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### FOREST GROVE SCHOOL DISTRICT ENROLLMENT FORECASTS 2007-08 TO 2011-12

Prepared By
Population Research Center
Portland State University

**MAY, 2007** 

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#### **EXECUTIVE SUMMARY**

The Forest Grove School District (FGSD) enrolled 6,102 students in Fall 2006, an increase of 175 students (3.0 percent) from Fall 2005. Growth was concentrated in the high school grades (9-12), which grew by 101 students (5.5 percent), and elementary grades, which gained 66 students (2.9 percent) between Fall 2005 and Fall 2006.

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 FGSD enrollment, and forecasts of district-wide and individual school enrollments for the 2007-08 to 2011-12 school years.

The forecasts indicate that overall FGSD enrollment will continue to increase during the next five years, due largely to net in-migration of families with children and increases in the number of births within the District. Recent subdivision approvals will allow single family home construction to continue at its current pace for the entire five year period if market conditions remain favorable, but the mix of homes may shift somewhat to accommodate more older "move up" buyers and fewer young families. No new multiple family rental developments have been approved in the past two years; the few attached units being built are market rate townhouses and condos.

Table 1 contains FGSD recent and forecast enrollments for one year and five year intervals. Following the table are highlights of the district-wide and individual school enrollment forecasts.

## Table 1 Historic and Forecast Enrollment Forest Grove School District

#### One Year Trend

	Ac	tual	Forecast
	2005-06	2006-07	2007-08
Grades K-4	2,243	2,309	2,427
Change		66	118
		2.9%	5.1%
Grades 5-6	907	924	928
Change		17	4
-		1.9%	0.4%
Grades 7-8	936	927	931
Change		-9	4
		-1.0%	0.4%
Grades 9-12	1,841	1,942	1,946
Change		101	4
		5.5%	0.2%
Total	5,927	6,102	6,232
Change		175	130
		3.0%	2.1%

#### Five Year Trend

	Ac	tual	Forecast
	2001-02	2006-07	2011-12
Grades K-4	2,191	2,309	2,582
Change		118	273
		5%	12%
Grades 5-6	920	924	1,018
Change		4	94
		0%	10%
Grades 7-8	834	927	1,020
Change		93	93
		11%	10%
Grades 9-12	1,631	1,942	1,994
Change		311	52
		19%	3%
Total	5,576	6,102	6,614
Change		526	512
		9%	8%

Population Research Center, PSU. May 2007

#### District-wide Enrollment Forecast

- Total K-12 enrollment is expected to increase by about 130 students next year, less than the current year's growth but above the annual average of the past five years.
- Over the entire five year forecast period, K-12 enrollment is forecast to increase by 512 students, an eight percent growth rate.
- The 2006-07 kindergarten class size of 470 students is an all time high, but the 2007-08 kindergarten is forecast to be even higher, reaching 500 students. Subsequent kindergarten forecasts are lower than or similar to 2007-08.
- Elementary (K-4) enrollments are forecast to increase by 273 students (12 percent) during the five year period.
- Upper elementary (5-6) and middle school (7-8) enrollments are both forecast to increase by nearly 100 students (10 percent).
- Enrollment in high school is forecast to be stable next year, and be increase by about 50 students (three percent) during the next five years.

#### **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 16 of this report and in school profiles in the Appendix.

- The largest forecast enrollment increase in the five year period is at Harvey Clarke Elementary, which adds 157 students, from 446 in 2006-07 to 603 in 2011-12.
- Three other elementary schools are forecast to have moderate enrollment gains of 34 to 40 students (10 to 15 percent) in the next five years. They are Dilley, Cornelius, and Fern Hill.

- Relatively stable enrollment is forecast at Echo Shaw, Gales Creek, and Joseph Gale Elementary schools.
- Tom McCall and Neil Armstrong each have current enrollments of about 925 students; in 2011-12 they are each forecast to have about 1,020 students.
- Forest Grove High School grows slightly larger than its 2006-07 record enrollment of 1,886 students.

#### **INTRODUCTION**

The Forest Grove School District (FGSD) requested that the Portland State University Population Research Center (PRC) prepare enrollment forecasts for use in the District's planning. This study integrates information about FGSD enrollment trends with local area population, housing, and economic trends, and includes forecasts of district-wide enrollment by grade level and total enrollment for individual schools. 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, and housing development data from the cities and county.

The District serves the cities of Forest Grove, most of Cornelius and portions of unincorporated Washington County, notably the Gales Creek and Dilley communities.<sup>1</sup> The entire District is within Washington County and its western boundary follows the county's western boundary in the Coast Mountain Range.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District. Another section is devoted to our research on the relationship between new housing development and FGSD enrollment. Next are the results of the district-wide enrollment forecasts and individual school forecasts, and a description of the methodology we used to produce them. The final section contains a brief discussion of the nature and accuracy of forecasts, and two appendices include A) a one page profile for each of the District's schools showing its enrollment history, forecasts, and capacity, and housing trends within its attendance area, and B) individual school forecasts by grade level.

<sup>&</sup>lt;sup>1</sup>The eastern edge of the City of Cornelius is served by the Hillsboro School District. In the 2000 Census, 7,492 of the City's 9,652 residents (78 percent) were within the FGSD boundary.

We would like to acknowledge (in alphabetical order) the help of the following individuals who contributed to the study by answering questions, providing local insight, or providing data:

- Judy Barmack, retired consultant
- Andrea Clegg, NWRESD
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- Vanessa Gray, Forest Grove Charter School
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- Mike Schofield, FGSD
- Diane Tuski, City of Cornelius

#### POPULATION AND HOUSING TRENDS, 1990 to 2006

During the decade between 1990 and 2000, total population within the FGSD grew by 24 percent, from 24,353 persons to 30,198. Washington County grew by 43 percent overall, and the Portland metropolitan area grew by 27 percent. Although the area served by the FGSD grew at a slower rate than the metro area and Washington County, the FGSD population living within the District's two incorporated cities grew by 33 percent, adding about 6,250 residents in the decade. As a result of the growth in the cities and population loss in unincorporated areas, the share of the District's population living within the cities grew from 78 percent in 1990 to 83 percent in 2000. Average annual growth rates have been lower in the 2000s than in the 1990s for all areas shown in Table 2 below, but once again the two cities have grown at a similar rate to Washington County, and have outpaced the growth of the Portland area overall.

		Table 2							
City and Metro Area Population, 1990, 2000, and 2006									
				Avg. Annual	Growth Rate				
	1990	2000	2006	1990-2000	2000-2006				
City of Forest Grove	13,559	17,708	20,380	2.7%	2.2%				
City of Cornelius	6,148	9,652	10,785	4.5%	1.8%				
FGSD Portion 1	5,389	7,492	N/A	3.3%					
FGSD Unincorporated	5,405	4,998	N/A	-0.8%					
FGSD Total	24,353	30,198	N/A	2.2%					
Washington County	311,554	445,342	500,585	3.6%	1.9%				
Portland-Vancouver-									
Beaverton MSA <sup>2</sup>	1.523.741	1.927.881	2.121.910	2.4%	1.5%				

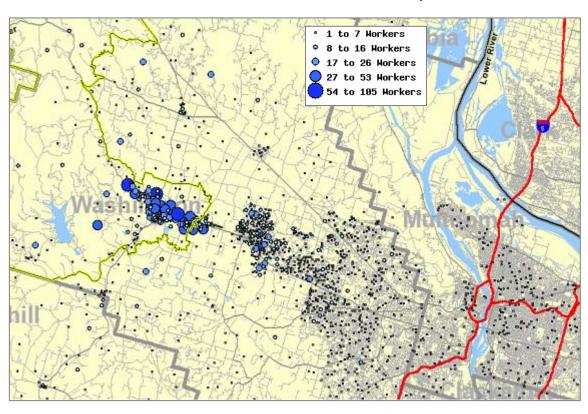
<sup>1.</sup> The City of Cornelius is shared between Forest Grove School District and Hillsboro School District.

Sources: U.S. Census Bureau, 1990 and 2000 censuses; Portland State University Population Research Center, 2006 estimates.

Although the District is part of the large Portland metropolitan area job market, the largest concentration of workplaces for FGSD residents is in the City of Forest Grove

<sup>2.</sup> Portland-Vancouver-Beaverton MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.

itself. The 2000 Census revealed that about 34 percent of the City of Forest Grove's employed residents worked within the City.<sup>2</sup> In 2003, among private sector workers living throughout the FGSD, about 20 percent worked in the City of Forest Grove, 15 percent worked in the City of Hillsboro, and nine percent worked in the City of Cornelius. Washington County accounted for just over two thirds of primary jobs for FGSD residents. A relatively small share of area residents made the commute into the City of Portland. The dots on Map 1 below indicate the places of work in 2003 for area residents.<sup>3</sup>



Map 1
Place of Work of FGSD Area Residents, 2003

Employment growth in Washington County, particularly in the corridor between Aloha and Forest Grove, has influenced the residential growth rate in the FGSD. After the end of the 1990s high-tech boom in Washington County, employment growth stagnated

<sup>&</sup>lt;sup>2</sup>U.S. Census Bureau, 2000 Census, Summary File 3, Table P28.

<sup>&</sup>lt;sup>3</sup>U.S. Census Bureau, LED Origin-Destination Database (2nd quarter 2003). Commute shed report for residents of census block groups approximating the FGSD boundary. Report and map created on line at http://lehd.dsd.census.gov/led/datatools/onthemap.html.

during the early 2000s recession. Since 2004, a different picture has emerged, as the county added more than 10,000 jobs in both 2005 and 2006, or nine percent over the two year period.<sup>4</sup> The Oregon Employment Department reports an annual 2006 unemployment rate of 4.5 percent in Washington County, the lowest since 2000, and also the lowest rate among Oregon's counties in 2006.<sup>5</sup> Population growth has also increased since 2004; Oregon's total population growth rate is approaching rates seen in the mid-1990s, and Washington County has had the largest numeric population growth of any Oregon county in each of the past two years.<sup>6</sup>

Growth in total population does not always lead to school enrollment growth. Each community's unique demographic trends affect the relationship between population change and school enrollment trends. In particular, population by age group, birth trends, characteristics of new housing units and changing household composition affect the number of school-age children in a community.

#### Population 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 (eight percent growth) and ages 65 to 74 (seven 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 24 percent growth rate for schoolage population, 5-17 years, was equal to the growth rate for total population. Growth rates were also similar for each of the age groups 17 and under.

Young adults age 18 to 24 and residents age 75 and over are a larger share of FGSD's population than in most small cities and suburban communities due to the presence of

\_

<sup>&</sup>lt;sup>4</sup>"Current Employment by Industry". Oregon Employment Department, OLMIS. Annual non-farm employment in Washington County was 225,800 in 2004, 235,400 in 2005, and 246,200 in 2006.

<sup>&</sup>lt;sup>5</sup>" Oregon Labor Force & Unemployment by Area". Oregon Employment Department, OLMIS. <sup>6</sup>"News: Oregon Adds 58,720 New Residents in Past Year as Growth Rate Rises" and related tables, Portland State University, Population Research Center, November 16, 2006. At <a href="http://www.pdx.edu/prc/news/12048/">http://www.pdx.edu/prc/news/12048/</a>

Table 3
Population by Age Group
Forest Grove School District, 1990 and 2000

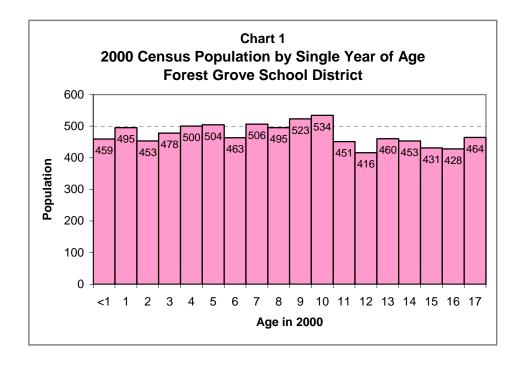
			1990 to 2000 Change		
	1990	2000	Number	Percent	
Under Age 5	1,944	2,385	441	23%	
Age 5 to 9	2,025	2,491	466	23%	
Age 10 to 14	1,871	2,314	443	24%	
Age 15 to 17	1,047	1,323	276	26%	
Age 18 to 19	906	1,172	266	29%	
Age 20 to 24	2,022	2,438	416	21%	
Age 25 to 29	1,915	2,181	266	14%	
Age 30 to 34	2,014	2,171	157	8%	
Age 35 to 39	2,000	2,296	296	15%	
Age 40 to 44	1,735	2,206	471	27%	
Age 45 to 49	1,218	1,910	692	57%	
Age 50 to 54	976	1,697	721	74%	
Age 55 to 59	789	1,187	398	50%	
Age 60 to 64	793	911	118	15%	
Age 65 to 69	802	749	-53	-7%	
Age 70 to 74	703	706	3	0%	
Age 75 to 79	623	729	106	17%	
Age 80 to 84	500	591	91	18%	
Age 85 and over	470	741	271	58%	
Total Population	24,353	30,198	5,845	24%	
Total age 5 to 17	4,943	6,128	1,185	24%	
share age 5 to 17	20.3%	20.3%			

Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to FGSD boundary from Metro,RLIS 2006 by Portland State University Population Research Center.

Pacific University and several assisted living and retirement communities. While these youngest and oldest adults may not contribute directly to the K-12 student population, the university and retirement facilities provide jobs for residents who are more likely to have children in school. Young adults in their 20s and 30s who are not college students are the most likely to be parents of younger preschool or elementary school children, while parents in their 40s often have somewhat older children. In 2000, there were roughly equal numbers of FGSD residents in each age group between 25 and 44, and Chart 1 shows that the child population was also relatively evenly distributed. On average, there were a few more children in individual ages 10 and under than ages 11 to 17 at the time of the 2000 Census. In the seven years since, the age distribution of children in the

FGSD has become even more balanced, because the columns in Chart 1 have shifted to the right as the population has aged seven years.

Factors that contribute to the balanced age structure in the FGSD include ongoing housing development attracting young families, ethnic diversity, and 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, Latino residents are better represented in their 20s and 30s, so there are currently more young children among the Latino population. The mix of owner and renter occupied housing, single family homes and apartments, and older and newer homes in the District may also contribute to the balanced age distribution by providing opportunities for entry level as well as "move up" housing.



#### Births and Fertility Rates

Since 2000, the average number of births each year to residents of the FGSD has been higher than in the 1990s, though the increase has not kept up with the overall population increase. The average number of births each year between 2000 and 2005 was about 17

percent higher than the average between 1990 and 1995. The number of FGSD births each year from 1990 to 2005 is reported in Table 4. In the "Enrollment Forecasts" section of this report we will illustrate that the annual number of births tracks closely with future school enrollment trends.

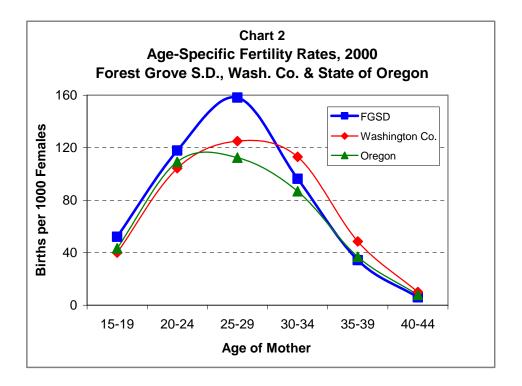
Table 4
Annual Births, 1990 to 2005
Forest Grove School District

/ear	Births
1990	460
1991	468
1992	437
1993	446
1994	431
1995	455
1996	467
1997	503
1998	515
1999	456
2000	519
2001	528
002	542
003	498
2004	531
005	540

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

Fertility rates for the FGSD in 2000 are shown in Chart 2 on the next page. For comparison, Washington County and the State of Oregon's fertility rates for 2000 are also included. 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 169 births to mothers age 25 to 29 and a population of 1,068 women age 25 to 29 in the FGSD, so the fertility rate in 2000 for women age 25 to 29 was 169 ÷ 1068 = 0.158 births per female, or 158 births per thousand females. Chart 2 shows that FGSD age-specific fertility rates for most age groups in 2000 were similar to Washington County and Oregon, but the FGSD rate was much higher for ages 25 to 29. If not for the large number of college students, the rates for women ages 20 to 24 would likely be much higher also. Birth rates in the FGSD between 1990 and 2000 followed statewide

trends by age and ethnicity. That is, birth rates fell for women under age 25 and increased for women age 30 and over, and fell for both Latina and non-Latina women. Fertility rates remain higher for Latina women, but they fell significantly between 1990 and 2000 and are likely to continue to fall as labor force participation and educational attainment continue to increase for the American-born children of immigrants.<sup>7</sup>



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 decreased from 2.39 in 1990 to 2.32 in 2000. Total fertility rates in 2000 were 2.20 for Washington County overall, and 1.98 for the State.

<sup>&</sup>lt;sup>7</sup>See "Fertility of Immigrant Women in California." California Department of Finance, Demographic Research Unit, April, 1995, at

http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/documents/IMPAA.PDF. Also Dowell Myers, John Pitkin, and Julie Park. 2005. "California Demographic Futures: Projections to 2030, by Nativity, Immigrant Generations, and Time of Arrival in the U.S." Population Dynamics Research Group, School of Policy, Planning, and Development. Los Angeles, CA: University of Southern California, at http://www.usc.edu/schools/sppd/research/popdynamics/publications.htm.

#### Housing Growth and Characteristics

During the 1990s, the number of housing units within the District's boundaries increased by over 2,000, as shown in Table 5 below. Vacancy rates were slightly higher in 2000, so the increase in households (occupied housing units) was smaller, at 1,763. The 20.3 percent rate of growth of households with children under 18 was nearly identical to the overall household growth rate of 20.6 percent. The share of households in the FGSD that included at least one child under the age of 18 was 40 percent in 2000, compared with only 35 percent in the Portland-Vancouver metro area overall. The average number of persons per household increased from 2.74 in 1990 to 2.82 in 2000.

Table 5
Forest Grove School District
Housing and Household Characteristics, 1990 and 2000

			1990 to 20	00 Change
	1990	2000	Number	Percent
Housing Units	8,833	10,862	2,029	23%
Single Family	5,380	6,617	1,237	23%
share of total	61%	61%		
Multiple Family	2,489	3,044	555	22%
share of total	28%	28%		
Mobile Home and Other	964	1,201	237	25%
share of total	11%	11%		
Households	8,552	10,315	1,763	21%
Households with children under 18	3,426	4,121	695	20%
share of total	40%	40%		
Households with no children under 18	5,126	6,194	1,068	21%
share of total	60%	60%		
Household Population	23,394	29,121	5,727	24%
Persons per Household	2.74	2.82	0.09	3%

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

In the 1990s, about 1,368 single family homes were built in the District, with most of the new construction occurring in the last half of the decade. In the five years between 1990 and 1994, an average of 90 single family homes were added each year, while the 1995 to 1999 period averaged 183 new single family homes annually. Since 2000, new single family housing construction within the FGSD has nearly kept pace with the late 1990s, with an average of about 157 units built annually between 2000 and 2005. Table 6 shows residential building permits for the cities of Forest Grove and Cornelius over the past 11 years, and Table 7 reports single family homes built between 2000 and 2005 by FGSD's elementary attendance areas, using tax assessor data aligned with boundaries of the District's attendance areas.

Table 6 Housing Units Authorized by Building Permits							
Year Permit	City of C	ornelius*	City of Fo	rest Grove			
Issued	Single Family	Multiple Family	Single Family	Multiple Family			
1996	96	2	214	76			
1997	45	0	140	18			
1998	133	0	90	8			
1999	42	0	147	8			
2000	14	0	86	4			
2001	7	17	121	77			
2002	78	14	113	10			
2003	43	0	91	10			
2004	75	53	115	10			
2005	117	3	91	26			
2006	52	0	65	29			

\*Note. Entire city, including the Hillsboro S.D. portion where much of the growth has occurred.

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

-

<sup>&</sup>lt;sup>8</sup>These estimates of single family homes by year built use tax lot shape files from Metro's Regional Land Information System (RLIS). The shape files spatially represent information from county tax assessor records, including the land use and year built. Because some homes may have been demolished or replaced in the 1990s, the count of 1,368 parcels with "SFR" or "RUR" land use and a structure built between 1990 and 1999 within the FGSD boundary in the February 2007 RLIS is fairly consistent with the single family change of 1,237 units derived from census data shown in Table 5, which reports *net* change.

Table 7
Forest Grove School District
New Single Family Homes By Attendance Area

Elementary Area			Year	Built			2000-05
	2000	2001	2002	2003	2004	2005	Total
Cornelius	0	19	2	0	8	55	84
Dilley	16	39	12	12	6	4	89
Echo Shaw	17	1	31	9	5	1	64
Fern Hill	1	0	0	0	1	0	2
Gales Creek	3	4	3	7	4	2	23
Harvey Clarke	67	87	110	32	189	103	588
Joseph Gale	47	2	3	10	18	9	89
District	151	152	161	70	231	174	939

Source: Metro Regional Land Information System, February 2007; tax lot data compiled by Metro from county tax assessors information. Assigned to FGSD attendance areas by Population Research Center, PSU.

#### **ENROLLMENT TRENDS**

Between 2005-06 and 2006-07 the Forest Grove School District's total K-12 enrollment increased by 175 students (3.0 percent). Enrollment has grown in each of the past 19 years, but only the 2000-01 to 2001-02 increase of 264 students was larger. In the five years since 2001-02, the District has added 526 K-12 students, similar to the overall growth in the two previous five year intervals. The District gained 660 K-12 students between 1996-97 and 2001-02, and 486 between 1991-92 and 1996-97.

Growth in 2006-07 was greatest at the high school level, which gained 101 students (5.5 percent) from 2005-06. Elementary (K-4) and upper elementary (5-6) levels also grew, but middle school (7-8) enrollment fell slightly from its 2005-06 peak, by nine students (1.0 percent).

Other notable district-wide enrollment trends include:

- Kindergarten enrollment reached an all-time high of 470 students in 2006-07, after five years of relatively stable enrollment ranging between 426 and 449.
- Overall elementary (K-4) enrollment is also at an all-time high of 2,309 students although enrollment has been growing at a slower rate than total K-12 enrollment.
- High school enrollment has increased in 16 of the past 17 years, and is now 802 students (70 percent) higher than it was in 1990-91.
- The District's largest class in 2006-07 is grade 9 (524 students).
- The largest enrollment gain between 2005-06 and 2006-07 was in 12<sup>th</sup> grade, which added 74 students (19 percent).

On the next page, Table 8 summarizes the enrollment history for the District by grade level annually from 2001-02 to 2006-07.

			Table 8							
			rove Schoo							
	En	ollment Hi	story, 2001	-02 to 2000	6-07					
Historic Enrollment										
Grade	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07				
K	426	427	438	449	428	470				
1	440	465	432	451	466	448				
2	443	474	456	427	449	485				
3	431	452	454	450	419	466				
4	451	445	473	453	481	440				
5	438	469	445	475	431	475				
6	482	445	477	458	476	449				
7	438	479	434	483	457	478				
8	396	441	484	443	479	449				
9	548	548	572	542	479	524				
10	402	377	435	483	509	482				
11	354	382	351	394	469	478				
12	327	361	344	365	384	458				
Total	5,576	5,765	5,795	5,873	5,927	6,102				
One Year C	hange:	189 (3.4%)	30 (0.5%)	78 (1.3%)	54 (0.9%)	175 (3.0%)				
Five Year C	change:					526 (9.4%)				
K-4	2,191	2,263	2,253	2,230	2,243	2,309				
One Year C	hange:	72 (3.3%)	-10 (-0.4%)	-23 (-1.0%)	13 (0.6%)	66 (2.9%)				
Five Year C	change:					118 (5.4%)				
5-6	920	914	922	933	907	924				
One Year Change:		-6 (3.3%)	8 (-0.4%)	11 (-1.0%)	-26 (0.6%)	17 (2.9%)				
Five Year C	change:					4 (5.4%)				
7-8	834	920	918	926	936	927				
One Year C	hange:	86 (10.3%)	-2 (-0.2%)	8 (0.9%)	10 (1.1%)	-9 (-1.0%)				
Five Year C	change:					93 (11.2%)				
9-12	1,631	1,668	1,702	1,784	1,841	1,942				
One Year Change:		37 (2.3%)	34 (2.0%)	82 (4.8%)	57 (3.2%)	101 (5.5%)				
One Year C	nange:	37 (2.370)	01(2.070)	0= ( / 0/	0. (0.= /0)	(0.0,0)				

#### Private and Home School Enrollment and District "Capture Rate"

Source: Forest Grove School District

The Oregon Department of Education's (ODE's) most recent lists of private schools show three schools within the FGSD enrolling a total of 331 children in grades K-8 in 2005-06. The largest was Emmaus Christian School in Cornelius, which has operated for 28 years. Emmaus enrolled 178 K-8 students in 2005-06 and 172 in 2006-07. Visitation Catholic School in Forest Grove, established in 1883, enrolled 104 K-8 students in 2005-06 and 89 in 2006-07. The majority of Visitation's students are from Forest Grove. The

Oak Tree School in Forest Grove had K-8 enrollment of 49 students in 2005-06. There are no private high schools within the FGSD reported by ODE.

Private schools within the FGSD enroll local students as well as students from beyond the FGSD boundaries; conversely FGSD residents attend private schools beyond the District's boundaries, including five schools located nearby in Hillsboro and Banks. 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 FGSD 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 564 of the K-12 students living in the District were reported as private school students, a 9.6 percent share of all K-12 students. Specifically, 14 percent of kindergartners, 10 percent of 1<sup>st</sup>-8<sup>th</sup> grade students and eight percent of 9<sup>th</sup>-12<sup>th</sup> grade students were enrolled in private schools.<sup>9</sup> At each level, the share of FGSD residents attending private schools in 2000 was slightly lower than the private school share for the rest of Washington County. 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.

Another difference between public school enrollment and total school age 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 December 2006 there were 149 FGSD residents registered as home schoolers, accounting for about two percent of total FGSD K-12 residents. The number of home-schooled students fluctuates, but has remained in the range between 137 and 163 since 2001-02.

<sup>&</sup>lt;sup>9</sup>U.S. Census Bureau, 2000 Census, Summary File 3, Table P36.

Comparing the population counted in the 2000 Census with the FGSD enrollment by grade level confirms that the share of area children attending FGSD schools is consistent with the private school and home school shares reported above. FGSD kindergarten enrollment in 1999-00 and 2000-01 averaged about 81 percent of the kindergarten-age population counted in the census, and FGSD 1<sup>st</sup> grade enrollment accounted for about 87 percent of the corresponding census population. These ratios of students enrolled in District schools to total District population are called "capture rates." The 81 percent kindergarten and 87 percent 1<sup>st</sup> grade capture rates mean that about 19 percent of kindergarten-age children and 13 percent of 1<sup>st</sup> grade age children were not enrolled in FGSD 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 six.

#### Hispanic Enrollment Growth

In 2006-07, the District's Hispanic enrollment grew by 378 students (17 percent), exceeding overall district-wide growth. Over the past five years, Hispanic enrollment has increased by 724 students (40 percent), while the number of non-Hispanic students has decreased by 192 students (five percent). The younger age distribution and higher fertility rates discussed in the "Population and Housing Trends, 1990 to 2006" section have contributed to growth in the Hispanic enrollment, which is now 42 percent of the District K-12 total and 46 percent of the elementary (K-4) total. Table 9 reports Hispanic enrollment annually and by school level from 2001-02 to 2006-07.

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Source: Forest Grove School District

Table 9 **Hispanic Enrollment History, Forest Grove School District** Change **Historic Enrollment** 2001-02 to 2006-07 School 2001-02 2002-03 2003-04 2004-05 2005-06 2006-07 Number Percent Hispanic K-4 955 1,059 839 921 962 820 220 26% Change 82 41 -7 -135 239 10% 4% -1% -14% 29% Hispanic 5-8 564 656 727 755 762 822 258 46% 28 Change 92 71 7 60 16% 11% 4% 1% 8% Hispanic 9-12 422 437 491 477 589 668 246 58% Change 15 54 -14 112 79 4% -3% 12% 23% 13% **Hispanic Total** 1,825 2,014 2,180 2,171 2,549 2,187 724 40% Change 189 7 -16 378 166 10% 8% 0% -1% 17% Hispanic Share 33% 37% 37% 35% 38% 42% **Non-Hispanic Total** 3,745 3,751 3,756 3,553 -192 -5% 3,615 3,686 **District Total** 5,570 5,765 5,795 5,873 5,927 6,102

#### Neighboring Districts

Table 10 displays several facts about FGSD demographic and enrollment trends in comparison to the three largest Washington County school districts (FGSD is the fourth largest). The overall enrollment growth or decline in each district is influenced by housing construction, and also by the district's unique demographics. During the 1990s, FGSD's enrollment and population grew at a slower rate than the other three districts, but since 2000, FGSD's percentage enrollment growth has outpaced each of the larger districts.

Table 10
Selected Washington County School Districts
Demographic and Enrollment Highlights, 1990 to 2006

	Forest Grove	Tigard - Tualatin	Beaverton	Hillsboro
Enrollment growth, <b>1990-91 to 1995-96</b>	11%	28%	17%	13%
Enrollment growth, <b>1995-96 to 2000-01</b>	10%	9%	16%	16%
Enrollment growth, 2000-01 to 2006-07	15%	7%	12%	10%
Latino enrollment, 2006-07	42%	17%	19%	29%
Grades 9-12 enrollment, 2006-07	33%	31%	31%	30%
Population growth, <b>1990 to 2000</b>	24%	39%	38%	49%
Multi-family housing share, 2000	39%	41%	38%	25%
Population age 5 to 17, <b>1990</b>	20.3%	17.0%	17.7%	21.9%
Population age 5 to 17, 2000	20.3%	18.2%	18.5%	20.1%
Population under age 5, 1990	7.6%	7.6%	7.7%	8.5%
Population under age 5, 2000	7.9%	7.1%	7.6%	8.7%
Population rural, 2000	15.7%	0.6%	0.4%	13.2%

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

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

Schools serving grades K-6 enrolled 83 more students (2.6 percent) in Fall 2006 compared with Fall 2005. Five of the eight FGSD elementary and upper elementary schools had double digit enrollment gains this year, led by Harvey Clarke's growth of 29 students. Echo Shaw, Gales Creek, and Joseph Gale enrolled about the same number of students in Fall 2006 as in Fall 2005.

Long term enrollment comparisons for individual schools are not available because all of the K-4 schools except Gales Creek had their attendance area boundaries adjusted in 2003 when Fern Hill opened. Each of the schools has remained within 10 percent of their initial (2003-04) enrollment under the current boundary configuration. In the three year period from 2003-04 to 2006-07, the largest numeric and percentage growth has been at Cornelius (33 students, or nine percent) and Dilley (24 students, or 10 percent). Enrollment losses occurred over the three year period at Fern Hill (12 students, or three percent) and Joseph Gale (22 students, or seven percent).

#### Enrollment Trends at Individual Schools: Secondary Schools

Neil Armstrong Middle School gained 62 students in 2001-02 and 86 students in 2002-03 but its enrollment has been nearly unchanged in the four years since 2002-03. Enrollment gains or losses have amounted to no more than 10 students, or one percent, in any individual year and also over the entire four year period.

By far the largest growth of any FGSD school has been at Forest Grove High School. High school enrollment (including alternative programs) has grown by 240 students (14 percent) over the past three years, including the 2005-06 to 2006-07 growth of about 100 students (five percent).

Total enrollments at each of the District's schools from 2001-02 to 2006-07 are shown in Table 11 on the next page. Enrollment change is shown for the period since current elementary boundaries were established in 2003-04.

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Table 11
Enrollment History for Individual Schools, 2001-02 to 2006-07

	Historic Enrollment					
School	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Cornelius	387	397	366	368	388	399
Dilley	248	245	240	254	251	264
Echo Shaw	529	545	432	428	454	448
Fern Hill	0	0	346	330	319	334
Gales Creek	110	114	116	110	115	118
Harvey Clarke	534	545	431	434	417	446
Joseph Gale	383	417	322	306	299	300
Elementary Totals (K-4)	2,191	2,263	2,253	2,230	2,243	2,309
Tom McCall Upper Elementary (5-6)	920	914	922	933	907	924
Neil Armstrong Middle School (7-8)	834	920	918	926	936	927
Forest Grove H.S.	1,538	1,589	1,627	1,679	1,704	1,886
Ellen Stevens	93	79	75	105	0	0
C.A.L.C.					137	56
High School Totals (9-12)	1,631	1,668	1,702	1,784	1,841	1,942
District Totals	5,576	5,765	5,795	5,873	5,927	6,102

3 year Change 2003-04 to 2006-07			
Number	Percent		
33	9.0%		
24	10.0%		
16	3.7%		
-12	-3.5%		
2	1.7%		
15	3.5%		
-22	-6.8%		
56	2.5%		
2	0.2%		
9	1.0%		
259	15.9%		
-75			
56			
240	14.1%		
307	5.3%		

Source: Forest Grove School District

#### HOUSING DEVELOPMENT AND SCHOOL ENROLLMENT

District staff and demographic consultants have maintained detailed information about new residential development within the District's boundaries based on land use changes approved by local jurisdictions. This information includes the number of lots in each single family subdivision, and the number of units in each multi-family development. The information has been presented in detail in past enrollment forecast reports, and provides an important tool for short-range (1-2 year) and mid-range (3-5 year) planning. In this section, the residential development data has been brought up to date, and historic data has been verified and updated as needed and assigned to current elementary boundaries.

Also in this section, we explore the impact of new residential development on school enrollment. Without a detailed analysis, community members and school officials are often unsure about the impacts. Large residential developments generally contribute significant enrollment growth to local schools, but the average number of students in each home is often lower than most people anticipate, and demographic trends in existing homes may either offset or exacerbate the enrollment gains from new housing. Also, the impacts vary by the characteristics of the new housing. Estimates of the average number of students generated by specific recent single family developments 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 future developments as they are proposed or approved.

On the following pages, Tables 12 and 13 present the lists of single family subdivisions and multi-family developments approved since 2000. Except for the later phases of Oak Hill Settlement, all of the subdivisions approved between 2000 and 2003 were built out by the end of 2005, and the completed homes were accounted for in Table 7 in this report. Among the developments approved in 2004, most of the homes in Summit Pointe have been completed and sold as of March 2007, though several are currently on the

market, including a few that are still under construction. The first building permits were recently issued for the 38 lot Falcon Ridge development.

Most of the current and upcoming development activity is occurring in the subdivisions approved in 2005 and 2006, including the first release of 50 homes in the 294 lot Pacific Crossing. The Hillsboro Argus recently reported that "Developer Renaissance Homes took 15 reservations prior to opening sales on the first, 50-lot phase." 10 Model homes are also open and sales have begun at the next largest new development in the District, the 217 lot Parks at Forest Grove.

<sup>10 &</sup>quot;Forest Grove's Pacific Crossing development opens home sales," The Hillsboro Argus, Friday, March 16, 2007.

# Table 12 Single Family Subdivisions Forest Grove School District, 2000 to 2006

	Elementary Area			
Approval*	(2006-07)	Subdivision Name	Jurisdiction	Lots
2000	Cornelius	Barlow and 4th	City of Cornelius	3
	Harvey Clarke	Aspenwood	City of FG	11
		2000 Total:		14
2001	Echo Shaw	Stillwater Meadows	City of Cornelius	42
	Harvey Clarke	David Hill Estates 1	City of FG	55
	Harvey Clarke	Pacific Grove 4	City of FG	12
	Dilley	Roxe Estates	City of FG	8
	·	2001 Total:	•	117
2002	Cornelius	Cedar Terrace	City of Cornelius	43
	Harvey Clarke	Lauren Lane	City of FG	6
	•	2002 Total:	•	49
2003	Harvey Clarke	Oak Hill Settlement, Phases 1-5	City of FG	194
	Harvey Clarke	Ridge Pointe (David Hill 2)	City of FG	31
	Harvey Clarke	Verde Meadows	City of FG	28
		2003 Total:		253
2004	Fern Hill	Chantal Hamlet	City of FG	18
	Harvey Clarke	Falcon Ridge (formerly Holtzmeyer)	City of FG	38
	Harvey Clarke	Heritage Park	City of FG	12
	Harvey Clarke	Summit Pointe (David Hill 3)	City of FG	56
		2004 Total:		124
2005	Echo Shaw	Sherburne Court	City of Cornelius	5
	Dilley	Pacific Crossing	City of FG	294
	•	2005 Total:	-	299
		table continued on next page		

## Table 12 (continued) Single Family Subdivisions Forest Grove School District, 2000 to 2006

	Elementary Area	l		
Approval <sup>*</sup>	(2006-07)	Subdivision Name	Jurisdiction	Lots
2006	Cornelius	Davis Meadows	City of Cornelius	10
	Cornelius	Gwendolyn Court	City of Cornelius	4
	Echo Shaw	Linda Lane	City of Cornelius	19
	Cornelius	North Davis Gardens	City of Cornelius	6
	Cornelius	Twin Peaks	City of Cornelius	4
	Harvey Clarke	Cook Village	City of FG	24
	Harvey Clarke	Council Meadows	City of FG	60
	Fern Hill	Giltner Glenn	City of FG	67
	Fern Hill	Hawthorne Meadows	City of FG	28
	Fern Hill	Hawthorne Village	City of FG	49
	Harvey Clarke	Holscher Farm	City of FG	10
	Fern Hill	Karen's Glenn	City of FG	63
	Harvey Clarke	Kings Gate	City of FG	9
	Harvey Clarke	The Parks at Forest Grove	·	
	•	(formerly McDonald)	City of FG	217
	Fern Hill	Williams Meadows	City of FG	18
		2006 Total:	·	588
2007				
(Jan-Feb)	Fern Hill	Casey Meadows	City of FG	102
		2007 Total:		102
		Grand Total approved 2000-2007:		1546
pending	Joseph Gale	Gales Creek Terrace	City of FG	100
	Fern Hill	Hawthorne Meadows 2	City of FG	7
	Fern Hill	Maplewood Estates	City of FG	59
	Joseph Gale	Rau (South of Pacific)		
		single family portion	City of FG	69
	Harvey Clarke	Silverstone	City of FG	171
	Harvey Clarke	Smith's Orchard	City of FG	16
	riante, elame	Pending Total:	o.i., o o	422
potential	Harvey Clarke	Matiaco	City of FG	n/a
	Joseph Gale	Rest of South of Pacific	City of FG	n/a
	Harvey Clarke	Surplus School Property	City of FG	71
	riaivey clarke	Carpiae Concort Toporty	City of 1 C	, ,

\*Note: "Approval" indicates the year in which the jurisdiction gave approval for the land use change, or in some cases, the year that the plat was recorded. Construction and occupancy may be in later years.

Sources: Compiled by Population Research Center, PSU from information provided by Cornelius, Forest Grove, and Washington County planning departments. Some information updated from tax assessor maps or developers. The number of lots sometimes changes between initial approval and final construction, so lot counts in this table may differ slightly from those published elsewhere.

## Table 13 Multiple Family and Townhome Developments Forest Grove School District, 2000 to 2006

**Elementary Area** 

_	Elementary Area			
Approval <sup>*</sup>	(2006-07)	Subdivision Name	Jurisdiction	Lots
2000		none		
		2000 Total:		0
2001	Joseph Gale	Jose Arciga Apts., 19th Ave	City of FG	18
	Fern Hill	Jose Arciga Apts., 22nd Place	City of FG	17
	Cornelius	Jose Arciga Apts.  2001 Total:	City of Cornelius	15 <b>50</b>
2002	Cornelius	1100 N. Davis Street (Davis Street Apts.)	City of Cornelius	45
		2002 Total:		45
2003		none		
		2003 Total:		0
2004	Harvey Clarke	Bolma Estates (townhomes)	City of FG	25
	Harvey Clarke	Lincoln Park (townhomes)	City of FG	32
	Fern Hill	Elm Meadows (townhomes)	City of FG	16
	Echo Shaw	S. 12th and Kodiak Circle, Apts. <b>2004 Total:</b>	City of Cornelius	12 <b>85</b>
2005-2006	Joseph Gale	KMG Townhomes	City of FG	6
	Harvey Clarke	Laurkis Townhouses	City of FG	8
	Joseph Gale	Sahnow Townhomes	City of FG	8
	Joseph Gale	Haney Townhomes	City of FG	4
	Harvey Clarke	Main Street Condos	City of FG	7
		2005-2006 Total:		33
		Grand Total approved 2000-2006:		213
pending	Joseph Gale	Rau (South of Pacific) townhome portion	City of FG	50
		·	Oily of 1°G	
		Pending Total:		50

<sup>\*</sup>Note: "Approval" indicates the year in which the jurisdiction gave approval for the land use change. Construction and occupancy may be in later years.

Sources: Compiled by Population Research Center, PSU from information provided by Cornelius, Forest Grove, and Washington County planning departments. The number of units sometimes changes between initial approval and final construction, so unit counts in this table may differ slightly from those published elsewhere.

#### FGSD Students Residing in New Housing

We estimated the Fall 2006 number of students per recently built single family home with a geographic information system (GIS), combining tax lots from Metro's RLIS system (polygons) with FGSD 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. This method successfully matched 86 percent of the District's students, and resulted in the most accurate geographic representation. Another 11 percent of District students were matched by street address range, and may or may not be associated with the correct tax lot. Most of these are residents of apartment complexes in which the individual apartment has a different address than the tax lot site address. About three percent of student addresses could not be matched by either method. We found that nearly all students in new subdivisions were associated with the correct lot, since the address information in the tax assessor's data is most accurate in the newest developments. In all cases, 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 Fall 2006 there were 672 FGSD students living in the 939 homes built between 2000 and 2005, or 0.72 students per unit, and 733 students in the 916 homes built between 1995 and 1999, or 0.80 students per unit. The rates are higher than those observed in two other Washington County districts for which we have produced comparable estimates. In the Tigard-Tualatin S.D., there were 0.53 students per recently built home, and the Hillsboro S.D. had an average of 0.56 students per newer home. Detailed results for FGSD are shown in Table 14 on the next page. The analysis does not include apartments or condominium units, because there have been relatively few multi-family developments in the FGSD since 2000.

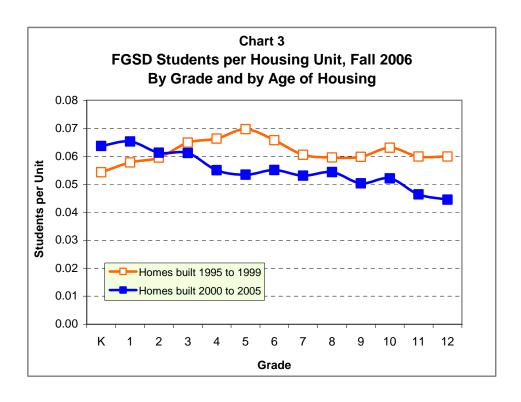
<sup>&</sup>lt;sup>11</sup>These calculations take into account the difference between the number of students matched in the GIS and published enrollment figures. For example, there were 449  $6^{th}$  grade students reported in the Fall 2006 enrollment tables, but only 425 matched in the GIS. So the number of  $6^{th}$  grade students was multiplied by  $449 \div 425 = 1.056$  to produce the estimates of student generation reported here.

Table 14
Average Number of FGSD Students per Housing Unit, Fall 2006
Single Family Housing Units Built 1995 to 2005

	Grade Level				
Single Family Homes	K-4	5-8	9-12	K-12	
Built 2000-2005	0.31	0.21	0.20	0.72	
Built 1995-1999	0.30	0.25	0.25	0.80	

Source: TTSD Fall 2006 students matched to Metro Regional Land Information System (February 2007) tax lot shape files by Population Research Center, PSU.

The average number of K-4 students is similar in the homes built before and since 2000, but the homes built between 1995 and 1999 have more students in grades 5 to 12. In developments that attract younger families with preschool or elementary children, elementary enrollment often peaks a few years after the homes are occupied, followed by secondary enrollment peaking several years later. To represent this result graphically in Chart 3, we calculated rates for individual grade levels. The chart shows that student generation rates in Fall 2006 are skewed by grade level for homes built since 2000, with the highest rates for primary grades K-3 and the lowest rates for high school grades. We would expect these homes to have more secondary students several years from now.



The specific characteristics of individual housing developments also influence the number of school-age children and the age of the students attending District schools. Many of the homes built between 1995 and 2005 in the FGSD were relatively affordable compared with homes built in other parts of Washington County, so it is not surprising that they appealed to young families. A recent *Oregonian* article suggests that larger, more expensive homes are becoming a bigger part of the new home market in Forest Grove. Real estate brokers and developers claim that the area's demographics are changing, that buyers include "people who are either moving up or are ready to downsize" and that retirees comprise many of the homebuyers at specific developments.<sup>12</sup>

To measure the potential range of student generation from different types of new single family homes, we identified the three parts of the district that had the most new construction in 2004 and 2005. They are: A) the Forest Gale Heights area, including David Hill Estates, Ridge Pointe, and Summit Pointe and B) the area east of Thatcher Road and North of Willamina Avenue, including Oak Hill Settlement, and Verde Meadows and C) the Cedar Terrace subdivision on North 7<sup>th</sup> Avenue in Cornelius. Areas A and B are both in the Harvey Clarke Elementary attendance area, and Area C is in the Cornelius Elementary attendance area. Table 15 reports the average number of students per home, and compares the average lot size, home size, and 2005 sales prices in each of the three areas.

The results of this analysis show that for these three areas, the largest, most expensive homes have the fewest FGSD students, and the most affordable homes have the most FGSD students. Area A, with average lot sizes of 12,000 square feet and average home sizes of 3,000 square feet, has only 0.37 FGSD students per home. Area B, with average lot sizes of 5,300 square feet and average home sizes of 1,900 square feet, has 0.64 FGSD students per home, and Area C, with average lot sizes of 3,350 square feet and average home sizes of about 1,700 square feet, has 1.20 FGSD students per home. The areas also differ with respect to the age distribution of students. In Area A, 40 percent of the Fall 2006 students were in high school. In Area B, 31 percent of the students were in high school.

<sup>12 &</sup>quot;Forest Grove grows up," *The Oregonian*, new home monthly, Saturday, February 17, 2007.

Table 15
Average Number of FGSD Students per Housing Unit, Fall 2006
Selected Single Family Developments Built 2004-2005

	Area A	Area B	Area C
Number of Homes	96	117	43
Average lot size (sq. ft.)	12,050	5,312	3,347
Average home size (sq. ft.)	3,011	1,900	1,690
Average sales price in 2005*	\$491,542	\$271,872	\$183,730
		T	T
Grade level K-4	0.14	0.28	0.72
	0.14	0.28 0.16	0.72 0.25
K-4			-
5-8	0.09	0.16	0.25

Area A includes David Hill Estates, Ridge Pointe, and Summit Pointe near Forest Gale Drive in the Harvey Clarke Elementary area.

Area B includes Oak Hill Settlement and Verde Meadows east of Thatcher Road in the Harvey Clarke Elementary area.

Area C includes Cedar Terrace near North 7th Street in the Cornelius Elementary area.

\*Note: For comparability, average sales price only includes transactions in calendar year 2005.

If Area A represents the type of home that will dominate the new home market in the near future, new development may contribute fewer students to FGSD schools than if most new developments resembled Areas B or C. However, we caution the readers that this analysis is limited to the current school year, and portrays the households living in homes that are two years old or less, most of whom are the initial occupants. Over the years, the characteristics of households living in these homes will evolve, so these student generation rates are not static. For those Area A home buyers who are empty nesters or retirees, how long will they want to live in a 3,000 square foot home? If Area C home buyers build equity in their homes and move up to larger homes, will they be replaced by young families with similar numbers of children?

In all three areas, all of the homes were detached single family residences on lots of 3,100 square feet or more. In other parts of Washington County, attached homes, zero lot line detached homes on lots sizes of 2,500 square feet or smaller, and condominium units have become a large part of the for-sale housing market. It is likely that the relationship between affordability and student generation shown in Table 15 does not extend to

market rate attached housing or condominiums. Our analysis of recently built homes in the Hillsboro School District (HSD) showed that, compared with detached single family homes, there were only about half as many HSD students in the average attached home, and about one sixth as many students in the average condominium unit. 13

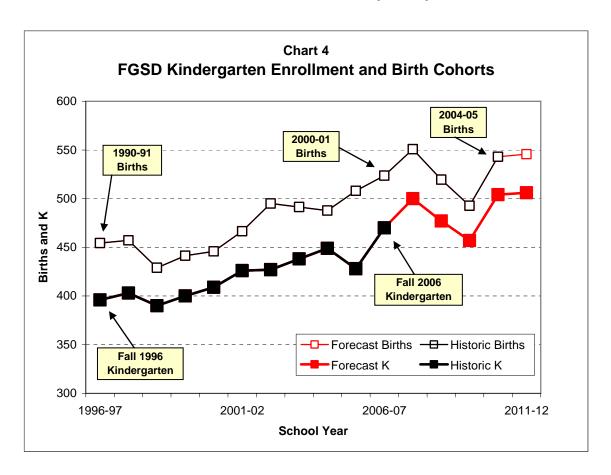
<sup>13</sup> Hillsboro School District, Population and Enrollment Forecasts, 2006-07 to 2015-16, .Population Research Center, Portland State University, April, 2006. Estimates for Fall 2005 HSD students per unit were 0.59 for detached single family homes, 0.33 for attached or small lot single family homes, and 0.10 for condominium units.

#### ENROLLMENT FORECASTS

#### District-wide Enrollment Forecast

These enrollment forecasts rely on input from three general sources of information: births, recent enrollment history, and housing development data.

Births to women residing within the specific boundaries of the District were estimated for the years 1990 to 2005, using individual birth records obtained through a data use agreement with the Oregon Center for Health Statistics. This data provides a closer fit than the data published by zip code, both spatially and chronologically, as births can be grouped by school attendance area and by kindergarten cohort (September to August). Chart 4 shows that kindergarten class sizes in the past decade have generally grown at about the same rate as births. There is fluctuation from year to year, but the number of



kindergarten students has averaged 11 percent less than the number of births five years earlier. That means that the District gains population due to migration between birth and age five, given our estimate that 19 percent of District kindergarten age residents do not attend FGSD kindergartens.

Several years of recent FGSD enrollment history were evaluated to develop initial grade progression rates (GPRs). The GPR is the ratio of enrollment in a specific grade in one year to the enrollment of the same age cohort in the previous year. For example, the number of students enrolled in second grade this year divided by the number of students enrolled in first grade last year. Rates for some grades may be consistently high, indicating that new students are entering the District from private schools. For this reason, it is common to see higher GPRs for the K-1<sup>st</sup> and 8<sup>th</sup>-9<sup>th</sup> grade transitions. In grades 10, 11, or 12, low GPRs can indicate that students are leaving high school or being retained at lower grade levels. But for most elementary grades, if the population entering and leaving the District is in balance and there is not widespread grade retention, one can expect GPRs very close to 1.00. Average GPRs observed for elementary grades in the FGSD in the past several years indicate that the District's enrollment has been growing by a little over one percent annually due to migration.

The link between housing and school enrollment is less certain, and more judgment is required to integrate the housing data into the forecast. Single family housing construction is expected to be sustained at or above recent levels for the next two to three years. In the past two years, developers have gained approval for subdivisions within the FGSD containing nearly 1,000 lots, and another 400 lots are pending approval in additional subdivisions. Forest Grove's community development director, Jon Holan, states that "there's enough on the books already that we have several years, just in terms of building what we have already approved. Once these areas get built out there are other potential sites available." <sup>14</sup>

Some of the potential sites for new housing are in areas recently annexed. In February, Forest Grove annexed 114 parcels totaling almost 300 acres. With the annexed land

<sup>&</sup>lt;sup>14</sup> "Forest Grove grows up," *The Oregonian*, new home monthly, Saturday, February 17, 2007.

Forest Grove has set in motion the opportunity to "bring city services to the sites for current and eventual future development" as the staff report on the boundary change states. The staff report also states that the annexation is included in the FGSD boundaries and that "subdivision development would substantially increase [school age] population and impact [school] capacity. Long-term school planning includes the need for another future school site. A continued and expanded partnership between the school district and the community is desired." <sup>15</sup>

Recent Urban Growth Boundary (UGB) expansions also factor into residential land availability in the FGSD. The City of Forest Grove's boundaries include about 63 acres north of Hartford Drive and B Street that was added to the UGB in 2002, and the area contains the Silverstone subdivision currently pending approval. Another UGB expansion occurred adjacent to the City of Cornelius in 2004, but most of that land is within the Hillsboro School District.

The larger new developments will be phased over several years, so we assume that between 200 and 250 homes will be completed each year in 2007 and 2008. Therefore, the GPRs and kindergarten to birth ratios used in the first three years of the forecast are at the high end of those observed during the past five years, corresponding to enrollment gains of close to two percent due to migration. However, total K-12 enrollment grows by less than two percent annually in the forecast, due to the current large high school cohort graduating. For the last two years of the forecast, the GPRs are slightly lower, similar to long term historic averages. These rates incorporate the difficulty of sustaining record levels of homebuilding over the entire five year period as well as the potential growing market of older homebuyers with fewer children.

Table 16 contains grade level forecasts for the Forest Grove School District for each year from 2007-08 to 2011-12. The forecasts are also summarized by grade level groups (K-4, 5-6, 7-8, and 9-12). Overall K-12 enrollment is forecast to increase in each of the next five years, with annual growth averaging close to 100 students each year. The largest

<sup>&</sup>lt;sup>15</sup> "Report on Boundary Change Proposal No. ANX 06-04 Annexation to Forest Grove Scheduled for Hearing Date of January 22, 2007", City of Forest Grove, January 10, 2007, at <a href="http://www.ci.forest-grove.or.us/SourceFiles/CommDev/2006SpecialAnnex/ANX0604staffreport.pdf">http://www.ci.forest-grove.or.us/SourceFiles/CommDev/2006SpecialAnnex/ANX0604staffreport.pdf</a>

growth occurs at the elementary level, with modest growth at the upper elementary and middle school levels, and a stable high school enrollment forecast reflecting slower growth in the grades poised to enter high school. Table 16 includes six years of historic enrollment figures to facilitate comparison between forecast and recent enrollment change in single year and five year increments.

Table 16

Forest Grove School District, Enrollment History and Forecasts, 2001-02 to 2011-12

			Historic E	nrollment				Fore	ecast Enrollr	nent	
Grade	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	
K	426	427	438	449	428	470	500	477	457	504	
1	440	465	432	451	466	448	490	522	498	477	
2	443	474	456	427	449	485	460	503	536	506	
3	431	452	454	450	419	466	493	468	511	540	
4	451	445	473	453	481	440	484	512	486	526	
5	438	469	445	475	431	475	443	487	515	484	
6	482	445	477	458	476	449	485	452	497	526	
7	438	479	434	483	457	478	452	488	455	495	
3	396	441	484	443	479	449	479	453	489	456	
9	548	548	572	542	479	524	514	549	519	560	
10	402	377	435	483	509	482	500	491	524	485	
11	354	382	351	394	469	478	458	475	466	498	
12	327	361	344	365	384	458	474	454	471	458	
Γotal	5,576	5,765	5,795	5,873	5,927	6,102	6,232	6,331	6,424	6,515	
One Ye	ar Change:	189 (3.4%)	30 (0.5%)	78 (1.3%)	54 (0.9%)	175 (3.0%)	130 (2.1%)	99 (1.6%)	93 (1.5%)	91 (1.4%)	,
Five Ye	ar Change:					526 (9.4%)					,
<b>K-4</b>	2,191	2,263	2,253	2,230	2,243	2,309	2,427	2,482	2,488	2,553	
One Ye	ar Change:	72 (3.3%)	-10 (-0.4%)	-23 (-1.0%)	13 (0.6%)	66 (2.9%)	118 (5.1%)	55 (2.3%)	6 (0.2%)	65 (2.6%)	
Five Ye	ar Change:					118 (5.4%)					2
5-6	920	914	922	933	907	924	928	939	1,012	1,010	
One Ye	ar Change:	-6 (-0.7%)	8 (0.9%)	11 (1.2%)	-26 (-2.8%)	17 (1.9%)	4 (0.4%)	11 (1.2%)	73 (7.8%)	-2 (-0.2%)	
Five Ye	ar Change:					4 (0.4%)					(
7-8	834	920	918	926	936	927	931	941	944	951	
One Ye	ar Change:	86 (10.3%)	-2 (-0.2%)	8 (0.9%)	10 (1.1%)	-9 (-1.0%)	4 (0.4%)	10 (1.1%)	3 (0.3%)	7 (0.7%)	
	ar Change:	, ,	,	,	,	93 (11.2%)		,	,	( /	g
9-12	1,631	1,668	1,702	1,784	1,841	1,942	1,946	1,969	1,980	2,001	
	ar Change:	37 (2.3%)	34 (2.0%)	82 (4.8%)	57 (3.2%)	101 (5.5%)	4 (0.2%)	23 (1.2%)	11 (0.6%)	21 (1.1%)	
	ar Change:	, ,	, ,	, ,	, ,	311 (19.1%)	, ,	, ,	, ,	, ,	

#### **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. However, the individual school forecasts depict what future enrollments might be if today's facilities and boundaries were unchanged.

Another factor that is not included in these forecasts is the impact of the District's recently approved charter school, the Forest Grove Community School. The school plans to open with at least 155 students in Fall 2007, and the first priority is for students living within the FGSD.<sup>16</sup> Students from beyond the FGSD may also enroll if there is space available, and the FGSD residents might be a mix of current FGSD students, private school students and home schooled. The experience of other districts is that the effect of new charter schools on enrollment at existing district-run schools is uneven. Some district-run students may not be affected at all, while others may notice some enrollment loss to the new charter. Future enrollment forecast updates will include the impact of the new school.

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 the District's elementary schools, the largest enrollment increase is forecast at Harvey Clarke (157 students, or 35 percent growth). The Harvey Clarke attendance area contains about 43 percent of the District's approved or pending undeveloped lots. Recent

<sup>16</sup> For Forest Grove Community School enrollment policies and procedures see <a href="http://www.fgcschool.org">http://www.fgcschool.org</a>.

development in the area (63 percent of the District's new single family homes built between 2000 and 2005 were in the Harvey Clarke area) influenced the number of births in the area, which has averaged about 120 annually in the past five years.

The next largest K-4 enrollment increase is forecast at Dilley (40 students, or 15 percent growth). Dilley contains the largest development currently underway in the District, the 294 lot Pacific Crossing. Dilley has had only a modest amount of new housing but notable in-migration of families with children, evident from its grade-to-grade enrollment gains and its high ratio of kindergarten enrollment to births five years previous (an average of 1.08 over the past six years).

Growth rates of 10 to 11 percent over the next five years are forecast at Cornelius, Fern Hill, and Gales Creek, and relatively stable enrollment is forecast for Echo Shaw and Joseph Gale. Fern Hill has had several subdivisions approved, but housing construction has not yet begun. Future development in the west side of Joseph Gale's attendance area is still in the planning stages. Relatively little new housing is currently planned in Cornelius or Echo Shaw, both of which have little room for new development within the current UGB. There are a number of Measure 37 claims in the Gales Creek area, but the extent and timing of potential development on these claims is unknown at this time. Students from outside of the Gales Creek attendance area now comprise over 40 percent of the school's enrollment, so if resident population increases, the school could maintain its small enrollment by reducing the nonresident enrollment.

Because the schools serving 5<sup>th</sup> to 12<sup>th</sup> grade enroll students district-wide, the individual school forecasts match the district-wide figures by school level reported earlier. Although migration contributes to enrollment gains at the secondary level as well as the elementary level, enrollment changes at Tom McCall, Neil Armstrong, and FGHS depend largely on the size of the classes moving up from the previous school level. Both Tom McCall and Neil Armstrong are forecast to grow by 10 percent in the next five years, with the largest single year increases occurring in 2009-10 at Tom McCall and 2011-12 at

<sup>&</sup>lt;sup>17</sup> Maps and lists of Measure 37 claims in Washington County are available at <a href="http://www.co.washington.or.us/deptmts/lut/land\_dev/37letter.htm">http://www.co.washington.or.us/deptmts/lut/land\_dev/37letter.htm</a>.

Neil Armstrong. Forest Grove High School enrollment is forecast to grow slightly over the five year forecast period.

Table 17 on the next page presents the enrollment forecasts for each school, grouped by school level. Profiles in Appendix A for each school include enrollment history and forecasts, school capacities, and housing development information for the school's attendance area. Appendix B contains enrollment forecasts for individual schools by grade level.

Table 17
Enrollment Forecasts for Individual Schools, 2007-08 to 2011-12

	Actual
School	2006-07
Cornelius	399
Dilley	264
Echo Shaw	448
Fern Hill	334
Gales Creek	118
Harvey Clarke	446
Joseph Gale	300
Elementary Totals (K-4)	2,309
Tom McCall Upper Elementary (5-6)	924
Neil Armstrong Middle School (7-8)	927
	1,886
Forest Grove H.S.	
Forest Grove H.S. C.A.L.C.	56
	56 <b>1,942</b>

	Forecast						
2007-08	2008-09	2009-10	2010-11	2011-12			
427	432	441	449	438			
276	280	286	297	304			
458	449	440	443	452			
344	362	362	373	368			
124	126	131	133	131			
489	531	536	578	603			
309	302	292	280	286			
2,427	2,482	2,488	2,553	2,582			
928	939	1,012	1,010	1,018			
931	941	944	951	1,020			
1,890	1,913	1,924	1,945	1,938			
56	56	56	56	56			
1,946	1,969	1,980	2,001	1,994			
6,232	6,331	6,424	6,515	6,614			

Change					
2006-07 t	o 2011-12				
Number	Percent				
39	9.8%				
40	15.2%				
4	0.9%				
34	10.2%				
13	11.0%				
157	35.2%				
-14	-4.7%				
273	11.8%				
94	10.2%				
93	10.0%				
52	2.8%				
0	0.0%				
52	2.7%				
512	8.4%				

#### **Enrollment and Capacity**

Estimates of facility capacity were presented in an enrollment study prepared for FGSD in January 2005. Since the 2005 report, FGSD facility capacities have not changed. Optimum capacity uses a class size multiplier of 20 for kindergarten, 22 for grade 1 and 2, and 25 for grades 3 and higher. Maximum capacity uses multipliers of 23 for kindergarten, 25 for grade 1 and 2, 28 for grades 3 and 4, and 30 for grades 5 and higher.

Table 18 compares the 2006-07 actual and 2011-12 forecast enrollments with the estimates of facility capacity for each school. Bold school names indicate schools expected to exceed optimal capacity by 2011-12 (several already have). Bold and underlined school names indicate schools expected to exceed maximum capacity by 2011-12. The school profiles in Appendix A graphically compare the enrollment and capacity figures.

	Actual	Forecast	Capacity		
School	2006-07	2011-12	Optimal	Maximum	
Cornelius	399	438	364	412	
Dilley	<u>264</u>	<u>304</u>	228	258	
Echo Shaw	448	452	453	513	
Fern Hill	334	<u>368</u>	317	359	
Gales Creek	118	<u>131</u>	114	129	
Harvey Clarke	446	<u>603</u>	451	511	
Joseph Gale	300	286	364	412	
Elementary Totals (K-4)	2,309	2,582	2,291	2,594	
Tom McCall Upper Elementary (5-6)	924	1,018	800	960	
Neil Armstrong Middle School (7-8)	927	1,020	925	1,110	
Forest Grove H.S. + CALC	1,942	1,994	1,675	2,079	

<sup>&</sup>lt;sup>18</sup> Forest Grove School District, Enrollment Projection Update. Dr. Judith A. Barmack, January, 2005.

#### FORECAST UNCERTAINTY

By exploring recent population, housing, and enrollment trends in the Forest Grove School District, linking these trends and expectations of future growth in the forecast models, and producing the enrollment forecasts, we have completed a study that we believe will be useful for a variety of short and mid-range planning needs of the District.

In these forecasts, district-wide elementary and upper elementary school enrollments are expected to grow faster in the five year forecast period than they have in the most recent five years. Middle school enrollment is forecast to increase by the same increment in the next five years as it has in the past five years. High school enrollment has grown by more than 300 students in the past five years, but is forecast to grow by only about 50 students in the next five years. However, we caution the users of this report on the nature of forecasting in general. Migration and household composition can vary greatly in an uncertain future. The forecast assumptions involve judgment and the expectation that future trends will fall neatly into place in alignment with current trends and the planning of local agencies. We know from past history that unforeseen events can affect these expectations.

Another uncertainty in the forecast involves the entry grades, kindergarten and 1<sup>st</sup> grade. The relationship between births and subsequent kindergarten and 1<sup>st</sup> grade enrollment five to six years later is affected by two factors – the migration of children during the years prior to enrolling in school, and the capture rate. Total enrollment in the District's kindergarten is at a historic high in the current year (2006-07), but the number of births within the FGSD has fluctuated since 2000. If kindergarten enrollment continues to increase, it will influence District enrollment totals for years to come, since students have 13 years to progress through the system.

The forecast includes positive net migration of students, at rates similar to or higher than the past five years. The contribution of migration occurs each year in the forecast. In reality, there will be cycles of faster and slower economic and population growth in the future which no forecast will be able to predict, so the year-to-year pattern of actual growth will deviate from the forecast. However, the forecast enrollment changes are consistent with population, employment, and housing growth expected in the District.

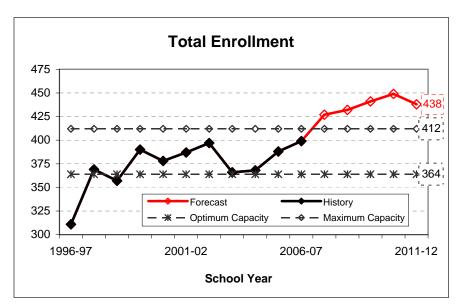
In general, forecast error varies according to the size of the population being forecast and the length of the forecast horizon. The smaller the population and the longer the forecast period, the larger the error is likely to be. In particular, the school level forecasts depend on assumptions about the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

Because of the uncertainties of forecasts described in this section, it is important to monitor the results and update the forecast as new information becomes available. New information may be school enrollment data, new census data, proposals for major new housing development, or land use changes that may result in housing or economic growth that differs significantly from recent and current trends.

### **APPENDIX A**

# POPULATION, HOUSING, AND ENROLLMENT PROFILES FOR INDIVIDUAL SCHOOLS

### **Cornelius Elementary School -- Population, Housing, and Enrollment Profile**



Note: Facility capacity calculations are described on page 44 of the report.

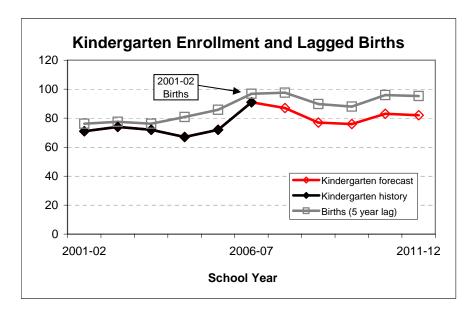
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

				Change
	1990	2000	Number	Percent
Total Population	3,469	4,241	772	22%
Population Under Age 5	302	368	66	22%
Population Age 5 to 17	616	873	257	42%
Housing Units	1,434	1,580	146	10%
Households	1,395	1,486	91	7%
with children under 18	446	551	105	24%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	311	387	399	438
5 year change		76	12	39

Note: Elementary boundaries changed in 2003 when Fern Hill opened.

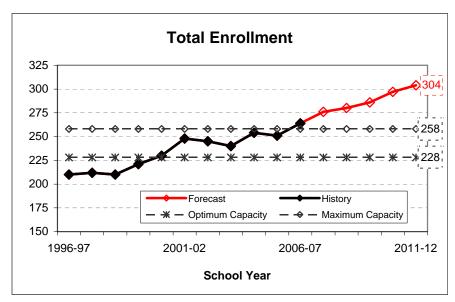
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 84

Additional single family lots approved or pending <sup>2</sup>: 24

- 1. Aggregated from Metro RLIS tax lot attribute data, February, 2007.
- 2. Number of lots in subdivisions approved 2003-2007 or pending. Excludes homes completed by 2005 counted in Metro RLIS data above.

### Dilley Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

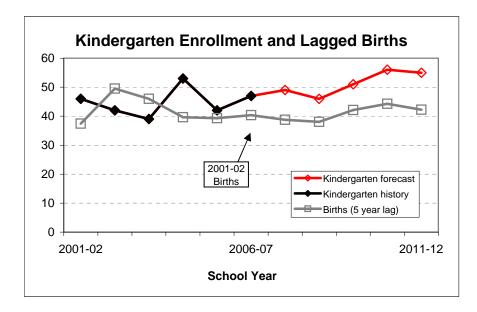
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change	
	1990	2000	Number	Percent	
Total Population	3,124	3,263	139	4%	
Population Under Age 5	197	224	27	14%	
Population Age 5 to 17	770	734	-36	-5%	
Housing Units	1,036	1,114	78	8%	
Households	1,000	1,075	75	8%	
with children under 18	455	478	23	5%	

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	210	248	264	304
5 year change		38	16	40

Note: Elementary boundaries changed in 2003 when Fern Hill opened.

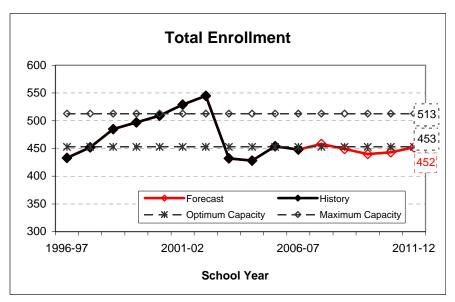
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 89

Additional single family lots approved or pending <sup>2</sup>: 294

1. Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Echo Shaw Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

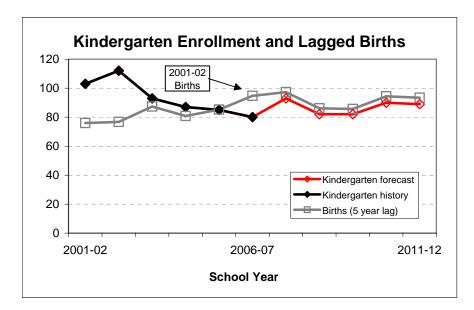
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	'90-'00 Change		
	1990	2000	Number	Percent		
Total Population	2,867	4,096	1,229	43%		
Population Under Age 5	275	393	118	43%		
Population Age 5 to 17	699	947	248	35%		
Housing Units	889	1,194	305	34%		
Households	876	1,159	283	32%		
with children under 18	487	598	111	23%		

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	433	529	448	452
5 year change		96	-81	4

Note: Elementary boundaries changed in 2003 when Fern Hill opened.

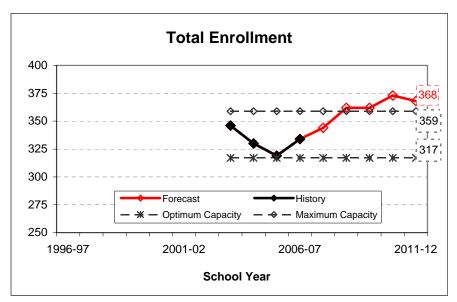
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 64

Additional single family lots approved or pending <sup>2</sup>: 24

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Fern Hill Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

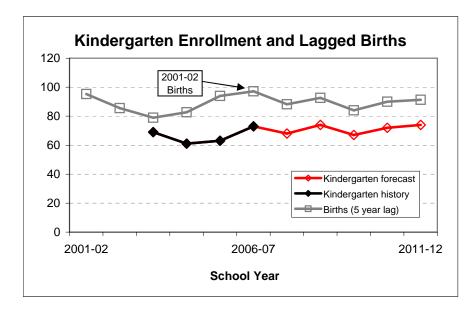
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	3,677	4,316	639	17%
Population Under Age 5	366	393	27	7%
Population Age 5 to 17	778	823	45	6%
Housing Units	1,252	1,598	346	28%
Households	1,200	1,518	318	27%
with children under 18	550	549	-1	0%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	0	0	334	368
5 year change		0	334	34

Note: Fern Hill opened in 2003.

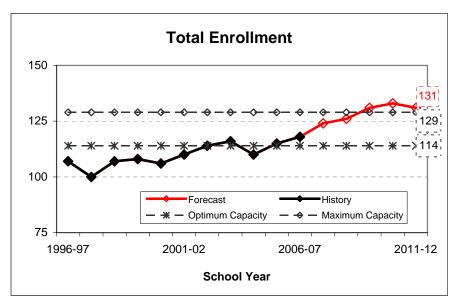
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 2

Additional single family lots approved or pending <sup>2</sup>: 398

Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Gales Creek Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

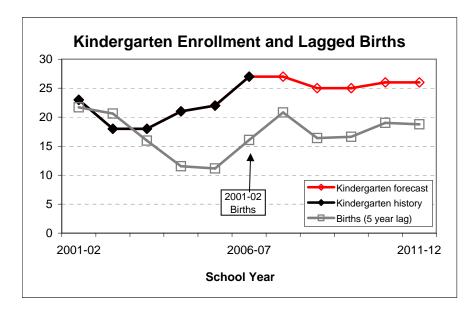
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	1,748	1,761	13	1%
Population Under Age 5	90	75	-15	-17%
Population Age 5 to 17	382	349	-33	-9%
Housing Units	640	673	33	5%
Households	608	636	28	5%
with children under 18	264	213	-51	-19%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

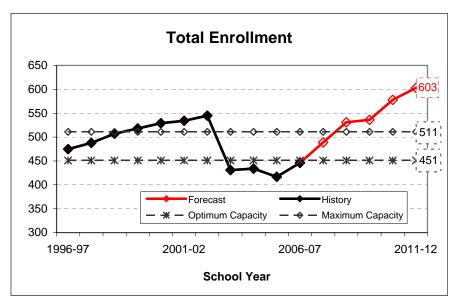
		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	107	110	118	131
5 year change		3	8	13

### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup> :	23
Additional single family lots approved or pending <sup>2</sup> :	0

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Harvey Clarke Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

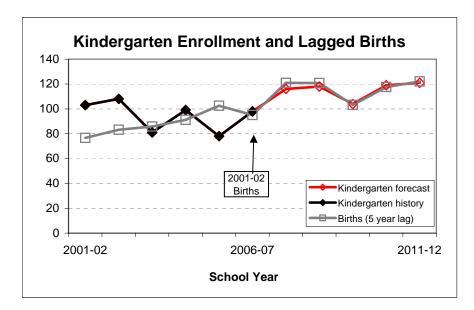
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

		'90-'00 Cha		Change
	1990	2000	Number	Percent
Total Population	4,585	7,083	2,498	54%
Population Under Age 5	300	520	220	73%
Population Age 5 to 17	787	1,389	602	76%
Housing Units	1,623	2,413	790	49%
Households	1,567	2,294	727	46%
with children under 18	565	991	426	75%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

		History		
	1996-97	1996-97 2001-02 2006-07	2011-12	
Total enrollment	475	534	446	603
5 year change		59	-88	157

Note: Elementary boundaries changed in 2003 when Fern Hill opened.

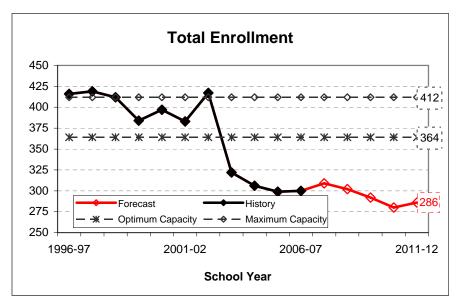
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 588

Additional single family lots approved or pending <sup>2</sup>: 698

- 1. Aggregated from Metro RLIS tax lot attribute data, February, 2007.
- 2. Number of lots in subdivisions approved 2003-2007 or pending. Excludes homes completed by 2005 counted in Metro RLIS data above.

### Joseph Gale Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

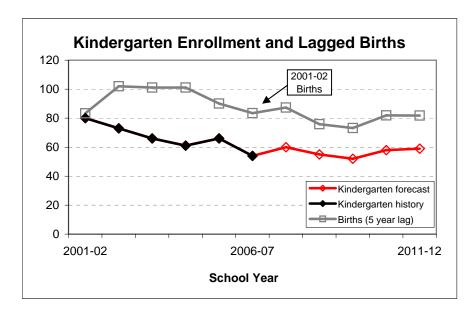
### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	4,883	5,438	555	11%
Population Under Age 5	414	412	-2	0%
Population Age 5 to 17	911	1,013	102	11%
Housing Units	1,959	2,290	331	17%
Households	1,906	2,147	241	13%
with children under 18	659	741	82	12%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007



#### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	416	383	300	286
5 year change		-33	-83	-14

Note: Elementary boundaries changed in 2003 when Fern Hill opened.

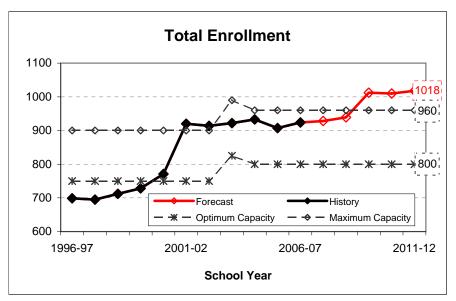
### **New Housing Development**

Number of single family housing units built 2000 to 2005 <sup>1</sup>: 89

Additional single family lots approved or pending <sup>2</sup>: 169

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Tom McCall Upper Elementary School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

#### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	24,353	30,198	5,845	24%
Population Under Age 5	1,944	2,385	441	23%
Population Age 5 to 17	4,943	6,128	1,185	24%
Housing Units	8,833	10,862	2,029	23%
Households	8,552	10,315	1,763	21%
with children under 18	3,426	4,121	695	20%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007

#### **Enrollment History and Forecast**

		History		
	1996-97	2001-02	2006-07	2011-12
Total enrollment	699	920	924	1018
5 year change		221	4	94

### **New Housing Development**

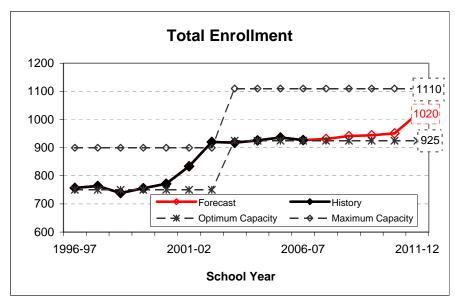
Number of single family housing units built 2000 to 2005 <sup>1</sup>: 939

Additional single family lots approved or pending 2:

1607

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Neil Armstrong Middle School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

#### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	24,353	30,198	5,845	24%
Population Under Age 5	1,944	2,385	441	23%
Population Age 5 to 17	4,943	6,128	1,185	24%
Housing Units	8,833	10,862	2,029	23%
Households	8,552	10,315	1,763	21%
with children under 18	3,426	4,121	695	20%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007

### **Enrollment History and Forecast**

		History		Forecast
	1996-97	2001-02	2006-07	2011-12
Total enrollment	757	834	927	1020
5 year change		77	93	93

### **New Housing Development**

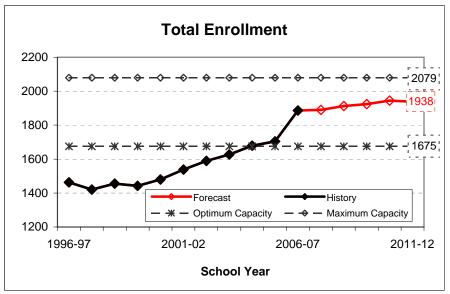
Number of single family housing units built 2000 to 2005 <sup>1</sup>: 939

Additional single family lots approved or pending<sup>2</sup>:

1607

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### Forest Grove High School -- Population, Housing, and Enrollment Profile



Note: Facility capacity calculations are described on page 44 of the report.

#### 1990 and 2000 Census Data\*

2006-07 attendance area boundaries

			'90-'00	Change
	1990	2000	Number	Percent
Total Population	24,353	30,198	5,845	24%
Population Under Age 5	1,944	2,385	441	23%
Population Age 5 to 17	4,943	6,128	1,185	24%
Housing Units	8,833	10,862	2,029	23%
Households	8,552	10,315	1,763	21%
with children under 18	3,426	4,121	695	20%

\*Note: Estimated by PSU-PRC by assigning census block centroids to 2006-07 school attendance areas and aggregating census block data.

Population Research Center, Portland State University May, 2007

#### **Enrollment History and Forecast**

			History		Forecast
	199	6-97	2001-02	2006-07	2011-12
Total enrollment	14	-63	1538	1886	1938
5 year change			75	348	52

### **New Housing Development**

Number of single family housing units built 2000 to 2005 1: 939 1607

Additional single family lots approved or pending<sup>2</sup>:

<sup>1.</sup> Aggregated from Metro RLIS tax lot attribute data, February, 2007.

### APPENDIX B

## ENROLLMENT FORECASTS FOR INDIVIDUAL SCHOOLS BY GRADE LEVEL

### Ъ

October 2006 enrollment by grade by school -- base year data used in May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	91	47	80	73	27	98	54				
1	78	49	86	62	24	81	68				
2	74	54	95	73	22	106	61				
3	84	57	97	60	24	82	62				
4	72	57	90	66	21	79	55				
5								475			
6								449			
7									478		
8									449		
9										524	0
10										476	6
11										465	13
12										421	37
Total	399	264	448	334	118	446	300	924	927	1886	56

### B-2

### October 2007 enrollment by grade by school -- May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	87	49	93	68	27	116	60				
1	98	51	83	76	28	100	54				
2	79	53	88	64	25	84	67				
3	76	61	95	73	21	105	62				
4	87	62	99	63	23	84	66				
5								443			
6								485			
7									452		
8									479		
9										514	0
10										494	6
11										445	13
12										437	37
Total	427	276	458	344	124	489	309	928	931	1890	56

### Β-

### October 2008 enrollment by grade by school -- May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	77	46	82	74	25	118	55				
1	96	54	96	70	28	118	60				
2	99	55	85	79	29	103	53				
3	80	60	88	64	24	84	68				
4	80	65	98	75	20	108	66				
5								487			
6								452			
7									488		
8									453		
9										549	0
10										485	6
11										462	13
12										417	37
Total	432	280	449	362	126	531	302	939	941	1913	56

### <u>β</u>-ί

### October 2009 enrollment by grade by school -- May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	76	51	82	67	25	104	52				
1	84	50	85	77	26	121	55				
2	97	59	98	72	29	122	59				
3	101	63	84	79	28	103	53				
4	83	63	91	67	23	86	73				
5								515			
6								497			
7									455		
8									489		
9										519	0
10										518	6
11										453	13
12										434	37
Total	441	286	440	362	131	536	292	1012	944	1924	56

B-:

### October 2010 enrollment by grade by school -- May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	83	56	90	72	26	119	58				
1	83	55	85	68	26	106	54				
2	82	53	86	80	27	125	53				
3	99	66	97	70	27	122	59				
4	102	67	85	83	27	106	56				
5								484			
6								526			
7									495		
8									456		
9										560	0
10										479	6
11										485	13
12										421	37
Total	449	297	443	373	133	578	280	1010	951	1945	56

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### October 2011 enrollment by grade by school -- May 2007 forecasts

			Echo		Gales	Harvey	Joseph	Tom	Neil Arm-		
Grade	Cornelius	Dilley	Shaw	Fern Hill	Creek	Clarke	Gale	McCall	strong	F.G.H.S.	C.A.L.C.
K	82	55	89	74	26	121	59				
1	90	61	93	73	27	122	60				
2	82	58	86	70	27	110	52				
3	83	60	85	78	25	125	53				
4	101	70	99	73	26	125	62				
5								524			
6								494			
7									524		
8									496		
9										522	0
10										517	6
11										447	13
12										452	37
Total	438	304	452	368	131	603	286	1018	1020	1938	56