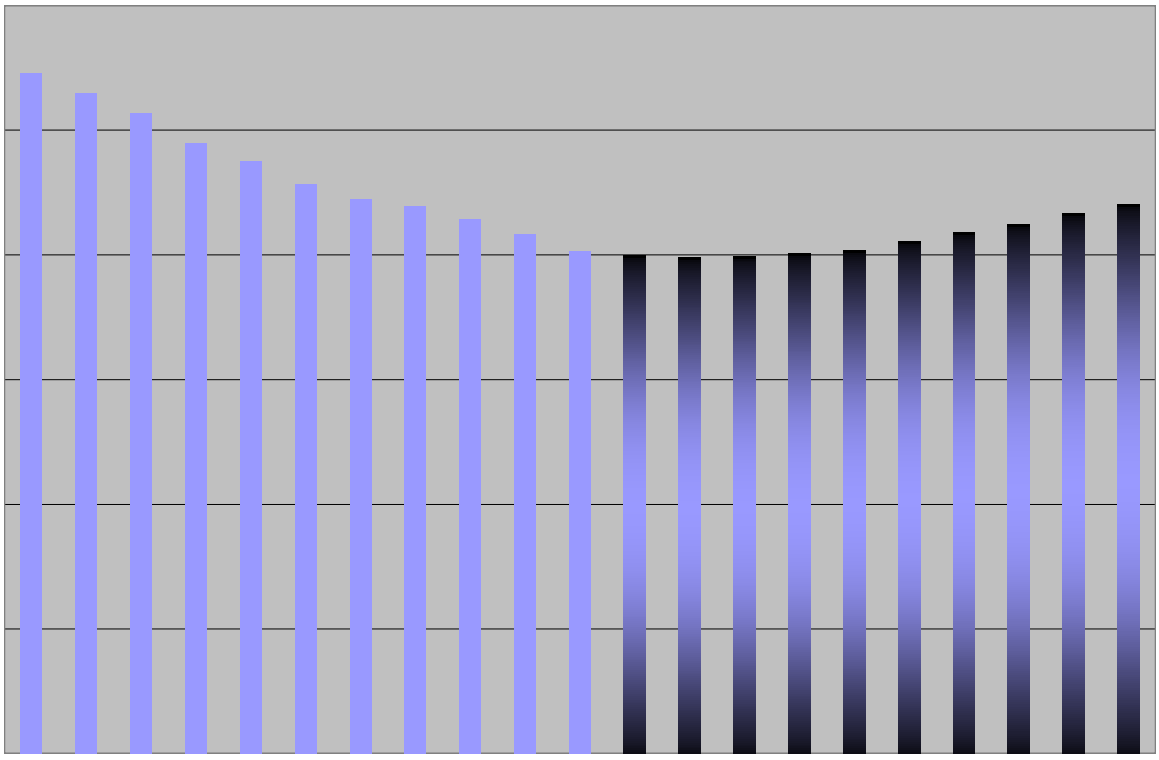
NEWTOWN PUBLIC SCHOOLS ENROLLMENT PROJECTED TO 2030



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Introduction

This report presents a ten-year projection of enrollment for the Newtown Public Schools. It is based on students enrolled in Newtown schools on October 1. The projection is divided into the four grade levels that represent how the Newtown schools are organized: K-4, 5-6, 7-8 and 9-12. The report includes 51 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 - town population, women of child-bearing age, labor force, housing, retention in grade 9, dropouts, non-public enrollment, resident enrollment in other public schools 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 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. This projection is appropriate for that purpose because it is school-based. 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.

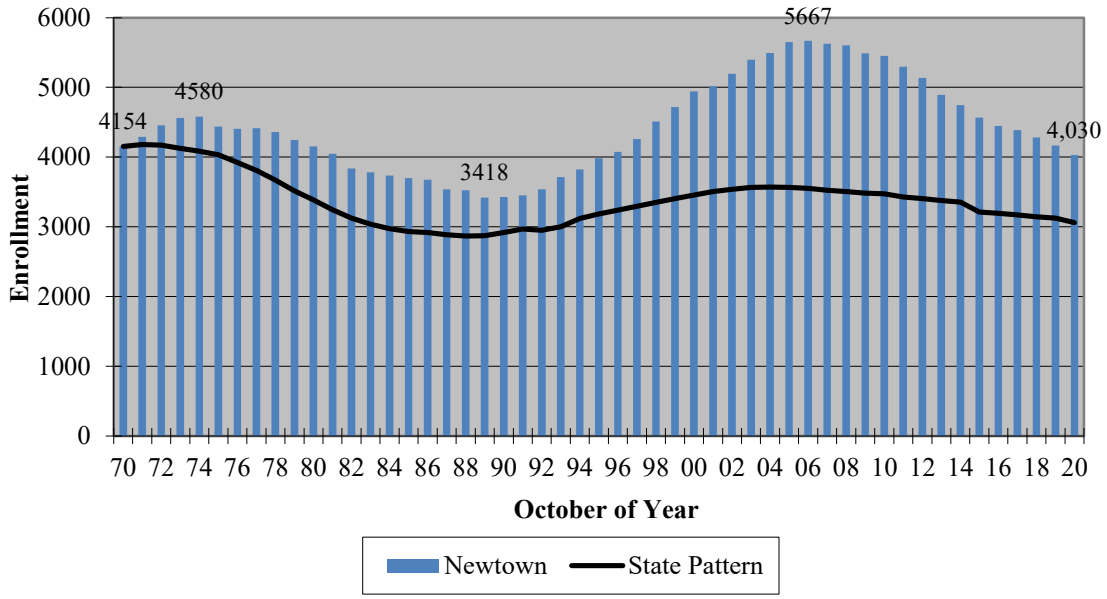
This projection was run during the Covid-19 epidemic which has had profound fiscal and physical implications. If fiscal issues dominate, we might expect students to return from private schools and a decline in births in 2021. If physical (social distance) issues dominate, we might expect fewer children riding buses to magnet schools, more families deciding to home-school their children, or more families choosing private schools with smaller class sizes. My initial take is that these factors seem to have had a greater negative impact on elementary enrollment. A key assumption behind the method used in this report is that enrollment patterns in the near future will be reflected in the patterns of the recent past. I assume that the pandemic will be substantially behind us by the fall of 2021. I have made what I believe are the best possible adjustments to this unique situation.

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 in Newtown from 1970 to date.

Enrollment in the Newtown Public Schools grew from 4,154 in 1970 to 4,580 students in 1974. It then went on a 15-year decline that saw enrollment fall 25.4 percent to 3,418 students in 1989. Enrollment then entered a 17-year period of growth of 65.8 percent that took it to an all-time high of 5,667 students in 2006. Most districts peaked in the early 1970's. Enrollment is currently in a second period of decline. That decline, currently in its 14th year, has eroded enrollment by 28.9 percent. The 2020 enrollment of 4,030 is 1,637 students below the 2006 peak.

Figure 1. Newtown Enrollment 1970 to Date



While the cyclical pattern of Newtown's enrollment generally follows that of the state, its magnitude is different. 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. State enrollment declined by 14.3 percent between 2004 and 2020. The 1974 to 1989 decline in Newtown was two years shorter in duration and much shallower than the state's decline. The subsequent enrollment gain in Newtown was about the same duration as the state's but of greater magnitude. The state entered a second cycle of decline in 2005; Newtown did so in 2007. To date the decline has been deeper in Newtown (-28.9 percent) than the state (-14.3 percent). Had Newtown followed the state pattern of enrollment since 1970, it would have had only 3,059 students in October of 2020 instead of the count of 4,030 students.

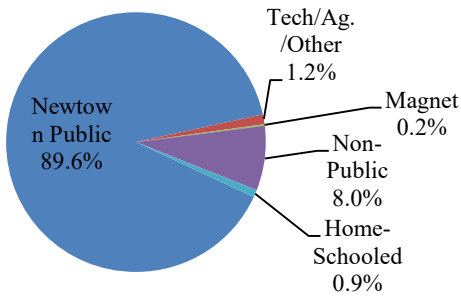
Current Enrollment

Table 1 and Figure 2 provide a picture of where Newtown residents attended school on October 1, 2020. They show that 89.6 percent of Newtown's school-age residents attended the Newtown Public Schools. Three hundred-sixty students (8.0 percent) attended non-public schools in state. The number attending private schools out-of-state is not known. This figure includes 23 special education students educated at district expense. Few (10) school-age residents attended area magnet schools (0.2 percent).

Table 1. 2020 Enrollment

	Number	Percent
Residents		
A. Newtown Public	4,021	89.6%
B. Tech, Ag. & Other	54	1.2%
C. Magnets	10	0.2%
D. Non-Public	360	8.0%
E. Home-Schooled	41	0.9%
Total (A+B+C+D+E)	4,486	

Figure 2. Schools Attended by Newtown Residents, 2020

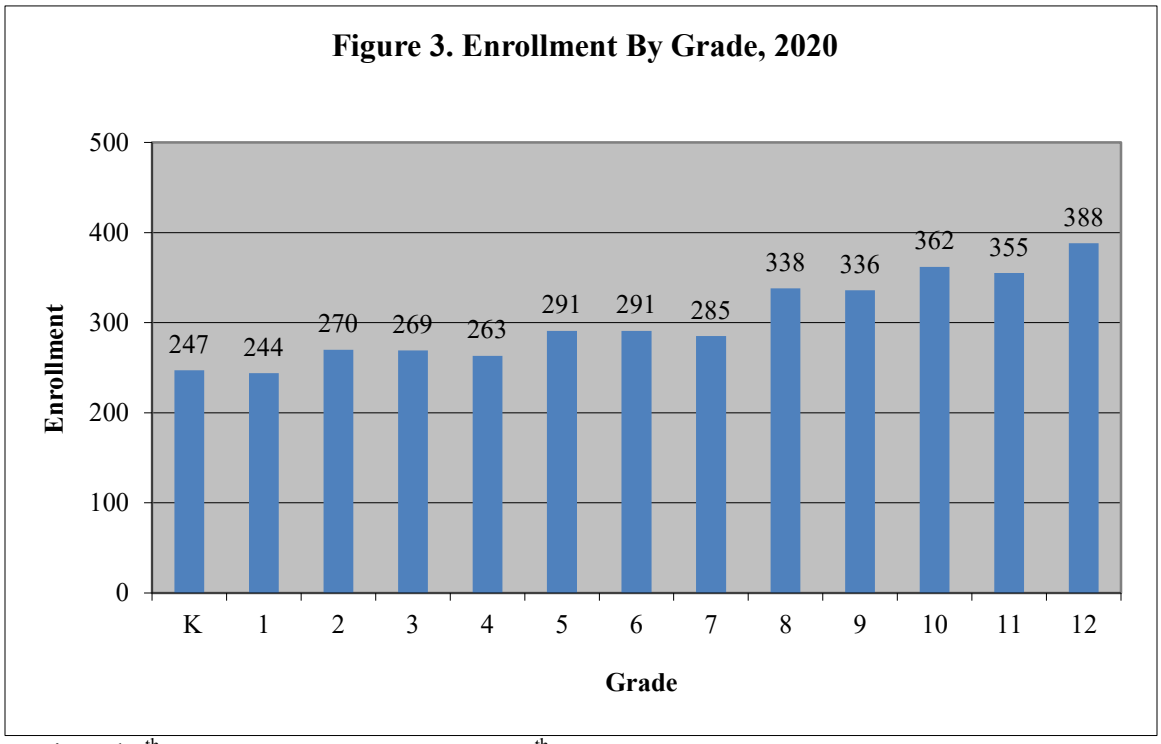


F. Non-Residents	9	
Total Enrollment (A+F)	4,030	

Fifty-four students (1.2 percent) attended a state technical high school, an agriculture science center or public schools in other districts. There were nine non-residents enrolled in the Newtown Public Schools in 2020. The projections in this report are based on the 4,030 resident and non-resident students (see "Total Enrollment", above) who were enrolled in the Newtown Public Schools on October 1, 2020.

Figure 3 shows the 2020 grade-by-grade enrollment of students in the Newtown Public Schools. The children in pre-kindergarten programs are not shown. Grade 12 had the largest enrollment with 388 students. Grades 8-11 all had at least 335 students. Grade 1 was the smallest class with 244 students followed by kindergarten with 247 students. If current conditions continue, this year's kindergarten class will have 311 students when it enters grade 5 in the Reed Intermediate School in 2025, 325 students when it enters grade 7 in Newtown Middle School in 2027, and 324 students when it enters grade 9 in 2028.

Figure 3. Enrollment By Grade, 2020



The projected 5th grade enrollment in 2025 and 7th grade enrollment in 2027 are both greater than the October 2020 count. 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 - F). For example, if the number of fourth graders this year is 293 and the number of third graders last year was 290, then the growth rate is 1.010. 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 prior year's enrollment from the prior grade. The projection builds grade by grade and year by year.

I made an adjustment to the grade-to-grade growth rates in 2020 to account for the impact of Covid-19 by assuming all of the increase in students home-schooled would have attended the Newtown Public Schools had it not been for the pandemic. I further assumed that all of the increase in these students would return to the Newtown Public Schools in 2021.

A second adjustment to the grade-to-grade growth rates in 2020 was necessitated by Newtown now recording the enrollment of students in the Program for Adaptive Learning (PAL) and Reaching Independence through Structured Education (RISE) as separate programs and not in the schools in which they reside. I made adjustments in Middle Gate Elementary, Reed Intermediate and Newtown Middle School.

To project enrollment of students in Newtown schools, I utilized a five-year average of the annual growth rates. All four averages of recent enrollment growth were close. I chose the five-year average because with the relatively small grade by grade enrollment within each school, I wanted greater stability. I built the district projection from the sum of the individual school projections.

The projection of kindergarten was different than my normal approach. Usually, I examine kindergarten enrollment of five-year-olds, six-year-olds entering kindergarten for the first time and repeaters. I have these data at the district, but not the school level. I used the traditional approach of predicting kindergarten from births five-years prior.

To extend the projections beyond four years, I needed to estimate births for the years 2021 to 2025. The Connecticut State Department of Public Health recorded 187 births to Newtown residents in 2017. That is the latest final count. The provisional counts of births were 217 in 2018 and 204 in 2019. There was a preliminary count of 204 births in 2020. I initially set births in 2021-2025 at 208, the average over the past three years. In 2021, I adjusted births downward by three percent (the increase in August unemployment in town between 2019 and 2020) because research has shown a decrease in births typically follows an increase in unemployment. I usually use recent state-level fertility rates and the Connecticut State Data Center's 2017 projection of Newtown women of child-bearing ages in 2015, 2020 and 2025 to project births in 2021-2025. I did not do so because I did not feel comfortable with the Center's projection of women ages 30-34.

Births by school attendance zone were readily available only through 2017. Births not assigned to a school attendance zone were prorated. To estimate future births in each attendance zone in 2018 to 2025, I applied the percentage of births observed in 2015 to 2017 to the projected births district-wide.

Enrollment data from 2010 to 2019 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 found on-line and that may have been reported by the Board of Education to the public. Minor changes should be anticipated as the state's audit process continues over the next two years. The district provided October 1, 2020 and end-of-March 2021 enrollments for the last five school years. Births from 1980 to 2020 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 Newtown schools from 2010 to 2020 and projected enrollment through 2030. The figures include regular and special education students in district, but exclude special education students educated elsewhere. Detailed grade-by-grade data may be found in Appendices A and B. Total enrollment in Newtown fell from 5,451 students in 2010 to 4,030 in 2020. Enrollment decreased by 1,421 students or 26.1 percent between 2010 and 2020. Statewide public-school enrollment declined 9.4 percent in that period.

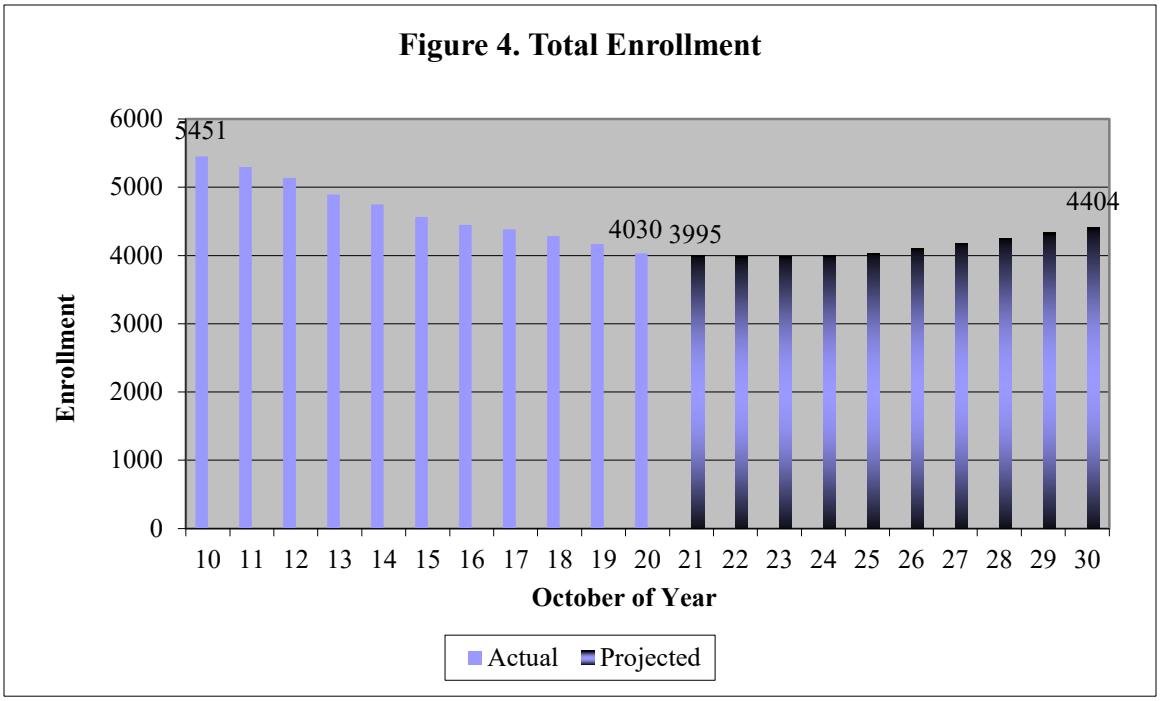
Table 2. Total Enrollment

Year	Students	Percent Change
2010	5,451	
2011	5,298	-2.8%
2012	5,137	-3.0%
2013	4,894	-4.7%
2014	4,747	-3.0%
2015	4,564	-3.9%
2016	4,447	-2.6%
2017	4,385	-1.4%
2018	4,283	-2.3%
2019	4,167	-2.7%
2020	4,030	-3.3%
2021	3,995	-0.9%
2022	3,979	-0.4%
2023	3,989	0.3%
2024	4,006	0.4%
2025	4,031	0.6%
2026	4,107	1.9%
2027	4,178	1.7%
2028	4,243	1.6%
2029	4,329	2.0%
2030	4,404	1.7%

Between 2010 and 2020, the enrollment loss of 26.1 percent in Newtown was greater than all other similar districts. The events of 2012 obviously contributed to the loss in Newtown. All other districts also lost enrollment. The declines were 0.9 percent in Greenwich, 3.7 percent in Trumbull, 7.8 percent in Fairfield, 11.0 percent in Brookfield, 14.4 percent in Cheshire, and 15.6 percent in Monroe.

I anticipate a slight decline in enrollment through 2022 followed by a slow increase. Next year, I anticipate that total enrollment could decrease by 35 students. I expect the enrollment low could be close to 3,980 students in 2022. Enrollment could end the ten-year projection period at about 4,400 students. The projected ten-year growth would be almost 375 students or 9.3 percent. In the state's public schools, I am projecting a 6.8 percent decline between 2020 and 2030. Total enrollment in Newtown could average about 4,125 students over the ten-year projection period compared to an average total enrollment of 4,595 students over the past ten years.

Figure 4. Total Enrollment



Elementary Enrollment

Table 3 and Figure 5 present actual enrollment in grades K-4 from 2010 to 2020 and projected enrollment to 2030 at your four elementary schools. The 2020 count excludes special education students in the PAL program. Enrollment by grade may be found in Appendix A. Enrollment in grades K-4 declined from 1,840 students in 2010 to 1,294 students in 2016 and then grew to 1,320 in 2019 before falling to 1,299 in 2020. This was a ten-year loss of 547 students or 29.7 percent. Public-school enrollment statewide in grades K-4 declined by 13.5 percent in that period.

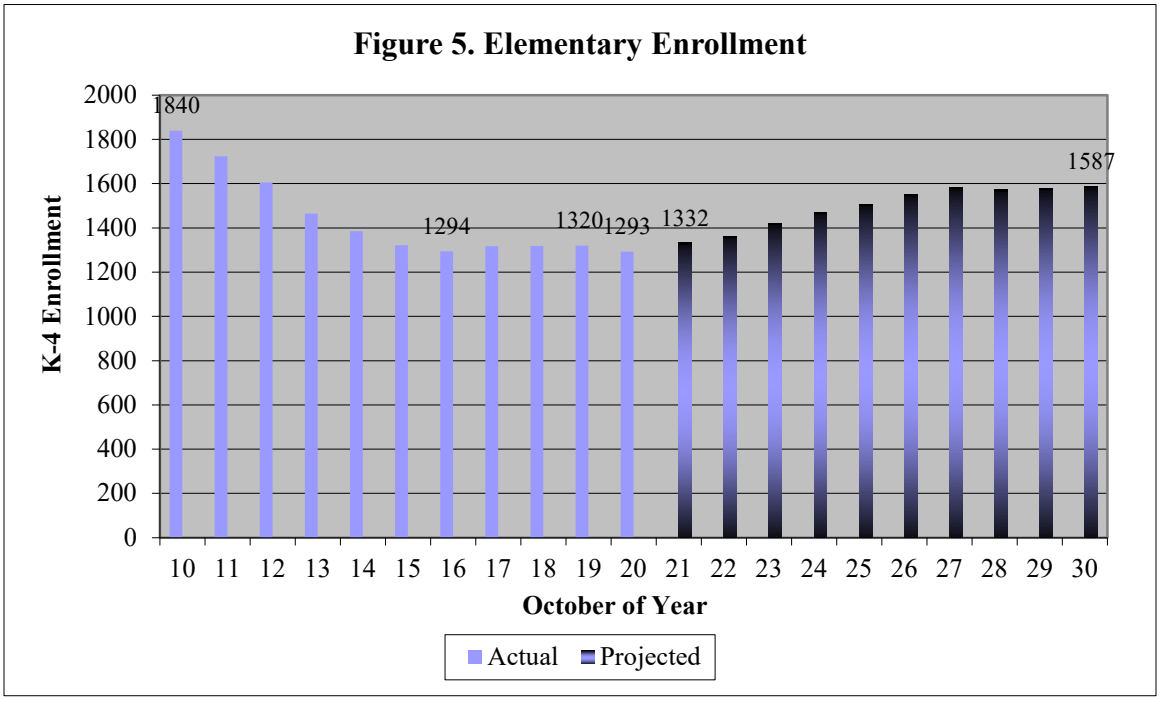
Table 2. Grade K-4 Enrollment

Year	Students	Percent Change
2010	1,840	
2011	1,723	-6.4%
2012	1,605	-6.8%
2013	1,465	-8.7%
2014	1,385	-5.5%
2015	1,322	-4.5%
2016	1,294	-2.1%
2017	1,317	1.8%
2018	1,318	0.1%
2019	1,320	0.2%
2020	1,299	-1.6%
2021	1,332	3.0%
2022	1,363	2.3%
2023	1,419	4.1%
2024	1,471	3.7%
2025	1,506	2.4%
2026	1,550	2.9%
2027	1,583	2.1%
2028	1,571	-0.8%
2029	1,579	0.5%
2030	1,587	0.5%

I believe that the elementary enrollment decline is over. Next year, I anticipate that enrollment in these grades will increase by about 40 students as children home-schooled return. I project that the grade K-4 enrollment could approach 1,590 students in 2030. That would be about 295 students more than the 2020 count, a growth of 22.7 percent. The projected 2030 count would be close to the elementary enrollment of 2012. In grades K-4 in the state's public schools, I am projecting a 5.6 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in grades K-4 could average 1,496 students compared to the average of 1,405 students observed over the past ten years.

These figures exclude the children in your pre-kindergarten programs. Over the past ten years, enrollment in these programs have ranged from 48 to 88 children. The 2020 count was 60 children. My model now bases pre-kindergarten enrollment on births three- and four-years prior. I project an enrollment of 77 children in October 2021 and an average of 78.4 over the next ten years.

Figure 5. Elementary Enrollment



Hawley Elementary School

Table 3a and Figure 5a present actual enrollment in grades K-4 from 2010 to 2020 and projected enrollment to 2030 at the Hawley Elementary School. Enrollment by grade may be found in Appendix C. The school was originally constructed in 1921 and its last major renovation was 1997. The school is 60,460 square feet and built on a 9.6-acre site. It has 24 classrooms. Newtown rates its capacity as 550 students.

Enrollment in grades K-4 fell from 416 students in 2010 to 279 students in 2020. Between 2010 and 2020 the school lost 137 students or 32.9 percent. Elementary enrollment in Newtown declined 29.4 percent in that period. There were losses of greater than five percent in 2011, 2012, 2014, 2016, and 2020. Public-school enrollment statewide in grades K-4 declined by 13.5 percent in that period.

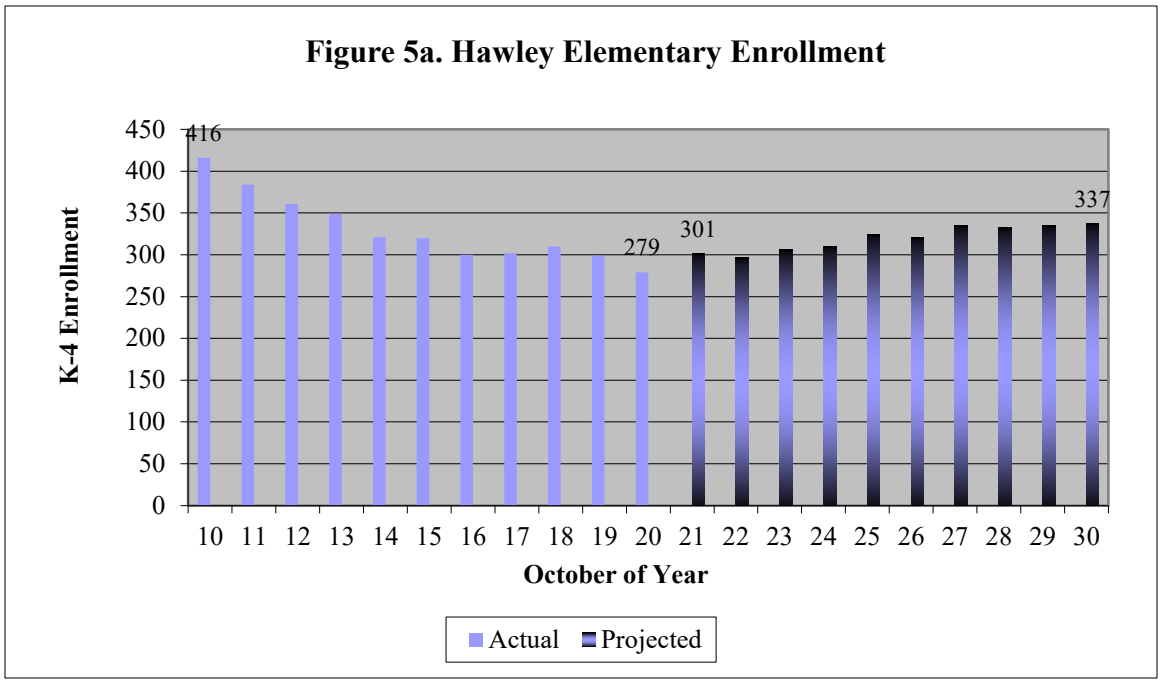
I expect that the enrollment decline will end next year when enrollment grows by 20-25 students. By 2030, I project the school's enrollment could be about 335 students. That would be almost 60 students more than the 2020 count, a growth of almost 21 percent. I project that Newtown's K-4 enrollment will grow 22.7 percent. In grades K-4 in the state's public schools, I am projecting a 5.6 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in the school could average 320 students compared to the average of 323 students observed over the past ten years.

Table 3a. Hawley Elementary School Enrollment

Year	Students	Percent Change
2010	416	
2011	384	-7.7%
2012	361	-6.0%
2013	349	-3.3%
2014	321	-8.0%
2015	320	-0.3%
2016	300	-6.3%
2017	302	0.7%
2018	310	2.6%
2019	299	-3.5%
2020	279	-6.7%
2021	301	7.9%
2022	297	-1.3%
2023	306	3.0%
2024	310	1.3%
2025	324	4.5%
2026	321	-0.9%
2027	335	4.4%
2028	333	-0.6%
2029	335	0.6%
2030	337	0.6%

Over the past four school years, end of March enrollment averaged one more student than the prior October in grades K-3. In March 2021, enrollment was one student less than October 2020. I project a 2021 enrollment of seven additional students in grades 1-4 on October 1, 2021 (excluding the expected return of home-schooled students) compared to K-3 enrollment in October 2020. The loss of one student between October and March will make reaching the projected October 2021 enrollment slightly more difficult.

Figure 5a. Hawley Elementary Enrollment



Sandy Hook Elementary School

Table 3b and Figure 5b present actual enrollment in grades K-4 from 2010 to 2020 and projected enrollment to 2030 at the Sandy Hook Elementary School. Enrollment by grade may be found in Appendix D. The new school was constructed in 2016. The school is 87,000 square feet and built on a 15.7-acre site. It has 23 regular and four specialty classrooms.

Table 3b. Sandy Hook Elementary School Enrollment

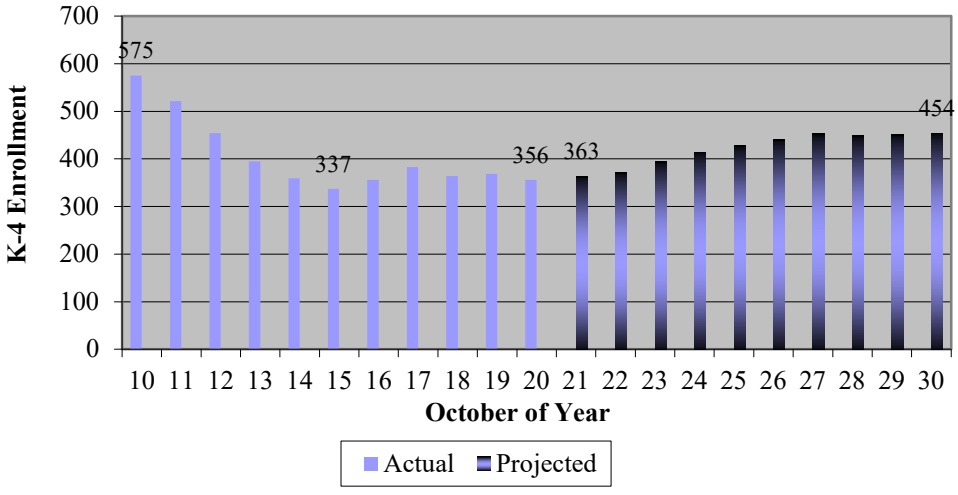
Year	Students	Percent Change
2010	575	
2011	521	-9.4%
2012	454	-12.9%
2013	395	-13.0%
2014	359	-9.1%
2015	337	-6.1%
2016	356	5.6%
2017	383	7.6%
2018	364	-5.0%
2019	369	1.4%
2020	356	-3.5%
2021	363	2.0%
2022	370	1.9%
2023	394	6.5%
2024	414	5.1%
2025	427	3.1%
2026	441	3.3%
2027	453	2.7%
2028	448	-1.1%
2029	451	0.7%
2030	454	0.7%

Enrollment in grades K-4 fell sharply from 575 students in 2010 to 337 students in 2015, rebounded to 383 students in 2017 and was 356 students in 2020. It is interesting to note the enrollment at the school was declining sharply before the event of December 2012. Between 2010 and 2020 the school enrollment decreased by 219 students or 38.1 percent. There were losses of greater than five percent in 2011, 2012, 2013, 2014, and 2015. Elementary enrollment in Newtown declined 29.4 percent in that period. Public-school enrollment statewide in grades K-4 declined by 13.5 percent in that period.

Overall, I expect a solid growth in enrollment. Next year, I anticipate that enrollment will increase by 5-10 students. I expect enrollment to approach 455 students by 2030. That would represent an increase of almost 100 students over the 2020 count, a gain of 27.5 percent. I project that Newtown's K-4 enrollment will grow 22.7 percent. In grades K-4 in the state's public schools, I am projecting a 5.6 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in the school could average about 420 students compared to the average of 389 students observed over the past ten years.

Over the past four school years, end of March enrollment averaged 3.75 more students than the prior October in grades K-3. In March 2021, enrollment was three students less than October 1, 2020. I project a 2021 enrollment of 15 additional students in grades 1-4 on October 2021 (excluding the expected return of home-schooled students) compared to K-3 enrollment in October 2020. The loss of three students between October 2020 and March 2021 will make reaching the projected October 2021 enrollment more difficult.

Figure 5b. Sandy Hook Elementary Enrollment



Gate **Middle**

Elementary School

Table 3c and Figure 5c present actual enrollment in grades K-4 from 2010 to 2020 and projected enrollment to 2030 at the Middle Gate Elementary School. The 2020 count excludes students in the PAL program. Enrollment by grade may be found in Appendix E. The school was originally constructed in 1964 and its last major renovation was 1993. The school is 57,100 square feet and built on a 19.6-acre site. It has 26 classrooms. Its capacity as 580 students.

Table 3c. Middle Gate Elementary School Enrollment

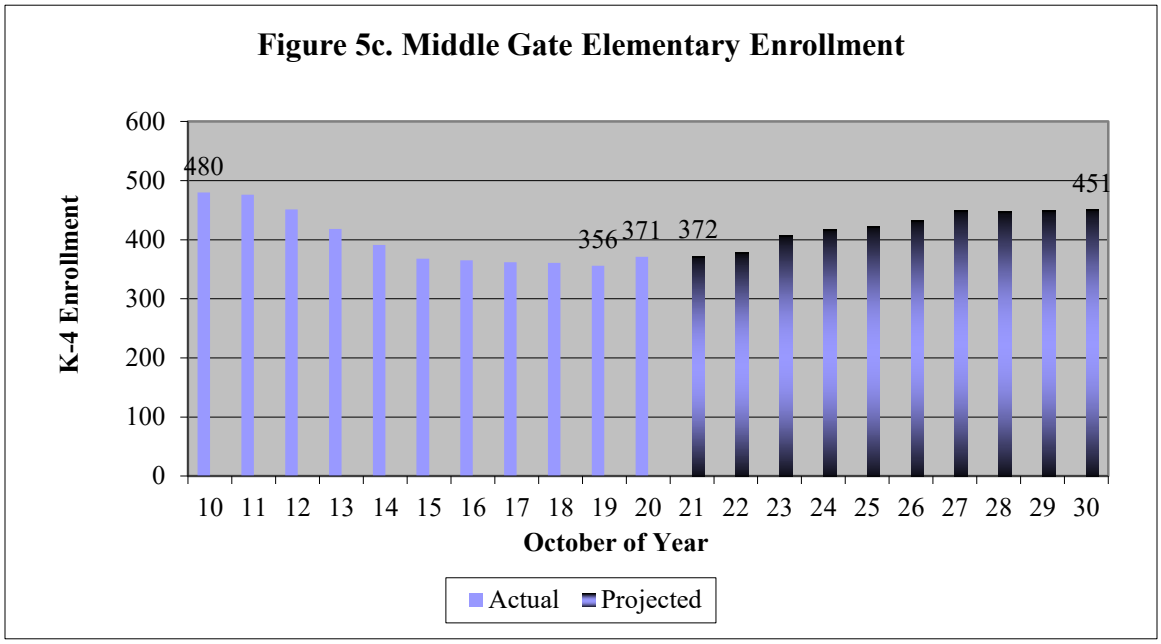
Year	Students	Percent Change
2010	480	
2011	476	-0.8%
2012	451	-5.3%
2013	418	-7.3%
2014	391	-6.5%
2015	368	-5.9%
2016	365	-0.8%
2017	362	-0.8%
2018	361	-0.3%
2019	356	-1.4%
2020	371	4.2%
2021	372	0.3%
2022	378	1.6%
2023	407	7.7%
2024	417	2.5%
2025	422	1.2%
2026	433	2.6%
2027	450	3.9%
2028	447	-0.7%
2029	449	0.4%
2030	451	0.4%

Enrollment in grades K-4 fell from 480 students in 2010 to 371 students in 2020. Between 2010 and 2020 the school enrollment declined by 109 students or 22.7 percent. There were losses of greater than five percent in 2012, 2013, 2014 and 2015. Middle Gate was the only elementary school to increase its enrollment between 2019 and 2020. Elementary enrollment in Newtown declined 29.4 percent in that period. Public-school enrollment statewide in grades K-4 declined by 13.5 percent in that period.

I expect that the enrollment will grow irregularly throughout the projection period. Next year's enrollment should be similar to this year. By 2030, I project the school's enrollment could be about 450 students. That would be 80 students more than the 2020 count, a growth of 21.6 percent. I project that Newtown's K-4 enrollment will grow 22.7 percent. In grades K-4 in the state's public schools, I am projecting a 5.6 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in the school could average almost 430 students compared to the average of 392 students observed over the past ten years.

Over the past four school years, end of March enrollment averaged 4.5 more students than the prior October in grades K-3. The end of March 2021 enrollment was 11 students more than October 2020. I project a 2021 enrollment of nine additional students in grades 1-4 on October 1, 2021 (excluding the expected return of home-schooled students) compared to K-3 enrollment in October 2020. The gain of 11 students between October 2020 and March 2021 may indicate my projection of October 2021 enrollment may be low.

Figure 5c. Middle Gate Elementary Enrollment



Head O'Meadow Elementary School

Table 3d and Figure 5d present actual enrollment in grades K-4 from 2010 to 2020 and projected enrollment to 2030 at the Head O'Meadow Elementary School. Enrollment by grade may be found in Appendix F. The school was originally constructed in 1977 and its last major renovation was 2005. The school is 65,000 square feet and built on a 35.0-acre site. It has 22 classrooms. Newtown rates its capacity as 513 students.

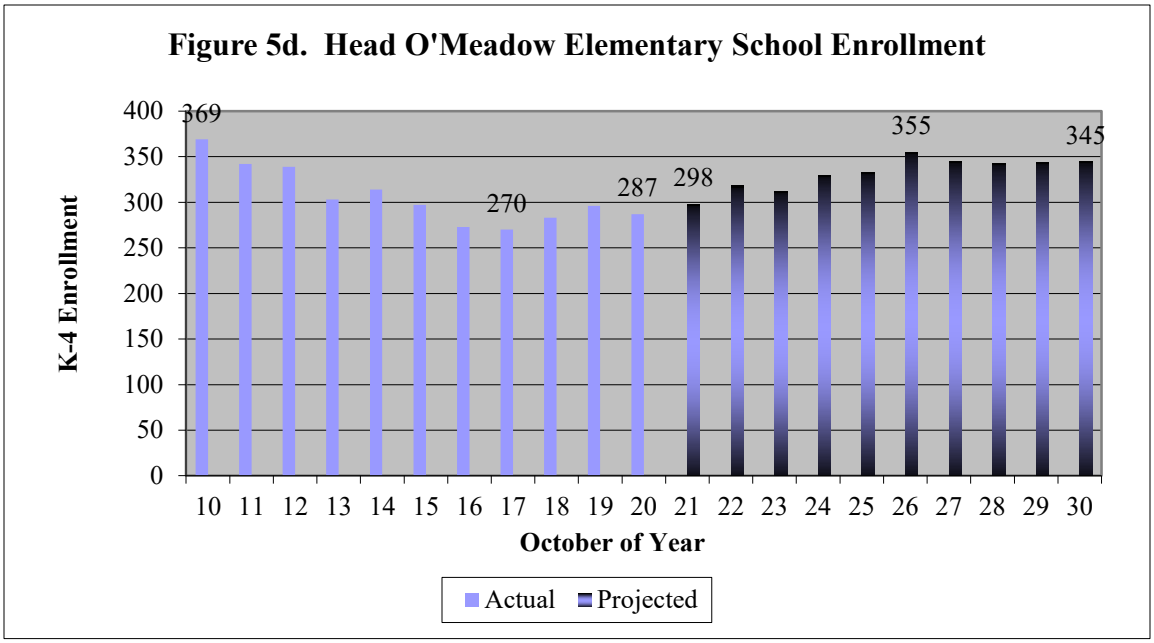
Enrollment in grades K-4 fell from 369 students in 2010 to 270 students in 2017 and was 287 students in 2020. There were losses of greater than five percent in 2011, 2013, 2015 and 2016. Between 2010 and 2020 the school enrollment fell by 82 students or 22.7 percent. Elementary enrollment in Newtown declined 29.4 percent in that period. Public-school enrollment statewide in grades K-4 declined by 13.5 percent in that period.

I expect that the enrollment will grow moderately through most of the projection period. Next year, I anticipate enrollment could grow by about 10 students. In 2030, I project the school's enrollment could be 345 students. That would be almost 60 students more than the 2020 count, a gain of 20.2 percent. I project that Newtown's K-4 enrollment will grow 22.7 percent. In grades K-4 in the state's public schools, I am projecting a 5.6 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in the school could average about 330 students compared to the average of 300 students observed over the past ten years.

Table 3d. Head O'Meadow Elementary School Enrollment

Year	Students	Percent Change
2010	369	
2011	342	-7.3%
2012	339	-0.9%
2013	303	-10.6%
2014	314	3.6%
2015	297	-5.4%
2016	273	-8.1%
2017	270	-1.1%
2018	283	4.8%
2019	296	4.6%
2020	287	-3.0%
2021	298	3.8%
2022	318	6.7%
2023	312	-1.9%
2024	330	5.8%
2025	333	0.9%
2026	355	6.6%
2027	345	-2.8%
2028	343	-0.6%
2029	344	0.3%
2030	345	0.3%

Over the past four school years, end of March enrollment averaged one less student than the prior October in grades K-3. In March 2021, enrollment was 10 students more than October 2020. I project a 2021 enrollment of 13 additional students in grades 1-4 on October 1, 2021 (excluding the expected return of home-schooled students) compared to K-3 enrollment in October 2020. The gain of 10 students between October 2020 and March 2021 may indicate my projection of October 2021 enrollment is slightly low.



Reed Intermediate School Enrollment

Table 4 and Figure 6 present actual enrollment in grades 5-6 from 2010 to 2020 and projected enrollment at the Reed Intermediate School to 2030. Enrollment by grade may be found in Appendix A. The school was constructed in 2002. It is 165,600 square feet and built on a 20-acre site. Newtown reported on the state's *2013 Report on the Condition of Connecticut's Public School Facilities* that the school had 46 classrooms with a capacity of 1,100 students.

Reed Intermediate School enrollment fell from 895 students in 2010 to 560 students in 2019 and then rose to 582 students in 2020. There were declines of greater than five percent in 2012, 2014, 2016 and 2019. Between 2010 and 2020 enrollment fell by 313 students or 35.0 percent. Enrollment in grades 5-6 declined by 9.9 percent in that period in the state's public schools.

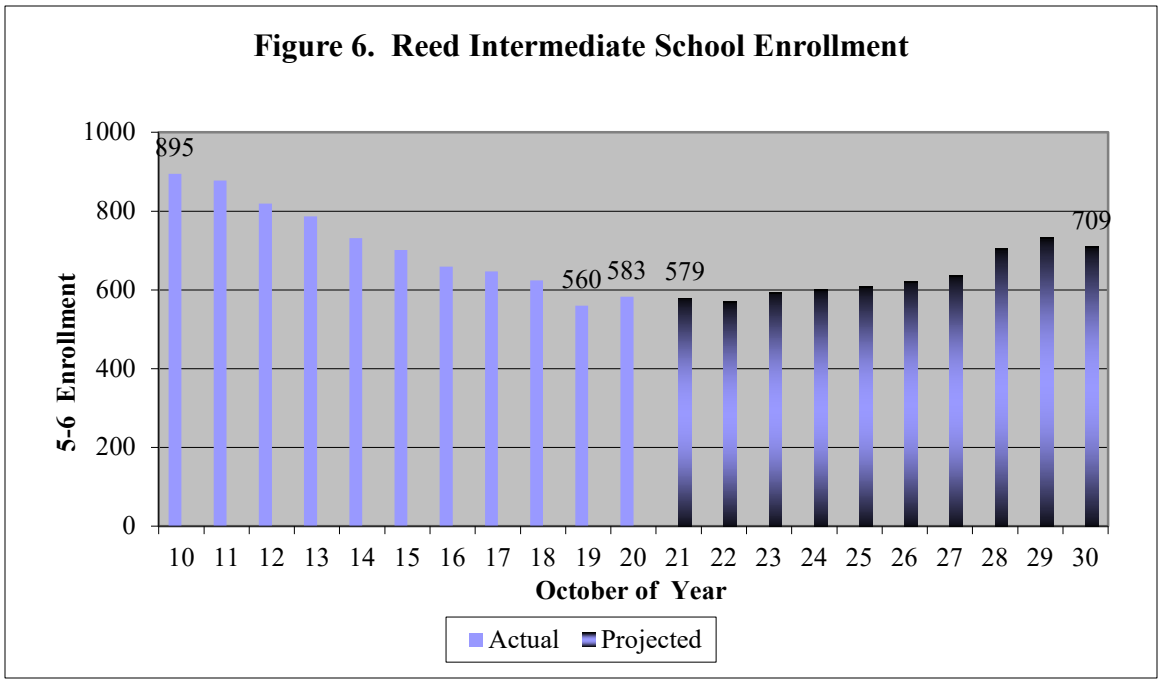
I believe that the 2019 enrollment of 560 students represents the low. Future enrollment at the Reed Intermediate School should move irregularly upward. Next year I anticipate a very slight decline in enrollment. At the projection's end, I project an enrollment of about 710 students. This is roughly the enrollment of 2015. That would be almost 130 students more than the 2020 enrollment, a gain of 22.2 percent. In the state's public schools, I project that enrollment in grades 5-6 will decline by 6.1 percent in that period. Between 2020 and 2030, I believe enrollment at Reed could average 636 students compared to the average of 699 students observed over the past ten years.

Table 4. Reed Intermediate School Enrollment

Year	Students	Percent Change
2010	895	
2011	878	-1.9%
2012	819	-6.7%
2013	787	-3.9%
2014	731	-7.1%
2015	701	-4.1%
2016	659	-6.0%
2017	647	-1.8%
2018	624	-3.6%
2019	560	-10.3%
2020	582	3.9%
2021	577	-0.9%
2022	569	-1.4%
2023	599	5.3%
2024	604	0.8%
2025	610	1.0%
2026	622	2.0%
2027	634	1.9%
2028	703	10.9%
2029	732	4.1%
2030	711	-2.9%

Over the past four school years, end of March enrollment averaged one more student than the prior October in grade 5. In March 2021, enrollment was three students more than October 2020. I project a 2021 enrollment of nine additional students in grade 6 on October 1, 2021 (excluding the expected return of home-schooled students) compared to Grade 5 enrollment in October 2020. The gain of three students between October 2020 and March 2021 seems consistent with the projection of October 2021 enrollment.

Figure 6. Reed Intermediate School Enrollment



Newtown Middle School

Table 5 and Figure 7 present Newtown Middle School's actual enrollment in grades 7-8 in 2010 to 2020 and projected enrollment to 2030. The 2020 enrollment excludes students in the RISE program. Enrollment by grade may be found in Appendix B. The school was originally constructed in 1951 and its last major renovation was 1988. The school is 175,000 square feet and built on a 35.5-acre site. Newtown reported on the state's *2013 Report on the Condition of Connecticut's Public School Facilities* that the school had 53 classrooms with a capacity of 1,100 students.

Table 5. Newtown Middle School Enrollment

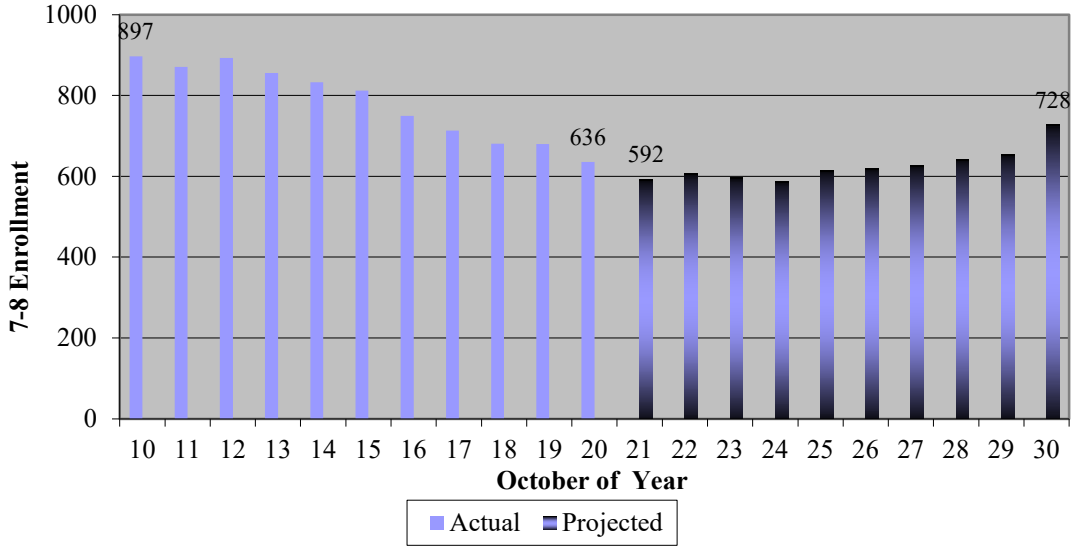
Year	Students	Percent Change
2010	897	
2011	871	-2.9%
2012	893	2.5%
2013	856	-4.1%
2014	833	-2.7%
2015	812	-2.5%
2016	750	-7.6%
2017	713	-4.9%
2018	681	-4.5%
2019	680	-0.1%
2020	623	-8.4%
2021	584	-6.3%
2022	607	3.9%
2023	596	-1.8%
2024	588	-1.3%
2025	619	5.3%
2026	623	0.6%
2027	630	1.1%
2028	642	1.9%
2029	654	1.9%
2030	727	11.2%

The school's enrollment declined from 897 students in 2010 to 623 students in 2020. Enrollment was last that low in 1997. Between 2010 and 2020, the school enrollment declined by 274 students or 30.5 percent. There were declines of greater than five percent in 2016, and 2020. Public school 7-8 enrollment statewide declined 6.5 percent in that period.

The enrollment decline could end next year at close to 585 students. Next year, I anticipate an enrollment drop of about 40 students as this year's 8th grade of 338 students exits and a 7th grade projected to be 298 students enters. In 2030, I project the school's enrollment could approach 730 students. That would be 104 students more than the 2020 count, a gain of 16.7 percent. In grades 7-8 in the state's public schools, I am projecting a 7.3 percent enrollment decline. Over the ten-year projection period, I believe projected enrollment in the school could average almost 630 students compared to the average of 771 students observed over the past ten years.

Over the past four school years, end of March enrollment in grade 7 averaged 1.5 more students than the prior October. The March 2021 enrollment was the same as October 2020. I project a 2021 enrollment of one additional student in grade 8 on October 1, 2021 (excluding the return of home-schooled students) compared to grade 7 enrollment on October 1, 2020. The end of March 2021 count is consistent with the projection.

Figure 7. Newtown Middle School Enrollment



Newtown High School Enrollment

Grade 9 is the first opportunity to attend state technical high schools and agriculture science and technology centers. In October 2020, 90.1 percent of Newtown residents enrolled public school in grade 9 were enrolled in the district. About seven percent were enrolled in non-public schools in state. Only 1.9 percent were enrolled in a state technical high school or an agriculture science center and only 0.8 percent were enrolled in a magnet or another public school.

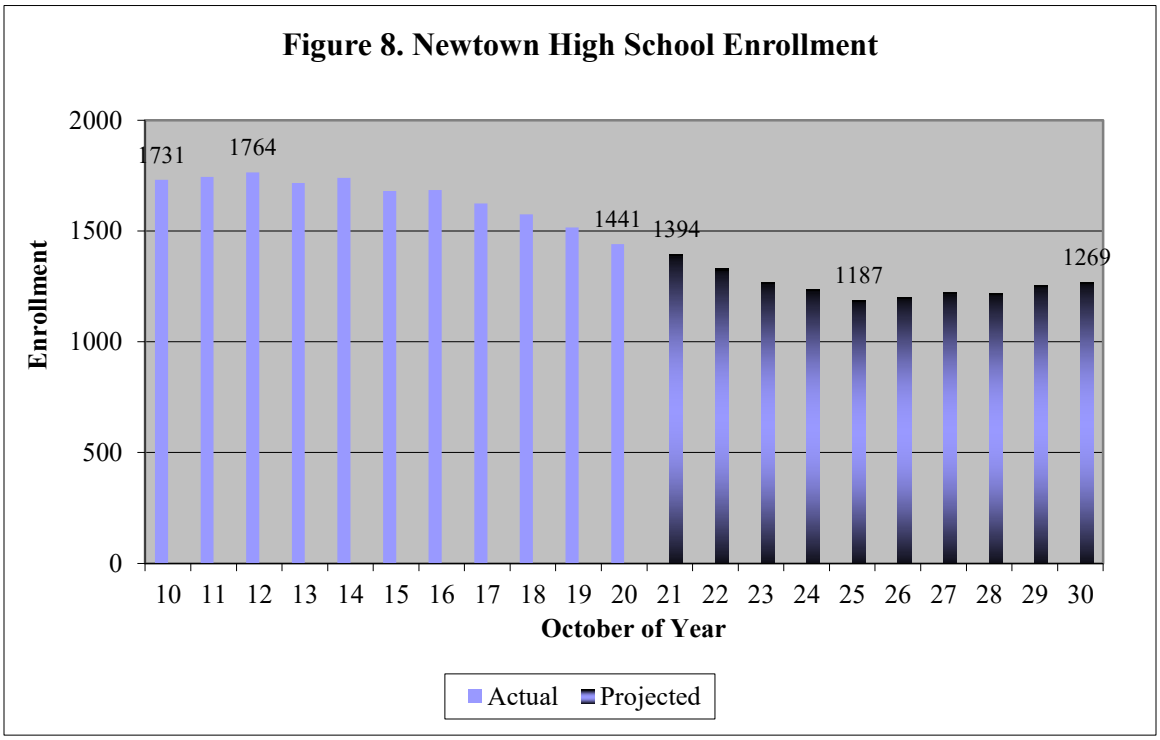
Table 6 and Figure 8 present enrollment at Newtown High School. Enrollment from 2017 to 2020 now excludes students formerly classified as 12th graders in the Newtown Community Partnership program. Grade-by-grade enrollment may be found in Appendix B. Enrollment grew from 1,731 students in 2010 to 1,764 in 2012 and then began to decline. The 2020 count of 1,441 students was 290 less than the 2010 count, a loss of 16.8 percent. Statewide public-school enrollment in grades 9-12 fell 5.9 percent in that period.

I project high school enrollment will continue to decline for five more years before starting a recovery. I expect that next year's enrollment will be about 40 students less than this year. I anticipate an enrollment low of about 1,190 students in 2025. At the projection's end I expect an enrollment of about 1,270 students. That would be about 170 less than this year's enrollment, a loss of 11.9 percent. Statewide, I have projected a 10.3 percent decline in public school grade 9-12 enrollment between 2020 and 2030. I believe your enrollment in grades 9-12 could average about 1,260 students over the next ten years compared to the average of 1,649 students observed over the past ten years.

Table 6. Newtown High School Enrollment

Year	Students	Percent Change
2010	1,731	
2011	1,744	0.8%
2012	1,764	1.1%
2013	1,716	-2.7%
2014	1,740	1.4%
2015	1,681	-3.4%
2016	1,684	0.2%
2017	1,624	-3.6%
2018	1,575	-3.0%
2019	1,516	-3.7%
2020	1,441	-4.9%
2021	1,394	-3.3%
2022	1,329	-4.7%
2023	1,267	-4.7%
2024	1,235	-2.5%
2025	1,187	-3.9%
2026	1,202	1.3%
2027	1,221	1.6%
2028	1,217	-0.3%
2029	1,254	3.0%
2030	1,269	1.2%

Figure 8. Newtown High School Enrollment



Factors Affecting the Projection

The primary reasons for enrollment change lie in births, the yield from the birth cohort and the grade-to-grade growth rates. Figure 9 presents actual and provisional births from 1980 to 2019 and estimated births through 2025. Births ranged from a high of 372 in 1997 to a low of 166 in 2013. The provisional count for 2019 was 204 births. The preliminary count of births in 2020 is also 204. Between 2000 and 2009 there was an average of 273 births annually. In the five years from 2011 to 2015 (this fall's kindergarten through 4th graders) births averaged 177. Births in the 2016 through 2020 period will average 198. The projection in years 2026 to 2030 assumes an average of 207 births annually between 2021 and 2025.

Figure 9. Births Since 1980

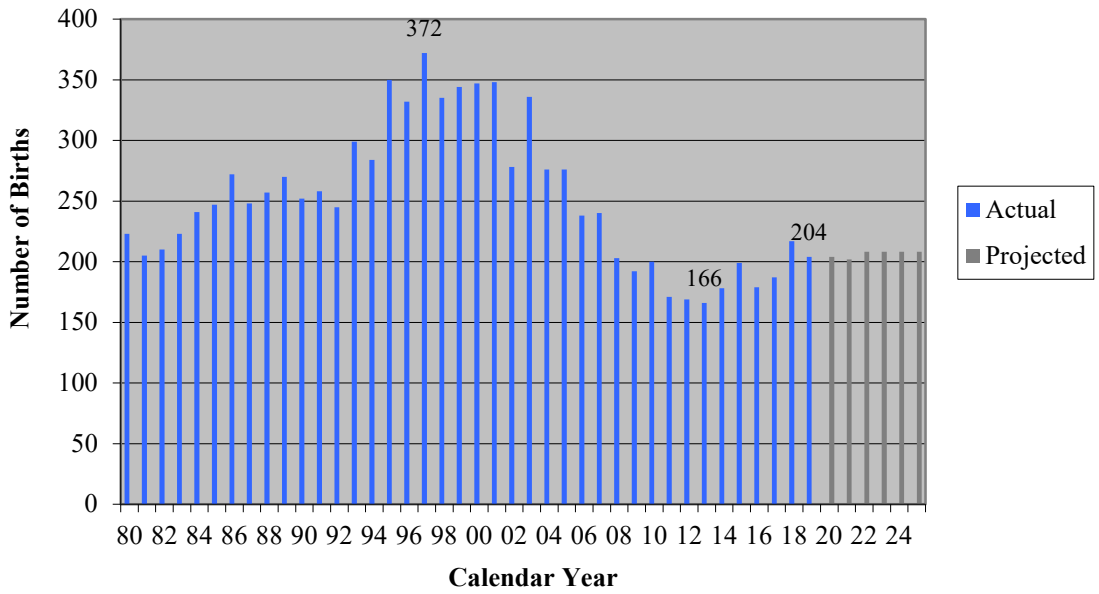
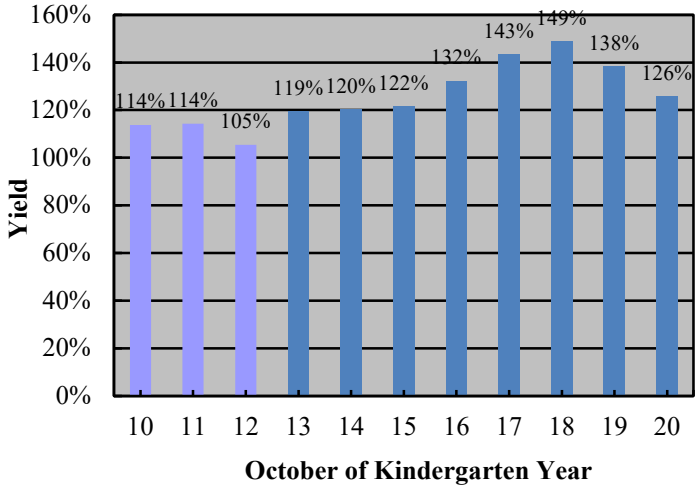


Figure 10 depicts the kindergarten yield in the years 2010 to 2020 from births five years prior for students attending kindergarten in the Newtown Public Schools. Universal full-day kindergarten started in 2013 in Newtown. There were 199 births in 2015 and 250 children enrolled in Newtown kindergarten on October 1, 2020. That is a yield 126 percent. (Had the number of home-schooled kindergartners been the same as 2019, the yield would have been 1.28 in 2020.) The yield from the birth cohort ranged from a low 105 percent in 2012 to a high of 149 percent in 2018. Yields above 100

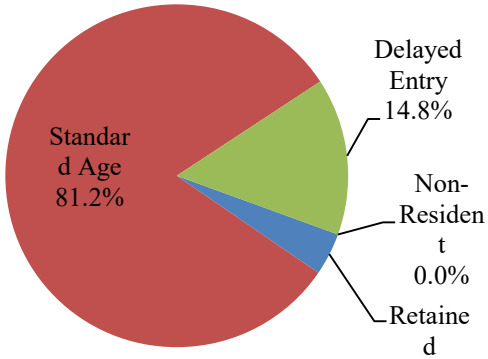
Figure 10. Kindergarten Yield From Births Five-Years Prior



percent generally mean that parents moved into town after giving birth elsewhere. The projection, using yields from each of the four elementary schools, had an average yield of 139 percent.

The cohort survival method assumes there will be no relationship between the number of births and the growth rate between births and kindergarten enrollment five years later. Between births 2008 and 2015 and kindergarten in 2013 and 2020 this correlation was -0.91 in Newtown. The greater the births, the smaller the growth between births and kindergarten five years later. Usually this is not a problem because births in the five-year look-back period are similar to those in the projection years. As was noted earlier, births averaged 177 in the five-year look-back period and will average 198 in the next five years of the projection and are projected to average 207 over the second half of the projection. This opens the possibility that the projection of kindergarten enrollment and thus future elementary enrollment may be too high. I did not make an adjustment because of the possibility that the events of December 2012 affected the data and the relatively little data that are available.

Figure 11. Kindergarten, 2020



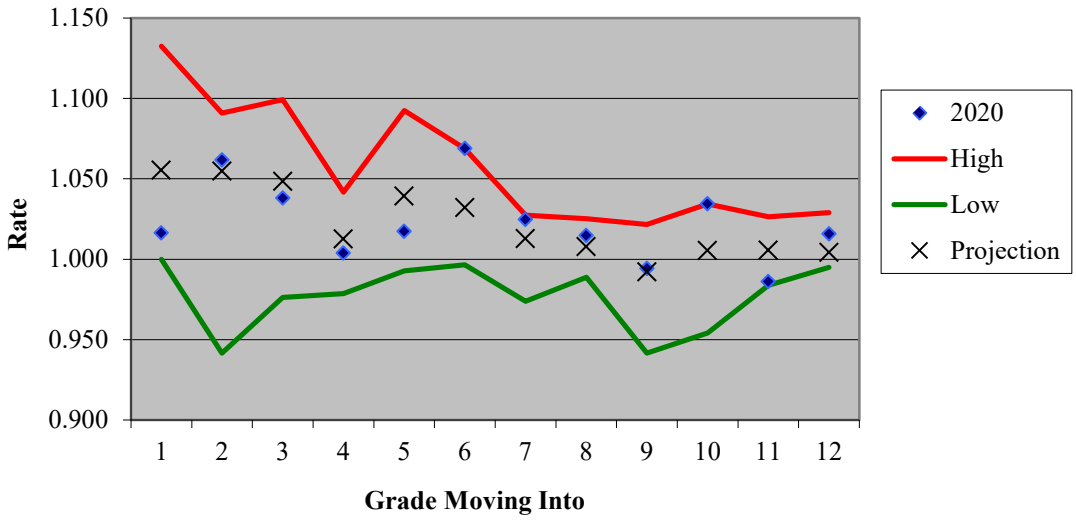
Kindergarten enrollment is not just from births five years prior. Figure 11 shows that in Newtown in October of 2020, 14.8 percent of the kindergarten children were held out by their parents. In addition, 4.0 percent were retained for a second year of kindergarten. These factors all add "noise" to the projection and can result in some minor differences in enrollment.

The correlation between births and kindergarten enrollment five-years later was a low 0.17 over the 2013 to 2020 period. If this relationship were used to predict kindergarten enrollment, the estimate would have been off by an average of six children annually since the start of full-day kindergarten in 2013. The cohort survival method cannot overcome the underlying unpredictability of kindergarten enrollment from earlier births.

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 made available 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 Newtown 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. For example, in grade 2 the projection used a growth rate of 1.055 to project grade 2 enrollment from the prior year's grade 1 enrollment. The rate in 2020 was 1.062. Over the past ten years the grade-to-grade growth rate arranged from 0.942 to 1.091. 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 a five-year average of the observed grade-to-grade growth within each school. The rates in 2020 were adjusted to account for the increase in home-schooled students attributed to Covid-19. These rates are presented for contextual purposes only.

Figure 13. Grade to Grade Growth Rates



The elementary growth rates have been in a fairly wide band for the past 10 years. All of the eight growth rates in grades 1 to 8 are at or above 1.000 which indicates more students are entering the system than leaving. The rate in grade 9 includes a small number of students repeating the grade and some students leaving the Newtown schools to attend non-public schools. The adjusted growth rates in 2020 set ten-year highs in grades 6, 7 and 10. The average of the growth rates across grades 1-12 that was used in the projection was 1.022; the adjusted rate in 2020 was 1.023. The median rate over the past 20 years was slightly lower, 1.013.

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 growth; projected population ages 0-19; women of child-bearing age; recent growth in the labor force; new home construction; sales of existing homes; grade 9 repeaters; high school dropouts; non-public enrollment; resident enrollment in other public schools and student migration.

Figure 13 presents the US Census Bureau estimate of Newtown population growth between July, 2010 and 2019. It is based, in part, on relative housing growth within the county. In that interval, the town's population was estimated to have grown from 27,598 to 27,891 people. The gain of 1.1 percent was the 33rd ranked growth in the state. In contrast, Fairfield County gained 2.56 percent, the state lost 0.39 percent and communities with similar economic and need characteristics (DRG B) grew by 0.95 percent.

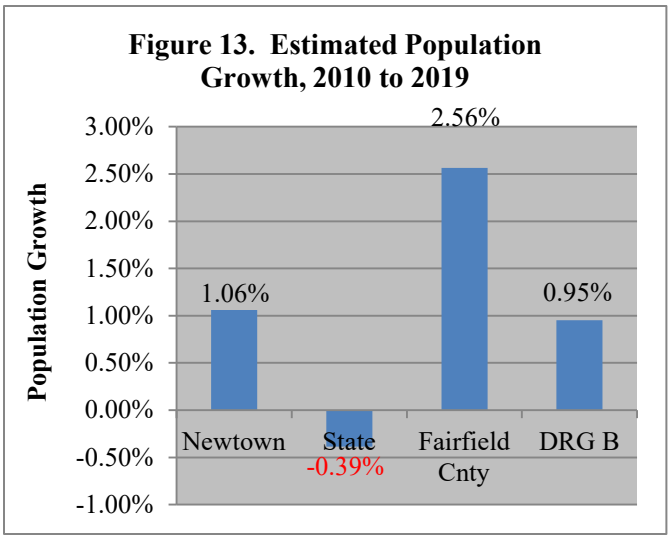


Figure 14 presents the Connecticut State Data Center's 2017 projection of Newtown population ages 0-19. They projected that the population 0-4 would grow by 68 percent between 2020 and 2030. I believe this is a significant over-estimate. They projected an increase of 11 percent in the population ages 5-9 between 2020 and 2030 with all the growth coming after 2025. The Center projected a 28 percent decline in youth ages 10-14 between 2020 and 2030. They also projected a 38 percent decline in the population ages 15-19 between 2020 and 2030. This independent projection is fairly consistent with the findings of this report.

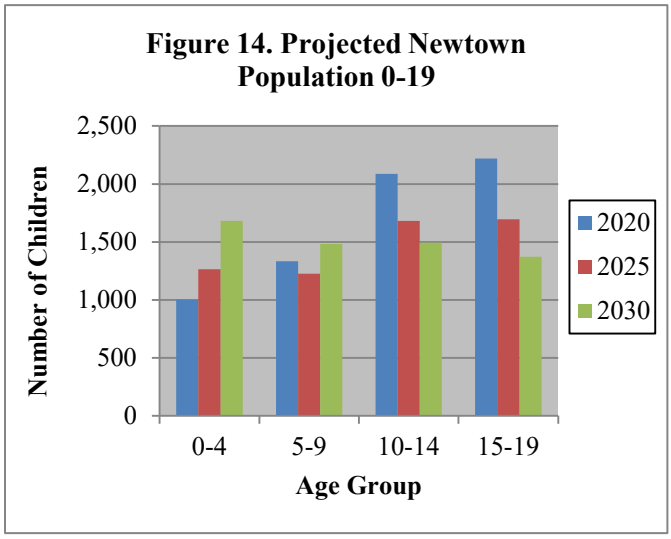


Figure 15 presents the Connecticut State Data Center's 2017 projections of the number of Newtown women of child-bearing age in 2015, 2020 and 2025. The Center projected that the number of Newtown women aged 15 to 44 would grow 8.3 percent between 2015 and 2025. In your town, women in the 30-34 age group have the highest rate of births. The Center projected that the number in this group would increase by 114 percent between 2015 and 2025. I find that quite difficult to believe. The second highest birth rate in your town is women ages 35-39. The Center projected the number in that age range would grow by 18.4 percent between 2015 and 2025.

Figure 15. Newtown Women of Child-Bearing Age

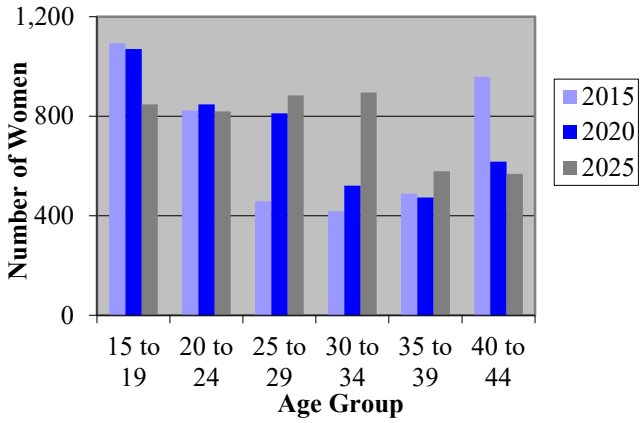


Figure 16 examines the number of people in the labor market from the US Department of Labor, Bureau of Labor Statistics. These are people 16 years of age or older who were working or actively were seeking employment. The Newtown labor force increased an estimated 1.2 percent between 2010 and 2019. This was better than the state (+0.1 percent) but less than Fairfield County (+1.6 percent). The 2019 unemployment rate of 3.0 percent was down 4.0 percentage points from the 2010 high and 0.5 percentage points from 2018. It was better than the state rate of 3.7 percent and the Fairfield County rate of 3.6 percent. Covid-19 pushed the December 2020 rate to 5.9 percent.

Figure 16. Recent Changes in the Labor Force

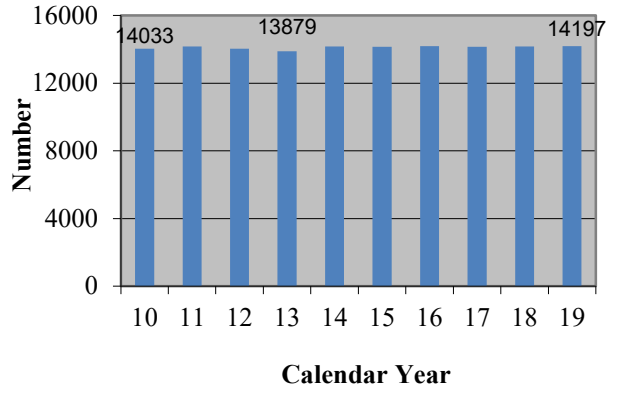


Figure 17 presents the net new housing permits issued from 2010 to 2019 from the State Department of Economic and Community Development and the 2020 data from the Newtown Building Department. In the past ten years the number of net (of demolitions) new housing units permitted in Newtown ranged from a low two in 2012 up to a high of 144 in 2020. In the five-year look-back period for this projection, there was an average of 68 net new housing units permitted. Twenty-nine of the units permitted in 2020 will be luxury single-family homes on Enclave Circle and 76 will be one- and two-bedroom apartments on Washington Road.

Figure 17. Net New Housing Units

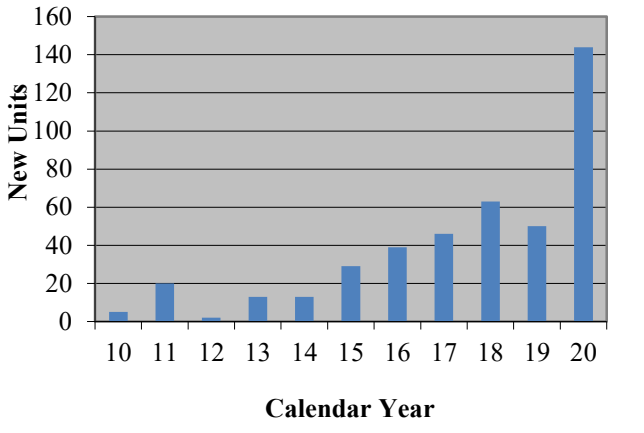


Figure 18 presents my estimate of the number of sales of existing single-family homes and condominiums. I derived it by taking the number of single-family and condo real estate transactions from The Warren Group/Commercial Record and subtracting the number of new single-family housing units authorized the prior year. The estimated number of sales of existing single-family and condominium homes ranged from a low of 234 in 2011 to a high of 486 in 2020. In the five-year look back period for the projection, there were 402 sales annually.

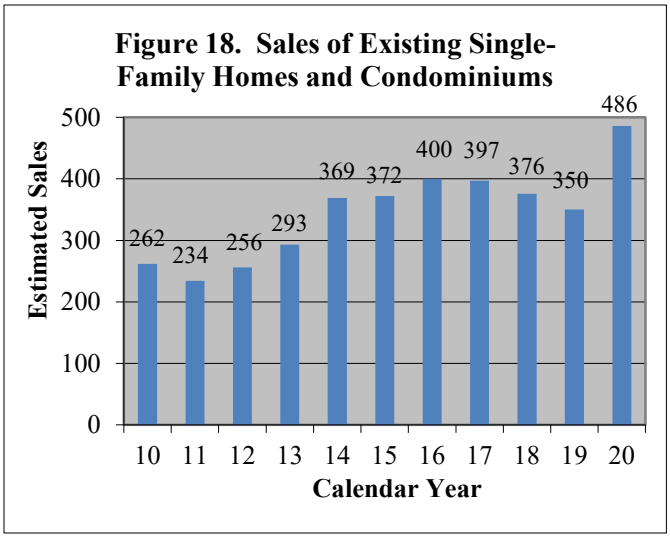


Figure 19 presents the percentage of grade 9 students one year who were reported as being in that grade the next year. Between 2010 and 2020, the percentage ranged from a high of 3.0 percent in 2011 to a low of zero percent in 2010 and 2020. The rate was 1.7 percent in 2020. Over the five-year look-back period of the projection an average of four students were retained annually, a rate of 1.1 percent.

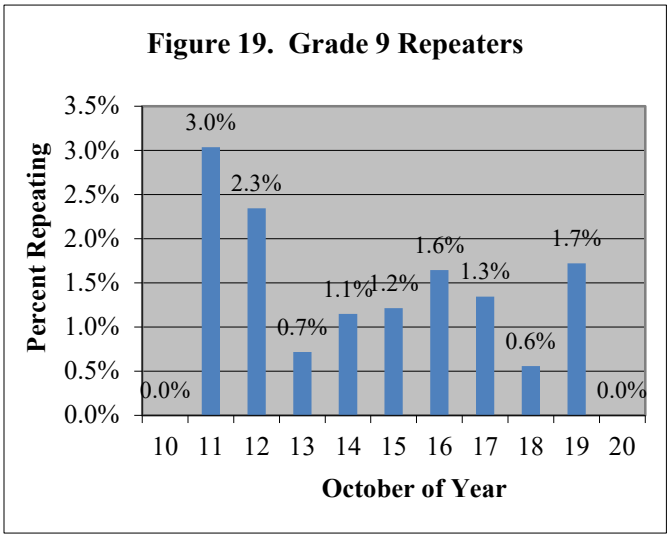


Figure 20 presents the annual dropout rate in Newtown for school years 2009-10 to 2019-20. Dropouts are students who left school early, left to enroll in a GED program, transfer to post-secondary education prior to graduation or moved but not known to be continuing. The dropout rate ranged from a high of 0.5 percent in the 2016-17 school year to a low of zero in the 2018-19 school year. The rate in 2019-20 was 0.1 percent. In the five-year look-back period for the high school portion of this projection, the rate was a low 0.27 percent. Over the past five years, an average of 4.4 students per year dropped out.

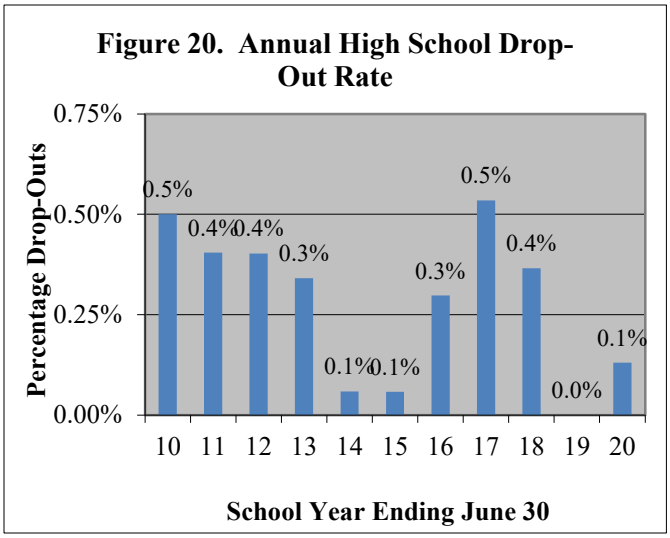


Figure 21 presents the in-state non-public enrollment in grades K-12 from 2010 to 2020 for students from the town of Newtown. The data are from the records of the Connecticut State Department of Education. Non-public enrollment declined from 580 students in 2010 to 360 in 2020. In the past ten years, enrollment in the non-public schools decreased by 220 students or 37.9 percent. The 2020 enrollment represented 8.1 percent of all students from Newtown. That is below the 2013 peak of 10.9 percent. I project the non-public enrollment from Newtown will be about 335 students in 2021. Covid-19 seemed to negatively impact enrollment in grades 1, 2 and 9.

Figure 21. Non-Public School K-12 Enrollment

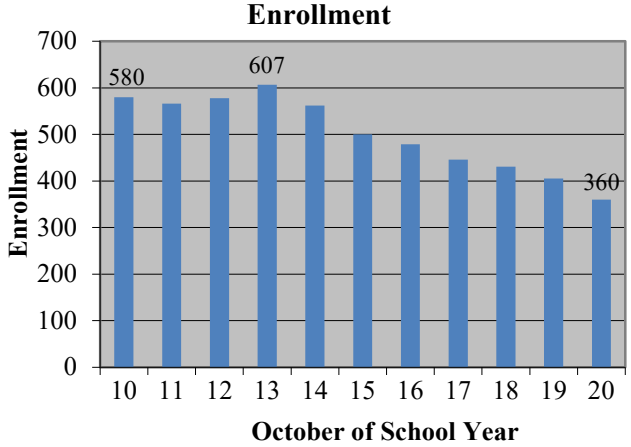


Figure 22 presents the enrollment of Newtown residents in other public schools in Connecticut from 2010 to 2020. The number educated out-of-district went from 102 in 2010 to 64 in 2020. The number of students attending magnet schools went from 36 in 2010 to a peak of 42 students in 2012 and was 10 in 2020. In 2020, 26 students attended the Henry Abbott Technical High School and 15 attended the agriculture science programs in Regions 12 and 14.

Figure 22. Residents Enrolled in Other Public Schools

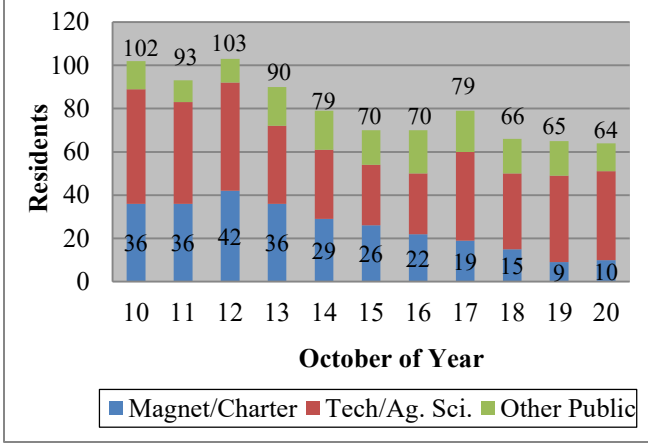


Figure 23 presents the non-resident enrollment in the Newtown Public schools from 2010 to 2020. These could be children of teachers or other town employees. In the past ten years, the number of non-residents enrolled has ranged from a low of two in 2011 to a high of 16 in 2017 and 2018. The October 1, 2020 count was nine students.

Figure 23. Non-Resident Enrollment in Newtown Schools

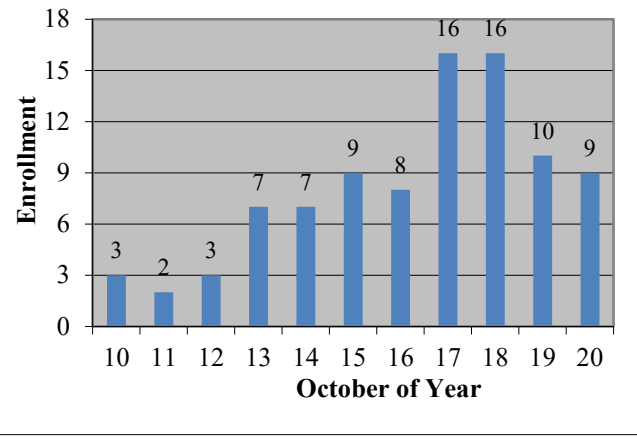
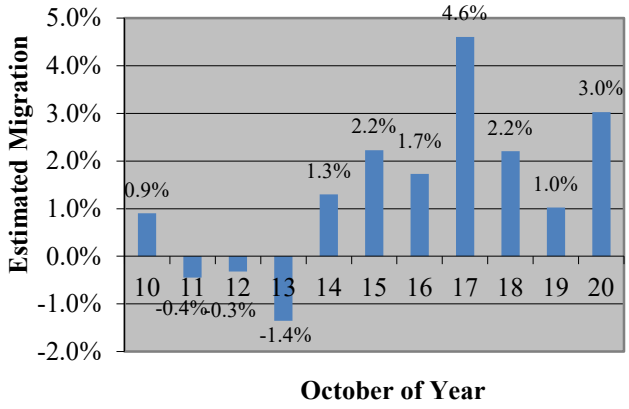


Figure 24 presents the estimated migration of students from the Newtown Public Schools. The estimate takes into account non-residents in Newtown and Newtown residents attending other public schools. In 2020 it also takes into account change in the number of students home-schooled in grades 2-8 and the change in reporting of RISE and PAL special education students. Estimated migration ranged from a low of -1.4 percent in 2013 to a high of +4.6 percent in 2017. The estimated migration was +3.0 percent in 2020. The data behind these figures may be found in Appendices A and B. The average migration in the projection's five-year look-back period was +2.5 percent. The median five-year migration over the past 20 years was +1.6 percent.

Figure 24. Estimated Newtown Migration

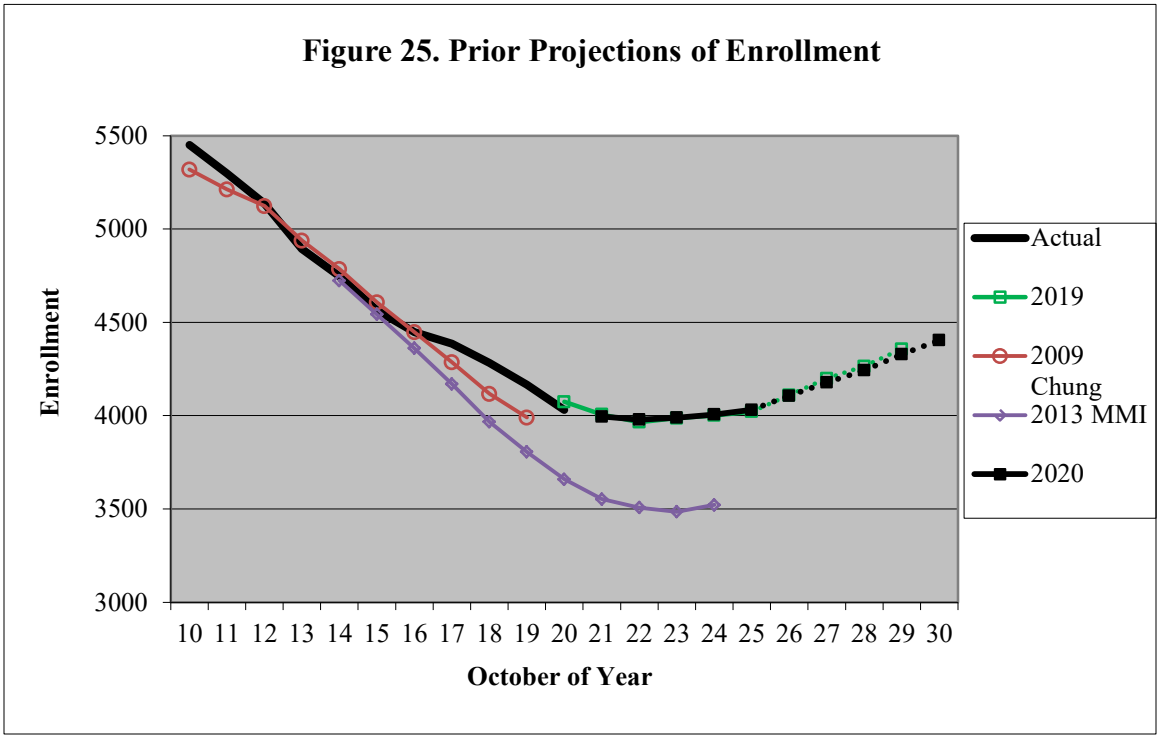


Prior Projections of Enrollment

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. 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 26 presents the enrollment projections that have been run for Newtown since 2009. I found three enrollment projections that were run between 2009 and 2019. They had one-year error rates that averaged 1.3 percent. The two projections done between 2009 and 2015 had an average five-year error rate of 4.1 percent, which is 0.81 percent annualized.

My 2019 projection was 1.1 percent high after one year. In that analysis, I projected that K-4 enrollment would be 1,347 students in 2020. The enrollment of 1,299 was 48 students less than projected. The projection was high by 3.7 percent. I estimate that 21 more students would have attended grades K-4 had it not been for Covid-19. I projected that enrollment in grades 5-6 would be 586 students in 2020. The enrollment of 583 was three students less than projected. The projection was high by 0.51 percent. Last year, I projected that enrollment in grades 7-8 would be 627 students in 2020. The enrollment of 636 was nine students more than projected. The projection was low by 1.4 percent. In 2019, I projected that high school enrollment would be 1,439 students in 2020. The actual enrollment of 1,452 students was 13 students more than projected. The projection was low by 0.9 percent. The 2019 projection kept pre-kindergarten enrollment constant at 75 children. The 2020 enrollment was 60 children. In other projections I have run this year, Covid-19 decimated prekindergarten enrollment.

Figure 25. Prior Projections of Enrollment



Over the past forty years, 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. The method usually does not attempt to predict the future. Its key assumption is that the near future will be like the recent past. For example, projections done in the late 2000s did not anticipate the recession of 2010. Some policy changes such as the reduction of grade 9 retentions or dropouts can be built into a new projection. It is necessary that every receiver of a projection to identify planned changes so that they can be built into a projection.

Summary

I project that total enrollment could increase by 9.3 percent, going from 4,030 students in 2020 to 4,404 students in 2030. I project that K-4 enrollment could grow 22.7 percent, moving from 1,293 students in 2020 to almost 1,590 students in 2030. I feel that future enrollment at Reed Intermediate School could move upward by 22.2 percent from 582 students in 2020 to about 710 students in 2030. I believe that Newtown Middle School enrollment could move upward by 16.7 percent from 623 students in 2020 to almost 730 students in 2030. Between 2020 and 2030, I project that high school enrollment could decline 11.9 percent going from 1,440 students in 2020 to about 1,270 students in 2030. I kept the enrollment in the PAL, RISE and NCP special education programs constant at 31 students.

While the district elementary enrollment is projected to grow by 22.7 percent, I expect some variation among your four elementary schools. I project a growth of 20.8 percent at Hawley Elementary, 27.5 percent at Sandy Hook, 21.6 percent at Middle Gate and 20.2 percent at Head O'Meadow.

This report is projecting a modest growth in enrollment. 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 2011 to 2015 (this fall's kindergarten through 4th graders) births averaged 177. Births in the 2016 through 2020 period will average close to 198. This gain is the primary reason for the upcoming elementary growth. I revised downward births used in the last five years of the projection from 217 to 207 because of lower estimated fertility rates and an expectation of fewer births in 2021 due to the economic uncertainties induced by Covid-19. The growth between births and eventual kindergarten enrollment averaged a robust 38.5 percent across the four elementary schools. People must be moving into Newtown after giving birth elsewhere. The average of the grade-to grade growth rates across grades 1-12 that I used to grow future enrollment was 1.022. The median over the past 20 years was 1.013. Taking these three key factors into consideration, I feel comfortable with the projection.

These projections are based upon several other 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; no expansion of the pre-kindergarten program; retention policies will not change; no expansion of area magnet schools and no change in the drop-out rate. The projection assumes the following factors will not change appreciably: a grade 9 retention rate of 1.1 percent; an annual high school dropout rate of under 0.3 percent and a student migration of +2.5 percent. Additionally, there will be a slight decline in non-public school enrollment; 68 new housing permits will be issued annually; there will be an average of 402 sales of existing single-family homes and condominiums and a slowly increasing labor force.

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 Newtown and then make adjustments as necessary.

Appendix A. Newtown Enrollment Projected by Grade to 2030: Grades PK-6

School Year	Birth Year	Births[1]	K	1	2	3	4	5	6	PK	Total K-4	Total 5-6
2010-11	2005	276	314	334	374	403	415	449	446	88	1,840	895
2011-12	2006	238	272	344	331	374	402	418	460	82	1,723	878
2012-13	2007	240	253	308	337	341	366	402	417	56	1,605	819
2013-14	2008	203	242	269	290	329	335	370	417	70	1,465	787
2014-15	2009	192	231	255	279	290	330	340	391	58	1,385	731
2015-16	2010	200	243	231	257	291	300	343	358	48	1,322	701
2016-17	2011	171	226	260	252	264	292	317	342	60	1,294	659
2017-18	2012	169	242	244	279	277	275	319	328	67	1,317	647
2018-19	2013	166	247	257	250	286	278	285	339	*70*	1,318	624
2019-20	2014	178	246	259	263	263	289	276	284	75	1,320	560
2020-21	2015	199	247	244	270	269	263	291	291	60	1,293	582
Projected												
2021-22[2]	2016	179	247	264	259	287	275	274	303	77	1,332	577
2022-23	2017	187	263	258	276	273	293	286	283	80	1,363	569
2023-24	2018	217	301	277	270	292	279	304	295	77	1,419	599
2024-25	2019	204	284	316	288	284	299	290	314	77	1,471	604
2025-26	2020	204	284	298	330	304	290	311	299	78	1,506	610
2026-27	2021	202	282	298	311	348	311	301	321	79	1,550	622
2027-28	2022	208	291	296	311	329	356	323	311	79	1,583	634
2028-29	2023	208	291	305	309	329	337	370	333	79	1,571	703
2029-30	2024	208	291	305	319	327	337	350	382	79	1,579	732
2030-31	2025	208	291	305	319	337	335	350	361	79	1,587	711
Projection Growth[3]			1.378	1.055	1.055	1.048	1.013	1.039	1.032	0.37		
Annual Growth Rates												**Estimated Migration[4]**
2011			1.143	1.096	0.991	1.000	0.998	1.007	1.024	0.37		-0.45%
2012			1.054	1.132	0.980	1.030	0.979	1.000	0.998	0.28		-0.32%
2013			1.192	1.063	0.942	0.976	0.982	1.011	1.037	0.35		-1.35%
2014			1.203	1.054	1.037	1.000	1.003	1.015	1.057	0.31		1.30%
2015			1.215	1.000	1.008	1.043	1.034	1.039	1.053	0.28		2.23%
2016			1.322	1.070	1.091	1.027	1.003	1.057	0.997	0.35		1.73%
2017			1.432	1.080	1.073	1.099	1.042	1.092	1.035	0.39		4.61%
2018			1.488	1.062	1.025	1.025	1.004	1.036	1.063	0.37		2.21%
2019			1.382	1.049	1.023	1.052	1.010	0.993	0.996	0.39		1.03%
2020[5]			1.266	1.016	1.062	1.038	1.004	1.017	1.069	0.32		3.03%
3-Year Average			1.379	1.042	1.037	1.038	1.006	1.015	1.043			
Weighted 3-Year			1.342	1.035	1.043	1.041	1.006	1.012	1.044			
5-Year Average			**1.378**	**1.055**	**1.055**	**1.048**	**1.013**	**1.039**	**1.032**			
Weighted 5-Year			1.367	1.046	1.048	1.047	1.011	1.027	1.039			

[1] The 2018 and 2019 births are provisional. Births in 2020 are preliminary.
Births in 2021-25 were set to the average of 2018-2020 with a 3% reduction in 2021 due to Covid-19.
[2] Assumes return of new home-schooled students.
[3] Kindergarten based on school-by-school growth from births five-years prior. Grades 1-5 based on 5-year averages of annual growth rates by school; PK based on 2016-2019 average of births 3- and 4-years prior.
[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 residents out and non-residents in.
[5] Growth rates adjusted for increase in home-schooled students between 2019 and 2020 and for change in reporting of PAL.

Appendix B. Newtown Enrollment Projected by Grade to 2030: Grades 7-12

School Year	7	8	9	10	11	12	NCP	PAL/ RISE	7-8 Total	9-12 Total	PK-12 Total
2010-11	434	463	432	462	399	438			897	1,731	5,451
2011-12	440	431	461	431	455	397			871	1,744	5,298
2012-13	448	445	427	456	424	457			893	1,764	5,137
2013-14	413	443	419	424	449	424			856	1,716	4,894
2014-15	419	414	436	424	418	462			833	1,740	4,747
2015-16	395	417	413	416	423	429			812	1,681	4,564
2016-17	358	392	426	399	427	432			750	1,684	4,447
2017-18	346	367	372	427	406	436	17		713	1,641	4,385
2018-19	337	344	360	382	426	422	15		681	1,590	4,283
2019-20	339	341	349	359	382	442	16		680	1,532	4,167
2020-21	285	338	336	362	355	388	11	20	623	1,441	4,030
Projected											
2021-22[1]	298	286	335	341	363	355	11	20	584	1,394	3,995
2022-23	307	300	284	337	343	365	11	20	607	1,329	3,979
2023-24	287	309	298	286	339	344	11	20	596	1,267	3,989
2024-25	299	289	307	300	288	340	11	20	588	1,235	4,006
2025-26	318	301	287	309	302	289	11	20	619	1,187	4,031
2026-27	303	320	299	289	311	303	11	20	623	1,202	4,107
2027-28	325	305	317	301	291	312	11	20	630	1,221	4,178
2028-29	315	327	303	319	303	292	11	20	642	1,217	4,243
2029-30	337	317	324	305	321	304	11	20	654	1,254	4,329
2030-31	387	340	314	326	307	322	11	20	727	1,269	4,404
Projection Growth[2]	1.013	1.008	0.992	1.005	1.006	1.004					
Annual Growth Rates											**Migration**[3]
2011	0.987	0.993	0.996	0.998	0.985	0.995					-0.45%
2012	0.974	1.011	0.991	0.989	0.984	1.004					-0.32%
2013	0.990	0.989	0.942	0.993	0.985	1.000					-1.35%
2014	1.005	1.002	0.984	1.012	0.986	1.029					1.30%
2015	1.010	0.995	0.998	0.954	0.998	1.026					2.23%
2016	1.000	0.992	1.022	0.966	1.026	1.021					1.73%
2017	1.012	1.025	0.949	1.002	1.018	0.981					4.61%
2018	1.027	0.994	0.981	1.027	0.998	1.002					2.21%
2019	1.000	1.012	1.015	0.997	1.000	1.000					1.03%
2020[4]	1.025	1.015	0.994	1.034	0.986	1.016					3.03%
3-Year Average	1.017	1.007	0.997	1.019	0.995	1.006					
Weighted 3-	1.017	1.010	0.999	1.021	0.993	1.008					
5-Year Average	**1.013**	**1.008**	**0.992**	**1.005**	**1.006**	**1.004**					
Weighted 5-	1.015	1.010	0.993	1.014	0.999	1.005					

[1] Assumes return of new home-schooled students.
[2] Projection growth rates were based on 5-year averages by school.
[3] 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 residents out and non-residents in. 2020 includes adjustment for students home-schooled.
[4] Growth rates adjusted for increase in home-schooled students between 2019 and 2020 and change in reporting of RISE special education students.

Appendix C. Hawley Elementary School Enrollment Projected to 2030

School Year	Birth Year	Births[1]	K	1	2	3	4	Total
2010-11	2005	52	72	75	87	85	97	416
2011-12	2006	59	61	81	69	87	86	384
2012-13	2007	46	49	73	79	72	88	361
2013-14	2008	51	58	64	69	82	76	349
2014-15	2009	35	50	66	56	68	81	321
2015-16	2010	45	66	49	68	65	72	320
2016-17	2011	39	50	62	57	66	65	300
2017-18	2012	38	54	51	67	62	68	302
2018-19	2013	38	60	58	57	71	64	310
2019-20	2014	41	56	60	58	57	68	299
2020-21	2015	40	48	57	61	61	52	279
Projected								
2021-22[2]	2016	47	64	49	63	64	61	301
2022-23	2017	37	51	65	53	65	63	297
2023-24	2018	48	65	52	70	55	64	306
2024-25	2019	45	61	66	56	73	54	310
2025-26	2020	45	61	62	71	58	72	324
2026-27	2021	44	61	62	67	74	57	321
2027-28	2022	46	63	62	67	70	73	335
2028-29	2023	46	63	64	67	70	69	333
2029-30	2024	46	63	64	69	70	69	335
2030-31	2025	46	63	64	69	72	69	337
Projection Growth[3]			1.370	1.014	1.079	1.037	0.987	
Annual Growth Rates			[4]					**Estimated Migration[5]**
2011			1.034	1.125	0.920	1.000	1.012	1.25%
2012			1.065	1.197	0.975	1.043	1.011	4.70%
2013			1.137	1.306	0.945	1.038	1.056	6.59%
2014			1.429	1.138	0.875	0.986	0.988	-0.73%
2015			1.467	0.980	1.030	1.161	1.059	5.83%
2016			1.282	0.939	1.163	0.971	1.000	0.81%
2017			1.421	1.020	1.081	1.088	1.030	5.53%
2018			1.579	1.074	1.118	1.060	1.032	6.84%
2019			1.366	1.000	1.000	1.000	0.958	-1.22%
2020[6]			1.200	1.036	1.033	1.069	0.912	1.30%
3-Year Average			1.382	1.040	1.035	1.035	1.005	
Weighted 3-Year			1.343	1.031	1.041	1.035	1.004	
5-Year Average			**1.385**	**1.054**	**1.054**	**1.046**	**1.012**	
Weighted 5-Year			1.371	1.043	1.046	1.043	1.009	

[1] Births in 2005 – 2017 based on births in the school attendance zone. Births in 2018 to 2025 were prorated based on the change in births in Newtown as a whole.
[2] Assumes return of new home-schooled students.
[3] Grades 1-5 based on 5-year averages of annual growth rates by grade.
[4] Kindergarten based on 5-year average of births 5-years prior.
[5] Estimated by comparing the enrollment in grades 2-4 one year with the enrollment in grades 1-3 the prior year.
[6] Rates adjusted by increase in number home-schooled between 2019 and 2020

Appendix D. Sandy Hook Elementary School Enrollment Projected to 2030

School Year	Birth Year	Births[1]	K	1	2	3	4	Total
2010-11	2005	85	89	109	107	132	138	575
2011-12	2006	62	81	94	112	103	131	521
2012-13	2007	70	72	78	94	113	97	454
2013-14	2008	55	77	65	60	89	104	395
2014-15	2009	47	59	79	64	65	92	359
2015-16	2010	64	57	63	81	64	72	337
2016-17	2011	46	63	69	67	88	69	356
2017-18	2012	42	71	71	79	76	86	383
2018-19	2013	48	62	75	73	78	76	364
2019-20	2014	53	68	67	78	77	79	369
2020-21	2015	60	67	67	70	77	75	356
Projected								
2021-22[2]	2016	49	66	73	71	74	79	363
2022-23	2017	52	70	72	78	75	75	370
2023-24	2018	62	83	76	77	82	76	394
2024-25	2019	58	78	91	81	81	83	414
2025-26	2020	58	78	85	97	85	82	427
2026-27	2021	58	78	85	90	102	86	441
2027-28	2022	59	80	85	90	95	103	453
2028-29	2023	59	80	87	90	95	96	448
2029-30	2024	59	80	87	93	95	96	451
2030-31	2025	59	80	87	93	98	96	454
Projection Growth[3]			1.350	1.092	1.064	1.053	1.008	
Annual Growth Rates			[4]					**Estimated Migration[5]**
2011			1.306	1.056	1.028	0.963	0.992	0.69%
2012			1.029	0.963	1.000	1.009	0.942	-2.05%
2013			1.400	0.903	0.769	0.947	0.920	-10.92%
2014			1.255	1.026	0.985	1.083	1.034	3.09%
2015			0.891	1.068	1.025	1.000	1.108	4.87%
2016			1.370	1.211	1.063	1.086	1.078	10.57%
2017			1.690	1.127	1.145	1.134	0.977	8.71%
2018			1.292	1.056	1.028	0.987	1.000	1.68%
2019			1.283	1.081	1.040	1.055	1.013	4.51%
2020[6]			1.117	0.985	1.045	1.000	0.974	0.00%
3-Year Average			1.230	1.041	1.038	1.014	0.996	
Weighted 3-Year			1.201	1.029	1.040	1.016	0.991	
5-Year Average			**1.350**	**1.092**	**1.064**	**1.053**	**1.008**	
Weighted 5-Year			1.289	1.059	1.055	1.036	0.997	

[1] Births in 2005 – 2017 based on births in the school attendance zone. Births in 2018 to 2025 were prorated based on the change in births in Newtown as a whole.
[2] Assumes return of new home-schooled students.
[3] Grades 1-5 based on 5-year averages of annual growth rates by grade.
[4] Kindergarten based on 5-year average of births 5-years prior.
[5] Estimated by comparing the enrollment in grades 2-4 one year with the enrollment in grades 1-3 the prior year.
[6] Rates adjusted by increase in number home-schooled between 2019 and 2020

Appendix E. Middle Gate Elementary School Enrollment Projected to 2030

School Year	Birth Year	Births[1]	K	1	2	3	4	Total
2010-11	2005	69	95	94	95	96	100	480
2011-12	2006	70	77	108	96	98	97	476
2012-13	2007	70	72	85	103	98	93	451
2013-14	2008	55	62	76	89	96	95	418
2014-15	2009	68	69	64	83	81	94	391
2015-16	2010	55	69	69	64	84	82	368
2016-17	2011	48	71	70	79	64	81	365
2017-18	2012	52	68	73	69	85	67	362
2018-19	2013	48	61	67	76	72	85	361
2019-20	2014	49	69	62	72	79	74	356
2020-21	2015	64	76	72	65	72	86	371
Projected								
2021-22[2]	2016	55	74	78	76	68	76	372
2022-23	2017	53	72	74	81	80	71	378
2023-24	2018	66	89	72	76	86	84	407
2024-25	2019	62	84	89	74	80	90	417
2025-26	2020	62	84	84	92	78	84	422
2026-27	2021	61	83	84	87	97	82	433
2027-28	2022	63	86	83	87	92	102	450
2028-29	2023	63	86	86	86	92	97	447
2029-30	2024	63	86	86	89	91	97	449
2030-31	2025	63	86	86	89	94	96	451
Projection Growth[3]			1.349	1.004	1.033	1.056	1.049	
Annual Growth Rates			[4]					**Estimated Migration[5]**
2011			1.100	1.137	1.021	1.032	1.010	5.00%
2012			1.029	1.104	0.954	1.021	0.949	0.00%
2013			1.127	1.056	1.047	0.932	0.969	-0.56%
2014			1.015	1.032	1.092	0.910	0.979	-0.31%
2015			1.255	1.000	1.000	1.012	1.012	0.67%
2016			1.479	1.014	1.145	1.000	0.964	2.80%
2017			1.308	1.028	0.986	1.076	1.047	3.52%
2018			1.271	0.985	1.041	1.043	1.000	1.69%
2019			1.408	1.016	1.075	1.039	1.028	3.99%
2020[6]			1.234	1.072	1.081	0.986	1.089	5.67%
3-Year Average			1.320	0.992	1.011	1.069	1.079	
Weighted 3-Year			1.322	0.990	0.990	1.082	1.113	
5-Year Average			**1.349**	**1.004**	**1.033**	**1.056**	**1.049**	
Weighted 5-Year			1.330	0.997	1.008	1.070	1.081	

[1] Births in 2005 – 2017 based on births in the school attendance zone. Births in 2018 to 2025 were prorated based on the change in births in Newtown as a whole.

[2] Assumes return of new home-schooled students.

[3] Grades 1-5 based on 5-year averages of annual growth rates by grade.

[4] Kindergarten based on 5-year average of births 5-years prior.

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

[6] Rates adjusted by increase in number home-schooled between 2019 and 2020

Appendix F. Head O'Meadow Elementary School Enrollment Projected to 2030

School Year	Birth Year	Births[1]	K	1	2	3	4	Total
2010-11	2005	52	58	56	85	90	80	369
2011-12	2006	59	53	61	54	86	88	342
2012-13	2007	46	60	72	61	58	88	339
2013-14	2008	51	45	64	72	62	60	303
2014-15	2009	35	53	46	76	76	63	314
2015-16	2010	45	51	50	44	78	74	297
2016-17	2011	36	42	59	49	46	77	273
2017-18	2012	36	49	49	64	54	54	270
2018-19	2013	31	64	57	44	65	53	283
2019-20	2014	35	53	70	55	50	68	296
2020-21	2015	35	56	48	74	59	50	287
Projected								
2021-22[2]	2016	28	43	64	49	81	61	298
2022-23	2017	45	70	47	64	53	84	318
2023-24	2018	41	64	77	47	69	55	312
2024-25	2019	39	61	70	77	50	72	330
2025-26	2020	39	61	67	70	83	52	333
2026-27	2021	39	60	67	67	75	86	355
2027-28	2022	40	62	66	67	72	78	345
2028-29	2023	40	62	68	66	72	75	343
2029-30	2024	40	62	68	68	71	75	344
2030-31	2025	40	62	68	68	73	74	345
Projection Growth[3]			1.553	1.101	1.000	1.074	1.038	
Annual Growth Rates			[4]					**Estimated Migration[5]**
2011			0.898	1.052	0.964	1.012	0.978	0.00%
2012			1.304	1.358	1.000	1.074	1.023	9.84%
2013			0.882	1.067	1.000	1.016	1.034	2.79%
2014			1.514	1.022	1.188	1.056	1.016	7.41%
2015			1.133	0.943	0.957	1.026	0.974	-1.99%
2016			1.167	1.157	0.980	1.045	0.987	3.59%
2017			1.361	1.167	1.085	1.102	1.174	12.76%
2018			2.065	1.163	0.898	1.016	0.981	1.39%
2019			1.514	1.094	0.965	1.136	1.046	5.65%
2020[6]			1.657	0.925	1.071	1.073	1.000	0.00%
3-Year Average			1.745	1.061	0.978	1.075	1.009	
Weighted 3-Year			1.677	1.021	1.007	1.084	1.012	
5-Year Average			**1.553**	**1.101**	**1.000**	**1.074**	**1.038**	
Weighted 5-Year			1.628	1.065	1.004	1.080	1.031	

[1] Births in 2005 – 2017 based on births in the school attendance zone. Births in 2018 to 2025 were prorated based on the change in births in Newtown as a whole.
[2] Assumes return of new home-schooled students.
[3] Grades 1-5 based on 5-year averages of annual growth rates by grade.
[4] Kindergarten based on 5-year average of births 5-years prior.
[5] Estimated by comparing the enrollment in grades 2-4 one year with the enrollment in grades 1-3 the prior year.
[6] Rates adjusted by increase in number home-schooled between 2019 and 2020