Enrollment Projections for the Bellingham School District
2009-2028

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The Bellingham School District is located in Washington State, 90 miles north of the city of Seattle, just below the Canadian border. The District encompasses the city of Bellingham and parts of the surrounding region. Bellingham is the largest of 7 school districts in the county and enrolls the largest K-12 population in the county.

Enrollment in the District has grown steadily over the past 3 decades due to births and general growth in Washington State. From the mid 1980's into the 1990's the children of baby boomers began enrolling in Bellingham and elsewhere leading to enrollment growth in the District and the county. Since 1998, enrollment growth has slowed in the county, primarily due to smaller birth cohorts and slowing population growth. Although Bellingham has continued to grow in recent years the District's enrollment has been relatively flat since 2004, fluctuating just above or just below 10,500 students.

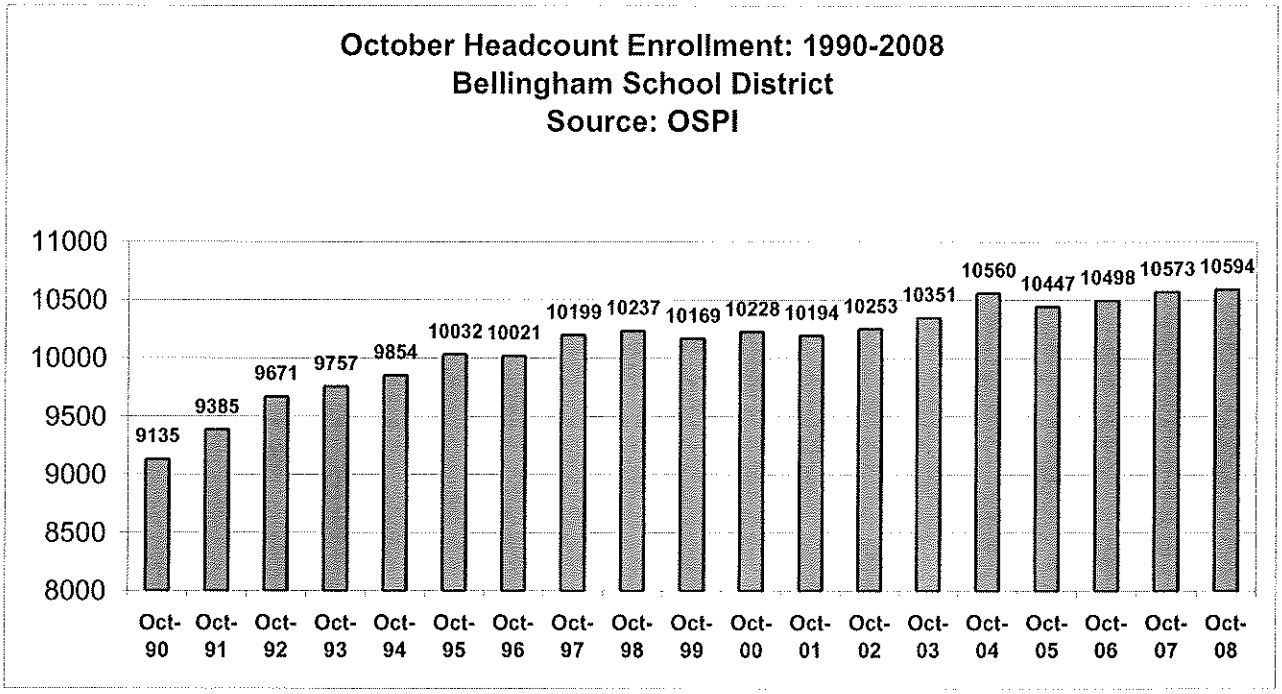
The present report provides forecasts of enrollment by grade level for the Bellingham School District over the next 20 years (2009 to 2028). This information is designed to assist the District with long term facilities planning. The forecasts in this report are based primarily on births and forecasts of births, enrollment trends, and projected changes in housing and population growth for the county and for areas in and around the District. Where appropriate, low, medium and high range estimates of enrollment are provided to underscore the uncertainty in making long term projections. The long range forecasts in this report rely heavily on projections of births, and estimates from the State and other agencies regarding long term population growth in Bellingham and the county. Given the uncertainty of these estimates, low and high range scenarios allow us to see what might happen if population growth were to be higher or lower than the estimates that formed the basis for the recommended medium range forecast.

Enrollment Trends: Bellingham and the County

Enrollment in the Bellingham School District increased from 9,135 students in October 1990 to 10,594 students in October 2008 (Figure 1). Much of this growth occurred in the 1990's. Between October 2000 and October 2008 District enrollment increased by 345 students, an average gain of 43 students a year. Part of this slower growth trend is attributable to the large graduating classes of recent years. As the large elementary classes from the 1990's moved into high school there was a small gradual increase in the number of graduates. During this same time period (roughly 2000-2008) the incoming kindergarten classes have tended to be slightly smaller than the graduating

classes, resulting in a net loss of 25-100 students annually due to this cohort change. Some of this difference has been made up by new students entering the District at the continuing grades, as new housing development brought new families into the District. But a look at surrounding Districts indicates that some of the families choosing to live in Whatcom County have opted for areas outside of the Bellingham School District Boundary.

Figure 1: Bellingham Enrollment Trend



The Bellingham School District has increased its share of the county K-12 public school population since 2000, but some other districts in the county are growing at a faster rate. In 2000, Bellingham enrolled 39.8% of the K-12 public school population in Whatcom County (Figure 2). By 2008 this percentage had increased to 40.1%, a gain of 3-tenths of a percentage point (Figure 3). Although they are much smaller Districts, Blaine, Lynden, and Meridian saw greater gains in their share of K-12 enrollment during this same time period. Three other Districts, Ferndale, Nooksack and Mount Baker, have seen their share of the county public school enrollment decline. Overall, K-12 public school enrollment in Whatcom County increased by 724 students between 2000 and 2008. This compares to a gain of 4900 students that was seen between 1990 and 2000.

Figure 2 October 2000 Percent of K-12 Enrollment by District (Whatcom County)

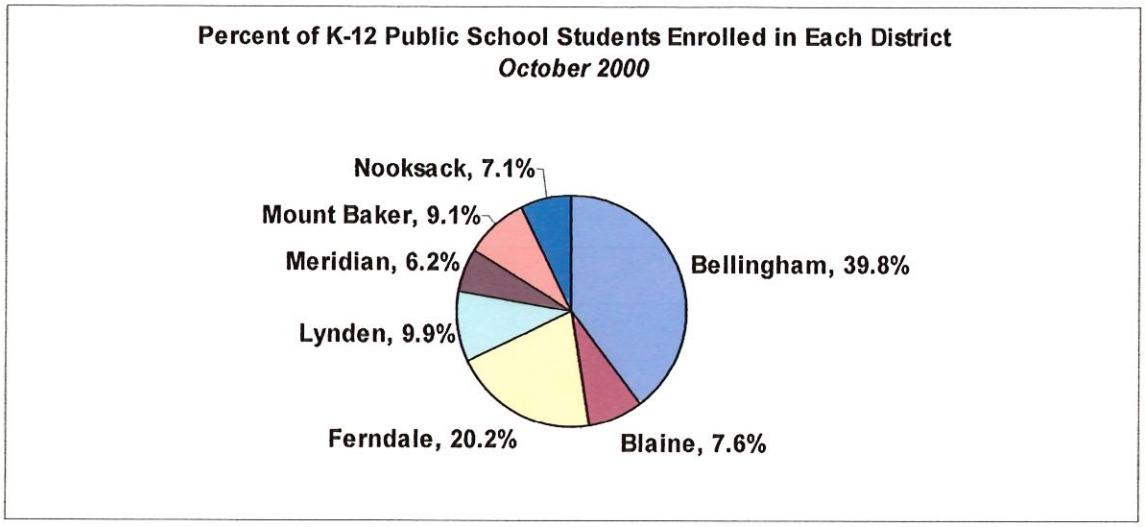
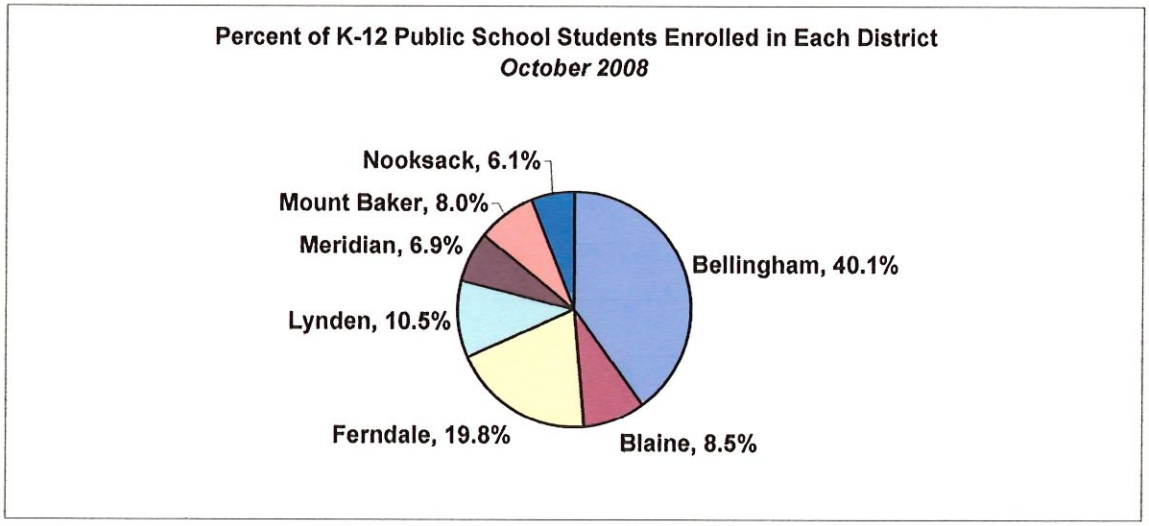


Figure 3: October 2008 Percent of K-12 Enrollment by District (Whatcom County)



Although it might be tempting to think that public school enrollment in Bellingham and the county has been affected by private schools, the evidence does not support this contention. Private school enrollment for schools located in the Bellingham service area declined from 1494 students in October 1998 to 1322 students in October 2007 (the latest year for which data is available – Table 1). County-wide K-12 private school enrollment declined from 2,507 students in October 1998 to 2,496 students in October 2007 (Table 2). And the percentage of K-12 students enrolled in private schools throughout the county has changed very little between 2000 and 2008 (Figure 4).

Table 1: Private School Enrollment (OSPI Data)

Private School Enrollment (Schools Located in the Bellingham School District)

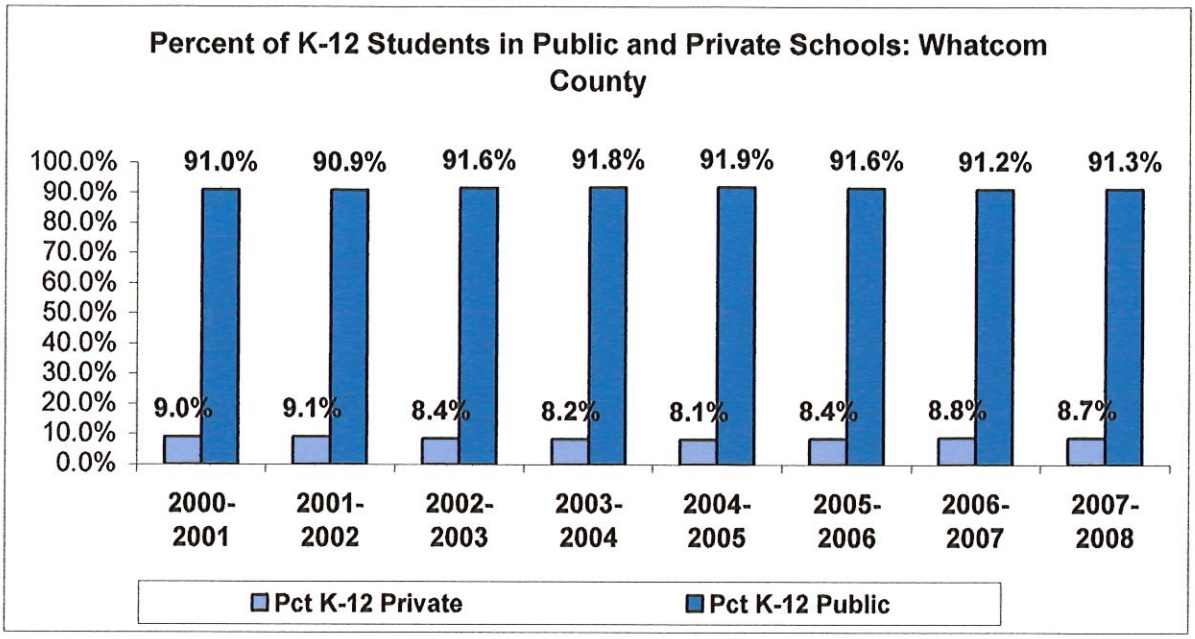
	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Oct-06	Oct-07
PreK	188	182	187	170	218	270	253	277	240	235
K	197	167	171	129	169	172	169	147	156	145
1	171	135	147	142	147	153	133	154	128	139
2	149	140	119	143	137	146	137	122	126	115
3	130	121	126	116	135	115	149	123	111	123
4	121	102	120	130	112	119	107	143	111	108
5	107	72	97	111	123	104	107	111	125	112
6	110	81	79	82	104	104	98	117	99	112
7	85	85	55	73	73	78	93	83	79	88
8	85	67	64	67	76	67	72	110	82	78
9	70	14	16	25	29	14	16	22	25	36
10	37	17	10	13	14	10	15	16	13	19
11	22	12	15	10	9	9	12	6	9	6
12	22	10	9	10	6	5	7	2	5	6
Total	1494	1205	1215	1221	1352	1366	1368	1433	1309	1322
K-12 Tot	1306	1023	1028	1051	1134	1096	1115	1156	1069	1087

Table 2: Private School Enrollment in Whatcom County (OSPI Data)

Private Schools Located in Whatcom County

	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Oct-06	Oct-07
PreK	190	185	236	226	275	325	316	343	372	382
K	274	296	303	281	251	259	239	222	272	263
1	270	244	243	245	233	250	224	227	245	231
2	222	267	232	233	222	230	231	224	217	214
3	233	210	248	237	223	202	238	217	223	202
4	217	226	213	245	214	216	191	234	226	215
5	172	197	225	212	234	203	204	201	233	220
6	214	174	194	216	200	216	193	226	212	228
7	181	202	158	190	194	173	208	187	204	194
8	190	180	191	176	177	190	168	229	205	208
9	171	142	136	170	108	114	134	117	144	153
10	139	196	145	120	118	89	114	140	116	146
11	120	124	136	123	97	108	91	106	130	102
12	104	111	111	123	101	88	101	84	104	120
Total	2697	2754	2771	2797	2647	2663	2652	2757	2903	2878
K-12 Tot	2507	2569	2535	2571	2372	2338	2336	2414	2531	2496

Figure 4: Public and Private School Percentages (Whatcom County)



It is possible that some of the slowdown in K-12 enrollment growth since 2000 is attributable to an increase in the home schooling population. The State of Washington reported increases in the home school population between 1998 and 2003, but later data is not readily available. In recent years, the State has began offering virtual online schools that have attracted some home schooling populations, but for now there is no definitive method for estimating the impact of home schooling on public school enrollment.

One trend that is clear in Bellingham, Whatcom County, and Washington State is the decline in the percentage of the population that is school age. This percentage tends to fluctuate up and down in response to birth cycles. In the 1990's the percentage of the population that was school age hovered between 16% and 17%. Table 3 shows the change in this percentage between 2000 and 2008 for each District in Whatcom County and the county as a whole. These data are compiled from the enrollment data provided by OSPI and from population estimates for school districts provided by the Office of Financial Management at the State of Washington. As the table shows, the percentage of the county population that is school-age has declined from 16.6% in 2000 to 14.9% in 2008. The percentage has declined in all of the districts in the county. It is also worth noting that the percentage of the population that is school age is lower in Bellingham than in any other District in the county. On the other hand, the percentage in Bellingham has dropped by only 9-tenths of percent since 2000, similar to Meridian, and

less than the county as a whole. So while Bellingham has a smaller percentage of its population that is school age, this percent has remained relatively stable in comparison to some other Districts in the county.

Table 3: Percentage of the Population that is K-12 (Whatcom County)

K-12 Public School Enrollment as a Percent of the Total Population										Change
School District	2000	2001	2002	2003	2004	2005	2006	2007	2008	00 to 08
Bellingham	11.9%	11.6%	11.5%	11.6%	11.6%	11.3%	11.2%	11.0%	11.0%	-0.9%
Blaine	17.2%	17.3%	16.4%	16.7%	17.2%	16.9%	15.8%	14.9%	14.6%	-2.6%
Ferndale	20.5%	20.1%	20.1%	20.0%	19.7%	19.4%	18.8%	18.1%	18.2%	-2.3%
Lynden	16.2%	15.7%	16.0%	16.0%	16.4%	16.1%	16.1%	15.7%	15.5%	-0.7%
Meridian	20.2%	19.7%	19.6%	19.0%	17.4%	16.9%	18.2%	17.5%	19.2%	-0.9%
Mount Baker	19.7%	19.7%	19.5%	19.5%	18.7%	18.2%	17.4%	16.6%	15.9%	-3.8%
Nooksack	21.3%	21.2%	20.2%	20.1%	20.0%	19.2%	18.5%	17.8%	17.3%	-3.9%
Total	**16.6%**	**16.3%**	**16.1%**	**16.1%**	**16.0%**	**15.7%**	**15.4%**	**14.9%**	**14.9%**	**-1.7%**

The State of Washington is predicting marked increase in K-12 enrollment statewide, between 2015 and 2025 primarily due to an expected increase in births. As births increase, and these new children become eligible for school, the percentage of the population that is school age will likely stabilize and even start increasing, especially between 2015 and 2025. Because of this increase in births it is likely that Bellingham's enrollment and county enrollment generally will grow at a greater rate between now and 2020 than it has in the past 8 years.

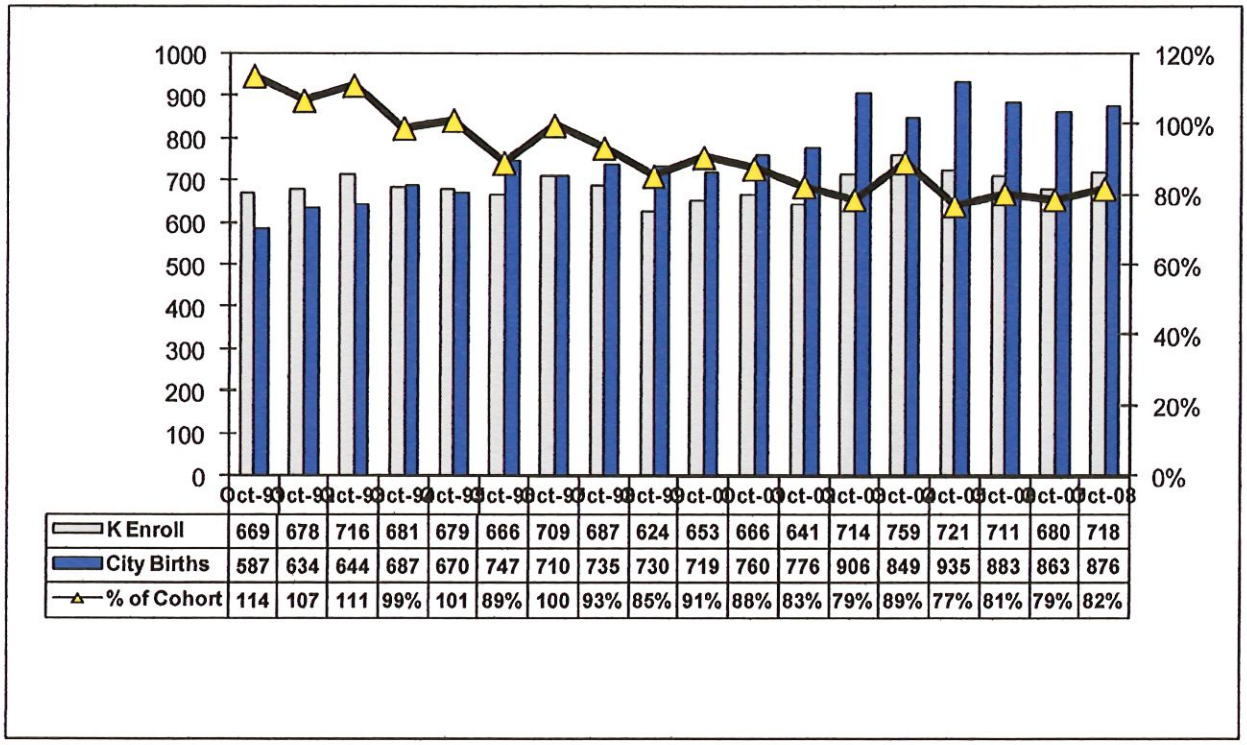
Future growth in the Bellingham school district will depend not only on births but also on the amount of housing and population growth that is likely to occur within the District's boundaries. The next few sections look at the relationship between births and enrollment, the relationship between enrollment trends and changes in population and housing. Following this discussion the enrollment forecasts for the District are presented.

Births and Bellingham's share of the Birth cohort

As noted in the previous section births are expected to increase over the next decade, as the children of baby boomers begin to reach their child bearing years. To get some estimate of the impact of births on enrollment it is useful to compare the kindergarten enrollment in a given year to the births five years prior to that year (when these students would have been born). Although the children born in a given year in a city or county will not be exactly the same children enrolled in school five years later, a comparison of these two numbers provides a rough measure for predicting a district's share of any birth cohort.

Figure 5 shows kindergarten enrollment as a percentage of the births in the city of Bellingham. Between 1991 and 1995 kindergarten enrollment was frequently larger than the births from 5 years prior indicating that there was a net gain of families with children moving into the District, more than offsetting any movement out. Since the mid 1990's, the percentage has tended to decline and in recent years kindergarten enrollment is tracking at roughly 80% of the births from 5 years prior. This would suggest that some of the residents whose children are born in the city may move out of the District before their children reach school age, and that the number moving in has not been sufficient to offset this trend.

Figure 5: Births in the City of Bellingham and Kindergarten Enrollment (Births numbers are from 5 years prior to the enrollment year)

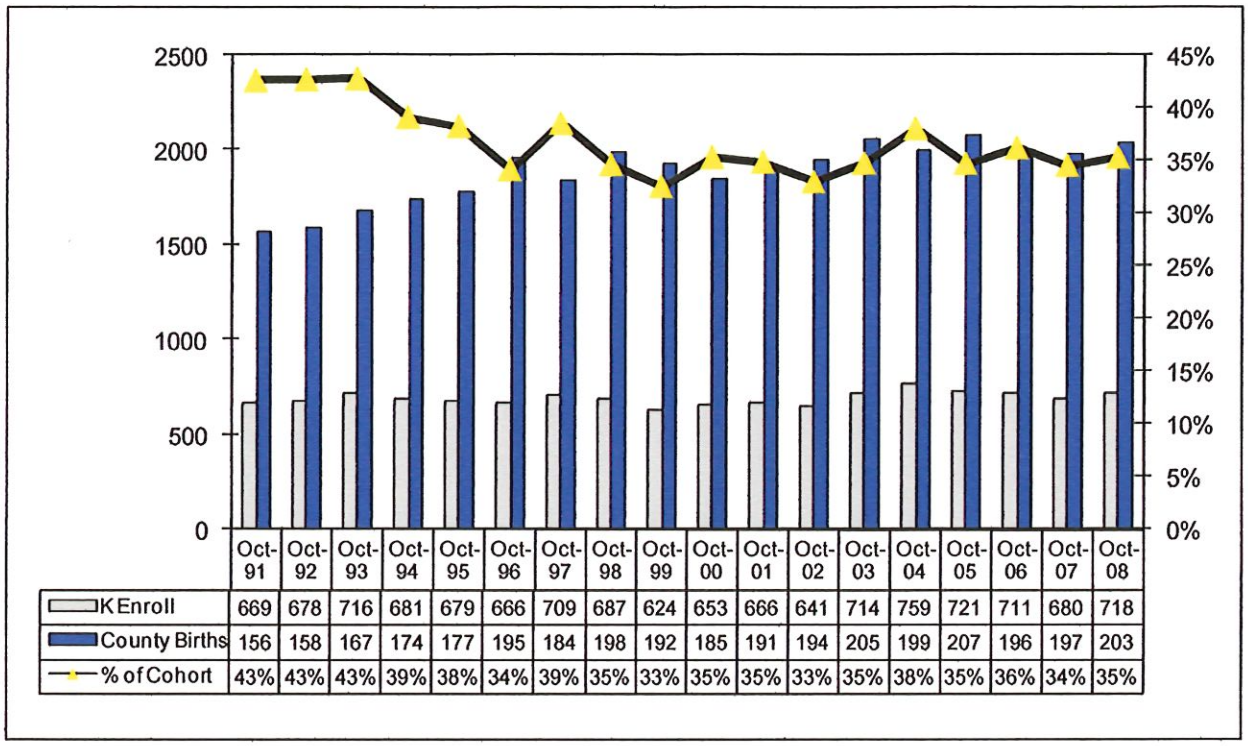


	Oct-90	Oct-91	Oct-92	Oct-93	Oct-94	Oct-95	Oct-96	Oct-97	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08
K Enroll	669	678	716	681	679	666	709	687	624	653	666	641	714	759	721	711	680	718	
City Births	587	634	644	687	670	747	710	735	730	719	760	776	906	849	935	883	863	876	
% of Cohort	114	107	111	99%	101	89%	100	93%	85%	91%	88%	83%	79%	89%	77%	81%	79%	82%	

A similar pattern is evident when looking at the relationship between kindergarten enrollment and county births. Figure 6 shows this relationship and again we see a decline in the District's share of the county birth cohort (mirroring the trend seen at the city level). Over the past decade, however, the District's share of the county cohort has remained relatively stable, right at 35%.

The later projection models use county births rather than city births as the predictor of kindergarten enrollment, because it is a larger number. Larger numbers tend to be more reliable when estimating trends.

Figure 6: County Births and Kindergarten Enrollment in Bellingham



	Oct-91	Oct-92	Oct-93	Oct-94	Oct-95	Oct-96	Oct-97	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08
K Enroll	669	678	716	681	679	666	709	687	624	653	666	641	714	759	721	711	680	718
County Births	156	158	167	174	177	195	184	198	192	185	191	194	205	199	207	196	197	203
% of Cohort	43%	43%	43%	39%	38%	34%	39%	35%	33%	35%	35%	33%	35%	38%	35%	36%	34%	35%

Housing

The Small Area Forecast data from the State of Washington Office of Financial Management estimates a gain of over 6000 housing units in the Bellingham School District since the 2000 Census. This estimate does not distinguish between single family and multi-family housing, however, nor does it distinguish between senior or retirement properties and other housing unit types. For these reasons it is not all that useful by itself for estimating the effect of housing on enrollment.

Permit data from the City of Bellingham shows a gradual decline in the number of permits for new single family dwellings within the City of Bellingham itself between 2004 and 2008. This data covers the City of Bellingham proper but does not encompass areas that are outside the city limits (Table 4). Given the need to estimate enrollment for a 6 year and 20 year time period, the forecasts in this document give limited attention to housing information and are based primarily on population forecasts, birth trends and enrollment trend information. The slowing trend in recent residential permits is used to calibrate the near term forecasts for 2009 and 2010. The forecasts beyond 2010 are based primarily on population forecasts for Bellingham and the region.

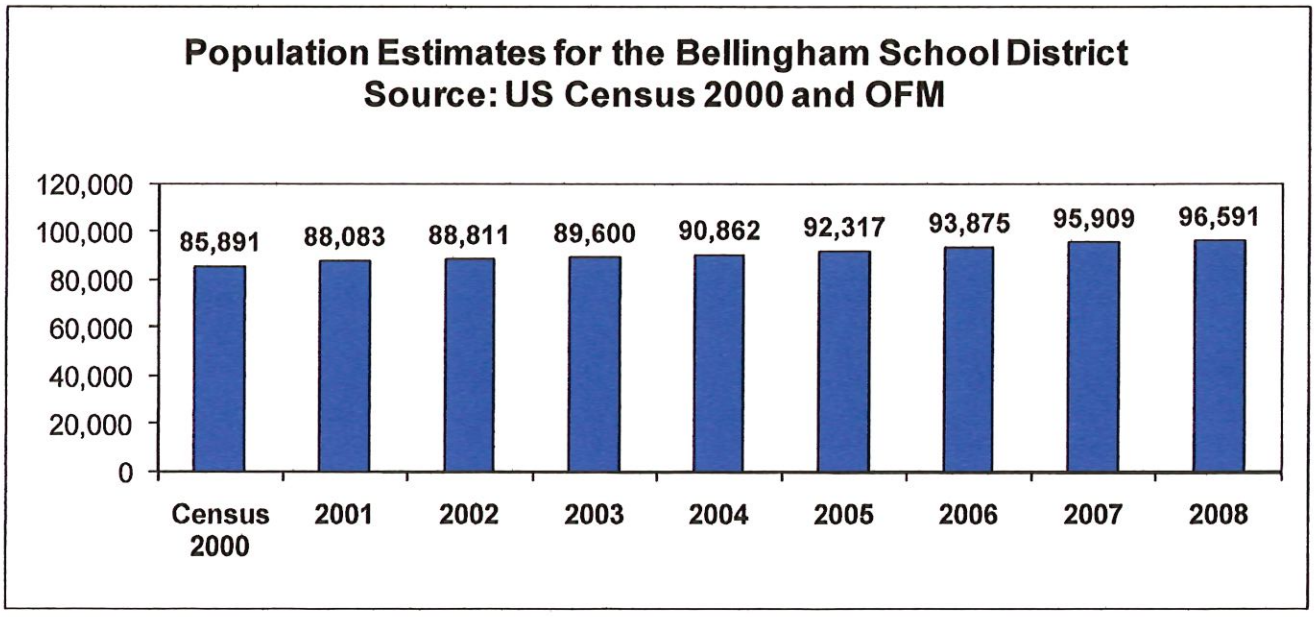
Table 4: Residential Permits in the City of Bellingham

City of Bellingham Permit Information					
	2004	2005	2006	2007	2008
New Single Family	320	187	145	195	85
New Two Dwelling	16	23	7	14	0
New Multi-family	57	51	15	42	4
Total Units	393	261	167	251	89

Population Growth (Bellingham and the County)

The population of the Bellingham School District has increased from the 2000 Census count of 85,821 to 96,591in 2008, according to estimates provided by the Office of Financial Management at the State of Washington. This represents an average annual growth rate of 1.6%. In addition, the District's share of county population has increased from an estimate of 51.5% in 2000 to 57.9% in 2008, a gain of 6.4%. As noted earlier, however, the District's share of the K-12 population has increased by only 3-tenths of a percentage point during this same time period. This suggests that much of the population growth is accounted for by single wage earners, childless couples (who may have children in the future), or older residents without children. As noted in the previous section, this trend will begin to change somewhat in the next decade as births start to rise among the children of baby boomers.

Figure 7: Population of the Bellingham School District



Speculation in recent years has suggested that Bellingham has become more popular as a retirement community than a community that appeals to families with children. There is no definitive way to test this proposition until after the 2010 Census but some information can be gathered by comparing the 2000 Census distribution of the population in the City of Bellingham to the 2007 American Community Survey. The American Community Survey is an effort of the US Census Bureau to provide updates of the population and other measures prior to the latest census update. It consists of a sampling of households around the US and an extrapolation from those samples to a description of the general population in cities and towns around the country. As with any sample, it is subject to error and not likely to be as accurate a rendering as a census. In addition, the comparison of age groups across time can be difficult since the 10 year cohorts used for many age groupings in the census (e.g., 25-34 years old) need to be compared to the subsequent 10 year age groups in the subsequent Census (e.g., 35-44) in order to look at changes. A seven year window (2000 to 2007) provides some insight but does not provide a definitive look.

With those caveats in mind, Table 5 compares the age group percentages in the City of Bellingham in the 2000 Census to the Age Group Comparisons in the American Community Survey in 2007. There appears to be some net loss of two middle age cohorts (25-34 moving up to 35-44 and 35-44 moving up to 45-54). This might indicate that there is a net loss of these families over time (more moving out than moving in). On the other hand if you compare the lower age groups there appears to be a net increase as we go from 10-14 in 2000 to 15-19 in 2007 and as we move from 15-19 in 2000 to 20-24 in 2007.

The percentage of the population that is 60 or older has declined from 15.3% in the 2000 Census to 14.5% in the 2007 survey. Some of this could be attributable to deaths in the older population rather than migration so it is hard to draw a definitive conclusion. In addition, the margin of error in the Community survey estimates could well mean that these two numbers are roughly comparable.

Given all the caveats regarding the American Community Survey and the difficulty of making these comparisons it is hard to say with any certainty that Bellingham is become an attractive haven for older retirees. There is some evidence that people in their middle years (the ones most likely to have children, may be moving out at a greater rate than they are moving in), but a definitive rendering of this conclusion awaits the 2010 Census results. What we can say from the data presented earlier is that the percentage of school age children in Bellingham is less than other school districts in the county.

TABLE 5: Age Distribution in the City of Bellingham

Changes in Age Groups (Census 2000 Compared to 2007 American Community Survey)

	Census 2000	Community Survey Estimate 2007
Population	67171	75,256
Under 5 Years	5.2%	4.7%
5 to 9 Years	4.6%	4.1%
10 to 14 Years	4.7%	3.9%
15 to 19 Years	9.5%	10.1%
20 to 24 Years	17.3%	18.0%
25 to 34 Years	14.3%	16.6%
35 to 44 Years	12.2%	12.3%
45 to 54 Years	12.9%	10.7%
55 to 59 Years	3.8%	5.2%
60 to 64 Years	2.8%	4.5%
65 to 74 Years	5.3%	3.6%
75 to 84 Years	4.9%	4.3%
85 Years and Older	2.3%	2.1%

Population and Enrollment Forecasts

In order to predict future school enrollments it is important to get a handle on future population growth. In order to make some projections about the future population in the District, two city planning reports were used. The first was the comprehensive growth plan for Bellingham and the county. This plan provides forecasts of the population for Bellingham and surrounding areas for the period between 2002 and 2022. The medium range growth estimate in this report assumes an average annual growth rate of 1.7% to 2022. A lower range estimate assumes an annual growth rate of 1.4%. Both estimates are close to and in line with the average annual population growth rate of 1.6% that has been seen in the Bellingham School District between 2000 and 2008 (based on OFM estimates of the population in the District). We can apply the two growth estimates to the current estimate of Bellingham's population to see what would happen if the population were to grow at these rates between now and 2020. Table 6 shows this scenario.

Table 6: Projected Population of the Bellingham School District Using the Growth Rates from the City of Bellingham's Growth Management Forecast

Forecast of the Bellingham School District's Resident Population

	Census	*OFM Estim.*	Forecasts		
	2000	2,008	2010	2015	2020
Low	85,891	96,591	99,296	106,246	113,683
High	85,891	96,591	99,875	108,364	117,575

Low assumes 1.4% annual growth between 2008 and 2020

High assumes 1.7% annual growth between 2008 and 2020

In order to estimate growth beyond 2020 a second report was downloaded from the City of Bellingham's web site. This report is a preliminary draft (not yet finalized) indicating potential growth targets to 2031 for Bellingham and other areas in the county. This report assumes a slower growth trend between 2020 and 2030 than the estimates in the earlier report. Two different scenarios are presented in the draft report. One assumes an annual growth rate of 6-tenths of a percent annually from the 2022 forecast to 2031. The other estimate is higher and assumes an annual growth rate of 1% from 2022 to 2031. If we apply the lower rate to the low forecast presented above and the higher rate to the high forecast we come up with an estimate of the population of the Bellingham School District out to 2030 (Table 7).

Table 7: Projected Population of the Bellingham School District Using the Growth Rates from the City of Bellingham's Growth Management Forecast and a Preliminary Draft Forecast Developed as Part of the Planning Process

Forecast of the Bellingham School District's Resident Population

	Census	*OFM Estim.*	Forecasts				
	2000	2,008	2010	2015	2020	2025	2030
Low	85,891	96,591	99,296	106,246	113,683	116,989	120,390
High	85,891	96,591	99,875	108,364	117,575	120,994	126,815

Low assumes 1.4% annual growth between 2008 and 2020

High assumes 1.7% annual growth between 2008 and 2020

Low assumes .6% annual growth 2020-2030

High Assumes 1% annual growth 2020-2030

The high growth estimate matches up well with the State growth forecasts for Whatcom County. This is important since the county population is larger and estimates of growth for larger areas are likely to be more accurate than those for selectively smaller areas like a school district. In the medium range projections from the State, produced for

growth management, Whatcom County is predicted to grow by about 1.8% between 2010 and 2020 and 1.4% between 2020 and 2030 (with a rate of 1.2% between 2025 and 2030). This compares to the 1.7% and 1% rate assumed in the high growth model in Table 7.

These estimates of population growth in the District can be used together with enrollment trend information and information about births to project long term enrollment by grade level in the Bellingham School District. Before we get there, however, we can use this information together with other information about the percentage of the population that is K-12 to estimate the total enrollment for the District over time.

Based on data presented earlier we know that the K-12 population is about 11% of the total population in the District. Over time this percentage is expected to decline somewhat (based on forecasts of the Age 5-19 Whatcom County population provided by OFM) and then begin growing again between 2020 and 2030 as the larger birth cohorts enroll in the schools. Based on OFM's Whatcom County forecast of the Age 5-19 population we can model how the percentage of school age children might change over time within the District.

Figure 8 shows the projected change in the Age 5-19 population in Whatcom County based on the medium range growth management forecast from OFM. The Age 5-19 population is a proxy for the K-12 population. In general the K-12 public school population in the county ranges between 70-75% of the Age 5-19 population in a given year, varying with changes in the composition of various age groups. As Figure 8 shows the Age 5-19 population has declined from 22.2% of the population in 2000 to 20.4% of the total population in 2008, a difference of 1.7%. As a percentage of the total population this percentage is projected to continue to decline through 2020 to approximately 19% and then rise between 2020 and 2030. This trend reflects the expected increase in births between 2010 and 2020 (as these children reach school age, the percentage of the population that is school age begins to stabilize and then grow).

Figure 8: Age 5-19 Population in Whatcom County

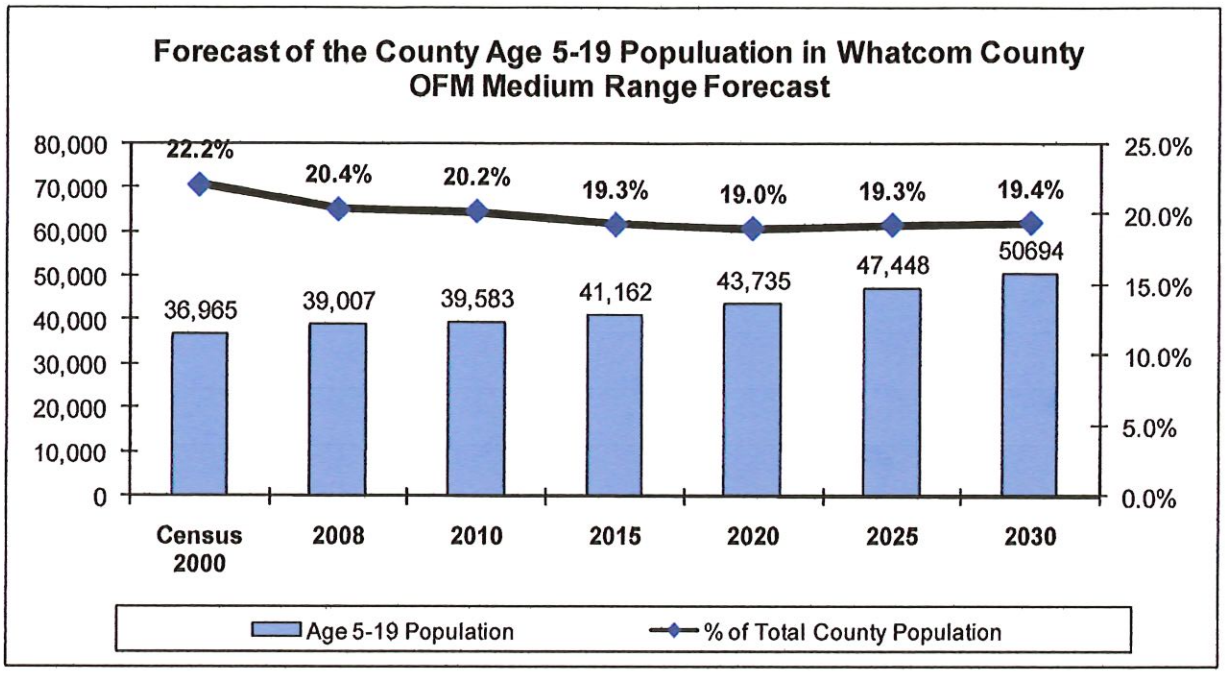
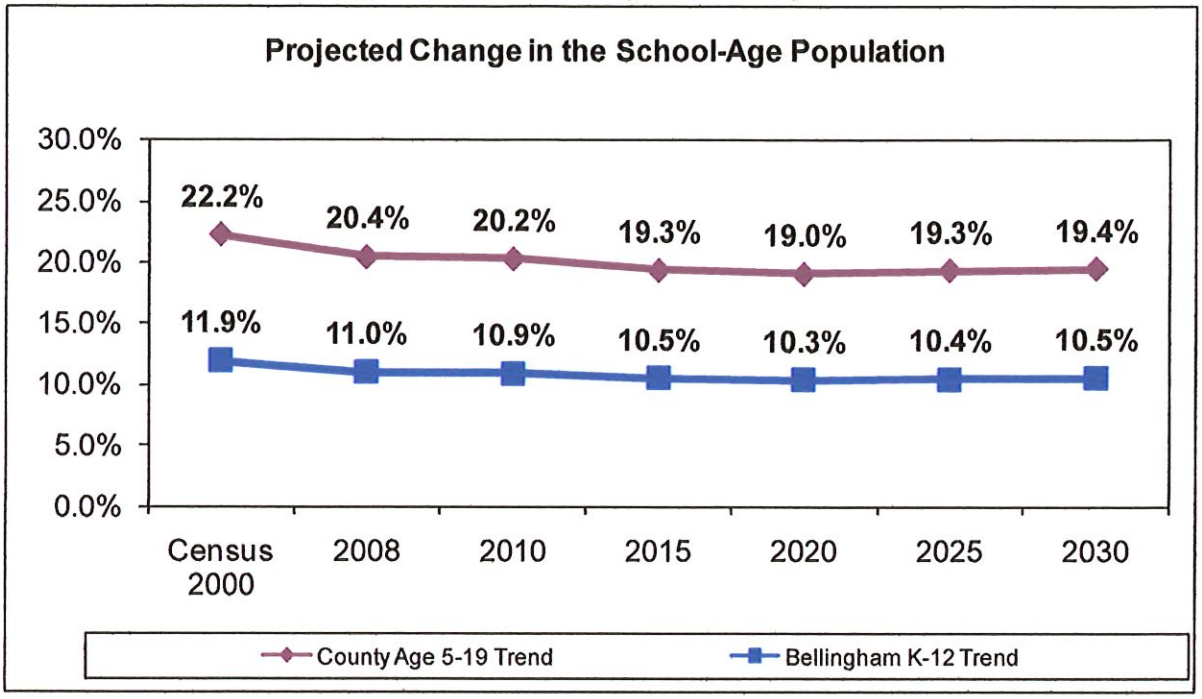


Figure 9 shows what would happen if the percentage of school-age children in Bellingham trended in a manner that is similar to the trend projected for the county. Bellingham's rate of change between 2000 and 2008 is about half that of the county trend. Assuming this ratio holds, Figure 9 shows the projected change in the percentage of K-12 students within the Bellingham School District.

Figure 9: Projected Change in the Percentage of the Population that is K-12



Applying this trend line to the low and high population forecasts presented earlier, we can come up with some alternative forecasts of total enrollment for the District. Table 7 shows a low and high range forecast for the District based on the low and high population forecasts and the projected change in the percentage of the population that is school age (using the trend line from Figure 9). This forecast provides some guidance about where enrollment is headed, even though it does not provide a breakdown by grade level. The forecasts suggests that in 2020 Bellingham's enrollment is likely to range somewhere between 11,748 (low) and 12,151 (high). The average of these two numbers (11,950) provides a medium range estimate. And in 2030 the model predicts that enrollment will land somewhere between 12,646 and 13,321. Obviously the farther out we go the less reliable the estimates are likely to be.

Table 7: Enrollment Forecast Based on K-12 Percentage and Population Growth

	Oct-2008	2,010	2015	2020	2025	2030
Low	10,594	10,806	11,126	11,748	12,217	12,646
High	10,594	10,869	11,348	12,151	12,635	13,321
Average	10,594	10,838	11,237	11,950	12,426	12,983

It is likely that these forecasts are also less accurate regarding near term enrollment (2009 and 2010) since they do not take into account recent information like the

slowdown in real estate sales. But these forecasts along with the estimates of the percentage of the population that is school age provide some useful guidance for creating enrollment forecasts by grade level for the District out to 2020 and beyond. The next section presents a final projection model, with low medium and high range estimates by grade level. The forecasts in the next section are guided by the assumptions about general and K-12 population growth presented in this section. They also use enrollment trend information, and assumptions about the District's share of future birth cohorts to project enrollment by grade level to out to 2028. The final forecast should have numbers that are close to the numbers presented in this section.

Enrollment Projections

In order to project enrollment by grade level for the District, information about county births and the District's share of the birth cohort were considered along with information about population growth expected within the District's boundary area. The following provides a discussion of each factor and its effect on enrollment. After this discussion detailed forecasts by grade level are presented.

Births and Kindergarten Enrollment

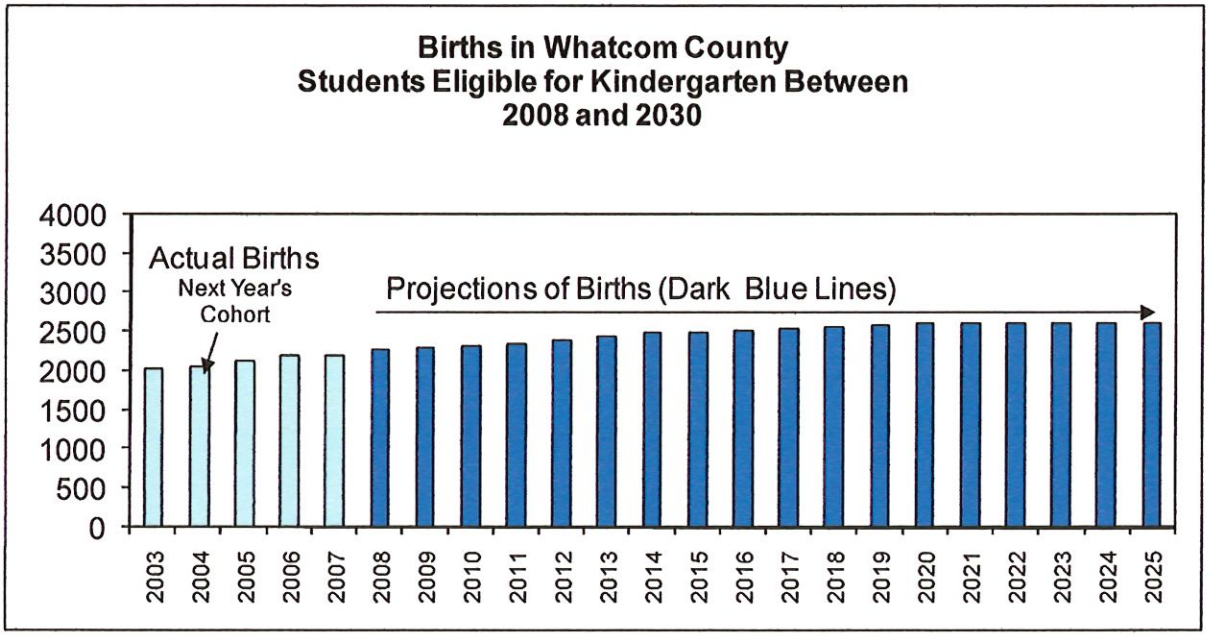
County births were used as the basis for projecting kindergarten enrollment. The number of annual county births is known through 2007, which means that we can predict enrollment based on actual births out to 2012 (when the 2007 cohort will enroll in kindergarten). Beyond 2012 we need to project births. Projections were based on the medium range population projection for the county (from OFM) and the projected change in the birth rate predicted for the State as a whole. It was assumed that the birth rate trend for the county would trend in a manner similar to the trend predicted for the State as a whole. This means that the birth rate change in the county is assumed to mirror the annual birth rate change projected by the State. This assumption was viewed as reasonable since the correlation between the county birth rate and the State birth rate for the past decade is .82. This is a reasonably high correlation and suggests that the State rate is likely to be a good predictor of the county rate.

This predicted trend line was used to estimate county birth rates from year to year. The rates were then multiplied by the medium range county population forecast (OFM) and divided by 1000 (birth rates represent the number of births per 1000 in the population) to predict births between 2008 and 2025. These represent kindergarten students who will be enrolling between 2013 and 2030 (Figure 10). As the figure shows births reach a peak between 2015 and 2025 and then begin to taper off.

Kindergarten enrollments were projected using birth-to-k ratios based on county births. A birth-to-k ratio compares the enrollment in a given year to births five years prior to estimate a District's share of the birth cohort. Over the past 8 years, the District's

kindergarten enrollment has averaged about 35% of the county birth cohort. Since there is no better information for predicting long term share of the birth cohort, the projection model assumes that this percent will remain constant with some minor adjustments downward for projected changes in the rate of population growth over the course of the forecast. Although Bellingham's share of the cohort may decline slightly over time, the projected increase in births insures that the District will see an increase in its kindergarten population over the course of the forecast period. The biggest gains are likely to be seen between 2015 and 2025 with a tapering off after that point. This is consistent with State forecasts that predict a marked increase in enrollment between 2015 and 2025 due to larger birth cohorts entering the schools during this time period.

Figure 10: Projections of Whatcom County Births



Average Grade-to-Grade Growth

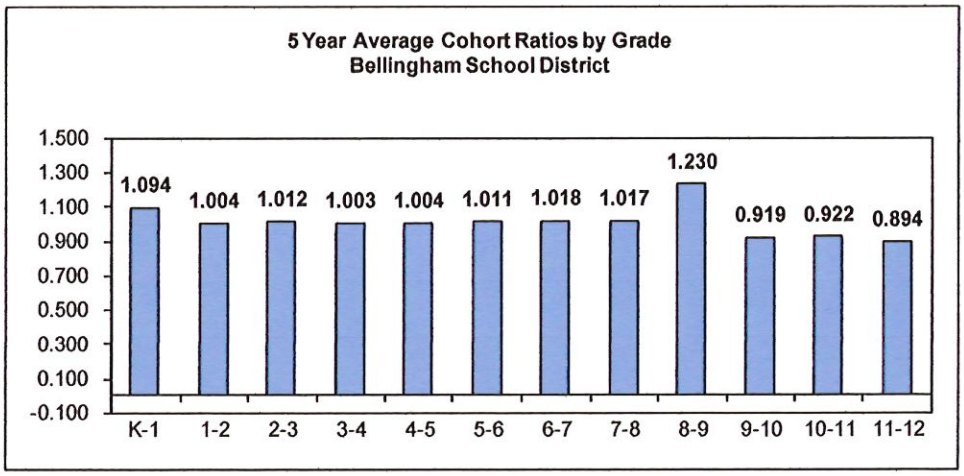
Enrollment at the other grades was projected by using average cohort ratios adjusted for housing and population changes over time. Over the course of a year, some families move out of the District, others move in, and others stay put. A cohort ratio is a way of summarizing the effect of these changes over the course of a year. For example, by dividing the enrollment at a given grade in a given year (say 2nd grade) by the enrollment at the previous grade from the previous year (1st grade) one can get a sense of whether there is net gain or loss in enrollment as students progress from one grade into the next. If this ratio is greater than one, it indicates that more families moved in and stayed put than moved out of the District. A ratio of less than one indicates that the

number of families moving out over the course of the year, was greater than the number staying put, or moving in. Ratios can be averaged over several years to get some sense of how much growth or decline occurs at various grades.

In general, most Districts experience net gains in enrollment at the first grade level, since not all children start school at kindergarten. Most Districts also experience a net gain at 9th grade because of an influx of students from private schools. There are generally fewer private high schools than they are private elementary schools. In addition, public high schools frequently offer curriculum and extra-curricular options that may not be as readily available at a private high school. Ratios typically dip below one at the continuing high school grades due to dropouts.

At the other grades the ratios can vary depending on the District. In Districts with a lot of new housing growth the cohort ratios are typically greater than one, indicating a net gain from new residents moving into the District. Figure 11 shows a 5 year average of the rates in the Bellingham School District. The rates reflect the pattern that is typically seen in Districts that are growing because of new housing development. The rates are greater than one at all grades except 10th through 12th where dropouts push the rates below one.

Figure 11: Cohort Ratios



The 5 year cohort averages in Figure 10 were used to project enrollments by grade level at the continuing grades. The numbers were then adjusted to take account of more recent enrollment trends, projected changes in housing, and projected changes in the general and K-12 population over time. The adjustments based on housing and population forecasts are discussed in the following sections.

Adjustments to the Forecast Based on Housing Information

Based on permit data provided by planning agencies and future development information, the projected enrollments from 2009 to 2010 were adjusted. The model assumes that average annual K-12 growth from new housing will be slightly less in 2009 and 2010 due to the recent slowdown in the real estate market. Other than this adjustment, the rest of the forecast was adjusted based on estimates of future population growth for the Whatcom County and the Bellingham School District.

Adjustments to the Forecast Based on Population Forecasts

The long range projections, beyond 2010 were adjusted to account for shifts in the projected rate of population growth between 2010 and 2030 presented earlier. The average annual rate of growth for the District over the past 5 years (1.5% based on OFM estimate) was compared to the population forecast rates presented earlier. The enrollment numbers were adjusted up or down based on whether the projected population rate was predicted to be higher or lower than the most recent average growth rates that have been seen in the Bellingham District. The main forecast used the high range population projection for the District (presented earlier) since the rate of growth assumed in the model was close to the population growth rates for the District based on OFM data. After creating the main model, two alternative models (low and high) were created to show what might happen if the population growth in the District were to trend slightly lower or higher than the assumed growth in the medium model. The low and high range models show what would happen if population growth was about half-a-percent less or more per year than estimated in the medium range model.

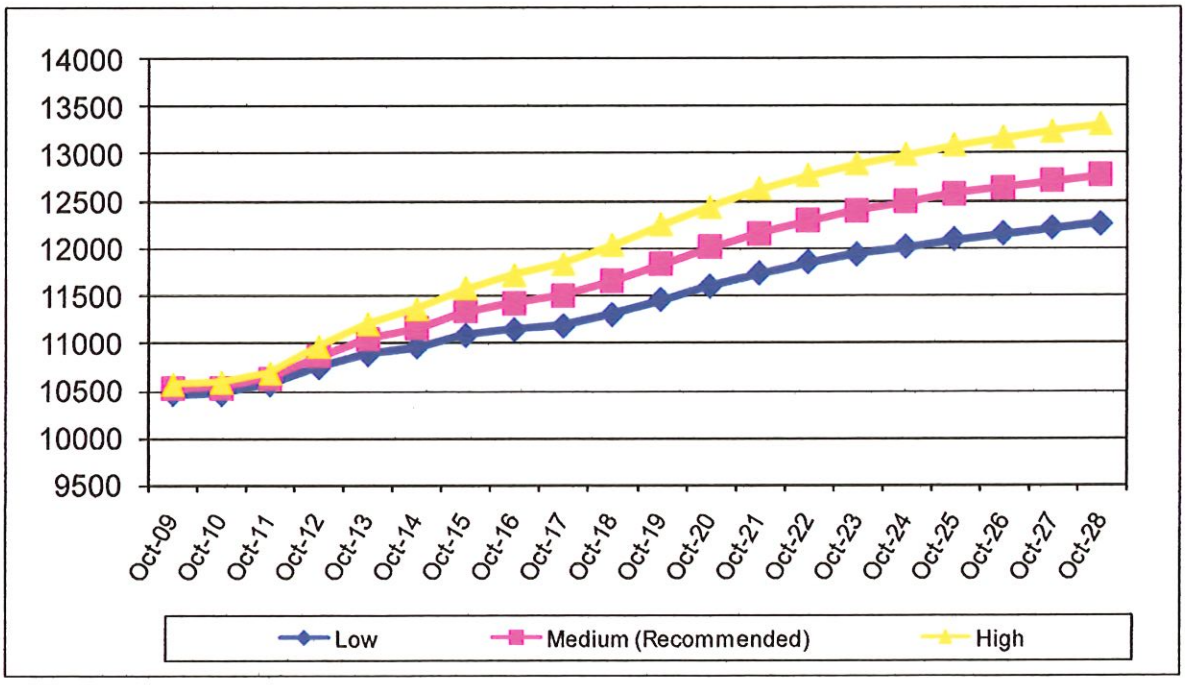
Another way to think about the forecasts is in relation to the Whatcom county population forecast from OFM completed for growth management. The high range enrollment forecast assumes a slightly higher population growth rate than the rate predicted for the county as a whole based on OFM's medium growth forecast. The medium range model assumes a population growth rate that is very close to the OFM's medium range estimate for the county as a whole. And the low enrollment forecast assumes a rate of population growth that is lower than OFM's medium range growth rate. Historically, from 2002 to the present OFM's medium range growth forecast has tracked fairly well with the population estimates for the county since the 2000 Census. In both the 2002 and 2007 medium range growth management forecasts for Whatcom County, OFM's model predicted an annual growth rate of 1.7% between 2000 and 2010. And the latest population estimates for the county show an annual growth rate of 1.8% since the 2000 Census.

The Forecasts

Figure 12 shows the low, medium, and high range forecast for the District. The medium range forecast is the recommended one for District planning. All 3 forecasts assume that enrollment will increase over time, differing only in the amount of growth. Much of the enrollment growth in the coming decade will occur at the elementary level (due to the expected increase in births) with those students eventually rolling up into junior high and high school. The assumed growth of students between now and 2020 in the medium range forecast (1480 students) is just slightly higher than the 1200 student gain that was seen between 1988 and 2000 (the last time the birth cohorts showed a distinct upward cycle).

Detailed numbers by grade level for each scenario are provided in the Appendix. As noted above, the medium forecast is recommended for facilities planning at this time. The low and high forecasts show what would happen if population growth in the District and the region were to be slightly lower or higher than what is assumed in the medium range forecast. The low forecast is a very reasonable scenario, if population growth in the District continues to lag the county growth rate by two or three tenths of a percent annually. Although the high forecast may seem unrealistic in light of the trends of the past two decades, it is always possible that future trends will change in way that lead to accelerated growth in the region.

Figure 12: Alternative Forecasts for the Bellingham School District



Appendix

Detailed Forecasts by Grade Level

Bellingham Enrollment History (October)

Birth Data

Birth Data											
Birth Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
City Births	735	730	719	760	776	906	849	935	883	863	876
% of Cohort	93.5%	85.5%	90.8%	87.6%	82.6%	78.8%	89.4%	77.1%	80.5%	83.2%	77.6%
County Births	1986	1920	1850	1910	1945	2055	1995	2077	1965	1972	2035
Pct of Cohort	34.6%	32.5%	35.3%	34.9%	33.0%	34.7%	38.0%	34.7%	36.2%	36.4%	33.4%

	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08
K	687	624	653	666	641	714	759	721	711	718	680
1	778	757	685	711	771	723	795	818	785	770	796
2	714	778	767	707	723	772	744	782	822	782	774
3	773	739	796	756	734	730	765	741	797	850	799
4	737	769	749	786	757	732	748	761	742	801	840
5	828	761	789	773	796	773	726	745	773	738	819
6	773	821	784	806	785	819	785	711	740	812	750
7	751	774	831	789	814	813	849	794	703	763	828
8	849	779	829	832	803	827	827	839	820	724	775
9	949	955	914	957	993	1014	1011	1070	1112	918	861
10	935	904	881	871	912	924	924	939	956	972	906
11	787	846	858	829	773	855	872	841	829	892	915
12	676	662	692	711	751	655	755	685	708	833	851
Total	**10237**	**10169**	**10228**	**10194**	**10253**	**10351**	**10560**	**10447**	**10498**	**10573**	**10594**
Change		-68	59	-34	59	98	209	-113	51	75	21
Percent		-0.7%	0.6%	-0.3%	0.6%	1.0%	2.0%	-1.1%	0.5%	0.7%	0.2%
Enrollment by Level											
K-5	4517	4428	4439	4399	4422	4444	4537	4568	4630	4659	4708
6-8	2373	2374	2444	2427	2402	2459	2461	2344	2263	2299	2353
9-12	3347	3367	3345	3368	3429	3448	3562	3535	3605	3615	3533

Projection (Medium)

Projected Births

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Births	851	929	840	953																
County Births	2061	2122	2209	2210	2282	2298	2327	2356	2406	2451	2484	2505	2529	2554	2575	2595	2605	2607	2609	2612
% of Cohort	34.9%	34.9%	34.8%	34.8%	34.7%	34.7%	34.6%	34.6%	34.5%	34.5%	34.4%	34.4%	34.3%	34.3%	34.2%	34.2%	34.1%	34.1%	34.0%	34.0%

Projections

	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15	Oct-16	Oct-17	Oct-18	Oct-19	Oct-20	Oct-21	Oct-22	Oct-23	Oct-24	Oct-25	Oct-26	Oct-27	Oct-28
K	721	741	772	773	798	804	814	816	833	847	857	863	865	872	878	884	886	885	884	884
1	745	789	811	845	847	875	881	891	894	912	928	939	941	943	951	957	963	965	965	964
2	800	748	792	816	850	852	880	885	895	898	916	932	939	941	943	951	957	963	965	965
3	784	810	757	803	828	862	864	892	897	907	910	928	940	947	949	951	959	965	971	973
4	802	786	812	761	807	832	866	867	895	900	910	913	927	939	946	948	950	958	964	970
5	844	805	789	817	766	812	837	870	871	900	905	915	913	927	939	946	948	950	958	964
6	829	853	814	799	828	776	823	847	880	881	911	916	921	919	933	946	953	955	957	965
7	764	844	868	830	815	844	791	838	863	896	897	928	928	933	931	946	959	966	968	970
8	843	777	858	884	846	830	860	805	853	878	912	913	940	940	945	943	958	971	978	980
9	936	1037	956	1058	1090	1043	1023	1059	991	1050	1081	1123	1119	1152	1152	1158	1155	1174	1190	1198
10	793	860	953	880	974	1004	960	941	974	912	966	994	1028	1024	1054	1054	1060	1057	1074	1089
11	837	731	793	881	813	900	928	886	869	899	842	892	913	944	941	968	968	974	971	987
12	820	748	653	710	789	728	806	830	793	778	804	753	794	813	840	838	862	862	867	864
Total	**10518**	**10529**	**10628**	**10857**	**11051**	**11162**	**11333**	**11427**	**11508**	**11658**	**11839**	**12009**	**12168**	**12294**	**12402**	**12490**	**12578**	**12645**	**12712**	**12773**
Change	-76	11	99	228	194	111	171	95	80	150	181	170	159	126	108	88	88	67	67	61
Percent	-0.7%	0.1%	0.9%	2.1%	1.8%	1.0%	1.5%	0.8%	0.7%	1.3%	1.6%	1.4%	1.3%	1.0%	0.9%	0.7%	0.7%	0.5%	0.5%	0.5%
Enrollment by Level																				
K-5	4696	4679	4733	4815	4896	5037	5142	5221	5285	5364	5426	5490	5525	5569	5606	5637	5663	5686	5707	5720
6-8	2436	2474	2540	2513	2489	2450	2474	2490	2596	2655	2720	2757	2789	2792	2809	2835	2870	2892	2903	2915
9-12	3386	3376	3355	3529	3666	3675	3717	3716	3627	3639	3693	3762	3854	3933	3987	4018	4045	4067	4102	4138

Medium Range Headcount Projection Converted to Average Annual FTE Projection

October Headcount Projection Converted to an Average Annual FTE Forecast

(Uses the average ratio of October Headcount to FTE at each grade level for the past 3 years to convert the forecast)

	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15	Oct-16	Oct-17	Oct-18	Oct-19	Oct-20	Oct-21	Oct-22	Oct-23	Oct-24	Oct-25	Oct-26	Oct-27	Oct-28
K	364.6	374.8	390.7	390.9	403.6	406.4	411.6	413.0	421.2	428.4	433.6	436.5	437.5	441.2	444.1	447.0	448.0	447.7	447.3	447.3
1	749.0	793.2	815.3	849.5	851.5	879.7	885.7	895.8	898.8	916.9	933.0	944.0	946.0	948.0	956.1	962.1	968.1	970.2	970.2	969.1
2	788.4	737.2	780.5	804.2	837.7	839.7	867.3	872.2	882.0	885.0	902.7	918.5	925.4	927.4	929.3	937.2	943.1	949.0	951.0	951.0
3	761.0	786.3	734.8	779.5	803.7	836.7	838.7	865.9	870.7	880.4	883.3	900.8	912.5	919.3	921.2	923.1	930.9	936.7	942.6	944.5
4	808.4	792.3	818.5	767.1	813.5	838.7	873.0	874.0	902.2	907.2	917.3	920.3	934.4	946.5	953.6	955.6	957.6	965.7	971.7	977.8
5	827.8	789.6	773.9	801.3	751.3	796.4	821.0	853.3	854.3	882.8	887.7	897.5	895.5	909.2	921.0	927.9	929.8	931.8	939.6	945.5
6	810.2	833.7	795.5	780.9	809.2	758.4	804.3	827.8	860.0	861.0	890.3	895.2	900.1	898.2	911.8	924.6	931.4	933.3	935.3	943.1
7	796.6	880.0	905.0	865.4	849.8	880.0	824.7	873.7	899.8	934.2	935.3	967.6	967.6	972.8	970.7	986.3	999.9	1007.2	1009.3	1011.4
8	842.2	776.3	857.2	883.2	845.2	829.2	859.2	804.2	852.2	877.2	911.1	912.1	939.1	939.1	944.1	942.1	957.1	970.1	977.1	979.1
9	913.7	1012.4	933.3	1032.9	1064.2	1018.3	998.8	1033.9	967.5	1025.1	1055.4	1096.4	1092.5	1124.7	1124.7	1130.6	1127.6	1146.2	1161.8	1169.6
10	769.4	834.4	924.7	853.8	945.0	974.1	931.5	913.0	945.0	884.9	937.3	964.4	997.4	993.6	1022.7	1022.7	1028.5	1025.6	1042.1	1056.6
11	769.6	672.2	729.2	810.1	747.6	827.6	853.3	814.7	799.1	826.7	774.2	820.2	839.5	868.0	865.3	890.1	890.1	895.6	892.9	907.6
12	707.5	645.4	563.4	612.6	680.7	628.1	695.4	716.1	684.2	671.3	693.7	649.7	685.1	701.5	724.7	723.0	743.7	743.7	748.0	745.5
Total	**9909**	**9928**	**10022**	**10231**	**10403**	**10513**	**10664**	**10758**	**10837**	**10981**	**11155**	**11323**	**11473**	**11589**	**11689**	**11772**	**11856**	**11923**	**11989**	**12048**
K-5	4299.3	4273.3	4313.8	4392.5	4461.3	4597.6	4697.1	4774.1	4829.2	4900.7	4957.5	5017.6	5051.3	5091.6	5125.3	5152.9	5177.6	5201.1	5222.5	5235.3
6-8	2449.0	2489.9	2557.7	2529.4	2504.2	2467.6	2488.3	2505.8	2612.0	2672.4	2736.7	2774.9	2806.8	2810.1	2826.7	2853.0	2888.4	2910.6	2921.7	2933.6
9-12	3160.3	3164.4	3150.6	3309.5	3437.5	3448.1	3479.0	3477.8	3395.8	3407.9	3460.6	3530.7	3614.5	3687.8	3737.4	3766.4	3790.0	3811.1	3844.8	3879.3

Numbers may not add to exact totals due to rounding

Projection (Low Range)

Projected Births

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Births	851	929	840	953																
County Births	2061	2122	2209	2210	2282	2298	2327	2356	2406	2451	2484	2505	2529	2554	2575	2595	2605	2607	2609	2612
% of Cohort	34.8%	34.7%	34.7%	34.6%	34.6%	34.5%	34.5%	34.4%	34.4%	34.3%	34.3%	34.2%	34.2%	34.1%	34.1%	34.0%	34.0%	33.9%	33.9%	33.8%

Projections

	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15	Oct-16	Oct-17	Oct-18	Oct-19	Oct-20	Oct-21	Oct-22	Oct-23	Oct-24	Oct-25	Oct-26	Oct-27	Oct-28
K	714	734	769	769	794	800	810	808	824	838	849	854	856	863	869	875	877	876	875	875
1	741	781	803	841	839	866	872	882	881	898	914	925	926	929	936	942	949	951	950	949
2	796	744	784	804	842	840	867	872	882	881	898	914	920	921	924	931	937	944	946	945
3	780	806	753	791	812	850	848	874	879	889	888	905	917	923	924	927	934	940	947	949
4	798	782	808	753	791	812	850	847	873	878	888	887	899	911	917	918	921	928	934	941
5	840	801	785	809	754	792	813	850	847	873	878	888	883	895	907	912	913	916	923	929
6	825	849	810	791	815	760	798	819	856	853	879	884	890	885	897	909	914	915	918	925
7	760	839	864	822	802	827	771	809	830	868	864	891	891	897	892	905	917	922	923	926
8	839	773	853	876	833	813	838	781	819	841	879	875	898	898	904	899	912	924	929	930
9	931	1032	951	1046	1074	1022	997	1027	957	1003	1030	1077	1067	1095	1095	1102	1096	1112	1126	1132
10	789	855	948	871	958	984	936	912	940	876	918	943	981	972	997	997	1004	998	1013	1025
11	833	728	789	872	801	881	905	860	838	863	805	843	862	897	888	911	911	918	912	926
12	815	745	651	703	777	714	785	806	766	746	768	717	747	764	795	787	807	807	813	808
Total	**10461**	**10469**	**10568**	**10748**	**10892**	**10961**	**11090**	**11147**	**11192**	**11307**	**11458**	**11603**	**11737**	**11850**	**11945**	**12015**	**12092**	**12151**	**12209**	**12260**
Change	-133	8	99	180	144	69	129	58	45	115	150	146	134	113	95	70	77	59	58	51
Percent	-1.3%	0.1%	0.9%	1.7%	1.3%	0.6%	1.2%	0.5%	0.4%	1.0%	1.3%	1.3%	1.2%	1.0%	0.8%	0.6%	0.6%	0.5%	0.5%	0.4%
Enrollment by Level																				
K-5	4669	4648	4702	4767	4832	4960	5060	5133	5186	5257	5315	5373	5401	5442	5477	5505	5531	5555	5575	5588
6-8	2424	2461	2527	2489	2450	2400	2407	2409	2505	2562	2622	2650	2679	2680	2693	2713	2743	2761	2770	2781
9-12	3368	3360	3339	3492	3610	3601	3623	3605	3501	3488	3521	3580	3657	3728	3775	3797	3818	3835	3864	3891

Projection (High Range)

Projected Births

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Births	851	929	840	953																
County Births	2061	2122	2209	2210	2282	2298	2327	2356	2406	2451	2484	2505	2529	2554	2575	2595	2605	2607	2609	2612
% of Cohort	35.1%	35.1%	35.0%	35.0%	34.9%	34.9%	34.8%	34.8%	34.7%	34.7%	34.6%	34.6%	34.5%	34.5%	34.4%	34.4%	34.3%	34.3%	34.2%	34.2%

Projections

	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15	Oct-16	Oct-17	Oct-18	Oct-19	Oct-20	Oct-21	Oct-22	Oct-23	Oct-24	Oct-25	Oct-26	Oct-27	Oct-28
K	728	748	776	777	802	808	818	825	841	855	866	872	874	881	887	893	895	894	893	893
1	749	797	819	850	856	884	890	900	908	926	942	953	955	957	965	971	978	980	979	979
2	804	752	800	828	859	865	894	899	909	917	935	951	958	960	962	970	976	983	985	984
3	788	814	761	816	844	876	882	910	916	926	934	952	964	971	973	975	983	989	996	998
4	806	790	816	768	824	852	885	890	918	924	934	942	956	968	975	977	979	987	993	1000
5	849	809	793	825	777	833	862	894	899	927	933	943	947	961	973	980	982	984	992	998
6	833	858	818	807	840	791	848	877	909	914	943	949	954	958	973	985	992	994	996	1004
7	768	848	873	838	827	861	810	868	898	930	936	965	967	972	976	991	1003	1010	1012	1014
8	847	781	862	894	858	847	882	829	888	919	951	957	982	984	989	993	1009	1021	1028	1030
9	941	1042	961	1068	1107	1063	1049	1091	1026	1099	1137	1177	1178	1209	1212	1218	1223	1242	1257	1266
10	797	865	957	889	988	1024	984	970	1009	948	1016	1051	1083	1084	1112	1115	1120	1125	1142	1156
11	841	735	798	889	826	918	951	913	900	936	880	943	970	1000	1001	1027	1029	1034	1039	1054
12	824	752	657	718	800	743	826	855	821	809	842	791	844	868	895	896	919	921	925	930
Total	**10575**	**10591**	**10691**	**10967**	**11208**	**11365**	**11581**	**11721**	**11842**	**12030**	**12249**	**12446**	**12632**	**12773**	**12893**	**12991**	**13088**	**13164**	**13237**	**13306**
Change	-19	17	100	275	241	157	216	140	121	188	218	197	186	141	120	98	97	76	73	69
Percent	-0.2%	0.2%	0.9%	2.6%	2.2%	1.4%	1.9%	1.2%	1.0%	1.6%	1.8%	1.6%	1.5%	1.1%	0.9%	0.8%	0.7%	0.6%	0.6%	0.5%
Enrollment by Level																				
K-5	4724	4710	4765	4864	4962	5118	5231	5318	5391	5475	5544	5613	5654	5698	5735	5766	5793	5817	5838	5852
6-8	2448	2487	2553	2539	2525	2499	2540	2574	2695	2763	2830	2871	2903	2914	2938	2969	3004	3025	3036	3048
9-12	3403	3394	3373	3564	3721	3748	3810	3829	3756	3792	3875	3962	4075	4161	4220	4256	4291	4322	4363	4406