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Canby School District: Enrollment Forecast Update 2011-12 to 2020-21

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CANBY SCHOOL DISTRICT
ENROLLMENT FORECAST UPDATE
2011-12 TO 2020-21

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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 five years. This study includes forecasts of district-wide enrollment for the 10 years from 2011-12 to 2020-21 and forecasts for individual schools for the five years from 2011-12 to 2015-16. The 10 year horizon of the district-wide 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 five out of six years since 2004-05, contributing to a net loss of 394 students (7.4 percent) in the ten year period since 2000-01. The K-12 total in Fall 2010 was 4,895 students.

These enrollment losses have occurred in spite of 12 percent growth in the District's housing stock between the 2000 and 2010 censuses, and a doubling of Latino student enrollment, from 615 K-12 students in Fall 2000 to 1,275 in Fall 2010.

The District has gained enrollment from new single family homes built since 2000, and the number of students living in rental apartments has increased each of the past four years, but these trends have not compensated for the loss of enrollment due to the aging population and recent net out-migration related to the recession. The District's single family housing stock built prior to 2000 was home to about 400 fewer students in Fall 2010 compared with Fall 2006. Evidence of out-migration includes the uncharacteristic net loss of 2.1 percent of Fall 2009 1st to 4th grade students based on Fall 2010 2nd to 5th grade enrollment. Even in years when overall K-12 enrollment has declined, there is typically a net gain for elementary cohorts.

The population forecast prepared for the CSD indicates that overall population has grown at an average annual rate of 0.9 percent between 2000 and 2010. However, the District's

population of school age residents has been declining at an average annual rate of 0.5 percent during the same period. While the population forecast for the 2010 to 2020 period shows a slightly higher average annual growth of 1.1 percent for total population, the average annual growth for school age population is 1.0 percent.

At least one more year of enrollment decline is expected, because the current high unemployment rate and lack of housing construction is likely to continue to prevent the District's population from growing. Fall 2011 K-12 enrollment is forecast to be 52 students (1.1%) lower than Fall 2010 enrollment. For the entire 10 year forecast horizon, K-12 enrollment is forecast to increase by 472 students (9.6 percent). Most of the forecast growth occurs at the elementary grades. High school enrollment changes very little throughout the 10 year forecast period.

Table 1 contains CSD recent and forecast enrollments for five year intervals. On page 38 of this report, Table 17 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 18 of this report and in school profiles in the Appendix.

Table 1

Historic and Forecast Enrollment
Canby School District

	Actual			Forecast	
	2000-01	**2005-06**	**2010-11**	**2015-16**	**2020-21**
Grades K-5	2,292	2,244	2,079	2,235	2,468
5 year change		-48	-165	*156*	*233*
		-2.1%	*-7.4%*	*7.5%*	*10.4%*
Grades 6-8	1,285	1,216	1,178	1,121	1,270
5 year change		-69	-38	*-57*	*149*
		-5.4%	*-3.1%*	*-4.8%*	*13.3%*
Grades 9-12	1,712	1,786	1,638	1,675	1,629
5 year change		74	-148	*37*	*-46*
		4.3%	*-8.3%*	*2.3%*	*-2.7%*
Total	**5,289**	**5,246**	**4,895**	**5,031**	**5,367**
5 year change		***-43***	***-351***	***136***	***336***
		-0.8%	***-6.7%***	***2.8%***	***6.7%***

Actual: Canby School District.
Forecast: Population Research Center, PSU, March 2011.

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 five years. This study includes forecasts of district-wide enrollment for the 10 years from 2011-12 to 2020-21 and forecasts for individual schools for the five years from 2011-12 to 2015-16. For the most recent two years, the district-wide forecasts have been extended from five to ten years. The 10 year district-wide 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. 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 and housing trends within the District, the relationship between housing and enrollment, and historic enrollment trends. 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.

POPULATION, EMPLOYMENT, AND HOUSING TRENDS

Between 2000 and 2010, total population within the CSD grew by 10 percent, from 27,431 persons to 30,137. This growth rate was slower than Clackamas County's 11 percent and the Portland metropolitan area's 15 percent growth in the decade. Numeric and percentage growth in all of these areas was smaller in the 2000s than in the 1990s. Between 1990 and 2000, total population within the CSD grew by 18 percent, Clackamas County grew by 21 percent and the Portland metropolitan area grew by 27 percent.

The District's population living within incorporated cities grew by 41 percent in the 1990s and 19 percent in the 2000s. As a result of the growth in the cities and slight population loss in unincorporated areas in both decades, city population as a share of the District's total grew from 47 percent in 1990 to 57 percent in 2000 and 61 percent in 2010. The 1990, 2000, and 2010 populations of each of the cities served by CSD, the District itself, the County and the metropolitan region are shown in Table 2.

Table 2

City and Region Population, 1990, 2000, and 2010

				Avg. Annual Growth Rate	
	1990	**2000**	**2010**	**1990-2000**	**2000-2010**
City of Canby	8,990	12,790	15,829	*3.6%*	*2.2%*
City of Barlow	118	140	135	*1.7%*	*-0.4%*
City of Wilsonville	7,106	13,991	19,509	*7.0%*	*3.4%*
CSD Portion [1]	1,924	2,601	2,499	*3.1%*	*-0.4%*
CSD Unincorporated	12,277	11,900	11,674	*-0.3%*	*-0.2%*
CSD Total[2]	23,309	27,431	30,137	*1.6%*	*0.9%*
Clackamas County	278,850	338,391	375,992	*2.0%*	*1.1%*
Portland-Vancouver-Beaverton MSA[2]	1,523,741	1,927,881	2,226,009	*2.4%*	*1.4%*

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

2. School District population determined by PSU-PRC based on aggregation of census blocks within the CSD boundary shapefiles. The 2010 CSD population published by the Census Bureau is 30,183.

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, 2000, and 2010 censuses.

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 17 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 (10 percent) counties. Table 3 reports the number and share of workers by place of work. [1]

Table 3

Where CSD Residents Are Employed

Job Located Within*	Workers	Share
Clackamas County	5,321	*44%*
Canby School District	2,056	*17%*
City of Canby	1,306	*11%*
Multnomah County	2,526	*21%*
City of Portland	2,271	*19%*
Washington County	2,026	*17%*
Marion County	1,203	*10%*
All other locations	981	*8%*
Total Primary Jobs	**12,057**	***100%***

**Note: Indentation indicates that the area is also included wihin 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 2009). Jobs covered by unemployment insurance, generally excluding federal government, agricultural, self-employed and domestic workers. Includes at most one (primary) job per resident.

Between 2004 and 2007 Clackamas County added 12,200 jobs, nine percent over the three year period. Growth slowed in early 2008, and in October 2008 the county began to post year-to-year job losses. By 2010, employment had fallen below its 2004 level, mainly due to the loss of 11,000 jobs between 2008 and 2009.[2]

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

[1] U.S. Census Bureau, LED Origin-Destination Database (2nd quarter 2009). 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/.

[2] "Current Employment by Industry," Oregon Employment Department, OLMIS. Average annual non-farm employment in Clackamas County was 135,900 in 2004, 148,100 in 2007, and 134,900 in 2010.

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.

Oregon is beginning to show signs of an economic recovery. Seasonally adjusted payroll employment grew by 9,800 in February, Oregon's largest one-month gain since November 1996.[3] In Clackamas County,

> three industries that were hit especially hard during the recession, construction, manufacturing, and professional and business services, have stabilized. Construction is seeing its best year since 2007. It appears as if the county has hit bottom in single family housing permits. Small gains in manufacturing have pulled employment up to year-ago levels for the first time in nearly two years. And hiring trends in professional and business services returned to a semblance of normalcy.4

Previous reports included details about the location and size of residential developments approved by the City of Canby and by Clackamas County. Because no significant new residential developments have been approved since 2007, these tables are not included in this report. The small number of students that the District may gain from new housing in the next two years is likely to be overshadowed by demographic changes in existing 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 was approved by voters in November 2010, but development of that parcel is not planned at this time.

[3] News Release, Oregon Employment Department, March 15, 2011.
[4] "Clackamas County: Emerging from the Great Recession" Oregon Employment Department, December 30, 2010.

Residential building permit activity within the City of Canby each of the past 15 years is presented in Table 4. The table shows the robust housing growth that occurred through 2006 and the extreme downturn that began in 2007. [5]

Table 4
Housing Units Authorized by Building Permits

	City of Canby	
Year Permit Issued	**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
2010	2	0

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.

Another data source for recent housing construction is 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. In the ten years between 2000 and 2009, about 1,100 single family homes were added Table 5 reports this decade's new single family homes by attendance area and year built.

[5] U.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.

Table 5
Canby School District
Single Family Homes Built 2000 to 2009 by Attendance Area

Elementary School Area*	Year Built										2000-09 Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Carus	8	3	7	7	13	18	7	8	4	3	**78**
Eccles	12	8	44	5	14	63	169	45	6	2	**368**
Knight	34	23	24	27	52	51	28	35	4	2	**280**
Lee	19	28	25	44	19	8	8	3	5	0	**159**
Ninety-One	6	8	2	8	6	12	10	8	9	1	**70**
Trost	37	51	52	17	4	0	1	0	1	0	**163**
Middle School Area*											
Ackerman	31	36	69	49	33	71	177	48	11	2	**527**
Baker Prairie	79	77	83	51	69	69	36	43	9	5	**521**
Ninety-One	6	8	2	8	6	12	10	8	9	1	**70**
District Total	**116**	**121**	**154**	**108**	**108**	**152**	**223**	**99**	**29**	**8**	**1118**

**Note: Current (2010-11) attendance areas.*

Source: Tax assessor data provided by Clackamas County GIS, December 2010. 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 been just three homes built in the City of Barlow since 2000, and none 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 5 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 2009 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 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 five 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 6 shows the number of Fall 2010 student by housing types.

Table 6
Number of CSD Students, Fall 2010
By Type of Residence

	CSD K-12 Students					
Housing Type	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**Change '06-'07 to '10-'11**
Single Family, Total	3,879	3,889	3,798	3,725	3,675	-204
built before 1990	2,556	2,476	2,424	2,312	2,271	-285
built 1990 to 1999	763	737	711	684	648	-115
built 2000 to 2005	478	528	484	504	488	10
built 2006 to 2009	82	148	179	225	268	186
Multi-Family, Total	640	709	731	770	828	188
apartments and plexes	619	682	705	748	807	188
condominiums	21	27	26	22	21	0
Manufactured Home Parks	224	219	212	200	203	-21
All Other*	332	337	274	283	189	-143
District total	**5,075**	**5,154**	**5,015**	**4,978**	**4,895**	**-180**

**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 2010) 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 7 details Fall 2010 rates by housing type and by grade level. For District homes built between 2000 and 2009, the average number of CSD K-12 students per home in Fall 2010 was 0.68, about two students in every three homes. This rate is in the middle of the range of rates in other area school districts measured in recent studies.[6] Homes built in the 1990s had the same average number of high school students per home as those built since 2000, but fewer elementary and middle school students and a lower K-12 average of 0.47. 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 0.36 CSD students per home.

Table 7

Average Number of CSD Students per Home, Fall 2010
By Housing Type and Grade Level

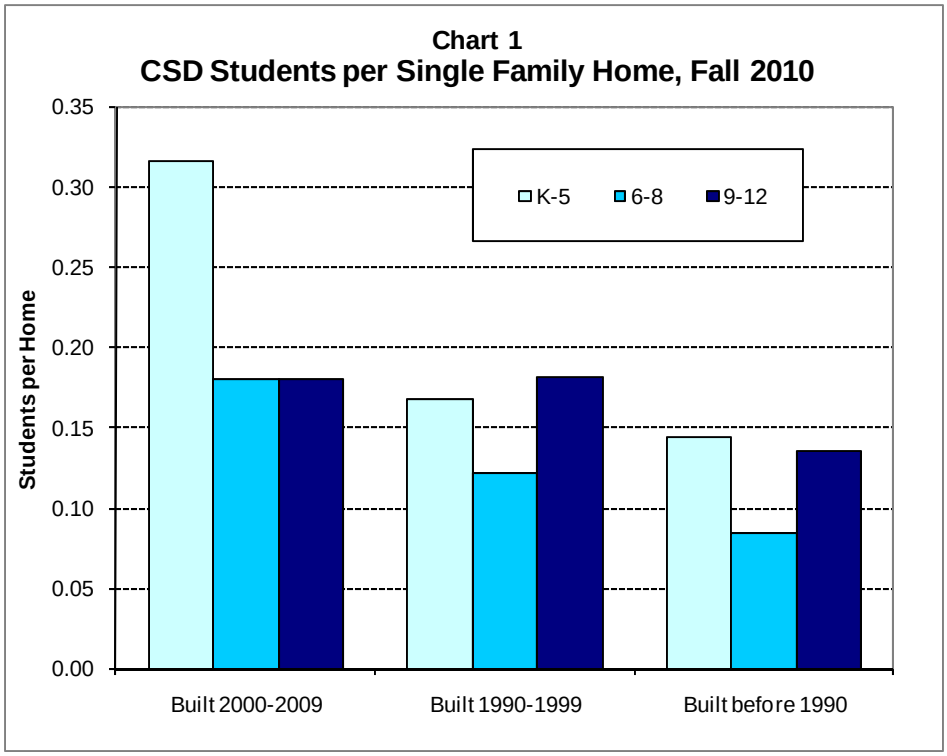
	Grade Level			
	K-5	**6-8**	**9-12**	**K-12**
Single family homes built 2000-2009	0.32	0.18	0.18	**0.68**
detached homes built 2000-2009	*0.33*	*0.18*	*0.18*	***0.69***
row homes built 2000-2009	*0.22*	*0.14*	*0.19*	***0.55***
Single family homes built 1990-1999	0.17	0.12	0.18	**0.47**
Single family homes built before 1990	0.14	0.08	0.13	**0.36**
Condominiums	0.04	0.01	0.01	**0.06**
Apartments	0.32	0.15	0.13	**0.60**
Manufactured homes in M.H. Parks	0.09	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.

[6] For example, 0.67 in the North Clackamas School District and 0.52 in the Tigard-Tualatin School District in Fall 2010, and 0.84 in the Sherwood School District and 0.48 in the Oregon City School District in Fall 2009.

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 0.55 students per row home built since 2000, compared with 0.69 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 0.60 students per apartment unit is relatively high. The apartments exclude senior housing developments.

The student generation rates shown in Chart 1 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 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 five out of six years since 2004-05, amounting to a net loss of 394 students (7.4 percent) in the period. The K-12 total in Fall 2010 was 4,895 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, 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 2 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 8 summarizes the enrollment history for the District by grade level annually for the 10 year period from 2000-01 to 2010-11.

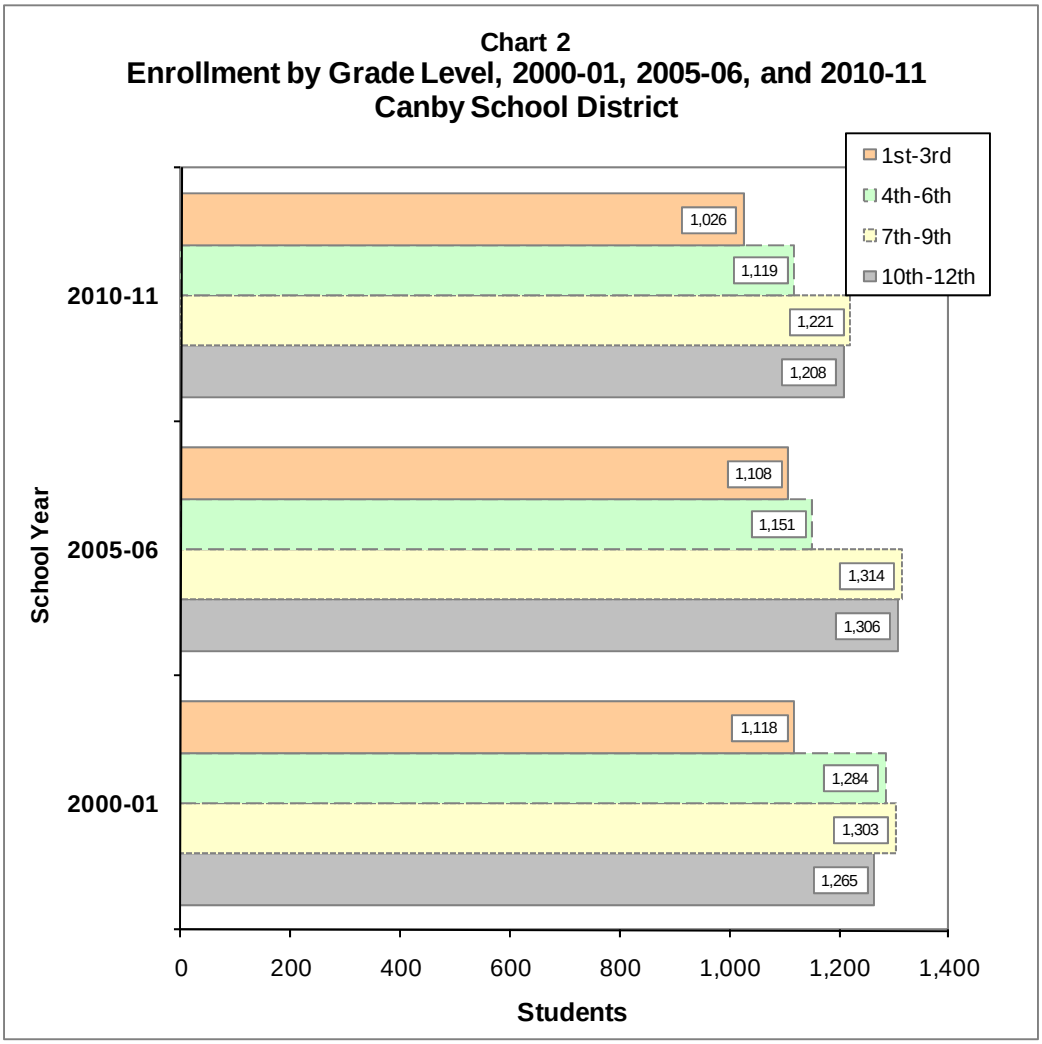


Table 8

Canby School District, Enrollment History, 2000-01 to 2010-11

Grade	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
K	319	345	384	332	358	361	337	370	323	327	313
1	345	354	371	396	354	363	361	360	369	339	337
2	384	348	348	375	390	351	370	375	353	380	323
3	389	399	356	358	394	394	359	381	375	355	366
4	438	388	402	370	365	394	393	386	373	385	358
5	417	451	400	410	371	381	382	403	380	378	382
6	429	412	465	415	421	376	379	401	403	393	379
7	437	437	426	457	420	423	364	386	384	396	401
8	419	432	437	421	457	417	417	362	382	395	398
9	447	433	458	467	453	474	414	432	384	401	422
10	486	431	432	471	466	446	480	442	434	378	404
11	427	447	415	420	445	422	407	447	407	436	370
12	352	403	402	388	402	438	405	399	442	404	434
US*	0	0	3	6	6	6	7	10	6	11	8
Total	**5,289**	**5,280**	**5,299**	**5,286**	**5,302**	**5,246**	**5,075**	**5,154**	**5,015**	**4,978**	**4,895**
Annual change		*-9*	*19*	*-13*	*16*	*-56*	*-171*	*79*	*-139*	*-37*	*-83*
		-0.2%	*0.4%*	*-0.2%*	*0.3%*	*-1.1%*	*-3.3%*	*1.6%*	*-2.7%*	*-0.7%*	*-1.7%*
K-5	2,292	2,285	2,261	2,241	2,232	2,244	2,202	2,275	2,173	2,164	2,079
6-8	1,285	1,281	1,328	1,293	1,298	1,216	1,160	1,149	1,169	1,184	1,178
9-12	1,712	1,714	1,710	1,752	1,772	1,786	1,713	1,730	1,673	1,630	1,638

	2000-01 to 2005-06		2005-06 to 2010-11		2000-01 to 2010-11	
	5 yr. chg.	**Pct.**	**5 yr. chg.**	**Pct.**	**10 yr. chg.**	**Pct.**
K-5	-48	*-2.1%*	-165	*-7.4%*	-213	*-9.3%*
6-8	-69	*-5.4%*	-38	*-3.1%*	-107	*-8.3%*
9-12	74	*4.3%*	-148	*-8.3%*	-74	*-4.3%*
Total	**-43**	***-0.8%***	**-351**	***-6.7%***	**-394**	***-7.4%***

**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 and the Census Bureau's American Community Survey (ACS) estimates from responses between 2005 and 2009. Both the 2000 Census "long form" and the 2005-2009 ACS indicated that about seven percent of CSD K-12 residents attended private schools.[7] 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.

Table 9 shows these data by grade level. Recently (March 2011), there were 209 CSD residents registered, about half of whom were high school age. 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.

[7] U.S. Census Bureau, 2000 Census, Summary File 3, Table P36; 2005-2009 ACS five year estimates, Table C14002.

Table 9

Home School Students Residing in CSD[1]

	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**
2010-11[5]	51	54	104	**209**

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.

5. March 1, 2011.

Source: Clackamas Education Service District

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.

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 10 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 has been relatively balanced since 2008-09, causing very little impact on district-wide enrollment.

Table 10
Inter-District Transfers

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**
October 2010				
Into Canby	23	6	27	56
Out of Canby	24	11	20	55
Net	**-1**	**-5**	**7**	**1**

Source: Canby School District

Latino Enrollment Growth

In the last ten years Latino enrollment has grown by 662 students while non-Latino enrollment has decreased by more than 1,000 students. The CSD's 26 percent Latino enrollment share is higher than the State of Oregon's 20.5 percent share. In both Oregon and the CSD, Latino enrollment has more than doubled since 2000-01, 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 most to enrollment growth in elementary grades, but recent growth has been greatest in high school. In the past five years, Latino enrollment increased by 22 percent in CSD grades K-5, 36 percent in grades 6-8, and 44 percent in grades 9-12.

Table 11 reports Latino and non-Latino CSD enrollment annually from 2000-01 to 2010-11.

Table 11

Canby School District, Latino Enrollment History, 2000-01 to 2010-11

Grade	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Latino											
K-5	364	405	452	496	503	520	504	548	601	622	634
Share of K-5 Total	*16%*	*18%*	*20%*	*22%*	*23%*	*23%*	*23%*	*24%*	*28%*	*29%*	*30%*
6-8	115	149	191	230	217	222	197	228	251	285	301
Share of 6-8 Total	*9%*	*12%*	*14%*	*18%*	*17%*	*18%*	*17%*	*20%*	*21%*	*24%*	*26%*
9-12	136	151	161	196	269	238	232	282	303	325	342
Share of 9-12 Total	*8%*	*9%*	*9%*	*11%*	*15%*	*13%*	*14%*	*16%*	*18%*	*20%*	*21%*
K-12	**615**	**705**	**804**	**922**	**989**	**980**	**933**	**1,058**	**1,155**	**1,232**	**1,277**
Share of K-12 Total	***12%***	***13%***	***15%***	***17%***	***19%***	***19%***	***18%***	***21%***	***23%***	***25%***	***26%***
K-12 Annual change		*90*	*99*	*118*	*67*	*-9*	*-47*	*125*	*97*	*77*	*45*
		14.6%	*14.0%*	*14.7%*	*7.3%*	*-0.9%*	*-4.8%*	*13.4%*	*9.2%*	*6.7%*	*3.7%*
Non Latino											
K-5	1,928	1,880	1,809	1,745	1,729	1,724	1,698	1,727	1,572	1,542	1,445
6-8	1,170	1,132	1,137	1,063	1,081	994	963	921	918	899	877
9-12	1,576	1,563	1,549	1,556	1,503	1,548	1,481	1,448	1,370	1,305	1,296
K-12	**4,674**	**4,575**	**4,495**	**4,364**	**4,313**	**4,266**	**4,142**	**4,096**	**3,860**	**3,746**	**3,618**
K-12 Annual change		*-99*	*-80*	*-131*	*-51*	*-47*	*-124*	*-46*	*-236*	*-114*	*-128*
		-2.1%	*-1.7%*	*-2.9%*	*-1.2%*	*-1.1%*	*-2.9%*	*-1.1%*	*-5.8%*	*-3.0%*	*-3.4%*
District Total											
K-5	2,292	2,285	2,261	2,241	2,232	2,244	2,202	2,275	2,173	2,164	2,079
6-8	1,285	1,281	1,328	1,293	1,298	1,216	1,160	1,149	1,169	1,184	1,178
9-12	1,712	1,714	1,710	1,752	1,772	1,786	1,713	1,730	1,673	1,630	1,638
K-12	**5,289**	**5,280**	**5,299**	**5,286**	**5,302**	**5,246**	**5,075**	**5,154**	**5,015**	**4,978**	**4,895**
K-12 Annual change		*-9*	*19*	*-13*	*16*	*-56*	*-171*	*79*	*-139*	*-37*	*-83*
		-0.2%	*0.4%*	*-0.2%*	*0.3%*	*-1.1%*	*-3.3%*	*1.6%*	*-2.7%*	*-0.7%*	*-1.7%*

Sources: Canby School District; Oregon Department of Education

Neighboring Districts

Table 12 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 12

Selected Clackamas County School Districts
Demographic and Enrollment Highlights, 1990 to 2010

	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 2005-06**	-1%	8%	-8%	14%
Enrollment growth, **2005-06 to 2010-11**	-7%	-7%	-7%	2%
Latino enrollment, **2010-11**	26%	11%	14%	15%
Grades 9-12 enrollment, **2010-11**	33%	30%	35%	33%
Population growth, **1990 to 2000**	18%	24%	15%	26%
Population growth, **2000 to 2010**	10%	14%	-2%	15%
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 four years since the new boundaries were implemented, Trost and Eccles have grown by 22 and 19 students, respectively. Net enrollment losses of 17 to 62 students have occurred at Carus, Knight, Lee, and Ninety-One between 2006-07 and 2010-11.

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 four year period. Both Ackerman and Baker Prairie enroll 21 more students in Fall 2010 than in Fall 2006.

For historic comparisons, Canby High School's enrollments include students at Parrott Creek, since they are now reported as CHS students. Total enrollment of 1,620 students in Fall 2010 is 12 students more than in Fall 2009, but 126 students smaller less that its peak enrollment in Fall 2005.

Total enrollments at each of the District's schools from 2005-06 to 2010-11 are shown in Table 13 on the next page. Enrollment change is shown for the four year period after the current boundaries were established.

Table 13

Enrollment History for Individual Schools, 2005-06 to 2010-11

	Historic Enrollment						Change[1] 2006-07 to 2010-11	
School	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**Number**	**Percent**
Carus Elementary (K-6)	442	397	393	344	367	335	-62	*-16%*
Eccles Elementary (K-5)	417	373	421	402	406	392	19	*5%*
Knight Elementary (K-5)	500	377	375	384	401	360	-17	*-5%*
Lee Elementary (K-5)	0	406	411	380	365	357	-49	*-12%*
Ninety-One (K-8)	526	499	484	470	461	437	-62	*-12%*
Trost Elementary (K-5)	611	406	427	418	391	428	22	*5%*
Ackerman Middle (6-8)	957	444	417	461	468	465	21	*5%*
Baker Prairie Middle (6-8)	0	457	493	476	487	478	21	*5%*
Other K-8[2]	7	3	3	7	2	5	2	
Canby High[3]	1,746	1,678	1,703	1,640	1,608	1,620	-58	*-3%*
Other 9-12[2]	40	35	27	33	22	18	-17	
District Totals	**5,246**	**5,075**	**5,154**	**5,015**	**4,978**	**4,895**	**-180**	***-3.5%***

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 FORECASTS

District-wide Long-range Forecast Methodology

To ensure that enrollment forecasts are consistent with the dynamics of likely population growth within the District, a grade progression enrollment model is combined 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.

Just before the current enrollment forecast was finalized, the Census Bureau released total and age 18 and over population from the 2010 Census. Population by sex and

detailed age group is not yet available, so the 2010 figures used in this study are forecasts. However, the forecast was adjusted to be consistent with the limited information that is available at this time.

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 87 percent for kindergarten and 89 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 fewer than 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 4,400 households within the City's current Urban Growth Boundary if vacant or underdeveloped land is built out, according to the recently completed Canby Transportation System Plan (TSP). At the ratio of 2.5 persons per household, these additional households could be home to 11,000 residents.[8] The TSP incorporates these household growth assumptions in modeling travel demand for the year 2030. If build-out were to occur in that time period, it would result in an average of 210 additional households per year over a 21 year period, more growth annually than in either the 1990s or 2000s.

Population Forecast

Initial results of the 2010 Census are consistent with school enrollment, birth, and housing development data indicating that population gains within the District in the 2000 to 2010 decade were somewhat less than in the 1990s. Even so, population has grown due to both net migration (people moving in minus those moving out) and natural increase (births minus deaths). For the following 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. Net migration is forecast to be higher in the 2010s than in the 2000s, but Chart 3 shows 1990 to 2000 estimated and 2000 to 2020 forecasts of CSD population growth attributable to net migration.

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 14 shows historic births from 2000 to 2007 as well as forecasts from

[8] Based on "Canby Transportation System Plan". DKS Associates, December, 2010.

2008 until 2015, the period that will have an impact on the enrollment forecasts presented in this study.

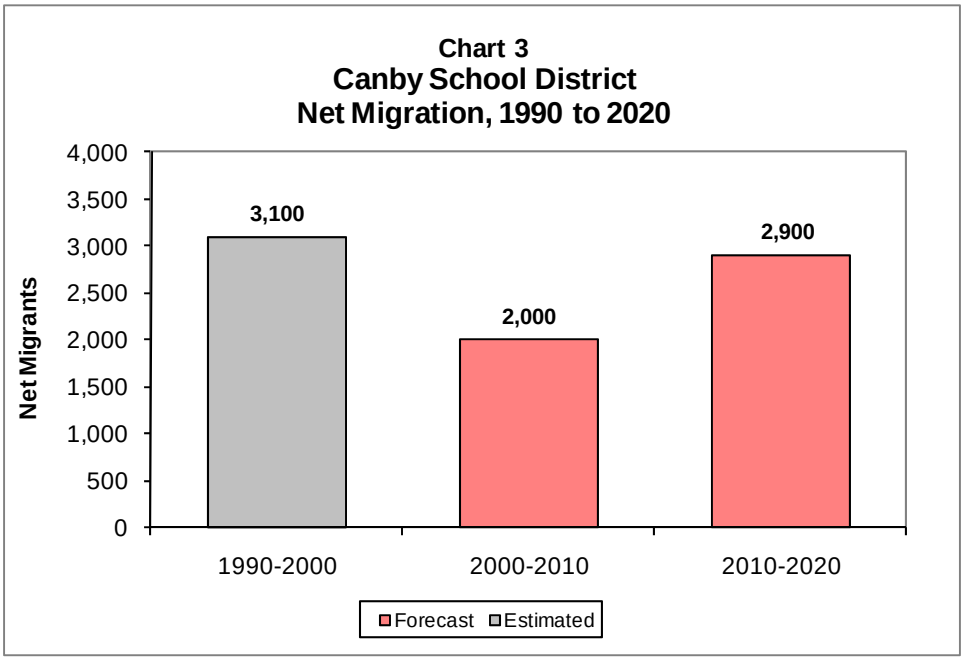


Table 14
Estimated and Forecast Births
Canby School District

Year	Births
2000	357
2001	322
2002	372
2003	345
2004	307
2005	352
2006 (preliminary)	360
2007 (preliminary)	387
2008 (forecast)	381
2009 (forecast)	379
2010 (forecast)	381
2011 (forecast)	380
2012 (forecast)	381
2013 (forecast)	383
2014 (forecast)	387
2015 (forecast)	390

Source: 1990-2007 birth data from Oregon Center for Health Statistics allocated to CSD boundary by PSU-PRC. 2008-2015 forecasts, PSU-PRC.

The 2010 population for the CSD is 30,137, an increase of 2,706 persons from the 2000 Census (0.9 percent average annual growth rate, or AAGR). The 2020 population forecast is 33,508, an additional increase of 3,371 persons. The 2010 to 2020 AAGR increases to 1.1 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.[9] It is also lower than the 2.5 percent AAGR for the City of Canby implied by population figures from two studies — the TSP forecast of 26,100 persons in 2030 (compared with the 2010 Census) 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.[10]

The district-wide population forecast by age group is presented in Table 15. School-age population (5 to 17) has fallen since the 2000 Census, but is forecast to increase by about 546 persons between 2010 and 2020. This 10 percent growth remains slower than overall population growth of 11 percent. Therefore the school age population share falls from 17.7 percent in 2010 to 17.5 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.

[9] "Forecasts of Oregon's County Populations and Components of Change, 2000 to 2040." Oregon Department of Administrative Services, Office of Economic Analysis, April, 2004.
[10] PSU 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 15

Population by Age Group
Canby School District, 1990 to 2020

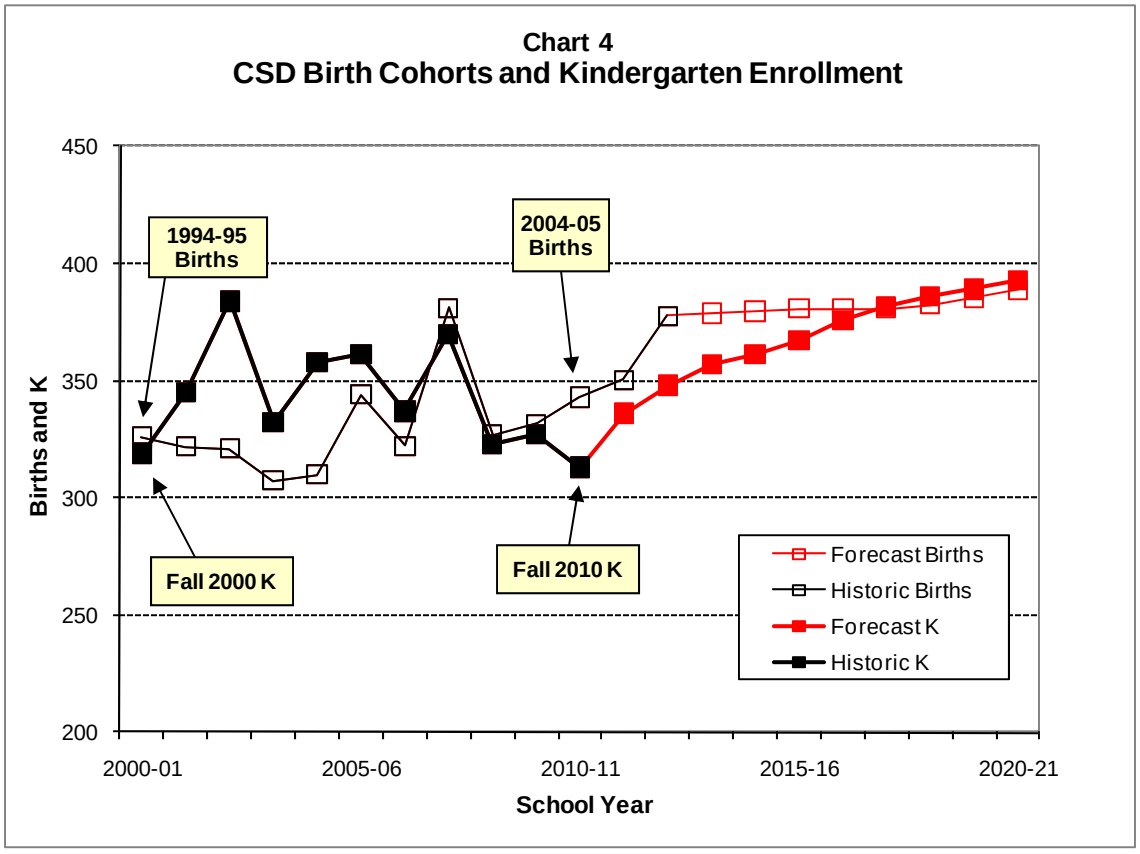
	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	1,596	1,764	1,925	2,096	332	*19%*
Age 5 to 9	1,768	2,012	1,929	2,281	269	*13%*
Age 10 to 14	1,836	2,251	2,096	2,297	46	*2%*
Age 15 to 17	1,090	1,347	1,306	1,298	-49	*-4%*
Age 18 to 19	662	676	796	683	7	*1%*
Age 20 to 24	1,233	1,307	1,578	1,468	161	*12%*
Age 25 to 29	1,423	1,340	1,566	1,640	300	*22%*
Age 30 to 34	1,724	1,650	1,711	2,066	416	*25%*
Age 35 to 39	1,942	2,002	1,809	2,131	129	*6%*
Age 40 to 44	1,907	2,134	2,046	2,180	46	*2%*
Age 45 to 49	1,665	2,098	2,148	2,037	-61	*-3%*
Age 50 to 54	1,178	2,026	2,239	2,165	139	*7%*
Age 55 to 59	1,003	1,648	2,087	2,179	531	*32%*
Age 60 to 64	1,071	1,168	1,999	2,214	1,046	*90%*
Age 65 to 69	1,110	976	1,585	1,990	1,014	*104%*
Age 70 to 74	827	993	1,057	1,840	847	*85%*
Age 75 to 79	605	933	800	1,323	390	*42%*
Age 80 to 84	389	593	688	747	154	*26%*
Age 85 and over	280	513	772	872	359	*70%*
Total Population	**23,309**	**27,431**	**30,137**	**33,508**	**6,077**	***22%***
Total age 5 to 17	4,694	5,610	5,331	5,876	266	*5%*
share age 5 to 17	*20.1%*	*20.5%*	*17.7%*	*17.5%*		

		1990-2000	2000-2010	2010-2020
Population Change		**4,122**	**2,706**	**3,371**
Percent		*18%*	*10%*	*11%*
Average Annual		*1.6%*	*0.9%*	*1.1%*

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 4 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 usually followed birth cohort trends. 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 four years from 2006-07 to 2009-10, the closeness of the lines indicates that net in-migration was just large enough to compensate for the number of residents who do not enroll in CSD kindergartens. The smaller kindergarten in Fall 2010 could not have been predicted from previous births. Because the forecast includes more population growth due to migration than what the District has experienced in the past few years, the kindergarten forecast draws closer to its birth cohorts as this decade progresses.



Even in years when overall K-12 enrollment has declined, there is typically a net gain for elementary cohorts. For example, 3rd grade enrollment may be one or two percent larger than the previous year's 2nd grade enrollment, and so on. However, net out-migration was evident in two of the past three years, based on the ratio of 2nd to 5th grade enrollment to the previous year's 1st to 4th grade enrollment. In the most recent year, Fall 2010, there were 2.1 percent fewer 2nd to 5th grade students compared with 1st to 4th grade students in Fall 2009.

Table 16 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

Table 16

Grade Progression Rates[1]
Canby S.D. History and Forecast

Grade Transition	Historic Average: 2000-01 to 2010-11	Baseline (without the influence of migration)	Forecast Average: 2010-11 to 2020-21
K-1	1.04	--[2]	1.05
1-2	1.00	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	1.01	1.03
6-7	1.00	1.00	1.02
7-8	1.00	1.00	1.02
8-9	1.05	1.04	1.05
9-10	1.00	1.01	1.02
10-11	0.95	0.98	0.98
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.

8^{th}-9^{th} 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 can expect GPRs very close to 1.00. Over the last 10 years, average GPRs for each grade from 2^{nd} to 6^{th} range from 1.00 to 1.02, indicating stability or growth of one to two percent more students each year. Grades 7 and 8 have each averaged 1.00, indicating no net gain or loss in an average year. The forecast includes enrollment growth due to migration, at similar or higher rates as in the past 10 years.

Overall K-12 enrollment is forecast to increase by 472 students (10 percent) in the next 10 years. K-12 enrollment loss of 52 students (1.1 percent loss) is forecast for 2011-12 and only moderate growth, averaging 1.1 percent, is forecast for the remaining nine years of the forecast. 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.

The 10 year growth in the current forecast, based on Fall 2010 enrollment, is similar to the 10 year growth forecast last year based on Fall 2009 enrollment. However, because of the greater than expected enrollment loss in Fall 2010 and slower than expected recovery from the recession, the 2020-21 forecast of 5,367 is about 100 students less than last year's forecast for 2019-20.

Table 17 contains grade level forecasts for the Canby School District for each year from 2011-12 to 2020-21. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12).

Table 17

Canby School District, Enrollment Forecasts, 2011-12 to 2020-21

	Actual	Forecast									
Grade	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
K	313	336	348	357	361	367	376	382	386	389	393
1	337	327	350	364	374	378	384	395	401	405	407
2	323	340	333	358	373	384	387	394	405	411	413
3	366	325	345	340	365	381	392	396	403	413	418
4	358	368	329	351	346	372	388	399	403	410	420
5	382	360	373	335	357	353	379	396	407	410	417
6	379	388	369	385	345	369	364	391	409	420	421
7	401	381	393	376	392	352	376	371	399	416	426
8	398	403	386	400	383	400	359	384	379	407	423
9	422	416	423	407	422	404	422	379	405	400	428
10	404	428	424	432	415	431	412	431	387	413	408
11	370	396	421	417	425	409	424	406	425	381	406
12	434	367	393	419	415	423	407	422	404	423	379
US*	8	8	8	8	8	8	8	8	8	8	8
Total	**4,895**	**4,843**	**4,895**	**4,949**	**4,981**	**5,031**	**5,078**	**5,154**	**5,221**	**5,306**	**5,367**
Annual change		*-52* *-1.1%*	*52* *1.1%*	*54* *1.1%*	*32* *0.6%*	*50* *1.0%*	*47* *0.9%*	*76* *1.5%*	*67* *1.3%*	*85* *1.6%*	*61* *1.1%*
K-5	2,079	2,056	2,078	2,105	2,176	2,235	2,306	2,362	2,405	2,438	2,468
6-8	1,178	1,172	1,148	1,161	1,120	1,121	1,099	1,146	1,187	1,243	1,270
9-12	1,638	1,615	1,669	1,683	1,685	1,675	1,673	1,646	1,629	1,625	1,629

	2010-11 to 2015-16		**2015-16 to 2020-21**		**2010-11 to 2020-21**	
	5 yr. chg.	**Pct.**	**5 yr. chg.**	**Pct.**	**10 yr. chg.**	**Pct.**
K-5	156	*7.5%*	233	*10.4%*	389	*18.7%*
6-8	-57	*-4.8%*	149	*13.3%*	92	*7.8%*
9-12	37	*2.3%*	-46	*-2.7%*	-9	*-0.5%*
Total	**136**	***2.8%***	**336**	***6.7%***	**472**	***9.6%***

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

Population Research Center, Portland State University, March 2011.

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, each of the four schools in the City of Canby is forecast to enroll more students in 2015-16 than in 2010-11, ranging from 16 additional students at Lee to 61 additional students at Eccles, where the most new housing is expected. Lee is forecast to initially lose enrollment until 2013-14, because its current 3rd to 5th grade classes are each larger than its early grades. Carus and Ninety-One Schools have little potential for housing growth, and Carus enrollment forecast is relatively stable while Ninety-One is forecast to lose 36 students .

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 43 students between 2010-11 and 2011-12 — when the large class currently in 8th grade advances to high school. Baker Prairie is forecast to gain 37 students between 2010-11 and 2011-12 —when the current large 5th grade class at Knight and 6th grade class at Carus enter middle school. Canby High School is forecast to remain at or above 1,600 students throughout the five year period.

Table 18 presents the enrollment forecasts for each school for the next five years, grouped by school level. Profiles in the Appendix for each school include enrollment history and forecasts and school capacities.

Table 18

Enrollment Forecasts for Individual Schools, 2011-12 to 2015-16

	Actual	Forecast					Change 2010-11 - 2015-16
School	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	
Carus Elementary (K-6)	335	328	321	323	328	340	5
Eccles Elementary (K-5)	392	394	413	417	435	453	61
Knight Elementary (K-5)	360	349	362	375	387	405	45
Lee Elementary (K-5)	357	351	340	337	357	373	16
Ninety-One (K-8)	437	424	410	407	398	401	-36
Trost Elementary (K-5)	428	440	442	450	460	464	36
Ackerman Middle (6-8)	465	422	407	426	408	397	-68
Baker Prairie Middle (6-8)	478	515	526	526	518	518	40
Other K-8[1]	5	5	5	5	5	5	0
Canby High[2]	1,620	1,597	1,651	1,665	1,667	1,657	37
Other 9-12[1]	18	18	18	18	18	18	0
District Totals	**4,895**	**4,843**	**4,895**	**4,949**	**4,981**	**5,031**	**136**

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

2. Includes students at Parrott Creek.

Population Research Center, Portland State University, March 2011.

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 19 compares the actual CSD enrollment by grade level in Fall 2010 with the 2010-11 forecasts prepared one year, two years, and three years earlier. The three year forecast made in early 2008 did not anticipate the severity of the recession, and its K-12 enrollment for Fall 2010 was 172 students (3.5 percent) too high. The two year forecast made in early 2009 expected slower growth, and its K-12 forecast for Fall 2010 was very close, just 31 students (0.6 percent) too low. The one year forecast made in early 2010 was based on Fall 2009 enrollment that was higher than expected, and its Fall 2010 forecast was 69 students (1.4 percent) too high.

Fall 2010 kindergarten enrollment was lower than each of the three forecasts; the District's smallest kindergarten enrollment in 20 years was a surprising development. Most of the error and directional bias in the one year forecast occurred in kindergarten, 2nd, and 3rd grades. Forecasts for other grades were all within 11 students above or below actual enrollment. As a measure of average error for individual grade levels, the mean absolute percent error (MAPE) is included 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 2010 enrollments by school in Table 20. The two year forecast was the most accurate for most of the schools, because it included one year of lower than expected enrollment losses and one year of higher than expected losses, which compensated each other.

Table 19

Fall 2010 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	313	338	25	*8.0%*	339	26	*8.3%*	336	23	*7.3%*
1	337	344	7	*2.1%*	336	-1	*-0.3%*	353	16	*4.7%*
2	323	345	22	*6.8%*	334	11	*3.4%*	354	31	*9.6%*
3	366	386	20	*5.5%*	378	12	*3.3%*	405	39	*10.7%*
4	358	359	1	*0.3%*	362	4	*1.1%*	391	33	*9.2%*
5	382	390	8	*2.1%*	382	0	*0.0%*	402	20	*5.2%*
6	379	384	5	*1.3%*	383	4	*1.1%*	411	32	*8.4%*
7	401	390	-11	*-2.7%*	383	-18	*-4.5%*	404	3	*0.7%*
8	398	397	-1	*-0.3%*	397	-1	*-0.3%*	413	15	*3.8%*
9	422	415	-7	*-1.7%*	400	-22	*-5.2%*	418	-4	*-0.9%*
10	404	404	0	*0.0%*	406	2	*0.5%*	406	2	*0.5%*
11	370	368	-2	*-0.5%*	361	-9	*-2.4%*	360	-10	*-2.7%*
12	434	433	-1	*-0.2%*	397	-37	*-8.5%*	404	-30	*-6.9%*
US[4]	8	11	3		6	-2		10	2	
Total	**4895**	**4964**	**69**	***1.4%***	**4864**	**-31**	***-0.6%***	**5067**	**172**	***3.5%***
MAPE[5]				***2.4%***			***3.0%***			***5.4%***

1. Forecast for 2010-11 by PSU-PRC, baseline 2009-10 enrollment, March 2010

2. Forecast for 2010-11 by PSU-PRC, baseline 2008-09 enrollment, February 2009

3. Forecast for 20010-11 by PSU-PRC, baseline 2007-08 enrollment, February 2008

4. Ungraded secondary enrollment

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

Table 20

Fall 2010 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)	335	359	24	*7.2%*	326	-9	*-2.7%*	390	55	*16.4%*
Eccles (K-5)	392	413	21	*5.4%*	388	-4	*-1.0%*	442	50	*12.8%*
Knight (K-5)	360	406	46	*12.8%*	390	30	*8.3%*	386	26	*7.2%*
Lee (K-5)	357	373	16	*4.5%*	367	10	*2.8%*	395	38	*10.6%*
Ninety-One (K-8)	437	465	28	*6.4%*	443	6	*1.4%*	444	7	*1.6%*
Trost (K-5)	428	391	-37	*-8.6%*	433	5	*1.2%*	424	-4	*-0.9%*
Ackerman MS	465	450	-15	*-3.2%*	464	-1	*-0.2%*	491	26	*5.6%*
Baker Prairie MS	478	474	-4	*-0.8%*	476	-2	*-0.4%*	494	16	*3.3%*
Canby HS	1,620	1,609	-11	*-0.7%*	1,537	-83	*-5.1%*	1,571	-49	*-3.0%*
Other K-12	18	22	4		33	15		27	9	
District	**4,890**	**4,962**	**72**	***1.5%***	**4,857**	**-33**	***-0.7%***	**5,064**	**174**	***3.6%***
MAPE[4]				***5.5%***			***2.6%***			***6.8%***

1. Forecast for 2010-11 by PSU-PRC, baseline 2009-10 enrollment, March 2010

2. Forecast for 2010-11 by PSU-PRC, baseline 2008-09 enrollment, February 2009

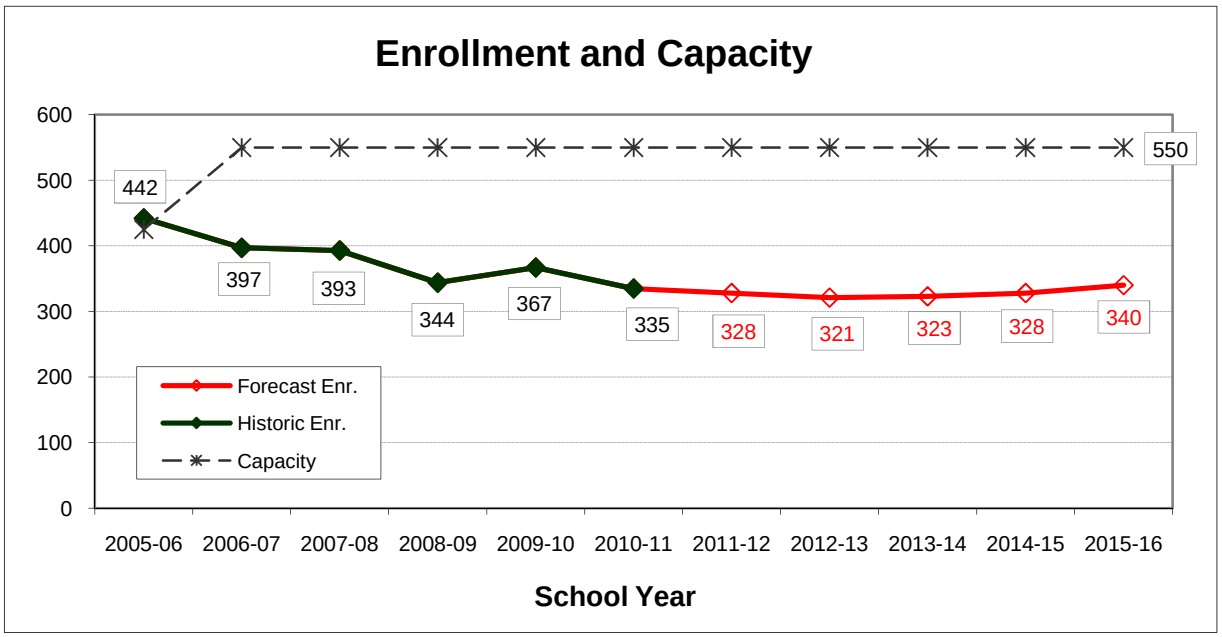
3. Forecast for 20010-11 by PSU-PRC, baseline 2007-08 enrollment, February 2008

4. Mean absolute percent error for individual schools.

APPENDIX

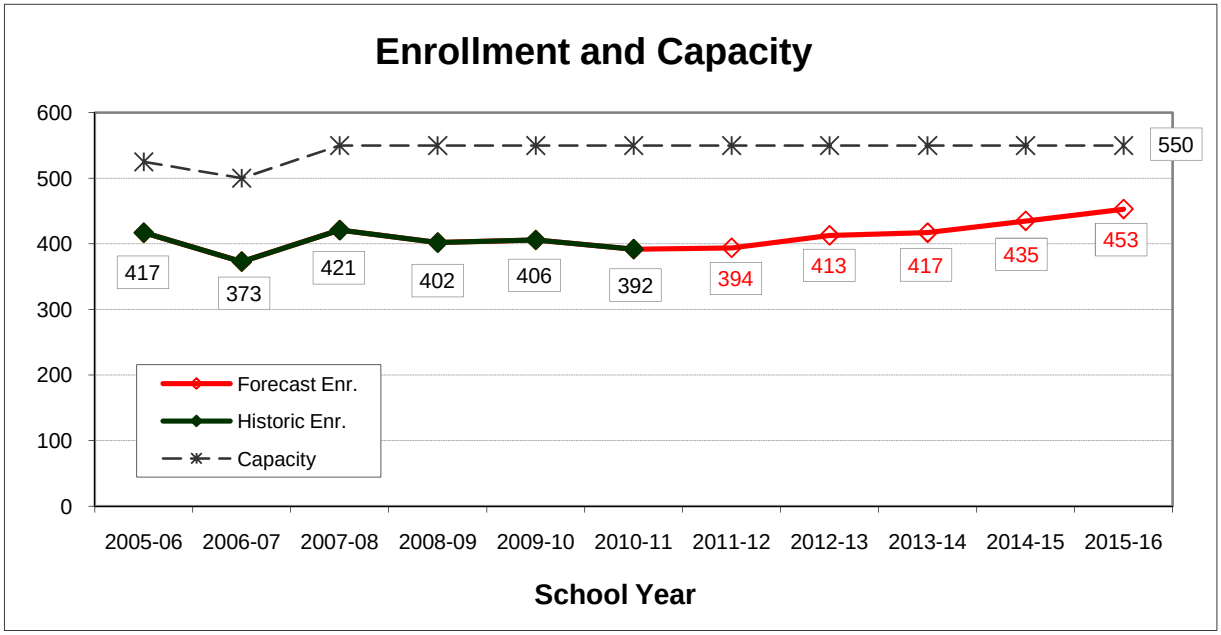
ENROLLMENT AND CAPACITY PROFILES FOR INDIVIDUAL SCHOOLS

Carus Elementary School



	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	442	335	328	321	323	328	340
Five Year Change		*-107*					*5*

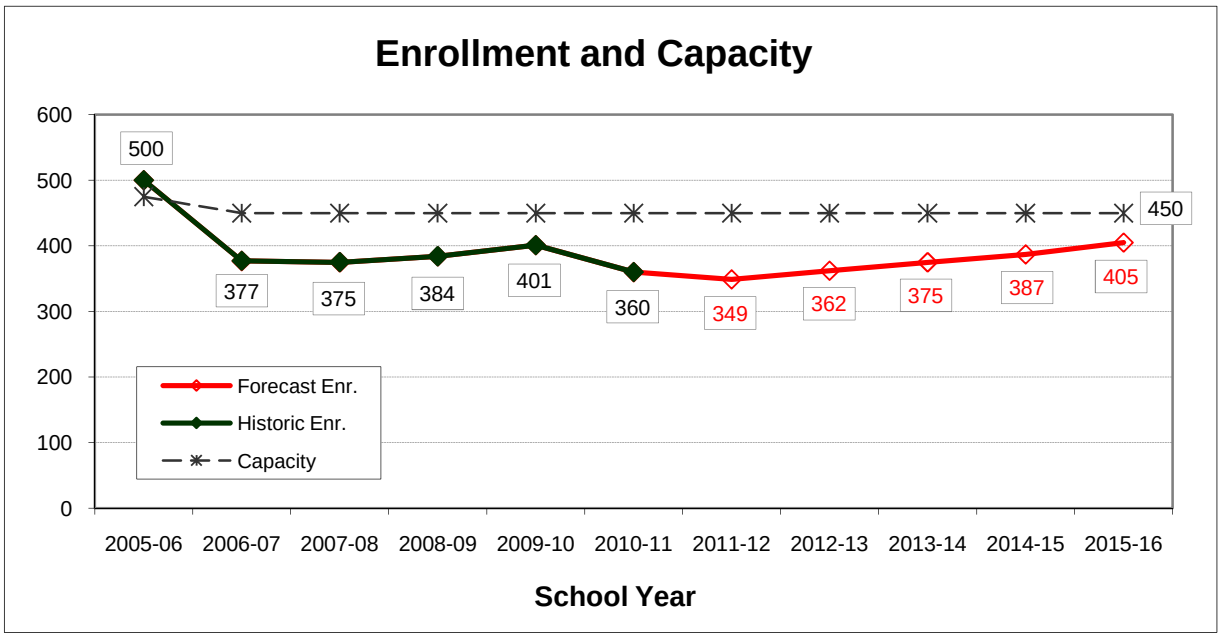
Eccles Elementary School



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

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	417	392	394	413	417	435	453
Five Year Change		*-25*					*61*

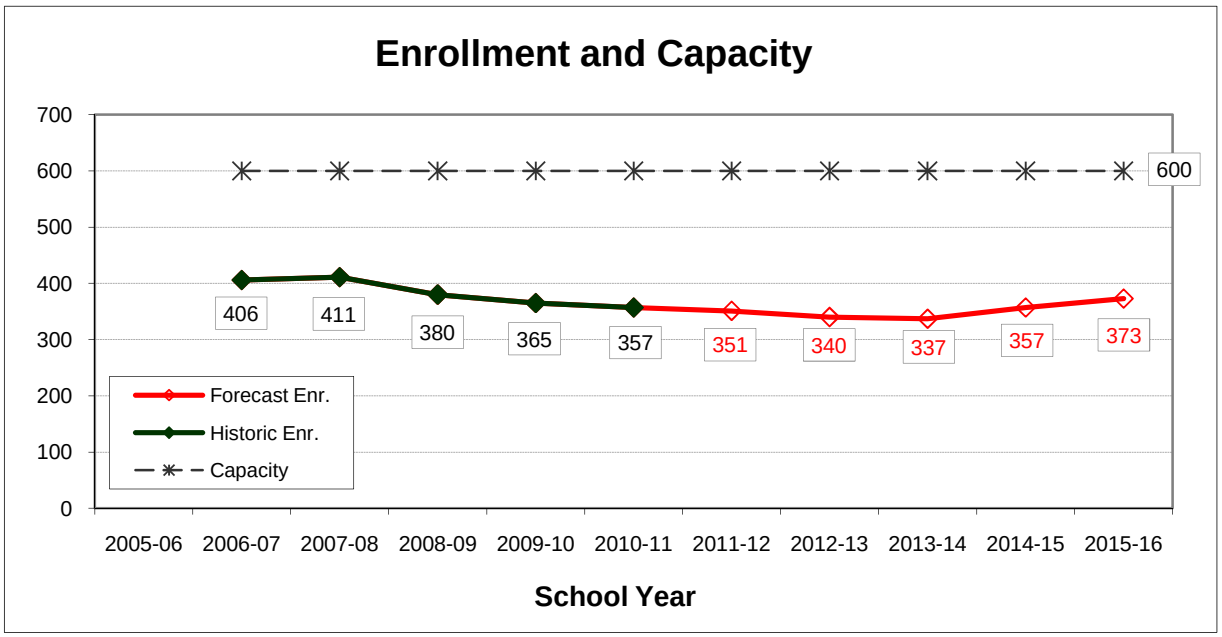
Knight Elementary School



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

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	500	360	349	362	375	387	405
Five Year Change		*-140*					*45*

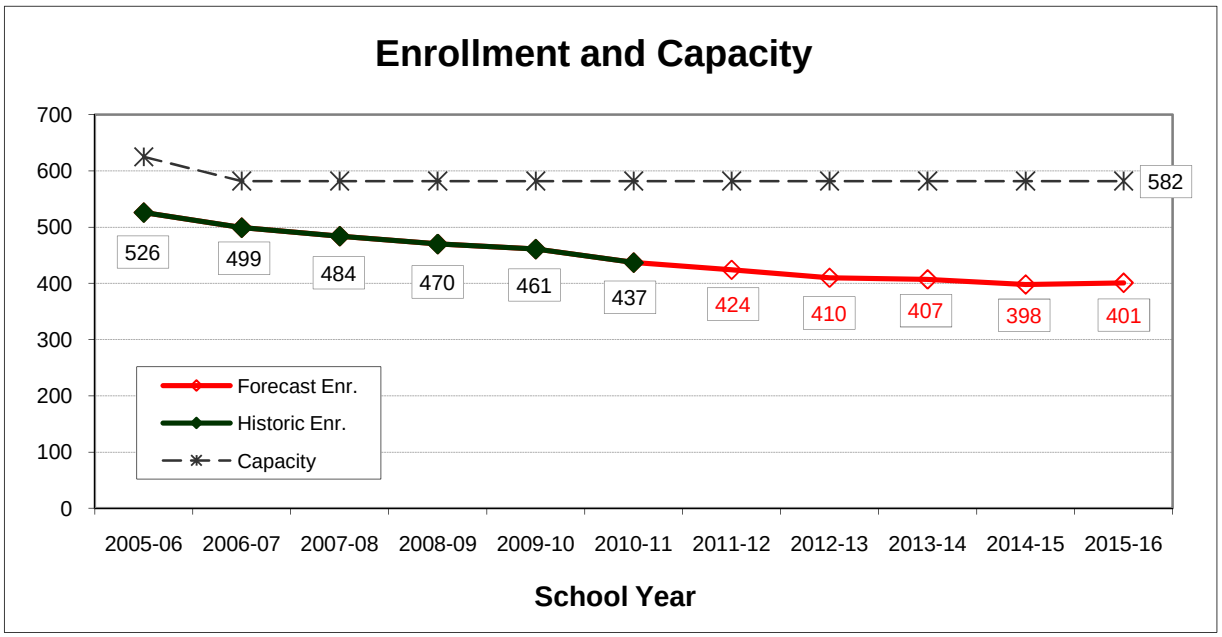
Lee Elementary School



Note: Lee reopened in 2006.

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	0	357	351	340	337	357	373
Five Year Change		*357*					*16*

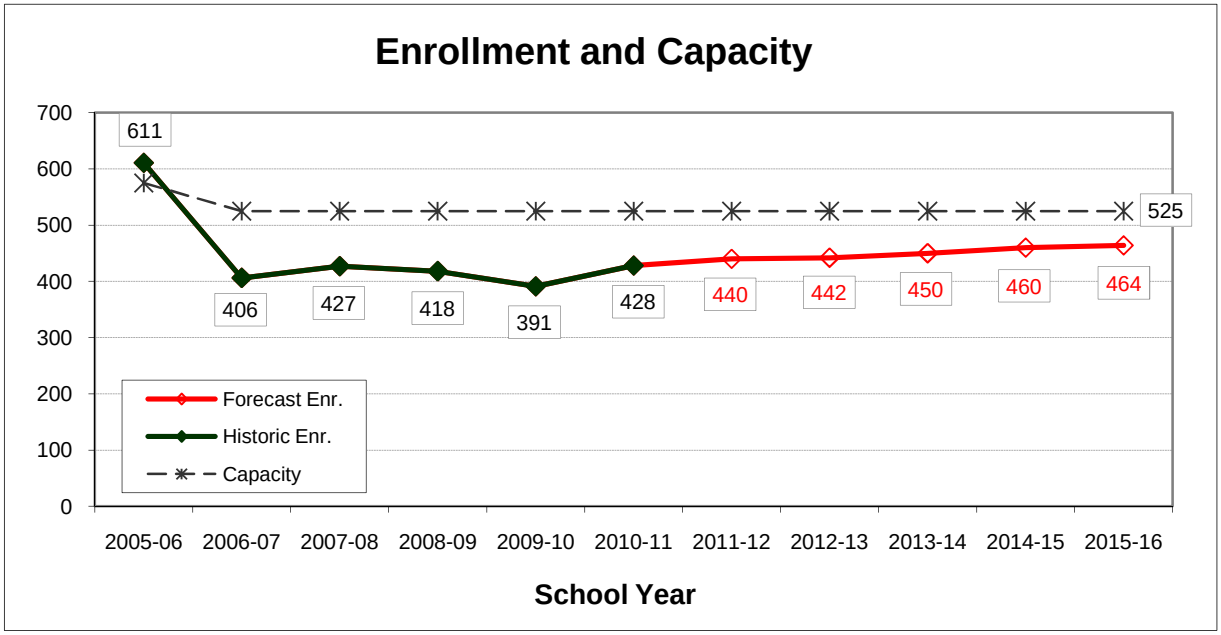
Ninety-One School



	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	526	437	424	410	407	398	401
Five Year Change		*-89*					*-36*

Population Research Center, Portland State University *March, 2011*

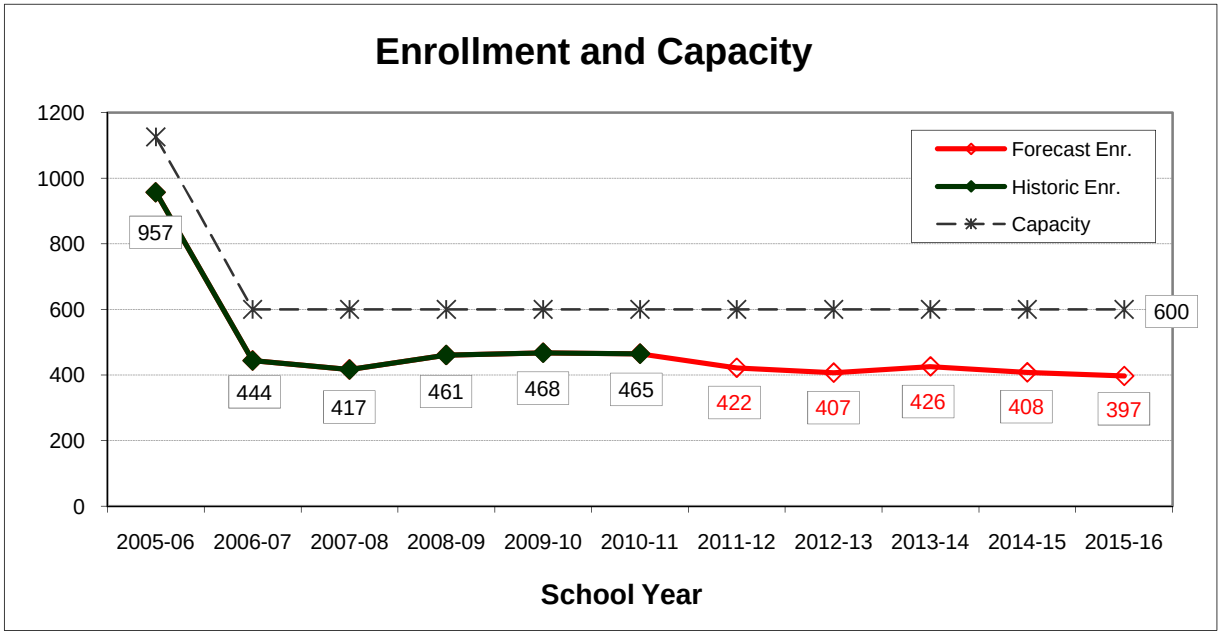
Trost Elementary School



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

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	611	428	440	442	450	460	464
Five Year Change		*-183*					*36*

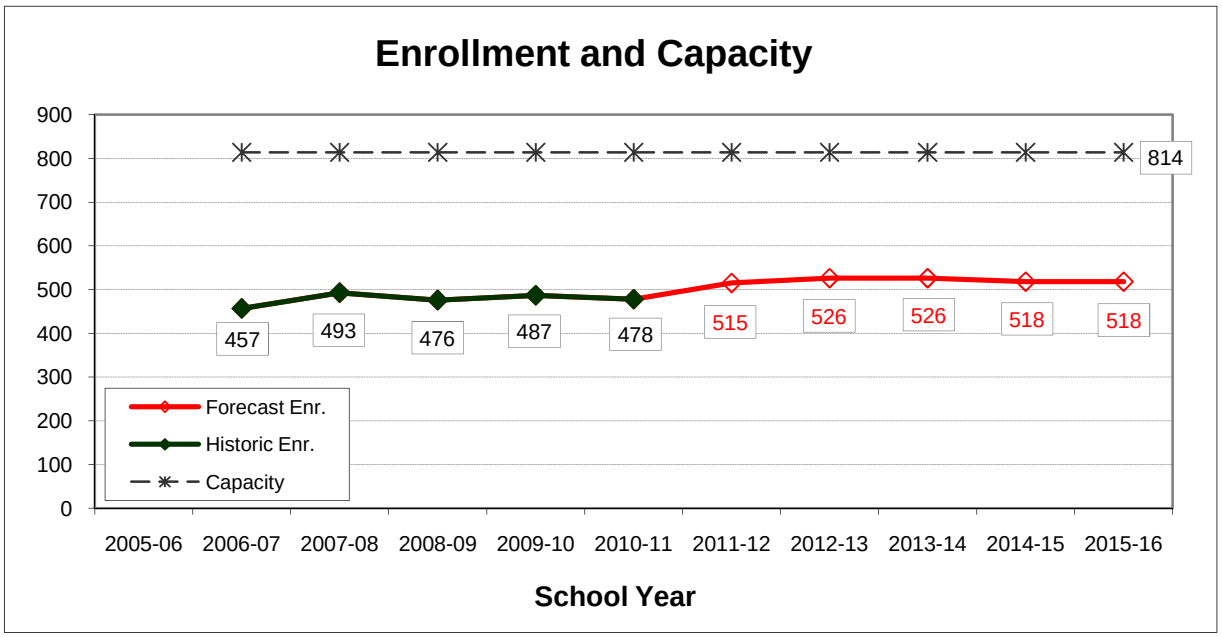
Ackerman Middle School



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				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	957	465	422	407	426	408	397
Five Year Change		*-492*					*-68*

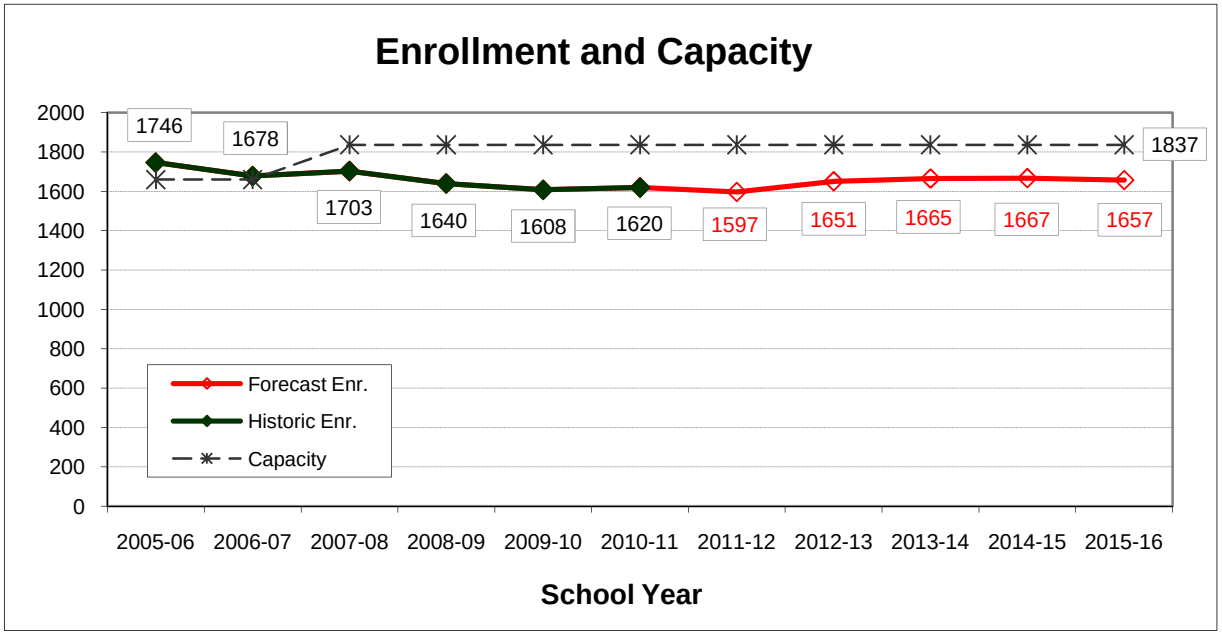
Baker Prairie Middle School



Note: Baker Prairie opened in 2006.

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	0	478	515	526	526	518	518
Five Year Change		*478*					*40*

Canby High School



Note: Historic and forecast enrollment includes Parrott Creek.

	Enrollment History and Forecast						
	History		Forecast				
	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total enrollment	1746	1620	1597	1651	1665	1667	1657
Five Year Change		*-126*					*37*