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Canby School District: Enrollment Forecast 2010-11 to 2019-20

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**CANBY SCHOOL DISTRICT
ENROLLMENT FORECAST
2010-11 TO 2019-20**



MARCH, 2010

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2010-11 TO 2019-20**

*Charles Rynerson, principal investigator and author
Vivian Siu, database development and spatial and statistical analysis
David West assisted with the report*

MARCH, 2010

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EXECUTIVE SUMMARY

The Population Research Center (PRC) has prepared district-wide and individual school enrollment forecasts for the Canby School District (CSD) annually for the past four years. This study includes forecasts of district-wide enrollment for the 10 years from 2010-11 to 2019-20 and forecasts for individual schools for the five years from 2010-11 to 2014-15. Previous district-wide forecasts only extended for five years; a 10 year forecast enhances opportunities for school districts to coordinate long range planning with city and county comprehensive plans, which may extend for 20 or more years.

After many years of growth, K-12 enrollment in the Canby School District reached about 5,300 students in 2000-01 and remained at that level through the 2004-05 school year. Enrollment has declined in four out of five years since 2004-05, amounting to a net loss of 324 students (6.1 percent) in the period. The K-12 total in Fall 2009 was 4,978 students.

Until the past few years, the District's expanding housing stock and growing Latino population compensated for the loss of enrollment that would have occurred due to the aging of the existing population. Due to the current regional job losses and paucity of new housing development as well as the large number of graduating high school students, the number of new students moving into the District is currently not sufficient to prevent small losses in enrollment. In this study, we examine enrollment trends by housing type, showing a loss of more than 300 students since 2006-07 residing in single family homes built before 2000 and a gain of about 300 students living in homes built since 2000 and rental apartments.

The population forecast prepared for the CSD indicates that overall population has grown at an average annual rate of 1.4 percent between 2000 and 2010. However, the District's population of school age residents has fallen since 2000. The population forecast for the

2010 to 2020 period shows continued average annual growth of 1.4 percent for total population, but only 1.1 percent for school age population.

Overall K-12 enrollment is forecast to increase by 486 students (10 percent) in the next 10 years. Growth will be slow at first, with the potential for continued declining or flat enrollment for the 2010-11 and 2011-12 school years. K-5 enrollments begin to grow after 2011-12, but grade 6-8 enrollments remain flat until 2016-17 and begin to grow in the last three years of the forecast. High school enrollment changes very little throughout the 10 year forecast period.

In spite of changes in forecast methodology, the forecast for 2013-14 is only slightly different from last year's forecast (2013-14 was the final year of last year's five year forecast). K-5 enrollment in 2013-14 is 45 students higher than last year's forecast, grades 6-8 enrollment is 18 students higher, and high school enrollment is 62 students higher. Most of the difference is due to this year's higher than expected enrollment and the emerging trend of fewer students leaving high school before 12th grade.

Table 1 contains CSD recent and forecast enrollments for five year intervals. On page 46 of this report, Table 22 contains annual detail by individual grade level.

Forecasts for individual schools depict what future enrollments might be if current boundaries, grade configurations, and programs remain unchanged. Because of the greater uncertainty in school forecasts and the possibilities for changes in the long term that are unknown at this time, the school forecasts have a five year horizon, rather than the 10 year horizon of the district-wide forecast. Specific figures for each school may be found in Table 23 of this report and in school profiles in the Appendix.

Table 1
Historic and Forecast Enrollment
Canby School District

	Actual			Forecast	
	1999-00	2004-05	2009-10	2014-15	2019-20
Grades K-5 <i>5 year change</i>	2,320	2,232 -88 -3.8%	2,164 -68 -3.0%	2,312 148 6.8%	2,557 245 10.6%
Grades 6-8 <i>5 year change</i>	1,266	1,298 32 2.5%	1,184 -114 -8.8%	1,143 -41 -3.5%	1,277 134 11.7%
Grades 9-12 <i>5 year change</i>	1,634	1,772 138 8.4%	1,630 -142 -8.0%	1,650 20 1.2%	1,630 -20 -1.2%
Total <i>5 year change</i>	5,220	5,302 82 1.6%	4,978 -324 -6.1%	5,105 127 2.6%	5,464 359 7.0%

Actual: Canby School District.

Forecast: Population Research Center, PSU, March 2010.

INTRODUCTION

The Population Research Center (PRC) has prepared district-wide and individual school enrollment forecasts for the Canby School District (CSD) annually for the past four years. This study includes forecasts of district-wide enrollment for the 10 years from 2010-11 to 2019-20 and forecasts for individual schools for the five years from 2010-11 to 2014-15. Previous district-wide forecasts only extended for five years; a 10 year forecast enhances opportunities for school districts to coordinate long range planning with city and county comprehensive plans, which may extend for 20 or more years.

Information about CSD enrollment trends and local area population, housing, and economic trends are updated, but much of the historic analysis from the previous reports remains the same. New research concerning the number of students by housing type is presented in this report. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, geographic shape files from Clackamas County and Metro, county population forecasts from the Oregon Office of Economic Analysis, employment trends and forecasts from the Oregon Employment Department, and housing development and planning data from the City of Canby and Clackamas County.

The District serves the cities of Canby and Barlow, the Charbonneau neighborhood of the City of Wilsonville and portions of unincorporated Clackamas County, notably the Carus area east of Canby and the Lone Elder and Ninety-One areas south of Canby. The entire District is within Clackamas County and its western boundary follows the county's boundary along the Pudding River.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District, and the relationship between enrollment and housing. Next are the results of the district-wide enrollment forecasts and individual school forecasts, and a description of the methodologies used to produce them. The final

section contains a brief discussion of the nature and accuracy of forecasts. An appendix contains one page profiles for each school showing its enrollment history and forecasts and housing trends within its attendance area.

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:

- Bryan Brown, City of Canby
- Matilda Deas, City of Canby
- Joe Morelock, CSD
- Diana Rick, Clackamas ESD
- Susie Strangfield, CSD
- Jill Thorn, City of Canby
- Ken Wheeler, Clackamas County

POPULATION AND HOUSING TRENDS, 1990 to 2009

Between 1990 and 2000, total population within the CSD grew by 18 percent, from 23,309 persons to 27,431. In comparison, Clackamas County grew by 21 percent and the Portland metropolitan area grew by 27 percent. Although the area served by the CSD grew at a slower rate than the metro area and Clackamas County, the CSD population living within incorporated cities grew by 41 percent, adding about 4,500 residents during the decade. As a result of the growth in the cities and slight population loss in unincorporated areas, city population as a share of the District's total grew from 47 percent in 1990 to 57 percent in 2000.

In the first nine years of the current decade, the District's population has continued to grow by nearly 400 persons per year, numeric growth similar to the 1990s. The rate of growth this decade is slightly lower than in the 1990s, and the same is true for the City of

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

	1990	2000	2009	Avg. Annual Growth Rate	
				1990-2000	2000-2009
City of Canby	8,990	12,790	15,230	3.6%	1.9%
City of Barlow	118	140	140	1.7%	0.0%
City of Wilsonville	7,106	13,991	18,020	7.0%	2.8%
<i>CSD Portion¹</i>	1,924	2,601	N/A	3.1%	
CSD Unincorporated	12,277	11,900	N/A	-0.3%	
CSD Total ²	23,309	27,431	31,172	1.6%	1.4%
Clackamas County	278,850	338,391	379,845	2.0%	1.3%
Portland-Vancouver-Beaverton MSA ²	1,523,741	1,927,881	2,217,325	2.4%	1.5%

1. The Canby School District includes the portion of Wilsonville south of the Willamette River.

2. Estimated population for 2009 based on Census Bureau's Small Area Income and Poverty Estimates program 2008 CSD population estimate and PSU-PRC's 2010 CSD population forecast from Table 20 of this report.

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

Sources: U.S. Census Bureau, 1990 and 2000 censuses; Portland State University Population Research Center, 2009 estimates.

Canby, Clackamas County, and the metropolitan region. The 1990, 2000, and 2009 populations of each of the cities served by CSD, the District itself, the County and the metropolitan region are shown in Table 2.

The District is part of the Portland metropolitan area labor market and most residents commute outside of the District to work, so population growth in the area depends to a great extent on the strength of the metro area’s economy. Recent data show that 18 percent of CSD workers have primary jobs within the District itself. Another 27 percent worked elsewhere in Clackamas County, and most of the rest worked in Multnomah (21 percent), Washington (17 percent), or Marion (nine percent) counties. Table 3 reports the number and share of workers by place of work. The same data is illustrated on Map 1, showing concentrations of CSD area residents working in Wilsonville, Oregon City, Tigard/Tualatin, Central Portland, and locations near Clackamas Town Center and the I-205 & Oregon 212 interchange.¹

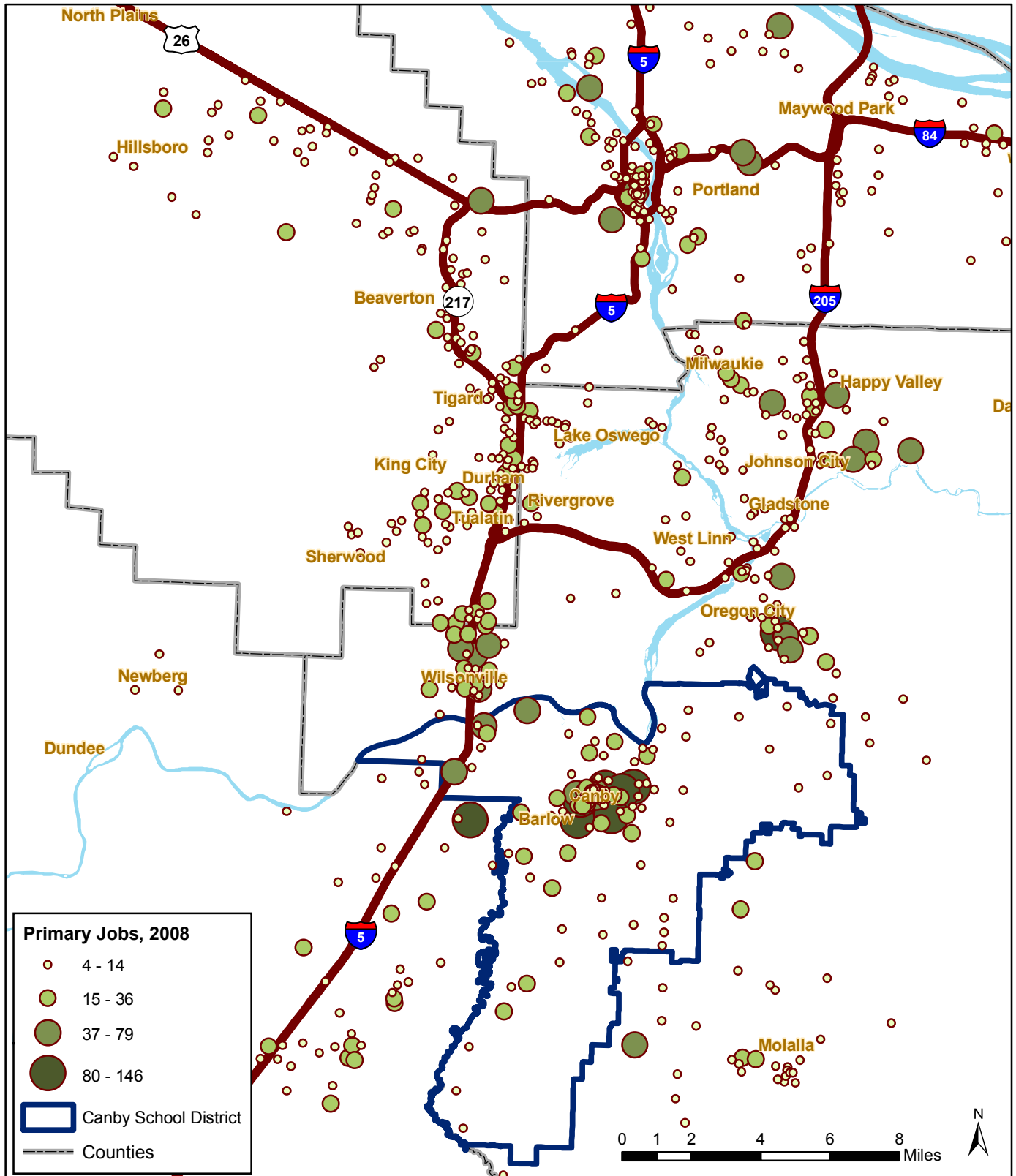
Job Located Within*	Workers	Share
Clackamas County	5,789	45%
Canby School District	2,338	18%
City of Canby	1,495	12%
Multnomah County	2,746	21%
City of Portland	2,487	19%
Washington County	2,176	17%
Marion County	1,118	9%
All other locations	993	8%
Total Primary Jobs	12,822	100%

**Note: Indentation indicates that the area is also included within the area above it. For example, workers in the City of Canby are also counted in the Canby School District. Portions of the City of Portland are outside of Multnomah County, but few jobs are located in those areas.*

Source: US Census Bureau, LED Origin-Destination Data Base (2nd Quarter 2008). Jobs covered by unemployment insurance, generally excluding federal government, agricultural, self-employed and domestic workers. Includes at most one (primary) job per resident.

¹U.S. Census Bureau, LED Origin-Destination Database (2nd quarter 2008). Commute shed report for residents of Canby School District. Includes workers at firms covered by unemployment insurance (excludes most agricultural jobs and self-employment). <http://lehdmap4.did.census.gov/themap4/>.

Map 1 Place of Work for CSD Residents, 2008



U.S. Census Bureau, LED Origin-Destination Database (2nd quarter 2008).
 Commute shed report for residents of CSD.
 Includes workers at firms covered by unemployment insurance
 (excludes most agricultural jobs and self-employed)

Prepared by Population Research Center, February 2010

Between 2004 and 2007 Clackamas County added 12,200 jobs, nine percent over the three year period.² Near the end of 2007, the Oregon Employment Department summarized the County's robust employment growth:

“Clackamas is the metro's fastest growing county, fueled by an expanding population and strength in trade and professional and business services. Its manufacturing sector has bucked national and state trends by adding hundreds of jobs, thanks in part to ongoing demand in aerospace- and defense-related industries. As measured by nonfarm jobs, Clackamas represents 15 percent of Portland's economy and has accounted for nearly 30 percent of its recent job growth.”³

In hindsight, we know that employment in the U.S. and in Clackamas County was near its peak at about the time this statement was published. Those job gains were wiped out by the recession; between December 2007 and December 2009 Clackamas County lost 14,900 jobs, or 10 percent. Multnomah County suffered a seven percent job loss during the same two year period. Clackamas County's unemployment rate rose from 4.6 percent in May 2008, about one percentage point *below* the U.S. rate, to 11.2 percent in May 2009, nearly two percentage points *above* the U.S. rate. The Portland metro area's unemployment rate increase of 6.7 percentage points during that period was the biggest increase among the nation's large metro areas. Typically, when the Portland area's unemployment rate is higher than the U.S. rate, population growth slows as a result of fewer people moving to the region.

In 2008, 383,000 square feet of industrial development took place in Canby, including several new and existing employers adding jobs.⁴ In 2009, the Canby 8 Cinema opened. Diverse industries including biomass energy production and produce distribution are expressing interest in Canby. However, predictions of a “jobless” recovery to the current recession bode poorly for regional job opportunities.⁵

²“Current Employment by Industry,” Oregon Employment Department, OLMIS. Average annual non-farm employment in Clackamas County was 135,900 in 2004 and 148,100 in 2007. December employment was 151,200 in 2007 and 136,300 in 2009.

³“Portland Metro Area: A Look at Recent Job Growth,” Oregon Employment Department, OLMIS, December 20, 2007.

⁴State of the City address, January, 2009, at <http://www.ci.canby.or.us/>.

⁵““Jobless” Recovery? What’s That Mean?” Oregon Employment Department, OLMIS, February 1, 2010.

Population by Age Group

Table 3 shows population by age group for 1990 and 2000. Nearly all age groups experienced significant growth during the decade. Notable exceptions include ages 25 to 34 (five percent decline) and ages 65 to 69 (12 percent decline). Nationwide, these age groups also shrank in the U.S. between 1990 and 2000 because the cohort age 25 to 34 in 2000 were born during the late 1960s and early 1970s “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 30 to 34 and 65 to 69 year old populations also declined in Oregon between 1990 and 2000. District declines in these age groups likely reflect these nationwide and statewide trends.

Table 4
Population by Age Group
Canby School District, 1990 and 2000

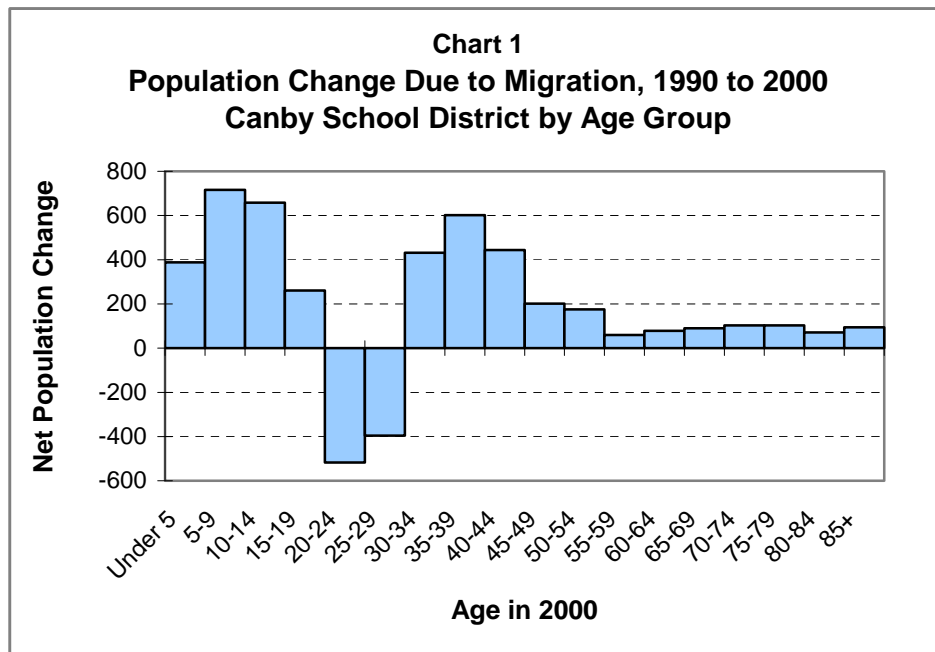
	1990	2000	1990 to 2000 Change	
			Number	Percent
Under Age 5	1,596	1,764	168	11%
Age 5 to 9	1,768	2,012	244	14%
Age 10 to 14	1,836	2,251	415	23%
Age 15 to 17	1,090	1,347	257	24%
Age 18 to 19	662	676	14	2%
Age 20 to 24	1,233	1,307	74	6%
Age 25 to 29	1,423	1,340	-83	-6%
Age 30 to 34	1,724	1,650	-74	-4%
Age 35 to 39	1,942	2,002	60	3%
Age 40 to 44	1,907	2,134	227	12%
Age 45 to 49	1,665	2,098	433	26%
Age 50 to 54	1,178	2,026	848	72%
Age 55 to 59	1,003	1,648	645	64%
Age 60 to 64	1,071	1,168	97	9%
Age 65 to 69	1,110	976	-134	-12%
Age 70 to 74	827	993	166	20%
Age 75 to 79	605	933	328	54%
Age 80 to 84	389	593	204	52%
Age 85 and over	280	513	233	83%
Total Population	23,309	27,431	4,122	18%
Total age 5 to 17	4,694	5,610	916	20%
share age 5 to 17	20.1%	20.5%		

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

The 20 percent growth rate for school-age population, 5-17 years, was slightly higher than the growth rate for total population, but the population under age five grew by only 11 percent, foreshadowing slower school enrollment growth in the early 2000s.

The age groups with the largest percentage gains during the 1990s were 50 to 59 and 75 and over. The younger adult population age 18 to 39 remained about the same size in 2000 as in 1990, while the population age 40 to 59 grew by more than 2,100, or 37 percent. The effect of this shift in age distribution was seen initially in birth rates, and ultimately in slower growth or decline in school enrollment.

By “surviving” the 1990 population and 1990s births (estimating the population in each age group that would survive to the year 2000) and comparing the “survived” population to actual 2000 population counts by age group, we are able to estimate net migration by age cohort. Chart 1 shows estimated 1990 to 2000 population change due to migration by each cohort’s age in 2000. For example, for the cohort age 20 to 24 in 2000, about 500 more people moved out of the CSD than into it during the period. Conversely, about 600 more people who were age 35 to 39 in 2000 moved into the district than out of it. Net losses due to migration for the age groups between 20 and 29 and gains for ages 30 to 44



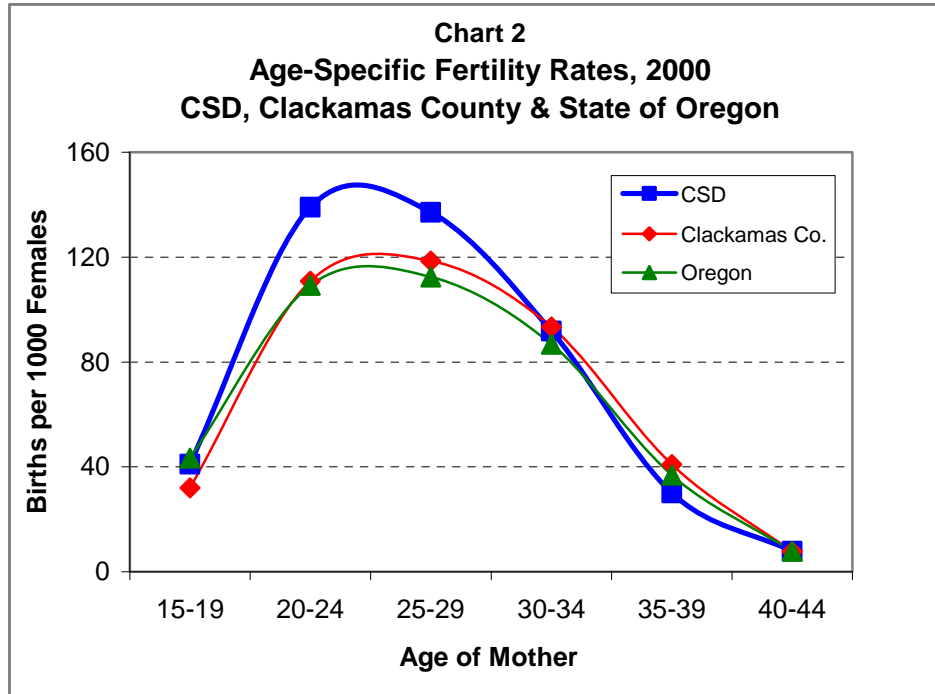
are typical for areas outside of urban centers, as young people move away for college and other opportunities, while slightly older adults settle in the area for home ownership or lifestyle choices.

Births and Fertility Rates

The average number of births each year to residents of the CSD has been slightly higher during the 2000s than during the 1990s, though the increase has not kept up with overall population growth. This is likely due to declining fertility rates and relatively slow growth in the number of women in prime childbearing ages — 20s and 30s. Table 5 reports the number of CSD births each year from 1990 to 2007. Later, the “Enrollment Forecasts” section examines the relationship between births, migration, and subsequent school enrollments.

Year	Births
1990	362
1991	311
1992	313
1993	314
1994	307
1995	340
1996	312
1997	305
1998	322
1999	303
2000	357
2001	322
2002	372
2003	345
2004	307
2005	352
2006	360
2007	387

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



Fertility rates for the CSD in 2000 are shown in Chart 2. Clackamas County and the State of Oregon’s fertility rates are also included. Rates are calculated for each age group by dividing the number of births in period around the census by the female population counted in the census. For example, in 1999 to 2001 there were an average of 90 births per year to mothers age 25 to 29 and a population of 655 women age 25 to 29 in the CSD, so the fertility rate in 2000 for women age 25 to 29 was estimated to be $90 \div 655 = 0.137$ births per female or 137 births per thousand females. Chart 2 shows that CSD age-specific fertility rates were higher than comparable rates for Clackamas County and the State of Oregon for women age 20 to 29 and similar to county and State rates for women age 30 and over.

In Oregon and Clackamas County between 1990 and 2000, fertility rates decreased for women under age 30 and increased for women age 30 and over. These trends are generally reflected in the CSD birth rates, with the exception of an increase in CSD rates for women age 25 to 29. The other notable trend between 1990 and 2000 is a significant decrease in fertility rates for Latina women. The District’s population of Latinas age 15 to 44 increased by 114 percent between 1990 and 2000, but the number of births to Latinas increased by only 52 percent. Latina fertility rates are likely to continue to fall as

labor force participation and educational attainment continue to increase for the American-born children of immigrants.⁶ Also, fertility rates in Mexico, the leading country of origin for immigrants to Oregon, have fallen sharply and are now only a bit higher than the U.S. rates.⁷

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 was 2.23 in 2000, compared with 2.02 for Clackamas County overall, and 1.98 for the State.

Housing Growth and Characteristics

During the 1990s, the number of housing units within the District's boundaries increased by about 2,200. The smaller increase of 1,900 households (occupied housing units) results from higher vacancy rates, up from 3.6 percent in 1990 to 5.6 percent in 2000. The number of households with at least one child under 18 grew at a slower rate than the number of households without children under 18. As a result, the District's share of households with children fell from 38 percent in 1990 to 36 percent in 2000, remaining slightly higher than the Portland metro area's 35 percent share. The average number of persons per household decreased from 2.79 in 1990 to 2.70 in 2000. These housing figures from the decennial censuses are presented in Table 6.

To track recent housing change, we use three sets of data that are consistent with each other but relate to different stages in the development process. In this section we present them chronologically. First, developers submit land use applications to local jurisdictions in order to subdivide or partition residential land, creating new tax lots for single family development or to gain site development review for multi-family development. After the

⁶See "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>, and "Birth Rates in California", Public Policy Institute of California, November, 2007, at <http://www.ppic.org/main/publication.asp?i=777>.

⁷UN (United Nations). 2005b. *World Population Prospects 1950–2050: The 2004 Revision*. Database. Department of Economic and Social Affairs, Population Division. New York. TFR estimates for the 2000-05 period are 2.0 for the U.S. and 2.4 for Mexico.

Table 6
Canby School District
Housing and Household Characteristics, 1990 and 2000

	1990	2000	1990 to 2000 Change	
			Number	Percent
Housing Units	8,506	10,705	2,199	26%
Single Family <i>share of total</i>	5,831 69%	7,077 66%	1,246	21%
Multiple Family <i>share of total</i>	1,699 20%	2,517 24%	818	48%
Mobile Home and Other <i>share of total</i>	976 11%	1,110 10%	134	14%
Households	8,201	10,101	1,900	23%
Households with children under 18 <i>share of total</i>	3,084 38%	3,621 36%	537	17%
Households with no children under 18 <i>share of total</i>	5,117 62%	6,480 64%	1,363	27%
Household Population	22,863	27,271	4,408	19%
Persons per Household	2.79	2.70	-0.09	-3%

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

land use approvals are attained, building permits are issued, and then homes are built and ultimately appear on the tax roles. All of these steps create public records, which are compiled for the District and its attendance areas.

Updating the inventory of land use changes is an ongoing process incorporating information provided by Clackamas County and the City of Canby. New information is added and older information from previous reports may be adjusted to account for development name changes, lot or unit counts, or other corrections. Tables 7 and 8 on the following pages present lists of housing developments approved since 2000.

The developments approved between 2000 and 2005 are nearly completely built out, with the exception of 24 lots for attached single family homes remaining in Darcy’s Country Estates. In contrast, relatively few homes have been built in the handful of developments approved since 2006. In particular, just over half of the home sites remain vacant in the 18 lot Postlewait Phase 2 (Knight Elementary) and 41 lot Northwoods Estates Phase 1 (Eccles Elementary). Both of these developments feature relatively large custom homes

**Table 7
Lots for Detached Single Family Homes, Approved 2000 to 2009**

Approval	Elementary	Middle School	Subdivision Name	Lots
2000	Lee	Ackerman	Tofte Farms, Phase III	46
	Trost	Baker Prairie	Faist Farms, Phase III	25
	Trost	Baker Prairie	Katie Acres	4
			2000 Total:	75
2001	Trost	Baker Prairie	Faist Farms, Phase IV	26
	Trost	Baker Prairie	Redwood Park	17
	Eccles	Ackerman	Territorial Estates	45
	Knight	Baker Prairie	Longhorn Estates	6
	Lee	Ackerman	Tofte Farms, Phase IV	41
			2001 Total:	135
2002	Trost	Baker Prairie	Faist, Phase V	24
	Knight	Baker Prairie	Dupont Estates	11
			2002 Total:	35
2003	Lee	Ackerman	Ivy Gardens	9
	Lee	Ackerman	Sequoia Place (formerly Willow Creek)	12
			2003 Total:	21
2004	Eccles	Ackerman	Darcy's Country Estates (also 62 attached)	74
	Lee	Ackerman	Township Trail	5
	Knight	Baker Prairie	Walnut Crossing	11
	Eccles	Ackerman	Burbank Estates	20
	Knight	Baker Prairie	Postlewait Estates	31
	Eccles	Ackerman	Knight's Bridge Estates	26
	Eccles	Ackerman	Auburn Farms, Phase 1	26
			2004 Total:	193
2005	Eccles	Ackerman	Auburn Farms II	54
	Lee	Ackerman	Tofte V	4
	Eccles	Ackerman	Bremmer Court	7
	Eccles	Ackerman	Kraft Place	4
			2005 Total:	69
2006	Eccles	Ackerman	2166 N. Locust Street-Fawver	8
	Knight	Baker Prairie	Postlewait Phase II	18
	Eccles	Ackerman	Northwoods Estates	41
	Ninety-One	Ninety-One	VP Estates (Clackamas County)	7
			2006 Total:	74
2007	Lee	Ackerman	Dinsmore Estates (also 8 attached)	14
			2007 Total:	14
2008-2009			none	
			2008-2009 Total:	0
Pending	Eccles	Ackerman	Northwoods Estates, Phases 2-4	69
			Pending Total:	69
			Grand Total approved 2000-2009:	616

**Note: "Approval" indicates the year in which the City 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 Canby and Clackamas County. 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.

Table 8
Units in Multiple Family and Attached Single Family Developments
Approved 2000 to 2009

Approval*	Elementary	Middle School	Subdivision Name	Units
2000			none	
			2000 Total:	0
2001	Knight	Baker Prairie	Willamette Grove Apts.	86
	Knight	Baker Prairie	Redwood Corner (SF attached and duplexes)	12
			2001 Total:	98
2002			none	
			2002 Total:	0
2003	Knight	Baker Prairie	Garden Crossing (SF attached)	55
	Eccles	Ackerman	Valentine Meadow (SF attached)	16
			2003 Total:	71
2004	Eccles	Ackerman	Darcy's Country Estates (SF attached)	62
			2004 Total:	62
2005	Knight	Baker Prairie	Pine Station (SF attached)	11
	Knight	Baker Prairie	Brown Bark Estates (formerly "Lee", SF attached)	13
			2005 Total:	24
2006			none	
			2006 Total:	0
2007	Lee	Ackerman	Knotts Commons (SF attached)	10
	Lee	Ackerman	Dinsmore Estates (SF attached)	8
			2007 Total:	18
2008-2009			none	
			2008-2009 Total:	0
			Grand Total approved 2000-2009:	273
pending	Knight	Baker Prairie	Third Avenue Townhomes (SF attached)	4
			pending Total:	4

**Notes: "Approval" indicates the year in which the jurisdiction gave approval for the land use change. Construction and occupancy may be in later years. Senior housing developments are not included in this table.*

Sources: Compiled by Population Research Center, PSU from information provided by Canby planning department. 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.

built by local home builders, and the pace of development will be slower than in recent larger developments of speculative homes.

When the market for new homes recovers, the initial locations for development may be in the remaining phases of Northwoods Estates (Eccles Elementary), and in areas approved by voters in November 2008 for annexation to the City of Canby, including a 4.85 acre parcel in the Knight Elementary area that could potentially include 30 residences, and 14.88 acres in the Lee Elementary area where 56 new homes could be built. Another annexation of 4.77 acres in the Knight Elementary area will be presented for voter consideration in November 2010.

Following in chronological order, after subdivision plats are complete and building lots are created, new homes are authorized by building permits. Residential building permit activity within the City of Canby each of the past 14 years is presented in Table 9. The table shows the robust housing growth that occurred through 2006 and the extreme

Table 9
Housing Units Authorized by Building Permits

Year Permit Issued	City of Canby	
	Single Family	Multiple Family
1996	71	100
1997	90	105
1998	75	24
1999	151	50
2000	96	22
2001	132	4
2002	143	92
2003	97	58
2004	110	2
2005	121	24
2006	197	2
2007	79	6
2008	15	0
2009	4	3

Note: Most of the multiple family units permitted in 2003 and 2005 were in a retirement community; 2002 multi-family permits included the 86 unit Willamette Grove apartment complex.

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

downturn that began in 2007. In 27 months beginning in October 2007 and ending in December 2009 the City of Canby only issued permits for 27 housing units.⁸

Finally, after homes are completed they appear in tax assessor records. Tax assessor data provided by the Clackamas County Geographic Information Systems (GIS) Department — spatially aligned with the District’s attendance area boundaries — indicates that during the 1990s, about 1,400 single family homes were built in the District.⁹ In the nine years between 2000 and 2008, about 1,100 single family homes were added Table 10 reports this decade’s new single family homes by attendance area and year built.

**Table 10
Canby School District
Single Family Homes Built 2000 to 2008 by Attendance Area**

Elementary School Area*	Year Built									2000-08 Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Carus	8	3	7	7	13	18	7	7	4	74
Eccles	12	8	44	5	14	63	169	46	5	366
Knight	34	23	23	27	52	51	28	35	4	277
Lee	19	28	25	44	20	8	8	3	5	160
Ninety-One	6	8	2	8	6	11	10	8	9	68
Trost	37	51	52	17	4	0	1	0	1	163
Middle School Area*										
Ackerman	31	36	69	49	34	71	177	49	10	526
Baker Prairie	79	77	82	51	69	69	36	42	9	514
Ninety-One	6	8	2	8	6	11	10	8	9	68
District Total	116	121	153	108	109	151	223	99	28	1108

*Note: Current (2009-10) attendance areas.

Source: Tax assessor data provided by Clackamas County GIS, December 2009. Housing identified based on parcel attributes and compiled by attendance area by PSU-PRC.

The City of Canby accounted for 84 percent of the homes built since 2000, while the Clackamas County unincorporated area accounts for nearly all of the rest. There have

⁸U.S. Census Bureau, Residential Construction Branch. Data available for the U.S. and states at <http://www.census.gov/const/www/C40/table2.html>, and for counties and cities at <http://censtats.census.gov/bldg/bldgprmt.shtml>.

⁹Because other homes would have been demolished or replaced in the 1990s, the count of about 1,400 parcels with a home built between 1990 and 1999 within the CSD boundary is fairly consistent with the single family change of 1,246 units derived from census data shown in Table 6, which reports *net* change.

been just three homes built in the City of Barlow since 2000, and just one in the CSD portion of the City of Wilsonville. Homes that are demolished or removed are not subtracted from the number of new homes, so the *net* change in the District's housing stock may be lower than the number of new homes, particularly in the rural portions of the District where some new homes are replacing previously existing homes.

The school attendance areas for which new housing is tabulated in Table 10 are based on current boundaries established in 2006 when Lee and Baker Prairie schools opened. Between 2000 and 2002, the current Trost Elementary area had the greatest number of homes built. In 2003 and 2004, the current Knight Elementary area led the District in new home construction. Since 2005, the Eccles Elementary attendance area has had the most new homes; 56 percent of the District's homes built between 2005 and 2008 were built in the Eccles area. Also, Eccles currently has the largest number of available lots in existing platted subdivisions, and is therefore likely to continue to contribute the most to the District's new housing stock in the near future.

ENROLLMENT TRENDS

After many years of growth, K-12 enrollment in the Canby School District reached about 5,300 students in 2000-01 and remained at that level through the 2004-05 school year. Enrollment has declined in four out of five years since 2004-05, amounting to a net loss of 324 students (6.1 percent) in the period. The K-12 total in Fall 2009 was 4,978 students.

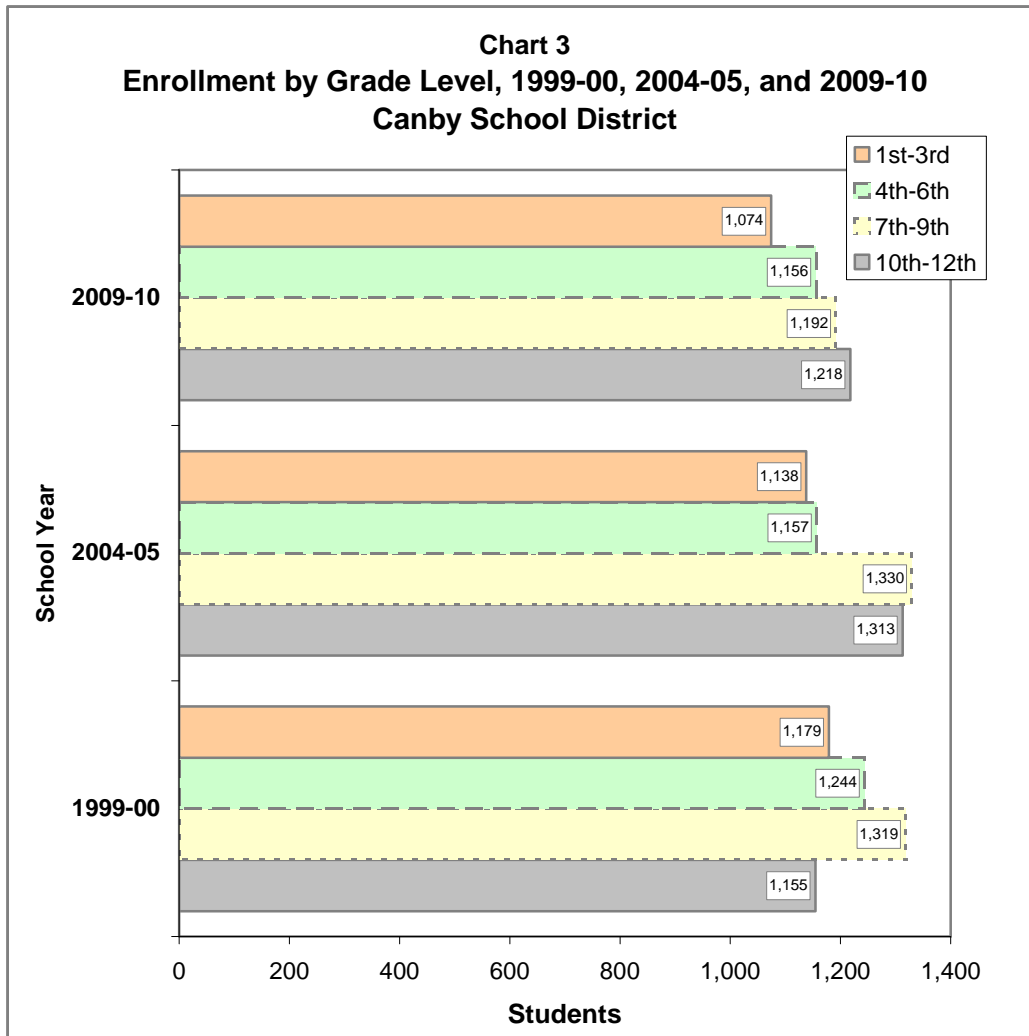
Although annual changes in elementary enrollment were barely noticeable until the large decline in 2008-09, the District's elementary enrollment peaked more than a decade ago, in 1998-99. Secondary enrollment trends followed chronologically. Grades 6-8 peaked in 2002-03, and high school enrollment peaked in 2005-06. These trends are not unique to Canby. Many districts in Oregon have had followed similar paths, due primarily to lower fertility rates and an aging population. In districts without significant Latino population growth or new housing development, enrollment declines have been steeper than in Canby.

At least one of the factors that created the "perfect storm" for the current statewide K-12 school enrollment decline may have nearly run its course. The smaller population of Oregon and U.S. residents born during the "baby bust" of the early 1970s is leaving its prime fertility years and being replaced by the larger "echo boom" cohort of the 1980s and early 1990s. These cohorts were responsible for the school enrollment losses of the 1980s and gains of the 1990s, and may again be responsible for the cycle repeating in the current century. The other major factor currently influencing enrollment is the recession and apparent "jobless recovery," which is limiting the typical in-migration that Oregon experiences. The economy also was a drag on enrollment in the 1980s and a boost in the 1990s.

Chart 3 illustrates the District's recent enrollment trends by grade level groups. Rather than using traditional elementary, middle, and high school categories, the chart excludes

kindergarten, which has a lower capture rate, and assigns students to comparable intervals of three grades each. The current pyramid shape shows that there are significantly more students in upper grades than in lower grades, so K-12 enrollment growth is unlikely in the short run, even if primary grades begin to rebound.

On the next page, Table 11 summarizes the enrollment history for the District by grade level annually for the 10 year period from 1999-2000 to 2009-10.



**Table 11
Canby School District, Enrollment History, 1999-00 to 2009-10**

Grade	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
K	323	319	345	384	332	358	361	337	370	323	327
1	375	345	354	371	396	354	363	361	360	369	339
2	386	384	348	348	375	390	351	370	375	353	380
3	418	389	399	356	358	394	394	359	381	375	355
4	408	438	388	402	370	365	394	393	386	373	385
5	410	417	451	400	410	371	381	382	403	380	378
6	426	429	412	465	415	421	376	379	401	403	393
7	415	437	437	426	457	420	423	364	386	384	396
8	425	419	432	437	421	457	417	417	362	382	395
9	479	447	433	458	467	453	474	414	432	384	401
10	437	486	431	432	471	466	446	480	442	434	378
11	365	427	447	415	420	445	422	407	447	407	436
12	353	352	403	402	388	402	438	405	399	442	404
US*	0	0	0	3	6	6	6	7	10	6	11
Total	5,220	5,289	5,280	5,299	5,286	5,302	5,246	5,075	5,154	5,015	4,978
Annual change		69	-9	19	-13	16	-56	-171	79	-139	-37
		1.3%	-0.2%	0.4%	-0.2%	0.3%	-1.1%	-3.3%	1.6%	-2.7%	-0.7%
K-5	2,320	2,292	2,285	2,261	2,241	2,232	2,244	2,202	2,275	2,173	2,164
6-8	1,266	1,285	1,281	1,328	1,293	1,298	1,216	1,160	1,149	1,169	1,184
9-12	1,634	1,712	1,714	1,710	1,752	1,772	1,786	1,713	1,730	1,673	1,630

	1999-00 to 2004-05		2004-05 to 2009-10		1999-00 to 2009-10	
	5 yr. chg.	Pct.	5 yr. chg.	Pct.	10 yr. chg.	Pct.
K-5	-88	-3.8%	-68	-3.0%	-156	-6.7%
6-8	32	2.5%	-114	-8.8%	-82	-6.5%
9-12	138	8.4%	-142	-8.0%	-4	-0.2%
Total	82	1.6%	-324	-6.1%	-242	-4.6%

*Note: "US" is ungraded secondary; included in grade 9-12 totals.

Source: Canby School District.

Private School Enrollment, Home School, and Inter-District Transfers

The only private school in Canby serving elementary or secondary grades is the very small First Baptist Church School. Larger private schools nearest to the CSD are in Wilsonville, Molalla, and Oregon City, including the 170 student North Clackamas Christian School (K-12) in Oregon City just north of Carus and the Country Christian School (K-12) near Molalla, which has grown from 219 students in 2005-06 to about 300 students this year. Some CSD residents attend these and other private schools. The best estimate of private school enrollment for CSD residents comes from the 2000 Census: responses on the “long form” indicate that about 400 CSD residents attended private schools in 2000, a seven percent share of all K-12 residents.¹⁰ At that time, the shares of CSD residents attending private schools were slightly lower than the private school shares for the rest of Clackamas County. Although the CSD’s private school share was relatively low, it increased from four percent in 1990 to seven percent in 2000.

Another difference between public school enrollment and total school age population can be attributed to home schooling. Home schooled children age 7 to 18 living in the District are required to register with the Clackamas Educational Service District (CESD), though the statistics kept by the CESD 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.

	Grade 1-5	Grade 6-8	Grade 9-12	Total
2006-07 ²	66	64	108	238
2007-08 ³	59	64	112	235
2008-09 ⁴	49	50	113	212

1. Residents of CSD age 7-18 enrolled with Clackamas Education Service District.
 2. February 23, 2007.
 3. January 17, 2008.
 4. February 2, 2009.
 Source: Clackamas Education Service District

¹⁰U.S. Census Bureau, 2000 Census, Summary File 3, Table P36.

Table 12 shows these data by grade level. Recently (February 2009), there were 212 CSD residents registered, over half of whom were high school age. The number of younger students was lower than in either of the previous two years. The recent number of registered home school students represented about three percent of CSD's 1st to 8th grade population and five percent of its 9th to 12th grade population.

Private schools and home schooling help to explain the difference between the number of school-age children living in the District and the number attending District schools. Both represent “outflow” from the District. That is, children eligible but not attending District schools. The other “outflow” consists of District residents who attend public schools in other school districts. There is also a related “inflow” of residents from other districts.

**Table 13
Inter-District Transfers**

October 2004	K-5	6-8	9-12	Total
Into Canby S.D.	21	7	22	50
Out of Canby S.D.	18	11	19	48
Net	3	-4	3	2
October 2005				
Into Canby S.D.	12	9	14	35
Out of Canby S.D.	14	4	18	36
Net	-2	5	-4	-1
October 2006				
Into Canby S.D.	26	22	26	74
Out of Canby S.D.	9	7	17	33
Net	17	15	9	41
October 2007				
Into Canby S.D.	14	10	24	48
Out of Canby S.D.	9	3	14	26
Net	5	7	10	22
October 2008				
Into Canby	6	0	20	26
Out of Canby	16	6	9	31
Net	-10	-6	11	-5
October 2009				
Into Canby	9	5	21	35
Out of Canby	18	6	10	34
Net	-9	-1	11	1

Source: Canby School District

Under state rules, families must request and be granted an inter-district transfer from their resident district and the transfer must also be approved by the district that they want to attend. Table 13 shows that part of the 2008-09 enrollment decline can be attributed to a less favorable balance of transfer students. In 2006-07 and 2007-08 the CSD had a net gain of students from inter-district transfer agreements, whereas a small net enrollment loss due to inter-district transfers characterizes the 2008-09 school year. The number of transfers into and out of the District in 2009-10 was similar to 2008-09, causing very little impact on district-wide enrollment.

Latino Enrollment Growth

In the last ten years Latino enrollment has grown by 675 students while non-Latino enrollment has decreased by about 900 students. The CSD's 25 percent Latino enrollment share is higher than the State of Oregon's 20 percent share. In both Oregon and the CSD, Latino enrollment has more than doubled since 1999-2000, while non-Latino enrollment has declined.

International migration and higher fertility rates among foreign-born Latinas play a role in the Latino enrollment growth, but the most important factor is the age distribution of adults. Among non-Latinos in Oregon, there are currently many more adults in their 40s and 50s than in their 20s and 30s, a result of the baby boom and baby bust cycle that the U.S. experienced. Their children are older on average, and each graduating 12th grade class is replaced by a smaller incoming kindergarten class. Conversely, the Latino population currently includes more adults in their 20s and 30s than in their 40s and 50s, with younger children and fewer teenagers. As the Latino population becomes longer established, the age distribution of children is evening out somewhat. In the 1990s, Latino enrollment growth contributed to enrollment growth in elementary grades, but recent growth has been greatest in high school. In the past five years, Latino enrollment increased by 20 percent in CSD grades K-5 and 37 percent in grades 9-12.

Table 14 reports Latino and non-Latino CSD enrollment annually from 1999-2000 to 2009-10.

Table 14
Canby School District, Latino Enrollment History, 1999-00 to 2009-10

Grade	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Latino											
K-5	355	364	405	452	496	503	520	504	548	601	622
<i>Share of K-5 Total</i>	15%	16%	18%	20%	22%	23%	23%	23%	24%	28%	29%
6-8	90	115	149	191	230	217	222	197	228	251	285
<i>Share of 6-8 Total</i>	7%	9%	12%	14%	18%	17%	18%	17%	20%	21%	24%
9-12	113	136	151	161	196	269	238	232	282	303	325
<i>Share of 9-12 Total</i>	7%	8%	9%	9%	11%	15%	13%	14%	16%	18%	20%
K-12	558	615	705	804	922	989	980	933	1,058	1,155	1,233
<i>Share of K-12 Total</i>	11%	12%	13%	15%	17%	19%	19%	18%	21%	23%	25%
K-12 Annual change		57 10.2%	90 14.6%	99 14.0%	118 14.7%	67 7.3%	-9 -0.9%	-47 -4.8%	125 13.4%	97 9.2%	77 6.7%
Non Latino											
K-5	1,965	1,928	1,880	1,809	1,745	1,729	1,724	1,698	1,727	1,572	1,542
6-8	1,176	1,170	1,132	1,137	1,063	1,081	994	963	921	918	899
9-12	1,521	1,576	1,563	1,549	1,556	1,503	1,548	1,481	1,448	1,370	1,305
K-12	4,662	4,674	4,575	4,495	4,364	4,313	4,266	4,142	4,096	3,860	3,746
K-12 Annual change		12 0.3%	-99 -2.1%	-80 -1.7%	-131 -2.9%	-51 -1.2%	-47 -1.1%	-124 -2.9%	-46 -1.1%	-236 -5.8%	-114 -3.0%
District Total											
K-5	2,320	2,292	2,285	2,261	2,241	2,232	2,244	2,202	2,275	2,173	2,164
6-8	1,266	1,285	1,281	1,328	1,293	1,298	1,216	1,160	1,149	1,169	1,184
9-12	1,634	1,712	1,714	1,710	1,752	1,772	1,786	1,713	1,730	1,673	1,630
K-12	5,220	5,289	5,280	5,299	5,286	5,302	5,246	5,075	5,154	5,015	4,978
K-12 Annual change		69 1.3%	-9 -0.2%	19 0.4%	-13 -0.2%	16 0.3%	-56 -1.1%	-171 -3.3%	79 1.6%	-139 -2.7%	-37 -0.7%

Sources: Canby School District; Oregon Department of Education

Neighboring Districts

Table 15 displays several facts about CSD demographic and enrollment trends in comparison to three other nearby Clackamas County school districts. The overall enrollment growth or decline in each district is influenced by housing construction, and also by the district’s unique demographics. The portion of the North Clackamas S.D. east of I-205 has been one of the fastest growing parts of the metro area for the past two decades, and the District’s enrollment growth has outpaced its neighbors, especially in this decade. Like the CSD, Oregon City S.D. has had small enrollment losses since peaking in 2004-05. Gladstone S.D. has had the greatest percentage enrollment losses in the past few years as relatively small classes have entered elementary grades.

**Table 15
Selected Clackamas County School Districts
Demographic and Enrollment Highlights, 1990 to 2009**

	Canby	Oregon City	Gladstone	North Clackamas
Enrollment growth, 1990-91 to 1995-96	13%	-1%	12%	13%
Enrollment growth, 1995-96 to 2000-01	9%	6%	5%	8%
Enrollment growth, 2000-01 to 2009-10	-6%	2%	-14%	17%
Latino enrollment, 2009-10	25%	10%	13%	14%
Grades 9-12 enrollment, 2009-10	33%	30%	35%	35%
Population growth, 1990 to 2000	18%	24%	15%	26%
Multi-family housing share, 2000	24%	23%	26%	38%
Population age 5 to 17, 1990	20.1%	20.9%	19.7%	17.3%
Population age 5 to 17, 2000	20.5%	19.1%	19.2%	17.6%
Population under age 5, 1990	6.8%	7.6%	6.7%	6.4%
Population under age 5, 2000	6.4%	7.2%	6.8%	6.8%
Population rural, 2000	35.6%	16.5%	0.0%	1.0%

Data assembled by Population Research Center, PSU, from several sources: U.S. Census Bureau; Canby S.D.; Oregon City S.D.; North Clackamas S.D.; OR Dept. of Education; U.S. Dept. of Education.

Enrollment Trends at Individual Schools: Elementary Schools

When Lee Elementary opened in 2006, attendance area boundaries for Eccles, Knight, and Trost elementary schools changed, so long term enrollment comparisons are affected by the boundary changes. In 2006-07, with the new boundaries, each of the District's five elementary schools enrolled around 400 students. Ninety-One School, serving grades K-8, enrolled about 500 students. In the three years since the new boundaries were implemented, Eccles and Knight have grown by 33 and 24 students, respectively. Net enrollment losses of 30 to 41 students have occurred at Carus, Ninety-One, and Lee, while Trost enrolls 15 fewer students in 2009-10 than it did in 2006-07.

Enrollment Trends at Individual Schools: Secondary Schools

Boundaries were also drawn in 2006 for middle schools, due to the opening of Baker Prairie Middle School in Fall 2006. Enrollment at the two middle schools was initially balanced, with about 450 students at each school in 2006-07. Because there are only three grades in the middle schools, year to year fluctuations may often occur due to changes in the size of incoming or outgoing classes. Both schools have experienced a net gain over the entire three year period. Ackerman enrolls 24 more students and Baker Prairie enrolls 30 more than in 2006-07.

For historic comparisons, Canby High School's enrollments include students at Parrott Creek, since they are now reported as CHS students. The high school's enrollment fell by 63 students between Fall 2007 and Fall 2008 and another 32 students between Fall 2008 and Fall 2009. CHS' 2009-10 enrollment of 1,608 students is 138 students smaller than its 2005-06 peak enrollment.

Total enrollments at each of the District's schools from 2004-05 to 2009-10 are shown in Table 16 on the next page. Enrollment change is shown for the three year period after the current boundaries were established.

**Table 16
Enrollment History for Individual Schools, 2004-05 to 2009-10**

School	Historic Enrollment						Change ¹ 2006-07 to 2009-10	
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Number	Percent
Carus Elementary (K-6)	374	442	397	393	344	367	-30	-8%
Eccles Elementary (K-5)	444	417	373	421	402	406	33	9%
Knight Elementary (K-5)	508	500	377	375	384	401	24	6%
Lee Elementary (K-5)	0	0	406	411	380	365	-41	-10%
Ninety-One (K-8)	535	526	499	484	470	461	-38	-8%
Trost Elementary (K-5)	634	611	406	427	418	391	-15	-4%
Ackerman Middle (6-8)	1,031	957	444	417	461	468	24	5%
Baker Prairie Middle (6-8)	0	0	457	493	476	487	30	7%
Other K-8 ²	4	7	3	3	7	2	-1	
Canby High ³	1,738	1,746	1,678	1,703	1,640	1,608	-70	-4%
Other 9-12 ²	34	40	35	27	33	22	-13	
District Totals	5,302	5,246	5,075	5,154	5,015	4,978	-97	-1.9%

1. Elementary and middle school boundaries were realigned in 2006.
 2. "Other" includes CSD students in alternative placements & tutoring.
 3. Includes students at Parrott Creek.
- Source: Canby School District

ENROLLMENT AND HOUSING

Because the recent enrollment downturn is partly attributable to the slow housing market, it may be helpful to identify the enrollment changes attributable to specific types of housing. Using data from Metro and Clackamas County we compiled a multiple family housing inventory in a spatial file based on taxlots that differentiates apartments, condominiums, and manufactured home parks and provides more comprehensive data on the number of housing units than was available in the past. We then combined this file with the taxlot file and student address points from each of the past four years in order to quantify the number of students by housing type. There has been an increase in the number of CSD students residing in the newest single family homes and in rental apartments. Decreases have occurred in single family homes built before 2000.

Table 17
Number of CSD Students, Fall 2009
By Type of Residence

Housing Type	CSD K-12 Students				Change '06-'07 to '09-'10
	2006-07	2007-08	2008-09	2009-10	
Single Family, Total	3,879	3,889	3,798	3,725	-154
built before 1990	2,556	2,476	2,424	2,312	-244
built 1990 to 1999	763	737	711	684	-79
built 2000 to 2005	478	528	484	504	26
built 2006 to 2008	82	148	179	225	143
Multi-Family, Total	640	709	731	770	130
apartments and plexes	619	682	705	748	129
condominiums	21	27	26	22	1
Manufactured Home Parks	224	219	212	200	-24
All Other*	332	337	274	283	-49
District total	5,075	5,154	5,015	4,978	-97

**Note: Includes addresses that are non-residential or in locations for which residential type can not be determined or outside of the District or not able to be geocoded.*

Sources: CSD students by address, Clackamas County (December 2009) taxlots, Metro Multi-Family Housing Inventory. Estimates by Population Research Center, PSU.

The loss of students from older homes is partly due to the natural process of aging in place, whereby families remain in their home but no longer have children in K-12 schools. Other possible explanations are that the overbuilding of new homes encouraged families to move up into newer, larger homes, that the foreclosure crisis forced some families to relocate to rental apartments, and that job losses caused residents to move out of the area and resulted in more vacant single family homes.

Table 18 details Fall 2009 rates by housing type and by grade level. For District homes built between 2000 and 2008, the average number of CSD K-12 students per home in Fall 2009 was 0.66, about two students in every three homes. This rate is the same as in the North Clackamas School District, also in Fall 2009, but higher than we have measured in recent studies for other area school districts.¹¹ Homes built in the 1990s had a slightly higher average number of high school students per home than those built since 2000, but fewer elementary and middle school students and a lower K-12 average of 0.50. Homes built before 1990 housed fewer students at all grade levels than homes built in the 1990s or 2000s, and a K-12 average of 0.38 CSD students per home.

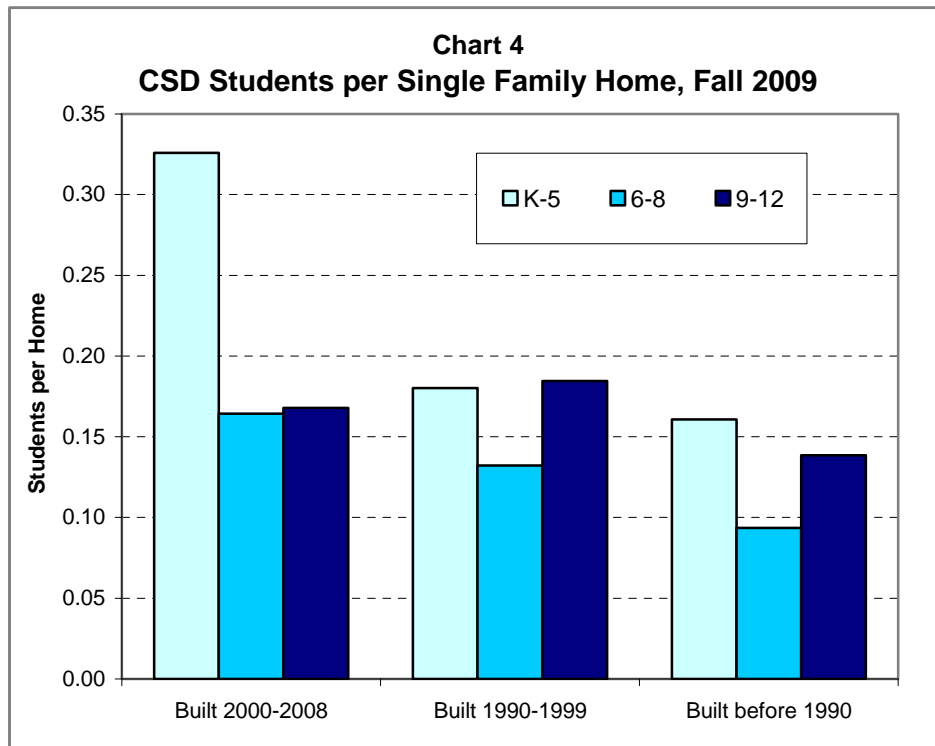
	Grade Level			
	K-6	7-8	9-12	K-12
Single family homes built 2000-2008	0.33	0.16	0.17	0.66
<i>detached homes built 2000-2008</i>	<i>0.33</i>	<i>0.18</i>	<i>0.17</i>	<i>0.68</i>
<i>row homes built 2000-2008</i>	<i>0.29</i>	<i>0.09</i>	<i>0.15</i>	<i>0.53</i>
Single family homes built 1990-1999	0.18	0.13	0.18	0.50
Single family homes built before 1990	0.16	0.09	0.14	0.39
Condominiums	0.02	0.01	0.03	0.06
Apartments	0.31	0.12	0.13	0.57
Manufactured homes in M.H. Parks	0.10	0.06	0.10	0.26

Source: Data compiled by PSU-PRC, using CSD student data, geographic shape files from Clackamas County GIS, tax lot attribute data from Clackamas County Assessor's Office, and a multi-family housing inventory from Metro.

¹¹For example, 0.51 in the Tigard-Tualatin School District, 0.48 in the Oregon City School District.

In contrast to other school districts in which attached or nearly attached row homes and rental apartments have about half as many students per home as detached single family homes, the CSD’s higher density housing types have student generation rates comparable to single family homes. There are an average of 0.53 students per row home built since 2000, compared with 0.68 students per detached home built since 2000. The number of students in specific apartment complexes likely varies widely depending on the size of units, presence of family-friendly amenities, income restrictions, or other factors, but the overall rate of 0.57 students per apartment unit is relatively high. The apartments exclude senior housing developments.

The student generation rates shown in Chart 4 illustrate the “aging in place” that occurs in single family homes. As the older children graduate from high school, the homes built in the 1990s will soon have even fewer K-12 residents, much like the homes built before 1990 that are now more than 20 years old. Although younger families may eventually occupy the older homes, owner-occupied homes turn over to new owners very gradually, and household composition of existing homes tends to be more diverse than the families with children who are well represented among buyers of new tract homes.



ENROLLMENT FORECASTS

District-wide Long-range Forecast Methodology

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

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

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

Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 1999-2000 school year) are compared to the population at the appropriate ages counted in the census. The “capture rate,” or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in CSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District’s enrollment. If there is evidence that capture rates have changed since the time of the census, they may be adjusted in the forecast. This forecast maintains capture rates of 88 percent for kindergarten and 91 percent for first grade.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District’s population. Once the students are in first grade, a set of baseline GPRs are used to move students from one grade to the next. These rates, usually 1.00 for elementary grades, represent a scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration levels of the overall population by single years of age.

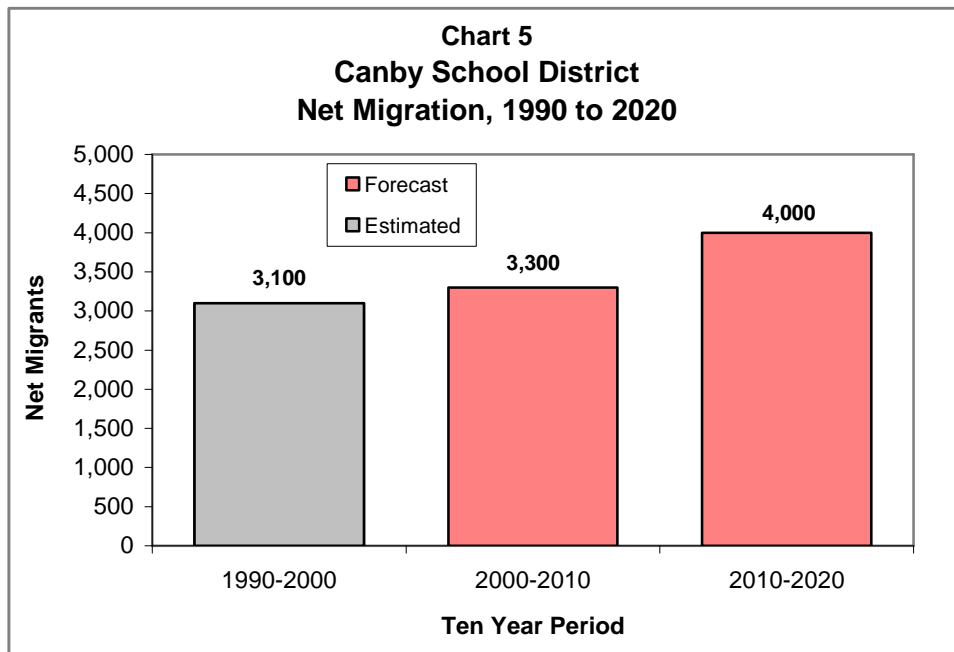
Residential Development

In the City of Canby, no new subdivisions have been approved in nearly three years, and the amount of vacant residential land within the city limits is relatively small. There is potential to add residential land that exists within the Canby Urban Growth Boundary (UGB), but it takes time to put annexations on the ballot, gain voter approval, submit development plans, plat new subdivisions, and build infrastructure and homes. Outside the UGB, rural zoning limits development, and an average of about 20 homes per year have been built since 2000, including homes that were merely replacements for existing homes. In light of these circumstances and the current national and regional lack of demand, the number of new homes built in the next two to three years is likely to remain low by historic standards and housing growth is expected to contribute very little to enrollment growth in the short run.

After the current downturn, housing development is likely to resume. There is potential to add approximately 3,854 households and 9,535 residents within the City’s current Urban Growth Boundary, according to technical work done in preparation for the Canby Transportation System Plan (TSP) due to be completed this year.¹² The plan incorporates these household growth assumptions in modeling travel demand for the year 2030. The growth would result in an average of 184 additional households per year over a 21 year period, not too different from the 1990s and early to mid 2000s.

Population Forecast

School enrollment, birth, and housing development data all indicate that population gains within the District in the current decade will be similar to the 1990s, in spite of the abrupt slowdown in economic and housing growth near the end of this decade. Population has grown due to both net migration (people moving in minus those moving out) and natural increase (births minus deaths). For the next decade, 2010 to 2020, assumptions about growth are based on long term historic trends as well as forecasts prepared by the State, Metro, and the City of Canby. Chart 5 shows 1990 to 2000 estimated and 2000 to 2020 forecasts of CSD population growth attributable to net migration.



¹² DRAFT Technical Memorandum #3, Canby TSP – Future Forecasting”. DKS Assoc., Sept. 3, 2009.

Although the young adult population will increase because of the larger baby boom “echo” cohort born in the 1980s and 1990s, the area loses many people in that age group due to out-migration and fertility rates are not expected to increase. Therefore, the number of births occurring to District residents is expected to increase very little from its current level. Table 19 shows historic births from 2000 to 2007 as well as forecasts from 2008 until 2014, the period that will have an impact on the enrollment forecasts presented in this study.

Table 19
Estimated and Forecast Births
Canby School District

Year	Births
2000	357
2001	322
2002	372
2003	345
2004	307
2005	352
2006 (preliminary)	360
2007 (preliminary)	387
2008 (forecast)	388
2009 (forecast)	384
2010 (forecast)	387
2011 (forecast)	391
2012 (forecast)	394
2013 (forecast)	398
2014 (forecast)	403

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

The 2010 population forecast for the CSD is 31,492, an increase of 4,061 persons from the 2000 Census (1.4 percent average annual growth rate, or AAGR). The 2020 population forecast is 36,033, an additional increase of 4,541 persons. The 2010 to 2020 AAGR remains at 1.4 percent, which is lower than the 1.6 percent AAGR between 2010 and 2020 in the State of Oregon Office of Economic Analysis’ most recent forecast for Clackamas County.¹³ It is also lower than the 2.5 percent AAGR for the City of Canby

¹³“Forecasts of Oregon’s County Populations and Components of Change, 2000 to 2040.” Oregon Department of Administrative Services, Office of Economic Analysis, April, 2004.

implied by population figures from two studies — the 2010 TSP forecast of 24,700 persons in 2030 (compared with the estimated 2009 population) and the 1999 Buildable Lands Inventory forecast of 21,000 persons in 2020 (compared with the 2000 Census population). It is not inconsistent for the District's growth rate to be so much lower than the City's, because the District includes rural areas that will grow very little or not at all under Oregon's land use regulations. Our estimate of CSD area population growth based on Metro's most recent growth forecast allocated to Transportation Analysis Zones yields a 1.8 percent average annual growth rate for the 2005 to 2030 period.¹⁴

The district-wide population forecast by age group is presented in Table 20. School-age population (5 to 17) has fallen since the 2000 Census, but is forecast to increase by about 600 persons between 2010 and 2020. This 11 percent growth remains slower than overall population growth of 14 percent. Therefore the school age population share falls from 17.3 percent in 2010 to 16.8 percent in 2020. Between 2010 and 2020, the fastest growing age groups are older adults ages 65 to 79, followed by younger adults age 30 to 39.

¹⁴PSU Population Research Center aggregated Metro's 2005 estimates and 2029 population forecasts for Traffic Analysis Zones to approximate the CSD area. Source data and documentation for "Metroscope Gen 2.3 – Year 2030 TAZ Allocation" at <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24905>.

Table 20
Population by Age Group
Canby School District, 1990 to 2020

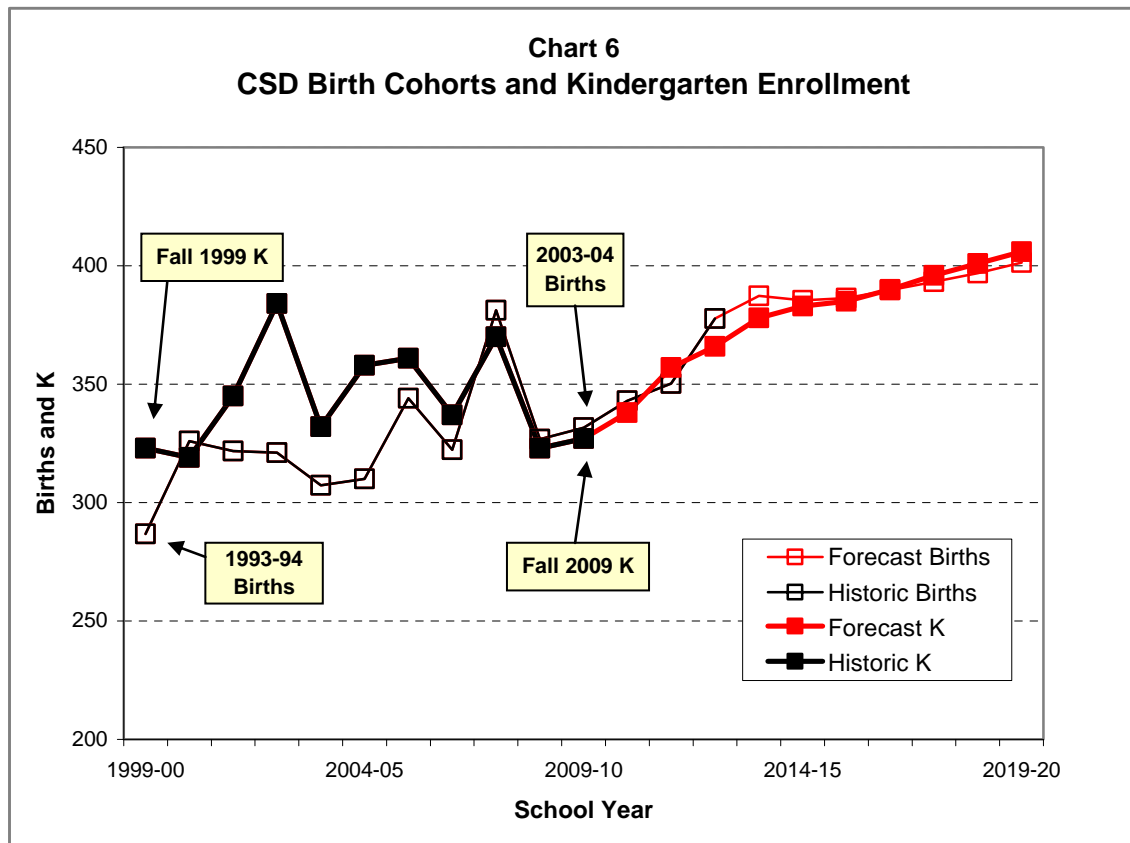
	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	1,596	1,764	1,948	2,196	432	24%
Age 5 to 9	1,768	2,012	1,969	2,338	326	16%
Age 10 to 14	1,836	2,251	2,158	2,372	121	5%
Age 15 to 17	1,090	1,347	1,320	1,345	-2	0%
Age 18 to 19	662	676	762	703	27	4%
Age 20 to 24	1,233	1,307	1,665	1,535	228	17%
Age 25 to 29	1,423	1,340	1,596	1,602	262	20%
Age 30 to 34	1,724	1,650	1,846	2,414	764	46%
Age 35 to 39	1,942	2,002	1,929	2,366	364	18%
Age 40 to 44	1,907	2,134	2,164	2,468	334	16%
Age 45 to 49	1,665	2,098	2,341	2,229	131	6%
Age 50 to 54	1,178	2,026	2,461	2,516	490	24%
Age 55 to 59	1,003	1,648	2,175	2,380	732	44%
Age 60 to 64	1,071	1,168	2,098	2,442	1,274	109%
Age 65 to 69	1,110	976	1,672	2,118	1,142	117%
Age 70 to 74	827	993	1,068	1,942	949	96%
Age 75 to 79	605	933	811	1,406	473	51%
Age 80 to 84	389	593	705	759	166	28%
Age 85 and over	280	513	803	901	388	76%
Total Population	23,309	27,431	31,492	36,033	8,602	31%
Total age 5 to 17	4,694	5,610	5,447	6,055	445	8%
<i>share age 5 to 17</i>	20.1%	20.5%	17.3%	16.8%		

	1990-2000	2000-2010	2010-2020
Population Change	4,122	4,061	4,541
<i>Percent</i>	18%	15%	14%
<i>Average Annual</i>	1.6%	1.4%	1.4%

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

District-wide Enrollment Forecast

Chart 6 compares the historic and forecast number of births in the District with the historic and forecast number of CSD kindergarten students. Births correspond to kindergarten cohorts (September to August). Although many children move into and out of the District between birth and age five, and not all District residents attend CSD kindergartens, the trend in kindergarten enrollment has generally followed the trend in the birth cohort over the past several years. Kindergarten classes in the late 1990s and early 2000s were often 10 to 20 percent larger than their corresponding birth cohorts, indicating the large contribution of in-migration. For the past four years and throughout the forecast, the closeness of the lines indicates that net in-migration is just large enough to compensate for the number of residents who do not enroll in CSD kindergartens.



The District’s growth has been fueled by migration, as there have generally been more households moving in than out. Net out-migration was measured between Fall 2007 and

Fall 2008, perhaps the only recent year when the District experienced a net loss due to migration at the elementary level. A return to net in-migration was apparent between Fall 2008 and Fall 2009. This migration has also contributed to the long term growth in District births and subsequent kindergarten enrollments, as shown previously in Chart 6.

Table 21 uses Grade Progression Rates (GPRs) to show that the CSD gains students due to migration at nearly every grade level. 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. Depending on the school district, rates for some grades are typically high because new students enter the District from private schools at particular grades. It is common to see higher GPRs for the K-1st and 8th-9th 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 net migration is zero and students are not held back for academic reasons, one

Table 21
Grade Progression Rates¹
Canby S.D. History and Forecast

Grade Transition	Historic Average: 1999-2000 to 2009-10	Baseline (without the influence of migration)	Forecast Average: 2009-10 to 2019-20
K-1	1.05	-- ²	1.06
1-2	1.01	1.00	1.02
2-3	1.02	1.00	1.02
3-4	1.02	1.00	1.02
4-5	1.01	1.00	1.02
5-6	1.02	1.00	1.02
6-7	1.00	0.98	1.00
7-8	1.00	0.99	1.01
8-9	1.05	1.04	1.05
9-10	1.01	1.00	1.01
10-11	0.95	0.97	0.97
11-12	0.96	0.99	0.99

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

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

can expect GPRs very close to 1.00. Over the last 10 years, average GPRs for each grade from 2nd to 6th have been 1.01 or 1.02, indicating growth of one to two percent more students each year. Grades 7 and 8 have consistently lower GPRs. The forecast also includes enrollment growth due to migration, at similar rates as in the past.

Overall K-12 enrollment is forecast to increase by 486 students (10 percent) in the next 10 years. Growth will be slow at first, with the potential for declining or flat enrollment for the 2010-11 and 2011-12 school years. K-5 enrollments begin to grow after 2011-12, but grades 6-8 enrollments remain flat until 2016-17 and begin to grow in the last three years of the forecast. High school enrollment changes very little throughout the 10 year forecast period.

In spite of changes in forecast methodology, the forecast for 2013-14 is only slightly different than last year's forecast (2013-14 was the final year of last year's five year forecast). K-5 enrollment in 2013-14 is 45 students higher than last year's forecast, grades 6-8 enrollment is 18 students higher, and high school enrollment is 62 students higher. Most of the difference is due to this year's higher than expected enrollment and the emerging trend of fewer students leaving high school before 12th grade.

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

Table 22
Canby School District, Enrollment Forecasts, 2010-11 to 2019-20

Grade	Actual	Forecast									
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	327	338	357	366	378	383	385	390	396	401	406
1	339	344	355	376	387	399	405	406	413	419	424
2	380	345	350	362	385	395	408	414	415	423	429
3	355	386	350	356	369	392	403	415	422	423	431
4	385	359	391	355	362	375	399	409	422	429	430
5	378	390	364	397	361	368	382	405	416	429	437
6	393	384	396	370	405	368	376	389	413	424	438
7	396	390	381	394	369	403	367	374	388	412	423
8	395	397	391	383	397	372	406	370	377	391	416
9	401	415	417	411	404	418	392	428	390	398	413
10	378	404	418	421	416	408	423	396	433	394	402
11	436	368	393	407	410	405	398	412	386	422	384
12	404	433	366	391	405	408	403	396	410	384	420
US*	11	11	11	11	11	11	11	11	11	11	11
Total	4,978	4,964	4,940	5,000	5,059	5,105	5,158	5,215	5,292	5,360	5,464
Annual change		-14 -0.3%	-24 -0.5%	60 1.2%	59 1.2%	46 0.9%	53 1.0%	57 1.1%	77 1.5%	68 1.3%	104 1.9%
K-5	2,164	2,162	2,167	2,212	2,242	2,312	2,382	2,439	2,484	2,524	2,557
6-8	1,184	1,171	1,168	1,147	1,171	1,143	1,149	1,133	1,178	1,227	1,277
9-12	1,630	1,631	1,605	1,641	1,646	1,650	1,627	1,643	1,630	1,609	1,630

	2009-10 to 2014-15		2014-15 to 2019-20		2009-10 to 2019-20	
	5 yr. chg.	Pct.	5 yr. chg.	Pct.	10 yr. chg.	Pct.
K-5	148	6.8%	245	10.6%	393	18.2%
6-8	-41	-3.5%	134	11.7%	93	7.9%
9-12	20	1.2%	-20	-1.2%	0	0.0%
Total	127	2.6%	359	7.0%	486	9.8%

*Note: "US" is ungraded secondary; included in grade 9-12 totals.

Population Research Center, Portland State University, March 2010.

Individual School Forecasts

We prepared forecasts for individual schools under a scenario in which current boundaries and grade configurations remain constant. Program changes, school choice policies, or other decisions about individual schools and the students they serve could impact enrollment in ways that these forecasts do not anticipate. The individual school forecasts depict what future enrollments might be if today's facilities, programs, and boundaries remain unchanged.

The methodology relies on unique sets of grade progression rates for each school and the ratio of kindergarten enrollment to lagged births within each school's attendance area. New kindergarten classes were forecast each year based on recent kindergarten enrollments and their relationships to corresponding birth cohorts within their attendance areas. Subsequent grades were forecast using GPRs influenced by district-wide rates, historic observations at individual schools, and future expected housing growth. The final forecasts for individual schools are controlled to match the district-wide forecasts.

Among the District's elementary schools, growth is forecast at each of the four schools in the City of Canby, ranging from 27 additional students at Trost to 45 additional students at Eccles, where the most new housing is expected. Carus and Ninety-One Schools have little potential for housing growth, but are expected to have relatively stable enrollments.

Enrollment changes at Ackerman, Baker Prairie, and CHS depend largely on fluctuations in the size of individual classes. For example, Ackerman is forecast to lose about 40 students between 2010-11 and 2011-12 — when the large class currently in 7th grade advances to high school. Baker Prairie is forecast to gain 37 students between 2010-11 and 2011-12 —when the current large 4th grade class at Knight and 5th grade class at Carus enter middle school. Canby High School is forecast to remain near 1,600 students throughout the five year period.

Table 19 presents the enrollment forecasts for each school, grouped by school level. Profiles in the Appendix for each school include enrollment history and forecasts, school capacities, and housing development information for each school's attendance area.

Table 23
Enrollment Forecasts for Individual Schools, 2010-11 to 2014-15

School	Actual	Forecast					Change
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2009-10 - 2014-15
Carus Elementary (K-6)	367	359	353	352	360	367	0
Eccles Elementary (K-5)	406	413	426	444	441	451	45
Knight Elementary (K-5)	401	406	409	423	434	434	33
Lee Elementary (K-5)	365	373	370	370	379	403	38
Ninety-One (K-8)	461	465	467	464	461	464	3
Trost Elementary (K-5)	391	391	387	392	401	418	27
Ackerman Middle (6-8)	468	450	410	399	429	421	-47
Baker Prairie Middle (6-8)	487	474	511	513	506	495	8
Other K-8 ¹	2	2	2	2	2	2	0
Canby High ²	1,608	1,609	1,583	1,619	1,624	1,628	20
Other 9-12 ¹	22	22	22	22	22	22	0
District Totals	4,978	4,964	4,940	5,000	5,059	5,105	127

1. "Other" includes CSD students in alternative placements & tutoring.

2. Includes students at Parrott Creek.

Population Research Center, Portland State University, March 2010.

FORECAST ERROR AND UNCERTAINTY

Forecasts should be understood to represent a range of outcomes even though discrete numbers are provided. Due to the nature of forecasting, there is no way to estimate a confidence interval as one might for data collected from a survey. The best way to measure potential forecast error is to compare actual enrollments with previous forecasts that were conducted using similar data and methodologies.

Table 24 compares the actual CSD enrollment by grade level in Fall 2009 with the 2009-10 forecasts prepared one year, two years, and three years earlier. The large enrollment loss of 139 students observed between Fall 2007 and Fall 2008 was expected to persist to a lesser extent this year, resulting in an additional loss of 103 students in Fall 2009. The actual loss between 2008-09 and 2009-10 was only 37 students, so the forecast was 66 students (1.3 percent) too low. Conversely, forecasts made in 2007 and 2008 were higher than actual Fall 2009 enrollment. Forecasts made last year for individual grades were very accurate, with the exception of 10th grade, which enrolled 33 more students than forecasted. As a measure of average error for individual grade levels, we have included the mean absolute percent error (MAPE) in the table.

Forecasts for individual schools, particularly elementary schools, typically have higher error rates than the district-wide errors, due to their relatively small size, fluctuations in incoming kindergarten classes, and greater mobility of families with younger children. The three most recent forecasts are compared with actual Fall 2009 enrollments by school in Table 25. The Fall 2008 to Fall 2009 enrollment loss of 27 students at Trost was not anticipated by any of the previous forecasts, whereas Canby High School experienced a smaller than expected enrollment loss.

Table 24
Fall 2009 Enrollment Compared to Previous Forecasts
By Grade Level

Grade	Actual	One year forecast ¹			Two year forecast ²			Three year forecast ³		
		Fcst.	Diff.	Error	Fcst.	Diff.	Error	Fcst.	Diff.	Error
K	327	328	1	0.3%	342	15	4.6%	358	31	9.5%
1	339	331	-8	-2.4%	346	7	2.1%	359	20	5.9%
2	380	372	-8	-2.1%	394	14	3.7%	393	13	3.4%
3	355	359	4	1.1%	381	26	7.3%	361	6	1.7%
4	385	378	-7	-1.8%	397	12	3.1%	380	-5	-1.3%
5	378	377	-1	-0.3%	403	25	6.6%	393	15	4.0%
6	393	386	-7	-1.8%	403	10	2.5%	380	-13	-3.3%
7	396	400	4	1.0%	416	20	5.1%	410	14	3.5%
8	395	381	-14	-3.5%	401	6	1.5%	389	-6	-1.5%
9	401	401	0	0.0%	399	-2	-0.5%	400	-1	-0.2%
10	378	389	11	2.9%	384	6	1.6%	395	17	4.5%
11	436	403	-33	-7.6%	413	-23	-5.3%	421	-15	-3.4%
12	404	401	-3	-0.7%	406	2	0.5%	382	-22	-5.4%
US ⁴	11	6	-5		10	-1		7	-4	
Total	4978	4912	-66	-1.3%	5095	117	2.4%	5028	50	1.0%
MAPE⁵				2.0%			3.4%			3.7%

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

2. Forecast for 2009-10 by PSU-PRC, baseline 2007-08 enrollment, February 2008

3. Forecast for 2009-10 by PSU-PRC, baseline 2006-07 enrollment, April 2007

4. Ungraded secondary enrollment

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

Table 25
Fall 2009 Enrollment Compared to Previous Forecasts
By Individual School

School	Actual	One year forecast ¹			Two year forecast ²			Three year forecast ³		
		Fcst.	Diff.	Error	Fcst.	Diff.	Error	Fcst.	Diff.	Error
Carus (K-6)	367	340	-27	-7.4%	386	19	5.2%	390	23	6.3%
Eccles (K-5)	406	396	-10	-2.5%	447	41	10.1%	377	-29	-7.1%
Knight (K-5)	401	391	-10	-2.5%	386	-15	-3.7%	411	10	2.5%
Lee (K-5)	365	360	-5	-1.4%	387	22	6.0%	391	26	7.1%
Ninety-One (K-8)	461	444	-17	-3.7%	445	-16	-3.5%	464	3	0.7%
Trost (K-5)	391	426	35	9.0%	427	36	9.2%	433	42	10.7%
Ackerman MS	468	469	1	0.2%	490	22	4.7%	448	-20	-4.3%
Baker Prairie MS	487	479	-8	-1.6%	512	25	5.1%	506	19	3.9%
Canby HS	1,608	1,567	-41	-2.5%	1,585	-23	-1.4%	1,570	-38	-2.4%
Other K-12	24	40	16		30	6		38	14	
District	4,978	4,912	-66	-1.3%	5,095	117	2.4%	5,028	50	1.0%
MAPE⁴				3.4%			5.4%			5.0%

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

2. Forecast for 2009-10 by PSU-PRC, baseline 2007-08 enrollment, February 2008

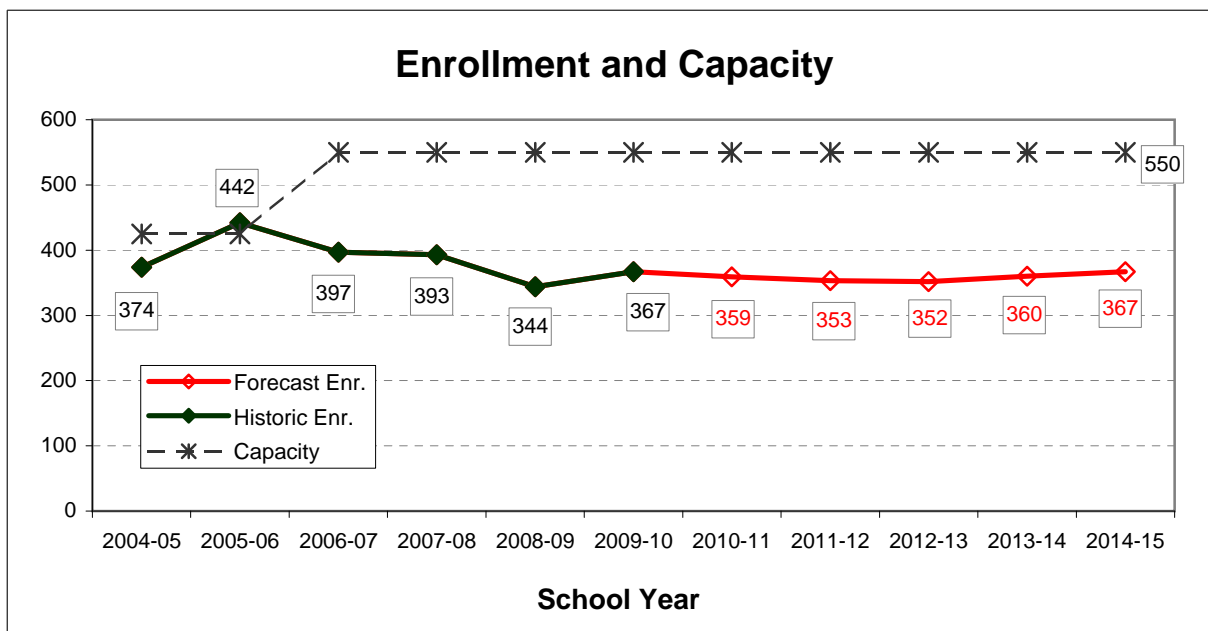
3. Forecast for 2009-10 by PSU-PRC, baseline 2006-07 enrollment, April 2007

4. Mean absolute percent error for individual schools.

APPENDIX

ENROLLMENT, CAPACITY, AND HOUSING PROFILES FOR INDIVIDUAL SCHOOLS

Carus Elementary School Enrollment and Housing Profile



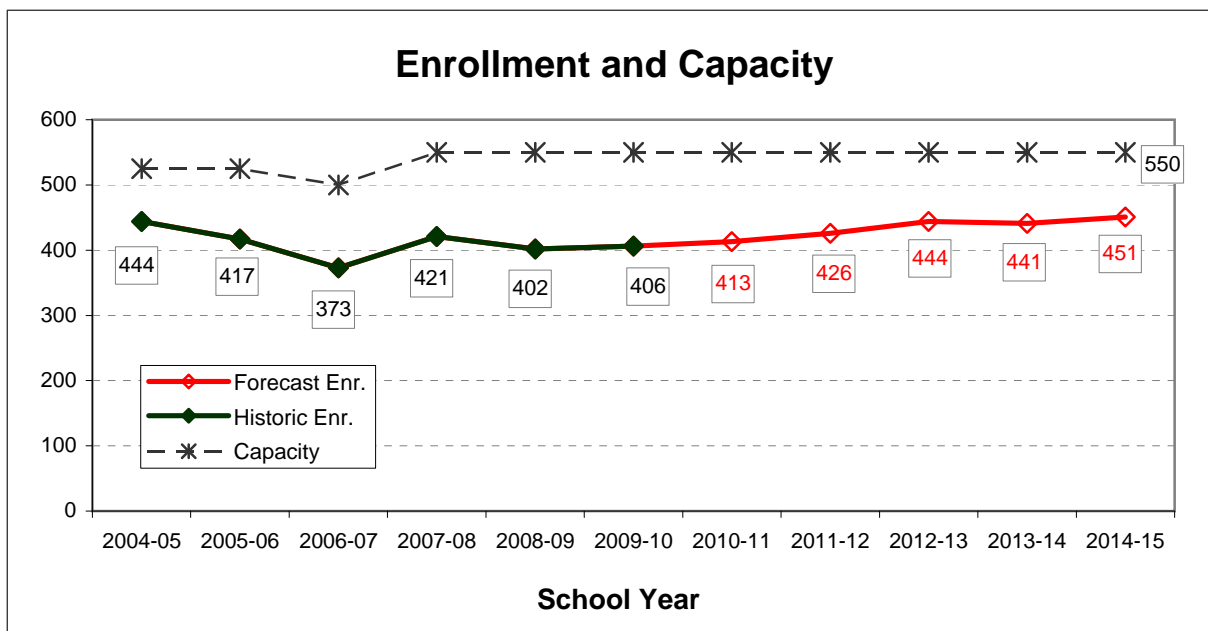
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	374	367	359	353	352	360	367
Five Year Change		-7					0

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	118
Built 2000	8
Built 2001	3
Built 2002	7
Built 2003	7
Built 2004	13
Built 2005	18
Built 2006	7
Built 2007	7
Built 2008	4

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
Total	0	0

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Eccles Elementary School Enrollment and Housing Profile



Note: Eccles had a net loss of students due to boundary changes in 2006.

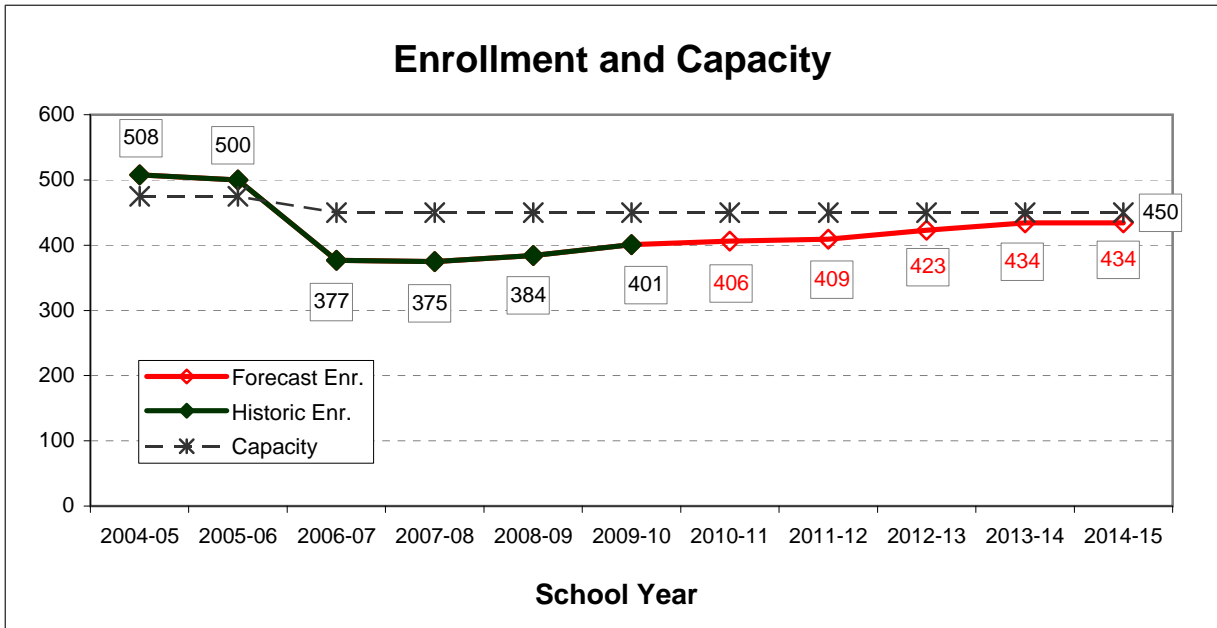
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	444	406	413	426	444	441	451
Five Year Change		-38					45

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	354
Built 2000	12
Built 2001	8
Built 2002	44
Built 2003	5
Built 2004	14
Built 2005	63
Built 2006	169
Built 2007	46
Built 2008	5

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	45	0
2002	0	0
2003	0	16
2004	146	62
2005	65	0
2006	49	0
2007	0	0
2008	0	0
2009	0	0
Total	114	0

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Knight Elementary School Enrollment and Housing Profile



Note: Knight had a net loss of students due to boundary changes in 2006.

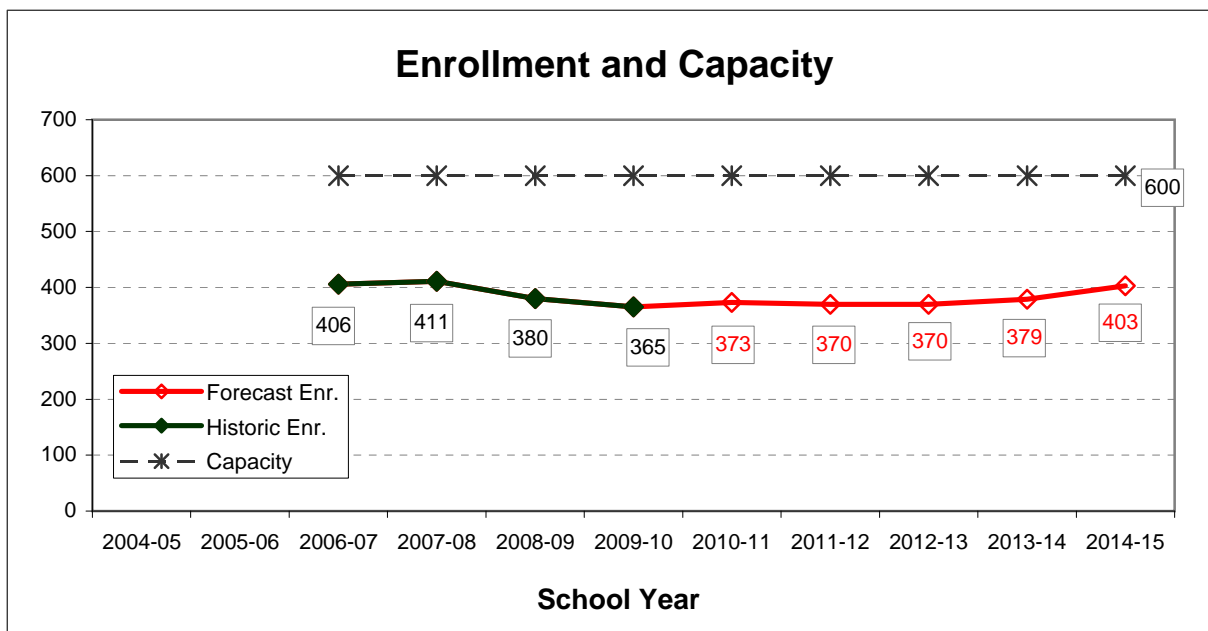
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	508	401	406	409	423	434	434
Five Year Change		-107					33

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	237
Built 2000	34
Built 2001	23
Built 2002	23
Built 2003	27
Built 2004	52
Built 2005	51
Built 2006	28
Built 2007	35
Built 2008	4

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	6	98
2002	11	0
2003	0	55
2004	42	0
2005	0	24
2006	18	0
2007	0	0
2008	0	0
2009	0	0
Total	18	24

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Lee Elementary School Enrollment and Housing Profile



Note: Lee reopened in 2006.

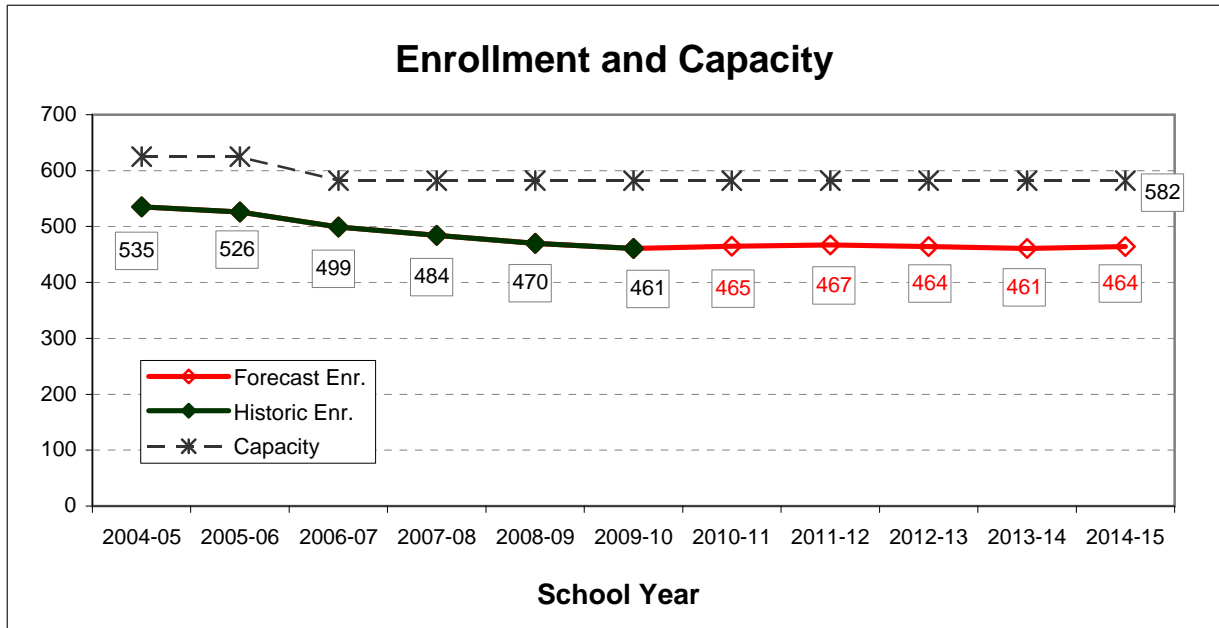
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	0	365	373	370	370	379	403
Five Year Change		365					38

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	340
Built 2000	19
Built 2001	28
Built 2002	25
Built 2003	44
Built 2004	20
Built 2005	8
Built 2006	8
Built 2007	3
Built 2008	5

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	46	0
2001	41	0
2002	0	0
2003	21	0
2004	5	0
2005	4	0
2006	0	0
2007	14	18
2008	0	0
2009	0	0
Total	18	18

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Ninety-One School Enrollment and Housing Profile



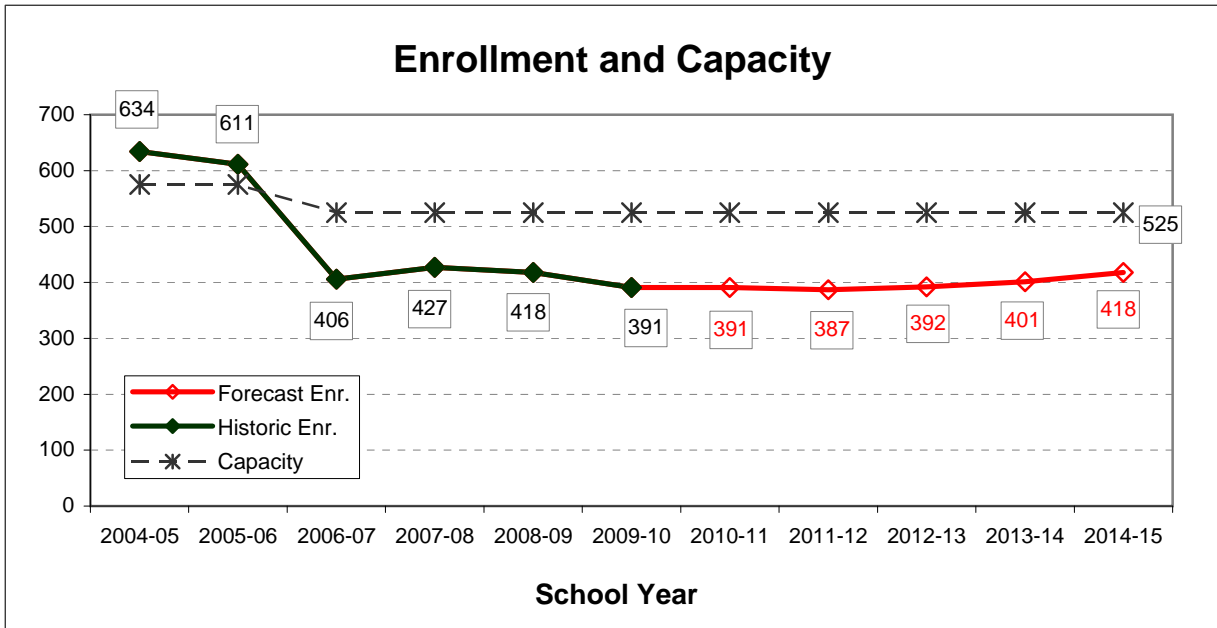
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	535	461	465	467	464	461	464
Five Year Change		-74					3

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	70
Built 2000	6
Built 2001	8
Built 2002	2
Built 2003	8
Built 2004	6
Built 2005	11
Built 2006	10
Built 2007	8
Built 2008	9

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	7	0
2007	0	0
2008	0	0
2009	0	0
Total	7	0

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Trost Elementary School Enrollment and Housing Profile



Note: Trost had a net loss of students due to boundary changes in 2006.

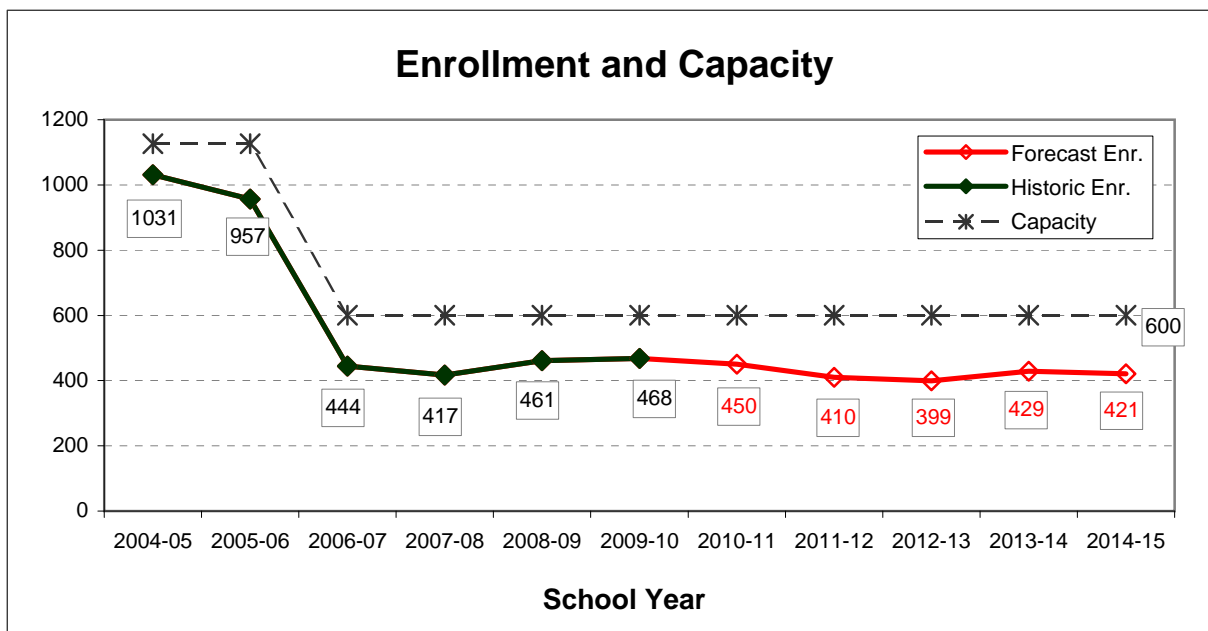
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	634	391	391	387	392	401	418
Five Year Change		-243					27

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	258
Built 2000	37
Built 2001	51
Built 2002	52
Built 2003	17
Built 2004	4
Built 2005	0
Built 2006	1
Built 2007	0
Built 2008	1

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	29	0
2001	43	0
2002	24	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
Total	0	0

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Ackerman Middle School Enrollment and Housing Profile



Note: Ackerman lost enrollment when Baker Prairie opened in 2006 and lost capacity when Lee reopened as an elementary school, also in 2006.

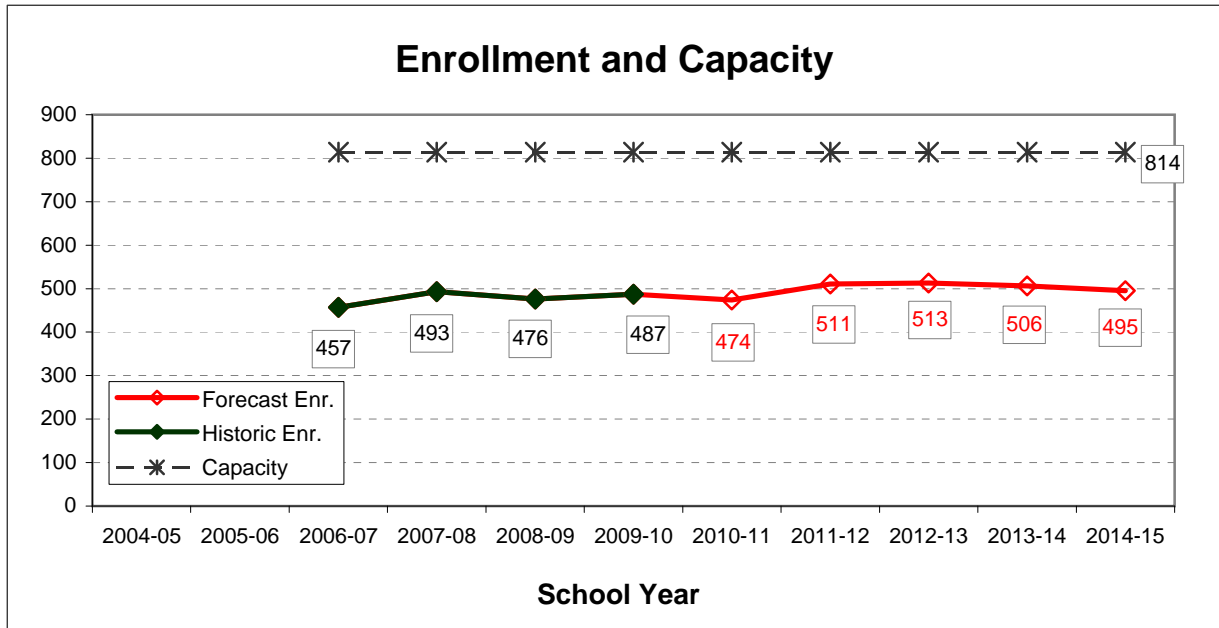
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	1031	468	450	410	399	429	421
Five Year Change		-563					-47

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	694
Built 2000	31
Built 2001	36
Built 2002	69
Built 2003	49
Built 2004	34
Built 2005	71
Built 2006	177
Built 2007	49
Built 2008	10

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	46	0
2001	86	0
2002	0	0
2003	21	16
2004	151	62
2005	69	0
2006	49	0
2007	14	18
2008	0	0
2009	0	0
Total	132	18

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Baker Prairie Middle School Enrollment and Housing Profile



Note: Baker Prairie opened in 2006.

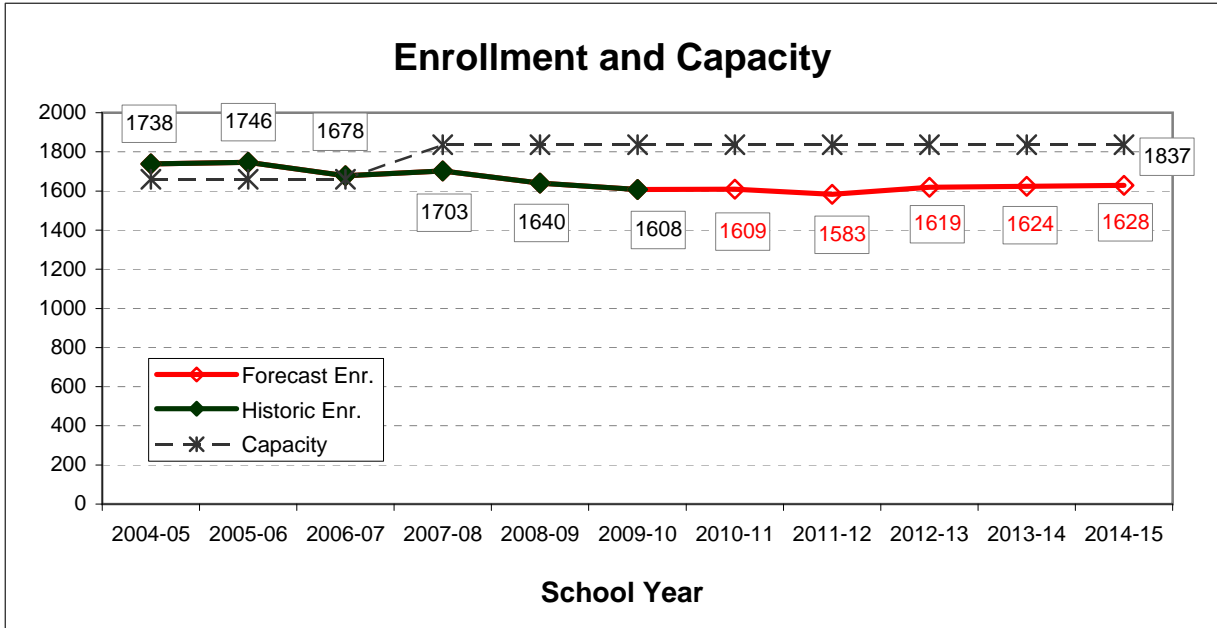
Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	0	487	474	511	513	506	495
Five Year Change		487					8

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	613
Built 2000	79
Built 2001	77
Built 2002	82
Built 2003	51
Built 2004	69
Built 2005	69
Built 2006	36
Built 2007	42
Built 2008	9

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	29	0
2001	49	98
2002	35	0
2003	0	55
2004	42	0
2005	0	24
2006	18	0
2007	0	0
2008	0	0
2009	0	0
Total	18	24

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.

Canby High School Enrollment and Housing Profile



Note: Historic and forecast enrollment includes Parrott Creek.

Enrollment History and Forecast							
	History		Forecast				
	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total enrollment	1738	1608	1609	1583	1619	1624	1628
Five Year Change		-130					20

Estimated Housing Stock	
Single Family Homes Built Since 1990	
Built 1990 to 1999	1,377
Built 2000	116
Built 2001	121
Built 2002	153
Built 2003	108
Built 2004	109
Built 2005	151
Built 2006	223
Built 2007	99
Built 2008	28

Year	New Development Approved 2000-09	
	SF Lots	MF Units
2000	75	0
2001	135	98
2002	35	0
2003	21	71
2004	193	62
2005	69	24
2006	74	0
2007	14	18
2008	0	0
2009	0	0
Total	157	42

Sources: Historic Enrollment, CSD; Forecast enrollment, PSU-PRC; estimated housing stock as of 2009, PSU-PRC based on data from Clackamas County and Metro; New Development, PSU-PRC based on information from City of Canby and Clackamas County.