

South Kitsap School District Trends and Projections

Prepared by
Educational Data Solutions
William L. (“Les”) Kendrick, Ph.D.

March 2020

Notes on Data

- The enrollment data used in this report are October headcount enrollments as reported to the State on the P223 monthly report.
- The forecasts in this document are intended to facilitate planning and should be updated periodically based on the latest enrollment and demographic data.
- The individual grade level projections may not add to the exact District total due to rounding.

Introduction and Summary

This report provides a one year forecast and a provisional long range forecast for the South Kitsap School District. It also provides a one year enrollment forecast by school and a separate document breaks the school forecast down by school and grade. The first section of this report provides an executive summary regarding enrollment and demographic trends that might impact the District in future years. The next sections of the report provide detailed information about enrollment, births, population trends, and housing in the form of bullet points that highlight the key things to keep in mind when viewing the charts and tables in each section. The final section provides a description of the methodology used to create the forecasts as well as detailed headcount and FTE projections by grade level and summary projections by school.

Summary

- The South Kitsap School District has generally seen an upward trend in enrollment over the past several years after many years of declining enrollment.
- Enrollment throughout the Puget Sound has been improving since 2012 as large birth cohorts in King, Pierce, and Snohomish County have entered the schools and strong economic growth in Seattle and the region has brought new residents into the area.
- Demographic trends in Kitsap County have lagged the trends in other parts of the Puget Sound. Population growth, home sales, and new home construction have started to improve in Kitsap County from about 2015 to the present. In the other counties, improvements in all these areas begin in 2012 (after the housing slump that hit the region between 2007 and 2011).
- Births in Kitsap County have also been relatively flat for the past two decades. This is in contrast to the other counties where births began trending up from 2006 to the present.

Summary

- As a result of these demographic trends, population growth and K-12 growth in Kitsap County has been lagging the growth trends we have seen in other counties.
- Conditions are starting to improve within Kitsap County, however, and we have seen K-12 enrollment growth in three of the past five years.
- The trends in the South Kitsap School District generally mirror the trends we are seeing throughout the county. Population growth, home sales, new home construction, and K-12 enrollment growth have been improving since about 2014.
- Looking ahead, there is some uncertainty about how much K-12 enrollment growth we might see in the County in the future.
- On the one hand, affordability is becoming more of an issue throughout the Puget Sound and this is driving more families to look for affordable housing away from the urban job centers. It is possible that this trend will eventually result in more K-12 enrollment growth in the outlying counties of the Puget Sound (Kitsap, Pierce, and Snohomish).

Summary

- An alternative view must take note of the fact that housing demand and new home construction in the South Kitsap School District and Kitsap County generally, as well as subsequent population growth, has lagged the trends in the rest of the Puget Sound. Births are also flat in comparison to the other counties. Taken as a whole these trends suggest that future K-12 enrollment growth in the county could continue to be moderate in comparison to other areas in the Puget Sound.
- For now we are predicting that the South Kitsap School District will see continued enrollment growth into next year as affordability throughout the region becomes an issue, and as home sales and new home construction continue to improve within the District boundary area.
- There are, as always, unknowns that could impact enrollment in the coming year. For example, the recent outbreak of the coronavirus in the Puget Sound could, if it becomes worse, lead to a slowing economy and slower growth trends throughout the region.
- Although our purpose here was to create a one year forecast, Appendix A contains some provisional long range forecast estimates (of total enrollment) for the District.

Enrollment Trends

Enrollment Trends

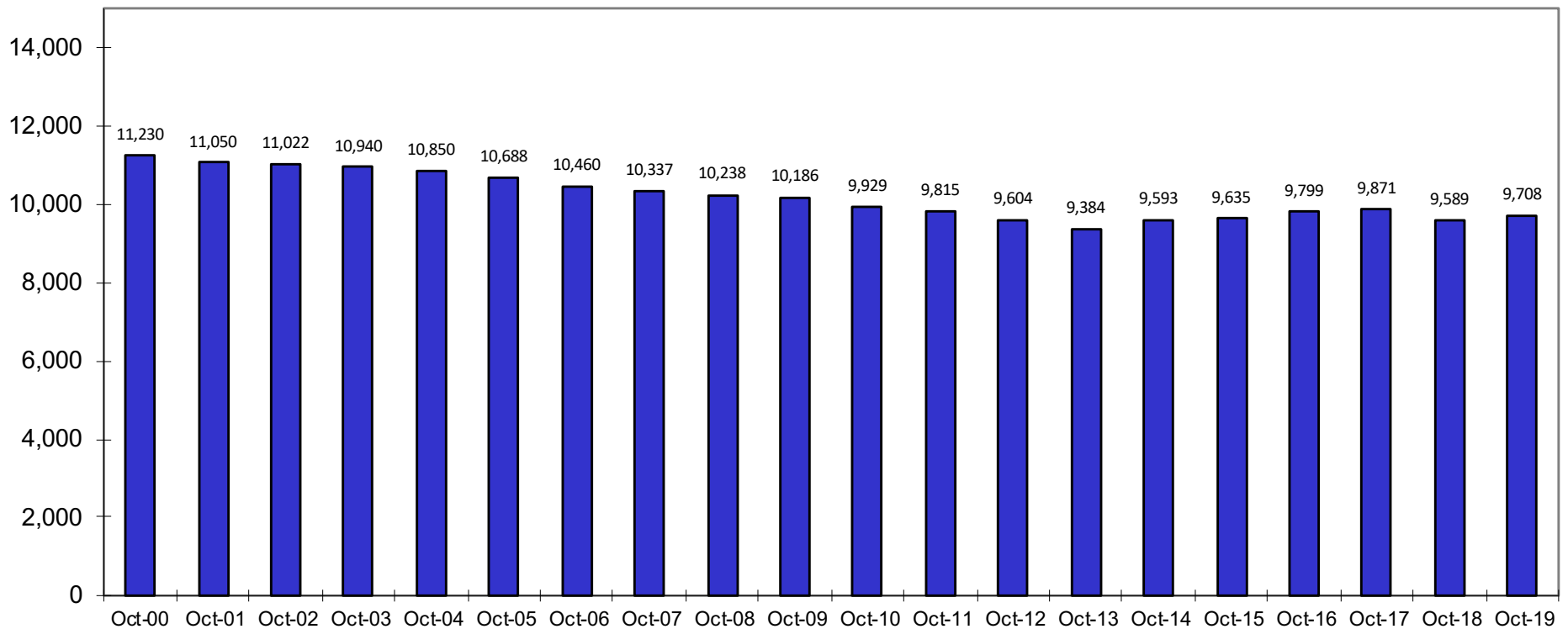
Highlights

- Enrollment in the South Kitsap School District has generally been on an upward trend since 2014, though there have been years, like 2018, where enrollment has declined.
- The District enrollment pattern mirrors the overall enrollment pattern for public school students in Kitsap County. The District enrolls about 27% of the public school students in the County and this number has remained consistent for about two decades.
- Enrollment in the Puget Sound generally (King, Kitsap, Pierce, and Snohomish County) has been on a steady upward trend since 2012. This growth has been driven by the large birth cohorts in King, Pierce, and Snohomish County that began entering the schools in 2011 and by strong economic growth in Seattle and the region that has brought many new residents into the area.
- The latest enrollment data for the Puget Sound suggests that more families are beginning to migrate to the outlying regions in King County, and to Kitsap, Pierce, and Snohomish County where housing is more affordable.

District Enrollment Trend

P223 Enrollment (October)

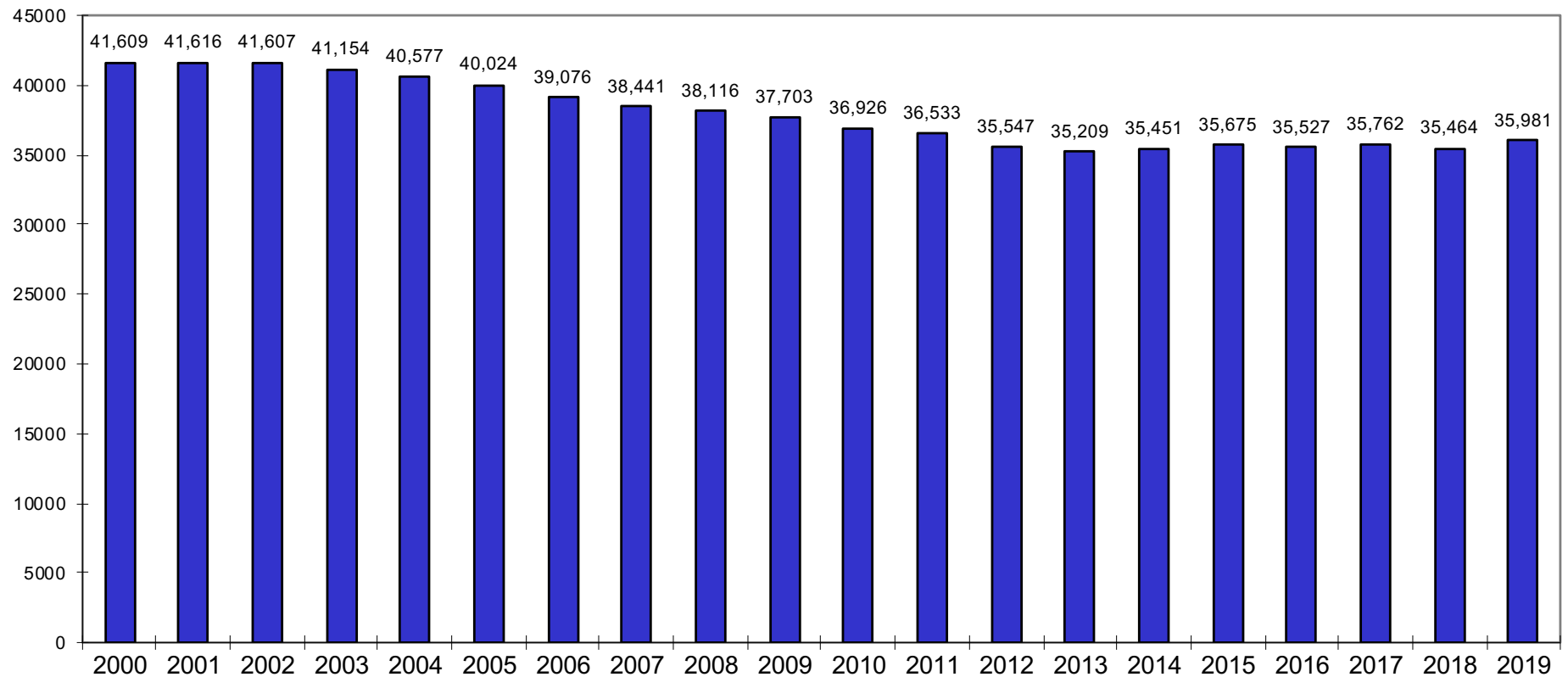
Does Not Include Full-Time Running Start Students



Kitsap County Public Schools Enrollment Trend

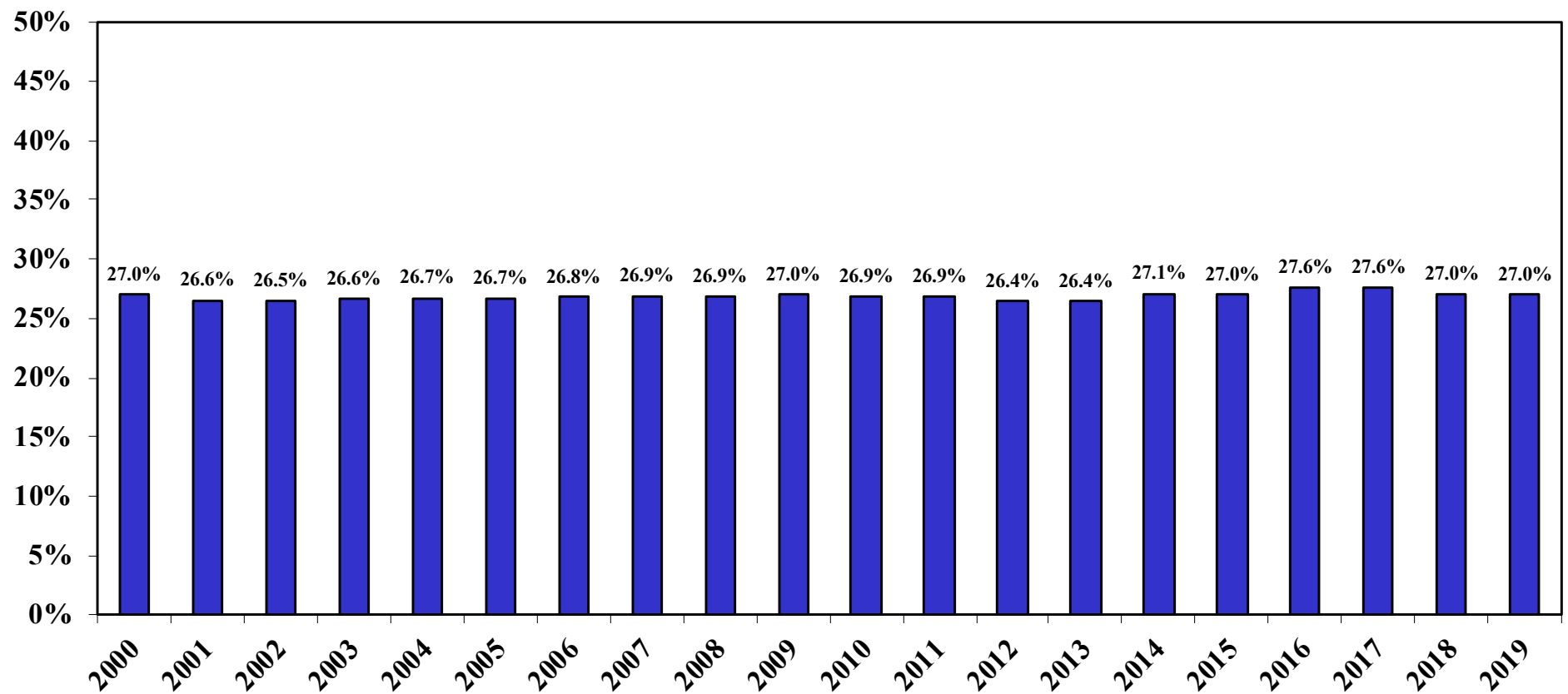
October P223

Historical Numbers May Have Changed Since They were Originally Reported

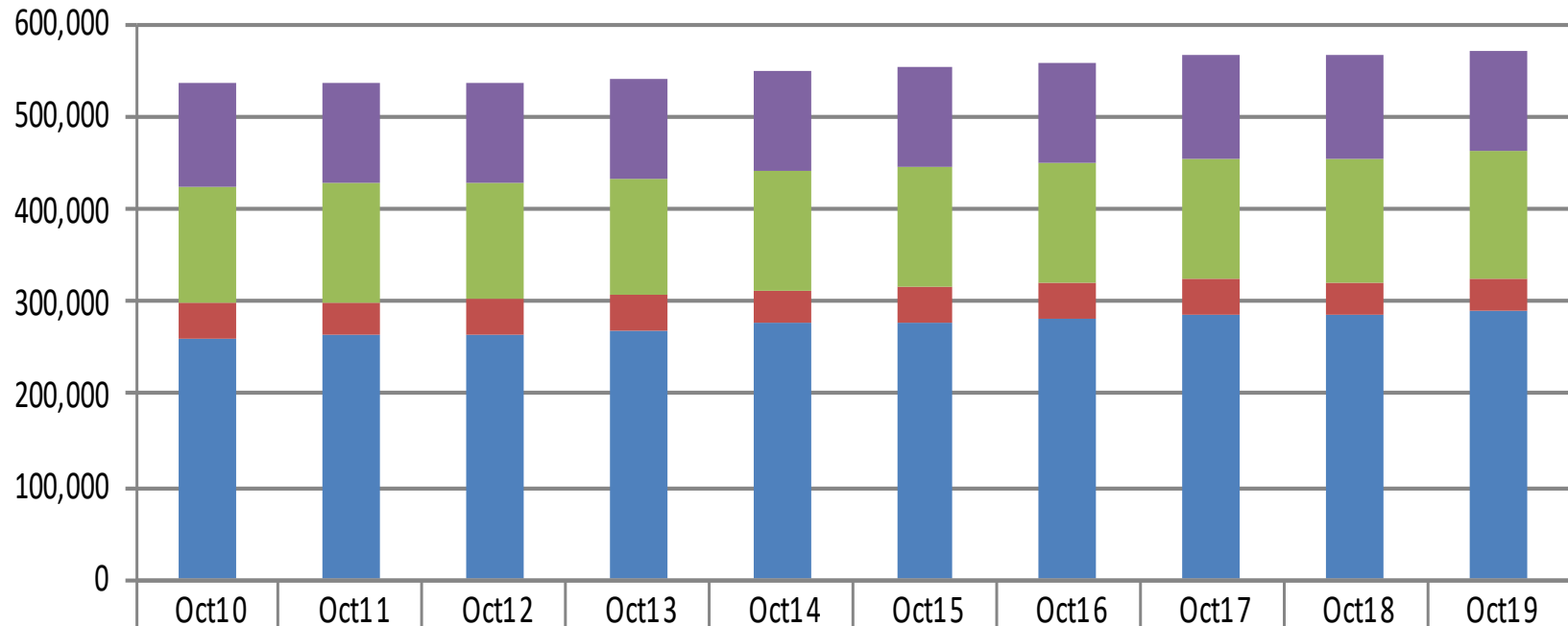


South Kitsap School District

Share of the County K-12 Public School Enrollment

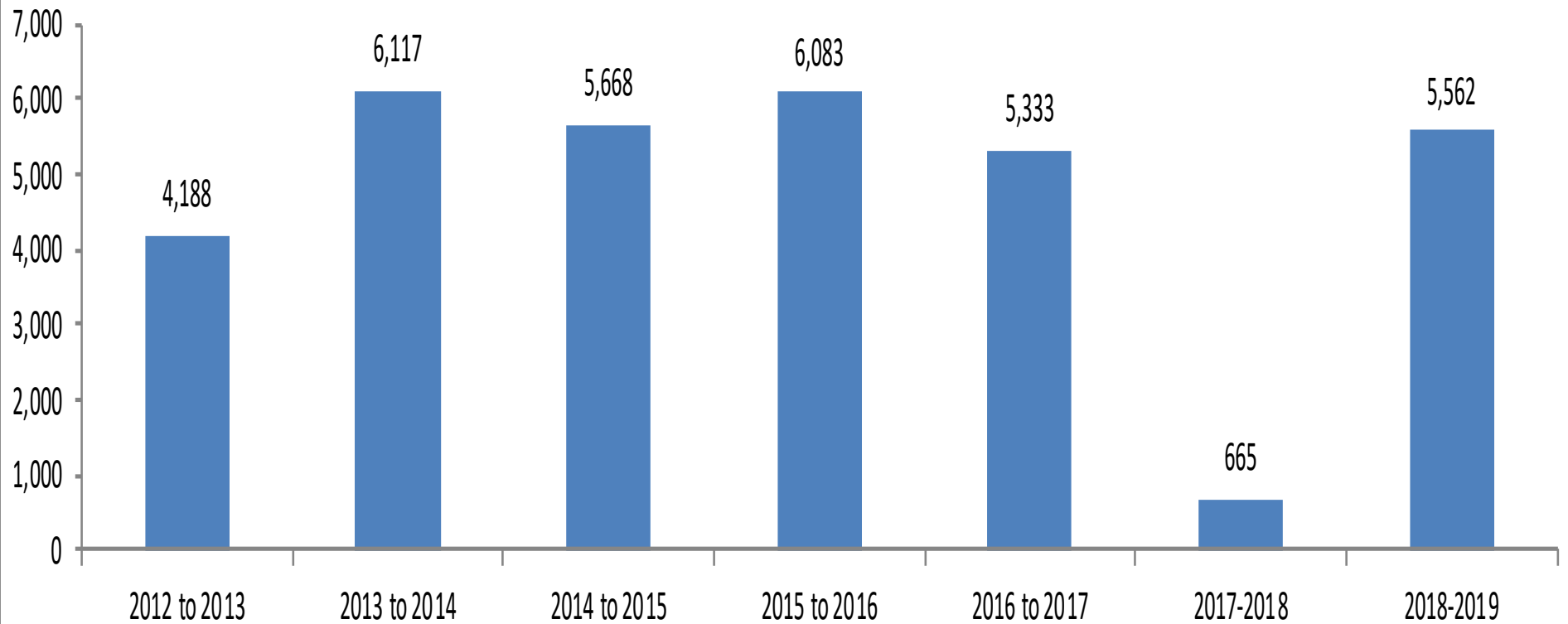


Public School Enrollment for the Puget Sound King, Kitsap, Pierce, and Snohomish County



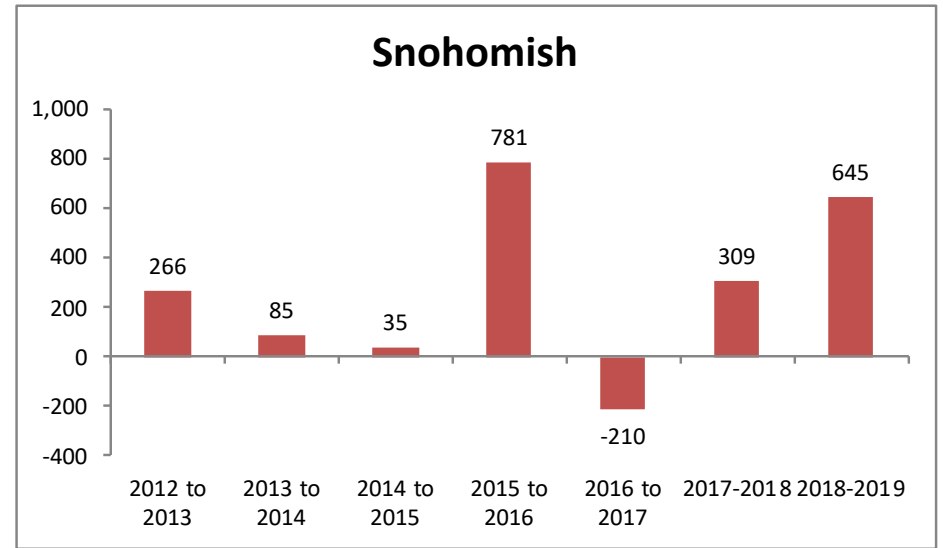
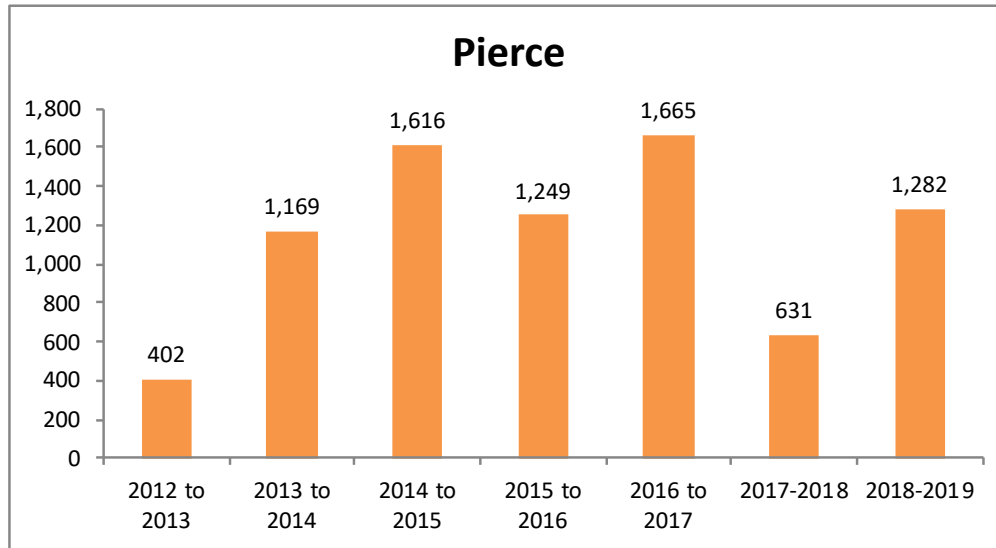
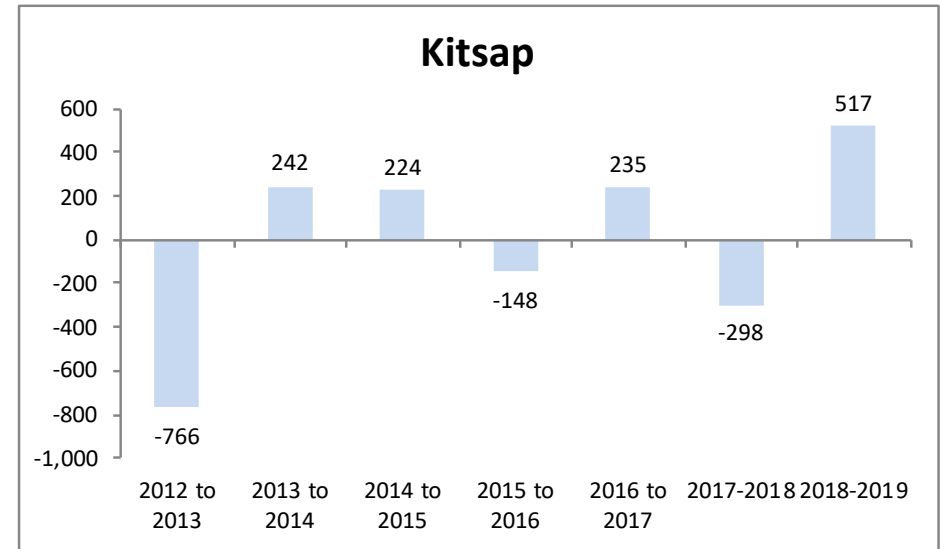
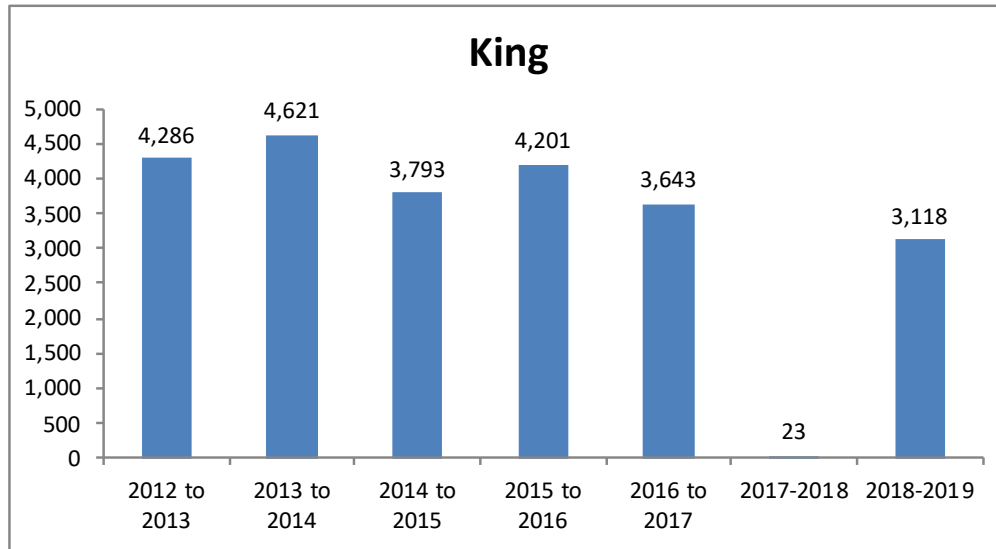
	Oct10	Oct11	Oct12	Oct13	Oct14	Oct15	Oct16	Oct17	Oct18	Oct19
■ Snohomish	109,457	108,724	107,891	108,186	108,242	108,277	109,058	108,848	109,157	109,777
■ Pierce	128,698	128,413	126,930	127,332	128,501	130,117	131,366	132,940	133,571	134,853
■ Kitsap	37,156	36,751	35,975	35,547	35,451	35,675	35,527	35,762	35,464	35,981
■ King	259,516	262,319	266,260	270,546	275,167	278,960	283,161	286,801	286,824	289,942

Annual Net Change in K-12 Enrollment King, Kitsap, Pierce and Snohomish Combined



Annual Net Change in Enrollment by County Since 2012

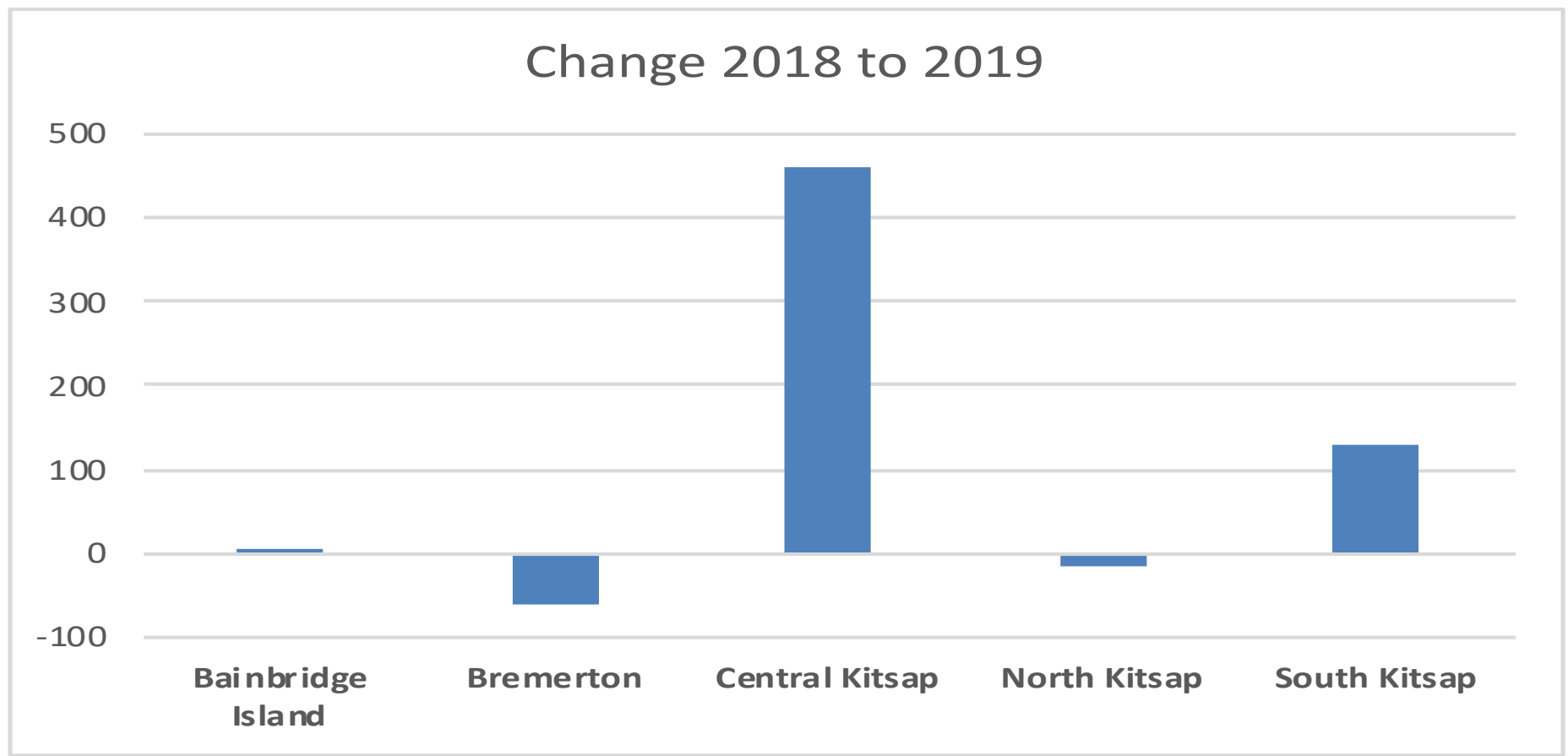
(Numbers may have changed since the original reporting date)



Kitsap County Public School Districts

Change in Enrollment Between Oct 2018 and Oct 2019

Please Note: Bremerton's enrollment includes the Skills Center
Numbers may have changed since originally reported



Birth Trends

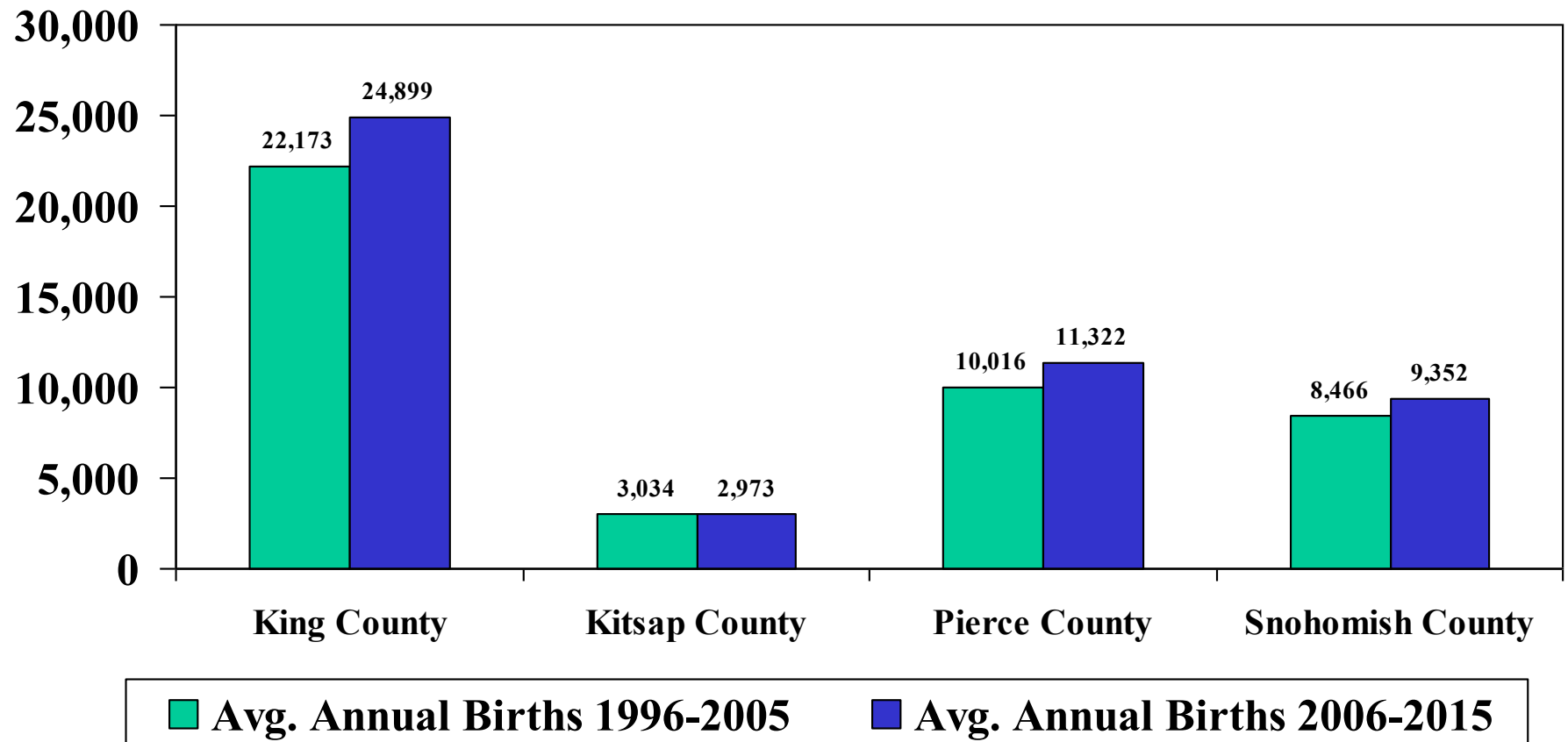
Births and Enrollment

Key Points and Highlights

- Unlike the other counties in the Puget Sound, births in Kitsap County have remained at about the same level for the past two decades, just above or just below the 3,000 per year mark. Our forecast of Kitsap County births predicts that they will remain right around 3,000 per year for the foreseeable future.
- It is possible that births could be higher in the coming years if more young people start to migrate to Kitsap County from other parts of the region and start families. Fertility rates (the number of children born to women in the 15-44 age group) in Kitsap County are higher than the other counties in the Puget Sound, but the County also has less growth in the twenty to thirty five age group than the other counties.
- In 2017 and 2018 the number of births in King County declined because women in the twenty to thirty-five year age group had fewer children. This trend has not yet spread to the other counties, but it is worth watching. Because many families migrate from King County to other areas for more affordable housing, a drop in King County births can impact K-12 enrollment throughout the region.

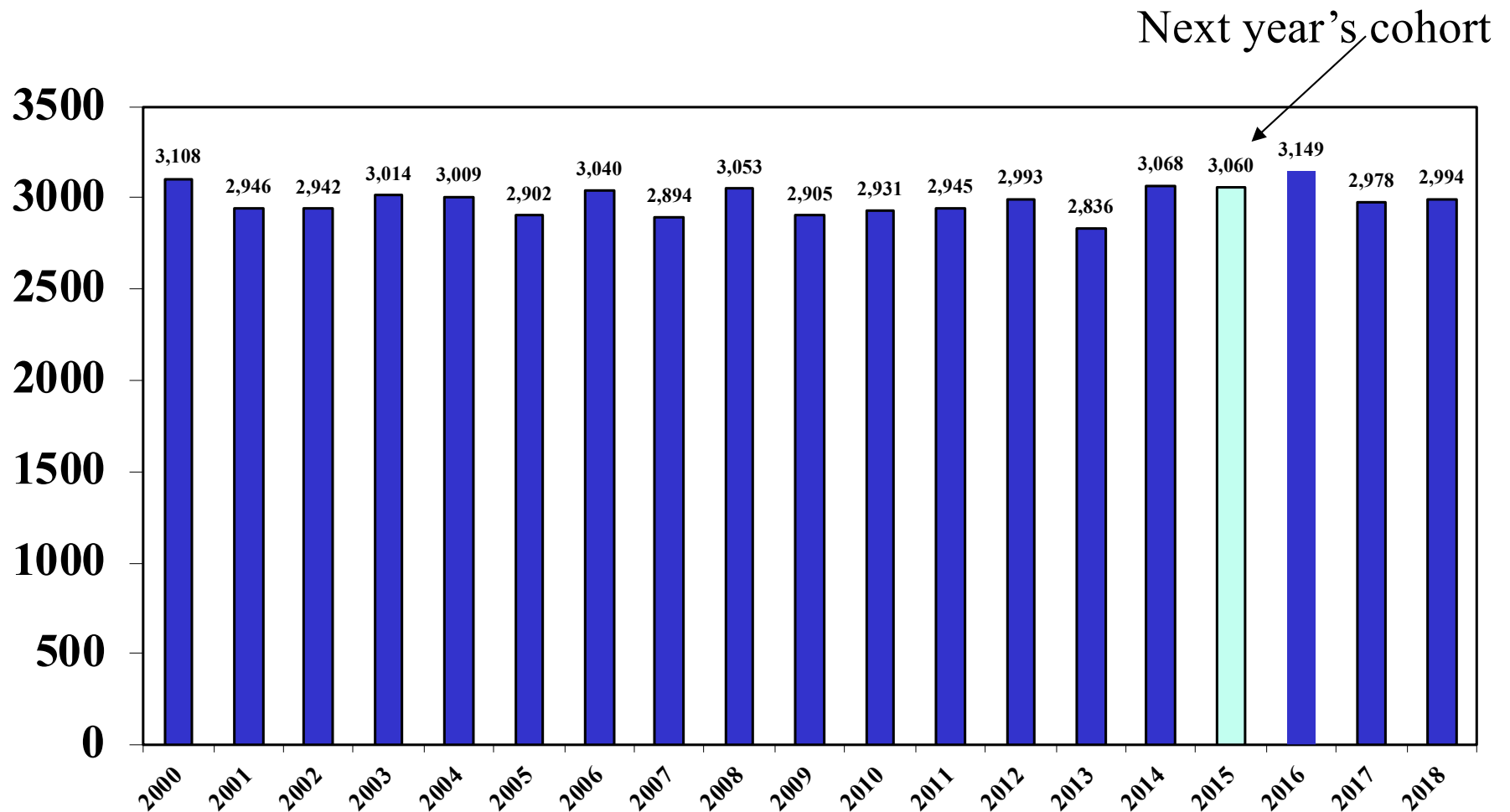
Average Annual Births by County

Source: State of Washington Department of Health Birth Files



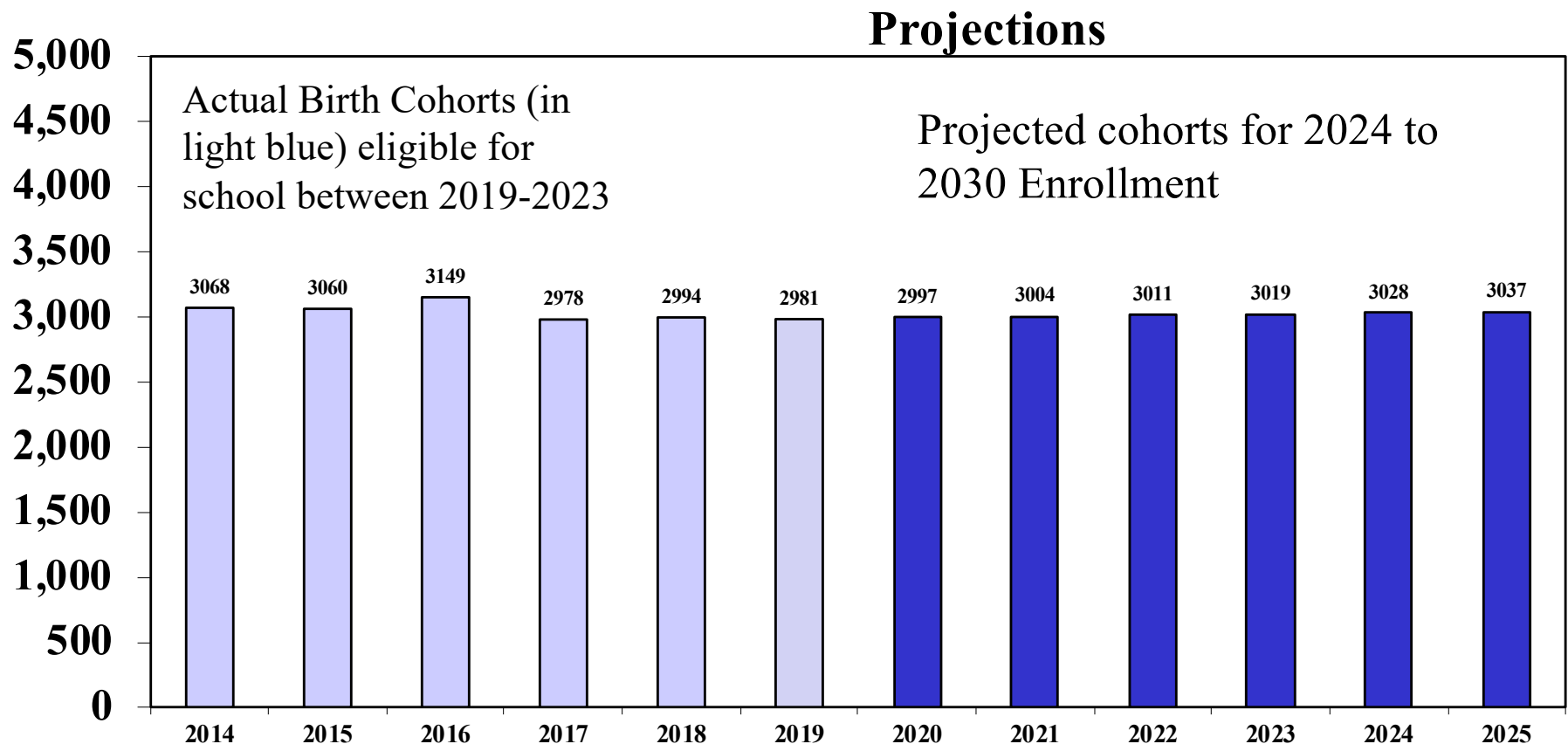
Kitsap County Births

Source: Washington State Health Department



Kitsap County Birth Projections

(Based on the Average of 2016 to 2018 Fertility Rates
and Projected Growth in Females in Their Child-Bearing Years
Using the OFM Medium Range Population Forecast)



Population Trends

Population Trends

Highlights

- The population of Kitsap County has been growing at a slower rate over the past decade than was predicted in State forecasts that were created after the 2010 Census. This is in contrast to the other counties in the Puget Sound that have been growing at a faster rate than predicted.
- We are starting to see some improvement in County population growth in the past four years.
- Based on data from the Puget Sound Regional Council we are predicting that the District will grow at about the same rate as the overall County over the next decade.
- We are predicting some growth in the County K-12 population over the next decade. Assuming South Kitsap grows at about the same rate as the overall county we would predict that the District would see some growth in the K-12 population as well.

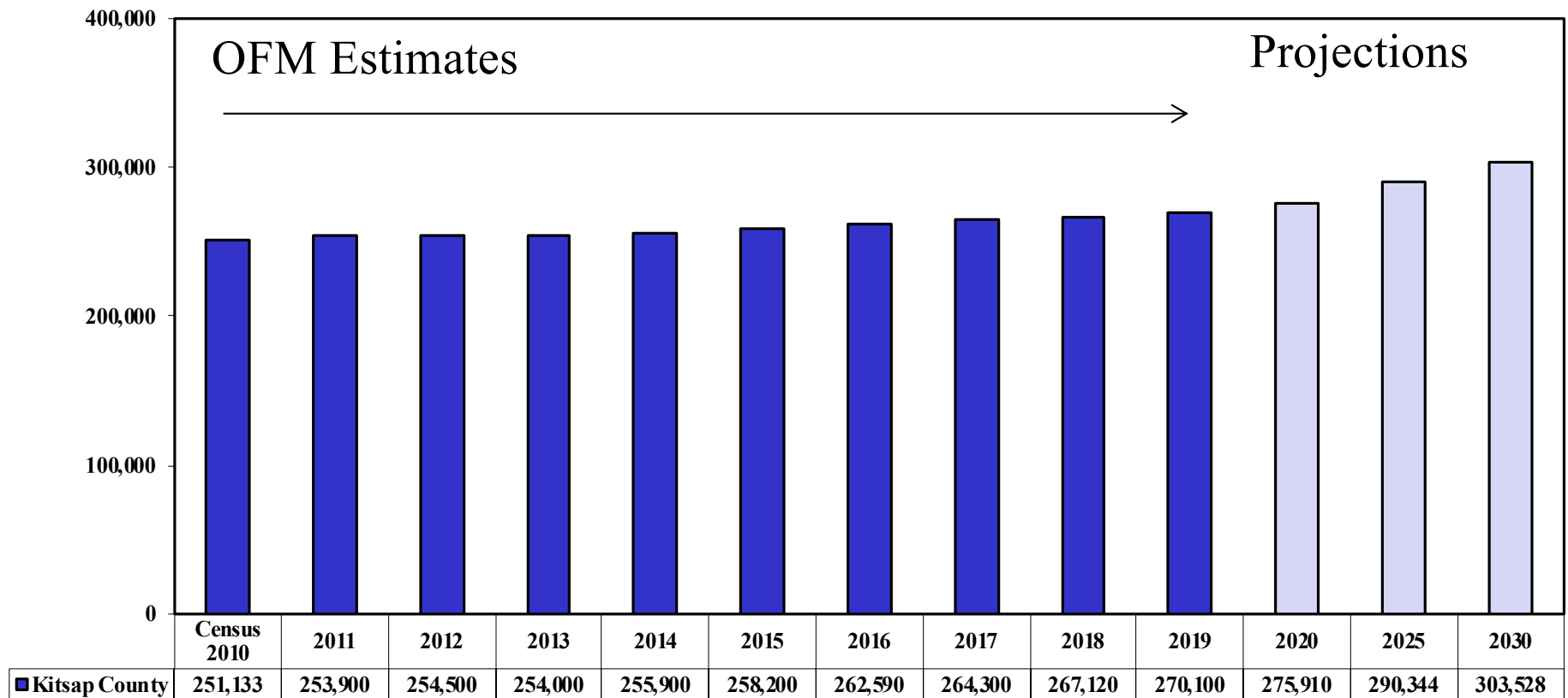
County Population Growth

Kitsap County

Source: Office of Financial Management of the State of Washington

Projections for 2020, 2025, and 2030, are from the Growth Management Medium Range Projections Released by the State in December 2017

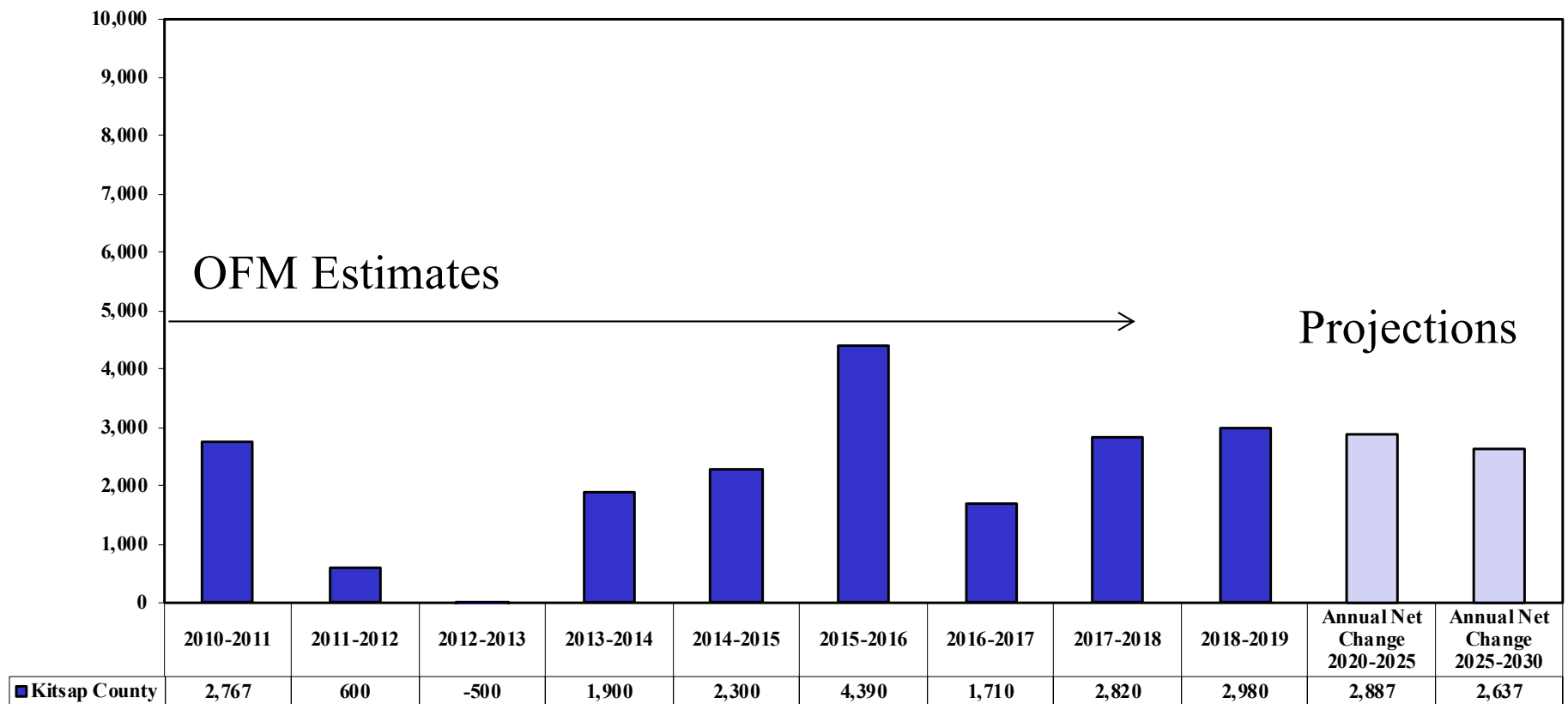
County Forecasts will likely be updated after the 2020 Census



County Net Population Change

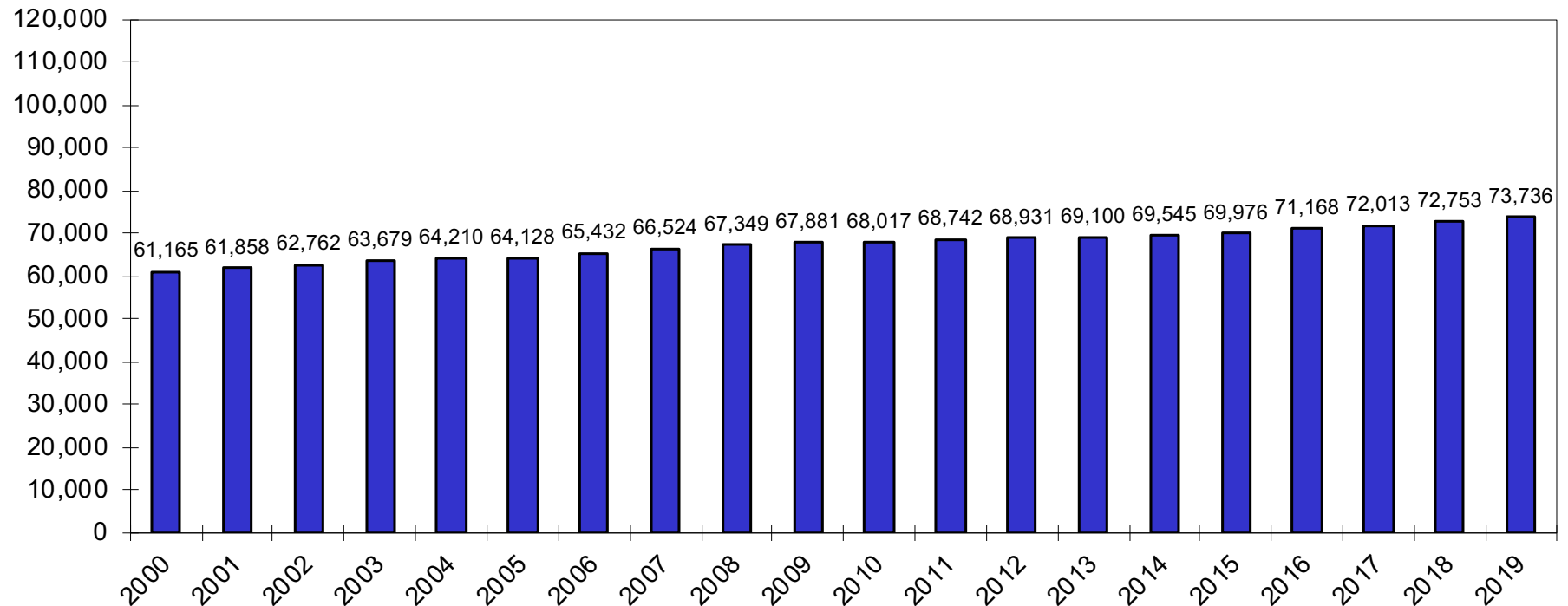
Kitsap County

Source: Office of Financial Management of the State of Washington
Projections for 2020, 2025, and 2030 are from the Growth Management Medium
Range Projections Released by the State in December 2017



South Kitsap School District Population

Source: Estimates from the Office of Financial
Management for the State of Washington



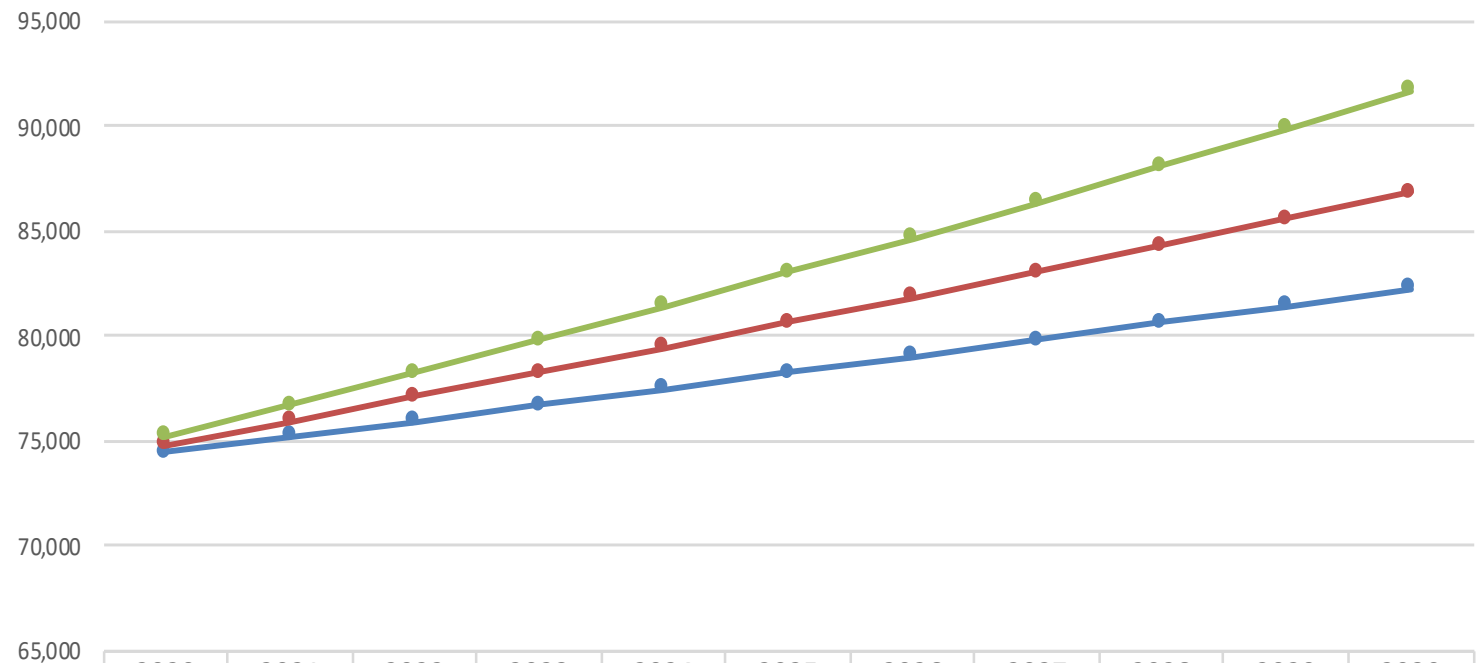
Puget Sound Regional Council Forecasts for Neighborhoods in and around the South Kitsap School District

Population Forecast Areas	Forecast						Percent Change				Annual Percent Change			
	Pop Est. 2015	2020	2025	2030	2035	3040	2015-2020	2020-2030	2030-2035	2035-3040	2015-2020	2020-2025	2030-2035	2035-3040
Port Orchard area	24,952	28,103	31,327	34,533	36,915	38,296	12.6%	11.5%	10.2%	6.9%	2.5%	2.3%	2.0%	1.4%
Gorst / Burley / Glenwood	19,184	21,175	22,746	23,644	24,215	24,114	10.4%	7.4%	4.0%	2.4%	2.1%	1.5%	0.8%	0.5%
Southworth / Manchester	14,796	16,208	17,298	18,099	18,621	19,039	9.5%	6.7%	4.6%	2.9%	1.9%	1.3%	0.9%	0.6%
Ollala	11,025	11,683	12,332	12,909	13,242	13,310	6.0%	5.5%	4.7%	2.6%	1.2%	1.1%	0.9%	0.5%
Total	69,957	77,169	83,703	89,185	92,993	94,759	10.3%	8.5%	6.5%	4.3%	2.1%	1.7%	1.3%	0.9%

NOTE: These PSRC neighborhoods do not align perfectly with the South Kitsap School District Boundary Area. But they do give us a general sense of how much population growth is projected for different areas relative to each other, and the overall amount of growth that the PSRC sees happening in the general area that encompasses the District. In general the forecast suggests that the District could grow at a slightly faster rate than the overall County between 2020 and 2025 and about the same rate between 2025 and 2040

South Kitsap School District Resident Population Forecasts

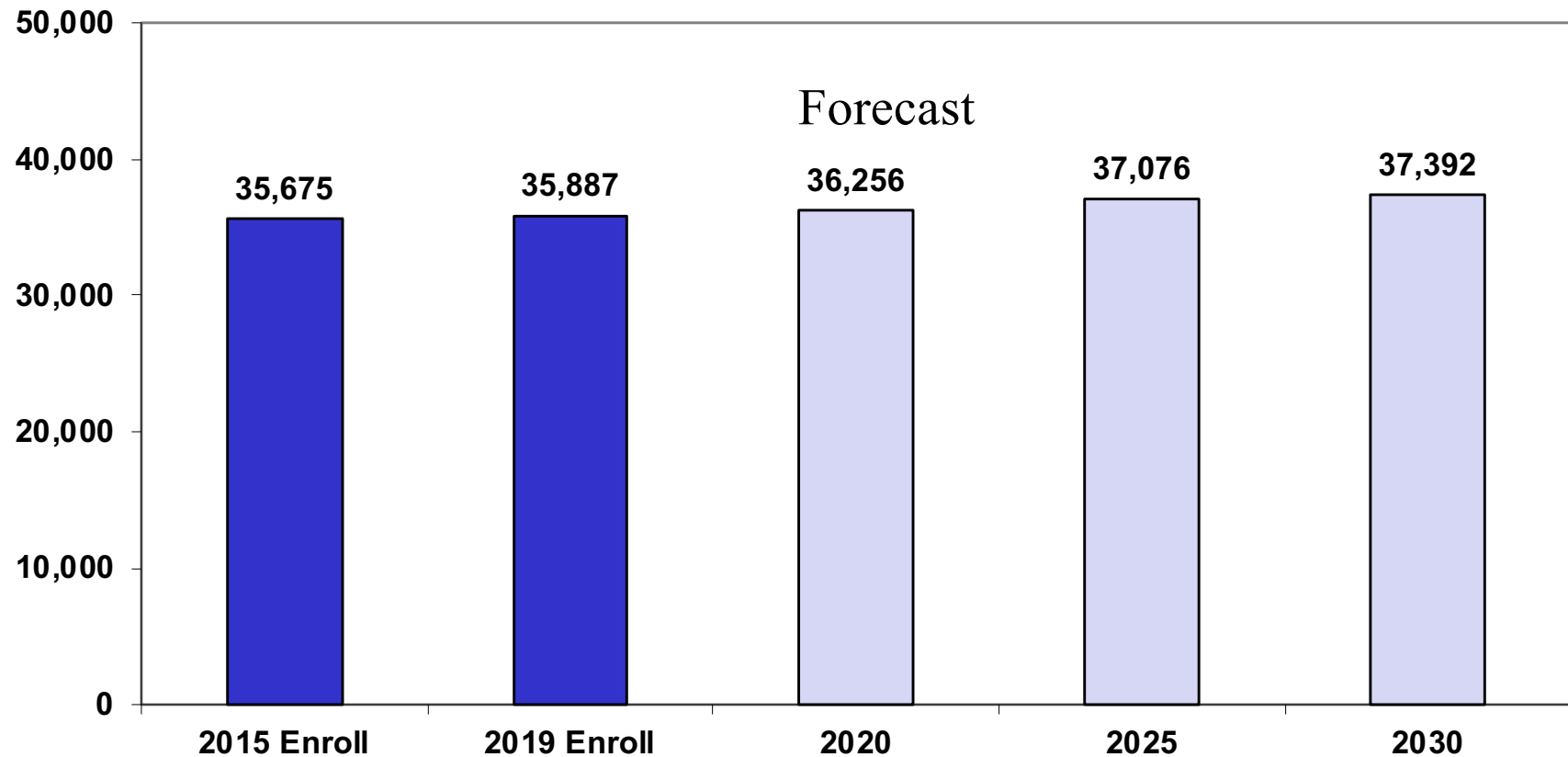
Low, Medium, and High Range Population Forecasts



	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Low (1% Annual Growth)	74,473	75,218	75,970	76,730	77,497	78,272	79,055	79,845	80,644	81,450	82,265
Medium (1.5% Annual Growth)	74,842	75,964	77,104	78,260	79,434	80,626	81,835	83,063	84,309	85,573	86,857
High (2% Annual Growth)	75,211	76,715	78,249	79,814	81,410	83,038	84,699	86,393	88,121	89,884	91,681

Projected K-12 Kitsap County Public School Enrollment

Based on Births, Birth Forecasts, and Projected Growth in the School Age Population
Using the Medium Range County Population Forecast from the State of Washington



Housing Trends

Housing Trends

Highlights

- Similar to other parts of the Puget Sound, home sales in the South Kitsap School District have been improving in the last several years, although the recovery in Kitsap County has lagged the recovery in other parts of the Puget Sound.
- The number of new construction homes sold in the District has been relatively steady from 2005 to the present, even in years where housing was slumping. Existing homes sales show a marked improvement from 2015 to the present.
- Home sales in South Kitsap and the Puget Sound generally have slowed some in the past two years as prices have increased. The increase could be a net benefit for Kitsap County and the District over time, however, since housing is generally more affordable in the outlying counties of the Puget Sound.

Housing Trends

Highlights

- There are about 270 new construction housing units (single family and multi-family combined) currently for sale within the District boundary area.
- There are a substantial number of new housing units planned for future construction within the District boundary area (about 2,300 units), but many of these projects have been on the books for a while and are still not at the permitting stage. The construction of new homes in the District has lagged other areas in the Puget Sound, suggesting that developers do not yet see a strong enough demand in the area.
- There are also about 2,000 units that are listed in expired, withdrawn, or inactive projects. Assuming the land is still designated for residential development these units will likely be built at some point in the future.
- Alternative forecasts of future housing development show the uncertainty we encounter when predicting the future. Our medium range housing forecast assumes that about 2,600 units could be added to the District housing stock by 2030.

Housing Trends

Highlights

- It is possible, however, that if the demand exists, the District could see more than 400 new homes added per year, given the land that is currently available. Our high range housing forecast predicts up to 420 units per year could be added by 2030
- The medium range housing forecast is consistent with the trends we have seen since 2005 (looking at the home sales chart on page 34), and seems more likely at this time.
- The low range forecast assumes that there might be a slack in demand, an economic recession, or some other event that could slow home sales and development over the next decade.
- Given the homes in the pipeline and the number of units that are listed in inactive, expired, or withdrawn projects, we might predict that over a two decade period, (2020 to 2040) the District will see an additional 4,000 to 4,600 units added to its housing stock.

Housing Trends

Highlights

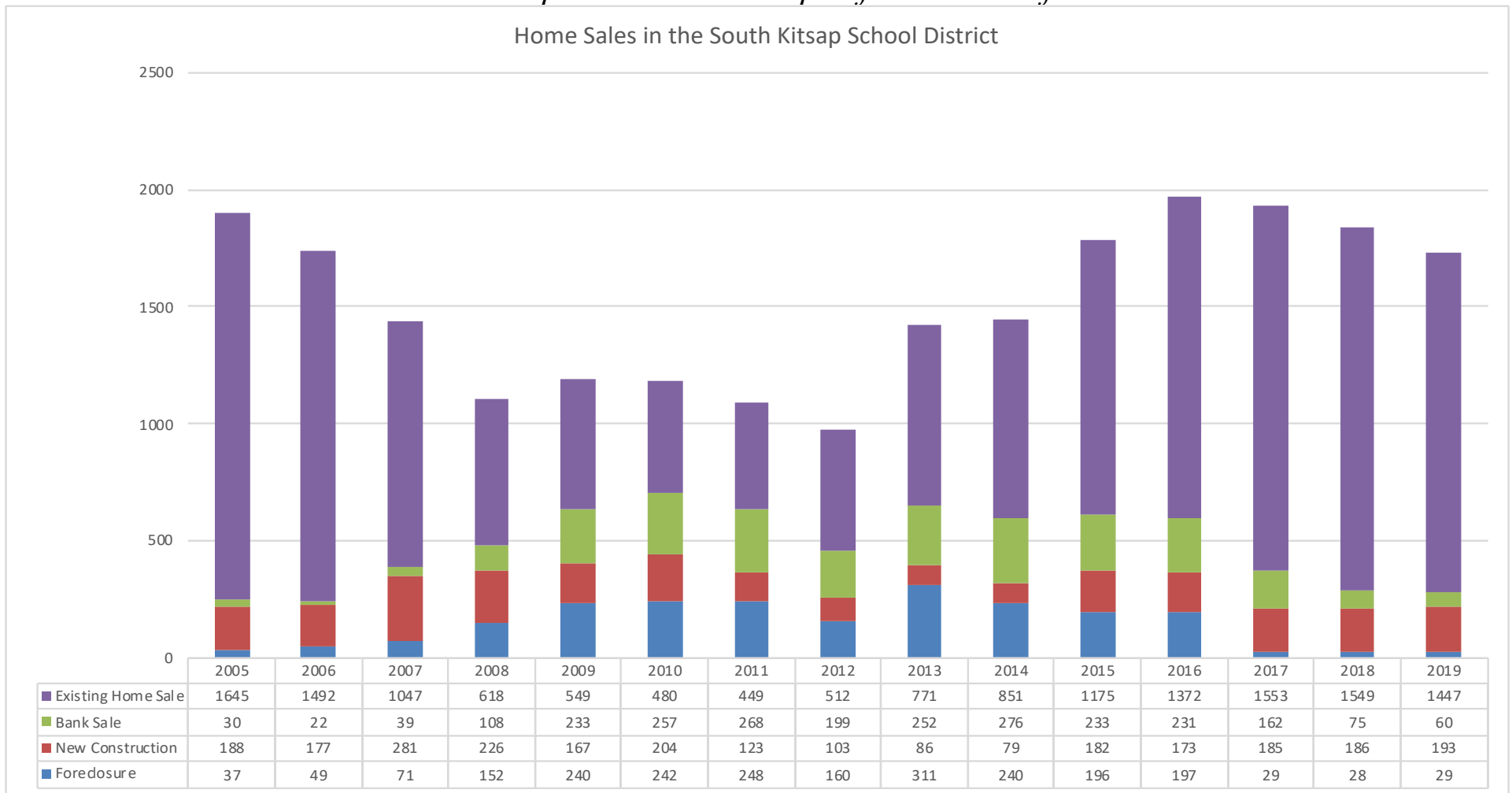
- Based on current estimates there are about 32 public school students for every 100 homes in the District. This number has dropped substantially over a two decade period. Back in October 2000 there were about 48 public school students for every 100 homes in the District.
- Our best estimates suggest that the number of students per home will continue to drop some over the next decade to about 30 students per 100 homes by 2030.

Single Family and Multi-Family Home Sales: New and Existing Homes in the South Kitsap School District

Source: MetroStudy's Compilation of King County Assessor's Data

The Numbers For a Given Year Are Subject to Change Based on Updates by County Personnel

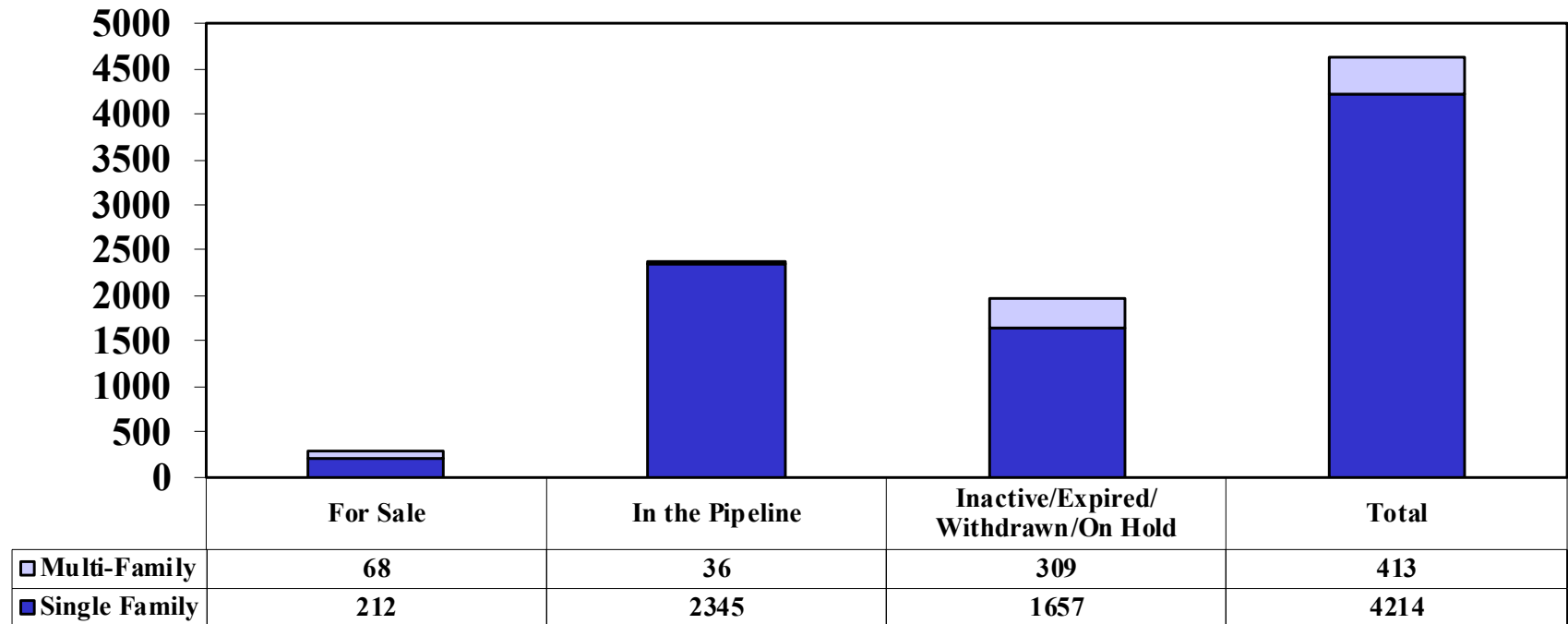
The Trend is More Important than the Specific Numbers for Each Year



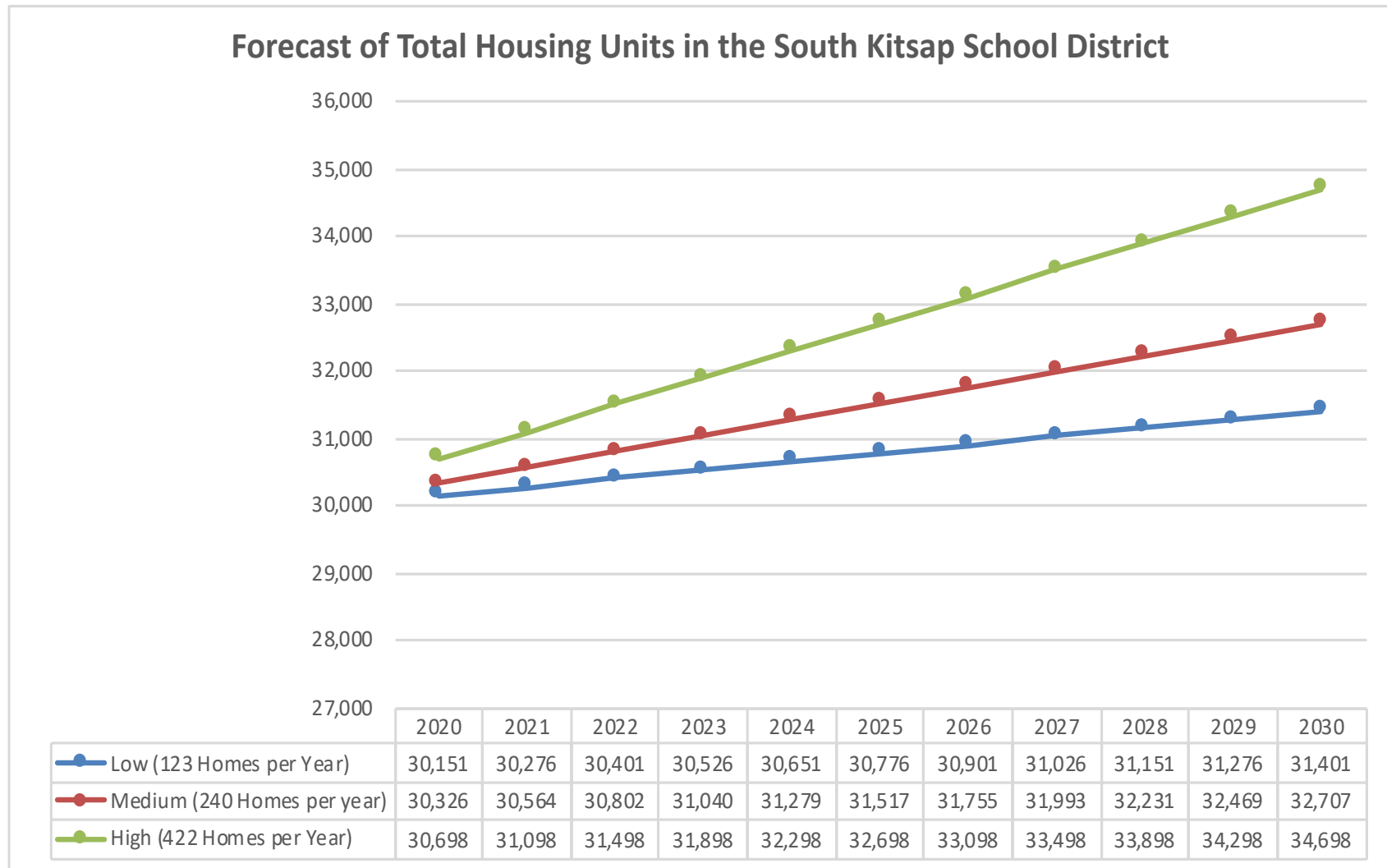


An Estimate of the Number of New Construction Homes in the Pipeline for the South Kitsap School District

Source: New Home Trends Database/Metro Study



Low, Medium, and High Range Housing Forecasts for the District



Enrollment Projections

Methodology for the Forecast

The forecast in this report is based primarily on birth counts, birth forecasts, grade level enrollment trends, and projected changes in the K-12 population over time due to population growth, as well as new home construction and sales. The following provides a brief description of the methodology used to create the forecast.

Births and Birth Forecasts

County births were used to project kindergarten. The number of county births is known through 2018 which means that we can predict kindergarten enrollment based on actual births out to 2023. 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 of Washington. Kindergarten enrollment was 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 projection was created by multiplying the number of births expected in a given year by the District's three year average share of the county births (comparing enrollment to births five years prior to each year). The final numbers were then adjusted for projected increases we might expect due to housing and population in the upcoming years.

Methodology for the Forecast

Projecting Grades 1-12

The forecast at grades 1-12 was based on grade level cohort rates which predict the net gain and/or loss in enrollment as students progress from one grade to the next. A three year weighted average was used to predict enrollment for next year and then extended out to 2030 (see the next page).

The forecasts for each year were adjusted to reflect projected changes in housing and K-12 population growth over time using New Home Trends data and projections of the County K-12 population as well as the general population of the school district. An October FTE projection for next year was also created by comparing headcount to FTE enrollment at each grade over the past three years.

For next year we created a low, medium, and high range forecast. The medium range forecast is our recommended forecast at this time. The low and high forecasts show what might happen if housing and population growth were about one percent lower or higher than what we have assumed in the medium range forecast. The one percent figure corresponds to the generally preferred error range for a one year forecast. Actual enrollment could, however, be higher or lower than this one percent margin in a given year, if there are larger than expected changes in the demographic trends that drive enrollment.

Methodology for the Forecast

A Note About Long Range Forecasts

The purpose of the present document was to consider and analyze demographic and enrollment trends in order to provide a one year projection. We also created a longer range projection by extrapolating the model out to 2030 and then adjusted the numbers to align with the average of several long range estimates that we created based on a variety of different methods (see Appendix A). There is a great deal of uncertainty involved in creating long range forecasts and this is particularly true in the case of South Kitsap where changes in housing can dramatically affect enrollment (see the housing section). Long range forecast estimates depend heavily on the assumptions one makes about births, population, and housing. The long range forecast presented on page 42 is one possibility among many. Appendix A provides a variety of estimates of long range enrollment that clearly show the uncertainty we face when predicting the future. Even though we can use sophisticated statistical methods to predict the future, assumptions are the key factor to consider when looking at a forecast. Different assumptions about births, population growth, and housing can result in widely different forecast estimates. This is why we recommended that a District consider low, medium, and high range estimates of enrollment when planning for the future

South Kitsap Enrollment History (October Headcount, excluding Full-Time Running Start)

South Kitsap Enrollment History (October Headcount P223)

	Birth Year																			
Births	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
King County		3269	3252	3004	2893	3108	2946	2942	3,014	3,009	2,902	3,040	2,894	3,053	2,905	2,931	2,945	2,993	2,836	3,068
K Enroll as %		22.48%	20.73%	22.84%	23.09%	22.78%	23.63%	22.47%	23.46%	22.37%	22.98%	21.32%	22.70%	21.45%	25.13%	25.55%	25.16%	23.69%	26.94%	24.22%

(Please Note: Numbers may have changed some since originally reported)

	Oct00	Oct01	Oct02	Oct03	Oct04	Oct05	Oct06	Oct07	Oct08	Oct09	Oct10	Oct11	Oct12	Oct13	Oct14	Oct15	Oct16	Oct17	Oct18	Oct19
K	739	735	674	686	668	708	696	661	707	673	667	648	657	655	730	749	741	709	764	743
1	744	781	759	718	744	692	694	763	676	762	716	697	684	677	697	752	751	765	733	789
2	788	736	806	780	734	731	702	705	758	708	754	741	688	676	710	724	796	761	771	727
3	870	806	764	814	784	709	751	725	738	795	707	734	728	677	702	743	742	793	757	758
4	899	857	855	777	838	780	720	763	741	752	806	709	726	719	722	717	770	771	787	760
5	976	911	888	856	782	870	795	731	767	757	734	803	707	740	751	742	743	774	776	792
6	859	981	913	894	867	803	864	797	753	775	770	730	798	711	731	745	731	735	738	756
7	866	854	979	923	896	860	781	851	808	762	753	753	707	756	730	735	733	740	720	753
8	882	844	865	981	940	893	849	792	842	796	753	763	723	714	776	704	775	734	712	762
9	956	899	881	858	986	934	887	826	792	825	788	753	740	696	721	759	721	767	702	735
10	929	904	900	880	873	955	917	882	809	792	804	776	749	729	706	711	750	732	722	738
11	860	856	855	840	821	830	896	864	867	789	778	800	780	736	742	716	736	778	655	693
12	<u>862</u>	886	883	933	917	923	<u>910</u>	<u>977</u>	<u>980</u>	<u>1000</u>	<u>899</u>	<u>908</u>	<u>917</u>	<u>898</u>	<u>875</u>	<u>838</u>	<u>810</u>	<u>812</u>	<u>752</u>	<u>702</u>
Total	11,230	11,050	11,022	10,940	10,850	10,688	10,460	10,337	10,238	10,186	9,929	9,815	9,604	9,384	9,593	9,635	9,799	9,871	9,589	9,708

Change	-180	-28	-82	-90	-162	-228	-123	-99	-52	-257	-114	-211	-220	209	42	164	72	-282	119
% Change	-1.6%	-0.3%	-0.7%	-0.8%	-1.5%	-2.1%	-1.2%	-1.0%	-0.5%	-2.5%	-1.1%	-2.1%	-2.3%	2.2%	0.4%	1.7%	0.7%	-2.9%	1.2%

Totals by Level																				
K-5	5,016	4,826	4,746	4,631	4,550	4,490	4,357	4,348	4,387	4,447	4,384	4,332	4,190	4,144	4,312	4,427	4,543	4,573	4,588	4,569
6-8	2,607	2,679	2,757	2,798	2,703	2,556	2,494	2,440	2,403	2,333	2,276	2,246	2,228	2,181	2,237	2,184	2,239	2,209	2,170	2,271
9-12	3,607	3,545	3,519	3,511	3,597	3,642	3,610	3,549	3,448	3,406	3,269	3,237	3,186	3,059	3,044	3,024	3,017	3,089	2,831	2,868
Full-time Running Start													44	60	41	34	53	193	177	160
													1.4%	2.0%	1.3%	1.1%	1.8%	6.2%	6.3%	5.6%

South Kitsap Enrollment Projection (October Headcount)

South Kitsap Projection

Medium Range Forecast with Adjustments for Population and Housing Growth

Actual Births

Projected Births

<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
3,060	3,149	2,978	2,994	2,981	2,997	3,004	3,011	3,019	3,028	3,037
24.69%	24.69%	25.43%	25.18%	25.31%	25.06%	25.06%	25.06%	25.06%	25.06%	25.06%

2020 Projection Options

<u>Low</u>	<u>Medium</u>	<u>High</u>		<u>Oct20</u>	<u>Oct21</u>	<u>Oct22</u>	<u>Oct23</u>	<u>Oct24</u>	<u>Oct25</u>	<u>Oct26</u>	<u>Oct27</u>	<u>Oct28</u>	<u>Oct29</u>	<u>Oct30</u>
740	755	771	K	755	777	757	754	754	751	753	755	757	759	761
752	768	783	1	768	780	819	785	781	781	777	779	784	786	788
778	794	809	2	794	770	797	822	788	783	783	780	784	788	790
708	723	737	3	723	787	777	790	816	781	776	776	775	779	783
751	766	782	4	766	729	807	784	798	822	787	783	785	783	788
753	769	784	5	769	773	748	814	791	804	829	793	791	793	792
756	771	787	6	771	747	757	727	792	768	781	806	773	771	773
748	763	778	7	763	777	758	763	733	798	774	787	814	781	779
753	769	784	8	769	777	798	773	778	747	813	789	804	832	798
750	765	780	9	765	770	785	800	776	780	749	815	793	808	836
729	744	759	10	744	773	785	794	809	784	788	757	826	803	819
691	705	719	11	705	709	743	748	758	771	747	751	723	789	768
<u>710</u>	<u>725</u>	<u>739</u>	12	<u>725</u>	<u>736</u>	<u>746</u>	<u>776</u>	<u>782</u>	<u>791</u>	<u>805</u>	<u>780</u>	<u>786</u>	<u>757</u>	<u>827</u>
9,620	9,816	10,012	Total	9,816	9,905	10,076	10,132	10,156	10,162	10,164	10,149	10,195	10,231	10,303

-88	108	304	Difference	108	89	172	56	24	6	1	-14	45	37	72
-0.9%	1.1%	3.1%	% Diff	1.1%	0.9%	1.7%	0.6%	0.2%	0.1%	0.0%	-0.1%	0.4%	0.4%	0.7%

Totals by Level

K-5	4,574	4,615	4,704	4,749	4,727	4,722	4,706	4,666	4,675	4,688	4,702
6-8	2,303	2,301	2,313	2,264	2,304	2,314	2,369	2,382	2,392	2,385	2,351
9-12	2,939	2,988	3,059	3,119	3,125	3,126	3,089	3,102	3,128	3,158	3,250
RS FT	177	180	184	188	188	188	186	187	189	190	196
	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%

Total with FT RS	9,993	10,085	10,261	10,320	10,345	10,351	10,350	10,336	10,383	10,422	10,499
------------------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

South Kitsap Projection (October FTE Forecast)

FTE Forecast

Headcount (OSPI Data)			FTE			FTE/Headcount Ratio			FTE Trends		2020 Projection Options			October FTE Projection			
Oct17	Oct18	Oct19	Oct17	Oct18	Oct19	Oct17	Oct18	Oct19	Current Yr	3 Year	Low	Medium	High		Low	Medium	High
709	764	743	704.2	759.3	739.6	0.993	0.994	0.995	0.995	0.994	740	755	771	K	736	755	766
765	733	789	764.0	728.2	784.5	0.999	0.993	0.994	0.994	0.995	752	768	783	1	748	768	779
761	771	727	759.1	770.0	723.3	0.997	0.999	0.995	0.995	0.997	778	794	809	2	775	794	807
793	757	758	791.2	754.1	758.0	0.998	0.996	1.000	1.000	0.998	708	723	737	3	707	723	736
771	787	760	769.1	787.0	759.1	0.998	1.000	0.999	0.999	0.999	751	766	782	4	750	766	781
774	776	792	773.1	773.9	792.0	0.999	0.997	1.000	1.000	0.999	753	769	784	5	752	769	783
735	738	756	732.6	737.7	752.6	0.997	1.000	0.995	0.995	0.997	756	771	787	6	754	767	784
740	720	753	737.7	719.0	751.2	0.997	0.999	0.998	0.998	0.998	748	763	778	7	746	761	777
734	712	762	733.2	709.5	760.2	0.999	0.997	0.998	0.998	0.998	753	769	784	8	751	766	782
767	702	735	764.9	700.3	731.6	0.997	0.998	0.995	0.995	0.996	750	765	780	9	747	763	778
732	722	738	729.1	719.5	734.9	0.996	0.996	0.996	0.996	0.996	729	744	759	10	727	741	756
778	655	693	670.5	594.8	651.3	0.862	0.908	0.940	0.940	0.916	691	705	719	11	633	665	659
<u>812</u>	<u>752</u>	<u>702</u>	<u>668.0</u>	<u>686.4</u>	<u>628.2</u>	0.823	0.913	0.895	0.895	0.889	<u>710</u>	<u>725</u>	<u>739</u>	12	<u>631</u>	<u>654</u>	<u>657</u>
9,871	9,589	9,708	9,597	9,440	9,566						9,620	9,816	10,012	Total	9458	9691	9844
Change in FTE				-157	127							Projected change in FTE			-108	125	278

Note: At the elementary level we have assumed that FTE is equal to the headcount at most grades. Variations by school are not consistent from year to year making it hard to predict small changes between FTE and HC.

School Projections

School Projections

Projections by school and grade level were also completed and balanced to the overall District medium range projection. School grade level projections are generally less accurate than District grade level projections due to the smaller numbers used to estimate trends, and because program changes and student choice can affect the allocation of students independent of demographic trends.

Entry grade enrollments at secondary were based on each school's average share of enrollment over the past three years multiplied by the next year District projection for each entry grade (6 and 9). We did not give consideration to feeder pattern data for the middle schools because we did not have information about feeder patterns.

The continuing grades at secondary were projected based on the average net gain over the past three years as students progressed from one grade to the next. The final numbers at the entry and continuing grades were adjusted to account for projected growth that might occur due to new or existing homes sales in an area. This data came from Metro Study and New Home Trends. We generally followed the same methodology for alternative schools and programs though some adjustments were made to account for unique trends and circumstances at particular schools (e.g., there is no historical data for the "Connections Academy" listed in this year's enrollment report.)

School Projections

Although we used one methodology for secondary, at the elementary level we used two different methods. The first method was similar to the one we used for secondary. Each school's average share of the kindergarten enrollment (using the past three years) was multiplied by the District kindergarten projection to create a projection for next year. The other grades were projected based on the net change in enrollment that we see as students progress from one grade to the other. The final numbers were then adjusted for expected changes due to growth from new or existing housing, using data from Metrostudy and New Home Trends.

For the second method, kindergarten and first grade were projected using the methodology described above since these are both potential entry grades for students. At the other grades a projection was created by rolling up the students from each grade to the next grade. The final numbers were then adjusted to account for potential growth from housing. There were some schools where the methodology was adjusted to account for increases due to programs (as evident in some of the historical data).

For the final projection at elementary we used the average of these two methods. An FTE projection was then created using the current year ratio of the FTE and headcount enrollment at each grade and school, multiplied by the projected headcount for next year.

Projection Summary by School

	Oct15	Oct16	Oct17	Oct18	Oct19	Next Year Projection				FTE
						Project#1	Project#2	Project Avg		
Burley-Glenwood	545	477	479	470	490	493	493	493		493
East Port Orchard	515	481	418	474	479	499	480	489		489
Hidden Creek	527	512	458	451	421	414	419	417		417
Manchester	350	358	322	441	460	468	461	464		464
Mullenix Ridge	512	527	422	427	433	433	426	429		429
Olalla	343	372	317	334	317	297	306	302		302
Orchard Heights	751	788	684	655	626	609	604	607		607
Sidney Glen	679	571	584	488	463	456	469	462		462
South Colby	398	380	339	328	330	334	336	335		335
Sunnyslope	496	499	518	485	516	541	550	546		546
Cedar Heights	721	776	807	724	693	682	682	682		680
John Sedgwick	706	692	705	745	765	781	781	781		780
Marcus Whitman	723	699	669	669	722	760	760	760		756
SKHS	1968	2268	2794	2523	2405	2424	2424	2424		2324
Connections Academy	227	241	241	241	241					
Discovery	212	211	203	173	165	159	159	159		157
Explorer Academy	194	180	150	182	179	197	197	197		180
Madrona Heights	6									
SKIGrad			6	30	23	28	28	28		28
Adjustments	-5	9	9	-13	4					
Totals	9635	9800	9884	9592	9718	9816	9816	9816		9691

Appendix A

Alternative Projections of Long Range Enrollment

Alternative Projections

Based on Different Models

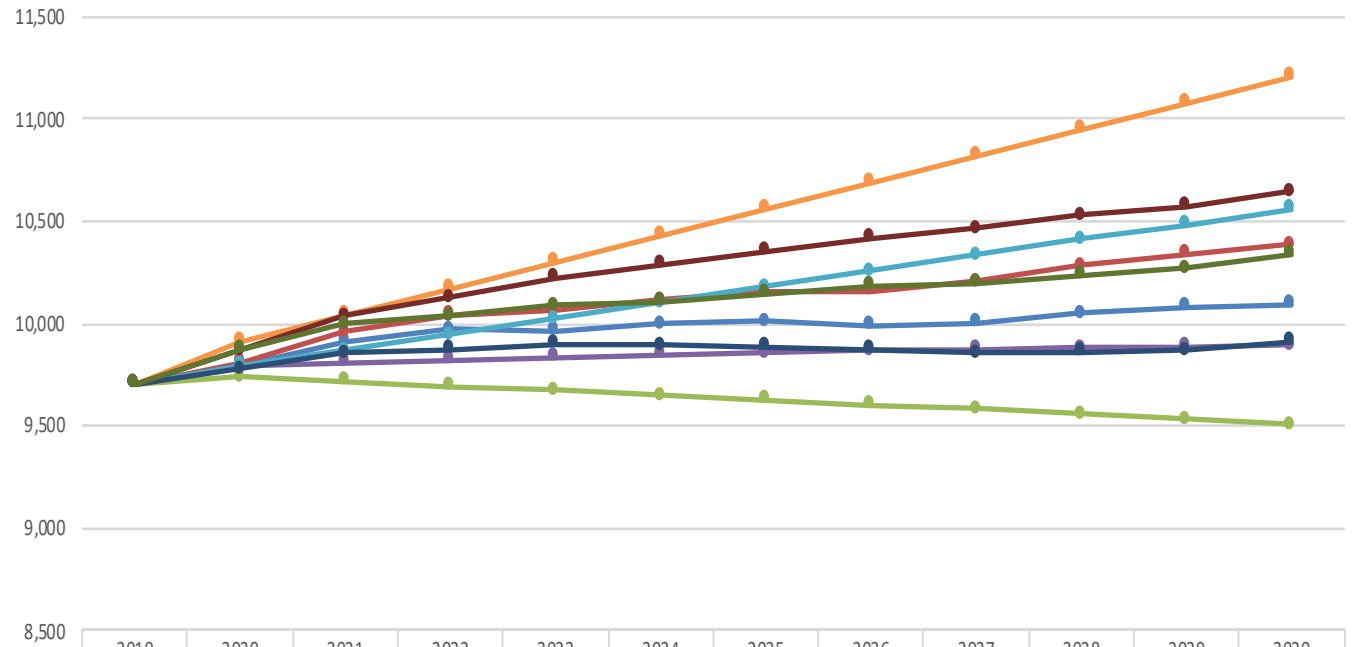
- This appendix provides several alternative forecasts of the District's enrollment out to 2030 (total enrollment only). These models were developed to help us get a sense of the demographic trends that might be affecting enrollment next year as well as over time. These different methods make different assumptions about enrollment trends, population growth, and housing, and based on different assumptions you get different results. The following is a brief description of the different models
- **Three, Six and Ten Year Cohort Forecasts:** These models extrapolate the average trends of the past three, six and ten years into the future. They assume that demographic trends going forward will be similar to what we have seen in past time periods.
- **County Population and District Enrollment:** This forecast considers the relationship between the District's share of the overall County population and its share of the County K-12 population. The assumption of this model is that as the District's share of the County population goes up or down, so too, does its share of the County K-12 population. Forecasts of the general and K-12 population for the County and our preferred forecast of the District population were used to create this forecast
- **Constant Share of the County K-12 population:** The District has enrolled about 27% of the County K-12 population for over two decades. If we assume this percentage remains constant we can multiple 27% by each year of our County K-12 forecast to estimate the District's enrollment.

Alternative Projections

Based on Different Models

- **Housing Yield Forecasts:** These models take estimates of the average number of students per house we might expect over time and multiply that number by various housing forecasts to create an estimate of future enrollment. In some models we assumed that the number of students per house would remain constant. In other models we assumed it would trend down.
- As can be seen on the following page, the forecasts using different methods vary widely. Our forecast by grade level on page 42 creates a long range forecast that falls somewhere in the middle of these various estimates. Please note that different assumptions about housing, population, and even births can result in very different long range forecasts. This is why it is generally recommended that a District consider low, medium, and high range forecasts in their planning, even if they decide that one particular forecast is the "best at this time" estimate of the future.

Alternative Long Range Forecasts



	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
% of K-12 (Constant @ 27%)	9,708	9,789	9,914	9,975	9,969	9,998	10,011	9,993	10,004	10,054	10,083	10,096
Based on Correlation (Share of County Pop/Share of K-12)	9,708	9,811	9,960	10,044	10,062	10,115	10,152	10,163	10,204	10,284	10,343	10,386
Housing Yield (Low Housing Forecast)	9,708	9,739	9,718	9,696	9,674	9,652	9,629	9,605	9,581	9,557	9,532	9,506
Housing Yield (Medium Housing Forecast -- Student Yield Trends Down)	9,708	9,795	9,810	9,823	9,835	9,847	9,857	9,867	9,876	9,883	9,890	9,896
Housing Yield (Medium Housing Forecast -- Student Yield Constant)	9,708	9,795	9,872	9,949	10,026	10,103	10,180	10,257	10,334	10,411	10,488	10,564
Housing Yield (High Housing Forecast)	9,708	9,916	10,045	10,174	10,303	10,432	10,562	10,691	10,820	10,949	11,078	11,208
3 Year Cohort Forecast	9,708	9,780	9,855	9,878	9,903	9,895	9,887	9,877	9,853	9,863	9,867	9,916
6 Year Cohort Forecast	9,708	9,872	10,041	10,127	10,224	10,288	10,357	10,423	10,466	10,530	10,576	10,650
10 Year Cohort Forecast	9,708	9,877	9,999	10,036	10,088	10,111	10,145	10,189	10,201	10,242	10,270	10,342

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, 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.