



Belmont Public Schools
Demographic Study

June 2016

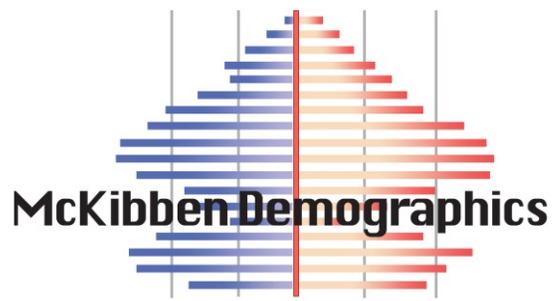


Table of Contents

Executive Summary	1
Introduction	2
Data	2
Assumptions	3
Methodology	5
References	6
Appendix A: Census Data	7
Appendix B: Population Forecast	10
Appendix C: Population Pyramid	13
Appendix D: Enrollment Forecast	18

Executive Summary

1. The Belmont Public School's residence fertility rates over the life of the forecasts are below replacement levels. (1.79 vs. replacement level of 2.1)
2. Most of the in-migration to the district continues to occur in the 0-to-9 and 25-to-44 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 accounts for the largest segment of the district's out migration flow.
4. The primary factor causing the district's enrollment to grow is the construction of new housing units in the district coupled with a strong level of in-migration of young households/families.
5. Changes in year-to-year enrollment (at least for the next five years) will primarily be due to large cohorts entering and moving through the system in conjunction with smaller cohorts leaving the system.
6. The elementary enrollment will experience a slight annual decline after 2023.
7. The median age of the district population will increase from 41.5 in 2010 to 44.2 in 2025.
8. As the district continues to have a modest level of new home construction, (as compared to the 2001-2007 time period) the rate and magnitude of existing home sales will become the increasingly dominant factor affecting the amount of population and enrollment change
9. Total enrollment is projected to increase by 296 students, or 6.7%, between 2015-16 and 2020-21. Total enrollment will grow by 204 students, or 4.3%, from 2020-21 to 2025-26.

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 change of each school district is 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 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 and attendance area level, 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 Belmont 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 Belmont Public Schools provided enrollments by grade and attendance center for the school years 2010-2011 to 2015-16. Birth and death data for the years 2000 through 2013 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 2012. 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 300 of the over 9,700 current households in the district would have been included. For comparison 1,600 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 Belmont 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 2025. 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 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 20-29) 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 1.79 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 immigration. Therefore, in the absence of migration, fertility alone would be insufficient to maintain the current level of population and enrollment within the Belmont Public Schools over the course of the forecast period.

A close examination of data for the Belmont 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 Belmont 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 group of out-migrants is those householders aged 70 and older who are downsizing their residences. Most of the local immigration occurs in the 0-to-9 and 25-44 age groups (the bulk of the which come from areas within 75 miles of the Belmont Public Schools) primarily consisting of younger adults and their children.

As the Middlesex 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 Belmont Public Schools and its attendance areas will remain the same through the year 2025. Below is a list of assumptions and issues that are specific to the Belmont 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 Belmont Public Schools 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 Middlesex County for any year in the forecasts;
- f. All currently planned, platted, and approved housing developments are built out and completed by 2024. All housing units constructed are occupied by 2025;
- g. The unemployment rates for the Middlesex County and the Boston Metropolitan Area will remain below 7.0% for the 10 years of the forecasts;
- h. The rate of students transferring into and out of the Belmont Public Schools will remain at the 2011-12 to 2015-16 average;
- i. The Residences at Acorn Park will be completed by the end of 2017 and by at least 95% occupied by December 31, 2017
- j. The inflation rate for gasoline will stay below 5% per year for the 10 years of the forecasts;
- k. There will be no building moratorium within the district;

- l. Businesses within the district and the Belmont 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 Middlesex 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 Belmont 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 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 if 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 Belmont Public Schools and its attendance areas);
2. a set of age-specific fertility rates for the district to be used over the forecast period and its attendance areas;
3. a set of age-specific survival (mortality) rates for the district and its attendance areas;
4. a set of age-specific migration rates for the district and its 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 Belmont 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 Belmont 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 Belmont 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 Belmont Public Schools for the period 2010 to 2015. 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 2015 to 2020. The survivorship rates were adjusted again for the period 2020 to 2025 to reflect the predicted changes in the amount of age-specific migration in the district for the 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 population and enrollment forecasts at the school district level is estimated to be $\pm 2.0\%$ for the life of the forecasts.

REFERENCES

- McKibben, J.
The Impact of Policy Changes on Forecasting for School Districts. Population Research and Policy Review, Vol. 15, No. 5-6, December 1996
- McKibben, J., M. Gann, and K. Faust.
The Baby Boomlet's Role in Future College Enrollment. American Demographics, June 1999.
- Peters, G. and R. Larkin
Population Geography. 7th Edition. Dubuque, IA: Kendall Hunt Publishing. 2002.
- Siegel, J. and D. Swanson
The Methods and Materials of Demography: Second Edition, Academic Press: New York, New York. 2004.
- Smith, S., J. Tayman and D. Swanson
State and Local Population Projections, Academic Press, New York, New York. 2001.

Appendix A: Census Data

Table 1: Forecasted Elementary Area Population Change, 2010 to 2020

	2010	2015	2010-2015 Change	2020	2015-2020 Change	2010-2020 Change
Burbank	3,548	3,610	1.7%	3,640	0.8%	2.6%
Butler	6,010	6,170	2.6%	6,280	1.8%	4.5%
Wellington	8,859	9,110	2.8%	9,190	0.9%	3.7%
Winn Brook	6,313	6,330	0.3%	6,660	5.2%	5.5%
District Total	24,729	25,220	1.9%	25,770	2.2%	4.2%

Table 2: Household Characteristics by Elementary Districts, 2010 Census

	HH w/ Pop Under 18	% HH w/ Pop Under 18	Total Households	Household Population	Persons Per Household
Burbank ES	529	42.3%	1251	3548	2.84
Butler ES	751	29.8%	2519	6010	2.32
Wellington ES	1282	36.4%	3523	8859	2.50
Winn Brook ES	873	37.0%	2357	6312	2.68
District Total	3435	35.6%	9650	24729	2.54

Table 3: Householder Characteristics by Elementary Districts, 2010 Census

	Percentage of Householders aged 35-54	Percentage of Householders aged 65+	Percentage of Householders Who Own Homes
Burbank ES	44.6%	27.8%	80.6%
Butler ES	42.6%	21.9%	45.4%
Wellington ES	44.5%	22.4%	58.4%
Winn Brook ES	40.5%	34.0%	80.4%
District Total	43.0%	25.8%	63.3%

Table 4: Single Person Households and Single Person Households over age 65 by Elementary Districts, 2010 Census

	Percentage of Single Person Households	Percentage of Single Person Households and are 65+
Burbank ES	15.60%	6.01%
Butler ES	30.72%	19.07%
Wellington ES	23.88%	14.76%
Winn Brook ES	22.17%	8.16%
District Total	24.17%	13.14%

Table 5: Total Elementary Enrollment, (K-4) 2010, 2015, 2020

	2010	2015	2010-2015 Change	2020	2015-2020 Change	2010-2020 Change
Burbank ES	327	343	4.9%	329	-4.1%	0.6%
Butler ES	361	363	0.6%	378	4.1%	4.7%
Wellington ES	434	572	31.8%	580	1.4%	33.6%
Winn Brook ES	444	456	2.7%	503	10.3%	13.3%
District Total	1,566	1,734	10.7%	1,799	3.7%	14.9%

Table 6: Age Under One to Age Ten Population Counts, by Year of Age, by Elementary Attendance Area: 2010 Census

	Under 1 year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years
Burbank ES	26	42	37	51	35	52	50	61	46	63	69
Butler ES	93	96	64	78	85	72	76	69	66	65	56
Wellington ES	107	129	121	116	122	128	116	143	109	126	125
Winn Brook ES	64	62	67	85	72	92	92	92	102	100	109
District Total	290	329	290	331	314	344	334	365	323	354	360

Table 7: Comparison of District Enrollment by Grade with 2010 Census Counts by Age, 2010-2015

2010 Census	Under 1 year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years
Belmont Public Schools	290	329	290	331	314	344	334	365	323	354	360	346	361
2015 Enrollment	313	376	355	341	349	332	341	322	328	300	337	298	311
	107.93%	114.29%	122.41%	103.02%	111.15%	96.51%	102.10%	88.22%	101.55%	84.75%	93.61%	86.13%	86.15%
2014 Enrollment		341	332	347	326	339	331	323	292	341	304	311	281
		103.65%	114.48%	104.83%	103.82%	98.55%	99.10%	88.49%	90.40%	96.33%	84.44%	89.88%	77.84%
2013 Enrollment			351	316	350	316	328	298	326	314	314	285	270
			121.03%	95.47%	111.46%	91.86%	98.20%	81.64%	100.93%	88.70%	87.22%	82.37%	74.79%
2012 Enrollment				346	307	324	296	318	302	307	281	276	256
				104.53%	97.77%	94.19%	88.62%	87.12%	93.50%	86.72%	78.06%	79.77%	70.91%
2011 Enrollment					316	297	312	301	302	280	273	256	275
					100.64%	86.34%	93.41%	82.47%	93.50%	79.10%	75.83%	73.99%	76.18%
2010 Enrollment						317	301	306	281	285	256	280	285
						92.15%	90.12%	83.84%	87.00%	80.51%	71.11%	80.92%	78.95%

Appendix B: Population Forecasts

Belmont Public Schools: Total Population

Males	2010	2015	2020	2025	Females	2010	2015	2020	2025	Total	2010	2015	2020	2025	2010 to 2015	2015 to 2020	2020 to 2025		
0-4	829	770	810	730	0-4	725	750	790	710	0-4	1,554	1,520	1,600	1,440	Births	1,180	1,090	1,020	
5-9	833	950	950	930	5-9	887	830	920	910	5-9	1,720	1,780	1,870	1,840	Deaths	1,000	1,180	1,250	
10-14	840	850	970	960	10-14	896	910	880	930	10-14	1,736	1,760	1,850	1,890	Natural Increase	180	-90	-230	
15-19	779	750	740	880	15-19	693	810	800	780	15-19	1,472	1,560	1,540	1,660	Net Migration	330	650	330	
20-24	430	540	450	490	20-24	462	450	510	560	20-24	892	990	960	1,050	Change	510	560	100	
25-29	583	460	610	490	25-29	689	500	530	550	25-29	1,272	960	1,140	1,040	Differences between period Totals may not equal Change due to rounding.				
30-34	631	660	600	660	30-34	771	750	630	590	30-34	1,402	1,410	1,230	1,250					
35-39	792	720	770	650	35-39	909	860	880	700	35-39	1,701	1,580	1,650	1,350					
40-44	954	800	770	770	40-44	1,050	920	920	900	40-44	2,004	1,720	1,690	1,670					
45-49	957	940	800	760	45-49	1,068	1,040	910	920	45-49	2,025	1,980	1,710	1,680					
50-54	927	940	920	770	50-54	1,060	1,050	1,030	900	50-54	1,987	1,990	1,950	1,670					
55-59	749	890	910	890	55-59	907	1,040	1,030	1,000	55-59	1,656	1,930	1,940	1,890					
60-64	639	680	820	820	60-64	769	850	970	970	60-64	1,408	1,530	1,790	1,790					
65-69	518	550	540	700	65-69	618	700	740	900	65-69	1,136	1,250	1,280	1,600					
70-74	382	420	400	450	70-74	434	550	580	670	70-74	816	970	980	1,120					
75-79	330	360	380	370	75-79	380	400	500	540	75-79	710	760	880	910					
80-84	227	350	370	410	80-84	365	490	510	650	80-84	592	840	880	1,060					
85+	220	220	280	330	85+	426	470	550	620	85+	646	690	830	950					
Total	11,620	11,850	12,090	12,060	Total	13,109	13,370	13,680	13,800	Total	24,729	25,220	25,770	25,860					
											Median Age	41.5	43.1	43.1	44.2				

Burbank Elementary

Males	2010	2015	2020	2025	Females	2010	2015	2020	2025	Total	2010	2015	2020	2025	2010 to 2015	2015 to 2020	2020 to 2025		
0-4	94	100	100	90	0-4	97	100	100	90	0-4	192	200	200	180	Births	120	120	110	
5-9	138	150	160	150	5-9	134	150	150	150	5-9	271	300	310	300	Deaths	130	170	180	
10-14	151	140	150	160	10-14	149	140	160	160	10-14	300	280	310	320	Natural Increase	-10	-50	-70	
15-19	127	130	120	140	15-19	146	130	120	140	15-19	273	260	240	280	Net Migration	80	80	70	
20-24	56	50	50	50	20-24	60	70	50	50	20-24	116	120	100	100	Change	70	30	0	
25-29	64	60	50	60	25-29	65	70	70	60	25-29	129	130	120	120	Differences between period Totals may not equal Change due to rounding.				
30-34	60	80	80	60	30-34	66	80	80	80	30-34	127	160	160	140					
35-39	96	90	110	100	35-39	95	100	110	110	35-39	190	190	220	210					
40-44	131	100	100	110	40-44	151	100	110	120	40-44	283	200	210	230					
45-49	132	130	100	100	45-49	185	150	100	110	45-49	316	280	200	210					
50-54	161	130	130	100	50-54	162	180	150	100	50-54	323	310	280	200					
55-59	127	150	120	120	55-59	146	160	180	140	55-59	273	310	300	260					
60-64	88	110	140	110	60-64	116	130	140	160	60-64	204	240	280	270					
65-69	93	70	90	110	65-69	94	100	120	130	65-69	186	170	210	240					
70-74	65	70	50	70	70-74	58	80	80	100	70-74	124	150	130	170					
75-79	46	60	60	50	75-79	56	50	70	80	75-79	103	110	130	130					
80-84	24	50	60	70	80-84	45	70	70	90	80-84	69	120	130	160					
85+	27	30	40	50	85+	42	50	70	80	85+	70	80	110	130					
Total	1,681	1,700	1,710	1,700	Total	1,867	1,910	1,930	1,950	Total	3,548	3,610	3,640	3,650					
											Median Age	43.1	44.1	43.8	43.8				

Butler Elementary

Males	2010	2015	2020	2025
0-4	244	200	190	170
5-9	173	220	180	170
10-14	139	180	220	180
15-19	140	120	160	200
20-24	151	150	130	180
25-29	218	160	170	140
30-34	220	230	180	180
35-39	248	230	240	180
40-44	236	250	230	240
45-49	229	230	250	230
50-54	183	220	230	240
55-59	138	180	220	220
60-64	123	120	160	190
65-69	92	100	100	130
70-74	81	70	80	80
75-79	64	80	60	70
80-84	47	70	80	70
85+	59	50	60	70
Total	2,784	2,860	2,940	2,940

Females	2010	2015	2020	2025
0-4	172	200	190	160
5-9	175	140	170	160
10-14	141	180	150	170
15-19	128	130	160	130
20-24	170	140	130	180
25-29	272	180	160	150
30-34	273	280	200	170
35-39	293	290	300	200
40-44	263	300	290	300
45-49	219	260	290	290
50-54	231	220	260	290
55-59	164	230	210	250
60-64	168	150	210	190
65-69	137	150	130	190
70-74	88	120	130	110
75-79	85	80	110	120
80-84	93	110	100	140
85+	154	150	150	150
Total	3,226	3,310	3,340	3,350

Total	2010	2015	2020	2025
0-4	417	400	380	330
5-9	348	360	350	330
10-14	280	360	370	350
15-19	268	250	320	330
20-24	321	290	260	360
25-29	490	340	330	290
30-34	493	510	380	350
35-39	541	520	540	380
40-44	499	550	520	540
45-49	447	490	540	520
50-54	414	440	490	530
55-59	302	410	430	470
60-64	291	270	370	380
65-69	229	250	230	320
70-74	169	190	210	190
75-79	149	160	170	190
80-84	140	180	180	210
85+	214	200	210	220
Total	6,010	6,170	6,280	6,290
Median Age	38.6	40.5	42.0	43.9

	2010 to 2015	2015 to 2020	2020 to 2025
Births	340	300	250
Deaths	250	270	280
Natural Increase	90	30	-30
Net Migration	70	70	80
Change	160	100	50

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

Wellington Elementary

Males	2010	2015	2020	2025
0-4	310	310	300	280
5-9	301	330	330	310
10-14	275	300	330	330
15-19	285	240	260	290
20-24	129	200	140	160
25-29	211	140	210	150
30-34	261	230	150	220
35-39	299	300	260	180
40-44	356	300	300	260
45-49	336	350	300	290
50-54	344	330	340	290
55-59	272	330	320	330
60-64	248	250	310	290
65-69	169	220	220	270
70-74	126	140	180	190
75-79	103	120	130	170
80-84	61	110	120	140
85+	60	60	80	100
Total	4,146	4,260	4,280	4,250

Females	2010	2015	2020	2025
0-4	285	300	290	270
5-9	321	300	320	310
10-14	351	330	310	320
15-19	235	310	280	270
20-24	136	150	220	190
25-29	264	150	160	220
30-34	320	280	160	180
35-39	347	350	310	190
40-44	379	350	360	320
45-49	387	380	350	360
50-54	375	380	370	340
55-59	337	370	370	360
60-64	287	320	350	360
65-69	219	270	300	330
70-74	148	200	250	280
75-79	108	140	180	230
80-84	106	140	180	240
85+	108	130	150	190
Total	4,713	4,850	4,910	4,960

Total	2010	2015	2020	2025
0-4	595	610	590	550
5-9	622	630	650	620
10-14	626	630	640	650
15-19	520	550	540	560
20-24	265	350	360	350
25-29	475	290	370	370
30-34	581	510	310	400
35-39	646	650	570	370
40-44	735	650	660	580
45-49	723	730	650	650
50-54	719	710	710	630
55-59	609	700	690	690
60-64	535	570	660	650
65-69	388	490	520	600
70-74	274	340	430	470
75-79	211	260	310	400
80-84	166	250	300	380
85+	168	190	230	290
Total	8,859	9,110	9,190	9,210
Median Age	40.7	42.6	44.3	46.2

	2010 to 2015	2015 to 2020	2020 to 2025
Births	480	400	360
Deaths	320	380	430
Natural Increase	160	20	-70
Net Migration	90	80	80
Change	250	100	10

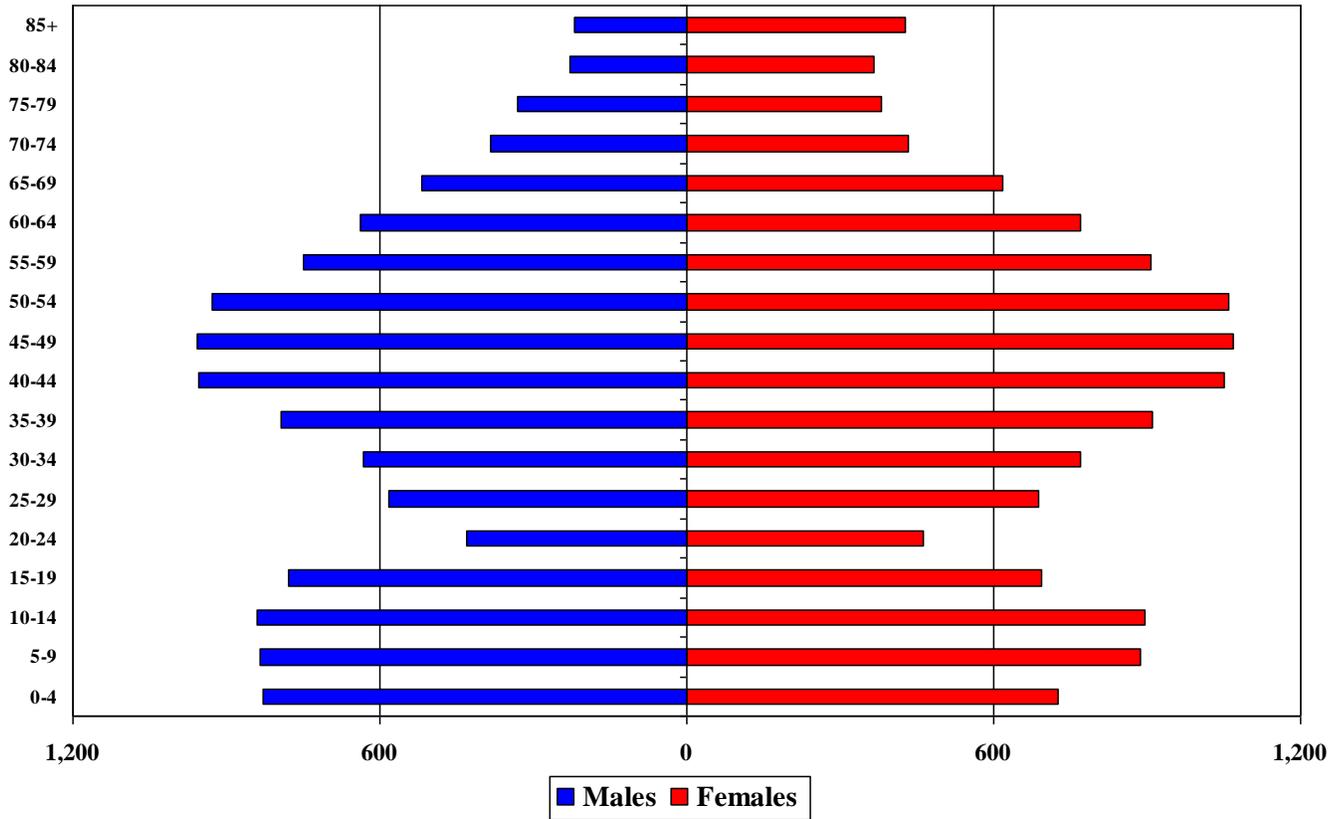
Differences between period Totals may not equal Change due to rounding.

Winn Brook Elementary

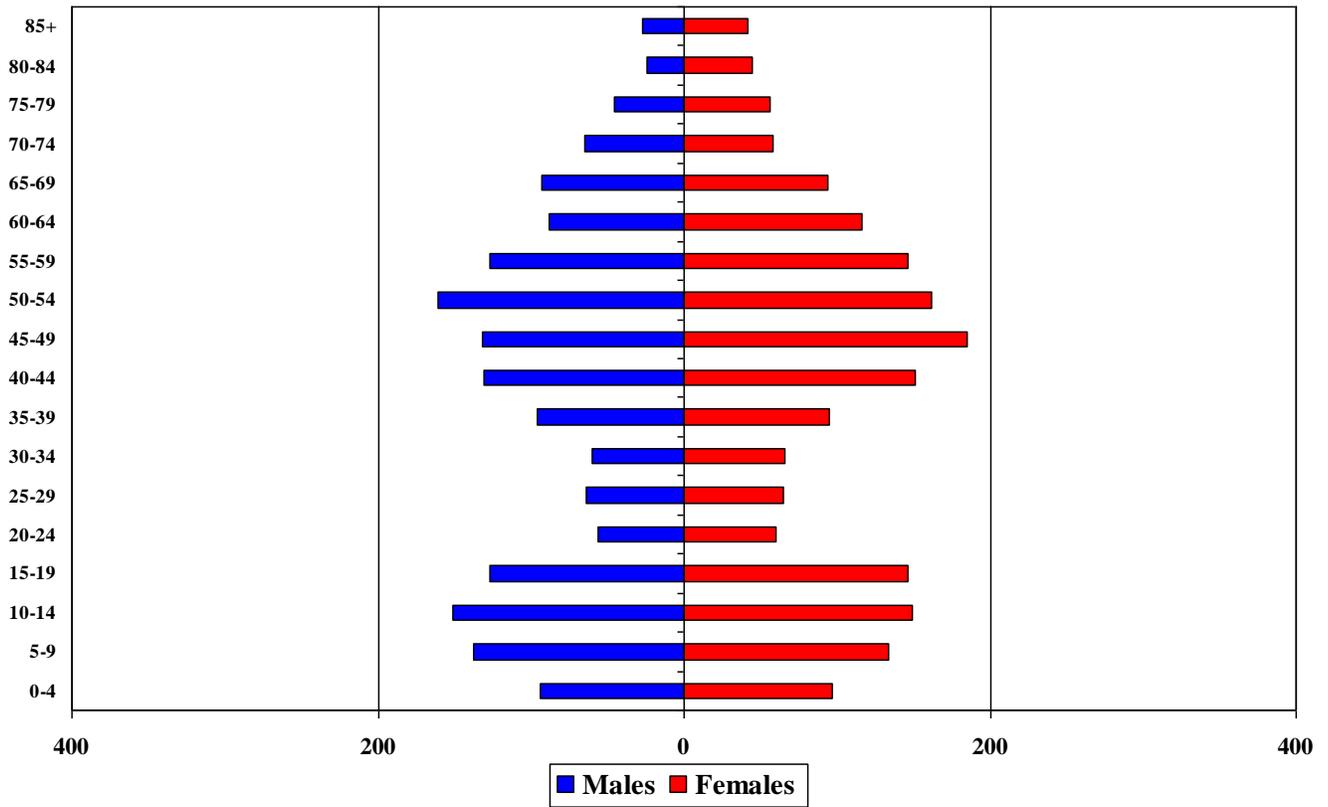
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025	Total	2010	2015	2020	2025		2010 to 2015	2015 to 2020	2020 to 2025
0-4	180	160	220	190	0-4	170	150	210	190	0-4	350	310	430	380	Births	240	270	300
5-9	221	250	280	300	5-9	257	240	280	290	5-9	479	490	560	590	Deaths	300	360	360
10-14	275	230	270	290	10-14	255	260	260	280	10-14	531	490	530	570	Natural Increase	-60	-90	-60
15-19	227	260	200	250	15-19	184	240	240	240	15-19	411	500	440	490	Net Migration	90	420	100
20-24	94	140	130	100	20-24	96	90	110	140	20-24	190	230	240	240	Change	30	330	40
25-29	90	100	180	140	25-29	88	100	140	120	25-29	178	200	320	260	Differences between period Totals may not equal Change due to rounding.			
30-34	89	120	190	200	30-34	112	110	190	160	30-34	201	230	380	360				
35-39	149	100	160	190	35-39	174	120	160	200	35-39	323	220	320	390				
40-44	231	150	140	160	40-44	256	170	160	160	40-44	487	320	300	320				
45-49	261	230	150	140	45-49	277	250	170	160	45-49	539	480	320	300				
50-54	239	260	220	140	50-54	291	270	250	170	50-54	531	530	470	310				
55-59	211	230	250	220	55-59	260	280	270	250	55-59	472	510	520	470				
60-64	180	200	210	230	60-64	199	250	270	260	60-64	378	450	480	490				
65-69	165	160	130	190	65-69	169	180	190	250	65-69	333	340	320	440				
70-74	110	140	90	110	70-74	140	150	120	180	70-74	249	290	210	290				
75-79	117	100	130	80	75-79	131	130	140	110	75-79	248	230	270	190				
80-84	95	120	110	130	80-84	121	170	160	180	80-84	216	290	270	310				
85+	73	80	100	110	85+	121	140	180	200	85+	194	220	280	310				
Total	3,009	3,030	3,160	3,170	Total	3,304	3,300	3,500	3,540	Total	6,313	6,330	6,660	6,710				
										Median Age	45.0	46.8	41.8	41.2				

Appendix C: Population Pyramids

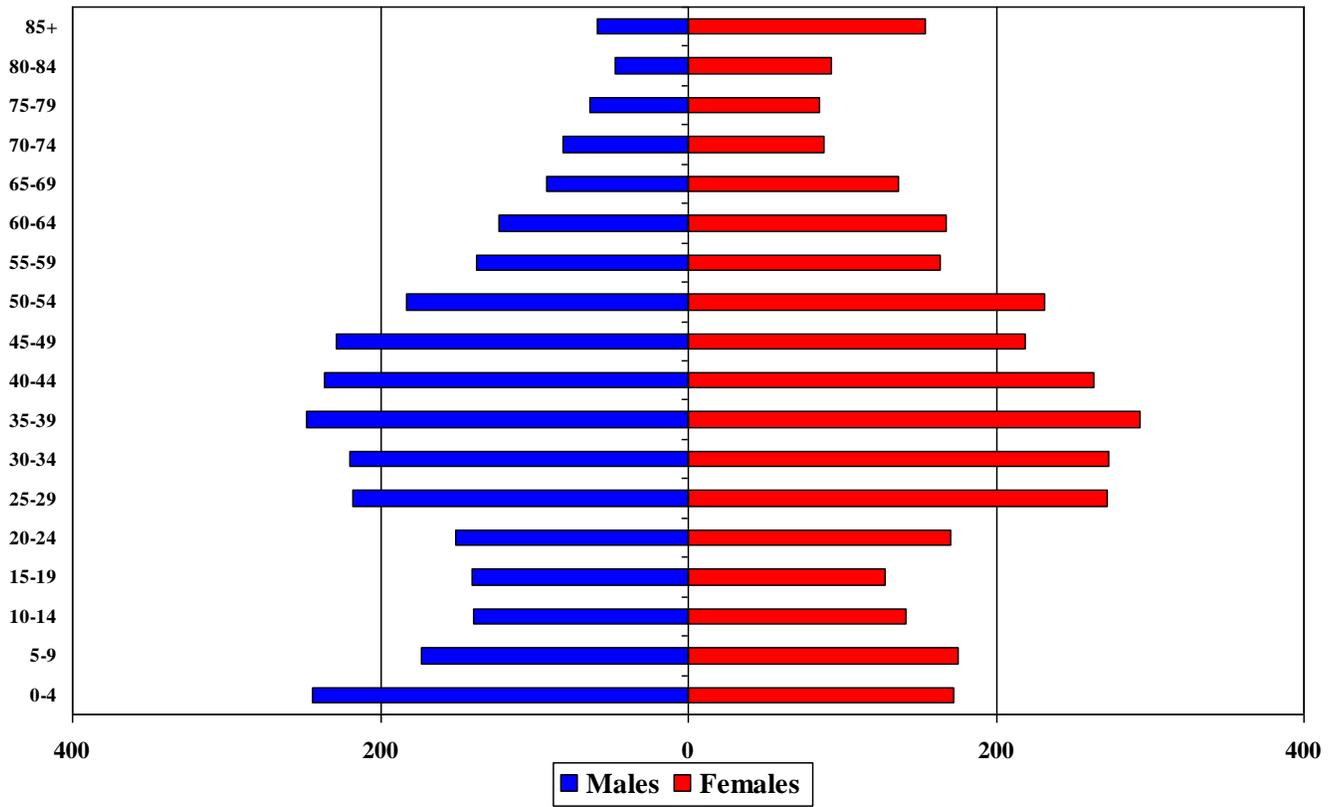
Belmont, Massachusetts Total Population - 2010 Census



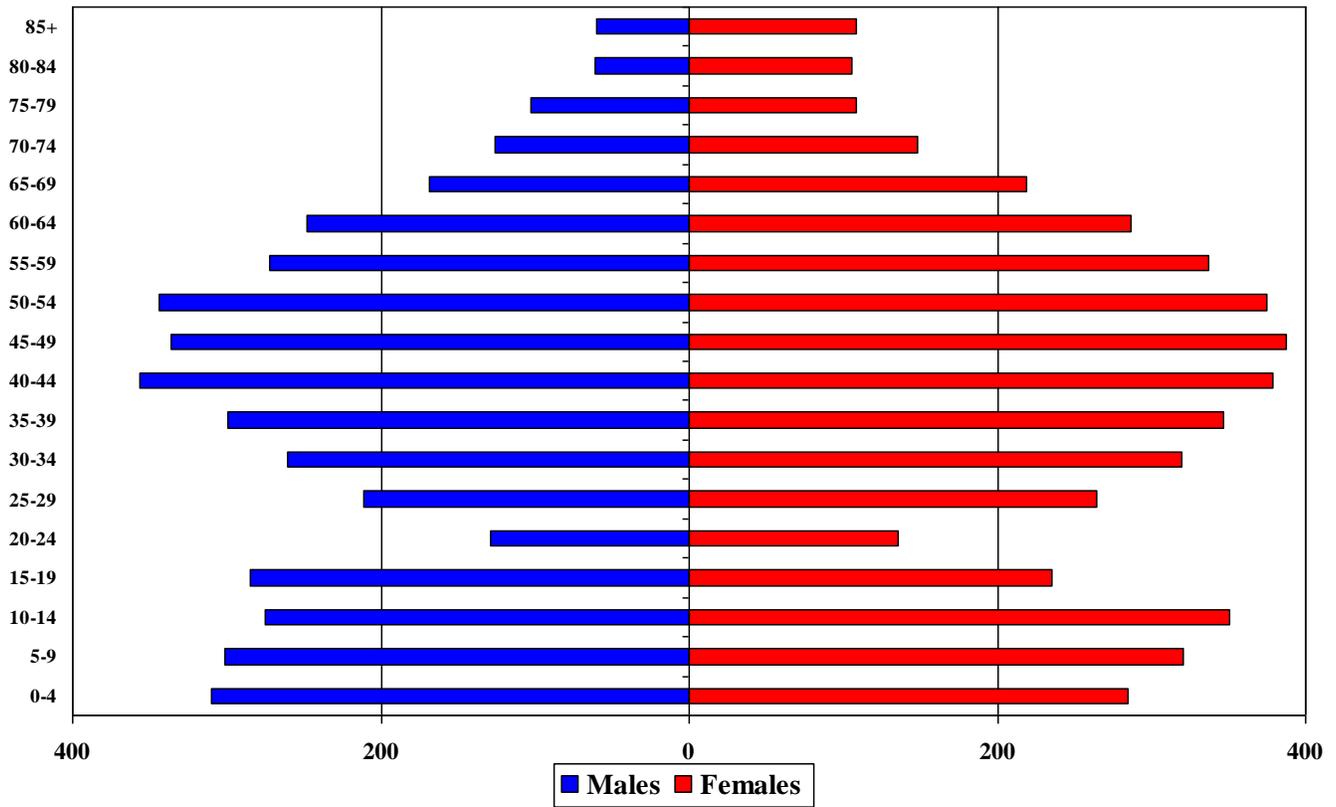
Burbank Elementary Total Population - 2010 Census



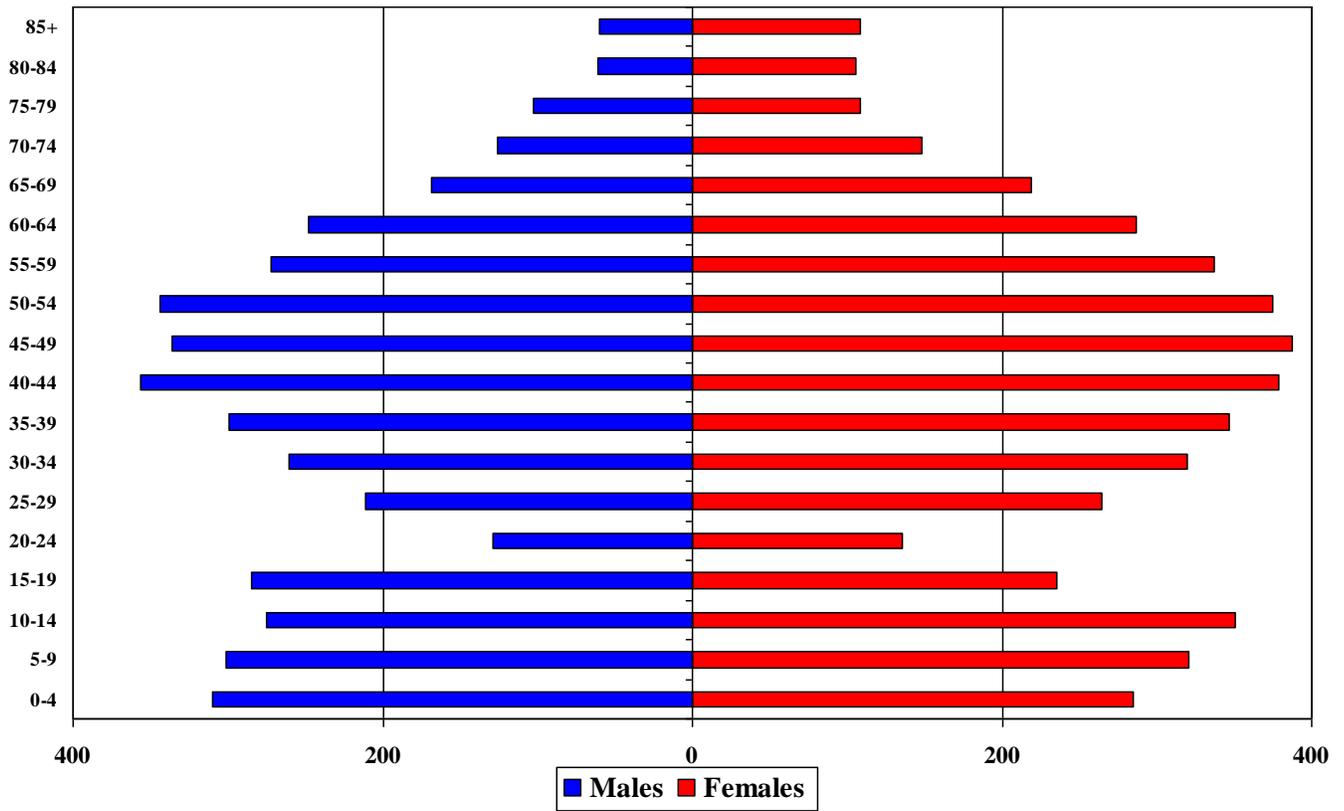
Butler Elementary Total Population - 2010 Census



Wellington Elementary Total Population - 2010 Census



Winn Brook Elementary Total Population - 2010 Census



Appendix D: Enrollment Forecasts

Belmont 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
PK	57	68	71	68	63	63	63	63	63	63	63	63	63	63	63	63
LABBB	21	28	24	24	24	21	21	21	21	21	21	21	21	21	21	21
K	298	345	318	337	354	313	330	334	337	341	344	345	343	343	339	338
1	326	302	350	331	341	376	346	346	349	352	355	353	354	352	352	348
2	320	331	313	351	332	355	381	353	353	357	366	368	366	367	365	365
3	318	310	346	316	347	341	355	385	357	357	367	375	377	375	376	373
4	304	316	307	350	326	349	343	361	392	364	367	376	384	386	384	385
Total: PK-4	1644	1700	1729	1777	1787	1818	1839	1863	1872	1855	1883	1901	1908	1907	1900	1893
5	317	297	324	316	339	332	342	336	354	384	355	358	367	374	376	374
6	301	312	296	328	331	341	337	347	341	359	388	359	362	371	378	380
7	306	301	318	298	323	322	338	334	344	338	357	386	357	360	369	376
8	281	302	302	326	292	328	325	341	337	347	341	361	390	361	364	373
LABBB	27	21	22	22	27	32	32	32	32	32	32	32	32	32	32	32
Total: 5-8	1232	1233	1262	1290	1312	1355	1374	1390	1408	1460	1473	1496	1508	1498	1519	1535
9	285	280	307	314	341	300	335	332	348	344	356	350	370	400	370	373
10	256	273	281	314	304	337	296	331	328	344	340	352	346	366	395	366
11	280	256	276	285	311	298	335	295	329	326	342	338	350	344	364	393
12	285	275	256	270	281	311	294	330	291	324	321	337	333	345	339	359
LABBB	30	20	19	16	22	23	23	23	23	23	23	23	23	23	23	23
Total: 9-12	1136	1104	1139	1199	1259	1269	1283	1311	1319	1361	1382	1400	1422	1478	1491	1514
Total: PK-12	4012	4037	4130	4266	4358	4442	4496	4564	4599	4676	4738	4797	4838	4883	4910	4942
Total: PK-12	4012	4037	4130	4266	4358	4442	4496	4564	4599	4676	4738	4797	4838	4883	4910	4942
Change		25	93	136	92	84	54	68	35	77	62	59	41	45	27	32
%-Change		0.6%	2.3%	3.3%	2.2%	1.9%	1.2%	1.5%	0.8%	1.7%	1.3%	1.2%	0.9%	0.9%	0.6%	0.7%
Total: PK-4	1644	1700	1729	1777	1787	1818	1839	1863	1872	1855	1883	1901	1908	1907	1900	1893
Change		56	29	48	10	31	21	24	9	-17	28	18	7	-1	-7	-7
%-Change		3.4%	1.7%	2.8%	0.6%	1.7%	1.2%	1.3%	0.5%	-0.9%	1.5%	1.0%	0.4%	-0.1%	-0.4%	-0.4%
Total: 5-8	1232	1233	1262	1290	1312	1355	1374	1390	1408	1460	1473	1496	1508	1498	1519	1535
Change		1	29	28	22	43	19	16	18	52	13	23	12	-10	21	16
%-Change		0.1%	2.4%	2.2%	1.7%	3.3%	1.4%	1.2%	1.3%	3.7%	0.9%	1.6%	0.8%	-0.7%	1.4%	1.1%
Total: 9-12	1136	1104	1139	1199	1259	1269	1283	1311	1319	1361	1382	1400	1422	1478	1491	1514
Change		-32	35	60	60	10	14	28	8	42	21	18	22	56	13	23
%-Change		-2.8%	3.2%	5.3%	5.0%	0.8%	1.1%	2.2%	0.6%	3.2%	1.5%	1.3%	1.6%	3.9%	0.9%	1.5%

Burbank 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
LABBB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K	58	66	65	67	71	59	60	61	62	63	64	65	65	66	66	65
1	64	57	65	71	68	72	63	62	63	64	65	65	66	66	67	67
2	68	65	62	69	70	70	74	65	64	65	67	68	68	69	69	70
3	69	66	68	72	71	72	71	75	66	65	67	69	70	70	71	71
4	68	66	66	76	71	70	73	72	76	67	66	68	70	71	71	72
Total: K-4	327	320	326	355	351	343	341	335	331	324	329	335	339	342	344	345

	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
Total: K-4	327	320	326	355	351	343	341	335	331	324	329	335	339	342	344	345
Change		-7	6	29	-4	-8	-2	-6	-4	-7	5	6	4	3	2	1
% Change		-2.1%	1.9%	8.9%	-1.1%	-2.3%	-0.6%	-1.8%	-1.2%	-2.1%	1.5%	1.8%	1.2%	0.9%	0.6%	0.3%

Butler 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
LABBB	12	16	13	11	13	11	11	11	11	11	11	11	11	11	11	11
K	68	70	62	71	73	68	75	74	73	72	73	72	70	69	68	69
1	86	70	67	69	67	87	82	80	79	78	77	76	75	73	72	71
2	66	83	69	68	66	72	85	80	78	77	79	78	77	76	74	73
3	69	60	82	72	62	69	71	84	79	77	79	81	80	79	78	75
4	72	69	58	89	74	67	70	72	86	81	79	81	83	82	81	80
Total: K-4	373	368	351	380	355	374	394	401	406	396	398	399	396	390	384	379

	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
Total: K-4	373	368	351	380	355	374	394	401	406	396	398	399	396	390	384	379
Change		-5	-17	29	-25	19	20	7	5	-10	2	1	-3	-6	-6	-5
% Change		-1.3%	-4.6%	8.3%	-6.6%	5.4%	5.3%	1.8%	1.2%	-2.5%	0.5%	0.3%	-0.8%	-1.5%	-1.5%	-1.3%

Wellington 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
Pre-K	0	68	71	68	63	63	63	63	63	63	63	63	63	63	63	63
LABBB	9	12	11	13	11	10	10	10	10	10	10	10	10	10	10	10
K	87	121	104	111	115	106	109	108	109	110	110	109	107	106	104	105
1	89	91	124	100	111	121	116	114	113	114	115	113	112	110	109	107
2	97	93	95	120	101	117	123	118	116	115	117	118	116	115	113	112
3	84	97	101	89	121	106	118	124	119	117	117	119	120	118	117	115
4	77	85	101	94	94	122	108	120	126	121	121	121	123	124	122	121
Total: PK-4	443	567	607	595	616	645	647	657	656	650	653	653	651	646	638	633

	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
Total: PK-4	443	567	607	595	616	645	647	657	656	650	653	653	651	646	638	633
Change		124	40	-12	21	29	2	10	-1	-6	3	0	-2	-5	-8	-5
% Change		28.0%	7.1%	-2.0%	3.5%	4.7%	0.3%	1.5%	-0.2%	-0.9%	0.5%	0.0%	-0.3%	-0.8%	-1.2%	-0.8%

Winn Brook 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
LABBB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K	85	88	87	88	95	80	86	91	93	96	97	99	101	102	101	99
1	87	84	94	91	95	96	85	90	94	96	98	99	101	103	104	103
2	89	90	87	94	95	96	99	90	95	100	103	104	105	107	109	110
3	96	87	95	83	93	94	95	102	93	98	104	106	107	108	110	112
4	87	96	82	91	87	90	92	97	104	95	101	106	108	109	110	112
Total: K-4	444	445	445	447	465	456	457	470	479	485	503	514	522	529	534	536

	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
Total: K-4	444	445	445	447	465	456	457	470	479	485	503	514	522	529	534	536
Change		1	0	2	18	-9	1	13	9	6	18	11	8	7	5	2
% Change		0.2%	0.0%	0.4%	4.0%	-1.9%	0.2%	2.8%	1.9%	1.3%	3.7%	2.2%	1.6%	1.3%	0.9%	0.4%

Chenery 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
5	317	297	324	316	339	332	342	336	354	384	355	358	367	374	376	374
6	301	312	296	328	331	341	337	347	341	359	388	359	362	371	378	380
7	306	301	318	298	323	322	338	334	344	338	357	386	357	360	369	376
8	281	302	302	326	292	328	325	341	337	347	341	361	390	361	364	373
LABBB	27	21	22	22	27	32	32	32	32	32	32	32	32	32	32	32
Total: 5-8	1232	1233	1262	1290	1312	1355	1374	1390	1408	1460	1473	1496	1508	1498	1519	1535

	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
Total: 6-8	1232	1233	1262	1290	1312	1355	1374	1390	1408	1460	1473	1496	1508	1498	1519	1535
Change		1	29	28	22	43	19	16	18	52	13	23	12	-10	21	16
% Change		0.1%	2.4%	2.2%	1.7%	3.3%	1.4%	1.2%	1.3%	3.7%	0.9%	1.6%	0.8%	-0.7%	1.4%	1.1%

Belmont 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
9	285	280	307	314	341	300	335	332	348	344	356	350	370	400	370	373
10	256	273	281	314	304	337	296	331	328	344	340	352	346	366	395	366
11	280	256	276	285	311	298	335	295	329	326	342	338	350	344	364	393
12	285	275	256	270	281	311	294	330	291	324	321	337	333	345	339	359
LABBB	30	20	19	16	22	23	23	23	23	23	23	23	23	23	23	23
Total: 9-12	1136	1104	1139	1199	1259	1269	1283	1311	1319	1361	1382	1400	1422	1478	1491	1514

	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
Total: 9-12	1136	1104	1139	1199	1259	1269	1283	1311	1319	1361	1382	1400	1422	1478	1491	1514
Change		-32	35	60	60	10	14	28	8	42	21	18	22	56	13	23
% Change		-2.8%	3.2%	5.3%	5.0%	0.8%	1.1%	2.2%	0.6%	3.2%	1.5%	1.3%	1.6%	3.9%	0.9%	1.5%