



## 2012-13 Enrollment Projections

TO: Dr. Peter W. Dillon, Superintendent of Schools, Berkshire Hills RSD, MA  
FROM: Donald G. Kennedy, Ed.D., Demographic Specialist  
DATE: June 13, 2013  
RE: Enrollment Projections

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We are pleased to send you the enclosed documents displaying the past, present, and projected enrollments for the Berkshire Hills 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.

NESDEC's enrollment projection totals from fall of 2011 came within 7 students of the actual Grade K-12 enrollment total for fall, 2012 (951 projected v. 944 actual). This, however masks the fact that the Kindergarten enrollment was much smaller than Berkshire Hills RSD's recent patterns would suggest (77 projected v. 53 enrolled). In Grades K-4, 362 pupils were forecast v. 332 actual. In Grades 5-8, 218 students were projected v. 220 actual. And in Grades 9-12, 311 pupils were forecast v. 322 enrolled. In this new projection, the ratios have been adjusted to incorporate this recent enrollment experience.

The two factors now at work which will have the greatest effect upon future enrollments are: a slight decline in the number of births to Berkshire Hills RSD residents and, to a lesser degree, b. the possibility of a resumption of in-migration (which had slowed or disappeared due to the real estate slowdown). In the decade from 1997-2006, Berkshire Hills RSD averaged 84 births per year; more recently (and expected over the next 6-7 years) are about 68-89 births annually...averaging about 6 fewer than previously. Incidentally, hard-hit Connecticut experienced an 8.6% decline in births from 2007 to 2009 (in large part caused by the economic Recession), the largest decline among the six New England states – followed by an 8.1% decline in Rhode Island, the two states with the highest rates of unemployment in the region; **Massachusetts, however, declined by only 3.9% in births.** Economists are

forecasting a slow-yet-steady recovery from the current rates of unemployment (RI 9.1%; CT 8.0%; ME 7.1%; **MA 6.4%**; NH 5.7%; and VT 4.1%) which, in turn, may lead to additional in-migration and births.

The ever-changing relationship between Berkshire Hills RSD births and Kindergarten enrollments is displayed on the B-K graph. Berkshire Hills RSD, over the past seven years, has registered about 87 Kindergarteners for every 100 births (five years previous), a relationship which has been generally steady...**however this fall there were only 67 Kindergarteners for every 100 births five-years-previous – the cause of NESDEC’s “under-projection”**. Note on the graph, however, that in 2011 there were a robust 103 Kindergarteners for every 100 births. Grade 1 is expected to remain about 21% smaller than the previous year’s Kindergarten class.

Like many nearby communities Berkshire Hills RSD continues to experience enrollment fluctuations of in/out-migration in Grades 1- 8 (the high school years were excluded, as there is a consistent gain of about 15% of each class at the end of Grade 8, with students “choicing-in” – thereby skewing the data). Over the past ten years, there have been seven years of 1-7% in-migration (including +5% in 2010 and 2012 and +7% in 2011); and three years of 2-3% out-migration. **Over the next four years, K-4 enrollments are forecast to decrease by a total of 31 students; Grades 5-8 to grow by a total of 43 pupils; and the high school grades to increase by about 45 pupils...all within the next four years. After that point these projections show slightly increasing enrollment in Grades K-4; a slight decline in Grades 5-8, as the smaller groups mature into that level; and flat enrollment at the high school. That said, it is quite likely that real estate turnover will have increased, bringing in new families - see the “Projections” page.**

**Will these patterns really last for as long as ten years? Perhaps not.** All projections are most reliable in Years #1-5; and less reliable in Years #6-10. As soon as the economy and real estate situation improve in the region, additional in-migration may return to Berkshire Hills RSD. Many communities in the region sold during 2008-2012 only about 60-80% as many homes as in 2005-2007. Building permits have slowed as well; see the “Additional Data” table below. See the description on Page 4 below regarding “reliability of projections”. If the real estate situation improves more quickly than is anticipated, the children of the new families moving in are likely to be split 60% in Grades K-4; 30% in Grades 5-8; and 10% at the high school level.

Recent New England trends in the 275+ district for which NESDEC furnishes projections are primarily on the side of declining enrollments, due to fewer births combined with fewer new families moving into the districts...the latter factor, however, may be changing as we expect in Berkshire Hills RSD. Large cities and their nearby communities have displayed flat or rising numbers of births, and enough new renters to keep the school population flat or rising slightly.

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.**

A word about PK projections: the trend in virtually every district is to serve additional 3 and 4-year olds each year, even if the number of Kindergarteners is in decline. Hence, the rising numbers in PK projections. The reasons why additional 3 and 4-year olds are being served are multiple: more children in need of Special Education services are being identified at early ages, including larger number of students on the autism spectrum. Further, many districts are moving to expand their services to “typically developing” 3 and 4-year olds in order to improve/enhance the educational quality of their existing programs. Longitudinal research continues to indicate both the educational and fiscal benefits of early intervention programs of schooling.

If your district has need for further assistance in the area of long range facilities planning, we urge you to call so that we might discuss our planning services which include our Demographic and Long-Range Enrollment Projection Studies.

We have enclosed suggestions for interpreting the printout and a brief description of the modified cohort survival methodology used in preparing the projections. As always, we would be delighted to hear from you regarding ways in which we might make the enrollment forecasts more useful to you. Please don't hesitate to call or email us at [ep@nesdec.org](mailto:ep@nesdec.org). Best wishes for the school year.

# 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 are normally quite responsive to these fluctuations.
2. Look down the K and 1 columns and note 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 in-migration has probably occurred; if it is smaller, then out-migration has probably 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/junior high, 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**

The cohort survival technique is the most frequently used method of preparing enrollment forecasts. NESDEC uses that technique, 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. 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 2010-11, increased to 104 students in Grade 2 in 2011-12, 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 possibility for change in the underlying assumptions/trends.

Projections based upon **the children already 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**. The least 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 difficulties); b. the District size was below 500 students, thus subject to fluctuations; 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 be starting. **In light of this, 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](mailto: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.

# Berkshire Hills RSD, MA Historical Enrollment

School District: **Berkshire Hills RSD, MA**

6/13/2013

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
1997	92	2002-03	22	61	72	60	75	71	89	90	85	97	105	99	118	114	4	1140	1162
1998	72	2003-04	7	60	58	64	62	72	66	90	86	85	109	97	94	116	5	1064	1071
1999	97	2004-05	8	67	62	55	64	57	75	69	94	95	88	122	89	83	0	1020	1028
2000	68	2005-06	21	85	53	67	56	67	64	82	73	96	113	83	114	81	2	1036	1057
2001	89	2006-07	20	67	62	57	68	52	63	62	80	69	109	113	90	117	1	1010	1030
2002	92	2007-08	22	74	50	75	58	68	58	70	65	76	81	106	114	93	0	988	1010
2003	90	2008-09	19	70	51	54	77	64	69	59	76	65	89	81	103	107	0	965	984
2004	93	2009-10	25	90	62	53	55	74	58	72	59	68	80	93	82	108	6	960	985
2005	78	2010-11	21	85	67	65	57	54	75	68	72	63	76	83	89	87	0	941	962
2006	69	2011-12	14	71	69	78	71	60	56	78	77	72	68	81	76	92	0	949	963
2007	79	2012-13	11	53	57	71	76	75	70	58	82	80	91	75	83	73	21	965	976

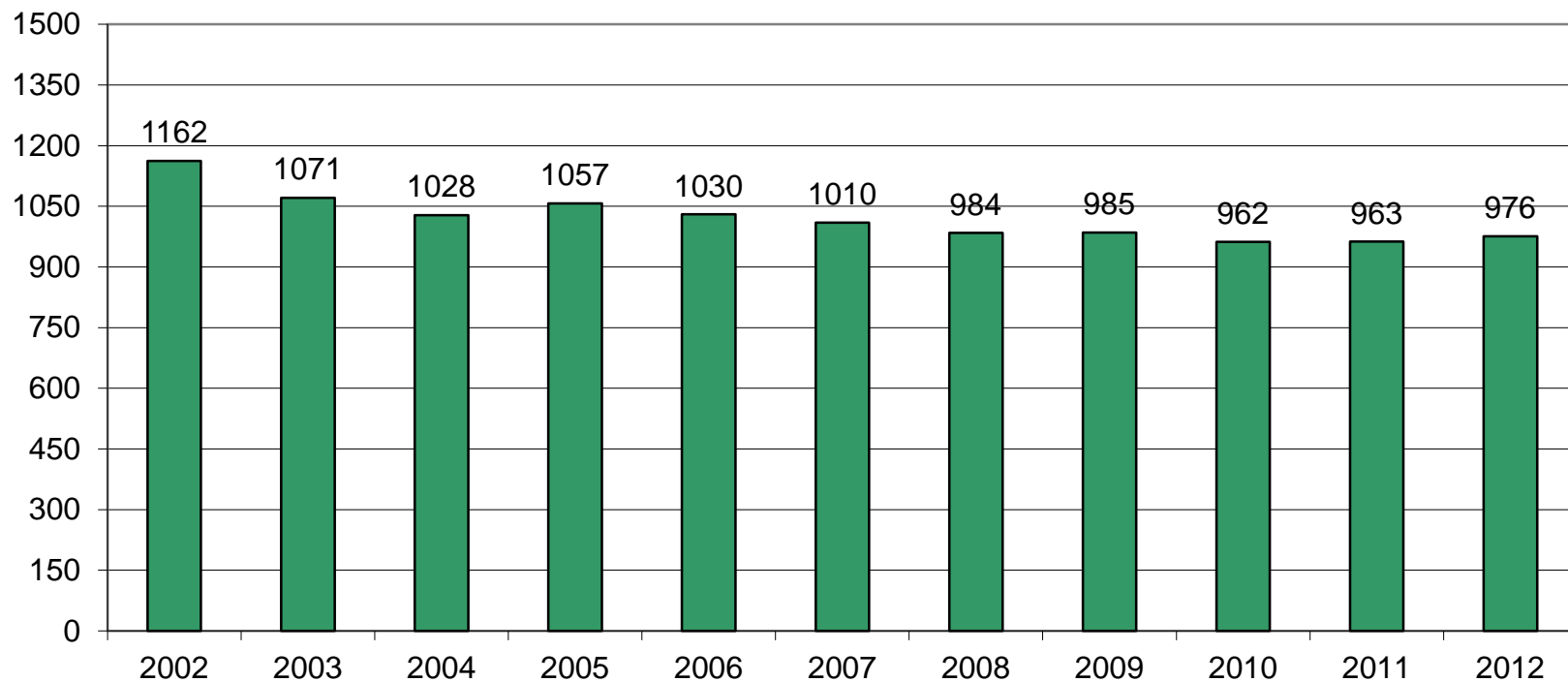
Historical Enrollment in Grade Combinations									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2002-03	339	428	518	700	361	272	182	618	436
2003-04	316	382	472	643	327	261	171	587	416
2004-05	305	380	449	638	333	258	189	571	382
2005-06	328	392	474	643	315	251	169	560	391
2006-07	306	369	431	580	274	211	149	578	429
2007-08	325	383	453	594	269	211	141	535	394
2008-09	316	385	444	585	269	200	141	521	380
2009-10	334	392	464	591	257	199	127	490	363
2010-11	328	403	471	606	278	203	135	470	335
2011-12	349	405	483	632	283	227	149	466	317
2012-13	332	402	460	622	290	220	162	484	322

Historical Percentage Changes			
Year	K-12	Diff.	%
2002-03	1140	0	0.0%
2003-04	1064	-76	-6.7%
2004-05	1020	-44	-4.1%
2005-06	1036	16	1.6%
2006-07	1010	-26	-2.5%
2007-08	988	-22	-2.2%
2008-09	965	-23	-2.3%
2009-10	960	-5	-0.5%
2010-11	941	-19	-2.0%
2011-12	949	8	0.9%
2012-13	965	16	1.7%
<b>Change</b>		<b>-175</b>	<b>-15.4%</b>



# Berkshire Hills RSD, MA Historical Enrollment

PK-12, 2002-2012



# Berkshire Hills RSD, MA Projected Enrollment

School District: **Berkshire Hills RSD, MA**

6/13/2013

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
2007	79		2012-13	11	53	57	71	76	75	70	58	82	80	91	75	83	73	21	965	976
2008	89		2013-14	12	76	42	62	74	78	77	75	61	84	92	97	72	85	21	996	1008
2009	80		2014-15	13	74	60	45	65	76	80	82	79	63	97	98	94	73	21	1007	1020
2010	68		2015-16	14	63	58	65	47	67	78	86	87	81	73	103	95	96	21	1020	1034
2011	77	(est.)	2016-17	15	72	50	63	68	48	69	83	91	90	93	78	99	97	21	1022	1037
2012	79	(est.)	2017-18	16	73	57	54	66	70	49	74	88	94	104	99	75	101	21	1025	1041
2013	79	(est.)	2018-19	17	73	57	62	56	68	72	52	78	91	108	111	96	76	21	1021	1038
2014	76	(est.)	2019-20	18	71	57	62	65	58	70	77	55	80	105	115	107	98	21	1041	1059
2015	76	(est.)	2020-21	19	70	56	62	65	67	60	75	81	57	92	112	111	109	21	1038	1057
2016	77	(est.)	2021-22	20	72	55	61	65	67	69	64	79	83	66	98	108	113	21	1021	1041
2017	77	(est.)	2022-23	21	72	57	59	64	67	69	74	68	81	96	70	95	110	21	1003	1024

\*Projections should be updated on an annual basis.

Based on an estimate of births

Based on children already born

Based on students already enrolled

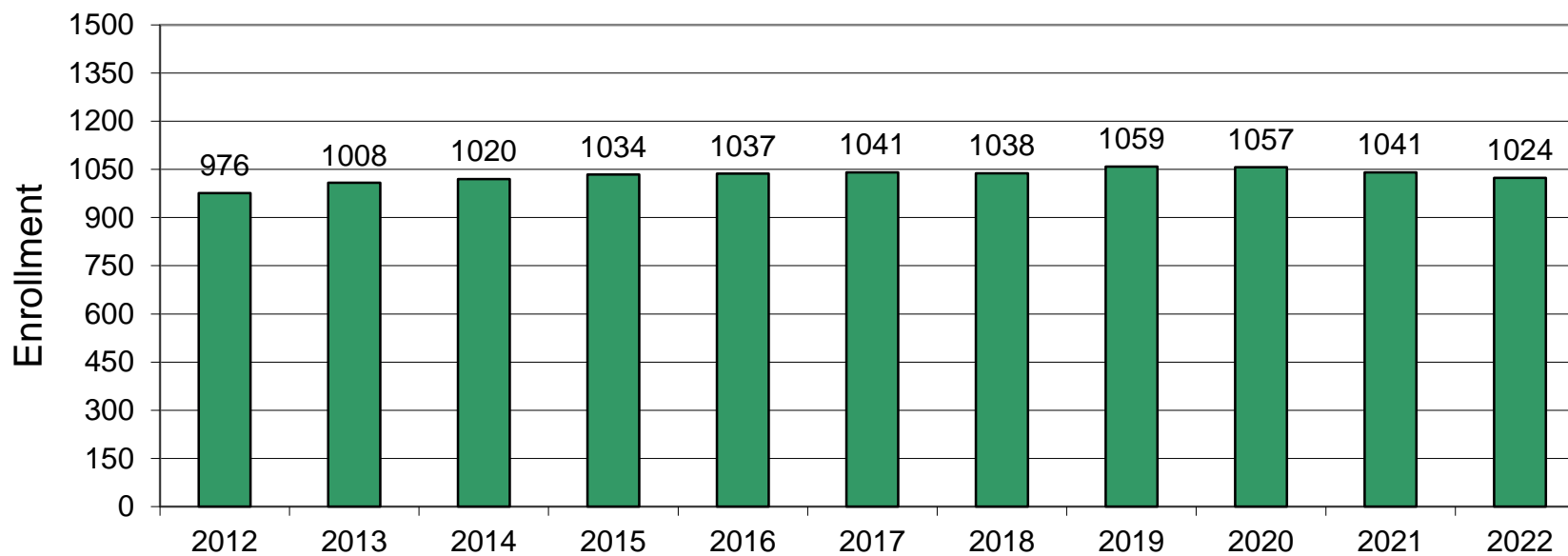
Projected Enrollment in Grade Combinations*									
Year	K-4	K-5	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2012-13	332	402	460	622	290	220	162	484	322
2013-14	332	409	484	629	297	220	145	491	346
2014-15	320	400	482	624	304	224	142	504	362
2015-16	300	378	464	632	332	254	168	535	367
2016-17	301	370	453	634	333	264	181	548	367
2017-18	320	369	443	625	305	256	182	561	379
2018-19	316	388	440	609	293	221	169	560	391
2019-20	313	383	460	595	282	212	135	560	425
2020-21	320	380	455	593	273	213	138	562	424
2021-22	320	389	453	615	295	226	162	547	385
2022-23	319	388	462	611	292	223	149	520	371

Projected Percentage Changes			
Years	K-12	Diff.	%
2012-13	965	0	0.0%
2013-14	996	31	3.2%
2014-15	1007	11	1.1%
2015-16	1020	13	1.3%
2016-17	1022	2	0.2%
2017-18	1025	3	0.3%
2018-19	1021	-4	-0.4%
2019-20	1041	20	2.0%
2020-21	1038	-3	-0.3%
2021-22	1021	-17	-1.6%
2022-23	1003	-18	-1.8%
<b>Change</b>		<b>38</b>	<b>3.9%</b>

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.

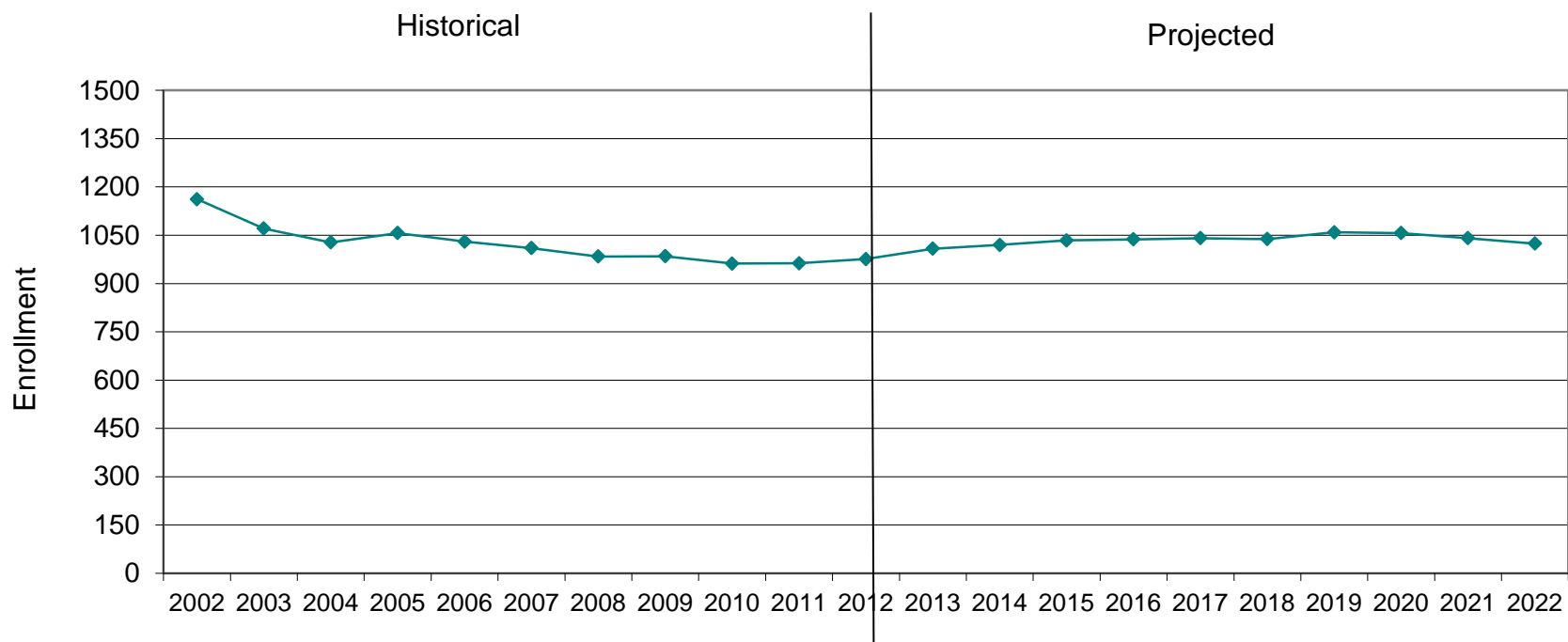
# Berkshire Hills RSD, MA Projected Enrollment

PK-12 TO 2022 Based On Data Through School Year 2012-13

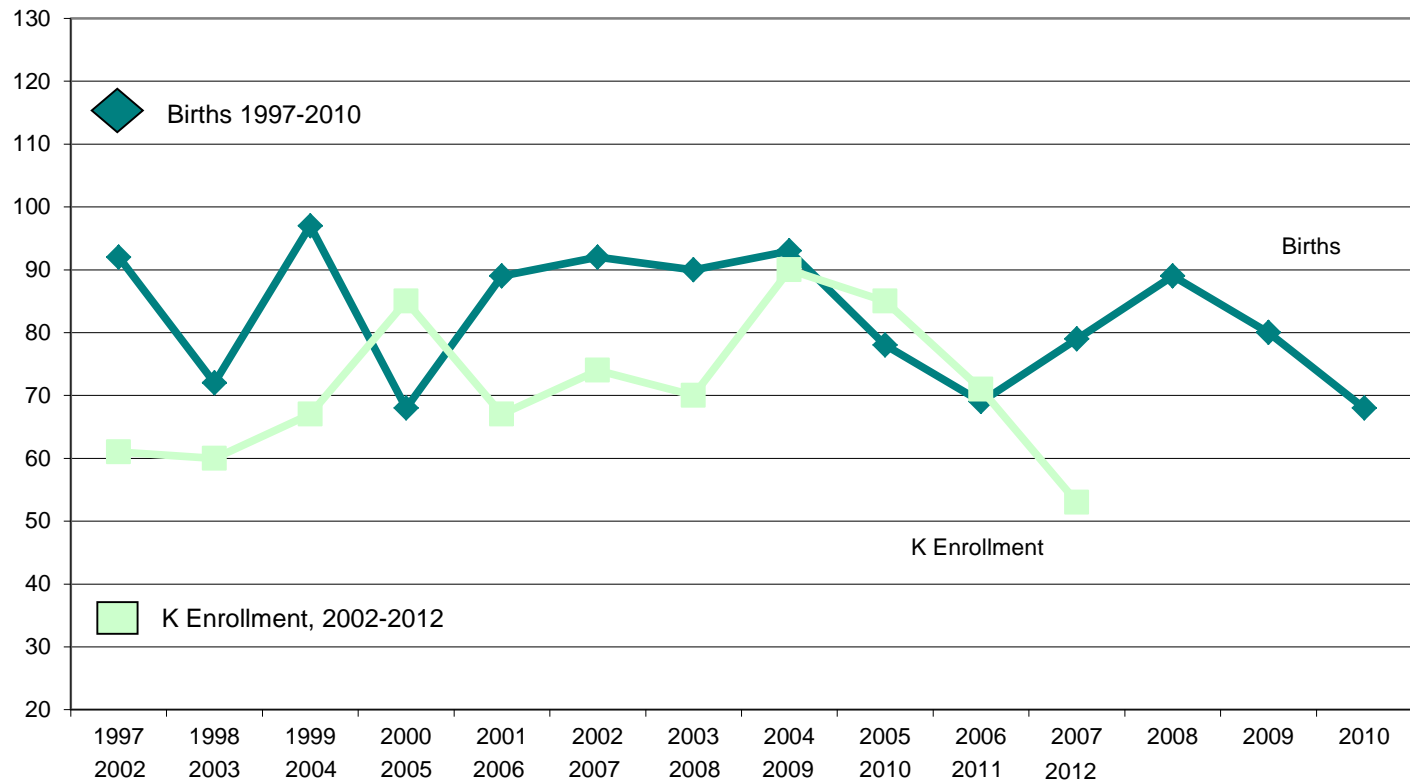


# Berkshire Hills RSD, MA Historical & Projected Enrollment

**PK-12, 2002-2022**



# Berkshire Hills RSD, MA Birth-to-Kindergarten Relationship



# Berkshire Hills RSD, MA Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2000	33	0
2008	13	0
2009	18	7
2010	20	0
2011	21	0
2012	5	0

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2000-01	0	155
2008-09	0	184
2009-10	0	201
2010-11	0	n/a
2011-12	0	185
2012-13	0	156

Residents in Non-Public Independent and Parochial Schools (Regular Education)														
Enrollments as of Oct. 1	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	20	12	11	15	17	12	19	21	9	2	8	6	4	156

K-12 Home-Schooled Students	
2012	16

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2012	99

K-12 SpEd Outplaced Students	
2012	8

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2012	395

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