Monroe Public Schools

Enrollment Summary

MONROE COMPREHENSIVE SCHOOL ENROLLMENT ANALYSIS AND PROJECTIONS

JANUARY 2015

PREPARED FOR:
MONROE PUBLIC SCHOOLS

PREPARED BY:

IN ASSOCIATION WITH:

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INTRODUCTION

Monroe Public Schools contracted with Milone & MacBroom, Inc. to conduct a comprehensive school enrollment analysis and to develop enrollment projections for the entire school district. The district-wide and school-specific projections in this report are meant to serve as a planning tool for the future to represent the most likely direction of Monroe Public Schools.

This report examines factors that influence school enrollments, namely trends in demographics, births, housing, development and real estate, and private school enrollments. Standard enrollment projections rely on having at least three years of historically valid data to discern enrollment trends and make projections. Whether Monroe has reached a new normal, or previously existing trends experienced only a brief disruption remains to be seen over the next couple of years. The introduction of full-day kindergarten in 2013-14 is another change likely to have short- and long-term influence on enrollment patterns, but cannot be determined at this time. Monroe Public Schools should pay close attention to the variables discussed in this report, as changes in any one trend could impact enrollments. Through annual updates, enrollment projections can be fine-tuned to increase accuracy, providing Monroe with an on-going planning tool.

DEMOGRAPHIC OVERVIEW

The nation's public school enrollment over the last half -century reveals demographic, economic, and social trends, including: the baby boom, echo baby boom, sprawl and the development of suburbs, changing workforce composition, and technological advances. The baby boom of the late 1940s and 1950s led to enrollment growth in the 1950s and 1960s. Similarly, the baby bust of the 1960s and 1970s spurred declining enrollments in the 1970s and 1980s.While fertility rates were in decline due to a variety of forces, the Great Recession sparked a sharp decrease in fertility rates from 2007 to 2011 to reach all-time lows, which have not yet recovered. This latest baby bust is only beginning to affect the nation's school enrollments.

According to the U.S. Census Bureau, Monroe's population stayed relatively steady from 2000 to 2010, increasing by only by 1.2%, or about 230 residents, compared to a 3.9% increase for Fairfield County and a 4.9% increase for the State during the same time period.

While the Town's overall population increased between 2000 and 2010, certain neighborhoods gained substantially more, while others lost population. The *Population Change by Census Block Group* Map on page A-1 shows changes by Census Block Groups aggregated to roughly correspond to Monroe's elementary school district boundaries. According to this approximation, all Stepney and Fawn Hollow districts experienced an increase in total population; while Monroe Elementary (Monroe El) experienced the a slight decline.

Monroe has a variety of neighborhood types, from more rural areas with population densities of ~500 people per square mile, to more suburban densities in the Town Center and Stepney with more 800 to over 1000 people per square mile. The *Population Density Map* on page A-2 shows where population is concentrated, according to the 2010 U.S. Census.

The growth in Monroe's population from 2000 to 2010 was not evenly distributed across age groups. The following age-sex pyramid shows the shift in age cohorts. As is evident, all age groups 45 and over experienced an increase above the natural progression of each cohort. In other words,

the cohorts 45 and over represent those larger cohorts aging in place over the last decade. The largest decreases were in those 30 to 45, with significant declines projected to continue for those age cohorts. The school age population experienced an increase, especially those 15 to 19, although those under 10 decreased. Taken together, these two factors indicate a significant decline in young families in Monroe from 2000 to 2010.

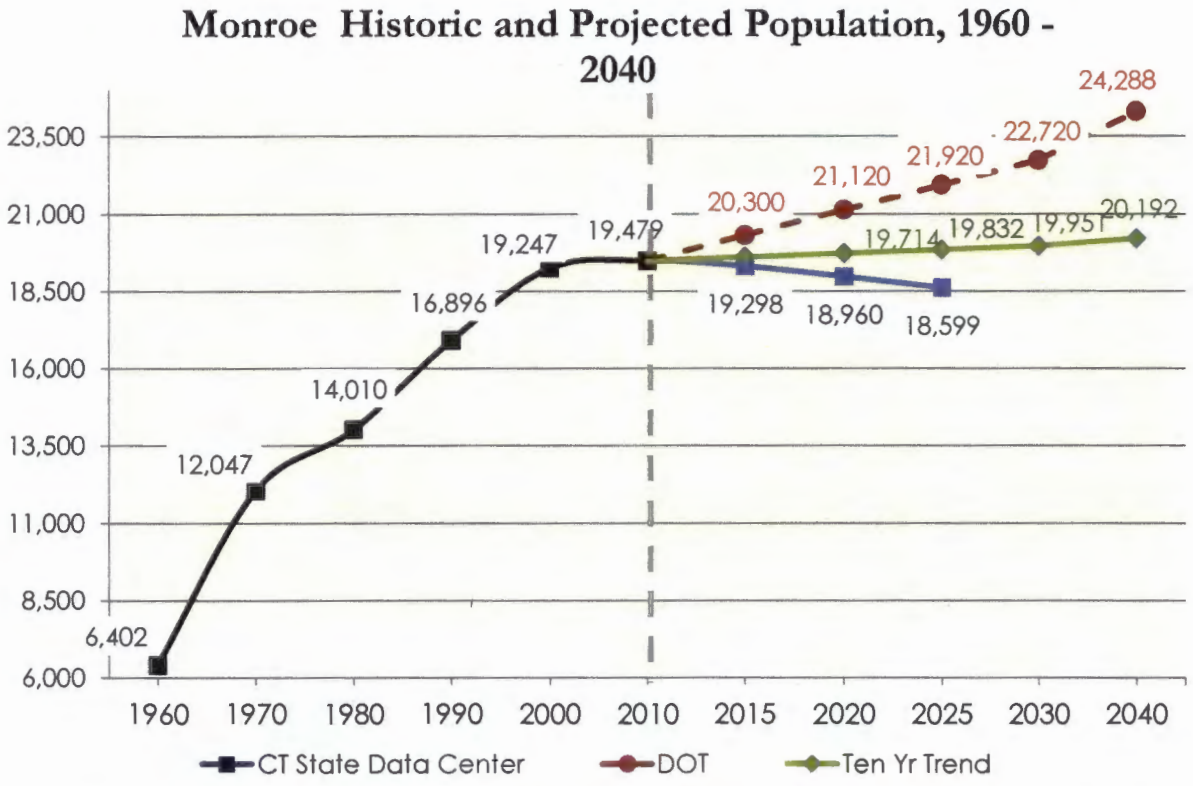
Monroe Population Change 2000 - 2010

Source: U.S. Census, Projections CT Data Center

The *School-Age Population Change* map located on page A-3 highlights changes between 2000 and 2010 in children age 5 to 17 across the community. Stepney experienced the largest increase, while Monroe El experienced the least.

Population projections from the CT State Data Center and the CT Department of Transportation show a range of potential future total population. The projections show either strong growth or a slight decline in population. Because these two projections vary so widely, a third ten-year

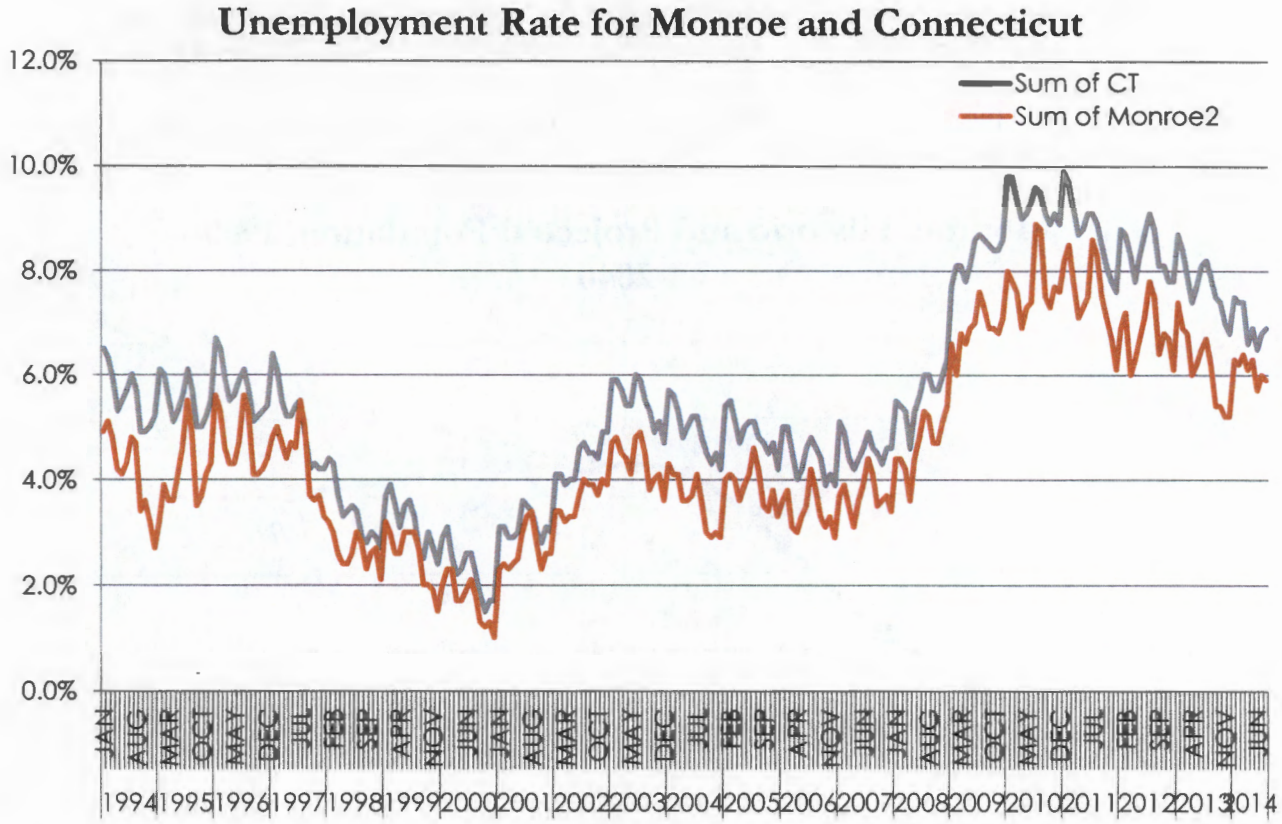
exponential growth was done, showing moderate growth. This trend is nearly identical to the average of the two other projections. Given recent stagnant housing growth, discussed later in this report, the aging of the population and expected continued low birth rates, we expect very slow growth in the total population over the course of the enrollment projections horizon, more consistent with the ten year trend.



Source: U.S. Census, Projections from CT State Data Center and CT DOT, November 2014.

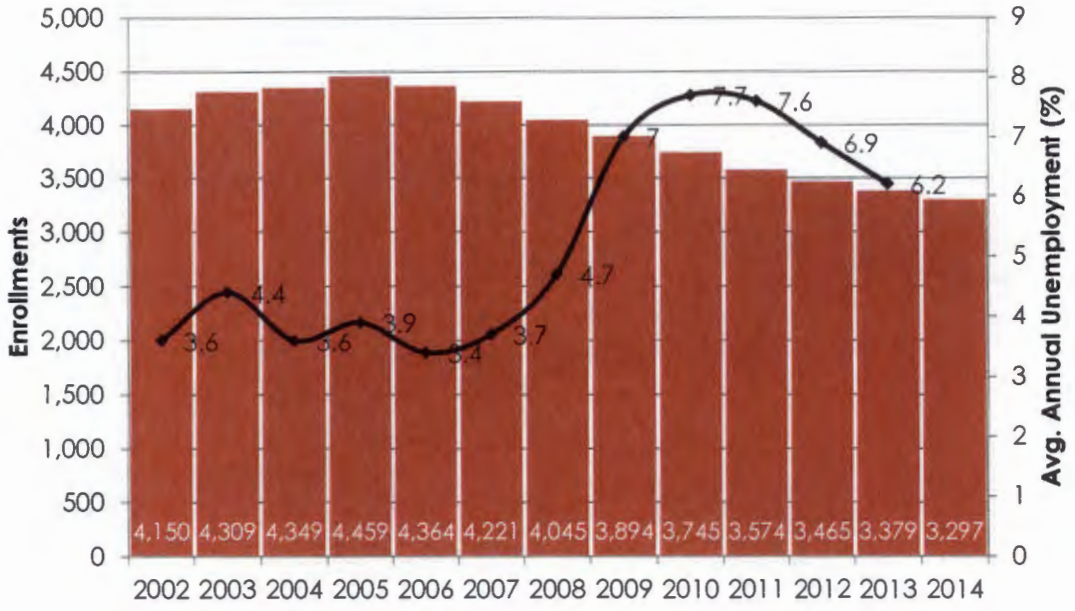
Employment Trends

Monroe's unemployment rate generally follows the same trends as that of the State, albeit at lower rates (see the following figure). At the start of the Great Recession in 2008, Monroe's unemployment rate began a significant increase. Monroe's average annual unemployment rate hovered around 4% from 2002 to 2007, before spiking to 7.7% in 2010. Unemployment rates in Monroe and the State have slowly decreased since reaching their peaks in 2010.



The following figure plots Monroe's average annual unemployment rate against total PK-12 enrollments. While enrollment peaked during a period in which unemployment was at a stable low, Monroe's total enrollment begin declining in 2005, much sooner than the unemployment spike following the great recession. Therefore, while there is some relationship between unemployment and enrollment, it is not a direct correlation.

Average Annual Unemployment and PK-12 Enrollments



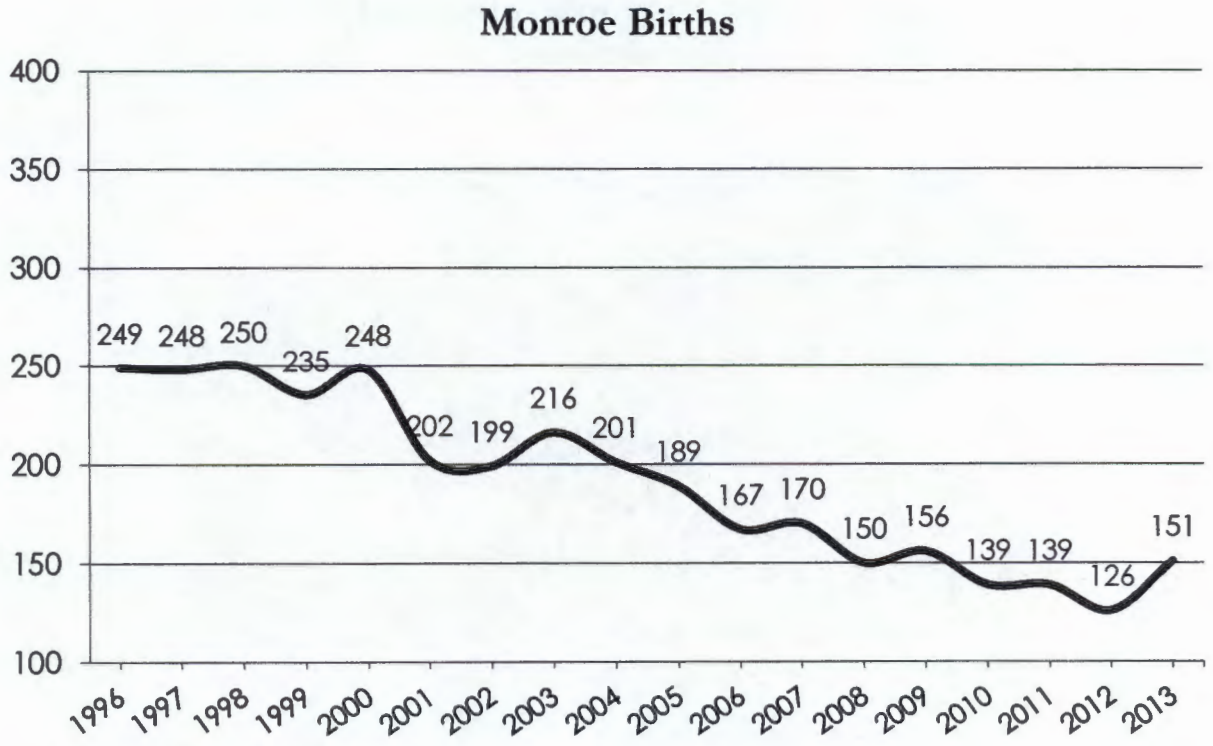
Source: CT Dept of Labor and Monroe Public Schools.

Birth Trends and Projections

From 1996 to 2000, annual births in Monroe averaged around 246 (see the following Figure). The annual birth rate began a sustained period of decline in 2001, with 201 average annual births from 2001 to 2005. This decline precedes the start of the recession in 2008, when birth rates declined nationwide. Annual births in Monroe have averaged only 150 since 2006, well below the average rates from the late 1990s and early 2000s. While the 2012 and 2013 birth data is still preliminary, we do not anticipate a significant increase in the final figures from the Department of Public Health. In addition, as discussed previously, the population of women of childbearing age declined substantially from 2000 to 2010, further reducing the prospect for increases in annual births in the near future.

The Census Bureau recently lowered its national population projections partially as a result of lower forecasted birth rates. In addition, some demographers have suggested that as more women enter college, and more households and families increasingly rely on female earnings, fertility rates may remain low.[1]

[1] Mather, Mark. 2012. *Fact Sheet: The Decline in U.S. Fertility*, Population Research Bureau.



Source: CT Dept. of Public Health

Five years of projected births are necessary in order to project the incoming kindergarten classes through 2025-26. Average annual unemployment rates and annual birth rates often have a strong correlation. A regression analysis of Monroe's unemployment and birth rates from 1994 to 2013 produced an r2 value of .753, indicating relatively strong correlation. However, the strongest correlation came from Monroe's past housing sales, producing an r2 value of .943. A full regression analysis yielded the following equation for projecting future births in Monroe.

$$\text{Births}_t = 50.28 + (-.043*\text{Births}_{(t-1)}) + (8.8*\text{Unemployment}) + (2.04*\text{Unemployment}_{t-5}) + (0.368*\text{Housing}_{t-1}) + (0.366*\text{Housing}_{t-2}) + (-0.033*\text{Housing}_{t-3}) + (-18.9528*\text{CTUnemployment}_{t-5}) + (-23.6766*\text{CTUnemployment})$$

Using this equation, we were able to develop birth projections under low, medium and high economic growth assumptions, based on changes in average annual unemployment rates and annual housing sales. All three scenarios assume unemployment rates will continue to decrease in Monroe over the next seven years, albeit at various speeds. However, only the medium and high models expect housing sales to increase, while the low model assumes that the slight average annual decline in housing sales since 2007 (the last pre-recessionary year of housing sales) will continue in the near future. This slight decrease in housing salesalso yields a slight decrease in overall births during that projection period.

One cannot expect economic indicators to rise and fall in a linear fashion as in our assumed models; however, establishing low, medium and high growth scenarios establishes a range of likely

projections under a continuously improving economy. By 2020, our low economic growth model projects 138 annual births whereas the high growth model projects 174 annual births in 2020.

In addition, we prepared demographic model birth projections in order to confirm and validate the economic model projections. The demographic model applied two different age-specific fertility rates to Monroe population projections prepared by the CT State Data Center. The first fertility rate data used was the 2012 White Non-Hispanic U.S. Fertility rate, because this cohort most closely resembles the composition of Monroe's population. The second set of demographic birth projections were prepared from the Connecticut-specific fertility rates. These projections were calculated from 2010 birth and population data as reported by the CT Department of Public Health.

The demographic projection models resulted in a large variance from the MMI model due to the projected decline in key cohorts of females of child-bearing age predicted by the CT State Data Center, with the Connecticut-specific rates resulting in 137 annual births in 2020 and the U.S. fertility rates resulting in 147 births. The following tables detail the demographic projection model.

Monroe Child-Bearing Age Females 2000 - 2020

	History		Projections		2010-2020 Change	
Age Group	**2000**	**2010**	**2015**	**2020**	**Number**	**Percent**
15 to 19 Years	585	699	899	817	118	16.9%
20 to 24 Years	269	398	552	751	353	88.7%
25 to 29 Years	346	318	202	361	43	13.5%
30 to 34 Years	692	398	282	166	-232	-58.3%
35 to 39 Years	960	585	487	371	-214	-36.6%
40 to 44 Years	1,009	871	698	600	-271	-31.1%
45 to 49 Years	756	1,015	937	766	-249	-24.5%

Projections from CT State Data Center

Age Group	Fertility Rates		Birth Projections			
	U.S. Non-Hispanic White - 2012	CT All Races - 2010	U.S. Fertility Rates		CT Fertility Rates	
			2015	2020	2015	2020
15 to 19 Years	20.5	18.7	18	17	17	15
20 to 24 Years	70.2	58.2	39	53	32	44
25 to 29 Years	104.4	89.6	21	38	18	32
30 to 34 Years	100.5	109.0	28	17	31	18
35 to 39 Years	46.8	56.1	23	17	27	21
40 to 44 Years	9.1	11.7	6	5	8	7
45 to 49 Years	0.6	0.2	1	0	0	0
CT Rates calculated by MMI; National Vital Statistics Reports, Volume 62, Number 3, September 2013			**136**	**147**	**133**	**137**

Finally, in order to reduce the impact of the population projections from the Connecticut Data Center, a third demographic model was created using the moderate ten year trend in population growth (1.2% growth every 10 years). The Connecticut Department of Health's Annual Births per 1000 Monroe Resident rate was applied to these projections and averaged for the last five years of available data (2007-2011), and the resultant births, Monroe Birthrate, were also used for comparison.

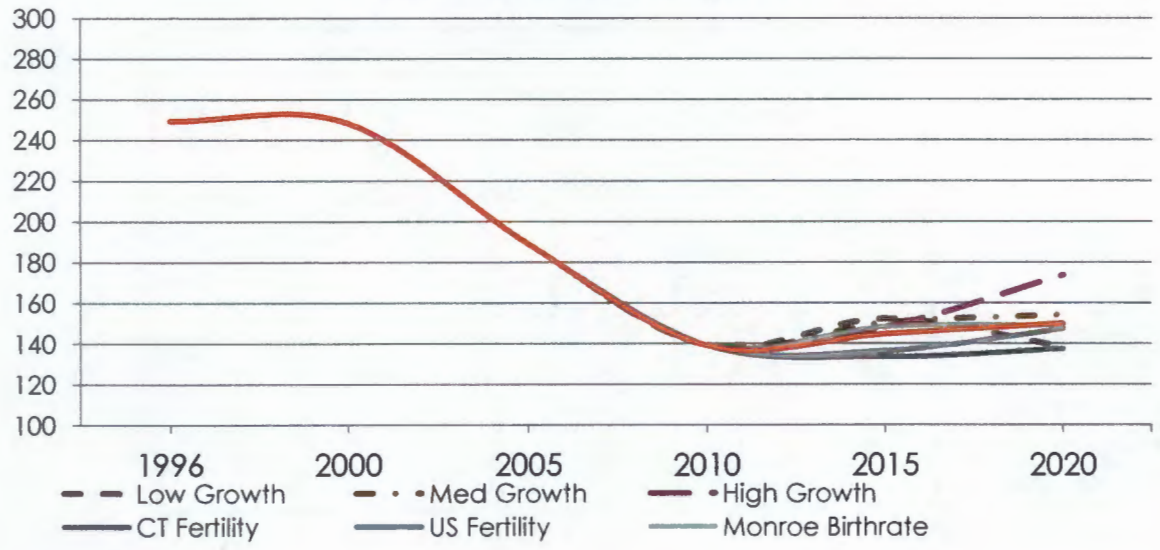
The following table and chart compare the six different sets of birth projections generated by the low, medium and high regression-derived models and the three demographic-based models. They also include an average of all six sets as a point of comparison. As the table and chart illustrate, the economic and national fertility rate demographic models are lower for the entirety of the model, until the intercept the Low economic model by 2020. The economic growth models tend to rebound growths sooner and more intensely than the demographic models. The Medium Growth model most closely resembles the average of all models.

Comparison of Birth Projection Models

	Regression			Demographic			
	Low Growth	**Med Growth**	**High Growth**	**Monroe Birthrate**	**CT Fertility**	**US Fertility**	**Average**
2010	139	139	139	139	139	139	**139**
2015	152	150	148	148	133	136	**145**
2018	140	149	160	148	136	143	**145**
2020	138	154	174	149	137	147	**150**

Prepared by MMI

Birth Projections Comparison



Prepared by MMI

In addition to understanding the number of births, it's also important to understand their geographic distribution, as varying trends can develop in individual school zones. Live birth data obtained from the CT Department of Public Health (Milone & MacBroom, Inc. assumes full responsibility for analysis and interpretation of this data) was address matched and used to establish district-wide and individual elementary school Birth to Kindergarten persistency ratios. Simply put, this ratio identifies the percentage of children born in town or in an elementary zone, who attend kindergarten five years later. The persistency ratios for Birth-K, as well as for all grades, can be found later in this report. The *Birth by School District Map* on page A-5 shows the distribution of births in Monroe from 2003 to 2013. These births correspond to the incoming kindergarten classes of 2014-15 through 2018-19. Not surprisingly, the density of births mimics the 2010 population density map.

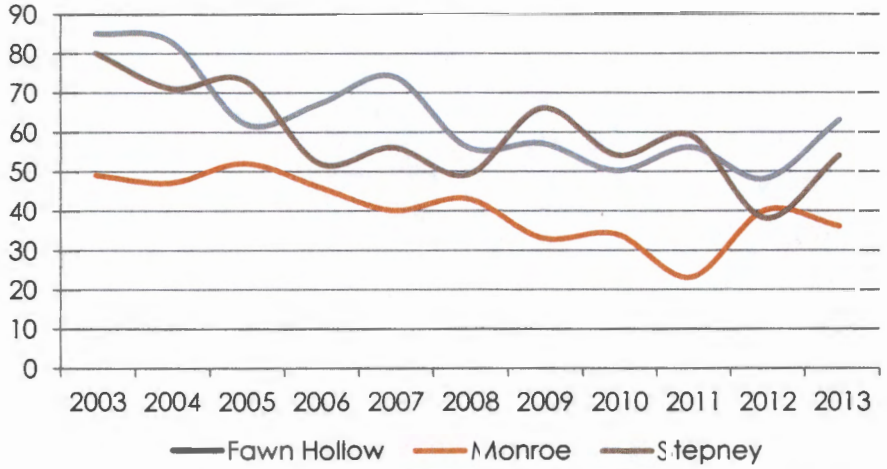
Annual Birth Comparison

	Average 2003-2007	Average 2008-2013	Change
Fawn Hollow	74	55	-25.9%
Monroe	47	35	-25.6%
Stepney	66	53	-19.7%

Source: CT Department of Health. This study was approved by the DPH HIC. MMI takes full responsibility for analyses and interpretation of the data

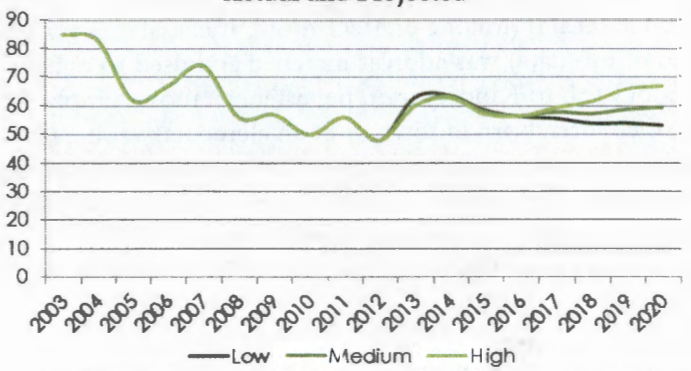
The general downward trend in annual birth rates, despite cyclical highs and lows, is apparent in all schools in the following figure. Fawn Hollow and Stepney have traditionally had the highest number of annual births of all the elementary schools; however, the difference between birth rates in all school districts has shrunk in recent years, especially in the last two years, when Monroe's births have exceed or closely resembled those of Stepney. As the following table shows, annual birth rates are down about 30% in each school district from a decade ago. (Note that 2013 birth numbers are still preliminary and subject to change.)

Births by School



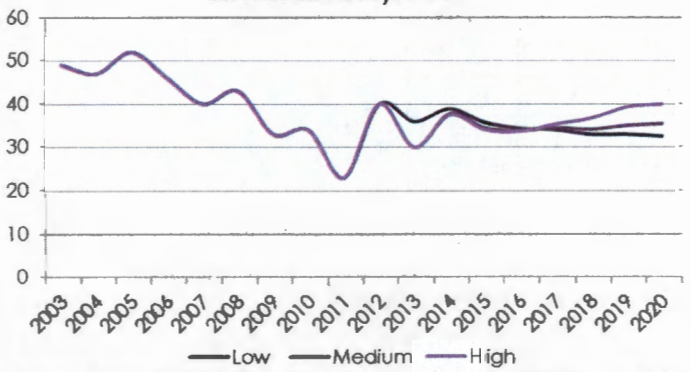
Source: CT Department of Health. This study was approved by the DPH HIC. MMI takes full responsibility for analyses and interpretation of the data

Fawn Hollow Attendance Zone Births
Actual and Projected



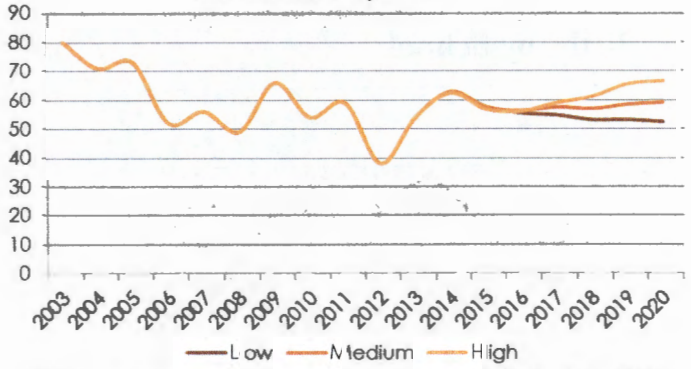
Source: CT Department of Health. This study was approved by the DPH HIC. MMI takes full responsibility for analyses and interpretation of the data

Monroe El Attendance Zone Births
Actual and Projected



Source: CT Department of Health. This study was approved by the DPH HIC. MMI takes full responsibility for analyses and interpretation of the data

Stepney Attendance Zone Births
Actual and Projected



Source: CT Department of Health. This study was approved by the DPH HIC. MMI takes full responsibility for analyses and interpretation of the data

The low, medium and high regression models used to project births in the entire district were applied to births in the individual attendance zones to facilitate projecting enrollments in each school over an eight year horizon. The resulting birth projections are shown above and provide a range of projected births in each school district from 2014 through 2020.

HOUSING

Growth in housing units from 2000 to 2010 out-paced growth in total population in Monroe, with a 4.8% increase in the number of housing units compared to a 1.2% increase in total population. The *Housing Unit Change by Block Group* map on page A-6 shows housing unit growth in all the Town's school districts.

Monroe's average household size decreased from 2.96 in 2000 to 2.88 in 2010. Nonetheless, Monroe's average household size remains significantly higher than the averages for Fairfield County (2.68) and the State (2.52), which have also decreased over the last decade.

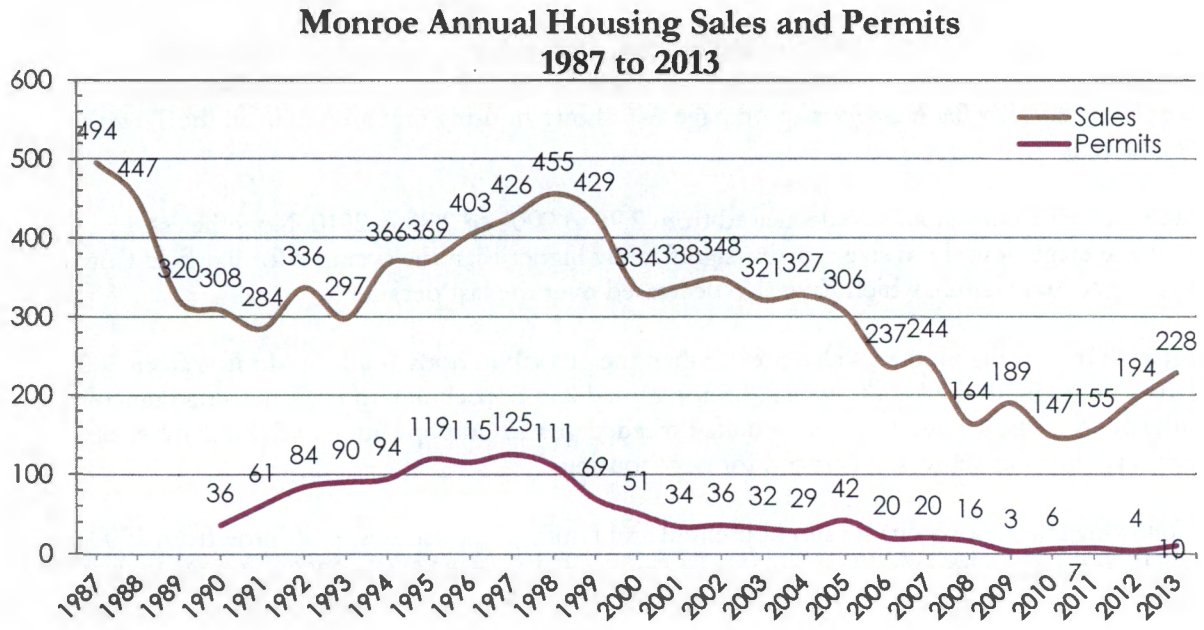
The growth in housing units was also greater than the growth in households in Monroe from 2000 to 2010. According to the U.S. Census, Monroe gained 254 households and 317 housing units over the time period. The growth in housing units exceeded growth in population and the number of households signaling depressed demand for new housing.

The following table shows changes in household and family compositions in Monroe from 2000 to 2010. The share of all households consisting of families fell from 82.5% in 2000 to 80.4% in 2010. It is important to note the rise in female-headed family households, and the rise in householders living alone, especially those over 65 years old. Looking at the individual components of family households, all families with small children (Under 6 years old AND Under 6 and 6 to 17 years) fell, while the number of families with school-aged children (6 to 17) increased by 271. Rather than starting families in Monroe, it appears that families are arriving to Monroe with children ready to enter the school system.

Household and Family Composition Change

	2000	2010	Change	% Change
Total households	6,481	6,735	254	3.9%
Family households	5,349	5,417	68	1.3%
Female householder	1052	1322	270	25.7%
Nonfamily households	1,132	1,318	186	16.4%
Householder living alone	966	1,136	170	17.6%
Householder 65+	1,447	1,850	403	27.9%
Average household size	2.96	2.88		
Families	5,349	5,417	68	1.3%
With related children under 18 years	2,878	2,751	-127	-4.4%
With own children under 18 years	2,754	2,607	-147	-5.3%
Under 6 years only	632	368	-264	-41.8%
Under 6 and 6 to 17 years	577	363	-214	-37.1%
6 to 17 years only	1,545	1,816	271	17.5%

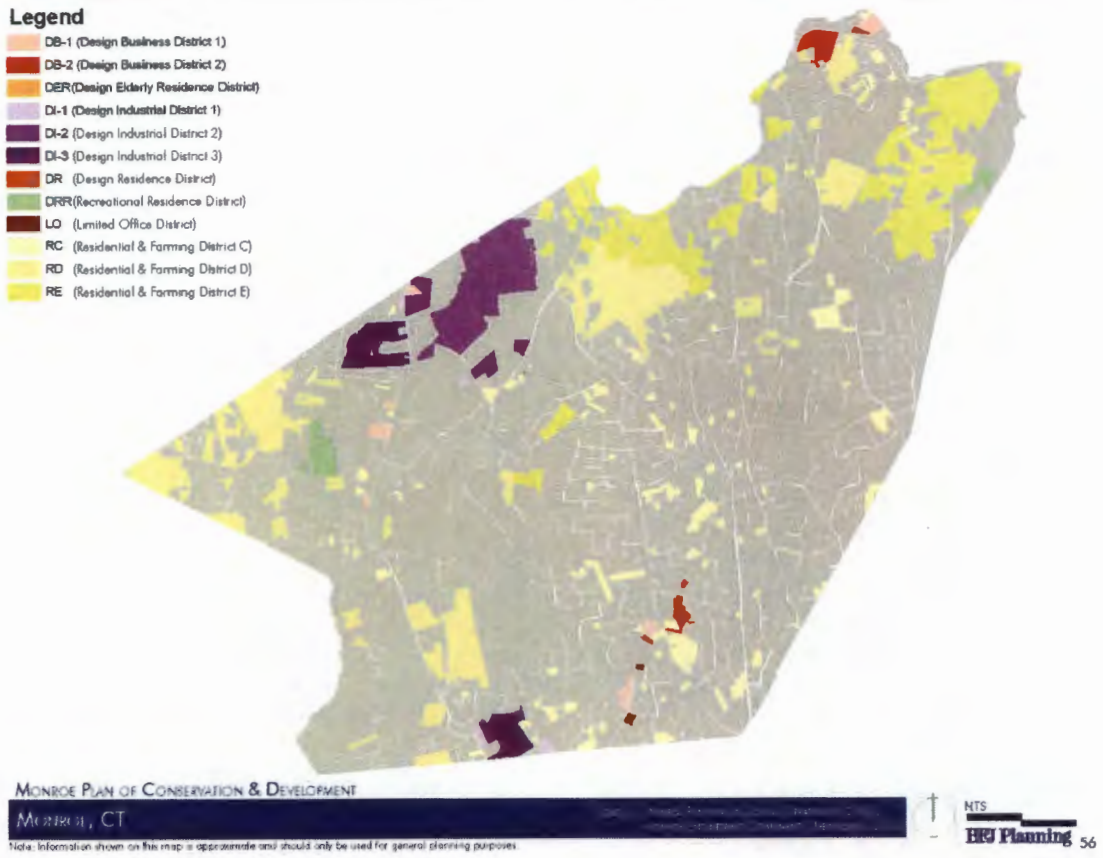
source: U.S. Census



Source: The Warren Group.

Most of the housing growth occurred in the late 1990's, when Monroe issued more than 100 new construction permits annually. Housing permits decreased sharply from 1998 to 2001, falling from 111 to 34 annual permits, at a time when many other communities in the State were experiencing a housing construction boom. According to several local realtors, Monroe's most recent housing construction boom occurred in the late 1990s and early 2000s, when former farmland was subdivided and developed. Annual housing permits remained under 40 per year for the 2000's, and since 2009 have been below 10. While roughly following similar trends, the number of annual permits only account for a percentage of annual housing sales, as the large gap in the accompanying figure shows. Monroe's housing market relies heavily on turnover in existing units.

FIGURE 3.7: VACANT PARCELS BY ZONING CLASSIFICATION MEETING MINIMUM LOT SIZE FOR DEVELOPMENT

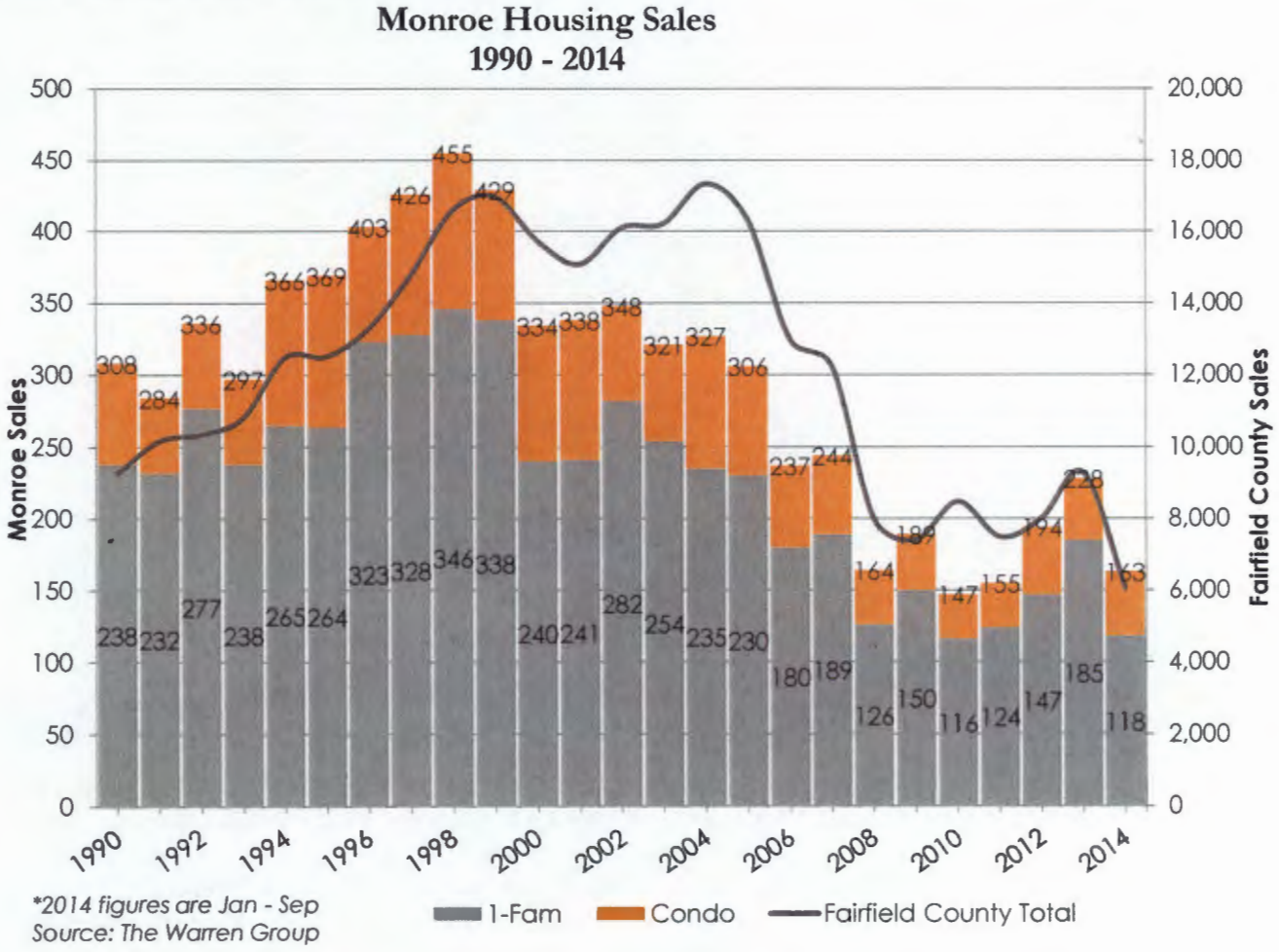


The Town conducted a buildout analysis in 2009 to estimate the additional number of housing units that could be developed in the community under zoning at that time. Buildouts are academic exercises only, as the potential housing unit totals are not expected to be achieved, nor are they informed by market conditions. Nevertheless, the buildout analysis highlights differences in school districts as far as their potential for additional housing development, and therefore, the potential for new and/or additional students. According to the analysis, show in the map above, Monroe is almost entirely built-out and has the potential for only 332 more units of housing, shown in the yellow and orange colors on the map. Nearly all of the residential development potential is in the Fawn Hollow district, with minimal residential development potential in the Stepney district. Very few is any units would be expected to be built under current zoning in the Monroe Elementary district.

Housing Sales

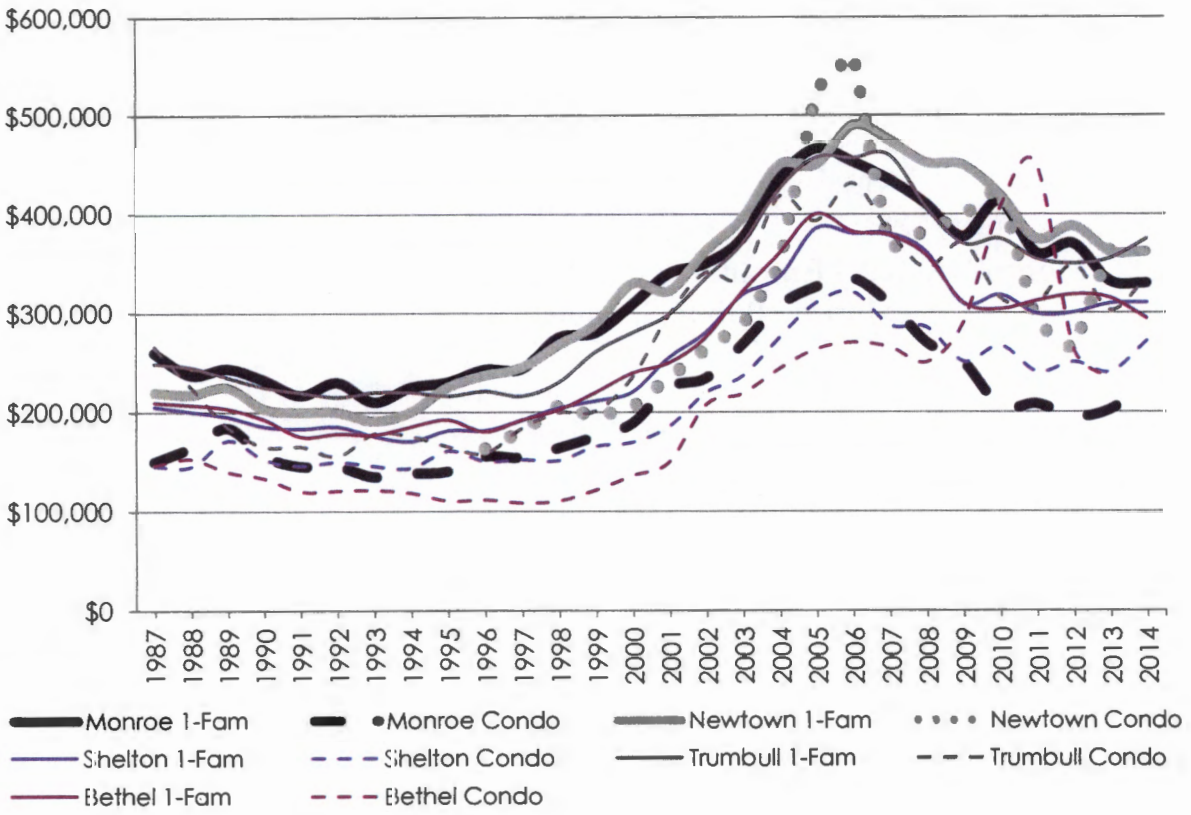
Housing sales activity peaked most recently in Monroe from 1996 to 1999, earlier than in many other communities in Connecticut and Fairfield County. As the chart below shows, while sales decreased in Monroe and Fairfield County after 2000, they rebounded in Fairfield County and stayed depressed in Monroe. While Monroe had strong and consistent condo sales activity prior to 2006, the peaks and troughs in its condo sales generally follow the sales trends for single-family housing

units since 2005. The *Housing Sales Map* on page A-7 shows detached housing units sales from 2012 to 2014 mapped by address, illustrating a diffuse pattern of sales throughout the community, a common pattern for more rural/ suburban communities, such as Monroe. The few areas of dense housing, on the western edge of Stepney, and the eastern edge of the Fawn Hollow districts, show slightly more sales than the rest of the Town.



Median housing sales prices in Monroe are consistently among the highest in its immediate region, as shown in the figure below. Median sales prices gained steadily during the 1990s and early 2000s. Prices began to decline in 2005 and have yet to reverse the downward trend, despite a slight rise in 2010 and 2012. Only Newtown has consistently higher median sales prices.

Median Housing Sales Prices, 1987-2014*



As part of this study, the study team met with local agents with many years of experience in the local housing market. The realtors provided complementary qualitative information that helps explain the housing sales trends described above. According to the realtors, since 2008, housing sales have reduced significantly with only modest recovery, especially in 2013. It is important to note that sales are down this year compared to last year, and that sales have not picked up significantly this fall, as they have in other years.

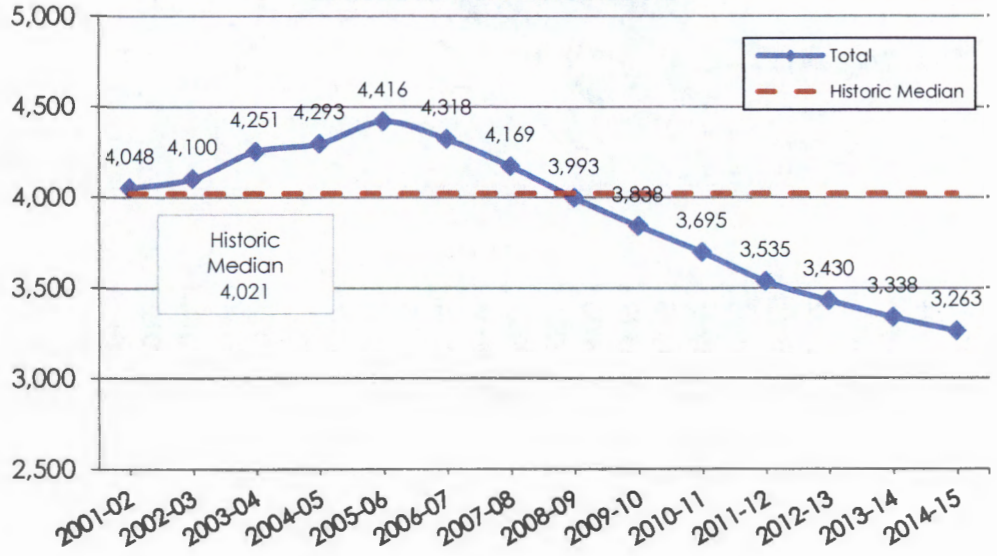
The realtors see the reduction in overall housing prices benefitting Lower Fairfield County, which is still the center of employment for Monroe residents. The reduction in prices, however, is making Monroe more attractive to younger families without children, who are seeking bargains in the market, especially houses with two or three bedrooms, indicating that these families could potentially have students in the school system in the future. Larger houses, especially those selling for over $500,000 are having the most difficult time in the market.

Monroe Public Schools have a similar reputation as overall good schools, along with Newtown and Trumbull. In Monroe, parents tend to favor schools that friends have attended, however, the overall trend is a preference for Fawn Hollow, then Stepney, and then Monroe Elementary school, with a general feeling that Monroe Elementary is too small of a facility.

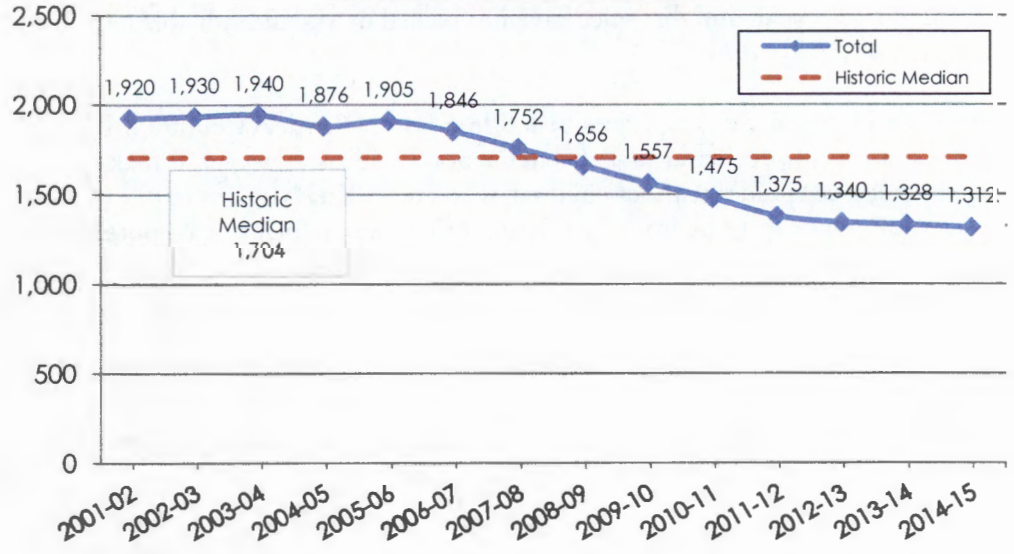
Enrollment History & Trends

Monroe's total K-12 enrollment has declined 26% from its 2005-06 peak of 4,416. The chart below shows the rise in enrollments, as Monroe increased its housing stock and the resulting children entered the system. The current decrease is highest in elementary grades (K-5), which have decreased 31.1% over the last ten years. Middle school enrollments declined just over 26% during that period, with High school enrollments losing 19.7% in ten years. The following series of figures shows enrollment trends for grades K-12 in Monroe Public Schools, broken down by grade groupings.

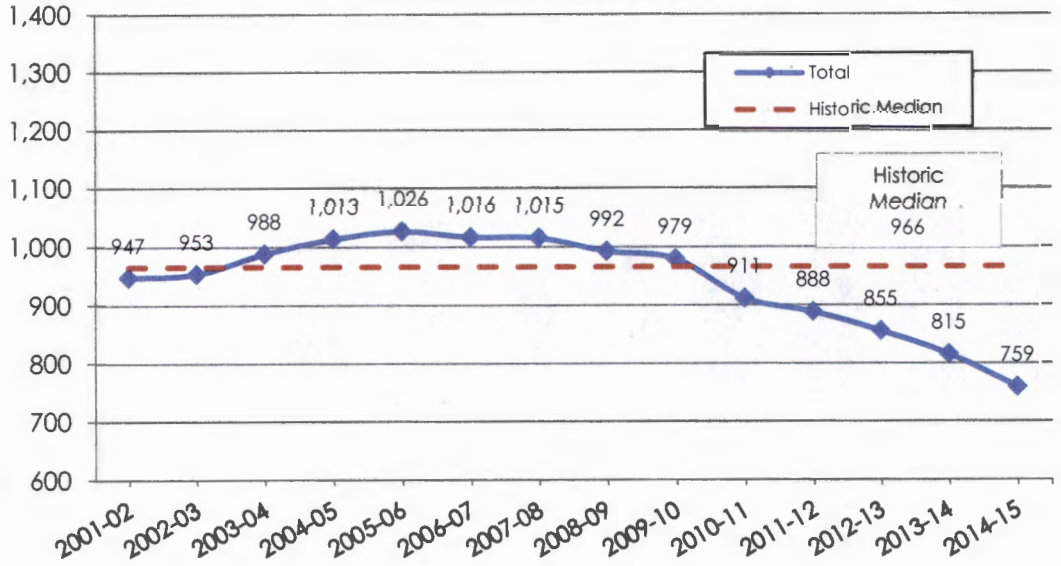
Monroe (K-12th) Enrollments, 2001-02 to 2014-15
Monroe Public Schools



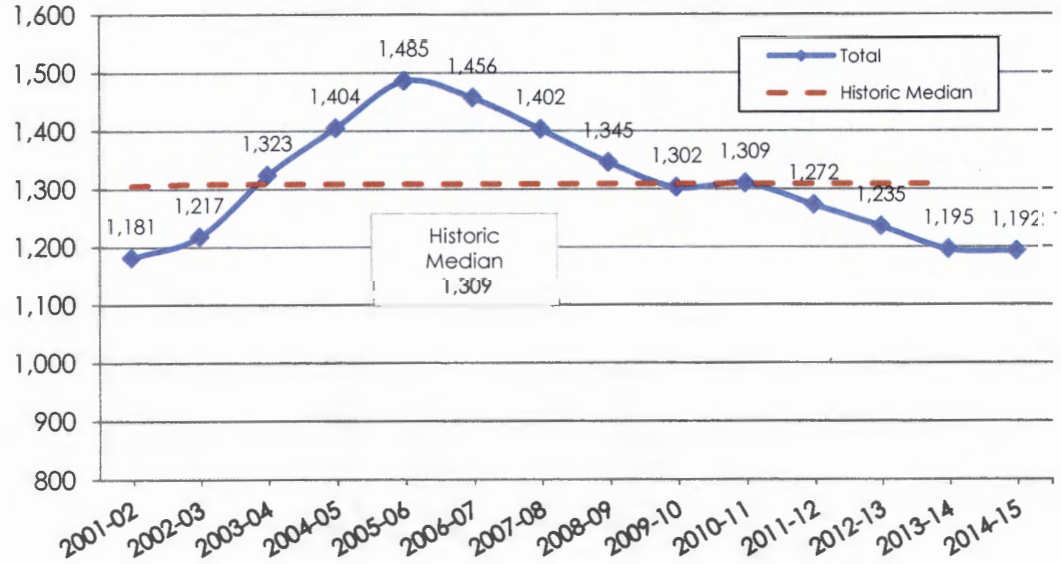
Elementary (K-5th) Enrollments, 2001-02 to 2014-15
Monroe Public Schools



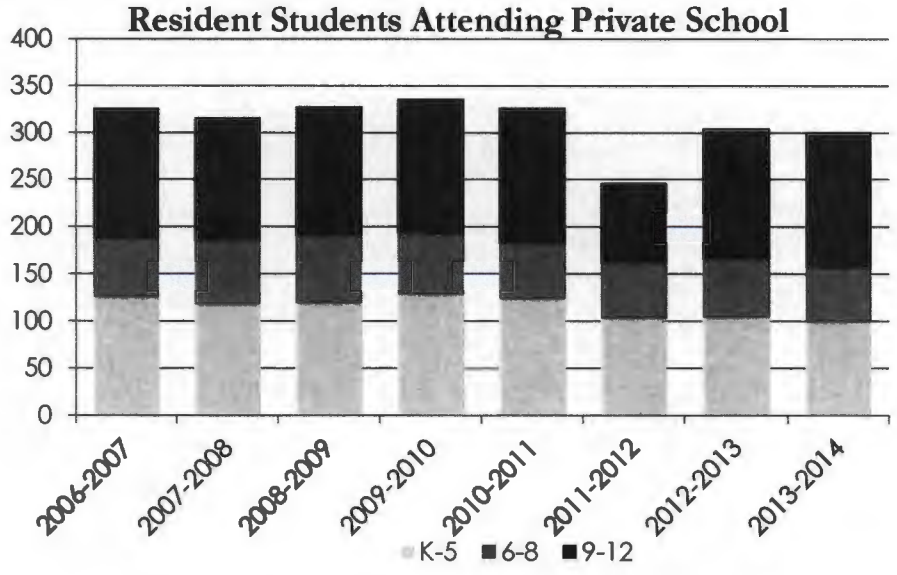
Middle (6th-8th) Enrollments, 2001-02 to 2014-15
Monroe Public Schools



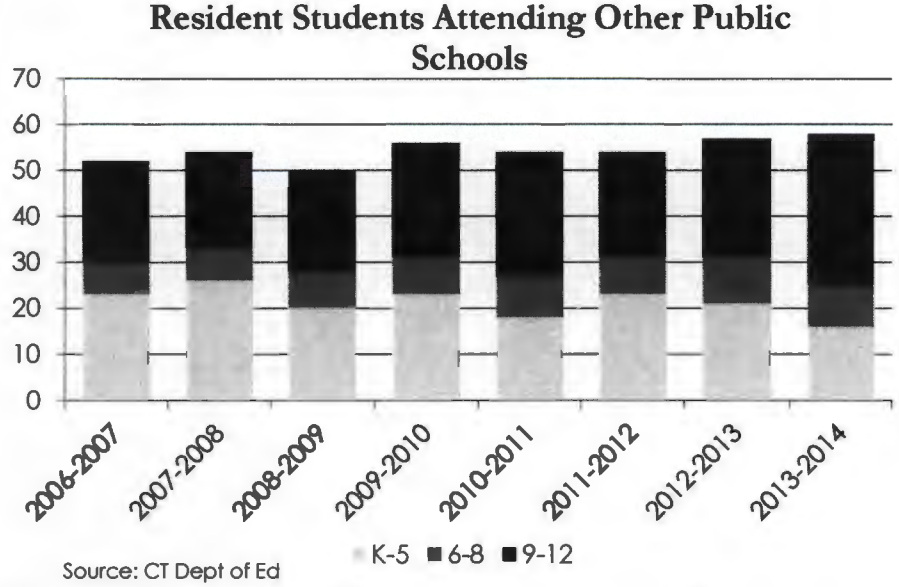
High (9th-12th) Enrollments, 2001-02 to 2014-15
Monroe Public Schools



The number of Monroe resident students attending private schools within Connecticut peaked in 2009-2010 at about 360. With the Great Recession, those enrollments declined, but they started to rebound in 2012-13. More importantly, the percent of all resident students who attend private school has increased to historic highs of more than 8.73% in 2013-14, so although private school enrollments are slightly down from their peak, their share of all Monroe students has increased.



The number of resident students attending other public schools has been more consistent, and appears to hover around 60 students total per year. The following chart shows enrollments in other public schools from 2006-07 to 2013-14, the latest data available. The majority of students attending other public schools are either elementary or high school students, primarily attending Bridgeport magnet schools and C.E.S schools.



Source: CT Dept of Ed

UTILIZATION

The current Monroe school system is operating relatively efficiently relating to facility utilization, district wide. For the total number of instructional classrooms, and total number of students, Monroe Public Schools is at around 84% capacity. Many districts in Fairfield Country strive for between 80% and 85% capacity in order to allow space to change programming as needed from year to year.

Following architects' surveys of all buildings and spaces, the following matrices were created to understand this capacity. Full sized classrooms were counted, and are defined as those that are generally over 700 square feet. Monroe Elementary has four classrooms that are used as full sized classrooms, but are closer to 600 square feet. They have been noted when they are counted. These do not include small offices or rooms that may house students, but are not full sized. For example special education programing that is held in a converted office is not counted, but special education programming in a full sized room is. Total full sized classrooms were further divided by use. Instructional classrooms are those rooms that provide core courses. In elementary schools these are the grade level classrooms, and in middle and high schools these are the core subjects, such as Math, English, Social Studies, etc. Other full sized classrooms include programming such as Art, Music, Special Education, Computer Labs, etc that students are taught in, but maybe not every period of every day. Staff and offices in full sized classrooms are rooms not used for student teaching, but who could potentially be used for that purpose. These are counted because in schools with declining enrollments, the tendency is to use all rooms, therefore a room will rarely be "empty" but a 800 sq ft room may instead be converted to one staff member's office.

Facilities Utilization and Capacity, 2014-15

		Total Full-Size Classrooms	Instructional Classrooms	Other Full Sized Classrooms*	Pre-K Classrooms	Staff and Offices in Full Sized Classrooms**	Capacity Under Standard Class Size, Instructional Rooms only	2014-15 Enrollment	Functional Percent Capacity
Elementary Schools	Fawn Hollow	39	25	12	0	2	625	512	81.9%
	Monroe El***	22	18	2	2	0	450	331	73.6%
	Stepney	30	24	4	0	2	672	467	69.5%
	Jockey Hollow****	39	25	14	0	0	625	534	85.4%
	Masuk High School	82	46	19	0	17	1288	1,192	92.5%
Districtwide							3660	3036	83.0%

*Including SPED, Art, Music, Reading, Computer Labs, Tech Ed

** Includes 14 Classrooms at Masuk High for the Jockey Hollow STEM program

***There are 4 Classrooms in Monre Elementary that are sized 600-623 square feet. There is one 4th grade classroom, one 5th grade

**** 75 Students per grade have been withheld from the Enrollments because they attend the STEM program at Masuk.

Capacity was calculated in the preceding chart by multiplying the total number of instructional rooms, by the standard class sizes provided by the district administration, and shown below. These are not intended to show actual average class sizes, but are used instead to evenly distribute children in order to gain a sense of what a perfectly balanced system could look like. This number was compared to the current 2014-15 year's actual enrollments to calculate a percent capacity.

Note that for Jockey Hollow, 75 students per grade have been held out of the calculations in order to hold space in the STEM program housed in Masuk. These 13 rooms are also not included in Masuk's space calculations, therefore the removal of this program from Masuk would have the effect of adding 13 more full-sized classrooms to the calculation, reducing the percent capacity of Masuk to 45%. If the students were returned to Jockey Hollow, the effect would be to increase Jockey Hollow's percent capacity to 120%.

Class Size Standards	
PreK	20
K-4	25
5-8	25
9-12	28

Enrollment Projections

The cohort-survival methodology, with some modifications, was used to calculate all projections in this report. This is a standard methodology for projecting populations and student enrollments. This methodology works well for stable populations, including those that are growing or declining at a steady rate. It is important to remember that the foundation of the cohort-survival methodology is that the recent past can be a good predictor of the near future. The persistency ratios calculated in this method account for the various factors affecting enrollments, including housing development, economic conditions, student transfers and mobility into and out of a school district. Accurate birth and enrollment data used in this projection methodology are critical to its overall accuracy, as each year builds upon the last. Kindergarten enrollments are based on the number of births five years previous. Facility construction and programmatic changes in the district all have a bearing on enrollment. Recent programmatic changes in Monroe, such as the implementation of full-day kindergarten in 2013-14, have resulted in changing enrollment trends, so these factors are accounted for by weighting the birth-k survival ratios for the last two years, as these are the only historically valid persistency ratios. In addition, events and policies locally, regionally and nationally all exert influence on enrollment. With that said, the economic recession, local employment and housing market conditions in Monroe are factors that contribute to a much different enrollment climate than a decade ago. Therefore, adjustments were made in the projections to adequately capture these external factors.

For the purpose of this enrollment projection report, we have been asked to prepare projections based on a ten-year time horizon. This report presents three sets of enrollment projections: low, medium and high with each based on different sets of assumptions for birth estimates as well as growth ratios. For example, the high projection model is predicated on economic growth and housing growth as drivers for increased birth estimates and growth factors, leading to higher enrollment projections.

Persistency ratios were calculated from historic and current enrollments to determine growth or loss in a grade cohort as it progresses through the school system. Persistency ratios of 1.00 mean that the cohort remains the same as it advances from one grade to the next. A persistency ratio of 1.05 means the cohort increases by 5% or a class of 100 gains five additional students the next year. Enrollment data from 2001-02 through 2014-15 and birth data from 1996 to 2009 were used to calculate the birth-K and grade-to-grade persistency ratios shown in the table on the following page. Birth-k ratios were broken down by age of kindergartener to discern the prevalence of delayed entries and monitor any changes with the introduction of full-day kindergarten in 2013-14. Finally, an estimate of migration was calculated to ascertain the degree to which migration in and out of the school system has affected enrollments.

Migration was estimated by comparing the 2nd through 7th grade cohorts of one year to the 3rd through 8th grade cohorts of the following year. Gains in enrollments in that cohort grouping indicate in-migration, while loss indicates out-migration, for whatever reason, whether entering or leaving private school, transfer into or out of the district, or otherwise. As is apparent in the following chart, Monroe had significant in-migration in the last three years. However, there was more of a trend of out-migration from 2007 to 2011, and the district experienced very uneven migration in the early 2000's.

Kindergarten through 12th Grade Persistency Ratios by School Year 2002-2003 to 2014-15														Estimated Migration
Year	Birth-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	
2002-03	1.210	1.057	1.014	1.003	1.011	1.033	1.018	1.019	1.010	0.958	1.004	1.023	0.990	
2003-04	1.144	1.063	1.006	1.046	1.015	0.997	1.013	1.018	1.038	1.302	1.037	1.014	1.013	1.96%
2004-05	1.251	1.028	0.984	1.012	0.986	0.997	1.008	0.984	0.994	1.184	1.020	0.994	0.989	-0.25%
2005-06	1.339	0.993	1.010	1.045	1.035	1.052	1.000	1.019	0.994	1.053	1.018	0.988	1.012	2.29%
2006-07	1.322	0.946	0.983	1.013	1.000	0.991	0.997	1.012	0.984	1.003	1.000	0.982	1.005	-0.10%
2007-08	1.181	1.000	1.006	1.024	1.023	1.012	0.994	1.020	1.029	0.989	0.949	0.989	1.008	1.64%
2008-09	1.162	0.957	1.015	1.000	0.976	0.994	1.003	0.997	1.013	0.922	1.014	0.993	1.011	-0.26%
2009-10	1.213	1.000	0.991	0.963	0.956	0.958	0.987	0.984	1.000	0.958	1.003	1.005	1.031	-2.31%
2010-11	1.047	1.024	0.980	1.040	0.946	0.993	1.007	1.000	1.003	0.876	1.000	1.000	1.019	-0.24%
2011-12	1.216	1.030	0.992	0.988	0.987	0.996	1.007	1.032	0.993	0.949	1.013	0.993	1.060	0.12%
2012-13	1.000	1.054	1.010	1.048	1.012	1.057	1.024	1.043	1.007	0.987	1.016	0.980	1.067	3.05%
2013-14	1.285	1.176	0.995	1.014	1.008	1.008	1.000	0.996	1.022	0.941	0.993	1.000	1.030	0.85%
2014-15	1.229	1.041	1.065	1.014	1.048	1.019	1.024	1.029	1.020	0.938	1.000	0.969	1.044	2.46%
Long Term Average	1.1999	1.0265	1.0040	1.0163	1.0003	1.0083	1.0064	1.0126	1.0082	1.0047	1.0052	0.9948	1.0215	0.77%
Last 5-Yr Average (Low)	1.2098	1.0653	1.0084	1.0210	1.0002	1.0146	1.0125	1.0101	1.0091	0.9380	1.0045	0.9886	1.0440	1.62%
Last 3-Yr Average	1.1714	1.0906	1.0234	1.0256	1.0225	1.0280	1.0162	1.0227	1.0164	0.9552	1.0030	0.9833	1.0469	1.65%
3-Yr Weighted (Medium)	1.2096	1.0885	1.0328	1.0199	1.0284	1.0217	1.0162	1.0203	1.0185	0.9470	1.0004	0.9814	1.0430	2.02%
2-Yr FDK Blend With 3yr wtd (High)	1.2570	1.0885	1.0328	1.0199	1.0284	1.0217	1.0162	1.0203	1.0185	0.9470	1.0004	0.9814	1.0430	1.85%
Persistency High (04-06) B-k	1.3039	1.0885	1.0326	1.0199	1.0284	1.0217	1.0162	1.0203	1.0185	0.9470	1.0004	0.9814	1.0430	1.61%

Persistency ratios account for the various factors affecting enrollments, including housing development, economic conditions, student transfers and mobility into and out of a school district; however, they function best in a system that has stable trends, and there is reason to be cautious about relying on the most recent years of trends to project future enrollments. This is most evident by the significantly higher Birth to Kindergarten ratios since the addition of full day Kindergarten in 2013, and we expect the last 2 years of Birth-K to be more predictive than the ratios for years when half day kindergarten was offered. Thus, we have used a blended model that uses the last two years of Birth-K rations with three-year weighted persistency ratios for the remaining grade cohorts.

Due to continued recovering housing market conditions and the length of the projection horizon, we prepared low, medium and high projections based on different sets of assumptions on economic conditions, births and persistency ratios. The high projection model is predicated on economic growth, quickly declining unemployment, and an up-turn in the local housing market as drivers for increased birth estimates and persistency ratios, leading to higher enrollment projections. The low

growth model is based on the continuation of current conditions over the next several years. The following table shows the anticipated change in births, unemployment and housing sales assumed under our three different growth models.

Assumptions

	Low Growth	Med Growth	High Growth
Annual Births	138-165	147-164	146-174
Average Unemployment	6.1%-5.5%	6.0%-4.8%	5.9%-4.0%
Annual Housing Sales	200-203	203-256	203-327

We have also assumed a constant enrollment in PreK at 34 students, or the long-term average enrollment in PreK programming.

The three sets of projected enrollments demonstrate the range of possible future enrollments for Monroe Public Schools. In our opinion, the continued depressed housing market and annual birth rates make the high growth model unlikely over the next few years. The medium projection scenario anticipates a strengthening housing market and economy; whereas the low projection model continues current trends and does not dramatically improve the housing market. Because we are projecting for a ten-year planning horizon, we feel the medium growth scenario is the best model for long-term projections; however, it is incumbent upon the Monroe Public School District to monitor any upward trends in housing sales and decreasing unemployment rates in order to prepare for potential positive influences on enrollment trends.

District-Wide Enrollment Projections

The following Tables present the summary of the High, Medium, and Low enrollment projections by grade grouping.

Low Enrollment Projection

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2014-15	2009	157	193	202	213	216	220	268	254	249	256	302	271	285	334	34
2015-16	2010	139	168	206	204	217	216	223	271	259	251	240	303	268	298	34
2016-17	2011	139	168	179	207	208	218	219	226	277	261	236	241	300	280	34
2017-18	2012	127	154	179	181	212	208	221	222	231	279	245	237	238	313	34
2018-19	2013	153	185	164	181	184	212	211	223	226	233	262	246	234	249	34
2019-20	2014	165	200	197	165	184	184	215	214	228	228	218	263	244	244	34
2020-21	2015	152	184	213	199	168	184	187	218	218	230	214	219	260	254	34
2021-22	2016	146	177	196	215	203	169	187	189	222	220	216	215	217	272	34
2022-23	2017	144	175	188	198	219	203	171	189	193	224	206	217	213	226	34
2023-24	2018	140	170	186	190	202	219	206	173	193	195	210	207	214	222	34
2024-25	2019	140	170	181	188	194	202	223	209	177	195	183	211	205	224	34

Low Projections	K-12th		K-5th		6th-8th		9th-12th	
	Total	Change	Total	Change	Total	Change	Total	Change
2014-15	3,263	-2.2%	1,312	-1.2%	759	-6.9%	1,192	-0.3%
2015-16	3,125	-4.2%	1,234	-5.9%	782	3.0%	1,109	-7.0%
2016-17	3,020	-3.4%	1,199	-2.8%	764	-2.2%	1,057	-4.7%
2017-18	2,919	-3.3%	1,154	-3.8%	732	-4.2%	1,034	-2.2%
2018-19	2,810	-3.7%	1,137	-1.5%	683	-6.7%	991	-4.1%
2019-20	2,785	-0.9%	1,146	0.8%	670	-1.8%	969	-2.2%
2020-21	2,750	-1.3%	1,136	-0.9%	666	-0.7%	948	-2.2%
2021-22	2,697	-1.9%	1,147	0.9%	631	-5.1%	919	-3.0%
2022-23	2,623	-2.7%	1,154	0.7%	607	-3.9%	862	-6.2%
2023-24	2,588	-1.3%	1,173	1.6%	562	-7.5%	854	-1.0%
2024-25	2,559	-1.1%	1,157	-1.4%	580	3.3%	823	-3.7%
First 5-Year % Change	-12.0%		-8.0%		-14.9%		-14.5%	
Second 5-Year % Change	-6.9%		1.8%		-12.8%		-13.2%	
Ten-Year % Change	-18.1%		-6.3%		-25.8%		-25.8%	

Medium Enrollment Projection

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2014-15	2009	157	193	202	213	216	220	268	254	249	256	302	271	285	334	34
2015-16	2010	139	168	210	209	217	222	225	272	259	254	242	302	266	297	34
2016-17	2011	139	168	183	217	213	223	227	228	278	264	240	243	297	277	34
2017-18	2012	127	154	183	189	221	219	228	231	233	283	250	240	238	309	34
2018-19	2013	153	185	167	189	193	228	224	232	235	237	268	250	236	248	34
2019-20	2014	164	199	201	173	193	198	232	227	237	240	225	268	245	246	34
2020-21	2015	150	182	216	208	176	198	203	236	232	241	227	225	263	256	34
2021-22	2016	147	178	198	223	212	181	203	206	241	236	228	227	221	274	34
2022-23	2017	150	182	193	204	228	218	185	206	210	245	224	228	223	230	34
2023-24	2018	149	180	198	200	208	234	223	188	210	214	232	224	224	232	34
2024-25	2019	152	184	196	204	204	214	239	226	192	214	203	233	219	234	34

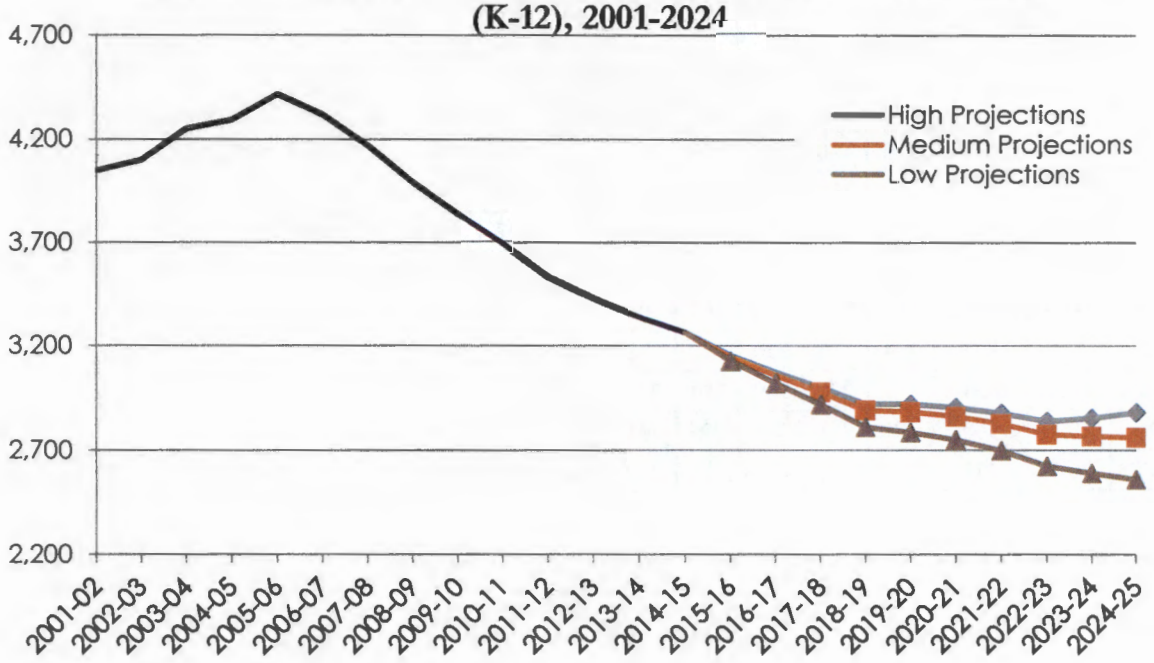
Medium Projections	K-12th		K-5th		6th-8th		9th-12th	
	Total	Change	Total	Change	Total	Change	Total	Change
2014-15	**3,263**	**-2.2%**	**1,312**	**-1.2%**	**759**	**-6.9%**	**1,192**	**-0.3%**
2015-16	**3,144**	**-3.7%**	**1,251**	**-4.7%**	**785**	**3.4%**	**1,108**	**-7.1%**
2016-17	**3,058**	**-2.7%**	**1,231**	**-1.6%**	**770**	**-1.9%**	**1,057**	**-4.6%**
2017-18	**2,978**	**-2.6%**	**1,194**	**-3.0%**	**747**	**-3.1%**	**1,038**	**-1.8%**
2018-19	**2,892**	**-2.9%**	**1,185**	**-0.7%**	**705**	**-5.6%**	**1,002**	**-3.4%**
2019-20	**2,884**	**-0.3%**	**1,196**	**0.9%**	**703**	**-0.2%**	**984**	**-1.8%**
2020-21	**2,863**	**-0.7%**	**1,183**	**-1.1%**	**709**	**0.8%**	**971**	**-1.4%**
2021-22	**2,828**	**-1.2%**	**1,194**	**1.0%**	**683**	**-3.7%**	**951**	**-2.1%**
2022-23	**2,776**	**-1.8%**	**1,210**	**1.3%**	**661**	**-3.2%**	**905**	**-4.8%**
2023-24	**2,767**	**-0.3%**	**1,242**	**2.7%**	**612**	**-7.5%**	**913**	**0.9%**
2024-25	**2,762**	**-0.2%**	**1,241**	**-0.1%**	**632**	**3.3%**	**888**	**-2.7%**
First 5-Year % Change		**-8.9%**		**-5.5%**		**-9.7%**		**-12.3%**
Second 5-Year % Change		**-3.5%**		**4.9%**		**-10.8%**		**-8.5%**
Ten-Year % Change		**-12.2%**		**-0.8%**		**-19.5%**		**-19.8%**

High Enrollment Projection

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2014-15	2009	157	193	202	213	216	220	268	254	249	256	302	271	285	334	34
2015-16	2010	139	175	210	209	217	222	225	272	259	254	242	302	266	297	34
2016-17	2011	139	175	190	217	213	223	227	228	278	264	240	243	297	277	34
2017-18	2012	127	160	190	196	221	219	228	231	233	283	250	240	238	309	34
2018-19	2013	153	192	174	196	200	228	224	232	235	237	268	250	236	248	34
2019-20	2014	163	205	209	179	200	206	232	227	237	240	225	268	245	246	34
2020-21	2015	148	186	223	216	183	206	210	236	232	241	227	225	263	256	34
2021-22	2016	146	184	203	230	220	188	210	214	241	236	228	227	221	274	34
2022-23	2017	154	193	200	209	234	227	192	214	218	245	224	228	223	230	34
2023-24	2018	160	201	211	207	213	241	232	195	218	222	232	224	224	232	34
2024-25	2019	171	215	218	217	211	219	246	235	199	222	210	233	219	234	34

High Projections	K-12th		K-5th		6th-8th		9th-12th	
	Total	Change	Total	Change	Total	Change	Total	Change
2014-15	**3,263**	**-2.2%**	**1,312**	**-1.2%**	**759**	**-6.9%**	**1,192**	**-0.3%**
2015-16	**3,150**	**-3.4%**	**1,258**	**-4.2%**	**785**	**3.4%**	**1,108**	**-7.1%**
2016-17	**3,072**	**-2.5%**	**1,245**	**-1.0%**	**770**	**-1.9%**	**1,057**	**-4.6%**
2017-18	**2,999**	**-2.4%**	**1,214**	**-2.4%**	**747**	**-3.1%**	**1,038**	**-1.8%**
2018-19	**2,921**	**-2.6%**	**1,214**	**-0.1%**	**705**	**-5.6%**	**1,002**	**-3.4%**
2019-20	**2,920**	**0.0%**	**1,232**	**1.5%**	**703**	**-0.2%**	**984**	**-1.8%**
2020-21	**2,904**	**-0.5%**	**1,224**	**-0.6%**	**709**	**0.8%**	**971**	**-1.4%**
2021-22	**2,877**	**-0.9%**	**1,236**	**0.9%**	**691**	**-2.6%**	**951**	**-2.1%**
2022-23	**2,839**	**-1.3%**	**1,256**	**1.7%**	**678**	**-1.9%**	**905**	**-4.8%**
2023-24	**2,853**	**0.5%**	**1,304**	**3.8%**	**636**	**-6.2%**	**913**	**0.9%**
2024-25	**2,881**	**1.0%**	**1,327**	**1.8%**	**657**	**3.3%**	**896**	**-1.8%**
First 5-Year % Change		**-7.8%**		**-2.6%**		**-9.7%**		**-12.3%**
Second 5-Year % Change		**-0.8%**		**8.4%**		**-7.3%**		**-7.7%**
Ten-Year % Change		**-8.6%**		**5.6%**		**-16.3%**		**-19.1%**

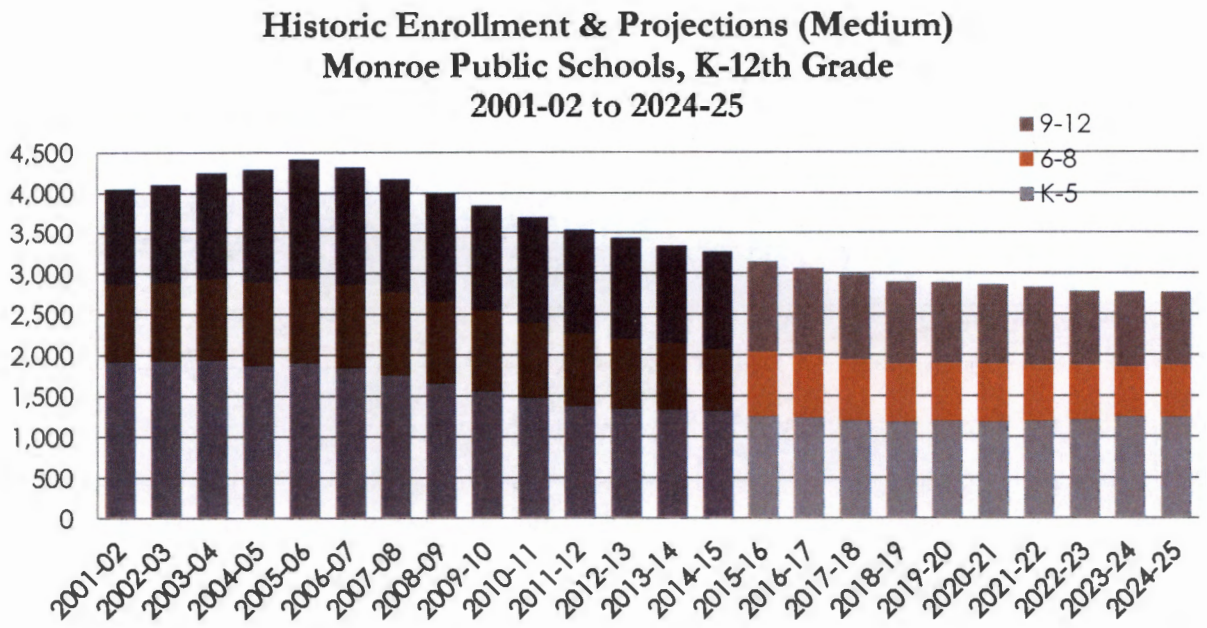
Historic and Projected Enrollments, Monroe Public Schools (K-12), 2001-2024



All district-wide projections show a continuation of the ten year trend of declining enrollment in the district through 2018 when the enrollments stabilize. Between the high and low projections, there is a 10% spread between the district total projected enrollments out to the 2024-25 school year (-8.6% high and -18.2% low). As is apparent, the overall total enrollment is projected to decline over the next ten years to between 2,900 students and 2,500 students district-wide. The annual rate of decline is expected to increase to up to -4.2% in the next year and then drop to around -2.5 to -3.5% in through 2018-19, before it starts to lessen. The medium and high models have the trend flattening from 2019-2022 (change of > ±1% per year), with the high model showing a slight increase in years 2023-2025. The low model begins to stabilize after 2023, with the loss at around 1% per year.

The enrollment decreases are projected to vary slightly among the grade groups, with the largest decline among high school enrollments and the least decline among the elementary school enrollments, suggesting that the large part of the decline has passed, and any declines now are smaller. The elementary enrollments are expected to "bottom-out" during the second half of the ten-year horizon, although the rate of this is strongly tied to the birth projections, and therefore vary in each of the projections. Over the next five years, elementary enrollments are projected to drop by just under 10%, middle school enrollment to decline around 10%, and high school enrollments to decline by about 12%.

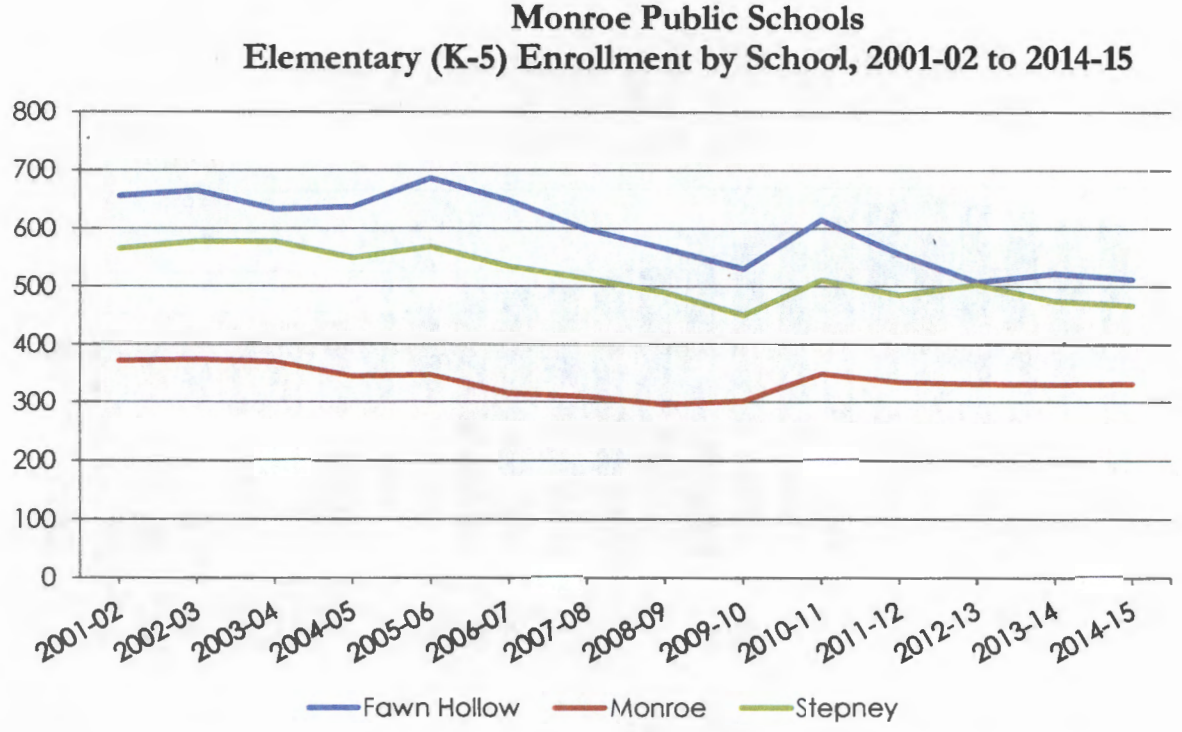
However, the second five-year window paints a much different picture. Elementary enrollments are projected to remain relatively flat, whereas, middle school and high school enrollments will decline around 20% and around 25%, respectively. Due to the historic low births of the last five years and the time lag for full matriculation into the middle school from the elementary school system, the full impact will not be felt at the high school during this 10-year horizon.



Elementary Schools Enrollment Projections

The cohort-survival methodology was used to project individual elementary school enrollments, based on persistency ratios unique to each school. The school-by-school projections are informed by localized variations in the same data that informed the district-wide projections: housing sales, births and enrollment trends. Sometimes, district-wide data mask variations at the neighborhood and individual school attendance zone level.

The following chart shows actual enrollments at Monroe elementary schools from 2003-04 to 2014-15. While all elementary schools declined slightly from 2010 to 2014, Fawn Hollow's rate of decline significantly outpaced that of the other three schools (Fawn Hollow: -16.75%; Monroe El: -5.16%; and Stepney: -8.61% from 2010 to 2014).



Creating enrollment projections for individual schools can prove challenging due to smaller number of data points, which may lead to a greater percentages of error than for the larger area projections. For this reason, the individual school-by-school projections have been normalized against the district-wide projections so that the individual schools projections collectively equal the district-wide projections. Like with the district-wide projections, we modeled three growth scenarios: high, medium and low for the elementary school projections. In addition, we made the following assumptions for the individual school projections:

- The district boundaries for each of the schools will not change during the projected time horizon;
- Full-day kindergarten will remain in place;
- There will not be significant changes to deployment of pre-kindergarten programs (34 students);
- Recent private school enrollment trends will remain stable;
- Trends in children attending a school outside of their designated home attendance zone will not change.

The following tables and charts show by-school total enrollment projections under low, medium, and high growth scenarios.

Elementary Ten-Year Enrollment Projections by School (High Growth)

Elementary School	2015-16		2016-17		2017-18		2018-19		2019-20		1st Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	480	-6.2%	474	-1.4%	459	-3.1%	466	1.5%	469	0.6%	-12	-2.5%
Monroe	317	-4.2%	317	0.0%	308	-2.9%	310	0.6%	316	2.0%	-1	-0.3%
Stepney	460	-1.5%	454	-1.3%	447	-1.4%	438	-2.0%	447	2.0%	-13	-2.8%

Elementary School	2020-21		2021-22		2022-23		2023-24		2024-25		2nd Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	466	-0.6%	470	1.0%	478	1.7%	496	3.7%	505	1.8%	39	8.4%
Monroe	309	-2.3%	312	0.9%	317	1.7%	329	3.8%	335	1.8%	26	8.4%
Stepney	450	0.5%	454	0.9%	461	1.7%	479	3.9%	488	1.8%	38	8.5%

Elementary Ten-Year Enrollment Projections by School (Medium Growth)

Elementary School	2015-16		2016-17		2017-18		2018-19		2019-20		1st Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	478	-6.7%	468	-2.0%	451	-3.7%	455	0.8%	455	0.1%	-23	-4.8%
Monroe	316	-4.7%	314	-0.5%	303	-3.4%	303	-0.1%	307	1.5%	-8	-2.6%
Stepney	458	-2.0%	449	-1.9%	440	-2.0%	428	-2.8%	434	1.5%	-23	-5.1%

Elementary School	2020-21		2021-22		2022-23		2023-24		2024-25		2nd Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	450	-1.1%	455	1.0%	461	1.3%	472	2.5%	472	-0.1%	22	4.9%
Monroe	298	-2.9%	301	1.0%	305	1.3%	314	2.7%	313	-0.1%	15	5.0%
Stepney	434	0.1%	438	0.9%	444	1.3%	456	2.8%	456	-0.1%	22	5.0%

Elementary Ten-Year Enrollment Projections by School Low Growth)

Elementary School	2015-16		2016-17		2017-18		2018-19		2019-20		1st Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	471	-8.0%	456	-3.2%	436	-4.5%	436	0.0%	436	0.0%	-35	-7.5%
Monroe	311	-6.0%	306	-1.8%	293	-4.2%	290	-0.9%	294	1.3%	-17	-5.5%
Stepney	452	-3.3%	437	-3.2%	425	-2.8%	410	-3.5%	416	1.4%	-36	-7.9%

Elementary School	2020-21		2021-22		2022-23		2023-24		2024-25		2nd Five Years	
	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total	% Change	Total Chang	% Change
Fawn Hollow	432	-0.8%	437	1.0%	440	0.7%	446	1.5%	440	-1.5%	7	1.7%
Monroe	287	-2.5%	289	0.9%	291	0.7%	296	1.7%	292	-1.4%	5	1.9%
Stepney	417	0.3%	421	0.9%	424	0.7%	431	1.7%	425	-1.4%	8	1.9%

As with the district-wide projections, all projections show enrollments beginning to rebound in the second half of the projection horizon. The spread between the low and the high projections is greatest at Fawn Hollow and Stepney, and least at Monroe El. Again, the low-projection scenario assumes current trends continue, while the medium- and high- growth scenarios assume economic recovery. We feel the medium-growth scenario best fits the ten-year planning horizon as it relies on the longest span of data, reflecting economic lows and highs.

Detailed projections tables are included in Appendix B.

CAPACITY PROJECTIONS

The following capacity projections are based on the individual school enrollment projections and the utilization analysis. All full-sized classrooms were counted in the utilization section, and are listed here as *full-sized classrooms available.* Again, these rooms are counted regardless of use, and are generally rooms over 700 square feet. However, as previously discussed, there are four rooms at Monroe Elementary that are less than 700 square feet but are used as full sized classrooms. They have been counted here as full-sized.

Using the enrollment projections and the class size standards, *classrooms needed* per school per grade were calculated. The class sizes were set as a maximum, so that, for example, 41 PreK students would require 3 classrooms. Therefore the *average class size* was also calculated to show the average loading of each *classroom needed.* All additional classrooms, beyond those needed as regular instructional rooms, are listed as *available program/ resource rooms.* It is understood that these would be used for standard program deployment, including but not limited to Art, Music, and Computer Labs, as well as Special Education programming.

Class Size Standards	
PreK	20
K-4	25
5-8	25
9-12	28

These capacity projections should be understood as an average use space analysis over the next ten years, and are not intended to predict programming or program deployment. They are best used to compare capacity changes across multiple schools.

Monroe Public Schools - K-5th Elementary School Enrollment Projections 2015-16, Medium Projections										
School	K	1	2	3	4	5	K-5th Total	Full-Size Classrooms Available	Available Program/ Resource Rooms	Average Class Size
Fawn Hollow	61	81	84	77	87	85	475	39	16	21
Classrooms Needed	3	4	4	4	4	4	23			
Monroe El	42	57	51	53	58	54	316	22	5	19
Classrooms Needed	2	3	3	3	3	3	17			
Stepney	65	72	73	87	77	86	461	30	9	22
Classrooms Needed	3	3	3	4	4	4	21			
TOTAL	168	210	209	217	222	225	1,251	91	30	21
	8	10	10	11	11	11	61			

Monroe Public Schools - PreK-5th Elementary School Enrollment Projections 2019-20, Medium Projections										
School	K	1	2	3	4	5	PK-6th Total	Full-Size Classrooms Available	Available Program/ Resource Rooms	Average Class Size
Fawn Hollow	74	79	65	75	71	86	450	39	19	23
Classrooms Needed	3	4	3	3	3	4	20			
Monroe El	48	47	50	40	51	65	301	22	7	20
Classrooms Needed	2	2	3	2	3	3	15			
Stepney	76	76	57	77	76	82	445	30	7	19
Classrooms Needed	4	4	3	4	4	4	23			
TOTAL	199	201	173	193	198	232	1,196	91	33	21
	9	10	9	9	10	11	58			

Monroe Public Schools - PreK-5th Elementary School Enrollments 2024-25, Medium Projections										
School	K	1	2	3	4	5	PK-5th Total	Full-Size Classrooms Available	Available Program/ Resource Rooms	Average Class Size
Fawn Hollow	69	74	78	77	80	86	463	39	17	21
Classrooms Needed	3	3	4	4	4	4	22			
Monroe El	45	48	50	50	53	59	304	22	7	21
Classrooms Needed	2	2	3	2	3	3	15			
Stepney	71	75	76	77	82	94	474	30	8	22
Classrooms Needed	3	3	4	4	4	4	22			
TOTAL	184	196	204	204	214	239	1,241	91	32	21
	8	8	11	10	11	11	59			

The capacity was also projected at the Middle and High Schools. To account for the varied use of classrooms each period, it was assumed a room would be use 7/9 periods a day. Unlike in the elementary schools, it is assumed that most extra programming space is built into that 7/9 calculation, and therefore fewer *extra* rooms are needed to maintain programming.

The middle school STEM program has been programmed to have 60 students per grade throughout the period of projections. This program needs space in a building, however, since it is self-contained, it has been separated from both Jockey Hollow and Masuk, although room could be available in either building.

Monroe Public Schools - 6-8
Middle School Enrollment Projections 2015-16, Medium Projections

School	6	7	8	6-8th Total	Full-Size Classrooms Available
Jockey Hollow	212	199	194	605	39
Classrooms Needed	12	10	10	32	
STEM Program	75	75	75	225	n/a
Classrooms Needed	4	4	4	12	

Notes: Hold 75 students at each grade for STEM program. Load classrooms 7/9 periods per day

Monroe Public Schools - 6-8
Middle School Enrollment Projections 2019-20, Medium Projections

School	6	7	8	6-8th Total	Full-Size Classrooms Available
Jockey Hollow	167	177	180	523	39
Classrooms Needed	9	10	10	30	
STEM Program	75	75	75	225	n/a
Classrooms Needed	4	4	4	12	

Notes: Hold 75 students at each grade for STEM program. Load classrooms 7/9 periods per day

Monroe Public Schools - 6-8
Middle School Enrollments 2024-25, Medium Projections

School	6	7	8	6-8th Total	Full-Size Classrooms Available
Jockey Hollow	166	132	154	452	39
Classrooms Needed	9	8	9	26	
STEM Program	75	75	75	225	n/a
Classrooms Needed	4	4	4	12	

Notes: Hold 75 students at each grade for STEM program. Load classrooms 7/9 periods per day

Monroe Public Schools - 9-12 High School Enrollment Projections 2015-16, Medium Projections						
School	**9**	**10**	**11**	**12**	**9-12th Total**	**Full-Size Classrooms Available**
Masuk	242	302	266	297	**1,108**	**82**
Classrooms Needed	13	17	14	16	**60**	

Notes: Load classrooms 7/9 periods per day

Monroe Public Schools - 9-12 High School Enrollment Projections 2019-20, Medium Projections						
School	**9**	**10**	**11**	**12**	**9-12th Total**	**Full-Size Classrooms Available**
Masuk	225	268	245	246	**984**	**82**
Classrooms Needed	12	14	13	13	**52**	

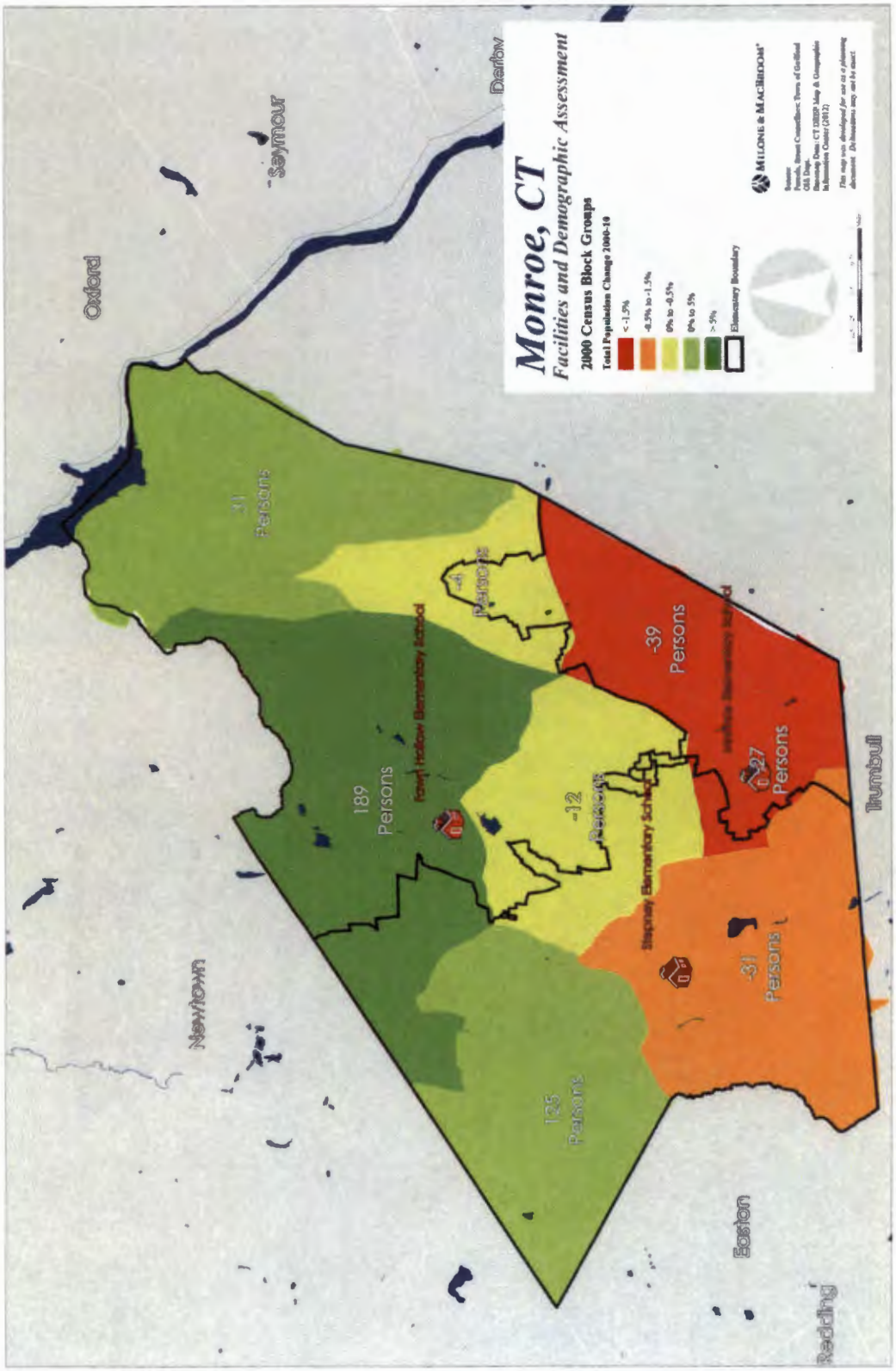
Notes: Load classrooms 7/9 periods per day

Monroe Public Schools - 9-12 High School Enrollments 2024-25, Medium Projections						
School	**9**	**10**	**11**	**12**	**9-12th Total**	**Full-Size Classrooms Available**
Masuk	203	233	219	234	**888**	**82**
Classrooms Needed	12	13	12	13	**49**	

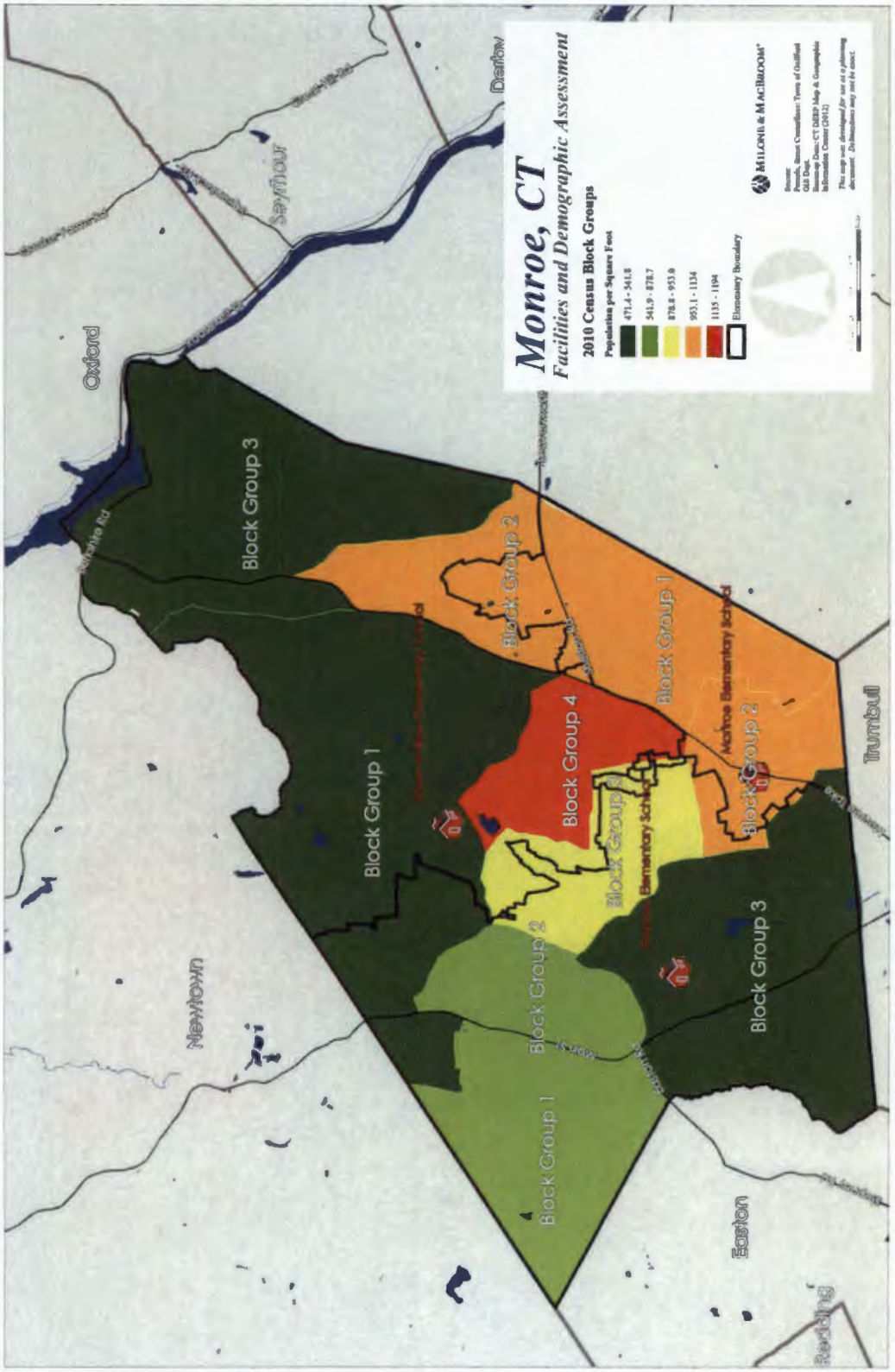
Notes: Load classrooms 7/9 periods per day

APPENDIX A

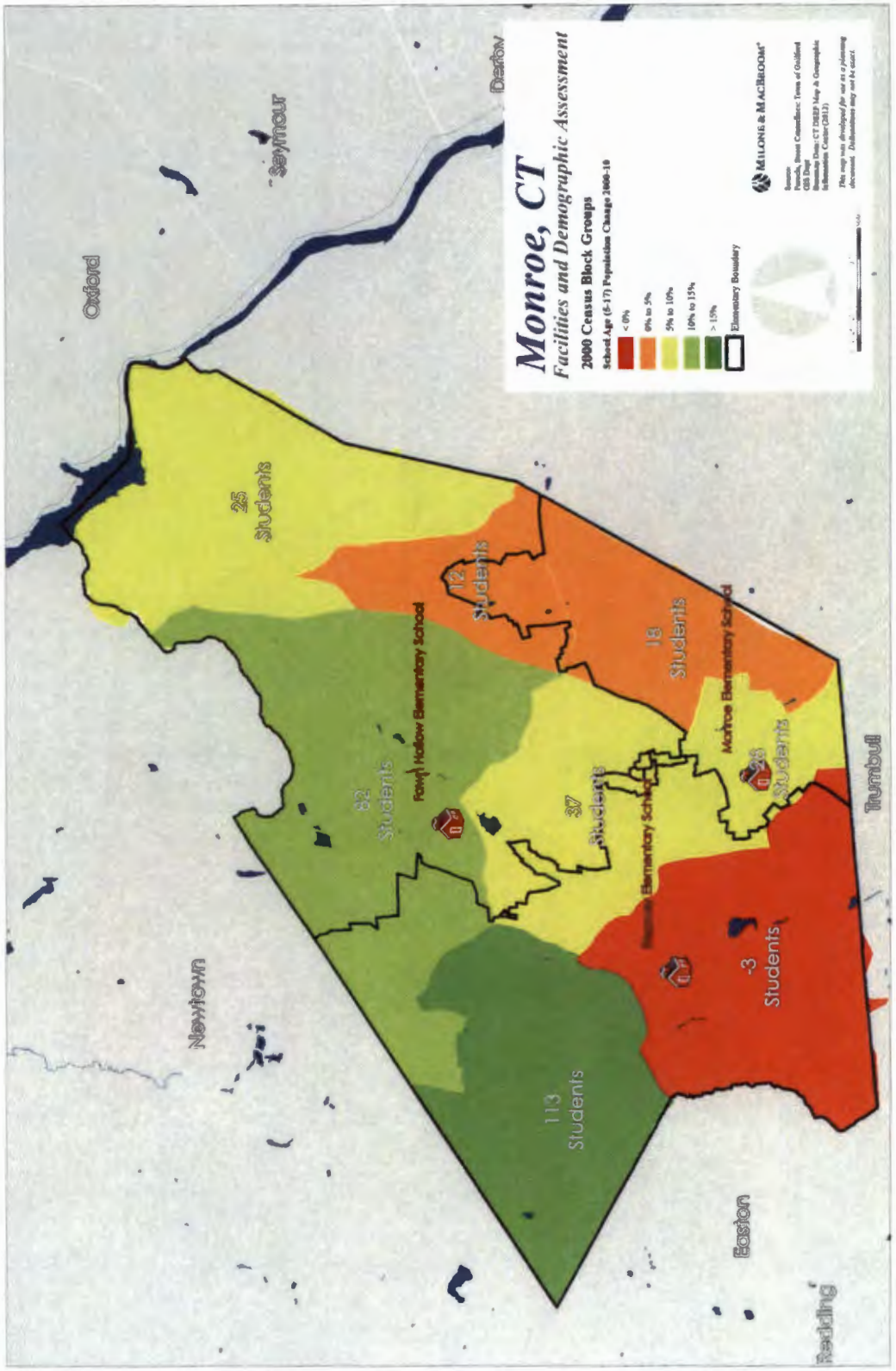
Map 1 – Total Population Change



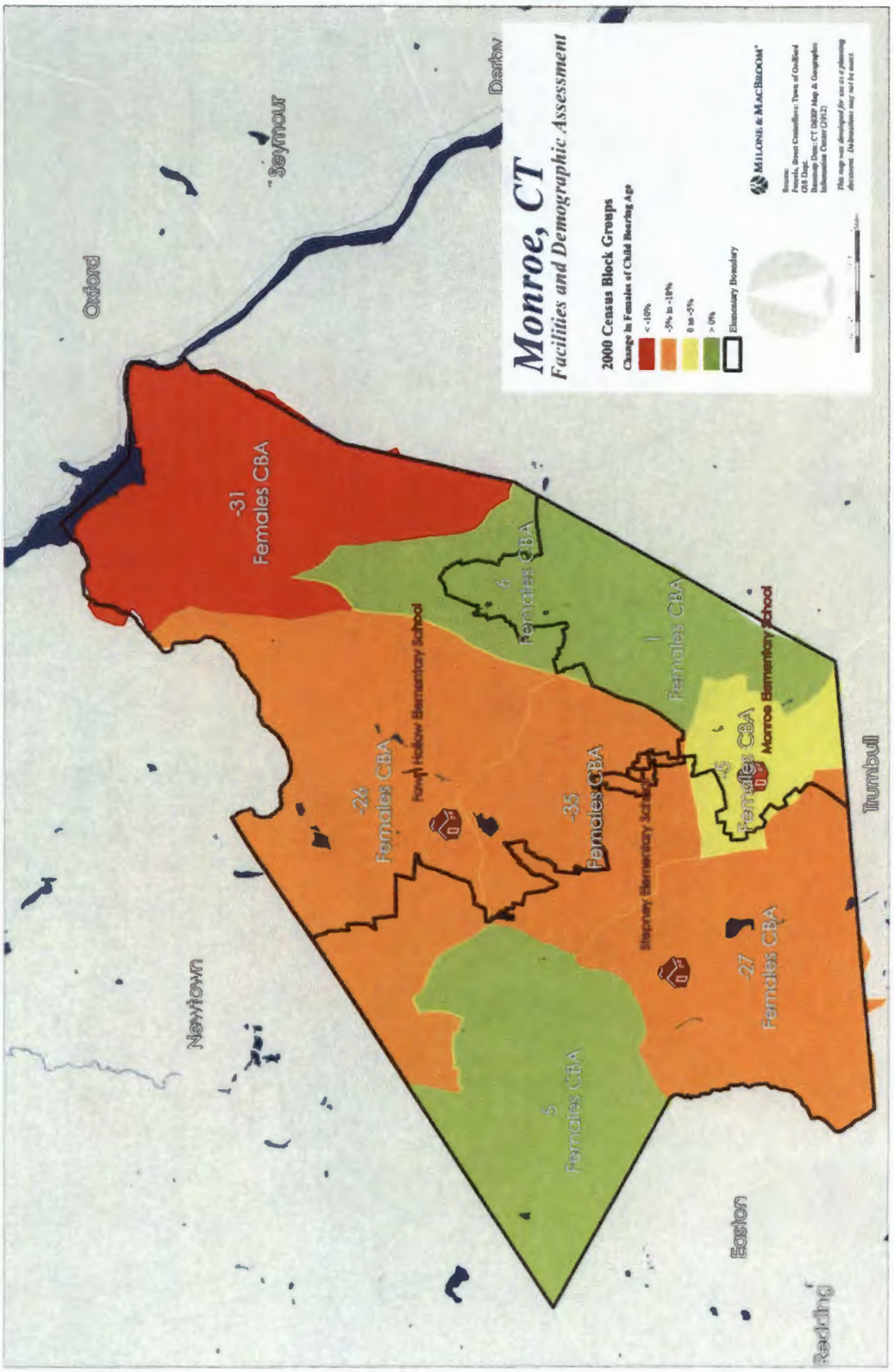
Map 2 – Population Density



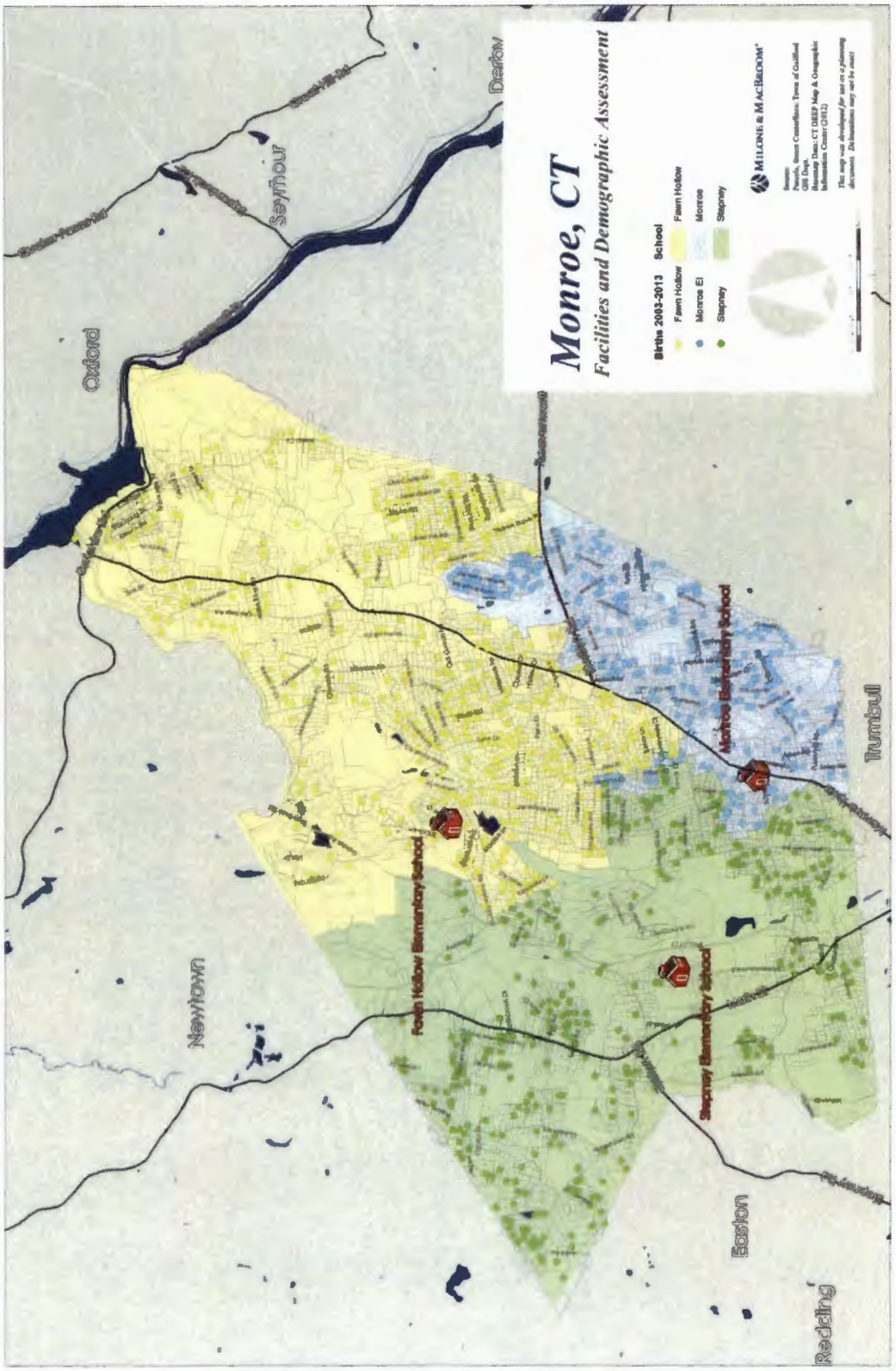
Map 3 – School Age Population Change



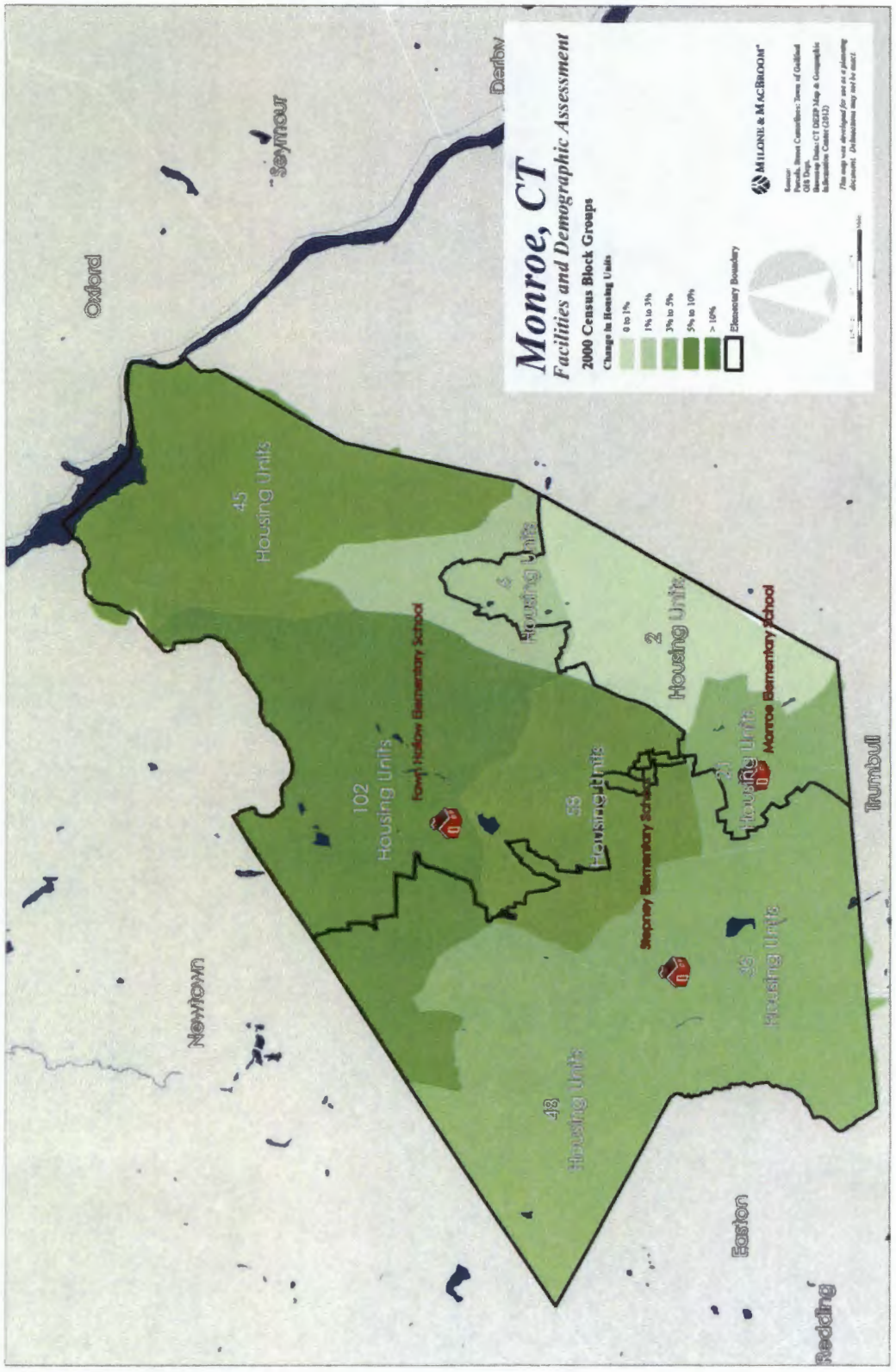
Map 4 – Change in Females of Child-Bearing Age Population



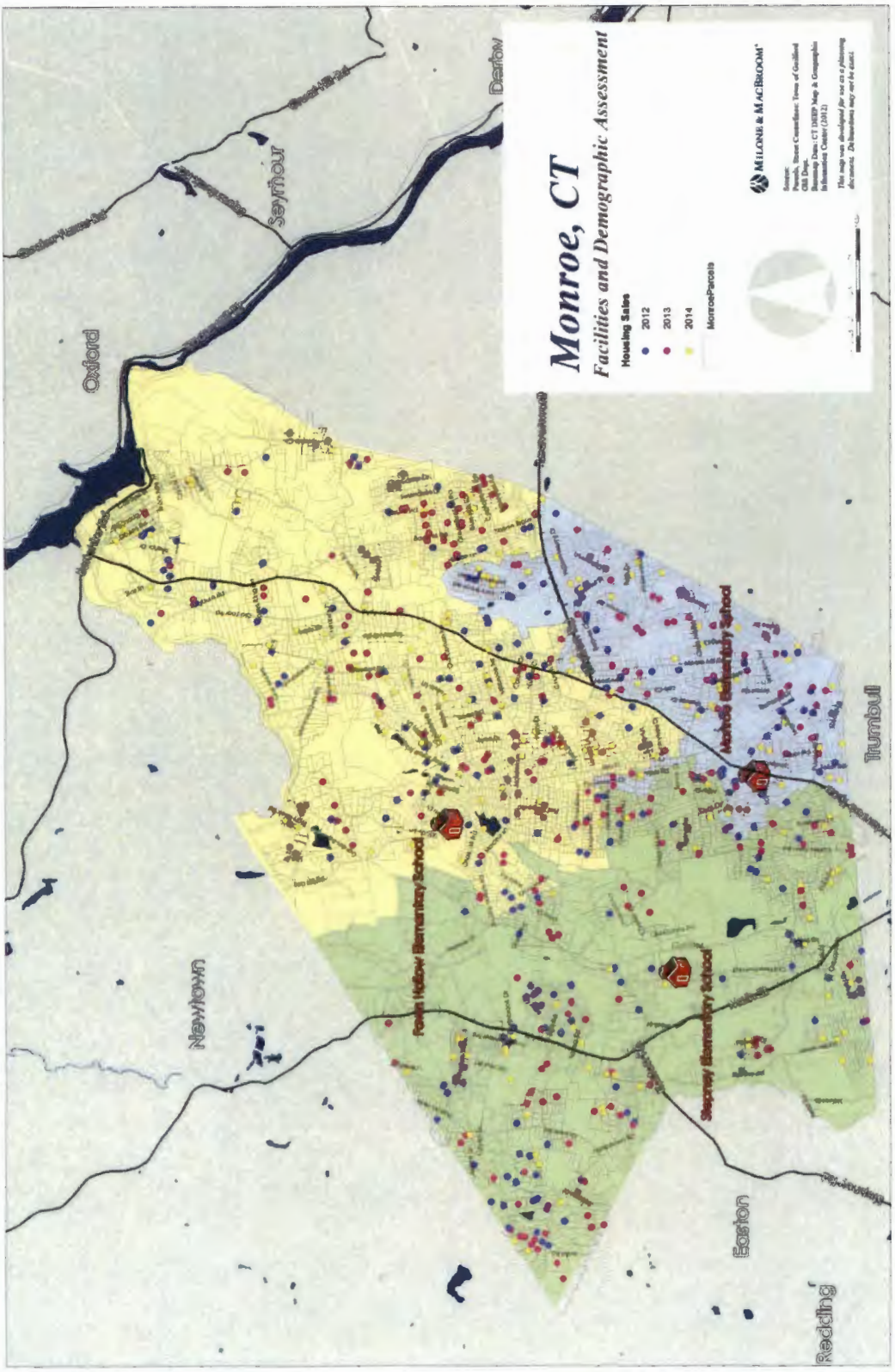
Map 5 – Births by Elementary School District



Map 6 – Housing Unit Change



MAP 7 – HOUSING SALES



APPENDIX B

Detailed Elementary Projections (Low-Growth)

Monroe Public Schools
Elementary School Enrollment Projections 2015-16

School	K	1	2	3	4	5	K-5th
Fawn Hollow	61	79	82	77	85	84	468
Monroe	42	56	50	53	56	54	311
Stepney	65	70	71	87	75	85	455
TOTAL	168	206	204	217	216	223	1,234

Monroe Public Schools
Elementary School Enrollment Projections 2016-17

School	K	1	2	3	4	5	K-5th
Fawn Hollow	64	65	80	84	75	84	453
Monroe	35	45	57	51	54	57	299
Stepney	68	69	70	73	88	78	447
TOTAL	168	179	207	208	218	219	1,199

Monroe Public Schools
Elementary School Enrollment Projections 2017-18

School	K	1	2	3	4	5	K-5th
Fawn Hollow	57	69	66	82	82	74	431
Monroe	44	38	46	58	51	55	292
Stepney	52	72	68	72	74	92	431
TOTAL	154	179	181	212	208	221	1,154

Monroe Public Schools
Elementary School Enrollment Projections 2018-19

School	K	1	2	3	4	5	K-5th
Fawn Hollow	71	61	70	68	80	82	432
Monroe	46	47	38	46	59	52	289
Stepney	68	55	72	70	73	77	415
TOTAL	185	164	181	184	212	211	1,137

Monroe Public Schools
Elementary School Enrollment Projections 2019-20

School	K	1	2	3	4	5	K-5th
Fawn Hollow	75	77	62	72	66	79	431
Monroe	49	48	48	39	47	60	291
Stepney	76	72	55	74	71	76	424
TOTAL	200	197	165	184	184	215	1,146

Monroe Public Schools
Elementary School Enrollment Projections 2020-21

School	K	1	2	3	4	5	K-5th
Fawn Hollow	69	80	78	63	70	65	426
Monroe	45	52	49	49	39	48	283
Stepney	70	81	71	56	75	74	427
TOTAL	184	213	199	168	184	187	1,136

Monroe Public Schools
Elementary School Enrollment Projections 2021-22

School	K	1	2	3	4	5	K-5th
Fawn Hollow	66	74	82	80	62	69	432
Monroe	44	48	53	50	50	40	285
Stepney	67	74	80	73	57	78	430
TOTAL	177	196	215	203	169	187	1,147

Monroe Public Schools
Elementary School Enrollment Projections 2022-23

School	K	1	2	3	4	5	K-5th
Fawn Hollow	65	71	75	83	78	61	433
Monroe	43	46	49	54	51	50	294
Stepney	67	71	74	82	74	59	427
TOTAL	175	188	198	219	203	171	1,154

Monroe Public Schools
Elementary School Enrollment Projections 2023-24

School	K	1	2	3	4	5	K-5th
Fawn Hollow	63	70	72	76	81	77	440
Monroe	42	46	47	50	55	52	291
Stepney	65	70	71	76	83	77	442
TOTAL	170	186	190	202	219	206	1173

Monroe Public Schools
Elementary School Enrollment Projections 2024-25

School	K	1	2	3	4	5	K-5th
Fawn Hollow	63	68	71	73	75	80	431
Monroe	42	44	47	48	51	56	287
Stepney	65	68	70	73	77	87	439
TOTAL	170	181	188	194	202	223	1157

Detailed Elementary Projections (Medium-Growth)

Monroe Public Schools
Elementary School Enrollment Projections 2015-16

School	K	1	2	3	4	5	K-5th
Fawn Hollow	61	81	84	77	87	85	475
Monroe	42	57	51	53	58	54	316
Stepney	65	72	73	87	77	86	461
TOTAL	168	210	209	217	222	225	1,251

Monroe Public Schools
Elementary School Enrollment Projections 2016-17

School	K	1	2	3	4	5	K-5th
Fawn Hollow	64	67	84	86	78	87	465
Monroe	35	46	60	52	55	59	307
Stepney	68	70	73	75	91	81	459
TOTAL	168	183	217	213	223	227	1,231

Monroe Public Schools
Elementary School Enrollment Projections 2017-18

School	K	1	2	3	4	5	K-5th
Fawn Hollow	57	71	70	86	87	77	446
Monroe	44	38	48	60	54	56	302
Stepney	52	74	71	75	78	95	446
TOTAL	154	183	189	221	219	228	1,194

Monroe Public Schools
Elementary School Enrollment Projections 2018-19

School	K	1	2	3	4	5	K-5th
Fawn Hollow	72	62	74	71	86	86	451
Monroe	43	48	40	49	63	55	298
Stepney	70	56	75	74	78	82	435
TOTAL	185	167	189	193	228	224	1,185

Monroe Public Schools
Elementary School Enrollment Projections 2019-20

School	K	1	2	3	4	5	K-5th
Fawn Hollow	74	79	65	75	71	86	450
Monroe	48	47	50	40	51	65	301
Stepney	76	76	57	77	76	82	445
TOTAL	199	201	173	193	198	232	1,196

Monroe Public Schools
Elementary School Enrollment Projections 2020-21

School	K	1	2	3	4	5	K-5th
Fawn Hollow	68	81	82	66	76	71	444
Monroe	44	52	49	51	42	52	291
Stepney	70	82	77	59	80	80	448
TOTAL	182	216	208	176	198	203	1,183

Monroe Public Schools
Elementary School Enrollment Projections 2021-22

School	K	1	2	3	4	5	K-5th
Fawn Hollow	66	74	85	84	67	75	451
Monroe	43	48	55	49	53	43	292
Stepney	68	75	84	79	61	84	452
TOTAL	178	198	223	212	181	203	1,194

Monroe Public Schools
Elementary School Enrollment Projections 2022-23

School	K	1	2	3	4	5	K-5th
Fawn Hollow	68	73	78	86	84	66	455
Monroe	44	47	50	55	52	54	303
Stepney	70	74	76	86	82	64	452
TOTAL	182	193	204	228	218	185	1,210

Monroe Public Schools
Elementary School Enrollment Projections 2023-24

School	K	1	2	3	4	5	K-5th
Fawn Hollow	67	74	76	79	87	84	467
Monroe	44	48	49	51	58	53	302
Stepney	69	75	75	79	89	86	473
TOTAL	180	198	200	208	234	223	1242

Monroe Public Schools
Elementary School Enrollment Projections 2024-25

School	K	1	2	3	4	5	K-5th
Fawn Hollow	69	74	78	77	80	86	463
Monroe	45	48	50	50	53	59	304
Stepney	71	75	76	77	82	94	474
TOTAL	184	196	204	204	214	239	1241

Detailed Elementary Projections (High-Growth)

Monroe Public Schools
Elementary School Enrollment Projections 2015-16

School	K	1	2	3	4	5	K-5th
Fawn Hollow	63	81	84	77	87	85	477
Monroe	44	57	51	53	58	54	317
Stepney	68	72	73	87	77	86	463
TOTAL	175	210	209	217	222	225	1,258

Monroe Public Schools
Elementary School Enrollment Projections 2016-17

School	K	1	2	3	4	5	K-5th
Fawn Hollow	67	69	84	86	78	87	471
Monroe	37	48	60	52	55	59	310
Stepney	71	73	73	75	91	81	464
TOTAL	175	190	217	213	223	227	1,245

Monroe Public Schools
Elementary School Enrollment Projections 2017-18

School	K	1	2	3	4	5	K-5th
Fawn Hollow	59	73	72	86	87	77	454
Monroe	46	40	50	60	54	56	307
Stepney	54	77	74	75	78	95	453
TOTAL	160	190	196	221	219	228	1,214

Monroe Public Schools
Elementary School Enrollment Projections 2018-19

School	K	1	2	3	4	5	K-5th
Fawn Hollow	75	65	77	73	86	86	462
Monroe	45	50	42	50	63	55	305
Stepney	73	59	78	76	78	82	446
TOTAL	192	174	196	200	228	224	1,214

Monroe Public Schools
Elementary School Enrollment Projections 2019-20

School	K	1	2	3	4	5	K-5th
Fawn Hollow	76	82	68	78	74	86	464
Monroe	50	49	52	42	53	65	310
Stepney	79	79	59	80	79	82	458
TOTAL	205	209	179	200	206	232	1,232

Monroe Public Schools
Elementary School Enrollment Projections 2020-21

School	K	1	2	3	4	5	K-5th
Fawn Hollow	69	84	85	69	79	74	460
Monroe	45	54	51	53	44	54	301
Stepney	71	85	80	61	83	83	464
TOTAL	186	223	216	183	206	210	1,224

Monroe Public Schools
Elementary School Enrollment Projections 2021-22

School	K	1	2	3	4	5	K-5th
Fawn Hollow	69	76	87	87	69	78	466
Monroe	45	49	56	51	55	45	302
Stepney	71	77	86	82	64	87	467
TOTAL	184	203	230	220	188	210	1,236

Monroe Public Schools
Elementary School Enrollment Projections 2022-23

School	K	1	2	3	4	5	K-5th
Fawn Hollow	72	75	79	89	88	69	472
Monroe	47	49	51	57	54	57	314
Stepney	74	76	78	89	85	67	470
TOTAL	193	200	209	234	227	192	1,256

Monroe Public Schools
Elementary School Enrollment Projections 2023-24

School	K	1	2	3	4	5	K-5th
Fawn Hollow	75	79	79	81	90	87	490
Monroe	49	51	51	52	60	55	317
Stepney	77	80	77	81	92	90	497
TOTAL	201	211	207	213	241	232	1304

Monroe Public Schools
Elementary School Enrollment Projections 2024-25

School	K	1	2	3	4	5	K-5th
Fawn Hollow	80	82	83	80	81	89	495
Monroe	52	53	53	51	54	61	325
Stepney	82	83	81	80	84	96	507
TOTAL	215	218	217	211	219	246	1327

Districtwide Projections

Updated 11/30/2016

HIGH PROJECTIONS

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	PK-12	K-12	K-5	6-8	9-12
2016-17	2011	139	204	192	209	226	229	236	239	288	261	235	246	299	288	52	**3,204**	**3,152**	**1,296**	**788**	**1,068**
2017-18	2012	128	188	224	203	220	238	241	247	243	296	245	238	248	305	52	**3,188**	**3,136**	**1,314**	**786**	**1,036**
2018-19	2013	153	212	206	236	213	232	251	252	251	250	278	248	240	253	52	**3,174**	**3,122**	**1,350**	**753**	**1,019**
2019-20	2014	149	206	233	217	248	224	245	262	256	258	235	281	250	245	52	**3,212**	**3,160**	**1,373**	**776**	**1,011**
2020-21	2015	140	194	226	246	228	261	236	256	267	263	243	238	284	255	52	**3,249**	**3,197**	**1,391**	**786**	**1,020**
2021-22	2016	142	196	213	239	258	240	275	247	261	274	247	246	240	289	52	**3,277**	**3,225**	**1,421**	**782**	**1,022**

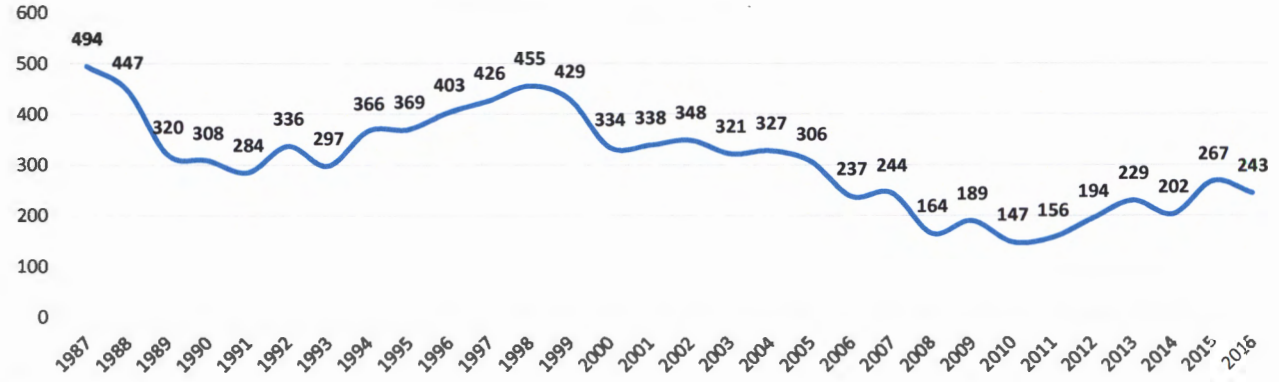
MEDIUM PROJECTIONS

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	PK-12	K-12	K-5	6-8	9-12
2016-17	2011	139	204	192	209	226	229	236	239	288	261	235	246	299	288	52	**3,204**	**3,152**	**1,296**	**788**	**1,068**
2017-18	2012	128	177	221	203	218	237	240	246	243	295	245	237	247	305	52	**3,166**	**3,114**	**1,296**	**784**	**1,034**
2018-19	2013	153	206	191	233	211	229	248	250	250	249	277	247	238	252	52	**3,133**	**3,081**	**1,318**	**749**	**1,014**
2019-20	2014	149	200	223	202	243	222	240	258	254	256	234	279	248	243	52	**3,154**	**3,102**	**1,330**	**768**	**1,004**
2020-21	2015	140	188	216	236	210	255	232	250	262	260	241	236	280	253	52	**3,171**	**3,119**	**1,337**	**772**	**1,010**
2021-22	2016	142	191	203	228	246	220	267	242	254	268	244	243	237	286	52	**3,181**	**3,129**	**1,355**	**764**	**1,010**

LOW PROJECTIONS

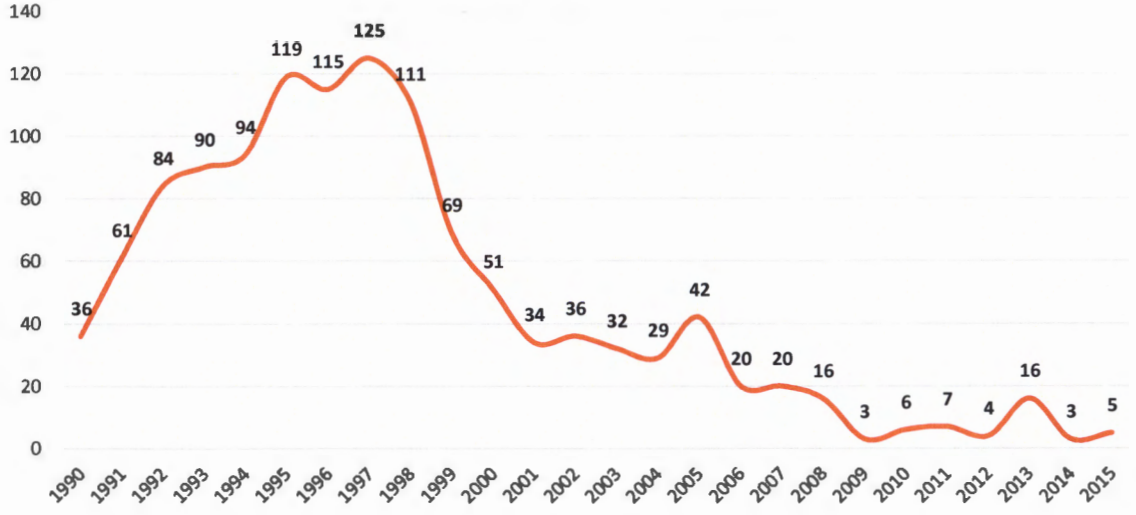
School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	Total	Total	Total	Total	Total
2016-17	2011	139	204	192	209	226	229	236	239	288	261	235	246	299	288	52	**3,204**	**3,152**	**1,296**	**788**	**1,068**
2017-18	2012	128	172	217	203	216	237	238	245	243	294	245	236	246	306	52	**3,150**	**3,098**	**1,283**	**782**	**1,033**
2018-19	2013	153	200	183	229	209	226	246	247	249	248	276	246	236	252	52	**3,099**	**3,047**	**1,293**	**744**	**1,010**
2019-20	2014	149	194	213	193	236	219	235	255	251	254	233	277	246	242	52	**3,100**	**3,048**	**1,290**	**760**	**998**
2020-21	2015	140	183	207	225	199	247	228	244	259	256	239	234	277	252	52	**3,102**	**3,050**	**1,289**	**759**	**1,002**
2021-22	2016	142	185	195	219	232	208	257	237	248	264	241	240	234	284	52	**3,096**	**3,044**	**1,296**	**749**	**999**

Monroe Total Housing Sales



Note 2016 is an estimate based on reported Jan-Sep sales and average 4th quarter sales
Source: The Warren Group

Monroe New Housing Permits



Source: CT DECD