

Mercer Island School District

Demographic Trends and Enrollment Projections

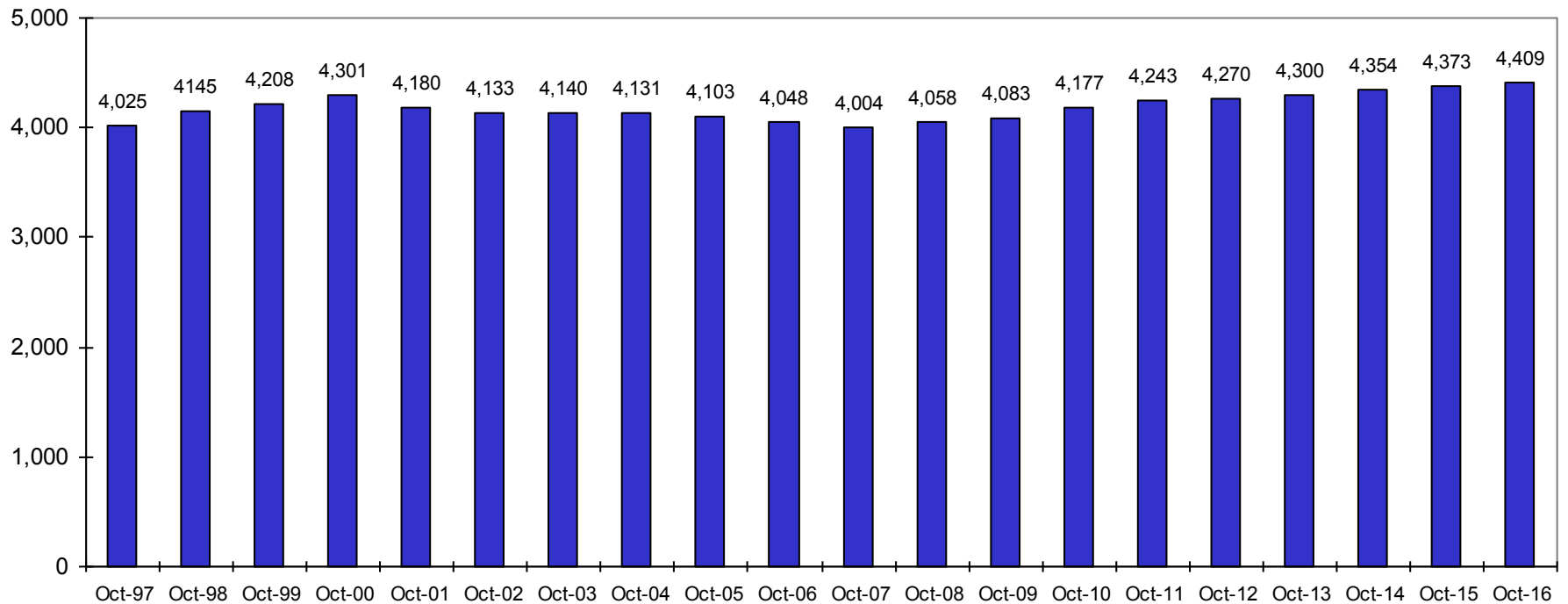
Prepared by
William L. (“Les”) Kendrick Ph.D.

Educational Data Solutions, LLC
March 2017

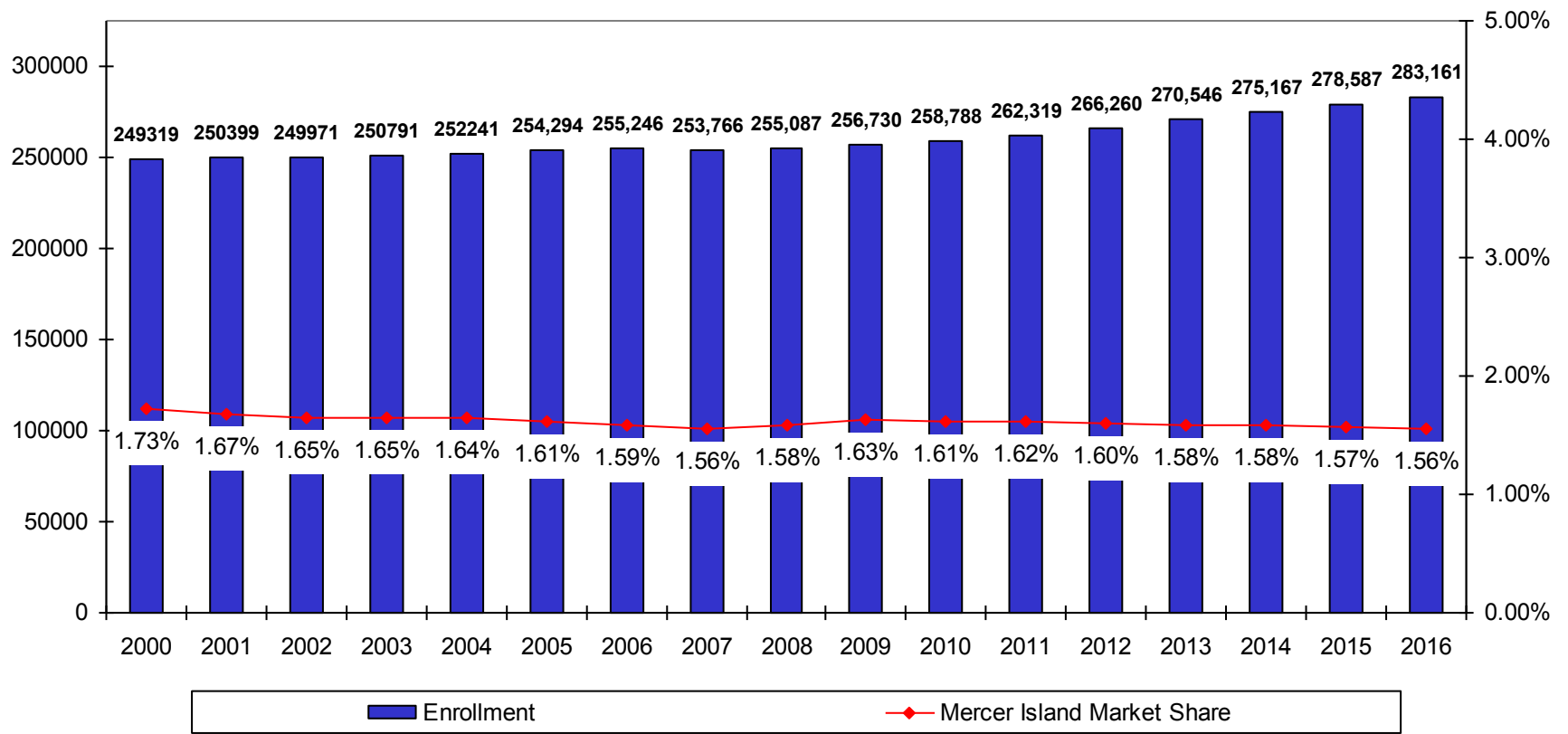
District Enrollment Trend

P223 Enrollment (October)

Does Not Include Full-Time Running Start Students
or Students Enrolled in Open Doors

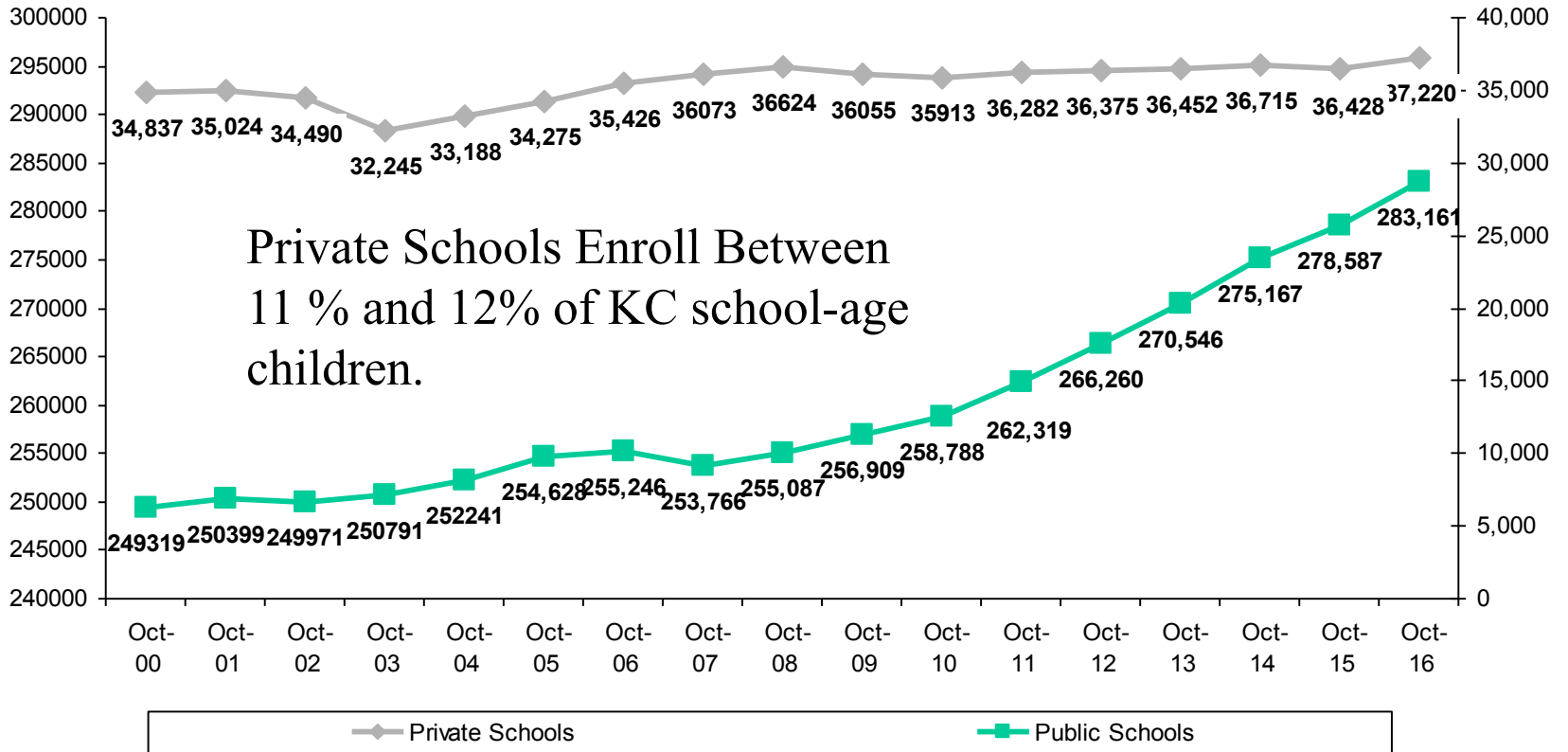


King County Public Schools Enrollment Trend and Mercer Island Market Share

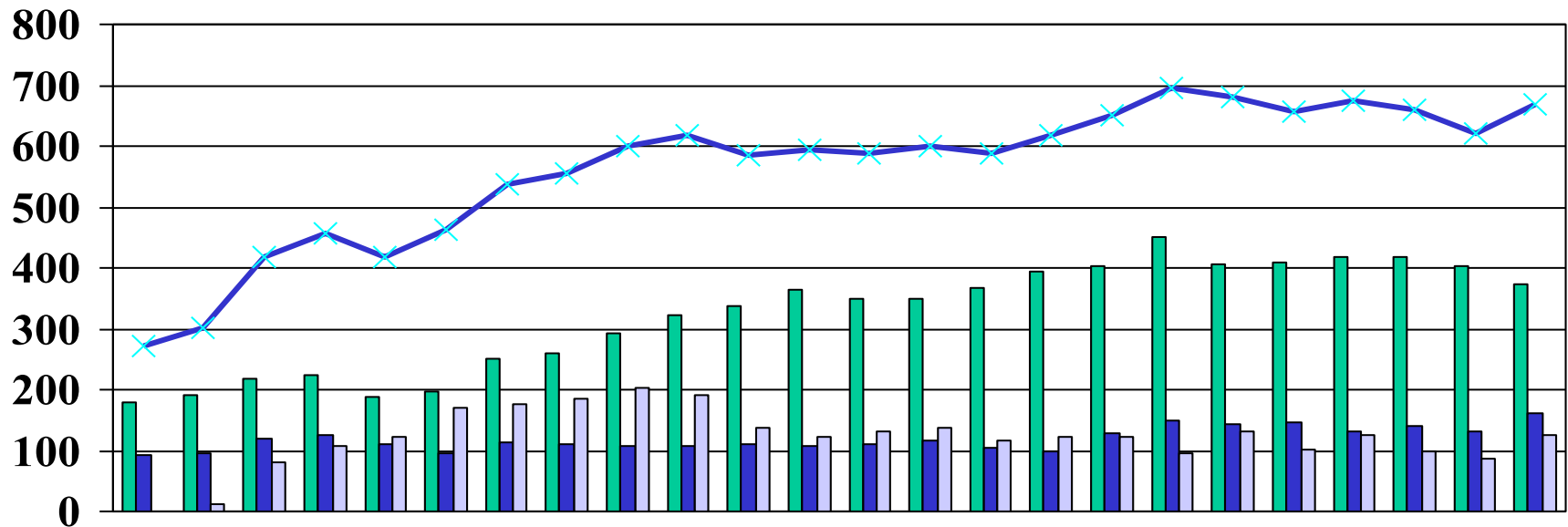


Public and Private School Enrollment King County (K-12 Only)

Source: P223 and P105 Report --State of Washington
Headcount



Enrollment for Private Schools Located in Mercer Island's Service Area



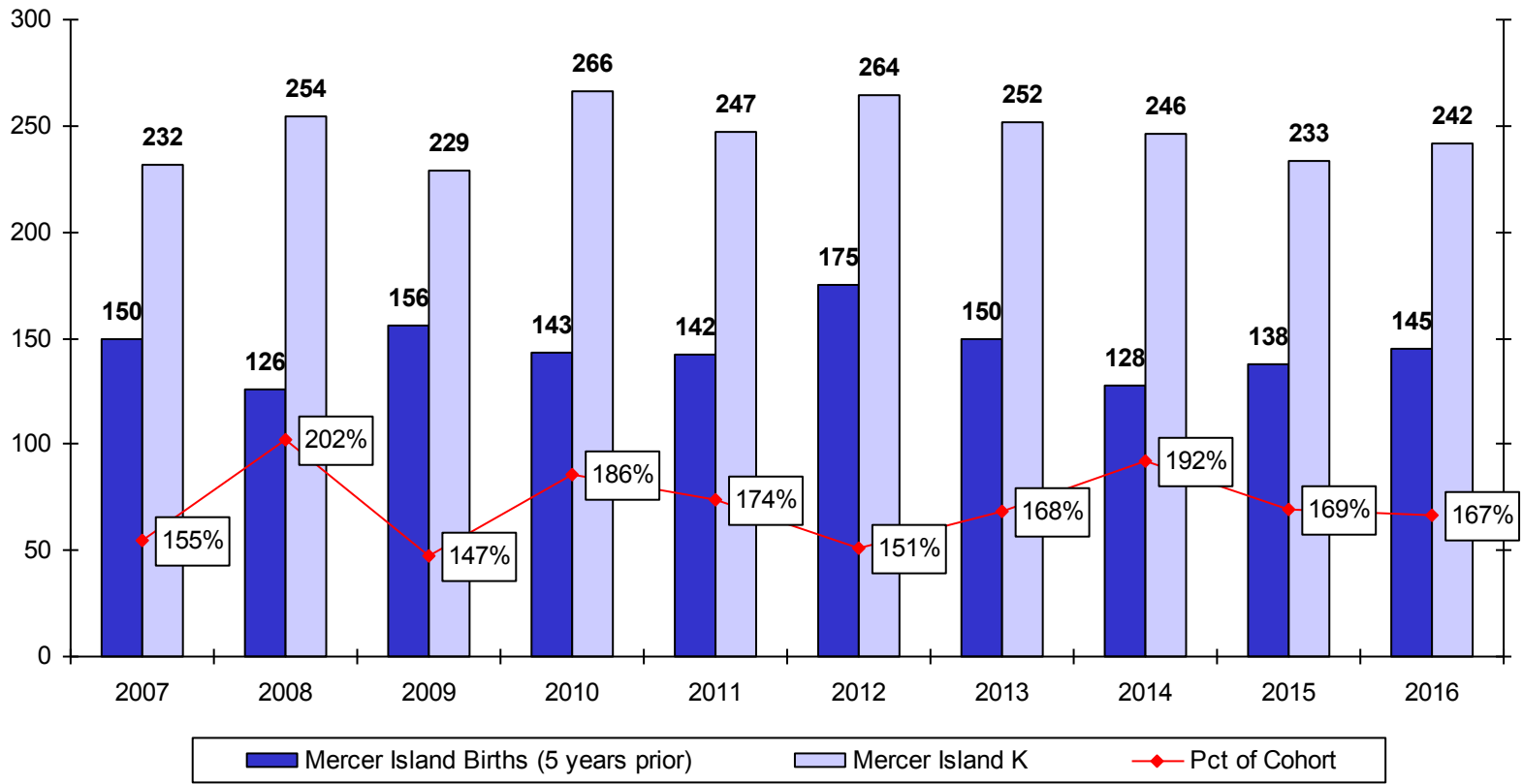
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015
K-5	179	192	219	223	189	196	250	260	293	321	338	363	350	349	368	395	402	450	406	410	419	419	404	373
6-8	93	97	120	125	109	95	112	111	106	106	110	107	109	115	105	100	127	150	143	146	132	141	130	161
9-12	0	13	80	108	121	171	175	185	202	190	137	123	130	137	115	122	121	95	131	101	125	100	87	125
Total	272	302	419	456	419	462	537	556	601	617	585	593	589	601	588	617	650	695	680	657	676	660	621	669

Enrollment Patterns

Mercer Island School District

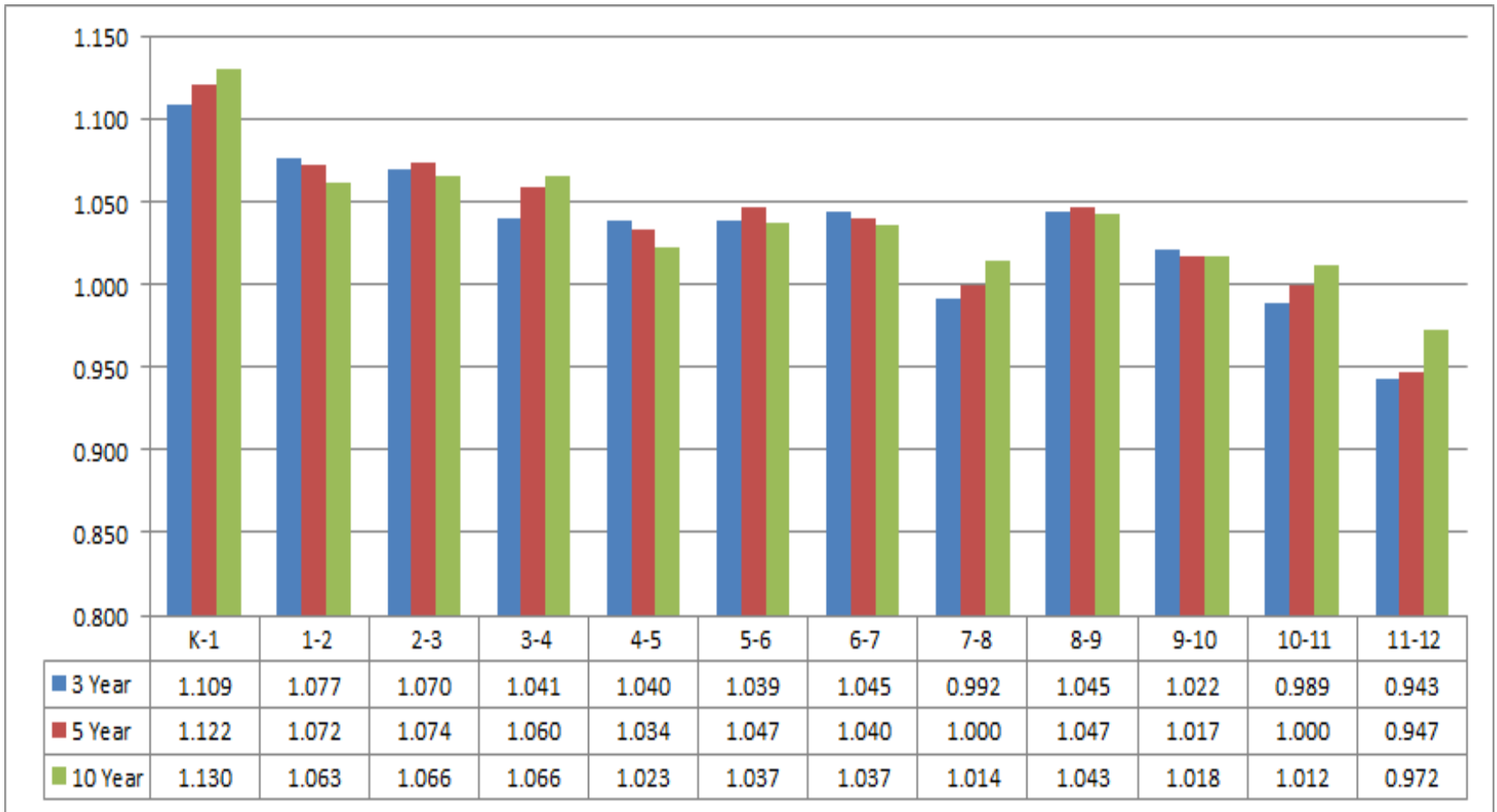
Mercer Island

K Enrollment as a Percent of City Births



Average Grade Progression Rates (3, 5, and 10 Year Averages)

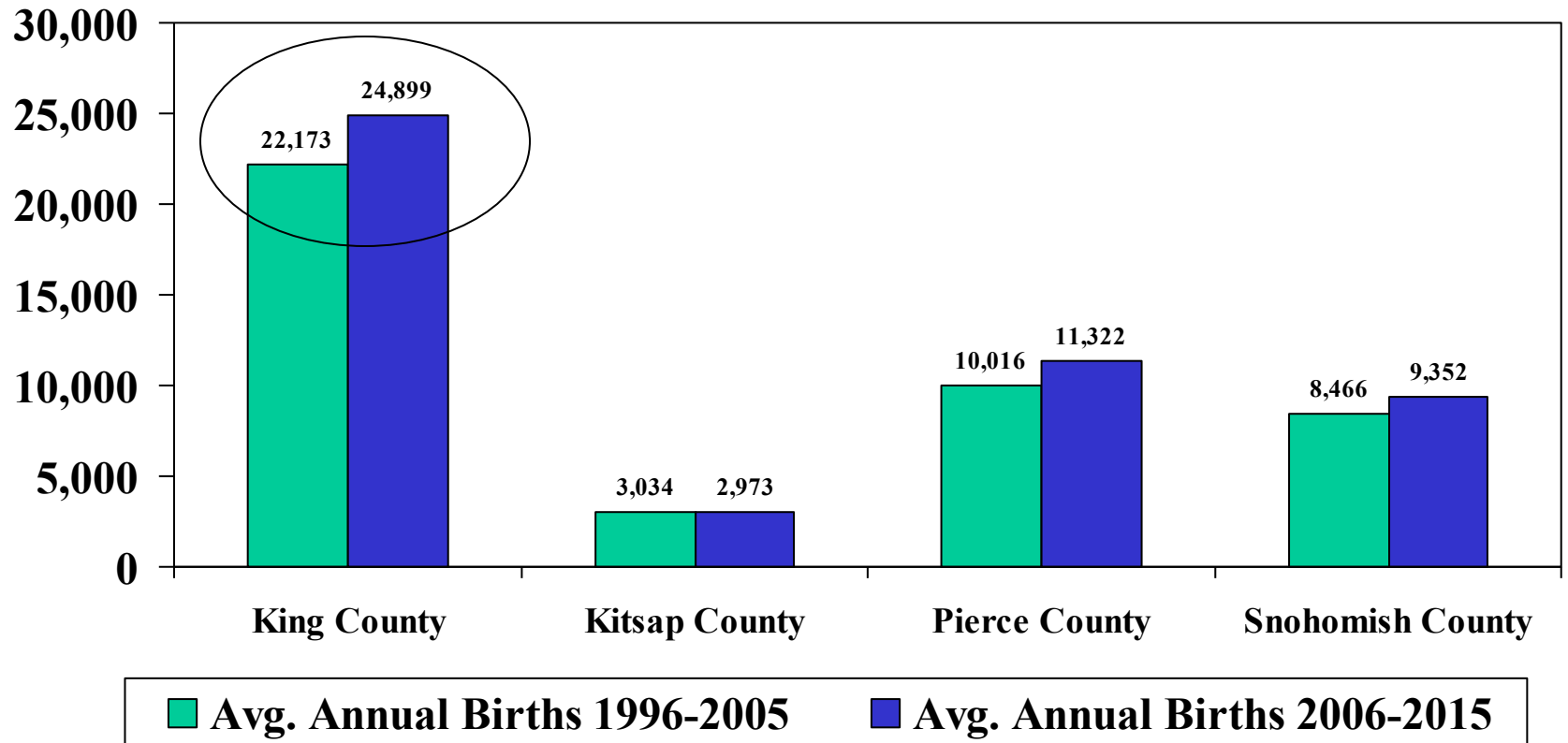
Cohort Ratio Averages for the Mercer Island School District



Demographic Trends

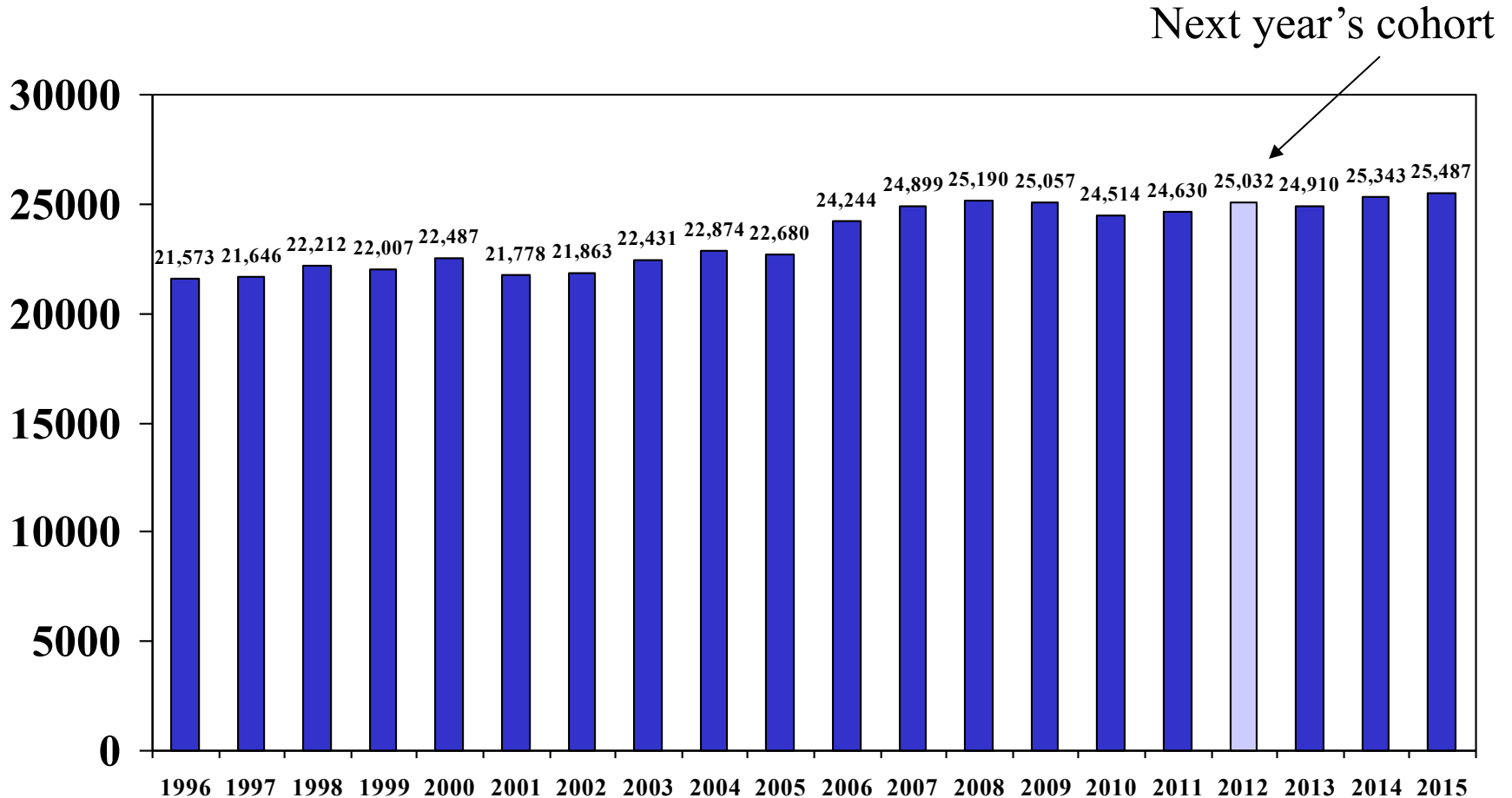
Average Annual Births by County

Source: State of Washington Department of Health Birth Files



King County Births

Source: Washington State Health Department



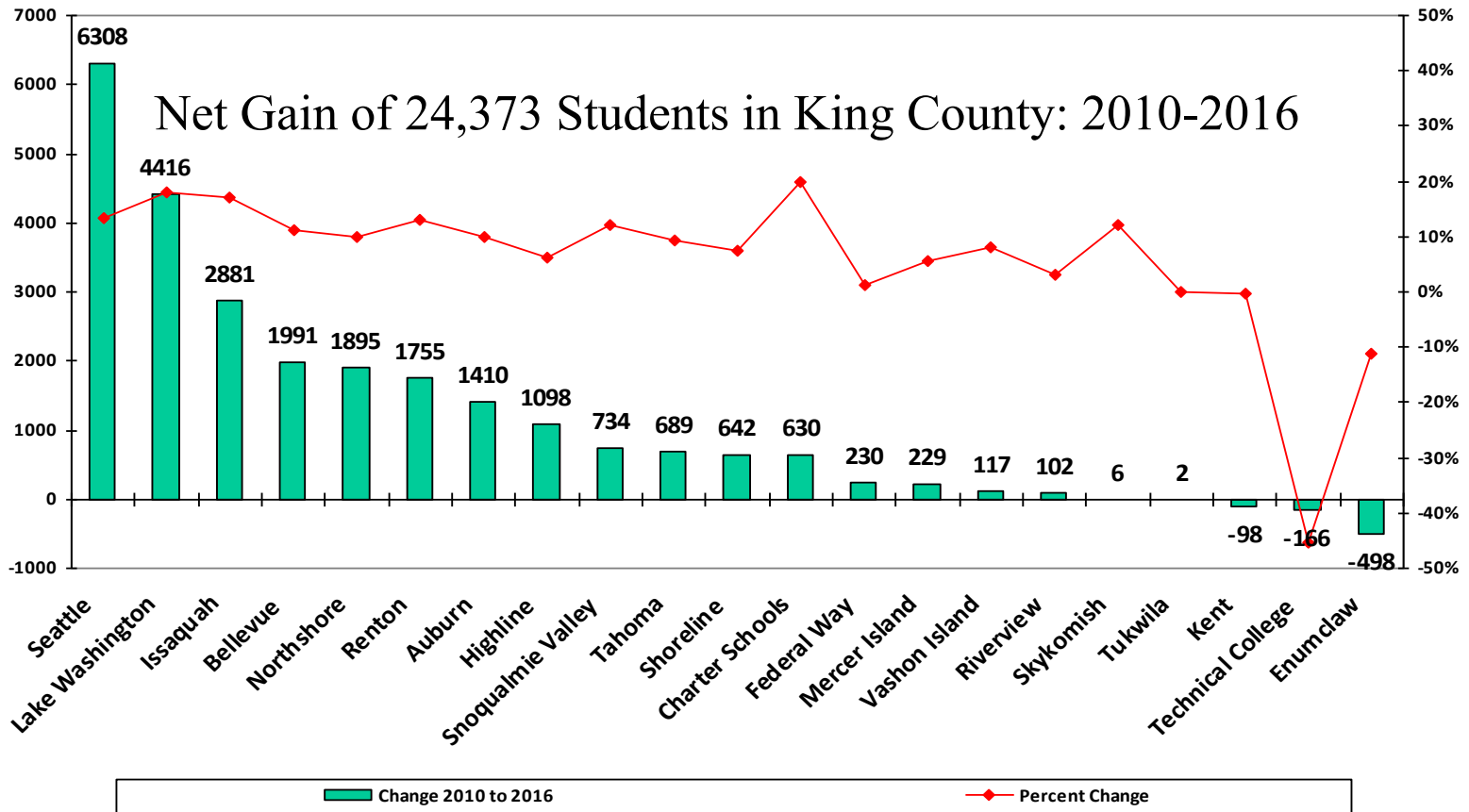
King County School Districts

Change in Enrollment

Oct 2010 to Oct 2016

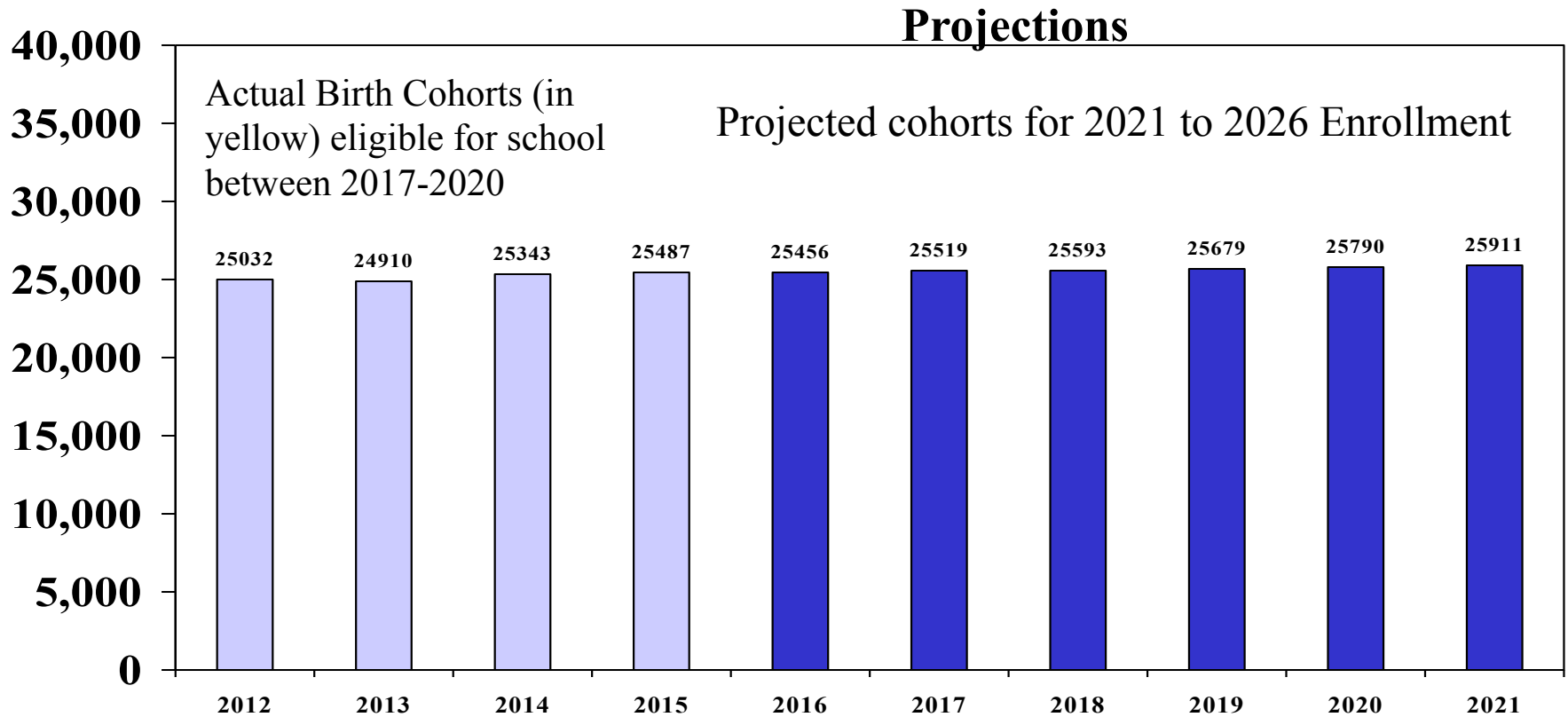
LAST SIX YEARS

Numbers may have changed since the original reporting of the data



King County Birth Projections

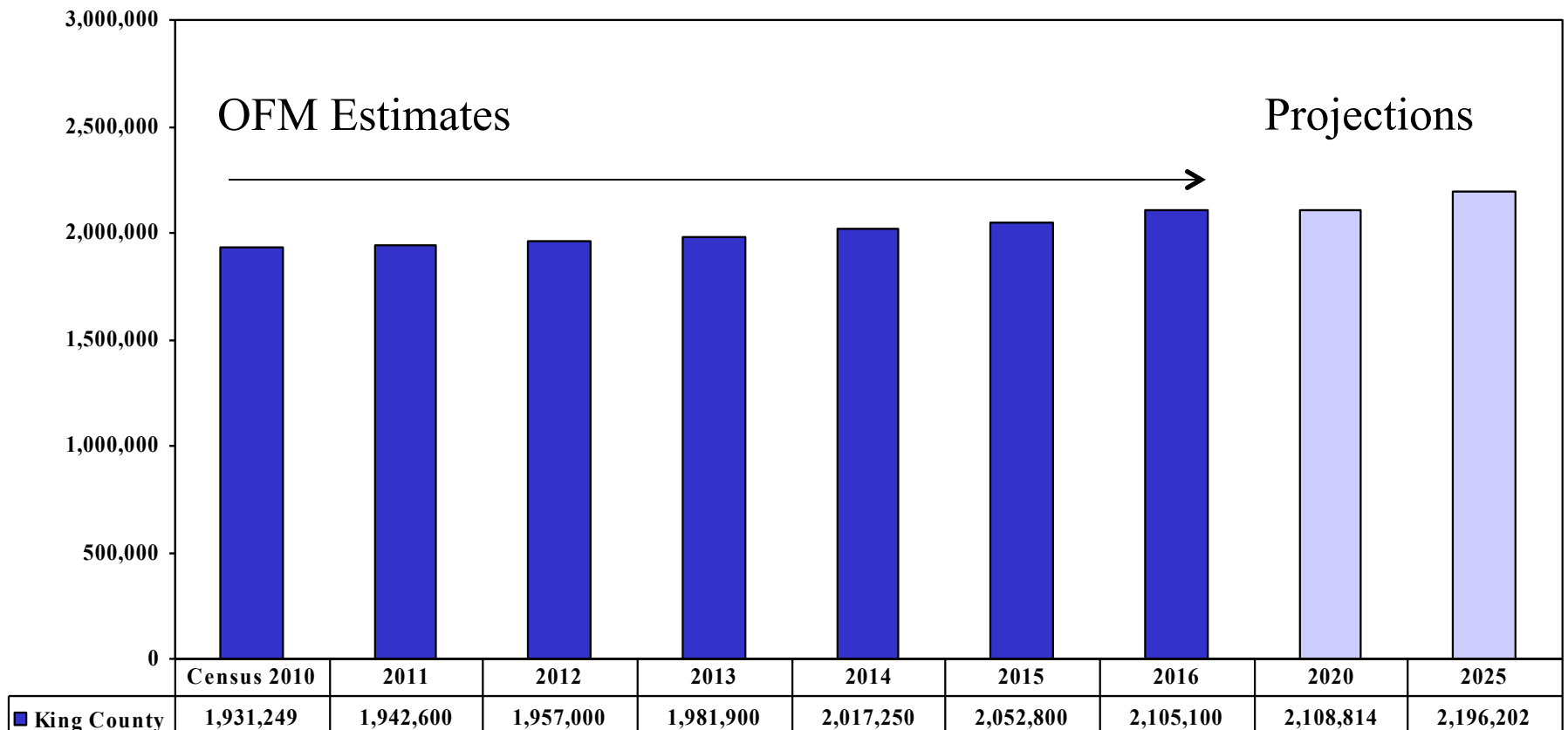
(Based on the Average of 2014 and 2015 Fertility Rates
and Projected Growth in Females in Their Child-Bearing Years
Using the OFM Medium Range Population Forecast)



Population Growth and Projections

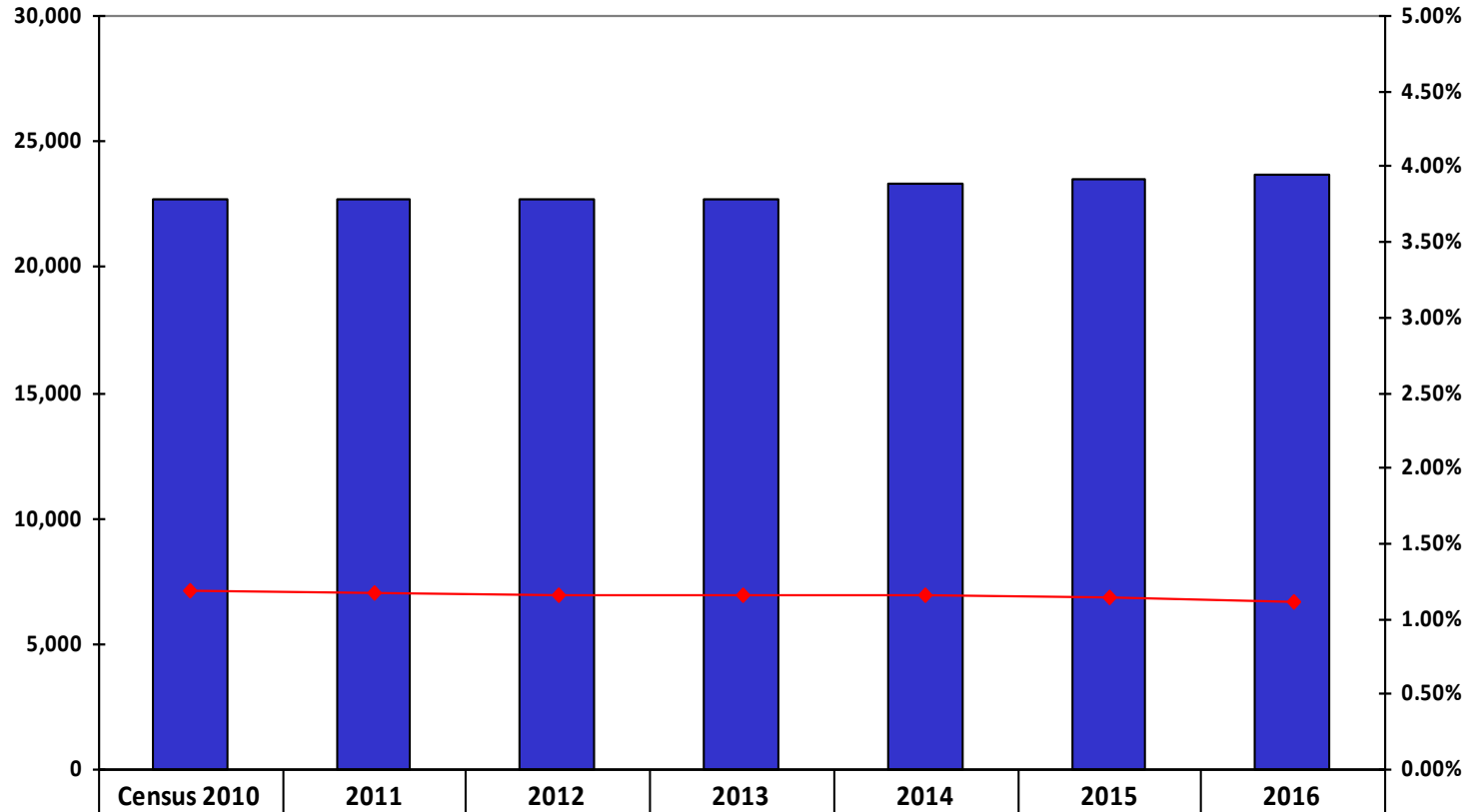
King County

Source: Office of Financial Management of the State of Washington



Mercer Island Population

Census and State Estimates



■ Population	22,699	22,710	22,690	22,720	23,310	23,480	23,660
◆ % of County Population	1.18%	1.17%	1.16%	1.15%	1.16%	1.14%	1.12%

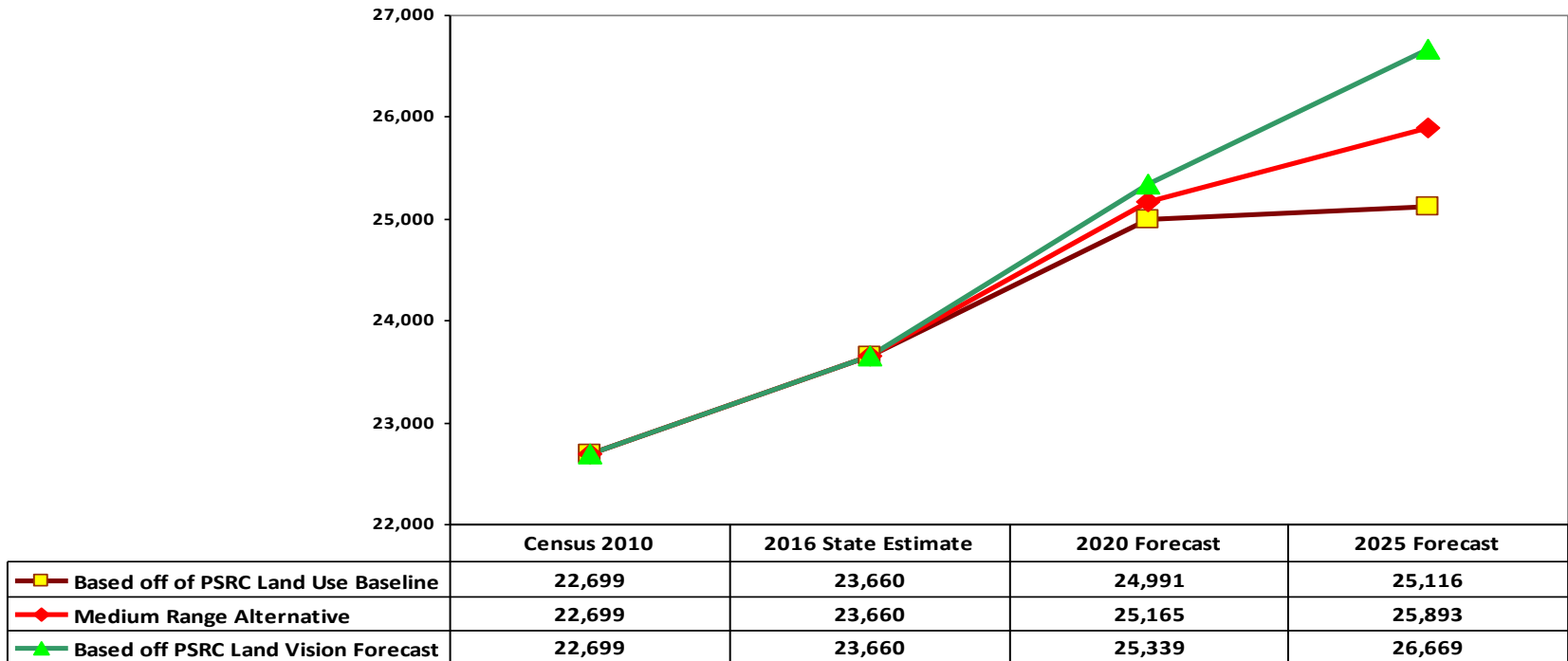
Mercer Island Resident Population Forecasts

Alternative Forecasts Based on Different Assumptions About Growth.

The PSRC Land Use Forecast is Roughly Based on Current Land Use Trends*

The PSRC Land Vision Forecast Assumes Greater Density and More Housing

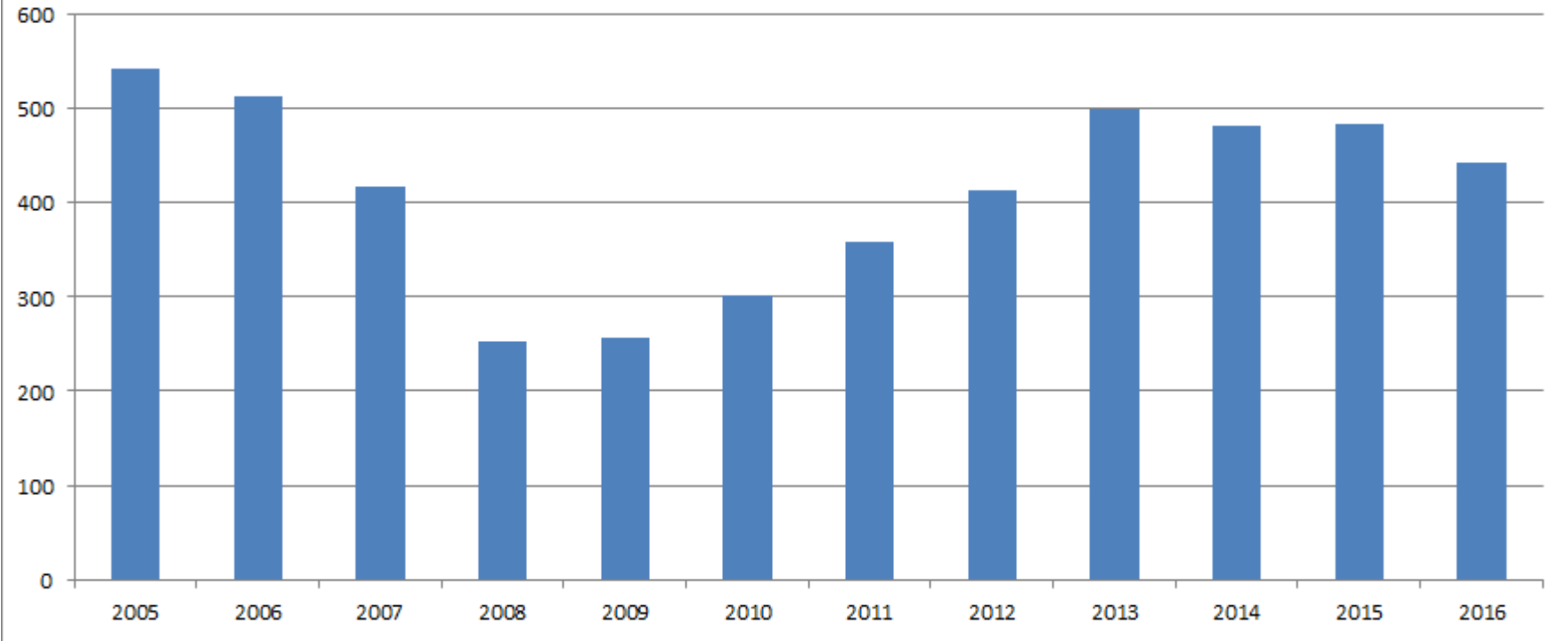
The Medium Range Alternative Lies In-Between the Low and High PSRC Alternatives



*The PSRC Land Use Baseline forecast is similar to the Mercer Island City Comprehensive Plan Assumptions.

Single Family and Condo Home Sales Mercer Island

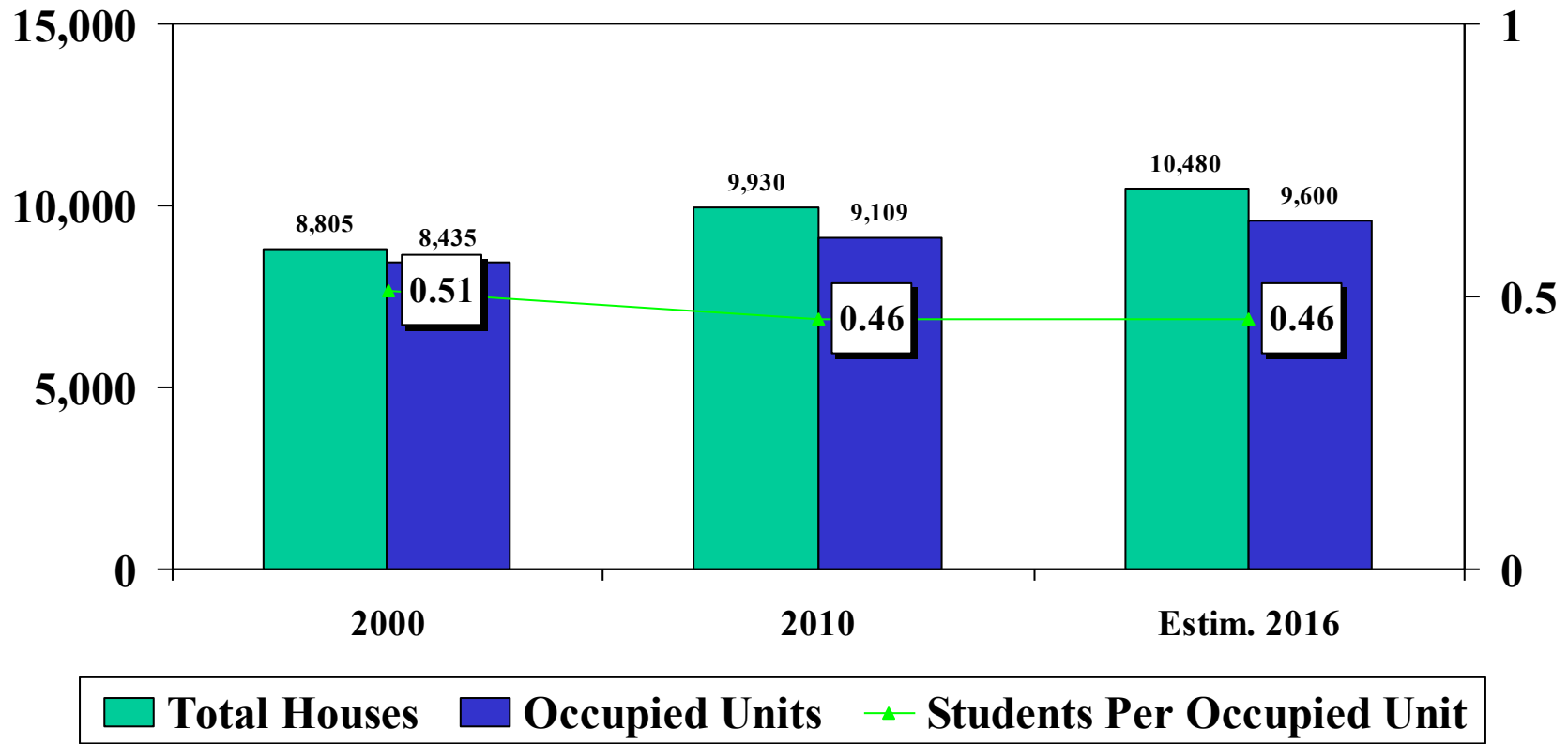
Home Sales by Year: Mercer Island
Includes New and Existing Homes
Source: MetroStudy Assessor's Data



Housing Units in Mercer Island

Total and Occupied

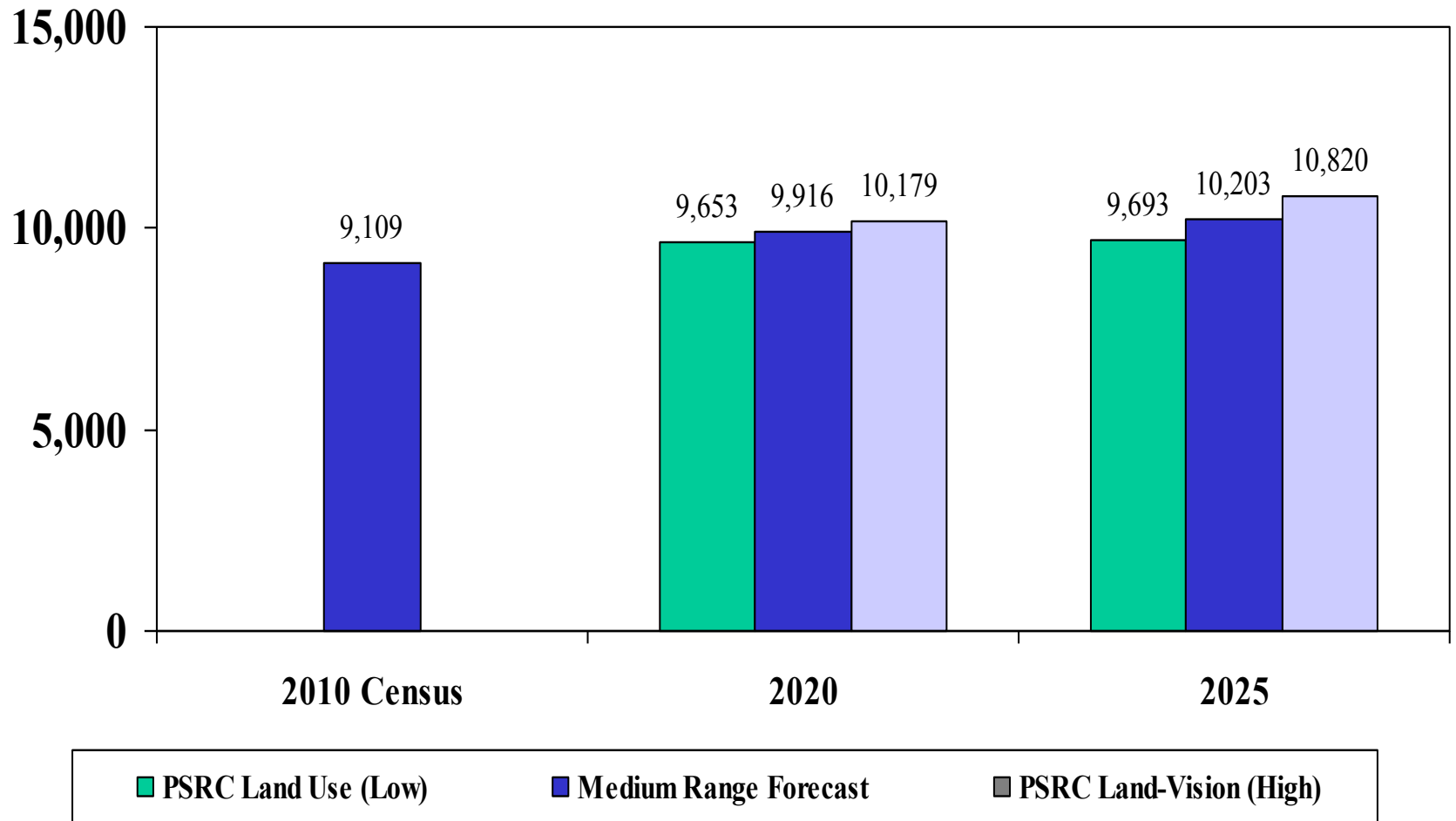
K-12 Public School Students Per House



Future Housing Forecasts

Number of Occupied Units

Based off of PRSC Land Use Baseline and Land Vision Forecasts and a Medium Alternative



K-12 Public School Students Per House (King County Districts)

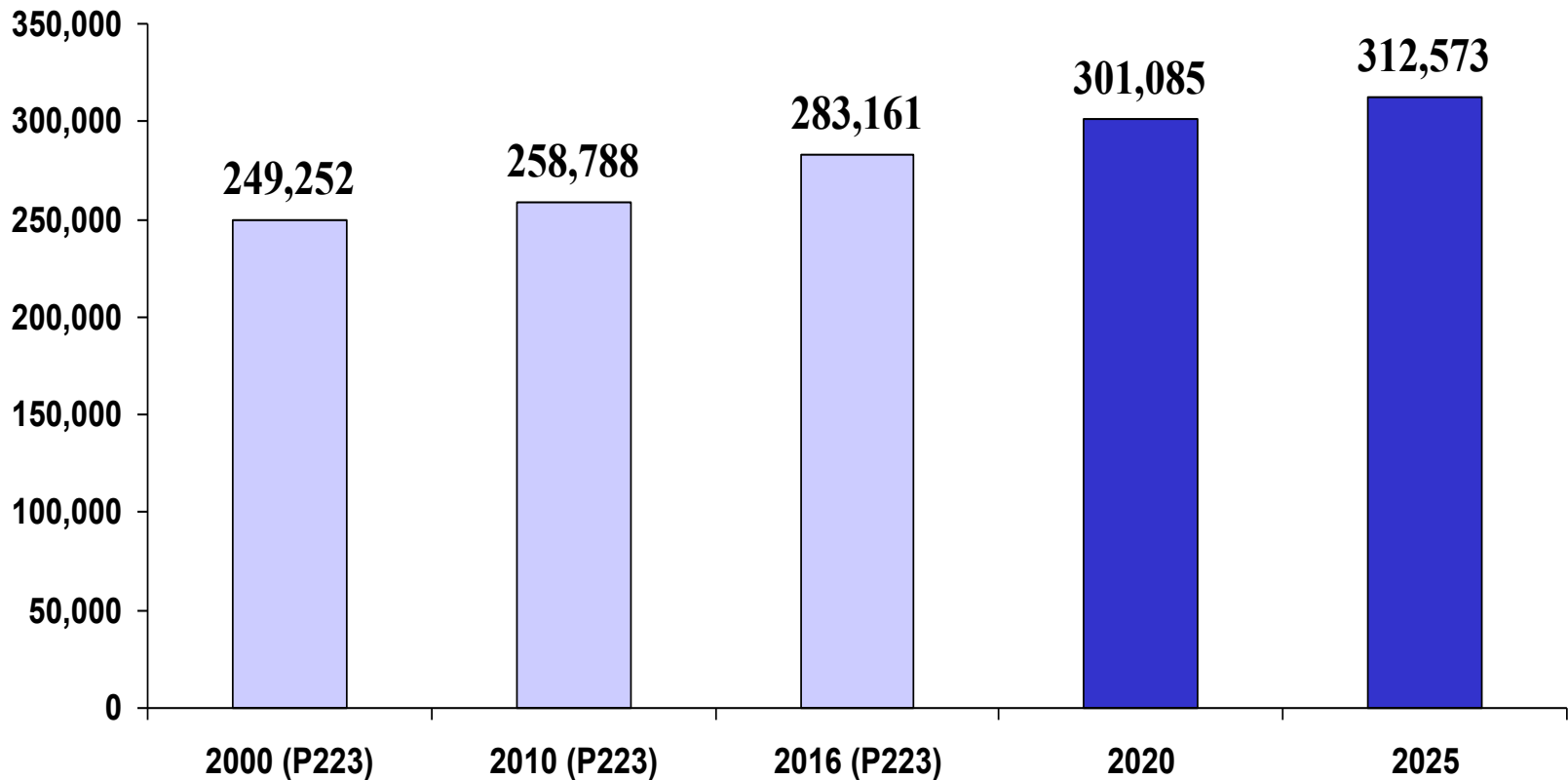
School District	P223 Oct 2010 Enroll	Census 2010 Total Housing Units	Census 2010 Occupied Units	Estimated K-12 Students Per 100 Homes	Estimated K-12 Students Per 100 Occupied
Tahoma	7,394	13,835	13,153	53	56
Snoqualmie Valley	6,019	13,693	12,635	44	48
Auburn	14,343	32,762	30,704	44	47
Kent	26,630	60,010	56,621	44	47
Issaquah	16,881	38,765	36,642	44	46
Federal Way	21,724	50,518	47,551	43	46
Mercer Island	4,177	9,930	9,109	42	46
Enumclaw	4,472	10,516	9,877	43	45
Riverview	3,152	7,470	7,019	42	45
Tukwila	2,908	7,353	6,817	40	43
Northshore	19,390	49,801	46,787	39	41
Highline	18,101	50,913	47,160	36	38
Bellevue	18,008	56,376	50,892	32	35
Lake Washington	24,592	76,389	71,711	32	34
Shoreline	8,808	28,028	26,561	31	33
Vashon Island	1,421	5,552	4,606	26	31
Renton	13,558	48,991	45,526	28	30
Seattle	46,794	308,858	283,793	15	16
Skykomish	49	823	330	6	15

**Note: The number of K-12 students per house is estimated using Census housing counts and the October 2010 P223 enrollment.*

Enrollment Projections

Forecast of the King County K-12 Population

Using Cohort Survival, Actual Births, Birth Forecasts and Projected Changes in Population Growth During Certain Time Periods



Forecast Estimates Using a Variety of Methods

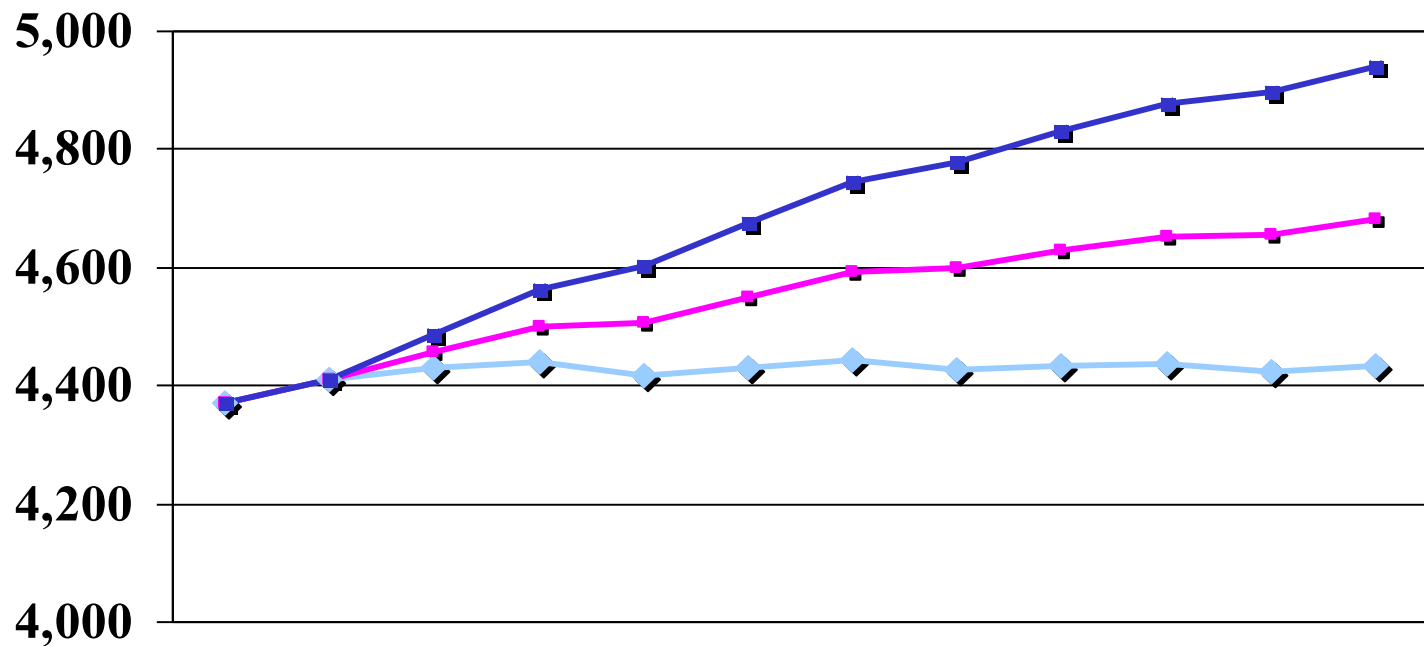
<u>Cohort Forecasts*</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
<i>3 Year Avg. Cohort</i>	4,409	4,452	4,473	4,456	4,471	4,474	4,447	4,439	4,432	4,403	4,399
<i>5 Year Avg. Cohort</i>	4,409	4,475	4,518	4,519	4,557	4,581	4,572	4,586	4,597	4,588	4,598
<i>10 Year Avg. Cohort</i>	4,409	4,494	4,548	4,554	4,599	4,634	4,628	4,647	4,669	4,675	4,696
Linear Models (Based on Total Enrollment Only -- 10 Year History)											
<i>County Births and MI Pop (Low)</i>	4,409	4,470	4,509	4,565	4,647	4,649	4,657	4,666	4,676	4,688	4,701
<i>County Births and MI Pop (High)</i>	4,409	4,483	4,521	4,578	4,697	4,733	4,776	4,819	4,864	4,910	4,957
Students Per House Forecast (Based on Alternative Pop/Housing Forecasts)											
<i>Student Per House Low Growth</i>	4,409	4,416	4,422	4,428	4,433	4,437	4,441	4,444	4,448	4,452	4,455
<i>Student Per House Medium Growth</i>	4,409	4,447	4,484	4,522	4,559	4,586	4,612	4,638	4,665	4,691	4,718
<i>Student Per House High Growth</i>	4,409	4,477	4,545	4,612	4,680	4,729	4,778	4,828	4,877	4,926	4,975
Average of all Forecasts	4,464	4,503	4,529	4,580	4,603	4,614	4,633	4,653	4,667	4,687	

*Kindergarten enrollment in the cohort forecasts is based on the District's average share of the County birth cohort (K enrollment compared to births) for the past three, six, and ten years, multiplied by actual and projected birth cohorts expected to enroll between 2017 and 2026

Mercer Island District Forecast

Alternative Forecasts 2017-2026

Based on Grade Level Trends and Alternative Projections of Population and Housing



	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	4,371	4,409	4,429	4440	4417	4430	4444	4428	4433	4438	4424	4434
Medium (Recommended)	4,371	4,409	4,458	4501	4508	4551	4592	4600	4628	4653	4656	4681
High Range Forecast	4,371	4,409	4,487	4563	4601	4674	4744	4778	4830	4878	4899	4941

Mercer Island

(October Headcount Enrollment)

Births	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mercer Island Births	140	130	167	136	121	155	132	150	126	156	143	142	175	150	128	138	145
King County Births	21817	21573	21646	22212	22007	22487	21778	21863	22,431	22874	22680	24244	24,899	25190	25057	24514	24,630
K Enroll as % of Cnty	1.20%	1.11%	1.05%	1.05%	0.95%	1.11%	1.14%	1.06%	1.13%	1.00%	1.17%	1.02%	1.06%	1.00%	0.98%	0.95%	0.98%
K Enroll as a % of City	186%	184%	136%	171%	172%	161%	188%	155%	202%	147%	186%	174%	151%	168%	192%	169%	167%
City % of County Cohort	0.64%	0.60%	0.77%	0.61%	0.55%	0.69%	0.61%	0.69%	0.56%	0.68%	0.63%	0.59%	0.70%	0.60%	0.51%	0.56%	0.59%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
K	261	239	227	233	208	250	248	232	254	229	266	247	264	252	246	233	242
1	259	276	257	257	260	224	283	276	267	283	280	294	277	298	287	273	256
2	306	277	291	276	259	274	227	294	294	280	304	294	311	297	317	305	298
3	330	309	276	308	282	266	290	255	306	311	305	305	310	336	317	343	324
4	314	330	309	297	330	292	275	311	281	316	339	320	331	337	361	326	356
5	360	318	332	331	301	345	306	279	320	280	328	341	322	339	358	356	348
6	362	356	316	349	341	301	353	298	282	347	282	343	362	338	360	378	363
7	350	364	368	325	359	339	304	369	304	290	346	311	348	370	358	369	398
8	349	352	369	381	340	352	343	308	365	314	305	357	320	350	374	356	363
9	343	347	354	351	392	344	343	334	336	383	320	337	362	332	364	398	368
10	350	335	343	360	355	387	346	337	341	350	393	335	339	364	333	368	412
11	340	334	343	333	364	363	379	342	348	357	358	407	336	342	364	332	361
12	377	343	348	339	340	366	351	369	360	343	351	352	388	329	319	334	320
Tot	4,301	4,180	4,133	4,140	4,131	4,103	4,048	4,004	4,058	4,083	4,177	4,243	4,270	4,284	4,358	4,371	4,409

Growth	93	-121	-47	7	-9	-28	-55	-44	54	25	94	66	27	14	74	13	38
Percent	2.2%	-2.8%	-1.1%	0.2%	-0.2%	-0.7%	-1.3%	-1.1%	1.3%	0.6%	2.3%	1.6%	0.6%	0.3%	1.7%	0.3%	0.9%

	1830	1749	1692	1702	1640	1651	1629	1647	1722	1699	1822	1801	1815	1859	1886	1836	1824
	1061	1072	1053	1055	1040	992	1000	975	951	951	933	1011	1030	1058	1092	1103	1124
	1410	1359	1388	1383	1451	1460	1419	1382	1385	1433	1422	1431	1425	1367	1380	1432	1461

King County Public Schools K-12	249,319	250,104	249,971	250,791	252,241	254,294	255,246	253,121	254,398	256,545	259,144	261,939	266,260	270,546	275,167	278,587	283,161
Mercer Island Market Share	1.73%	1.67%	1.65%	1.65%	1.64%	1.61%	1.59%	1.58%	1.60%	1.59%	1.61%	1.62%	1.60%	1.58%	1.58%	1.57%	1.56%

Low Range Forecast (Growth Rates Based off of the Low Range Pop/Housing Forecast)

				<i>Projected Births</i>									
<u>6 year Trends at Kindergarten</u>				<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	<u>Median</u>	<u>SD+1</u>	<u>SD-1</u>	City Births	148	156	179	163	153	153	154	154	155
% County	1.00%	1.04%	0.96%	Cnty Births	25,032	24,910	25,348	25,487	25,456	25,519	25,593	25,679	25,790
% City	170%	183%	157%	% County	0.98%	1.01%	1.01%	1.02%	0.99%	0.99%	0.99%	0.99%	0.99%
City % of County	0.62%	0.69%	0.56%	% City	154%	154%	154%	153%	153%	152%	152%	151%	151%

Rollup

<u>Ratio</u>	<i>Adjusted for Future Pop/Housing Growth</i>				<i>Projections</i>									
<u>Used</u>	<u>2017</u>	<u>2018-20</u>	<u>2021-26</u>	<u>Priv. Schls</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>	<u>2026</u>
0.97%	0.975	0.980	0.983	0.999	K	245	252	257	261	253	253	254	255	256
1.109	0.994	0.996	1.000	0.999	1	267	270	278	284	289	280	281	282	282
1.077	0.994	0.996	1.000	0.999	2	274	286	289	298	305	311	301	302	303
1.070	0.994	0.996	1.000	0.999	3	317	292	304	308	319	326	332	322	323
1.041	0.994	0.996	1.000	0.999	4	335	328	302	315	320	331	339	345	335
1.040	0.994	0.996	1.000	0.999	5	368	347	339	313	327	333	344	352	359
1.039	0.994	0.996	1.000	0.999	6	359	380	358	351	324	340	345	357	365
1.045	0.994	0.996	1.000	0.999	7	377	373	395	372	366	338	354	360	372
0.992	0.994	0.996	1.000	0.999	8	392	372	369	390	369	363	335	351	357
1.045	0.994	0.996	1.000	0.999	9	377	408	387	407	385	379	350	367	373
1.022	0.994	0.996	1.000	0.999	10	374	383	415	393	416	393	386	357	374
0.989	0.994	0.996	1.000	0.999	11	405	368	377	408	389	387	411	389	382
0.943	0.994	0.996	1.000	0.999	12	<u>338</u>	<u>380</u>	<u>345</u>	<u>354</u>	<u>385</u>	<u>366</u>	<u>364</u>	<u>387</u>	<u>366</u>
					Tot	4,429	4440	4417	4430	4444	4428	4433	4438	4434

Change	20	11	-23	14	14	-15	5	5	-14	10
Percent	0.4%	0.3%	-0.5%	0.3%	0.3%	-0.3%	0.1%	0.1%	-0.3%	0.2%

K-5	1806	1775	1770	1778	1813	1834	1851	1858	1858	1852
6-8	1129	1126	1122	1113	1059	1041	1035	1068	1095	1122
9-12	1494	1540	1524	1539	1572	1554	1547	1512	1472	1460

Projection King County K-12

KC K-12	287,385	291,392	296,628	301,085	304,522	307,537	310,160	311,900	312,573	312,981
Market share	1.54%	1.52%	1.49%	1.47%	1.46%	1.44%	1.43%	1.42%	1.42%	1.42%

Medium Range Forecast (Growth Rates Based off of the Medium Range Pop/Housing Forecast)

				Projected Births									
<u>6 year Trends at Kindergarten</u>				<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	Median	SD+1	SD-1	City Births	148	156	179	163	153	153	154	154	155
				Cnty Births	25,032	24,910	25,348	25,487	25,456	25,519	25,593	25,679	25,790
% County	1.00%	1.04%	0.96%	% County	0.99%	1.03%	1.03%	1.04%	1.01%	1.01%	1.01%	1.01%	1.01%
% City	170%	183%	157%	% City	154%	154%	154%	153%	153%	152%	152%	151%	151%
City % of County	0.62%	0.69%	0.56%										

Rollup

Ratio	<i>Adjusted for Future Pop/Housing Growth</i>				Projections									
Used	2017	2018-20	2021-26	Priv. Schls	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
0.97%	0.990	0.995	0.998	1.000	K	248	256	261	265	257	257	258	259	260
1.109	1.000	1.002	1.006	1.000	1	268	276	284	290	295	286	287	288	289
1.077	1.000	1.002	1.006	1.000	2	276	290	298	307	314	320	310	311	312
1.070	1.000	1.002	1.006	1.000	3	319	296	311	319	330	338	344	334	335
1.041	1.000	1.002	1.006	1.000	4	337	332	308	324	334	346	354	361	350
1.040	1.000	1.002	1.006	1.000	5	370	351	346	321	339	350	362	370	377
1.039	1.000	1.002	1.006	1.000	6	361	385	366	360	336	354	366	378	387
1.045	1.000	1.002	1.006	1.000	7	379	378	403	383	379	353	372	384	397
0.992	1.000	1.002	1.006	1.000	8	395	377	376	401	382	378	352	371	383
1.045	1.000	1.002	1.006	1.000	9	379	413	395	394	421	401	397	370	390
1.022	1.000	1.002	1.006	1.000	10	376	388	423	404	405	433	413	408	380
0.989	1.000	1.002	1.006	1.000	11	408	373	385	420	402	403	431	411	406
0.943	1.000	1.002	1.006	1.000	12	<u>341</u>	<u>385</u>	<u>352</u>	<u>364</u>	<u>398</u>	<u>382</u>	<u>382</u>	<u>409</u>	<u>390</u>
					Tot	4,458	4501	4508	4551	4592	4600	4628	4653	4656

Change	49	43	7	43	41	9	27	26	2	25
Percent	1.1%	1.0%	0.2%	0.9%	0.9%	0.2%	0.6%	0.6%	0.1%	0.5%

K-5	1819	1801	1808	1826	1869	1897	1915	1922	1922	1916
6-8	1135	1140	1145	1144	1096	1085	1089	1133	1167	1197
9-12	1503	1560	1555	1581	1626	1619	1623	1598	1566	1568

Projection King County K-12

KC K-12	287,385	291,392	296,628	301,085	304,522	307,537	310,160	311,900	312,573	312,981
Market share	1.55%	1.54%	1.52%	1.51%	1.51%	1.50%	1.49%	1.49%	1.49%	1.50%

High Range Forecast (Growth Rates Based off of the High Range Pop/Housing Forecast)

				Projected Births									
<u>6 year Trends at Kindergarten</u>				<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	<u>Median</u>	<u>SD+1</u>	<u>SD-1</u>	City Births	148	156	179	163	153	153	154	154	155
% County	1.00%	1.04%	0.96%	Cnty Births	25,032	24,910	25,348	25,487	25,456	25,519	25,593	25,679	25,790
% City	170%	183%	157%	% County	1.01%	1.04%	1.04%	1.05%	1.02%	1.02%	1.02%	1.02%	1.02%
City % of County	0.62%	0.69%	0.56%	% City	154%	154%	154%	153%	153%	152%	152%	151%	151%

Rollup

<u>Ratio</u>	<i>Adjusted for Future Pop/Housing Growth</i>				Projections									
<u>Used</u>	<u>2017</u>	<u>2018-20</u>	<u>2021-26</u>	<u>Priv. Schls</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>	<u>2026</u>
0.97%	1.005	1.010	1.013	1.001	K	252	260	265	269	260	261	262	263	264
1.109	1.006	1.008	1.012	1.001	1	270	282	291	296	302	293	293	294	295
1.077	1.006	1.008	1.012	1.001	2	277	294	307	316	323	329	319	320	321
1.070	1.006	1.008	1.012	1.001	3	321	299	317	331	342	350	357	346	347
1.041	1.006	1.008	1.012	1.001	4	339	337	315	333	349	361	370	376	365
1.040	1.006	1.008	1.012	1.001	5	372	356	353	330	350	368	380	389	396
1.039	1.006	1.008	1.012	1.001	6	364	390	373	370	347	369	387	400	409
1.045	1.006	1.008	1.012	1.001	7	381	383	411	393	392	367	390	409	423
0.992	1.006	1.008	1.012	1.001	8	397	382	384	412	395	394	369	392	411
1.045	1.006	1.008	1.012	1.001	9	382	419	403	404	436	418	417	391	415
1.022	1.006	1.008	1.012	1.001	10	378	393	432	415	419	451	433	431	404
0.989	1.006	1.008	1.012	1.001	11	410	378	393	431	416	420	452	434	432
0.943	1.006	1.008	1.012	1.001	12	<u>343</u>	<u>390</u>	<u>359</u>	<u>374</u>	<u>412</u>	<u>397</u>	<u>401</u>	<u>432</u>	<u>415</u>
					Tot	4,487	4563	4601	4674	4744	4778	4830	4878	4899

Change	78	76	38	73	70	35	52	48	21	42
Percent	1.8%	1.7%	0.8%	1.6%	1.5%	0.7%	1.1%	1.0%	0.4%	0.9%

K-5	1832	1827	1847	1874	1927	1962	1981	1988	1988	1982
6-8	1142	1155	1168	1175	1134	1130	1146	1201	1244	1276
9-12	1513	1580	1586	1624	1682	1686	1703	1688	1666	1684

Projection King County K-12

KC K-12	287,385	291,392	296,628	301,085	304,522	307,537	310,160	311,900	312,573	312,981
Market share	1.56%	1.57%	1.55%	1.55%	1.56%	1.55%	1.56%	1.56%	1.57%	1.58%

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.