Bainbridge Island School District Enrollment Trends and Projections

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Summary and Forecast Update

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Introduction

The following is an update of the enrollment forecast that was completed for the Bainbridge Island School District in 2012.   In order to meet some pressing deadlines for the District the present report provides a summary of the major findings, some highlighted bullet points for the sections that discuss enrollment and demographic trends, a description of the methodology used to create the forecasts, and the detailed forecast numbers.

Our typical approach is to provide a detailed narrative discussing past trends and general information about the future. In the interest of brevity we have instead provided a summary at the beginning that highlights the main findings. We have also provided several sections on enrollment and demographic trends. Each section is preceded by a set of bullet points that highlight the relevant information to keep in mind when viewing the charts and tables. The last section provides detailed forecasts by grade level along with a description of the methodology used to create the forecasts and a brief narrative about the implications of the forecast for the District. We have also provided low and high range options that show what might happen if population and housing growth were to be lower or higher than what we have assumed in our main model. All the forecasts extend over a ten year period. School forecasts are also provided and they too extend over a ten year period. There are also three appendices that provide contextual information that might be of interest to different audiences.

Summary
Major Findings and Conclusions

- Enrollment in the Bainbridge Island School District is trending above the enrollment forecast that was completed for the District in 2012.

- Since the last forecast was completed there have been fluctuations up and down in enrollment from year to year, but enrollment as of October 2016 is still 76 less than what it was in October 2011.

- As of October 2016, the enrollments at grades 5-8 and grades 9-12 are higher than the medium range projection completed in 2012, while the enrollment at grades K-4 is lower.

- The District experienced a net loss of 55 students over the past year, most of it at grades K-4. Private schools on the Island saw a slight increase over the past year though there was only a gain of eight students at grades K-4.

- The District may have seen some net loss of students to private schools over the past decade as some new schools have opened and others have expanded. We can't be certain, of course, since we don't know where the private school students are from, but if we combine the totals (and assume they all live in Bainbridge Island) the District enrolls 89% of the students now compared to 93% about a decade ago.

Summary

- Home school enrollments, on the other hand, have fluctuated up and down and have declined over the past two years.

- Home sales in the District over the past four years are trending close to the numbers we saw prior to the onset of the housing crisis which struck between 2007 and 2011. This is the most likely reason why enrollment has increased some in the years since 2011. The improving housing market is also the reason why we saw net gains in K-12 enrollment between 2013 and 2014 and 2014 and 2015 in Kitsap County.

- South Kitsap and Central Kitsap both saw a net gain in enrollment over the past year, while Bremerton, North Kitsap, and Bainbridge Island saw net losses.

- South and Central Kitsap, in particular, are notable because they have been trending up over the past three years.

- We have **no** evidence to suggest that more students left the District at the K-4 grades over the past year, though it is possible that enrollment gains in other areas (like South Kitsap) may reflect families moving out of Bainbridge to buy houses in a different area of the County.

Summary

- Birth cohorts in Bainbridge Island were very low between 2009 and 2011 (classes eligible for school between 2014 and 2016), compared to historical averages. This may help explain why kindergarten enrollment has been at 200 or less in two of the past three years.

- There was a sharp upturn in the number of housing units added to the District's housing stock in 2013 and again in 2015. There were also 76 new and foreclosed homes sold in 2016, the highest number since 2013. It would appear that the District has not yet seen the growth from this 2016 spike, suggesting that enrollment may improve some going forward.

- In short, 2016 enrollment may well represent an anomaly in what should be a better enrollment trend moving forward. It is likely that the District has not yet seen all of the growth from recent home sales. Looking ahead, the births cohorts entering in 2019 and 2020 (Bainbridge Island births) are larger and it is likely that new home construction and sales will likely improve over the next five years as well.

- Currently we expect about 25 more new housing units to be added to the District's housing stock over the next five years than we saw in the previous five years. This figure is derived from a comparison of the net units added in the past five years (PSRC data) and the homes that are currently in the development pipeline.

Summary

- In addition, between 2022 and 2026, we expect larger birth cohorts to be enrolling in the public schools resulting in better growth trends during that period.

- If we look at future housing development throughout the County it is clear that South Kitsap is likely to increase its share of the K-12 population over time, primarily due to the amount of housing development planned in that area.

- Taking into account improved housing trends and projected population growth trends, we expect the District to show some modest gains in enrollment over the next five years with better gains in enrollment in the latter part of the forecast.

- These estimates are consistent with our housing and population estimates for the next five years, although they show somewhat less growth than what is predicted by the Puget Sound Regional Council for Bainbridge Island and the County.

- The council predicted better housing and population growth trends between 2010 and 2020 in Bainbridge Island and the County than what we have seen since the 2010 Census.

Summary

- Given the uncertainty of population and housing forecasts we have produced low, medium, and high range alternatives of future enrollment.

- The low range alternative shows what might happen if housing and population growth were to be similar to the most recent years since the 2010 Census.

- The high range forecast shows what might happen if population and housing growth in Bainbridge Island and the County over the next decade were to align reasonably well with the higher forecasts from the Puget Sound Regional Council.

- Our preferred medium range forecast is in between these two estimates and reflects our assumption that the PSRC forecast is too high for the period between 2017 and 2021 (given recent trends and what we know is in the current housing pipeline for the District) We do believe, however, that housing and population growth between 2022 and 2026 will show improvement consistent with the PSRC's assumptions.

Summary

- Our preferred medium range forecast also predicts that the District will grow at about the same rate as the overall County K-12 population over the course of the forecast period. As a result Bainbridge Island's share of the K-12 market should remain relatively stable.

- Enrollment at grades K-4 is predicted to decline some in the low and medium forecasts over the next two years and then show a better trend from 2019 forward as slightly larger kindergarten classes enter the schools.

- Enrollment at grades 5-8 is projected to decline some in the near term because the classes rolling up are smaller, but it is worth nothing that the District has seen better gains at the 6th grade in the past two years, compared to historical averages. If this continues, enrollment at these grades could be higher than expected.

- High school enrollment is projected to grow in the near term as the recently larger classes from grades 5-8 roll up. The District also typically sees strong net gains at the ninth and tenth grades.

Summary

- Other Districts in the County (South Kitsap and possibly Bremerton) are likely to see their enrollment grow at a faster rate than the overall County K-12 population resulting in some market share increases over time (based on housing development in the pipeline).

- It is also possible that the recently better than expected growth in Seattle and King County could eventually spill over into Kitsap County resulting in trends that align more with the PSRC's higher population and housing forecast.

- It is recommended that the District save a "snapshot" of each October's enrollment file with student identification numbers and grade levels. If we have these files for multiple years, we can compare them (matching ID numbers) from year to year in order to determine whether fewer students entered in a given year, more students left, or if some combination of entry and exit behavior best explains each year's enrollment trend.

- As always, we recommend that these forecasts be updated periodically to take advantage of new information.

Medium Range Forecast from 2012 Compared to Actual Enrollment
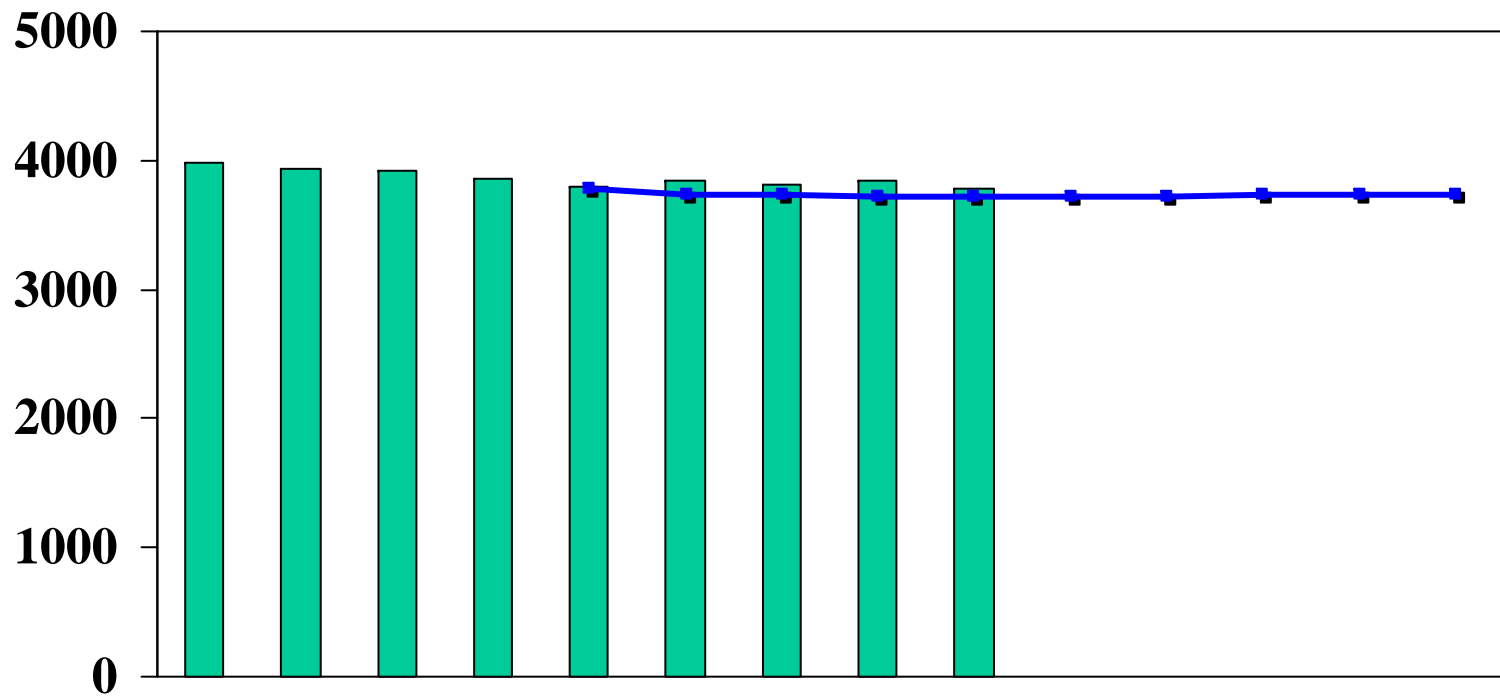
	Oct_08	Oct_09	Oct_10	Oct_11	Oct_12	Oct_13	Oct_14	Oct_15	Oct_16	Oct_17	Oct_18	Oct_19	Oct_20	Oct 21
Actual Enrollment	3984	3940	3920	3858	3799	3849	3809	3837	3782					
Medium Forecast 2012					3781	3742	3735	3718	3716	3722	3717	3740	3740	3738

Bainbridge Island Trends and Projections

Enrollment Trends
Bainbridge Island and the Region

Enrollment Trends

- Enrollment in the Bainbridge Island School District declined by 76 students between October 2011 and October 2016 with some fluctuations up and down over the course of the past five years.

- Bainbridge Island's share of the County K-12 public school market is at 10.6% as of October 2016. This is about the same as in October 2011, indicating that the District's trend is mirroring the overall County K-12 enrollment pattern.

- Enrollment in the various Districts throughout the County has improved some over the past five years, compared to the previous five years. Central and South Kitsap, in particular, have seen their enrollment growing steadily over the past three years.

- The small growth trends in Kitsap County are in contrast to the rest of the Puget Sound. Enrollment growth in the other three counties (King, Pierce, and Snohomish) has been strong over the past three years. King County, in particular, has seen a net gain of over 24,000 public school students since 2010.

Enrollment Trends

- One of the primary drivers of better growth trends in King, Pierce, and Snohomish County has been the increase in births.

- Births in the other three counties began trending up rather dramatically between 2006 and 2015. As these cohorts have become eligible for school, beginning in 2011, we have seen much better growth at the kindergarten and elementary levels in the three counties.

- The primary driver of some of the recent K-12 growth trends in Kitsap County has been the presence of an improved housing market between 2012 and 2016. It is better than what we saw in the previous five years, but still not as robust as what we are seeing in the other three counties of the Puget Sound.

Bainbridge Island Enrollment Trend

October Enrollment P223

Excludes Students Who are Enrolled ONLY in Running Start

Oct-97	Oct-98	Oct-99	Oct-00	Oct01	Oct02	Oct03	Oct04	Oct05	Oct06	Oct07	Oct08	Oct09	Oct10	Oct11	Oct12	Oct13	Oct14	Oct15	Oct16
3692	3834	3924	3925	4038	4045	4105	4123	4223	4173	4054	3984	3940	3920	3858	3799	3849	3809	3837	3782
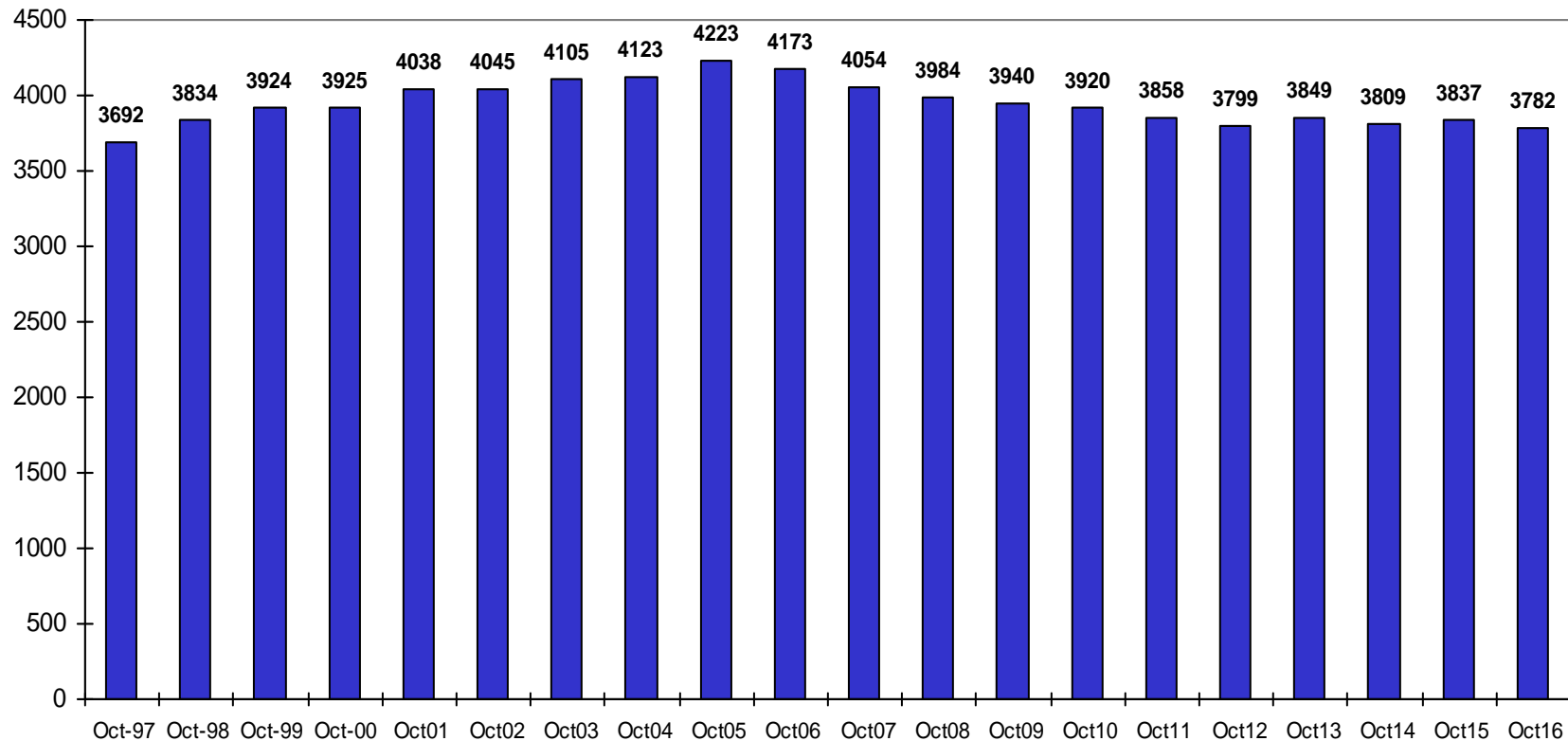
K-12 Public School Enrollment in Kitsap County and Bainbridge Island Market Share

October Enrollment P223

Year	Enrollment	Bainbridge Share of County K-12
1997	42606	8.70%
1998	42647	9.00%
1999	42329	9.30%
2000	41609	9.40%
2001	41616	9.70%
2002	41607	9.70%
2003	41154	10.00%
2004	40577	10.20%
2005	40015	10.60%
2006	39076	10.70%
2007	38441	10.50%
2008	38116	10.50%
2009	37696	10.50%
2010	37156	10.60%
2011	36751	10.50%
2012	35,967	10.80%
2013	35,458	10.90%
2014	35,541	10.70%
2015	35,675	10.80%
2016	35,525	10.60%

Legend: ■ Enrollment ◆ Bainbridge Share of County K-12

Bainbridge Island Trends and Projections

K-12 Enrollment Trends for School Districts in Kitsap County

Please Note: the 2016 Skills Center Number is an Estimate

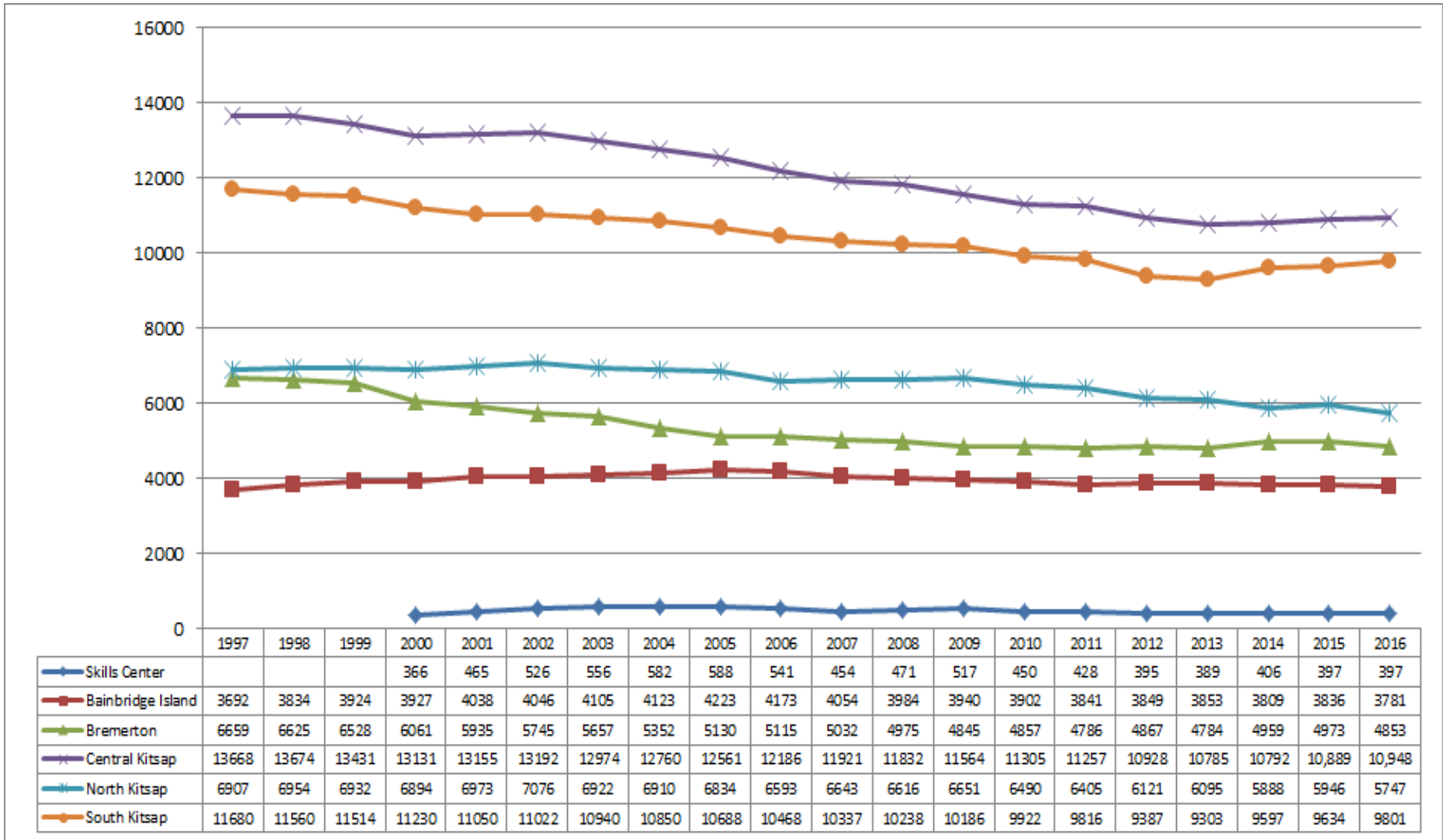|	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Skills Center				366	465	526	556	582	588	541	454	471	517	450	428	395	389	406	397	397
Bainbridge Island	3692	3834	3924	3927	4038	4046	4105	4123	4223	4173	4054	3984	3940	3902	3841	3849	3853	3809	3836	3781
Bremerton	6659	6625	6528	6061	5935	5745	5657	5352	5130	5115	5032	4975	4845	4857	4786	4867	4784	4959	4973	4853
Central Kitsap	13668	13674	13431	13131	13155	13192	12974	12760	12561	12186	11921	11832	11564	11305	11257	10928	10785	10792	10,889	10,948
North Kitsap	6907	6954	6932	6894	6973	7076	6922	6910	6834	6593	6643	6616	6651	6490	6405	6121	6095	5888	5946	5747
South Kitsap	11680	11560	11514	11230	11050	11022	10940	10850	10688	10468	10337	10238	10186	9922	9816	9387	9303	9597	9634	9801

Net Change in Enrollment by County
Three Year Trend
October to October

Net Change in Enrollment by County
Note: Includes Charter Schools

King: 4,621 / 3,793 / 4,201
Kitsap: 242 / 224 / -148
Pierce: 1,169 / 1,616 / 1,249
Snohomish: 85 / 35 / 781

■ 2013 to 2014 ■ 2014 to 2015 ■ 2015 to 2016

Bainbridge Island Trends and Projections
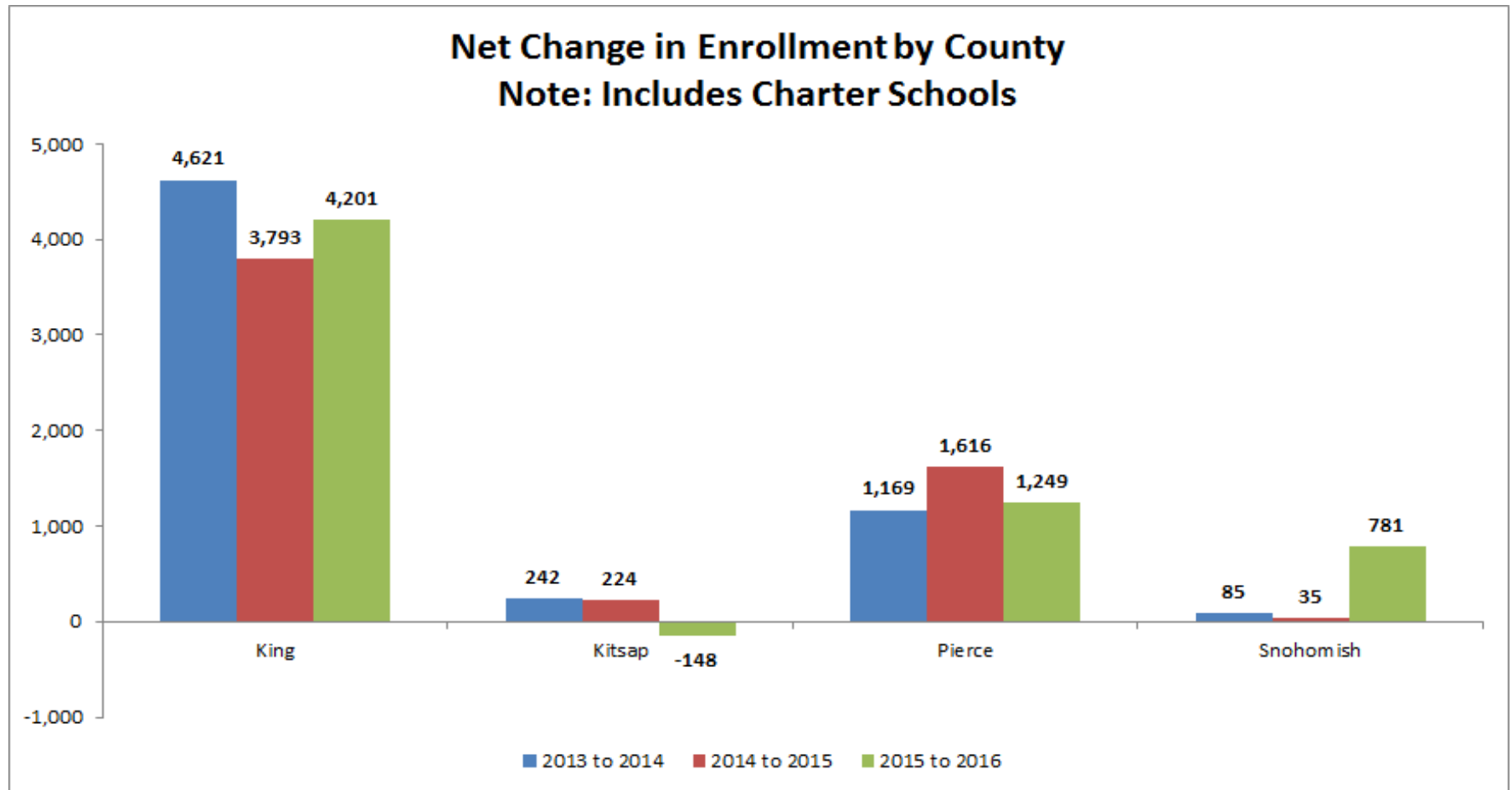
Enrollment Patterns
Bainbridge Island School District

Enrollment Patterns

- Over the course of a year many families with children move into a District and many families move out. We capture this kind of information by using a cohort or grade progression ratio which shows us the net gain or loss of children at each grade.

- To create the ratio you divide the specific enrollment at a specific grade in a given year (say second grade) by the enrollment at the previous grade for the previous year (first grade). A rate greater than one indicates a net gain of children (more families moving in than out) while a rate less than one indicates a net loss (more families moving out than in).

- When we look at three, five, and ten year averages for these ratios at each grade we get some idea of the pattern that exists in a district.

- In Bainbridge Island the cohort ratios at the majority of grades are greater than one, indicating that the number of families with children moving into the District over the course of a year is generally greater than the number of families with children moving out.

- One exception to this pattern is the transition of 5th graders into 6th grade where the District often sees a net loss. It may be that more families opt to move at this transition into a more traditional K-5, 6-8, 9-12 District. It is worth noting, however, that the District has seen a net gain at the fifth to sixth transition in the past two years, in contrast to the historical pattern.
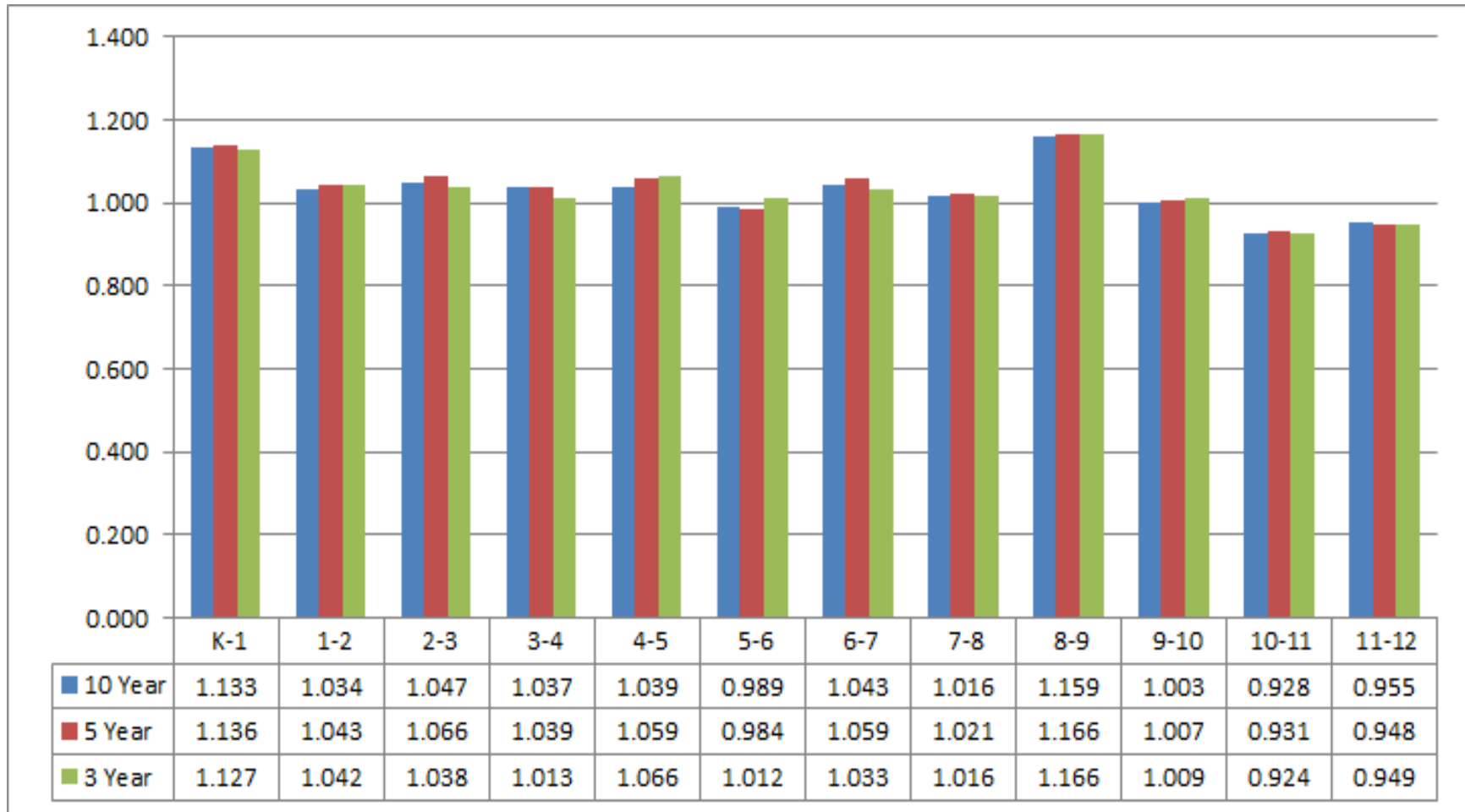
Enrollment Patterns

- The District also typically sees a net loss at the 10th to 11th and 11th to 12th transitions. This is most likely due to dropouts, and/or more students opting to attend Full Time Running Start.

- There is a significant net gain of students at the high school level in the 9th and 10th grades. Even with net losses at the other grades, the high school graduating classes have been about 100 students or more larger than the next year's entering kindergarten class (because the birth cohorts have remained flat) over the past decade. This creates a "downward pull" on enrollment.

- In order for enrollment to grow, the District must see bigger kindergarten classes, or a bigger net gain of students at the other grades from new or existing housing.

- Cohort ratios are available for every grade except Kindergarten where there is no previous entry grade.

- For Kindergarten we typically compare the enrollment in a given year to births five years prior (a birth-to-k ratio). This tells us the District's market share at kindergarten.

Enrollment Patterns

- On average the District enrolls about 7% of the County kindergarten market (kids born five years prior).

- This rate has dropped some over the past decade, as growth in housing and population have slowed.

- It also will fluctuate from year to year based on shifts and changes in home sales and new home construction.

- We can also use local births as a predictor, like the births in Bainbridge Island specifically, as an additional predictor at kindergarten.

- The present model uses County births and births in Bainbridge Island together to help predict future kindergarten enrollment.

Average Grade Progression Rates
(3, 5, and 10 Year Averages)
Cohort Ratio Averages for the Bainbridge Island School District

|	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
■ 10 Year	1.133	1.034	1.047	1.037	1.039	0.989	1.043	1.016	1.159	1.003	0.928	0.955
■ 5 Year	1.136	1.043	1.066	1.039	1.059	0.984	1.059	1.021	1.166	1.007	0.931	0.948
■ 3 Year	1.127	1.042	1.038	1.013	1.066	1.012	1.033	1.016	1.166	1.009	0.924	0.949

Bainbridge Island Trends and Projections

Bainbridge Island School District
K Enrollment as a Percent of County Births
% of Birth Cohort in a Given Year Enrolled in Kindergarten 5 Years Later

1992 Birth Cohort would enter kindergarten in 1997
(5 years after the birth year)

Next year's cohort

Legend: Kitsap County Births ■ | Bainbridge Island % of Birth Cohort (5 Years Later) ◆

Bainbridge Island Trends and Projections
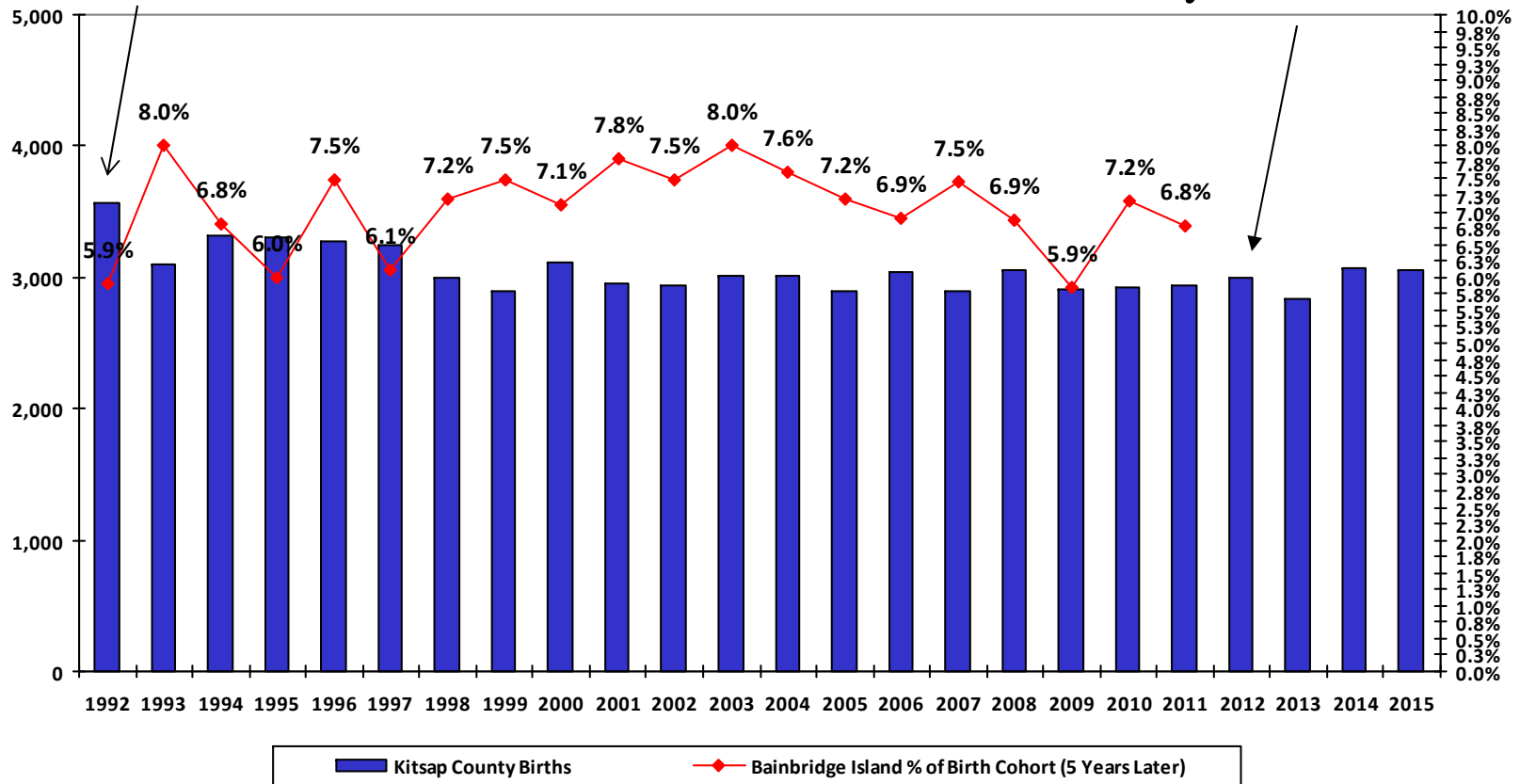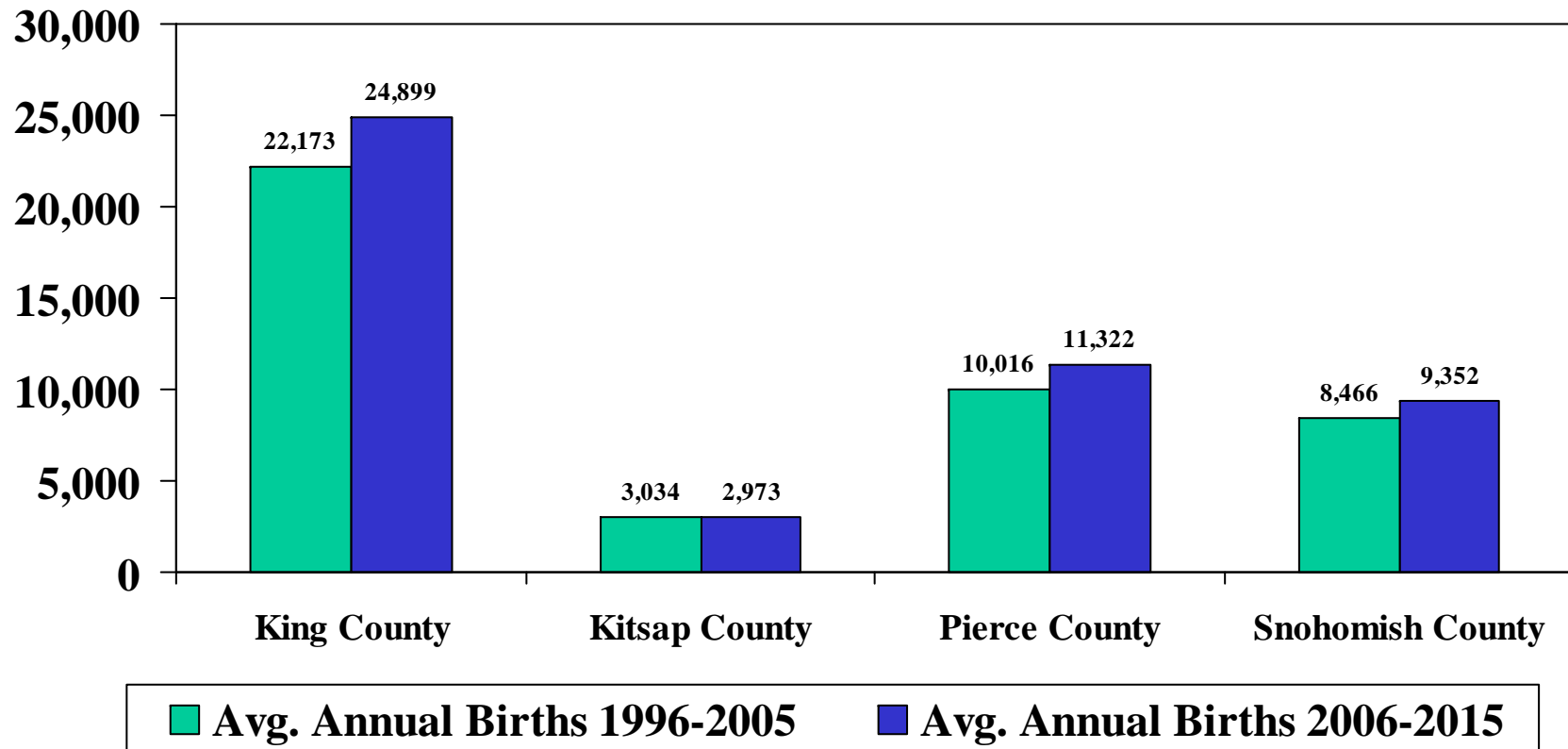
Birth Trends

Birth Trends

- Births in Kitsap County have remained flat over the past fifteen years, with births in a given year just below or just above the 3,000 mark.

- This is in stark contrast to the other three counties of the Puget Sound where births began trending higher between 2006 and 2015.

- Population growth among women in the 20-35 age group has been much lower in Kitsap County compared to the rest of the Puget Sound. As a result births have been lower.

- Recent trends suggest that the 20-35 age group is growing some and may grow even more over the next decade (based on recent State estimates and State forecasts)

- As a result we expect births to be somewhat higher between 2017 and 2021 resulting in an improved enrollment trend in the District and the County between 2022 and 2026 as the larger birth cohorts start entering the schools.

Birth Trends

- We cannot be certain of this improved trend, but it is based on the latest fertility rates and the latest population forecasts.

- If births do not improve from current levels, enrollment in Bainbridge Island and the County as a whole will likely be lower than we are currently projecting for the period between 2022 and 2026.
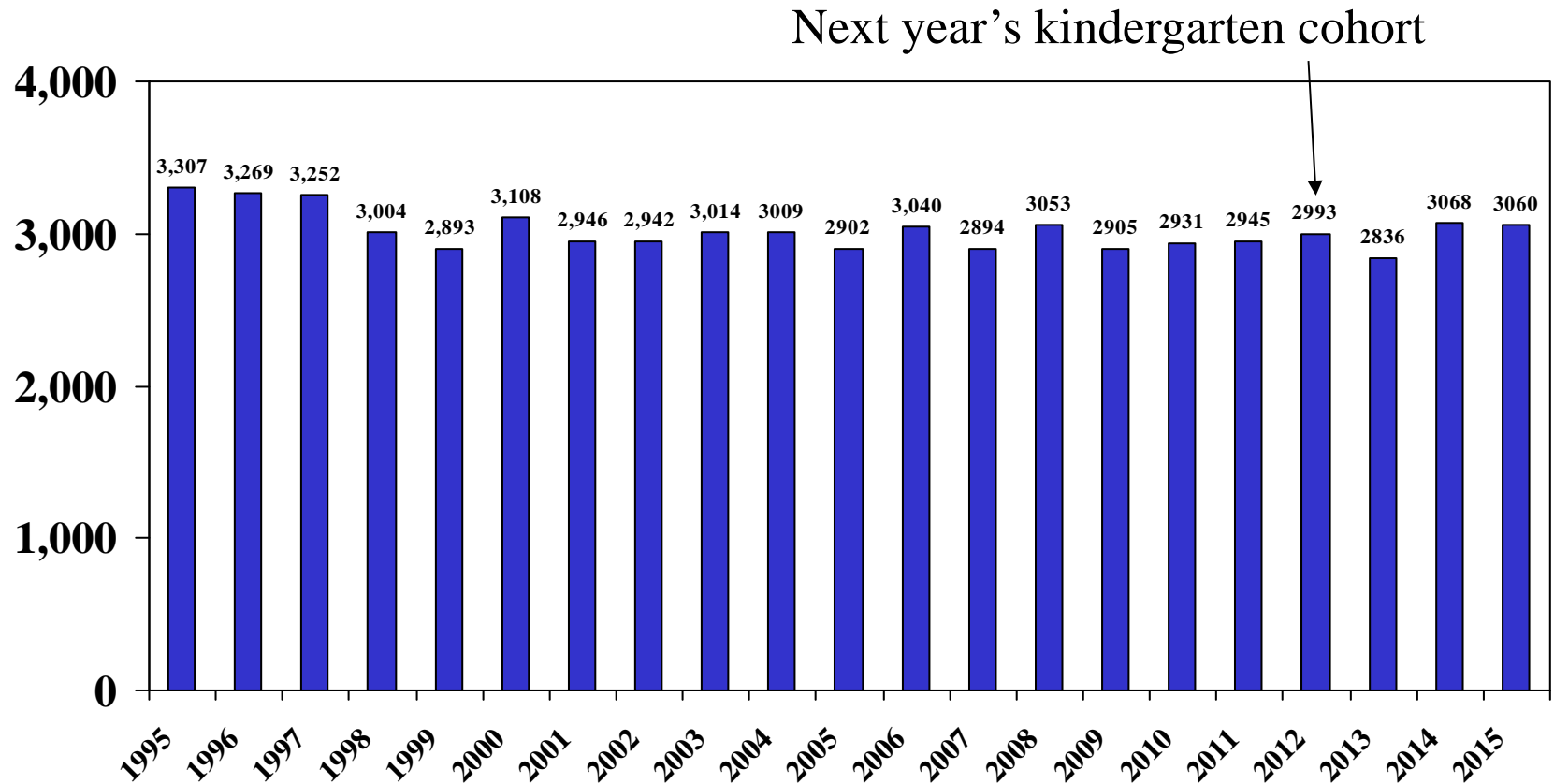
Average Annual Births by County

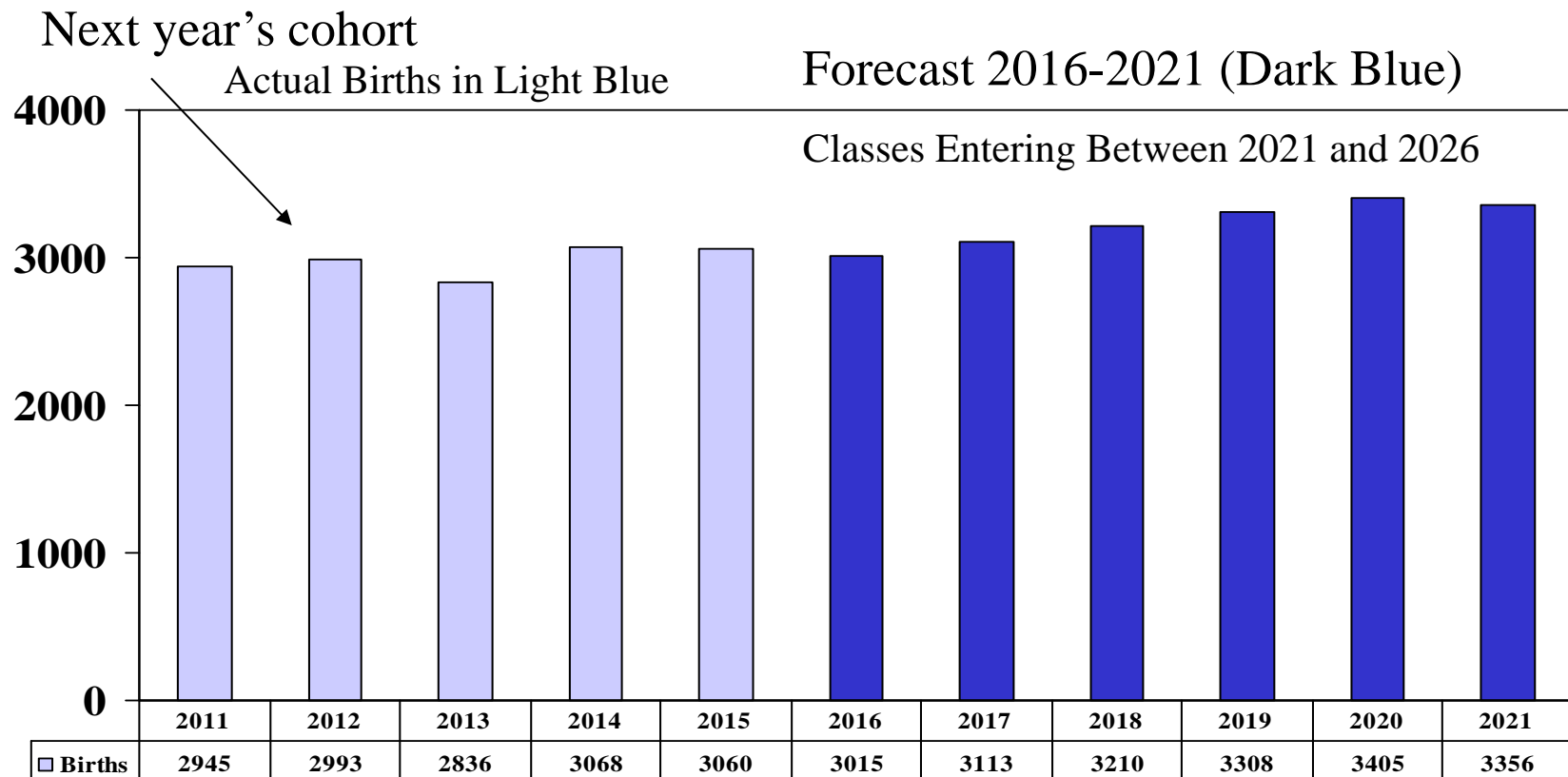Source: State of Washington Department of Health Birth Files

Bainbridge Island Trends and Projections

Kitsap County Births

Source: Washington State Health Department

Next year's kindergarten cohort

Year	Births
1995	3,307
1996	3,269
1997	3,252
1998	3,004
1999	2,893
2000	3,108
2001	2,946
2002	2,942
2003	3,014
2004	3009
2005	2902
2006	3,040
2007	2894
2008	3053
2009	2905
2010	2931
2011	2945
2012	2993
2013	2836
2014	3068
2015	3060

Bainbridge Island Trends and Projections

Kitsap County Birth Forecast

Forecast of Births Using the Medium Range Population Forecast of Women Age 15-44 from the Office of Financial Management for the State of Washington and the average of the fertility rates for each age group from the past two years.

Next year's cohort

Actual Births in Light Blue

Forecast 2016-2021 (Dark Blue)

Classes Entering Between 2021 and 2026

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Births	2945	2993	2836	3068	3060	3015	3113	3210	3308	3405	3356

Bainbridge Island Trends and Projections

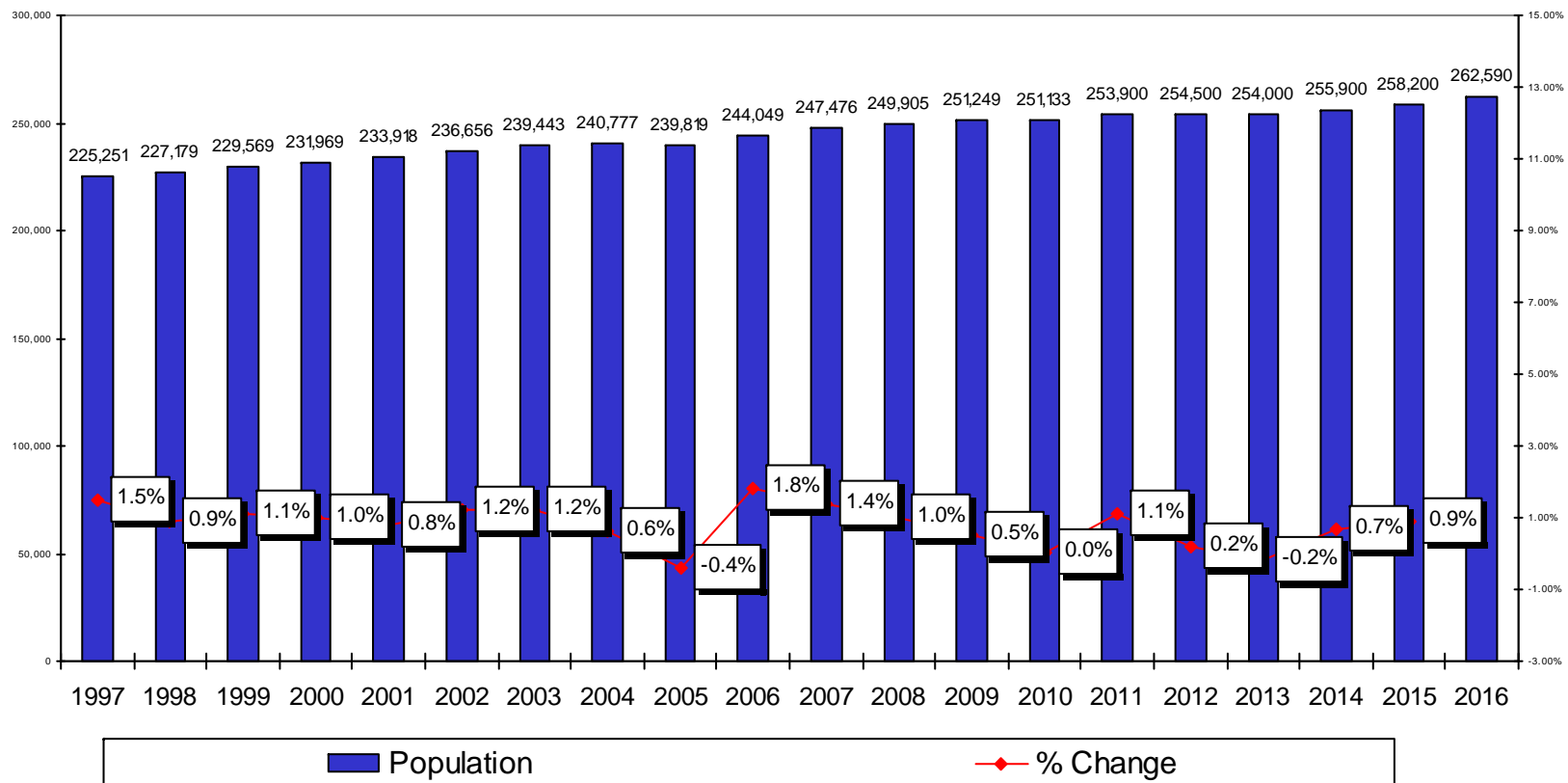# Population Trends

Population Trends

- The population in Kitsap County has improved over the past two years and is currently very close to the medium range forecast completed by the Office of Financial Management for the State of Washington in 2012.

- The population of the Bainbridge Island School District has grown since the 2010 Census but at a slower rate than the overall County.

- As a result, the District's share of the overall County population has declined since 2010.

- We have created three alternative forecasts of the District's resident population to help inform our forecast estimates.

- The low range forecast assumes that the District will grow at about the same rate it has since the 2010 Census (about five-tenths of a percent annually).

Population Trends

- The high range forecast assumes that the District will grow at a rate predicted by the Puget Sound Regional Council's forecast (about 1.18% annually)

- Our medium range preferred population forecast predicts that the population will grow somewhere in-between these two estimates (about 1.12% annually). This is consistent with what we know about future housing likely to be completed over the next five years and fits the assumption that housing and population growth will start to improve over the next decade.

- We have created population based forecasts in the forecast section of our report based on these three alternatives. This provides one method for predicting future enrollment.
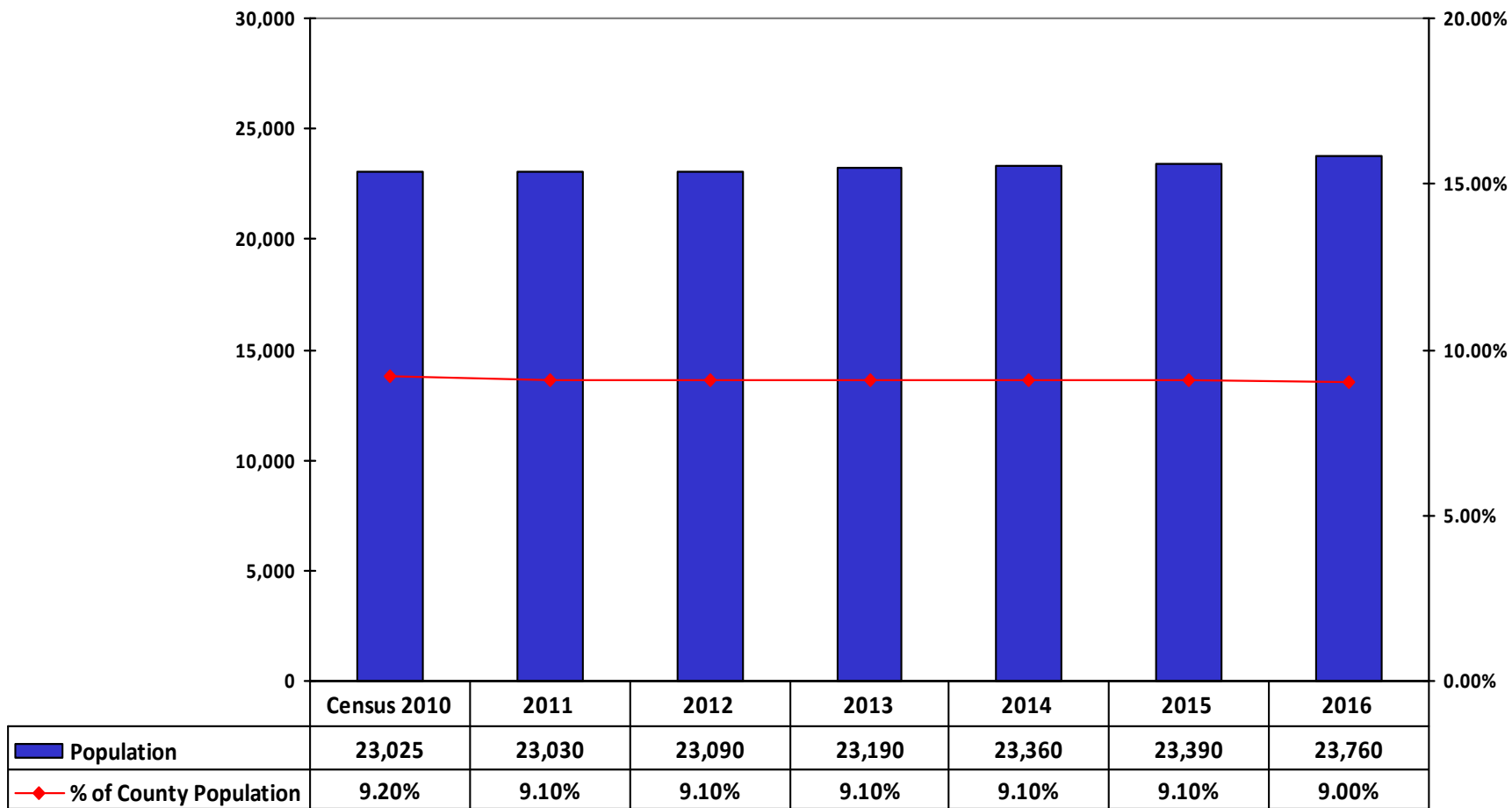
Kitsap County Population Estimates
Source: OFM State of Washington

Bainbridge Island Trends and Projections

Bainbridge Island School District Population
Census and State Estimates

	Census 2010	2011	2012	2013	2014	2015	2016
Population	23,025	23,030	23,090	23,190	23,360	23,390	23,760
% of County Population	9.20%	9.10%	9.10%	9.10%	9.10%	9.10%	9.00%

Bainbridge Island Trends and Projections

County Population by School District
Source: U.S. Census Data and Recent Estimates
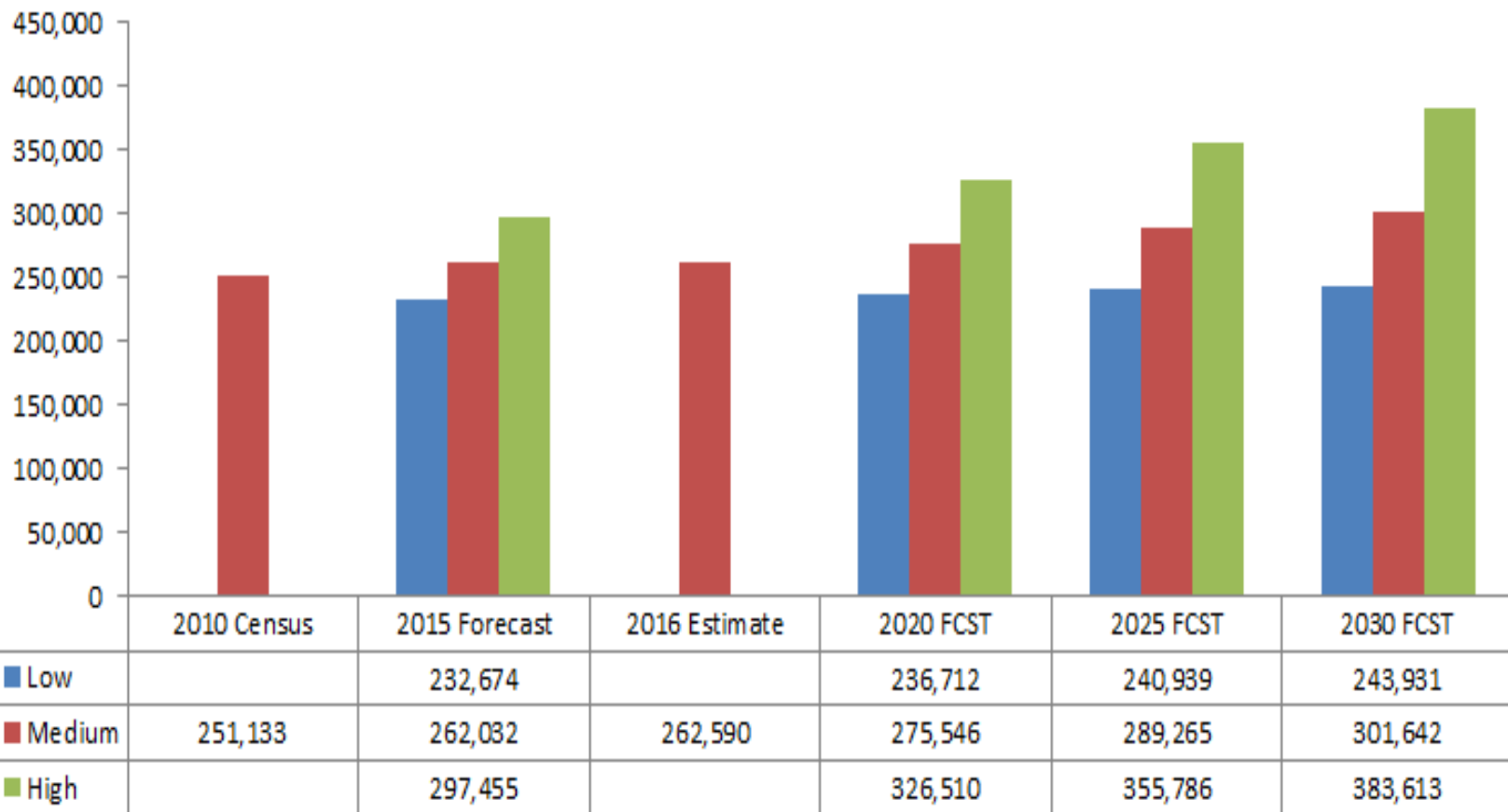
Kitsap County School District Population Changes

Census Population Changes	2000	2010	2016 Estim.
Bainbridge Island	20,308	23,025	23,760
Bremerton	44,205	44,966	47,483
Central Kitsap	66,434	68,814	71,883
North Kitsap	39,567	45,966	48,324
South Kitsap	61,155	68,017	70,785
Total	231,669	250,788	262,235
County Population Census*	231,969	251,133	262,590

Share of the Population	2000	2010	2016
Bainbridge Island	8.8%	9.2%	9.1%
Bremerton	19.1%	17.9%	18.1%
Central Kitsap	28.7%	27.4%	27.4%
North Kitsap	17.1%	18.3%	18.4%
South Kitsap	26.4%	27.1%	27.0%

*Discrepancy in totals can occur because the school district totals are based
 on Census Block aggregations which may not correspond exactly to the
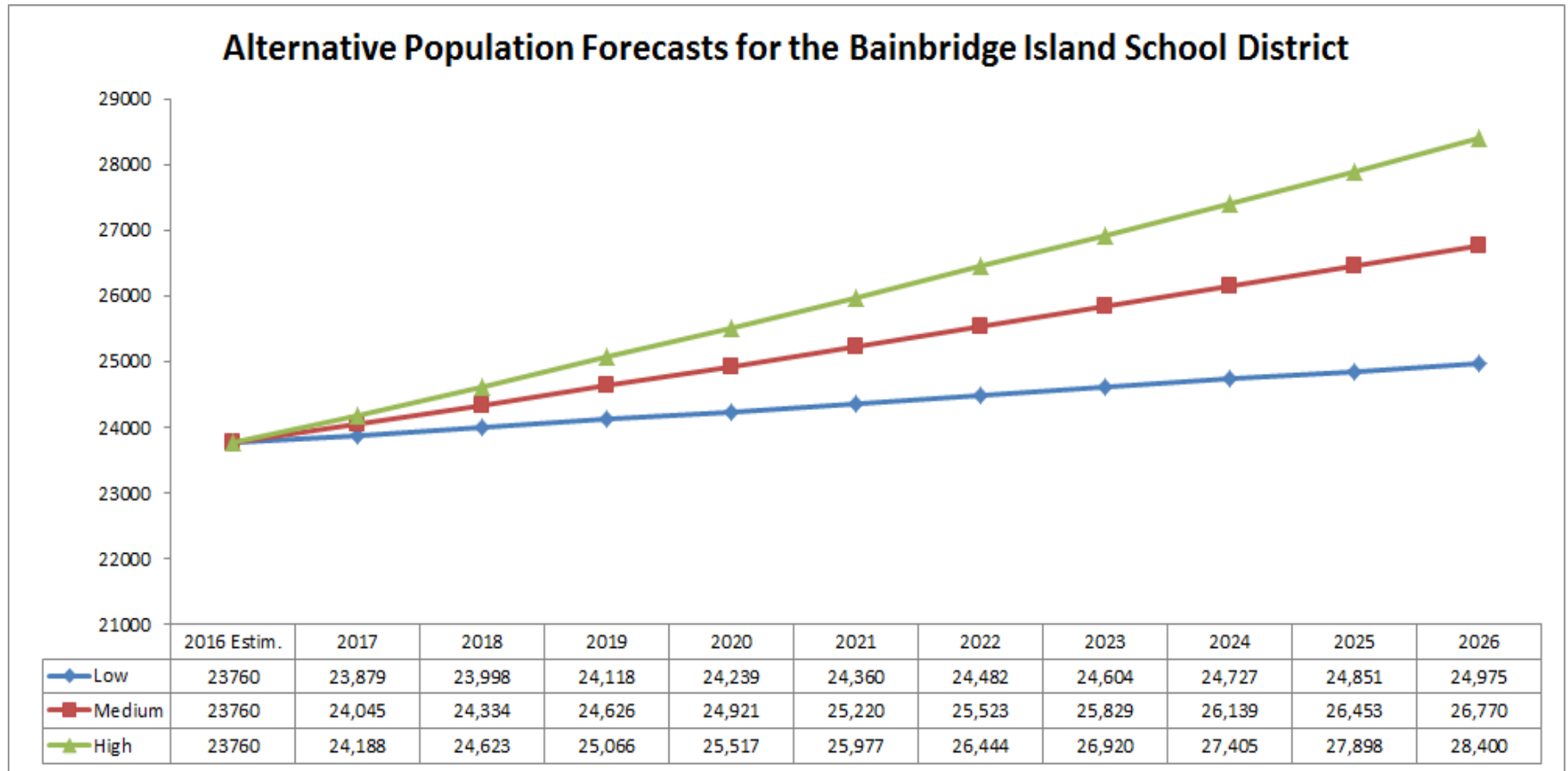 Census blocks used to calculate the county population

The 2016 estimates were provided by the Office of Financial Management
 for the State of Washington; The County Estimate and the aggregate
 estimates of the school district populations differ slightly because they
 were generated using separate methods.

Bainbridge Island Trends and Projections

Kitsap County Population Forecast Estimates from the
Office of Financial Management for the State of Washington
(Completed in 2012)

	2010 Census	2015 Forecast	2016 Estimate	2020 FCST	2025 FCST	2030 FCST
Low		232,674		236,712	240,939	243,931
Medium	251,133	262,032	262,590	275,546	289,265	301,642
High		297,455		326,510	355,786	383,613

Bainbridge Island Trends and
Projections

Bainbridge Island Resident Population Forecasts

Alternative Forecasts Based on Different Assumptions About Growth.

Alternative Population Forecasts for the Bainbridge Island School District

	2016 Estim.	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low	23760	23,879	23,998	24,118	24,239	24,360	24,482	24,604	24,727	24,851	24,975
Medium	23760	24,045	24,334	24,626	24,921	25,220	25,523	25,829	26,139	26,453	26,770
High	23760	24,188	24,623	25,066	25,517	25,977	26,444	26,920	27,405	27,898	28,400

The high forecast is in line with the growth predicted by the Puget Sound Regional Council's Land Use Baseline Forecast

Bainbridge Island Trends and Projections

# Housing Trends

Housing Trends

- As can be seen from the chart on page 41, the addition of new housing units over the last decade is still well below the trends we saw between 2000 and 2007 when the housing bubble was inflating within the Puget Sound.

- It should be noted, however, that there was a sharp spike in the number of units added in 2015 (2016 data is not yet available), when compared to the previous nine years. The 2015 number is the highest we have seen since 2006.

- The sale of both new and existing homes over the past four years is just a little below the totals we were seeing prior to 2007. If we look at sales of new and foreclosed homes only, the sale numbers have been relatively stable since 2009 and well below the big spike in sales that occurred in 2006.

- Looking ahead at what's in the pipeline we are predicting that about 25 more units per year (single family and multi-family) will be developed over the next five years compared to the average of the previous five years. This is based on homes that are currently in process or planned for future construction and sale.

Bainbridge Island Trends and Projections

Housing Trends

- Our forecast of new homes from 2017 to 2021 is based on data for projects that are currently in the pipeline (New Home Trends and MetroStudy).

- Our forecast of the number of homes we expect between 2022 and 2026 is based on our different population forecasts (low, medium, and high) and the average household size of occupied units using the 2010 Census figure.

- All of our housing projections are based on occupied units rather than total units consistent with the Puget Sound Regional Council model.

- Given our housing forecasts, and recent data showing the number of K-12 public school students per occupied housing unit (39 students per 100 homes), we created alternative forecasts of enrollment based on housing.

- The forecast section of the report provides three forecasts of enrollment using this methodology. This provides another method for predicting future enrollment.
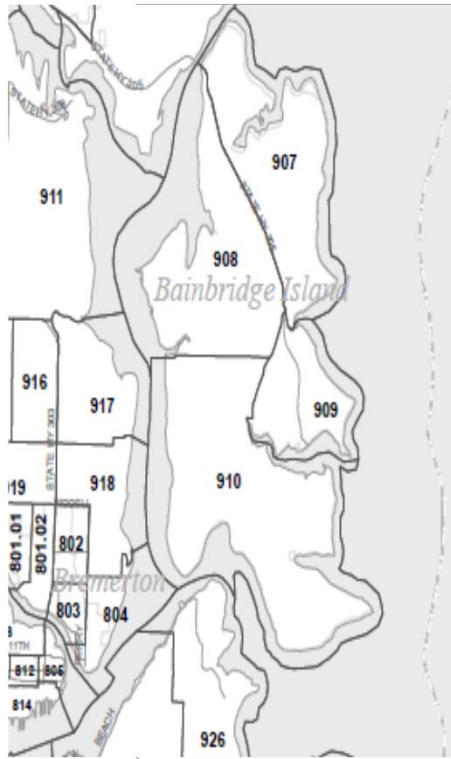
Net Housing Units Added by Neighborhood
Puget Sound Regional Council Data Gathered from Jurisdictions
Net Units= (New Units - Demolished Units)
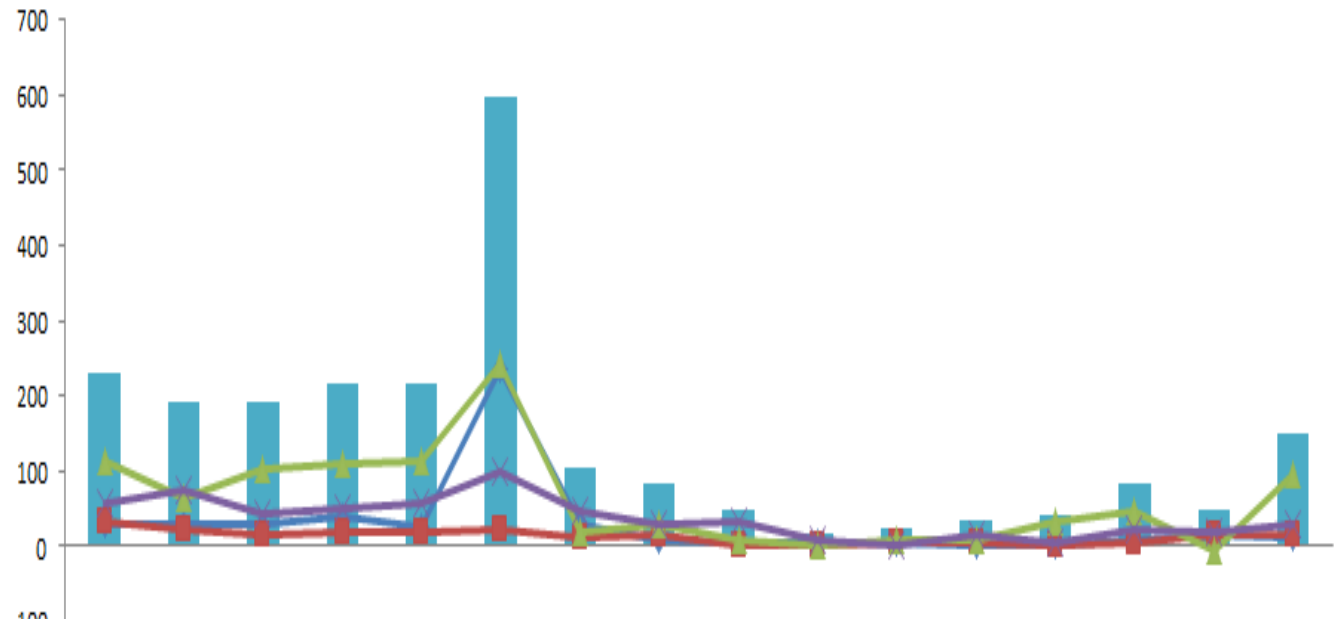
|	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	232	191	192	218	215	597	105	83	48	18	24	34	41	82	47	149
North Bainbridge Island Tract 907	30	29	28	40	25	235	28	10	4	5	6	3	2	8	16	12
North/Center Bainbridge Island Tract 908	33	24	16	18	20	21	11	14	3	3	6	6	2	4	15	15
Winslow Tract 909	113	63	104	110	114	241	19	29	8	2	9	10	33	48	-4	94
South Bainbridge Island Tract 910	56	75	44	50	56	100	47	30	33	8	3	15	4	22	20	28

41   Bainbridge Island Trends and Projections

Total Home Sales by Year: Bainbridge Island School District
Includes Both New and Existing Homes
Source: MetroStudy Assessor's Data

Bainbridge Island Trends and Projections
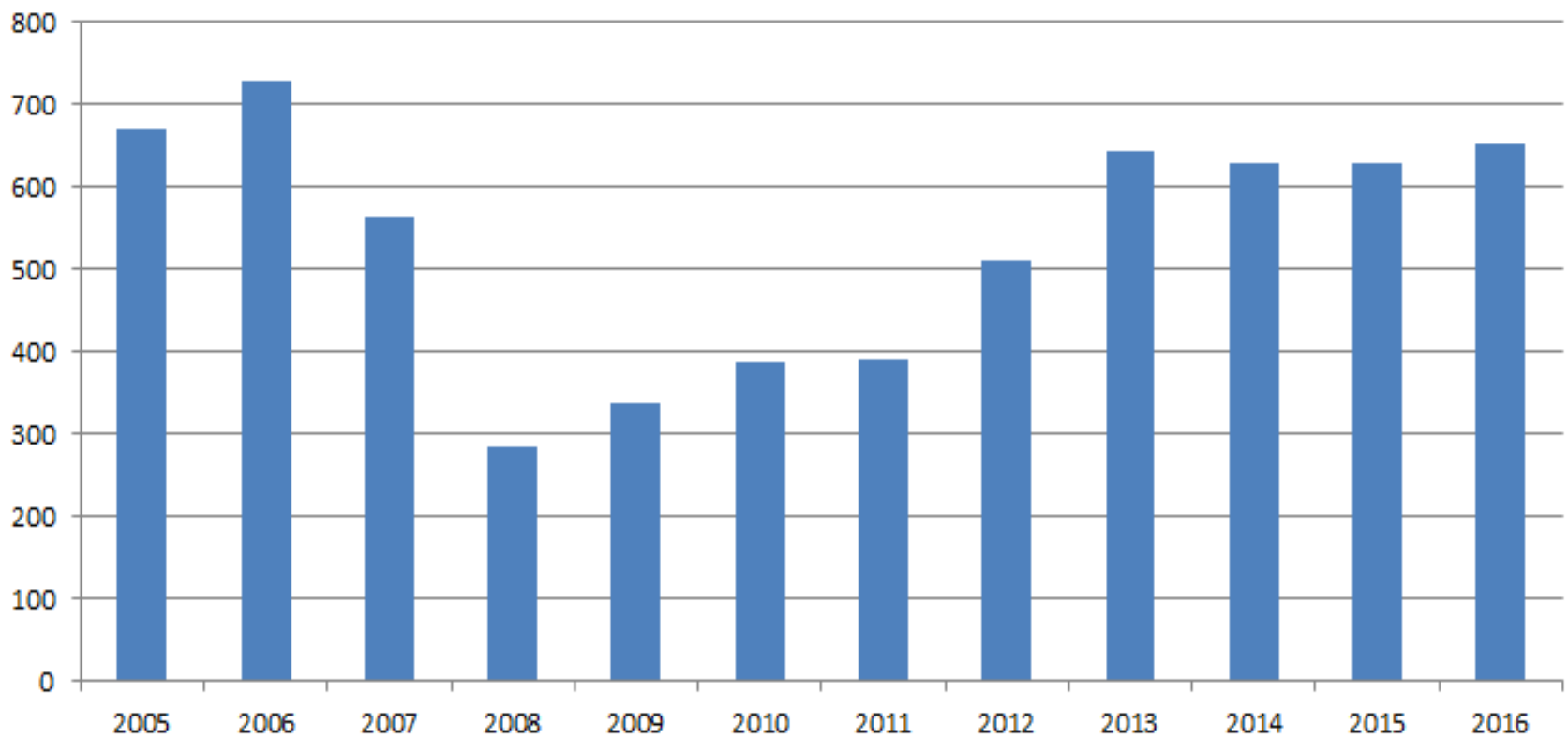
Total New Construction Home Sales: Bainbridge Island School District
Note: Does Not Include Previously Foreclosed Sales
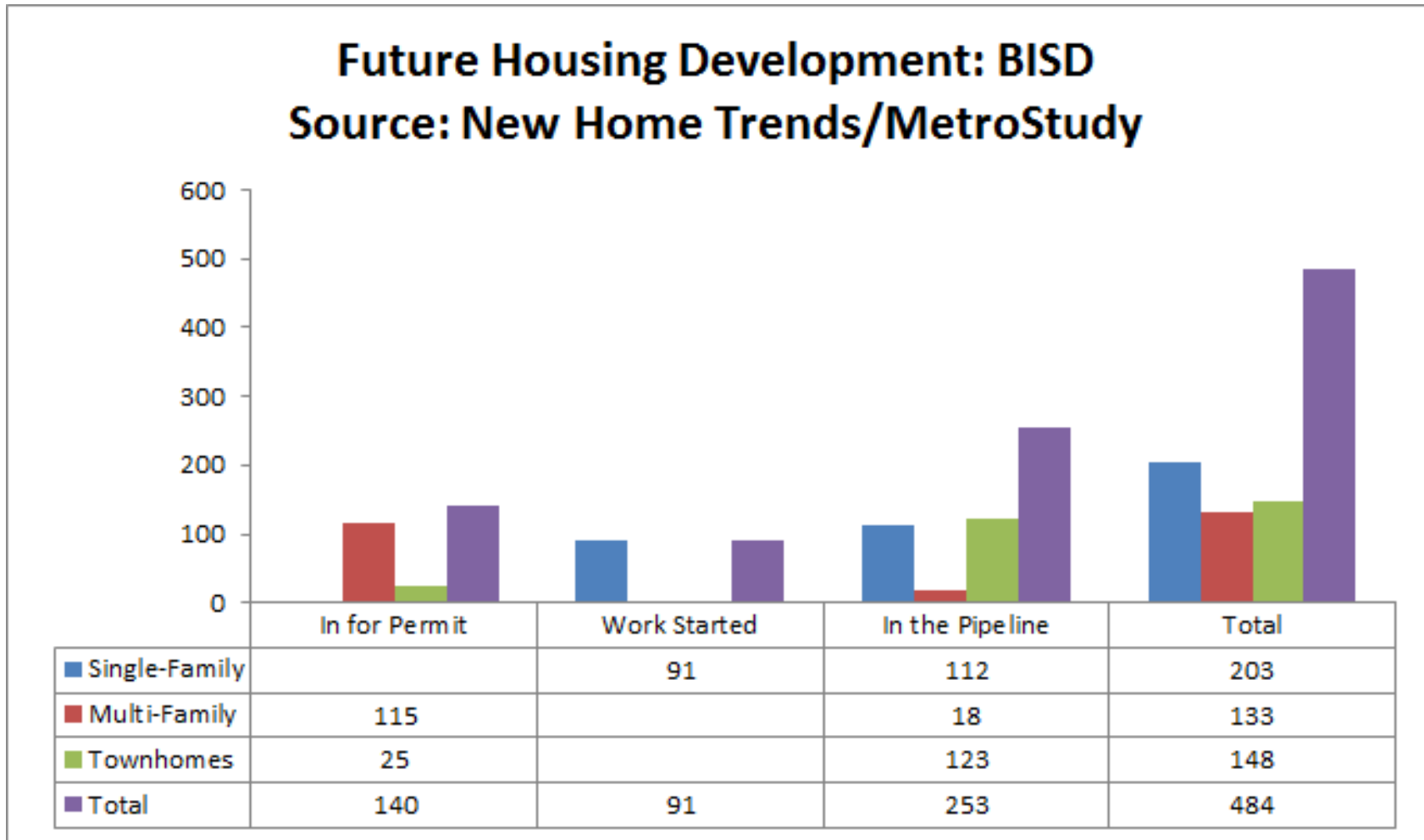Source: Metrostudy Assessor's Data

Bainbridge Island Trends and Projections
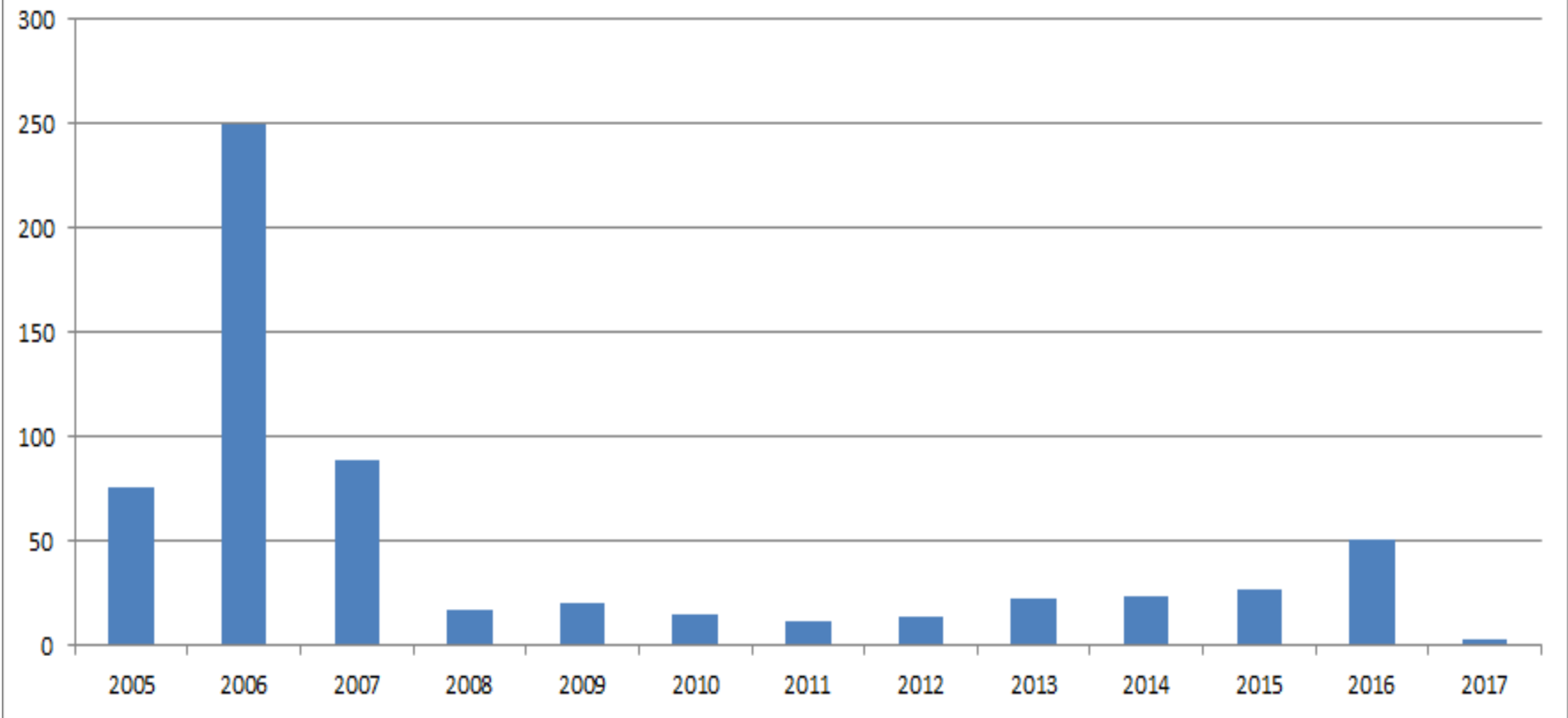
Total New Construction and Foreclosure Sales: Bainbridge Island SD
Source: Metrostudy Assessor's Data

Bainbridge Island Trends and Projections
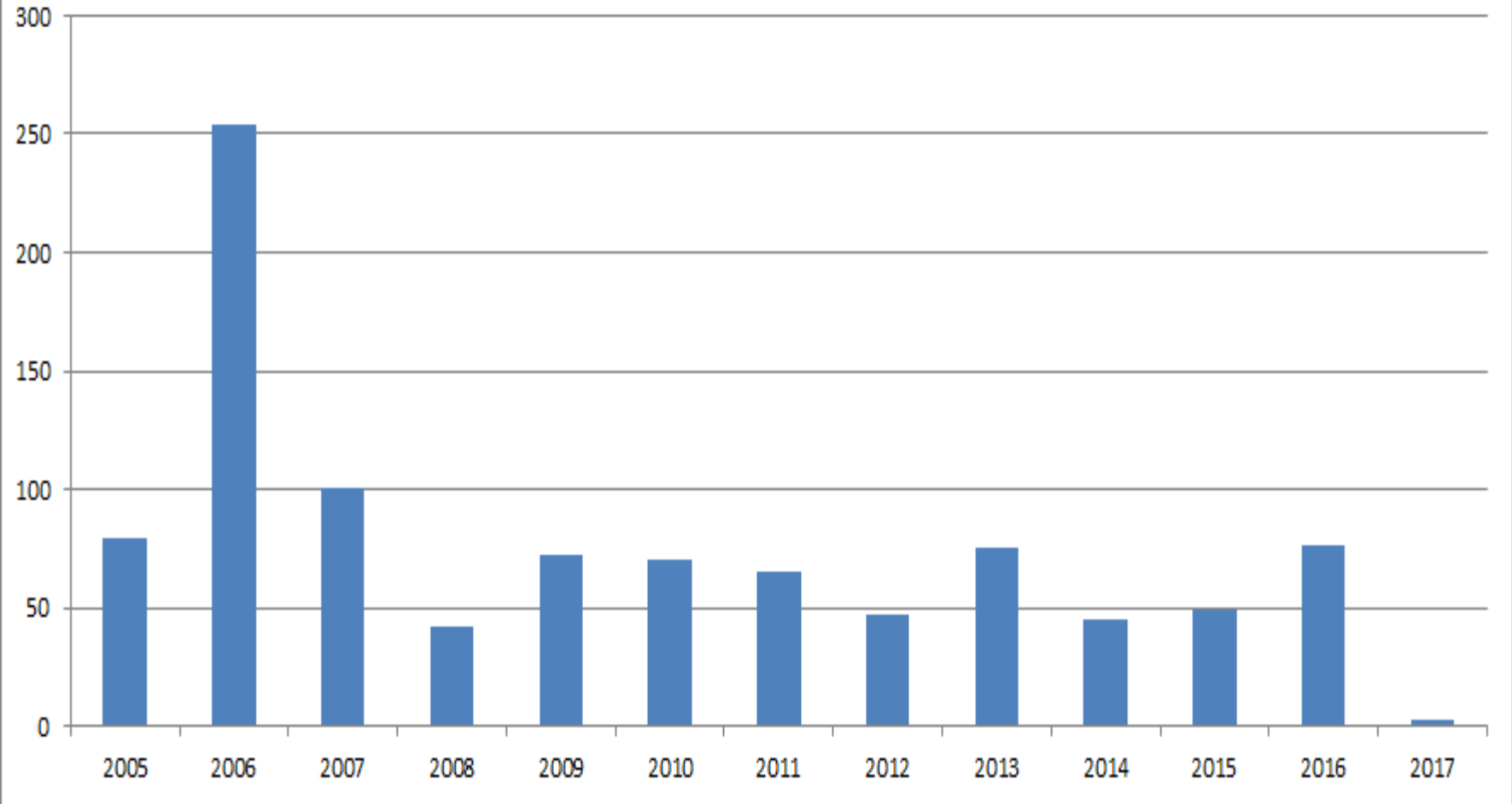
Future Housing Development: Projects Likely to be Completed Over the Next Five Years

Future Housing Development: BISD
Source: New Home Trends/MetroStudy

	In for Permit	Work Started	In the Pipeline	Total
■ Single-Family		91	112	203
■ Multi-Family	115		18	133
■ Townhomes	25		123	148
■ Total	140	91	253	484

Bainbridge Island Trends and Projections

Future Housing Development by Kitsap County School District

Source: New Home Trends

	Bremerton	Bainbridge	Central Kitsap	North Kitsap	South Kitsap
■ SF	731	203	915	1457	3945
■ MF*	1217	281	367	858	308
■ Total	1948	484	1282	2315	4253
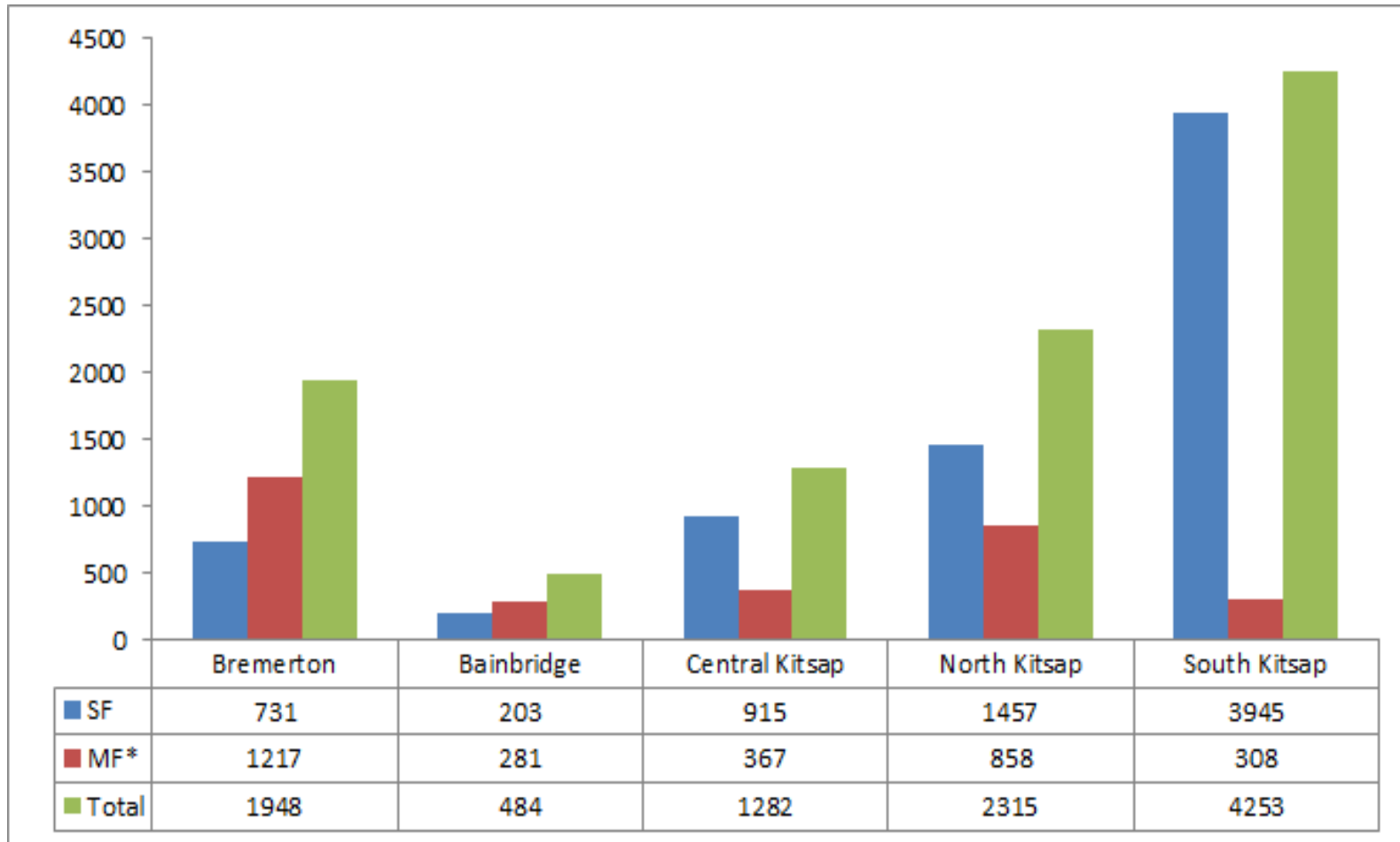
Note: Townhome developments are coded as multi-family for this table.

Bainbridge Island Trends and Projections

Bainbridge Island School District Housing Units

Chart: Bainbridge Island School District Housing Units

Legend: ■ Housing Units ■ Occupied Units

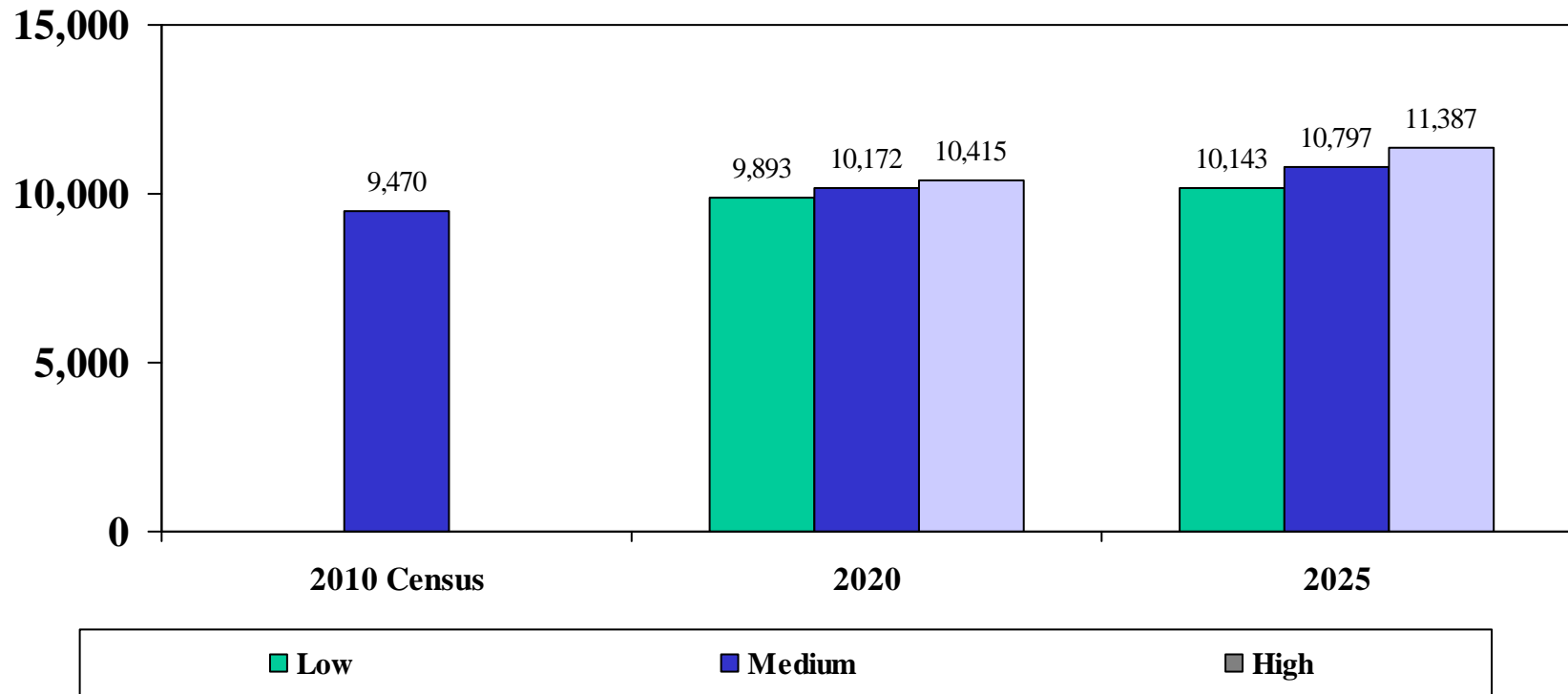|	Housing Units	Occupied Units
Census 2000	8,515	7,980
Census 2010	10,584	9,470
Estimate 2016	10,937	9,786

Bainbridge Island Trends and Projections
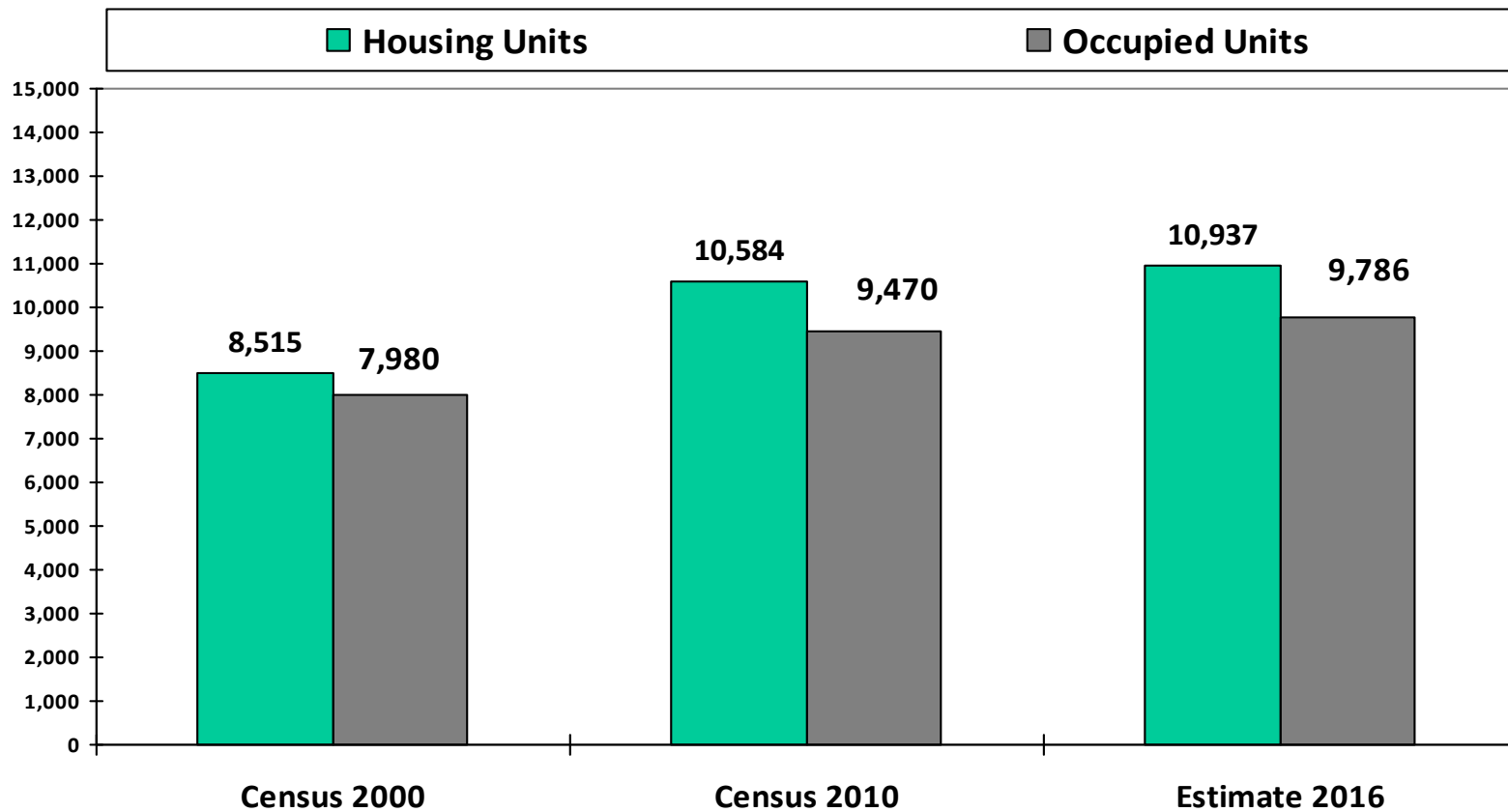
Future Housing Forecasts
Number of Occupied Units

Assumes about 2.45 Persons Per <u>Occupied</u> Unit (Most Recent Estimate)
Applied to the Different Population Forecasts

Bainbridge Island Trends and Projections
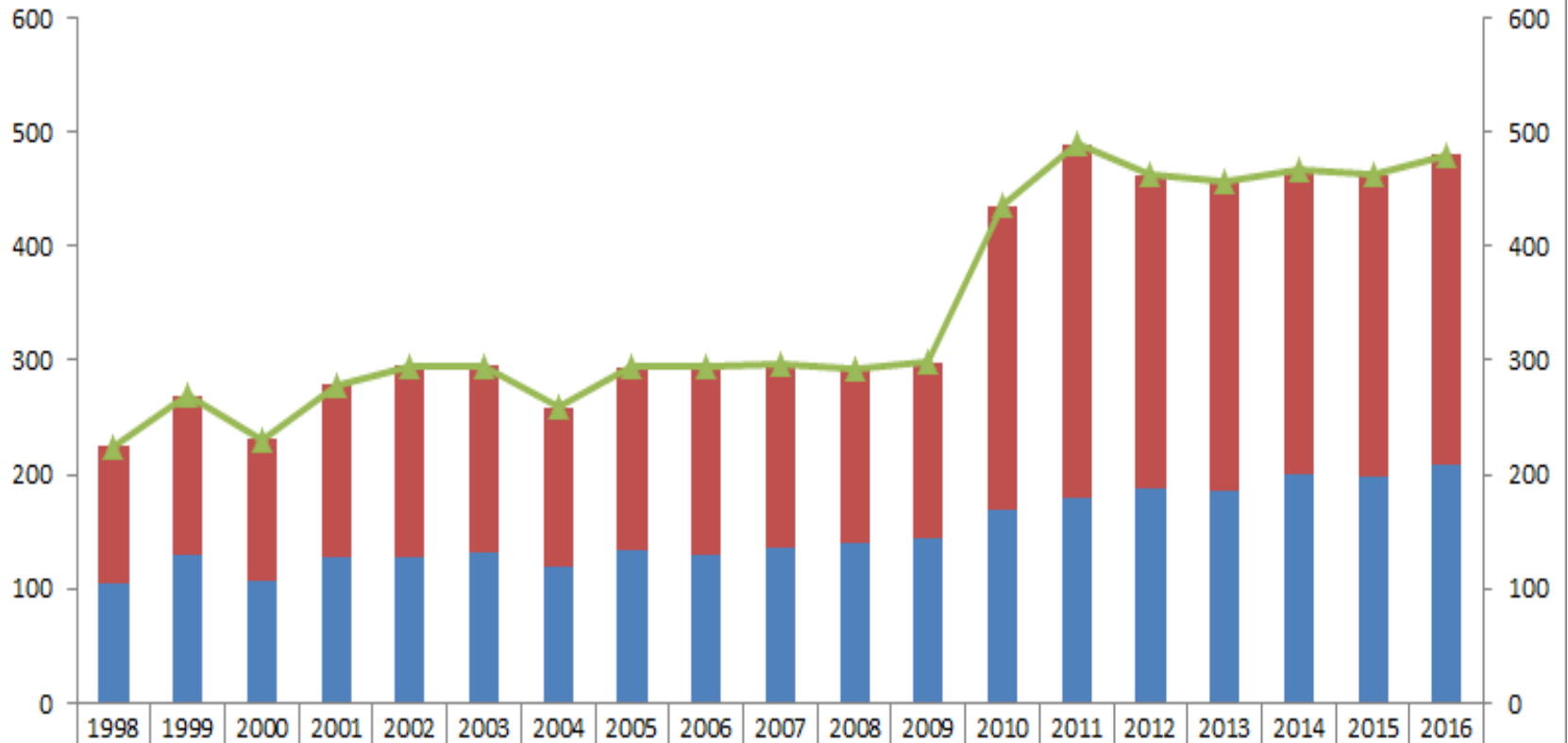
Private and Home School Trends

Private and Home School Trends

- Private schools in Bainbridge Island have had a relatively flat enrollment trend since 2011. The enrollment in 2016 is nine students lower than the peak enrollment in 2011.

- Private school enrollment increased by 18 students over the past year.

- Private school enrollments for schools located in the District boundary have increased their enrollment over the past decade with the opening of some new schools. It is conceivable that the District has seen some loss of students to private schools.

- We do not know this for sure, however, since the students in private schools may enroll from other districts and and we cannot directly correlate fluctuations in the District's enrollment with private school changes. Over the past year, for example, the District's K-4 enrollment declined by 40 students, yet the private schools saw only a small net gain of eight students at grades K-4.

Private and Home School Trends

- Private school enrollment at grades K-4 has declined between 2011 and 2016, similar to the public schools. This suggest that there are demographic trends affecting both populations.

- Private school enrollments at grades 5-8 have increased since 2011, consistent with the increase in the public schools. This again, suggests that demographic trends are responsible for the shifts in both populations. It may be that Bainbridge Island is a "move-up" area for families who are looking to move at the middle school or high school level, and that families consider both private and public schools.

- Home school enrollments in Bainbridge Island have fluctuated up and down over the years according to the registered home school student reports from OSPI.

- The number of registered home school students has declined in the past two years and since 2010 it has been below the peak that we saw in 2008 and 2009.

Private School Enrollment For Schools Located in the Bainbridge Island School District

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
K-4	121	140	125	151	168	163	140	161	165	161	152	154	266	310	274	272	266	264	272
5-8	104	129	106	128	127	132	119	133	130	136	140	144	169	179	188	185	201	198	208
Total	225	269	231	279	295	295	259	294	295	297	292	298	435	489	462	457	467	462	480

Registered Home School Students
Bainbridge Island School District
Source: OSPI Home School Report

Bainbridge Island Trends and Projections
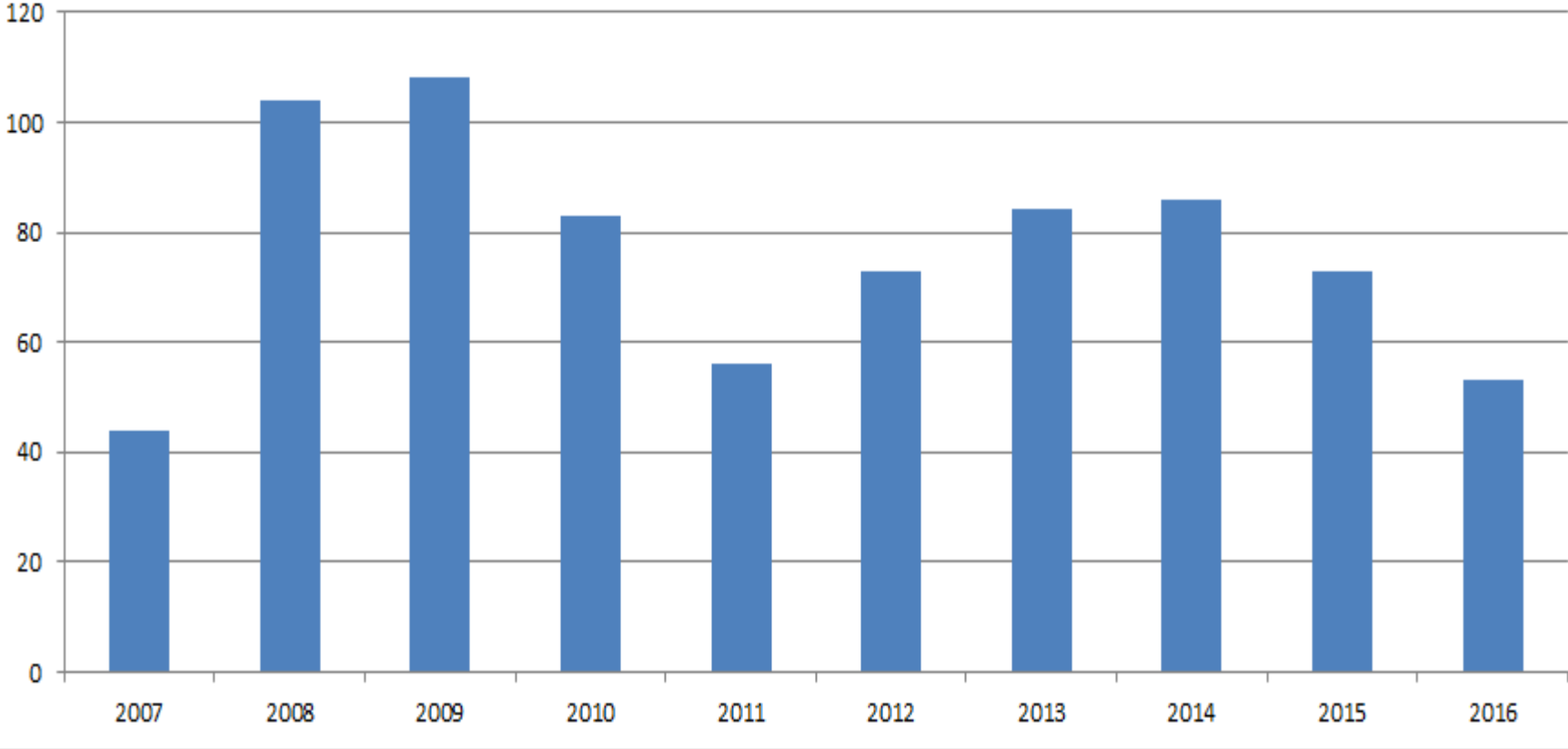
Forecasts

Alternative Projections
Based on Different Models

- Before creating our final forecast models we created a set of alternative forecasts based on different methods. Some of the alternative forecasts (like the cohort models) consider births and enrollment trends by grade. Other forecasts predicted the total enrollment based only on housing. A description of each forecast is provided below.

- **3 and 5 Year and 10 year Cohort Models:** These models show what might happen if the average of the grade level enrollment trends for the past three, five, and ten year periods were to continue into the future. These models can be good if you believe that the most recent trends (e.g., the most recent three years) will not change much in future years. They are less reliable when future demographic trends look different from the recent past.

- **Cohort Models Adjusted for Changes in Population Growth:** These models use the three year cohort forecast adjusted for projected changes in population growth over time, using the low, medium and high range population forecast.   The low model is the same as the three year cohort model above because it assumes that population growth won't change from the past three years. The medium and high models compare recent population growth to projected future growth, adjusting for the difference.

Alternative Projections
Based on Different Models

- **Housing Yield Forecasts:** These models apply the number of K-12 public school students per house using a recent estimate from 2016 data. These models assume that the number of students per house remains relatively stable over the course of the forecast.   This is a reasonable assumption for the initial years of the forecast though it is possible that the number of students per house could change in future years based on the specific combination of housing types (multi-family versus single family) and/or based on changes in the percentage of the population that is school age. The current estimate of approximately 39 public school students per occupied home is multiplied by the low, medium, and high range housing forecasts to predict the number of students.

- **Results:** The results of these different models are shown on the following pages. In general the average of multiple forecasts is often a better indicator of the future than any one forecast. Our final forecast numbers were adjusted for predicted growth and gains in housing and population so that they would correspond relatively close to the low, medium, and high range options presented here. They will differ from these numbers, of course, because our main models consider the size of each years kindergarten and graduating class as well as information about how students roll up through the grades. The final models should, however, be close to these estimates.

Alternative Forecasts Based on Different Methods

Cohort Models*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
3 Year Cohort	3,767	3,738	3,739	3,712	3,658	3,610	3,570	3,576	3,595	3,596
5 Year Cohort	3,786	3,775	3,790	3,780	3,742	3,710	3,678	3,699	3,738	3,747
10 Year Cohort	3,766	3,731	3,724	3,692	3,633	3,582	3,537	3,540	3,568	3,572

Housing Yield Forecasts (39 students Per Occupied House -- Recent Estimate)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low	3,802	3,821	3,840	3,860	3,879	3,898	3,918	3,937	3,957	3,977
Medium	3,829	3,865	3,921	3,968	4,016	4,064	4,113	4,162	4,212	4,263
High	3,851	3,921	3,991	4,063	4,136	4,211	4,287	4,364	4,442	4,522

Coihort Models Adusted for Projected Change in the Population

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low (No Change From Recent Growth)	3,767	3,738	3,739	3,712	3,658	3,610	3,570	3,576	3,595	3,596
Medium (Half a Percent Higher Annually	3,787	3,780	3,801	3,794	3,760	3,729	3,707	3,728	3,762	3,778
High (One Percent Higher Annually)	3,755	3,823	3,892	3,962	4,033	4,106	4,179	4,255	4,331	4,292

| Average of All Methods | 3,790 | 3,799 | 3,827 | 3,838 | 3,835 | 3,836 | 3,840 | 3,871 | 3,911 | 3,927 |

* For the cohort models the kindergarten is assumed to the average share of the County birth cohorts for the past three, five and ten years multiplied by the actual and projected births over the next decade.

Final Enrollment Projections Methods and Assumptions

` An enrollment forecast is based on assumptions and mathematical calculations that convert these assumptions into numbers. The previous sections have identified a number of assumptions about births, grade level enrollment trends, population, and housing growth that are likely to impact the district in the coming years. This section describes the specific assumptions that guided the development of the forecasts.

The forecasts in this document were based on consideration of several factors:

The size of future birth cohorts and the projected share of that cohort that is likely to enroll in Bainbridge Island kindergartens.

Average grade-to-grade growth as students progress through the grades.

Predicted changes in the K-12 population based on alternative housing and population forecasts for the District.

The number of public school students per house.

Methods and Assumptions

Births and Kindergarten Enrollment

Both county and Bainbridge Island births were used to project kindergarten. The number of county births is known through 2015 which means we can predict kindergarten enrollment based on actual births out to 2020. Beyond that point births were projected based on the most recent fertility rates for the county and the forecast of the number of women likely to reach their childbearing years over time, using the medium range county forecast from the State. Births for Bainbridge Island are also known through 2015. Births beyond 2015 were predicted based on the correlation between city and county births. On average city births make up about 4.3% of the births in the county. We assumed this would remain constant going forward.

Projecting Kindergarten Enrollment

Kindergarten enrollments were projected using birth-to-k ratios. The birth-to-k ratio compares the kindergarten enrollment in a given year to births five years prior to that year. The District's birth-to-k ratio has averaged about seven percent of county births over the past decade. The projection model uses the six year average birth-to-k ratio for both the Bainbridge Island and the County to predict future enrollment, taking an average of the two estimates.

Bainbridge Island Trends and Projections

Continuing Grades

Projecting Grades 1-12

The forecasts at grades 1-12 were based on grade level cohort ratios which predict the net gain and/or loss in enrollment as students progress from one grade to the next. In the last report we used a ten year average in order to account for low and high growth years that stretched across the time period when housing growth was strong and the period where it declined. The ten year average was considered a good gauge of the average amount of growth that is typical for each grade.

For this analysis we used the average rate from the past three years which reflects the most recent trends. The models on page 57 show the different cohort forecasts. Our final numbers will also be adjusted for projected changes in housing and population growth (next section) to reflect where we believe enrollment will land using the models we presented earlier as a guide. The enrollment at each grade level was multiplied by the appropriate cohort ratio to project enrollment forward and then adjusted for projected changes in population and housing growth over time.

Adjustments for Population Growth

Adjustments for Population Growth

The cohort model shows what might happen if the current trends were to continue indefinitely into the future, with some adjustments for projected changes in the birth trends over time. We also need to consider the effect of additional population and housing growth in Bainbridge Island and the County, especially growth in the K-12 population.

Our previous models based on population and housing provide us with alternative estimates of future enrollment. We applied growth factors to our forecasts to simulate the effects of low, medium and high growth rates from these models. In other words, we tried to get our forecast to align as closely as possible with the low, medium, and high range estimates provided in the earlier section of this report. The numbers will differ to some degree, of course, because they take into account the size of each year's graduating class and each year's entering kindergarten, as well as the way in which students roll up through the grades. The final numbers in all of the models are, however, close to the low, medium, and high range estimates presented earlier.

For our medium range forecast we tried to estimate when various housing projects might occur over the next five years adjusting each year for the expected timing of different projects. For the low and high forecast we simply assumed that growth rates would conform to the low and high estimates from our earlier models.

Forecast Assumptions Summarized

- **Low Forecast**
  - Birth-to-K Ratio averages 6.95% over the course of the forecast
  - Annual population growth is assumed to be about half-a-percent
  - About 400 new housing units will be added in the next decade.

- **Medium Forecast**
  - Birth-to-K ratio averages 7.08% over the course of the forecast
  - Annual population growth is assumed to about 1.12%
  - About 1100 new housing units will be added in the next decade.

- **High Forecast**
  - Birth-to-K ratio is assumed to be 7.23%.
  - Annual population growth is assumed to be about 1.18%.
  - About 1800 new housing units will be added in the next decade.

Bainbridge Island Trends and Projections

Forecasts

The medium range forecast is the recommended forecast over the course of the forecast period (2017-2026). It appears that the 2016 enrollment decline may well reflect an anomaly in an otherwise improving demographic trend in Kitsap County and Bainbridge Island. We know, given data on future housing, that more growth will be concentrated in places like South Kitsap, but most districts in the County now have more housing projects in the pipeline than we have seen since the decline of sales and construction that happened between 2007 and 2012. As noted earlier, we expect about 25 more additional housing units to be added to the Districts housing stock over the next five years than we saw in the previous five years. This will lead to a more stable enrollment picture and even some small increases in enrollment in certain years depending on the timing of various developments.

We have also noted that private and home school data has not been a major influence on Bainbridge Island's enrollment most recently. Private school enrollment did grow some over the past decade and it is certainly possible that some of that gain was the District's loss. But private school enrollment overall is still below the peak it hit in 2011.

` `It is also worth noting that while births trends have been flat for well over a decade we expect a gradual improvement in this trend over time due to a projected increase in the number of women reaching the 20-35 year age group. Assuming this occurs, we expect enrollment in the County and the District to show better growth trends between 2022 and 2026.

Forecasts

Assuming our medium range forecast is reasonably accurate, the District will have to cope with some losses in enrollment at particular grades in the near term, while still preparing for a change to an enrollment growth trend in the latter part of the forecast.

The low and high range forecasts show what might happen if population and housing growth in the next decade were to be lower or higher than the estimates that are assumed in the medium range model. Given the uncertainty of predicting future enrollment, the District should consider what steps might be taken if enrollment were to trend closer to the low or high projection model. In addition, the District should periodically update this forecast to take account of new enrollment and demographic information.

Forecast of the Kitsap County K-12 Population
Using Cohort Survival, Actual Births, Birth Forecasts and Projected Changes in Population Growth During Certain Time Periods

Forecast

41,609

36,926

35,527

35,896

37,427

45,000

40,000

35,000

30,000

25,000

20,000

15,000

10,000

5,000

0

2000 (P223)   2010 (P223)   2016 (P223)   2020   2025

Bainbridge Island Trends and Projections
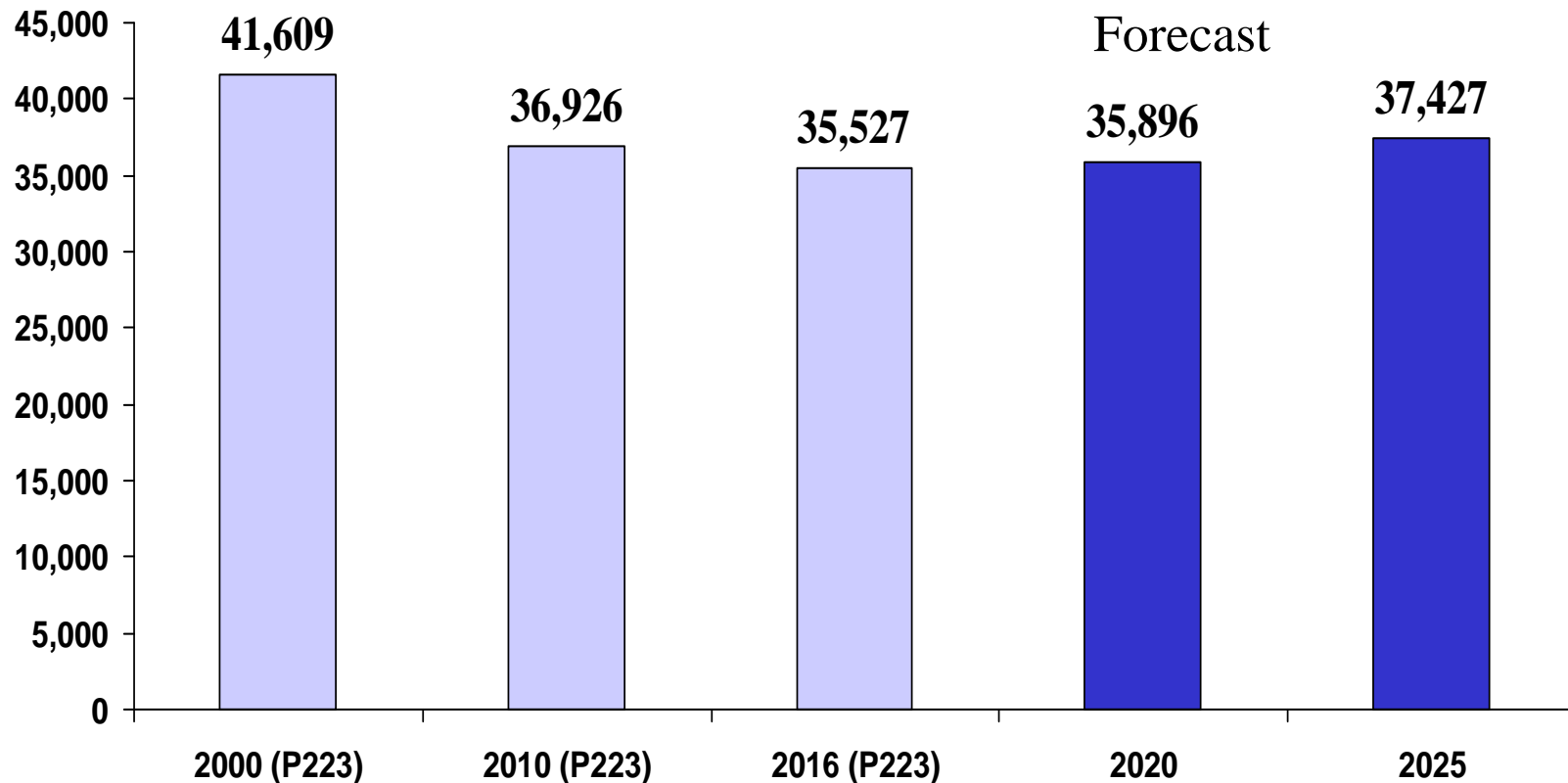
Low, Medium and High District Forecasts
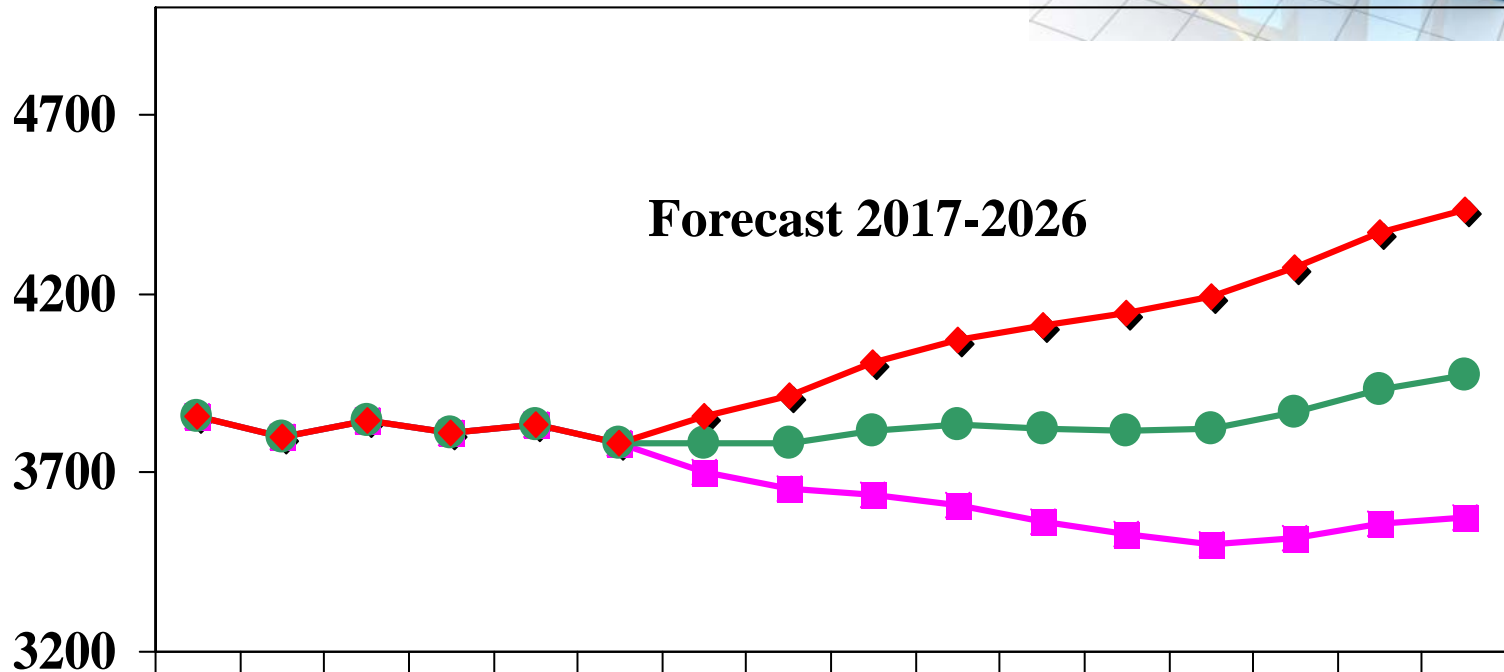
Forecast 2017-2026

	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
Low Forecast	3858	3799	3849	3809	3837	3782	3704	3656	3640	3612	3564	3529	3502	3518	3555	3573
Medium Growth Forecast	3858	3799	3849	3809	3837	3782	3780	3784	3819	3835	3825	3819	3823	3867	3930	3971
High Forecast	3858	3799	3849	3809	3837	3782	3855	3916	4006	4074	4109	4147	4190	4272	4369	4435

Bainbridge Island Trends and Projections

Bainbridge Island Enrollment History

Birth History

Birth Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
County Births	2,946	2,942	3,014	3009	2902	3,040	2894	3053	2905	2931	2,945
Birth-to-k ratio	7.81%	7.55%	8.00%	7.61%	7.20%	6.88%	7.46%	6.91%	5.85%	7.16%	6.79%
Bainbridge Island Births		149	163	143	136	161	132	135	110	115	93
% of County Births		5.1%	5.4%	4.8%	4.7%	5.3%	4.6%	4.4%	3.8%	3.9%	3.2%

Enrollment History (Excludes Full-Time Running Start)

Grade	Oct06	Oct07	Oct08	Oct09	Oct10	Oct11	Oct12	Oct13	Oct14	Oct15	Oct16
K	230	222	241	229	209	209	216	211	170	210	200
1	254	243	262	269	264	238	230	242	258	199	224
2	259	257	250	270	282	266	246	245	248	270	208
3	283	271	261	259	280	282	283	279	259	262	275
4	277	284	282	277	266	292	308	296	287	267	261
5	314	281	287	289	286	269	303	326	313	311	282
6	324	312	280	281	284	292	256	291	312	326	314
7	339	327	312	295	296	289	308	284	316	319	333
8	325	341	321	320	300	305	297	324	280	316	331
9	385	383	405	365	353	345	362	343	367	337	364
10	416	370	366	413	384	356	341	367	348	371	339
11	399	394	345	343	374	347	327	327	337	331	337
12	368	369	372	330	342	368	322	314	314	318	314
Total	4173	4054	3984	3940	3920	3858	3799	3849	3809	3837	3782
		-119	-70	-44	-20	-62	-59	50	-40	28	-55
		-2.9%	-1.7%	-1.1%	-0.5%	-1.6%	-1.5%	1.3%	-1.0%	0.7%	-1.4%
K-4	1303	1277	1296	1304	1301	1287	1283	1273	1222	1208	1168
5-8	1302	1261	1200	1185	1166	1155	1164	1225	1221	1272	1260
9-12	1568	1516	1488	1451	1453	1416	1352	1351	1366	1357	1354
Kitsap K-12	39076	38441	38116	37703	37160	36743	35967	35458	35541	35675	35525
BI % of K-12	10.7%	10.5%	10.5%	10.5%	10.5%	10.5%	10.6%	10.9%	10.7%	10.8%	10.6%

Bainbridge Island Trends and Projections

Enrollment Projections

Low Range Forecast

Projected Births

Birth Yr	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Births	2993	2836	3068	3060	3015	3113	3210	3308	3405	3356
K % of Cohort	6.78%	6.91%	6.94%	6.93%	6.93%	6.94%	7.01%	7.01%	6.99%	7.00%
Bainbridge island Births	99	116	142	122	130	134	138	142	146	144
% of County	3.3%	4.1%	4.6%	4.0%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%

	Oct17	Oct18	Oct19	Oct20	Oct21	Oct22	Oct23	Oct24	Oct25	Oct26
K	203	196	213	212	209	216	225	232	238	235
1	221	227	219	238	238	234	242	252	260	266
2	229	229	235	228	248	248	244	252	263	271
3	212	236	236	243	236	257	257	253	261	273
4	274	214	238	238	246	239	260	260	256	264
5	273	290	227	253	253	262	255	277	277	273
6	280	272	289	227	253	253	262	255	277	277
7	318	288	279	297	234	261	261	270	263	286
8	332	322	291	283	301	238	265	265	274	267
9	379	385	373	338	329	351	277	309	309	319
10	361	380	386	375	340	332	354	279	312	312
11	308	329	346	354	344	313	305	326	257	287
12	314	288	308	326	333	325	295	288	308	243
	3704	**3656**	**3640**	**3612**	**3564**	**3529**	**3502**	**3518**	**3555**	**3573**
Change	-78	-48	-16	-28	-48	-35	-27	16	37	18
Percent	-2.1%	-1.3%	-0.4%	-0.8%	-1.3%	-1.0%	-0.8%	0.5%	1.1%	0.5%
K-4	1139	1102	1141	1159	1177	1194	1228	1249	1278	1309
5-8	1203	1172	1086	1060	1041	1014	1043	1067	1091	1103
9-12	1362	1382	1413	1393	1346	1321	1231	1202	1186	1161
Kitsap K-12	35715	35679	35802	35896	35996	36259	36583	36988	37427	37587
BI % of K-12	10.4%	10.2%	10.2%	10.1%	9.9%	9.7%	9.6%	9.5%	9.5%	9.5%

Enrollment Projections

Medium Range Forecast   Projected Births

Birth Yr	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Births	2993	2836	3068	3060	3015	3113	3210	3308	3405	3356
K % of Cohort	6.92%	7.05%	7.07%	7.06%	7.06%	7.07%	7.13%	7.14%	7.14%	7.15%
Bainbridge Island Births	99	116	142	122	130	134	138	142	146	144
% of County Births	3.3%	4.1%	4.6%	4.0%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%

	Oct17	Oct18	Oct19	Oct20	Oct21	Oct22	Oct23	Oct24	Oct25	Oct26
K	207	200	217	216	213	220	229	236	243	240
1	226	235	227	246	246	242	250	260	268	276
2	234	238	247	239	260	260	256	264	275	284
3	216	245	249	259	251	274	274	270	278	290
4	279	221	251	255	266	258	282	282	278	286
5	279	300	238	271	275	287	279	305	305	301
6	286	282	303	241	275	279	291	283	309	309
7	325	298	294	317	252	288	292	305	297	324
8	339	334	306	302	326	260	297	301	315	306
9	387	399	393	361	357	385	308	351	356	373
10	368	394	407	401	369	365	394	315	359	365
11	314	340	364	379	373	344	341	368	294	335
12	320	298	323	348	362	357	330	327	353	282
	3780	**3784**	**3819**	**3835**	**3825**	**3819**	**3823**	**3867**	**3930**	**3971**
Change	-2	4	35	16	-10	-6	4	44	63	41
Percent	-0.1%	0.1%	0.9%	0.4%	-0.3%	-0.2%	0.1%	1.2%	1.6%	1.0%
K-4	1162	1139	1191	1215	1236	1254	1291	1312	1342	1376
5-8	1229	1214	1141	1131	1128	1114	1159	1194	1226	1240
9-12	1389	1431	1487	1489	1461	1451	1373	1361	1362	1355
Kitsap K-12	*35715*	*35679*	*35802*	*35896*	*35996*	*36259*	*36583*	*36988*	*37427*	*37587*
BI % of K-12	10.6%	10.6%	10.7%	10.7%	10.6%	10.5%	10.5%	10.5%	10.5%	10.6%

Enrollment Projections

High Range Forecast

<div align="center">Projected Births</div>

Birth Yr	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Births	2993	2836	3068	3060	3015	3113	3210	3308	3405	3356
K % of Cohort	7.05%	7.19%	7.24%	7.19%	7.23%	7.23%	7.29%	7.29%	7.28%	7.30%
Bainbridge Island Births	99	116	142	122	130	134	138	142	146	144
% of County	3.3%	4.1%	4.6%	4.0%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%

	Oct17	Oct18	Oct19	Oct20	Oct21	Oct22	Oct23	Oct24	Oct25	Oct26
K	211	204	222	220	218	225	234	241	248	245
1	230	243	235	256	254	251	260	270	278	286
2	239	246	260	252	274	272	270	279	290	299
3	221	254	262	277	269	293	291	289	298	310
4	285	230	264	273	289	281	306	304	302	311
5	284	311	251	289	299	317	308	336	334	332
6	292	292	319	258	297	308	326	317	346	344
7	331	309	309	338	274	316	328	347	337	368
8	346	345	322	323	353	287	331	343	363	353
9	394	414	412	386	387	424	345	398	412	436
10	375	408	428	427	400	402	441	359	414	428
11	320	352	383	404	403	379	381	418	340	392
12	327	308	339	371	392	392	369	371	407	331
	3855	**3916**	**4006**	**4074**	**4109**	**4147**	**4190**	**4272**	**4369**	**4435**
Change	73	61	90	68	35	38	43	82	97	66
Percent	1.9%	1.6%	2.3%	1.7%	0.9%	0.9%	1.0%	2.0%	2.3%	1.5%
K-4	1186	1177	1243	1278	1304	1322	1361	1383	1416	1451
5-8	1253	1257	1201	1208	1223	1228	1293	1343	1380	1397
9-12	1416	1482	1562	1588	1582	1597	1536	1546	1573	1587
Kitsap K-12	35715	35679	35802	35896	35996	36259	36583	36988	37427	37587
BI % of K-12	10.8%	11.0%	11.2%	11.3%	11.4%	11.4%	11.5%	11.5%	11.7%	11.8%

School Forecasts

In addition to the district forecasts, enrollment projections by school were also created. These forecasts were based on the trends by grade level at individual schools and projected changes based on housing development currently in the pipeline.

We used data from New Home Trends and Metro Study to gather future housing data for the different service areas for the K-4 schools. We then estimated how many students might come from new housing developments assuming about 20 student per 100 multi-family units and 55 students per 100 single family units. These are consistent with the averages for a variety of Districts across the Puget Sound. The point of these calculations was to help us allocate where future K-12 growth might come from.

Any housing that fell within an overlapping boundary area was equally divided between the two overlap schools based on the assumption that the future enrollment gains in that area would be divided equally.

We used the housing data and enrollment trends to project for the first five years of the forecast period (2017 to 2021) when we expect most of the current housing pipeline to be complete. Beyond that point we assumed that the growth trends would be similar since we cannot be sure where housing development will occur between 2022 and 2026. **The longer range projections (2022 to 2026) should be used with caution and updated in future years when additional housing data becomes available.**

School Forecasts
Methods and Assumptions

K-4 Schools

Enrollment at the main elementary schools was projected based on each school's average share of the District kindergarten enrollment over the past three years. At the continuing grades the enrollment was based on the average net change in enrollment as student progress from one grade to the next. For example, to predict the first grade enrollment, enrollment at first grade in a given year is compared to enrollment at the kindergarten level for the previous year to see if there is a net gain or loss of students over the course of the year. This is done at each grade level and the average of the past three years is used to project enrollment forward. The numbers were then adjusted based on how much additional growth might come from new housing. The final numbers were balanced to the District low, medium, and high range District projections providing three alternatives.

Intermediate and Secondary Schools

For the intermediate and secondary schools, enrollment was projected by considering each school's average share of the District enrollment at each entry grade over the past three years. This average was multiplied by the projected District total at each grade to create a forecast of enrollment by grade at each school. At the other grades the students were rolled up based on the average net change that we see from grade to grade (similar to the K-4 schools). Once again the final numbers were balanced to the low, medium and high range District projections

School Forecasts
Methods and Assumptions

District Options: Mosaic and Odyssey

The two option or choice schools were projected using a slightly different methodology. Both of these schools have very few children per grade level and it is hard to discern grade level trends with so few kids at each grade. The gains or losses at particular grades in particular years may represent random factors (there just happened to be fewer third graders in one year, and more fourth graders in another year) with no real discernable pattern. With large numbers of kids per grade level this is not as much of a problem.

To control for this problem we projected the entry grade (K or 1st) in a similar fashion to the other schools. At the continuing grades we looked at the net change for all grades combined from year to year over the past three years, and used this average net change number to project the enrollments forward. For example, we considered the size of the grades 1-8 population in each year compared to the grades K-7 population from the previous year. This enabled us to calculate how much enrollment might grow or decline on average from year to year, even if we can't be sure of exactly how many students will enroll at each grade. We used a similar method for Odyssey with the exception of grades seven and eight. At grade seven the enrollment at Odyssey typically doubles so we projected these grades separately from the rest of the school. It should also be noted that options schools may be affected by non-demographic factors, like facilities space, and this cannot be accounted for in our projections (see the discussion on the next page). We assumed that the trends of the past three years would continue into the future but this could change if there is high demand and additional space is added. It is also possible that demand could be lower resulting in less growth over time, than we have assumed in our model.

School Forecasts
Some Considerations

Several things should be noted about school projections. First, school projections beyond a few years are less reliable than district forecasts by grade level, because the school numbers are much smaller. With small numbers it is sometimes difficult to discern distinct grade level trends (see the previous page discussion). Small changes in enrollment could occur because of random events (a large number of families leaving in a specific year, or two families with multiple siblings leaving all at once) and may not adequately reflect a real trend.

It is also frequently true that as schools become larger or smaller the sheer size of a school can affect parent decisions about what they want for their child. A school that becomes overcrowded or under-enrolled will sometime undergo a perception change in which parents decide that the school is no longer appropriate for their child. And this, in turn, can have an effect on future enrollment trends at that school.

`` Finally, it is worth noting that areas with the greatest housing and population growth will typically have more K-12 enrollment growth. But this is not always the case. Because the forecasts by school are based both on recent enrollment trends at each school and projected changes in future growth due to housing, there will be cases where upward trends in the population will be offset by declining enrollment trends that are already in place. The school forecasts in this document reflect the intersection between the most recent enrollment trends and future projected changes in the K-12 population.

Projection Summary by School (2017-2026 Low Projection)

	Oct13	Oct14	Oct15	Oct16	Projections Oct17	Oct18	Oct19	Oct20	Oct21	Oct22	Oct23	Oct24	Oct25	Oct26
Blakely	383	367	352	342	335	332	338	349	360	366	372	374	380	386
Ordway	410	385	388	365	347	342	363	357	363	366	374	379	388	396
Wilkes	400	380	376	378	373	352	366	375	375	383	400	410	423	435
Mosaic	53	57	65	54	54	57	54	52	53	43	43	46	47	49
Odyssey	127	126	129	126	121	118	113	110	109	109	110	115	118	121
Sakai	561	574	584	549	510	516	468	443	471	477	480	493	513	510
WMS	548	538	566	604	585	540	508	516	469	447	475	481	482	497
BHS	1227	1234	1232	1251	1267	1277	1310	1289	1245	1222	1139	1112	1098	1075
Eagle Harbor	122	131	124	101	95	104	103	103	100	98	91	89	88	86
Student Services	18	17	21	12	17	17	18	18	18	18	18	18	18	18
Totals	**3849**	**3809**	**3837**	**3782**	**3704**	**3656**	**3640**	**3612**	**3564**	**3529**	**3502**	**3518**	**3555**	**3573**

Note: Numbers may not add to exact totals due to rounding.

Projection Summary by School (2017-2026 Medium Projection)

	Oct13	Oct14	Oct15	Oct16	Oct17	Oct18	Oct19	Oct20	Oct21	Oct22	Oct23	Oct24	Oct25	Oct26
					Projections									
Blakely	383	367	352	342	342	343	353	366	378	385	391	393	399	406
Ordway	410	385	388	365	354	354	379	374	380	384	393	398	407	416
Wilkes	400	380	376	378	380	364	382	393	394	402	420	431	444	458
Mosaic	53	57	65	54	55	59	56	55	56	46	46	50	51	53
Odyssey	127	126	129	126	124	123	119	116	117	118	120	126	130	132
Sakai	561	574	584	549	521	534	491	473	512	525	529	545	569	566
WMS	548	538	566	604	598	560	535	550	507	490	532	544	549	567
BHS	1227	1234	1232	1251	1292	1323	1378	1377	1351	1342	1270	1259	1261	1255
Eagle Harbor	122	131	124	101	97	107	108	111	109	108	102	101	101	100
Student Services	18	17	21	12	18	18	19	20	20	19	20	20	19	19
Totals	**3849**	**3809**	**3837**	**3782**	**3780**	**3784**	**3819**	**3835**	**3825**	**3819**	**3823**	**3867**	**3930**	**3971**

Note: Numbers may not add to exact totals due to rounding.

Projection Summary by School (2017-2026 High Projection)

	Oct13	**Oct14**	**Oct15**	**Oct16**	**Oct17**	**Oct18**	**Oct19**	**Oct20**	**Oct21**	**Oct22**	**Oct23**	**Oct24**	**Oct25**	**Oct26**
					Projections									
Blakely	383	367	352	342	349	355	368	385	399	405	412	414	421	428
Ordway	410	385	388	365	361	366	395	393	401	404	414	419	429	438
Wilkes	400	380	376	378	388	376	399	414	416	424	443	455	469	483
Mosaic	53	57	65	54	56	61	59	58	60	50	50	54	55	57
Odyssey	127	126	129	126	126	127	125	124	126	128	131	138	143	146
Sakai	561	574	584	549	531	553	517	505	555	579	588	606	630	627
WMS	548	538	566	604	609	579	563	588	550	540	596	620	628	649
BHS	1227	1234	1232	1251	1317	1370	1448	1469	1463	1478	1421	1430	1456	1469
Eagle Harbor	122	131	124	101	99	111	113	118	118	118	114	115	117	118
Student Services	18	17	21	12	18	18	19	21	21	21	21	22	21	21
Totals	**3849**	**3809**	**3837**	**3782**	**3855**	**3916**	**4006**	**4074**	**4109**	**4147**	**4190**	**4272**	**4369**	**4435**

Note: Numbers may not add to exact totals due to rounding.

Bainbridge Island Trends and Projections

Consultant Background and Experience

Dr. Kendrick was the demographer for the Seattle Public schools from 1990 to 1997. In that capacity he provided enrollment projections to facilitate staffing and facilities planning and helped with the management of the student assignment system He also provided analysis of the relationship between demographics and test scores.

Since 1997 he has worked as a consultant providing demographic analysis and enrollment projections for local school districts. Over the past 20 years his clients have included the following Districts: Auburn, Bainbridge Island, Bellingham, Bellevue, Bethel, Bremerton, Central Kitsap, Edmonds, Enumclaw, Federal Way, Marysville, Mercer Island, Monroe, North Kitsap, Olympia, Renton, Seattle, South Kitsap, Shoreline, Snoqualmie Valley, Sumner, and Tukwila. He also does annual enrollment projection work for the Everett, Highline, Mukilteo, Northshore, Puyallup, and Tacoma School Districts. He has worked in all four counties of the Puget Sound and is familiar with the different trends and patterns across the region.

Appendix A

Transfers In and Out
Data Provided by the School District

Bainbridge Island School District (Transfers In and Out from Other Districts)							
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Transfers In	90	102	117	136	144	144	146
Transfers Out	31	35	34	35	27	40	49
Net	59	67	83	101	117	104	97

Bainbridge Island Trends and Projections

Appendix B

Demographic Information

Census, American Community Surveys, and the State of Washington

Bainbridge Island Demographic Information

Population	23,025	2010 Census
Population 2016	23,760	Office of Financial Management State of Washington
Median Age	48.2	2011-2015 Estimate American Community Survey
Education (High School or Higher)	98.4%	2011-2015 Estimate American Community Survey
Housing Units	10,584	2010 Census (Includes Vacant Homes)
Median Household Income	101,689	2011-2015 Estimate American Community Survey
Foreign Born Population	1,785	2011-2015 Estimate American Community Survey
Individuals Below Poverty Level	5.4%	2011-2015 Estimate American Community Survey
Race and Hispanic Origin		
White	21,280	2011-2015 Estimate American Community Survey
Black or African American Alone	325	2011-2015 Estimate American Community Survey
American Indian Alaska Native	59	2011-2015 Estimate American Community Survey
Asian	732	2011-2015 Estimate American Community Survey
Native Hawaiian/Pacific Islander	30	2011-2015 Estimate American Community Survey
Other Race	315	2011-2015 Estimate American Community Survey
Two or More Races	602	2011-2015 Estimate American Community Survey
Hispanic/Latino (Any Race)	1,162	2011-2015 Estimate American Community Survey
White (Not Hispanic/Latino)	20,409	2011-2015 Estimate American Community Survey
Veterans	1,696	2011-2015 Estimate American Community Survey

Bainbridge Island Trends and Projections

Appendix C

Census Based Population Forecast from the 2012 Report

The information provided here is from the 2012 report. It presents a methodology for predicting the resident population of the District and the K-12 population in 2020. It is presented here because it is still relevant to the current discussion.

Population and Population Forecasts

The table on following page shows a population forecast for the district based on the Census data for 5-year age groups within the District. The data indicate that population in the next decade will grow at an annual rate that is .4% less than the annual rate of the past decade. In addition, there is a marked increase in the population that is over 60, and a modest increase in the number of residents that are 25-39. The latter group would include females in their child-bearing years, providing some hope that births could trend up more than expected. This is also an age group that is more likely to already have young children. But it is also striking that for many of the age groups in the analysis there is predicted to be a net decline between 2010 and 2020. This is based on a fairly simple methodology, which looks at the changes in age groups over the past two census periods. But if this forecast pans out, the population within the district is likely to be substantially older in 2020 than it was in 2010.

On the other hand, these trends could also be the precursor for additional growth in enrollment in the latter part of the decade and out to 2025. If the older residents are currently occupying single family homes, or residences that are of interest to families with children, the aging of this population will eventually result in housing turnover that could result in greater K-12 enrollment growth between 2020 and 2025.

Projected Population for the Bainbridge Island School District Using Census Data

Bainbridge Island School District · Rates of Change · Average of 1990-2000 and 2000-2010 · Projected Changes

	Male			Females			Totals			Male Rates			Female Rates			Project 2020				Change fr.
	1990	2000	2010	1990	2000	2010	1990	2000	2010	90-00	00-10	Wght Avg	90-00	00-10	Wght Avg	Males	Females	Total	Age Group	2010-2020
0 to 4 yrs	544	545	489	486	480	442	1,030	1,025	931							526	469	996	0 to 4 yrs	65
5 to 9 Yrs	710	795	800	649	655	751	1,359	1,450	1,551							711	630	1,340	5 to 9 Yrs	-211
10-14 yrs	570	975	903	538	955	870	1,108	1,930	1,773	1.79	1.66	1.70	1.97	1.81	1.86	832	824	1,656	10-14 yrs	-117
15-19 yrs	480	720	854	455	670	765	935	1,390	1,619	1.01	1.07	1.05	1.03	1.17	1.12	843	843	1,686	15-19 yrs	67
20-24	136	200	314	166	140	248	302	340	562	0.35	0.32	0.33	0.26	0.26	0.26	299	226	525	20-24	-37
25-29	268	295	320	324	315	312	592	610	632	0.61	0.44	0.50	0.69	0.47	0.54	428	414	842	25-29	210
30-34	588	400	287	652	495	343	1,240	895	630	2.94	1.44	1.94	2.98	2.45	2.63	608	652	1,260	30-34	630
35-39	844	510	483	910	830	595	1,754	1,340	1,078	1.90	1.64	1.73	2.56	1.89	2.11	552	659	1,211	35-39	133
40-44	933	1,035	769	940	1,050	931	1,873	2,085	1,700	1.76	1.92	1.87	1.61	1.88	1.79	536	614	1,150	40-44	-550
45-49	619	1,050	927	616	1,200	1,056	1,235	2,250	1,983	1.24	1.82	1.63	1.32	1.27	1.29	786	766	1,552	45-49	-431
50-54	435	1,040	1,083	491	1,125	1,206	926	2,165	2,289	1.11	1.05	1.07	1.20	1.15	1.16	822	1,084	1,906	50-54	-383
55-59	368	675	1,114	364	655	1,194	732	1,330	2,308	1.09	1.06	1.07	1.06	1.00	1.02	993	1,075	2,068	55-59	-240
60-64	294	475	1,029	299	460	1,162	593	935	2,191	1.09	0.99	1.02	0.94	1.03	1.00	1,109	1,207	2,316	60-64	125
65-69	279	265	727	423	360	686	702	625	1,413	0.72	1.08	0.96	0.99	1.05	1.03	1,067	1,227	2,294	65-69	881
70-74	292	345	395	219	275	415	511	620	810	1.17	0.83	0.95	0.92	0.90	0.91	973	1,055	2,028	70-74	1,218
75-79	181	260	246	270	355	298	451	615	544	0.93	0.93	0.93	0.84	0.83	0.83	676	570	1,246	75-79	702
80-84	134	155	201	187	220	281	321	375	482	0.53	0.58	0.57	1.00	1.02	1.02	223	422	645	80-84	163
85 and ove	53	105	186	129	220	343	182	325	529	0.17	0.24	0.22	0.33	0.40	0.38	140	348	488	85 and over	-41
	7,728	9,835	11,127	8,118	10,460	11,898	15,846	20,305	23,025							12,124	13,085	25,209		

	Change	4,459	2,720			Change	2,184
	Percent Change	28%	13.4%			Percent Change	9.5%
	Annual Percent Change	2.8%	1.3%			Annual Percent Change	0.9%

Averages							Male	Female
C/W 0-4	15.8%	15.6%	15.3%	14.1%	13.7%	13.8%	15.4%	13.8%
C/W 5-9	19.7%	19.7%	23.0%	18.0%	16.3%	21.5%	21.3%	18.9%

Census Forecast

Finally, the analysis of age groups trends in the census data allows us to make some ballpark estimates of the K-12 enrollment in 2020. The table on the next page shows these estimates. Our primary forecast of the population shows 25,209 residents in 2020. And using the age 5-19 population as a proxy for K-12 (K-12 is generally 75% to 85% of the age 5-19 population) we would predict that the K-12 enrollment in Bainbridge Island in 2020 would be 3,755. The table also shows low and high forecasts of the population and accompanying estimates of the K-12 population. The high population forecast assumes that the population will grow at the same annual rate as it did in the previous decade resulting in a population of 26,109 residents and a K-12 enrollment of 3,998 students. The low forecast assumes that the population will grow by about .9% less on annual basis in the next decade than in the previous decade. This results in a population estimate of 24,381 residents in 2020 with a K-12 population of 3,539. The population estimates developed here mesh well with the housing estimates provided in this report and the report from 2012.

Projected K-12 Population in the Bainbridge Island School District Using Census Data ("Ballpark Estimates")

These estimates are rough approximations of enrollment in 2020. The final forecast numbers will differ from these because they include consideration of grade-to-grade enrollment trends, births and the expected size of the entering kindergarten and exiting 12th grade for each year.

	1990	2000	2010	Forecast 1* 2020	Forecast 2** 2020	Forecast 3*** 2020
Total Population	15,846	20,305	23,025	25,209	24,381	26,109
Population Change		4,459	2,720	2,184	1,356	3,084
% 5-19	21.5%	23.5%	21.5%	18.6%	18.6%	18.6%
Age 5-19	3,402	4,770	4,943	4,682	4,535	4,856
Bainbridge Island Public Schools K-12		3,927	3,858	3,755	3,539	3,998
Public k-12 % of Age 5-19		82.3%	78.0%	80.2%	78.0%	82.3%

*Forecast 1 is based on the trends of the past 2 decades(1990-2000, 2000-2010)

**Forecast 2 is based on the trends from the most recent decade only (2000-2010)

***Forecast 3 is a total number which assumes a similar annual growth

  rate as the past decade; the K-12 number is assumed

  to be the same percentage of the population as is

  in the Low and Medium Forecasts.

Bainbridge Island Trends and Projections