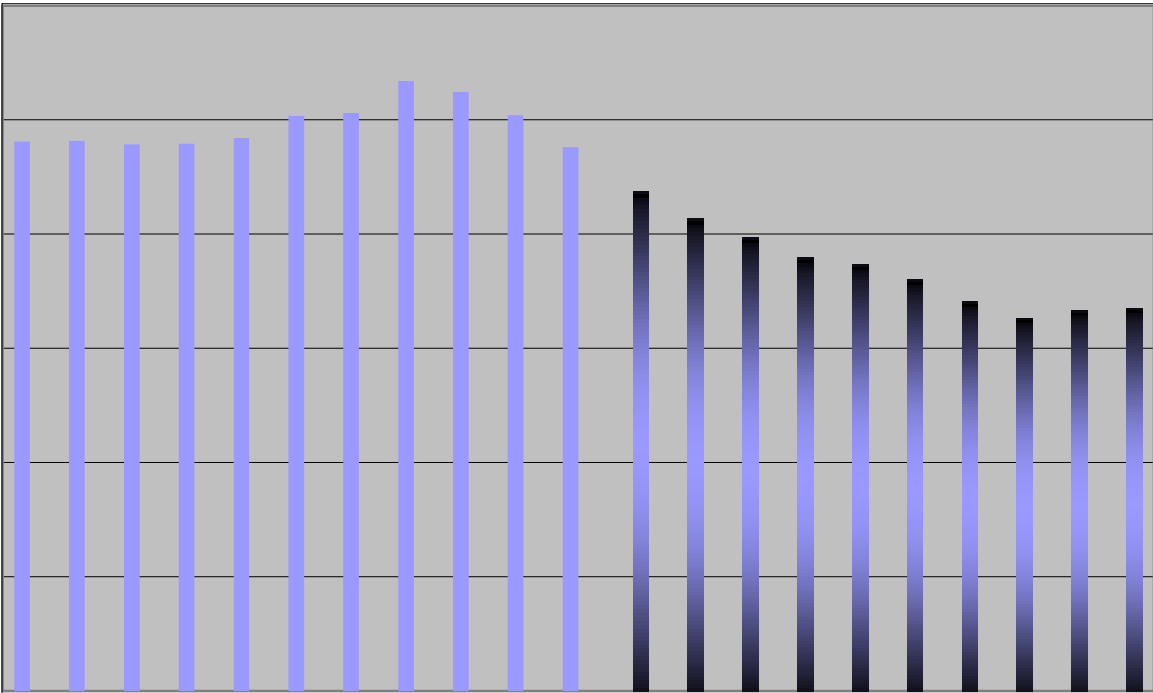


# JOEL BARLOW HIGH SCHOOL ENROLLMENT PROJECTED TO 2026



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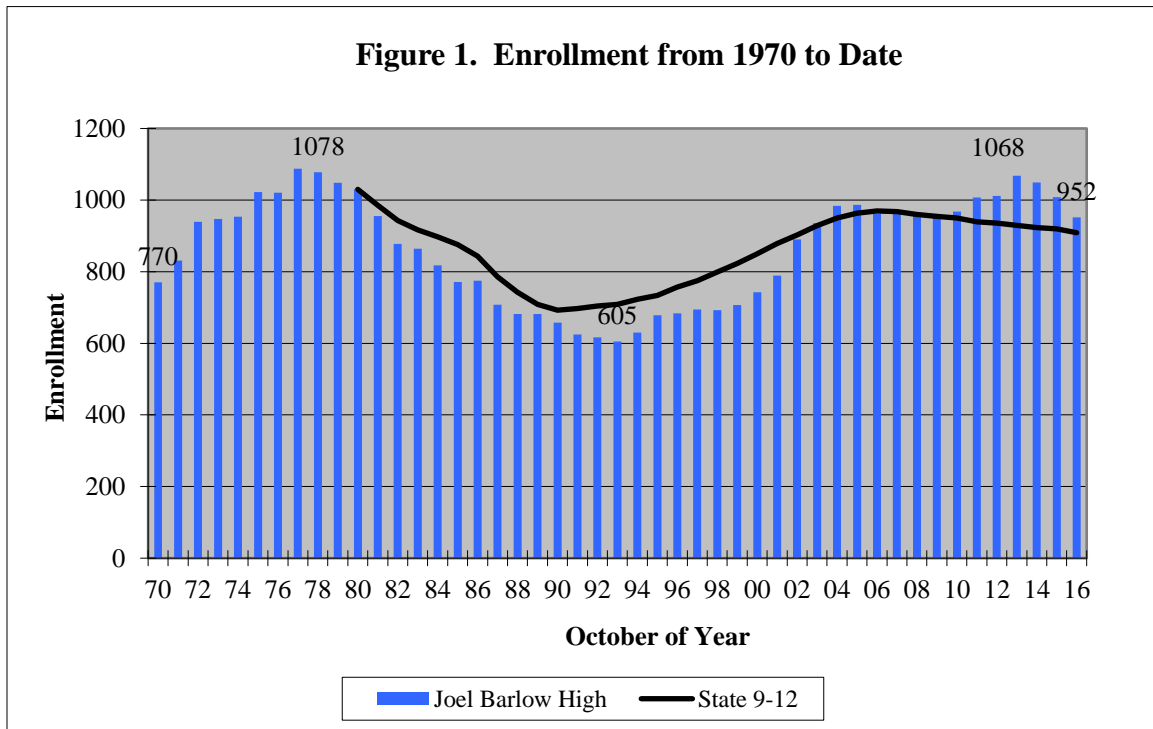
## Introduction

This report presents a ten-year projection of enrollment for Joel Barlow High School. It is based on residents and non-residents enrolled in the school on October 1. The report includes combined enrollment in Easton and Redding and some of the factors - births and kindergarten yield - that drive elementary enrollment. The report includes 47 years of enrollment to place the projection into a wider historical perspective. Several factors that influence school enrollment - town population, the labor market, housing, non-public enrollment, the high school dropout rate, Grade 9 repeaters and migration - 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. They 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 school-based eight-year projections as a critical component of determining the size of the project for which reimbursement is eligible. This report is appropriate for that purpose. In some communities the projection can determine the number of places they can make available to urban students as part of a regional desegregation effort.

## Perspective

Enrollment projections typically use the most recent 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 at Joel Barlow High School from 1970 to date.



Enrollment at Joel Barlow High School grew from 770 students in 1970 to an all-time peak of 1,078 students in 1977. Enrollment then began a cycle of decline that took it to 605 students in 1993. In those 16 years, the high school lost 473 students, a decline of 43.9 percent. Enrollment then entered a second cycle of growth that took it to 1,068 students in 2013. In the 20 years from 1993 to 2013, enrollment grew by 463 students or 76.5 percent. Enrollment is now in the third year of a second down cycle. Enrollment in 2016 was 952 students, 116 students (10.9 percent) below the recent high.

Joel Barlow's enrollment pattern is fairly similar to that of the state's public schools enrollment in grades 9-12. Between 1980 (the earliest data I have) and 1990, Connecticut public high school enrollment declined by 32.8 percent. State enrollment in grades 9-12 hit a secondary peak in 2006. It grew 40.1 percent between the 1990 low and 2006. I project that state high school enrollment declined by 6.3 percent between 2006 and 2016. Between 1979 and 2009, the Joel Barlow High School enrollment pattern was fairly similar to the state's pattern. The school's low came three years later than the state, but was slightly deeper than the state's. The school's enrollment recovery lagged behind the state through 2003. The sudden increase in enrollment from 2010 to 2013 carried the school's enrollment trajectory above that of the state. Had Joel Barlow High exactly followed the state pattern of enrollment since 1980, it would have had only 909 students on October 1, 2016 instead of the 952 that were enrolled on that date.

### Current Enrollment

Table 1 and Figure 2 provide a picture of where Easton and Redding residents attended school in grades 9-12 on October 1, 2015, the latest data available. They show that 84.5 percent of the towns' high school-age residents attended Joel Barlow High in 2015. That is down from 87.2 percent in 2014. An estimated 12.6 percent of the school-age residents attended non-public schools in state. The number that attended private schools out-of-state is not known. Other school-age residents attended magnet schools (1.9 percent) or public schools in other districts (1.0 percent). There were five non-residents who were reported as enrolled in Joel Barlow High in 2015 under the Open Choice program. Students of teachers from other towns are not included under non-residents. The projections in this report are based upon the 952 students who attended the high school in October, 2016. The equivalent figure below is the 1,008 listed under "Total Enrollment."

Table 1. 2015 Enrollment		
	Number	Percent
<b>Residents</b>		
A. Region 9 Public	1,003	84.5%
B. Other Public	12	1.0%
C. Magnets	22	1.9%
D. Non-Public	150	12.6%
<b>Total (A+B+C+D)</b>	1,187	
E. Non-Residents	5	
<b>Total Enrollment (A+E)</b>	1,008	

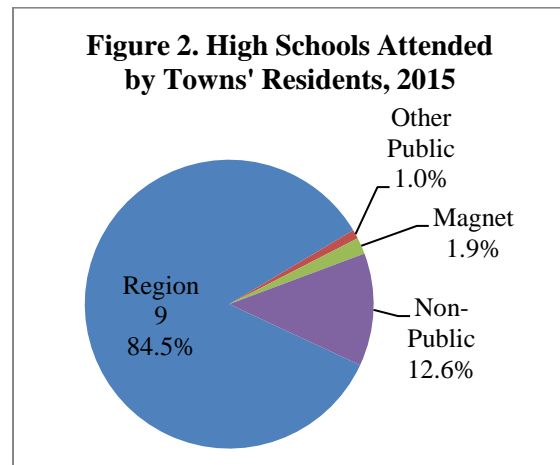
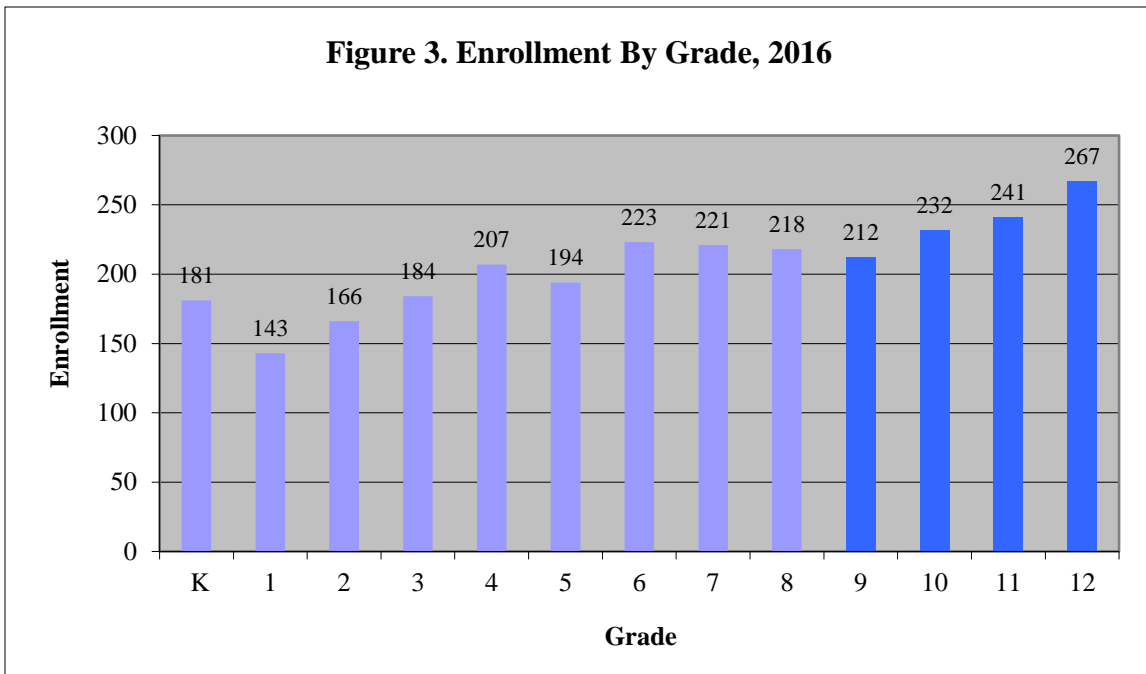


Figure 3 shows the October 2016 grade-by-grade enrollment by of students in Joel Barlow High School and Easton and Redding students in grades K-8. Grade 12 had the largest enrollment with 267 students. It moved downward to 212 students in grade 9. Enrollment in grades 6-8 averaged 221 students.



Elementary enrollments ranged from 207 in grade 4 to 143 in grade 1. This is a portent of lower high school enrollment ahead. If current conditions continue, this year's 8th grade class projects to a freshman class of 203 students in 2017. This will be the fourth year of the enrollment decline at the high school. This year's kindergarten class is projected to have 199 students when it enters Barlow in 2025. The current year enrollment by grade is the starting point for this projection. How it moves forward is discussed below.

### Projection Method

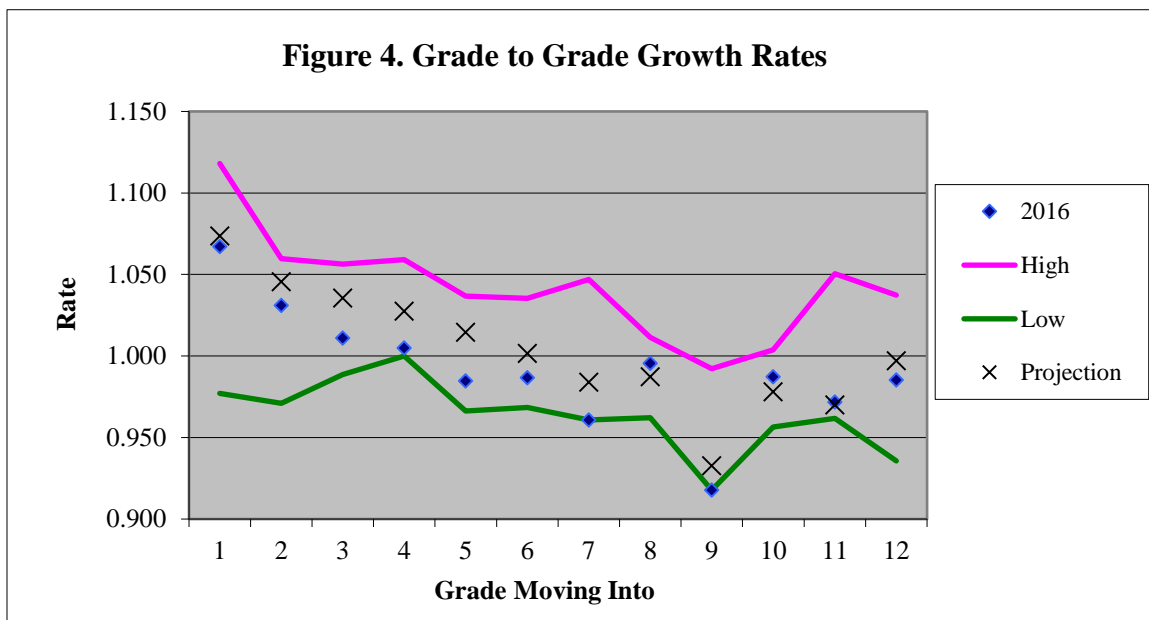
The projections in this report were generated primarily using the cohort survival method. This is the standard method used by people running enrollment projections. For the grades above kindergarten, I compute grade-to-grade growth rates for ten years (see Appendices A and B). For example, if the number of sixth graders this year is 233 and the number of fifth graders last year was 230, then the growth rate is 1.013. Growth rates above 1.000 indicate that students moved in, transferred from non-public schools or other public schools or were retained. Growth rates below 1.000 mean that students moved out, transferred to private or other public schools, dropped out, or were not promoted from the prior grade. For each grade I calculate four different averages of the year-to-year growth rates: a three-year average; a weighted three-year average; a five-year average and a weighted five-year average. I choose the average that seems to best fit the data. The average growth rate for a grade is applied to the enrollment from the prior grade. The projection builds grade by grade and year by year. I built the elementary projection from each of the two elementary school districts separately. The projection of grade 9 enrollment was built up from the combined grade 8 enrollment in Easton and Redding.

To project enrollment of students I utilized the three-year average of the annual growth rates in Easton and Redding and a three-year weighted average in Joel Barlow. The weighted average at Barlow seemed to better reflect the recent grade 9 enrollment in area magnet schools. I broke kindergarten in Easton and Redding into five year olds, six year olds entering kindergarten for the first time and repeaters. In Easton I used the three-year weighted average and in Redding I used both the 2016 rates the two-year average to reflect recent trends. In 2016, 17.1 percent of the two towns' kindergarten enrollment was students who entered late and 0.6 percent was students who had been retained. I believe that this approach will improve the kindergarten projection modestly.

The freshman class of 2026 was born in 2012. We can rely on actual births to project high school enrollment for the next ten years. However to extend the elementary projections beyond four years and to get the likely direction of high school enrollment beyond 2026, I estimated births for the years 2016 to 2021. The Connecticut State Department of Public Health recorded only 82 births to residents of the two towns in 2013. That is the latest official count and the fewest births since I began tracking births in 1980. From in-state births and out-of-state births less New York City, I estimated that Easton and Redding would rebound to 95 births in 2014. The two towns will have close to 100 births in 2015. Based on births recorded through September, 2016, I estimated there will be 103 births in the 2016 calendar year. I set 2017 to 2021 births in Easton and Redding to 100, the average of births in 2014 to 2016.

Figure 4 gives a perspective of the grade-to-grade growth rates for students attending the Easton, Redding and Region 9 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. The growth rates used in the projection were based on the three-year averages in Easton and Redding and a weighted three-year average of the observed grade-to-grade growth at Joel Barlow.

Most model growth rates are toward the middle of the ten-year range. The elementary model growth rates averaged 1.021, which indicates that families with children are moving into Easton and Redding. The average elementary growth rate in 2016 was 1.005; the 20-year median was 1.018. The model growth rate for Grade 9 was 0.933; the 2016 rate was 0.918 and the 20-year median was 0.939. This rate reflects students choosing a public or non-public school other than Joel Barlow, students educated in Grade 8 elsewhere choosing Barlow and students assigned to Grade 9 for a second year. The growth rates in grades 10-12 used in the projection averaged 0.982. The rate in 2016 was 0.981 and the 20-year median was 0.986.



Enrollment data from 2006 to 2015 were taken from earlier files provided by the Connecticut State Department of Education. Note that current district-level data on the Department's website include special education students educated outside of the district and thus would not be appropriate for this analysis. Data for 2016 were provided by the Region 9 central office. All enrollment data after 2013 are subject to minor changes as they are reviewed and audited. Births from 1980 to 2016 were provided by the Healthcare Quality, Statistics, Analysis and Reporting Unit of the State Department of Public Health.

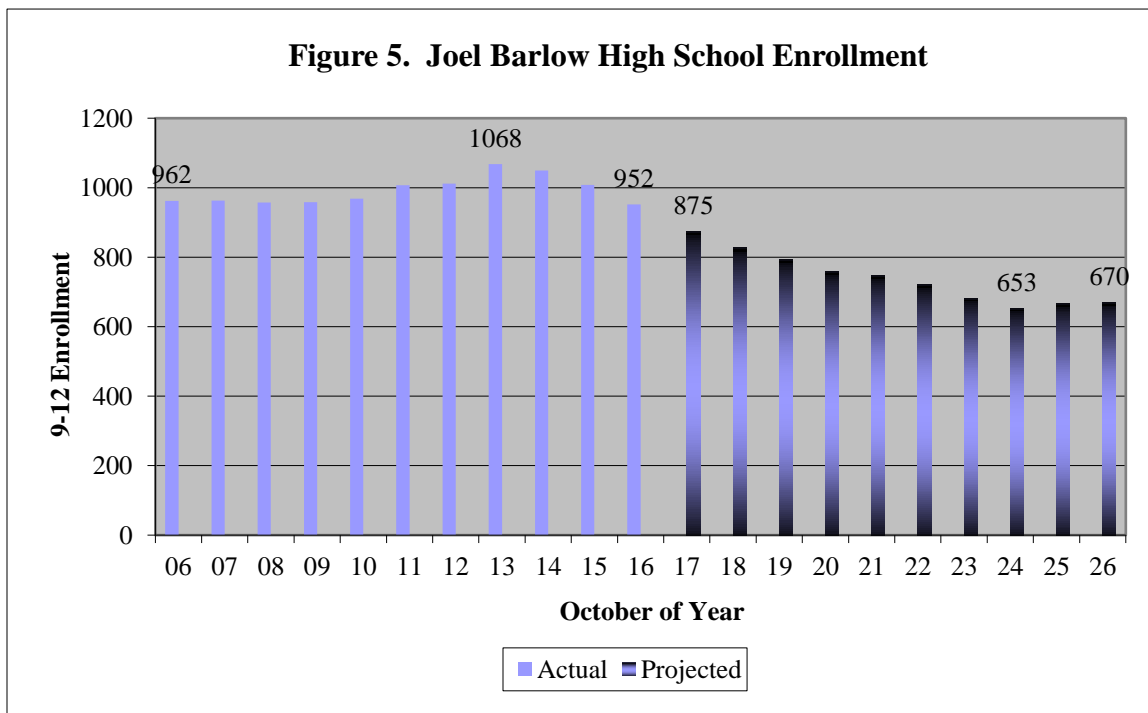
## Joel Barlow High School Enrollment

Table 2 and Figure 5 present the observed enrollment at Joel Barlow High School from 2006 to 2016 and projected enrollment through 2026. Detailed grade-by-grade data may be found in Appendix A. High school enrollment grew from 962 in 2006 to 1,068 in 2013. That culminated 20 years of enrollment growth. Enrollment was 952 students in 2016. Between 2006 and 2016, enrollment decreased by 10 students or 1.0 percent. I project that public school enrollment in grades 9-12 statewide will have decreased by 6.3 percent in that period.

Between 2005 and 2015 (the latest data available), enrollment at Joel Barlow High grew at a lower rate than most similar (DRG A) high schools in the region. The high school's enrollment growth of 2.1 percent was better than Ridgefield (+0.6 percent) but lower than New Canaan (7.1 percent), Wilton (8.2 percent), Weston (13.7 percent), Westport (23.9 percent) and Darien (25.4 percent)

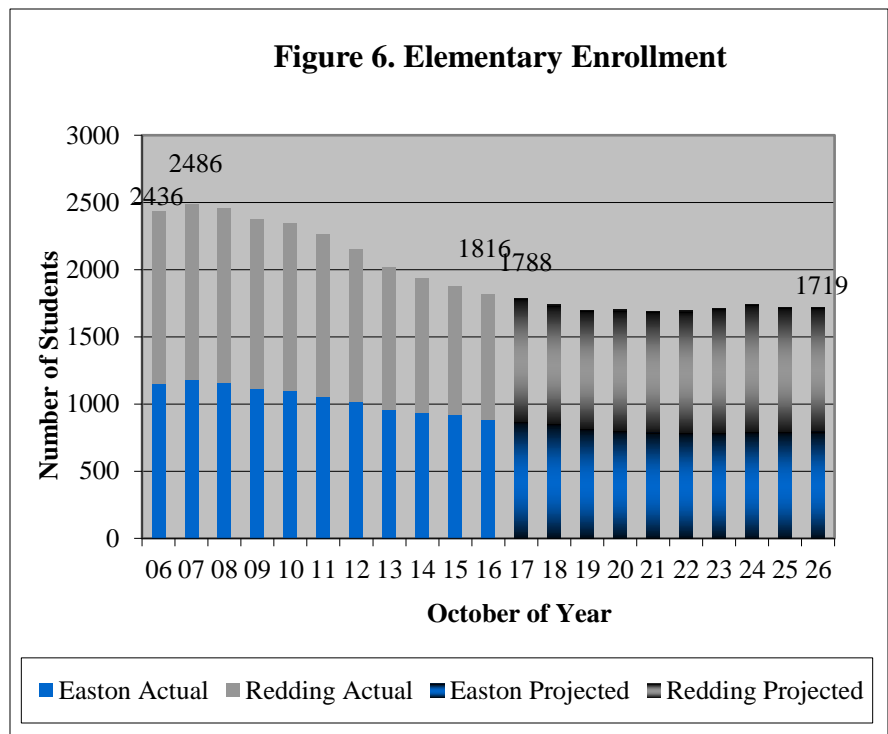
I project that next year's enrollment will be about 105 students less than this year's. I project that enrollment will fall below 800 students in 2019 and below 700 students in 2023. The last time enrollment was below 700 students was 1998. By the end of the ten-year projection period, I anticipate that enrollment will be about 670 students. That is about 280 students or almost 30 percent below the current enrollment. Statewide, I project grade 9-12 public school enrollment will decline by 11.4 percent between 2016 and 2026. High school enrollment should average 740 students over the ten-year projection period compared to an average total enrollment of 994 students over the past ten years.

Year	Students	Percent Change
2006	962	
2007	963	0.1%
2008	957	-0.6%
2009	958	0.1%
2010	968	1.0%
2011	1007	4.0%
2012	1012	0.5%
2013	1068	5.5%
2014	1049	-1.8%
2015	1008	-3.9%
2016	952	-5.6%
2017	875	-8.1%
2018	827	-5.5%
2019	794	-4.0%
2020	759	-4.4%
2021	747	-1.6%
2022	720	-3.6%
2023	682	-5.3%
2024	653	-4.3%
2025	666	2.0%
2026	670	0.6%

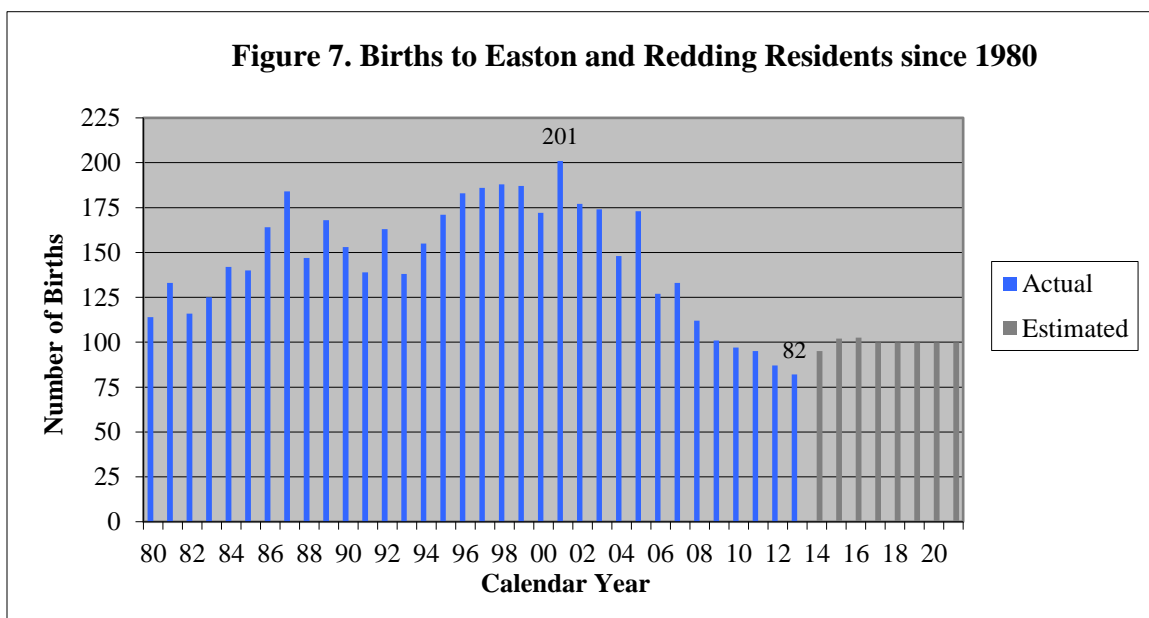


## Factors Affecting the Projection

Changes in enrollments in the schools of Easton and Redding ultimately will result in a change in the Joel Barlow enrollment. Figure 6 presents enrollment in Grades PK-8 from the two sending towns. (See Appendix C for the annual combined enrollment.) Between 2006 and 2007, the combined PK-8 enrollment in Easton and Redding grew from 2,436 to 2,486 students. By 2016, it had fallen to 1,816 students. I believe the enrollment decline will continue through 2021 and then level off. PK-8 enrollment could be about 1,720 students in 2026. That represents a potential loss of about 100 students or 5-6 percent. The projected decline between 2016 and 2026 in Easton is nine percent and in Redding, two percent. Statewide in that period, I project K-8 public school enrollment will decrease by 8.7 percent.

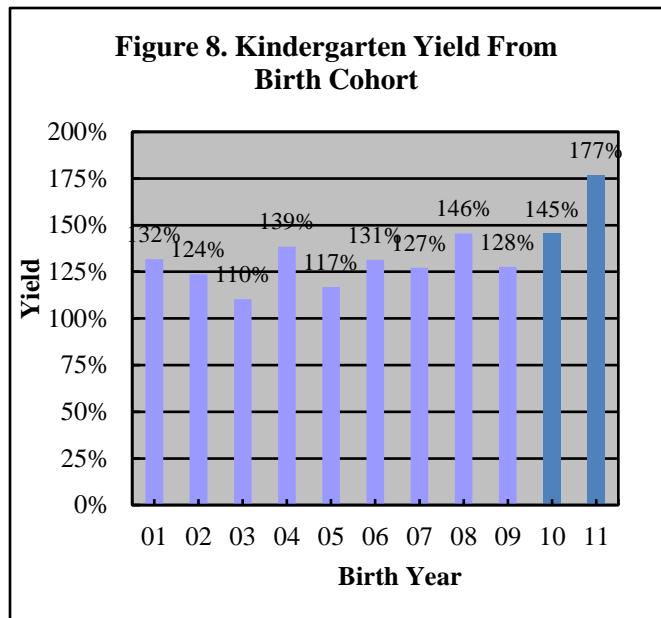


The primary reasons for elementary enrollment change lie in the births in Easton and Redding and total yield from the birth cohort. Figure 7 presents actual births from 1980 to 2013 and estimated births through 2021. The State Department of Public Health recorded only 82 births in the two towns in 2013. I estimate there will be 95 births in 2014, 102 in 2015 and 103 in 2016. Births beyond 2012 are not needed for the ten-year high school projection.

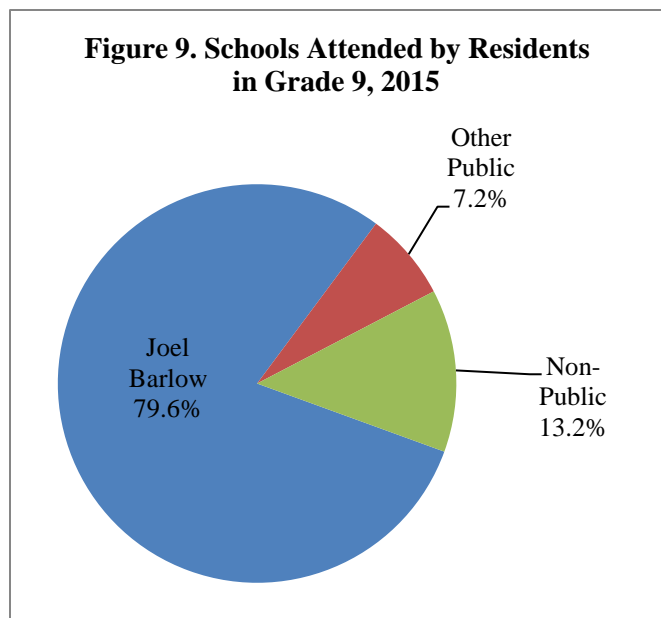




The total yield from the birth cohort is the second factor that will influence elementary enrollment. Yield is based on the number of five and six year olds who eventually enter kindergarten for the first time from a given birth year. For example, there were 97 births in Easton and Redding in 2010. In 2015, 111 five-year olds entered kindergarten and in 2016, 30 six-year olds entered for the first time. This computes to a 145 percent yield from the 2010 birth cohort. A yield above 100 percent means families moved into Easton or Redding after giving births elsewhere. Figure 8 presents the yield from the birth cohorts of 2001 to 2011. The yield ranged from 110 percent (2003) to 146 percent (2008). The kindergarten yield in the look-back periods for the projections was 170 percent in Easton and 149 percent in Redding.



Grade 9 is a time when students exercise a wide range of options about where to attend high school. The State Technical High Schools and agriculture-science centers are two options that are not available before grade 9. Figure 9 presents what schools Region 9 residents enrolled in grade 9 chose to attend in 2015, the latest data available. About 80 percent attended Joel Barlow High School. That was down from 85 percent in 2014 as more magnet options became available. About 13 percent attended non-public schools in Connecticut and the balance of 7.2 percent attended other public schools in state. The number who attended non-public schools out-of-state is not known.



## Context of the Projection

The cohort-survival method 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. Analyzing how the factors underlying the projection changed in the prior year can be an important step in this process.

To assist in this endeavor, this report examines several factors that could affect enrollment: town population; the labor force; new home construction; sales of existing homes; non-public school enrollment; resident enrollment in other public schools; grade 9 repeaters; high school dropouts and student migration in Easton and Redding.

Figure 10 presents the US Census Bureau estimate of Easton and Redding population growth between July, 2010 and 2015. In that period, the towns' population is estimated to have grown from 16,679 to 16,918 people. The combined population growth of 1.43 percent would have ranked it 35<sup>th</sup> in the state. In contrast, Fairfield County grew by 3.08 percent, the state grew by 0.31 percent and communities with similar economic and need characteristics grew by 3.43 percent. The 2010 census population data show that from April 2000 to April 2010 Easton's and Redding's population grew from 15,542 people to 16,648. The 1,106 person growth was the second smallest in the past seven decades. The 7.1 percent increase between 2000 and 2010 would have been 62<sup>nd</sup> ranked in the state.

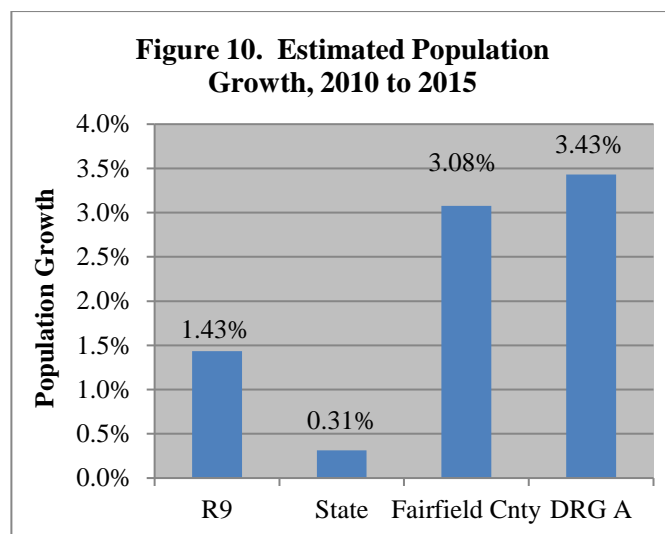


Figure 11 presents the Connecticut State Data Center's population projections for Easton and Redding residents 0-19 years of age in the years 2015 and 2020 along with the 2010 Census population. They project marked declines in both the 0-4 and 5-9 age groups. They project the population ages 10-14 will decline from 1,547 youth in 2010 to 1,541 youth in 2015 and to 1,158 in 2020. That is a ten-year loss of 25 percent. The number of teens ages 15-19 is projected to increase from 1,149 in 2010 to 1,679 in 2015 and then level off.

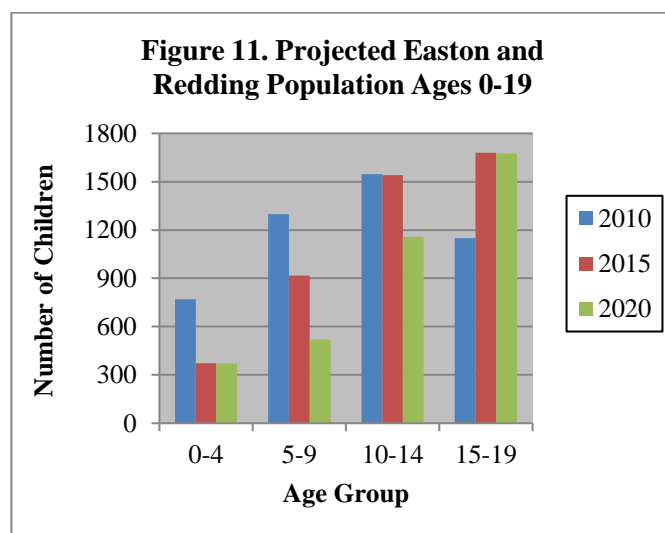


Figure 12 examines the number of people in the labor force from the US Department of Labor, Bureau of Labor Statistics. These are people 16 years of age or older working or actively seeking employment. The Easton and Redding labor force decreased an estimated 3.1 percent between 2010 and 2015. This was worse than the state (-1.2 percent) and Fairfield County (+0.9 percent). The 2015 unemployment rate was 3.9 percent in Easton and 4.2 percent in Redding. Both are below their 2010 highs. Both rates are better than the state rate of 5.6 percent and the Fairfield County rate of 5.3 percent.

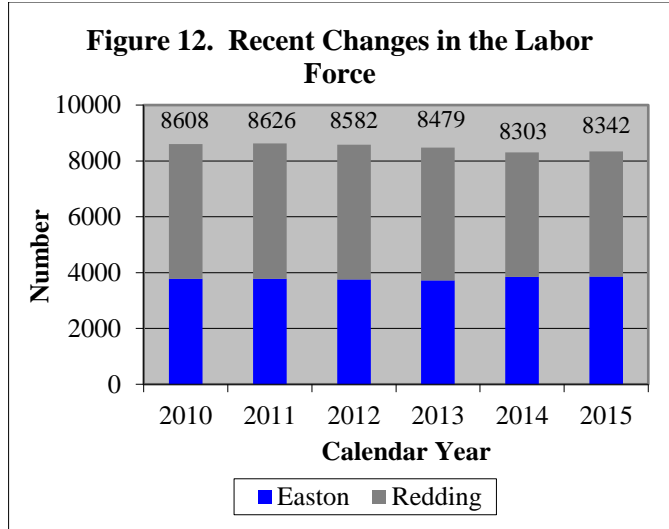


Figure 13 presents the net new housing units constructed from 2005 to 2015. The data come from the State Department of Economic and Community Development. The figures consider both units constructed and demolished. The number of net new units ranged from a high of 134 in 2005 to a low of -1 in 2011. There were permits for a net of nine new houses issued in 2015. In the three-year look-back period for this projection, there was an average of eight net new housing units constructed.

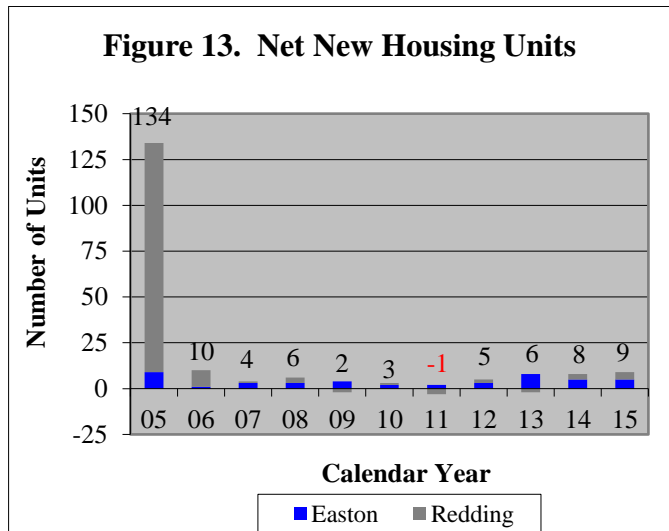


Figure 14 presents my estimate of the number of sales of existing homes. I derived it by taking the number of real estate transactions from The Warren Group/Commercial Record and subtracting the number of new single-family homes constructed. This is an estimate because of the lag between the time a house is constructed and it is sold. Sales of existing homes declined between 2005 and 2011 and now seem to be rebounding. Sales ranged from a high of 281 in 2005 to a low of 131 in 2009. There were 243 sales in 2013. In the three-year look-back period for this projection, there was an average of 210 sales per year. Preliminary data on sales through September indicate there will be about 255 sales in 2016.

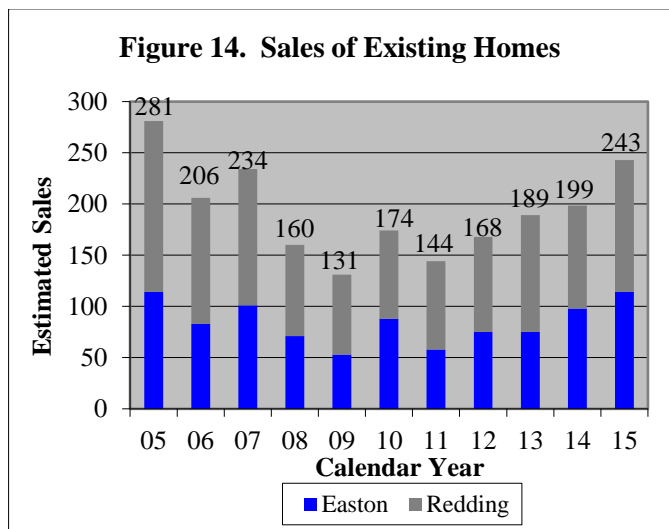


Figure 15 presents the non-public high school enrollment (in Connecticut) over the past ten years for students from Easton and Redding. The count includes students enrolled in non-public special education facilities at the expense of the district. We do not know the number attending private schools out of state. Non-public enrollment in grades 9-12 ranged from a low of 136 students in 2011 to a high of 177 students in 2008. The 2015 enrollment of 139 students represented 11.4 percent of the combined public and non-public enrollment. This is down from the 12.5 percent observed in 2012 and below the 16.7 percent level observed in 2002. I project that non-public high school enrollment could be up slightly in 2016.

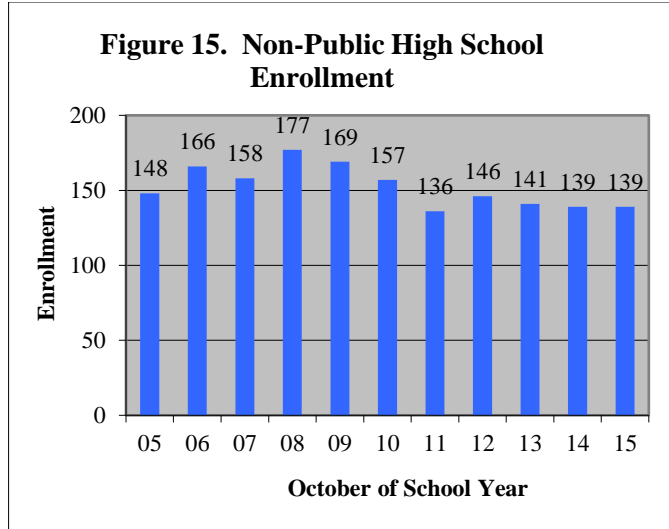


Figure 16 presents the number of Easton and Redding residents who attended a public high school other than Joel Barlow between 2006 and 2016. The 2016 count is preliminary. The count ranged from 13 in 2007 to 36 in 2016. In 2016, the district reported 15 students attended an area magnet school, eight attended a technical high school, five attended an agriculture science program and eight attended the Regional Center for the Arts.

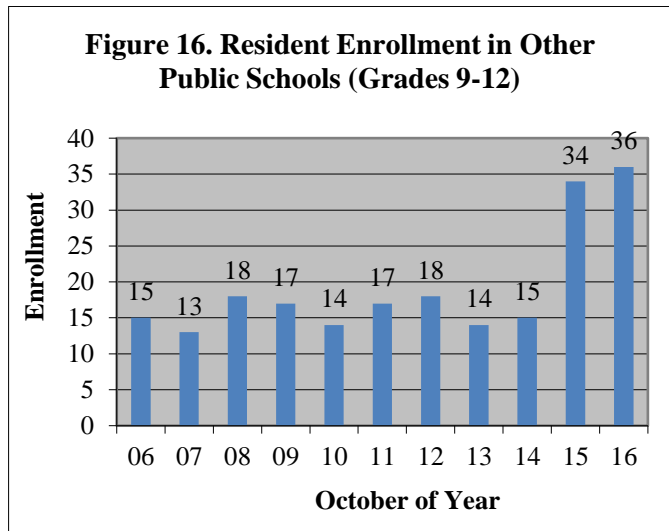


Figure 17 presents the number of grade 9 students who failed to earn enough credits to advance to grade 10. A total of only two students in the years 2013 to 2015 failed to do so. Before 2009, there were no students who failed to move up. This pattern usually reflects a policy change at the high school. In 2015, the latest data available, no students repeated the grade.

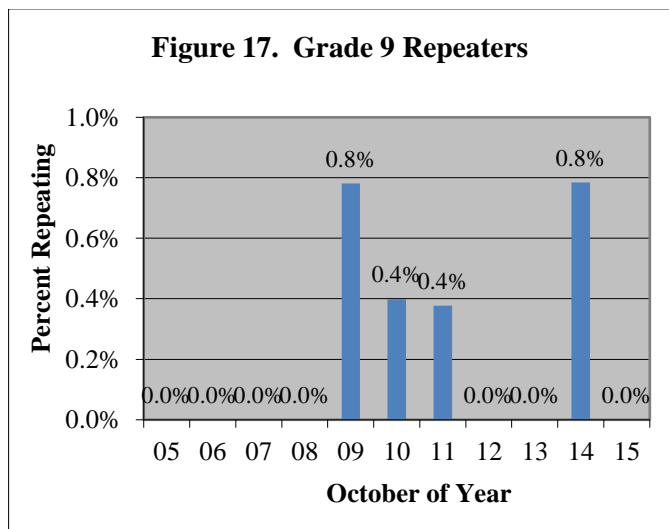


Figure 18 presents the annual dropout rate at Joel Barlow High for the 2005-06 to the 2015-16 school years. It was provided by the State Department of Education prior to 2014-15 and by Region 9 in the last two years. In those ten years, the rate ranged from a low of 0.20 percent in 2005-06 and 2015-16 to 0.83 percent in 2006-07. In the three-year look-back period for the projection a total of 15 students dropped out. That is an average of five per year. That translates into an annual dropout rate of 0.4 percent

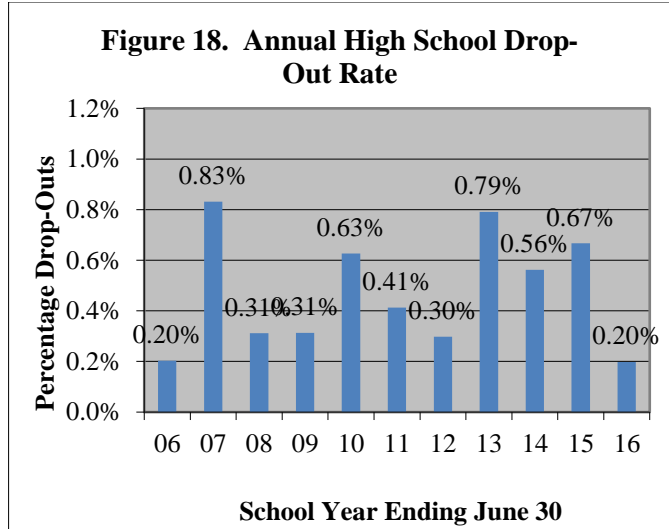
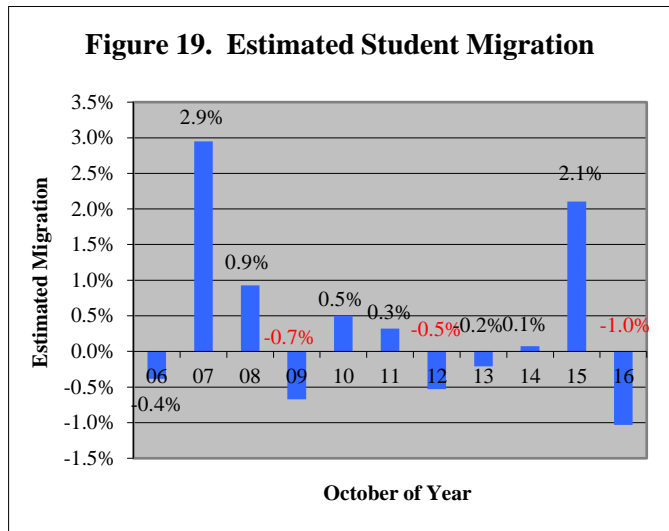
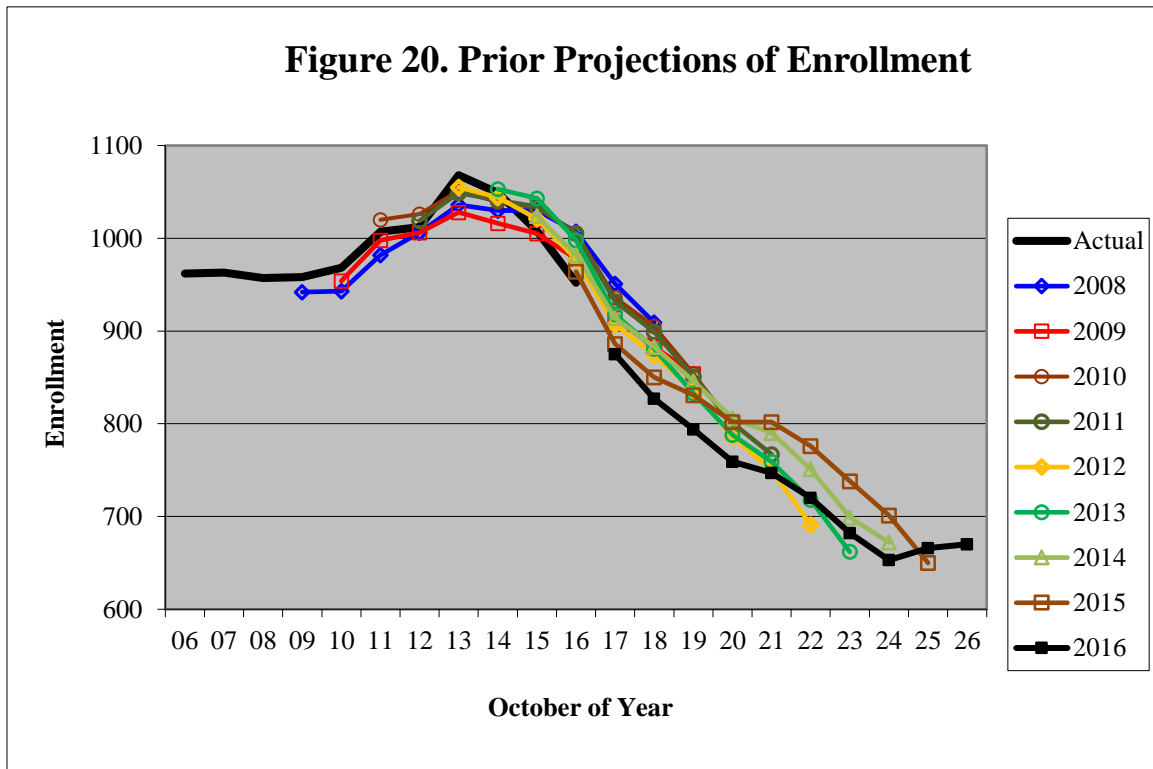


Figure 19 presents the estimated student migration for the 2006 to 2016 period. It is based on observed enrollment grades 2-8 in Easton and Redding schools with an adjustment for non-resident enrollment in the schools and residents attending other public schools. Estimated migration has varied considerably over the past ten years. It was +2.9 percent in 2007 and a preliminary -1.0 percent in 2016. In the three-year look-back period for this projection, migration averaged +0.20 percent. I have calculated three-year migration rates for the past 23 years. The three-year rate for the 2014-16 period was exceeded 20 times in the past 24 years. The median three-year rate was 1.24 percent over the past 20 years. If migration returns to the more typical levels of the past, then this projection will turn out to be slightly low.



## 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. That includes places that are growing or declining at a steady rate. One way to know if that assumption is valid is to examine how past projections have fared. Figure 20 presents the enrollment projections that I have run for Joel Barlow High School since 2006. Last year's projection was 12 students (1.3 percent) above this year's enrollment of 952. The seven other enrollment projections that I did between 2006 and 2014 had one-year error rates that averaged 1.2 percent. The four projections done between 2006 and 2011 had an average five-year error rate of 3.5 percent, which is 0.70 percent annualized.



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 2006. I found for the 67 district-level projections that I ran in 2006 the median projection was 5.5 percent 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 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

Joel Barlow High School experienced a 20-year enrollment growth between 1993 and 2013. That period is now over. The decline that started in 2014 is projected to take enrollment down to close to 670 students by 2026. That will be about 280 students or 30 percent below the current enrollment. High school enrollment should average 740 students over the ten-year projection period.

You do not have to look much further than the pattern of enrollment in the elementary schools of Easton and Redding to understand the impending decline. Elementary enrollment peaked at 2,486 students in 2007 and had receded to 1,816 students in 2016. I project it will decline to 1,720 students in 2026, a drop of five to six percent. The 231 students enrolled in Grade 8 in Easton and Redding in 2015 yielded a freshman class of 212 students at Joel Barlow in 2016. This year's Grade 8 enrollment is 218 students. I project that it will fall to about 160 students in 2026. It would take a significant influx of families with older children to offset a decline of this magnitude.

This report is projecting a significant decline in enrollment. If enrollment falls to 650 students, it will be the lowest enrollment recorded since 1994. It is critical to remember that a projection is just a moving forward of recent current trends. Is the forecast too severe? Migration of elementary school-age children is a factor. The average growth rate in grades 1-8 used in the model was 1.021. The rate in 2016 was 1.005. The 20-year median rate was 1.018. If the rate in 2016 were maintained, future elementary enrollment would be lower. A second key rate is the transition from grade 8 to grade 9. The projection used a rate of 0.933. The rate in 2016 was a low 0.918 due in part to more students choosing area magnet schools. The 20-year median rate was 0.939. If the 2016 rate persists, future enrollment will be slightly lower than projected. The final rate to consider is the average grade-to-grade growth rate in high school. The average grade-to-grade growth rate across grades 10-12 used in the model was 0.982; the rate in 2016 was 0.981. The median rate over the past 20 years was 0.986. Taking these factors into consideration, I feel that the projection may very slightly overestimate future enrollment.

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 there will be little change in the proportion of students attending non-public or magnet schools, retention policies will not change and that the number of credits needed to be assigned to a particular grade does not change. The projection assumes the following population growth factors will not change appreciably: a 93 percent yield from grade 8 and a student migration of +0.2 percent. Additionally, there will be eight net new housing units constructed annually and 210 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 current 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 communities best. Apply your knowledge of the specific conditions in Region 9 and then make adjustments as necessary.

**Appendix A. Joel Barlow High School Enrollment Projected to 2026**

<b>School Year</b>	<b>Easton/Redding Grade 8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>Total</b>	<b>From Easton</b>	<b>From Redding</b>
<b>2006-07</b>	245	244	238	248	232	962	433	554
<b>2007-08</b>	266	230	242	250	241	963	432	528
<b>2008-09</b>	266	248	220	240	249	957	450	511
<b>2009-10</b>	266	256	242	214	246	958	446	506
<b>2010-11</b>	282	251	252	243	222	968	450	502
<b>2011-12</b>	274	265	249	249	244	1,007	463	498
<b>2012-13</b>	299	262	266	251	233	1,012	457	546
<b>2013-14</b>	257	290	262	260	256	1,068	486	571
<b>2014-15</b>	254	255	279	252	263	1,049	487	555
<b>2015-16</b>	231	235	248	271	254	1,008	469	529
<b>2016-17</b>	218	212	232	241	267	952	438	504
<b>Projected</b>								
<b>2017-18</b>	218	203	207	225	240	875		
<b>2018-19</b>	217	203	199	201	224	827		
<b>2019-20</b>	189	202	199	193	200	794		
<b>2020-21</b>	205	176	198	193	192	759		
<b>2021-22</b>	188	191	172	192	192	747		
<b>2022-23</b>	175	175	187	167	191	720		
<b>2023-24</b>	159	163	171	181	167	682		
<b>2024-25</b>	216	148	159	166	180	653		
<b>2025-26</b>	191	201	145	154	166	666		
<b>2026-27</b>	162	178	197	141	154	670		



## Appendix B. Grade-to-Grade Growth Rates

October of Year	9	10	11	12	Average <sup>1</sup>	Estimated Migration <sup>2</sup>
<b>2007</b>	0.939	0.992	1.050	0.972	0.988	2.91%
<b>2008</b>	0.932	0.957	0.992	0.996	0.969	0.92%
<b>2009</b>	0.962	0.976	0.973	1.025	0.984	-0.79%
<b>2010</b>	0.944	0.984	1.004	1.037	0.992	0.56%
<b>2011</b>	0.940	0.992	0.988	1.004	0.981	0.32%
<b>2012</b>	0.956	1.004	1.008	0.936	0.976	-0.53%
<b>2013</b>	0.970	1.000	0.977	1.020	0.992	-0.21%
<b>2014</b>	0.992	0.962	0.962	1.012	0.982	0.07%
<b>2015</b>	0.925	0.973	0.971	1.008	0.969	2.10%
<b>2016</b>	0.918	0.987	0.972	0.985	0.965	-1.03%
<b>3-Year Ave.</b>	0.945	0.974	0.968	1.002	0.972	
<b>Weighted 3-Year</b>	<b>0.933</b>	<b>0.978</b>	<b>0.970</b>	<b>0.997</b>	<b>0.969</b>	
<b>5-Year Ave.</b>	0.952	0.985	0.978	0.992	0.977	
<b>Weighted 5-year</b>	0.944	0.981	0.973	0.998	0.974	
<b>Enrollment Multiplier</b>	0.933	0.978	0.970	0.997		

<sup>1</sup> Averages based on grades 9-12 only.

<sup>2</sup> Estimated by comparing enrollment in grades 3-8 one year with enrollment in grades 2-7 the prior year in Easton and Redding.

**Appendix C. Easton and Redding Enrollment in Grades PK-8 Projected to 2026**

<b>School Year</b>	<b>Birth Year</b>	<b>Births<sup>1</sup></b>	<b>K<sup>2</sup></b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>PreK</b>	<b>Total</b>
<b>2006-07</b>	2001	201	255	235	276	278	276	260	256	263	245	80	2,436
<b>2007-08</b>	2002	177	234	256	240	286	282	280	269	268	266	92	2,486
<b>2008-09</b>	2003	174	208	242	266	250	289	285	286	265	266	105	2,457
<b>2009-10</b>	2004	148	203	217	235	263	250	295	276	281	266	100	2,379
<b>2010-11</b>	2005	173	205	210	216	237	270	254	302	272	282	93	2,344
<b>2011-12</b>	2006	127	174	212	216	218	237	269	263	301	274	96	2,264
<b>2012-13</b>	2007	133	177	170	214	221	224	229	263	260	299	100	2,151
<b>2013-14</b>	2008	112	168	184	179	214	223	221	228	264	257	94	2,021
<b>2014-15</b>	2009	101	144	174	195	186	218	228	223	230	254	83	1,936
<b>2015-16</b>	2010	97	134	161	182	206	197	226	230	219	231	84	1,874
<b>2016-17</b>	2011	95	181	143	166	184	207	194	223	221	218	88	1,816
<b>Projected</b>													
<b>2017-18</b>	2012	87	160	196	149	171	190	210	195	220	218	88	1,788
<b>2018-19</b>	2013	82	136	173	205	154	177	193	211	192	217	88	1,737
<b>2019-20</b>	2014	95	149	146	181	212	159	180	194	208	189	88	1,697
<b>2020-21</b>	2015	102	162	161	152	187	220	162	181	191	205	88	1,700
<b>2021-22</b>	2016	103	165	175	168	157	194	222	163	178	188	88	1,689
<b>2022-23</b>	2017	100	162	179	183	174	162	196	223	161	175	88	1,694
<b>2023-24</b>	2018	100	161	175	187	189	180	165	197	219	159	88	1,711
<b>2024-25</b>	2019	100	161	174	182	194	196	182	166	194	216	88	1,744
<b>2025-26</b>	2020	100	161	174	181	188	200	198	183	164	191	88	1,719
<b>2026-27</b>	2021	100	161	174	181	187	194	202	199	180	162	88	1,719

<sup>1</sup> 2001 to 2015 births from the State Department of Public Health. Births in 2014 and 2015 are preliminary. Births in 2016 estimated from in-state births through September. Births in 2017-21 were set to the average of 2014 to 2016 in Easton and Redding.

<sup>2</sup> Based on the three-year weighted averages of births five- and six-years ago and retention in Easton. In Redding, Kindergarten was set to 2016 percentages of the three components in 2017 and the 2-year average afterwards.