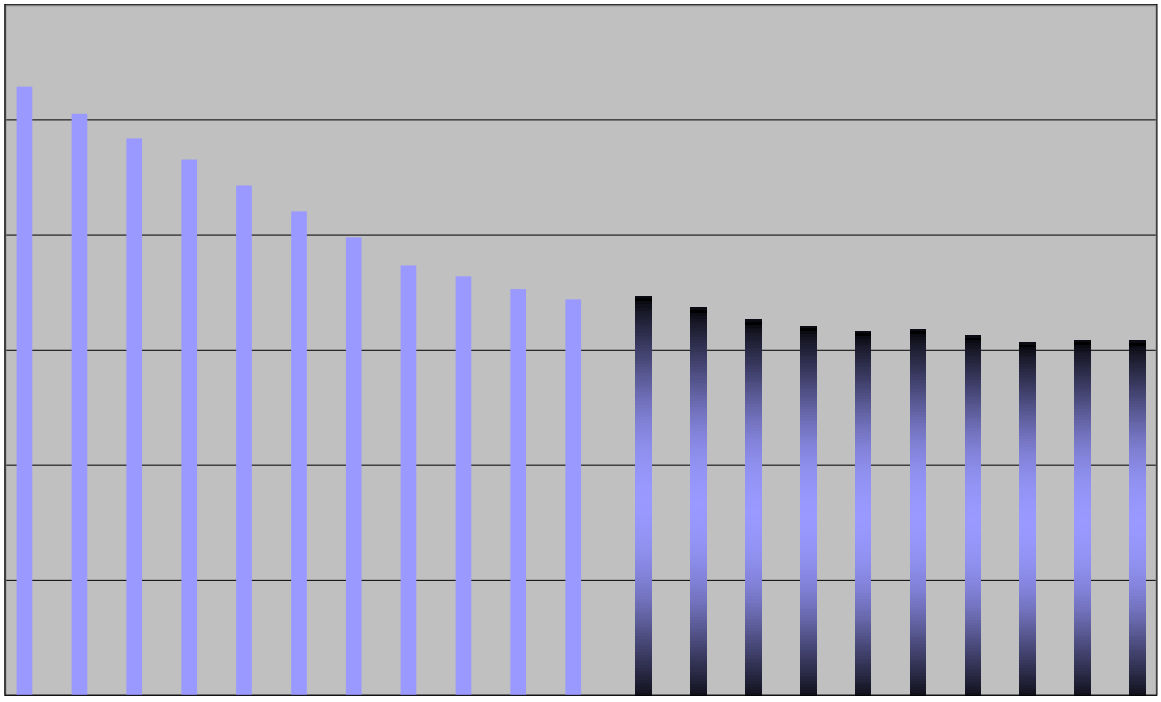
(Revised 2-20-2018)

# REGION 12 PUBLIC SCHOOLS ENROLLMENT PROJECTED TO 2027



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(Includes Projections by Region 12 Towns - Appendix F to N)

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## Introduction

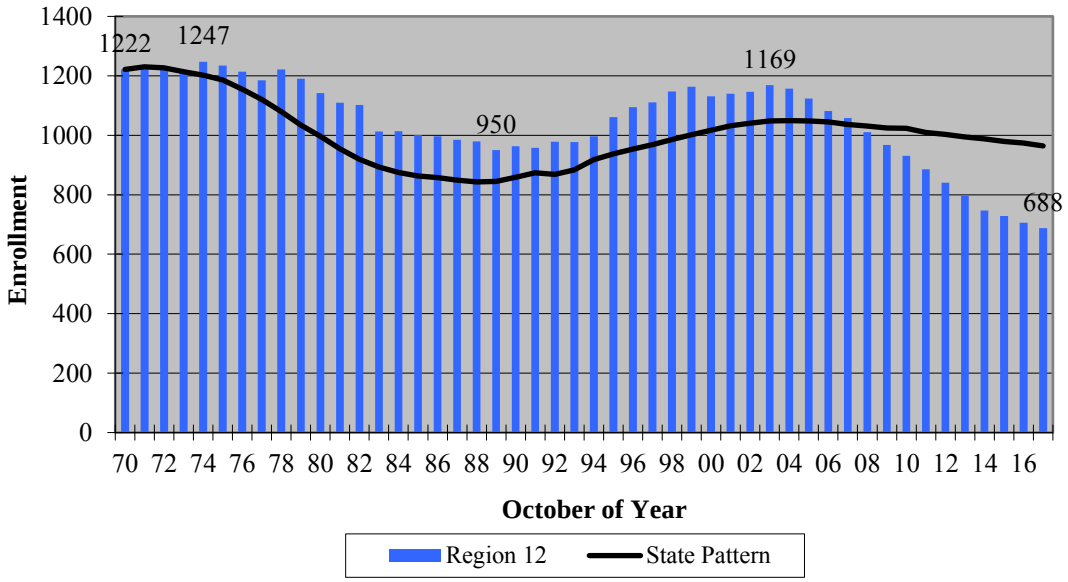
This report presents a ten-year projection of enrollment for the Region 12 Public Schools. It excludes growth from the planned agriculture science program. It is based on residents and non-residents enrolled in the Region 12 schools on October 1 of the school year. The projection is divided into the three grade levels that represent how the Region 12 schools are organized: K-5, 6-8 and 9-12. The report includes 48 years of enrollment to place the projection into a wider historical perspective. One of the primary drivers of future enrollment is births to residents. The report examines births and their relationship to kindergarten enrollment. Several factors that influence school enrollment - population, women of child-bearing age, labor force, housing, grade 9 repeaters, migration, non-public enrollment, non-resident enrollment in the district and resident enrollment in other public schools - are presented. Finally, the accuracy of earlier projections is examined.

Enrollment projections are a valuable planning tool. For budgeting, the numbers can place requested expenditures into a per pupil context. This can inform the public about which expenditures represent continuing expenditures to support on-going programs and expenditures for school improvement and program expansion. In this period of limited resources, it might point out areas for possible cuts. Projections are an essential step in determining the staffing that will be needed in the future. This may facilitate the transfer of teachers from one grade to another or allow the hiring process to start earlier, which can increase the likelihood of attracting the best teachers in the marketplace. Projections are a critical and required step in planning for school facilities. The State of Connecticut requires eight-year school-based projections as a critical component of determining the size of the project for which reimbursement is eligible. The projections in this report are appropriate for that use.

## Perspective

Enrollment projections typically use the most recent three to five years of data. While the most recent past is viewed as the best predictor of the near future, it is informative to look at a broader perspective. Figure 1 shows the enrollment in Region 12 from 1970 to date and compares it to public school enrollment statewide. Enrollment in the Region 12 schools grew from 1,222 students in 1970 to an all-

**Figure 1. Region 12 Enrollment 1970 to Date**



time peak of 1,247 in 1974. Between then and 1989, enrollment moved downward to 950 students. In those 15 years, enrollment declined by 324 students or 25.4 percent. Between 1989 and 2003 enrollment grew to 1,169 students. In those 14 years, enrollment rose by 219 students or 23.1 percent. Enrollment is now in a 14 year down cycle that has taken it to 688 students in 2017, a 41.2 percent decline.

Region 12's enrollment pattern is fairly similar to that of the state's public schools. Between its 1971 peak and 1988, Connecticut public school enrollment declined by 31.5 percent. State enrollment hit a secondary peak in 2004. It grew 24.5 percent between the 1988 low and 2004. I project that state enrollment will have declined by 8.1 percent between 2004 and 2017. Region 12's downward cycle of the 1980s was less steep and shorter in duration than the state's cycle. Region 12's growth cycle in the 1990s was about the same magnitude and duration as the state's growth cycle. Region 12's decline cycle of the 2000s has been much steeper than the state's cycle to date. Had Region 12 followed the state pattern of enrollment since 1970, it would have had 964 students on October 1, 2017 instead of the 706 that were enrolled on that date.

## Current Enrollment

Table 1 and Figure 2 provide a preliminary picture of where Bridgewater, Roxbury and Washington residents attended school in October of 2017. The non-public data are projected. They show that only 73.2 percent of the region's school-age residents attended the Region 12 Public Schools in 2017. An estimated 24.3 percent of the school-age residents attended non-public schools in state. The number attending private schools out-of-state is not known. Seven school-age residents (0.8 percent) attended a state technical high school and eight attended an agriculture science program (1.0 percent). Six children were enrolled in non-public special education facility at the expense of the district. The number of students of teachers residing in the three towns, but enrolled in other districts, is not yet available. There were 73 non-residents who were enrolled in the Region 12 Public Schools in 2017. The projections in this report are based upon the 688 residents and non-residents who were enrolled in the Region 12 Public Schools on October 1, 2017.

**Table 1. 2017 Enrollment**

| | Number | Percent |
|---|---|---|
| **Residents** | | |
| A. Reg. 12 Public | 615 | 73.2% |
| B. Tech | 7 | 0.8% |
| C. Ag Sci | 8 | 1.0% |
| *D. Non-Public* | *204* | 24.3% |
| E. Spec. Ed. (NP) | 6 | 0.7% |
| Total (A+B+C+D+E) | 840 | |
| F. Non-Residents | 73 | |
| Total Enrollment (A+F) | 688 | |

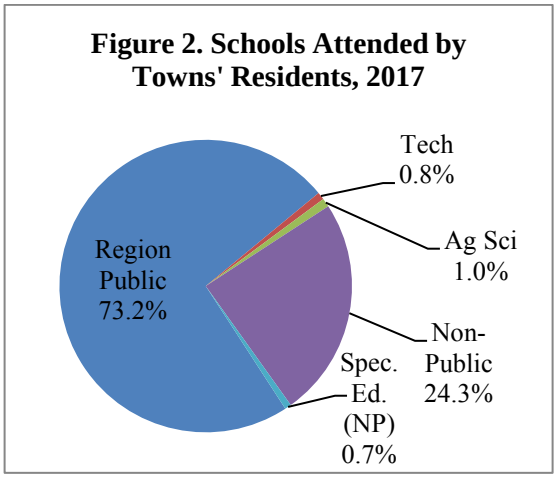
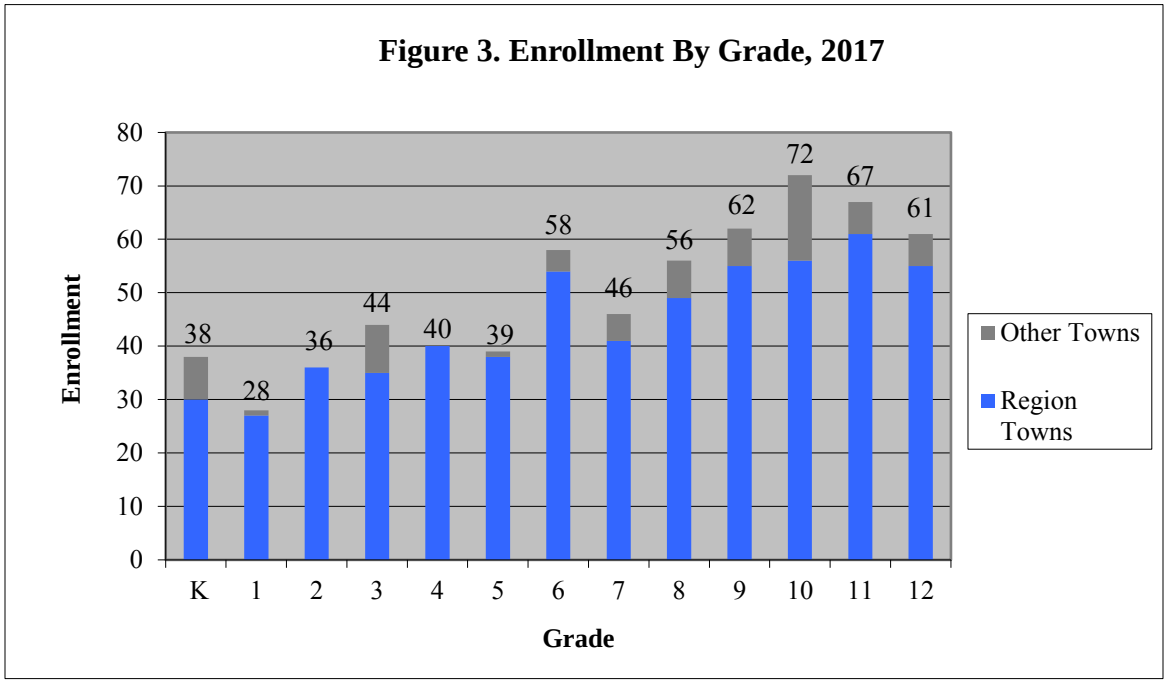



Figure 3 shows the October 2017 grade-by-grade enrollment by of students in the Region 12 Public Schools. Enrollment in pre-kindergarten programs is not shown. The high school students from other towns are tuitioned-in from Sherman; the rest are private-pay. Grade 10 had the largest resident enrollment with 72 students. Grades 9, 11 and 12 each had more than 60 students enrolled. Grade 1 was the smallest class with only 28 students followed by grade 2 with 36 students and kindergarten with 38 students. Without significant in-migration, this is the pattern for a future enrollment decline. If current conditions continue, this year's kindergarten class students will have 50 students when it enters grade 6 at




Shepaug Valley Middle School in 2023 and 51 students (including Sherman) when it enters grade 9 at Shepaug Valley High School in 2026. Both these figures are below the current enrollment in those grades. The current year enrollment by grade is the starting point for this projection. How it moves forward is discussed below.

## Projection Method

I generated the projections in this report using the cohort survival method. This is the standard method used by people running enrollment projections. For the grades above kindergarten, I computed grade-to-grade growth rates for ten years (see Appendices A-D). For example, if the number of fifth graders this year is 61 and the number of fourth graders last year was 60, then the growth rate is 1.017. Growth rates above 1.000 indicate that students moved in, transferred in or were retained. Growth rates below 1.000 mean that students moved out, transferred out, dropped out, or were not promoted from the prior grade. For each grade I calculate four different averages of the annual growth rates: a three-year average; a three-year weighted average; a five-year average and a five-year weighted average. I choose the average that seems to best fit the data. The average growth rate for a grade is applied to the prior year's enrollment from the prior grade. The projection builds grade by grade and year by year.

In the standard model, kindergarten enrollment is compared to births five years prior and some average of the observed growth or decline is used to project future kindergarten enrollment. My method breaks kindergarten enrollment into three parts: five-year olds; six-year olds entering kindergarten for the first time; and six-year old repeaters. Each component is analyzed separately and then combined to get total projected kindergarten. Kindergarten enrollment is notoriously difficult to predict. I feel that this component model can improve the predictability slightly.

To extend a projection beyond four years, I need to project births. The State Department of Public Health recorded 38 births in 2014 - 11 in Bridgewater, eight in Roxbury and 19 in Washington. Those were the latest official counts. The provisional counts of births in 2015 were three in Bridgewater, 11 in Roxbury and 23 in Washington. That totaled 37 for the Region. The preliminary counts of births in 2016 were 10 in Bridgewater, 17 in Roxbury and 16 in Washington. That totaled 43. To estimate 2017 births in each of the towns, I took the in-state births through October and added the average of 2015 and 2016 births in November and December and the average of out-of-state births in 2015 and 2016. The resulting estimates

were 10 births in Bridgewater, 1114 in Roxbury and 17 in Washington for a total of 38. I based births in 2018 to 2022 on the Connecticut State Data Center's 2017 projections of women of child-bearing ages in 2015, 2020 and 2025 and my estimate of DRG C fertility rates in 2015. I computed births in 2015, 2020 and 2025 and applied the annualized growth in births between 2015 and 2020 and 2020 and 2025 to the three-year moving average of births starting in 2015, 2016 and 2017. That resulted in an average number of births of 9 in Bridgewater, 14 in Roxbury and 18 in Washington for a regional average of 40 births.

In this projection I used a five-year average of the observed grade-to-grade resident growth in towns. I then added in the average number of non-residents enrolled by grade over the past three years. The towns have made a concerted effort over the past three years to recruit students from area towns. Given the small size of the schools, I felt that five years of data would be more stable in the long run than three. I applied the averages in Bridgewater, Roxbury and Washington separately for grades K-5 and summed the results to get a district total for those grades. Starting in grade 6, I calculated the averages for the region as a whole. To estimate kindergarten enrollment, I used the five-year averages of retentions, and yields from births five and six years ago from each town. In grade 9, I calculated the growth rates from grade 8 to grade 9 for the region's residents only and then added projected enrollment from Sherman in grade 9 based on a five-year average of the percentage of grade 8 students from Sherman who attend grade 9 at Shepaug Valley.

Enrollment data from 2007 to 2016 were taken from files provided by the Connecticut State Department of Education. Note that current district-level data on the Department's website may include special education students educated outside of the district and exclude students in a Detention Center. These are recent changes to the way the Department reports enrollment data. Projections require consistency. The data I have chosen for this analysis **exclude** special education students educated outside of the district and may **include** students in a Detention Center. (The average stay in a Detention Center is 11 days.) Enrollment data can change daily until an audited final file is closed. This process can take up to two years. Thus, it is possible that the enrollment data in this report could differ slightly from data in earlier reports and that may have been reported by the Board of Education to the public. The Region 12 central office provided enrollments in 2017. Births from 1980 to 2017 were provided by the Healthcare Quality, Statistics, Analysis and Reporting Unit of the State Department of Public Health.

## Total Enrollment

Table 2 and Figure 4 present the observed total enrollment in Region 12 from 2007 to 2017 and projected enrollment through 2027. Detailed grade-by-grade data may be found in Appendices D and E. Enrollment declined from 1,058 in 2007 to 688 students in 2017. My enrollment records go back 48 years and enrollment was never that low before. Between 2007 and 2017, Region 12 enrollment decreased by 370 students or 35.0 percent. In that period, statewide public school K-12 enrollment decreased by 7.2 percent.

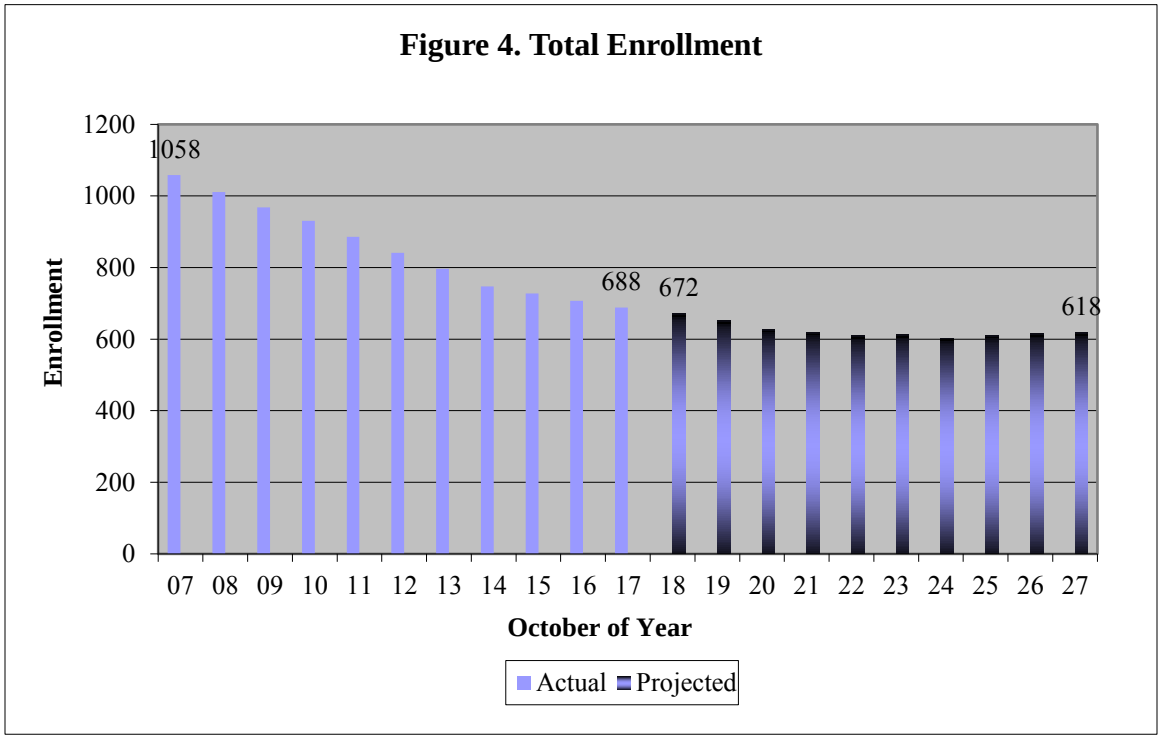
**Table 2. Total Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 1,058 | |
| 2008 | 1,011 | -4.4% |
| 2009 | 968 | -4.3% |
| 2010 | 931 | -3.8% |
| 2011 | 886 | -4.8% |
| 2012 | 841 | -5.1% |
| 2013 | 796 | -5.4% |
| 2014 | 747 | -6.2% |
| 2015 | 728 | -2.5% |
| 2016 | 707 | -2.9% |
| 2017 | 688 | -2.7% |
| 2018 | 672 | -2.3% |
| 2019 | 652 | -3.0% |
| 2020 | 628 | -3.7% |
| 2021 | 619 | -1.4% |
| 2022 | 610 | -1.5% |
| 2023 | 613 | 0.5% |
| 2024 | 603 | -1.6% |
| 2025 | 611 | 1.3% |
| 2026 | 616 | 0.8% |
| 2027 | 618 | 0.3% |

Region 12's decline of 34.8 percent between 2006 and 2016, the latest data available, was greater than most similar districts in the region. Enrollment declined 28.3 percent in New Hartford (K-8), 22.9 percent in Region 14, 17.3 percent in Oxford (K-8 only), 16.2 percent in Region 10 and 6.5 percent in Canton. Only the 35.3 percent decline observed in grades K-8 in Sherman was larger.

I anticipate that the decline will continue, but at a much slower rate. Next year, I project that total enrollment will decrease by about 15 students. I expect enrollment could fall below 650 students in 2020. At the projection's end in 2027, I forecast that enrollment could be about 620 students. The total ten-year projected decline of about 70 students would be about ten percent below the current enrollment. I have projected that total enrollment statewide will be down 6.8 percent in that period. Your total enrollment could average about 625 students over the ten-year projection period. This compares to an average total enrollment of 830 students over the past ten years.

**Figure 4. Total Enrollment**



## The Burnham School Enrollment

Table 3 and Figure 5 present actual enrollment from 2007 to 2017 at The Burnham School and projected enrollment to 2027. Grade by grade results may be found in Appendix A. Enrollment in grades K-5 dropped from 106 in 2007 to 47 students in 2016 and then rebounded to 49 students in 2017. The 2017 count includes 13 students from towns outside the Region. In those ten years, enrollment fell by 57 students, a 53.8 percent decrease. I project that state public school enrollment in grades K-5 will have fallen 9.9 percent in that interval.

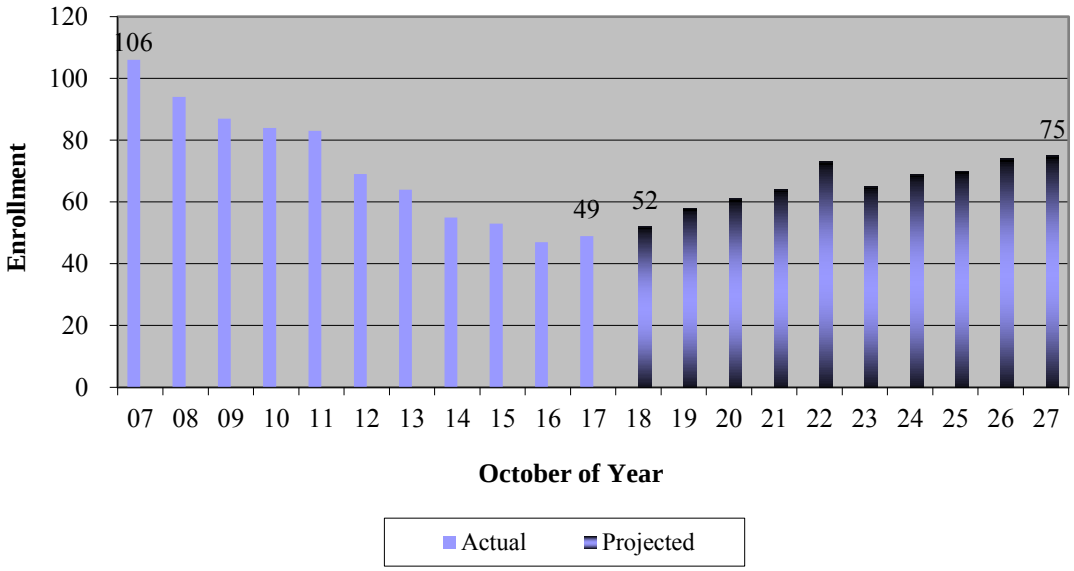
I project a period of enrollment growth for the school if in-migration continues; parents from outside the region continue to enroll their children at their own expense, and births increase. I project that next year's enrollment at The Burnham School will be up to five students more than this year's. By 2027, enrollment could reach 75 students. That would be a 53 percent increase over the current count. I project that state public school enrollment in grades K-5 will fall 5.8 percent in that interval. Over the ten-year projection period, The Burnham School enrollment could average over 65 students. That would be slightly below the average of 69 students observed over the past ten years. The introduction of full-day kindergarten in 2011 may make the town more attractive to families with young children and could help facilitate the projected growth.

**Table 3. Burnham School K-5 Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 106 | |
| 2008 | 94 | -11.3% |
| 2009 | 87 | -7.4% |
| 2010 | 84 | -3.4% |
| 2011 | 83 | -1.2% |
| 2012 | 69 | -16.9% |
| 2013 | 64 | -7.2% |
| 2014 | 55 | -14.1% |
| 2015 | 53 | -3.6% |
| 2016 | 47 | -11.3% |
| 2017 | 49 | 4.3% |
| 2018 | 52 | 6.1% |
| 2019 | 58 | 11.5% |
| 2020 | 61 | 5.2% |
| 2021 | 64 | 4.9% |
| 2022 | 73 | 14.1% |
| 2023 | 65 | -11.0% |
| 2024 | 69 | 6.2% |
| 2025 | 70 | 1.4% |
| 2026 | 74 | 5.7% |
| 2027 | 75 | 1.4% |

These figures exclude pre-kindergarten children. Over the past ten years, there has not been a pre-kindergarten program at The Burnham School. My projection model assumes that there will not be one in the future. In 2017, there were four Bridgewater pre-kindergarten students in the district's program at the Washington Primary School.

**Figure 5. The Burnham School Enrollment**



## Booth Free School Enrollment

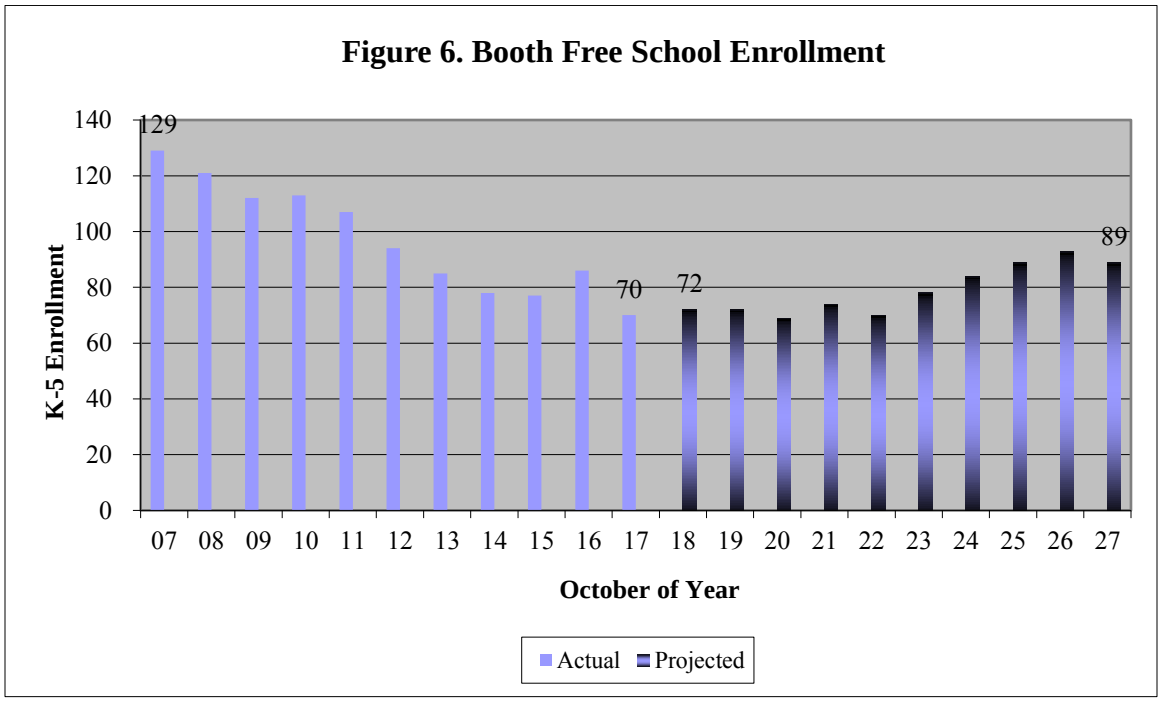
Table 4 and Figure 6 present actual enrollment from 2007 to 2017 at the Booth Free School and projected enrollment to 2027. Grade by grade results may be found in Appendix B. Between 2007 and 2017, enrollment in grades K-5 decreased from 129 to 70 students. The 2017 count includes four students from other towns. In those years, enrollment fell by 59 students, a 45.7 percent decrease. State public school enrollment in grades K-5 fell 9.9 percent in that interval.

I project a period of enrollment growth for the school if in-migration continues, parents from outside the region continue to enroll, at their own expense, children in the school and births increase. I expect the growth will be relatively modest in the first five years of the projection and then accelerate. I project that next year's enrollment at the Booth Free School will be about the same as this year's. In 2027, enrollment could be 90 students. That would be a 27 percent increase over the current count. I project that state public school enrollment in grades K-5 will fall 5.8 percent in that interval. Over the ten-year projection period, the Booth Free School enrollment could average 80 students. That would be below the average of 94 students observed over the past ten years. The introduction of full-day kindergarten in 2011 may make the town more attractive to families with young children and could help facilitate the projected growth.

**Table 4. Booth Free School Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 129 | -2.3% |
| 2008 | 121 | -6.2% |
| 2009 | 112 | -7.4% |
| 2010 | 113 | 0.9% |
| 2011 | 107 | -5.3% |
| 2012 | 94 | -12.1% |
| 2013 | 85 | -9.6% |
| 2014 | 78 | -8.2% |
| 2015 | 77 | -1.3% |
| 2016 | 86 | 11.7% |
| 2017 | 70 | -18.6% |
| 2018 | 72 | 2.9% |
| 2019 | 72 | 0.0% |
| 2020 | 69 | -4.2% |
| 2021 | 74 | 7.2% |
| 2022 | 70 | -5.4% |
| 2023 | 78 | 11.4% |
| 2024 | 84 | 7.7% |
| 2025 | 89 | 6.0% |
| 2026 | 93 | 4.5% |
| 2027 | 89 | -4.3% |

These figures exclude pre-kindergarten children. Over the past ten years, there has not been a pre-kindergarten program at Booth Free School. My projection model assumes that there will not be one in the future. In 2017, there were 15 Roxbury pre-kindergarten children in the district's program at the Washington Primary School.



## Washington Primary School Enrollment

Table 5 and Figure 7 present actual enrollment from 2007 to 2017 at the Washington Primary School and projected enrollment to 2027. Grade by grade results may be found in Appendix C. Between 2007 and 2017, enrollment declined from 173 to 147 students. In that period, enrollment hit a low of 138 students in 2012. The district's pre-kindergarten program was moved to the Washington Primary School in 2013. In the past ten years, the school's net enrollment declined by 26 students or 15.0 percent. Without pre-kindergarten students, the ten-year enrollment loss would have been 67 students or 38.7 percent. State public school enrollment in grades K-5 fell 9.9 percent in that interval.

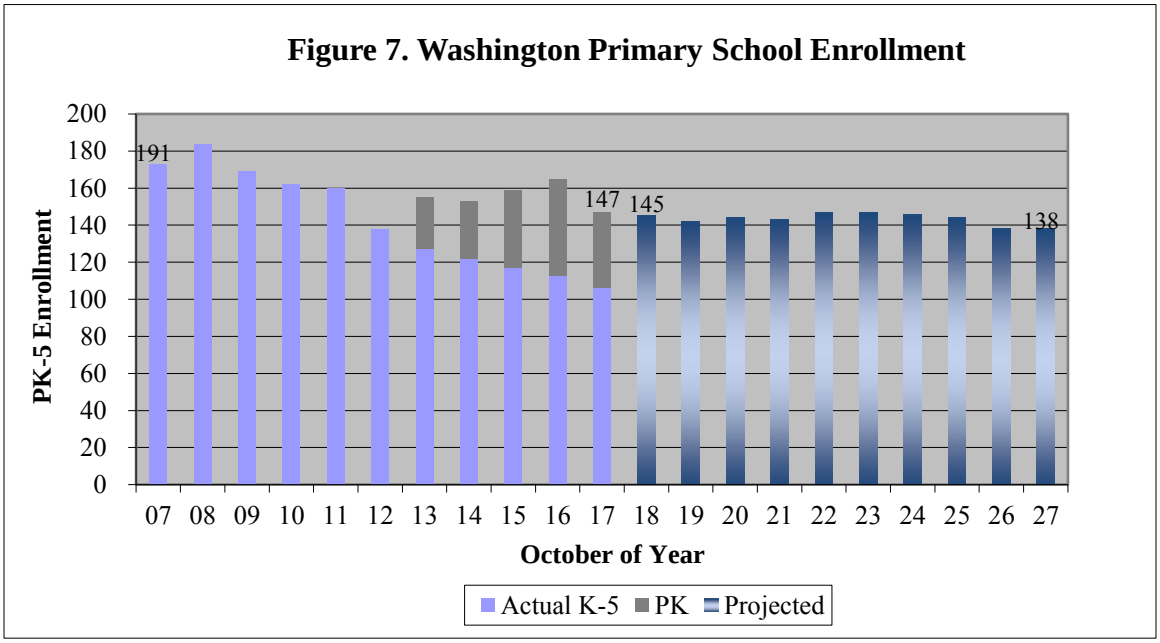
I project relatively little enrollment change over the next decade. I project that next year's enrollment will be about the same as this year's. I anticipate enrollment could end the projection near 140 students. The projected 2027 enrollment would be almost 10 students or six percent below the 2017 figure. I project that state public school enrollment in grades K-5 will fall 5.8 percent in that interval. Over the ten-year projection period, I believe Washington Primary School enrollment will average almost 145 students compared to 159 students observed over the past ten years. The introduction of full-day kindergarten in 2011 may make the town more attractive to families with young children and help keep enrollment stable.

**Table 5. Washington Primary School Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 173 | |
| 2008 | 184 | 6.4% |
| 2009 | 169 | -8.2% |
| 2010 | 162 | -4.1% |
| 2011 | 160 | -1.2% |
| 2012 | 138 | -13.8% |
| 2013 | 155 | 12.3% |
| 2014 | 153 | -1.3% |
| 2015 | 159 | 3.9% |
| 2016 | 165 | 3.8% |
| 2017 | 147 | -10.9% |
| 2018 | 145 | -1.4% |
| 2019 | 142 | -2.1% |
| 2020 | 144 | 1.4% |
| 2021 | 143 | -0.7% |
| 2022 | 147 | 2.8% |
| 2023 | 147 | 0.0% |
| 2024 | 146 | -0.7% |
| 2025 | 144 | -1.4% |
| 2026 | 138 | -4.2% |
| 2027 | 138 | 0.0% |

These figures include pre-kindergarten children starting in 2013 when the program was moved from the Reach Early Childhood Center. Over the past ten years, district-wide prekindergarten enrollment ranged from 17 children in 2011 to 52 children in 2016. There were 41 students enrolled in 2017. My projection assumes that the number currently enrolled, 41, will stay constant for the projection period. In 2017, there were 19 Washington pre-kindergarten children in the district's program at the Washington Primary School.

**Figure 7. Washington Primary School Enrollment**



## Shepaug Valley Middle School Enrollment

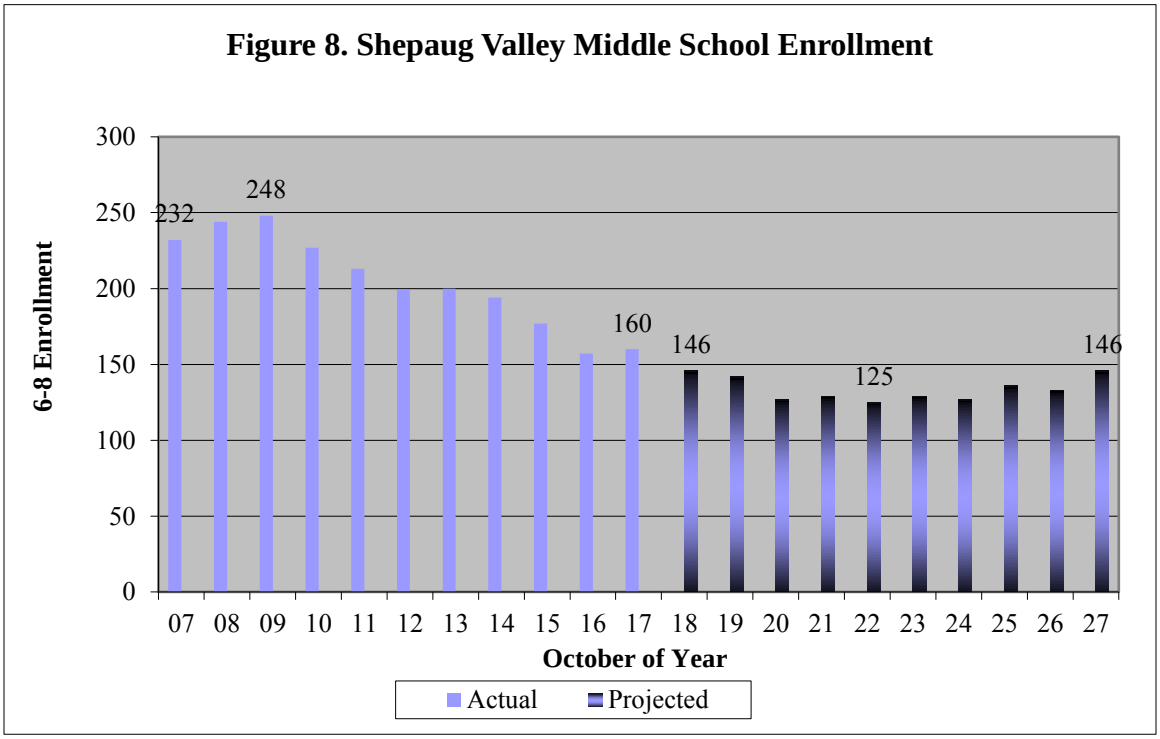
Table 6 and Figure 8 present actual enrollment from 2007 to 2017 in grades 6-8 at the Shepaug Valley School and projected enrollment to 2027. Grade by grade results may be found in Appendix E. The school's enrollment grew from 232 students in 2007 to 248 students in 2009 and then fell to 160 in 2017. My records go back to 1975 and that figure is the smallest on record. Between 2007 and 2017 enrollment decreased by 72 students or 31.0 percent. I project that enrollment in grades 6-8 in the state's public schools will have decreased 7.6 percent in that interval.

The upcoming trend is downward through 2020, five years of relatively little change and then a period of growth. I expect next year's enrollment will be 10-15 students less than this year's. I expect a low of 125 students in 2022. There will be significant drops in 2018 and 2020. At the projection's end, I project an enrollment of about 145 students. That would be about 15 students below the current level, a decline of about eight percent. I project that enrollment in grades 6-8 statewide will decline by 11.7 percent in that period. Over the ten-year projection period, I expect that enrollment in grades 6-8 at the Shepaug Valley School will average about 135 students over the next ten years. This would be well below the average of 202 students observed over the past ten years.

**Table 6. Shepaug Valley Middle School Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 232 | |
| 2008 | 244 | 5.2% |
| 2009 | 248 | 1.6% |
| 2010 | 227 | -8.5% |
| 2011 | 213 | -6.2% |
| 2012 | 199 | -6.6% |
| 2013 | 200 | 0.5% |
| 2014 | 194 | -3.0% |
| 2015 | 177 | -8.8% |
| 2016 | 157 | -11.3% |
| 2017 | 160 | 1.9% |
| 2018 | 146 | -8.8% |
| 2019 | 142 | -2.7% |
| 2020 | 127 | -10.6% |
| 2021 | 129 | 1.6% |
| 2022 | 125 | -3.1% |
| 2023 | 129 | 3.2% |
| 2024 | 127 | -1.6% |
| 2025 | 136 | 7.1% |
| 2026 | 133 | -2.2% |
| 2027 | 146 | 9.8% |

**Figure 8. Shepaug Valley Middle School Enrollment**



## Shepaug Valley High School Enrollment

Grade 9 is when students may attend state technical high schools or agriculture science and technology centers. Preliminary October 2017 figures show that only 65 percent of the towns' residents enrolled in grade 9 were estimated to be enrolled in the district. An estimated 26.8 percent was enrolled in non-public schools in state. An additional 8.3 percent was enrolled in a state technical high school or an agriculture science center. No 9th grader was reported as enrolled in a magnet or another public high school.

Table 7 and Figure 9 present actual enrollment from 2007 to 2017 at the Shepaug Valley High School and projected enrollment to 2027. Enrollment decreased from 393 students in 2007 to 262 students in 2017. Between 2007 and 2017 enrollment fell by one-third to 131 students. Public high school enrollment statewide decreased 6.0 percent in that period.

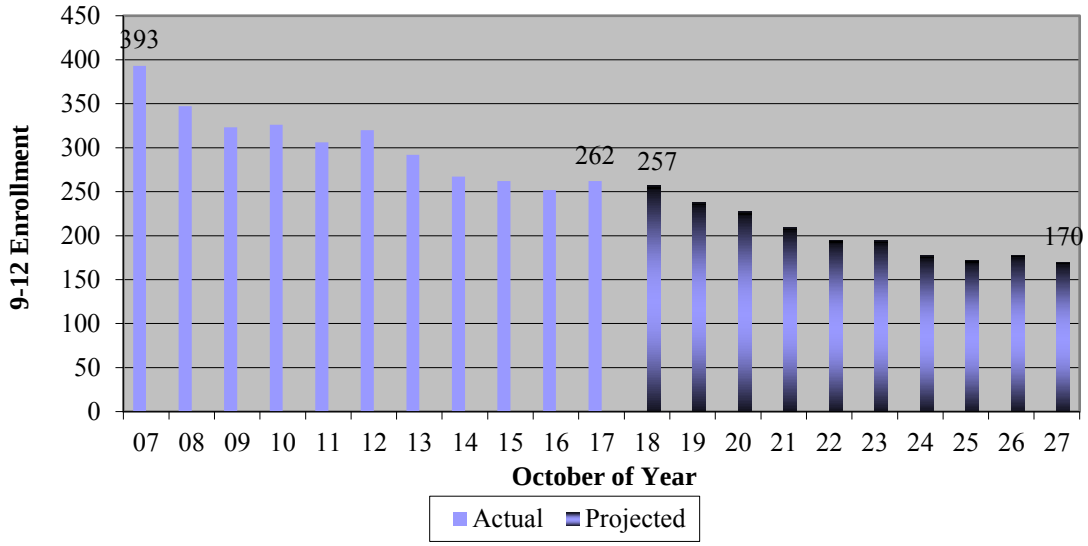
Although next year's enrollment should be fairly similar to this year, the trend will continue downward. By 2027, I anticipate that high school enrollment could be around 170 students. This would be a decrease of about 90 students or about 35 percent. I project that high school enrollment statewide will decrease 9.3 percent between 2017 and 2027. Over the ten-year projection period, I expect enrollment at Shepaug Valley High School will average about 205 students compared to 296 over the past five years.

**Table 7. Shepaug Valley High School Enrollment**

| Year | Students | Percent Change |
|---|---|---|
| 2007 | 393 | 0.3% |
| 2008 | 347 | -11.7% |
| 2009 | 323 | -6.9% |
| 2010 | 326 | 0.9% |
| 2011 | 306 | -6.1% |
| 2012 | 320 | 4.6% |
| 2013 | 292 | -8.8% |
| 2014 | 267 | -8.6% |
| 2015 | 262 | -1.9% |
| 2016 | 252 | -3.8% |
| 2017 | 262 | 4.0% |
| 2018 | 257 | -1.9% |
| 2019 | 238 | -7.4% |
| 2020 | 227 | -4.6% |
| 2021 | 209 | -7.9% |
| 2022 | 195 | -6.7% |
| 2023 | 194 | -0.5% |
| 2024 | 177 | -8.8% |
| 2025 | 172 | -2.8% |
| 2026 | 178 | 3.5% |
| 2027 | 170 | -4.5% |

These figures include Sherman residents. Shepaug Valley is one of three high schools they can attend. New Fairfield and New Milford are the other two. In 2017, there were 35 Sherman residents at Shepaug Valley High, including seven in grade 9. I have projected that Sherman enrollment will average 26 students over the next ten years. This is based on 18.1 percent of 8th graders in Sherman choosing Shepaug Valley. This projection excludes students from five area towns who will attend Region 12's Agriscience Center scheduled to open in 2019.

**Figure 9. Shepaug Valley High School Enrollment**



## Factors Affecting the Projection

The primary reasons for enrollment change lie in births, kindergarten yield from the birth cohort and grade-to-grade growth rates. Figure 10 presents the actual births from 1980 to 2014 and provisional and estimated births through 2022. Births to Bridgewater, Roxbury and Washington residents ranged from a high of 83 in 1986 to a low of 30 in 2012. The last official count of births was 38 in 2014. The provisional counts were 37 births in 2015 and 43 in 2016. Based on in-state births through October, I estimate there will be 38 births in 2017. In the 1990s there was an average of 67 births annually. In the five years from 2008 to 2012 (this fall's kindergarten through 4th graders) births averaged 40. Births in the 2013 through 2017 period will average 38. The projection in years 2023 to 2027 assumes an average of 40 births annually between 2018 and 2022.

**Figure 10. Births Since 1980**

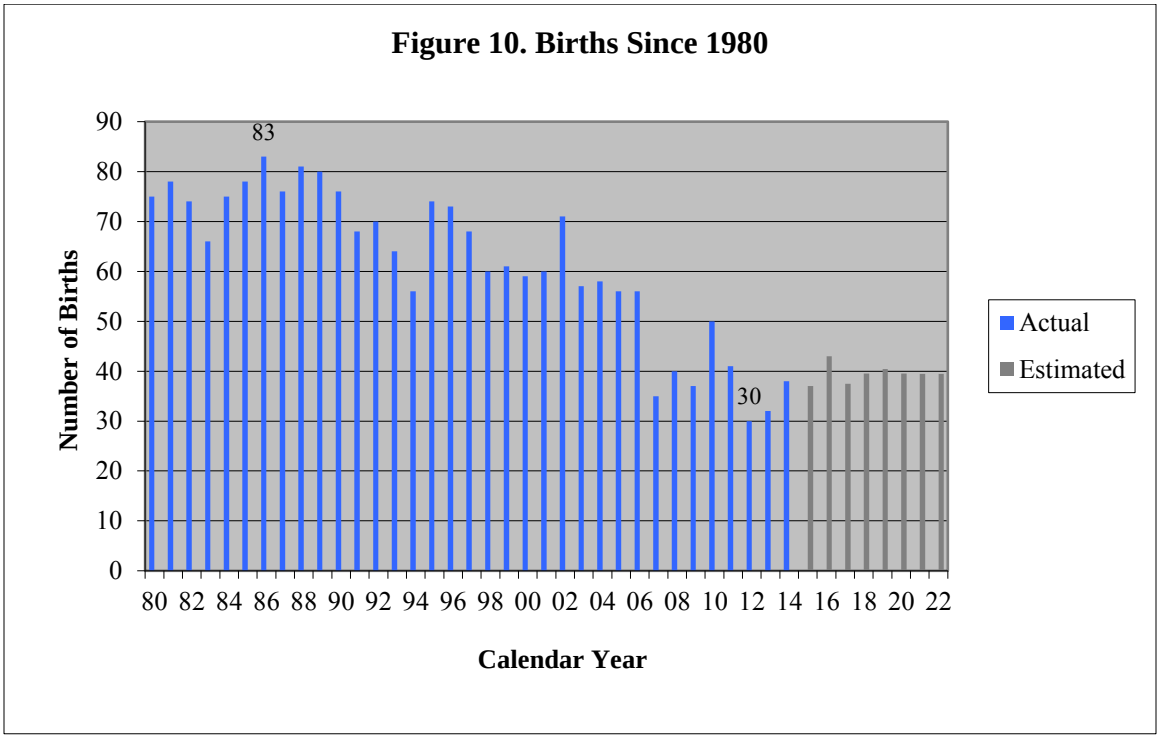
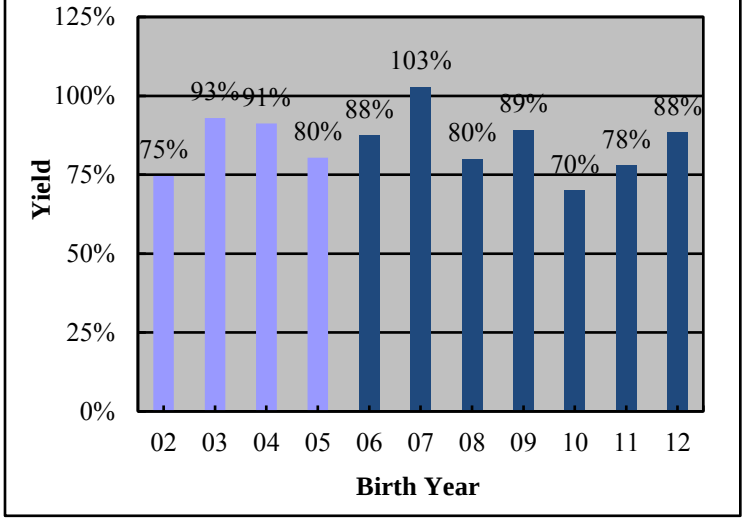



Figure 10 depicts the kindergarten yield five and six years later from the birth cohorts of 2002 to 2012 for residents of the three towns attending kindergarten in Region 12 schools. The dark blue represents the birth cohorts that were affected by the introduction of full-day kindergarten in 2011. There were 41 births in 2015 in the three towns and 26 resident children enrolled in Region 12 kindergartens at age five in 2016 and an additional six who first enrolled in kindergarten at age six in 2017. That is a yield of 78 percent. The yield from the birth cohort ranged from a low of 70 percent in 2010 to a high of 103 percent in 2007. The estimated yield for births in 2012 is 88 percent. Note that 2012 yield is an estimate because

**Figure 11. Kindergarten Yield From Birth Cohort**



we will not know the actual number of children who will enter kindergarten for the first time as six-year olds until October 2018. Yields below 100 percent generally mean that parents choose another school system or move out of town after giving birth while a resident of the three towns. In 2016, there were 11 children enrolled in non-public kindergartens. I expected that with the introduction of all-day kindergarten in 2011, the recent yields would have been higher.

Table 8 gives a history of enrollment in kindergarten since 2007 and relates the components of kindergarten enrollment back to the appropriate birth cohort. Retention is tied to the prior year's kindergarten enrollment. The projection was built up from a similar analysis in each town. This table is presented to give an overall perspective. To estimate kindergarten enrollment in all three towns, I used the five-year average of retentions, and yields from births five and six years ago. Combined, this averaged 71.7 percent of births five years ago, 8.4 percent of births six years ago, and 0.0 percent of current kindergarten students retained. These figures are up slightly from last year's projection.

**Table 8. Analysis of Kindergarten Enrollment**

| Year | Birth Year | Births | K | Retained From Prior Year | Non-Retained Born 5-Years Prior Resident | Non-Retained Born 5-Years Prior Non-Resident | Non-Retained Born 6 Years Prior | Percent Retained | Yield From Births 5-Years Prior | Yield From Births 6-Years Prior | Total Yield From Birth Cohort |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **2007** | 2002 | 71 | 57 | 3 | 47 | 0 | 6 | 4.5% | 66.2% | 10.0% | 74.6% |
| **2008** | 2003 | 57 | 59 | 1 | 52 | 0 | 6 | 1.8% | 91.2% | 8.5% | 93.0% |
| **2009** | 2004 | 57 | 48 | 0 | 47 | 0 | 1 | 0.0% | 82.5% | 1.8% | 91.2% |
| **2010** | 2005 | 56 | 46 | 0 | 41 | 0 | 5 | 0.0% | 73.2% | 8.8% | 80.4% |
| **2011** | 2006 | 56 | 51 | 1 | 46 | 0 | 4 | 2.2% | 82.1% | 7.1% | 87.5% |
| **2012** | 2007 | 35 | 36 | 0 | 33 | 0 | 3 | 0.0% | 94.3% | 5.4% | 102.9% |
| **2013** | 2008 | 40 | 33 | 0 | 30 | 0 | 3 | 0.0% | 75.0% | 8.6% | 80.0% |
| **2014** | 2009 | 37 | 35 | 0 | 31 | 2 | 2 | 0.0% | 83.8% | 5.0% | 89.2% |
| **2015** | 2010 | 50 | 35 | 0 | 31 | 2 | 2 | 0.0% | 62.0% | 5.4% | 70.0% |
| **2016** | 2011 | 41 | 30 | 0 | 26 | 0 | 4 | 0.0% | 63.4% | 8.0% | 78.0% |
| **2017** | 2012 | 30 | 38 | 0 | 24 | 8 | 6 | 0.0% | 80.0% | 14.6% | *88.4%* |
| **3-Year Average** | | | | | | | | 0.0% | 66.9% | 9.4% | 78.8% |
| **Weighted 3-Year Average** | | | | | | | | 0.0% | 71.5% | 10.9% | 81.9% |
| **5-Year Average** | | | | | | | | **0.0%** | **71.7%** | **8.4%** | **81.1%** |
| **Weighted 5-Year Average** | | | | | | | | 0.0% | 72.1% | 9.3% | 81.5% |
| **Rates used in 2016 Projection** | | | | | | | | 0.0% | 71.4% | 6.4% | 79.0% |

The correlation between births and kindergarten enrollment five-year later across the three towns was a moderate to high 0.88 over the 1985 to 2017 period. Remember that the kindergarten enrollment was built up from births in each of the towns separately, not as a whole as illustrated here. If this relationship were used to predict kindergarten enrollment, the estimate would have been off an average of nine children annually over the past ten years. The cohort survival method, even with my breakout into five-year olds, six-year old delayed entrants and children retained, cannot overcome the underlying unpredictability of kindergarten enrollment from earlier births.

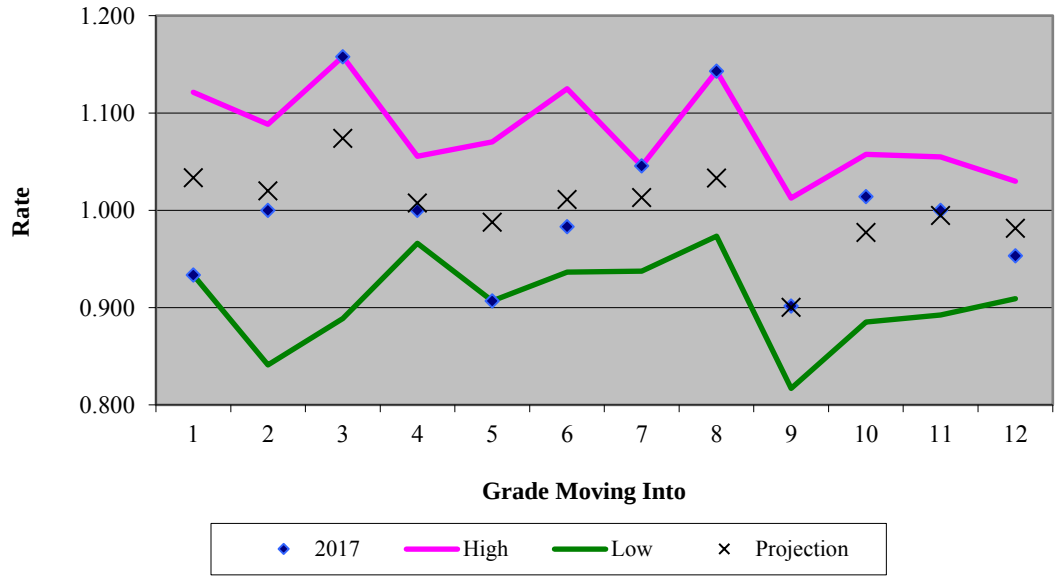
In matching up births with recent full-day kindergarten enrollment over the past five years, births averaged 40 across the three towns. In the ten upcoming years, births are expected to average 39. The cohort-survival method uses past history to project future enrollment. Fortunately the conditions in your recent past appear to mirror those expected in the near future. Despite this, you should examine other local sources such as four-year olds enrolled in your and other pre-kindergarten programs as well as the count of children known to be held out until they reach age 6 before making any decisions on kindergarten.

The "Connecticut Early Childhood Report on Changing the Kindergarten Date," mandated by Public Act 14-39, recommended that the start date for kindergarten be moved back to October 1st phased in one month increments over the course of three years. It further recommended the elimination of the section of C.G.S Sec. 10-184 which allows parents the option of not enrolling their age-eligible child. Funds for the implementation have not been allocated by the General Assembly. Unless the state's fiscal situation changes for the better or a court intervenes, I do not believe this common sense change will be implemented. Once implemented, the changes will very slightly decrease the size of your kindergarten class for three years and increase your pre-kindergarten enrollment. This change is not built into this projection, but will be built into future projections once the implementation date is set.

Figure 12 gives a perspective of the grade-to-grade growth rates for students attending the Region 12 schools. An "x" indicates the average growth rate used in this projection. The diamond is the growth observed between last year and this year. The upper line indicates the largest growth rate observed over the past ten years and the lower line, the lowest. In general, the narrower the gap between the two lines is, the greater the accuracy of the projection. This table, which is based on growth for the district as a whole, is for illustrative purposes only as the elementary projections were built separately for each town.

The projection growth rates are, with the exception of grade 9, in the middle of the ten-year range. Six of the eight elementary growth rates are above 1.00 indicating an in-migration into Region 12 schools. The grade 9 rate is reflective of about 35 percent of the three towns' residents choosing a non-public or other school for high school, some students returning for high school and a very low repeater rate. The rates in 2017 set ten-year highs in grades 3, 7 and 8. There were ten-year lows set in grades 1 and 5. The projection growth rates were well below the 2017 rates in grades 3 and 8 and well above the 2017 rates in grades 1 and 5. All others were close. The average growth rate across grades 2-12 used for the projection was 1.000. That was above last year's rate of 0.990. The rate in 2017 was a high (for the district) 1.010 and the median rate over the past 20 years was 0.995.

**Figure 12. Grade to Grade Growth Rates**



## Context of the Projection

The cohort-survival method typically needs only births and a few years of recent enrollment data to generate a projection. Mathematically, nothing else matters. But enrollment changes do not occur in a vacuum. Events and policies in the district, community and region all have some bearing on enrollment. Remember that a basic assumption of the cohort-survival method is that the recent past can be a good predictor of the near future. It is incumbent for every receiver of a projection to determine what events happened in the past five years and whether they are likely to change.

To assist in this endeavor, this report examines 11 factors that could affect enrollment: town population; projected population ages 0-19; women of child-bearing age; the labor force; new home construction; sales of existing homes; grade 9 repeaters; non-public enrollment; resident enrollment in other public schools; non-resident enrollment and student migration.

Figure 13 presents the US Census Bureau estimate of Bridgewater, Roxbury and Washington population growth between 2010 and 2016. The estimate is based, in part, on relative housing growth within Litchfield County. In that period, they estimated that the population in the three towns declined by 280 people. The population loss of 3.7 percent would have ranked it 158th in the state. In contrast, Litchfield County fell by 3.8 percent, the state fell by 0.1 percent and communities with similar economic and need characteristics (DRG C) fell by 1.3 percent.

**Figure 13. Estimated Population Growth, 2010 to 2016**

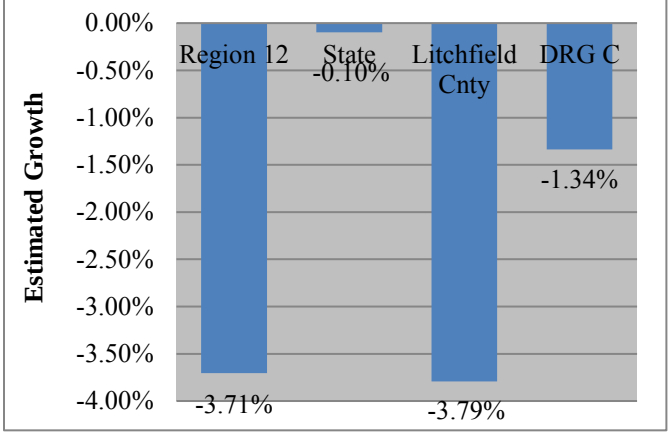



Figure 14 presents the Connecticut State Data Center's 2017 population projections for the Region's residents 0-19 years of age in the years 2015, 2020 and 2025. The Center projected that the 0-4 age population would go from 218 children in 2015 to 207 children in 2020 and 195 children in 2025. The Center projected the population ages 5-9 would decline 10 percent between 2015 and 2025. They also projected that the number of children ages 10-14 would decline 11 percent between 2015 and 2025. The number of youth ages 15-19 was projected to decline 19 percent between 2015 and 2025. This independent projection is consistent with the changes in enrollment projected in this report.

**Figure 14. Projected Region 12 Population Ages 0-19**

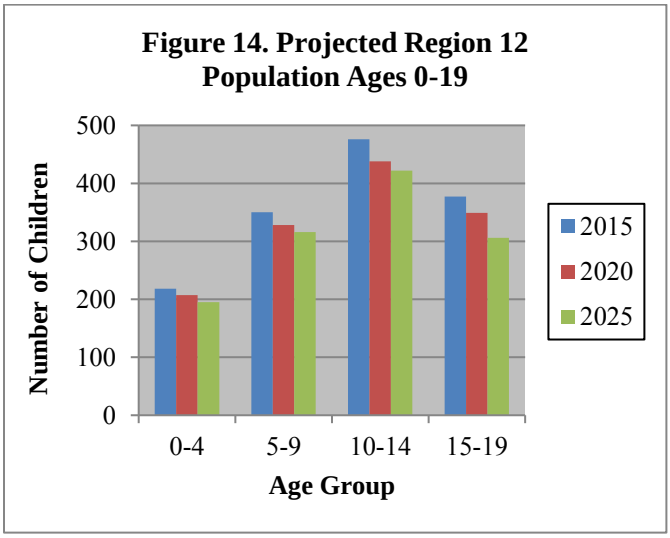


Figure 15 presents the Connecticut State Data Center's 2017 projections of the number of women of child-bearing age from the three towns in 2015, 2020 and 2025. There were 37 births to the residents of the three towns in 2015 and I have projected there will be 40 in 2020. The Center projected a 9.9 percent decline in women ages 15-44 between 2015 and 2020 and 7.2 percent between 2020 and 2025. However, in the key 30-34 age group for communities like yours the Center projected an 18 percent increase between 2015 and 2025. In the second highest birth rate in similar communities, women ages 25-29, the Center projected the number in that age range would grow between 2015 and 2020, but then decline sharply over the next five years.

**Figure 15. Women of Child-Bearing Age**

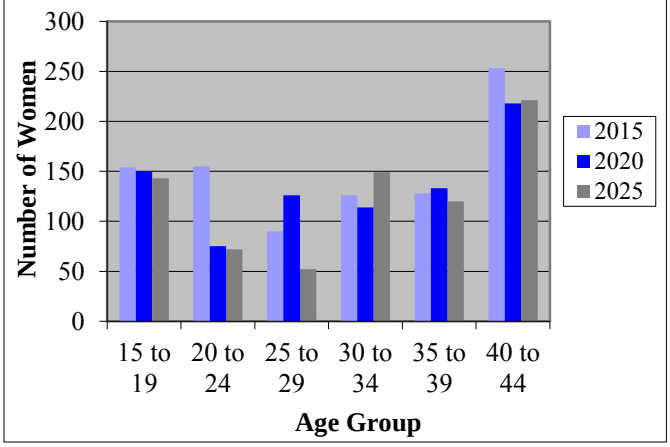



Figure 16 examines the number of people in the labor force from the US Department of Labor, Bureau of Labor Statistics. These are people 16 years of age or older who were working or actively were seeking employment. They estimated that although the combined labor force in the three towns decreased 0.3 percent between 2010 and 2016, it increased the past three years. The loss was smaller than both the state (-1.0 percent) and Litchfield County (-3.0 percent). The 2016 unemployment rate of 3.2 percent across the three towns was down 2.9 percentage points from the 2010 high. It is better than the state rate of 5.1 percent and the Litchfield County rate of 4.6 percent.

**Figure 16. Recent Changes in the Labor Force**

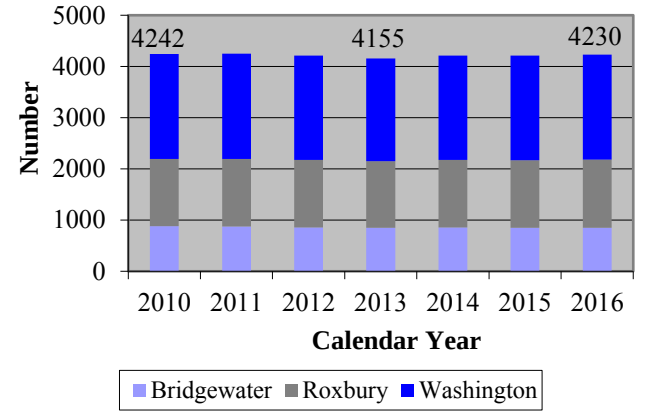



Figure 17 presents the net new housing units constructed from 2006 to 2016 from the State Department of Economic and Community Development. In the past ten years the number of net (of demolitions) new housing units constructed in Bridgewater, Roxbury and Washington ranged from a high 28 in 2006 down to a low of zero in 2012. There were permits for five houses issued in 2016. In the five-year look-back period for this projection, there was an average of four net new housing units constructed. The 2010 census recorded that only 25 percent of the occupied units had children under 18.

**Figure 17. Net New Housing Units**

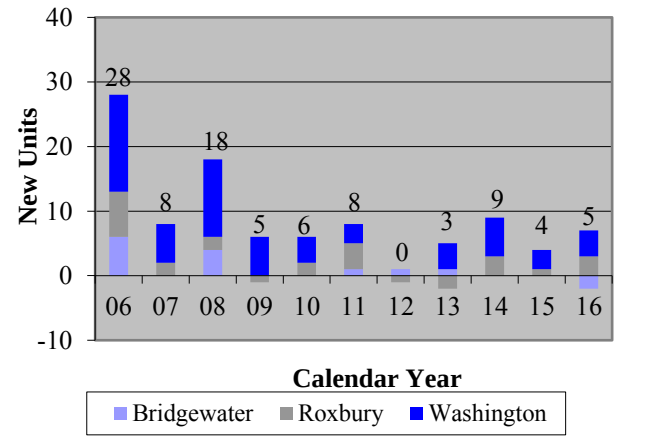


Figure 18 presents my estimate of the number of sales of existing homes. I derived it by taking the number of real estate transactions from The Warren Group/Commercial Record and subtracting the number of new single-family housing units authorized. The estimated number of sales of existing homes ranged from a low of 97 in 2008 to a high of 179 in 2007. There were an estimated 162 sales of existing houses in 2016. In the five-year look-back period of the projection, there was an average of 150 sales annually. Based on sales through September, I expect there will be about 160 sales of existing homes in 2017.

**Figure 18. Sales of Existing Homes**

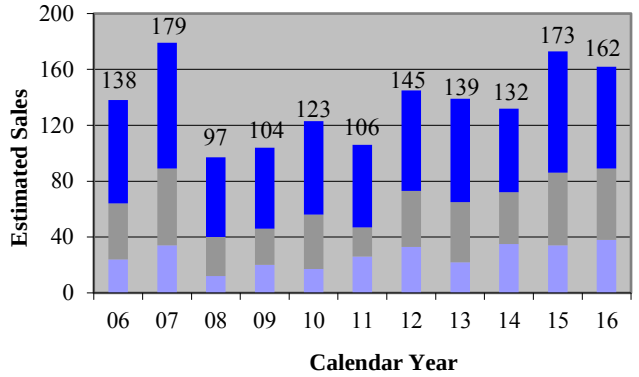
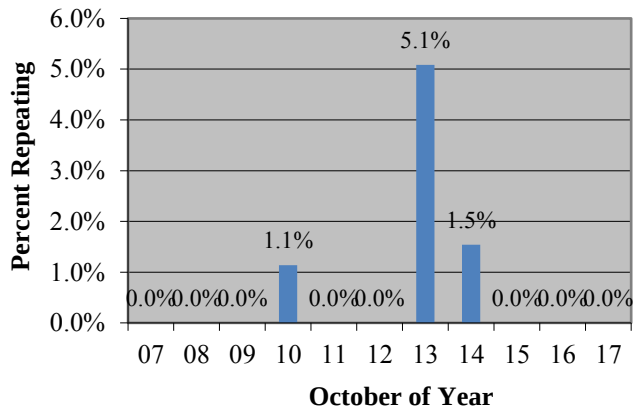



Figure 19 shows the percentage of students in grade 9 who did not earn enough credits to be promoted to grade 10. The percentage repeating ranged from zero in eight previous years to 5.1 percent in 2013. The rate was 0.0 percent in 2017. In the five-year look-back period of the projection, a total of four students were retained in the grade, a rate of 1.2 percent.

**Figure 19. Grade 9 Repeaters**




Dropouts can also affect the high school enrollment. This is not an issue in Region 12. You recorded a total of three over the past five school years.

Figure 20 presents the non-public enrollment in Connecticut over the past ten years for students from the three towns. Non-public enrollment ranged from a low of 202 students in 2011 to a high of 254 students in 2006. There were 217 students enrolled in 2016. The 2016 enrollment represented a very high 24.1 percent of the combined public (in-district and out) and non-public enrollment. The rate in 2006 was 19.4 percent. I project a non-public enrollment of 210 students in 2017 from Bridgewater, Roxbury and Washington.

**Figure 20. Non-Public School Enrollment**

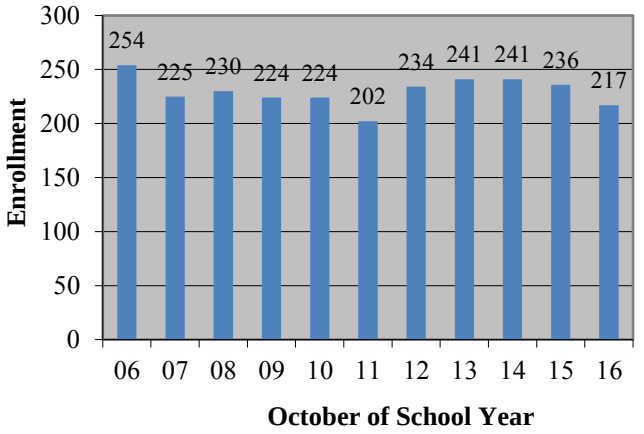


Figure 21 presents Bridgewater, Roxbury and Washington enrollment in other public schools. This would include state technical high schools, the agriculture science and technology program at Nonnewaug High and area magnets. The 2017 count is preliminary. The number of residents attending a public school other than the Region 12 Public Schools fell from 28 in 2007 to 15 in 2010, rebounded to 24 in 2012 and fell to 15 in 2017. In 2017, seven residents attended a state technical high school and eight attended an agriculture science center. These data were extracted from the Public School Information System (PSIS) of the Connecticut State Department of Education prior to 2017 and provided by Region 12 in 2017.

Figure 22 presents non-resident enrollment in Region 12 schools. Most are Sherman residents enrolled at Shepaug Valley High School. The number of non-residents fell from 55 in 2007 to 19 in 2011 and since has increased to 73 in 2017. The 2017 count included 35 from Sherman and 38 students from other area towns. Sherman high school students have the option to attend New Milford High or New Fairfield High. The projection assumes 18 percent of Sherman's grade 8 students will enroll in Region 12. That would yield from 18 to 37 students from Sherman annually.

Figure 23 presents the estimated student migration for the 2007 to 2017 period. It is based on observed enrollment in the Region 12 public schools adjusted for Region 12 residents attending other public schools. Migration was negative in four of the past six years. More students chose a non-public school or moved out of the towns of Region 12 than moved in. The migration rate ranged from a high of +3.6 percent in 2016 to a low of -3.0 percent in 2017. The 2017 rate was the lowest since 1991. The average migration over the five-year look-back period of this projection was -0.15 percent. The median five-year rate over the past 25 years was +0.73 percent.

**Figure 21. Residents Enrolled in Other Public Schools**

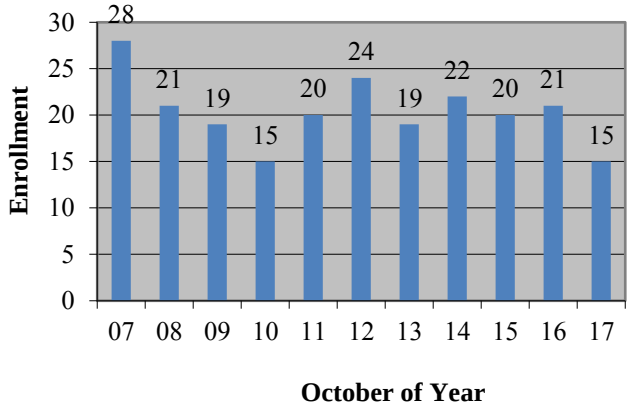



**Figure 22. Non-Resident Enrollment in Region 12 Schools**

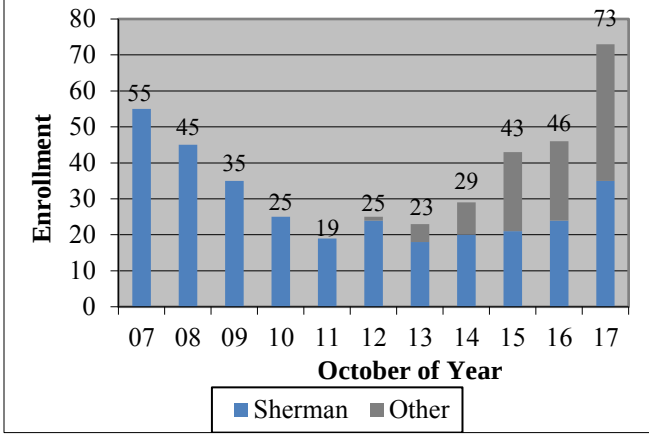
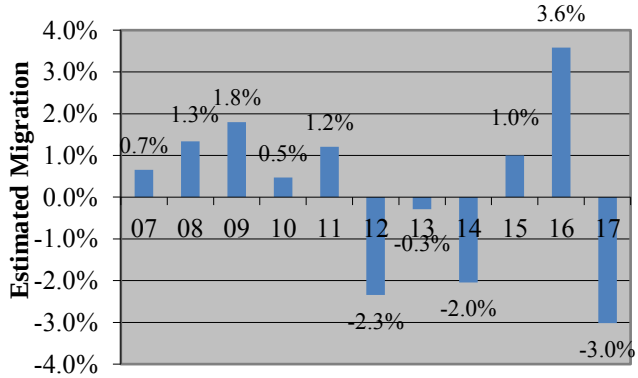



**Figure 23. Estimated Student Migration**

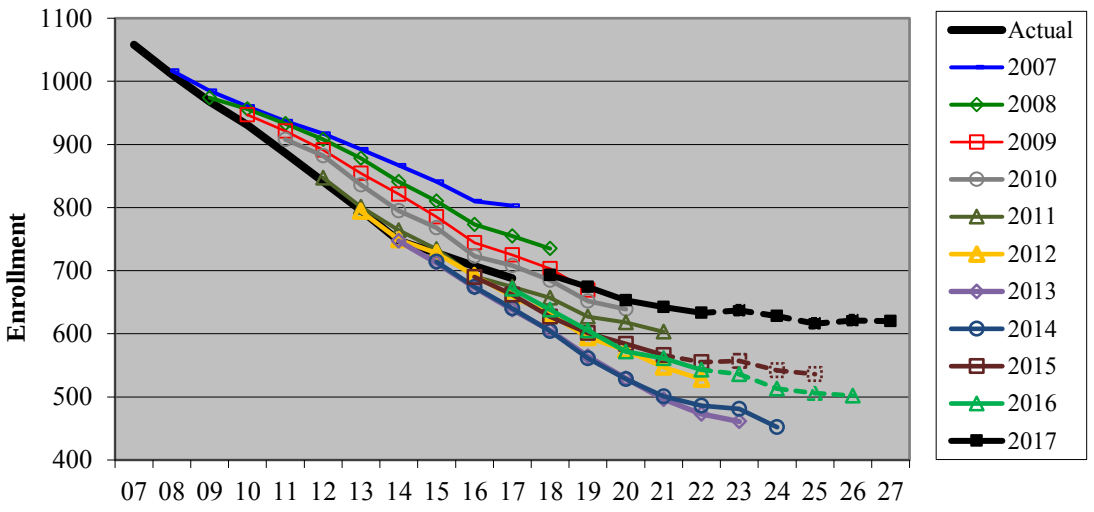


## Prior Projections of Enrollment

The cohort-survival projection method works by moving forward the pattern of recent events that are subsumed within the grade-by-grade enrollment. This works very well when communities are stable. One way to know if that assumption is valid is to examine how past projections have fared. Figure 24 presents the enrollment projections that I have run for Region 12 since 2007. Last year's projection was 17 students (2.5 percent) less than actually enrolled. The nine enrollment projections that I did between 2007 and 2015 had one-year error rates that averaged 1.2 percent. The six projections done between 2007 and 2012 had an average five-year error rate of 6.9 percent, which is 1.3 percent annualized.

Last year's projection is running 2.5 percent low. In that analysis, I projected that K-5 enrollment would be 209 students in 2017. The actual enrollment of 225 was 16 students more than projected. The projection was low by 7.1 percent. I projected that enrollment in grades 6-8 would be 156 students in 2017. The actual enrollment of 160 was four students more than projected. The projection was low by 2.5 percent. I projected that high school enrollment would be 254 students in 2017. The actual enrollment of 262 was eight students more than projected. The projection was low by 3.1 percent. The 2016 projection kept pre-kindergarten enrollment constant at 52 children. That was 11 children more than the actual enrollment of 41 children.

**Figure 24. Prior Projections of Enrollment**




In my work I have found the cohort-survival method provides estimates that are sufficiently accurate for intermediate-range policy planning. The eight-year planning horizon for school construction grants is at the limit of the useful accuracy of the method. I analyzed the eight-year accuracy of the district projections from across the state that I ran in 2007. I found for the 67 district-level projections that I ran in 2007 the median projection was 5.5 high in predicting 2012 enrollment. That is an annual error rate of 0.7 percent. The absolute error rate (regardless of whether it was high or low) averaged 8.6 percent. That error was less than five percent in 46 percent of the projections and more than 15 percent in 15 percent of the projections. Among the 87 elementary projections run, the median projection was 9.5 percent high (1.1 percent annually). Among the 70 middle school projections run, the median projection was 8.2 percent high (1.0 percent annually). Among the 72 high school projections run, the median projection was 3.1 percent high (0.4 percent per year). This illustrates what an economic downturn can do to projections run with the cohort-survival method.

## Summary

I project that total enrollment could decline from 688 students in 2017 to about 620 students in 2027, a loss of 10 percent. I project that enrollment at The Burnham School could grow from 49 students in 2017 to about 75 students in 2027. The net change over the ten-year projection period would be a gain of about 25 10 students, an increase of over 50 percent. I project that enrollment at the Booth Free School could grow from 70 students in 2017 to almost 90 students in 2027. That would be a gain of almost 20 students or 27 percent. I project that enrollment at Washington Primary School could decline from 147 students in 2017 to about 140 students in 2027. The net loss over the ten-year projection period would be about 25 students or 15 percent. I believe that enrollment in grades 6-8 at the Shepaug Valley School could decline by about eight percent in the next ten years, easing from 160 students in 2017 to about 145 students in 2027. I project that Shepaug Valley High School enrollment could decline by 35 percent from 262 students in 2017 to about 170 students in 2027. These figures include Sherman residents who pay tuition to attend Shepaug Valley, but do not include the scheduled 2019 addition of an agriculture science and STEM program.

This report is projecting growth in the elementary grades and a decline in grades 6-12. It is critical to remember that a projection is just a moving forward of recent trends. Is the forecast realistic? In the five years from 2008 to 2012 (this fall's kindergarten through 4th graders) births averaged 40. Births in the 2013 through 2017 period will average 38. My projection for the years 2023-2027 assumes an average of 40 births in 2018 and 2022. That was based, in part, on the Connecticut State Data Center's 2017 projections of women of child-bearing ages. Across the three towns there was an average 19 percent decline between birth and eventual kindergarten enrollment. Despite full-day kindergarten, many parents still opt for area non-public schools. The average of the district's grade-to grade growth rates across grades 2-12 was 1.000. The annual growth rate averaged 1.010 in 2017 and the median over the last 20 years was 0.995. This projection is showing less of a decline than recent past projections. I believe the partial recovery of the sales of existing homes from the low levels of 2008 to 2011 justifies that optimism.

These projections are based upon several key assumptions revolving around the notion that the recent past is a good predictor of the near future. The projection assumes that the following school policies will continue: kindergarten will remain full-day; continued recruitment in the elementary schools of students from outside the three towns; no change in retention policies; no change in the dropout rate, enrollment of 18-37 Sherman residents at Shepaug Valley High, continued strong enrollment in non-public schools and continued enrollment of 15- 20 Bridgewater, Roxbury and Washington residents in other public schools. The projection further assumes a student migration of -0.15 percent, construction of four new housing units annually and 150 sales of existing homes.

It is important to remember that the cohort survival method relies on observed data from the recent past. Its key assumption is that those conditions will persist. It does not try to predict when the economic conditions might change. We cannot know today how long these conditions will continue. This projection should be used as a starting point for local planning. Examine the factors and assumptions underlying the method. You know your community best. Apply your knowledge of the specific conditions in Bridgewater, Roxbury and Washington and then make adjustments as necessary.

## Appendix A. The Burnham School Enrollment Projected by Grade to 2027

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PreK | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 12 | 10 | 23 | 11 | 16 | 23 | 23 | 0 | 106 |
| **2008-09** | 2003 | 6 | 11 | 10 | 22 | 11 | 16 | 24 | 0 | 94 |
| **2009-10** | 2004 | 13 | 15 | 11 | 10 | 24 | 11 | 16 | 0 | 87 |
| **2010-11** | 2005 | 15 | 12 | 16 | 10 | 9 | 24 | 13 | 0 | 84 |
| **2011-12** | 2006 | 9 | 9 | 11 | 16 | 10 | 11 | 26 | 0 | 83 |
| **2012-13** | 2007 | 8 | 9 | 13 | 12 | 12 | 10 | 13 | 0 | 69 |
| **2013-14** | 2008 | 8 | 7 | 9 | 14 | 10 | 13 | 11 | 0 | 64 |
| **2014-15** | 2009 | 9 | 5 | 8 | 9 | 15 | 9 | 9 | 0 | 55 |
| **2015-16** | 2010 | 9 | 7 | 6 | 8 | 10 | 14 | 8 | 0 | 53 |
| **2016-17** | 2010 | 4 | 3 | 8 | 5 | 7 | 10 | 14 | 0 | 47 |
| **2017-18** | 2012 | 8 | 17 | 3 | 8 | 8 | 6 | 7 | 0 | 49 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 3 | 6 | 19 | 3 | 10 | 8 | 6 | 0 | 52 |
| **2019-20** | 2014 | 11 | 10 | 7 | 19 | 5 | 10 | 7 | 0 | 58 |
| **2020-21** | 2015 | 3 | 6 | 12 | 7 | 22 | 5 | 9 | 0 | 61 |
| **2021-22** | 2016 | 10 | 9 | 7 | 12 | 9 | 22 | 5 | 0 | 64 |
| **2022-23** | 2017 | 10 | 11 | 11 | 7 | 15 | 9 | 20 | 0 | 73 |
| **2023-24** | 2018 | 8 | 9 | 13 | 11 | 9 | 15 | 8 | 0 | 65 |
| **2024-25** | 2019 | 9 | 10 | 11 | 13 | 13 | 9 | 13 | 0 | 69 |
| **2025-26** | 2020 | 9 | 10 | 12 | 11 | 16 | 13 | 8 | 0 | 70 |
| **2026-27** | 2021 | 8 | 9 | 12 | 12 | 13 | 16 | 12 | 0 | 74 |
| **2027-28** | 2022 | 9 | 10 | 11 | 12 | 15 | 13 | 14 | 0 | 75 |
| **Projection Growth Rates** | | | [2] | 1.097 | 1.000 | 1.042 | 0.963 | 0.875 | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[3]** |
| **2008** | | | 1.833 | 1.000 | 0.957 | 1.000 | 1.000 | 1.043 | | 0.00% |
| **2009** | | | 1.154 | 1.000 | 1.000 | 1.091 | 1.000 | 1.000 | | 3.39% |
| **2010** | | | 0.800 | 1.067 | 0.909 | 0.900 | 1.000 | 1.182 | | 0.00% |
| **2011** | | | 1.000 | 0.917 | 1.000 | 1.000 | 1.222 | 1.083 | | 6.78% |
| **2012** | | | 1.125 | 1.444 | 1.091 | 0.750 | 1.000 | 1.182 | | -2.08% |
| **2013** | | | 0.875 | 1.000 | 1.077 | 0.833 | 1.083 | 1.100 | | 2.13% |
| **2014** | | | 0.444 | 1.143 | 1.000 | 1.071 | 0.900 | 0.692 | | -8.70% |
| **2015** | | | 0.778 | 1.250 | 1.000 | 1.000 | 0.867 | 0.889 | | -2.44% |
| **2016** | | | 0.750 | 1.143 | 0.800 | 0.875 | 1.111 | 1.000 | | -5.26% |
| **2017** | | | 1.250 | 0.667 | 1.000 | 0.750 | 0.857 | 0.700 | | -3.33% |
| **3-Year Ave.** | | | 0.926 | 1.020 | 0.933 | 0.875 | 0.945 | 0.863 | | |
| **Weighted 3-Year** | | | 1.005 | 0.923 | 0.933 | 0.833 | 0.943 | 0.831 | | |
| **5-Year Ave.** | | | **1.026** | **1.097** | **1.000** | **1.042** | **0.963** | **0.875** | | |
| **Weighted 5-year** | | | 0.890 | 0.996 | 0.952 | 0.882 | 0.948 | 0.843 | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through September.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[2] Based on 5-year averages of births five- and six-years ago and retention.

[3] Estimated by comparing enrollment in grades 2-5 one year with enrollment in grades 1-4 the prior year.

## Appendix B. The Booth Free School Enrollment Projected by Grade to 2027

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PreK | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 21 | 24 | 19 | 15 | 14 | 27 | 30 | 0 | 129 |
| **2008-09** | 2003 | 17 | 20 | 25 | 20 | 15 | 16 | 25 | 0 | 121 |
| **2009-10** | 2004 | 18 | 13 | 22 | 22 | 23 | 17 | 15 | 0 | 112 |
| **2010-11** | 2005 | 15 | 14 | 15 | 22 | 20 | 24 | 18 | 0 | 113 |
| **2011-12** | 2006 | 22 | 21 | 11 | 16 | 19 | 17 | 23 | 0 | 107 |
| **2012-13** | 2007 | 10 | 11 | 20 | 10 | 15 | 20 | 18 | 0 | 94 |
| **2013-14** | 2008 | 10 | 7 | 10 | 20 | 12 | 14 | 22 | 0 | 85 |
| **2014-15** | 2009 | 11 | 11 | 9 | 10 | 20 | 13 | 15 | 0 | 78 |
| **2015-16** | 2010 | 14 | 12 | 12 | 9 | 10 | 19 | 15 | 0 | 77 |
| **2016-17** | 2011 | 16 | 16 | 12 | 14 | 12 | 12 | 20 | 0 | 86 |
| **2017-18** | 2012 | 7 | 5 | 14 | 11 | 16 | 12 | 12 | 0 | 70 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 10 | 9 | 6 | 15 | 13 | 16 | 13 | 0 | 72 |
| **2019-20** | 2014 | 8 | 8 | 10 | 6 | 18 | 13 | 17 | 0 | 72 |
| **2020-21** | 2015 | 11 | 10 | 9 | 10 | 8 | 18 | 14 | 0 | 69 |
| **2021-22** | 2016 | 17 | 15 | 11 | 9 | 12 | 8 | 19 | 0 | 74 |
| **2022-23** | 2017 | 11 | 10 | 16 | 12 | 11 | 12 | 9 | 0 | 70 |
| **2023-24** | 2018 | 13 | 12 | 11 | 17 | 14 | 11 | 13 | 0 | 78 |
| **2024-25** | 2019 | 14 | 13 | 13 | 12 | 20 | 14 | 12 | 0 | 84 |
| **2025-26** | 2020 | 13 | 12 | 14 | 14 | 14 | 20 | 15 | 0 | 89 |
| **2026-27** | 2021 | 14 | 12 | 13 | 15 | 17 | 14 | 22 | 0 | 93 |
| **2027-28** | 2022 | 14 | 12 | 13 | 14 | 18 | 17 | 15 | 0 | 89 |
| **Projection Growth Rates** | | | [2] | 1.000 | 1.016 | 1.111 | 1.014 | 1.077 | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[3]** |
| **2008** | | | 1.176 | 1.042 | 1.053 | 1.000 | 1.143 | 0.926 | | 1.33% |
| **2009** | | | 0.722 | 1.100 | 0.880 | 1.150 | 1.133 | 0.938 | | 1.32% |
| **2010** | | | 0.933 | 1.154 | 1.000 | 0.909 | 1.043 | 1.059 | | 0.00% |
| **2011** | | | 0.955 | 0.786 | 1.067 | 0.864 | 0.850 | 0.958 | | -7.41% |
| **2012** | | | 1.100 | 0.952 | 0.909 | 0.938 | 1.053 | 1.059 | | 0.00% |
| **2013** | | | 0.700 | 0.909 | 1.000 | 1.200 | 0.933 | 1.100 | | 4.62% |
| **2014** | | | 1.000 | 1.143 | 1.000 | 1.000 | 1.083 | 1.071 | | 3.57% |
| **2015** | | | 0.714 | 1.000 | 1.125 | 1.000 | 0.950 | 1.154 | | 1.92% |
| **2016** | | | 1.000 | 1.000 | 1.182 | 1.333 | 1.200 | 1.053 | | 16.00% |
| **2017** | | | 0.571 | 0.875 | 1.100 | 1.000 | 1.000 | 1.000 | | 2.00% |
| **3-Year Ave.** | | | 0.762 | 0.958 | 1.136 | 1.111 | 1.050 | 1.069 | | |
| **Weighted 3-Year** | | | 0.738 | 0.938 | 1.131 | 1.111 | 1.058 | 1.043 | | |
| **5-Year Ave.** | | | **0.836** | **1.000** | **1.016** | **1.111** | **1.014** | **1.077** | | |
| **Weighted 5-year** | | | 0.780 | 0.971 | 1.107 | 1.102 | 1.050 | 1.061 | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through September.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[2] Based on 5-year averages of births five- and six-years ago and retention.

[3] Estimated by comparing enrollment in grades 2-5 one year with enrollment in grades 1-4 the prior year.

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## Appendix C. Washington Primary School Enrollment Projected by Grade to 2027

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PreK | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 38 | 22 | 25 | 36 | 29 | 37 | 24 | 0 | 173 |
| **2008-09** | 2003 | 34 | 28 | 21 | 32 | 38 | 28 | 37 | 0 | 184 |
| **2009-10** | 2004 | 27 | 20 | 31 | 22 | 31 | 36 | 29 | 0 | 169 |
| **2010-11** | 2005 | 26 | 20 | 20 | 31 | 25 | 32 | 34 | 0 | 162 |
| **2011-12** | 2006 | 25 | 21 | 22 | 22 | 35 | 29 | 31 | 0 | 160 |
| **2012-13** | 2007 | 17 | 16 | 22 | 15 | 21 | 34 | 30 | 0 | 138 |
| **2013-14** | 2008 | 22 | 19 | 19 | 22 | 15 | 22 | 30 | 28 | 155 |
| **2014-15** | 2009 | 17 | 19 | 20 | 20 | 24 | 16 | 23 | 31 | 153 |
| **2015-16** | 2010 | 27 | 16 | 18 | 20 | 22 | 24 | 17 | 42 | 159 |
| **2016-17** | 2011 | 21 | 11 | 16 | 19 | 21 | 21 | 25 | 52 | 165 |
| **2017-18** | 2012 | 15 | 16 | 11 | 17 | 20 | 22 | 20 | 41 | 147 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 19 | 15 | 17 | 12 | 18 | 20 | 22 | 41 | 145 |
| **2019-20** | 2014 | 19 | 16 | 16 | 18 | 13 | 18 | 20 | 41 | 142 |
| **2020-21** | 2015 | 23 | 19 | 17 | 17 | 19 | 13 | 18 | 41 | 144 |
| **2021-22** | 2016 | 16 | 14 | 20 | 18 | 18 | 19 | 13 | 41 | 143 |
| **2022-23** | 2017 | 17 | 14 | 15 | 21 | 19 | 18 | 19 | 41 | 147 |
| **2023-24** | 2018 | 19 | 15 | 15 | 16 | 23 | 19 | 18 | 41 | 147 |
| **2024-25** | 2019 | 17 | 14 | 16 | 16 | 17 | 23 | 19 | 41 | 146 |
| **2025-26** | 2020 | 18 | 14 | 15 | 17 | 17 | 17 | 23 | 41 | 144 |
| **2026-27** | 2021 | 18 | 14 | 15 | 16 | 18 | 17 | 17 | 41 | 138 |
| **2027-28** | 2022 | 17 | 14 | 15 | 16 | 17 | 18 | 17 | 41 | 138 |
| **Projection Growth Rates** | | | [2] | 1.037 | 1.032 | 1.063 | 1.019 | 0.983 | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[3]** |
| **2008** | | | 0.824 | 0.955 | 1.280 | 1.056 | 0.966 | 1.000 | | 6.30% |
| **2009** | | | 0.741 | 1.107 | 1.048 | 0.969 | 0.947 | 1.036 | | -0.84% |
| **2010** | | | 0.769 | 1.000 | 1.000 | 1.136 | 1.032 | 0.944 | | 1.67% |
| **2011** | | | 0.840 | 1.100 | 1.100 | 1.129 | 1.160 | 0.969 | | 8.33% |
| **2012** | | | 0.941 | 1.048 | 0.682 | 0.955 | 0.971 | 1.034 | | -7.41% |
| **2013** | | | 0.864 | 1.188 | 1.000 | 1.000 | 1.048 | 0.882 | | -3.26% |
| **2014** | | | 1.059 | 1.053 | 1.053 | 1.091 | 1.067 | 1.045 | | 6.41% |
| **2015** | | | 0.593 | 0.944 | 1.000 | 1.100 | 1.000 | 1.063 | | 3.75% |
| **2016** | | | 0.524 | 1.000 | 1.059 | 1.050 | 0.955 | 1.042 | | 2.38% |
| **2017** | | | 1.067 | 1.000 | 1.063 | 1.056 | 1.048 | 0.952 | | 2.60% |
| **3-Year Ave.** | | | 0.728 | 0.981 | 1.040 | 1.069 | 1.001 | 1.019 | | |
| **Weighted 3-Year** | | | 0.807 | 0.991 | 1.051 | 1.061 | 1.009 | 1.000 | | |
| **5-Year Ave.** | | | **0.779** | **1.037** | **1.032** | **1.063** | **1.019** | **0.983** | | |
| **Weighted 5-year** | | | 0.813 | 1.008 | 1.044 | 1.064 | 1.016 | 1.006 | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through September.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[2] Based on 5-year averages of births five- and six-years ago and retention.

[3] Estimated by comparing enrollment in grades 2-5 one year with enrollment in grades 1-4 the prior year.

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## Appendix D. Region 12 Enrollment Projected by Grade to 2027: Grades PK-5

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PK | Total PK-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 71 | 57 | 68 | 62 | 59 | 88 | 78 | 21 | 433 |
| **2008-09** | 2003 | 57 | 59 | 56 | 74 | 64 | 60 | 86 | 21 | 420 |
| **2009-10** | 2004 | 58 | 48 | 64 | 54 | 78 | 64 | 60 | 29 | 397 |
| **2010-11** | 2005 | 56 | 46 | 51 | 63 | 54 | 80 | 65 | 19 | 378 |
| **2011-12** | 2006 | 56 | 51 | 44 | 54 | 64 | 57 | 80 | 17 | 367 |
| **2012-13** | 2007 | 35 | 36 | 55 | 37 | 48 | 64 | 61 | 21 | 322 |
| **2013-14** | 2008 | 40 | 33 | 38 | 56 | 37 | 49 | 63 | 28 | 304 |
| **2014-15** | 2009 | 37 | 35 | 37 | 39 | 59 | 38 | 47 | 31 | 286 |
| **2015-16** | 2010 | 50 | 35 | 36 | 37 | 42 | 57 | 40 | 42 | 289 |
| **2016-17** | 2011 | 41 | 30 | 36 | 38 | 40 | 43 | 59 | 52 | 298 |
| **2017-18** | 2012 | 30 | 38 | 28 | 36 | 44 | 40 | 39 | 41 | 266 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 32 | 30 | 42 | 30 | 41 | 44 | 41 | 41 | 269 |
| **2019-20** | 2014 | 38 | 34 | 33 | 43 | 36 | 41 | 44 | 41 | 272 |
| **2020-21** | 2015 | 37 | 35 | 38 | 34 | 49 | 36 | 41 | 41 | 274 |
| **2021-22** | 2016 | 43 | 38 | 38 | 39 | 39 | 49 | 37 | 41 | 281 |
| **2022-23** | 2017 | 38 | 35 | 42 | 40 | 45 | 39 | 48 | 41 | 290 |
| **2023-24** | 2018 | 40 | 36 | 39 | 44 | 46 | 45 | 39 | 41 | 290 |
| **2024-25** | 2019 | 40 | 37 | 40 | 41 | 50 | 46 | 44 | 41 | 299 |
| **2025-26** | 2020 | 40 | 36 | 41 | 42 | 47 | 50 | 46 | 41 | 303 |
| **2026-27** | 2021 | 39 | 35 | 40 | 43 | 48 | 47 | 51 | 41 | 305 |
| **2027-28** | 2022 | 39 | 36 | 39 | 42 | 50 | 48 | 46 | 41 | 302 |

| **Projection Growth Rates** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Annual Growth Rates** | | | | | | | **Estimated Migration[4]** |
| **2008** | 1.035 | 0.982 | 1.088 | 1.032 | 1.017 | 0.977 | 1.33% |
| **2009** | 0.828 | 1.085 | 0.964 | 1.054 | 1.000 | 1.000 | 1.80% |
| **2010** | 0.821 | 1.063 | 0.984 | 1.000 | 1.026 | 1.016 | 0.47% |
| **2011** | 0.911 | 0.957 | 1.059 | 1.016 | 1.056 | 1.000 | 1.21% |
| **2012** | 1.029 | 1.078 | 0.841 | 0.889 | 1.000 | 1.070 | -2.34% |
| **2013** | 0.825 | 1.056 | 1.018 | 1.000 | 1.021 | 0.984 | -0.28% |
| **2014** | 0.946 | 1.121 | 1.026 | 1.054 | 1.027 | 0.959 | -2.04% |
| **2015** | 0.700 | 1.029 | 1.000 | 1.077 | 0.966 | 1.053 | 1.00% |
| **2016** | 0.732 | 1.029 | 1.056 | 1.081 | 1.024 | 1.035 | 3.58% |
| **2017** | 1.267 | 0.933 | 1.000 | 1.158 | 1.000 | 0.907 | -3.02% |
| **3-Year Ave.** | 0.899 | 0.997 | 1.019 | 1.105 | 0.997 | 0.998 | |
| **Weighted 3-Year** | 0.994 | 0.981 | 1.019 | 1.119 | 1.002 | 0.974 | |
| **5-Year Ave.** | 0.894 | 1.033 | 1.020 | 1.074 | 1.008 | 0.988 | |
| **Weighted 5-year** | 0.938 | 1.011 | 1.020 | 1.097 | 1.005 | 0.982 | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through September.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[2] Projection based on sum of projections by grade within town.

[3] Kindergarten based on 5-year averages of estimated yield from births five- and six-years ago and retention by town.

[4] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year with an adjustment for Non-residents in and residents out.

## Appendix E. Region 12 Enrollment Projected by Grade to 2027: Grades 6-12

| School Year | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 6-8 Total | 9-12 Total | PK-12 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 80 | 81 | 71 | 96 | 93 | 103 | 101 | 232 | 393 | 1,058 |
| **2008-09** | 77 | 82 | 85 | 73 | 91 | 83 | 100 | 244 | 347 | 1,011 |
| **2009-10** | 90 | 78 | 80 | 87 | 70 | 88 | 78 | 248 | 323 | 968 |
| **2010-11** | 59 | 89 | 79 | 87 | 92 | 67 | 80 | 227 | 326 | 931 |
| **2011-12** | 64 | 61 | 88 | 76 | 77 | 84 | 69 | 213 | 306 | 886 |
| **2012-13** | 78 | 60 | 61 | 82 | 73 | 80 | 85 | 199 | 320 | 841 |
| **2013-14** | 63 | 75 | 62 | 59 | 76 | 77 | 80 | 200 | 292 | 796 |
| **2014-15** | 59 | 62 | 73 | 65 | 53 | 76 | 73 | 194 | 267 | 747 |
| **2015-16** | 50 | 63 | 64 | 66 | 67 | 51 | 78 | 177 | 262 | 728 |
| **2016-17** | 45 | 51 | 61 | 71 | 67 | 64 | 50 | 157 | 252 | 707 |
| **2017-18** | 58 | 46 | 56 | 62 | 72 | 67 | 61 | 160 | 262 | 688 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 39 | 59 | 48 | 58 | 61 | 72 | 66 | 146 | 257 | 672 |
| **2019-20** | 41 | 40 | 61 | 49 | 57 | 61 | 71 | 142 | 238 | 652 |
| **2020-21** | 44 | 42 | 41 | 62 | 48 | 57 | 60 | 127 | 227 | 628 |
| **2021-22** | 41 | 45 | 43 | 44 | 61 | 48 | 56 | 129 | 209 | 619 |
| **2022-23** | 37 | 42 | 46 | 44 | 43 | 61 | 47 | 125 | 195 | 610 |
| **2023-24** | 49 | 37 | 43 | 48 | 43 | 43 | 60 | 129 | 194 | 613 |
| **2024-25** | 39 | 50 | 38 | 45 | 47 | 43 | 42 | 127 | 177 | 603 |
| **2025-26** | 44 | 40 | 52 | 39 | 44 | 47 | 42 | 136 | 172 | 611 |
| **2026-27** | 47 | 45 | 41 | 50 | 38 | 44 | 46 | 133 | 178 | 616 |
| **2027-28** | 52 | 48 | 46 | 40 | 49 | 38 | 43 | 146 | 170 | 618 |
| | | | | | | | | | | |
| **Projection Growth Rates[1]** | | | | | | | | | | |
| | 1.011 | 1.013 | 1.033 | 0.900 | 0.977 | 0.994 | 0.982 | | | |
| **Annual Growth Rates[2]** | | | | | | | | | | **Migration[2]** |
| **2008** | 0.987 | 1.025 | 1.049 | 0.901 | 0.948 | 0.892 | 0.971 | | | 1.33% |
| **2009** | 1.047 | 1.013 | 0.976 | 0.953 | 0.959 | 0.967 | 0.940 | | | 1.80% |
| **2010** | 0.983 | 0.989 | 1.013 | 1.013 | 1.057 | 0.957 | 0.909 | | | 0.47% |
| **2011** | 0.985 | 1.034 | 0.989 | 0.899 | 0.885 | 0.913 | 1.030 | | | 1.21% |
| **2012** | 0.975 | 0.938 | 1.000 | 0.830 | 0.961 | 1.039 | 1.012 | | | -2.34% |
| **2013** | 1.033 | 0.962 | 1.033 | 0.951 | 0.927 | 1.055 | 1.000 | | | -0.28% |
| **2014** | 0.937 | 0.984 | 0.973 | 0.952 | 0.898 | 1.000 | 0.948 | | | -2.04% |
| **2015** | 0.979 | 1.034 | 1.016 | 0.822 | 1.031 | 0.962 | 1.026 | | | 1.00% |
| **2016** | 1.125 | 1.041 | 1.000 | 0.875 | 1.015 | 0.955 | 0.980 | | | 3.58% |
| **2017** | 0.983 | 1.045 | 1.143 | 0.902 | 1.014 | 1.000 | 0.953 | | | -3.02% |
| | | | | | | | | | | |
| **3-Year Ave.** | 1.029 | 1.040 | 1.053 | 0.866 | 1.020 | 0.972 | 0.987 | | | |
| **Weighted 3-Year** | 1.030 | 1.042 | 1.074 | 0.879 | 1.017 | 0.979 | 0.974 | | | |
| **5-Year Ave.** | **1.011** | **1.013** | **1.033** | **0.900** | **0.977** | **0.994** | **0.982** | | | |
| **Weighted 5-year** | 1.017 | 1.028 | 1.050 | 0.889 | 0.996 | 0.984 | 0.977 | | | |

[1] Grades 6-12 based on 5-year averages of annual growth rates.
[2] Grade 9 rates adjusted for residents only. Projected Sherman enrollment added to resident projection. Italicized growth rates adjusted for enrollment of New Milford residents (in 2015).
[2] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year with an adjustment for non-residents in and residents out to public schools

## Appendix F. Enrollment in Region 12 by Town

Appendix F presents the actual enrollment in grades PK-12 broken down by town for 2007 to 2017 and projected enrollment from 2017 to 2027. The table also provides each town's share of the enrollment observed from 2007 to 2017 and projected from 2018 to 2027.

This projection by necessity is slightly different from the projection in the body of this report. In this projection the district is based on the sum of the three towns for grades PK-12. In the main body, the projection in grades 7-12 was based on the district as a whole. This projection based kindergarten enrollment on births five years earlier because the number of delayed entrants and students retained in kindergarten was not readily available by town. Finally, I projected kindergarten enrollment from births in 2007, 2008, 2009, 2011 and 2012. The births in 2010 were much larger than I expect in 2013 to 2022, which will generate kindergarten enrollment in 2018 to 2027. The column labeled "Town Total" represents enrollment from Bridgewater, Roxbury and Washington only. This total was the basis for determining each town's percentage of enrollment in Region 12. The "Region Total" includes residents, high school students from Sherman and tuitioned-in students from other towns.

**Appendix F. Enrollment in Region 12 by Town**

| | Grade PK-12 Enrollment | | | | | Town Percentage | | |
|---|---|---|---|---|---|---|---|---|
| October of Year | Bridge-water | Roxbury | Wash-ington | Town Total | Region Total | Bridge-water | Roxbury | Wash-ington |
| 2007 | 241 | 306 | 451 | 998 | 1,058 | 24.15% | 30.66% | 45.19% |
| 2008 | 225 | 296 | 443 | 964 | 1,011 | 23.34% | 30.71% | 45.95% |
| 2009 | 226 | 286 | 419 | 931 | 968 | 24.27% | 30.72% | 45.01% |
| 2010 | 217 | 284 | 404 | 905 | 931 | 23.98% | 31.38% | 44.64% |
| 2011 | 201 | 274 | 392 | 867 | 886 | 23.18% | 31.60% | 45.22% |
| 2012 | 192 | 262 | 362 | 816 | 841 | 23.53% | 32.11% | 44.36% |
| 2013 | 170 | 253 | 351 | 774 | 796 | 21.96% | 32.69% | 45.35% |
| 2014 | 148 | 241 | 329 | 718 | 747 | 20.61% | 33.57% | 45.82% |
| 2015 | 133 | 219 | 332 | 684 | 728 | 19.44% | 32.02% | 48.54% |
| 2016 | 124 | 227 | 308 | 659 | 707 | 18.82% | 34.45% | 46.73% |
| 2017 | 110 | 222 | 281 | 613 | 688 | 17.94% | 36.22% | 45.84% |
| 2018 | 100 | 214 | 270 | 584 | 672 | 17.12% | 36.64% | 46.24% |
| 2019 | 93 | 202 | 259 | 554 | 652 | 16.79% | 36.46% | 46.75% |
| 2020 | 83 | 190 | 256 | 529 | 628 | 15.69% | 35.92% | 48.39% |
| 2021 | 82 | 181 | 246 | 509 | 619 | 16.11% | 35.56% | 48.33% |
| 2022 | 80 | 177 | 239 | 496 | 610 | 16.13% | 35.69% | 48.18% |
| 2023 | 79 | 176 | 238 | 493 | 613 | 16.02% | 35.70% | 48.28% |
| 2024 | 77 | 170 | 232 | 479 | 603 | 16.08% | 35.49% | 48.43% |
| 2025 | 79 | 172 | 231 | 482 | 611 | 16.39% | 35.68% | 47.93% |
| 2026 | 82 | 175 | 228 | 485 | 616 | 16.91% | 36.08% | 47.01% |
| 2027 | 85 | 177 | 226 | 488 | 618 | 17.42% | 36.27% | 46.31% |

In 2017, Bridgewater students comprised 17.94 percent of the Region 12 enrollment compared to 36.22 percent for Roxbury and 45.84 percent for Washington. Over the ten years from 2008 to 2017, Bridgewater students were 22.01 percent of the combined enrollment, Roxbury students were 32.33 percent and Washington students were 45.66 percent.

In October 2018, I project that Bridgewater students will comprise 17.12 percent of the combined enrollment, Roxbury students will comprise 36.64 percent and Washington students will comprise 46.24 percent. Differing enrollment patterns will reduce Bridgewater's share and slightly increase those of Roxbury and Washington. Over the ten-year projection period, I project that Bridgewater students will average 16.47 percent of the combined enrollment, Roxbury students will average 35.97 percent and Washington students will average 47.56 percent.

## Appendix G. Bridgewater Resident Enrollment Projected by Grade to 2027: Grades PK-5

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PK | Total K-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 12 | 10 | 23 | 11 | 16 | 23 | 23 | 5 | 106 |
| **2008-09** | 2003 | 6 | 11 | 10 | 22 | 11 | 16 | 24 | 4 | 94 |
| **2009-10** | 2004 | 13 | 15 | 11 | 10 | 24 | 11 | 16 | 5 | 87 |
| **2010-11** | 2005 | 15 | 12 | 14 | 9 | 10 | 23 | 13 | 5 | 81 |
| **2011-12** | 2006 | 9 | 8 | 11 | 14 | 9 | 10 | 25 | 4 | 77 |
| **2012-13** | 2007 | 8 | 9 | 11 | 12 | 11 | 9 | 12 | 2 | 64 |
| **2013-14** | 2008 | 8 | 5 | 9 | 11 | 10 | 12 | 10 | 3 | 57 |
| **2014-15** | 2009 | 9 | 4 | 6 | 9 | 12 | 9 | 9 | 4 | 49 |
| **2015-16** | 2010 | 9 | 7 | 5 | 6 | 9 | 11 | 8 | 4 | 46 |
| **2016-17** | 2011 | 4 | 3 | 9 | 4 | 6 | 10 | 11 | 9 | 43 |
| **2017-18** | 2012 | 8 | 10 | 2 | 8 | 3 | 5 | 7 | 4 | 35 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 3 | 3 | 11 | 2 | 8 | 3 | 4 | 4 | 31 |
| **2019-20** | 2014 | 11 | 9 | 3 | 10 | 2 | 8 | 3 | 4 | 35 |
| **2020-21** | 2015 | 3 | 3 | 10 | 3 | 10 | 2 | 7 | 4 | 35 |
| **2021-22** | 2016 | 10 | 8 | 3 | 10 | 3 | 10 | 2 | 4 | 36 |
| **2022-23** | 2017 | 10 | 8 | 9 | 3 | 10 | 3 | 9 | 4 | 42 |
| **2023-24** | 2018 | 8 | 6 | 9 | 9 | 3 | 10 | 3 | 4 | 40 |
| **2024-25** | 2019 | 9 | 8 | 7 | 9 | 9 | 3 | 9 | 4 | 45 |
| **2025-26** | 2020 | 9 | 7 | 9 | 7 | 9 | 9 | 3 | 4 | 44 |
| **2026-27** | 2021 | 8 | 7 | 8 | 9 | 7 | 9 | 8 | 4 | 48 |
| **2027-28** | 2022 | 9 | 7 | 8 | 8 | 9 | 7 | 8 | 4 | 47 |
| **Projection Growth Rates** | | | 0.838 | 1.107 | 0.950 | 0.952 | 0.979 | 0.882 | | |
| **Annual Growth Rates** | | | | | | | | | | **Estimated Migration[4]** |
| **2008** | | | 1.833 | 1.000 | 0.957 | 1.000 | 1.000 | 1.043 | | -2.6% |
| **2009** | | | 1.154 | 1.000 | 1.000 | 1.091 | 1.000 | 1.000 | | 3.5% |
| **2010** | | | 0.800 | 0.933 | 0.818 | 1.000 | 0.958 | 1.182 | | -3.7% |
| **2011** | | | 0.889 | 0.917 | 1.000 | 1.000 | 1.000 | 1.087 | | 1.1% |
| **2012** | | | 1.125 | 1.375 | 1.091 | 0.786 | 1.000 | 1.200 | | -3.6% |
| **2013** | | | 0.625 | 1.000 | 1.000 | 0.833 | 1.091 | 1.111 | | 0.0% |
| **2014** | | | 0.444 | 1.200 | 1.000 | 1.091 | 0.900 | 0.750 | | -13.9% |
| **2015** | | | 0.778 | 1.250 | 1.000 | 1.000 | 0.917 | 0.889 | | -1.8% |
| **2016** | | | 0.750 | 1.286 | 0.800 | 1.000 | 1.111 | 1.000 | | 4.0% |
| **2017** | | | 1.250 | 0.667 | 0.889 | 0.750 | 0.833 | 0.700 | | -8.3% |
| **3-Year Ave.** | | | 0.952 | 1.143 | 0.900 | 0.947 | 0.963 | 0.867 | | |
| **Weighted 3-Year** | | | 1.005 | 0.970 | 0.878 | 0.875 | 0.940 | 0.831 | | |
| **5-Year Ave.** | | | 0.763 | **1.107** | **0.950** | **0.952** | **0.979** | **0.882** | | |
| **Weighted 5-year** | | | 0.873 | 1.042 | 0.910 | 0.918 | 0.950 | 0.852 | | |
| **2012-2017 less 2015** | | | **0.838** | | | | | | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through October.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[3] Kindergarten based on birth to kindergarten growth in 2012, 2013, 2014, 2016 and 2017 to account for lower births in 2013 to 2022.

[4] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix H. Bridgewater Resident Enrollment Projected by Grade to 2027: Grades 6-12

| School Year | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 6-8 Total | 9-12 Total | PK-12 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 20 | 24 | 19 | 17 | 17 | 18 | 15 | 63 | 67 | 241 |
| **2008-09** | 23 | 18 | 22 | 17 | 17 | 14 | 16 | 63 | 64 | 225 |
| **2009-10** | 25 | 23 | 19 | 23 | 17 | 15 | 12 | 67 | 67 | 226 |
| **2010-11** | 15 | 23 | 21 | 16 | 25 | 17 | 14 | 59 | 72 | 217 |
| **2011-12** | 11 | 15 | 24 | 17 | 15 | 22 | 16 | 50 | 70 | 201 |
| **2012-13** | 24 | 10 | 15 | 20 | 19 | 15 | 23 | 49 | 77 | 192 |
| **2013-14** | 12 | 24 | 10 | 14 | 18 | 19 | 13 | 46 | 64 | 170 |
| **2014-15** | 7 | 11 | 20 | 8 | 13 | 18 | 18 | 38 | 57 | 148 |
| **2015-16** | 9 | 7 | 12 | 14 | 9 | 14 | 18 | 28 | 55 | 133 |
| **2016-17** | 7 | 10 | 8 | 11 | 14 | 9 | 13 | 25 | 47 | 124 |
| **2017-18** | 11 | 7 | 11 | 7 | 12 | 14 | 9 | 29 | 42 | 110 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 6 | 11 | 7 | 9 | 7 | 12 | 13 | 24 | 41 | 100 |
| **2019-20** | 4 | 6 | 11 | 6 | 9 | 7 | 11 | 21 | 33 | 93 |
| **2020-21** | 3 | 4 | 6 | 9 | 6 | 9 | 7 | 13 | 31 | 83 |
| **2021-22** | 6 | 3 | 4 | 5 | 9 | 6 | 9 | 13 | 29 | 82 |
| **2022-23** | 2 | 6 | 3 | 3 | 5 | 9 | 6 | 11 | 23 | 80 |
| **2023-24** | 8 | 2 | 6 | 2 | 3 | 5 | 9 | 16 | 19 | 79 |
| **2024-25** | 3 | 8 | 2 | 5 | 2 | 3 | 5 | 13 | 15 | 77 |
| **2025-26** | 8 | 3 | 8 | 2 | 5 | 2 | 3 | 19 | 12 | 79 |
| **2026-27** | 3 | 8 | 3 | 7 | 2 | 5 | 2 | 14 | 16 | 82 |
| **2027-28** | 7 | 3 | 8 | 2 | 7 | 2 | 5 | 18 | 16 | 85 |
| | | | | | | | | | | |
| **Projection Growth Rates[1]** | | | | | | | | | | |
| | 0.920 | 1.000 | 0.984 | 0.831 | 0.985 | 1.014 | 0.947 | | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[2]** |
| **2008** | 1.000 | 0.900 | 0.917 | 0.895 | 1.000 | 0.824 | 0.889 | | | -2.6% |
| **2009** | 1.042 | 1.000 | 1.056 | 1.045 | 1.000 | 0.882 | 0.857 | | | 3.5% |
| **2010** | 0.938 | 0.920 | 0.913 | 0.842 | 1.087 | 1.000 | 0.933 | | | -3.7% |
| **2011** | 0.846 | 1.000 | 1.043 | 0.810 | 0.938 | 0.880 | 0.941 | | | 1.1% |
| **2012** | 0.960 | 0.909 | 1.000 | 0.833 | 1.118 | 1.000 | 1.045 | | | -3.6% |
| **2013** | 1.000 | 1.000 | 1.000 | 0.933 | 0.900 | 1.000 | 0.867 | | | 0.0% |
| **2014** | 0.700 | 0.917 | 0.833 | 0.800 | 0.929 | 1.000 | 0.947 | | | -13.9% |
| **2015** | 1.000 | 1.000 | 1.091 | 0.700 | 1.125 | 1.077 | 1.000 | | | -1.8% |
| **2016** | 0.875 | 1.111 | 1.143 | 0.917 | 1.000 | 1.000 | 0.929 | | | 4.0% |
| **2017** | 1.000 | 1.000 | 1.100 | 0.875 | 1.091 | 1.000 | 1.000 | | | -8.3% |
| | | | | | | | | | | |
| **3-Year Ave.** | 0.964 | 1.043 | 1.107 | 0.800 | 1.061 | 1.028 | 0.976 | | | |
| **Weighted 3-Year** | 0.958 | 1.037 | 1.113 | 0.860 | 1.066 | 1.013 | 0.976 | | | |
| **5-Year Ave.** | **0.920** | **1.000** | **0.984** | **0.831** | **0.985** | **1.014** | **0.947** | | | |
| **Weighted 5-year** | 0.927 | 1.019 | 1.067 | 0.845 | 1.039 | 1.015 | 0.965 | | | |

[1] Grades 6-12 based on 5-year averages of annual growth rates.
[2] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year .

## Appendix I. Roxbury Resident Enrollment Projected by Grade to 2027: Grades PK-5

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PK | Total K-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 21 | 24 | 19 | 15 | 14 | 28 | 30 | 9 | 130 |
| **2008-09** | 2003 | 17 | 19 | 25 | 20 | 15 | 16 | 25 | 10 | 120 |
| **2009-10** | 2004 | 18 | 12 | 21 | 21 | 23 | 17 | 15 | 9 | 109 |
| **2010-11** | 2005 | 15 | 14 | 17 | 22 | 18 | 25 | 18 | 8 | 114 |
| **2011-12** | 2006 | 22 | 22 | 11 | 18 | 21 | 18 | 25 | 5 | 115 |
| **2012-13** | 2007 | 10 | 12 | 22 | 9 | 16 | 21 | 19 | 8 | 99 |
| **2013-14** | 2008 | 10 | 9 | 11 | 22 | 11 | 15 | 23 | 11 | 91 |
| **2014-15** | 2009 | 11 | 11 | 8 | 10 | 21 | 12 | 15 | 12 | 77 |
| **2015-16** | 2010 | 14 | 9 | 10 | 9 | 10 | 20 | 14 | 13 | 72 |
| **2016-17** | 2011 | 16 | 15 | 8 | 12 | 11 | 12 | 21 | 16 | 79 |
| **2017-18** | 2012 | 7 | 6 | 14 | 10 | 12 | 11 | 12 | 15 | 65 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 10 | 10 | 5 | 15 | 10 | 12 | 12 | 15 | 64 |
| **2019-20** | 2014 | 8 | 8 | 9 | 5 | 16 | 10 | 13 | 15 | 61 |
| **2020-21** | 2015 | 11 | 11 | 7 | 10 | 5 | 16 | 11 | 15 | 60 |
| **2021-22** | 2016 | 17 | 17 | 10 | 7 | 10 | 5 | 17 | 15 | 66 |
| **2022-23** | 2017 | 11 | 10 | 15 | 11 | 7 | 10 | 5 | 15 | 58 |
| **2023-24** | 2018 | 13 | 13 | 9 | 16 | 12 | 7 | 11 | 15 | 68 |
| **2024-25** | 2019 | 14 | 14 | 12 | 10 | 17 | 12 | 7 | 15 | 72 |
| **2025-26** | 2020 | 13 | 13 | 13 | 13 | 10 | 17 | 13 | 15 | 79 |
| **2026-27** | 2021 | 14 | 13 | 12 | 14 | 14 | 10 | 18 | 15 | 81 |
| **2027-28** | 2022 | 14 | 13 | 12 | 13 | 15 | 14 | 11 | 15 | 78 |
| **Projection Growth Rates** | | | 0.981 | 0.911 | 1.068 | 1.048 | 1.014 | 1.063 | | |

| **Annual Growth Rates** | | | | | | | **Estimated Migration[4]** |
|---|---|---|---|---|---|---|---|
| **2008** | 1.118 | 1.042 | 1.053 | 1.000 | 1.143 | 0.893 | 4.5% |
| **2009** | 0.667 | 1.105 | 0.840 | 1.150 | 1.133 | 0.938 | 4.6% |
| **2010** | 0.933 | 1.417 | 1.048 | 0.857 | 1.087 | 1.059 | 2.2% |
| **2011** | 1.000 | 0.786 | 1.059 | 0.955 | 1.000 | 1.000 | -0.8% |
| **2012** | 1.200 | 1.000 | 0.818 | 0.889 | 1.000 | 1.056 | 0.9% |
| **2013** | 0.900 | 0.917 | 1.000 | 1.222 | 0.938 | 1.095 | 5.6% |
| **2014** | 1.000 | 0.889 | 0.909 | 0.955 | 1.091 | 1.000 | 0.9% |
| **2015** | 0.643 | 0.909 | 1.125 | 1.000 | 0.952 | 1.167 | 0.0% |
| **2016** | 0.938 | 0.889 | 1.200 | 1.222 | 1.200 | 1.050 | 6.7% |
| **2017** | 0.857 | 0.933 | 1.250 | 1.000 | 1.000 | 1.000 | -1.2% |
| **3-Year Ave.** | 0.811 | 0.914 | 1.192 | 1.065 | 1.024 | 1.068 | |
| **Weighted 3-Year** | 0.848 | 0.914 | 1.213 | 1.074 | 1.059 | 1.044 | |
| **5-Year Ave.** | 0.862 | **0.911** | **1.068** | **1.048** | **1.014** | **1.063** | |
| **Weighted 5-year** | 0.858 | 0.910 | 1.150 | 1.068 | 1.052 | 1.053 | |
| **2012-2017 less 2015** | **0.981** | | | | | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through October.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[3] Kindergarten based on birth to kindergarten growth in 2012, 2013, 2014, 2016 and 2017 to account for lower births in 2013 to 2022.

[4] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix J. Roxbury Resident Enrollment Projected by Grade to 2027: Grades 6-12

| School Year | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 6-8 Total | 9-12 Total | PK-12 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 23 | 23 | 14 | 22 | 26 | 24 | 35 | 60 | 107 | 306 |
| **2008-09** | 30 | 25 | 28 | 11 | 23 | 25 | 24 | 83 | 83 | 296 |
| **2009-10** | 27 | 31 | 24 | 24 | 13 | 22 | 27 | 82 | 86 | 286 |
| **2010-11** | 15 | 30 | 31 | 24 | 27 | 14 | 21 | 76 | 86 | 284 |
| **2011-12** | 18 | 16 | 29 | 27 | 23 | 24 | 17 | 63 | 91 | 274 |
| **2012-13** | 26 | 17 | 18 | 23 | 26 | 22 | 23 | 61 | 94 | 262 |
| **2013-14** | 20 | 25 | 20 | 13 | 21 | 28 | 24 | 65 | 86 | 253 |
| **2014-15** | 23 | 20 | 26 | 22 | 14 | 21 | 26 | 69 | 83 | 241 |
| **2015-16** | 15 | 22 | 20 | 23 | 21 | 13 | 20 | 57 | 77 | 219 |
| **2016-17** | 15 | 15 | 22 | 22 | 22 | 22 | 14 | 52 | 80 | 227 |
| **2017-18** | 20 | 15 | 15 | 25 | 23 | 23 | 21 | 50 | 92 | 222 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 12 | 20 | 16 | 15 | 25 | 24 | 23 | 48 | 87 | 214 |
| **2019-20** | 12 | 12 | 21 | 16 | 15 | 26 | 24 | 45 | 81 | 202 |
| **2020-21** | 13 | 12 | 12 | 21 | 16 | 15 | 26 | 37 | 78 | 190 |
| **2021-22** | 11 | 13 | 12 | 12 | 21 | 16 | 15 | 36 | 64 | 181 |
| **2022-23** | 17 | 11 | 14 | 12 | 12 | 22 | 16 | 42 | 62 | 177 |
| **2023-24** | 5 | 17 | 11 | 14 | 12 | 12 | 22 | 33 | 60 | 176 |
| **2024-25** | 11 | 5 | 18 | 11 | 14 | 12 | 12 | 34 | 49 | 170 |
| **2025-26** | 7 | 11 | 5 | 18 | 11 | 14 | 12 | 23 | 55 | 172 |
| **2026-27** | 13 | 7 | 11 | 5 | 18 | 11 | 14 | 31 | 48 | 175 |
| **2027-28** | 18 | 13 | 7 | 11 | 5 | 19 | 11 | 38 | 46 | 177 |
| | | | | | | | | | | |
| **Projection Growth Rates[1]** | | | | | | | | | | |
| | 1.011 | 0.980 | 1.040 | 0.991 | 0.981 | 1.029 | 0.991 | | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[2]** |
| **2008** | 1.000 | 1.087 | 1.217 | 0.786 | 1.045 | 0.962 | 1.000 | | | 4.5% |
| **2009** | 1.080 | 1.033 | 0.960 | 0.857 | 1.182 | 0.957 | 1.080 | | | 4.6% |
| **2010** | 1.000 | 1.111 | 1.000 | 1.000 | 1.125 | 1.077 | 0.955 | | | 2.2% |
| **2011** | 1.000 | 1.067 | 0.967 | 0.871 | 0.958 | 0.889 | 1.214 | | | -0.8% |
| **2012** | 1.040 | 0.944 | 1.125 | 0.793 | 0.963 | 0.957 | 0.958 | | | 0.9% |
| **2013** | 1.053 | 0.962 | 1.176 | 0.722 | 0.913 | 1.077 | 1.091 | | | 5.6% |
| **2014** | 1.000 | 1.000 | 1.040 | 1.100 | 1.077 | 1.000 | 0.929 | | | 0.9% |
| **2015** | 1.000 | 0.957 | 1.000 | 0.885 | 0.955 | 0.929 | 0.952 | | | 0.0% |
| **2016** | 1.071 | 1.000 | 1.000 | 1.100 | 0.957 | 1.048 | 1.077 | | | 6.7% |
| **2017** | 0.952 | 1.000 | 1.000 | 1.136 | 1.045 | 1.045 | 0.955 | | | -1.2% |
| | | | | | | | | | | |
| **3-Year Ave.** | 1.000 | 0.981 | 1.000 | 1.029 | 0.985 | 1.018 | 0.982 | | | |
| **Weighted 3-Year** | 1.000 | 0.993 | 1.000 | 1.082 | 1.001 | 1.027 | 0.995 | | | |
| **5-Year Ave.** | **1.011** | **0.980** | **1.040** | **0.991** | **0.981** | **1.029** | **0.991** | | | |
| **Weighted 5-year** | 1.007 | 0.989 | 1.017 | 1.044 | 0.999 | 1.019 | 0.992 | | | |

[1] Grades 6-12 based on 5-year averages of annual growth rates.
[2] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix K. Washington Resident Enrollment Projected by Grade to 2027: Grades PK-5

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PK | Total K-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 38 | 22 | 25 | 36 | 29 | 37 | 24 | 7 | 173 |
| **2008-09** | 2003 | 34 | 29 | 21 | 32 | 38 | 28 | 37 | 7 | 185 |
| **2009-10** | 2004 | 27 | 21 | 32 | 23 | 31 | 36 | 29 | 15 | 172 |
| **2010-11** | 2005 | 26 | 20 | 20 | 32 | 26 | 32 | 34 | 6 | 164 |
| **2011-12** | 2006 | 25 | 21 | 22 | 22 | 34 | 29 | 30 | 8 | 158 |
| **2012-13** | 2007 | 17 | 15 | 22 | 16 | 21 | 34 | 30 | 11 | 138 |
| **2013-14** | 2008 | 22 | 19 | 18 | 23 | 16 | 22 | 30 | 13 | 128 |
| **2014-15** | 2009 | 17 | 18 | 22 | 20 | 26 | 17 | 23 | 13 | 126 |
| **2015-16** | 2010 | 27 | 17 | 18 | 22 | 22 | 25 | 18 | 22 | 122 |
| **2016-17** | 2011 | 21 | 11 | 17 | 19 | 23 | 21 | 26 | 25 | 117 |
| **2017-18** | 2012 | 15 | 14 | 11 | 18 | 20 | 24 | 19 | 19 | 106 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 19 | 16 | 15 | 12 | 19 | 20 | 23 | 19 | 105 |
| **2019-20** | 2014 | 19 | 16 | 17 | 16 | 13 | 19 | 19 | 19 | 100 |
| **2020-21** | 2015 | 23 | 19 | 17 | 18 | 17 | 13 | 19 | 19 | 103 |
| **2021-22** | 2016 | 16 | 13 | 20 | 18 | 19 | 17 | 13 | 19 | 100 |
| **2022-23** | 2017 | 17 | 14 | 14 | 21 | 19 | 19 | 17 | 19 | 104 |
| **2023-24** | 2018 | 19 | 16 | 15 | 15 | 22 | 19 | 19 | 19 | 106 |
| **2024-25** | 2019 | 17 | 14 | 17 | 16 | 16 | 22 | 19 | 19 | 104 |
| **2025-26** | 2020 | 18 | 15 | 15 | 18 | 17 | 16 | 21 | 19 | 102 |
| **2026-27** | 2021 | 18 | 15 | 16 | 16 | 19 | 17 | 16 | 19 | 99 |
| **2027-28** | 2022 | 17 | 14 | 16 | 17 | 17 | 19 | 17 | 19 | 100 |
| **Projection Growth Rates** | | | 0.837 | 1.075 | 1.052 | 1.070 | 1.009 | 0.975 | | |

| Annual Growth Rates | K | 1 | 2 | 3 | 4 | 5 | Estimated Migration[4] |
|---|---|---|---|---|---|---|---|
| **2008** | 0.853 | 0.955 | 1.280 | 1.056 | 0.966 | 1.000 | 2.0% |
| **2009** | 0.778 | 1.103 | 1.095 | 0.969 | 0.947 | 1.036 | -1.5% |
| **2010** | 0.769 | 0.952 | 1.000 | 1.130 | 1.032 | 0.944 | 1.7% |
| **2011** | 0.840 | 1.100 | 1.100 | 1.063 | 1.115 | 0.938 | 2.1% |
| **2012** | 0.882 | 1.048 | 0.727 | 0.955 | 1.000 | 1.034 | -3.3% |
| **2013** | 0.864 | 1.200 | 1.045 | 1.000 | 1.048 | 0.882 | -3.7% |
| **2014** | 1.059 | 1.158 | 1.111 | 1.130 | 1.063 | 1.045 | 2.0% |
| **2015** | 0.630 | 1.000 | 1.000 | 1.100 | 0.962 | 1.059 | 2.8% |
| **2016** | 0.524 | 1.000 | 1.056 | 1.045 | 0.955 | 1.040 | 0.7% |
| **2017** | 0.933 | 1.000 | 1.059 | 1.053 | 1.043 | 0.905 | -3.1% |
| **3-Year Ave.** | 0.667 | 1.000 | 1.035 | 1.066 | 0.986 | 1.000 | |
| **Weighted 3-Year** | 0.746 | 1.000 | 1.048 | 1.058 | 1.000 | 0.976 | |
| **5-Year Ave.** | 0.775 | **1.075** | **1.052** | **1.070** | **1.009** | **0.975** | |
| **Weighted 5-year** | 0.775 | 1.034 | 1.052 | 1.067 | 1.006 | 0.989 | |
| **2012-2017 less 2015** | **0.837** | | | | | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through October.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns..

[3] Kindergarten based on birth to kindergarten growth in 2012, 2013, 2014, 2016 and 2017 to account for lower births in 2013 to 2022.

[4] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix L. Washington Resident Enrollment Projected by Grade to 2027: Grades 6-12

| School Year | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 6-8 Total | 9-12 Total | PK-12 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 37 | 33 | 37 | 42 | 34 | 49 | 39 | 107 | 164 | 451 |
| **2008-09** | 24 | 39 | 34 | 36 | 40 | 31 | 47 | 97 | 154 | 443 |
| **2009-10** | 38 | 24 | 37 | 32 | 35 | 40 | 26 | 99 | 133 | 419 |
| **2010-11** | 29 | 36 | 27 | 40 | 34 | 32 | 36 | 92 | 142 | 404 |
| **2011-12** | 35 | 30 | 35 | 27 | 35 | 32 | 32 | 100 | 126 | 392 |
| **2012-13** | 28 | 33 | 28 | 30 | 22 | 39 | 33 | 89 | 124 | 362 |
| **2013-14** | 30 | 26 | 32 | 29 | 29 | 25 | 39 | 88 | 122 | 351 |
| **2014-15** | 28 | 29 | 27 | 28 | 25 | 29 | 24 | 84 | 106 | 329 |
| **2015-16** | 22 | 30 | 30 | 23 | 29 | 22 | 32 | 82 | 106 | 332 |
| **2016-17** | 20 | 22 | 28 | 21 | 26 | 27 | 22 | 70 | 96 | 308 |
| **2017-18** | 22 | 19 | 23 | 23 | 21 | 24 | 24 | 64 | 92 | 281 |
| | | | | | | | | | | |
| **Projected** | | | | | | | | | | |
| **2018-19** | 18 | 22 | 19 | 20 | 23 | 20 | 24 | 59 | 87 | 270 |
| **2019-20** | 22 | 18 | 22 | 16 | 20 | 22 | 20 | 62 | 78 | 259 |
| **2020-21** | 18 | 22 | 18 | 19 | 16 | 19 | 22 | 58 | 76 | 256 |
| **2021-22** | 18 | 18 | 22 | 15 | 19 | 16 | 19 | 58 | 69 | 246 |
| **2022-23** | 12 | 18 | 18 | 19 | 15 | 18 | 16 | 48 | 68 | 239 |
| **2023-24** | 16 | 12 | 18 | 15 | 19 | 15 | 18 | 46 | 67 | 238 |
| **2024-25** | 18 | 16 | 12 | 15 | 15 | 18 | 15 | 46 | 63 | 232 |
| **2025-26** | 18 | 18 | 16 | 10 | 15 | 15 | 18 | 52 | 58 | 231 |
| **2026-27** | 20 | 18 | 18 | 14 | 10 | 15 | 15 | 56 | 54 | 228 |
| **2027-28** | 15 | 20 | 18 | 15 | 14 | 10 | 15 | 53 | 54 | 226 |
| | | | | | | | | | | |
| **Projection Growth Rates[1]** | | | | | | | | | | |
| | 0.961 | 0.984 | 1.000 | 0.855 | 0.992 | 0.969 | 0.993 | | | |
| **Annual Growth Rates** | | | | | | | | | | **Migration[2]** |
| **2008** | 1.000 | 1.054 | 1.030 | 0.973 | 0.952 | 0.912 | 0.959 | | | 2.0% |
| **2009** | 1.027 | 1.000 | 0.949 | 0.941 | 0.972 | 1.000 | 0.839 | | | -1.5% |
| **2010** | 1.000 | 0.947 | 1.125 | 1.081 | 1.063 | 0.914 | 0.900 | | | 1.7% |
| **2011** | 1.029 | 1.034 | 0.972 | 1.000 | 0.875 | 0.941 | 1.000 | | | 2.1% |
| **2012** | 0.933 | 0.943 | 0.933 | 0.857 | 0.815 | 1.114 | 1.031 | | | -3.3% |
| **2013** | 1.000 | 0.929 | 0.970 | 1.036 | 0.967 | 1.136 | 1.000 | | | -3.7% |
| **2014** | 0.933 | 0.967 | 1.038 | 0.875 | 0.862 | 1.000 | 0.960 | | | 2.0% |
| **2015** | 0.957 | 1.071 | 1.034 | 0.852 | 1.036 | 0.880 | 1.103 | | | 2.8% |
| **2016** | 1.111 | 1.000 | 0.933 | 0.700 | 1.130 | 0.931 | 1.000 | | | 0.7% |
| **2017** | 0.846 | 0.950 | 1.045 | 0.821 | 1.000 | 0.923 | 0.889 | | | -3.1% |
| | | | | | | | | | | |
| **3-Year Ave.** | 0.955 | 1.014 | 1.000 | 0.788 | 1.056 | 0.913 | 1.000 | | | |
| **Weighted 3-Year** | 0.953 | 0.987 | 1.006 | 0.786 | 1.049 | 0.919 | 0.962 | | | |
| **5-Year Ave.** | **0.961** | **0.984** | **1.000** | **0.855** | **0.992** | **0.969** | **0.993** | | | |
| **Weighted 5-year** | 0.961 | 0.988 | 1.007 | 0.817 | 1.021 | 0.941 | 0.978 | | | |

[1] Grades 6-12 based on 5-year averages of annual growth rates.
[2] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix M. Region 12 Resident Enrollment Projected by Grade to 2027: Grades PK-5

| School Year | Birth Year | Births[1] | K | 1 | 2 | 3 | 4 | 5 | PK | Total PK-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 2002 | 71 | 56 | 67 | 62 | 59 | 88 | 77 | 21 | 430 |
| **2008-09** | 2003 | 57 | 59 | 56 | 74 | 64 | 60 | 86 | 21 | 420 |
| **2009-10** | 2004 | 58 | 48 | 64 | 54 | 78 | 64 | 60 | 29 | 397 |
| **2010-11** | 2005 | 56 | 46 | 51 | 63 | 54 | 80 | 65 | 19 | 378 |
| **2011-12** | 2006 | 56 | 51 | 44 | 54 | 64 | 57 | 80 | 17 | 367 |
| **2012-13** | 2007 | 35 | 36 | 55 | 37 | 48 | 64 | 61 | 21 | 322 |
| **2013-14** | 2008 | 40 | 33 | 38 | 56 | 37 | 49 | 63 | 27 | 303 |
| **2014-15** | 2009 | 37 | 33 | 36 | 39 | 59 | 38 | 47 | 29 | 281 |
| **2015-16** | 2010 | 50 | 33 | 33 | 37 | 41 | 56 | 40 | 39 | 279 |
| **2016-17** | 2011 | 41 | 29 | 34 | 35 | 40 | 43 | 58 | 50 | 289 |
| **2017-18** | 2012 | 30 | 30 | 27 | 36 | 35 | 40 | 38 | 38 | 244 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 2013 | 32 | 29 | 31 | 29 | 37 | 35 | 39 | 38 | 238 |
| **2019-20** | 2014 | 38 | 33 | 29 | 31 | 31 | 37 | 35 | 38 | 234 |
| **2020-21** | 2015 | 37 | 33 | 34 | 31 | 32 | 31 | 37 | 38 | 236 |
| **2021-22** | 2016 | 43 | 38 | 33 | 35 | 32 | 32 | 32 | 38 | 240 |
| **2022-23** | 2017 | 38 | 32 | 38 | 35 | 36 | 32 | 31 | 38 | 242 |
| **2023-24** | 2018 | 40 | 35 | 33 | 40 | 37 | 36 | 33 | 38 | 252 |
| **2024-25** | 2019 | 40 | 36 | 36 | 35 | 42 | 37 | 35 | 38 | 259 |
| **2025-26** | 2020 | 40 | 35 | 37 | 38 | 36 | 42 | 37 | 38 | 263 |
| **2026-27** | 2021 | 39 | 35 | 36 | 39 | 40 | 36 | 42 | 38 | 266 |
| **2027-28** | 2022 | 39 | 34 | 36 | 38 | 41 | 40 | 36 | 38 | 263 |

| **Projection Growth Rates[2]** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Annual Growth Rates** | | | | | | | | **Estimated Migration[3]** |
| **2008** | 1.035 | 1.000 | 1.104 | 1.032 | 1.017 | 0.977 | | 1.6% |
| **2009** | 0.828 | 1.085 | 0.964 | 1.054 | 1.000 | 1.000 | | 1.6% |
| **2010** | 0.821 | 1.063 | 0.984 | 1.000 | 1.026 | 1.016 | | 0.5% |
| **2011** | 0.911 | 0.957 | 1.059 | 1.016 | 1.056 | 1.000 | | 1.0% |
| **2012** | 1.029 | 1.078 | 0.841 | 0.889 | 1.000 | 1.070 | | -2.1% |
| **2013** | 0.825 | 1.056 | 1.018 | 1.000 | 1.021 | 0.984 | | 0.0% |
| **2014** | 0.892 | 1.091 | 1.026 | 1.054 | 1.027 | 0.959 | | -2.0% |
| **2015** | 0.660 | 1.000 | 1.028 | 1.051 | 0.949 | 1.053 | | 1.0% |
| **2016** | 0.707 | 1.030 | 1.061 | 1.081 | 1.049 | 1.036 | | 3.2% |
| **2017** | 1.000 | 0.931 | 1.059 | 1.000 | 1.000 | 0.884 | | -3.4% |
| **3-Year Ave.** | 0.760 | 0.989 | 1.049 | 1.045 | 0.993 | 0.993 | | |
| **Weighted 3-Year** | 0.846 | 0.976 | 1.054 | 1.036 | 1.008 | 0.963 | | |
| **5-Year Ave.** | 0.798 | **1.024** | **1.036** | **1.039** | **1.004** | **0.984** | | |
| **Weighted 5-year** | 0.828 | 1.001 | 1.046 | 1.039 | 1.008 | 0.975 | | |
| **2012-2017 less 2015** | **0.880** | | | | | | | |

[1] Births 2002 to 2016 are from the State Department of Public Health. The 2015 and 2016 figures are provisional.
Births in 2017 are my estimate from an analysis of in-state births through October.
Births in 2018-22 based on Connecticut State Data Center's 2017 projections of women of child-bearing ages and my estimate of fertility rates in 2015 from like (DRG B) towns.

[2] Projected enrollments based on sum of three towns

[3] Estimated by comparing the enrollment in grades 3-8 one year with the enrollment in grades 2-7 the prior year.

## Appendix N. Region 12 Resident Enrollment Projected by Grade to 2027: Grades 6-12

| School Year | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 6-8 Total | 9-12 Total | PK-12 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **2007-08** | 80 | 80 | 70 | 81 | 77 | 91 | 89 | 230 | 338 | 998 |
| **2008-09** | 77 | 82 | 84 | 64 | 80 | 70 | 87 | 243 | 301 | 964 |
| **2009-10** | 90 | 78 | 80 | 79 | 65 | 77 | 65 | 248 | 286 | 931 |
| **2010-11** | 59 | 89 | 79 | 80 | 86 | 63 | 71 | 227 | 300 | 905 |
| **2011-12** | 64 | 61 | 88 | 71 | 73 | 78 | 65 | 213 | 287 | 867 |
| **2012-13** | 78 | 60 | 61 | 73 | 67 | 76 | 79 | 199 | 295 | 816 |
| **2013-14** | 62 | 75 | 62 | 56 | 68 | 72 | 76 | 199 | 272 | 774 |
| **2014-15** | 58 | 60 | 73 | 58 | 52 | 68 | 68 | 191 | 246 | 718 |
| **2015-16** | 46 | 59 | 62 | 60 | 59 | 49 | 70 | 167 | 238 | 684 |
| **2016-17** | 42 | 47 | 58 | 54 | 62 | 58 | 49 | 147 | 223 | 659 |
| **2017-18** | 53 | 41 | 49 | 55 | 56 | 61 | 54 | 143 | 226 | 613 |
| **Projected** | | | | | | | | | | |
| **2018-19** | 36 | 53 | 42 | 44 | 55 | 56 | 60 | 131 | 215 | 584 |
| **2019-20** | 38 | 36 | 54 | 38 | 44 | 55 | 55 | 128 | 192 | 554 |
| **2020-21** | 34 | 38 | 36 | 49 | 38 | 43 | 55 | 108 | 185 | 529 |
| **2021-22** | 35 | 34 | 38 | 32 | 49 | 38 | 43 | 107 | 162 | 509 |
| **2022-23** | 31 | 35 | 35 | 34 | 32 | 49 | 38 | 101 | 153 | 496 |
| **2023-24** | 29 | 31 | 35 | 31 | 34 | 32 | 49 | 95 | 146 | 493 |
| **2024-25** | 32 | 29 | 32 | 31 | 31 | 33 | 32 | 93 | 127 | 479 |
| **2025-26** | 33 | 32 | 29 | 30 | 31 | 31 | 33 | 94 | 125 | 482 |
| **2026-27** | 36 | 33 | 32 | 26 | 30 | 31 | 31 | 101 | 118 | 485 |
| **2027-28** | 40 | 36 | 33 | 28 | 26 | 31 | 31 | 109 | 116 | 488 |

**Projection Growth Rates[1]**

| **Annual Growth Rates[2]** | | | | | | | | **Migration[2]** |
|---|---|---|---|---|---|---|---|---|
| **2008** | 1.000 | 1.025 | 1.050 | 0.914 | 0.988 | 0.909 | 0.956 | 1.6% |
| **2009** | 1.047 | 1.013 | 0.976 | 0.940 | 1.016 | 0.963 | 0.929 | 1.6% |
| **2010** | 0.983 | 0.989 | 1.013 | 1.000 | 1.089 | 0.969 | 0.922 | 0.5% |
| **2011** | 0.985 | 1.034 | 0.989 | 0.899 | 0.913 | 0.907 | 1.032 | 1.0% |
| **2012** | 0.975 | 0.938 | 1.000 | 0.830 | 0.944 | 1.041 | 1.013 | -2.1% |
| **2013** | 1.016 | 0.962 | 1.033 | 0.918 | 0.932 | 1.075 | 1.000 | 0.0% |
| **2014** | 0.921 | 0.968 | 0.973 | 0.935 | 0.929 | 1.000 | 0.944 | -2.0% |
| **2015** | 0.979 | 1.017 | 1.033 | 0.822 | 1.017 | 0.942 | 1.029 | 1.0% |
| **2016** | 1.050 | 1.022 | 0.983 | 0.871 | 1.033 | 0.983 | 1.000 | 3.2% |
| **2017** | 0.914 | 0.976 | 1.043 | 0.948 | 1.037 | 0.984 | 0.931 | -3.4% |
| **3-Year Ave.** | 0.972 | 1.007 | 1.018 | 0.876 | 1.029 | 0.971 | 0.989 | |
| **Weighted 3-Year** | 0.970 | 0.998 | 1.021 | 0.901 | 1.033 | 0.977 | 0.970 | |
| **5-Year Ave.** | **0.970** | **0.986** | **1.010** | **0.896** | **0.987** | **1.000** | **0.981** | |
| **Weighted 5-year** | 0.971 | 0.994 | 1.015 | 0.899 | 1.011 | 0.984 | 0.975 | |