Needham Public Schools, MA Demographic Study

January 2017
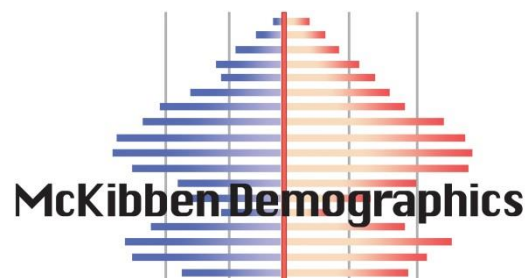
McKibben Demographics

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Executive Summary

1. The resident total fertility rate for Needham Public Schools over the life of the forecasts is below replacement level. (1.87 vs. the replacement level of 2.1)

2. Most in-migration to the district continues to occur in the 0-to-9 and 30-to-44 year old age groups.

3. The local 18-to-24 year old population continues to leave the district, going to college or moving to other urbanized areas. This population group accounts for the largest segment of the district's out migration flow.

4. The primary factor causing the district's enrollment to slightly decline over the next 15 years is a substantial increase in the number of empty nest households (home owners age 70+) "turning over", however this will still be smaller than the number of homes (homeowners age 50-59) that also become empty nest households.

5. Changes in year-to-year enrollment over the next five years will primarily be due to the size of the grade cohorts entering and moving through the school system in conjunction with the size of the cohorts leaving the system.

6. The elementary enrollment will begin a slight decline after the 2021-22 school year. This will be due primarily to the fact that the rising 5th grade cohorts will be greater the 400 in size while the incoming grade cohorts will decline slightly.

7. The median age of the population will increase from 42.9 in 2010 to 43.9 in 2030.

8. Even if the district continues to have some of annual new home construction (even if that construction is rental units), the rate, magnitude and price of existing home sales will become the increasingly dominant factor affecting the amount of population and enrollment change.

9. Total district enrollment is forecasted to increase by 108 students, or 1.9%, between 2016-17 and 2021-22. Total enrollment is forecasted to decline by 138 students, or -2.4%, from 2021-22 to 2026-27. The total enrollment is forecasted to decline by 172 students, or -3.1%, from 2026-27 to 2031-32.

INTRODUCTION

By demographic principle, distinctions are made between projections and forecasts. A projection extrapolates the past (and present) into the future with little or no attempt to take into account any factors that may impact the extrapolation (e.g., changes in fertility rates, housing patterns or migration patterns) while a forecast results when a projection is modified by reasoning to take into account the aforementioned factors.

To maximize the use of this study as a planning tool, the ultimate goal is not simply to project the past into the future, but rather to assess various factors' impact on the future. The future population and enrollment changes for each school district are influenced by a variety of factors. Not all factors will influence the entire school district at the same level. Some may affect different areas at dissimilar magnitudes and rates causing changes at varying points of time within the same district. The forecaster's judgment, based on a thorough and intimate study of the district, has been used to modify the demographic trends and factors to more accurately predict likely changes. Therefore, strictly speaking, this study is a forecast, not a projection; and the amount of modification of the demographic trends varies between different areas of the district as well as within the timeframe of the forecast.

To calculate population forecasts of any type, particularly for smaller populations such as a school district, realistic suppositions must be made as to what the future will bring in terms of age specific fertility rates and residents' demographic behavior at certain points of the life course. The demographic history of the school district and its interplay with the social and economic history of the area is the starting point and the basis of most of these suppositions particularly on key factors such as the age structure of the area. The unique nature of each district's and attendance area's demographic composition and rate of change over time must be assessed and understood to be factors throughout the life of the forecast series. Moreover, no two populations, particularly at the school district, have exactly the same characteristics.

The manifest purpose of these forecasts is to ascertain the demographic factors that will ultimately influence the enrollment levels in the district's schools. There are of course, other non-demographic factors that affect enrollment levels over time. These factors include, but are not limited to: transfer policies within the district; student transfers to and from neighboring districts, placement of "special programs" within school facilities that may serve students from outside the attendance area, state or federal mandates that dictate the movement of students from one facility to another (No Child Left Behind was an excellent example of this factor), the development of charter schools in the district, the prevalence of home schooling in the area, and the dynamics of local private schools.

Unless the district specifically requests the calculation of forecasts that reflect the effects of changes in these non-demographic factors, their influences are held constant for the life of the forecasts. Again, the main function of these forecasts is to determine what impact demographic changes will have on future enrollment. It is quite possible to calculate special "scenario" forecasts to measure the impact of school policy modifications as well as planned economic and financial changes. However in this case the results of these population and enrollment forecast are meant to represent the most likely

scenario for changes over the next 10 years in the district and its attendance areas.

The first part of the report will examine the assumptions made in calculating the population forecasts for the Needham Public Schools. Since the results of the population forecasts drive the subsequent enrollment forecasts, the assumptions listed in this section are paramount to understanding the area's demographic dynamics. The remainder of the report is an explanation and analysis of the district's population forecasts and how they will shape the district's grade level enrollment forecasts.

DATA

The data used for the forecasts come from a variety of sources. The Needham Public Schools provided enrollments by grade and attendance center for the school years 2010-2011 to 2016-17. Birth and death data for the years 2000 through 2014 were obtained from the Massachusetts Department of Health. The net migration values were calculated using Internal Revenue Service migration reports for the years 2000 through 2013. The data used for the calculation of migration models came from the United States Bureau of the Census, 2005 to 2010, and the models were designed using demographic and economic factors. The base age-sex population counts used are from the results of the 2010 Census.

Recently the Census Bureau began releasing annual estimates of demographic variables at the block group and tract level from the American Community Survey (ACS). There has been wide scale reporting of these results in the national, state and local media. However, due to the methodological problems the Census Bureau is experiencing with their estimates derived from ACS data, particularly

in areas with a population of less than 60,000, the results of the ACS are not used in these forecasts. For example, given the sampling framework used by the Census Bureau, each year only 110 of the over 3,400 current households in the district would have been included. For comparison 570 households in the district were included in the sample for the long form questionnaire in the 2000 Census. As a result of this small sample size, the ACS survey results from the last 5 years must be aggregated to produce the tract and block group estimates.

To develop the population forecast models, past migration patterns, current age specific fertility patterns, the magnitude and dynamics of the gross migration, the age specific mortality trends, the distribution of the population by age and sex, the rate and type of existing housing unit sales, and future housing unit construction are considered to be primary variables. In addition, the change in household size relative to the age structure of the forecast area was addressed. While there was a slight drop in the average household size in the Needham Public Schools as well as most other areas of the state during the previous 20 years, the rate of this decline has been forecasted to slow over the next ten years.

ASSUMPTIONS

For these forecasts, the mortality probabilities are held constant at the levels calculated for the year 2010. While the number of deaths in an area are impacted by and will change given the proportion of the local population over age 65, in the absence of an extraordinary event such as a natural disaster or a breakthrough in the treatment of heart disease, death rates rarely move rapidly in any direction, particularly at the school district or

attendance area level. Thus, significant changes are not foreseen in district's mortality rates between now and the year 2026. Any increases forecasted in the number of deaths will be due primarily to the general aging of the district's population and specifically to the increase in the number of residents aged 65 and older.

Similarly, fertility rates are assumed to stay fairly constant for the life of the forecasts. Like mortality rates, age specific fertility rates rarely change quickly or dramatically, particularly in small areas. Even with the recently reported rise in the age 30 to 39 year old fertility rates of the United States, overall fertility rates have stayed within a 10% range for most of the last 40 years. In fact, the vast majority of year to year change in an area's number of births is due to changes in the number of women in child bearing ages (particularly ages 20-34) rather than any fluctuation in an area's fertility rate.

The total fertility rate (TFR), the average number of births a woman will have while living in the school district during her lifetime, is estimated to be 1.87 for the total district for the ten years of the population forecasts. A TFR of 2.1 births per woman is considered to be the theoretical "replacement level" of fertility necessary for a population to remain constant in the absence of in-migration. Therefore, in the absence of migration, fertility alone would be insufficient to maintain the current level of population and enrollment within the Needham Public Schools over the course of the forecast period.

A close examination of data for the Needham Public Schools has shown the age specific pattern of net migration will be nearly constant throughout the life of the forecasts. While the number of in and out migrants has changed in past years for the Needham Public Schools (and will change again over the next 10 years), the basic age pattern of the migrants has stayed nearly the same over the last 30 years. Based on the analysis of data it is safe to assume this age specific migration trend will remain unchanged into the future. This pattern of migration shows most of the local out-migration occurring in the 18-to-24 year old age group as young adults leave the area to go to college or move to other urbanized areas. The second largest group of out-migrants are those householders aged 70 and older who are downsizing their residences. Most of the local in-migration occurs in the 0-to-9 and 30-44 age groups (the bulk of the which come from areas within 75 miles of the Needham Public Schools) primarily consisting of younger adults and their children.

As the Norfolk County area is not currently contemplating any major expansions or contractions, the forecasts also assume that the current economic, political, social, and environmental factors, as well as the transportation and public works infrastructure (with a few notable exceptions) of the Needham Public Schools and its attendance areas will remain the same through the year 2026. Below is a list of assumptions and issues that are specific to the Needham Public Schools. These issues have been used to modify the population forecast models to more accurately predict the impact of these factors on each area's population change. Specifically, the forecasts for the Needham Public School assume that throughout the study period:

a. There will be no short term economic recovery in the next 18 months and the national, state or regional economy does not go into deep recession at any time during the 10 years of the forecasts; (Deep recession is defined as four

consecutive quarters where the GDP contracts greater than 1% per quarter)

b. Interest rates have reached a historic low and will not fluctuate more than one percentage point in the short term; the interest rate for a 30 year fixed home mortgage stays below 5.0%;

c. The rate of mortgage approval stays at 1999-2003 levels and lenders do not return to "sub-prime" mortgage practices;

d. There are no additional restrictions placed on home mortgage lenders or additional bankruptcies of major credit providers;

e. The rate of housing foreclosures does not exceed 125% of the 2005-2007 average of Norfolk County for any year in the forecasts;

f. All currently platted and approved housing developments are built out and completed by 2025. All housing units constructed are occupied by 2026.

g. The unemployment rates for the Norfolk County and the Boston Metropolitan Area will remain below 4.5% for the 10 years of the forecasts;

h. The rate of students transferring into and out of the Needham Public Schools will remain at the 2011-12 to 2016-17 average;

i. The inflation rate for gasoline will stay below 5% per year for the 10 years of the forecasts;

j. The town of Needham will average approximately 75 new housing units constructed annually until 2020. The average will drop to 50 per year between 2021 and 2035.

k. There will be no building moratorium within the district;

l. Businesses within the district and the Needham Public Schools area will remain viable;

m. The number of existing home sales in the district that are a result of "distress sales" (homes worth less than the current mortgage value) will not exceed 20% of total homes sales in the district for any given year;

n. Housing turnover rates (sale of existing homes in the district) will remain at their current levels. The majority of existing home sales are made by home owners over the age of 60;

o. Private school and home school attendance rates will remain constant;

p. The rate of foreclosures for commercial property remains at the 2004-2008 average for Norfolk County;

If a major employer in the district or in the Greater Boston Metropolitan Area closes, reduces or expands its operations, the population forecasts would need to be adjusted to reflect the changes brought about by the change in economic and employment conditions. The same holds true for any type of natural disaster, major change in the local infrastructure (e.g., highway construction, water and sewer expansion, changes in zoning regulations etc.), a further economic downturn, any additional weakness in the housing market or any instance or situation that causes rapid and dramatic population changes that could not be foreseen at the time the forecasts were calculated.

The high proportion of high school graduates from the Needham Public Schools that attend college or move to urban areas outside of the district for employment is a significant demographic factor. Their departure is a major reason for the extremely high out-migration in the 18-to-24 year old age

group, and was taken into account when calculating these forecasts. The out-migration of graduating high school seniors is expected to continue over the period of the forecasts and the rate of out-migration has been forecasted to remain the same over the life of the forecast series.

Finally, all demographic trends (i.e., births, deaths, and migration) are assumed to be linear in nature and annualized over the forecast period. For example, if 1,000 births are forecasted for a 5-year period, an equal number, or proportion of the births are assumed to occur every year, 200 per year. Actual year-to-year variations do and will occur, but overall year to year trends are expected to be constant.

METHODOLOGY

The population forecasts presented in this report are the result of using the Cohort-Component Method of population forecasting (Siegel, and Swanson, 2004: 561-601) (Smith et. al. 2004). As stated in the **INTRODUCTION**, the difference between a projection and a forecast is in the use of explicit judgment based upon the unique features of the area under study. Strictly speaking, a cohort projection refers to the future population that would result from a mathematical extrapolation of historical trends. Conversely, a cohort-component forecast refers to the future population that is expected because of a studied and purposeful selection of the components of change (i.e., births, deaths, and migration) and forecast models are developed to measure the impact of these changes in each specific geographic area.

Five sets of data are required to generate population and enrollment forecasts. These five data sets are:

1. a base-year population (here, the 2010 Census population for Needham Public Schools);
2. a set of age-specific fertility rates for the district and the attendance areas to be used over the forecast period;
3. a set of age-specific survival (mortality) rates for the district and the attendance areas;
4. a set of age-specific migration rates for the district and the attendance areas, and;
5. the historical enrollment figures by grade.

The most significant and difficult aspect of producing enrollment forecasts is the generation of the population forecasts in which the school age population (and enrollment) is embedded. In turn, the most challenging aspect of generating the population forecasts is found in deriving the rates of change in fertility, mortality, and migration. From the standpoint of demographic analysis, the Needham Public Schools is classified as a "small area" population (as compared to the population of the state of Massachusetts or to that of the United States). Small area population forecasts are more complicated to calculate because local variations in fertility, mortality, and migration may be more irregular than those at the regional, state or national scale. Especially challenging is the forecast of the migration rates for local areas, because changes in the area's socioeconomic characteristics can quickly change from past and current patterns (Peters and Larkin, 2002.)

The population forecasts for Needham Public Schools were calculated using a cohort-component method with the populations divided into male and female groups by five-year age cohorts that range from 0-to-4 years of

age to 85 years of age and older (85+). Age- and sex-specific fertility, mortality, and migration models were constructed to specifically reflect the unique demographic characteristics of each of the attendance areas in the Needham Public Schools.

The enrollment forecasts were calculated using a modified average survivorship method. Average survivor rates (i.e., the proportion of students who progress from one grade level to the next given the average amount of net migration for that grade level) over the previous five years of year-to-year enrollment data were calculated for grades two through twelve. This procedure is used to identify specific grades where there are large numbers of students changing facilities for non-demographic factors, such as private school transfers or enrollment in special programs.

The survivorship rates were modified or adjusted to reflect the average rate of forecasted in and out-migration of 5-to-9, 10-to-14 and 15-to-17 year old cohorts to each of the attendance centers in Needham Public Schools for the period 2010 to 2016. These survivorship rates then were adjusted to reflect the forecasted changes in age-specific migration the district should experience over the next five years. These modified survivorship rates were used to project the enrollment of grades 2 through 12 for the period 2017 to 2021. The survivorship rates were adjusted again for the period 2021 to 2026 to reflect the predicted changes in the amount of age-specific migration in the district for the period. The procedure is repeated again for the 2026 to 2031 time period.

The forecasted enrollments for kindergarten and first grade are derived from the 5-to-9 year old population of the age-sex population forecast at the elementary attendance center district level. This procedure allows the changes in the incoming grade sizes to be factors of forecasted population change and not an extrapolation of previous class sizes. Given the potentially large amount of variation in Kindergarten enrollment due to parental choice, changes in the state's minimum age requirement, and differing district policies on allowing children to start Kindergarten early, first grade enrollment is deemed to be a more accurate and reliable starting point for the forecasts. (McKibben, 1996) The level of the accuracy for both the total population and total enrollment forecasts at the school district level is estimated to be ±2.0% for the life of the forecasts.

McKibben Demographics

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Appendix A: Population Forecasts

Needham Public Schools: Total Population

Males	2010	2015	2020	2025	2030
0-4	919	870	810	800	770
5-9	1,279	1,120	1,160	1,090	1,040
10-14	1,270	1,310	1,160	1,200	1,120
15-19	990	1,020	1,040	910	960
20-24	554	630	670	670	560
25-29	361	450	570	580	570
30-34	420	560	650	760	780
35-39	858	620	760	830	930
40-44	1,093	890	650	810	880
45-49	1,208	1,080	860	630	830
50-54	1,161	1,180	1,070	850	620
55-59	997	1,140	1,150	1,040	840
60-64	887	930	1,040	1,090	970
65-69	545	780	820	940	980
70-74	376	410	610	660	750
75-79	367	330	340	540	570
80-84	308	350	290	310	480
85+	331	320	320	320	310
Total	13,924	13,990	13,970	14,030	13,960

Females	2010	2015	2020	2025	2030
0-4	952	840	790	780	750
5-9	1,209	1,160	1,140	1,080	1,030
10-14	1,197	1,240	1,200	1,180	1,100
15-19	873	940	970	950	940
20-24	427	490	610	590	590
25-29	352	320	440	510	500
30-34	559	550	520	650	710
35-39	897	760	760	700	820
40-44	1,200	920	790	810	760
45-49	1,315	1,190	920	790	840
50-54	1,258	1,300	1,190	910	790
55-59	1,048	1,240	1,280	1,170	910
60-64	914	1,000	1,170	1,230	1,110
65-69	640	840	910	1,080	1,140
70-74	498	540	720	800	940
75-79	463	430	450	620	690
80-84	468	450	400	420	580
85+	710	750	740	730	720
Total	14,980	14,960	15,000	15,000	14,920

Total	2010	2015	2020	2025	2030
0-4	1,871	1,710	1,600	1,580	1,520
5-9	2,488	2,280	2,300	2,170	2,070
10-14	2,467	2,550	2,360	2,380	2,220
15-19	1,863	1,960	2,010	1,860	1,900
20-24	981	1,120	1,280	1,260	1,150
25-29	713	770	1,010	1,090	1,070
30-34	979	1,110	1,170	1,410	1,490
35-39	1,755	1,380	1,520	1,530	1,750
40-44	2,293	1,810	1,440	1,620	1,640
45-49	2,523	2,270	1,780	1,420	1,670
50-54	2,419	2,480	2,260	1,760	1,410
55-59	2,045	2,380	2,430	2,210	1,750
60-64	1,801	1,930	2,210	2,320	2,080
65-69	1,185	1,620	1,730	2,020	2,120
70-74	874	950	1,330	1,460	1,690
75-79	830	760	790	1,160	1,260
80-84	776	800	690	730	1,060
85+	1,041	1,070	1,060	1,050	1,030
Total	28,904	28,950	28,970	29,030	28,880
Median Age	42.9	44.4	44.3	43.8	43.9

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	1,070	1,070	1,180	1,190
Deaths	1,410	1,490	1,520	1,580
Natural Increase	-340	-420	-340	-390
Net Migration	390	380	340	310
Change	50	-40	0	-80

Differences between period Totals may not equal Change due to rounding.

McKibben Demographics

Revised: 02/01/2017

Broadmeadow Elementary

Males	2010	2015	2020	2025	2030
0-4	196	180	170	170	160
5-9	280	250	240	220	220
10-14	287	290	260	240	220
15-19	172	220	230	200	190
20-24	67	70	130	110	100
25-29	50	40	40	80	70
30-34	52	80	70	100	130
35-39	182	120	140	130	150
40-44	222	190	130	150	130
45-49	249	220	180	120	150
50-54	205	240	220	180	120
55-59	203	200	240	210	180
60-64	165	190	190	230	200
65-69	92	140	170	170	200
70-74	77	60	100	140	130
75-79	61	70	40	90	120
80-84	58	60	60	40	80
85+	38	50	50	60	50
Total	2,652	2,670	2,660	2,640	2,600

Females	2010	2015	2020	2025	2030
0-4	195	170	160	170	160
5-9	282	250	230	220	220
10-14	258	290	260	240	220
15-19	168	190	230	200	190
20-24	71	60	100	110	100
25-29	47	40	40	50	70
30-34	75	80	70	100	100
35-39	197	140	140	130	150
40-44	243	200	150	150	140
45-49	263	240	200	150	150
50-54	236	260	240	200	150
55-59	191	230	260	240	200
60-64	164	190	230	250	230
65-69	116	140	170	200	230
70-74	95	90	120	150	170
75-79	94	80	70	100	130
80-84	85	90	80	60	100
85+	70	100	110	120	120
Total	2,846	2,840	2,860	2,840	2,830

Total	2010	2015	2020	2025	2030
0-4	391	350	330	340	320
5-9	562	500	470	440	440
10-14	545	580	520	480	440
15-19	340	410	460	400	380
20-24	138	130	230	220	200
25-29	97	80	80	130	140
30-34	127	160	140	200	230
35-39	378	260	280	260	300
40-44	465	390	280	300	270
45-49	512	460	380	270	300
50-54	441	500	460	380	270
55-59	394	430	500	450	380
60-64	329	380	420	480	430
65-69	207	280	340	370	430
70-74	172	150	220	290	300
75-79	155	150	110	190	250
80-84	142	150	140	100	180
85+	107	150	160	180	170
Total	5,498	5,510	5,520	5,480	5,430
Median Age	41.9	43.7	44.5	44.5	44.9

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	170	170	180	180
Deaths	230	250	270	280
Natural Increase	-60	-80	-90	-100
Net Migration	70	60	60	50
Change	10	-20	-30	-50

Differences between period Totals may not equal Change due to rounding.

McKibben Demographics

Revised: 02/01/2017

Eliot Elementary

Males	2010	2015	2020	2025	2030
0-4	135	150	130	140	130
5-9	196	170	200	190	180
10-14	184	200	180	210	200
15-19	116	160	170	150	180
20-24	82	80	90	100	90
25-29	80	90	90	100	100
30-34	102	120	140	140	150
35-39	137	130	150	170	160
40-44	197	130	140	170	190
45-49	178	190	130	130	170
50-54	183	170	190	130	130
55-59	141	180	170	190	130
60-64	125	120	150	150	160
65-69	75	100	90	130	120
70-74	52	50	70	70	100
75-79	73	40	40	60	50
80-84	56	70	30	30	50
85+	59	60	60	50	40
Total	2,168	2,210	2,220	2,310	2,330

Females	2010	2015	2020	2025	2030
0-4	147	140	130	130	130
5-9	175	180	200	190	170
10-14	167	180	190	210	190
15-19	130	140	150	160	170
20-24	60	90	80	70	100
25-29	77	70	100	80	80
30-34	123	110	120	150	130
35-39	142	150	150	150	170
40-44	188	140	160	170	170
45-49	191	190	140	160	170
50-54	201	190	190	140	160
55-59	165	200	190	180	140
60-64	120	140	170	170	160
65-69	85	100	120	150	140
70-74	85	70	80	100	130
75-79	93	70	50	60	80
80-84	85	90	60	50	60
85+	138	140	140	130	110
Total	2,369	2,390	2,420	2,450	2,460

Total	2010	2015	2020	2025	2030
0-4	281	290	260	270	260
5-9	370	350	400	380	350
10-14	350	380	370	420	390
15-19	245	300	320	310	350
20-24	142	170	170	170	190
25-29	157	160	190	180	180
30-34	225	230	260	290	280
35-39	279	280	300	320	330
40-44	385	270	300	340	360
45-49	369	380	270	290	340
50-54	384	360	380	270	290
55-59	306	380	360	370	270
60-64	245	260	320	320	320
65-69	160	200	210	280	260
70-74	137	120	150	170	230
75-79	165	110	90	120	130
80-84	141	160	90	80	110
85+	197	200	200	180	150
Total	4,537	4,600	4,640	4,760	4,790
Median Age	42.8	42.6	40.8	40.6	40.9

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	200	210	220	220
Deaths	240	250	230	220
Natural Increase	-40	-40	-10	0
Net Migration	90	90	80	80
Change	50	50	70	80

Differences between period Totals may not equal Change due to rounding.

Hillside Elementary

Males	2010	2015	2020	2025	2030
0-4	169	170	170	150	140
5-9	205	200	220	200	190
10-14	199	210	200	230	210
15-19	240	160	130	150	170
20-24	207	170	130	100	130
25-29	95	150	140	110	80
30-34	100	140	180	160	130
35-39	170	160	200	230	210
40-44	202	190	160	200	230
45-49	210	200	180	160	200
50-54	222	210	200	180	150
55-59	199	220	200	190	180
60-64	171	190	210	190	180
65-69	113	150	170	180	170
70-74	76	90	130	130	140
75-79	64	70	80	110	120
80-84	80	60	60	80	100
85+	129	100	80	70	70
Total	2,848	2,840	2,840	2,820	2,800

Females	2010	2015	2020	2025	2030
0-4	173	170	160	150	140
5-9	205	210	220	200	190
10-14	174	210	210	220	200
15-19	205	140	130	160	170
20-24	146	130	110	100	130
25-29	96	90	100	80	80
30-34	130	140	120	130	110
35-39	167	190	200	170	180
40-44	214	180	190	200	170
45-49	265	210	180	190	200
50-54	242	260	210	180	190
55-59	188	240	260	210	180
60-64	191	180	230	250	200
65-69	125	180	170	210	230
70-74	103	110	160	140	180
75-79	102	90	100	140	120
80-84	137	100	80	90	130
85+	320	290	250	210	190
Total	3,182	3,120	3,080	3,030	2,990

Total	2010	2015	2020	2025	2030
0-4	341	340	330	300	280
5-9	410	410	440	400	380
10-14	373	420	410	450	410
15-19	445	300	260	310	340
20-24	353	300	240	200	260
25-29	191	240	240	190	160
30-34	230	280	300	290	240
35-39	337	350	400	400	390
40-44	416	370	350	400	400
45-49	475	410	360	350	400
50-54	463	470	410	360	340
55-59	388	460	460	400	360
60-64	362	370	440	440	380
65-69	238	330	340	390	400
70-74	179	200	290	270	320
75-79	165	160	180	250	240
80-84	217	160	140	170	230
85+	449	390	330	280	260
Total	6,030	5,960	5,920	5,850	5,790
Median Age	44.0	44.6	44.9	44.8	45.4

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	270	250	240	230
Deaths	400	370	350	350
Natural Increase	-130	-120	-110	-120
Net Migration	60	60	50	50
Change	-70	-60	-60	-70

Differences between period Totals may not equal Change due to rounding.

McKibben Demographics

Revised: 02/01/2017

Mitchell Elementary

Males	2010	2015	2020	2025	2030
0-4	171	140	130	130	140
5-9	216	210	210	200	190
10-14	212	220	220	220	210
15-19	144	180	190	190	200
20-24	74	80	110	130	110
25-29	40	50	60	70	70
30-34	72	80	90	90	110
35-39	142	90	100	110	120
40-44	188	150	100	100	120
45-49	202	190	150	100	110
50-54	182	200	180	140	100
55-59	170	180	190	180	140
60-64	148	160	150	180	170
65-69	87	130	140	140	170
70-74	49	60	100	110	120
75-79	46	40	50	90	100
80-84	32	40	40	40	80
85+	31	30	40	40	40
Total	2,203	2,230	2,250	2,260	2,300

Females	2010	2015	2020	2025	2030
0-4	173	130	130	130	130
5-9	246	210	210	200	190
10-14	206	250	220	220	210
15-19	126	170	220	190	190
20-24	46	60	110	160	110
25-29	45	20	40	70	100
30-34	76	90	60	70	110
35-39	153	100	110	80	100
40-44	212	160	110	110	90
45-49	205	210	160	110	120
50-54	201	200	210	160	110
55-59	182	200	190	210	160
60-64	151	180	180	190	200
65-69	87	140	150	170	180
70-74	67	70	110	140	150
75-79	40	60	50	100	120
80-84	47	40	60	50	90
85+	58	70	70	80	80
Total	2,318	2,360	2,390	2,440	2,440

Total	2010	2015	2020	2025	2030
0-4	344	270	260	260	270
5-9	461	420	420	400	380
10-14	417	470	440	440	420
15-19	270	350	410	380	390
20-24	120	140	220	290	220
25-29	85	70	100	140	170
30-34	148	170	150	160	220
35-39	294	190	210	190	220
40-44	400	310	210	210	210
45-49	407	400	310	210	230
50-54	383	400	390	300	210
55-59	351	380	380	390	300
60-64	299	340	330	370	370
65-69	174	270	290	310	350
70-74	116	130	210	250	270
75-79	86	100	100	190	220
80-84	79	80	100	90	170
85+	88	100	110	120	120
Total	4,521	4,590	4,640	4,700	4,740
Median Age	41.5	43.5	42.6	42.1	41.9

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	160	150	190	210
Deaths	170	190	210	220
Natural Increase	-10	-40	-20	-10
Net Migration	80	80	70	60
Change	70	40	50	50

Differences between period Totals may not equal Change due to rounding.

McKibben Demographics

Revised: 02/01/2017

Newman Elementary

Males	2010	2015	2020	2025	2030
0-4	249	230	210	210	200
5-9	383	290	290	280	260
10-14	389	390	300	300	280
15-19	319	300	320	220	220
20-24	125	230	210	230	130
25-29	96	120	240	220	250
30-34	95	140	170	270	260
35-39	229	120	170	190	290
40-44	285	230	120	190	210
45-49	370	280	220	120	200
50-54	369	360	280	220	120
55-59	284	360	350	270	210
60-64	278	270	340	340	260
65-69	178	260	250	320	320
70-74	123	150	210	210	260
75-79	124	110	130	190	180
80-84	83	120	100	120	170
85+	75	80	90	100	110
Total	4,053	4,040	4,000	4,000	3,930

Females	2010	2015	2020	2025	2030
0-4	266	230	210	200	190
5-9	302	310	280	270	260
10-14	394	310	320	290	280
15-19	245	300	240	240	220
20-24	105	150	210	150	150
25-29	87	100	160	230	170
30-34	155	130	150	200	260
35-39	238	180	160	170	220
40-44	344	240	180	180	190
45-49	391	340	240	180	200
50-54	379	390	340	230	180
55-59	323	370	380	330	230
60-64	288	310	360	370	320
65-69	228	280	300	350	360
70-74	148	200	250	270	310
75-79	135	130	180	220	240
80-84	115	130	120	170	200
85+	125	150	170	190	220
Total	4,266	4,250	4,250	4,240	4,200

Total	2010	2015	2020	2025	2030
0-4	514	460	420	410	390
5-9	685	600	570	550	520
10-14	783	700	620	590	560
15-19	563	600	560	460	440
20-24	230	380	420	380	280
25-29	183	220	400	450	420
30-34	249	270	320	470	520
35-39	467	300	330	360	510
40-44	628	470	300	370	400
45-49	761	620	460	300	400
50-54	749	750	620	450	300
55-59	607	730	730	600	440
60-64	566	580	700	710	580
65-69	406	540	550	670	680
70-74	271	350	460	480	570
75-79	259	240	310	410	420
80-84	197	250	220	290	370
85+	201	230	260	290	330
Total	8,319	8,290	8,250	8,240	8,130
Median Age	43.9	46.2	47.0	46.3	45.3

	2010 to 2015	2015 to 2020	2020 to 2025	2025 to 2030
Births	270	290	350	350
Deaths	370	430	460	510
Natural Increase	-100	-140	-110	-160
Net Migration	90	90	80	70
Change	-10	-50	-30	-90

Differences between period Totals may not equal Change due to rounding.

Revised: 02/01/2017

Appendix B: Enrollment Forecasts

Needham Public Schools: Total District Enrollment

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
PK	76	74	82	84	82	82	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
K	363	398	414	406	365	404	369	384	388	389	382	380	375	369	367	362	362	358	355	350	344	349
1	439	384	419	441	449	387	433	408	411	415	416	409	404	399	393	390	385	380	376	373	367	361
2	422	447	390	419	444	471	397	444	418	421	425	427	420	415	410	404	403	397	392	389	386	378
3	436	417	450	413	416	450	473	401	448	422	425	430	432	425	420	415	411	410	404	399	396	393
4	485	431	419	444	409	415	455	474	402	449	423	426	431	433	426	421	421	417	415	409	404	401
5	430	491	427	436	439	415	425	458	478	405	452	425	428	433	435	428	425	425	421	419	413	408
Total: K-5	2,575	2,568	2,519	2,559	2,522	2,542	2,552	2,569	2,545	2,501	2,523	2,497	2,490	2,474	2,451	2,420	2,407	2,387	2,363	2,339	2,310	2,290
6	448	438	482	427	451	451	421	436	469	490	415	463	436	439	444	446	439	434	434	429	427	421
7	424	413	421	467	404	439	445	419	434	467	488	413	461	434	437	442	442	435	430	430	425	423
8	405	419	410	404	457	400	431	438	413	427	460	483	409	456	430	433	440	440	433	428	428	423
Total: 7-8	829	832	831	871	861	839	876	857	847	894	948	896	870	890	867	875	882	875	863	858	853	846
9	380	400	420	414	400	449	416	440	447	421	436	472	495	419	467	439	442	449	449	442	437	437
10	373	371	398	417	418	396	446	414	438	445	419	434	470	493	417	465	437	440	447	447	440	435
11	367	378	369	382	416	407	396	442	410	434	441	415	430	465	488	413	460	433	436	443	443	436
12	329	373	366	363	389	412	401	394	440	408	432	439	413	428	463	486	411	458	431	434	441	441
SP	-	-	9	6	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total: 9-12	1,449	1,522	1,562	1,582	1,631	1,672	1,659	1,690	1,735	1,708	1,728	1,760	1,808	1,805	1,835	1,803	1,750	1,780	1,763	1,766	1,761	1,749
Total: K-12	5,377	5,434	5,476	5,523	5,547	5,586	5,588	5,632	5,676	5,673	5,694	5,696	5,684	5,688	5,677	5,624	5,558	5,556	5,503	5,472	5,431	5,386
Total: K-12	5,377	5,434	5,476	5,523	5,547	5,586	5,588	5,632	5,676	5,673	5,694	5,696	5,684	5,688	5,677	5,624	5,558	5,556	5,503	5,472	5,431	5,386
Change		57	42	47	24	39	2	44	44	-3	21	2	-12	4	-11	-53	-66	-2	-53	-31	-41	-45
%-Change		1.1%	0.8%	0.9%	0.4%	0.7%	0.0%	0.8%	0.8%	-0.1%	0.4%	0.0%	-0.2%	0.1%	-0.2%	-0.9%	-1.2%	0.0%	-1.0%	-0.6%	-0.7%	-0.8%
Total: K-5	2,575	2,568	2,519	2,559	2,522	2,542	2,552	2,569	2,545	2,501	2,523	2,497	2,490	2,474	2,451	2,420	2,407	2,387	2,363	2,339	2,310	2,290
Change		-7	-49	40	-37	20	10	17	-24	-44	22	-26	-7	-16	-23	-31	-13	-20	-24	-24	-29	-20
%-Change		-0.3%	-1.9%	1.6%	-1.4%	0.8%	0.4%	0.7%	-0.9%	-1.7%	0.9%	-1.0%	-0.3%	-0.6%	-0.9%	-1.3%	-0.5%	-0.8%	-1.0%	-1.0%	-1.2%	-0.9%
Total: 6	448	438	482	427	451	451	421	436	469	490	415	463	436	439	444	446	439	434	434	429	427	421
Change		-10	44	-55	24	0	-30	15	33	21	-75	48	-27	3	5	2	-7	-5	0	-5	-2	-6
%-Change		-2.2%	10.0%	-11.4%	5.6%	0.0%	-6.7%	3.6%	7.6%	4.5%	-15.3%	11.6%	-5.8%	0.7%	1.1%	0.5%	-1.6%	-1.1%	0.0%	-1.2%	-0.5%	-1.4%
Total: 7-8	829	832	831	871	861	839	876	857	847	894	948	896	870	890	867	875	882	875	863	858	853	846
Change		3	-1	40	-10	-22	37	-19	-10	47	54	-52	-26	20	-23	8	7	-7	-12	-5	-5	-7
%-Change		0.4%	-0.1%	4.8%	-1.1%	-2.6%	4.4%	-2.2%	-1.2%	5.5%	6.0%	-5.5%	-2.9%	2.3%	-2.6%	0.9%	0.8%	-0.8%	-1.4%	-0.6%	-0.6%	-0.8%
Total: 9-12	1,449	1,522	1,562	1,582	1,631	1,672	1,659	1,690	1,735	1,708	1,728	1,760	1,808	1,805	1,835	1,803	1,750	1,780	1,763	1,766	1,761	1,749
Change		73	40	20	49	41	-13	31	45	-27	20	32	48	-3	30	-32	-53	30	-17	3	-5	-12
%-Change		5.0%	2.6%	1.3%	3.1%	2.5%	-0.8%	1.9%	2.7%	-1.6%	1.2%	1.9%	2.7%	-0.2%	1.7%	-1.7%	-2.9%	1.7%	-1.0%	0.2%	-0.3%	-0.7%

Forecasts Developed January 2017
Green Cells (2016-17 and earlier) are historical data
Blue Cells (2017-18 and later) are forcasted years

Broadmeadow Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
K	79	83	100	84	76	81	71	76	78	79	78	79	78	77	77	76	77	78	78	77	76	75
1	116	84	89	108	104	83	89	83	84	86	87	86	86	85	84	84	83	83	84	84	83	82
2	87	117	88	92	106	107	84	91	85	86	88	89	88	88	87	86	87	85	85	87	87	85
3	107	87	119	94	93	104	110	85	92	86	87	89	90	89	89	88	87	88	86	86	88	88
4	117	105	87	120	89	91	107	109	84	91	85	86	88	89	88	88	87	86	87	85	85	87
5	104	115	105	87	113	92	92	106	108	83	90	83	84	86	87	86	86	85	84	85	83	83
Total K-5	610	591	588	585	581	558	553	550	531	511	515	512	514	514	512	508	507	505	504	504	502	500

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total K-5	610	591	588	585	581	558	553	550	531	511	515	512	514	514	512	508	507	505	504	504	502	500
Change		-19	-3	-3	-4	-23	-5	-3	-19	-20	4	-3	2	0	-2	-4	-1	-2	-1	0	-2	-2
% Change		-3.1%	-0.5%	-0.5%	-0.7%	-4.0%	-0.9%	-0.5%	-3.5%	-3.8%	0.8%	-0.6%	0.4%	0.0%	-0.4%	-0.8%	-0.2%	-0.4%	-0.2%	0.0%	-0.4%	-0.4%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

Eliot Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
K	53	62	59	58	57	61	57	60	62	63	61	61	60	59	58	57	57	56	56	55	54	56
1	73	54	65	65	67	61	64	62	64	66	67	65	64	63	62	61	60	59	58	58	57	56
2	69	68	56	67	71	73	57	65	63	65	67	69	67	66	65	64	63	62	61	60	60	59
3	70	69	66	61	63	72	73	58	66	64	66	68	70	68	67	66	65	64	63	62	61	61
4	83	70	70	62	67	63	74	74	59	67	65	67	69	71	69	68	67	66	65	64	63	62
5	61	86	71	74	65	65	67	75	75	60	68	66	68	70	72	70	69	68	67	66	65	64
Total: K-5	409	409	387	387	390	395	392	394	389	385	394	396	398	397	393	386	381	375	370	365	360	358

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total: K-5	409	409	387	387	390	395	392	394	389	385	394	396	398	397	393	386	381	375	370	365	360	358
Change		0	-22	0	3	5	-3	2	-5	-4	9	2	2	-1	-4	-7	-5	-6	-5	-5	-5	-2
% Change		0.0%	-5.4%	0.0%	0.8%	1.3%	-0.8%	0.5%	-1.3%	-1.0%	2.3%	0.5%	0.5%	-0.3%	-1.0%	-1.8%	-1.3%	-1.6%	-1.3%	-1.4%	-1.4%	-0.6%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

McKibbenDemographics

Revised: 02/01/2017

Hillside Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
K	61	73	72	71	57	82	76	79	80	81	79	76	75	73	73	71	71	69	68	66	64	65
1	64	67	76	73	79	62	82	82	84	85	86	84	82	81	79	78	76	75	73	72	70	68
2	73	63	66	72	75	88	71	85	85	87	88	89	87	85	84	82	81	79	78	76	75	72
3	72	76	61	73	72	80	87	72	86	86	88	90	91	89	87	86	84	83	81	80	78	77
4	100	68	77	59	76	76	79	88	73	87	87	89	91	92	90	88	89	87	85	83	82	80
5	59	98	67	81	62	77	77	80	89	74	88	89	91	93	94	92	90	91	89	87	85	84
Total: K-5	429	445	419	429	421	465	472	486	497	500	516	517	517	513	507	497	491	484	474	464	454	446

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total: K-5	429	445	419	429	421	465	472	486	497	500	516	517	517	513	507	497	491	484	474	464	454	446
Change		16	-26	10	-8	44	7	14	11	3	16	1	0	-4	-6	-10	-6	-7	-10	-10	-10	-8
% Change		3.7%	-5.8%	2.4%	-1.9%	10.5%	1.5%	3.0%	2.3%	0.6%	3.2%	0.2%	0.0%	-0.8%	-1.2%	-2.0%	-1.2%	-1.4%	-2.1%	-2.1%	-2.2%	-1.8%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

Mitchell Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
K	71	78	80	74	78	82	77	77	76	75	74	74	73	72	72	71	71	70	69	68	67	69
1	84	77	80	88	75	79	91	82	81	80	79	78	77	76	75	75	74	73	72	71	70	69
2	81	89	80	79	86	79	82	94	84	83	82	81	80	79	78	77	78	77	76	75	74	73
3	86	79	90	87	78	89	80	84	96	86	85	84	83	82	81	80	79	80	79	78	77	76
4	71	85	81	88	87	78	89	81	85	97	87	86	85	84	83	82	82	81	82	81	80	79
5	81	74	84	82	86	86	76	88	80	84	96	86	85	84	83	82	83	83	82	83	82	81
Total K-5	474	482	495	498	490	493	495	506	502	505	503	489	483	477	472	467	467	464	460	456	450	447

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total K-5	474	482	495	498	490	493	495	506	502	505	503	489	483	477	472	467	467	464	460	456	450	447
Change		8	13	3	-8	3	2	11	-4	3	-2	-14	-6	-6	-5	-5	0	-3	-4	-4	-6	-3
% Change		1.7%	2.7%	0.6%	-1.6%	0.6%	0.4%	2.2%	-0.8%	0.6%	-0.4%	-2.8%	-1.2%	-1.2%	-1.0%	-1.1%	0.0%	-0.6%	-0.9%	-0.9%	-1.3%	-0.7%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

Revised: 02/01/2017

Newman Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
K	99	102	103	119	97	98	88	92	92	91	90	90	89	88	87	87	86	85	84	84	83	84
1	102	102	109	107	124	102	107	99	98	98	97	96	95	94	93	92	92	90	89	88	87	86
2	112	110	100	109	106	124	103	109	101	100	100	99	98	97	96	95	94	94	92	91	90	89
3	101	106	114	98	110	105	123	102	108	100	99	99	98	97	96	95	96	95	95	93	92	91
4	114	103	104	115	90	107	106	122	101	107	99	98	98	97	96	95	96	97	96	96	94	93
5	125	118	100	112	113	95	113	109	126	104	110	101	100	100	99	98	97	98	99	98	98	96
Total K-5	653	641	630	660	640	631	640	633	626	600	595	583	578	573	567	562	561	559	555	550	544	539

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total K-5	653	641	630	660	640	631	640	633	626	600	595	583	578	573	567	562	561	559	555	550	544	539
Change		-12	-11	30	-20	-9	9	-7	-7	-26	-5	-12	-5	-5	-6	-5	-1	-2	-4	-5	-6	-5
% Change		-1.8%	-1.7%	4.8%	-3.0%	-1.4%	1.4%	-1.1%	-1.1%	-4.2%	-0.8%	-2.0%	-0.9%	-0.9%	-1.0%	-0.9%	-0.2%	-0.4%	-0.7%	-0.9%	-1.1%	-0.9%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

High Rock School

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
6	448	438	482	427	451	451	421	436	469	490	415	463	436	439	444	446	439	434	434	429	427	421
Total: 6	448	438	482	427	451	451	421	436	469	490	415	463	436	439	444	446	439	434	434	429	427	421

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total: 6	448	438	482	427	451	451	421	436	469	490	415	463	436	439	444	446	439	434	434	429	427	421
Change		-10	44	-55	24	0	-30	15	33	21	-75	48	-27	3	5	2	-7	-5	0	-5	-2	-6
% Change		-2.2%	10.0%	-11.4%	5.6%	0.0%	-6.7%	3.6%	7.6%	4.5%	-15.3%	11.6%	-5.8%	0.7%	1.1%	0.5%	-1.6%	-1.1%	0.0%	-1.2%	-0.5%	-1.4%

Forecasts Developed January 2017

Green Cells (2016-17 and earlier) are historical data

Blue Cells (2017-18 and later) are forcasted years

Revised: 02/01/2017

Pollard Middle School

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
7	424	413	421	467	404	439	445	419	434	467	488	413	461	434	437	442	442	435	430	430	425	423
8	405	419	410	404	457	400	431	438	413	427	460	483	409	456	430	433	440	440	433	428	428	423
Total: 7-8	829	832	831	871	861	839	876	857	847	894	948	896	870	890	867	875	882	875	863	858	853	846

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total: 7-8	829	832	831	871	861	839	876	857	847	894	948	896	870	890	867	875	882	875	863	858	853	846
Change		3	-1	40	-10	-22	37	-19	-10	47	54	-52	-26	20	-23	8	7	-7	-12	-5	-5	-7
% Change		0.4%	-0.1%	4.8%	-1.1%	-2.6%	4.4%	-2.2%	-1.2%	5.5%	6.0%	-5.5%	-2.9%	2.3%	-2.6%	0.9%	0.8%	-0.8%	-1.4%	-0.6%	-0.6%	-0.8%

Forecasts Developed January 2017
Green Cells (2016-17 and earlier) are historical data
Blue Cells (2017-18 and later) are forcasted years

Needham High School

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
9	380	400	420	414	400	449	416	440	447	421	436	472	495	419	467	439	442	449	449	442	437	437
10	373	371	398	417	418	396	446	414	438	445	419	434	470	493	417	465	437	440	447	447	440	435
11	367	378	369	382	416	407	396	442	410	434	441	415	430	465	488	413	460	433	436	443	443	436
12	329	373	366	363	389	412	401	394	440	408	432	439	413	428	463	486	411	458	431	434	441	441
Total: 9-12	1,449	1,522	1,553	1,576	1,623	1,664	1,659	1,690	1,735	1,708	1,728	1,760	1,808	1,805	1,835	1,803	1,750	1,780	1,763	1,766	1,761	1,749

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Total: 9-12	1,449	1,522	1,553	1,576	1,623	1,664	1,659	1,690	1,735	1,708	1,728	1,760	1,808	1,805	1,835	1,803	1,750	1,780	1,763	1,766	1,761	1,749
Change		73	31	23	47	41	-5	31	45	-27	20	32	48	-3	30	-32	-53	30	-17	3	-5	-12
% Change		5.0%	2.0%	1.5%	3.0%	2.5%	-0.3%	1.9%	2.7%	-1.6%	1.2%	1.9%	2.7%	-0.2%	1.7%	-1.7%	-2.9%	1.7%	-1.0%	0.2%	-0.3%	-0.7%

Forecasts Developed January 2017
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Revised: 02/01/2017

McKibben Demographics