



2014-15 Enrollment Projections

TO: Michael L. Wood, Superintendent of Schools, Nashoba RSD, MA
FROM: Donald G. Kennedy, Ed.D., Demographic Specialist
DATE: December 3, 2014 revised March 19, 2015
RE: Enrollment Projections for Residents

We are pleased to send you the enclosed documents displaying the past, present, and projected enrollments for the Nashoba Regional School District. We have used the figures given to us by the district and we assume that the method of collecting the enrollment data has been consistent from year to year. It is worth noting that this time of transition is the most difficult of the past 25 years to reliably forecast future enrollments, due to the irregular/uneven pace of communities recovering from the effects of the economic cycle upon real estate markets and school enrollments. At the same time that births are down, the three Nashoba towns in 2014-15 appear to be undergoing an increase in the number of new families with school-age children. **This is a revision, with new real estate sales data, of the forecast and letter sent on December 3, 2014.**

Although the regional district is made up of three unique towns, each with its own perspective, the demographic footprint of the three communities is quite similar. Each is a growing rural town classified by the regional planning agency as a “developing suburb”. Each has weathered the economic slowdown of the past 5-6 years, and now is experiencing an increasing number of real estate sales, bringing in new families with children of school age. Each has a higher median age than in prior years, hence the declining number of births – and each will come to a tipping point with the new families, that will cause the number of births to once again increase. Of interest as well, are the shifting enrollment percentages among the towns, within the K-12 region. **Bolton’s** K-12 enrollment in 2004-05 represented 30.9% of the Nashoba Region; by 2014-15, **Bolton** had risen to 31.5% of the K-12 residents and is forecast in a decade, to hold firm at a 31.4% share of the total. **Lancaster** had 32.7% of the K-12 total in 2004-05; shrank to 29.7% in 2014-15, and is projected to rise back to 31.4% of the K-12 total by 2024-25.

Lastly, **Stow** which had a 36.4% share of the total in 2004-05, rose to 38.7% of the K-12 resident student total in 2014-15, and is expected to enroll 37.1% of the K-12 total within a decade from now.

NESDEC's enrollment projection totals from fall of 2013 data came within 5.6% of the actual Grade K-12 enrollment total for fall, 2014 (only 3,122 projected v. a robust 3,298 actual – due to a surge in new residents at all grade levels). In Grades K-5, 1,408 pupils were projected v. 1,466 enrolled. In Grades 6-8, 754 students were forecast v. 807 enrolled. And in Grades 9-12, 960 pupils were forecast v. 1,025 enrolled.

The two factors now at work which will have the greatest effect upon future enrollments of the next five years are: a continuing slow pace in the number of births to Nashoba RSD residents and, to a greater degree, b. the new in-migration (which had slowed, due to the real estate slowdown). In the decade from 1999-2008, Nashoba RSD averaged 210 births per year; recently (and expected over the next 6-7 years) are about 147-190 births annually...averaging about 53 fewer per year than previously. Hard-hit Connecticut experienced an 8.6% decline in births from 2007 to 2009 (in part caused by the economic Recession), the largest decline among the six New England states – followed by an 8.1% decline in Rhode Island births, the two states with the highest rates of unemployment in the New England region – **Massachusetts births declined by only 3.9% over these three years**. Economists are forecasting a slow-yet-steady recovery from the current rates of unemployment which, in turn, may lead to additional in-migration and births (RI 7.6% unemployment as of September 2014; CT 6.4%; **MA 6.0%**; US non-farm unemployment 5.9% (US unemployment was above 10% during the Great Recession); New England average 5.8%; ME 5.8%; VT 4.4%; and NH 4.3% - other nearby states: NJ 6.6%; NY 6.4%; PA 5.8%).

The ever-changing relationship between the Nashoba towns' births and Kindergarten enrollments is displayed on the B-K graph. The Nashoba RSD, over the past seven years, has registered about 114 Kindergarteners for every 100 births (five years previous), a relationship which has been quite stable...this fall, however, there were a robust 126 Kindergarteners for every 100 births five-years-previous (Nashoba RSD's second highest ratio in over a decade). The immediate reason for the difference is the record number of "net move-in's" of new children. Note, however, that in 2012 there were only 95 Kindergarteners for every 100 births. Projection ratios have been adjusted to match Nashoba RSD's most recent enrollment history. Grade 1 is expected to be about 14% larger than the previous year's Kindergarten class.

Like many nearby communities Nashoba RSD continues to experience enrollment fluctuations of in/out-migration in Grades 1-8 (Grades 9-12 are excluded from this calculation, as there sometimes is an 8% decrease in Grade 9 for reasons that have little to do with families moving out of the three Nashoba towns). **See below the paragraph describing "Hidden Trends within the District - the "Grades 1-8 stability" - which the past three school years has**

included +1% net in-migration of families to the Nashoba RSD Public Schools (+5.7% in 2014-15) – at grade levels which commonly experience stability – thus indicating the arrival of an increasing number of new families.

Over the next three years, K-5 enrollments are forecast to decrease by a total of 127 students due primarily to fewer births; Grades 6-8 to increase by 3 pupils; and the high school level to decrease by about 11 pupils...all within the next three years – as classes move up the grades. After that point these projections show a decline of 98 children in Grades K-5, combined with a continuing decrease at Grades 6-8 and 9-12 – as the smaller classes work their way up through the grades. That said, it is likely that real estate turnover will have increased, bringing in additional new families - see the “Projections” page.

Will these patterns of increasing enrollments really last for as long as ten years? That is difficult to answer.

All projections are more reliable in Years #1-5; and less reliable in Years #6-10. As soon as the economy and real estate situation become more stable in the region, additional in-migration may occur in the three Nashoba RSD towns. Many communities in the region sold during 2008-2013 only about 60-80% as many homes as in 2003-2007. **In the case of Bolton**, the town averaged 75 single-family home sales each year from 2003-2007; this dropped to 44 sales (59% of the prior pace) in 2008 – yet has risen back to 67 S-F home sales in 2013 and 82 homes in 2014 – as well as 12 condo units. **Lancaster** averaged 55 sales per year from 2003-2007, then dropped to 46 sales in 2006 – only to increase to 58 in 2013 and 70 homes in 2014 – plus 14 condos sold. Lastly, **Stow** averaged 84 home sales annually from 2003-2007, dropped to 50 sales in 2009 (60% of the earlier pace) and increased to 94 home sales in 2013 and 92 homes in 2014. However condo sales of 28 units in 2012 and 27 units in 2013, dropped to only 13 condo units sold in 2014. Building permits had slowed as well; see the “Additional Data” table below. **As additional families move in, any forecasted declines may moderate.** See the description on Page 4 below regarding “reliability of projections”.

The birth numbers used in the projections, through 2012, are from the MA Department of Public Health. The “estimated” years, beginning with 2013 are a rolling five-year average, which NESDEC has found to be the most accurate method of estimation. Local City/Town Clerks have up-to-date birth information, however do not have access to the numbers of Nashoba RSD residents born out-of-state (information which will eventually become known to the MA DPH).

The two most difficult grades to forecast in all districts are Kindergarten and Grade 9. The latter is difficult to anticipate, as there are so many options for Grade 9 (in vocational or agricultural schools, private or parochial non-public schools, etc.). Kindergarten can be difficult to project based upon births alone, as many districts have large numbers of “net move-ins/move-outs” who are ages 1-4. **Some districts take the extra steps to track 3 and 4-year olds with a local census, or report to NESDEC the known number of 4-year olds in local**

preschools/nursery schools which typically enroll Kindergarteners in the district. Knowing this information helps NESDEC to project Kindergarteners more reliably...as does data from the Kindergarten Screening in districts which also track 3 and 4-year old siblings (or neighbors) at that time. The more data, in addition to births, which is sent to NESDEC, the greater is the chance that “enrollment surprises” will be minimized.

“Hidden Trends” within the district: There are additional trends and counter-trends. Although Nashoba RSD had been averaging 210 births per year, the births now remain in the mid-150's, a trend expected to continue. The K-12 total will continue to decrease for several years, as larger classes of seniors graduate in June, only to be replaced in the fall by slightly less numerous classes of Kindergarteners.

We know that Nashoba RSD currently is experiencing net in-migration of new families with school age children. Yet how can we accurately quantify the increasing numbers of these children? More so than other grade levels, Grades 1-8 in most districts tend to be quite stable in their numbers (example: if the Grade 1-7 total was 1,000 children in Year #1, the Grade 2-8 total in Year #2 typically would be approximately 1,000 - same cohort of children). Thus these "usually stable grades" provide a useful yardstick by which to measure a district's tendency toward in-/out-migration. Nashoba RSD's data reveals the potential for a trend toward "net in-migration". In 2013-14, **Bolton's** 581 children in Grades 2-8 were **48 children fewer** than the 629 who had been in Grades 1-7 during the prior year. However, in 2014-15, the 604 children in Grades 2-8 were **also 39 more students** than 565 who had been in Grades 1-7 during the previous year. Similarly, in **Lancaster**, the 505 students in Grades 2-8 in 2013-14 were **38 children fewer** than the 543 who had been in Grades 1-7 during the prior year. Yet the numbers reversed in 2014-15, when the 549 children in Grades 2-8 were **53 more** than the 496 pupils in Grades 1-7 the prior year. **Stow's** experience was more modest: 691 in Grades 1-7 in 2012-13 became 688 in the following year (a decline of 3); and 670 children in 2013-14 in Grades 1-7 became 675 in Grades 2-8 in 2014-15 (an increase of 5 students). This potential in-migration in grades that typically are stable in numbers - provides an additional reliable benchmark by which to assess enrollment trends. In the case of all three towns, the earlier outflow appears to have reversed itself, with the new trend toward adding additional newcomers.

Will new families be moving into our school district? Everyday across America, 10,000 “Baby Boomers” celebrate their 65th birthday - a phenomenon which will continue for a decade. New England has a disproportionately large share of these senior citizens, many of whom had planned to “downsize” their living arrangements, yet postponed putting homes on the market due to the Great Recession. School enrollments are influenced strongly by the number of real estate sales, as these contribute new families moving into many districts. In over 80% of districts, the number of real estate sales is 4-5 times larger than the number of building

permits for new residential construction – **thus the number of real estate sales often is a more important factor than building permits.**

In New England, how rapidly will additional homes be placed on the market? A mid-2014 study using data from the Federal Housing Finance Agency, Bureau of Economic Analysis and the U.S. Census Bureau directly links home prices to the “real Gross Domestic Product” (GDP) in each of the nine regions in the country. However New England ranks only 7th among the 9 regions in the recovery of its regional economy (as measured in “the bubble” prior to the Recession, in “real GDP”). Comparing the regional economies from 2 Quarter of 2007 to 4 Quarter 2013: W. South Central = +18.6% (that is, many jobs are available); W. North Central +11.8%; Pacific +7.4%; E. South Central + 5.6%; Middle Atlantic + 5.1%; Mountain + 4.1%; **New England +3.4%**; South Atlantic + 2.1%; and E. North Central + 2.0%. Home sales prices are +14.6% in the W. South Central region (including Texas, Arkansas, Louisiana, and Oklahoma) with the strongest “real G.D.P.” v. -4.4% in New England. Thus, although real estate sales and rentals are very strong in some New England towns and cities, there are many senior citizens still refraining from placing their homes on the market – as house prices still may be rising. New England births, however, are likely to remain at low levels, due to the advanced age of the New England population.

Analyzing Your Enrollment

Historical Public Enrollments

1. After the "YEAR" column can be found the "BIRTHS" column. The number of births to residents for each of eleven years is displayed. Note any trends, e.g., have births been decreasing? increasing? leveling off? Kindergarten and Grade 1 enrollments normally are quite responsive to these fluctuations.
2. Look **down** the K and 1 columns, noting the direction of the trend. This affords a comparison of these classes over a ten-year period. Add the K and Grade 1 enrollments of the first school year recorded, and compare them with the sum of the current K and Grade 1 enrollments.
3. Take the first K class and follow it diagonally to trace its movement to Grade 1, 2, etc. up to its current 10th grade status. This comparison (which can be accomplished for other classes also) gives some measure of the effects of migration in your school district. If a sixth grade class today is larger than it was as a K class six years ago, then net in-migration probably has occurred; if it is smaller, then net out-migration probably has occurred.
4. Compare each K class with the previous year's graduating class. Note which is larger and by what amount one surpasses the other. Larger graduating classes generally reflect declining enrollments; larger K classes generally indicate increasing enrollments.
5. In the "Grade Combinations" section, note the trends of elementary, middle school and high school enrollments. A significant and consistent trend in these summaries usually results in the corresponding trend for projected enrollments. If enrollments are leveling off in the elementary grades after a period of decline, then the secondary enrollments might be expected to continue to decline for several years until the leveling off experience has had time to take hold at the secondary grades.

Enrollment Projections

1. Note the trends exhibited in the total K-12 (or 1-12) projection for the next five years as well as the projections for various grade combinations. The trends on this page should generally exhibit a continuation of the trends mentioned above for historical enrollments, although the **rate** of change may be quite different.
2. Look at the births in the most recent years and note whether the trend is up, down, or level.
3. Make similar comparisons as appropriate on this page as were suggested for the "Historical Public Enrollments" page.

PROJECTION METHODOLOGY

Cohort component (survival) technique is a frequently used method of preparing enrollment forecasts. NESDEC uses this method, but modifies it in order to move away from forecasts which are wholly computer or formula driven. Such modification permits the incorporation of important, current town-specific information into the generation of the enrollment forecasts (such as the volume of real estate sales, building permits, in/out-migration, etc.). Basically, percentages are calculated from the historical enrollment data to determine a reliable percentage of increase or decrease in enrollment between any two grades. For example, if 100 students enrolled in Grade 1 in 2013-14, increased to 104 students in Grade 2 in 2014-15, the percentage of survival would have been 104% or a ratio of 1.04. Such ratios are calculated between each pair of grades or years in school over several recent years.

After study and analysis of the historical ratios, and based upon a reasonable set of assumptions regarding births, migration rates, retention rates, etc., ratios most indicative of future growth patterns are determined for each pair of grades. The ratios thus selected are applied to the present enrollment statistics for a pre-determined number of years. The ratios used are the key factors in the reliability of the projections, given the validity of the data at the starting point. The strength of the ratios lies in the fact that each ratio encompasses **collectively** the variables that account for increases or decreases in the size of a grade enrollment as it moves on to the next grade. Each ratio represents the cumulative effect of the following factors:

1. Real estate turnover and new residential construction;
2. Migration, in or out, of the schools;
3. Drop-outs, transfers, etc.;

4. Births to residents;
5. Retention in the same grade.

RELIABILITY OF ENROLLMENT PROJECTIONS

Projections can serve as useful guides to school administrators for educational planning. In this regard, the projections are generally most reliable when they are closest in time to the current year. Projections six to ten years out may serve as a guide to future enrollments, and are useful for facility planning purposes. However, they should be viewed as subject to change given the likelihood of changes in the underlying assumptions/trends.

Projections that are based upon **the children who already are in the district** (the current K-12 population only) will be the most reliable; the second level of reliability will be for those children already **born into the community but not yet old enough to be in school**. A less reliable category is the group for which an estimate must be made **to predict the number of births**, thereby adding an additional variable. See these three multi-colored groupings on the “Projected Enrollment” slide/page.

How often do the actual enrollments closely match the NESDEC projections? The research literature reports the closest that enrollment forecasters are likely to come to actual enrollments is about 1% variance per year-from-the-known-data. That is, a 1% variance from projection-to-actual “one-year-out” into the future (2% variance “two-years-out” ... 10% variance “ten-years-out”). NESDEC reaches this “highest possible” standard in about 90% of cases. When our NESDEC variance is greater, the reasons often are one of the following: a. imbedded/intervening “hidden” variables (examples: a parochial school closed or other students returned from non-public schools, a charter school opened, the Kindergarten program changed entrance age or to extended/full-day, the high school toughened its course credit/graduation requirements, the District set new attendance boundaries for elementary schools, or the District had well-publicized budget/referendum academic accreditation difficulties); b. the District size was below 500 students, thus subject to fluctuations in total numbers; or c. the District has not done enrollment projections on an annual basis.

Annual updates allow for early identification of recent changes in historical trends. When the actual enrollment in a grade is significantly different (high or low) from the projected number, it is important (yet difficult) to determine whether this is a one-year aberration or whether a new trend may have begun. **In light of this possibility, NESDEC urges all school districts to have updated enrollment forecasts developed by NESDEC each October.** This service is available at no cost to affiliated school districts.

Using This Information Electronically

If you would like to extract the information contained in this report for your own documents or presentations, you can use Adobe Acrobat reader to convert the desired information to a “snapshot,” which can be inserted into PowerPoint slides, Word documents, etc. Because the snapshot tool creates a graphic, the image is not editable.

Steps for Using The Snapshot Tool in Adobe Acrobat Reader 8.0:

1. Click on Tools Menu;
2. Choose “Select & Zoom;”
3. Choose “Snapshot Tool;”
4. Click and drag around the text, chart, and/or graphics that you would like to capture: your selection will be copied to the clipboard automatically;
5. Click in the document where you would like the information to appear;*
6. Give Paste command.

If you have an earlier version of Adobe Acrobat and these instructions don’t work for you, contact your tech support person, or NESDEC and we will try to assist you. Telephone (508)481-9444 or ep@nesdec.org. Ask for Peggy, Don, or Carol.

*You may paste your snapshot onto a PowerPoint slide, onto an Excel sheet, or even into a graphics program to save as a separate graphic file (in .jpg or other format), so that it is available for inserting into future documents.

Nashoba RSD, MA Historical Enrollment

School District: Nashoba RSD, MA

2/19/2015

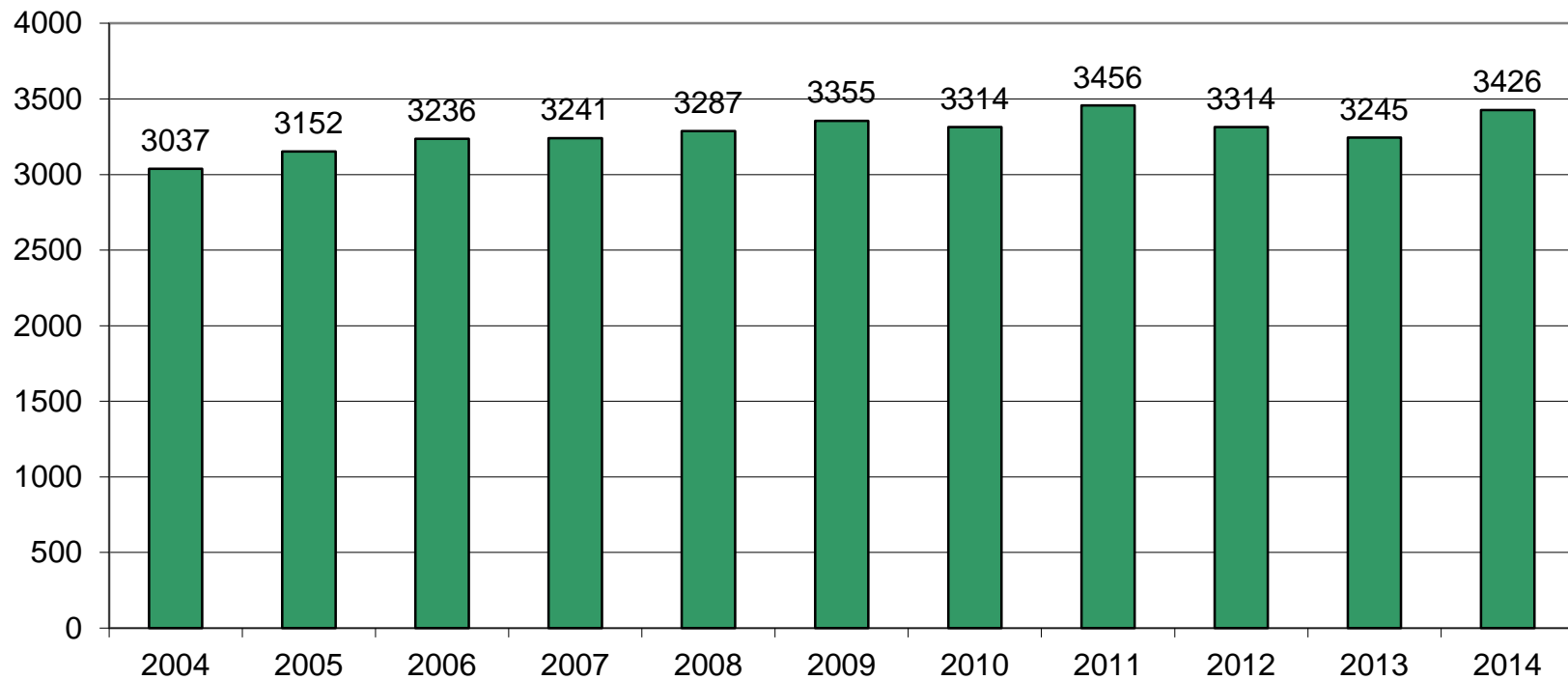
Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
1999	233	2004-05	24	250	252	241	225	228	254	238	253	229	217	215	225	186	0	3013	3037
2000	230	2005-06	50	258	267	261	248	228	238	253	239	252	210	220	213	215	0	3102	3152
2001	229	2006-07	110	247	265	270	267	247	233	234	259	245	226	206	219	208	0	3126	3236
2002	221	2007-08	101	227	248	268	269	267	255	229	243	252	207	239	208	224	4	3140	3241
2003	197	2008-09	113	248	234	255	274	274	274	256	233	244	238	211	230	203	0	3174	3287
2004	223	2009-10	109	259	250	243	254	271	277	281	262	247	226	239	207	230	0	3246	3355
2005	217	2010-11	106	218	260	256	231	258	276	277	274	252	226	228	236	216	0	3208	3314
2006	204	2011-12	98	244	238	271	266	251	272	286	273	286	261	246	236	228	0	3358	3456
2007	180	2012-13	83	171	247	242	284	275	254	275	286	278	246	237	215	221	0	3231	3314
2008	165	2013-14	118	190	226	248	228	268	271	232	258	269	240	250	237	210	0	3127	3245
2009	190	2014-15	128	239	206	245	258	234	284	284	253	270	269	251	264	241	0	3298	3426

Historical Enrollment in Grade Combinations									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2004-05	1196	1450	1688	2170	974	720	482	1325	843
2005-06	1262	1500	1753	2244	982	744	491	1349	858
2006-07	1296	1529	1763	2267	971	738	504	1363	859
2007-08	1279	1534	1763	2258	979	724	495	1373	878
2008-09	1285	1559	1815	2292	1007	733	477	1359	882
2009-10	1277	1554	1835	2344	1067	790	509	1411	902
2010-11	1223	1499	1776	2302	1079	803	526	1432	906
2011-12	1270	1542	1828	2387	1117	845	559	1530	971
2012-13	1219	1473	1748	2312	1093	839	564	1483	919
2013-14	1160	1431	1663	2190	1030	759	527	1464	937
2014-15	1182	1466	1750	2273	1091	807	523	1548	1025

Historical Percentage Changes			
Year	K-12	Diff.	%
2004-05	3013	0	0.0%
2005-06	3102	89	3.0%
2006-07	3126	24	0.8%
2007-08	3140	14	0.4%
2008-09	3174	34	1.1%
2009-10	3246	72	2.3%
2010-11	3208	-38	-1.2%
2011-12	3358	150	4.7%
2012-13	3231	-127	-3.8%
2013-14	3127	-104	-3.2%
2014-15	3298	171	5.5%
Change		285	9.5%

Nashoba RSD, MA Historical Enrollment

PK-12, 2004-2014



Nashoba RSD, MA Projected Enrollment

School District: Nashoba RSD, MA

2/19/2015

Enrollment Projections By Grade*																				
Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2009	190		2014-15	128	239	206	245	258	234	284	284	253	270	269	251	264	241	0	3298	3426
2010	164		2015-16	130	185	269	215	250	260	240	288	286	258	245	272	248	260	0	3276	3406
2011	147		2016-17	133	167	208	280	218	254	265	243	291	292	237	248	268	242	0	3213	3346
2012	150		2017-18	135	168	188	217	286	220	260	268	245	297	266	240	245	263	0	3163	3298
2013	152		2018-19	138	171	189	196	221	288	224	263	269	250	272	270	237	241	0	3091	3229
2014	161	(est.)	2019-20	140	181	192	197	199	223	295	227	266	273	229	275	267	233	0	3057	3197
2015	155	(est.)	2020-21	143	174	204	200	201	201	228	298	229	271	253	232	271	262	0	3024	3167
2016	153	(est.)	2021-22	145	173	197	213	204	203	206	231	299	233	249	256	229	266	0	2959	3104
2017	154	(est.)	2022-23	148	173	195	205	217	206	208	209	233	304	214	252	252	225	0	2893	3041
2018	155	(est.)	2023-24	150	175	195	203	209	219	210	211	211	238	280	217	249	247	0	2864	3014
2019	155	(est.)	2024-25	153	175	198	203	207	211	224	213	213	215	218	284	214	245	0	2820	2973

*Projections should be updated on an annual basis.

Based on an estimate of births

Based on children already born

Based on students already enrolled

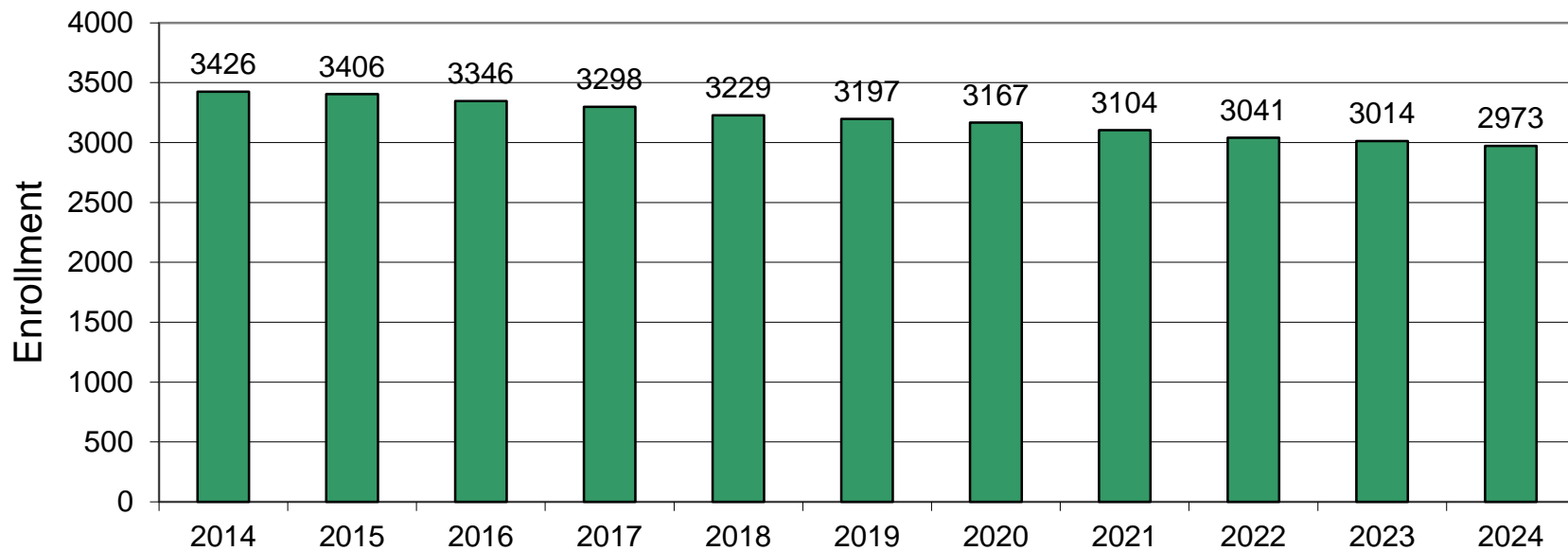
Projected Enrollment in Grade Combinations*									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2014-15	1182	1466	1750	2273	1091	807	523	1548	1025
2015-16	1179	1419	1707	2251	1072	832	544	1569	1025
2016-17	1127	1392	1635	2218	1091	826	583	1578	995
2017-18	1079	1339	1607	2149	1070	810	542	1556	1014
2018-19	1065	1289	1552	2071	1006	782	519	1539	1020
2019-20	992	1287	1514	2053	1061	766	539	1543	1004
2020-21	980	1208	1506	2006	1026	798	500	1518	1018
2021-22	990	1196	1427	1959	969	763	532	1532	1000
2022-23	996	1204	1413	1950	954	746	537	1480	943
2023-24	1001	1211	1422	1871	870	660	449	1442	993
2024-25	994	1218	1431	1859	865	641	428	1389	961

Projected Percentage Changes			
Year	K-12	Diff.	%
2014-15	3298	0	0.0%
2015-16	3276	-22	-0.7%
2016-17	3213	-63	-1.9%
2017-18	3163	-50	-1.6%
2018-19	3091	-72	-2.3%
2019-20	3057	-34	-1.1%
2020-21	3024	-33	-1.1%
2021-22	2959	-65	-2.1%
2022-23	2893	-66	-2.2%
2023-24	2864	-29	-1.0%
2024-25	2820	-44	-1.5%
Change		-478	-14.5%

See "Reliability of Enrollment Projections" section of accompanying letter.
Projections are more reliable for Years #1-5 in the future than for Years #6 and beyond.

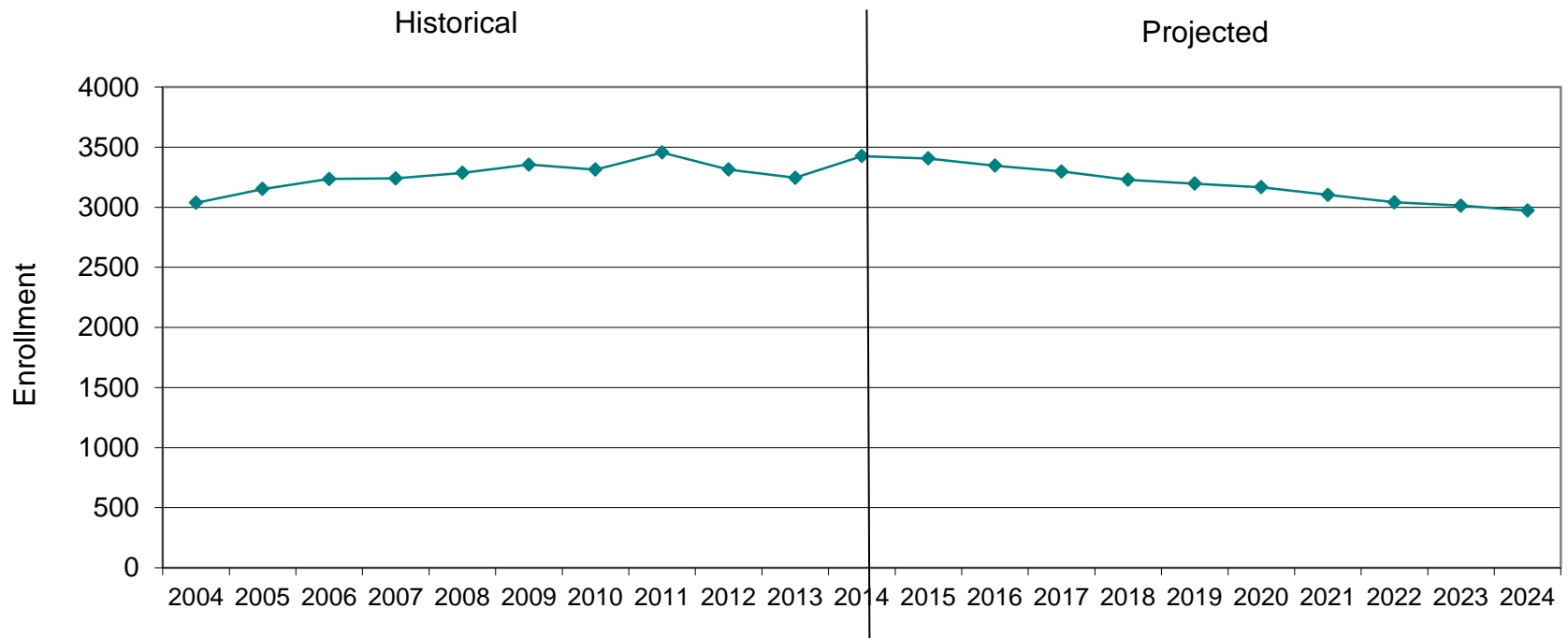
Nashoba RSD, MA Projected Enrollment

PK-12 TO 2024 Based On Data Through School Year 2014-15

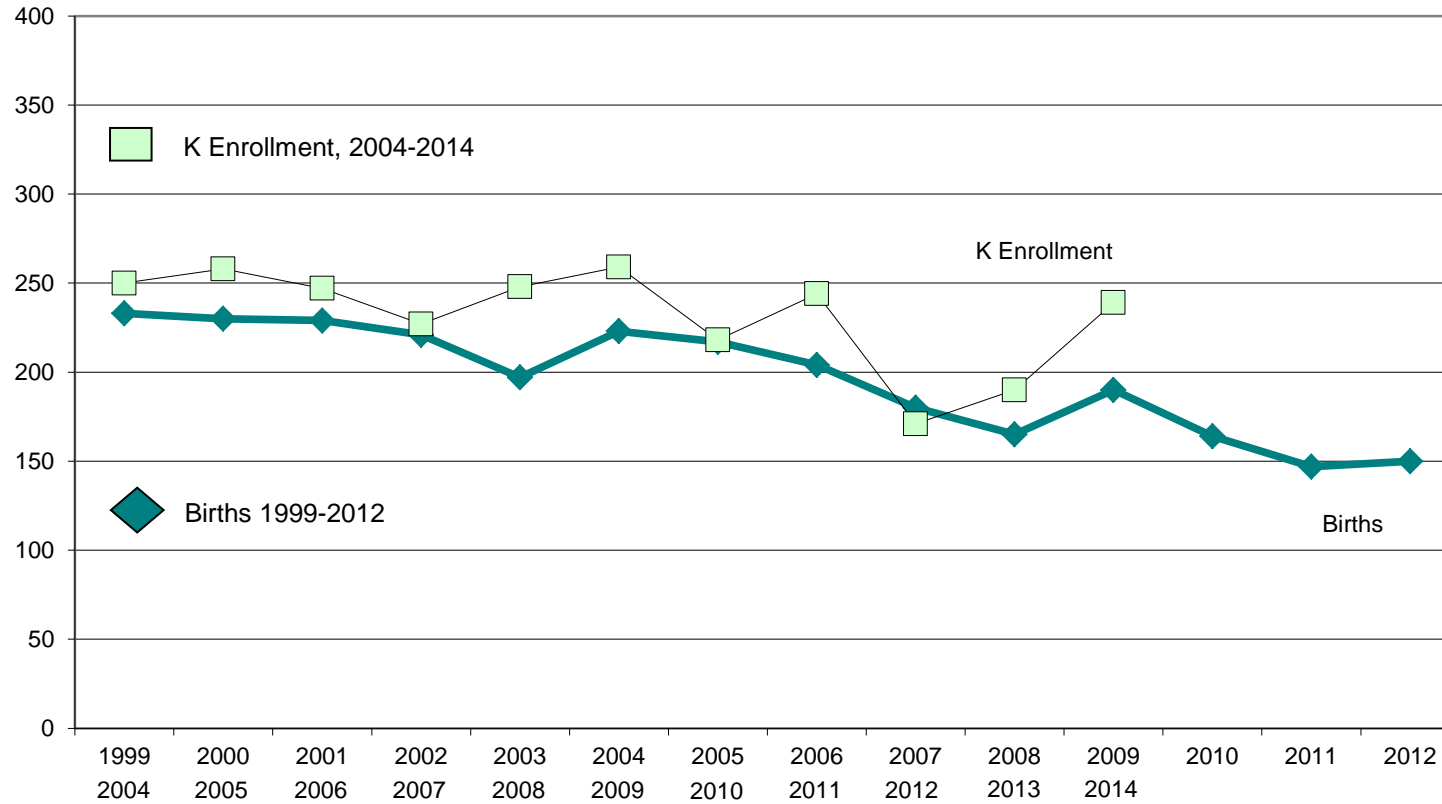


Nashoba RSD, MA Historical & Projected Enrollment

PK-12, 2004-2024



Nashoba RSD, MA Birth-to-Kindergarten Relationship



Bolton, MA Historical Enrollment

School District: **Bolton, MA**

12/3/2014

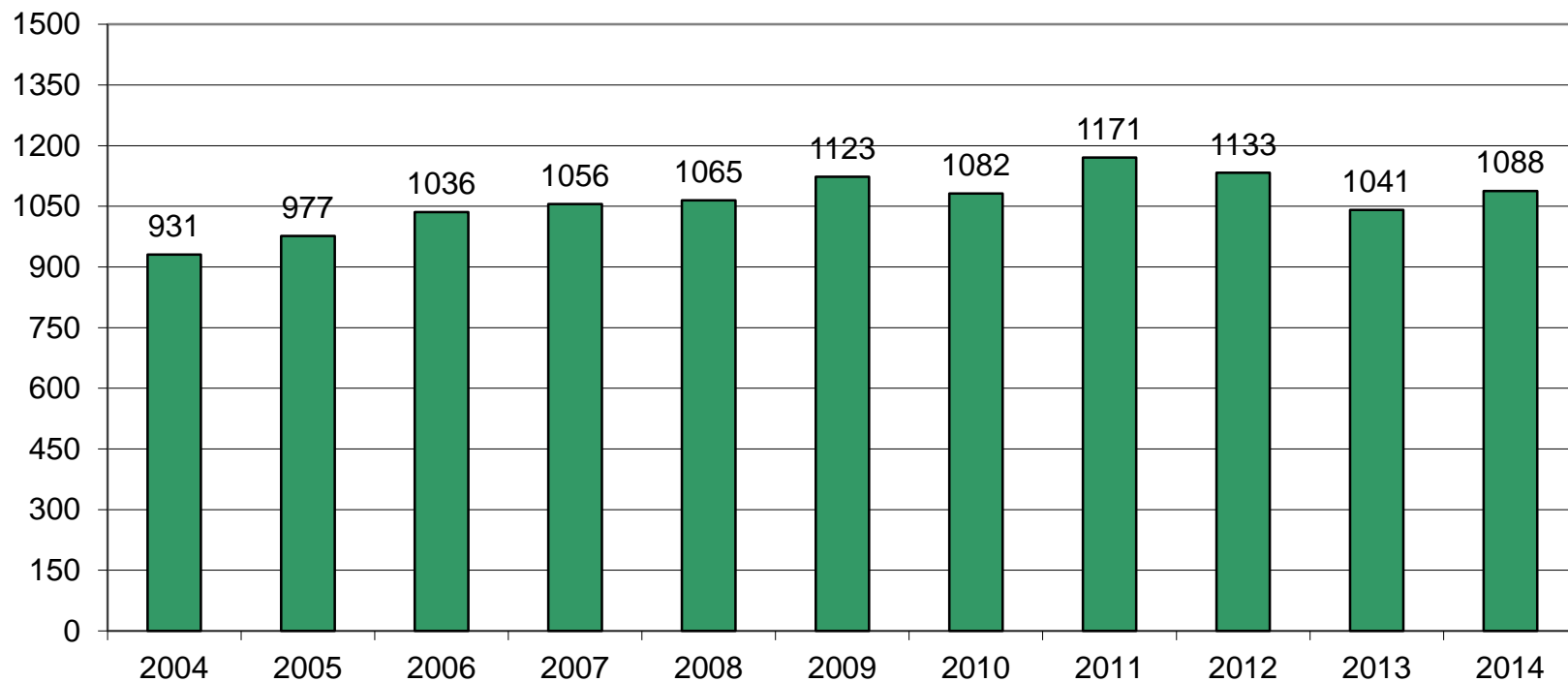
Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
1999	70	2004-05	0	71	90	75	74	80	80	85	57	75	66	53	75	50	0	931	931
2000	69	2005-06	32	72	71	93	79	73	81	81	85	55	64	66	54	71	0	945	977
2001	76	2006-07	44	86	77	77	91	83	77	81	88	86	57	66	70	53	0	992	1036
2002	72	2007-08	42	69	86	81	79	96	87	80	84	87	69	60	65	71	0	1014	1056
2003	52	2008-09	43	86	70	88	84	79	95	85	77	85	79	70	58	66	0	1022	1065
2004	64	2009-10	50	87	89	78	95	82	84	102	89	79	79	81	68	60	0	1073	1123
2005	61	2010-11	27	66	87	88	73	99	81	81	96	83	78	76	77	70	0	1055	1082
2006	50	2011-12	53	64	78	100	93	87	103	93	84	105	77	83	79	72	0	1118	1171
2007	53	2012-13	33	66	60	75	106	95	88	109	96	85	86	78	77	79	0	1100	1133
2008	36	2013-14	34	54	71	61	67	92	97	74	103	87	60	87	77	77	0	1007	1041
2009	42	2014-15	48	61	62	78	61	75	99	101	85	105	82	61	91	79	0	1040	1088

Historical Enrollment in Grade Combinations									
Year	PK-5	K-5	K-6	PK-8	5-8	6-8	7-8	7-12	9-12
2004-05	470	470	555	687	297	217	132	376	244
2005-06	501	469	550	722	302	221	140	395	255
2006-07	535	491	572	790	332	255	174	420	246
2007-08	540	498	578	791	338	251	171	436	265
2008-09	545	502	587	792	342	247	162	435	273
2009-10	565	515	617	835	354	270	168	456	288
2010-11	521	494	575	781	341	260	179	480	301
2011-12	578	525	618	860	385	282	189	500	311
2012-13	523	490	599	813	378	290	181	501	320
2013-14	476	442	516	740	361	264	190	491	301
2014-15	484	436	537	775	390	291	190	503	313

Historical Percentage Changes			
Year	K-12	Diff.	%
2004-05	931	0	0.0%
2005-06	945	14	1.5%
2006-07	992	47	5.0%
2007-08	1014	22	2.2%
2008-09	1022	8	0.8%
2009-10	1073	51	5.0%
2010-11	1055	-18	-1.7%
2011-12	1118	63	6.0%
2012-13	1100	-18	-1.6%
2013-14	1007	-93	-8.5%
2014-15	1040	33	3.3%
Change		109	11.7%

Bolton, MA Historical Enrollment

PK-12, 2004-2014



Bolton, MA Projected Enrollment

School District: **Bolton, MA**

12/3/2014

Enrollment Projections By Grade*																				
Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2009	42		2014-15	48	61	62	78	61	75	99	101	85	105	82	61	91	79	0	1040	1088
2010	40		2015-16	49	56	67	65	79	63	78	103	105	88	89	83	60	92	0	1028	1077
2011	42		2016-17	50	59	62	70	66	82	65	81	107	109	75	90	82	61	0	1009	1059
2012	37		2017-18	51	52	65	65	71	68	85	68	84	111	93	76	89	83	0	1010	1061
2013	39	(est.)	2018-19	52	55	57	68	66	73	70	88	71	87	94	94	75	90	0	988	1040
2014	40	(est.)	2019-20	53	56	61	60	69	68	76	73	92	73	74	95	93	76	0	966	1019
2015	40	(est.)	2020-21	54	56	62	64	61	71	70	79	76	95	62	75	94	94	0	959	1013
2016	40	(est.)	2021-22	55	55	62	65	65	63	74	73	82	79	81	63	74	95	0	931	986
2017	39	(est.)	2022-23	56	55	61	65	66	67	65	77	76	85	67	82	62	75	0	903	959
2018	40	(est.)	2023-24	57	55	61	64	66	68	69	68	80	79	72	68	81	63	0	894	951
2019	40	(est.)	2024-25	58	55	61	64	65	68	70	72	71	83	67	73	67	82	0	898	956

*Projections should be updated on an annual basis.

Based on an estimate of births
 Based on children already born
 Based on students already enrolled

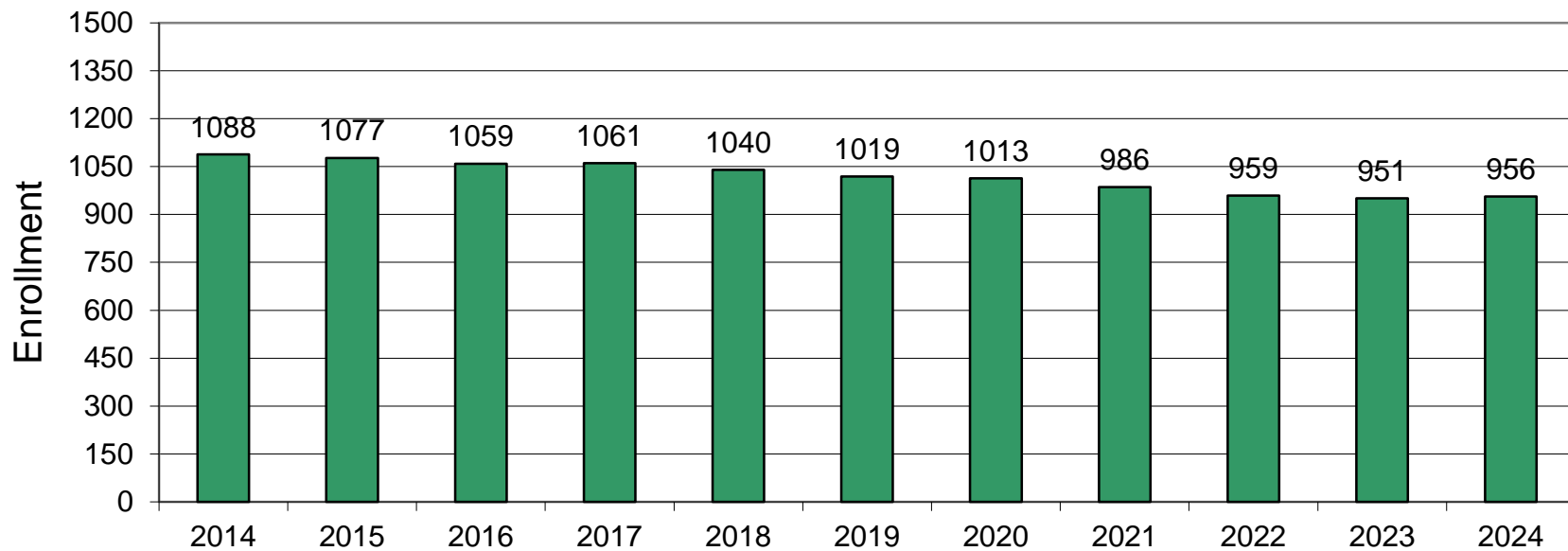
Projected Enrollment in Grade Combinations*									
Year	PK-5	K-5	K-6	PK-8	5-8	6-8	7-8	7-12	9-12
2014-15	484	436	537	775	390	291	190	503	313
2015-16	457	408	511	753	374	296	193	517	324
2016-17	454	404	485	751	362	297	216	524	308
2017-18	457	406	474	720	348	263	195	536	341
2018-19	441	389	477	687	316	246	158	511	353
2019-20	443	390	463	681	314	238	165	503	338
2020-21	438	384	463	688	320	250	171	496	325
2021-22	439	384	457	673	308	234	161	474	313
2022-23	435	379	456	673	303	238	161	447	286
2023-24	440	383	451	667	296	227	159	443	284
2024-25	441	383	455	667	296	226	154	443	289

Projected Percentage Changes			
Year	K-12	Diff.	%
2014-15	1040	0	0.0%
2015-16	1028	-12	-1.2%
2016-17	1009	-19	-1.8%
2017-18	1010	1	0.1%
2018-19	988	-22	-2.2%
2019-20	966	-22	-2.2%
2020-21	959	-7	-0.7%
2021-22	931	-28	-2.9%
2022-23	903	-28	-3.0%
2023-24	894	-9	-1.0%
2024-25	898	4	0.4%
Change		-142	-13.7%

See "Reliability of Enrollment Projections" section of accompanying letter. Projections are more reliable for Years #1-5 in the future than for Years #6 and beyond.

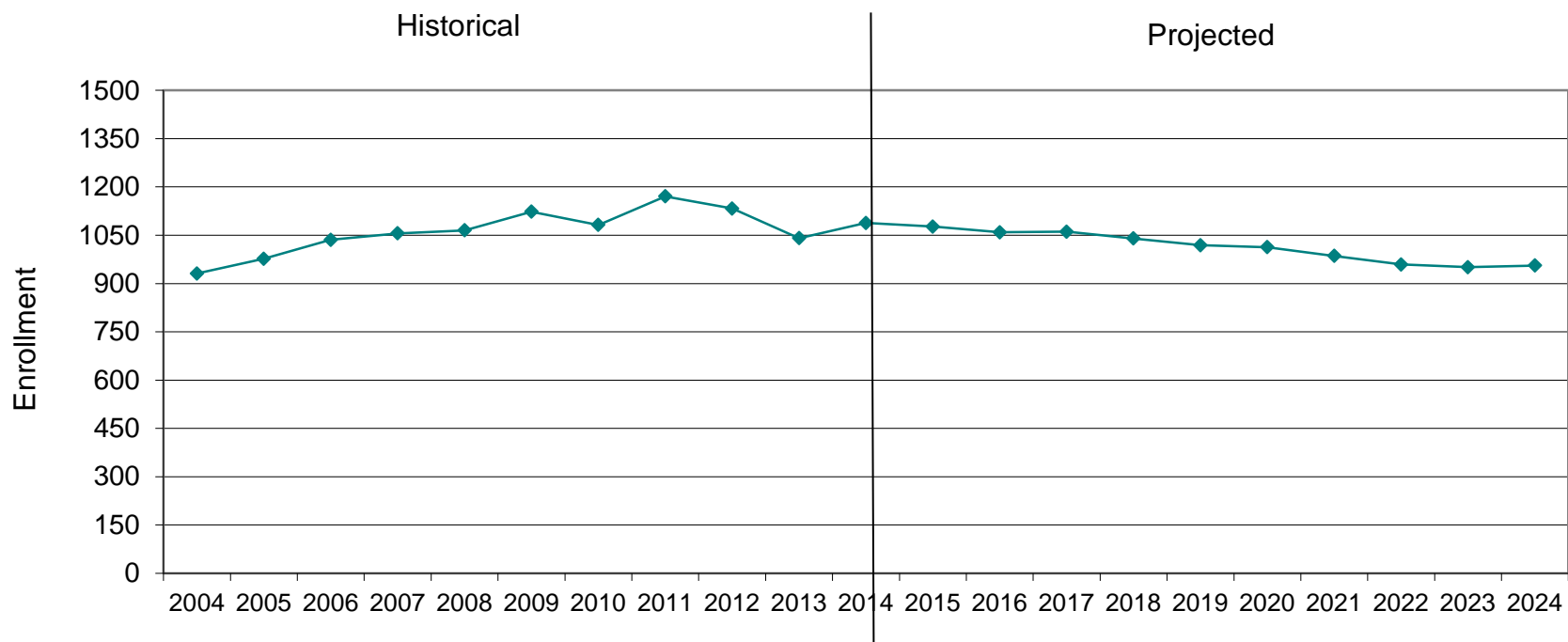
Bolton, MA Projected Enrollment

PK-12 TO 2024 Based On Data Through School Year 2014-15

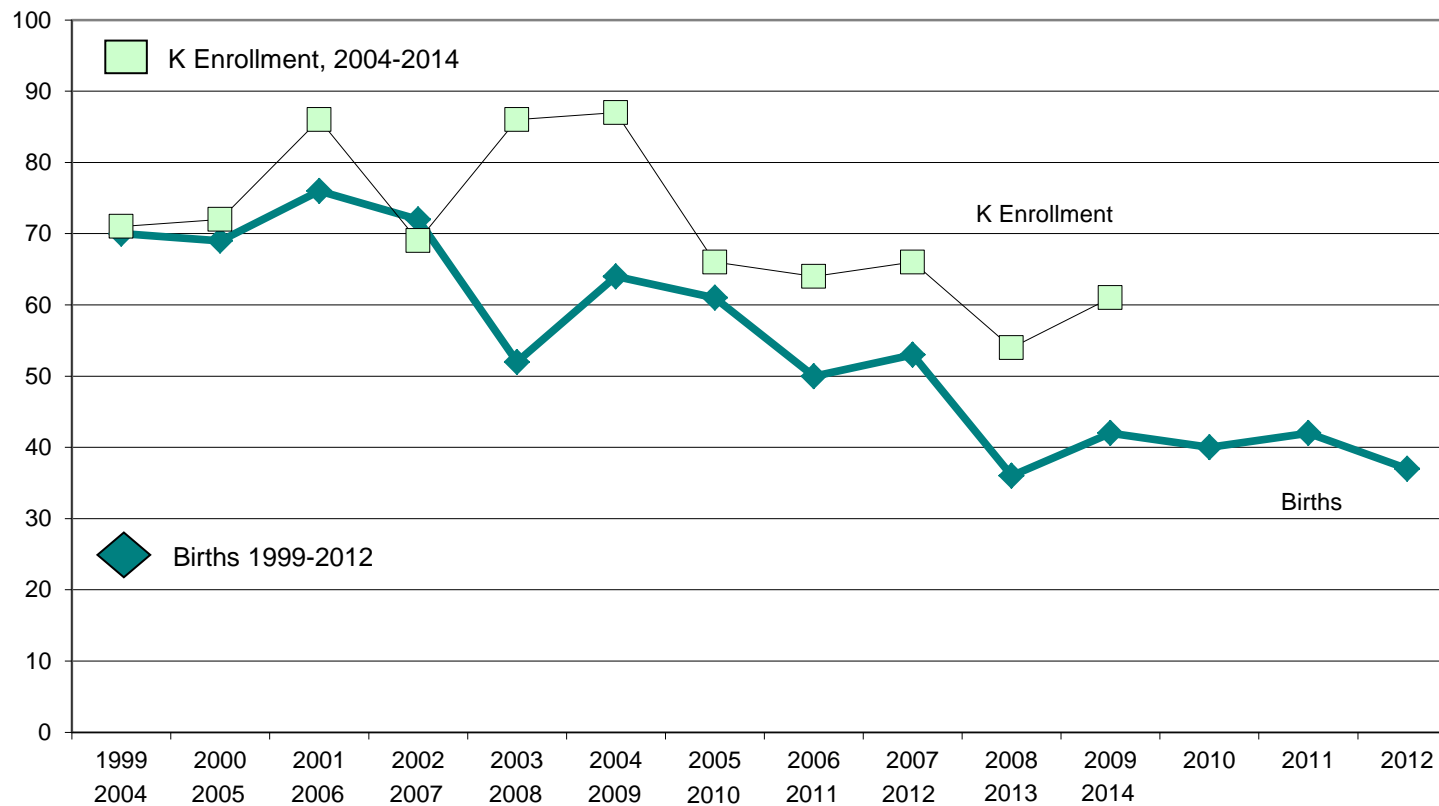


Bolton, MA Historical & Projected Enrollment

PK-12, 2004-2024



Bolton, MA Birth-to-Kindergarten Relationship



Bolton, MA Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2005	27	0
2010	19	0
2011	10	0
2012	19	0
2013	20	0
2014	n/a	n/a

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	n/a	n/a
2010-11	9	64
2011-12	9	29
2012-13	9	65
2013-14	11	69
2014-15	n/a	n/a

Source: HUD and Building Department

Residents in Non-Public Independent and Parochial Schools (General Education)														
Enrollments Oct. 1, 2013	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	1	1	2	6	4	3	4	3	3	15	11	11	5	69

K-12 Home-Schooled Students	
2014	9

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2014	0

K-12 Special Education Outplaced Students	
2014	12

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2014	132

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.

Lancaster, MA Historical Enrollment

School District: **Lancaster, MA**

12/3/2014

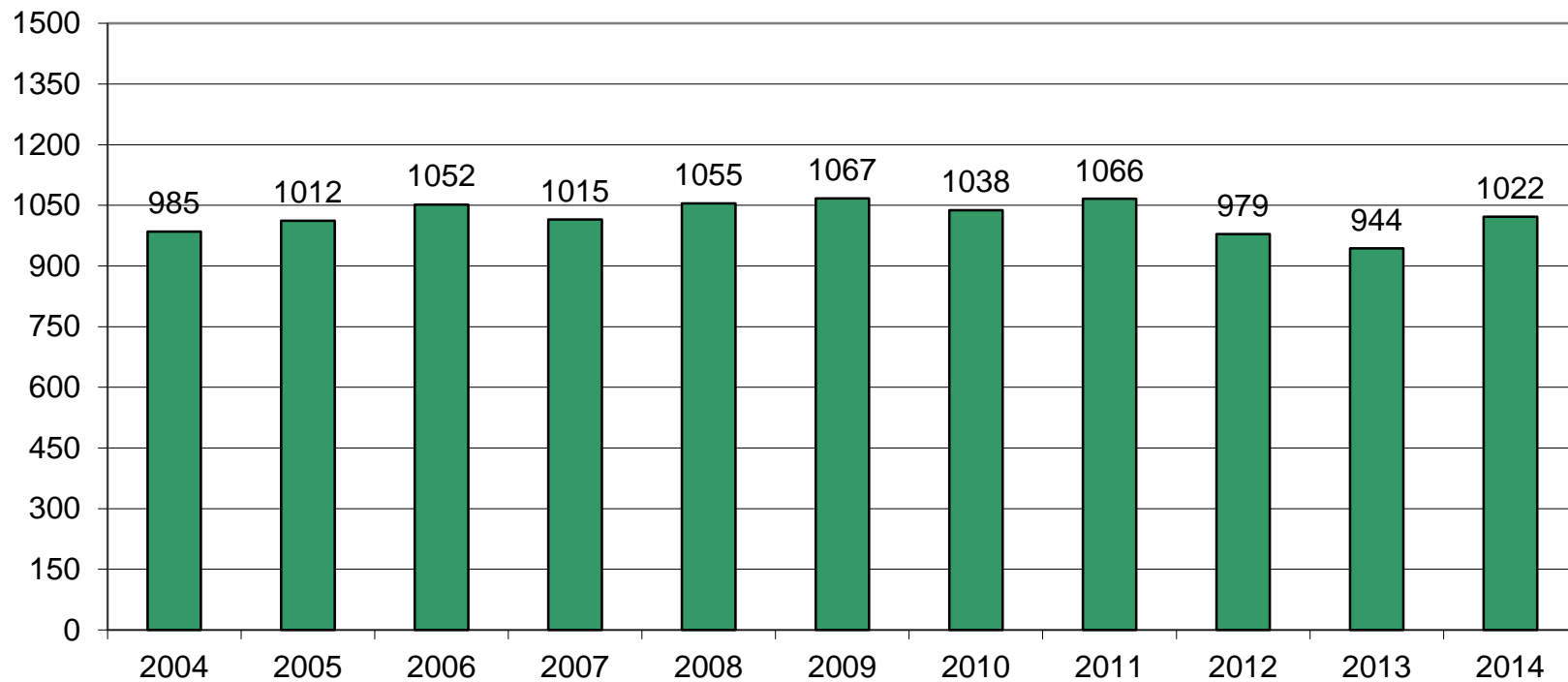
Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
1999	68	2004-05	0	77	59	73	63	59	87	65	99	80	75	97	80	71	0	985	985
2000	73	2005-06	0	78	84	65	74	65	66	86	70	100	80	76	93	75	0	1012	1012
2001	75	2006-07	49	69	80	83	74	73	64	68	89	74	87	79	73	90	0	1003	1052
2002	76	2007-08	46	65	69	77	81	69	77	62	73	85	64	95	80	70	2	969	1015
2003	72	2008-09	48	75	71	76	84	87	77	82	70	76	82	62	90	75	0	1007	1055
2004	59	2009-10	59	60	77	76	70	82	90	82	83	81	69	81	66	91	0	1008	1067
2005	79	2010-11	57	76	62	84	71	70	83	88	79	76	74	70	81	67	0	981	1038
2006	73	2011-12	45	69	78	62	89	77	78	84	85	80	79	83	74	83	0	1021	1066
2007	54	2012-13	50	42	76	80	64	88	77	80	78	89	63	65	63	64	0	929	979
2008	61	2013-14	51	55	59	73	75	61	86	69	73	68	81	67	68	58	0	893	944
2009	67	2014-15	41	73	59	66	84	72	72	95	76	84	70	87	73	70	0	981	1022

Historical Enrollment in Grade Combinations									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2004-05	331	418	483	662	331	244	179	502	323
2005-06	366	432	518	688	322	256	170	494	324
2006-07	379	443	511	674	295	231	163	492	329
2007-08	361	438	500	658	297	220	158	467	309
2008-09	393	470	552	698	305	228	146	455	309
2009-10	365	455	537	701	336	246	164	471	307
2010-11	363	446	534	689	326	243	155	447	292
2011-12	375	453	537	702	327	249	165	484	319
2012-13	350	427	507	674	324	247	167	422	255
2013-14	323	409	478	619	296	210	141	415	274
2014-15	354	426	521	681	327	255	160	460	300

Historical Percentage Changes			
Year	K-12	Diff.	%
2004-05	985	0	0.0%
2005-06	1012	27	2.7%
2006-07	1003	-9	-0.9%
2007-08	969	-34	-3.4%
2008-09	1007	38	3.9%
2009-10	1008	1	0.1%
2010-11	981	-27	-2.7%
2011-12	1021	40	4.1%
2012-13	929	-92	-9.0%
2013-14	893	-36	-3.9%
2014-15	981	88	9.9%
Change		-4	-0.4%

Lancaster, MA Historical Enrollment

PK-12, 2004-2014



Lancaster, MA Projected Enrollment

School District: **Lancaster, MA**

12/3/2014

Enrollment Projections By Grade*																				
Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2009	67		2014-15	41	73	59	66	84	72	72	95	76	84	70	87	73	70	0	981	1022
2010	60		2015-16	42	56	86	61	69	81	76	73	93	78	77	72	86	69	0	977	1019
2011	54		2016-17	43	50	66	89	63	67	85	77	72	95	72	79	71	81	0	967	1010
2012	61		2017-18	44	57	59	68	93	61	71	86	76	74	87	74	78	67	0	951	995
2013	61	(est.)	2018-19	45	56	67	61	71	90	64	72	84	78	68	90	73	74	0	948	993
2014	61	(est.)	2019-20	46	56	66	69	63	69	95	65	71	86	72	70	89	69	0	940	986
2015	59	(est.)	2020-21	47	55	66	68	72	61	73	96	64	73	79	74	69	84	0	934	981
2016	59	(est.)	2021-22	48	55	65	68	71	70	64	74	94	65	67	81	73	65	0	912	960
2017	60	(est.)	2022-23	49	56	65	67	71	69	74	65	73	96	60	69	80	69	0	914	963
2018	60	(est.)	2023-24	50	56	66	67	70	69	73	75	64	75	88	62	68	76	0	909	959
2019	60	(est.)	2024-25	51	56	66	68	70	68	73	74	74	65	69	91	61	64	0	899	950

*Projections should be updated on an annual basis.

Based on an estimate of births
 Based on children already born
 Based on students already enrolled

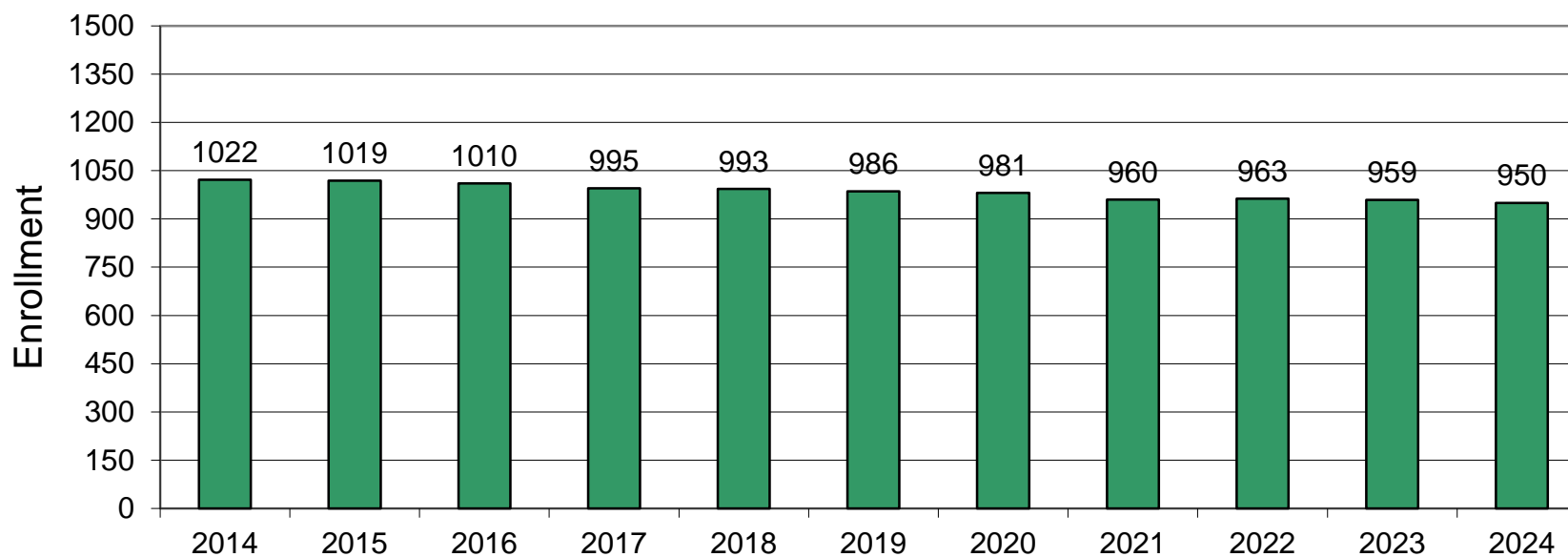
Projected Enrollment in Grade Combinations*									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2014-15	354	426	521	681	327	255	160	460	300
2015-16	353	429	502	673	320	244	171	475	304
2016-17	335	420	497	664	329	244	167	470	303
2017-18	338	409	495	645	307	236	150	456	306
2018-19	345	409	481	643	298	234	162	467	305
2019-20	323	418	483	640	317	222	157	457	300
2020-21	322	395	491	628	306	233	137	443	306
2021-22	329	393	467	626	297	233	159	445	286
2022-23	328	402	467	636	308	234	169	447	278
2023-24	328	401	476	615	287	214	139	433	294
2024-25	328	401	475	614	286	213	139	424	285

Projected Percentage Changes			
Year	K-12	Diff.	%
2014-15	981	0	0.0%
2015-16	977	-4	-0.4%
2016-17	967	-10	-1.0%
2017-18	951	-16	-1.7%
2018-19	948	-3	-0.3%
2019-20	940	-8	-0.8%
2020-21	934	-6	-0.6%
2021-22	912	-22	-2.4%
2022-23	914	2	0.2%
2023-24	909	-5	-0.5%
2024-25	899	-10	-1.1%
Change		-82	-8.4%

See "Reliability of Enrollment Projections" section of accompanying letter.
 Projections are more reliable for Years #1-5 in the future than for Years #6 and beyond.

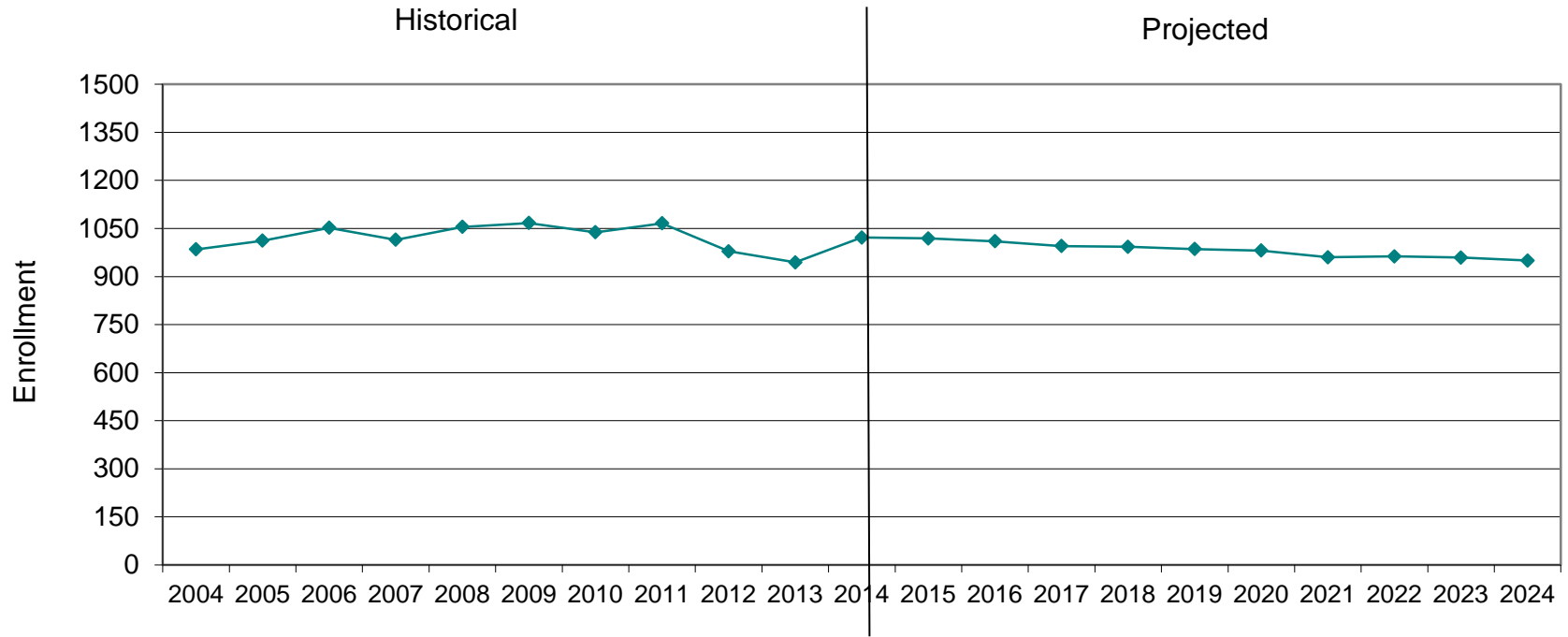
Lancaster, MA Projected Enrollment

PK-12 TO 2024 Based On Data Through School Year 2014-15

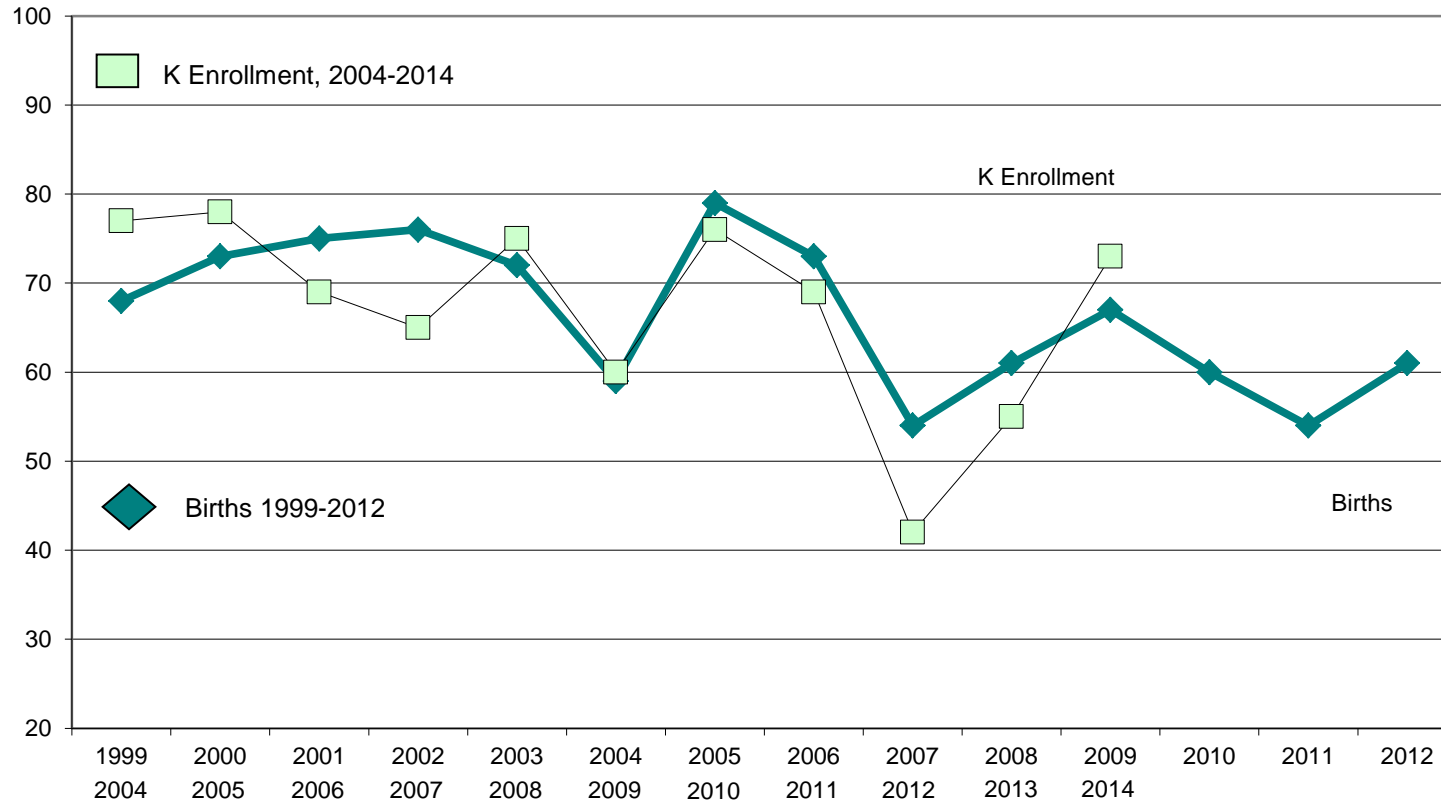


Lancaster, MA Historical & Projected Enrollment

PK-12, 2004-2024



Lancaster, MA Birth-to-Kindergarten Relationship



Lancaster, MA Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2005	70	0
2010	16	0
2011	12	0
2012	40	0
2013	22	0
2014	n/a	n/a

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	n/a	n/a
2010-11	20	97
2011-12	21	38
2012-13	22	95
2013-14	25	98
2014-15	n/a	n/a

Source: HUD and Building Department

Residents in Non-Public Independent and Parochial Schools (General Education)														
Enrollments Oct. 1, 2013	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	6	3	6	8	4	5	2	5	12	13	10	13	11	98

K-12 Home-Schooled Students	
2014	30

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2014	0

K-12 Special Education Outplaced Students	
2014	14

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2014	34

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.

Stow, MA Historical Enrollment

School District: **Stow, MA**

12/3/2014

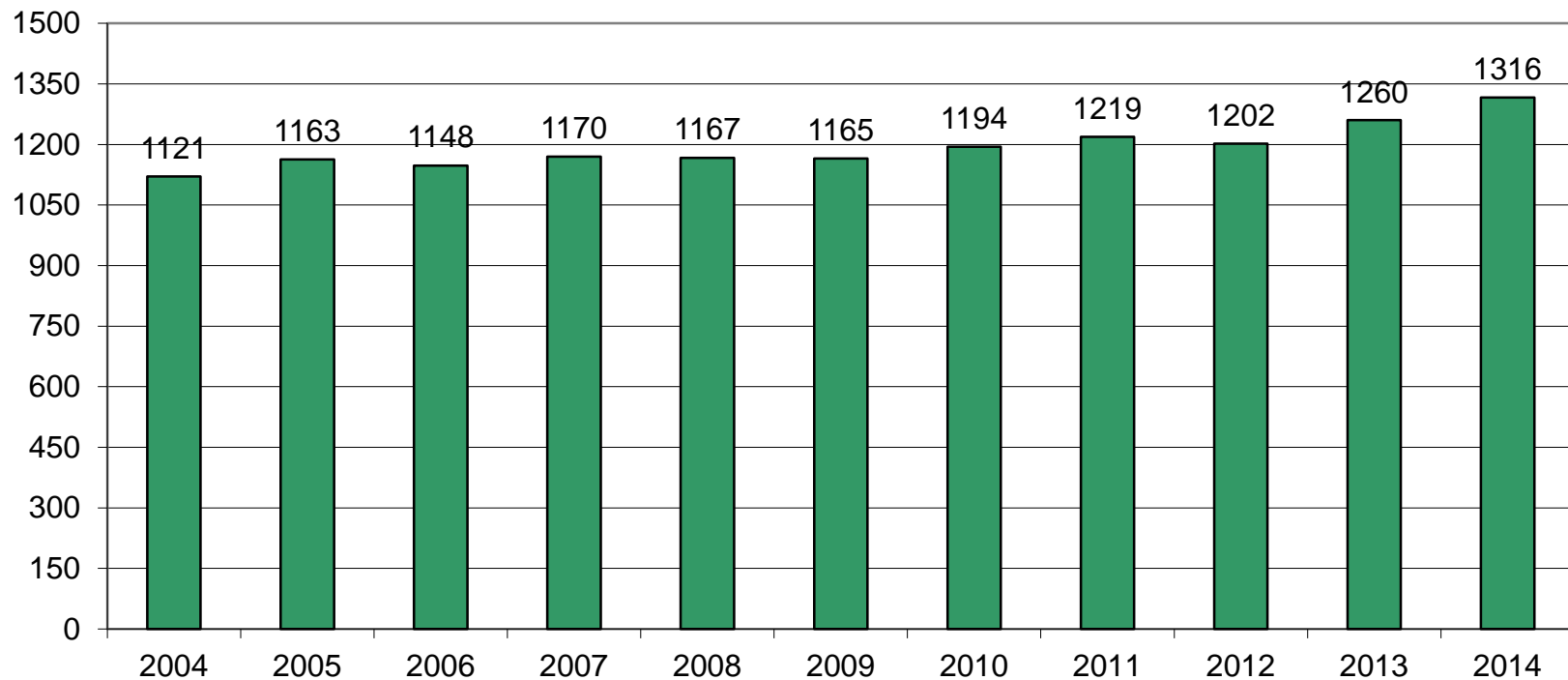
Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
1999	95	2004-05	24	102	103	93	88	89	87	88	97	74	76	65	70	65	0	1097	1121
2000	88	2005-06	18	108	112	103	95	90	91	86	84	97	66	78	66	69	0	1145	1163
2001	78	2006-07	17	92	108	110	102	91	92	85	82	85	82	61	76	65	0	1131	1148
2002	73	2007-08	13	93	93	110	109	102	91	87	86	80	74	84	63	83	2	1157	1170
2003	73	2008-09	22	87	93	91	106	108	102	89	86	83	77	79	82	62	0	1145	1167
2004	100	2009-10	0	112	84	89	89	107	103	97	90	87	78	77	73	79	0	1165	1165
2005	77	2010-11	22	76	111	84	87	89	112	108	99	93	74	82	78	79	0	1172	1194
2006	81	2011-12	0	111	82	109	84	87	91	109	104	101	105	80	83	73	0	1219	1219
2007	73	2012-13	0	63	111	87	114	92	89	86	112	104	97	94	75	78	0	1202	1202
2008	68	2013-14	33	81	96	114	86	115	88	89	82	114	99	96	92	75	0	1227	1260
2009	81	2014-15	39	105	85	101	113	87	113	88	92	81	117	103	100	92	0	1277	1316

Historical Enrollment in Grade Combinations									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2004-05	475	562	650	821	346	259	171	447	276
2005-06	508	599	685	866	358	267	181	460	279
2006-07	503	595	680	847	344	252	167	451	284
2007-08	507	598	685	851	344	253	166	470	304
2008-09	485	587	676	845	360	258	169	469	300
2009-10	481	584	681	858	377	274	177	484	307
2010-11	447	559	667	859	412	300	192	505	313
2011-12	473	564	673	878	405	314	205	546	341
2012-13	467	556	642	858	391	302	216	560	344
2013-14	492	580	669	865	373	285	196	558	362
2014-15	491	604	692	865	374	261	173	585	412

Historical Percentage Changes			
Year	K-12	Diff.	%
2004-05	1097	0	0.0%
2005-06	1145	48	4.4%
2006-07	1131	-14	-1.2%
2007-08	1157	26	2.3%
2008-09	1145	-12	-1.0%
2009-10	1165	20	1.7%
2010-11	1172	7	0.6%
2011-12	1219	47	4.0%
2012-13	1202	-17	-1.4%
2013-14	1227	25	2.1%
2014-15	1277	50	4.1%
Change		180	16.4%

Stow, MA Historical Enrollment

PK-12, 2004-2014



Stow, MA Projected Enrollment

School District: Stow, MA

12/3/2014

Enrollment Projections By Grade*																				
Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2009	81		2014-15	39	105	85	101	113	87	113	88	92	81	117	103	100	92	0	1277	1316
2010	64		2015-16	39	73	116	89	102	116	86	112	88	92	79	117	102	99	0	1271	1310
2011	51		2016-17	40	58	80	121	89	105	115	85	112	88	90	79	115	100	0	1237	1277
2012	52		2017-18	40	59	64	84	122	91	104	114	85	112	86	90	78	113	0	1202	1242
2013	63	(est.)	2018-19	41	72	65	67	84	125	90	103	114	85	110	86	89	77	0	1167	1208
2014	62	(est.)	2019-20	41	71	79	68	67	86	124	89	103	114	83	110	85	88	0	1167	1208
2015	58	(est.)	2020-21	42	67	78	83	68	69	85	123	89	103	112	83	108	84	0	1152	1194
2016	57	(est.)	2021-22	42	65	74	82	83	70	68	84	123	89	101	112	82	106	0	1139	1181
2017	59	(est.)	2022-23	43	67	72	77	82	85	69	67	84	123	87	101	110	81	0	1105	1148
2018	60	(est.)	2023-24	43	68	74	75	77	84	84	68	67	84	120	87	100	108	0	1096	1139
2019	59	(est.)	2024-25	44	68	75	77	75	79	83	83	68	67	82	120	86	99	0	1062	1106

*Projections should be updated on an annual basis.

Based on an estimate of births

Based on children already born

Based on students already enrolled

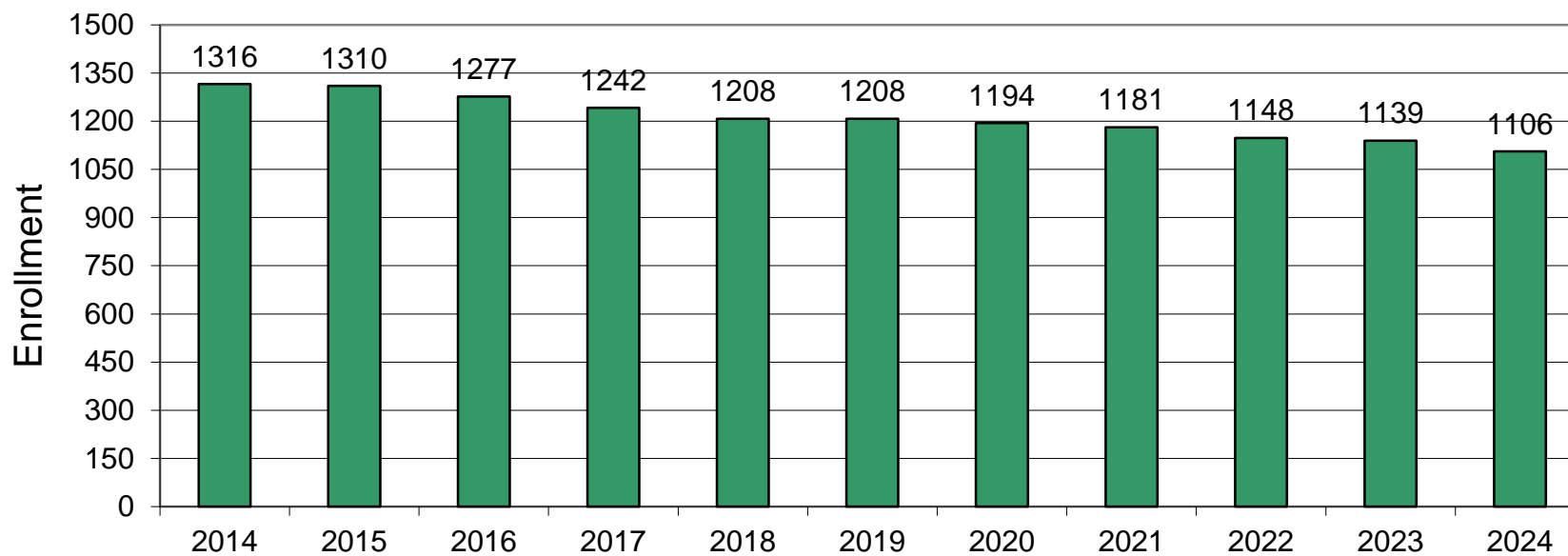
Projected Enrollment in Grade Combinations*									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2014-15	491	604	692	865	374	261	173	585	412
2015-16	496	582	694	874	378	292	180	577	397
2016-17	453	568	653	853	400	285	200	584	384
2017-18	420	524	638	835	415	311	197	564	367
2018-19	413	503	606	805	392	302	199	561	362
2019-20	371	495	584	801	430	306	217	583	366
2020-21	365	450	573	765	400	315	192	579	387
2021-22	374	442	526	738	364	296	212	613	401
2022-23	383	452	519	726	343	274	207	586	379
2023-24	378	462	530	681	303	219	151	566	415
2024-25	374	457	540	675	301	218	135	522	387

Projected Percentage Changes			
Year	K-12	Diff.	%
2014-15	1277	0	0.0%
2015-16	1271	-6	-0.5%
2016-17	1237	-34	-2.7%
2017-18	1202	-35	-2.8%
2018-19	1167	-35	-2.9%
2019-20	1167	0	0.0%
2020-21	1152	-15	-1.3%
2021-22	1139	-13	-1.1%
2022-23	1105	-34	-3.0%
2023-24	1096	-9	-0.8%
2024-25	1062	-34	-3.1%
Change		-215	-16.8%

See "Reliability of Enrollment Projections" section of accompanying letter.
Projections are more reliable for Years #1-5 in the future than for Years #6 and beyond.

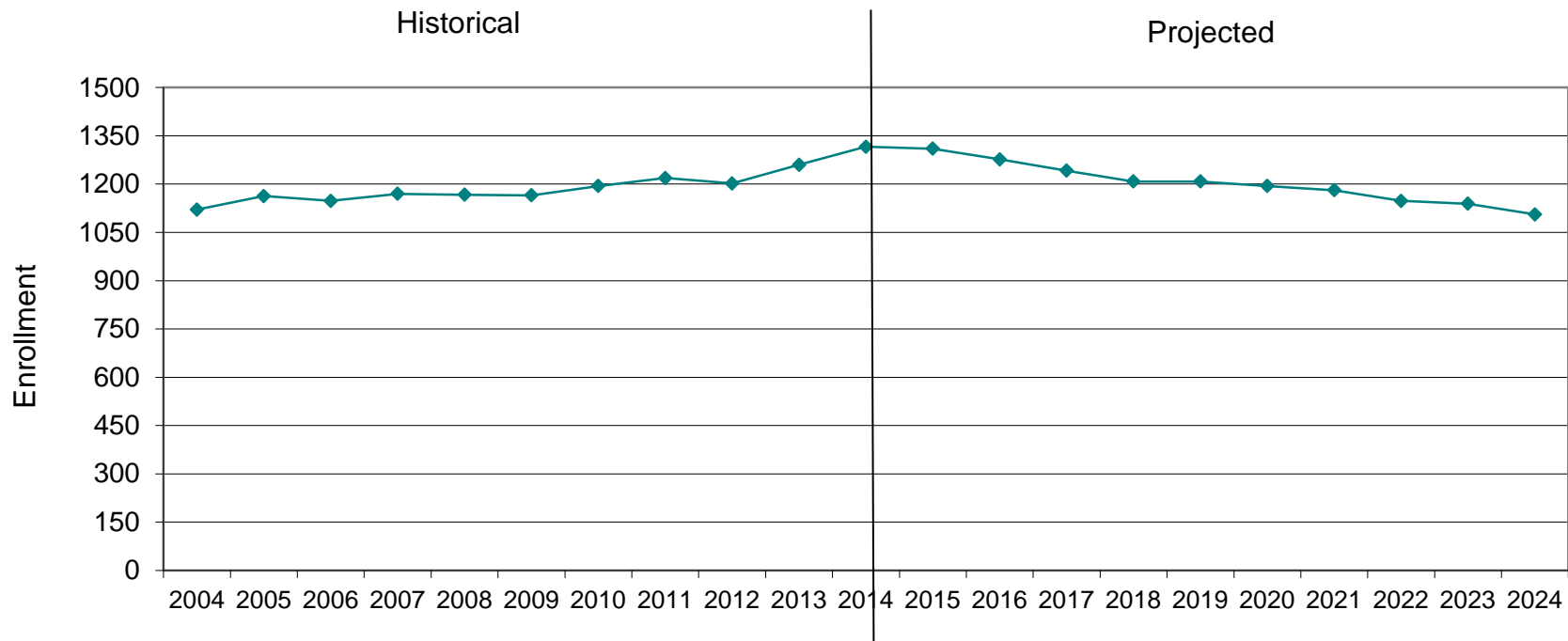
Stow, MA Projected Enrollment

PK-12 TO 2024 Based On Data Through School Year 2014-15

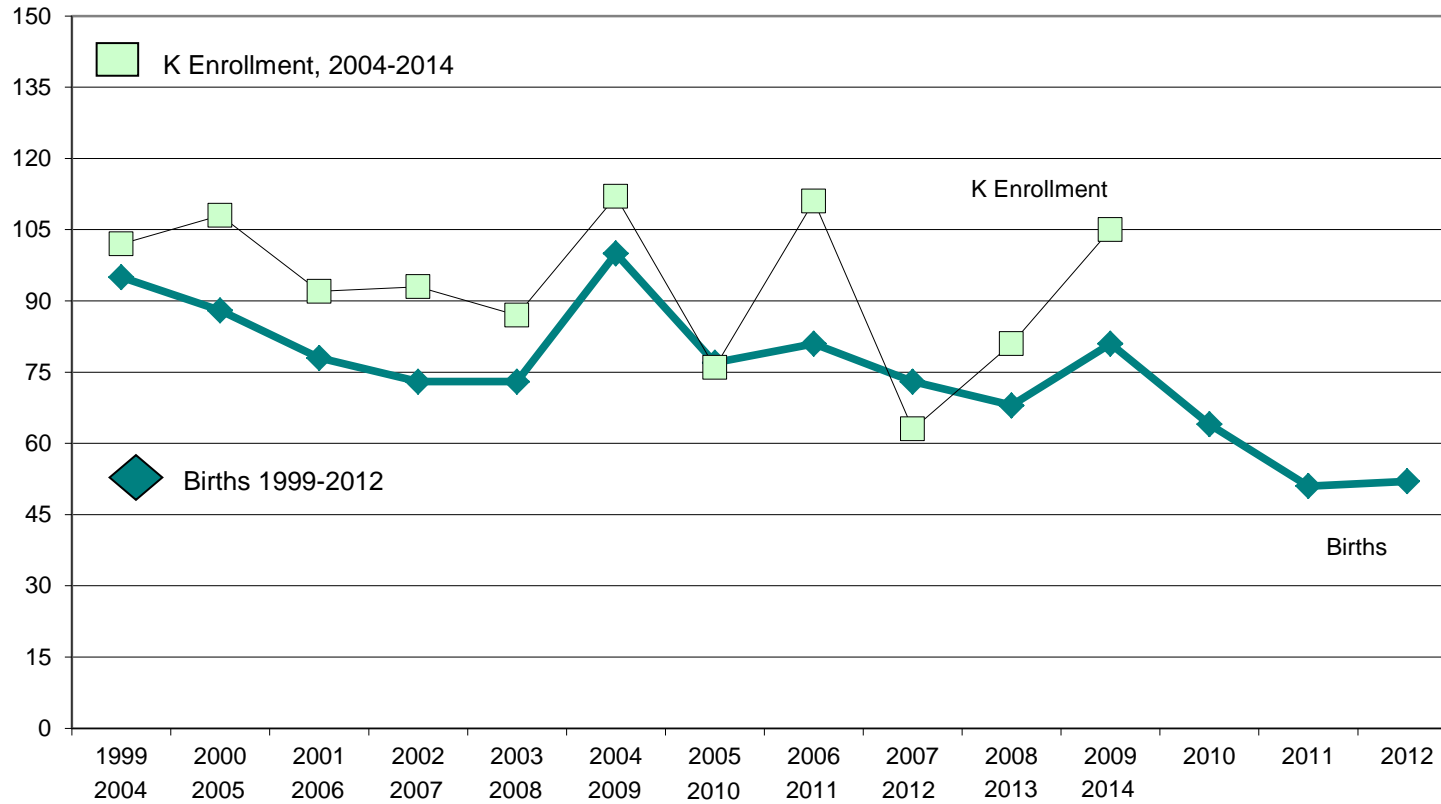


Stow, MA Historical & Projected Enrollment

PK-12, 2004-2024



Stow, MA Birth-to-Kindergarten Relationship



Stow, MA Additional Information

Building Permits Issued		
Year	Single-Family	Multi-Units
2005	29	0
2010	27	0
2011	20	0
2012	11	0
2013	4	30
2014	2 to Jun 30	5 to Jun 30

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	n/a	n/a
2010-11	29	55
2011-12	19	32
2012-13	25	67
2013-14	21	59
2014-15	n/a	n/a

Residents in Non-Public Independent and Parochial Schools (General Education)														
Enrollments Oct. 1, 2013	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	3	3	5	8	5	6	1	3	5	5	4	6	5	59

K-12 Home-Schooled Students	
2014	23

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2014	0

K-12 Special Education Outplaced Students	
2014	19

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2014	4

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.