SHAKER REGIONAL SCHOOL DISTRICT

DEMOGRAPHIC STUDY
&
STUDENT ENROLLMENT PROJECTIONS
UPDATE: 2015-2024

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Prepared by
Catharine Newick
Peter Hofman
December 10, 2014

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OBJECTIVE

This update of enrollment projections for the Shaker Regional School District provides information to enable the School Board to anticipate potential changes in student population that could affect operations and/or facility needs. The enrollment projection model relies on past enrollment patterns, birth rates, and population, which in turn reflect external economic and demographic trends, the District's comparison with others in the immediate area, and public policy. As in the past, we tapped a wide variety of government, university, non-profit, and private sector sources, including interviews with state, regional, and local officials, to develop a solid foundation for the projections and their context. We hope this approach helps the Board in interpreting the results.

Demographic changes within and outside of New Hampshire greatly affect the District. The fundamental changes highlighted by last decade's recession, including the continued sluggishness of the state's recovery, raise the impact of macro-economic and demographic conditions and trends on the District's future enrollment. Even before the recession, national trends were changing in ways that, while masked for a while, appear now to be affecting the state's growth and school population. While it is possible that state policy decisions could also affect future enrollment, we do not anticipate any dramatic changes in the near term.

We hope this update helps the School Board to anticipate the need or opportunity for action.

OVERVIEW OF FORECAST RESULTS

Figure 1 on Page 4 shows that our current ten-year projections anticipate a continuation of the declining enrollment the District has experienced for the past decade. By the end of the forecast period total enrollment could be 100 to more than 200 students lower than it was at the start of the current school year, possibly ending at fewer than 1100 students. Only under our high-range set of projections might total enrollment increase slightly before declining for the remainder of the ten-year period.

With these overall results, it is not surprising that in the three sets of projections all the District's schools have lower enrollments in 2024 than they did this year, as can be seen in Figure 2 on page 5. In all three forecasts we also see the effects of the bubble in birth rates we've noted in at least the last two updates. Belmont Elementary School (BES), at the tail end of feeling the effects of the bubble, is the only school in the District that fairly steadily declines in enrollment. In Belmont Middle School (BMS), the next to be affected, we see enrollment starting to increase a bit in the next year or two and reaching a peak in 2020 before again declining. Belmont High School (BHS), the last to feel the effects of the bubble, will see enrollment decline until 2019, after which it will increase somewhat as the bubble to students pass through. Canterbury

Elementary School (CES), again due to changes in birth rates, will under all three projections see declining enrollment until 2020, after which it rebounds somewhat.

A couple of observations worth noting:

- Under the high-range projections, three of the District's schools (all but CES) will have enrollment increases for varying periods before declining again. At BES, the increase will bring total enrollment slightly above the school's capacity for the next two years.

- With the exception just noted for BES, throughout the projection period all the District's schools will have enrollments that are below capacity. The situation is most stark at CES, where for five of the next ten years enrollment will be at most 50% of capacity.

The fairly significant differences between our current set of projections and our 2012 forecast reflect changing conditions within the District – especially declining enrollments and birth rates – as well as outside factors. As we discuss in more detail later in the report, the overall decline in enrollment is consistent with projections made by the US Department of Education.

CURRENT ENROLLMENT

Figure 3 on page 6 shows that the District's total fall 2014 enrollment of 1,314 (exclusive of pre-school students) continued the more than ten-year downward trend, reaching the lowest level this decade. The District has seen enrollment decline since the 2002-2003 school year when it reached its historic peak of 1,551 students, having dropped nine times since then for a total decrease of almost 240 students. Over the past ten years, the average annual decrease in has exceeded one percent. Since 2009, the District has seen a steady and more dramatic drop in enrollment – amounting to almost 160 students – or more than the equivalent of one classroom per year. The decline in enrollment – including the acceleration since the recession – mirrors what has occurred for the state as a whole, as shown in Figure 4 on page 7.

Enrollments at CES (down 46 students from its 2008 peak), BMS (131 students down from its 2005 peak), and BHS (with 77 fewer students than at its 2009 peak) were at their lowest points this decade. BES was somewhat of an exception. It's 2014 enrollment, although 18 students below what it was ten years ago, was almost 30 students higher than it was in 2010.

Again mirroring the statewide pattern, the District's enrollment decline occurred despite population growth in Belmont and Canterbury as shown in Figure 3. Indeed, even with the recent slower population growth and the relatively large number of homes on the market in both towns, the District's population is more than 600 people greater than it was in 2002, when enrollment hit its peak. Thus, as we have noted in prior reports, future population increases might not – in fact will probably not – result in increases in student enrollment.

ACCURACY OF THE 2012 AND PRIOR PROJECTIONS

Figure 5 on page 8 documents the fact that the District's actual enrollment in the fall of 2013 and 2014 largely fell within the high and low range of the projections from our 2012 update. The actual figures tended to be toward the low-range forecast. As previously noted, enrollment in the District's schools continued the more than decade-long decline. CES was the stand out exception to this pattern, as its actual enrollment exceeded even our high-range forecast. A major reason for this result was the increase in the number of students from Belmont who attended CES. As a reminder, whereas the actual student counts include cross-town enrollment in the District's

FIGURE 1
SHAKER REGIONAL SCHOOL DISTRICT
TOTAL ACTUAL AND PROJECTED ENROLLMENT 2014 TO 2024
December 2014

| YEAR	LOW-RANGE	MOST-LIKELY	HIGH-RANGE
2014 ACTUAL	**1314**	**1314**	**1314**
2015	1232	1297	1362
2016	1211	1275	1339
2017	1168	1229	1290
2018	1153	1214	1275
2019	1148	1208	1268
2020	1135	1195	1255
2021	1120	1179	1238
2022	1110	1168	1226
2023	1099	1157	1215
2024	1088	1143	1202

TOTAL PROJECTED ENROLLMENT
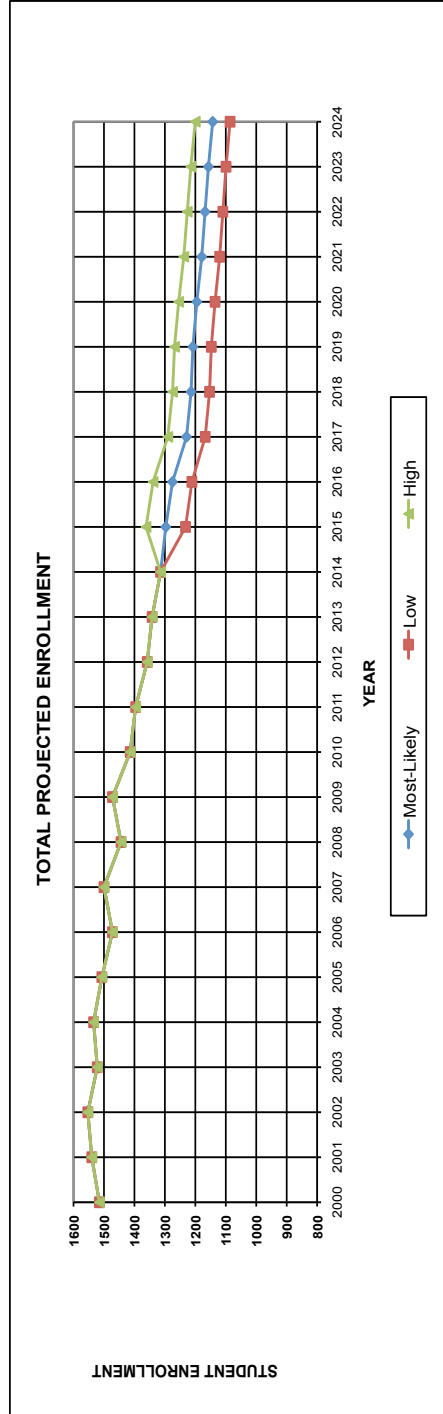
FIGURE 2
SHAKER REGIONAL SCHOOL DISTRICT
SUMMARY PROJECTED ENROLLMENT 2015 TO 2024 BY SCHOOL
December 2014

| YEAR	LOW-RANGE					MOST-LIKELY					HIGH-RANGE				
	BES	CES	BMS	BHS	TOTAL	BES	CES	BMS	BHS	TOTAL	BES	CES	BMS	BHS	TOTAL
2014 ACTUAL*	421	105	365	423	1314	421	105	365	423	1314	421	105	365	423	1314
2015	411	92	339	390	1232	433	97	357	410	1298	455	102	375	431	1362
2016	410	86	342	372	1211	432	91	360	392	1276	454	96	378	412	1339
2017	387	77	345	359	1168	407	81	363	378	1229	427	85	381	397	1290
2018	380	69	351	353	1153	400	73	369	372	1214	420	77	387	391	1275
2019	388	60	356	344	1148	408	63	375	362	1207	428	66	394	380	1268
2020	368	58	358	352	1135	387	61	377	370	1194	406	64	396	389	1255
2021	361	61	343	355	1120	380	64	361	374	1179	399	67	379	393	1238
2022	372	66	308	364	1110	392	69	324	383	1168	412	72	340	402	1226
2023	355	68	314	357	1095	374	72	331	376	1157	393	76	348	395	1211
2024	357	72	301	357	1088	376	76	317	376	1142	395	80	333	395	1202

INDICATES EXCEEDS CORE CAPACITY

NOTE: BES and grade 5 BMS figures do not include Canterbury students, who are included in the CES totals.

Forecast by School
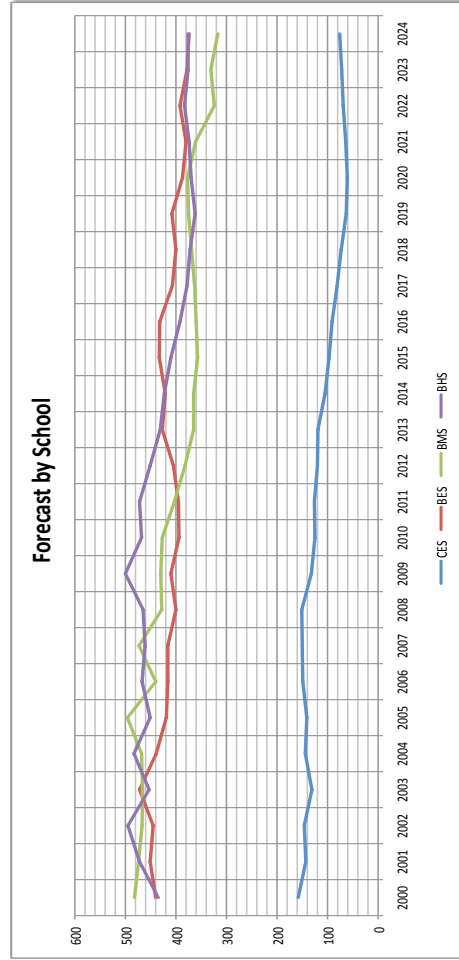
FIGURE 3
SHAKER REGIONAL SCHOOL DISTRICT
HISTORIC ENROLLMENT BY SCHOOL AND POPULATION: 2004-2014
December 2014

YEAR	ENROLLMENT				TOTAL	CHANGE	CUM CHANGE	DISTRICT	
	BES	CES	BMS	BHS				POPULATION	% CHANGE
2004	439	144	468	483	1534	13	13	9355	423
2005	419	141	496	451	1507	-27	-14	9441	0.9%
2006	416	149	440	467	1472	-35	-49	9406	-0.4%
2007	416	150	473	461	1500	28	-21	9425	0.2%
2008	400	151	428	465	1444	-56	-77	9431	0.1%
2009	410	132	430	500	1472	28	-49	9553	1.3%
2010	394	125	427	468	1414	-58	-107	9708	1.6%
2011	395	126	403	472	1396	-18	-125	9703	-0.1%
2012	405	120	382	451	1358	-38	-163	9709	0.1%
2013	427	119	365	431	1342	-16	-179	9677	-0.3%
2014	421	105	365	423	1314	-28	-207	9696	0.2%

Historic Enrollment by School:2004-2014
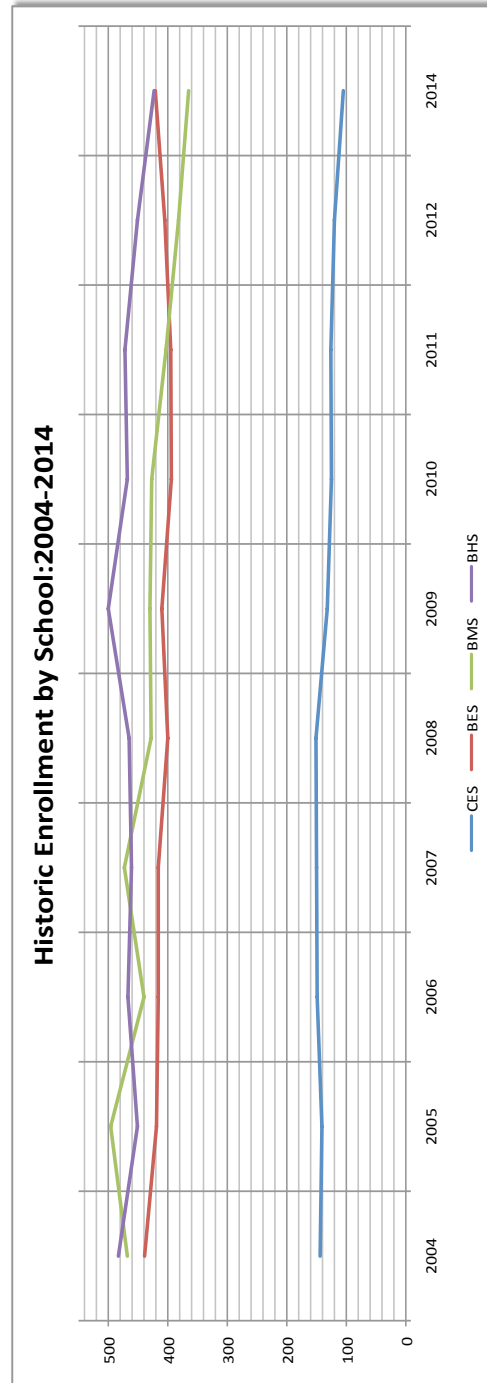
Note: We include all Canterbury studetns in Canterbury and Belmont students in Belmont. Does not include preschool

Figure 4
State Totals-Public School Fall Enrollments: 2000-2001 to 2011-2012
Public School Districts

	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Preschool	1,877	1,830	1,923	2,221	2,360	2,525	2,531	2,614	2,834	2,987	3,095	3,165	3,200	3,401
Kindergarten	9,160	9,599	9,757	9,989	10,116	10,360	10,370	10,479	10,956	11,958	11,910	11,873	11,836	11,528
Readiness	454	432	352	293	260	210	193	246	223	182	114	66	63	44
Grade 1	15,624	15,443	15,196	15,071	15,009	14,733	14,639	14,332	14,169	13,925	13,908	13,540	13,486	13,328
Grade 2	15,587	15,563	15,319	14,951	14,978	14,940	14,603	14,404	14,196	14,171	13,836	13,788	13,401	13,361
Grade 3	16,372	15,776	15,748	15,403	15,019	14,976	14,941	14,598	14,431	14,199	14,107	13,815	13,728	13,399
Grade 4	16,541	16,612	15,939	15,810	15,495	15,147	15,065	14,999	14,582	14,512	14,189	14,107	13,794	13,783
Grade 5	17,167	16,756	16,769	16,045	15,950	15,627	15,274	15,186	14,996	14,642	14,500	14,150	14,143	13,804
Grade 6	17,171	17,422	16,971	16,889	16,200	16,093	15,758	15,307	15,160	15,048	14,685	14,453	14,048	14,026
Grade 7	16,893	17,314	17,667	17,166	17,009	16,358	16,295	15,794	15,429	15,277	15,029	14,678	14,444	14,111
Grade 8	16,874	17,111	17,421	17,703	17,224	17,035	16,429	16,205	15,748	15,456	15,241	14,986	14,554	14,408
Grade 9	16,315	16,513	16,625	17,131	17,302	16,973	16,935	16,235	15,929	15,714	15,374	15,107	14,836	14,305
Grade 10	15,047	15,188	15,524	15,659	16,012	16,224	15,688	15,655	15,092	15,042	14,678	14,084	13,841	13,697
Grade 11	13,508	14,304	14,419	14,894	14,766	15,203	15,474	14,798	14,747	14,279	14,115	13,830	13,245	12,978
Grade 12	12,206	12,541	13,499	13,618	13,893	13,998	14,430	14,775	14,297	14,390	13,793	13,616	13,274	12,762
Spec Ed Elem	524	448	431	348	368	377	0	0	0	0	0	0	0	0
Ungraded Elem	4	11	1	0	7	0	0	0	0	0	0	0	0	0
Spec Ed Sec	185	132	65	128	183	135	0	0	0	0	0	0	0	0
Ungraded Sec	54	58	71	23	55	28	0	0	0	0	0	0	0	0
Post Graduate	5	19	18	17	17	33	20	41	22	20	21	20	7	12
Totals	201,568	203,072	203,715	203,359	202,223	200,975	198,645	195,668	192,811	191,802	188,595	185,278	181,900	178,947
Percent Change		0.7%	0.3%	-0.2%	-0.6%	-0.6%	-1.2%	-1.5%	-1.5%	-0.5%	-1.7%	-1.8%	-1.8%	-1.6%
NH Population	1,201,134	1,239,882	1,255,517	1,269,089	1,279,840	1,290,121	1,298,492	1,308,389	1,312,540	1,315,906	1,316,470	1,318,184	1,321,617	1,323,459
	0.013	3.2%	1.3%	1.1%	0.8%	0.8%	0.6%	0.8%	0.3%	0.3%	0.0%	0.1%	0.3%	0.1%

Population figures are from the US Census for the July preceeding the school year
Enrollment figures are from the NH Dept. of Education

School/Grade	Actual Enrollment		Projected Enrollment*				Projected less Actual Enrollment			
			Low Range		High Range		Low Range		High Range	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
School District Total										
All Schools and Grades	**1342**	**1314**	**1290**	**1297**	**1428**	**1434**	**-52**	**-17**	**86**	**120**
Belmont Elementary School										
Kindergarten	81	70	83	84	91	92	2	14	10	22
Readiness	16	21								
Grade 1	87	83								
Grade 1*	103	104	98	109	108	121	-5	5	5	17
Grade 2	74	84	71	79	79	87	-3	-5	5	3
Grade 3	73	77	75	71	83	79	2	-6	10	2
Grade 4	83	73	80	76	88	84	-3	3	5	11
TOTALS	**414**	**408**	**407**	**419**	**449**	**463**	**-7**	**11**	**35**	**55**
Canterbury Elementary School										
Kindergarten	24	12	20	14	22	16	-4	2	-2	4
Readiness	8	5								
Grade 1	21	27								
Grade 1*	29	32	20	29	22	32	-9	-3	-7	0
Grade 2	24	20	20	15	22	17	-4	-5	-2	-3
Grade 3	12	23	11	19	13	21	-1	-4	1	-2
Grade 4	17	15	16	11	18	13	-1	-4	1	-2
Grade 5	20	14	20	14	22	16	0	0	2	2
TOTALS	**126**	**116**	**107**	**102**	**119**	**115**	**-19**	**-14**	**-7**	**-1**
Belmont Middle School										
Grade 5	77	83	72	82	80	90	-5	-1	3	7
Grade 6	91	98	91	95	101	105	0	-3	10	7
Grade 7	100	91	91	91	101	101	-9	0	1	10
Grade 8	103	95	94	92	104	102	-9	-3	1	7
TOTALS	**371**	**367**	**348**	**360**	**386**	**398**	**-23**	**-7**	**15**	**31**
Belmont High School										
Grade 9	138	123	125	104	139	114	-13	-19	1	-9
Grade 10	110	121	117	118	129	130	7	-3	19	9
Grade 11	94	94	97	101	107	111	3	7	13	17
Grade 12	89	85	89	93	99	103	0	8	10	18
TOTALS	**431**	**423**	**428**	**416**	**474**	**458**	**-3**	**-7**	**43**	**35**

*Although we also included a "most likely" forecast, since it was calculated to be the mid-point between the two extremes, using them for this analysis seems most appropriate.

elementary schools, our projections do not take cross-town enrollment into account. The numbers are generally small and at the level of analysis we do, unpredictable. However, particularly with students from Belmont attending CES, the figures have risen: from 5 in 2011 and 8 in 2012 to 15 in both 2013 and 2014. Meanwhile, the number of Canterbury students attending BES actually dropped from 5 in 2012 to 3 in 2013 and 2014. We can only speculate that one reason for these changes is the fact that CES is far less crowded than BES, but we expect other factors are involved. In and of themselves, the implications aren't significant, since enrollment at CES is far below capacity, although staffing might be affected depending upon grades affected and individual student needs. We expect the Board regularly monitors this situation.

In terms of year-to-year accuracy, our low-range projections for 2014 were more accurate than the 2013 forecast for the District as a whole and for CES and BMS. The low-range figures were most accurate for BES and BHS.

Figure 6 on the following page shows that since 2003 our average variance (projected less actual enrollment) remains fairly small. It is smallest for BMS (0.3%) and the District as a whole (1.0%), but is also small for BHS (2.7%) and BES (4.3%). The outlier, as in the past, is CES (average variance of 13.2%), for which we have over-estimated enrollment more often than not. CES's small size makes even slight projection inaccuracies appear more significant on a percentage basis. Of note is the overall reduction in the variances since our 2012 projections. In addition, for all but CES, the average variance is now negative, meaning that our projections have on average encompassed actual enrollment figures. Why is this significant? The reason reflects the goal of the enrollment forecasts: to provide a reasonable range of projections to enable the Board to anticipate and appropriately respond to potential changes in student population. To best serve that purpose, we strive to have the high and low ranges encompass actual enrollment. That approach also increases the odds that the "most likely" forecast will be closer to what the District experiences. At the same time, we work hard to have the ranges be reasonable, supported by actual trends and factual information. And, of course, we try to have the variance be as small as possible.

Because our overall methodology has remained consistent over the years and relies heavily on historic enrollment, birth rates, and population, when actual enrollment varies significantly from our projections, we try to identify the cause(s). As explained in more detail later, in establishing the high and low ranges we analyze trends in these three areas over different time periods, taking into account potentially determining factors within and outside the District that might contribute to the variances. This year is no exception. The challenge of precisely forecasting enrollment, particularly when operational implications exist, justifies these regular updates, as annual District enrollment is always somewhat unpredictable.

Given the state's continued sluggish recovery from the recession and the profound economic and demographic changes from historic patterns that have been highlighted during this period, we devoted significant time and effort to analyzing them and their implications for our projections. We also again evaluated the role of key policy decisions in light of these conditions. We discuss all this in a fair amount of depth later in the report.

As we did two years ago, we also looked at alternative schooling. Figure 7 on page 11 provides information on the number of students attending private school or schooled at home over the past seven years. This population reached its peak of 114 students in the 2009-2010 school year.

Students Attending Private Schools

Year/Grade	K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	5-8	9-12	Totals
2008-2009	1	5	4	8	8	6	6	4	4	6	5	13	7	26	20	31	77
2009-2010	1	1	5	3	7	7	6	8	7	9	4	4	10	17	28	27	72
2010-2011	3	0	1	4	2	8	6	4	6	7	5	4	5	10	24	21	55
2011-2012	1	3	0	1	3	2	8	4	4	4	6	7	4	8	18	21	47
2012-2013	4	0	3	1	2	2	3	7	4	7	6	7	4	10	16	24	50
2013-2014	6	2	0	2	0	0	3	2	6	9	9	2	5	10	11	25	46
2014-2015	3	3	2	1	3	1	2	2	2	4	7	8	4	12	7	23	42

Home-Schooled Students

Year/Grade	K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	5-8	9-12	Totals
2008-2009	0	0	4	3	1	4	2	3	6	8	0	1	0	8	15	9	32
2009-2010	0	3	0	6	3	3	8	3	3	5	5	2	1	12	17	13	42
2010-2011	0	3	2	0	7	2	2	7	1	6	1	7	1	12	12	15	39
2011-2012	0	0	3	2	0	7	2	2	7	1	6	1	7	5	18	15	38
2012-2013	0	2	1	2	1	2	6	2	4	9	2	4	2	6	14	17	37
2013-2014	1	1	2	2	3	2	3	7	1	4	10	2	3	9	13	19	41
2014-2015	1	3	2	4	2	4	3	4	10	2	7	11	1	12	21	21	54

District Totals of Private and Home-Schooled Students

Year/Grade	K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	5-8	9-12	Totals
2008-2009	1	5	8	11	9	10	8	7	10	14	5	14	7	34	35	40	109
2009-2010	1	4	5	9	10	10	14	11	10	14	9	6	11	29	45	40	114
2010-2011	3	3	3	4	9	10	8	11	7	13	6	11	6	22	36	36	94
2011-2012	1	3	3	3	3	9	10	6	11	5	12	8	11	13	36	36	85
2012-2013	4	2	4	3	3	4	9	9	8	16	8	11	6	16	30	41	87
2013-2014	7	3	2	4	3	2	6	9	7	13	19	4	8	19	24	44	87
2014-2015	4	6	4	5	5	5	5	6	12	6	14	19	5	24	28	44	96

Note: *The figures represent only those home education students whose families choose the SRSD as their participating agency (they can also select the Department of Education or a private school as their participating agency).*
Source: Shaker Regional School District, 2014.

Ninety-six students now attend private school or are being home schooled, a fairly significant figure and the highest it has been since then. The fact that almost half of this total consists of students in grades 8, 10, and 11 is also noteworthy. In addition, the increase of nine students from 2013 accounts for about one-third of the District's current year enrollment decline. Certainly other factors are at play, primarily the number of families with school-age children who left Belmont and Canterbury during the past two years exceeded the number who moved in. Although private school enrollment has generally declined over the past six years (consistent – except for grades 9-12 – with a national trend that likely reflects the impact of the recession), the number of home-schooled students is higher than it has been at any time during this period.

A fairly significant change occurred this school year, as the number of home-schooled students from Belmont almost doubled (from 15 to 29), more than half of them in high school. This jump more than compensated for the small decrease in the number of students attending private school and the number of home schooled students in Canterbury. The total number of families home-schooling their children increased by more than a third. And, while in the past Canterbury outpaced Belmont in the number of students who were home schooled or attended private schools, in the current school year, the totals are almost even: 49 from Canterbury and 47 from Belmont. Still, from a proportional perspective, a larger percentage of Canterbury's school-age children do not attend the District's schools.

As the state's economy continues to recover from the recession, it is possible that the number of students attending private school will increase. In absolute terms, the middle and high school grades have the most students in alternative schooling. Tracking these students will help anticipate potential space and staffing issues. And since BES faces the greatest capacity issues, we expect the District will also monitor these students.

METHODOLOGY

In preparing our projections, we consider several factors that directly and indirectly impact student enrollment. These factors include current and historic enrollments, the composition of the population by town, birth rates (number per 1,000 population), and the economy.

Historic Enrollment

The first step in the process of projecting student enrollment is to update the enrollment for the District for the school years 2013 and 2014. We then adjust the data so that Belmont students are counted in Belmont and Canterbury students in Canterbury. The purpose of this adjustment is to account for the respective total enrollment from each town, since the projection methodology involves forecasting the population, birth rates, and elementary school grade progression ratios by town. As an illustration of the process, the adjustment for 2014 appears on the following page.

The enrollment data are provided to us by the SAU. The data are broken out by grade, starting at pre-school in Belmont through the 12th grade at BHS. The data are also broken out by grade, by school, and by town. To illustrate, in 2014 the total enrollment in the District was 1,354 students, of which 260 (19%) were Canterbury residents. For estimation purposes, we exclude pre-school

students. Thus we reduced the District's total enrollment to 1,314 students, 19.6% from Canterbury and 80.4% from Belmont.

2014-2015 SHAKER ENROLLMENT SUMMARY AND CROSS-TOWN ADJUSTMENTS					
	2014	2014	2014	2014	2014
Belmont Elementary	Total	from Belmont	from Canterbury	Belmont in Canterbury	Belmont Elementary
pre-school	40	38	2		40
K	70	70			70
Readiness	21	21			21
1	83	83		6	89
2	84	84		1	85
3	77	77		5	82
4	73	72	1	2	74
Total	448	445	3	14	461
Total Less Pre-School	408	407	1	14	421
Canterbury Elementary	Total	from Belmont	from Canterbury	Canterbury in Belmont	Canterbury Elementary
K	12		12		12
R	5		5		5
1	27	6	21		21
2	20	1	19		19
3	23	5	18		18
4	15	2	13	1	14
5	14	1	13	3	16
Total	116	15	101	4	105
Belmont Middle School	Total	from Belmont	from Canterbury	Belmont in Canterbury	Belmont Middle
5	83	80	3	1	81
6	98	75	23		98
7	91	68	23		91
8	95	76	19		95
Total	367	299	68	1	365
Belmont High School	Total	from Belmont	from Canterbury		BHS
9	123	101	22		123
10	121	100	21		121
11	94	66	28		94
12	85	68	17		85
Total	423	335	88		423
Overall	1354	1094	260		1354
Less Pre-School	1314	1056	258		1314

The next adjustment involves aligning students with their respective resident town. For example, in the preceding table the total enrollment in CES was 116 students. However, 15 of those students are from Belmont, which leaves 101 students from Canterbury in the school. To that figure we add four students who are Canterbury residents but attending BES. Thus, the total number of students ostensibly attending Canterbury Elementary School is 105. Put another way, the number of elementary school students from Canterbury who are attending public school in the District is 105. This adjustment was made for each of the past enrollment years.

Why do we make these adjustments? In addition to the fact that the methodology involves town-based projections, the adjustments are made because the decision on which school to attend in not a statistical one that we can readily predict with reliability. The decision could be based on several factors, such as a desire to be in a smaller setting, a choice of a different teacher, or the family's physical location or commuting pattern. In light of the above, another reason for making the adjustment is to get a clearer picture of enrollment in the District's elementary schools. An excellent example is the situation at CES. For 2014, after making the adjustment we totaled 105 Canterbury students enrolled at the school, which is 14 fewer students than 2013. This is a significant year-to-year change that we might have overlooked if we merely used the school enrollment figures without considering where students lived.

Finally, we combine 1st grade and Readiness classes in both Canterbury and Belmont, as again, that decision is not statistical, it is a decision based upon students' developmental level. The result of these adjustments is the enrollment breakdown appearing on the following page.

Grade Progression Ratios

As in the past, the most significant component of our analysis is the grade progression ratio. This ratio is the percent of students in each grade in a school that advance to the next grade in the District the following year. For example, to estimate how many 6th grade students in BMS will advance to the 7th grade, we look at past progression ratios. A ratio of 1.0 indicates that the number of students in 7th grade this year is the same as the number in last year's 6th grade. The table below highlights this example.

Example of Grade Progression Ratio Calculation

6th Grade Class	#	7th Grade Class	#	Ratio
11/12	98	12/13	98	1.00
12/13	98	13/14	100	1.04
13/14	91	14/15	91	1.00

| | | | Average | 1.014 |

Numerous factors influence grade progression ratios, including families moving into or out of the District, students enrolling at or returning from private school or being home schooled, and students dropping out of school. A grade progression ratio greater than 1.0 indicates that students are moving into the District or are moving from home or private schools to public schools.

Conversely, a grade progression ratio less than 1.0 suggests that students are leaving, either for another school or dropping out completely.

Shaker Regional

Historic Enrollment

Year	Canterbury Elementary							Belmont Elementary						Belmont Middle School					Belmont High School					Shaker
	K	1	2	3	4	5	Total	K	1	2	3	4	Total	5	6	7	8	Total	9	10	11	12	Total	Total
2000-01	33	25	17	33	23	27	158	60	112	82	91	95	440	104	108	134	136	482	125	131	87	92	435	1515
2001-02	18	42	16	16	34	17	143	78	90	99	90	94	451	110	119	105	140	474	140	133	121	78	472	1540
2002-03	24	29	32	16	17	28	146	76	93	77	110	89	445	101	118	132	116	467	137	134	109	115	495	1553
2003-04	22	30	19	34	15	11	131	74	110	81	91	116	472	90	132	114	130	466	114	131	109	99	453	1522
2004-05	30	26	20	23	32	13	144	93	79	97	77	93	439	122	97	140	109	468	145	119	112	107	483	1534
2005-06	21	29	32	19	24	16	141	70	103	81	87	78	419	112	134	105	145	496	118	133	90	110	451	1507
2006-07	21	30	24	33	18	23	149	68	94	83	81	90	416	77	128	125	110	440	148	104	119	96	467	1472
2007-08	22	32	21	24	33	18	150	68	93	80	89	86	416	99	101	140	133	473	123	143	84	111	461	1500
2008-09	20	31	20	22	25	33	151	75	89	70	80	86	400	82	112	100	134	428	137	111	127	90	465	1444
2009-10	18	25	25	19	20	25	132	79	95	78	74	84	410	89	124	113	104	430	143	142	98	117	500	1472
2010-11	14	22	25	25	19	20	125	68	102	75	73	76	394	80	116	122	109	427	119	133	124	92	468	1414
2011-12	19	23	18	23	23	20	126	73	95	82	74	71	395	71	98	115	119	403	130	114	111	117	472	1396
2012-13	15	27	13	17	23	25	120	78	92	78	83	74	405	68	96	98	120	382	131	118	97	105	451	1358
2013-14	21	26	19	11	16	26	119	84	106	79	74	84	427	71	91	100	103	365	138	110	94	89	431	1342
2014-15	12	26	19	18	14	16	105	70	110	85	82	74	421	81	98	91	95	365	123	121	94	85	423	1314

Because of their impact on enrollment, the District's staff tracks school exits and, when possible, the reason for them. We included below the table from our 2012 report that shows exits by grade for school years 2010-2011 to 2012-2013. As can be seen, the total number of exits varies greatly from year to year. For example, the total for the 2010-2011 school year was 113. The next year it jumped to 185, and in the 2012 to 2013 school year it dropped by more than 50% to 90. From the available data, we know that in all but BHS the major reason for an exit was a family's move out of the District. Although we do not have data by grade for the most recent two school years, we know that the total number of exits thus far in the 2014-2015 school year is 62, 51 of whom were students who moved out of the District but remained in New Hampshire. Five students left to be home schooled and one left for private school. The remaining five students moved out of state. We can only speculate on the reasons for the dramatic swings in the number of exits, but expect the recession was a driving force (as will be discussed in later in the report, a prime factor in families moving is job changing). We also note the relatively large number of homes on the market in Belmont and Canterbury and that, while sales are picking up from the depths of the recession, they are still below levels from ten years ago. Therefore, as conditions improve – with increased sales and rising prices – the District might experience another increase in exits.
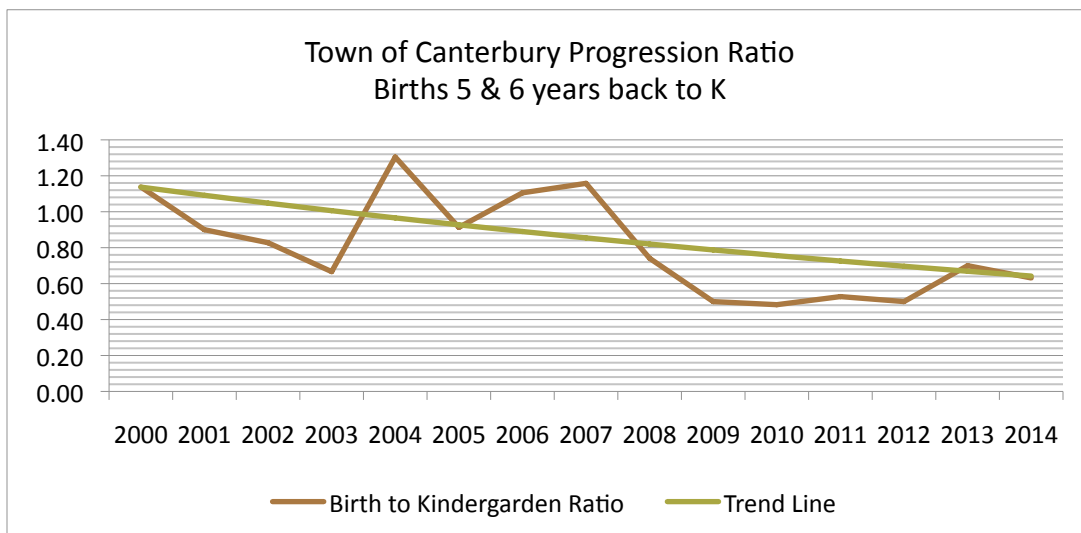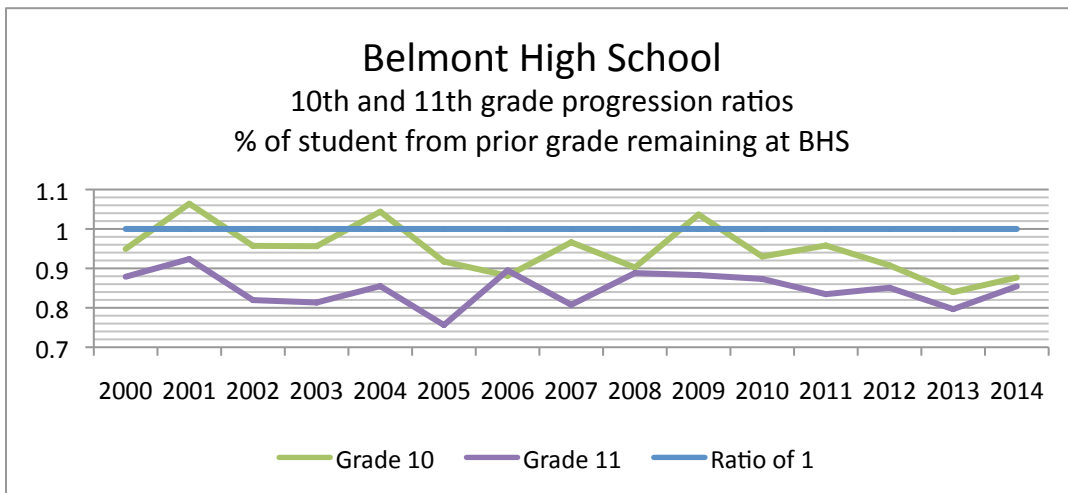
It is important to point out that the District's enrollment did not fall to the extent the exits would indicate, because families with school-age children also moved into the District. For example, despite the recent peak of 185 exits during the 2011-2012 school year, the District's total enrollment of 1,396 was just 18 students fewer than the prior year's total and 38 students more than the subsequent year's enrollment. It is the net effect of these changes – the exits and entrances – as well as births that result in the grade progression ratios we calculate and use as a key factor in making the enrollment projections.

Exit Data for School Years 2010-2011 to 2012-2013

EXITS CES	K	1	2	3	4	5	EXITS Total	School Population	% Exits
2010-2011	2	0	1	1	1	1	6	121	5%
2011-2012	3	3	1	1	1	0	9	123	7%
2012-2013	2	1	0	0	1	0	4	117	3%

BES	K	1	2	3	4	EXITS Total	School Population	% Exits
2010-2011	8	12	6	6	6	38	397	9.6%
2011-2012	19	13	14	15	8	69	395	17.5%
2012-2013	10	7	12	7	4	40	405	9.9%

BMS	5	6	7	8	EXITS Total	School Population	% Exits
2010-2011	4	6	9	6	25	428	5.8%
2011-2012	10	11	16	23	60	406	14.8%
2012-2013	6	4	9	4	23	385	6.0%

BHS	9	10	11	12	EXITS Total	School Population	% Exits
2010-2011	11	12	11	10	44	468	9.4%
2011-2012	22	9	13	3	47	472	10.0%
2012-2013	6	4	9	4	23	385	6.0%

We review grade progression ratios over an extended period. For the update of the enrollment projections, we generally calculate the ratios for three-, five-, and ten-year periods. For BHS, however, we reviewed the grade progressions from 2000 to 2014. As shown in the first figure below, the 11th grade progression ratios were consistently less than1.0, indicating that between the 10th and 11th grade, students leave BHS. On average about 15% of student in the 10th grade leave before the 11th grade. They either transfer to another school or, if they're old enough, drop out. The pattern from 9th to 10th grade is not too dissimilar.

Although there has not been a huge variation in the grade progressions in recent years, it should be noted that the one exception is in Canterbury, as can be seen in the second figure below. Tracking the births in Canterbury from five and six years back to entry in CES, we have seen a significant decline. Between 2000 and 2005, the grade progression ratio varied around 1.0. This meant that as we trace births from five and six years back, most children born entered Kindergarten at CES. Looking at the last five years, we see that the ratio has dropped to a low of 0.5, or just half of the students born in town entering Kindergarten at the school. Explanations for this significant change include families moving or students being home-schooled or attending private school. However, it is a trend that should be followed as it has implications for lower-than-expected enrollment at CES.

Belmont High School
10th and 11th grade progression ratios
% of student from prior grade remaining at BHS

Grade 10   Grade 11   Ratio of 1

Town of Canterbury Progression Ratio
Births 5 & 6 years back to K

Birth to Kindergarden Ratio   Trend Line

With that background, we note that our most-likely projection used the five-year grade progression ratio for several reasons. First, over the last three years, we have seen many more students move out of the District. After reviewing the data, we knew that the movement of students out of the District's schools was not due solely to an increase in alternative schooling (home schooling or private schools). Rather, a significant number of families moved out of both Canterbury and Belmont, with the economy as the most likely reason. Thus, we used a longer period to average the ratios, as we think, with the continued recovery from the recession, it is more likely to be representative of what the situation will be in the future.

One should note that the 1st-grade data include Readiness Class. Thus, the grade projection ratio is greater than 1.0, as 1st grade actually includes two grades. Likewise, the 2nd grade progression ratio is less than 1.0 since students in the Readiness Class move on to 1st grade, not 2nd.

The projections include Kindergarten based upon historic trends. However, we did not include any pre-school students.

The chart below shows the three-, five- and ten-year grade progression ratios calculated from historic enrollment data

Historic Grade Progression Ratios

| Canterbury Elementary	K	1	2	3	4	5
3 year	0.61	1.46	0.67	0.91	1.07	1.07
5 year	0.57	1.45	0.76	0.93	1.03	1.05
10 year	0.73	1.38	0.80	0.96	1.00	0.97
Belmont Elementary	K	1	2	3	4	
3 year	.92	1.31	0.83	1.00	1.00	
5 year	1.00	1.32	0.82	.98	1.02	
10 year	1.06	1.30	0.84	1.00	1.01	
Belmont Middle School	5	6	7	8		
3 year	.96	1.02	1.02	1.02		
5 year	.954	1.01	1.00	.997		
10 year	1.01	1.01	1.01	1.01		
Belmont High School	9	10	11	12		
3 year	1.15	0.88	0.83	0.92		
5 year	1.16	0.90	0.84	0.93		
10 year	1.11	0.92	0.84	0.96		

The Kindergarten progression ratio is a weighted average of the births for the prior five-year period. The weighted births were determined by a factor of 75% of births five years ago and 25% for births six years ago. This approach reflects the fact that a student turning five years old by September 30 will enroll in school in that year, whereas students turning five later in the year will not enroll until the following year.
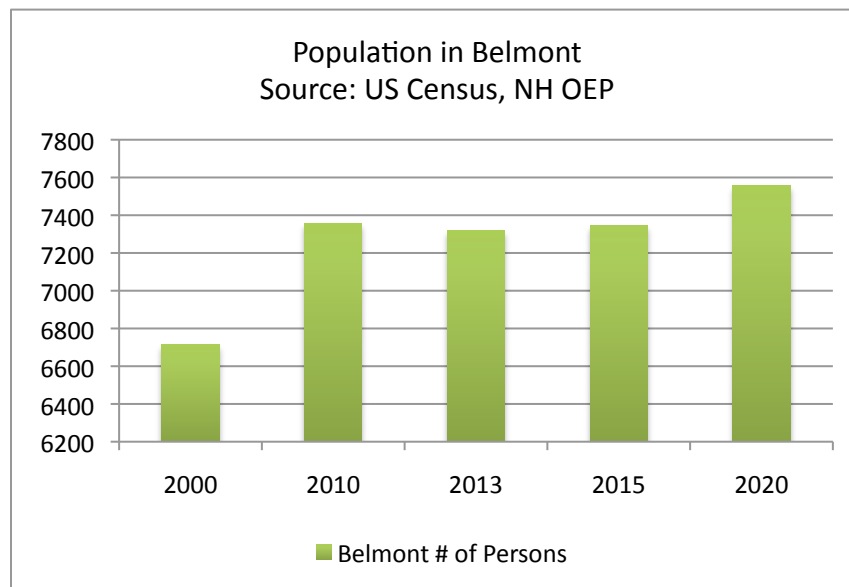
Population Growth

Population is clearly a critical factor in projecting student enrollment. We relied upon three sources in estimating population. The first was the US Census Bureau's population estimate. The US Census Bureau produces population estimates on a 10-year basis, the last complete census having been conducted in 2010. The State of New Hampshire's Office of Energy and Planning annually estimates population by town. Currently it has town population estimates for the years 2011, 2012, and 2013. These estimates are based on births, deaths, housing permits, and migration.

The third estimate we relied upon was a projected population produced in conjunction with the New Hampshire Regional Planning Commissions, a private demographic group – RLS Demographics, Dennis Delay from the New Hampshire Center for Public Policy Studies, and Russ Tibbeault of Applied Economic Research. This projection was produced in the fall of 2013 and, according to the NH Office of Energy and Planning, it is not expected to be updated in the near future. The projections found in this report are in five-year intervals from 2010 to 2025.

Because the 2015 projections published in 2013 are much higher than actual population growth the towns experienced since 2010, we merged the 2010 to 2015 estimates for Belmont and Canterbury and used the county growth rates and birth rates from 2015 to 2020 to produce population and birth rates by town. We did not need to project population beyond 2020 because of the five- to six-year lag between births and enrollment. The results appear below and on the following page.
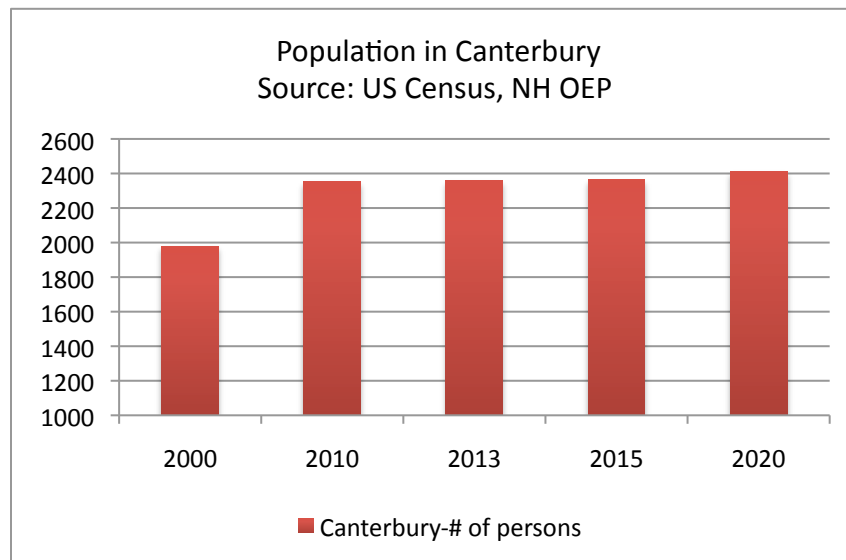
New Hampshire's Office of Energy and Planning estimates that the population of Canterbury in 2013 was 2,358 persons or just six people more than calculated in the 2010 Census. In Belmont, the estimated population for 2013 was 7,319 or 37 fewer than in 2010. The projection for Merrimack County's growth from 2015 to 2020 reflects a growth rate of 0.35% per year. For Belknap County, the projected growth rate is 0.65% per year between 2015 and 2020.

Population in Belmont
Source: US Census, NH OEP

Chart showing Belmont # of Persons for years 2000, 2010, 2013, 2015, 2020. Values approximately: 2000 ≈ 6,720; 2010 ≈ 7,350; 2013 ≈ 7,320; 2015 ≈ 7,350; 2020 ≈ 7,560.

Legend: ■ Belmont # of Persons

The projected population growth is significantly lower than our previous forecast. This is due to several factors. First, the population change in Belmont and Canterbury from the Census population numbers in 2010 to the State's estimate of the towns' population in 2013 was either a decline or virtually no growth. In addition, the population in both towns is older and the birth rates are lower.
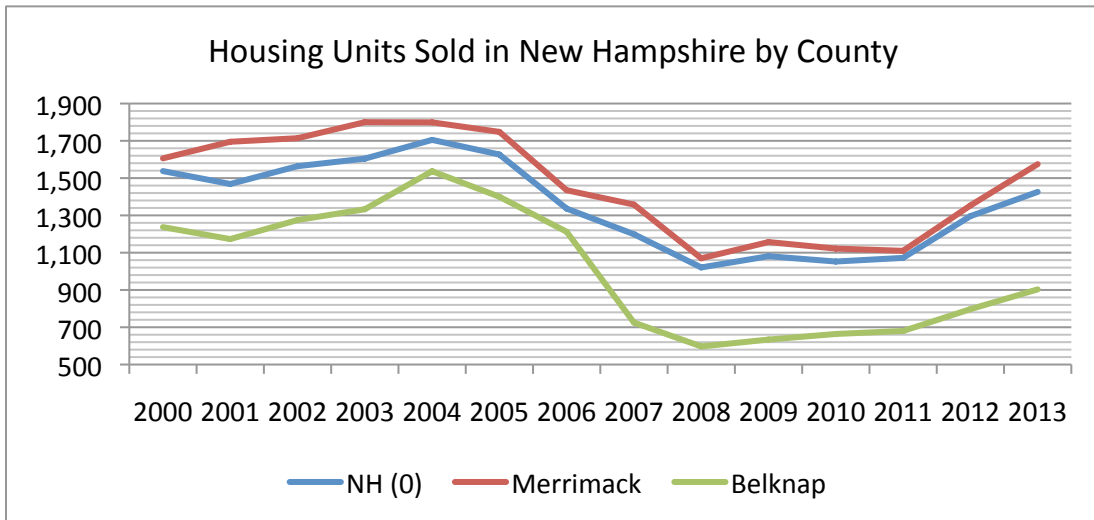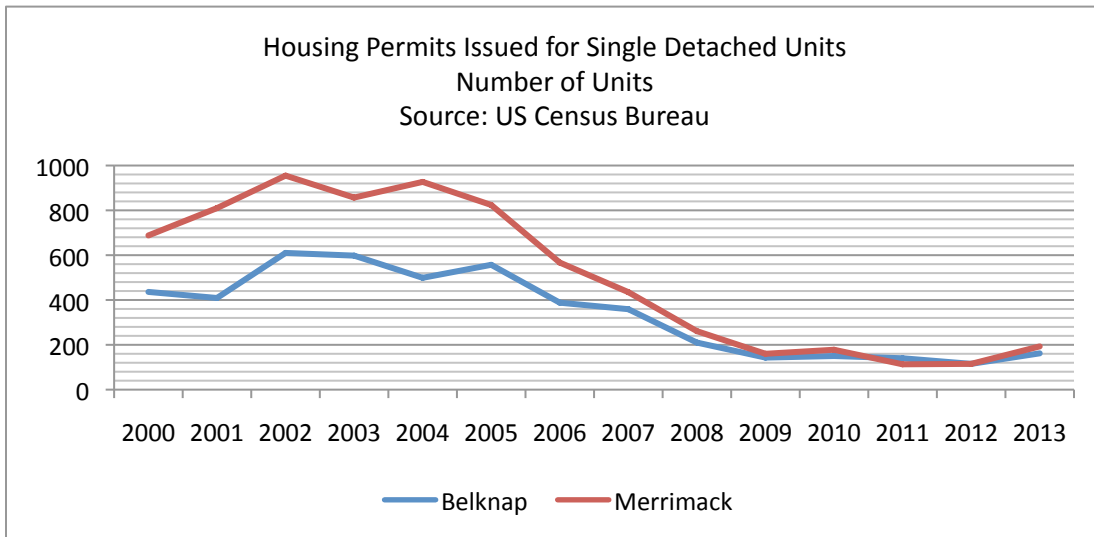
Another factor in population projections is the growth in housing. Data from the US Census Bureau for housing permits shows that the slow-down in population growth in both Belknap and Merrimack counties is also due to fewer homes being built. The number of permits issued for single family homes declined dramatically and has remained low for several years, as can be seen in the first figure on the following page.

Additionally, the number of houses sold declined from 2004 to a low in 2008 at the peak of the recession. Home sales have increased since 2008 and improved considerably in 2012 and 2013, but as can be seen in the second figure on the following page, have yet to rebound to the level they were ten years ago.

Home prices have begun to rebound as well, so that by 2013 they were closer to, but still below, the high level experienced in 2003-2004. Data from the Northern New England Real Estate Network indicate that the median price in Merrimack County in 2013 was $197,000 for a single-family home. This is up from the 2008 low but still a ways from the 2003 value of $209,000. Belknap County home sales prices show a similar pattern with a median price in2 013 of $185,000, closer to the 2004 average price of $189,500.

**Projected Births**

Projecting the number of students entering the school system requires an estimate of the births in each town. Indeed, historic and projected births play an important part in the projections. A review of historic birth data by town suggests a significant difference in the direction of the enrollment in the two elementary schools. Between 2004 and 2008, Canterbury averaged 32

Housing Permits Issued for Single Detached Units
Number of Units
Source: US Census Bureau

Housing Units Sold in New Hampshire by County

births a year according to data from the NH Vital Records Network. Between 2010 and 2014, the average number of births fell to 16 per year, a 50% drop since 2008. Births in Belmont demonstrated a smaller, but more erratic, decline: births averaged 75 per year from 2004 through 2009 and declined slightly to an average of 72 between 2010 and 2014. The decrease would have been more significant had 2013 not shown a jump in births to 90. That was followed by a decline of about 50% in 2014 based on data through mid-November.

The charts on the next page highlight the number of births in each town over the last ten years. Declining birth rates have occurred not only in Canterbury and Belmont. In 2013, the State of New Hampshire had the distinction of having the lowest birth rate in the country, at 9.4 per thousand. As noted previously, to estimate the number of births in each town we used the county birth rates that were projected in the population forecast prepared for the Regional Planning Commissions cited earlier. In that forecast, the State of New Hampshire's estimated birth rate from 2010 to 2015 is 9.52 per thousand persons, with an increase to 9.57 from 2015 to 2020. That same forecast has Belknap County's birth rate at 9.4 from 2010 to 2015 and 9.1 from 2020. Merrimack County's birth rates were projected to be 9.2 and 9.1 respectively for the same periods.

Births in Town of Canterbury
Source: NH Vital Records

Belmont Births
Source: NH Vital Records
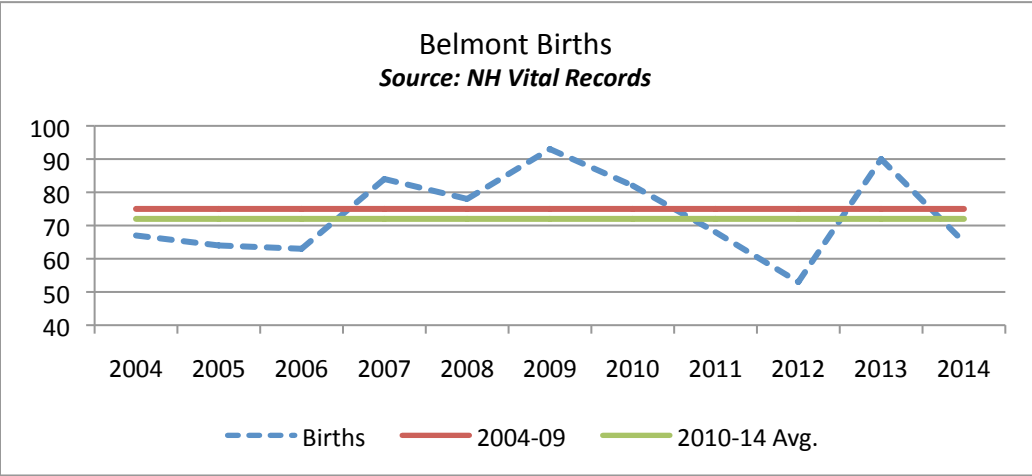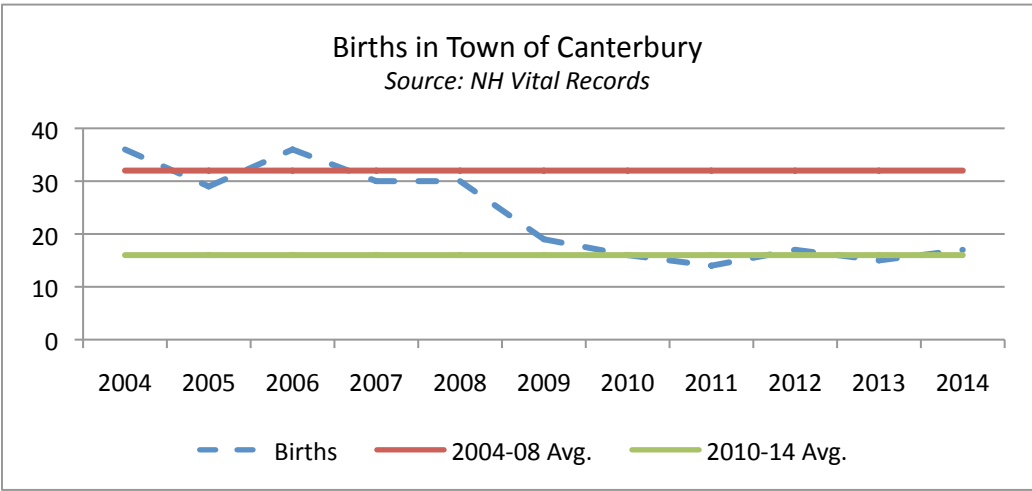
The declining birth rates we are experiencing in both towns are also occurring in each county and in the three northern New England States in general. Preliminary data for 2013 show a birth rate of 12.9 for the United States as a whole. Maine's birth rate was 9.7, Vermont's was 9.5, and New Hampshire's 9.4. These lower birth rates are a direct result of an older population, a less diverse population, and the older age at which women marry and have their first child.

Using the county birth rates, the projected births from 2015 to 2020 in Canterbury averages 22 per year. This is higher than the previous three years but lower than the 2004 to 2008 period. Belmont's births are projected to average 68 per year, slightly lower than the 72 averaged for the period 2010 to 2014. These birth rates are projected by the NH Office of Energy & Planning. Although Belmont births are projected to be below the 2020-2014 average, it appears that 2013 was an exceptionally high rate given the otherwise downward trend. Without that spike, the five year average would have been very close to the figure we used for our projections.

How do births translate to enrollment projections? As noted earlier, there is a five-to-six-year lag between births and enrollment in elementary school. Thus, enrollment projections from 2015 to 2020 will be impacted by the lower number of births that have already occurred. The projected births from 2015 to 2020 will impact the enrollment projections for the remainder of our forecast period.

A note of interest can be found in the December 4, 2014 *Wall Street Journal* article titled "Baby Bust Threatens Growth." In that article, Tracy Healy, president of Future Think, Inc., a firm that helps schools with planning, is quoted as saying, "People are having fewer kids and waiting longer. There is such excess capacity in so many of the school buildings."

Using Confidence Intervals to Generate the Low- and High-Range Projections

Given the many uncertainties surrounding future enrollment, we believe using the confidence interval is the most informative method of projecting high and low enrollment around our most likely forecast. We calculate the interval (high and low range) to be sufficiently narrow so the projections provide useful guidance, but wide enough to encompass actual student populations in each school and the District as a whole. This year, we generated our low-range and high-range forecasts at levels 5% below and 5% above our most-likely projection. This percent exceeds the average of our past error rate in projecting enrollment.

There is, however, a more significant reason for using this range: New Hampshire is still just slowly emerging from a period of tremendous change caused by the most devastating economic downturn since the great depression of the 1930's. As we discuss in the next section, the state also faces significant challenges to boost economic development and attract/train the highly educated, high-skilled workers it needs for sustained growth. As we note repeatedly in this report, these challenges and related factors led us to conclude that the likelihood of any dramatic changes in enrollment will be very low. Therefore, we thought that a relatively narrow band around the most-likely projection was reasonable. Had we concluded that wider swings were possible (i.e. had we had less confidence in the most-likely projection) we would have used a wider confidence interval.

PROJECTED SCHOOL ENROLLMENT: 2015 to 2024

As previously noted, this year's projections are significantly different than our 2012 forecast. The projections for the District as a whole call for a gradual decline of 1.4% per year over the ten-year forecast period. Total enrollment will average 1,245 students over the next five years and decline to an average of 1,168 from 2019 to 2024. Each of the District's schools will experience declining enrollment by 2024 although each will exhibit a somewhat different pattern. Figures 8 through 11 present the projections by school and grade. We highlight the results by school below.

Belmont Elementary School (Figure 8 on the following page)

The most-likely projection shows enrollment increasing in 2015 and 2016 before declining. Over the next five years, enrollment will average 416 students, not too dissimilar to the 2104 enrollment. The high-range forecast has BES slightly above capacity through 2016 before declining each year thereafter. Enrollment will average near capacity at 437 students over the next five years before declining to an average of 401 for the period from 2019 to 2024. The low-range projection shows capacity will not be exceeded over the forecast period, with an average of 396 students over the next five years before falling to an average of 363 for the period 2019 to 2024.

FIGURE 8
SHAKER REGIONAL SCHOOL DISTRICT
BELMONT ELEMENTARY SCHOOL
ENROLLMENT PROJECTIONS BY GRADE: 2015 TO 2024
December 2014

LOW-RANGE PROJECTIONS

Year	K	2014 UPDATE Grade 1*	Grade 2	Grade 3	Grade 4	TOTAL	'12 UPDATE TOTAL
2012 ACTUAL*	70	110	85	82	74	421	419
2015	81	88	86	80	78	412	445
2016	68	107	71	84	80	410	471
2017	54	90	87	70	84	386	472
2018	77	74	74	86	70	382	447
2019	68	103	59	72	86	389	428
2020	64	90	84	58	73	369	407
2021	64	85	73	82	58	361	391
2022	65	85	68	72	82	371	391
2023	65	85	69	67	72	358	
2024	65	86	69	68	67	355	

MOST-LIKELY PROJECTIONS

Year	K	2014 UPDATE Grade 1*	Grade 2	Grade 3	Grade 4	TOTAL	'12 UPDATE TOTAL
2012 ACTUAL*	70	110	85	82	74	421	441
2015	85	93	84	84	82	434	468
2016	72	113	75	88	84	432	496
2017	57	95	92	74	88	406	497
2018	81	78	78	91	74	402	471
2019	72	108	62	76	91	409	450
2020	67	95	88	61	77	388	428
2021	67	89	77	86	61	380	412
2022	68	89	72	76	86	391	412
2023	68	89	73	71	76	377	
2024	68	90	73	72	71	374	

HIGH-RANGE PROJECTIONS

Year	K	2014 UPDATE Grade 1*	Grade 2	Grade 3	Grade 4	TOTAL	'12 UPDATE TOTAL	CAPACITY
2012 ACTUAL*	70	110	85	82	74	421	463	450
2015	89	98	95	88	86	456	491	450
2016	76	119	79	92	88	454	521	450
2017	60	100	97	78	92	426	522	450
2018	85	82	82	96	78	422	495	450
2019	76	113	65	80	96	429	473	450
2020	70	100	92	64	81	407	449	450
2021	70	93	81	90	64	399	433	450
2022	71	93	76	80	90	411	433	450
2023	71	93	77	75	80	396		450
2024	71	95	77	76	75	393		450

Total Projected Enrollment: 2015 to 2024

Legend: Most-Likely, Low, High, Capacity

NOTES: 2014 ACTUAL ENROLLMENT EXCLUDES CANTERBURY STUDENTS WHO ATTEND BES. FIRST GRADE INCLUDES READINESS.

INDICATES EXCEEDS CORE CAPACITY

24

Canterbury Elementary School (Figure 9 on the next page)

CES enrollment was the most difficult to forecast. The town's population is small and thus an error of a small number can lead to a large percent error. Our forecast calls for a continuation of the decline that started in 2008. We anticipate that the enrollment will decrease to 61 students by 2020 before increasing to 71 by 2024. These numbers are historic lows. This projected drop of 44 students is actually less than the decline from 2008 to 2014. As previously noted, the actual 2014 CES enrollment of 116 included 15 Belmont students. The numbers presented here do not consider Belmont families who may send their children to CES. The high and low projections do not vary significantly as the numbers themselves are small.

Why are we projecting such a decline? There are several reasons. The average number of births in Canterbury over the last five years is 16. This is half of the number of births for the period 2004 to 2008. The population estimates for Canterbury for the last five years (2008 to 2013) show close to zero growth. The grade progression from birth to Kindergarten has declined from 0.72 over a ten-year period to 0.57 for the last five years. The change in the grade progression ratio means that approximately 60% of the children born ultimately enrolled in Kindergarten five to six years later. This is significantly less than the 72% that enrolled during the prior ten years. In addition, the current enrollment at CES is approximately 50 students lower than in the 2008-2009 school year.

Belmont Middle School (Figure 10 on page 27)

Between 2009 and 2014, BMS enrollment dropped from 430 to 365 students. Enrollment will remain fairly flat for the next four years before a small bump up to 378 by 2020. We then anticipate a decline to 318 students in 2024. The forecast is largely driven by the grade progression ratio for each grade, which have averaged very near 1.0 for the last three, five, and ten years. The exception is the 5th grade where the grade progression has dropped to 0.95. A grade progression near 1.0 indicates most student enter the middle school and remain in the school thru the 8th grade.

The increase in BMS enrollment shown in all three sets of projections reflects the bubble of students moving through the District's schools that resulted from high birth rates several years ago. It first hit BES, which is now at the tail end of the bubble.

Belmont High School (Figure 11 on page 28)

We project enrollment to decline from the current total of 423 in 2014 to a low of 361 in 2019 before slightly increasing in the following years. The initial drop reflects the 15% enrollment decrease that BMS experienced from 2009 to 2014. The increase will represent the somewhat tempered impact of the high birth rate bubble of students passing through the District's schools. After 2014, at no time will BHS enrollment return to its current level. It will remain below capacity for the full forecast period.

Reviewing past progression ratios, we know that historically there has been a 10% increase in the 9th grade enrollment over the 8th grade middle school population. In the last five years since the recession, that has increased to 15%.

FIGURE 9
SHAKER REGIONAL SCHOOL DISTRICT
CANTERBURY ELEMENTARY SCHOOL
ENROLLMENT PROJECTIONS BY GRADE: 2015 TO 2024
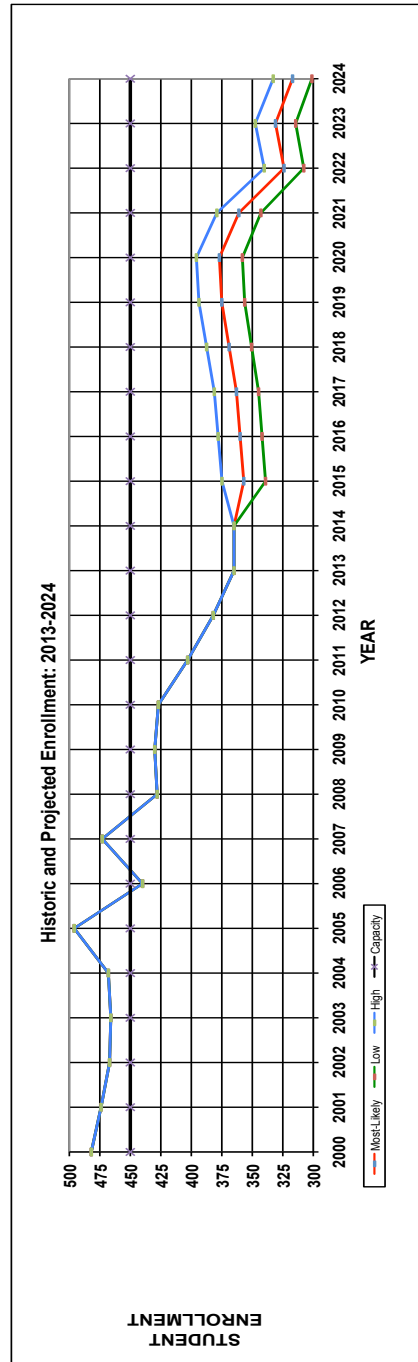December 2014

LOW-RANGE PROJECTIONS

Year	2014 UPDATE							'12 UPDATE
	K	Grade 1*	Grade 2	Grade 3	Grade 4	Grade 5	TOTAL	TOTAL
2014 ACTUAL*	12	26	19	18	14	16	105	102
2015	9	16	19	17	17	14	92	97
2016	8	12	12	18	17	18	86	93
2017	9	11	10	11	18	18	77	86
2018	8	12	9	9	12	19	68	87
2019	9	11	10	8	10	12	59	86
2020	10	12	9	9	8	10	57	88
2021	11	14	10	9	9	9	61	94
2022	11	16	11	9	9	10	66	101
2023	11	16	12	10	9	10	68	
2024	11	16	12	11	10	10	71	

MOST-LIKELY PROJECTIONS

Year	2014 UPDATE							'12 UPDATE
	K	Grade 1*	Grade 2	Grade 3	Grade 4	Grade 5	TOTAL	TOTAL
2014 ACTUAL*	12	26	19	18	14	16	105	108
2015	9	17	20	18	18	15	97	102
2016	8	13	13	19	18	19	90	98
2017	9	12	10	12	19	19	81	90
2018	8	13	9	9	13	20	73	92
2019	9	12	9	8	10	13	63	90
2020	11	13	9	9	8	10	61	93
2021	12	15	10	9	9	9	64	99
2022	12	17	12	9	9	10	69	106
2023	12	17	13	10	10	10	72	
2024	12	17	13	12	11	10	76	

HIGH-RANGE PROJECTIONS

Year	2014 UPDATE							'12 UPDATE	CAPACITY
	K	Grade 1*	Grade 2	Grade 3	Grade 4	Grade 5	TOTAL	TOTAL	
2014 ACTUAL*	12	26	19	18	14	16	105	113	250
2015	9	18	21	19	19	16	102	107	250
2016	8	14	14	20	19	20	95	103	250
2017	9	13	11	13	20	20	85	95	250
2018	8	14	9	9	14	21	76	97	250
2019	9	13	11	8	11	14	65	95	250
2020	12	13	9	9	8	11	63	98	250
2021	13	16	11	9	9	9	67	104	250
2022	13	18	13	9	9	11	72	111	250
2023	13	18	14	11	9	11	76		250
2024	13	18	14	13	12	11	80		250

Historic & Projected Enrollment: 2015 to 2024

STUDENT ENROLLMENT vs YEAR (2000–2024)

Legend: Most-Likely — Low Range — High Range

NOTES: 2014 ACTUAL ENROLLMENT EXCLUDES BELMONT STUDENTS WHO ATTEND CES. FIRST GRADE INCLUDES READINESS
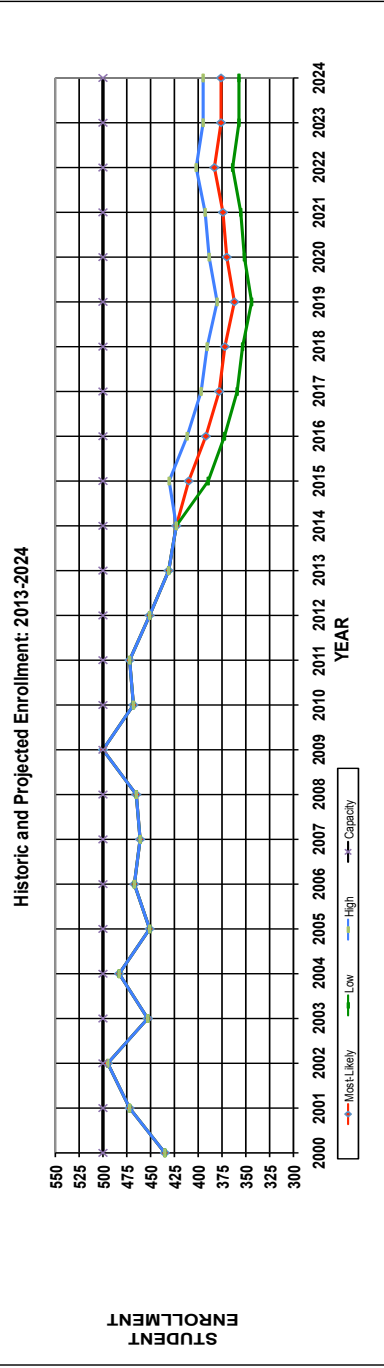
FIGURE 10
SHAKER REGIONAL SCHOOL DISTRICT
BELMONT MIDDLE SCHOOL
ENROLLMENT PROJECTIONS BY GRADE: 2015 TO 2024
December 2014

Year	LOW-RANGE PROJECTIONS 2014 UPDATE Grade 5	Grade 6	Grade 7	Grade 8	TOTAL	'12 UPDATE TOTAL	MOST-LIKELY PROJECTIONS 2014 UPDATE Grade 5	Grade 6	Grade 7	Grade 8	TOTAL	'12 UPDATE TOTAL	HIGH-RANGE PROJECTIONS 2014 UPDATE Grade 5	Grade 6	Grade 7	Grade 8	TOTAL	'12 UPDATE TOTAL	CAPACITY
2014 ACTUAL*	81	98	91	95	365	360	81	98	91	95	365	379	81	98	91	95	365	398	450
2015	67	93	93	86	340	364	71	98	98	91	358	383	75	103	103	96	376	402	450
2016	74	82	93	93	342	360	78	86	98	98	360	379	82	90	103	103	378	398	450
2017	76	94	82	93	345	369	80	99	86	98	363	388	84	104	90	103	381	407	450
2018	80	95	94	82	351	379	84	100	99	86	369	398	88	105	104	90	387	419	450
2019	67	100	95	94	356	404	71	105	100	99	375	424	75	110	105	104	394	446	450
2020	83	81	101	95	359	430	87	85	106	100	378	453	91	89	111	105	397	476	450
2021	69	93	81	100	343	445	73	98	85	105	361	467	77	103	89	110	379	491	450
2022	55	79	93	81	308	425	58	83	98	85	324	447	61	87	103	89	340	469	450
2023	78	65	79	93	314		82	68	83	98	331		86	71	87	103	348		450
2024	69	88	66	79	302		73	93	69	83	318		77	98	72	87	334		450

Historic and Projected Enrollment: 2013-2024

Legend: Most-Likely — Low — High — Capacity

EXCLUDES CANTERBURY STUDENT IN 5TH GRADE

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FIGURE 11
SHAKER REGIONAL SCHOOL DISTRICT
BELMONT HIGH SCHOOL
ENROLLMENT PROJECTIONS BY GRADE: 2015 TO 2024
December 2014

LOW-RANGE PROJECTIONS

Year	2014 UPDATE Grade 9	Grade 10	Grade 11	Grade 12	TOTAL	'12 UPDATE TOTAL
2014 ACTUAL	123	121	94	85	423	415
2015	105	105	97	83	390	397
2016	100	94	88	90	372	378
2017	107	90	79	83	359	364
2018	107	97	76	74	354	371
2019	94	97	82	70	343	369
2020	108	86	82	76	352	371
2021	109	98	72	76	355	376
2022	116	99	83	67	364	395
2023	93	105	84	77	358	
2024	107	85	87	78	357	

MOST-LIKELY PROJECTIONS

Year	2014 UPDATE Grade 9	Grade 10	Grade 11	Grade 12	TOTAL	'12 UPDATE TOTAL
2014 ACTUAL	123	121	94	85	423	437
2015	110	111	102	87	410	418
2016	105	99	93	95	392	398
2017	113	95	83	87	378	383
2018	113	102	80	78	373	390
2019	99	102	86	74	361	388
2020	114	90	86	80	370	390
2021	115	103	76	80	374	396
2022	122	104	87	70	383	416
2023	98	110	88	81	377	
2024	113	89	92	82	376	

HIGH-RANGE PROJECTIONS

Year	2014 UPDATE Grade 9	Grade 10	Grade 11	Grade 12	TOTAL	'12 UPDATE TOTAL	CAPACITY
2014 ACTUAL	123	121	94	85	423	459	500
2015	116	117	107	91	431	439	500
2016	110	104	98	100	412	418	500
2017	119	100	87	91	397	402	500
2018	119	107	84	82	392	410	500
2019	104	107	90	78	379	407	500
2020	120	95	90	84	389	410	500
2021	121	108	80	84	393	416	500
2022	128	109	91	74	402	437	500
2023	103	116	92	85	396		500
2024	119	93	97	86	395		500

Historic and Projected Enrollment: 2013-2024

Legend: Most-Likely, Low, High, Capacity

STUDENT ENROLLMENT (vertical axis: 300, 325, 350, 375, 400, 425, 450, 475, 500, 525, 550)

YEAR (horizontal axis: 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024)

Despite the time and effort invested in these projections, they should be considered in the proper context. As discussed in the next section, the state, region, and nation are still going through an unsteady and tenuous recovery from the worst recession since the 1930's depression. In addition, New Hampshire is feeling the efforts of other socioeconomic and demographic trends that began even before the recession. How it and its neighbors react to these changing conditions from policy and investment perspectives could impact future economic development and population growth, as well as enrollment, although some factors are beyond their control. The next section addresses these issues at multiple levels – from the nation to the District.

DISCUSSION: BROADER ECONOMIC CHALLENGES AND IMPLICATIONS

As we began drafting this section of our report, we re-read the corresponding section in our 2012 update. If you have a copy, it is worth reading, as it provides a solid background for where we are today, from a state, regional, and to an extent national perspective. In our current update we have the benefit of two more years' of data and insights, which we broadly tapped to develop an understanding of what the state and district will likely experience in the near term. Indeed, it is this understanding – combined with the data described in the previous section – that informed key decisions we made in generating the enrollment projections. Two years ago, we highlighted some of the same themes we will discuss in the following discussion. However, at that time – despite the challenges – there was some thought that the state would have fully recovered from the effects of the recession by now. It hasn't. We also noted the importance of policy decisions in affecting the state's economic development. While a few decisions were made, multiple major issues remain and in some ways are even more pressing today, when unfortunately the state seems perhaps less capable of addressing them.

Our review and analysis covers some familiar territory in terms of national, regional, and state demographic trends. But we also took a closer look at the District and its towns to see how they compare with others in the region. We also uncovered some interesting insights about changing migration patterns that raise questions about the impact of economic development policy changes on attracting skilled workers and their families to the state. As a heads up, our general conclusion is that the state faces both absolute and relative challenges that will impede economic and population growth and we see no dramatic change in current conditions or trends that will reverse the enrollment decline in the near term. In many areas New Hampshire's position is mixed at best, offering no clear advantage that would prompt a significant shift. Nevertheless, Belmont and Canterbury are but two towns and could be greatly affected by unforeseen changes that buck more macro level trends.

National/regional enrollment trends

The US Department of Education publishes multiple reports that provide insights to enrollment and other education trends. The annual reports include *The Condition of Education*, *The Digest of Education Statistics,* and *Projections of Education Statistics,* each published at different times during the year. *The Condition of Education 2014* (May 2014) provides a useful overview of recent enrollment trends and forecasts. Nineteen other states joined New Hampshire in experiencing enrollment declines between the 2000-2001 and 2011-2012 school years, primarily in the northeast and eastern Midwest. From school year 2011-2012 to 2023-2024, the country's total enrollment is expected to increase by 5% – with a greater rise in pre-K to grade 8 than in

high school. However, New Hampshire – along with most of the other states in the northeast – is projected to have enrollment decreases of up to 5% (the lone exceptions are Rhode Island and Vermont, which are forecast to have somewhat rising enrollment). Several states, including New Hampshire, Connecticut, and Vermont, are projected to experience high school enrollment decreases by more than 10%.

The Digest of Education Statistics 2012 (December 2013), presents more specific statewide enrollment projections. For New Hampshire, it expects total enrollment from 2011-12 to 2023-24 to decrease 2.9%, with a slightly lower decrease (2.5%) in pre-K to grade 8 and a far larger drop (14.1%) in grades 9 to 12. *The Projections of Education Statistics to 2022* (February 2014) forecasts that private school enrollment will decrease during its forecast period.

Selected comparisons between New Hampshire and neighboring states

- Educational performance and funding

  The Condition of Education and *The Digest of Education Statistics* provide insights on these topics as well. In some ways New Hampshire compares well. In other ways it doesn't. From the perspective of educational performance, the National Assessment of Educational Progress (NAEP) – also referred to as the nation's report card – is frequently cited as a way to compare educational outcomes across states. New Hampshire was the only state in the region to see 8th grade reading scores increase from 2011 to 2013 (scores in Massachusetts declined and the other states' scores were flat) and it was one of just five states nationally (no others in the region) that saw grade 8 math scores on NAEP increase from 2011 to 2013. Maine was the only state in the region to see 4th reading scores increase from 2011 to 2013 – all other states' scores were flat.

  In terms of high school graduation rates (2009-2010 school year), Vermont (and Wisconsin) had the nation's highest graduation rate at 91%. New Hampshire and 19 other states (including Maine and Massachusetts) had a graduation rate of more than 80%. Rhode Island and Connecticut had rates between 70% and 80%. Vermont and two other states had the nation's largest increase in graduation rates (9-10%) over the prior four years. New Hampshire, along with 13 other states (including Maine) saw a 5-9% increase. Connecticut and Rhode Island were just two of seven states nationally whose rates decreased.

  Not surprisingly, New Hampshire stood out in terms of public school financing, an issue that will arise later. In the 2010-2011 school year, Vermont was second highest in the nation in state aid to education (82%), and the second lowest in local revenue to education (8%) and revenue from property taxes (0.1%). On the other hand, New Hampshire, along with Massachusetts, Connecticut, and Rhode Island, was in the smallest group of states in which more than 50% of the cost of education came from property taxes. In fact, New Hampshire's rate was the third highest in the nation. In addition, the state was the second lowest in Federal aid to education (just 7%).

- Regional economic development/competitiveness factors

  One of the striking ramifications from last decade's recession was the fact that, although New Hampshire lost fewer jobs than neighboring states, it has taken longer to recover them. In fact, according to the New Hampshire Center for Public Policy Studies' 2014 report, *What*

is New Hampshire? An Overview of Issues Shaping the Granite State's Future, this is the first time in 40 years that the state didn't lead the region and the nation as a whole in job recovery following a recession. Instead, according to the New England Economic Partnership (*New Hampshire Economic Outlook*, May 2013 and October 2014), Massachusetts and Vermont have been leading the region out of the recession. New Hampshire's total employment is still not back to pre-recession levels. And, although this summer's unemployment rate was the second lowest (after Vermont) in New England, the seasonally adjusted year-to-year employment growth for the month of October released November 22nd by the federal Bureau of Labor Statistics, shows that the state's job growth (+0.8%) barely exceeds that in Vermont (+0.7%), trails Maine's (+1.0%), and is half Massachusetts' rate (+1.6%). The state's economic growth is even projected by some experts to trail the regional average for the next five years.

New England has taken longer to recover from the recession than the nation as a whole and its subpar growth rate is expected to continue, with significant variations within and across states. Of particular note is the performance of the Massachusetts economy and Boston in particular. The reason is that Massachusetts has been the source of most of the in-migration New Hampshire experienced – indeed benefitted from – over the past few decades. Overall, Massachusetts has matched the nation as a whole in recovering from the recession and, according to a report published in July 2014 by Wells Fargo Securities, LLC, had the highest Economic Activity Index measure in the northeast. Boston's tech sector has strongly rebounded, along with New York City outpacing growth in the rest of the northeast.

Perhaps reinforcing the projections of mainstream economists, the *Rich States, Poor States: ALEC-Laffer State Economic Competitiveness Index, 7th Edition* (2014), which was published by the American Legislative Exchange Council (ALEC), ranked most of the New England states toward the bottom in terms of economic outlook. Reflecting the organization's conservative philosophy and based upon a review of historic data – including migration patterns, the index focuses on state policies related to personal and business taxes, fiscal discipline, and government regulations and policies that promote competitive market economies. The report argues that high-ranking states in its index attract more people and economic development, pointing as an example to the population shifts from the northeast and mid-west to the south and west. As a result of this analysis, Massachusetts led the group, but only ranked 28h among all the states. New Hampshire followed at 32nd, whereas the remaining states in the region were all ranked 40th or below. Certainly at least some of the issues the authors considered have been raised by mainstream economists.

The American Council for an Energy Efficient Economy publishes state scorecards based upon utility programs, transportation, building energy codes, combined heat and power, state initiatives, and appliance standards. In its 8th issue, Massachusetts ranked number 1 (for the fourth year in a row). New Hampshire, ranked 22nd, fell well below Rhode Island (3rd), Vermont (5th), and New York (7th). Given the importance of energy costs to economic development, this ranking is worth noting.

Given the increased use of technology in work, education, and life in general, one would think that computer ownership and use and access to high-speed internet service could have an impact on economic development and, therefore, population growth. The US Census Bureau, in its American Community Survey, gathered information on individual computer ownership and high speed internet use. The results, published in *Computer and Internet Use*

in the United States: 2013, show that New Hampshire and all adjacent states as well as Connecticut and New York were statistically higher in both areas than the national average. Yet, the region has experienced far less population growth and economic development than states to the south and west, which uniformly fell below the national average in both areas. Clearly, this factor does not appear to be as important as others in terms of long-distance migration.

This finding might also be somewhat true within the New England region. "A Map of Who's Got the Best (And Worst) Internet Connections in America" (2013), published by internet publisher Gizmodo, shows that internet speeds in New Hampshire were faster than in Maine and Vermont and similar to those in western Massachusetts, but slower than those in eastern Massachusetts. It also found that southern New Hampshire (south of Belmont and Canterbury) tends to have faster service than areas to the north. On the one hand, as noted earlier, Vermont and Massachusetts have led the region out of the recession. On the other, southern New Hampshire has fared better economically than the northern part of the state. Gizmodo determined that internet speed appears to be correlated with income and to a lesser degree with population density. Many business leaders, educators, and politicians point to broadband access as essential for economic development and educational quality. This may be true, but it is just one of many factors, so it is difficult to discern direct correlations let alone causation. Certainly, the reports cited did not reveal clear connections, so whatever advantage New Hampshire might have will probably have little impact on its overall prospects.

The state of the state: contrasts, trade-offs, and challenges = no dramatic turn-around in sight

Let's start with the traditional view of New Hampshire, the good news. The state is a beautiful place to live with among the lowest crime rates in the country. By certain measures the public education system is performing fairly well. It's among the nation's richest states, with a very high percentage of home ownership, an above-average educated populace and workforce, and a relatively high percentage of "creatives" and STEM (science, technology, engineering, and math) jobs.

In fact, New Hampshire appears to have so much going for it that third-party analyses rank the state at the top. For example, *Opportunity Since 1970: A Historical Report*, published in 2014 by Opportunity Nation and Measure of America, noted that New Hampshire has been the top-ranked state since 1990 (it was second to Connecticut before then). The criteria included economic, education, and community factors. In addition, the European-based Organization for Economic Cooperation and Development, as part of its *Better Life Initiative*, which includes reports as well as an interactive, annually updated, database and *Better Life Index*, ranked New Hampshire first in the country based upon a range of factors that included health, education, inequality, the environment, and personal security. And, according to the 2013 Assets and Opportunity Scorecard produced by the Corporation for Enterprise Development (CFED), New Hampshire residents ranked second in the U.S. in the ability to achieve financial security, based upon such factors as financial assets and income, business and jobs, housing and home ownership, and health care and education.

Even local experts acknowledge the state's high ranking, with a very large hitch: those areas in which New Hampshire is at the front of the pack are essentially past or current indicators,

whereas those factors where the state is lagging will be far more important in the future. We highlight both below. Addressing the latter set of factors presents daunting challenges.

We decided to present a comprehensive picture of New Hampshire in the form of contrasts and trade-offs, relying on a wide range of sources, including the following:

- *What is New Hampshire? An Overview of Issues Shaping the Granite State's Future* (2014). New Hampshire Center for Public Policy Studies.

- *The Two New Hampshires - What does it mean?* (2013). Dr. Ross Gittell Chancellor, Community College System of New Hampshire.

- *New Hampshire Employment Projections by Industry and Occupation: base year 2012 to projected year 2022* (2014) and *New Hampshire Employment Projections by County, 2010-2020* (2013). Economic and Labor Market Information Bureau – NH Employment Security.

- *New Hampshire Economic Outlook* (2013 and 2014). New England Economic Partnership.

- *Northeastern States: 2014 Economic Outlook* (2014). Wells Fargo Securities, LLC Economic Group.

- Multiple articles in *Business New Hampshire* magazine (2013 and 2014), but such experts as Steve Norton, Daniel Barrick, and Dennis Delay of the New Hampshire Center for Public Policy Studies; Steve Rowe, President of the Endowment for Health; and Jeff McLynch, Executive Director of the New Hampshire Fiscal Policy Institute in addition to staff reporters.

The state does indeed present an extremely mixed and complex picture in so many areas, as highlighted in the following fairly long series of bullets.

- For 40 years New Hampshire led the region and nation out of recessions…not this time, as its recovery lags behind that in neighboring states and even its own projections, with employment still below pre-recession levels, the economy growing in 2013 at the slowest rate in four years, housing sales weakening in 2014, labor productivity lagging, and future economic growth expected to trail national and possibly regional averages.

- The state ranks among the top nationally in multiple indicators of economic well-being and quality of life….yet it lags behind, in some cases close to the bottom, in those areas essential to future economic development – from energy, housing, and health care costs to transportation infrastructure and the number of young adults.

- Just a couple of years ago, New Hampshire was ranked fairly high in terms of business friendliness (by CNBC – #19 – and Thumbtack.com - #3)…now it's rank has fallen by as many as 16 places due to the high cost of living and doing business and its bottom-tier showing in transportation and infrastructure measures.

- For decades New Hampshire attracted tens of thousands of high-skilled workers….yet, in the past decade we've seen years with net *out*-migration, and the majority of the jobs created since the recession have been in low-skill industries.

- Manufacturing has long been a crucial component of the state's economy…yet energy, health care, and unit labor costs are well above the national average and will likely rise in the future; and the state projects manufacturing employment to decline in the years ahead.

- The state ranks high nationally in terms of STEM-related (science, technology, engineering, and math) jobs….but employers in these fields are having difficulty filling openings with

workers that meet their needs, and the workforce is older, so the state needs to educate/attract qualified younger workers.

- The "New Hampshire advantage" has been touted for decades as a winner…yet the state has the third highest business tax rates in the nation (a clear disadvantage), it ranks near the bottom in transportation infrastructure investments, state revenue growth has yet to recover to pre-recession rates and is being outpaced by rising costs, the state government has repeatedly deferred key maintenance investments and now lacks the financial capacity to make capital improvements that are crucial to future economic development.

- New Hampshire is among the nation's wealthiest states, ranking third (Vermont was top-ranked) in terms of financial security…yet from 2011 to 2012 it led the nation in the increase in childhood poverty and it has the lowest minimum wage in the region.

- Real estate price appreciation has returned to pre-recession levels and the rental market is tight and increasing costs…yet the lack of affordable housing is a significant barrier to attracting young workers and their families to the state.

- The state is one of the nation's best educated (thanks in good part to in-migration)….yet, it severely lacks high quality and affordable early education, is the only New England state (and just one of 10 nationally) without state-funded preschool, ranks in the bottom third in state aid to education and last in the nation in its support of higher education (placing second nationally in the drop in higher education funding between 2008 and 2013, it now provides less than half that of the next lowest New England state and less than a quarter of the national average, and it ranks near the bottom nationally in the percentage of high school graduates who attend college in state), tuitions are among the nation's highest and college graduates' debt is the highest in the country, its districts spend more than the national average, and education as a share of the state's economy is below the national average.

- For decades New Hampshire attracted well-educated young workers that helped drive its economic success…yet it was recently ranked by Moneyrates.com as the nation's worst state for young adults based upon economic and social factors (Maine was 5th, Vermont 9th, Rhode Island 17th, Massachusetts 25th, and Connecticut 32nd), it experienced the third largest drop nationwide in the number of 35-44 year olds between 2000-2010, youth unemployment is high (the number of employed New Hampshire teenagers of working age has fallen by almost 40% since 2000), and the state has the nation's third lowest proportion of 20-24 year-olds.

- The state has prided itself on how the environment and its natural beauty enhance the quality of life and its economy…yet it ranked 21st nationally in water investment (despite large needs due to deferred maintenance and other causes), its energy costs are higher (less competitive) because renewables cost more, and in some experts' minds its approach to addressing environmental concerns increases energy uncertainty (for example, due to resistance to new natural gas pipelines), while land use restrictions increase housing costs and inhibit economic development.

- New Hampshire was recently ranked the nation's fifth healthiest state….but it lagged behind Vermont (#2) and Massachusetts (#4), workers compensation medical costs are higher (as much as almost two times) those in the rest of the region and insurance premiums are among the highest in the country, both of which are major concerns.

- The state's beauty, climate, and tax structure have made it a mecca for retirees (in many cases for just six months of the year)…yet, its aging population will put significant pressures on the health care system and will likely increase costs and insurance premiums, aggravate

the housing situation, along with the state's increased diversity place more demands on social services, and increase the challenges of securing adequate education funding as shrinking percentages of residents have children in school.

- New Hampshire's past success reflected its natural beauty, extremely favorable national and regional demographic trends, and a handful of public policies…now the trade-offs between the environment and economic development are more stark, demographic trends are working against the state, and factors that inhibit economic growth are becoming increasingly important, all of which demand sound, long-term, public policies and/or capital investments that might be beyond the state's ability to deliver – politically or financially.

This is just a sampling. Nevertheless, the picture touches on many aspects of living and working in New Hampshire and, we hope, presents – perhaps in an unusual manner – many of the challenges the state faces as it pursues sustainable economic development while maintaining its attractive character and securing the well-being of its citizens. We think it is fair to say that the state's challenges have never been greater or more varied and that it might actually be in a worse position than neighboring states to address them. Moreover, what is particularly daunting is the lack of certainty whether anything the state does to address the challenges – from new policies to capital investments – will have the desired effects. Time will tell.

A look to the future…daunting challenges at worst, a mixed bag at best

With this background, what expectations do the experts have regarding New Hampshire's future? Let's take a brief look.

- As noted, economic development will lag behind the national and possibly the regional average.

- Population growth will continue at a slow – perhaps even slower – pace, with increasing diversity and more children being born into low-income families.

- New home construction will increase, having hit bottom.

- Public school enrollment will continue to decline, probably raising a range of tough issues to save money, from staffing and facilities to curricular and extra-curricular offerings and even district consolidation.

- Employment will grow, but unevenly. The Economic and Labor Market Information Bureau of New Hampshire Employment Security, in its *New Hampshire Employment Projections by Industry and Occupation: base year 2012 to projected year 2022* (June 2014), forecast an overall increase of about one percent per year, with gains in all industries but manufacturing and utilities. In its *New Hampshire Employment Projections by County, 2010-2020* (June 2013), the agency projected job growth in Belknap county of 5.8 percent over the ten year period and 10 percent in Merrimack County (less than in Grafton, Hillsboro, and Rockingham counties). There is a general consensus that the state needs to attract/educate young workers to achieve even modest growth.

Nothing we've set forth here is a mystery or a surprise to leaders across the state, many of whom are trying to address the myriad challenges. Widely ranging initiatives are underway – from implementing community college dual enrollment programs and online course delivery, better aligning community college offerings with industry needs – including advanced manufacturing , temporarily freezing higher education tuition, and increasing efforts to attract Canadian companies to the creation of innovation and technology centers and new venture incubators to

support entrepreneurial efforts, implementation of programs designed to keep college graduates in the state, and development of a far-reaching, comprehensive, strategic economic plan for the state by the Business and Industry Association. State agencies, aware of the challenges, have proposed solutions, most of which involve increased state funding at a time when business taxes (the state's leading revenue source) are declining, there are calls to reduce those taxes to make the state more competitive, and court cases and agreements with the federal government will sharply reduce revenues. Given the current situation with the state budget, it will at most be able to fund only selected incremental improvements over the next biennium.

As efforts are made to address New Hampshire's challenges, there are calls to pay more attention to regional differences within the state. In 2013 Dr. Ross Gittell, Chancellor of the Community College System of New Hampshire, wrote *The Two New Hampshires - What does it mean?* He described the two as "metro" and "rural," noting their significant differences, varying needs, and the importance of policies, programs, and investments that were attuned to these differences. Merrimack County lies in the metro region, whereas Belknap County is considered rural. With the district's two towns adjacent to the dividing line, there is likely some overlap, but they could be subject to different approaches going forward.

The New Hampshire Center for Public Policy Studies, in its previously cited 2014 publication *What is New Hampshire? An Overview of Issues Shaping the Granite State's Future*, went into greater depth describing in-state differences, dividing the state into nine regions. The objective was to provide a greater understanding of each region, its strengths and needs, to provide clearer insights to its future and perhaps to guide policy and investment decisions. In several key respects the attributes of the regions potentially group them into as few as two categories. Regions to the south and east (generally encompassing Nashua, Manchester, the Seacoast, and Concord to an extent) are different in many respects from the rest of the state.

As in the case of the two New Hampshires, Belmont and Canterbury fall into different regions.

- Belmont is in the Lakes Region, which is considered rural, has the second highest poverty rate among the nine regions, is the third lowest in terms of adult education, has wages that are 25% below the state average, and has the highest percentage of people over 65 and the lowest percentage of people commuting out of state for work. The region's abundance of seasonal homes drives up prices, but lowers property taxes, a mixed blessing considering the big challenge it faces in attracting younger workers.

- Canterbury is in the Greater Concord region, which is typified by government employment, more growth than the rest of the Merrimack Valley, and a tension between economic development and its rural character. The region is below state averages in median age, income, out-of-state commuting, and poverty. Its property value per acre is lowest in the Merrimack Valley and its property taxes are the highest – another mixed bag.

Of particular interest, especially in light of the discussion of migration trends which follows, is the fact that both regions have distinct disadvantages compared with the regions centered on Manchester and Nashua in terms of the ability to attract young workers and their families. These regions, while having their own challenges, tend to have more vibrant economies, a more diverse and younger population, and in the case of Nashua a high percentage of workers commuting out of state, despite having the strongest manufacturing sector (especially high tech and defense-related) among all the regions. The extent of the challenge Belmont and Canterbury face might be best illustrated by the fact that in December 2012 the national career networking website Beyond.com ranked Manchester the fourth best place in the country to find a job, based on the

growth in the number of job postings from the previous year, especially in such industries as health care, information technology, sales, and sales management.

Changing migration trends could limit the state and the district's growth

For decades in-migration was the dominant factor in the state's – and the district's –population growth. It contributed to New Hampshire's national ranking in such areas as average adult education, wealth, and work skills. It has also been essential to the state's economic development. As noted earlier, since 2000, in-migration has slowed, so much in a few recent years that the state actually experienced net out-migration. In other words this is a trend that pre-dates the great recession, although that certainly played a big role.

The changes in migration trends nationally have been subject of some analysis. ALEC, cited earlier, has its theory – taxes, government spending and regulations, market openness drive people to move. The Federal Reserve Board has issued two recent reports on the topic. In the first, *Internal Migration in the United States* (2011), a Finance and Economics Discussion Series publication from the Divisions of Research & Statistics and Monetary Affairs in Washington, D.C., the authors noted that migration declined across the board (all groups and all distances) over the previous 30 years. They hypothesize that the drop reflects "broad-based economic forces." The same authors dug into the topic more deeply and in April 2014 released *Declining Migration within the US: The Role of the Labor Market*. Based upon their qualitative analysis, they theorize that the most significant probable reason for the decline in interstate migration since the 1980's was the decreasing net economic benefits of changing employers. In short, they found that interstate migration across all socioeconomic and demographic groups has tended to be driven by job transitions and that the income differential between existing and outside jobs has shrunk, thereby undermining the economic rationale for moving. While the authors acknowledge that more research is needed, if their theory is correct, then one might question the population growth implications of New Hampshire's economic development initiatives.

The release of *Opportunity Since 1970: A Historical Report* cited earlier prompted another analysis of migration patterns and the influence of the opportunity ranking. In a September 30, 2014 article in the *Washington Post*, Jim Tankersley and Jeff Guo argued there was no statistical link between the rankings and migration patterns, which they argued reflected a range of factors from job openings, housing costs, and the affordability of moving. So, despite its top ranking, New Hampshire will probably not benefit in terms of population growth.

On September 17, 2014, the Chief Economist for Trulia, one of the leading online real estate sites, posted a blog entitled, "American Mobility Remains Stuck in Low Gear." Analyzing data from the US Census Current Population Survey (CPS) 2014 and the Annual Social and Economic Supplement (ASEC), he noted that the mobility rate is low and has been falling for decades, so that now the average length of time people stay in their homes has increased to 8 ½ years (it had been as low as 5 years). What is interesting for our analysis is that the mobility rate within the same county has remained the same; whereas it is "long-distance" mobility – across counties – that has declined. As one reason he cites economists who believe the net financial benefits of changing jobs have fallen (per the previously noted Federal Reserve Board publication). He observed that the recession shifted key reasons for moving from a focus on new/better housing to a greater emphasis on less costly housing. Based upon an analysis of the 2008-2012 American Community Survey (ACS), he noted that people tend to move to areas with "lower population density, lower housing costs, and lower unemployment." These findings have

mixed implications for New Hampshire: yes the state is more rural and has relatively low unemployment, but its housing costs tend to be high and the in-migration it needs from other states is precisely what has been decreasing nationwide.

With that in mind, looking at the factors home buyers in the greater Boston area consider important might be instructive. These were highlighted in an October 2014 *Boston Globe* article. At the top of the list were high quality schools, commuting distance/time, and housing costs (including property taxes). The article noted that housing prices drop significantly as one travels a bit farther out from the city – but still remaining in Massachusetts, perhaps making New Hampshire less of a draw.

Focusing closer to home, the *2013 National Association of Realtors® Profile of Home Buyers and Sellers* included a large section on New Hampshire. The results of the survey of hundreds of home buyers in the state confirm some of the findings cited above. Perhaps of particular noteworthiness is the fact that the median distance buyers' new homes were from their previous homes was just 13 miles. The key decision making factors echoed those in the *Boston Globe* article: job location, affordability, and school quality. Commuting cost was important to 80 percent of the buyers, potentially making the state's lack of public transportation and its suffering transportation infrastructure bigger obstacles to population growth.

Information in the report on the home-buyers themselves provide useful insights. First-time home-buyers, more than three-quarters of whom were between 25 and 44 (an age span that is critical for the state's economic development), accounted for 43 percent of the total, more than the national average and close to the northeast average. The median income of the first-time buyers and the median price of the homes they purchased were both well above national averages. These facts highlight one of the state's challenges: the lack of affordable housing. Finally, illustrating a theme we have repeated in our updates, almost three-quarters of home-buyers had at most one school-age child. In fact, 65 percent of first-time home-buyers had no school-age children and an additional 21 percent had just one.

Taking a look at commuting patterns sheds additional light on the state's and the District's prospects for dramatic increases in population. The American Community Survey reports from the U.S. Census provide a wide range of information, including commuting statistics. The most recent information, providing five-year estimates for 2006 to 2010, reveals that nationally almost 60 percent of people who do not work at home commute less than 25 minutes each way. For New Hampshire workers the average is 25.5 minutes and in no county is the average commute as long as half-an-hour. Belmont and Canterbury workers' commute is just a bit more than the average. Although more than 80,000 New Hampshire residents commute to work in Massachusetts, fewer than 10% of the state's workers commute more than an hour. These statistics indicate that New Hampshire will have to generate significantly more economic growth to stimulate any sizeable increase in population. They also indicate that any significant increase in population in the District would likely have to be associated with a substantial increase in jobs within a reasonable commuting distance. While both developments are possible, we consider them unlikely in the near term.

Given that most people move only short distances, how does the district compare?

The information presented thus far indicates that, without a dramatic change in socioeconomic and demographic trends, New Hampshire will not soon see a return to times featuring high net

in-migration and burgeoning school populations. From the reports on migration trends and the home-buyer survey, we learned that most people move only short distances, so that any significant population growth in Belmont or Canterbury will likely have to come from existing New Hampshire residents living fairly close by. To explore the likelihood of this happening, we examined data addressing two factors identified as being important to home buyers: affordability (housing prices and the cost of education/property taxes) and educational quality. The purpose was to try to identify how the district compared with others nearby. We present highlights below.

Home prices certainly play a dominant role in affordability. The mix of houses on the market and their prices are constantly changing, and all towns have homes with widely ranging prices. Nevertheless, looking at median prices provides some indication of relative housing costs and represents one measure upon which a comparison can be made. We also note that all the towns in the region have a fair number of houses on the market, so that the median prices represent a reasonable sample size. The table on the following page presents results from a search done November 30, 2014 on the Zillow® website, one of the leading real estate sites on the Internet. The figures for Belmont and Canterbury are respectively almost equally below and above the average for the towns in the 18 districts included in the analysis. Home values in Canterbury are the fifth highest in the region, whereas those in Belmont are the sixth lowest. Property values in the two towns have recently risen somewhat less than the average. The bottom line, purely from this perspective, is mixed. All other things being equal and based upon the importance of affordability, one would expect Belmont to be in a better position to attract home buyers than Canterbury. Of course, many other factors play a role in home buying decisions, but this is a key one.

The table on page 41 presents information on another component of affordability: cost-per-student and property tax information for the Shaker Regional School District and other districts in the region. As can be seen, Shaker Regional's cost per student is slightly below the average of the 18 districts shown, whereas its property taxes are slightly above the average – the sixth highest among the 18 districts. Four other districts (Barnstead, Dunbarton, Epsom, and Winnisquam) have roughly comparable costs per student and all of them have total property tax rates below the average for Belmont and Canterbury. Even a few districts – Chichester, Gilford, and Laconia – that spend more per student have lower property taxes. In general, taken alone, the results would place the district at somewhat of a disadvantage.

Evaluating educational quality is a complex undertaking. The New Hampshire Department of Education maintains a multi-faceted profile on each district. Even then, since the profiles don't include an overall score or ranking of districts, one's personal priorities would dictate the conclusions drawn. A simpler approach, at least for an initial screening (buyers would probably dig deeper), is to search online for school and district rankings. We did and found two sets of rankings: one was published by *US News and World Reports* and the other appeared on the SchoolDigger.com website. In neither case do we endorse the methodology or the results. We cite them because they were readily available on the internet, meaning potential home buyers could easily access them and potentially use them in screening their search.

Median Home Values for Shaker Regional and 17 Nearby Districts*

District	Median Home Value		Year-to-Year Change	
	Value	Percent of Average	Change	Percent of Average
Shaker Regional				
• **Belmont**	$174,700	86.6%	4.9%	85.9%
• **Canterbury**	$227,900	113.0%	4.9%	85.9%
Allenstown	$175,600	87.1%	2.3%	40.3%
Barnstead	$174,400	86.5%	5.7%	99.9%
Bow	$256,300	127.1%	2.5%	43.8%
Chichester	$248,800	123.3%	7.9%	138.5%
Concord	$216,900	107.5%	6.0%	105.2%
Dunbarton	$252,200	125.0%	7.3%	128.0%
Epsom	$206,200	102.2%	4.7%	82.4%
Franklin	$179,400	88.9%	13.9%	243.7%
Gilford	$191,400	94.9%	-1.6%	-28.0%
Gilmanton	$194,800	96.6%	9.1%	159.5%
Hopkinton	$269,200	133.5%	7.4%	129.7%
Laconia	$149,200	74.0%	2.0%	35.1%
Merrimack Valley				
• Boscawen	$200,900	99.6%	14.7%	257.7%
• Loudon	$217,300	107.7%	7.1%	124.5%
• Penacook	N/A	--		
• Salisbury	$185,600	92.0%	4.9%	85.9%
• Webster	$201,100	99.7%	4.4%	77.1%
Pembroke	$212,000	105.1%	13.4%	234.9%
Pittsfield	$168,100	83.3%	6.9%	121.0%
Weare	$211,800	105.0%	4.0%	70.1%
Winnisquam Regional				
• Northfield	$169,200	83.9%	-0.8%	-14.0%
• Sanbornton	$195,600	97.0%	-4.0%	-70.1%
• Tilton	$162,600	80.6%	9.3%	163.0%
Averages	$201,717		5.7%	

*Source: Zillow® Home Value Index obtained November 30, 2014 from
http://www.zillow.com/tilton-nh/home-values/

The *US News and World Reports* ranked high schools based upon the percentage of students taking and passing either Advanced Placement (AP) or International Baccalaureate (IB) exams. In this case, Belmont High School was unranked because it didn't have a readiness measure. Of the other high schools in the region, those in Bow, Hopkinton, and Weare were in the top 13 in the state.

SchoolDigger.com maintains a database with detailed profiles for over 136,000 schools in every state in the country. The database includes 20 years of enrollment data, and several years of test scores, crime data, and real estate data. In terms of District ranking, Shaker Regional came in 52nd, behind Gilmanton (6), Bow (15), Hopkinton (17), Epsom (32), John Stark – Weare (36), and Chicheser (49). In the high school rankings, BHS was 30th, after Contoocook (Hopkinton), Gilford, Bow, and Weare. In the middle school rankings, BMS was 33rd, after Gilmanton, Bow, Chichester, Concord, and Contoocook. In the elementary school category, CES was 15th, after Gilmanton, and BES was ranked 128th. These results, as the others before, present a mixed

Per-student Costs and Property Tax Rates: Shaker Regional and 17 Nearby Districts

District	Cost per Student *		State and Local Property Tax Rate for Education**		Total Property Tax Rate**	
	2012-2013	Percent of Average	2013	Percent of Average	2013	Percent of Average
Shaker Regional	$13,505	98.1%	$16.89	103.8%	$27.32	106.5%
Allenstown	$15,051	109.3%	$18.34	112.8%	$31.17	121.5%
Barnstead	$13,125	95.4%	$18.43	113.3%	$25.57	99.7%
Bow	$15,974	116.0%	$20.07	123.4%	$30.08	117.2%
Chichester	$14,239	103.4%	$16.62	102.2%	$24.54	95.6%
Concord	$12,897	93.7%	$12.56	77.2%	$23.73	92.5%
Dunbarton	$13,264	96.4%	$16.20	99.6%	$23.19	90.4%
Epsom	$13,375	97.2%	$16.06	98.7%	$23.98	93.5%
Franklin	$10,072	73.2%	$8.00	49.2%	$23.85	93.0%
Gilford	$16,373	118.9%	$10.65	65.5%	$16.92	65.9%
Gilmanton	$12,260	89.1%	$16.50	101.4%	$23.60	92.0%
Hopkinton	$16,042	116.5%	$22.44	138.0%	$30.77	119.9%
Laconia	$14,370	104.4%	$11.79	72.5%	$21.60	84.2%
Merrimack Valley	$11,980	87.0%	$15.59	95.9%	$24.93	97.2%
Pembroke	$12,538	91.1%	$19.67	120.9%	$29.37	114.5%
Pittsfield	$18,372	133.5%	$22.05	135.6%	$36.43	142.0%
Weare	$11,022	80.1%	$18.55	114.1%	$23.33	90.9%
Winnisquam Regional	$13,307	96.7%	$12.35	75.9%	$21.48	83.7%
Averages	$13,765		$16.26		$25.66	

*Source: NH Department of Education, Division of Program Support, Bureau of Data Management (December 9, 2013)

**For multi-town districts, the average is shown. Source: NH Department of Education, Division of Program Support, Bureau of Data Management (June 11, 2014)

picture for the Shaker Regional School District in terms of its comparison with other districts in the region. Its rankings in terms quality were higher than those of several nearby districts, but lower than others, including ones with lower home values and/or property taxes.

Considering the sub-state regional comparisons cited earlier and the results of the district-level analysis, the probability of the District experiencing significant population and enrollment growth in the near term seems quite low. The District is located at best at the fringe of more economically diverse and vibrant parts of the state. The competitive position with other nearby districts/towns is mixed. This likely means that Belmont and Canterbury will continue to grow, but only modestly. No evidence exists for a dramatic upswing.

CONCLUDING REMARKS

We hope the preceding discussion helps Board members better understand some of the key forces at play at the regional, state, and sub-state levels so they can put the enrollment projections into a context that will inform their decision making. To say the challenges New Hampshire faces are complex, daunting perhaps, is an understatement. We hope we effectively conveyed this fact. The conclusion we draw from our series of analyses – at the multi-state regional level to the state and district levels – is that at least in the near term the probability is

extremely low that the Shaker Regional School District will return to an era of rapidly increasing population and school enrollment. We see neither the potential for a dramatic shift in the current state of affairs nor support for a significant rise in population or enrollment during the projection period. Indeed, the evidence we've found and analyzed supports our projection for the continued overall decline in the district's enrollment.

As we noted earlier in the report, the projection methodology places considerable importance on relatively recent changes in enrollment, birth rates, and population as well as projections for the latter two factors. The impact of this phenomenon is best illustrated by how our projections have changed over time, despite our consistently using the same methodology. While within one or two years our projections have been fairly accurate, small changes in these key drivers magnify in importance as one reaches the end of the ten-year projection period. These three key components change in accordance with myriad factors, from national demographic trends to local comparisons of school quality, housing prices, and property taxes, and everything in between. Perhaps what's unusual now is that the nation, region, and state as a whole appear to be in a period of fairly slow change in certain key areas. Variations exist, but not only are we experiencing the longest recovery from an economic downturn since the depression, but the state faces precedent-setting challenges that defy quick fixes. Still, none of this makes a rebound impossible. None if it will guarantee that birth rates won't significantly rise. This uncertainty warrants the Board's periodic review and updating of the analyses and projections.

Within our scope and budget, we have tried to do the best job we could to project the District's enrollment over the next ten years. We've also tried to paint a picture of the context within which we made the projections, touching on familiar topics but also addressing new ones. We hope the report as a whole provides Board members with information useful for understanding the projections and for making sense of the times we're in and where we might be headed. We greatly appreciate the opportunity to prepare this update for you. It was interesting and challenging work. And we, too, learned more about our current context. We realize that the projections we prepare have implications and can affect the Board's decision making. We, therefore, have carried out our work with a great sense of responsibility. We hope the result meets the Board's expectations.