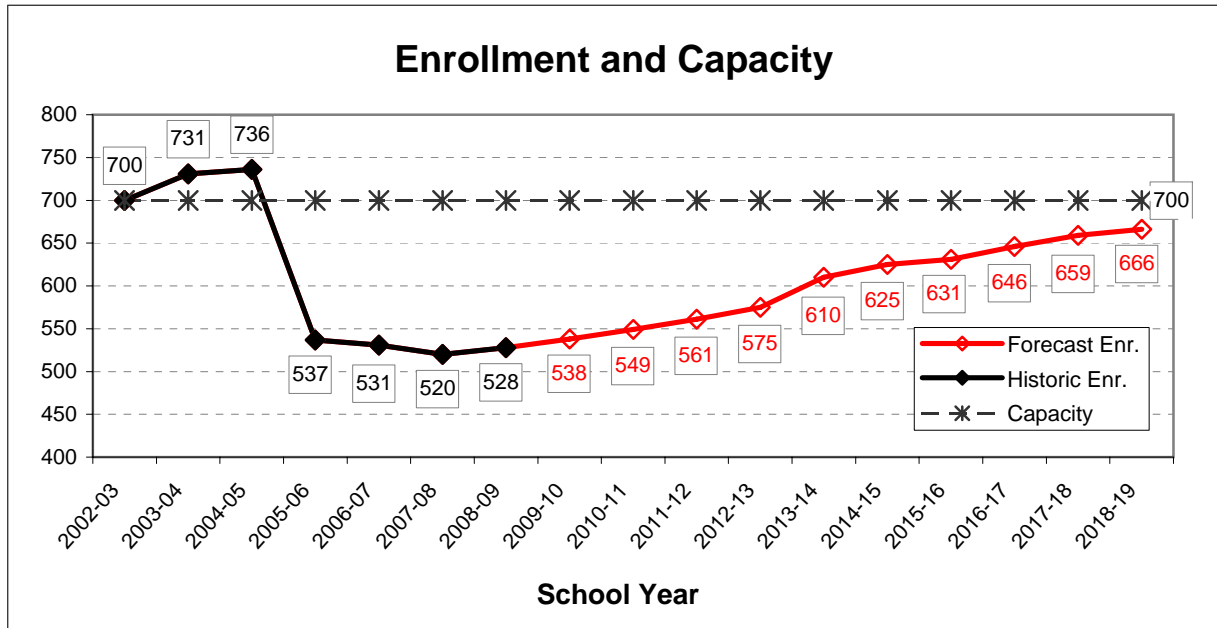
Note: In 2004 a new facility opened.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	458	580	660	672
Change	-	122	80	12

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	5	240
2001	57	162
2002	77	0
2003	67	0
2004	59	0
2005	89	0
2006	26	0
2007	10	0
<b>Total</b>	<b>390</b>	<b>402</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>338</b>	<b>0</b>

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



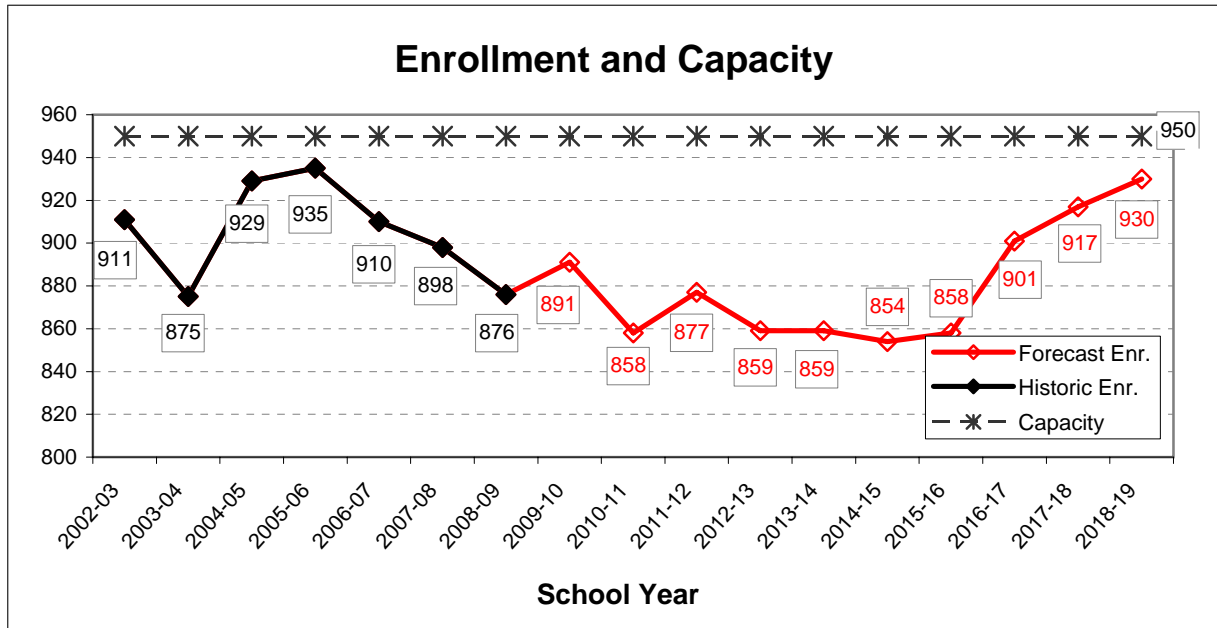
Note: Boundary change in 2005 sent some students to Alberta Rider Elementary.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	731	528	610	666
Change	-	-203	82	56

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	121	0
2001	27	0
2002	30	0
2003	140	63
2004	24	0
2005	8	0
2006	4	0
2007	21	0
<b>Total</b>	<b>375</b>	<b>63</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>331</b>	<b>60</b>

# Fowler Middle School Enrollment, Capacity, and Housing Development



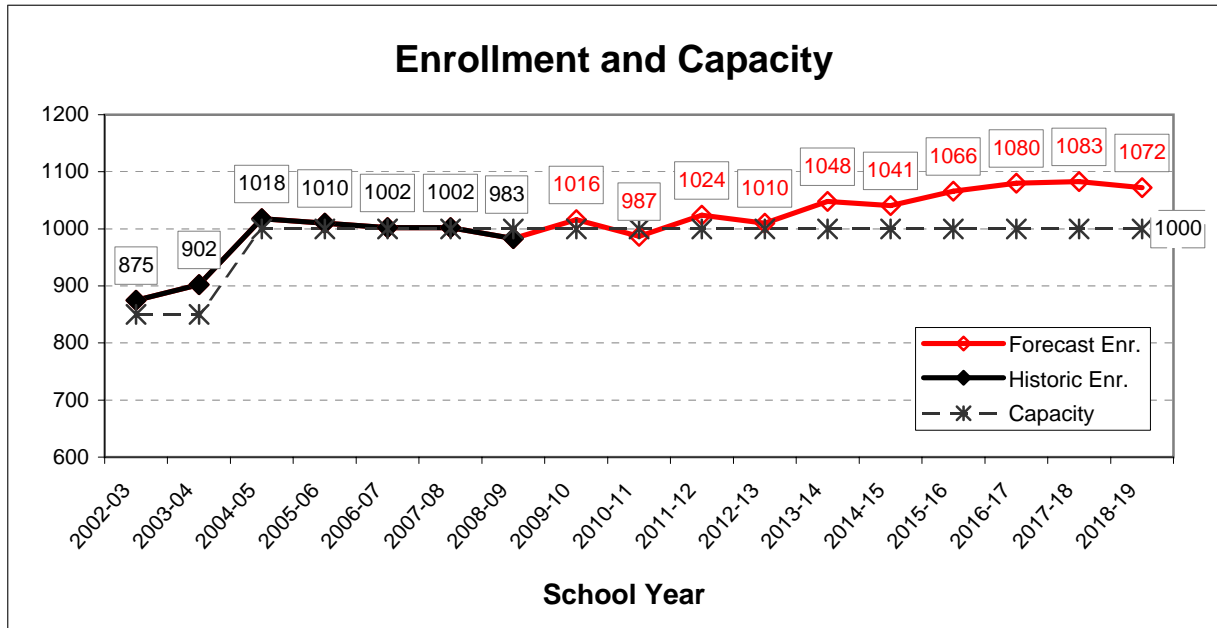
Note: In 2006 a phased-in boundary change began that assigns a portion of the attendance area to Twality.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	875	876	859	930
Change	-	1	-17	71

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	234	0
2001	98	0
2002	103	35
2003	262	63
2004	100	0
2005	15	32
2006	59	19
2007	90	65
<b>Total</b>	<b>961</b>	<b>214</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	140	3
2001	94	92
2002	21	0
2003	173	0
2004	6	51
2005	92	64
2006	57	90
2007	124	34
2008	10	0
<b>Total</b>	<b>717</b>	<b>334</b>

# Hazelbrook Middle School Enrollment, Capacity, and Housing Development



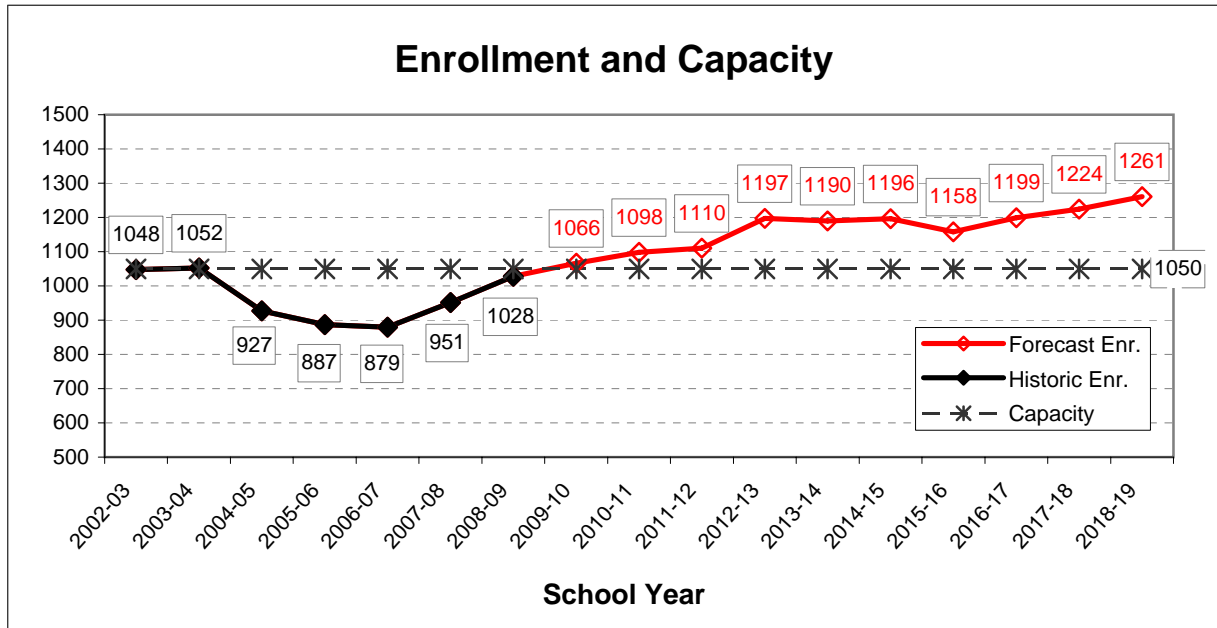
Note: In 2004 capacity was enhanced and a boundary change added students from Twality.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	902	983	1048	1072
Change	-	81	65	24

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	69	255
2001	126	162
2002	137	264
2003	138	0
2004	136	0
2005	135	0
2006	99	0
2007	33	0
<b>Total</b>	<b>873</b>	<b>681</b>

Year Approved	New Development Approved 2000-08	
	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
<b>Total</b>	<b>711</b>	<b>264</b>

# Twality Middle School Enrollment, Capacity, and Housing Development



*Note: In 2002 capacity was added. 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.*

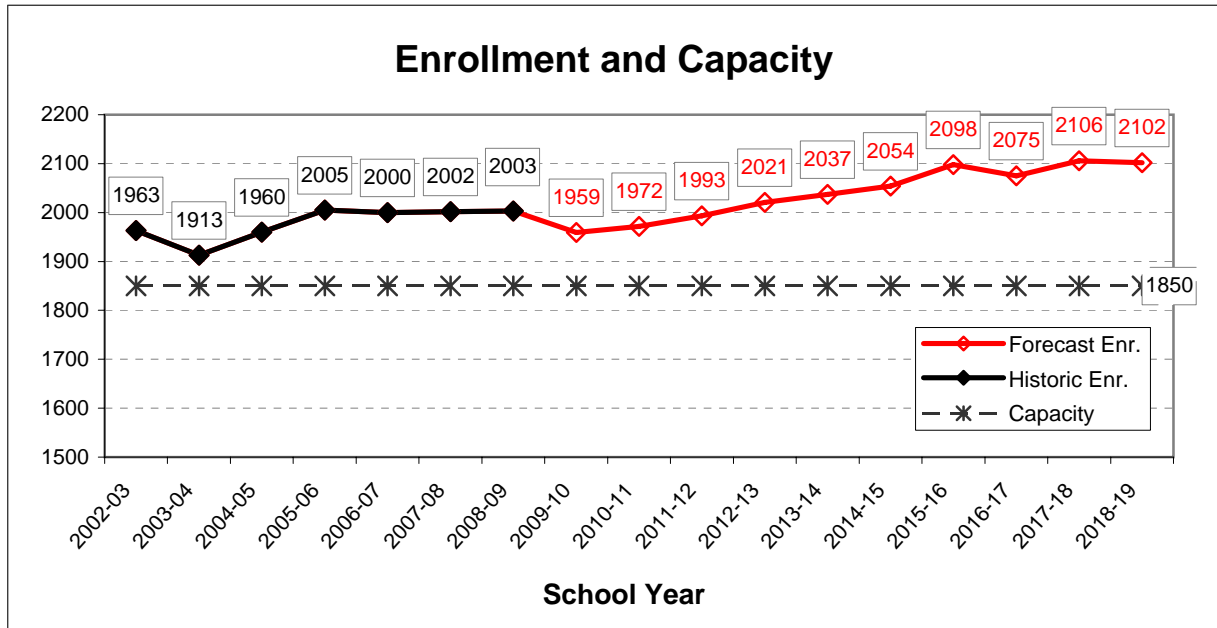
Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	1052	1028	1190	1261
Change	-	-24	162	71

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	221	0
2001	292	0
2002	146	11
2003	151	46
2004	134	0
2005	345	161
2006	300	0
2007	185	139
<b>Total</b>	<b>1774</b>	<b>357</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	17	6
2001	66	4
2002	35	0
2003	659	95
2004	219	247
2005	282	0
2006	317	110
2007	108	7
2008	36	368
<b>Total</b>	<b>1739</b>	<b>837</b>



# Tigard High School Enrollment, Capacity, and Housing Development

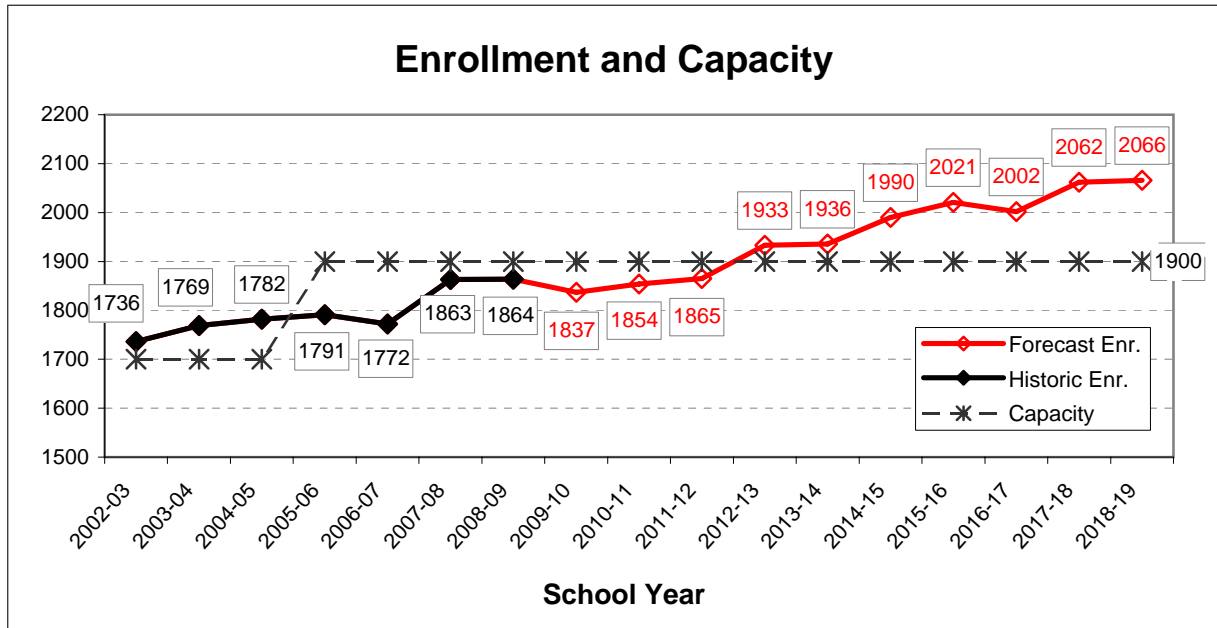


Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	1913	2003	2037	2102
Change	-	90	34	65

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	322	0
2001	218	0
2002	141	46
2003	294	105
2004	177	0
2005	98	193
2006	71	19
2007	171	204
<b>Total</b>	<b>1492</b>	<b>567</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	140	9
2001	99	92
2002	21	0
2003	309	95
2004	22	298
2005	199	64
2006	157	90
2007	208	41
2008	46	0
<b>Total</b>	<b>1201</b>	<b>689</b>

# Tualatin High School Enrollment, Capacity, and Housing Development



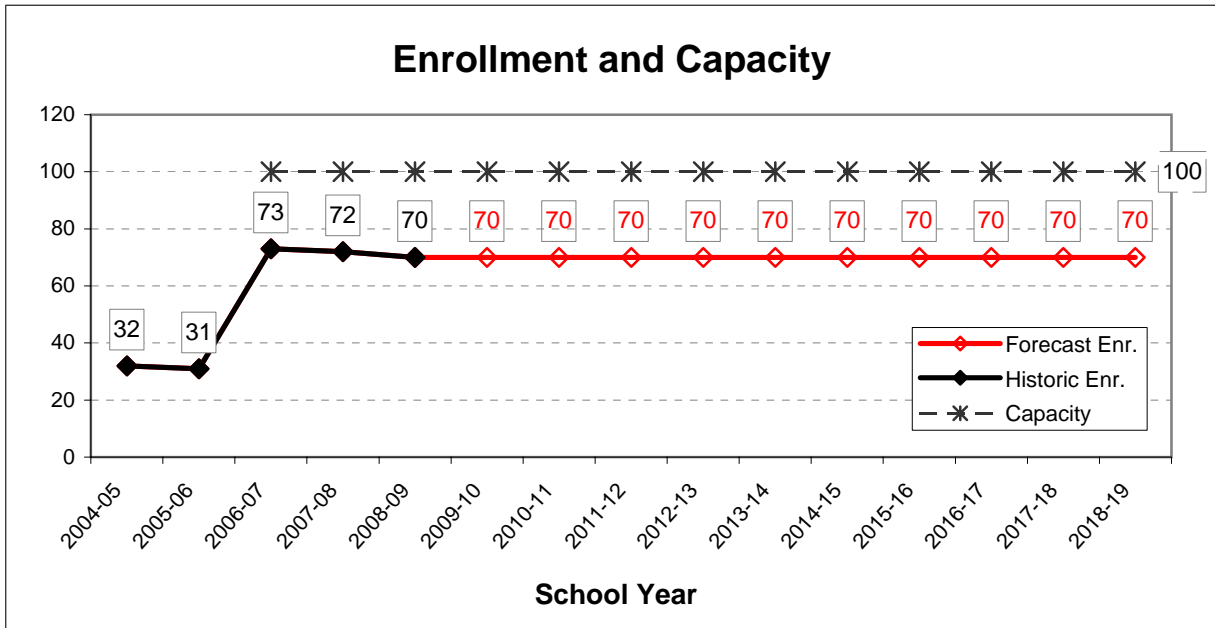
Note: In 2005 capacity was added.

Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	1769	1864	1936	2066
Change	-	95	72	130

Year Built	New Housing Units Built 2000-07	
	Single	Multiple
2000	202	255
2001	298	162
2002	245	264
2003	257	4
2004	193	0
2005	397	0
2006	387	0
2007	137	0
<b>Total</b>	<b>2116</b>	<b>685</b>

Year Approved	New Development Approved 2000-08	
	SF Lots	MF Units
2000	112	0
2001	104	268
2002	170	0
2003	623	0
2004	333	0
2005	320	0
2006	267	110
2007	37	0
2008	0	368
<b>Total</b>	<b>1966</b>	<b>746</b>

# Durham Center Enrollment, Capacity, and Housing Development



Enrollment History and Forecast				
	History		Forecast	
	2003-04	2008-09	2013-14	2018-19
Total enrollment	0	70	70	70
Change	-	70	0	0